



Table I-I. HP 8562A/B Specifications

FREQUENCY			
Frequency Range			
Internal Mixing	9kHz* to 22 GHz		
<i>Option 026</i>	9 kHz* to 26.5 GHz		
Internal Mixing Bands	Frequency Band	Harmonic Mixing Mode (N**)	
	9 kHz* to 2.9 GHz	1-	
	2.75 GHz to 6.46 GHz	1-	
	5.86 GHz to 13.0 GHz	2-	
	12.4 GHz to 19.7 GHz	3-	
	19.1 GHz to 22.0 GHz	4-	
<i>Option 026</i>	19.1 GHz to 26.5 GHz	4-	
External Mixing	18GHz to 325 GHz		
External Mixing Bands	Frequency Band	Frequency Range	Harmonic Mixing Mode (N**)
	K	18.0 to 26.5	6-
	A	26.5 to 40.0	8-
	Q	33.0 to 50.0	10-
	U	40.0 to 60.0	10-
	V	50.0 to 75.0	14-
	E	60.0 to 90.0	16-
	W	75.0 to 110.0	18-
	F	90.0 to 140.0	24-
	D	110.0 to 170.0	30-
	G	140.0 to 220.0	36-
	Y	170.0 to 260.0	44-
	J	220.0 to 325.0	54-
Frequency Readout Accuracy (accuracy of START, CENTER, STOP or MARKER frequency)	$<\pm(\text{frequency readout} \times \text{frequency reference accuracy}^{***} + 5\% \text{ of frequency span} + 15\% \text{ of resolution bandwidth} + 250 \text{ Hz})$		
Frequency Count Marker	Selectable from 10 Hz to 1 MHz		
Frequency Count Marker Resolution			
Frequency Count Marker Accuracy for signal-to-noise ratio ≥ 25 dB)	$<\pm(\text{marker frequency} \times \text{frequency reference accuracy}^{***} + 50 \text{ Hz} \times N^{**} + 1 \text{ LSD})$		
Delta Frequency Count Accuracy for signal-to-noise ratio ≥ 25 dB)	$<\pm(\text{delta frequency} \times \text{frequency reference accuracy}^{***} + 100 \text{ Hz} \times N^{**} + 2 \text{ LSD})$		
<p>*1 kHz to 2.9 GHz for HP 8562A/B analyzers with serial prefix 2927A and below.</p> <p>**N is the harmonic mixing mode. The desired 1st LO harmonic is always higher than the tuned frequency by the 1st IF frequency (3.9107 for the 9 kHz* to 2.9 GHz band, and 310.7 MHz for all other bands).</p> <p>***Frequency reference accuracy for Option 003 = (aging rate x period of time since + initial achievable accuracy + temperature stability).</p>			

Table 1-1. HP 8562A/B Specifications (2 of 9)

FREQUENCY (continued)	
Frequency Reference Accuracy Includes aging, temperature drift, and settability	$\pm 4 \times 10^{-6}$ per year
Frequency Reference Accuracy <i>Option 003 only</i> Aging Temperature Stability Settability	$< \pm 1 \times 10^{-7}$ per year $< \pm 1 \times 10^{-8}$, -10 to +55° c, referenced to +25° C $< \pm 1 \times 10^{-8}$
Stability Residual FM (zero span) Spectral Purity/Noise Sidebands 10 kHz offset 30 kHz offset 100 kHz offset	$< 50 \text{ Hz} \times N^*$ peak-to-peak in 100 ms $< (-86 + 20 \log N^*) \text{ dBc/Hz}$ $< (-100 + 20 \log N^*) \text{ dBc/Hz}$ $< (-110 + 20 \log N^*) \text{ dBc/Hz}$
Frequency Span Range Internal Mixing External Mixing Accuracy (spans ≥ 10 kHz)	$0 \text{ Hz}, 2.5 \text{ kHz}^{**} \times N^*$ to 19.25 GHz (<i>Option 026: to 23.75 GHz</i>) over the lo-division CRT horizontal axis, variable in approximately 1% increments, or in a 1, 2, 5 sequence Minimum span = $2.5 \text{ kHz} \times N^*$ $< \pm 5\%$
Resolution Bandwidths (-3 dB) Range Accuracy 1 and 2 MHz*** RES BW 300 kHz to 300 Hz RES BW 100 Hz RES BW Selectivity (60 dB/3 dB bandwidth ratio) Bandwidth Shape	100 Hz to 1 MHz (selectable in a 1, 3, 10 sequence) and 2 MHz*** $< \pm 25\%$ $< \pm 10\%$ $< \pm 30\%$ $< 15:1$ Synchronously tuned, 4-pole filters
<p>*N is the harmonic mixing mode. The desired 1st LO harmonic is always higher than the tuned frequency by the 1st IF frequency (3.9107 GHz for the 9 kHz to 2.9 GHz band, and 310.7 MHz for all other bands. **Minimum span is 10 kHz for analyzers with serial prefix 2724A and below ***The 2 MHz resolution bandwidth is specified only for HP analyzers with serial prefix 2805A and above, and for HP 8562B analyzers with serial prefix 2809A and above.</p>	

Table 1-1. HP 8562A/B Specifications (3 of 9)

AMPLITUDE/MEASUREMENT RANGE																													
<p>Video Bandwidth Post-detection low-pass filter averages displayed noise for a smooth trace. Range</p>	1 Hz to 3 MHz in a 1, 3, 10 sequence																												
<p>Maximum Safe Input Power Average Continuous Power (input attenuation ≥ 10 dB) Peak Pulse Power (input attenuation ≥ 30 dB) DC</p>	<p>+30 dBm (1 watt) +50 dBm (100 watts) for $<10 \mu\text{s}$ and $<1\%$ duty cycle 0 volts</p>																												
<p>Gain Compression 10 MHz to 2.9 GHz (≤ -5 dBm* at input mixer) 2.9 GHz to 22 GHz (≤ -3 dBm at input mixer) <i>Option 026: 2.9 GHz to 26.5 GHz</i> (≤ -3 dBm at input mixer)</p>	<1.0 dB																												
<p>Displayed Average Noise Level With no signal at input, 100 Hz RES BW, and 0 dB input attenuation.</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Frequency Range</th> <th style="text-align: center;">HP 8562A</th> <th style="text-align: center;">HP 8562B</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">10 kHz</td> <td style="text-align: center;">-90 dBm</td> <td style="text-align: center;"><-90 dBm</td> </tr> <tr> <td style="text-align: center;">100 kHz</td> <td style="text-align: center;"><-100 dBm</td> <td style="text-align: center;"><-100 dBm</td> </tr> <tr> <td style="text-align: center;">1 MHz to 2.9 GHz</td> <td style="text-align: center;"><-120 dBm</td> <td style="text-align: center;"><-120 dBm</td> </tr> <tr> <td style="text-align: center;">2.9 GHz to 6.46 GHz</td> <td style="text-align: center;"><-121 dBm</td> <td style="text-align: center;"><-121 dBm</td> </tr> <tr> <td style="text-align: center;">6.46 GHz to 13.0 GHz</td> <td style="text-align: center;"><-110 dBm</td> <td style="text-align: center;"><-110 dBm</td> </tr> <tr> <td style="text-align: center;">13.0 GHz to 19.7 GHz</td> <td style="text-align: center;"><-105 dBm</td> <td style="text-align: center;"><-105 dBm</td> </tr> <tr> <td style="text-align: center;">19.7 GHz to 22.0 GHz</td> <td style="text-align: center;"><-100 dBm</td> <td style="text-align: center;"><-100 dBm</td> </tr> <tr> <td style="text-align: center;"><i>Option 026: 19.7 GHz to 26.5 GHz</i></td> <td></td> <td></td> </tr> </tbody> </table>	Frequency Range	HP 8562A	HP 8562B	10 kHz	-90 dBm	<-90 dBm	100 kHz	<-100 dBm	<-100 dBm	1 MHz to 2.9 GHz	<-120 dBm	<-120 dBm	2.9 GHz to 6.46 GHz	<-121 dBm	<-121 dBm	6.46 GHz to 13.0 GHz	<-110 dBm	<-110 dBm	13.0 GHz to 19.7 GHz	<-105 dBm	<-105 dBm	19.7 GHz to 22.0 GHz	<-100 dBm	<-100 dBm	<i>Option 026: 19.7 GHz to 26.5 GHz</i>				
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<p>Spurious Responses All input-related spurious responses, except as noted below, with ≤ -40 dBm mixer level.**</p>	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">HP 8562A</th> <th style="text-align: center;">HP 8562B</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;"><-60 dBc</td> <td style="text-align: center;"><-60 dBc</td> </tr> <tr> <td style="text-align: center;">10 MHz to 6.46 GHz</td> <td style="text-align: center;">10 MHz to 2.9 GHz</td> </tr> </tbody> </table>	HP 8562A	HP 8562B	<-60 dBc	<-60 dBc	10 MHz to 6.46 GHz	10 MHz to 2.9 GHz																						
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<p>Second Harmonic Distortion</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Frequency Range</th> <th style="text-align: center;">HP 8562A</th> <th style="text-align: center;">HP 8562B</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">10 MHz to 2.9 GHz</td> <td style="text-align: center;"><-72 dBc, -40 dBm mixer level**</td> <td style="text-align: center;"><-72 dBc, -40 dBm mixer level**</td> </tr> <tr> <td style="text-align: center;">2.75 GHz to 22.0 GHz</td> <td style="text-align: center;"><- 100 dBc, -10 dBm mixer level**</td> <td style="text-align: center;"><-60 dBc, -40 dbm mixer level**</td> </tr> <tr> <td style="text-align: center;"><i>Option 026: 2.75 GHz to 26.5 GHz</i></td> <td></td> <td></td> </tr> </tbody> </table>	Frequency Range	HP 8562A	HP 8562B	10 MHz to 2.9 GHz	<-72 dBc, -40 dBm mixer level**	<-72 dBc, -40 dBm mixer level**	2.75 GHz to 22.0 GHz	<- 100 dBc, -10 dBm mixer level**	<-60 dBc, -40 dbm mixer level**	<i>Option 026: 2.75 GHz to 26.5 GHz</i>																			
Frequency Range	HP 8562A	HP 8562B																											
10 MHz to 2.9 GHz	<-72 dBc, -40 dBm mixer level**	<-72 dBc, -40 dBm mixer level**																											
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<i>Option 026: 2.75 GHz to 26.5 GHz</i>																													
<p>*With ≤ -3 dBm at input mixer for HP 8562A analyzers with serial prefix 2805A and below, and HP 8562B analyzers with serial prefix 2750A and below. **Mixer level = input level - input attenuation</p>																													

Table I-I. HP 8562A/B Specifications (4 of 9)

AMPLITUDE/MEASUREMENT RANGE (continued)		
<p>Third Order Intermodulation Distortion with two -30 dBm input signals at the input mixer*</p> <p>Frequency Range 10 MHz to 2.9 GHz 2.75 GHz to 6.5 GHz <i>Option 026: 2.75 GHz to 26.5 GHz</i></p>	<p>HP 8562A <-70 dBc <-75 dBc</p>	<p>HP 8562B <-70 dBc <-75 dBc</p>
<p>Image, Multiple, and Out-of-Band Responses</p> <p>Frequency Range 10 MHz to 18 GHz 10 MHz to 22 GHz <i>Option 026: 10 MHz to 26.5 GHz</i></p>	<p>HP 8562A <-70 dBc <-60 dBc</p>	<p>HP 8562B unspecified unspecified</p>
<p>Residual Responses 200 kHz to 6.46 GHz, with no signal at input, 0 dB input attenuation</p>	<p><-90 dBm</p>	
AMPLITUDE MEASUREMENT/DISPLAY RANGE		
<p>Amplitude Scale</p>	<p>10 vertical CRT divisions, with the reference level (0 dB) at the top graticule line</p>	
<p>Calibration LOG</p>	<p>10 dB/DIV for 90 dB display from reference level 5 dB/DIV for 50 dB display expanded from reference level** 2 dB/DIV for 20 dB display expanded from reference level 1 dB/DIV for 10 dB display expanded from reference level**</p>	
<p>LINEAR</p>	<p>10% of reference level per div. when calibrated in voltage</p>	
<p>Reference Level Range LOG, adjustable in 0.1 dB steps</p> <p>Frequency Band 9 kHz*** to 2.9 GHz 2.75 GHz to 6.46 GHz 5.86 GHz to 13.0 GHz 12.4 GHz to 19.7 GHz 19.1 GHz to 22.0 GHz <i>Option 026: 19.1 GHz to 26.5 GHz</i></p>	<p>Range -120 dBm to +30 dBm -120 dBm to +30 dBm -115 dBm to +30 dBm -105 dBm to +30 dBm -100 dBm to +30 dBm</p>	
<p>“Mixer level = input level – input attenuation **These scales are available only in sweeptimes ≥ 30 ms (digital display mode). ***1 kHz to 2.9 GHz for HP 8562A/B analyzers with serial prefix 2927A and below.</p>		

Table I-I. HP 8562A/B Specifications (5 of 9)

AMPLITUDE ACCURACY/DISPLAY RANGE (continued)																				
Reference Level Range (continued) LINEAR, settable in 1% steps 9 kHz* to 2.9 GHz 2.75 GHz to 6.46 GHz 5.86 GHz to 13.0 GHz 12.4 GHz to 19.7 GHz 19.1 GHz to 22.0 GHz <i>Option 026: 19.1 GHz to 26.5 GHz</i>	2.2 μ V to 7.07 v 2.2 μ V to 7.07 v 4.0 μ V to 7.07 v 12.6 μ V to 7.07 V 22.0 μ V to 7.07 v																			
AMPLITUDE ACCURACY/REF LVL UNCERTAINTY																				
Frequency Response with 10 dB input attenuation In-Band <table border="0"> <tr> <td style="text-align: center;">Frequency Range</td> <td style="text-align: center;">HP 8562A</td> <td style="text-align: center;">HP 8562B</td> </tr> <tr> <td>9 kHz* to 2.9 GHz</td> <td style="text-align: center;"><\pm1.0 dB</td> <td style="text-align: center;"><\pm1.0 dB</td> </tr> <tr> <td>2.9 GHz to 6.46 GHz</td> <td style="text-align: center;"><\pm1.5 dB</td> <td style="text-align: center;"><\pm1.0 dB</td> </tr> <tr> <td>6.46 GHz to 13.0 GHz</td> <td style="text-align: center;"><\pm2.0 dB</td> <td style="text-align: center;"><\pm1.5 dB</td> </tr> <tr> <td>13.0 GHz to 19.7 GHz</td> <td style="text-align: center;"><\pm3.0 dB</td> <td style="text-align: center;"><\pm1.5 dB</td> </tr> <tr> <td>19.7 GHz to 22.0 GHz</td> <td style="text-align: center;"><\pm3.0 dB</td> <td style="text-align: center;"><\pm2.0 dB</td> </tr> </table> <i>Option 026: 19.7 GHz to 26.5 GHz</i> Referenced to CAL OUTPUT (300 MHz) 9 kHz* to 2.9 GHz 9 kHz* to 6.46 GHz 9 kHz* to 13.0 GHz 9 kHz* to 19.7 GHz 9 kHz* to 22.0 GHz <i>Option 026: 9 kHz* to 26.5 GHz</i>	Frequency Range	HP 8562A	HP 8562B	9 kHz* to 2.9 GHz	< \pm 1.0 dB	< \pm 1.0 dB	2.9 GHz to 6.46 GHz	< \pm 1.5 dB	< \pm 1.0 dB	6.46 GHz to 13.0 GHz	< \pm 2.0 dB	< \pm 1.5 dB	13.0 GHz to 19.7 GHz	< \pm 3.0 dB	< \pm 1.5 dB	19.7 GHz to 22.0 GHz	< \pm 3.0 dB	< \pm 2.0 dB		
Frequency Range	HP 8562A	HP 8562B																		
9 kHz* to 2.9 GHz	< \pm 1.0 dB	< \pm 1.0 dB																		
2.9 GHz to 6.46 GHz	< \pm 1.5 dB	< \pm 1.0 dB																		
6.46 GHz to 13.0 GHz	< \pm 2.0 dB	< \pm 1.5 dB																		
13.0 GHz to 19.7 GHz	< \pm 3.0 dB	< \pm 1.5 dB																		
19.7 GHz to 22.0 GHz	< \pm 3.0 dB	< \pm 2.0 dB																		
Band Switching Uncertainty Additional uncertainty added to In-Band Frequency Response for measurements between any two bands.	HP 8562A	HP 8562B																		
	<+1.0 dB	<+1.0 dB																		
Calibrator Uncertainty -10 dBm, 300 MHz	< \pm 0.3 dB																			
Input Attenuator Switching Uncertainty 20 to 70 dB settings, referenced to 10 dB input attenuation <table border="0"> <tr> <td style="text-align: center;">Frequency Range</td> <td></td> </tr> <tr> <td>9 kHz* to 2.9 GHz:</td> <td style="text-align: center;"><\pm0.6 dB/10 dB step, 1.8 dB max.</td> </tr> </table>	Frequency Range		9 kHz* to 2.9 GHz:	< \pm 0.6 dB/10 dB step, 1.8 dB max.																
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9 kHz* to 2.9 GHz:	< \pm 0.6 dB/10 dB step, 1.8 dB max.																			
*From 1 kHz, rather than 9 kHz, for HP 8562A/B analyzers with serial prefix 2927A and below.																				

Table I-I. HP 8562A/B Specifications (8 of 9)

AMPLITUDE ACCURACY/REF LVL UNCERTAINTY (continued)	
IF Gain Uncertainty 0 dBm to -80 dBm reference levels with 10 dB input attenuation	<±1.0 dB
Resolution Bandwidth Switching Uncertainty Referenced to 300 kHz RES BW	<±0.5 dB
IF Alignment Uncertainty uncertainty when using 100 Hz and 300 Hz RES BW 100 Hz RES BW 300 Hz RES BW	<±2.0 dB <±0.5 dB
Pulse Digitization Uncertainty Pulse response mode, PRF>720/sweeptime Log Linear	<1.25 dB peak-to-peak for RES BW ≤1 MHz <3 dB peak-to-peak for RES BW of 2 MHz* <4% of reference level peak-to-peak for RES BW ≤1 MHz <12% of reference level peak-to-peak for RES BW of 2 MHz*
AMPLITUDE ACCURACY/SCALE FIDELITY	
Log	<±0.4 dB/4 dB from reference level to a maximum of ±1.5 dB over 0 to 90 dB range
Linear	<±3% of reference level
SWEEP	
Sweep Time Range Span = 0 Span = 0 Span ≥2.5 kHz** x N*** Accuracy (Span = 0) 30 ms ≤ sweep time ≤ 60 seconds Sweep time <30 ms Sweep Trigger	50 μs to <30 ms (analog display) 30 ms to 60 s (digital display) 50 ms to 100 s (digital display) <±1% <±15% Free Run, Single, Line, Video, External
<p>*The 2 MHz RES BW is specified only for HP 8562A analyzers with serial prefix 2805A and above, and HP 8562B analyzers with serial prefix 2809A and above.</p> <p>**Minimum span is 10 kHz for HP 8562A/B analyzers with serial prefix 2724A and below.</p> <p>***N is the harmonic mixing mode. The desired 1st LO harmonic is always higher than the tuned frequency by the 1st IF frequency (3.9107 GHz for the 9 kHz to 2.9 GHz band, and 310.7 MHz for all other bands).</p>	

Table I-I. HP 8562A/B Specifications (7 of 9)

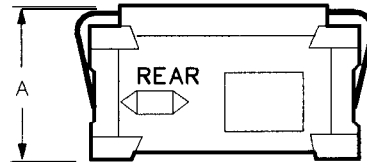
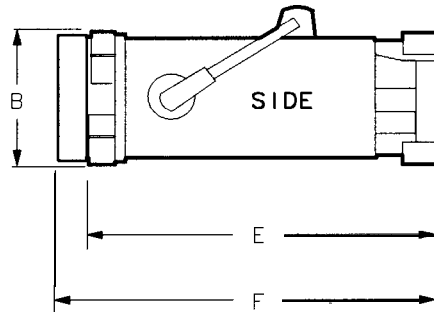
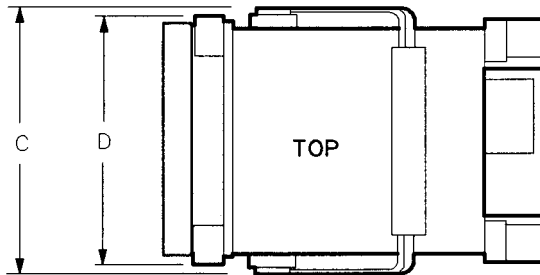
INPUTS AND OUTPUTS	
<p>IF INPUT Connector Input level for full-screen deflection external mixing mode, 0 dBm reference level, 30 dB conversion loss</p> <p>HP-IB Connector Interface Functions Direct Plotter Output</p> <p>CAL OUTPUT Connector Frequency Amplitude</p> <p>1ST LO OUTPUT Connector Amplitude</p> <p>10 MHz REF IN/OUT Connector Frequency</p>	<p>SMA female, front panel -30 dBm \pm1.5 dB</p> <p>IEEE-488 bus connector SH1, AH1, T6, TEO, L4, LEO, SR1, RL1, PP1, DC1, DTO, CI, C28, EI Supports HP 7225A, HP 7440A, HP 7470A, HP 7475A, HP 7550A</p> <p>BNC female, front panel 300 MHz \pm(300 Hz x frequency reference accuracy*) -10 dBm \pm0.3 dB</p> <p>SMA female, front panel +16.5 dBm \pm2.0 dB (20°C to 30°C)</p> <p>BNC female, rear panel 10 MHz \pm(10 MHz x frequency reference accuracy*)</p>
GENERAL SPECIFICATIONS	
<p>ENVIRONMENTAL SPECIFICATIONS Calibration Interval Warmup Time Temperature Operating Non-operating Humidity Altitude Operating Non-operating Rain Resistance</p>	<p><i>Military Specification per MIL-T-28800C, Type III, Class 3, Style C, as follows:</i></p> <p>one year five minutes from ambient conditions**</p> <p>-10°C to +55°C -62°C to +85°C</p> <p>95% at 40°C for five days</p> <p>15,000 feet 50,000 feet</p> <p>Drip-proof at 16 liters/hour/square foot</p>
<p>*Frequency reference accuracy for Option 003 = (aging rate x period of time since + initial achievable accuracy + temperature stability). **Two hours for conditions of internal condensation, 30 minutes to meet frequency response specifications without preselector peaking. If operating outside the 20°C to 30°C ambient temperature range, preselector peaking is required to meet frequency response specifications. All specifications are valid within the first 20 minutes of operation if Cal adjustment is performed first.</p>	

Table I-I. HP 8562A/B Specifications (8 of 9)

GENERAL SPECIFICATIONS (continued)	
<p>ENVIRONMENTAL SPECIFICATIONS (continued)</p> <p>Vibration</p> <p> 5 to 15 Hz</p> <p> 15 to 25 Hz</p> <p> 25 to 55 Hz</p> <p>Pulse Shock</p> <p> Half Sine</p> <p>Transit Drop</p>	<p>0.059 inch peak-to-peak excursion</p> <p>0.039 inch peak-to-peak excursion</p> <p>0.020 inch peak-to-peak excursion</p> <p>30 g for 11 ms duration</p> <p>B-inch drop on six faces and eight corners</p>
<p>ELECTROMAGNETIC COMPATIBILITY</p> <p>Conducted Emissions</p> <p> CE01 (Narrowband)</p> <p> CE03 (Narrowband)</p> <p> CE03 (Broadband)</p> <p>Conducted Susceptibility</p> <p> CS01</p> <p> CS02</p> <p> CS06</p> <p>Radiated Emissions</p> <p> RE01</p> <p> RE02</p> <p>Radiated Susceptibility</p> <p> RS01</p> <p> RS02</p> <p> RS03</p>	<p>Conducted and radiated interference is in compliance with CISPR, Publication 11 (1990).</p> <p>Meets the standards of MIL-STD-461B, Part 4, with the exceptions shown below:</p> <p>10 kHz to 15 kHz only</p> <p>Full limits</p> <p>20 dB relaxation from 15 kHz to 100 kHz</p> <p>Full limits (limited to 36 Hz for HP 8562B)</p> <p>Full limits</p> <p>Full limits</p> <p>15 dB relaxation of 30 kHz (excepted from 30 kHz to 50 kHz)</p> <p>Full limits to 1 GHz</p> <p>Full limits</p> <p>Excepted</p> <p>Limited to 1 V/m from 14 kHz to 1 GHz, with 20 dB relaxation at IF frequencies (30 dB relaxation at IF frequencies for Option 001 instruments)</p>
<p>POWER REQUIREMENTS</p> <p>115 VAC Operation</p> <p> Voltage</p> <p> Current</p> <p> Frequency</p> <p>230 VAC Operation</p> <p> Voltage</p> <p> Current</p> <p> Frequency</p> <p>Maximum Power Dissipation</p>	<p>90 to 140 V rms</p> <p>3.2 A rms max</p> <p>47 to 440 Hz</p> <p>180 to 250 V rms</p> <p>1.8 A rms max</p> <p>47 to 66 Hz</p> <p>180 watts</p>

Table I-I. HP 8562A/B Specifications (9 of 9)

GENERAL SPECIFICATIONS (continued)	
PHYSICAL SPECIFICATIONS	
Weight	
HP 8562A	20 kg (44 lbs)
HP 8562B	19 kg (41.8 lbs)
Dimensions	
with handle and cover	200 mm high (A) x 373 mm wide (C) x 500 mm deep (F)
without handle and cover	184 mm high (B) x 337 mm wide (D) x 460.5 mm deep (E)



FORMAT 1

Table 1-2. HP 8562A/B Characteristics

NOTE: These are not specifications. Characteristics provide useful, but non-warranted, information about instrument performance.													
FREQUENCY													
Frequency Reference Accuracy Aging Temperature drift (-10°C to +55°C) Settability	$<\pm 1 \times 10^{-6}/\text{year}$ $<\pm 2 \times 10^{-6}$ $<\pm 1 \times 10^{-6}$												
Frequency Reference Accuracy <i>Option 003 only</i> Warmup 5 minutes 15 minutes Daily Aging (after 7 day warmup) Initial Achievable Accuracy (includes effects due to retrace, gravitational effects, temperature stability at room temperature, and settability)	$<\pm 1 \times 10^{-7}$ of final frequency (0°C to +55°C) $<\pm 1 \times 10^{-6}$ of final frequency (-10°C to +55°C) $<\pm 1 \times 10^{-8}$ of final frequency (-10°C to +55°C) $<\pm 5 \times 10^{-10}$ per day (7 day average) $<\pm 2.2 \times 10^{-8}$												
AMPLITUDE													
Nominal Sensitivity 100 Hz RES BW, 1 Hz Video BW, 0 dB input attenuation <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Frequency Range</td> <td style="text-align: center;">Nominal Sensitivity</td> </tr> <tr> <td style="text-align: center;">1 MHz to 2.9 GHz</td> <td style="text-align: center;">-128 dBm</td> </tr> <tr> <td style="text-align: center;">2.9 GHz to 6.46 GHz</td> <td style="text-align: center;">-126.5 dBm</td> </tr> <tr> <td style="text-align: center;">6.46 GHz to 13.0 GHz</td> <td style="text-align: center;">-119 dBm</td> </tr> <tr> <td style="text-align: center;">13.0 GHz to 19.7 GHz</td> <td style="text-align: center;">-114 dBm</td> </tr> <tr> <td style="text-align: center;">19.7 GHz to 22.0 GHz</td> <td style="text-align: center;">-108 dBm</td> </tr> </table> <i>Option 026: 19.7 GHz to 26.5 GHz</i>	Frequency Range	Nominal Sensitivity	1 MHz to 2.9 GHz	-128 dBm	2.9 GHz to 6.46 GHz	-126.5 dBm	6.46 GHz to 13.0 GHz	-119 dBm	13.0 GHz to 19.7 GHz	-114 dBm	19.7 GHz to 22.0 GHz	-108 dBm	
Frequency Range	Nominal Sensitivity												
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19.7 GHz to 22.0 GHz	-108 dBm												
Radiated Immunity When tested at 3 V/m according to IEC 801-3/1984, the displayed average noise level will be within specifications over the full immunity test frequency range of 27 MHz to 500 MHz, except at the immunity test frequency of 310.7 MHz ± selected resolution bandwidth. At these frequencies, the displayed average noise level may be up to -80 dBm. When the analyzer tuned frequency is identical to the immunity test signal frequency, there may be signals of up to -90 dBm displayed on the screen.													

Table 1-2. HP 8562A/B Characteristics (2 of 4)

NOTE: These are not specifications. Characteristics provide useful, but non-warranted, information about instrument performance.						
AMPLITUDE ACCURACY						
Band-to-Band Frequency Response Frequency response uncertainty for measurements between any two bands. Equivalent to the sum of two In-Band Frequency Response values plus Band Switching Uncertainty (<i>values in parenthesis apply to HP 8562B</i>)	Band-to-Band Frequency Response (dB)					
	Band	0	1	2	3	4
	0		4.2 (3.7)	5.2 (4.2)	5.7 (4.7)	6.0 (6.0)
	1	4.2 (3.7)	—	6.5 (5.0)	7.0 (5.5)	7.3 (6.8)
	2	5.2 (4.2)	6.5 (5.0)	—	8.0 (6.0)	8.3 (7.3)
	3	5.7 (4.7)	7.0 (5.5)	8.0 (6.0)	—	8.8 (7.8)
4	6.0 (6.0)	7.3 (6.8)	8.3 (7.3)	8.8 (7.8)	—	
Input Attenuator Repeatability	<±0.2 dB					
Pulse Digitization Uncertainty Pulse response mode, PRF >720/sweeptime Standard Deviation	0.2 dB					
SWEEP						
Sweep Time Accuracy (span ≥2.5 kHz* x N**)	<±15%					
DEMODULATION						
Spectrum Demodulation Modulation Type Audio Output Marker Pulse Time	AM and FM Internal speaker and phone jack with volume control 100 ms to 60 s					
*Minimum span is 10 kHz for HP 8562A/B analyzers with serial prefix 2724A and below. **N is the harmonic mixing mode. The desired 1st LO harmonic is always higher than the tuned frequency by the 1st IF frequency (3.9107 GHz for the 9 kHz to 2.9 GHz band, and 310.7 MHz for all other bands.)						

Caution

Any electrostatic discharge to the center pins of any of the connectors may cause damage to the associated circuitry (according to IEC 801-2/1991).

Table 1-2. HP 8562A/B Characteristics (3 of 4)

INPUTS AND OUTPUTS	
NOTE: These are not specifications. Characteristics provide useful, but non-warranted, information about instrument performance.	
INPUT 50 Ω	
Connector type	Precision Type N female, front panel <i>Option 026: APC 3.5 male</i>
Impedance	50 ohms
VSWR (at tuned frequency)	<1.5:1 for <2.9 GHz and ≥10 dB input attenuation <2.3:1 for >2.9 GHz and ≥10 dB input attenuation <3.0:1 for 0 dB input attenuation
LO Emission Level (Average)	HP 8562A HP 8562B
10 dB input attenuation	<-70 dBm <-10 dBm
IF INPUT	
Connector Type	SMA female, front panel
Impedance	50 ohms
Frequency	310.7 MHz
Noise Figure	7 dB
1 dB Gain Compression Level	-23 dBm
Full Screen Level (Gain Compression and Full Screen Levels apply with 30 dB Conversion loss setting and 0 dBm reference level.)	-30 dBm
1ST LO OUTPUT	
Connector	SMA female, front panel
Impedance	50 ohms
Frequency Range	3.0000 GHz to 6.8107 GHz
CAL OUTPUT	
Connector	BNC female, front panel
Impedance	50 ohms
10 MHz REF IN/OUT	
Connector	BNC female, rear panel
Impedance	50 ohms
Output Amplitude	0 dBm
Input Amplitude	-2 to +10 dBm

Table 1-2. HP 8562A/B Characteristics (4 of 4)

NOTE: These are not specifications. Characteristics provide useful, but non-warranted, information about instrument performance.			
INPUTS AND OUTPUTS (continued)			
VIDEO OUTPUT			
Connector		BNC female, rear panel	
Impedance (DC coupled)		50 ohms	
Amplitude (into 50 Ω load)		0 to +1 volt full-scale	
Scale		Linear or Log 100 dB/V	
LO SWP 0.5 V/GHz OUTPUT			
Connector		BNC female, rear panel	
Impedance (DC coupled)		2 kohms	
LO SWP OUTPUT (no load)		0 to +10 v	
0.5 V/GHz OUTPUT (no load)		0.5 V/GHz of tuned frequency	
BLANKING OUTPUT			
Connector		BNC female, rear panel	
Amplitude			
during SWEEP		Low TTL Level (sink 150 mA max.)	
during RETRACE		High TTL Level (source 0.5 mA max.)	
maximum input (high TTL state)		+40 v	
EXT TRIG INPUT			
Connector		BNC female, rear panel	
Impedance		10 kohms	
Trigger Level		Rising edge of TTL Level	
PROBE POWER (front panel)			
Voltage		+15 VDC, -12.6 VDC	
Current		150 mA max., each	
EARPHONE			
Connector		1/8 in ³ mini ² ure monophonic jack, rear panel	
Power Output		0.25 watts into 4 ohms	
2ND IF OUT (Option 001 only)			
Connector		SMA female, rear panel	
Impedance		50 ohms	
Frequency		310.7 MHz	
	Frequency Range	3 dB BW	Noise Figure
	9 kHz* to 2.9 GHz	>30 MHz	24 dB
	2.75 GHz to 6.46 GHz	>20 MHz	24 dB
	5.86 GHz to 13.0 GHz	>30 MHz	33.6 dB
	12.4 GHz to 19.7 GHz	>30 MHz	39.8 dB
	19.1 GHz to 22.0 GHz	>35 MHz	44.4 dB
	<i>Option 026: 19.1 GHz to 26.5 GHz</i>		
			Conversion Gain
			-5.6 dB
			-3.6 dB
			-3.7 dB
			-9.9 dB
			-14.8 dB
*1 kHz to 2.9 GHz for HP 8562A/B analyzers with serial prefix 2927A and below.			