5G NR RedCap Test Solution
E7515R UXM 5G wireless test platform and S8711A test application

Verify Devices with a Solution Optimized for RedCap and C-IoT Testing

RedCap stands for Reduced Capability 5G NR devices. 3GPP approved this new device type in Release 17 to make it easier for 5G to be used with IoT devices. The reduced 5G NR capability allows for reduced cost during development and manufacturing. Typically, IoT uses low-cost devices in applications such as wearables, industrial sensors, smart homes and cities, and security and surveillance.

Keysight’s solution for RedCap testing reduces cost with the new E7515R UXM 5G Wireless Test Platform. Built on the industry-standard UXM 5G platform, the E7515R is simplified to focus on testing RedCap and C-IoT devices.

Verify essential RedCap capabilities with the S8711A test application software running on the E7515R:

- Creation of 5G NR RedCap cell with reduced bandwidth and fewer CC
- RedCap messaging with SIB1 Msg1, and Msg3
- RedCap message logging
- Functional and RF tests including throughput

Analyze RedCap device signaling and performance
RedCap signaling is easily analyzed and monitored with TA software. The previous figure shows an example of a message log from a RedCap cell.

The TA also measures the RF performance of RedCap devices. The following figure is an example of RedCap RF measurement results.

Keysight knows 5G

Keysight’s solutions were first to market for 5G NR test, providing a wealth of experience. Continuing enhancements provide test solutions for RedCap and other advancements such as NTN.

For more information

Keysight RedCap solution page
Keysight E7515R UXM 5G Wireless Test Platform
Keysight S8711A Test Application
Keysight RedCap white paper, press releases, podcast, blog