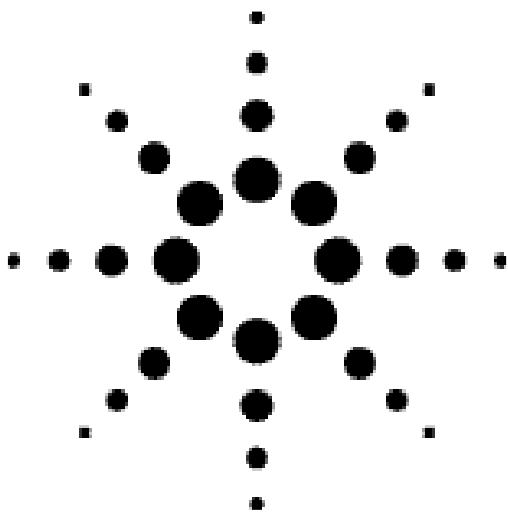




83594A RF Plug-in for the Agilent 8350B Sweep Oscillator (Discontinued - Support Information Only)

Data Sheet

Frequency Characteristics:

Range Band 0: 0.01 to 2.4 GHz

Band 1: 2.4 to 7 GHz

Band 2: 7 to 13.5 GHz

Band 3: 13.5 to 20 GHz

Band 4: 20 to 26.5 GHz

Full Band: 0.01 to 26.5 GHz

Accuracy CW Mode Band 0: ± 5 MHz

Band 1: ± 5 MHz

Band 2: ± 10 MHz

Band 3: ± 10 MHz

Band 4: ± 12 MHz

All Sweep Modes Band 0: ± 15 MHz

Band 1: ± 20 MHz

Band 2: ± 25 MHz

Band 3: ± 30 MHz

Band 4: ± 35 MHz

Full Band: ± 50 MHz

Frequency Markers Band 0: ± 15 MHz, $\pm 0.5\%$ of sweep width

Band 1: ± 20 MHz, $\pm 0.5\%$ of sweep width

Band 2: ± 25 MHz, $\pm 0.5\%$ of sweep width

Band 3: ± 30 MHz, $\pm 0.5\%$ of sweep width

Band 4: ± 35 MHz, $\pm 0.5\%$ of sweep width

Full Band: ± 50 MHz, $\pm 0.5\%$ of sweep width

Stability With Temperature Band 0: ± 200 kHz/ $^{\circ}\text{C}$, typical

Band 1: ± 200 kHz/ $^{\circ}\text{C}$, typical

Band 2: ± 400 kHz/ $^{\circ}\text{C}$, typical

Band 3: ± 600 kHz/ $^{\circ}\text{C}$, typical

Band 4: ± 800 MHz/ $^{\circ}\text{C}$, typical

Full Band: ± 800 MHz/ $^{\circ}\text{C}$, typical

With 10 dB Power Change: Band 0: ± 200 kHz

Band 1: ± 200 kHz

Band 2: ± 400 kHz

Band 3: ± 600 kHz

Band 4: ± 800 MHz

Full Band: ± 800 MHz

With 3:1 Load SWR: Band 0: ± 100 kHz

Band 1: ± 100 kHz

Band 2: ± 200 kHz



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Band 3: ± 300 kHz
Band 4: ± 400 MHz
Full Band: ± 400 MHz

Output Characteristics:

Maximum Leveled Power: Normal: Band 0: 10 mW

Band 1: 10 mW
Band 2: 10 mW
Band 3: 10 mW
Band 4: 2.5 mW
Full Band: 2.5 mW

Option 002: Band 0: 10 mW

Band 1: 7 mW
Band 2: 6.3 mW
Band 3: 5 mW
Band 4: 1.25 mW
Full Band: 1.25 mW

Power Level Accuracy: Band 0: ± 1.5 dB

Band 1: ± 1.3 dB
Band 2: ± 1.3 dB
Band 3: ± 1.4 dB
Band 4: ± 1.7 dB
Full Band: ± 1.8 dB

Spurious Signals: Harmonics and Subharmonics: Band 0: < -25 dBc

Band 1: < -25 dBc
Band 2: < -25 dBc
Band 3: < -25 dBc
Band 4: < -20 dBc
Full Band: < -20 dBc

Output Power Resolution Displayed: 0.1 dB Programmable/Settable: 0.01 dB

Minimum Settable Power: -5 dBm (-60 dBm with Option 002)

Power Sweep Calibrated Range: > 9 dB (> 6 dB with Option 002) Accuracy (including linearity): > 1.5 dB, typical

Modulation Characteristics:

External AM Frequency Response: 100 kHz, typical Maximum Input: 15 V Range of Amplitude Control: 15 dB, typical Sensitivity: 1 dB/V, typical Input Impedance: @ 10 kohms

External FM Maximum Deviations for Modulation Frequencies DC to 100 Hz: ± 75 MHz 100 Hz to 1 MHz: ± 7 MHz 1 MHz to 2 MHz: ± 5 MHz 2 to 10 MHz: ± 1 MHz

Sensitivity (switch selectable) FM Mode: -20 MHz/V, typical Phase Lock Mode: -6 MHz/V Input Impedance: @ 2 kohms External Pulse Modulation Pulse Input: TTL compatible 0.01 to 20 GHz: Square wave modulation up to 30 kHz 0.01 to 2.5 GHz Rise/Fall Time: 15 nsec, typical Minimum RF Pulse Width Internally Leveled: 1 μ sec, typical Unleveled (power set to +20 dBm): 200 nsec 2.5 to 26.5 GHz Rise/Fall Time: 10 nsec, typical Minimum RF Pulse Width: Typical Internally Leveled: 1 μ sec Unleveled (power set to +20 dBm): 100 nsec On/Off Ratio: > 80 dB, typical

General Specifications:

Minimum Sweep Time: 10 ms (single band) 30 ms (full band)

Auxiliary Output Rear Panel: 2.3 to 7 GHz Fundamental Oscillator Output: 0 dBm, nominally

Frequency Reference Output: 1 V/GHz ± 25 mV, ≤ 18 GHz 0.5 V/GHz ± 25 mV, ≤ 26.5 GHz

RF Output Connector: Type APC 3.5, male

Net Weight: 6 kg (13.2 lb)

Shipping Weight: 9.2 kg (20 lb)

Furnished: Operating/service manual SMA (f) to type-N (f) adapter