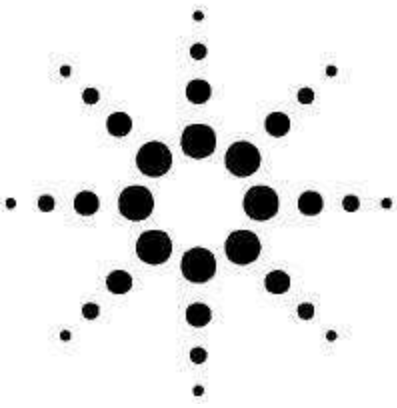


Agilent 5384A Frequency Counter

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

Range: 50 to 225 MHz

Sensitivity: 10 mVrms 50 to 200 MHz, 15 mVrms 200 to 225 MHz

Dynamic Range: 10 mV to 1 Vrms

Coupling: AC

Impedance: 50 ohm NOMINAL

Attenuator Level:

Manual: variable from X1 to X5 (0 to 14 dB) NOMINAL

Auto: AGC mode for improved noise suppression.

Damage Level: 350 VDC + 5 Vrms AC



Timebase

Frequency: 10 MHz

Aging Rate: $<3 \times 10^{-7}/\text{mo.}$

Temperature: $<5 \times 10^{-6}$, 0 degrees to 50 degrees C. Ref. to 25 degrees C.

Line Voltage: $<1 \times 10^{-7}$ 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: $\pm \text{Resolution} \pm \text{Time Base Error} \times \text{Period}$



