

HP 83597B

Sweeper Plug-In, .01-40GHz

[HP 83597B Product Details](#)

The Agilent 83597B RF plug-in provides a 10 MHz to 40 GHz broadband coaxial swept frequency source for the Agilent 8350B sweep oscillator mainframe. Applications include scalar network analysis, serving as a local oscillator for down-converting high frequency signals, and a stand-alone RF signal source.

Features:

- 2.4 mm connectors for high-performance broadband coaxial measurements
- High output power
- Excellent harmonic performance
- Low cost of ownership

Specifications:

Range Band 0: 0.01 to 2.4 GHz Band 1: 2.4 to 7 GHz Band 2: 7 to 14 GHz Band 3: 14 to 26.5 GHz Band 4: 26.5 to 40 GHz Full Band: 0.01 to 40 GHz **Accuracy** CW Mode Band 0: ± 5 MHz Band 1: ± 5 MHz Band 2: ± 10 MHz Band 3: ± 20 MHz Band 4: ± 25 MHz All Sweep Modes Band 0: ± 15 MHz Band 1: ± 20 MHz Band 2: ± 25 MHz Band 3: ± 50 MHz Band 4: ± 65 MHz Full Band: ± 75 MHz Frequency Markers Band 0: ± 15 MHz, $\pm 0.4\%$ of sweep width Band 1: ± 20 MHz, $\pm 0.4\%$ of sweep width Band 2: ± 25 MHz, $\pm 0.4\%$ of sweep width Band 3: ± 50 MHz, $\pm 0.4\%$ of sweep width Band 4: ± 65 MHz, $\pm 0.4\%$ of sweep width Full Band: ± 75 MHz, $\pm 0.4\%$ of sweep width **Stability** With Temperature Band 0: ± 200 kHz/ $^{\circ}$ C, typical Band 1: ± 200 kHz/ $^{\circ}$ C, typical Band 2: ± 400 kHz/ $^{\circ}$ C, typical Band 3: ± 800 kHz/ $^{\circ}$ C, typical Band 4: ± 1.6 MHz/ $^{\circ}$ C, typical With 10 dB Power Change: Band 0 to 2: ± 150 kHz Band 3: ± 200 kHz Band 4: ± 250 kHz With 3:1 Load SWR: Band 0 to 3: ± 100 kHz Band 4: ± 200 kHz

Output Characteristics

Maximum Leveled Power: Normal: Band 0: 10 dBm Band 1: 10 dBm (15 dBm high-power mode) Band 2: 10 dBm (15 dBm high-power mode) Band 3: 10 dBm (15 dBm high-power mode) 5 dBm >20 GHz Band 4: 3 dBm; 0 dBm >40 GHz Option 002 (60 dB step atten): Band 0: 10 dBm Band 1: 8.5 dBm (13 dBm high-power mode) Band 2: 8.5 dBm (13 dBm high-power mode) Band 3: 8.5 dBm (13 dBm high-power mode) Band 4: 8.5 dBm (13 dBm high-power mode) -3 dBm >40 GHz 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: ± 2.2 dB Full Band: ± 2.2 dB **Spurious Signals:** Harmonics and Subharmonics: Band 0: <-25 dBc (<-50 dBc >1.5 GHz) Band 1: <-45 dBc Band 2: <-45 dBc Band 3: <-40 dBc Band 4: <-40 dBc (<-35 dBc >40 GHz) **Output Power Resolution** Displayed: 0.1 dB Programmable/Settable: 0.01 dB **Minimum Settable Power:** -12 dBm (-72 dBm with Option 002) **Power Sweep:** >12 dB (22 dB <20 GHz)

Modulation Characteristics:

External AM Frequency Response: 100 kHz, typical Range of Amplitude Control: 15 dB, typical Sensitivity: 1 dB/V, typical **External FM Maximum Deviations for Modulation Frequencies** DC to 100 Hz: ± 75 MHz (cross-over coupled) ± 12 MHz (direct coupled) 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, typical

General Specifications:

Minimum Sweep Time: 30 ms (single band) 75 ms (<20 GHz sweep width) 150 ms (>20 GHz sweep width) **Auxiliary Output** Rear Panel: 2.3 to 7.0 GHz Fundamental Oscillator Output: 0 dBm, nominally **Frequency Reference Output:** 0.5 V/Hz (0.01 to 38 GHz) 0.25 V/GHz (0.01 to 50 GHz) ± 25 mV (<2.4 GHz) ± 100 mV (>2.4 GHz) **RF Output Connector:** 2.4 mm male **Net Weight:** 6.8 kg (16 lb) **Shipping Weight:** 11.8 kg (26 lb)