

Keysight
N5166B CXG
N5171B/72B/73B EXG
N5181B/82B/83B MXG
X-Series Signal Generators

Notices

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What has Changed

In this document the terms “master” and “slave” have been replaced with “primary” and “secondary”.

Error Messages

Introduction

If an error condition occurs in the signal generator, it is reported to both the front panel display error queue and the SCPI (remote interface) error queue. These two queues are viewed and managed separately.

NOTE

When there is an unviewed message in the front panel error queue, the ERR annunciator appears on the signal generator's display.

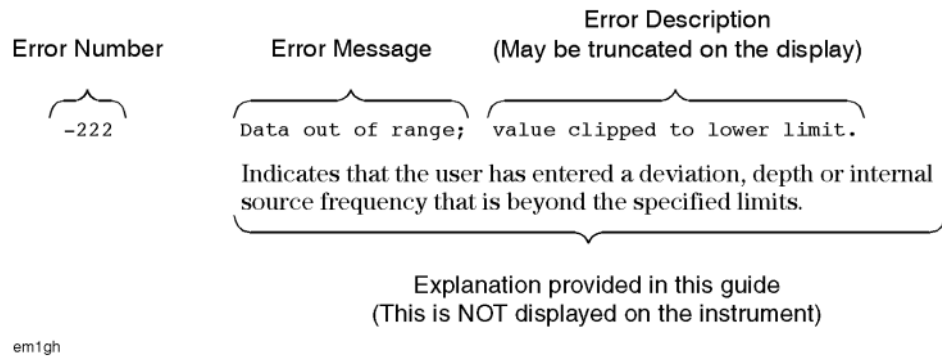
Characteristic	Front Panel Display Error Queue	SCPI Remote Interface Error Queue
Capacity (#errors)	30	30
Overflow Handling	Circular (rotating). Drops oldest error as new error comes in.	Linear, first-in/first-out. Replaces newest error with: -350, Queue overflow
Viewing Entries	Press: Error Hardkey > View Next > (or Previous) Error Message Page	Use SCPI query SYSTEM:ERROR[:NEXT]?
Clearing the Queue	Press: Error Hardkey > Clear Error Queue(s)	Power up Send a *CLS command Read last item in the queue
Unresolved Errors (errors that must be resolved. For example: unlock, avalanched, and hi/lo)	Re-reported after queue is cleared.	Re-reported after queue is cleared.

Error Message Format

When accessing error messages through the front panel display error queue, the error numbers, messages and descriptions are displayed on an enumerated (“1 of N”) basis. When accessing error messages using the SCPI (remote interface) error queue, the error numbers and the <error_description> portions of the error query response are displayed on the host terminal.

In this guide, an explanation is generally included with each error to further clarify its meaning. The error messages in this guide are listed numerically. In cases where there are multiple listings for the same error number, the messages are in alphabetical order, excluding simple words like “the” and “it”.

Error messages appear in the lower-left corner of the display as they occur.



Error Message Type

Events do not generate more than one type of error. For example, an event that generates a query error will not generate a device-specific, execution, or command error.

Query Errors (–499 to –400)

Query error messages indicate that the instrument's output queue control has detected a problem with the message exchange protocol described in IEEE 488.2, Chapter 6. Errors in this class set the query error bit (bit 2) in the event status register (IEEE 488.2, section 11.5.1). These errors correspond to message exchange protocol errors described in IEEE 488.2, 6.5. In this case:

- Either an attempt is being made to read data from the output queue when no output is either present or pending, or
- data in the output queue has been lost.

Device Specific Errors (–399 to –300 and 201 to 810)

Device specific error messages indicate that a device operation did not properly complete, possibly due to an abnormal hardware or firmware condition. These codes are also used for self-test response errors. Errors in this class set the device-specific error bit (bit 3) in the event status register (IEEE 488.2, section 11.5.1).

The <error_message> string for a positive error is not defined by SCPI. A positive error indicates that the instrument detected an error within the GPIB system, within the instrument's firmware or hardware, during the transfer of block data, or during calibration.

Execution Errors (–299 to –200)

Execution error messages indicate that an error has been detected by the instrument's execution control block. Errors in this class set the execution error bit (bit 4) in the event status register (IEEE 488.2, section 11.5.1). In this case:

- Either a <PROGRAM DATA> element following a header was evaluated by the device as outside of its legal input range or is otherwise inconsistent with the device's capabilities, or
- a valid program message could not be properly executed due to some device condition.

Execution errors are reported after rounding and expression evaluation operations are completed. Rounding a numeric data element, for example, is not reported as an execution error.

Command Errors (–199 to –100)

Command error messages indicate that the instrument's parser detected an IEEE 488.2 syntax error. Errors in this class set the command error bit (bit 5) in the event status register (IEEE 488.2, section 11.5.1). In this case:

- Either an IEEE 488.2 syntax error has been detected by the parser (a control-to-device message was received that is in violation of the IEEE 488.2 standard. Possible violations include a data element that violates device listening formats or whose type is unacceptable to the device.), or
- an unrecognized header was received. These include incorrect device-specific headers and incorrect or unimplemented IEEE 488.2 common commands.

List of Error Messages

-440 Query UNTERMINATED after indefinite response

A query was received in the same program message in which a query requesting an indefinite response was executed (see IEEE 488.2, 6.3.7.5).

-430 Query DEADLOCKED

A SCPI output queue has filled, preventing further SCPI command execution, and there is no more room left in the corresponding SCPI input queue to accept a query to read from the output queue. The system automatically discards output to correct the deadlock.

-420 Query UNTERMINATED

A condition causing an UNTERMINATED query error occurred (see IEEE 488.2, 6.3.2.2). For example, the device was addressed to talk and an incomplete program message was received.

-410 Query INTERRUPTED

A condition causing an INTERRUPTED query error occurred (see IEEE 488.2, 6.3.2.7). For example, a query was followed by DAB or GET before a response was completely sent.

-400 Query Error

This is a generic query error for devices that cannot detect more specific errors. The code indicates only that a query error as defined in IEE 488.2, 11.5.1.1.7 and 6.3 has occurred.

Error Messages
List of Error Messages

-350 Queue overflow

This is a specific code entered into the queue in lieu of the code that caused the error. This message indicates that there is no more room in the queue and an error occurred but was not recorded.

-330 Self-test failed; BBG Aux IO Test Failed: {name}

The Aux IO Loop back test has detected a failure. Contact the service office for assistance.

-330 Self-test failed; BBG Feldspar output clock alignment failed: {name}

The BBG Feldspar output clock alignment did not successfully complete. Contact the service office for assistance.

-330 Self-test failed; BBG {name} {name} Memory Test Failed: {name}

The BBG Arb waveform memory (SDRAM) test has detected a failure. Contact the service office for assistance.

-330 Self-test failed; BBG{value}: {name}

A self-test executed on the baseband generator failed. Report this error to service office.

-330 Self-test failed; The loop back test failed because the digital module could not be set up.

To run a diagnostic loop back test, the instrument needs to communicate with and set up the module. This error is reported when the instrument cannot communicate with the module.

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List of Error Messages

-321 Out of memory

*** No documentation ***

-321 Out of memory; Arb file selection failed. File System failed to access required file. Some table editor files may be corrupted.

There was a problem accessing a required file.

-321 Out of memory; ARB is not functional.

There is insufficient memory for the ARB to generate the requested waveform.

-321 Out of memory; BBG 3GPP cannot function properly.

3GPP cannot function properly due to dynamic memory allocation failure.

-321 Out of memory; Burst shape subsystem unable to operate.

Operations on a Burst Shape could not be completed because of insufficient memory.

-321 Out of memory; Cannot convert binary file to bit file.

There is not enough memory to convert a binary file to a bit file.
Reduce the size of any sweep lists and try again.

-321 Out of memory; Cannot precalculate frequencies. Try fewer frequencies.

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Indicates that memory was exhausted during frequency precalculation (used to speed the process of sweep/list mode). List mode cannot run until either fewer frequencies have been supplied or more memory becomes available and the same set of frequencies are sent again, `FREQ:MODE CW` is executed, or `:FREQ:MODE LIST` is executed.

-321 Out of memory; Complementary Cumulative Distribution Display cannot function.

There is insufficient working memory available. Report this error to service office.

-321 Out of memory; Could not copy current istate.

An instrument state operation, such as save/recall, could not allocate enough space to copy an instrument state. The operation is aborted.

-321 Out of memory; Could not perform channelization code conflict test.

This error is reported when an attempt to check WCDMA DL channels for conflicting channelization codes fails due to an out of memory error.

-321 Out of memory; Display system out of memory. An abnormal display may result. Memory consumption should be reduced.

There was not enough memory in the system to properly update the display. Some inconsistencies may be seen. The size of any list/sweep should be reduced, and the source should be preset to clear up any inconsistencies. Report this error to service office.

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-321 Out of memory; FFT subsystem unable to function.

There is insufficient working memory available. Report this error to service office.

-321 Out of memory; FIR subsystem unable to operate.

There is insufficient working memory available. Report this error to service office.

-321 Out of memory; Front panel firmware upgrade unable to begin.

There is insufficient working memory available. Report this error to service office. The front panel firmware was not successfully upgraded, but it was not corrupted either.

-321 Out of memory; Graph subsystem cannot function.

There is insufficient working memory available. Report this error to service office.

-321 Out of memory; Histogram display cannot function

There is insufficient working memory available. Report this error to service office.

-321 Out of memory; Impulse response display cannot function.

There is insufficient working memory available. Report this error to service office.

-321 Out of memory; I/Q map display cannot function.

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There is insufficient working memory available. Report this error to service office.

-321 Out of memory; Memory allocation error.

There is insufficient working memory available. Report this error to service office.

-321 Out of memory; Memory catalog failed.

There is not enough memory to complete a catalog listing. Reduce the size of any sweep lists and try again.

-321 Out of memory; Modulation subsystem unable to operate.

There is insufficient working memory available. Report this error to service office.

-321 Out of memory; Not enough memory to buffer paging message.

There is not enough memory to buffer the asynchronous paging message, so it will not be played. Reduce the size of any list/sweep, and preset the source to clear up any inconsistencies. If the problem persists, report this error to service office.

-321 Out of memory; Not enough memory to read data file.

There is not enough memory to read the specified data file. Try a smaller file. Reduce the size of any list/sweep, and preset the source to clear up any inconsistencies. If the problem persists report this error to service office.

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-321 Out of memory; Not enough Waveform Memory on BBG{value}

There is not enough memory left on the baseband board to generate the required baseband file. Remove any file that might have been previously downloaded and is not required anymore (e.g. ARB files). Select different parameters that require a smaller file. Upgrade to a baseband option with larger memory.

-321 Out of memory; Operation on file: {name}

A file system operation has failed due to a lack of memory in the system. Reduce memory usage and try again.

-321 Out of memory; The pre-coding bit data for this transport channel is not generated due to the memory overflow or memory allocation error.

Reduce the amount of coding applied to data or decrease the amount of data.

-321 Out of memory; Pulse Train subsystem unable to operate.

Operations on a Pulse Train could not be completed because of insufficient memory.

-321 Out of memory; Shape subsystem unable to operate.

There is insufficient working memory available. Report this error to service office.

-321 Out of memory; SMI is not functional.

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There is insufficient memory for the SMI to generate its cal data.

-321 Out of memory; The table editor cannot function properly until more memory is available.

There is insufficient working memory available. Reduce the size of any sweep lists and try again.

-321 Out of memory; Unable to create Application or CalTest harness connection.

The instrument was unable to allocate resources required for the internal application harness bridge.

-321 Out of memory; Unable to display BERT window

The instrument was unable to create part of the graphical user interface due to an inability to allocate memory (possibly due to fragmentation). Report this error to the service office. The instrument is still functional.

-321 Out of memory; Unable to display format window.

The instrument was unable to create part of the graphical user interface due to an inability to allocate memory (possibly due to fragmentation). Report this error to service office. The instrument is still functional.

-321 Out of memory; Unable to display protocol window.

The instrument was unable to create part of the graphical user interface due to an inability to allocate memory (possibly due to

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fragmentation). Report this error to service office. The instrument is still functional.

-321 Out of memory; Unable to display timeslot window.

The instrument was unable to create part of the graphical user interface due to an inability to allocate memory (possibly due to fragmentation). Report this error to service office. The instrument is still functional.

-321 Out of memory; User flatness subsystem unable to operate.

There is insufficient working memory available. Report this error to service office.

-321 Out of memory; Zip archive operation failed due to a memory allocation failure.

There is insufficient working memory available. Please make sure that there are no ongoing operations in progress and that the zip archive has less than 64k files inside of it. If this error persists, please report it to the service office.

-321 Out of memory; {name}

The header file to be written is too big to fit on the media. The new information was not written and the original header is untouched.

-321 Out of memory; {name} display cannot function.

There is insufficient working memory available. Report this error

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to service office.

-315 Configuration memory lost; Persistent state checksum is bad. Using factory defaults.

The persistent state is corrupt and had to be reinitialized with the factory preset values.

-315 Configuration memory lost; Persistent state preset. Using factory defaults.

The persistent state has been forced to return to factory preset values.

-313 Calibration memory lost; Cal not found and was created: {name}

The specified cal file was not found so it was created by the system.

-313 Calibration memory lost; Cal out of mem: {name}

Inadequate memory for specified cal file.

-313 Calibration memory lost; Cal resizing: {name}

Inadequate memory to resize specified cal file.

-313 Calibration memory lost; Cal restored from backup: {name}

A specified cal file was restored from backup.

-313 Calibration memory lost; Cannot restore cal from backup:

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{name}err={value}

Cannot restore specified cal from backup because of a file error.

-313 Calibration memory lost; Cannot restore frequency extender calibration data: {name} {name} err={value}

Cannot restore specified cal data because of a file or device error.

-313 Calibration memory lost; Cannot store cal to backup: {name}err={value}

Cannot store specified cal to backup because of a file error.

-313 Calibration memory lost; Cannot store cal: {name}err={value}

Cannot store specified cal because of a file error.

-313 Calibration memory lost; Cannot store frequency extender calibration data: {name} {name} err={value}

Cannot store specified cal data because of a file or device error.

-313 Calibration memory lost; Error occurred while trying to load data from previous internal IQ calibration.

An expected file was not found while trying to load internal IQ calibration data.

-313 Calibration memory lost; Failed to backup frequency extender calibration data to factory storage.

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An unexpected error occur while attempting to backup cal data to factory storage.

-313 Calibration memory lost; Frequency extender calibration data was not found, so it was created by the system and filled with initial default values.

The frequency extender calibration data was not found so it was created by the system and filled with initial default values.

-313 Calibration memory lost; Previous Internal IQ calibration data is invalid. Data has been removed. A new user IQ calibration is recommended.

An expected file was not found while trying to load internal IQ calibration data. All other data has been removed. A new cal should be performed.

-313 Calibration memory lost; Stored calibration data is invalid: {name}

An unexpected error occur while attempting to restore cal data. The stored data is not valid. Service is required. Report this error to service office.

-313 Calibration memory lost; Stored frequency extender calibration data is invalid

An unexpected error occur while attempting to restore cal data. The stored data is not valid.

-310 System error

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*** No documentation ***

-310 System error; A SCPI driver failed to initialize ({name})

The hardware or driver for a particular SCPI parser has failed and that communication path is not active. The hardware device is specified in the error message. If this error persists, please contact the service office.

-310 System error; A SCPI parser has unexpectedly exited.

A particular SCPI parser has failed and that communication path is no longer active. If this error persists, please contact the service office.

-310 System error; The ADC {name} has timed out during a conversion.

The returned data is not valid. Report this error to service office.

-310 System error; Arb generation failed. File System failed to access required file.

There was a problem opening, reading or writing to the specified file.

-310 System error; Automatic reboot performed due to {name}

The instrument has rebooted itself because of an exception event (detailed in the {name}). This is a internal firmware error. If this error recurs after updating to the most recent firmware, report the contents of this error message to the nearest sales and service

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office.

-310 System error; Cal in use, cannot delete: {name}

Calibration file cannot be deleted since it is currently in use.
Error caused by diagnostic command.

-310 System error; Cannot change manual point until list mode error condition cleared.

An error is keeping the sweep/list from being able to set the frequency and/or power. Until the problem is addressed, the manual point cannot be changed.

-310 System error; Communication failure with Application or CalTest harness.

A failure occurred when attempting to communicate with the software module responsible for digital modulation applications or calibration/self test module. Cycle the instrument's power. If this issue persists, please report it to the service office.

-310 System error; Could not create percent complete window semaphore.

When trying to initialize a percent complete Window the needed semaphore could not be created. Report this error to service office.

-310 System error; Could not limit frequency settings. Please preset.

Based on the current frequency settings (multiplier, offset, etc.) the signal generator cannot successfully limit the frequency.

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Preset the signal generator to insure the firmware will return to a valid state.

-310 System error; Critical digital module error. Report this error to service office.

This error cannot be generated under normal operating conditions and should be reported to service office.

-310 System error; Display could not be initialized: {name}

A fatal error has occurred while the LCD controller was being initialized. The display is not functional. Repeated errors of this nature may mean that service is required. Report this error to service office.

-310 System error; Error backing up system files.

Error encountered while writing system files to backup storage.

-310 System error; Error creating directory: {name}

Error creating a directory. The directory is shown in error message.

-310 System error; Error restoring system files.

Error encountered while restoring system files from backup storage.

-310 System error; Error sending RS232 XON/XOFF. {name}

Caused by either framing, parity, or overrun errors during RS232

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communication.

-310 System error; Error updating RS232 configuration. {name}

Caused by either framing, parity, or overrun errors during RS232 communication.

-310 System error; Error updating RS232 RTS line. {name}

Caused by either framing, parity, or overrun errors during RS232 communication.

-310 System error; Exception report continued: {name}

An exception event (detailed in the {name}) has occurred on the previous boot. If this error recurs after updating to the most recent firmware, then the contents of this error message should be reported to the nearest sales and service office.

-310 System error; Expected memory media not found. {name}.

Expected memory media (storage media) was not found. Report this error to service office.

-310 System error; Failed to read from file.

An attempt to read from a file in the internal file system has failed. This may be a temporary condition caused by insufficient disk space or system interaction. Try reducing file system usage and try again. If the problem persists, report this error to service office.

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-310 System error; Failed to start Application or CalTest harness.

A failure occurred when attempting to start the software module responsible for digital modulation applications or calibration/self test. Cycle the instrument's power. If this issue persists, please reinstall firmware or report it to the service office.

-310 System error; Failed to write file.

An attempt to write to a file in the internal file system has failed. This may be a temporary condition caused by insufficient disk space or system interaction. Try reducing file system usage and try again. If the problem persists, report this error to service office.

-310 System error; FIR subsystem generated more coefficients than the hardware can handle.

The maximum number of coefficients for a given set of hardware has been exceeded. The filter must be created with fewer coefficients.

-310 System error; Hardware communication error during ramp sweep.

The synthesis system had a hardware communications failure during ramp sweep.

-310 System error; Hardware error. Cause: {name}.

Generic hardware error occurred. Specific cause given.

-310 System error; Hardware error. Unable to apply phase inversion!

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There is an error with the baseband generator. Try turning CDMA2000 or 1xEVDV mode off and on again to reset the card. If the problem persists, report this error to service office.

-310 System error; in {name} line:{value} file: {name} stack:{name}

An internal error occurred at the specified location within the specified file.

-310 System error; Internal zip error: {name}

Please report this error to the service office.

-310 System error; Invalid object. {name}

Internal error. File system operation encountered invalid object.

-310 System error; Media raw. {name}

The flash storage media was never formatted or is corrupted. The system will reformat it now.

-310 System error; Not implemented. {name}

Internal error. This functionality is not implemented.

-310 System error; Null pointer. {name}

Internal error. File system operation failed.

-310 System error; Path too long deleting cal

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Resulting path to calibration file was too long and file was not removed. Error caused by diagnostic command.

-310 System error; Previous boot failed at step {value}.

An internal error occurred during previous boot up at the specified step.

-310 System error; Previous boot had {name}

An exception event (detailed in the {name}) has occurred on the previous boot. If this error recurs after updating to the most recent firmware, then the contents of this error message should be reported to the nearest sales and service office.

-310 System error; Receive pace not supported

Command is not supported for RS232 communication.

-310 System error; Revert to default cal not implemented

Command not implemented.

-310 System error; Revision mismatch for RPC service {name}. Received {value} but expected {value}.

The installed firmware components appear to be out of sync. Try reinstalling the latest firmware package. If this issue persists, please report it to the service office.

-310 System error; RS232 receive error. {name}

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Caused by either framing, parity, or overrun errors during RS232 communication.

-310 System error; RS232 send error. {name}

Caused by either framing, parity, or overrun errors during RS232 communication.

-310 System error; RTS pace not supported

The RS232 command is not supported.

-310 System error; Sanitization failed. Device type = {name}, Error = {value}.

A failure occurred during the sanitization of a device. Report this error to service office.

-310 System error; Storage media not present: {name}.

Internal error. The storage media referenced was not found but was expected. This could happen on a vector box when the internal USB memory was not found during bootup.

-310 System error; The system was powered off during file system update. File system volumes were verified.

Informational warning. Powering down system (turning the power off) during file system write operation may leave the file system in inconsistent state. On subsequent reboot the volume was verified and errors repaired.

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-310 System error; Transmit pace not supported

Command is not supported for RS232 communication.

-310 System error; Unexpected Analog FPGA overrange error on bit {value}.

Report this error to service office.

-310 System error; Unknown file system error. {name}

Internal error.

-310 System error; Volume already exists: {name}

Internal error. The attempt to mount volume detected that volume already exists. The system will proceed anyway.

-310 System error; Volume consistency check failed: {name} Volume needs to be reformatted.

Consistency check detected that volume is corrupted and cannot be automatically fixed. Contact service for help.

-310 System error; Volume failed to mount after reformatting: {name}

The volume was reformatted successfully but failed to mount. The storage media could be damaged.

-310 System error; Volume failed to mount. It was reformatted: {name} - {name}.

The volume was reformatted because is failed to mount. It was

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either completely damaged or never initialized. This error reports the 'Success' or 'Failure' of formatting operation. The system will try to proceed either way.

-310 System error; Volume format failed: {name}

The formatting of the file system volume failed. The instrument hardware may be damaged.

-310 System error; Volume reformatted: {name}

Informational error that a file system volume was reformatted because it was damaged or formatting was requested by user.

-310 System error; {name}

An compatibility language specific system error occurred. The string contains information about the error.

-310 System error; The {name} board's DCM unlock.

The FPGA's DCM reported unlock. The clocks may not work correctly. Cycle the instrument's power. If the error is repeated, service is required. Report this error to service office.

-310 System error; {name} in {name} line:{value} file: {name} stack:{name}

An internal error occurred at the specified location within the specified file.

-310 System error; The {name} option cannot be configured. Required hardware is missing.

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The instrument option requires hardware that was not detected in the instrument. The hardware must be present to activate the option.

-310 System error; The {name} subsystem was not found. The requested operation could not be completed.

The subsystem named in the error was not found. Operations within a subsystem depend on the subsystem for successful execution. If it is not found the operations cannot be executed. Digital personalities are also considered subsystems.

-280 Program error; The following error is not recognized:{name}

The specified error is not recognized by the system. Report this error to service office.

-280 Program error; The following SCPI command generated an error:{name}

The SCPI command generated an error.

-278 Macro header not found

A syntactically legal macro label in the *GMC? query could not be executed because the header was not previously defined.

-277 Macro redefinition not allowed

The macro label defined in the *DMC command could not be executed because the macro label was already defined (see IEEE 488.2, 10.7.6.4).

-276 Macro recursion error

A syntactically legal macro program data sequence could not be executed because the device found it to be recursive (see IEEE 488.2, 10.7.6.4).

-275 Macro definition too long

A syntactically legal macro program data sequence could not be executed because the string or block contents were too long for the device to handle (see IEEE 488.2, 10.7.6.1).

-274 Macro parameter error

The macro definition improperly used a macro parameter placeholder (see IEEE 488.2, 10.7.3).

-273 Illegal macro label

The macro label defined in the *DMC command was a legal string syntax, but could not be accepted by the device (see IEEE 488.2, 10.7.3 and 10.7.6.2). For example, the label was too long, the same as a common command header, or contained invalid header syntax.

-272 Macro execution error

A syntactically legal macro program data sequence could not be executed due to an error within the macro definition (see IEEE 488.2, 10.7.6.3).

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-271 Macro syntax error

A syntactically legal macro program data sequence, written in accordance with IEEE 488.2, 10.7.2, could not be executed due to a syntax error within the macro definition (see IEEE 488.2, 10.7.6.3).

-270 Macro error

A macro-related execution error occurred. This error message is used when the device cannot detect the more specific errors described for errors -271 through -279.

-261 Math error in expression

A syntactically legal expression program data element could not be executed due to a math error. For example, a divide-by-zero was attempted. The definition of a math error is device-specific.

-260 Expression error

An expression data element-related error occurred. This error message is used when the device cannot detect the more specific errors described for errors -261 through -269.

-259 LAN error; A NetBIOS name conflict occurred. This device no longer has a NetBIOS hostname.

Change the instrument's hostname. Contact your network system administrator for assistance.

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-259 LAN error; Default gateway IP address is inconsistent with subnet mask or IP class rules. The instrument automatically corrects the offending entry.

Check the entry for syntax and numerical errors and try again.
Verify that the subnet mask is consistent with this address (host bits should not be all 0s or 1s). If no subnet is specified, verify that the address is valid with respect to the default class netmasks: A (0x00FFFFFF), B(0x0000FFFF), or C(0x000000FF).

-259 LAN error; The desired hostname could not be registered through NetBIOS.

Contact your network system administrator for assistance.

-259 LAN error; Domain names can only contain letters, numbers, hyphens '-' and dots '.'; the first character must also be a letter or number.

-259 LAN error; Hostnames are limited to 15 characters and can only contain letters, numbers and hyphens. The first character must be a letter and the last character must be a letter or a number.

-259 LAN error; The instrument could not extend lease for a dynamic IP address using DHCP.

An initial DHCP LAN configuration was obtained. However, when the lease expired, the instrument was unable to extend it and as a result lost the previously assigned IP address. Refer to the internet DHCP protocol documentation for further information.

-259 LAN error; The instrument could not obtain a LAN configuration using Auto-IP: manual configuration was used instead.

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The instrument was configured to use Auto-IP to obtain the LAN interface configuration. Possibly, the LAN cable is disconnected or is broken.

-259 LAN error; The instrument could not obtain a LAN configuration using DHCP or Auto-IP: manual configuration was used instead. This error occurs if no DHCP servers are present or the DHCP server did not provide a lease of at least 5 minutes.

The instrument was configured to use DHCP with a fallback to Auto-IP to obtain the LAN interface configuration. The instrument was not able to negotiate with surrounding DHCP servers. Either DHCP servers are not present, the lease times are less than 5 minutes or they are not allowing this device to obtain an IP address. Possibly, the LAN cable is disconnected or is broken.

-259 LAN error; The instrument could not obtain a LAN configuration using DHCP: {name} configuration was used instead. This error occurs if no DHCP servers are present or the DHCP server did not provide a lease of at least 5 minutes.

The instrument was configured to use DHCP to obtain the LAN interface configuration. The instrument was not able to negotiate with surrounding DHCP servers. Either DHCP servers are not present, the lease times are less than 5 minutes or they are not allowing this device to obtain an IP address. Possibly, the LAN cable is disconnected or is broken.

-259 LAN error; The instrument detected an IP address conflict.

Enter a new IP address or switch to DHCP/AUTO-IP.

-259 LAN error; IP address and default gateway must be on the same subnet.

The instrument automatically changes the offending entries.

The IP address and default gateway are not on the same network as specified by the subnet mask. Verify that both addresses are on the same subnet and try again. Contact your network system administrator for assistance.

-259 LAN error; IP address is inconsistent with subnet mask or IP class rules. The instrument automatically changes the offending entry.

The IP address is invalid. Check the entry for syntax and numerical errors and try again. Verify that the subnet mask is consistent with this address (host bits should not be all 0s or 1s). If no subnet is specified, verify that the address is valid with respect to the default class netmasks: A (0x00FFFFFF), B(0x0000FFFF) or C(0x000000FF).

-259 LAN error; The LAN parameter specified is invalid and has been automatically been changed to a default value.

The manual IP address, subnet or default gateway parameter was invalid. Check the entry for syntax and numerical errors and try again.

-259 LAN error; The network has been disconnected.

-259 LAN error; The network has been reconnected.

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-259 LAN error; Network initialization failed. {name}

An error occurred during network initialization. The string contains information about the error.

-259 LAN error; Saved LAN configuration settings are missing or corrupt: default values have been restored.

Contact your network system administrator for assistance.

-257 File name error; Already exists: {name}

File or Directory already exists.

-257 File name error; Arb file already present

Aeroflex products do not allow downloading over an existing waveform. The previous waveform must be explicitly deleted.

-257 File name error; Equalization filter file not selected.

An FIR file must be selected when turning the Equalization Filter on.

-257 File name error; Filename cannot contain any directory information: {name}

This error occurs when a filename with any directory information is passed to the SCPI command RADio:ARB:GENerate:SINE. The parameter is the bad filename.

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-257 File name error; The filename specified for saving or recalling is not valid. Note that only the STATE memory subsystem can be used with save/recall. Name supplied: {name}

Save/Recall can only operate on the STATE memory subsystem. The parameter is the bad filename.

-257 File name error; Invalid Filename

An invalid filename was encountered. Please refer to the user manual for guidelines on filename format.

-257 File name error; Invalid filename for a zip archive: {name}

An invalid filename for a zip archive was encountered. Please refer to the user manual for guidelines on filename format.

-257 File name error; Invalid zip archive path: {name}

An invalid zip archive path was encountered.

-257 File name error; No file has been selected for use as the PRAM file.

Please select an existing file before trying to use PRAM.

No file has been selected for use as the PRAM file. Please select an existing file before trying to use PRAM.

-257 File name error; Waveform file not selected.

Waveform file or sequence file must be selected when turning ARB on.

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-257 File name error; {name}

There was a problem with the specified file name. Check the syntax and try again.

-256 File name not found; User preset file could not be found: a user preset state must be saved before the preset type can be set to User.

The instrument could not find a user-saved preset state. The user must first save a preset state before the Preset Type can be set to User.

-256 File name not found; {name}

The file specified does not exist.

-256 File name not found; {name} The burst shape type has been defaulted.

The specified file does not exist, so the burst shape type has been defaulted.

-256 File name not found; {name} The filter type has been defaulted.

The specified file does not exist or is not a filter file type so the filter type has been defaulted.

-256 File name not found; {name} The modulation type has been defaulted.

The specified file does not exist, so the modulation type has been defaulted.

-255 Directory full; {name}

A legal program command or query could not be executed because the media directory was full.

-254 Media full; Could not convert file to normalized secure form: {name}

If a secure file is written in three parts to the non-volatile storage, extra storage (2 times the total size of the files) is required to complete the write operation. If there is insufficient memory, the file cannot be written.

-254 Media full; Could not resample IQ waveform {name}

The resample operation could not be performed because there is not enough memory left on the baseband board: the resampled file to be written is too big to fit on the media. The original file is untouched. Delete any files that were previously downloaded but are not required anymore (e.g. Arb waveform files). Upgrade to a baseband option with larger memory.

-254 Media full; {name}

Invalid file or device name.

-252 Missing media; Applications require an enabled SSD.

Applications require an enabled SSD.

-252 Missing media; The media for file {name} is missing. This error typically occurs if 'File>Internal/USB Storage Selection' is set to Ext and there is no USB media detected. To fix this change the setting to Auto or Internal.

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The media for file {name} is missing. This error typically occurs if 'File>Internal/USB Storage Selection' is set to Ext and there is no USB media detected. To fix this change the setting to Auto or Internal.

-252 Missing media; No SSD found. A backup RAM disk will be used for storage instead.

No SSD was found at boot. A backup RAM disk will be used for storage instead.

-252 Missing media; No SSD found. Only internal flash will be used for storage.

No SSD was found at boot. Only internal flash will be used for storage.

-250 Mass storage error; Unexpected memory media found and ignored: {name}.

{name} will be used for storage instead.

Memory media that is not configured to be used was found. The memory media will be ignored.

-241 Hardware missing; Cannot access a baseband generator that does not exist.

Tried to retrieve access information that was not created for a given baseband generator. The hardware probably does not exist.

-241 Hardware missing; The firmware has booted in no-hardware mode.

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The instrument has booted in a safe mode which does not communicate with any of the internal boards. Normal instrument operation is not possible. The firmware upgrade utility should be run to fix any incorrectly programmed boards.

-241 Hardware missing; No RF board was detected.

The instrument requires an RF board to successfully operate. The board may not be plugged in or may have an incorrectly programmed FPGA.

-241 Hardware missing; No Source Module connected

Cannot turn on Source Module Mode if source module is not connected. Check cable connection.

-241 Hardware missing; SIO address does not exist

The expected board is not installed. Report this error to service office.

-240 Hardware error; BBG Arb Fifo has emptied.

The Baseband board BBG FIFO has emptied prematurely. The BBG FIFO buffers digital data from SDRAM Waveform memory. Report this error to service office.

-240 Hardware error; The BBG Arb has not armed within the expected time period. For external source data (LVDS interface), please recheck all cables and signals. For internal source data (waveform memory), then report this error to your nearest sales and service office.

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This error should not appear with normal Arb operation. This is a hard fault if it should occur. If this error is seen for external source data from the LVDS interface, then the interface and its associated timing and control is suspected.

-240 Hardware error; BBG Arb SDRAM initialization failure: {name}.

There is a problem initializing the BBG waveform memory (SDRAM). Report this error to service office.

-240 Hardware error; BBG Arb SDRAM refresh failure.

The baseband board BBG waveform memory failed a refresh cycle. Report this error to service office.

-240 Hardware error; BBG Arb waveform memory (SDRAM) cannot be accessed.

There is a problem accessing the BBG waveform memory (SDRAM). Report this error to service office.

-240 Hardware error; BBG Communication failure

Communication with the BBG FPGA failed; specifically, the SSIO bus failed to respond. Cycle the instrument's power. Report this failure to service office.

-240 Hardware error; BBG DMA error: {name}.

An internal error occurred during DMA transactions to the Baseband assembly. Please report this error to a service office.

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-240 Hardware error; BBG Feldspar ASIC has failed to initialize.

The BBG Assembly Feldspar Asic has failed to initialize properly. The instrument will require power cycling. Report this error to your nearest sales and service office.

-240 Hardware error; BBG RMS Calculation has failed due to a {name} error.

The BBG RMS calculation has failed due to a timeout or an overflow error.

-240 Hardware error; BBG waveform memory transaction aborted.

BBG temporarily stalled. No data was lost. The operation may have exceeded the computational bandwidth. To prevent this error, use a less complex waveform or stop the BBG before performing other tasks.

-233 Invalid version

A legal program data element was parsed but could not be executed because the version of the data is incorrect to the device. This particular error is used when file or block data elements are recognized by the instrument, but cannot be executed for reasons of version incompatibility. For example, a non-supported file version or a non-supported instrument version.

-230 Data corrupt or stale; EEPROM @ offset {value}: wrote {value}, read {value}

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After writing shadow RAM data to EEPROM, a memory comparison detected a difference. The EEPROM may not be retaining data properly. Report this error to service office.

-230 Data corrupt or stale; Either the file is not a bit file, or the number of bits specified does not match the number of data bytes in the file.

An error has occurred while downloading a user file to the Bit memory catalog. Either the user file is not a bit file, or the number of bits specified in the SCPI command does not match the number of bytes in the file. Ensure that the bit specifier matches the actual number of bits in the file.

-230 Data corrupt or stale; File '{name}' Header Parameter Out of Range or Not Valid: {name}.

This error is reported when trying to apply the header parameters to the instrument state. If one of the parameters does not contain a valid value for that state, this error is reported. The first {name} is the file that generated the error. The second {name} will describe which header field contained the invalid value.

-230 Data corrupt or stale; File is unusable: {name}

The file ({name}) is not properly formed, so it cannot be used. This can happen if a file is not of the type expected, or the data was damaged prior to being placed in the instrument. Note that when importing ascii txt or csv files, a mismatch of the decimal separator setting may cause this error message to be reported.

-230 Data corrupt or stale; Frequency extender channel correction

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calibration data is invalid. The data is either missing, corrupted or is not in the proper format.

Frequency extender channel correction calibration data is either missing, corrupted or is not in the proper format.

-230 Data corrupt or stale; Header File is Not Found or Invalid: {name}.

This error occurs when trying to open a header file, the file does not match any known header format or does not exist. {name} is the filename being accessed.

-230 Data corrupt or stale; The user file version is not recognized. {name}

An error has occurred while loading a user file where the version of the file is not recognized as a supported version.

-230 Data corrupt or stale; The zip archive is corrupt: {name}

The zip archive is corrupt and not usable.

-230 Data corrupt or stale; {name}

The sequence file that you are attempting to run is the wrong size.

-224 Illegal parameter value

Used where an exact value was expected from a list of possibilities.

-224 Illegal parameter value; Analog bus node not present

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The analog bus node that was selected is not a valid node in the system.

-224 Illegal parameter value; Board name not present

The board name that was selected is not a valid board in the system.

-224 Illegal parameter value; Command requires at least one data value.

A modulation type cannot be created without data.

-224 Illegal parameter value; Illegal parallel bus address

Internal error. The instrument tried to access an illegal parallel bus address.

-224 Illegal parameter value; Insufficient privileges to perform write ({name}).

The diagnostic write to an item has failed due to a lack of permission.

-224 Illegal parameter value; Latch name not present

The latch name that was selected is not a valid latch in the system.

-224 Illegal parameter value; Option 416 does not have a valid license.

*** No documentation ***

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-224 Illegal parameter value; The OSR must be an even value.

RADio:ARB:GENerate:SINE generates a valid sine waveform and the OSR must be an even value to generate a waveform with an even number of samples.

-224 Illegal parameter value; The specified option cannot be enabled.

An error occurred when the user attempted to enable an option that is not configured to be enabled.

-224 Illegal parameter value; The specified option is not degradable.

An error occurred when the user attempted to degrade an option that is not able to be degraded.

-224 Illegal parameter value; The specified option was not found.

An error occurred when the user attempted to degrade an option that doesn't exist.

-224 Illegal parameter value; Total user file bits must be greater than 0.

An attempt was made to select a user file that contains 0 bits. Select another user file that contains at least 1 bit.

-223 Too much data

A legal program data element of block, expression or string type was received that contained more data than the device could handle due to memory or related device-specific requirements.

-223 Too much data; The current power setting results in too many data points. A new symbol map cannot be generated. The current channel power has been reverted to its previous value.

Due to hardware limitations, only a certain number of unique data points can be created for the IQ map. This channel power level has resulted in an IQ map that exceeds the hardware limit when turned on, and cannot be accommodated. The channel power has been reverted

to its previous value to retain a valid signal. To turn this channel on, try a different power setting or turn some other channel off.

-223 Too much data; The current setting results in too many data points. A new symbol map cannot be generated. The current channel has been restored to its previous type.

Due to hardware limitations, only a certain number of unique data points can be created for the IQ map. This channel type, together with its power setting, has exceeded that limit. The channel type reverts to its previous type to retain a valid signal. To try a different power setting, turn the channel off, switch to the desired type, change the power setting, and then turn the channel back on.

-223 Too much data; The current setting results in too many data points. A new symbol map cannot be generated. The format has been turned off.

Due to hardware limitations, only a certain number of unique data points can be created for the IQ map. CDMA2000 or 1xEV-DV mode turns off when the power combination of all channels exceed that

limit. Adjust the channel power level and try again. Due to hardware limitations, only 256 unique data points can be created for the IQ map. WCDMA mode turns off when the power combination of all channels exceeds that limit. Adjust the channel power level and try again.

-223 Too much data; The current setting results in too many data points. A new symbol map cannot be generated. The IQ Rotation has been restored to previous value.

Due to hardware limitations, only a certain number of unique data points can be created for the IQ map. IQ rotation is designed to alleviate this problem, but incorrect use can result in undesirable effects. This error indicates that the current IQ rotation is optimal and cannot be changed.

-223 Too much data; The number of carriers exceeds the maximum allowed.

The maximum number of carriers cannot exceed the maximum that is defined in the technical specifications document. Reduce the number of carriers and try again.

-223 Too much data; The number of CDMA carriers exceeds the maximum allowed.

The maximum number of CDMA carriers cannot exceed the maximum that is defined in the technical specifications document. Reduce the number of channels and try again.

-223 Too much data; The number of CDMA channels exceeds the maximum allowed.

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The maximum number of CDMA channels cannot exceed the maximum that is defined in the technical specifications document. Reduce the number of carriers and try again.

-223 Too much data; The number of list points exceeds the maximum allowed.

Some tables have a maximum number of entries. Sweep/List can only have 1601 points, for example.

-223 Too much data; The number of list points exceeds the maximum of {value} allowed.

Some tables have a maximum number of entries. Sweep/List can only have 1601 points, for example. The {value} is the maximum number in this case.

-223 Too much data; The number of points in the table exceeds the maximum allowed.

This error occurs when you try to create a table that is too big. For example, if you enter a list in SCPI that is longer than the maximum allowed length, or if you attempt to expand a table and the table is already at its maximum length.

-223 Too much data; The pulse train cannot be longer than {value} pulses, including all repetitions.

The {value} is the maximum number in this case. Note that the last repetition value is repeated as necessary if the on time or off time lists are longer.

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-223 Too much data; There can be no more than 256 unique waveforms in the waveform list.

-223 Too much data; User filter has more than {value} symbols.

The baseband generator cannot use a filter that has more than the specified number of symbols. You may have specified an incorrect over-sample ratio in the filter table editor.

-223 Too much data; {name}

The specified file was being built up by a SCPI data block transfer when the memory block allocation failed.

-222 Data out of range

A legal program data element was parsed but could not be executed because the interpreted value was outside the legal range defined by the device (see IEEE 488.2 11.5.1.1.5).

-222 Data out of range; A burst fall shape must have at least two points.

Two points are needed to specify a fall shape in the MEM:DATA:SHAPE command.

-222 Data out of range; A burst rise shape must have at least two points.

Two points are needed to specify a rise shape in the MEM:DATA:SHAPE command.

-222 Data out of range; A burst shape can only have up to {value} points

for the fall shape.

The user has specified more than the maximum number of points allowed for the fall shape in the MEM:DATA:SHAPE command.

-222 Data out of range; A burst shape can only have up to {value} points for the rise shape.

The user has specified more than the maximum number of points allowed for the rise shape in the MEM:DATA:SHAPE command.

-222 Data out of range; A differential mapping can only have up to 256 states.

The user has specified more than 256 states in the MEM:DATA:IQ or MEM:DATA:FSK commands for the differential states specification.

-222 Data out of range; A modulation must have at least two points.

Two points are needed to specify a 1 bit per symbol modulation. This error can be reported for I/Q or FSK modulation specifications using MEM:DATA:IQ and MEM:DATA:FSK.

-222 Data out of range; An FSK modulation can only have up to 16 frequencies.

The user has specified more than 16 frequencies in the MEM:DATA:FSK command.

-222 Data out of range; An I/Q modulation can only have up to 256 states.

The user has specified more than 256 states in the MEM:DATA:IQ

command.

-222 Data out of range; Channel type not allowed for current link/config.

The channel type you are trying to add is not supported by the current CDMA2000 or 1xEV-DV link and/or radio configuration.

-222 Data out of range; External reference bandwidth changed to narrow.

When setting the external reference frequency to anything other than 10MHz the external reference bandwidth must be set in the low or narrow setting. This warning is displayed when the external reference frequency causes the external reference bandwidth to be changed from wide to narrow.

-222 Data out of range; In the {name}, the slot position + num_slots cannot exceed 64.

The slot position + number of time slots cannot exceed 64. The slot position will be clipped.

-222 Data out of range; M-Tone frequency range exceeds max limit. Table not generated.

Either the frequency spacing is too large or the number of tones are too many. As a result the maximum bandwidth of the IQ modulator that produces the tones is exceeded. The M-Tone table can not be generated until the parameter settings are corrected.

-222 Data out of range; Manual point exceeds frequency list size. Limiting to maximum point.

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The sweep/list manual point has been reassigned to a smaller number value due to the longest list decreasing in size or being turned off. Its new value is the length of the frequency list that is the longest enabled list.

-222 Data out of range; Manual point exceeds list sizes. Limiting to maximum point.

The sweep/list manual point has been reassigned to a smaller number value due to the longest list decreasing in size or being turned off. Its new value is the length of the longest enabled list (frequency or power).

-222 Data out of range; Manual point exceeds power list size. Limiting to maximum point.

The sweep/list manual point has been reassigned to a smaller number value due to the longest list decreasing in size or being turned off. Its new value is the length of the power list, that is the longest enabled list.

-222 Data out of range; Number of parameters is not an even number

The user flatness calibration points must be an even number.

-222 Data out of range; OCNS channel(s) power clipped to minimum limit.

As DPCH channel one power is increased, one or more of the OCNS channels may become clipped to its minimum power of -40dBm during channel balancing.

-222 Data out of range; Only DEFAULT or USER FILE data type is allowed.

Data type is changed to DEFAULT

Only Default data or user file is valid for Paging channel. Paging data is now set to Default.

-222 Data out of range; Sequence point exceeds size of active lists.
Clipped to maximum list element.

An error that occurs when in list sweep mode. The index used for determining the next point to sweep is beyond the valid range for the current list of points.

-222 Data out of range; Synthesizer: Frequency out of bounds.

The signal generator received an internal request for a frequency outside of its supported frequency range. Report this error to service office.

-222 Data out of range; Value clipped to available memory.

There was insufficient memory, so a value was clipped to allow waveform generation with the available memory. For example, OSR.

-222 Data out of range; value clipped to lower limit.

An input value is below the minimum value allowed. Examples are: frequency setting, reference, or offset; output power; power reference and offset; modulation depth, deviation, or modulation source frequency; number of points and start/stop values for list mode; start/stop values for internal I/Q calibration; sequence or register values (save/recall); dwell time.

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-222 Data out of range; value clipped to upper limit.

An input value is above the maximum value allowed. Examples: frequency setting, reference, or offset; output power; power reference and offset; modulation depth, deviation, or modulation source frequency; number of points and start/stop values for list mode; start/stop values for internal I/Q calibration; sequence or register values (save/recall); dwell time.

-222 Data out of range; {name} clipped to lower limit.

An input value is below the minimum value allowed. In some cases the minimum value is affected by other item setting due to coupling.

-222 Data out of range; {name} clipped to upper limit.

An input value is above the maximum value allowed. In some cases the maximum value is affected by other item setting due to coupling.

-221 Settings conflict; (delay + width) must be less than the period and less than (42s - width). For the second pulse in an Adjustable Doublet, the delay must be less than (42s - (first_pulse_delay) - (second_pulse_width)).

-221 Settings conflict; 3GPP Uplink AWGN refers PRACH Message Part, but the

Message Part is set to off.

3GPP Uplink AWGN refers PRACH Message Part as E ref, but the Message Part is set to off. To avoid this, set the Message Part to

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be on.

-221 Settings conflict; 3GPP Uplink PRACH MessageTotalPower can be set only

when Total is selected as PowerSetUpMode. Pp-m can be set only when Pp-m is selected.

3GPP Uplink PRACH MessageTotalPower can be set only when Total is selected as Power SetUp Mode. Pp-m can be set only when Pp-m is selected as Power SetUp Mode.

-221 Settings conflict; 8757D system mode does not support the following command: {name}

The instrument is connected to an 8757 network analyzer in smart mode and cannot set this feature.

-221 Settings conflict; A change in the clock rate has caused the skew to be outside the valid range. The skew has been set to zero.

When the frequency is changed and the skew setting is too high or too low for the new frequency, this error is generated to report that the skew has been re-set to zero.

-221 Settings conflict; A change to the modulation type has limited the maximum symbol rate.

A change to the modulation type has limited the maximum symbol rate.

-221 Settings conflict; All channels are off. Could not perform operation.

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This error is reported when an attempt is made to balance powers when all channels are off.

- 221 Settings conflict; All timeslots with the payload (E) fields set to EXT have been reset to PN9. EXT is incompatible with combined EDGE/GSM mode.

EXT is incompatible with combined EDGE/GSM mode.

- 221 Settings conflict; AM cannot be in exponential mode in the lowest frequency band. AM has been switched to linear mode.

The lowest frequency band (9 kHz up to 5 MHz) does not have exponential AM.

- 221 Settings conflict; An external reference frequency other than 10MHz requires the external reference narrow BW setting.

When setting the external reference frequency to anything other than 10MHz the external reference bandwidth must be set in the low or narrow setting. This error is displayed when the external reference frequency causes the external reference bandwidth to be changed from wide to narrow.

- 221 Settings conflict; The application could not be turned on or have its settings changed because the current baseband operating mode does not support it. See the AUX Function menu.

The application could not be turned on or have its settings changed because the current baseband operating mode does not support it. The baseband operating mode setting is found under the AUX Function menu.

-221 Settings conflict; ARB marker RF blanking cannot be on with pulse modulation.

There is a hardware conflict between pulse modulation and ARB marker to RF blanking. ARB marker to RF blanking will be turned off.

-221 Settings conflict; At least one of the channels must be on in order to turn the mode on. WCDMA has been turned off.

To output a valid RF signal, at least one channel must be turned on. Since all channels are off, WCDMA mode has been turned off to avoid undefined behavior.

-221 Settings conflict; At least one of the channels must be on in order to turn the mode on. {name} has been turned off.

CDMA2000 or 1xEV-DV requires at least one channel to be on to turn the mode on. Having at least one channel on in the current link direction, and in the case of reverse link the current Operating Mode, allows the mode to be turned on.

-221 Settings conflict; Atten Hold is not compatible with Optimize Harmonics mode. Optimize Harmonics has been turned off.

The Optimize Harmonics mode adjusts the attenuator; therefore, it is not compatible with Attenuator Hold mode.

-221 Settings conflict; The Atten Hold is not compatible with Optimize Signal/Noise mode. Optimize S/N has been turned off.

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The Optimize Signal/Noise adjusts the attenuator; therefore, Atten Hold ON and Optimize Signal/Noise ON are not compatible.

-221 Settings conflict; auto power search was aborted due to invalid setting. Check the {name} parameters, then press APPLY to rerun auto power search.

Auto power search is aborted for the reason described in error message. Check the setting, then press APPLY to run Auto power search.

-221 Settings conflict; BBG data clock has been set to internal. Ext data bit clock does not work with combined GSM/EDGE.

Combined GSM/EDGE does not work with an external bit clock. However it can be used with an external symbol clock.

-221 Settings conflict; BBG data clock has been set to internal. Ext data bit clock does not work with data rates over 50 Mbps. Ext symbol clock is okay.

Parallel mode does not work with an external bit clock. However it can be used with an external symbol clock.

-221 Settings conflict; BBG trigger source and/or type settings for {name} conflicted with Multi-BBG Sync and have been adjusted accordingly.

BBG trigger types Continuous-Free Run and Gated are not available with Multi-BBG Sync. With Multi-BBG Sync type Secondary, the only BBG trigger source permitted is EXTERNAL using PAT TRIG-1.

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-221 Settings conflict; BCH Conflicts with another multiframe type.

*** No documentation ***

-221 Settings conflict; BCH is allowed only in TimeSlot 0.

*** No documentation ***

-221 Settings conflict; The bit rate has been set to 50 Mbps. Ext (serial) data in does not work with data rates above 50 Mbps.

Ext (serial) does not work at rates above 50 Mbps. Ext parallel can be used at higher bit rates.

-221 Settings conflict; Block size has been adjusted to match BlockSetSize / NumberOfBlks. But block size does not match the BlockSetSize exactly. Try another value.

Block size has been adjusted to match BlockSetSize / NumberOfBlks. But block size is not match to the value exactly, please try another value.

-221 Settings conflict; Block size has been adjusted to match BlockSetSize / NumberOfBlocks.

Block size has been adjusted to match BlockSetSize / NumberOfBlocks.

-221 Settings conflict; Block size of DCH{value} must match to BlockSetSize / NumberOfBlks.

Block size must match to BlockSetSize / NumberOfBlks. The pointed

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out DCH should be re-checked.

-221 Settings conflict; Burst cannot be on while using AM.

There is a hardware conflict for the burst envelope (I/Q menu) and AM1/AM2. The most recently requested modulation will be turned on. The previous modulation will be turned off.

-221 Settings conflict; The burst time values have been limited to match the modulation settings.

The burst rise/fall time/delay values are dependent on the digital modulation settings and may be limited as the modulation settings change.

-221 Settings conflict; Calibration of the connected power sensor is not available while a measurement is currently running

Calibration of the connected power sensor is not available while a measurement is currently running.

-221 Settings conflict; Cannot select and play waveform file. Requires Option 65x.

Option 65x is required in order to select and play a waveform file.

-221 Settings conflict; Cannot turn AWGN on, option 403 is required for any AWGN functionality

Option 403 (AWGN) is required to enable the AWGN portion of option 400 (WCDMA).

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-221 Settings conflict; cannot update Baseband generator with Even Second Delay.

There is an error with the CDMA2000 or 1xEV-DV hardware. Try turning the CDMA2000 or 1xEV-DV mode off and on again to reset the baseband generator card. If the problem persists, report this error to service office.

-221 Settings conflict; The carrier BW exceeds the Total BW and has been reduced by the BW ratio.

The carrier BW exceeds the Total BW and has been reduced by the BW ratio.

-221 Settings conflict; Carrier formats must be the same.

All digital modulation multicarriers must be the same format.

-221 Settings conflict; Change to I/Q state or source causes AM WB to be turned off.

The modulation type AM WB requires that I/Q is on and that the I'Q source is set to external. This error is reported when the user turns I/Q off or changes the I/Q source to something other than external or sum. When this happens AM WB is turned off.

-221 Settings conflict; Changing one of the setup parameters caused the clock rate to be out of range. The clock rate has been clipped to its new lower limit.

Clock rate limits are dependent on of the other setup parameters. This error is reported when the parameters change causing the clock

rate to be below the new limits.

- 221 Settings conflict; Changing one of the setup parameters caused the clock rate to be out of range. The clock rate has been clipped to its new upper limit.

Clock rate limits are dependent on of the other setup parameters. This error is reported when the parameters change causing the clock rate to be above the new limits.

- 221 Settings conflict; Changing the extender type or channel is not available when the frequency extender is on.

This error is reported when attempting to change the extender type or channel when the frequency extender is on. The frequency extender must be turned off before its type or channel can be changed.

- 221 Settings conflict; Channel #{value} must be on for any transport channel following it to be on. All transport channels following channel #{value} have been turned off

Transport channels must be turned on sequentially. Therefore, all transport channels with a higher number than a channel that is turned off will be automatically turned off.

- 221 Settings conflict; Channel #{value} must be turned on before channel #{value} can be turned on. Channel #{value} has been turned off.

Transport channels must be turned on sequentially. For example, channels 1,2 and 3 must be turned on before channels 4 through 6 can be activated.

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-221 Settings conflict; Clipping not allowed for CDMA2000 or 1xEV-DV reverse radio configurations 1 and 2. Clipping set to 100%.

The clipping function is not available for the CDMA2000 or 1xEV-DV reverse link radio configurations 1 and 2. The value is automatically reset to 100% (no clipping).

-221 Settings conflict; Clock Source Synchronized is only allowed when Logic Type is LVDS and Data Direction is Input. Clock Source set to Internal.

This error is reported when the Clock Source is set to Synchronized and then the Logic Type is changed from LVDS or the Data Direction is set to Output.

-221 Settings conflict; The command cannot be executed when no TDMA or Real

Time Custom mode is on.

The command (e.g. MEM:DATA:PRAM:BLOCK) can be executed only when a

TDMA mode (or Real Time Custom) is not on. Turn the desired mode on and then resend the command.

-221 Settings conflict; Compressed Mode should be off when {name}.

Compressed Mode should be off when
any antenna is selected as Transmit Diversity
or OutOfSyncTest is on
or Transport Position is Flexible.

-221 Settings conflict; conflict between code = {value}, spread factor =

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{value} and code = {value}, spread factor = {value}

A channelization code conflict exists between two codes, each at its respective spread factor. Parameters 1 and 3 are channelization codes. Parameters 2 and 4 are spread factors.

-221 Settings conflict; conflict between code = {value}, data rate = {value} sps and code = {value}, data rate = {value} sps

A channelization code conflict exists between two codes, each at its respective data rate. Parameters 1 and 3 are channelization codes. Parameters 2 and 4 are data rates.

-221 Settings conflict; Connection settings cannot be changed when the frequency extender is on.

This error is reported when attempting to change the extender connection settings when the frequency extender is on. The frequency extender must be turned off before its connection settings can be changed.

-221 Settings conflict; Could not perform File Header operation while format is off: {name}.

This error is reported when a file header command is tried when the format is not on. File Headers can only be modified while the format the file is associated with is turned on. {name} is a string describing the Format.

-221 Settings conflict; The current data rate is not valid for this radio configuration. Data rate changed to the default rate.

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The new radio configuration does not support the current data rate. The data rate is changed to the default rate for the new radio configuration, which is 1X for F-FCH and 2X for F-SCH.

-221 Settings conflict; The current paging indicator (PI) is not valid for 2400 bps data rate. The PI has been changed to 0, the default.

QPCH channel with a data rate of 2400 bps only supports up to 191 paging indicators. The PI has been set to 0 (default value) to remain valid for this data rate.

-221 Settings conflict; The current RC or data rate does not support turbo coding. Turbo Coding has been turned off.

Either specification or hardware does not support turbo coding for this data rate. Turbo coding is now turned off. If turbo coding is desired, select a valid data rate and then turn turbo coding on. For F-SCH channels, data rates below 14.4 kbps and the highest data rates for each RC are not valid for turbo coding.

-221 Settings conflict; Data of DPDCH must not be TrCH when method of active Compressed Mode is Higher Layer.

Transport channel coding is supported on compressed mode by SF/2, but it is not supported on compressed mode by Higher Layer. Higher Layer method supports physical channel coding only.

-221 Settings conflict; DCH data block is too large. Maximum size of Block Set (= Block Size * number of Blocks) is 200000. Reduce Block Size or number of blocks.

The 3GPP standard defines the transport block set size as 0 to

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200000

-221 Settings conflict; DCH generation is not support with a DPCH slot format of 16.

DCH generation is not support with a DPCH slot format of 16.

-221 Settings conflict; The DCH which is referenced by 3GPP Uplink AWGN must be on.

The DCH which is referenced by AWGN Eb Ref is off. To avoid this, set the DCH to on.

-221 Settings conflict; Differential encoding has been turned off. Differential encoding does not work above 50 Mbps.

Differential encoding does not work above 50 Mbps.

-221 Settings conflict; The Digital Data state could not be turned on because the module was not connected. Please connect the module before turning the state on.

This error is generated if the module is not connected when digital data is turned on.

-221 Settings conflict; The Digital Data state could not be turned on because there is no Format turned on. Please turn on a format before turning on the digital module.

When turning the digital module on, a check is made to see if a format is turned on. This error is generated when no format is found.

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-221 Settings conflict; The Digital Data state was forced off because the connection to the digital module was lost. You must reconnect the module to turn Digital Data back on.

When the digital module is disconnected while the state is on, the state will be forced off. This error is reported to notify the user that the state was forced off.

-221 Settings conflict; The Digital Data state was forced off because the current format is not supported with the digital module.

The digital module has to be turned off as the current format is not supported with it.

-221 Settings conflict; The Digital Data state was forced off because the current frequency extender is not supported with the digital module.

The digital module has to be turned off as the current frequency extender is not supported with it.

-221 Settings conflict; The Digital Data state was forced off because there are no longer any formats turned on.

All formats were turned off, so the digital module has to be turned off as well.

-221 Settings conflict; Doppler shift has been reduced to reflect the new frequency.

The requested frequency is incompatible with the current value of the Doppler shift. The Doppler shift has been set to the maximum

value compatible with the new frequency.

- 221 Settings conflict; Enabled modulation source conflicts with previously enabled modulation source. Previous modulation disabled.

Three sources are shared by FM1/PM1, AM1/AM2, FM2/PM2, pulse and burst envelope: INT, EXT1, and EXT2. Each source can be used by only one modulation at a time. If a modulation requests a source while it is in use by an active modulation, the first modulation is turned off, and the second modulation is turned on.

- 221 Settings conflict; External data cannot be selected for multiple channels. PN9 is automatically selected for {name}.

The current hardware only supports one external data source at any given time. The <CHANNEL NAME> data source has been changed to PN9, the default data source.

- 221 Settings conflict; The external input attenuator cannot compensate for the low signal voltage on the analog I/Q inputs.

As the voltage level on the external I/Q inputs is decreased, the external input attenuation also decreases to keep the I/Q modulator voltage level constant. When the attenuator reaches zero, it can no longer provide compensation for the input voltage and further decreases in input voltage will result in decreased power out of the I/Q modulator. If the ALC is off this will be observable in the RF output power. If the ALC is on, the ALC will compensate for the decreased input voltage and there will be no observable change in RF output power. For very low voltages the ALC will not be able to compensate and the RF output power will become unlevelled.

-221 Settings conflict; FFCH/OCNS and QPCH cannot be on at the same time.
QPCH has been turned off.

QPCH is generated using both channel 3 and 4. Channel 3 has been turned on to generate FFCH or OCNS. Channel 4 can no longer generate QPCH. Therefore, QPCH must be turned off.

-221 Settings conflict; The Flat Zone Amplitude(Lmid) is coupled to the Stop Frequency(f2). The Flat Zone Amplitude has been limited appropriately for the new Stop Frequency.

-221 Settings conflict; FM and PM not allowed.

There is a hardware conflict between FM and PM. The most recently requested modulation will be turned on. The previous modulation will be turned off.

-221 Settings conflict; FM1/PM1 value set less than FM2/PM2 value.
FM2/PM2

changed to match FM1/PM1 value.

The deviation of FM2/PM2 must always be less than or equal to the deviation settings for FM1/PM1. This error will be reported to the queue when FM2/PM2 is enabled and FM1/PM1 is also enabled and an adjustment to either FM1/PM1 deviation causes the FM1 or PM1 deviation to be less than the FM2 or PM2 deviation. It will also be reported when FM1/PM1 is being turned on, and the last FM2/PM2 deviation setting is greater than the current FM1/PM1 deviation setting. In both cases the FM2/PM2 deviation will be adjusted to match the FM1/PM1 deviation.

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-221 Settings conflict; FM2/PM2 value set greater than FM1/PM1 value.
FM1/PM1 changed to match FM2/PM2 value.

FM2/PM2 deviation must be FM1/PM1 deviation. This error is reported when both FM1/PM1 and FM2/PM2 are enabled and an adjustment to either FM2/PM2 deviation causes the FM2 or PM2 deviation to be greater than the FM1 or PM1 deviation. It is also reported as FM2/PM2 is turned on, and the last FM1/PM1 deviation setting is less than the current FM2/PM2 deviation setting. In both cases the FM1/PM1 deviation is adjusted to match the FM2/PM2 deviation.

-221 Settings conflict; FM/PM deviation decreased to account for FM rate and ramp sweep settings.

The deviation and rate settings for FM and PM are interrelated when ramp sweep is active. The deviation setting will be automatically set to an acceptable value when the rate moves outside an acceptable range.

-221 Settings conflict; FM/PM rate increased to account for deviation and ramp sweep settings.

The deviation and rate settings for FM and PM are interrelated when ramp sweep is active. The rate setting will be automatically set to an acceptable value when the deviation moves outside an acceptable range.

-221 Settings conflict; For the second pulse in an Adjustable Doublet, the pulse width must be less than $(42s - (\text{first_pulse_delay}))$ and the delay must be less than $(42s - (\text{first_pulse_delay}) - (\text{second_pulse_width}))$.

-221 Settings conflict; Frame repeat changed to continuous.

Single is not a valid repeat setting for an external data source.

-221 Settings conflict; The frequency spacing has been limited by the number of carriers.

The frequency spacing and the number of carriers must be such that the bandwidth limitation of the baseband generator is not exceeded.

-221 Settings conflict; The frequency spacing has been limited by the number of tones.

The frequency spacing and the number of tones must be such that the 80 MHz of bandwidth is not exceeded. If FS_MAX is the maximum frequency spacing in MHz and N is the number of tones, then $\{FS_MAX \leq (80) / (N - 1)\}$.

-221 Settings conflict; The frequency spacing has been limited by the tone alignment.

The frequency spacing and alignment must be such that the 80 MHz of bandwidth is not exceeded and that no tone is more than 40 MHz from the carrier.

-221 Settings conflict; FSK frequency deviation has been limited by the sample rate.

The Sample Rate must be at least 16 times the Digital Mod FSK frequency deviation. If this cannot be achieved without exceeding

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the maximum sample rate for the current settings, the FSK frequency deviation will be limited.

-221 Settings conflict; FSK frequency deviation has been limited by the symbol rate.

The maximum FSK frequency deviation depends on the symbol rate.

-221 Settings conflict; If amplitude reference state is on, power units must be dB. If amplitude reference state is off, allowable power units are dBm, dBuV, dBuVemf, V, and Vemf.

An attempt was made to change the units used when reporting the amplitude value through SCPI or displaying it on the front panel. The units specified conflict with the amplitude reference state. If amplitude reference state is on, power units must be dB. If amplitude reference state is off, allowable power units are dBm, dBuV, dBuVemf, V, and Vemf.

-221 Settings conflict; Illegal setting of DCH state. Transport channels(DCHs) must be turned on sequentially.

Transport channels must be turned on sequentially. For example, channels 1,2 and 3 must be turned on before channels 4 through 6 can be activated.

-221 Settings conflict; In Dedicated operating mode for the AUX port, the only supported input strobe mode is Free Run.

When the AUX port's operating mode is Dedicated, the only supported input strobe mode is Free Run.

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-221 Settings conflict; In fixed position the block size must be either 0 or equal to block set size. The block size has been set to the block set size.

In fixed position mode the block size must be equal to either the block set size or 0.

-221 Settings conflict; In the F-PDCCH overlaid mode, the relative power of the F-PDCCH1 is different from the F-PDCCH0's.

In the F-PDCCH overlaid mode, the relative power of the F-PDCCH1 must be same as the F-PDCCH0's.

-221 Settings conflict; In the F-PDCCH overlaid mode, the slot positions of the F-PDCCH1 cannot be overlapped with F-PDCCH0's'. Check the slot position again.

In the F-PDCCH overlaid mode, the slot positions of the F-PDCCH1 cannot be overlapped with F-PDCCH0's'. Check the slot position again.

-221 Settings conflict; In the F-PDCH0 and 1, the occupied number of walsh codes at timeslot#{value} cannot exceed 28. Decrease the number of walsh codes.

In the F-PDCH0 and 1, the occupied number of walsh codes must not exceed 28. The number of walsh codes should be decreased.

-221 Settings conflict; Incompatible step sweep frequency setting. Start, stop, center or span setting changed to be compatible with last command.

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Incompatible step sweep frequency setting. Start, stop, center or span setting changed to be compatible with last command.

-221 Settings conflict; Incompatible step sweep power setting. Start, stop, center or span setting changed to be compatible with last command.

Incompatible step sweep power setting. Start, stop, center or span setting changed to be compatible with last command.

-221 Settings conflict; Increase in sweep span increases sweep time.

The minimum sweep time is dependent on the sweep span and start freq.

-221 Settings conflict; Internal burst cannot be on with pulse modulation.

There is a hardware conflict between internal burst and pulse modulation. The most recently requested modulation will be turned on. The previous modulation will be turned off.

-221 Settings conflict; Invalid Channel Code on DPCH{value}. The channel code has been changed from {value} to {value}

The Channel Code is limited by the Slot Format. Parameter 1 is channel number, Parameter 2 and 3 are channelization codes.

-221 Settings conflict; Invalid Channel Code on OCNS{value}. The channel code has been changed from {value} to {value}

The Channel Code is limited by the Symbol Rate. Parameter 1 is channel number, Parameter 2 and 3 are channelization codes.

-221 Settings conflict; Invalid Channel code. Channel code has been changed to the highest Channel code for this symbol rate

An attempt was made to input a channelization code beyond the limitations imposed by the symbol rate. The channelization code is reset to the highest allowable code for the present symbol rate setting.

-221 Settings conflict; Invalid Channelization code setting. Change Channelization code setting of physical channels to be orthogonal.

OVSF codes require that physical channel code settings be orthogonal.

-221 Settings conflict; I/Q and Ramp Sweep cannot be on at the same time.
{name}

The Ramp Sweep and I/Q modulation cannot be used at the same time. This error is reported when the user attempts to activate one feature while the other one in conflict is activated. If Ramp Sweep is turned on then the I/Q feature will be turned off. If I/Q is turned on then Ramp Sweep will be changed to Step Sweep.

-221 Settings conflict; I/Q cannot be turned on in the lowest frequency band or with DSIM output. I/Q has been turned off.

The lowest frequency band (9 kHz up to 5 MHz) does not have WB AM.

-221 Settings conflict; I/Q delay adjustment limits depend on the rate of the active format. The delay has been limited to the current upper or lower bound as appropriate.

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I/Q delay adjustment limits depend on the rate of the active format. The delay has been limited to the current upper or lower bound as appropriate.

-221 Settings conflict; I/Q must be turned on before turning on Constant Phase.

Constant Phase cannot work without an I/Q signal to the modulator, so it does not make sense to turn Constant Phase on without I/Q on.

-221 Settings conflict; IR buffer size is too small.

The 3GPP standard defines the transport block set size as 0 to 200000

-221 Settings conflict; List/step sweep is not supported with the frequency extender and has been turned off.

The frequency extender cannot be used with list or step sweeps.

-221 Settings conflict; Marker Beacon mode must be ON with Marker Beacon Pulsed mode. Marker Beacon mode has been turned ON.

The Marker Beacon Pulsed mode is a specific condition of Marker Beacon mode; therefore, Marker Beacon mode has been turned ON.

-221 Settings conflict; The Marker Beacon Pulsed mode is not compatible with Pulse Modulation mode. Marker Beacon Pulsed mode has been turned off.

The Marker Beacon Pulsed mode adjusts the pulse modulator; therefore, Pulse Modulation and Marker Beacon Pulsed mode ON are

not compatible.

-221 Settings conflict; The maximum value of the Summing Ratio is dependent on the Modulator Atten value. Summing ratio value has been modified to reflect the decreased IQ Modulator Atten value.

The maximum value of the Summing Ratio has a dependency on the Modulator Atten value. Summing Ratio Max Value = +50dB +Modulator Atten
Summing Ratio Min Value = -50dB -Modulator Atten

-221 Settings conflict; Multi-BBG Sync is not supported with the current Modulation Mode ({name}) and has now been switched off.

Multi-BBG Synchronization is not supported in this baseband Modulation Mode.

-221 Settings conflict; Multi-BBG Sync: Ignoring triggers is only applicable when the sync type is set to Primary or Secondary.

The feature to ignore triggers is only applicable when the Multi-BBG Sync type is set to Primary or Secondary.

-221 Settings conflict; Multi-BBG Sync: Invalid secondary position. MXG-A secondaries must be at the end of the synchronization chain. The current secondary's position has been adjusted to be before the first MXG-A secondary.

Since MXG-A secondaries must be at the end of the synchronization chain, the current secondary's position has been adjusted to be before the first MXG-A secondary.

-221 Settings conflict; Multi-BBG Sync: Number of MXG-A secondaries cannot

exceed the total number secondaries and has been lowered accordingly.

The Multi-BBG Sync number of MXG-A secondaries was higher than the total number of secondaries and has been lowered accordingly.

-221 Settings conflict; Multi-BBG Sync: Secondary Position value conflicted with the total number of secondaries and has been adjusted accordingly.

The Multi-BBG Sync secondary position value was higher than the total number of secondaries and has been lowered accordingly.

-221 Settings conflict; Multi-BBG Sync: Sync type cannot be Secondary when all secondaries in the synchronization chain are MXG-As. The number of MXG-A secondaries has been lowered by 1 in order for this secondary to be accommodated.

If all secondaries in the Multi-BBG Sync configuration are MXG-As, then the number of MXG-A secondaries has been lowered by 1 in order for this secondary to be accommodated as an MXG-B.

-221 Settings conflict; Multi-BBG Sync: Trigger delay is not supported in the current baseband operating mode.

The feature to specify an additional trigger delay is not supported in the current baseband operating mode. The baseband operating mode setting is found under the AUX Function menu.

-221 Settings conflict; Multi-BBG Sync: Turn off the Modulation Modes in all instruments before attempting sync.

The BBG Modulation Mode (Dual Arb, Multitone, etc) must be off

before attempting to sync the instruments configured for Multi-BBG Synchronization.

-221 Settings conflict; New hardware settings can no longer support the last IQ Out selection. IQ Out defaulted to Source 1.

Based on new settings in the vector modulation system, a previous setting related to the IQ Output (rear panel) is no longer valid. The setting will be default to the input selected for Source 1.

-221 Settings conflict; New wave shape changes limit for internal frequency: frequency changed to new limit.

When using the internal modulation source, the upper limit varies for the different waveforms. If the user changes the waveform when the internal source frequency is higher than that allowed for the new waveform, the frequency for the source will be changed, and the user informed of that change with this message.

-221 Settings conflict; $N_{first1} - N_{last1} \leq 6$

GAP1 is a single frame method gap that is greater than 7 slots long. DTX slots per frame should be less than 8.

-221 Settings conflict; $N_{first1} \geq 8$ or $N_{last1} \leq 6$ or When TGD is not set to Undefined or 0, $N_{first_1} + TGD \geq 30$

GAP1 is a double frame method gap; the DTX slots per frame is > 7 . DTX slots per frame should be less than 8.

-221 Settings conflict; $N_{first2} - N_{last2} \leq 6$

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GAP2 is a single frame method gap that is greater than 7 slots long. DTX slots per frame should be less than 8.

-221 Settings conflict; Nfirst2 >= 8 or Nlast2 <= 6

GAP2 is a double frame method gap; the DTX slots per frame is > 7. DTX slots per frame should be less than 8.

-221 Settings conflict; The number of Preambles exceeds that allowed at the current Max Power setting. The number of Preambles has been set to {value}.

The number of preamble steps cannot be greater than what is allowed by the difference between the initial and max power settings. The following equation is used to calculate the max number of preamble steps: # of preamble steps = ((maxPower-initPower)/rampStepSize)+1

-221 Settings conflict; Number of time slots cannot be 3.

Number of time slots in a 1xEV-DV channel can be 1, 2 or 4.

-221 Settings conflict; Only and first DPCH must be on (DPCH1) when activating Compressed Mode.

Currently, only Single and first DPCH are supported in Downlink compressed mode.

-221 Settings conflict; Only ONE user file can be selected for all traffic channels. {name} is now using: {name} file.

All traffic channels (F-FCH, F-SCH) can use a user file as a data source, but they must all use the same user file. The <CHANNEL

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NAME> data has been changed to <FILE NAME> file.

-221 Settings conflict; Only PN9 and PN15 can be selected when slot format is 16.

Only PN9 and PN15 can be selected when slot format is 16.

-221 Settings conflict; Only ramp sweeps can alternate.

Only ramp sweeps can alternate; list, step sweeps, and CW states cannot.

-221 Settings conflict; Optimize Harmonics cannot be on at the same time as modulation, atten hold or any other power optimization mode. Optimize Harmonics has been turned off.

Analog modulation and Optimize Harmonics mode cannot be used at the same time. This error is reported when the user attempts to activate analog modulation while Optimize Harmonics mode is enabled. The analog modulation mode that was requested will be turned on and Optimize Harmonics mode will be turned off.

-221 Settings conflict; Optimize S/N cannot be on at the same time as modulation, atten hold or any other power optimization mode. Optimize S/N has been turned off.

The analog modulation and Optimize S/N cannot be used at the same time. This error is reported when the user attempts to activate analog modulation while Optimize S/N activated. The analog modulation mode that was requested will be turned on and Optimize S/N will be turned off.

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-221 Settings conflict; Option 403 is required to be able to turn Noise on.

Option 403 (AWGN) is required to enable the AWGN portion of option 401 (Realtime cdma2000) or option 414 (Realtime 1xEV-DV).

-221 Settings conflict; OutOfSyncTest should be off when any antenna is selected as Transmit Diversity or Compressed Mode is on.

Compressed Mode should be off when any antenna is selected as Transmit Diversity or OutOfSyncTest is on.

-221 Settings conflict; Output impairments are not allowed when DSIM output (option 003) is in operation.

Output impairments are not allowed when DSIM output (option 003) is in operation. The following SCPI commands will be set as described below and the user will not be able to alter them while DSIM output is on.

```
[ :SOURce ]:DM:EXTernal:OUTPut:POLarity NORMal
```

```
[ :SOURce ]:DM:IQADjustment[:STATe] OFF
```

```
[ :SOURce ]:DM:INTernal:EQualization:FILTer:STATe OFF
```

```
[ :SOURce ]:DM:INTernal:CHANnel:OPTimization EVM
```

```
[ :SOURce ]:DM:INTernal:CHANnel:CORREction[:STATe] OFF
```

-221 Settings conflict; The output rate of the baseband has limited {name}.

When the Digital Module is operating in a setup that requires the baseband to output at a rate different from the output DAC, then some parameters (specified with the first {name}) must be limited.

-221 Settings conflict; Pattern repeat is changed to continuous because

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data source is external.

Single is not a valid repeat setting for an external data source.

-221 Settings conflict; Power meter leveling is not supported with the frequency extender. Leveling mode set to internal.

Power meter leveling is not supported with the frequency extender.
Leveling mode set to internal.

-221 Settings conflict; Power Meter Servo cannot be used with marker amplitude. Marker amplitude has been turned off.

Power Meter Servo cannot be used with marker amplitude.

-221 Settings conflict; Power Meter Servo cannot be used with marker amplitude. Power Meter Servo has been turned off.

Power Meter Servo cannot be used with marker amplitude.

-221 Settings conflict; Power Meter Servo cannot be used with pulse modulation. Power Meter Servo has been turned off.

Power Meter Servo cannot be used with pulse modulation.

-221 Settings conflict; Power Meter Servo cannot be used with pulse modulation. Pulse modulation has been turned off.

Power Meter Servo cannot be used with pulse modulation.

-221 Settings conflict; Power Meter Servo mode could not be enabled. Check Power Meter. Leveling set to internal.

The Power Meter Servo mode could not be enabled. ALC Leveling Mode set to internal. Please check the Power Meter.

-221 Settings conflict; The power search reference is not valid with the selected I/Q source. The power search reference has been adjusted accordingly.

The power search reference types are only valid when I/Q is on. If the I/Q source is external, the rms power search reference is not available.

-221 Settings conflict; Pre-FIR samples are not allowed when DSIM is outputting AWGN or Phase Noise modulation modes. Pre-FIR samples are also not allowed with constant envelope modulation in Real-Time Custom.

Pre-FIR samples are not allowed when DSIM output (option 003) is in operation and the modulation mode that it is outputting doesn't support pre-FIR samples. Pre-FIR samples are also not allowed with constant envelope modulation in Real-Time Custom.

-221 Settings conflict; Pulse Modulation is not compatible with Marker Beacon Pulsed mode. Pulse Modulation has been turned off.

The Marker Beacon Pulsed mode adjusts the pulse modulator; therefore, Pulse Modulation and Marker Beacon Pulsed mode ON are not compatible.

-221 Settings conflict; Pulse period set less than pulse width value. Pulse width changed to match period value.

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A pulse period has been entered that is smaller than the pulse width. The instrument automatically adjusts the pulse period to match the pulse width.

-221 Settings conflict; Pulse period was set too low for the current pulse sync width value. Pulse sync width changed to match period value.

-221 Settings conflict; The puncture rate is > 60 on {name} channel {value}, increase the {name} Slot Format or edit the {name} fields to reduce the puncture percent.

The puncture rate of each TrCH should be smaller than 60%, which is displayed on UI screen as "Max Puncture" value. Max Puncture is calculated as $(1 - \text{Puncturing Limit}) * 100$. Puncturing Limit is defined at 3GPP STD TS 125 331. To avoid the error, increase the symbol rate of physical channel, decrease the number of bits of the TrCH, or align the rate matching attribute of each TrCHs.

-221 Settings conflict; The puncture rate is \geq {value} percent on DCH Ch {value}, increase the DPCH Slot Format or edit DCH fields to reduce the puncture rate. All DPCH channels were turned off.

Transport channels cannot be punctured more than X%. The slot format needs to be increased (which in turn increases the symbol rate) on the underlying DPCH channel, or the transport channel parameters must be changed to reduce the puncture percentage. The underlying DPCH channel has been turned off.

-221 Settings conflict; QPCH and FFCH/OCNS cannot be on at the same time. FFCH/OCNS has been turned off.

QPCH is generated using both channel 3 and 4. Channel 4 is now used

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to generate QPCH. Channel 3 can no longer generate FFCH/OCNS.
Therefore, FFCH/OCNS must be turned off.

-221 Settings conflict; RACH is only defined for Radio Configuration 1 and 2. You must set one of these Radio Configurations before configuring or using this code channel.

An attempt was made to setup the R-ACH while in a radio configuration that does not support this channel. This channel is only available in RC1 and RC2. If the R-ACH is the desired channel, you must change to the proper radio configuration before continuing.

-221 Settings conflict; Ramp Sweep and FM/PM cannot be on at the same time.

The modulation type FM and Ramp Sweep Mode cannot be used at the same time. This error is reported when the user attempts to activate fm modulation while the sweep is activated. The mode that was most recently requested will be turned on and the mode that was on at the time will be turned off.

-221 Settings conflict; Ramp Sweep cannot be on during DCFM/DCPM Cal.

A DCFM/DCPM Cal cannot be done in Ramp Sweep Mode. This error is reported when the user attempts to perform a DCFM/DCPM calibration while sweeping.

-221 Settings conflict; Ramping step should be 0 when Number of Preamble is Infinity.

When the repetition number of PRACH Preambles is set to "Infinity",

the ramping step power of Preambles must be "0" dB. This is equivalent to constant Preamble power configuration.

- 221 Settings conflict; RCCCH is only defined for Radio Configuration 3 and 4. You must set one of these Radio Configurations before configuring or using this code channel.

An attempt was made to setup the R-CCCH while in a radio configuration that does not support this channel. This channel is only available in RC3 and RC4. If the R-CCCH is the desired channel, you must change to the proper radio configuration before continuing.

- 221 Settings conflict; RDCCH is only defined for Radio Configuration 3 and 4. You must set one of these Radio Configurations before configuring or using this code channel.

An attempt was made to setup the R-DCCH while in a radio configuration that does not support this channel. This channel is only available in RC3 and RC4. If the R-DCCH is the desired channel, you must change to the proper radio configuration before continuing.

- 221 Settings conflict; REACH is only defined for Radio Configuration 3 and 4. You must set one of these Radio Configurations before configuring or using this code channel.

An attempt was made to setup the R-EACH while in a radio configuration that does not support this channel. This channel is only available in RC3 and RC4. If the R-EACH is the desired channel, you must change to the proper radio configuration before continuing.

-221 Settings conflict; Real-time application {name} does not support Multiplexed operating mode for the AUX port: the mode has been changed to Dedicated.

The real-time application does not support Multiplexed operating mode for the AUX port.

-221 Settings conflict; Real-Time AWGN in ARB formats cannot be used when the RMS value of the waveform is unknown. Please see any previous error message for why the RMS could not be calculated. The noise has been turned off.

Real-Time AWGN in ARB formats cannot be used when the RMS value of the waveform is unknown. Please see any previous error message for why the RMS could not be calculated. The noise has been turned off.

-221 Settings conflict; Real-Time mode {name} has turned on unexpectedly.

The Real-time data transform mode has turned on unexpectedly.

-221 Settings conflict; Real-Time {name} mode could not be turned on because there is no format currently on. Please turn on a format before turning on {name}.

When turning on a Real-Time data transform mode, a check is made to see if a format is currently on. This error is generated when no format is found.

-221 Settings conflict; Real-Time {name} mode was forced off because the current format is not supported.

Real-Time data transform mode had to be turned off as the current format is not supported with it.

-221 Settings conflict; Real-Time {name} mode was forced off because there are no longer any formats turned on.

All formats were turned off, so the Real-Time data transform mode was turned off as well.

-221 Settings conflict; Reference marker not set for marker delta measurements

No reference marker was set in the analog sweep marker table editor. A reference marker must be set before marker delta measurements can be performed.

-221 Settings conflict; Reference marker not set for marker delta measurements.

Reference marker not set for marker delta measurements.

-221 Settings conflict; The requested operation is not allowed in a two box {name} setup.

Certain operations, such as setting to equal powers, are not allowed in a two-ESG setup. A two-ESG setup exists when either Voltage Other ESG or Percent Power Other ESG are greater than 0.0.

-221 Settings conflict; Resynchronizing to an external data clock can only be executed when Real-Time Custom mode is on and the BBG data clock is set to External.

This feature attempts to re-synchronize the system to an external data clock. This is necessary if the instrument has lost the clock and reported an arming timeout. There is no automatic re-synchronization. The feature is only available when Real-Time Custom is on and the BBG data clock is set to External.

-221 Settings conflict; RPICH is only defined for Radio Configuration 3 and 4. You must set one of these Radio Configurations before configuring or using this code channel.

An attempt was made to setup the R-PICH while in a radio configuration that does not support this channel. This channel is only available in RC3 and RC4. If the R-PICH is the desired channel, you must change to the proper radio configuration before continuing.

-221 Settings conflict; RSCH is only defined for Radio Configuration 1 and 2. You must set one of these Radio Configurations before configuring or using this code channel.

The command attempted to enter a value or setting for the R-SCH in RC1 or RC2. If this is the correct R-SCH, change to the desired radio configuration and resend the command. If not, select the command for the desired R-SCH. Use the following list to determine the correct R-SCH command to use: R-SCH: Used in RC1 and RC2
R-SCH1: Used in RC3 and RC4 for Channel 4
R-SCH2: Used in RC3 and RC4 for Channel 2

-221 Settings conflict; RSCH with Turbo coding is only available in Radio Configurations 3 and 4. You must set one of these Radio Configurations to proceed

Turbo coding is only allowed in R-SCH in RC3 and RC4. If turbo coding is needed, change to the appropriate radio configuration, set up the proper channels in addition to the R-SCH and turn on turbo coding.

-221 Settings conflict; RSCH1 is only defined for Radio Configuration 3 and 4. You must set one of these Radio Configurations before configuring or using this code channel.

The command attempted to enter a value or setting for the R-SCH1 in RC3 or RC4. If this is the correct R-SCH, change to the desired radio configuration and resend the command. If not, select the command for the desired R-SCH. Use the following list to determine the correct R-SCH command to use: R-SCH: Used in RC1 and RC2
R-SCH1: Used in RC3 and RC4 for Channel 4
R-SCH2: Used in RC3 and RC4 for Channel 2

-221 Settings conflict; RSCH2 is only defined for Radio Configuration 3 and 4. You must set one of these Radio Configurations before configuring or using this code channel.

*** No documentation ***

-221 Settings conflict; The sample clock rate must be less than or equal to {value}MHz for the Arb Modulation Filter feature to be on. The sample clock rate was reduced.

{value} is the maximum sample clock rate to for the Arb Modulation Filter feature.

-221 Settings conflict; Selected digital modulation cannot be on with pulse

modulation.

There is a hardware conflict between the selected digital modulation and pulse modulation. The most recently requested modulation will be turned on. The previous modulation will be turned off.

-221 Settings conflict; The selected Eb Ref channel which 3GPP Uplink AWGN refers to must be on.

The physical channel to which the AWGN Eb Ref refers is off. Turn the channel on.

-221 Settings conflict; Sequence list not specified

A list sweep was attempted but there was no list specified.

-221 Settings conflict; SINGle trigger type is not allowed if data type is not PN or EXT. Trigger type has been set to CONTinuous.

SINGle trigger type does not work with PRAM data types (not PN or EXT).

-221 Settings conflict; Skew cannot be enabled until the skew adjustment has been completed.

Skew cannot be enabled until the skew adjustment has been completed.

-221 Settings conflict; Skew cannot be enabled when filters are active that exceed a length of 32 symbols.

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Skew cannot be enabled when filters are active that exceed a length of 32 symbols.

-221 Settings conflict; Skew is not compatible with the existing modulation type. Skew has been disabled.

Skew is not compatible with the existing modulation type. Skew has been disabled.

-221 Settings conflict; Skew limits depend on the rate of the active format. The skew has been limited to the current upper or lower bound as appropriate.

Skew limits depend on the rate of the active format. The skew has been limited to the current upper or lower bound as appropriate.

-221 Settings conflict; Slot Format #1 does not allow CM by Puncturing.

Slot Format #1 does not allow CM by Puncturing.

-221 Settings conflict; Slot Format #16 does not allow CM by SF/2.

Slot Format #16 does not allow CM by SF/2.

-221 Settings conflict; Standard function generation is limited to sine, triangle, square and ramp shapes.

Please purchase option 303 (LF Multifunction generator) to enable multiple function generators, swept and noise generators as well and additional shapes such as pulse.

-221 Settings conflict; The Start Frequency(f1) must always be less than or

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equal to the Stop Frequency(f2). The Start Frequency was set equal to the Stop Frequency.

-221 Settings conflict; The Start Frequency(f1) must always be less than or equal to the Stop Frequency(f2). The Stop Frequency was set equal to the Start Frequency.

-221 Settings conflict; The state of AWGN's Ec Reference has been turned off. Ec/No information is no longer valid. Please choose a valid EcRef channel type.

EcRef must be selected as a channel in the 'on' state. Therefore since the state of the channel is now 'off', Ec/No values displayed will be invalid.

-221 Settings conflict; Sum of FM1/PM1 and FM2/PM2 deviation cannot exceed maximum value.

The sum of FM1/PM1 and FM2/PM2 deviation must always be less than or equal to the maximum deviation value.

-221 Settings conflict; TCH/FS Conflicts with another multiframe type.

*** No documentation ***

-221 Settings conflict; TGD parameter is not set to Undefined or 0. $TGPL1 * 15 \geq TGSN + TGL2 + TGD$ TGD parameter is set to Undefined or 0. $TGPL1 * 15 \geq TGSN + TGL1$

TGPL1 is the duration of transmission gap pattern 1. The gap pattern consists of TGSN, TGD, TGL1 and TGL2. The gap pattern can't

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be generated if the TGPL1 value is too short. TGPL1 should meet the condition as below; TGD parameter is not set to Undefined or 0.
 $TGPL1 * 15 \geq TGSN + TGL2 + TGD$ TGD parameter is set to Undefined or 0.
 $TGPL1 * 15 \geq TGSN + TGL1$

-221 Settings conflict; TGD parameter is not set to Undefined or 0. $TGPL2 * 15 \geq TGSN + TGL2 + TGD$ TGD parameter is set to Undefined or 0. $TGPL2 * 15 \geq TGSN + TGL1$

TGPL2 is the duration of transmission gap pattern 2. The gap pattern consists of TGSN, TGD, TGL1 and TGL2. The gap pattern can't be generated if the TGPL2 value is too short. TGPL2 should meet the condition as below; TGD parameter is not set to Undefined or 0.
 $TGPL2 * 15 \geq TGSN + TGL2 + TGD$ TGD parameter is set to Undefined or 0.
 $TGPL2 * 15 \geq TGSN + TGL1$

-221 Settings conflict; the Transport Position must be FIXED when compressed mode is on.

The Transport Position must be FIXED when compressed mode is on.

-221 Settings conflict; Transmit Diversity should be NONE when Compressed Mode is on or OutOfSyncTest is on.

Transmit Diversity should be NONE when Compressed Mode is on or OutOfSyncTest is on.

-221 Settings conflict; The TrCH must be selected in Data on DPDCH or Msg Data physical channel setup.

The TrCH isn't selected in DPDCH(Msg Data) physical channel setup in spite of 3GPP Uplink AWGN E bRef(E ref) refers to DCH(RACH). Set

TrCH as the data type.

-221 Settings conflict; Trig BNC cannot be routed to Sweep or Point Trigger while having any internal signals routed to it.

When Trig1 or Trig2 BNC is routed to the Sweep or Point Trigger no other internal signals can be routed to Trig1 or Trig2. You must first remove the routing to the Sweep or Point Trigger before routing internal signals to Trig1 or Trig2 BNCs.

-221 Settings conflict; Trigger Source setting now conflicts with Dynamic Switching. Segment Order has been changed to LINEAR to accommodate request.

Trigger Source setting now conflicts with Dynamic Switching. Segment Order has been changed to LINEAR to accommodate request.

-221 Settings conflict; Turbo Coding is not available in the current configuration. Please review your manual for valid configurations.

Turbo Coding is not available in the current configuration. Please review your manual for valid configurations.

-221 Settings conflict; Turn on channel #{value} caused the puncture rate to exceed the maximum specified rate for at least one transport channel. Transport channel #{value} has been turned off.

The puncture rate of each TrCH should be smaller than 60%, which is displayed on UI screen as "Max Puncture" value. Max Puncture is calculated as $(1 - \text{Puncturing Limit}) * 100$. Puncturing Limit is defined at 3GPP STD TS 125 331. In this case, data bits number

before rate matching is increased because of TrCH addition, and symbol rate of physical channel is not changed. So puncture rate is increased. To avoid the error, increase the symbol rate of physical channel or decrease the number of bits of TrCHs.

-221 Settings conflict; Unsupported configuration for Pilot Gating. Pilot Gating can only be used for the Pilot alone or in conjunction with REACH or RCCCH.

Changing the R-PICH gating from full is only allowed in three channel structures: R-PICH, R-PICH with the R-CCCH or R-PICH with the R-EACH.

-221 Settings conflict; User channel correction is not available when the frequency extender is on.

This error is reported when attempting to use the I/Q user channel correction feature when the frequency extender is on. The frequency extender must be turned off before I/Q user channel correction can be used.

-221 Settings conflict; User flatness calibration is not available while a measurement is currently running

User flatness calibration is not available while a measurement is currently running

-221 Settings conflict; User FSK file has deviations which are incompatible with the current symbol rate. The modulation type has been defaulted.

A frequency in the selected user FSK file exceeds the maximum possible deviation for the current symbol rate. The default

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modulation type for the mode has been selected to resolve the conflict.

-221 Settings conflict; User FSK file has deviations which are not possible with the options present. The modulation type has been defaulted.

A frequency in the selected user FSK file exceeds the maximum possible deviation for the currently installed options. The default modulation type for the mode has been selected to resolve the conflict.

-221 Settings conflict; Walsh conflict between: {name} and {name}

There is a Walsh collision between two channels specified. Either one Walsh code is equal to the other, or it falls under the other Walsh's tree. A Walsh collision results in an invalid signal. Select a different Walsh code according to Walsh selection rule.

-221 Settings conflict; Walsh length invalid! Changed to default Walsh number

The current Walsh length is invalid for the current data rate. For data rate 2X and above, doubling the rate will half the walsh space. The channel Walsh number has been changed to the highest valid Walsh code.

-221 Settings conflict; Waveforms are not allowed in STEP sweep mode. This setting was turned off.

-221 Settings conflict; WB AM cannot be turned on in the lowest frequency band or with DSIM output. WB AM has been turned off.

The lowest frequency band (9 kHz up to 5 MHz) does not have WB AM.

- 221 Settings conflict; When the clock rate setting is below 10 MHz or above 200 MHz, only phase settings of 0 and 180 degrees are valid. The phase was changed to a valid setting.

When the frequency is changed to below 10 MHz or above 200 MHz and the phase is set at 90 or 270 degrees, the phase value is reduced by 90 degrees. Only 0 and 180 degrees are valid in the frequency ranges below 10 MHz and above 200 MHz.

- 221 Settings conflict; When the noise carrier bit rate or carrier bandwidth are adjusted, the valid range of the Eb/No changes. The Eb/No has been limited to the new valid range.

- 221 Settings conflict; You may not set Forward Link values while in Reverse Link. Reset Link Direction to proceed.

Values or settings for forward link were entered while in reverse link. If forward link is the desired link direction, set the ESG to forward link first, and then re-enter the values or settings. However, if reverse link is the correct link direction, consult the SCPI or key references for the correct values or settings to enter.

- 221 Settings conflict; You may not set Reverse Link values while in Forward Link. Reset Link Direction to proceed.

Values or settings for reverse link were entered while in forward link. If reverse link is the desired link direction, set the ESG to reverse link first, and then re-enter the values or settings. However, if forward link is the correct link direction, consult the SCPI or key references for the correct values or settings to enter.

-221 Settings conflict; You may only set up channels that are part of your current radio configuration.

An attempt was made to enter a value or setting for a channel that is not supported in the current radio configuration. The R-FCH and R-SCH are supported in all the radio configurations for reverse link. However, the values or settings allowed for these channels vary according to the radio configuration used. Refer to the Option 201 User's and Programming Guide to determine the supported channels by radio configuration.

-221 Settings conflict; Zeroing of the connected power sensor is not available while a measurement is currently running

Zeroing of the connected power sensor is not available while a measurement is currently running.

-221 Settings conflict; {name} clipped to upper limit due to Real-Time {name} {name}.

An input value is above the maximum value allowed when a Real-Time data transform mode is on. In some cases the maximum value is affected by other item setting due to coupling.

-221 Settings conflict; The {name} packet#{value} subpacket#{value} should not be overlapped by another subpacket. Check the slot position.

-221 Settings conflict; The {name} setting conflicted with the existing {name} setting. The {name} setting has been adjusted.

The pulse specification conflicted with existing settings. To allow

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the new pulse specification to function the existing settings are modified.

-220 Parameter error

A program data element related error has occurred. This particular error message is used if the device cannot detect a more specific error described for errors -221 through -229.

-220 Parameter error; Channel Code exceeds spread factor.

The specified channelization code is too large. The channelization code should always be at least one less than the spread factor.

-220 Parameter error; Data rate is not valid

The data rate is not contained in the defined data rate table.

-220 Parameter error; Real-time application has supplied a parameter ({name}) that is not supported for its type.

Real-time application has supplied a parameter that is not supported for its type.

-220 Parameter error; Real-time application {name} has not supplied parameter settings for {name}: default values are being used.

Real-time applications need to supply all parameter settings before they can be turned on.

-220 Parameter error; Real-time application {name} is not allowed to send legacy parameter settings for {name} when the instrument is not in

backwards compatibility mode.

Real-time applications should not be sending legacy parameter settings when the instrument is not in backwards compatibility mode.

-220 Parameter error; Spread factor exceeds maximum allowable spread factor

The spread factor exceeds the maximum allowable spread factor. The maximum allowable spread factor is currently 256.

-220 Parameter error; Spread factor not valid

The spread factor should be a power of 2 that is between 4 and 256.

-220 Parameter error; {name} The modulation type has been defaulted.

The specified file is not a modulation file type so the modulation type has been defaulted.

-215 Arm deadlock

The arm source for the initiation of a measurement is set to GET and a subsequent measurement query is received. The measurement cannot begin until a GET is received, but the GET would cause an INTERRUPTED error.

-214 Trigger deadlock

A trigger source for the initiation of a measurement is set to GET and a subsequent measurement query is received. The measurement cannot begin until a GET is received, but the GET would cause an

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INTERRUPTED error.

-213 Init ignored

A request for a measurement initiation was ignored as another measurement was already in progress.

-213 Init ignored; Sweep is already initiated.

The list/sweep is currently initiated and sweeping, therefore the command is not legal according to SCPI.

-212 Arm ignored

An arming signal was received and recognized by the device but was ignored.

-211 Trigger ignored

A GET, *TRG, or triggering signal was received and recognized by the device, but was ignored because of device timing considerations. For example, the device was not ready to respond.

-210 Trigger error

A GET,*TRG, or a triggering signal could not be executed due to an error.

-202 Settings lost due to rtl

A setting associated with a hard local control (see

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IEEE 488.2, 5.6.15) was lost when the device changed to LOCS from REMS or to LWLS from RWLS.

-201 Invalid while in local

A command is not executable while the device is in local mode due to a hard local control (see IEEE 488.2, 5.6.1.5). For example, a device with a rotary switch receives a message which would change the switch's state, but the device is in local so the message cannot be executed.

-200 Execution Error

For devices that cannot detect more specific errors, this code indicates only that an execution error as defined in IEEE 488.2, 11.5.1.1.5 has occurred.

-200 Execution error; cannot transmit paging message to Baseband generator.

There is an error with the CDMA2000 or 1xEV-DV hardware. Try turning CDMA2000 or 1xEV-DV mode off and on again to reset the baseband generator card. If the problem persists, report this error to service office.

-200 Execution error; cannot write user file to Baseband generator.

There is a hardware error associated with the current CDMA format (cdma2000, WCDMA or 1xEV-DV). Try turning the current CDMA format mode off and on again to reset the baseband generator card. If the problem persists, report this error to service office.

-200 Execution error; OPC Query Timeout Error: output signal is unsettled.

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*OPC? timed out waiting for the signal to settle. This could be caused by an unlocked or unlevelled condition.

OPC query timeout occurred due to the signal being persistently unsettled. This happens when the instrument is unlocked or unlevelled and *OPC? is executed. Since this query shall not return 0 ("not ready"; according to IEEE 488.2) the system will report an execution error. If the unlevelled or unlocked conditions are not present, the error may suggest a hardware problem.

-184 Macro parameter error

A command inside the macro definition had the wrong number or type of parameters.

-183 Invalid inside macro definition

The program message unit sequence, sent with a *DDT or a *DMC command, is syntactically invalid (see IEEE 488.2, 10.7.6.3).

-181 Invalid outside macro definition

A macro parameter placeholder (\$<number>) was encountered outside of a macro definition.

-180 Macro error

An error was encountered when defining a macro or executing a macro. Specific details are not available.

-178 Expression data not allowed

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A legal expression data was encountered, but was not allowed by the device at this point in parsing.

-171 Invalid expression

The expression data element was invalid (see IEEE 488.2, 7.7.7.2). For example, unmatched parentheses or an illegal character.

-170 Expression data error

An error was encountered when parsing an expression data element. Specific details are not available.

-168 Block data not allowed

A legal block data element was encountered, but not allowed by the device at this point in the parsing.

-161 Invalid block data

A block data element was expected, but was invalid (see IEEE 488.2, 7.7.6.2). For example, an END message was received before the end length was satisfied.

-160 Block data error

An error was encountered when parsing a block data element. Specific details are not available.

-158 String data not allowed

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A string data element was encountered, but not allowed by the device at this point in the parsing.

-151 Invalid string data

A string data element was expected, but was invalid (see IEEE 488.2, 7.7.5.2). For example, an END message was received before the terminal quote character.

-151 Invalid string data; Filename too long.

The specified filename exceeds the maximum length.

-151 Invalid string data; Header Description String is too long and was clipped to 32 characters.

This error occurs when trying to open a header file, the file does not match any known header format or does not exist. {name} is the filename being accessed.

-151 Invalid string data; State file comment was too long. The comment was truncated to {value} characters.

{value} is the maximum count of characters in the comment string.

-150 String data error

An error was encountered when parsing a string data element. Specific details are not available.

-148 Character data not allowed

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A legal character data element was encountered where prohibited by the device.

-144 Character data too long

The character data element contains more than twelve characters (see IEEE 488.2, 7.7.1.4).

-141 Invalid character data

Either the character data element contains an invalid character or the particular element received is not valid for the header.

-140 Character data error

An error was encountered when parsing a character data element. Specific details are not available.

-138 Suffix not allowed

A suffix was encountered after a numeric element that does not allow suffixes.

-134 Suffix too long

The suffix contained more than twelve characters (see IEEE 488.2, 7.7.3.4).

-131 Invalid suffix

The suffix does not follow the syntax described in IEEE 488.2,

7.7.3.2, or the suffix is inappropriate for this device.

-130 Suffix error

An error was encountered when parsing a suffix.
Specific details are not available.

-128 Numeric data not allowed

A legal numeric data element was received, but the device does not accept one in this position for the header.

-124 Too many digits

The mantissa of a decimal-numeric data element contained more than 255 digits excluding leading zeros (see IEEE 488.2, 7.7.2.4.1).

-123 Exponent too large

The magnitude of an exponent was greater than 32000 (see IEEE 488.2, 7.7.2.4.1).

-121 Invalid character in number

An invalid character for the data type being parsed was encountered. For example, an alpha in a decimal numeric or a '9' in octal data.

-120 Numeric data error

An error was encountered when parsing a data element that appears

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to be numeric including non-decimal numeric types.
Specific details are not available.

-114 Header suffix out of range

The value of a header suffix attached to a program mnemonic makes the header invalid.

-113 Undefined header

The header is syntactically correct, but it is undefined for this specific device. For example, *XYZ is not defined for any device.

-112 Program mnemonic too long

The header contains more than twelve characters (see IEEE 488.2, 7.6.1.4.1).

-111 Header separator error

A character that is not a legal header separator was encountered while parsing the header.

-110 Command header error

An error was detected in the header. This message is used when the device cannot detect the more specific errors described for errors -111 through -119.

-109 Missing parameter

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Fewer parameters were received than required for the header.
For example, the *ESE common command requires one parameter, so receiving *ESE is not allowed.

-108 Parameter not allowed

More parameters were received than expected for the header. For example, the *ESE common command only accepts one parameter, so receiving *ESE 0,1 is not allowed.

-105 GET not allowed

A Group Execute Trigger was received within a program message (see IEEE 488.2, 7.7). Correct the GPIB controller program so that the GET does not occur within a line of GPIB program code.

-104 Data type error

The parser recognized a data element that is not allowed.
For example, numeric or string data was expected, but block data was encountered.

-103 Invalid separator

The parser was expecting a separator and encountered an illegal character. For example, the semicolon was omitted after a program message unit.

-102 Syntax error

An unrecognized command or data type was encountered. For example, a string was received when the device does not

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accept strings.

-102 Syntax error; Bad compatibility language character {name}

In 8656/57 compatibility mode, illegal language input was received.
TODO: Parameter is a string containing illegal character.

-102 Syntax error; Bad compatibility language token {name}

In 8656/57 compatibility mode, a known command or termination specifier was received when it was not expected. For example, a termination specifier was received with no currently active function. TODO: Parameter is a string containing illegal token

-101 Invalid character

A syntactic command contains a character that is invalid for that type. For example, a header containing an ampersand, SETUP&. This error might be used in place of error numbers -114, -121, -141 and some others.

-100 Command error

This is a generic syntax error for devices that cannot detect more specific errors. The code indicates only that a command error as defined in IEEE 488.2, 11.5.1.1.4 has occurred.

-100 Command error; AM compatibility command is not available while in mixed modulation mode.

While in 8662 compatibility mode, AM is not available while mixed modulation is active (SP41 or SP42) To control the AM modulation

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first turn off mixed modulation mode (SP40).

-100 Command error; IL: Not a valid learn string.

In 8340 compatibility mode, IL was received via GPIB. The information in the input string is not valid.

-100 Command error; LO: No low bandwidth ALC mode allowed.

In 8656/57 compatibility mode, LO was received via GPIB. This command is not supported by the compatibility mode.

-100 Command error; OA is not supported for the current active function.

In 8340/8757 compatibility mode, the OA query was received but it is not supported for the current active function.

-100 Command error; Query does not contain a valid value.

The data returned by the query does not represent a valid internal value or hardware setting. The query is provided for backward compatibility only. The command associated with this query has been implemented but does not affect the instrument settings.

-100 Command error; Query does not contain the current frequency value.

The frequency data returned by the query does not represent the current hardware setting due to the fixed response format required for backward compatibility.

-100 Command error; R0: No standby mode allowed.

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In 8656/57 compatibility mode, R0 was received via GPIB. This command is not supported by the compatibility mode.

-100 Command error; Remote active function DN/UP not available.

In 8656/57 compatibility mode, either DN or UP was received via GPIB. These commands are not supported by the compatibility mode.

-100 Command error; Remote active function IS not available.

The instrument only supports the Increment Set (IS) command for Frequency (FR) and Amplitude (AP) in compatibility mode. All other uses of IS are invalid.

-100 Command error; Unable to set new amplitude with UP/DN command.

The instrument is unable to obtain the necessary information to calculate the new amplitude in compatibility mode with the UP/DN command.

-100 Command error; Unable to set new frequency with UP/DN command.

The instrument is unable to obtain the necessary information to calculate the new frequency in compatibility mode with the UP/DN command.

208 I/O error; Could not access BBG{value}'s PRAM file {name}. The personality has been turned off.

Deleting AUTOGEN_PRAM files while they are in use can lead to this error. Turning the personality back on should fix this. If not, report this error to the nearest sales and service office.

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208 I/O error; Unable to read bit file.

There is an error reading the specified bit file. Try selecting the file again.

208 I/O error; The user file is too large.

The user file selected is too large. Try selecting a smaller file. DCH files must be less than or equal to 4096 bytes. TPC pattern files must be less than or equal to 256 bytes.

208 I/O error; {name}

Invalid file or device name.

209 Invalid argument; {name}

A file system operation failed because an invalid parameter was specified for the operation. Report this error to service office.

211 Not owner; {name}

Permission has been denied to perform an operation on the specified file.

219 Bad file number; {name}

Invalid file or device name.

220 Arg out of domain of func; {name}

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An operation failed within the specified file because of an invalid argument.

221 Access denied; Cannot modify file in use: {name}

A file cannot be deleted, renamed, or overwritten while it is in use. For example, any segment of a sequence that is currently selected in the ARB personality cannot be deleted or renamed while the ARB personality is on.

221 Access denied; Cannot read {name}. You do not have the required permissions.

You cannot read proprietary files in the volatile and non-volatile waveform directories.

221 Access denied; Header fields not adjusted: {name}

Some header fields can be adjusted after they have been set and others cannot. The fields that were not adjusted are listed.

222 Access denied; {name}

The file's permission setting does not allow the specified access. This error signifies that an attempt was made to access a file (or, in some cases, a directory) in a way that is incompatible with the file's attributes. Note that the most typical case of this error is attempting to modify a portion (typically the header) of an encrypted file that is located in the non-volatile media.

223 Illegal seek; {name}

Illegal seek in a sequential file.

224 File in use; The file, {name}, is currently in use. It must be deselected before it can be manipulated.

The file, (file), is currently in use. It must be deselected before it can be manipulated. If all else fails, factory preset should deselect all files.

225 Hardware Warranty Warning; {name}

Excessive hardware usage has been detected. Repeated use of the instrument hardware in the detected manner can cause damage to the instrument.

226 Media inaccessible; Cannot read or write file {name}. The media is currently not accessible because a feature that uses it is on (for example, Streaming or Arb). To fix this, turn off the feature.

A file cannot be opened, read from or written to if a feature that uses the underlying media is on (for example, Streaming or Arb). Turning off the feature will fix this.

227 Resampling error; IQ marker resampling failed.

There was a problem resampling the I/Q markers file.

227 Resampling error; IQ resampling ratio out of range: {name}.

The I/Q resampling ratio was out of range. It was either negative, zero, or too large.

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227 Resampling error; IQ waveform resampling failed.

There was a problem resampling the I/Q samples in the waveform file.

501 Attenuator hold setting over range; Frequency change forced attenuator adjust.

The firmware has changed the attenuator setting because, while in attenuator hold mode, a change in frequency setting has forced the ALC beyond its range.

501 Attenuator hold setting over range; Power set to lower limit.

The firmware has changed the power setting to a value other than the requested value due to the fact that, while in attenuator hold mode, the user has requested a power setting that is below the ALC range for the attenuator setting. The power has been set to the lower limit.

501 Attenuator hold setting over range; Power set to upper limit.

The firmware has changed the power setting to a value other than the requested value due to the fact that, while in attenuator hold mode, the user has requested a power setting that is above the ALC range for the attenuator setting.

508 Synthesizer Unlocked

The synthesizer is unlocked. Service may be needed.

508 Synthesizer Unlocked; FracN Loop.

The synthesizer is unlocked. Service may be needed.

508 Synthesizer Unlocked; Offset Loop (over).

The synthesizer is unlocked. Service may be needed.

508 Synthesizer Unlocked; Offset Loop (under).

The synthesizer is unlocked. Service may be needed.

508 Synthesizer Unlocked; Sum Loop (over).

The synthesizer is unlocked. Service may be needed.

508 Synthesizer Unlocked; Sum Loop (under).

The synthesizer is unlocked. Service may be needed.

512 Reference unlocked; There is a problem with the external reference settings or connections. If reference is internal check Ref Oscillator Tune.

The instrument's reference is unlocked. If an external reference is connected, check its frequency and power and its physical connection. Also make sure that the external reference frequency specified in the instrument setup is correct. If this error occurs when an external reference is not being used, the instrument may require service.

514 Reference Oven cold; The reference oven is not at the required operating temperature. This is normal if the instrument has been

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powered down for a while. If the error persists, the instrument may require service.

515 Reference Missing; Reference board: 10Mhz reference signal bad or missing

The instrument's reference is unlocked. If an external reference is connected, check the frequency and power. It is possible for this to occur during a poor connection/disconnection of an external reference. If this error reoccurs when no external reference is connected, the instrument may require service.

517 Calibration failure; A required calibration array was found uninitialized. {name}

The specified calibration file was found empty or improperly initialized. Report this error to the nearest sales and service office

517 Calibration failure; The adjustment DAC does not have the necessary range to remove the measured error.

517 Calibration failure; Cal aborted by user.

While executing the internal I/Q calibration, either a DCAS was sent over the GPIB, or the Abort key on the front panel was pressed.

517 Calibration failure; Calibration Array {name} interpolation failure. A change in frequency from one calibration point to the next is causing an interpolation failure because the frequency change is greater than 32.767 MHz.

The cal data interpolation algorithm is optimized to speed calculations and requires calibration frequency point intervals of 32.767 MHz or less. Intervals greater than 32.767 MHz generate an interpolation error. Report this error to service office.

517 Calibration failure; Calibration data used as part of an internal calculation yielded incorrect results. The {name} calibration data is invalid.

Calibration data used in an internal calculation yielded invalid calibration terms. The calibration data is incorrect and must be regenerated. Report this error to service office.

517 Calibration failure; The calibration was unable to optimize the adjustment within a pre-defined number of iterations. Report this error to service office.

517 Calibration failure; Cannot interpolate the value {value} with frequency extender calibration data {name} and {name}.

The specified calibration tables have not been properly initialized. Index array values must be sorted in increasing order.

517 Calibration failure; Cannot interpolate the value {value} with index array {name}. Index array vals must be sorted in increasing order.

The specified calibration files have not been properly initialized. Report this error to the nearest sales and service office

517 Calibration failure; Correction of the measured error requires a DAC correction greater than the maximum value of the DAC.

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While executing an internal calibration, a failure occurred. The minimization algorithm cannot provide an accurate calibration. Correction of the measured error requires a DAC correction greater than the maximum value of the DAC.

517 Calibration failure; DCFM DC overrange.

The instrument was unable to perform a DCFM or DCFM calibration due to the input signal being outside of the offset range that can be calibrated for.

517 Calibration failure; Frequency extender data array {name} size is incorrect.

The specified frequency extender calibration file has not been properly initialized.

517 Calibration failure; Frequency extender {name} failed.

An error occurred when attempting to execute a frequency extender calibration operation.

517 Calibration failure; The index and data array sizes do not match.
{name} {name}

The specified calibration files have not been properly initialized.
Report this error to the nearest sales and service office

517 Calibration failure; The instrument setting cannot be used in a recursive manner.

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The instrument setting or command cannot be used recursively.

517 Calibration failure; Internal Channel Correction Calibration failure:
{name}

A failure has occurred while executing the Internal Channel Correction Calibration. The calibration has been aborted.

517 Calibration failure; IQ Calibration failure: {name}

A failure has occurred while executing the internal I/Q Calibration. The calibration has been aborted.

517 Calibration failure; I/Q Mod Skew Calibration failure: {name}

A failure has occurred while executing the I/Q Mod Skew Calibration. The calibration has been aborted.

517 Calibration failure; Measurement not stable.

The measurement is not stable and has resulted in an excessive number of measurement iterations. Report this error to service office.

517 Calibration failure; The minimization algorithm does not have the necessary resolution to provide an accurate calibration value. Report this error to service office.

517 Calibration failure; Minimum DAC value exceeded.

Correction of the measured error requires a DAC correction less than the minimum value of the DAC.

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517 Calibration failure; Power Verify aborted by user.

While executing the Power Verify routine, either a DCAS was sent over the GPIB, or the Abort key on the front panel was pressed.

517 Calibration failure; Power Verify failure: {name}

A failure has occurred while executing the Power Verify routine.
The calibration has been aborted.

517 Calibration failure; The required calibration values could not be read from the file.

517 Calibration failure; The required calibration values could not be written to the file.

517 Calibration failure; The Skew calibration value is outside the expected range. The update to the calibration data has failed.

The supplied skew calibration value is outside the expected adjustment limits. The adjustment limits are 0 to 1000pS. The skew cal value will not be applied.

517 Calibration failure; The specified waveform RMS value({name}) is incorrect. The RMS value must be between 0 and the square root of 2 (1.41421356237...).

The specified waveform RMS value is incorrect. The waveform RMS value is specified in the waveform header file. The RMS value is used to adjust the I/Q modulator gain for optimum performance.

517 Calibration failure; User Channel Correction Calibration failure:
{name}

A failure has occurred while executing the User Channel Correction Calibration. The calibration has been aborted.

518 Calibration must be run; Frequency extender calibration data for I/Q internal channel correction was not found. To fix this, run the frequency extender calibration under Service, I/Q Int Channel Correction Calibrations.

Frequency extender calibration data for I/Q internal channel correction was not found. To fix this, run the frequency extender calibration under Service, I/Q Int Channel Correction Calibrations.

518 Calibration must be run; The Int Channel Correction calibration must be run before the feature can be turned on.

The Int Channel Correction calibration must be run before the feature can be turned on.

518 Calibration must be run; The serial number and/or channel of the frequency extender power calibration does not match the currently selected frequency extender. To fix this, run the extender power alignment or revert the power alignment to factory defaults.

The serial number and/or channel of the frequency extender power calibration does not match the currently selected frequency extender. To fix this, run the extender power alignment or revert the power alignment to factory defaults.

524 Power meter reading invalid; {name}

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The reading from the power meter is invalid.

527 Frequency calibration table empty; User Flatness frequency calibration table empty

There were no frequency calibration points entered in the user flatness list table

528 Reference Changed to External

Reference is switching to external.

529 Reference Changed to Internal

Reference is switching to internal.

530 ALC Detector Heater Failed; The instrument has been on for more than five minutes and the ALC detector heater is not at the required operating temperature. Service might be required. Report this error to service office.

533 RF Analog FPGA DCM unlocked

The RF Analog FPGA DCM unlocked; The clocks may not work correctly.

535 Proper channels not enabled; DPCH channel one is not enabled.

DPCH channel one must be enabled for channel balancing to occur.

535 Proper channels not enabled; No OCNS channels are enabled.

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One or more OCNS channels must be enabled for channel balancing to occur.

600 RPP has tripped.

The reverse power protection circuit has been triggered. Repeated tripping of this circuit can cause damage to the instrument.

601 Power search failed.

While executing power search, the level meter circuit failed to return a meaningful value. This event indicates that the power is in a range that the leveling loop cannot properly level. The power will be set to the last properly leveled power.

606 DSP times out; Front panel processor timed out on communication{name}.

The front panel processor did not respond to communication. Report this error to the nearest sales and service office.

606 DSP times out; {name}

The digital signal processor (DSP) failed to respond within the appropriate amount of time while accessing the specified file. Report this error to service office.

609 DSP communication failed; Front panel processor failed to accept command{name}.

The front panel processor did not respond to communication. Report this error to the nearest sales and service office.

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610 Frequency extender communication failed; Frequency extender timed out on communication. Check the cable being used for the connection. For USB connections, also check the serial number of the currently selected USB device matches the serial number of the frequency extender.

The frequency extender did not respond to communication. Check the frequency extender's connection settings.

617 Configuration Error; Analog modulations subsystem not created.

The hardware control creation process failed due to a configuration file conflict or a hardware configuration error. Report this error to service office.

617 Configuration Error; The backup memory contains license keys for serial number {name}. Use the service procedure to overwrite the backup memory.

The backup storage contains license keys which do match the current instrument serial number. Perform the service procedure to overwrite the backup storage with current license keys to prevent this error in the future.

617 Configuration Error; Baseband generator control could not be created.

The baseband generator control creation process failed due to a configuration file conflict or a hardware configuration error. Report this error to service office.

617 Configuration Error; BBG memory configuration does not match model number: required {value} GB was not found.

The BBG memory configuration for this model number was not detected during the system configuration scan. Report this error to the nearest sales and service office.

617 Configuration Error; Board configuration does not match model number: required board {name} was not found.

A required board was not detected during the system configuration scan. Report this error to the nearest sales and service office.

617 Configuration Error; Calibration data cannot be saved to backup memory because there would be insufficient storage to back up {value} bytes of licensing information.

There is not enough non-volatile storage to backup the calibration arrays and maintain a minimum amount of space for licensing information backup. Report this error to the nearest sales and service office.

617 Configuration Error; Found improperly configured devices.

An improperly configured device was found during the system configuration scan. Report this error to the nearest sales and service office.

617 Configuration Error; The instrument has no frequency range option installed. Use the service procedure to recover instrument licenses from the backup.

A required instrument license is missing. Licenses must be recovered from backup to restore instrument functionality. Perform

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the service procedure to recover license keys from the backup storage to prevent this error in the future.

617 Configuration Error; Instrument licenses have not been copied to backup storage. Use the service procedure to copy license keys to backup storage.

The backup storage does not contain any license keys. This message is expected for all instruments shipped with A.01.04 firmware or earlier. It is also expected when replacing the RF board. Perform the service procedure to write license keys to the backup storage to prevent this error in the future.

617 Configuration Error; Instrument serial number is not set. Instrument must be returned for service.

The instrument serial number is not set in the instrument. Functionality will be extremely limited until it is restored. Report this error to the nearest sales and service office.

617 Configuration Error; IQ modulations subsystem not created.

The hardware control creation process failed due to a configuration file conflict or a hardware configuration error. Report this error to service office.

617 Configuration Error; License backup was attempted but no licenses are installed.

No licenses are installed and backing up empty licenses would overwrite existing backup. Service procedure error.

617 Configuration Error; No freq output - bad configuration.

The frequency control subsystem failed to be created due to a hardware configuration problem. Although the user interface appears normal, the instrument is not functional. Report this error to service office.

617 Configuration Error; No power output - bad configuration.

The power control subsystem failed to be created due to a hardware configuration problem. Although the user interface appears normal, the instrument is not functional. Report this error to service office.

617 Configuration Error; Not enough storage to backup licensing information.

There is not enough non-volatile storage to backup the licensing information in this instrument. Report this error to the nearest sales and service office.

617 Configuration Error; Sweep subsystem not created.

The sweep subsystem creation process failed due to a configuration file conflict or a hardware configuration error. Report this error to service office.

618 RS232 times out; RS232 reset.

If further input is not received within the timeout time while a SCPI command is being processed, the command is aborted and the input buffer is cleared.

619 FPGA revision is invalid; FPGA: {name} (found {code}, expected {code}).

The FPGA revision code does not match the main firmware. Please load the matching version, or contact sales and service for assistance.

619 FPGA revision is invalid; Incompatible BB Arb FPGA version. Baseband subsystem has not been initialized.

The Baseband Arb FPGA code is not compatible with the main firmware. Please load the matching version, or contact sales and service for assistance.

619 FPGA revision is invalid; Unexpected BB Arb FPGA type

The Baseband Arb FPGA type does not match the main firmware. Please load the matching version, or contact sales and service for assistance.

619 FPGA revision is invalid; Unexpected BB Arb FPGA version

The Baseband Arb FPGA code does not match the main firmware. Please load the matching version, or contact sales and service for assistance.

619 FPGA revision is invalid; Unexpected BB Interface FPGA version

The Baseband IF FPGA code does not match the main firmware. Please load the matching version, or contact sales and service for assistance.

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619 FPGA revision is invalid; Unexpected Front Panel PIC Boot Code version

The Front Panel processor boot code does not match the main firmware. Please load the matching version, or contact sales and service for assistance.

619 FPGA revision is invalid; Unexpected Front Panel PIC Code version

The Front Panel processor code does not match the main firmware. Please load the matching version, or contact sales and service for assistance.

620 Clock Rate Error; Data clock too fast. Option UN7

The data clock rate is too high for operation with Option UN7. Reduce the data clock rate and try again.

621 FPGA programming failed; Could not program the BBG FPGA: {name}.

The BBG FPGA programming failed. Try again, or contact service office.

621 FPGA programming failed; {name}

The FPGA programming failed. Try again, or contact service office.

622 Sequence references self; {name}

The specified sequence is not allowed because it contains a reference to itself.

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623 Usb Host functionality failure; {name}

The Usb Host features reported an error, most likely during attaching a device. If the error repeats, contact service office.

624 LXI Error; The specified event ({name}) does not exist.

An error occurred when the user attempted to perform an operation with the specified event name. That event name does not exist.

624 LXI Error; The specified status event name was not recognized.

An error occurred when the user attempted to enable/disable or query the current state of a particular status event being reported to the LXI event log. The specified status event name is unknown.

624 LXI Error; {name}

The LXI subsystem is reporting an error. The exact problem will be described in the error specific text.

625 Firmware download failed; The backup firmware image cannot be written when running the backup image.

To ensure that the instrument is always bootable, the backup firmware image cannot be written while the backup image is running. To fix this error, run the firmware upgrade tool.

625 Firmware download failed; Front panel firmware upgrade failed: {name}

The front panel firmware was not successfully upgraded, and it may be corrupted. {name} is the reason or type of code. Please contact

sales and service for assistance.

627 Licensing Error; A new challenge value must be generated using
'DIAGnostic:INFO:WLIcense:CHALlenge?'

Most waveform license SCPI commands require an authentication code which involves a challenge value. This challenge value must be re-requested for each new command.

627 Licensing Error; An unexpected time setting was detected. Time-based licenses have been adjusted.

The internal clock is at a time which is earlier than the last known setting. Time-based waveform licenses have been adjusted to reflect the difference between the expiration date and the last known time.

627 Licensing Error; Because time-based licenses are present, setting the date/time using SCPI commands is disabled.

627 Licensing Error; Can not modify slot. The requested waveform license slot is either not yet in use or does not have a waveform assigned to it.

User attempted to modify a waveform license slot that is either not yet in use or does not have a waveform assigned to it.

627 Licensing Error; Can not modify slot. The requested waveform license slot is locked and can no longer be modified.

User attempted to modify a waveform license slot that has already been locked.

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627 Licensing Error; Can not rename waveform in slot because the slot is not locked.

User attempted rename the waveform name in an unlocked license slot.

627 Licensing Error; Can't license waveform since there are no waveform license slots free.

User attempted to add a waveform to a waveform license slot and there are no waveform license slots free.

627 Licensing Error; The number of waveform slots in use is greater than the maximum available. There are {value} slots in use but only enough licenses for a total of {value} slots. Waveform slot licensing is disabled until the missing licenses are restored.

More slots are in use than are available given the number of waveform slot licenses in the instrument. This can happen if a user removes a waveform license after filling slots made available by that license. Waveform slot licensing is disabled until the user restores the missing license(s).

627 Licensing Error; The specified authentication code is invalid

Most waveform license SCPI commands require an authentication code. The specified code did not match the expected value.

627 Licensing Error; The specified license ({name}) could not be installed: {name}.

627 Licensing Error; The specified license ({name}) could not be removed because the license was not found.

An error occurred during the removal of a license.

627 Licensing Error; The specified waveform license was not deleted because it does not exist.

The user attempted to delete a non-existent waveform license.

627 Licensing Error; User-provided challenge values cannot be zero.

The authenticated license existence query requires the user to provide a challenge value; this value cannot be zero.

627 Licensing Error; The waveform file already has or does not require a waveform license: {name}

User attempted to add a waveform to a waveform license slot and the waveform already has or does not require a waveform license.

628 Baseband Generator DAC over range; BBG{value}. Reduce the waveform amplitude or reduce the Runtime Scaling. The output signal will be invalid when this error occurs.

Reduce the waveform amplitude or reduce the Runtime Scaling. The Baseband Generator DAC has a range of +/-32767 however not all of this range is available for use. The over range message occurs when the inputs to the D/A converters of the I/Q signals have been overflowed. Some of the range is required for calibration offsets.

Some of the range is required for overshoot in the Baseband Generator filters. Typically, a scaling of 70% of the full range will avoid this error. The widest dynamic range is achieved with the largest signal that does not cause the error message to occur. The output signal will be invalid when this error occurs.

629 File format invalid; Import finished with problems: {name}.

This is reported when an invalid list file is loaded.

629 File format invalid; Incorrect sequence file type. {name}

The ARB sequence file operation failed because the specified file was not a sequence file of the correct type. This can happen when the user tries to list a single waveform sequence file with the multi-waveform sequence SCPI query or vice-versa. {name} is the sequence filename that was specified.

629 File format invalid; Invalid single waveform file selected. Each segment must have at least 60 samples and segments cannot exceed the waveform size. Segment #{value} of sequence {name}.

This error is reported when an invalid single waveform sequence is selected to be played in the ARB system. A valid single waveform sequence must have a minimum of 60 samples per segment and no segment may have an offset plus length that exceeds the waveform's file size. {value} is the segment number of the first offending segment in the sequence. {name} is the single waveform sequence filename.

629 File format invalid; Invalid single waveform file selected. Either the sequence file is corrupt, or the segment file does not exist. Sequence {name}.

{name} is the single waveform sequence filename.

629 File format invalid; Invalid Waveform File selected. The file must have a minimum of 60 samples and the same number of I and Q values. {name}

This error is reported when an invalid waveform is selected to be played in the ARB system. A valid waveform file must have the same number of I values as Q values and must contain a minimum of 60 samples. {name} is the filename

629 File format invalid; The list file is invalid.

This is reported when an invalid list file is loaded.

629 File format invalid; PRAM file is missing bits in the last symbol. The bits per symbol are defined by the selected modulation type. The number of bits in the PRAM file must be a multiple of the number of bits per symbol. The file will be used but the output is invalid.

The PRAM file is incomplete. Bits are missing that are required to form a complete symbol. The number of bits per symbol are a function of the modulation type in use.

629 File format invalid; Row {value}: Column {name}: Exported unknown enumeration value {value}.

This is reported when an exported file contains an enumeration value that the firmware does not recognize. The file may be from a newer version of firmware or it may contain invalid data.

629 File format invalid; The selected {name} would be empty when exported.

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The file was not exported.

This is reported when a data structure is exported, but the resulting file would be empty.

629 File format invalid; Sequence contains an invalid single waveform sequence.

This is reported when an invalid single waveform sequence is found in a sequence file.

629 File format invalid; Sequence contains an invalid waveform.

This is reported when an invalid waveform is found in a sequence file.

629 File format invalid; Unable to view/edit selected sequence file. Single Waveform Sequence files cannot be viewed or edited at this time.
{name}

This error is reported when an single waveform sequence is selected to and the user tried to view or edit the sequence from the front panel. {name} is the single waveform sequence filename

629 File format invalid; The waveform file contains data that is not formatted as expected. The file may be corrupt or contain unsupported features. {name}

This error is reported when an invalid waveform is downloaded. Typically, this error is reported for misformatted Aeroflex or Rohde and Schwarz waveforms. {name} is the filename

629 File format invalid; {name}

This is reported when a file is imported and parts of it are not understood by the instrument.

630 Arb Sequence Error; Failed to write Arb sequence to sequencer.

This is reported when there is a failure in playing the selected sequence.

630 Arb Sequence Error; Sequence contains too many levels of sequences containing other sequences. Maximum nesting level is 32.

This is reported when an Arb sequence contains too many levels of sequences within sequences. If a sequence contains another sequence, that is one level of nesting. If that second sequence contains yet another sequence, that is a second level of nesting. The maximum depth of sequence nesting is 32 levels.

630 Arb Sequence Error; Sequence contains too many segments.

This is reported when an Arb sequence contains too many waveform segments. The maximum number of segments that can be added to the sequencer is not affected by the repetition counts of individual segments.

630 Arb Sequence Error; Single wave segment length must be at least 60 samples. Value set to minimum.

This error is reported when the user attempts to specify a single waveform sequence in which a segment is less than 60 samples. Due to hardware limitations of the sequencer, segments must be at least

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60 samples long.

630 Arb Sequence Error; Single wave segment offset must be even. Value set to the next lower, even value.

This error is reported when the user attempts to specify a single waveform sequence in which a segment begins at an odd sample offset. Due to hardware limitations of the sequencer, segments must begin on an even sample pair boundary.

630 Arb Sequence Error; Unable to reset sequence on baseband board after change in file. {name}

A change was made to a waveform file being referenced by the sequencer that has made the current sequence invalid. It is likely that the file contains too few samples. Correct the file size or the lengths and offsets in single waveform sequences and reenable the personality. {name} is the name of the file that caused the problem.

632 Power search failed. Power Unleveled.

While executing power search, the level meter closed loop reference value failed to settle. This event indicates that the power is in an unstable condition. The power will be set to the last properly leveled power.

633 Power search failed. Reference reading unsettled.

While executing power search, the level meter closed loop reference value failed to settle. This event indicates that the power is in an unstable condition. The power will be set to the last properly

leveled power.

634 Power search failed. ALC open loop unsettled.

While executing power search, the level meter open loop voltage failed to settle. This event indicates that the power is in an unstable condition. The power will be set to the last properly leveled power.

635 Power search failed. ALC abus voltage unsettled.

While executing power search, the level meter ALC voltage failed to settle. This event indicates that the power is in an unstable condition. The power will be set to the last properly leveled power.

636 Power search failed. DAC value exceeded range.

While executing power search, the value requested for the offset compensation DAC was beyond its available range. This event indicates a low power level that cannot be compensated with the hardware. The power will be set to the last properly leveled power.

637 Power search failed. Excessive iterations.

While executing power search, the number of iterations in the power search algorithm exceeded the allowable limit. This event indicates an unstable power level. The power will be set to the last properly leveled power.

640 WB I/Q Settings conflict; I/Q and WB I/Q cannot be on at the same time:
Mux I/Q path and WB I/Q path cannot be on simultaneously

The modulation types I/Q and WB I/Q cannot be used at the same time. This error is reported when the user attempts to activate one type of modulation while the other is activated. The modulation type that was most recently requested will be turned on and the modulation that was on at the time will be turned off.

640 WB I/Q Settings conflict; WB I/Q and AM WB cannot be on at the same time: Mux I/Q path and WB I/Q path cannot be on simultaneously

The modulation types I/Q and AM WB cannot be used at the same time. This error is reported when the user attempts to activate one type of modulation while the other is activated. The modulation type that was most recently requested will be turned on and the modulation that was on at the time will be turned off.

641 File header error; Could not perform header operation on '{name}'

There was a problem performing a header operation on the given file.

642 Security error; Security level cannot be decreased since instrument is already in secure mode.

This error occurs when trying to change the security level to a less secure one and instrument is already in secure mode. The level in secure mode can only be increased.

644 Firmware extension module error; Cannot load extension module due to missing file ({name}).

This error indicates that specified file containing code for self

test or calibrations is missing. Report this error to service office.

644 Firmware extension module error; Failed access to operation in calibration extension module({value}).

This error indicates that there was a problem accessing a specified operation in the calibration extension module. This can occur if the calibration extension module is corrupt or missing or does not contain the referenced operation.

644 Firmware extension module error; Specified operation number ({value}) does not exist.

There was a problem accessing a specific operation in one of the extension modules. This occurs if the extension module is corrupt or missing or does not contain the referenced operation.

645 License specification error; {name}

The file may be corrupt or the firmware may need to be upgraded to understand the license specification.

646 Default path not found on USB; To use the external media as the user file system, you must choose an existing path on the external media. Current path is '{name}'.

The default path ({name}) is not detected on the external USB media. In Storage Type Auto mode, the external media is ignored. In Storage Type Ext mode, user storage is unavailable (as if the media were not there).

647 Unspecified Header Value; {name}

The {name} includes the file header and the header field(s) that are unspecified. To save a setup to the file header, use the Header Utilities menu.

648 Waveform Optimized For Different Platform; File {name} is currently optimized for a different platform. It can be played on this platform, but may not have the same performance characteristics as it was designed to have.

File {name} is currently optimized for a different platform. It can be played on this platform, but may not have the same performance characteristics as it was designed to have. The burst or alc marker time alignment could be off or channel optimization (compensation for the 2,1 Mhz baseband filter on an E4438C for instance) could be completely inappropriate and actually make the performance worse than if there was no correction at all.

649 File format not supported; Encrypted Aeroflex files are not supported.
{name}

Our products are not licensed to decrypt Aeroflex encrypted files.
{name} is the file being downloaded.

649 File format not supported; The zip archive is not supported: {name}

The zip archive is not supported by the firmware.

650 File Requires Additional Licenses; {name}

A file that was selected cannot be used until certain licenses are

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installed. Typically these licenses are for options 652 or 654.

651 Lua script error; An invalid argument ({name}) was passed to method ({name}).

Incorrect argument passed in to method.

651 Lua script error; Feature registration requires a table to be passed in

Feature description table must be present to register a feature

651 Lua script error; Feature registration table is missing a required field ({name})

All required fields must be present to register a feature

651 Lua script error; Invalid arguments passed to add a feature parameter.
Requires string to identify feature and configuration table.

Incorrect arguments passed to add parameter.

651 Lua script error; The specified data type ({name}) is not valid.

Unknown data type for feature.

651 Lua script error; The specified feature name is not known.

An operation attempted to reference an unknown feature. Ensure the feature is registered first.

652 Waveform Designed For Specific Frequency; File {name} is designed to operate at a signal frequency of {name}. Operating at a frequency

different than the specified one is probably in error.

File {name} is designed to operate at a signal frequency of {name}.
Operating at a frequency different than the specified one is
probably in error.

670 Critical application error; {name}

A critical error occurred in an application. The details will
appear in the error message.

671 Application error; {name}

An error occurred in an application. The details will appear in the
error message.

672 Application warning; {name}

An application is warning the user of some condition. The details
will appear in the error message.

673 Critical calibration test error; {name}

A critical error occurred in the CalTest module. The details will
appear in the error message.

700 State Save Recall Error; Attempt to delete a non-saved state register.
Delete register ignored.

States that have not been saved cannot be deleted.

700 State Save Recall Error; Could not save last state file. Setting to

Power On Preset.

The instrument could not save the last state file, so the power-on behavior has been set to Power On Preset.

700 State Save Recall Error; Failed to recall the instrument state. {name}

The instrument could not recall an instrument state. Previous error messages may make why this error was reported clear.

700 State Save Recall Error; Failed to save the instrument state. {name}

The instrument could not save an instrument state. Previous error messages may make why this error was reported clear.

700 State Save Recall Error; Recall data from different FW revision. No instrument state change. {name}

An attempt was made to recall a state that was saved with an incompatible version of the instrument firmware. This typically occurs when a state file is copied from an instrument with a newer version of firmware to an instrument with an older version of firmware. Newer versions of instrument firmware can read older state files. TODO: Parameter is filename.

700 State Save Recall Error; Recall non-saved state register. Recall ignored.

A recall was attempted for a state register that is unused. If state file exists, delete explicitly using catalog.

700 State Save Recall Error; Recalled state has a bad checksum. No

instrument state change. {name}

The state file was corrupt or out-of-date, so the recall was ignored. If state file exists, delete explicitly using the memory catalog.

700 State Save Recall Error; Save state ignored as the save recall registers could not be written.

The instrument could not save an instrument state because it could not write out the information of which save/recall registers are in use. Previous error messages may make why this error was reported clear.

700 State Save Recall Error; Unable to delete saved state. No instrument state change.

Could not delete a saved state. Previous error messages may make why this error was reported clear.

702 Load/Store Error; Cannot create a filter with an odd number of coefficients for a complex filter or a non-multiple of 4 for a general filter.

A filter specification cannot have partial taps -- it must have an even number of coefficients for a complex filter or a multiple of 4 coefficients for a general filter.

702 Load/Store Error; Cannot create a filter with no coefficients.

A filter must have at least one coefficient specified.

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702 Load/Store Error; Cannot create a Modulation with less than one bit per symbol.

A modulation must have at least two states specified.

702 Load/Store Error; Cannot create a shape with less than 2 points.

Burst shape files must have two or more points for both the rise and the fall shape specification.

702 Load/Store Error; File: '{name}'. A FIR selected for a Real-Time Modulation filter must have an OSR of at least 2, cannot have more than {value} symbols, and must be real. You may have specified an incorrect over-sample ratio in the filter table editor.

The selected User FIR does not have the correct value and range of parameters expected for a User FIR for a Real-Time Modulation filter.

702 Load/Store Error; File: '{name}'. A FIR selected for an internal equalization filter must have an OSR of 1, must have from 2 to 256 taps and must have an equal number of real and imaginary coefficients if the FIR is complex. The previous equalization filter is still in effect.

The selected User FIR does not have the correct value and range of parameters expected for a User FIR for an internal equalization filter.

702 Load/Store Error; Invalid modulation file.

The user modulation file is invalid. The file is either corrupt or

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is not a modulation file.

702 Load/Store Error; Unrecognized FIR file version.

The file is either corrupt or is not a FIR file.

702 Load/Store Error; Unrecognized modulation file version.

The user modulation file has an unrecognized version. The file is either corrupt or is not a modulation file.

702 Load/Store Error; Unrecognized shape file version.

The Burst Shape file is corrupted, or is not in the proper format.

703 Feature not supported; File '{name}' Header Parameter Real-Time AWGN Noise Bandwidth is specified as {value}Hz, but it must be in the range of 1Hz to {value}MHz with the currently installed options. An option upgrade may be available.

The first {name} is the file that generated the error. The first {value} is the value of the Real-Time AWGN Noise Bandwidth as specified in the file header. The second {value} is the upper limit of the Real-Time AWGN

Noise Bandwidth in MHz. A higher sample rate option would have to be installed to play this waveform correctly.

703 Feature not supported; File '{name}' Header Parameter Sample Rate is specified as {value}sps, but it must be in the range of {value}sps to {value}Msps with the currently installed options. An option upgrade may be available.

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The first {name} is the file that generated the error. The {value} is the value of the Sample Rate as specified in the file header. The first {value} is the lower limit of the sample rate in sps. The second {value} is the upper limit of the sample rate in Msps.

703 Feature not supported; Requested operation is not supported by the frequency extender.

Operation is not supported by the external frequency extender.

703 Feature not supported; RS232 flow control is not supported.

Command is not supported for RS232 communication.

703 Feature not supported; The selected feature requires an option not present on this instrument. To enable this feature, install option '{name}'.

703 Feature not supported; The selected file is not supported by this firmware version.

This selected file contains data generated for a newer version of firmware that the installed version of firmware cannot process.

703 Feature not supported; The selected waveform was generated using an option not present on this instrument. '{name}' See 'View Header Details' for more information.

Selecting a file that was generated by another instrument with an option that is not on the current instrument will generate this error. {name} is the filename. Use the 'View Header Details' softkey in the 'Header Utilities' menu for more information about the

licensing needed by segments and sequences.

703 Feature not supported; {name}. The column will be ignored.

This is reported when an imported list column requires missing options not installed on the instrument.

704 Span adjusted due to selected sweep time; Choose a wider span or shorter sweep time to avoid this conflict.

*** No documentation ***

800 Digital module configuration error; Could not configure FPGA(s) on the Digital module: {name}. Report this error to service office.

This error is reported when the FPGAs on the digital module FPGAs failed to be configured. The digital module will not work properly in this state.

801 Digital module VCO unlock error; The VCO on the digital module is unlocked. Check to make sure the clock settings are correct and the correct clock reference is connected.

The VCO on the digital module is unlocked. Check to make sure the clock settings are correct and the correct clock reference is connected.

802 Digital module overrange error; The output data is being clipped by the resampler. Reduce the scaling under the data menu to correct this problem.

This error is reported when the output of the resampler is being

clipped.

803 Digital module input FIFO overflow error; There are more samples being produced than can be consumed at the current clock rate. Verify that the digital module clock is set up properly.

This error is reported when the digital module clock setup is not synchronized with the rate the samples are entering the digital module. Verify that the input clock rate matches the specified clock rate under the clock setup menu.

804 Digital module input FIFO underflow error; There are not enough samples being produced for the current clock rate. Verify that the digital module clock is set up properly.

This error is reported when the digital module clock setup is not synchronized with the rate the samples are entering the digital module. Verify that the input clock rate matches the specified clock rate under the clock setup menu.

805 Digital module output FIFO overflow error; There are more samples being produced than can be consumed at the current clock rate. Verify that the digital module clock is set up properly.

This error is reported when the output FIFO is overflowing in the digital module. This error can be generated if an external clock or its reference is not set up properly, or if the internal VCO is unlocked.

806 Digital module output FIFO underflow error; There are not enough samples being produced for the current clock rate. Verify that the digital module clock is set up properly.

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This error is reported when the output FIFO is underflowing in the digital module. This error can be generated if an external clock or its reference is not set up properly, or if the internal VCO is unlocked.

807 Unexpected digital module interface FPGA; The instrument FW is not compatible with the interface FPGA on the digital module (0x{code},0x{code}). The supported FPGA version and code revision is (0x{code},0x{code}). To ensure proper operation, please refer to the manual for details on how to update the instrument FW.

This error is reported when instrument FW has an older version than the SSIO interface FPGA.

807 Unexpected digital module interface FPGA; The interface FPGA on the digital module (0x{code},0x{code}) is not compatible with the instrument FW. The supported FPGA version and code revision is (0x{code},0x{code}). To ensure proper operation, please refer to the manual for details on how to update the module's interface FPGA.

This error is reported when an SSIO interface FPGA is found with a valid, but older version of the SSIO interface FPGA.

808 Digital module unlock error; The output clock is not locked. The clock output may not be valid. Please make sure all references and clocks are connected and the module is set up properly.

This error occurs when the output clock modules are not locked. This can occur when the externally supplied clock is not stable, the module is not set up properly, or the internal clock is not locked. If the error persists after fixing all external causes,

then the module may need to be reset by turning it off then on.
This will set up the clock modules properly.

809 Digital module missing clock; Please make sure the external clock is connected and the clock settings are correct.

This error occurs when the output clock modules are not receiving a clock. This usually happens when the external or Device clock source is selected and there is no clock source connected to the clock input. If the error persists after fixing all external causes, then the module may need to be reset by turning it off then on. This will set up the clock modules properly.

811 Digital module trigger FIFO overflow error; There are more samples being produced than can be consumed at the current clock rate. Verify that the digital module clock is set up properly.

This error is reported when the digital module clock setup is not synchronized with the rate the samples are entering the digital module. Verify that the input clock rate matches the specified clock rate under the clock setup menu.

812 Digital module trigger FIFO underflow error; There are not enough samples being produced for the current clock rate. Verify that the digital module clock is set up properly.

This error is reported when the digital module clock setup is not synchronized with the rate the samples are entering the digital module. Verify that the input clock rate matches the specified clock rate under the clock setup menu.



This information is subject to change without notice.

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