

Hewlett Packard 8350 Series Broadband RF Plug-Ins: Models 83570A, 83572A and 83572B Specifications

FREQUENCY CHARACTERISTICS		
	83570A	83572A/B
Range	18-26.5 GHz	26.5-40 GHz
Accuracy (25°C ± 5°C)		
CW Mode	± 30 MHz	± 100 MHz
Typical	± 20 MHz	± 20 MHz
All Sweep Modes	± 55 MHz	± 150 MHz
Residual FM (in 20 Hz-15 kHz bandwidth, CW mode)	< 30 kHz	< 60 kHz
OUTPUT CHARACTERISTICS		
Maximum Leveled Power (25°C ± 5°C)	> 10 mΩ	
Minimum Unleveled Power (25°C ± 5°C)		> 2 mΩ (5 mΩ) ¹
Opt. 001 (at output of external leveling coupler)		1.0 dB less
Opt. 006 (at waveguide output of plug-in)		1.5 dB less
Power Level Accuracy: Typical		
Internally Leveled	± 1.8 dB	
Externally Leveled (Opt. 001)		± 1.5 dB
Resolution (displayed)	0.1 dB	0.1 dB
Remote Programming (settable)	± 0.01 dB	± 0.01 dB
Power Variation (at max. rated power)		
Internally Leveled	< ± 1.4 dB	
Unleveled: Typically	< ± 2 dB	< ± 3 dB
Externally Leveled (Excluding coupler/detector variation)		
Crystal Detector or Power Meter	< ± 0.1 dB	< ± 0.2 dB
Spurious Signals		
Harmonically Related	< -25 dBc	< -20 dBc

Non-Harmonics	< -50 dBc	< -50 dBc
Source VSWR: 50 Ω nominal impedance		
Internally leveled	< 2.5	
Externally Leveled		< 1.5
MODULATION CHARACTERISTICS		
External FM		
Maximum Deviations for Modulation Frequencies		
DC to 100 Hz	± 75 MHz	± 150 MHz
100 Hz to 200 kHz		± 3.5 MHz
100 Hz to 1 MHz	± 7 MHz	
1 MHz to 2 MHz	± 5 MHz	
2 MHz to 10 MHz	± 1.0 MHz	
Sensitivity: Nominal		
FM Mode	-20 MHz/V	-20 MHz/V
Phase-Lock Mode	-6 MHz/V	-6 MHz/V
External AM		
Frequency Response: Typically	100 kHz	10 kHz
Range: Typically	11 dB	-
Option 001	-	7 dB (11 dB) ¹
Unleveled	-	30 dB
Sensitivity	1 dB/V	1 dB/V (Opt. 001)
External Pulse Modulation²		
Rise/Fall Time	20 ns	300/50 ns
Minimum RF Pulse Width (Typically)		
Internally Leveled	1 μ s	-
Unleveled	100 ns	500 ns
Modulation Rate	-	0.5 kHz-1 MHz
On/Off Ratio	> 25 dB	> 20 dB
Internal AM: Selectable to 1 kHz or 27.8 kHz square wave		
On/Off Ratio	> 25 dB	> 20 dB
¹ HP 83572B only.		
² HP 83572A/B, Option 006, unleveled output		
External Leveling: Option 001	Calibrated crystal detector (option 001): approximately -10 to -200 mV for specified leveling at rated output; for use with negative polarity detectors such as HP 422 Series Crystal detectors. SHIFT DET switch selects	

internal calibration for an external coupler, a crystal detector, and a BNC cable, all included in Option 001 of HP 83572.

GENERAL SPECIFICATIONS

Sweep Time (minimum over full band)	10 ms
RF Output Connector	HP 83570A type WR42 waveguide. HP 83572A/B type WR28 waveguide.
Auxiliary Output	(HP 83570A) real panel 9-13.25 GHz fundamental oscillator output, nominally 0 dBm.
Weight	net 5.4 kg (12 lbs). Shipping 8.7 kg (19 lbs).