



# 83592A RF Plug-in for the Agilent 8350B, 10 MHz to 20 GHz (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

Full Band: 0.01 to 20 GHz

**Accuracy** (25° ±5°C) CW Mode Band 0: ±5 MHz

Band 1: ±5 MHz

Band 2: ±10 MHz

Band 3: ±10 MHz

All Sweep Modes Band 0: ±15 MHz

Band 1: ±20 MHz

Band 2: ±25 MHz

Band 3: ±30 MHz

Full Band: ±50 MHz

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

Band 1: ±20 MHz, ±0.5% of sweep width

Band 2: ±25 MHz, ±0.5% of sweep width

Band 3: ±30 MHz, ±0.5% of sweep width

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

**Stability** With Temperature Band 0: ±200 kHz/°C, typical

Band 1: ±200 kHz/°C, typical

Band 2: ±400 kHz/°C, typical

Band 3: ±600 kHz/°C, typical

Full Band: ±600 kHz/°C, typical

With 10 dB Power Change: Band 0: ±200 kHz/°C

Band 1: ±200 kHz/°C

Band 2: ±400 kHz/°C

Band 3: ±600 kHz/°C

Full Band: ±600 kHz/°C

With 3:1 Load SWR: Band 0: ±100 kHz/°C

Band 1: ±100 kHz/°C

Band 2: ±200 kHz/°C

Band 3: ±300 kHz/°C

Full Band: ±300 kHz/°C



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Output Characteristics:

**Maximum Levelled Power:**(25°C) Normal: Band 0: 10 mW

Band 1: 10 mW

Band 2: 10 mW

Band 3: 10 mW

Full Band: 10 mW

Option 002: Band 0: 10 mW

Band 1: 7.0 mW

Band 2: 6.3 mW

Band 3: 5.0 mW

Full Band: 5.0 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

Full Band:  $\pm 1.5$  dB

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

Band 1:  $< -25$  dBc

Band 2:  $< -25$  dBc

Band 3:  $< -25$  dBc

Full Band:  $< -25$  dBc

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

**Minimum Settable Power:** -2 dBm Option 002: (-72 dBm with)

**Power Sweep** Calibrated Range:  $> 12$  dB Option 002:  $> 9$  dB

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, typical Input Impedance: @ 2 kohms

**External Pulse Modulation** Pulse Input: TTL 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 Levelled: 1  $\mu$ sec, typical Unlevelled (power set to +20 dBm): 200 nsec 2.5 to 20 GHz Rise/Fall Time: 10 nsec, typical Minimum RF Pulse Width Internally Levelled: 1  $\mu$ sec, typical Unlevelled (power set to +20 dBm): 100 nsec On/Off Ratio:  $> 30$  dB, typical

General Specifications:

**Minimum Sweep Time:** 10 ms (single band) 25 ms (full band)

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

**Frequency Reference Output:** 1 V/Hz (0.01 to 18 GHz) 0.5 V/GHz (0.01 to 20 GHz)  $\pm 25$  mV

**RF Output Connector:** Type-N, female

**Net Weight:** 6.0 kg (13.2 lb)

**Shipping Weight:** 9.2 kg (20 lb)

**Furnished:** Operating/service manual



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