



# 83595A 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:  $\pm 5$  MHz

Band 1:  $\pm 5$  MHz

Band 2:  $\pm 10$  MHz

Band 3:  $\pm 10$  MHz

Band 4:  $\pm 12$  MHz

All Sweep Modes Band 0:  $\pm 15$  MHz

Band 1:  $\pm 20$  MHz

Band 2:  $\pm 25$  MHz

Band 3:  $\pm 30$  MHz

Band 4:  $\pm 35$  MHz

Full Band:  $\pm 50$  MHz

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

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

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

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

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

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

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

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

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

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

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

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

With 10 dB Power Change: Band 0:  $\pm 200$  kHz

Band 1:  $\pm 200$  kHz

Band 2:  $\pm 400$  kHz

Band 3:  $\pm 600$  kHz

Band 4:  $\pm 800$  MHz

Full Band:  $\pm 800$  MHz

With 3:1 Load SWR: Band 0:  $\pm 100$  kHz

Band 1:  $\pm 100$  kHz

Band 2:  $\pm 200$  kHz



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Band 3:  $\pm 300$  kHz  
Band 4:  $\pm 400$  MHz  
Full Band:  $\pm 400$  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:  $\pm 1.5$  dB

Band 1:  $\pm 1.3$  dB  
Band 2:  $\pm 1.3$  dB  
Band 3:  $\pm 1.4$  dB  
Band 4:  $\pm 1.7$  dB  
Full Band:  $\pm 1.8$  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:  $\pm 75$  MHz 100 Hz to 1 MHz:  $\pm 7$  MHz 1 MHz to 2 MHz:  $\pm 5$  MHz 2 to 10 MHz:  $\pm 1$  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 20.0 GHz: Square wave modulation up to 30 kHz 0.01 to 2.5 GHz Rise/Fall Time: 15 nsec, typical Minimum RF Pulse Width, typical Internally Leveled: 1  $\mu$ sec 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  $\mu$ 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  $\pm 25$  mV,  $\leq 18$  GHz 0.5 V/GHz  $\pm 25$  mV,  $\leq 26.5$  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