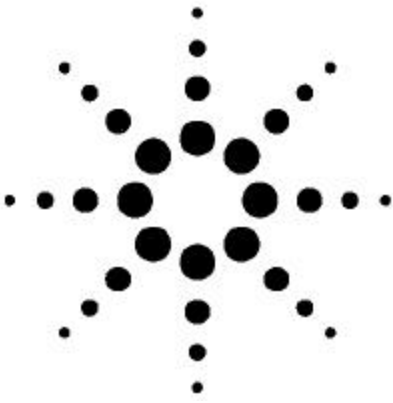


Agilent 5385A Frequency Counter

Data Sheet



Channel A Characteristics

Range: 10 Hz to 100 MHz

Sensitivity: [MAIN LEVEL] off

15 mVrms sine wave 50 Hz to 100 MHz

25 mVrms sine wave 10 Hz to 50 Hz

45 mV pk-pk 5 ns minimum pulse width

Dynamic Range: 45 mV to 4 V pk-pk \times attenuator setting.

Coupling: AC

Impedance:

X1: 1 Mohm NOMINAL || <25 pF

X20: 500 kohm NOMINAL || <25 pF

Attenuator: X1 or X20 NOMIONAL, X20 increases to X40 below 50 Hz

Low Pass Filter: 100 kHz NOMINAL 3 dB point

Channel B Characteristics

Fused input! (Front panel accessible)

Range: 90 to 1000 MHz

Sensitivity:

10 mVrms (-27 dBm) 100-1000 MHz

15 mVrms (-33 dBm) 90-100 MHz

Dynamic Range: 10 mV to 7 Vrms (-27 to +30 dBm)

Coupling: AC

Impedance: 50 ohm NOMINAL

Attenuator Level:

Manual: variable from X1 to X18 (0 to 25 dB) NOMINAL

Auto: AGC mode for improved noise suppression.

Damage Level:

AC > 1 MHz +30 dBm (7 Vrms)

AC <1 MHz 2 Vrms

DC \pm 5V**Timebase (TCXO)****Frequency:** 10 MHz**Aging Rate:** $<1 \times 10^{-7}/\text{mo.}$ **Temperature:** $<2 \times 10^{-6}$, 0-40° C $(\pm 1 \times 10^{-6}$, 0-40° C if referenced to 25° C, and set to the offset frequency.)**Line Voltage:** $<5 \times 10^{-8}$ for $\pm 10\%$ variation.**Frequency A and B****Range Channel A:** 10 Hz - 100 MHz**Range Channel B:** 50 MHz - 225 MHz**LSD Displayed:** 10 Hz to 1 nHz**LSD** $((4 \text{ nsec}) / (\text{Gate Time})) \times \text{FREQ}$ **Resolution:** $\pm 1 \text{ LSD} \pm ((1.4 \times \text{Trigger Error} + 1 \text{ nsec rms}) / (\text{Gate Time})) \times \text{Freq}$ **Accuracy:** $\pm \text{Resolution} \pm \text{Time Base Error} \times \text{Period}$