# Specifications for the HP 8591A

**Table 1-1. HP 8591A Specifications (1 of 5)**

| GENERAL SPECIFICATIONS | |
|---|---|
| All specifications apply over 0°C to +55°C. The analyzer will meet its specifications after 2 hours of storage at a constant temperature, within the operating temperature range, 30 minutes after the analyzer is turned on and after CAL FREQ, and CAL AMPTD have been run. | |
| **Temperature Range**<br>Operating<br>Storage | <br>0°C to +55°C<br>−40°C to +75°C |
| **EMI Compatibility** | Conducted and radiated interference CISPR Pub. 11 and Messempfaenger Postverfuegung 526/527/79 |
| **Audible Noise** | <37.5 dBA pressure and <5.0 Bels power (ISODP7779) |
| **Power Requirements**<br>ON (LINE 1)<br><br><br>Standby (LINE 0) | <br>86 to 127, or 195 to 250 V rms, 47 to 66 Hz<br>103 to 126 V rms, 400 Hz ±10%<br>Power consumption <300 VA<br>Power consumption <7 watts |
| **FREQUENCY SPECIFICATIONS** | |
| **Frequency Range**<br>50Ω<br>75Ω *(Option 001)* | <br>9 kHz to 1.8 GHz<br>1 MHz to 1.8 GHz |
| **Frequency Reference**<br>Aging<br><br><br>Settability<br>Temperature Stability | <br>$\pm 1 \times 10^{-7}$/day<br>$\pm 2 \times 10^{-6}$/year<br><br>$\pm 0.5 \times 10^{-6}$<br>$\pm 5 \times 10^{-6}$ |
| **Precision Freq. Reference** *(Option 004)*<br>Aging<br>Settability<br>Temperature Stability | <br>$\pm 1 \times 10^{-7}$/year<br>$\pm 1 \times 10^{-8}$<br>$\pm 1 \times 10^{-8}$ |

**Table 1-1. HP 8591A Specifications (2 of 5)**

| FREQUENCY SPECIFICATIONS (Continued) | |
|---|---|
| **Frequency Accuracy** | |
| Readout Accuracy<br>(Start, Stop, Center, Marker) | ±(frequency readout × frequency reference error*<br>+ 3% of span + 20% of RBW + 1.5 kHz) |
| **Marker Count Accuracy** | (Signal-to-Noise ratio ≥25 dB, RBW/span ≥ 0.01) |
| Frequency Span ≤ 10 MHz | ±(marker frequency × frequency reference error*<br>+ counter resolution + 100 Hz) |
| Frequency Span > 10 MHz | ±(marker frequency × frequency reference error*<br>+ counter resolution + 1 kHz) |
| Counter Resolution | Selectable from 10 Hz to 100 kHz |
| **Frequency Span** | |
| Range | 0 Hz (zero span), 10 kHz to 1.8 GHz |
| Resolution | 4 digits |
| Accuracy | ±2% of span, spans ≤10 MHz<br>±3% of span, spans >10 MHz |
| **Frequency Sweep Time** | |
| Range | |
| Span=0 Hz | 20 ms to 100 s |
| Span=0 Hz *(Option 101)* | 20 μs to 100 s |
| Span > 10 kHz | 20 ms to 100 s |
| Accuracy | |
| 20 ms to 100 s | ±3% |
| 20 μs to <20 ms *(Option 101)* | ±2% |
| Sweep Trigger | Free run, Single, Line, Video, External |
| **Stability** | |
| Noise Sidebands | ≤−95 dBc/Hz at >30 kHz offset from CW signal<br>(1 kHz RBW, 30 Hz VBW, and sample detector) |
| Residual FM | <250 Hz pk-pk in 100 ms (1 kHz RBW, 1 kHz VBW) |
| System Related Sidebands | <−65 dBc at >30 kHz offset from CW signal |

| AMPLITUDE SPECIFICATIONS | | |
|---|---|---|
| **Amplitude Range** | | |
| 50Ω | −115 dBm to +30 dBm | |
| 75Ω *(Option 001)* | −63 dBmV to +75 dBmV | |
| **Maximum Safe Input Level** | (Input Atten ≥10 dB) | |
| | **50Ω** | **75Ω *(Option 001)*** |
| Average Continuous Power | +30 dBm (1 watt) | +75 dBmV (0.4 watts) |
| Peak Pulse Power | +30 dBm (1 watt) | +75 dBmV (0.4 watts) |
| dc | 25 V dc | 100 V dc |

* Frequency Reference Error = (aging rate × period of time since adjustment + initial achievable accuracy + temperature stability) See Table 1-2.

**Table 1-1. HP 8591A Specifications (3 of 5)**

| AMPLITUDE SPECIFICATIONS (continued) | |
|---|---|
| **Gain Compression** | |
| >10 MHz | ≤0.5 dB (total power at input mixer* = −10 dBm) |
| **Displayed Average Noise Level** | (Input terminated, 0 dB attenuation, 1 kHz RBW, 30 Hz VBW, sample detector) |
| | **50Ω** **75Ω *(Option 001)*** |
| 400 kHz to 1 MHz | ≤−115 dBm N/A |
| 1 MHz to 1.5 GHz | ≤−115 dBm ≤−63 dBmV |
| 1.5 GHz to 1.8 GHz | ≤−113 dBm ≤−61 dBmV |
| **Spurious Responses** | |
| Second Harmonic Distortion | |
| 5 MHz to 1.8 GHz | <−70 dBc for −45 dBm tone power at input mixer* |
| Third Order Intermodulation Distortion | |
| 5 MHz to 1.8 GHz | <−70 dBc for two −30 dBm tones at input mixer* and >50 kHz separation |
| Other Input Related Spurious | <−65 dBc for ≥30 kHz offset from CW signal |
| **Residual Responses** | (Input terminated and 0 dB attenuation) |
| | **50Ω** **75Ω *(Option 001)*** |
| 150 kHz to 1 MHz | <−90 dBm N/A |
| 1 MHz to 1.8 GHz | <−90 dBm <−38 dBmV |
| **Display Range** | |
| Log Scale | 0 to −70 dB from reference level is calibrated; 1 to 20 dB/division in 1 dB steps; 8 divisions displayed |
| Linear Scale | 8 divisions |
| Scale Units | dBm, dBmV, dBμV, volts and watts |
| Marker Readout Resolution | 0.05 dB for log scale<br>0.05% of reference level for linear scale |
| Fast Sweep Times for Zero Span | |
| 20 μs to 20 ms *(Option 101)* | 0.7% of reference level for linear scale |
| * Mixer Power Level (dBm) = Input Power (dBm) − Input Attenuator (dB). | |

**Table 1-1. HP 8591A Specifications (4 of 5)**

| AMPLITUDE SPECIFICATIONS (Continued) | |
|---|---|
| **Reference Level** | |
| Range | |
| 50Ω | −115 dBm to +30 dBm |
| 75Ω *(Option 001)* | −63 dBmV to +75 dBmV |
| Resolution | 0.01 dB for log scale<br>0.12% of reference level for linear scale |
| Accuracy | (Referred to −20 dBm Reference Level) |
| 0 dBm to −59.9 dBm | ±(0.5 dB + Input Attenuator Accuracy at 50 MHz) |
| −60 dBm to −115 dBm | ±(1.25 dB + Input Attenuator Accuracy at 50 MHz) |
| **Frequency Response** | (10 dB input attenuation) |
| Absolute | ±1.5 dB, referred to 300 MHz CAL OUT |
| Relative Flatness | ±1.0 dB, referred to midpoint between highest and lowest frequency response deviations |
| **Calibrator Output** | |
| Frequency | 300 MHz ± (300 MHz × frequency reference error)* |
| Amplitude | |
| 50Ω | −20 dBm ±0.4 dB |
| 75Ω *(Option 001)* | +28.75 dBmV ±0.4 dB |
| **Input Attenuator** | |
| Range | 0 to 60 dB, in 10 dB steps |
| Accuracy | |
| 20 to 50 dB | ±0.5 dB at 50 MHz, referred to 10 dB attenuation |
| 60 dB | ±0.75 dB at 50 MHz, referred to 10 dB attenuation |
| **Resolution Bandwidth Switching Uncertainty** | (Referred to 3 kHz RBW) |
| 3 kHz to 3 MHz RBW | ±0.4 dB |
| 1 kHz | ±0.5 dB |
| **Log to Linear Switching** | ±0.25 dB at reference level |
| **Display Scale Fidelity** | |
| Log Incremental Accuracy | ±0.2 dB/2 dB, 0 to −70 dB from reference level |
| Log Maximum Cumulative | ±0.75 dB, 0 to −60 dB from reference level<br>±1.0 dB, 0 to −70 dB from reference level |
| Linear Accuracy | ±3% of reference level |
| * Frequency Reference Error = (aging rate × period of time since adjustment + initial achievable accuracy + temperature stability) See Table 1-2. | |

**Table 1-1. HP 8591A Specifications (5 of 5)**

| TRACKING GENERATOR SPECIFICATIONS | |
|---|---|
| All specifications apply over 0°C to +55°C. The spectrum-analyzer/tracking-generator combination will meet its specifications after 2 hours of storage at a constant temperature within the operating temperature range, 30 minutes after the spectrum-analyzer/tracking-generator is turned on and after CAL FREQ, CAL AMPTD, and CAL TRK GEN have been run. | |
| **Warm-up** | 30 minutes |
| **Output Frequency** | |
| Range, 50Ω, Option 010 | 100 kHz to 1.8 GHz |
| 75Ω, Option 011 | 1 MHz to 1.8 GHz |
| **Output Power Level** | |
| Range, 50Ω, Option 010 | 0 to −70 dBm |
| 75Ω, Option 011 | +42.8 to −27.2 dBmV |
| Resolution | 0.1 dB |
| Absolute Accuracy | ±1.0 dB<br>(at 300 MHz, −20 dBm, and coupled source attenuator)<br>(Option 011: use +28.8 dBmV instead of −20 dBm) |
| Vernier | |
| Range | 10 dB* |
| Accuracy | ±0.75 dB over 10 dB range<br>(referred to −20 dBm for coupled source attenuator setting)*<br>(Option 011: referred to +28.8 dBmV instead of −20 dBm) |
| Output Attenuator | |
| Range | 0 to 60 dB in 10 dB steps |
| Switching Accuracy (at 30 MHz) | ±0.8 dB or 2.5% of attenuator setting, whichever is greatest, for maximum of 1.5 dB (referred to 10 dB source attenuator setting)* |
| **Output Power Sweep** | |
| Range, 50Ω, Option 010 | (−15 dBm to 0 dBm) − (Source Attenuator setting) |
| Range, 75Ω, Option 011 | (+27.8 to 42.8 dBmV) − (Source Attenuator setting) |
| Resolution | 0.1 dB |
| Accuracy (zero span) | <1.5 dB peak-to-peak |
| **Output Flatness** | ±1.75 dB (referred to 300 MHz, 10 dB attenuator) |
| **Spurious Outputs** | |
| 50Ω, Option 010 | (0 dBm output, 100 kHz to 1.8 GHz) |
| 75Ω, Option 011 | (+42.8 dBmV output, 1 MHz to 1.8 GHz) |
| Harmonic Spurs | <−25 dBc |
| Non-Harmonic Spurs | <−30 dBc |
| **Dynamic Range** | |
| Tracking Generator Feedthrough, 50Ω, Option 010 | <−106 dBm |
| Tracking Generator Feedthrough, 75Ω, Option 011 | <−57.24 dBmV |
| * See Table 1-2, "Tracking Generator Output Accuracy." | |

## Characteristics for the HP 8591A

**Table 1-2. HP 8591A Characteristics (1 of 8)**

| | |
|---|---|
| Note: These are not specifications. Characteristics provide useful, but nonwarranted, information about instrument performance. | |
| FREQUENCY CHARACTERISTICS | |
| **Frequency Reference**<br>Initial Achievable Accuracy | $\pm 0.5 \times 10^{-6}$ |
| **Precision Frequency Reference** *(Option 004)*<br>Aging<br><br>Warm-up<br><br>Initial Achievable Accuracy | $5 \times 10^{-10}$/day, 7 day average after being powered on for 7 days.<br><br>$1 \times 10^{-8}$ after 30 minutes on.<br><br>$\pm 2.2 \times 10^{-8}$, after being powered on for 24 hours. |
| **Resolution Bandwidth (−3 dB)**<br>Range<br><br><br><br>Shape | 1 kHz to 3 MHz, selectable in 1, 3 and 10 increments, accuracy ±20% and 5 MHz. Resolution bandwidths may be selected manually, or coupled to frequency span.<br><br>Synchronously tuned 4 poles.<br>Approximately Gaussian shape. |
| **Video Bandwidth (−3 dB)**<br>Range<br><br><br><br>Shape | 30 Hz to 1 MHz, selectable in 1, 3, 10 increments, accuracy ±30% and 3 MHz. Video bandwidths may be selected manually, or coupled to resolution bandwidth and frequency span.<br><br>Post detection, single pole low-pass filter used to average displayed noise. |

**Table 1-2. HP 8591A Characteristics (2 of 8)**

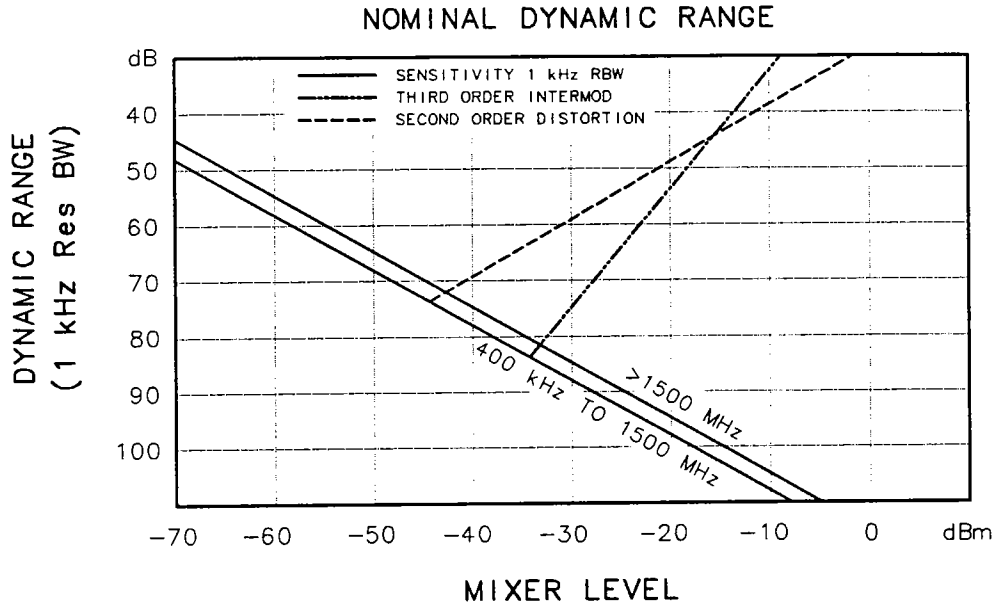
| AMPLITUDE CHARACTERISTICS | |
|---|---|
| **Absolute Amplitude Calibration Uncertainty*** | ±0.25 dB |
| **Log Scale Switching Uncertainty** | Negligible error. |
| **FM Demod/TV Sync Trigger** *(Option 102)* | |
| Demod Tune Listen | Internal speaker, rear panel earphone jack and front panel volume control. Adjustable squelch control mutes the audio signal to the speaker/earphone jack based on the level of the demodulated signal above 22 kHz. An uncalibrated demodulated signal is available on the AUX VIDEO OUT connector at the rear panel. |
| TV Trigger *(Options 101 and 102)* | Triggers sweep of the analyzer after the sync pulse of a selected line of a TV video field. |
| Carrier Level for Trigger | Top 60% of Linear Display. |
| Compatible Formats | NTSC, PAL, SECAM. |
| Field Selection | Even, Odd, Non-interlaced. |
| Trigger Polarity | Positive, Negative. |
| Line Selection | 10 to 1021. |
| **Input Attenuation Uncertainty†** | |
| Attenuator Setting | |
| 0 dB | ±0.5 dB |
| 10 dB | Ref |
| 20 dB | ±0.5 dB |
| 30 dB | ±0.6 dB |
| 40 dB | ±0.8 dB |
| 50 dB | ±1.0 dB |
| 60 dB | ±1.2 dB |
| **Input Attenuator Repeatability** | |
| 300 MHz | ±0.03 dB |
| 1.8 GHz | ±1.0 dB |
| **RF Input SWR** | (Attenuator Setting 10 to 60 dB) |
| 9 kHz to 1.8 GHz | 1.35:1 |

* Error in the CAL AMPTD routine. Absolute amplitude reference settings: 300 MHz Center Frequency; 10 dB Input Attenuator; −20 dBm Reference Level; 3 kHz Resolution Bandwidth; Linear Scale.

† Referred to 10 dB input attenuator setting from 9 kHz to 1.8 GHz; See Table 1-1, Frequency Response Specification.

**Table 1-2. HP 8591A Characteristics (3 of 8)**

| DYNAMIC RANGE |
|---|




**HP 8591A Dynamic Range**

| FRONT PANEL INPUT / OUTPUT | |
|---|---|
| **INPUT 50Ω** | |
| Connector | Type N female |
| Impedance | 50Ω nominal |
| **INPUT 75Ω** *(Option 001)* | |
| Connector | BNC female |
| Impedance | 75Ω nominal |
| **PROBE POWER*** | |
| Voltage/Current | +15 V dc, ±7% at 150 mA max.<br>−12.6 V dc ±10% at 150 mA max. |

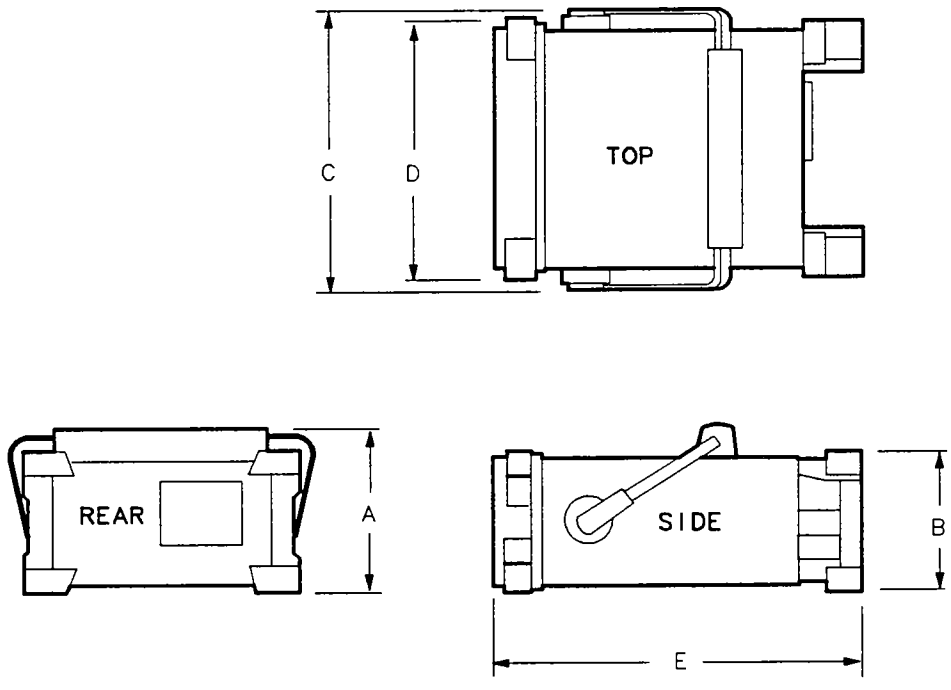
* Total current drawn from the +15 V dc on the PROBE POWER and the AUX INTERFACE cannot exceed 150 mA. Total current drawn from the −12.6 V dc on the PROBE POWER and the −15 V dc on the AUX INTERFACE cannot exceed 150 mA.

**Table 1-2. HP 8591A Characteristics (4 of 8)**

| REAR-PANEL INPUTS / OUTPUTS | |
|---|---|
| **10 MHz REF OUTPUT** | |
| Connector | BNC female |
| Impedance | 50Ω |
| Output Amplitude | >0 dBm |
| **EXT REF IN** | |
| Connector | BNC female<br>Note: Analyzer noise sideband and spurious response performance may be affected by the quality of the external reference used. |
| Input Amplitude Range | −2 to +10 dBm |
| Frequency | 10 MHz |
| **AUX IF OUTPUT** | |
| Frequency | 21.4 MHz |
| Amplitude Range | −10 to −60 dBm |
| Impedance | 50Ω nominal |
| **AUX VIDEO OUTPUT** | |
| Connector | BNC female |
| Amplitude Range | 0 to 1 volt (uncorrected) |
| **EARPHONE** *(Option 102)* | |
| Connector | 1/8 inch monaural jack. |
| **EXT KEYBOARD** *(Option 021/023)* | Interface compatible with HP part number C1405 Option ABA and most IBM/AT non-auto switching keyboards. |
| **EXT TRIG INPUT** | |
| Connector | BNC female. |
| Trigger Level | Positive edge initiates sweep in EXT TRIG mode (TTL). |
| **HI-SWEEP IN/OUT** | |
| Connector | BNC female. |
| Output | TTL high=sweep, low=retrace. |
| Input | Open collector, low stops sweep. |
| **MONITOR OUTPUT** | |
| Connector | BNC female. |
| Format | NTSC Video, 19.2 kHz horizontal rate. |
| **REMOTE INTERFACE** | |
| Option 021, HPIB | |
| HPIB Codes | SH1, AH1, T6, SR1, RL1, PP0, DC1, C1, C2, C3 and C28. |
| Option 023, RS-232 | |
| **SWEEP OUTPUT** | |
| Connector | BNC female. |
| Amplitude | 0 to +10 volt ramp. |
| **TV TRIG OUT** *(Options 101 and 102)* | |
| Connector | BNC female. |
| Amplitude | Negative edge corresponds to start of the selected TV line after sync pulse (TTL). |

**Table 1-2. HP 8591A Characteristics (5 of 8)**

| WEIGHT | |
|---|---|
| **Net**<br>HP 8591A | 14.5 kg (32 lb) |
| **Shipping**<br>HP 8591A | 17.3 kg (38 lb) |
| **DIMENSIONS** | |
| A = 8 in (200 mm)<br>B = 7.25 in (184 mm)<br>C = 14.69 in (373 mm)<br>D = 13.25 in (337 mm)<br>E = 18.12 in (460.5 mm) | |




**HP 8591A Dimensions**

**Table 1-2. HP 8591A Characteristics (6 of 8)**

**AUX INTERFACE**

Connector Type : 9 Pin Subminiature "D"

Connector Pinout

| Pin # | Function | Current | "Logic" Mode | "Serial Bit" Mode |
|---|---|---|---|---|
| 1 | Control A | — | TTL Output Hi/Lo | TTL Output Hi/Lo |
| 2 | Control B | — | TTL Output Hi/Lo | TTL Output Hi/Lo |
| 3 | Control C | — | TTL Output Hi/Lo | Strobe |
| 4 | Control D | — | TTL Output Hi/Lo | Serial Data |
| 5 | Control I | — | TTL Input Hi/Lo | TTL Input Hi/Lo |
| 6 | Gnd | — | Gnd | Gnd |
| 7† | −15 V dc ±7% | 150 mA | — | — |
| 8* | +5 V dc ±5% | 150 mA | — | — |
| 9† | +15 V dc ±5% | 150 mA | — | — |

**TRACKING GENERATOR INPUTS AND OUTPUTS**

| | |
|---|---|
| **RF Output** | |
| Impedance Connector | |
| Option 010 | 50Ω, Type N female |
| Option 011 | 75Ω, BNC female |
| Maximum Reverse Level | |
| Option 010 | +20 dBm (0.1 W), 25 V |
| Option 011 | +69 dBmV (0.1 W), 100 V |
| **External ALC Input** | |
| Impedance | 1 Megohm |
| Polarity | Positive or Negative |
| Range | −66 dBV to +6 dBV |
| Connector | BNC |

* Exceeding the +5 V current limits may result in loss of factory correction constants.

† Total current drawn from the +15 V dc on the PROBE POWER and the AUX INTERFACE cannot exceed 150 mA. Total current drawn from the −12.6 V dc on the PROBE POWER and the −15 V dc on the AUX INTERFACE cannot exceed 150 mA.

**Table 1-2. HP 8591A Characteristics (7 of 8)**

| TRACKING GENERATOR CHARACTERISTICS | |
|---|---|
| **Output Tracking**<br>Drift (usable in 10 kHz bandwidth after 30 minute warmup) | 1 kHz/5 minutes |
| **Spurious Outputs**<br>Option 010: 0 dBm output, >1.8 GHz to 4.0 GHz<br>Option 011: +42.8 dBmV 75Ω, >1.8 GHz to 4.0 GHz<br>Harmonic<br>Non-Harmonic<br>2121.4 MHz Feedthrough | <br><br><br><−20 dBc<br><−40 dBc<br>for 0 dBm TG Output Option 010: <−45 dBc;<br>Option 011: +42.8 dBmV Output |
| **RF Power-Off Residuals**<br>Option 010: 100 kHz to 1.8 GHz<br>Option 011: 1 MHz to 1.8 GHz | <br><−115 dBm<br><−66.2 dBmV |
| **Output Attenuator**<br>Repeatability | <br>±0.2 dB |
| **Output VSWR**<br>0 dB Attenuator<br>10 dB Attenuator | <br><2.5:1<br><1.6:1 |
| **Dynamic Range** (difference between maximum power out and tracking generator feedthrough)<br>Option 010, 100 kHz to 1.8 GHz<br>Option 011, 1 MHz to 1.8 GHz | <br><br>>106 dB<br>>100 dB |

**Table 1-2. HP 8591A Characteristics (8 of 8)**

| TRACKING GENERATOR OUTPUT ACCURACY, Option 010 (after CAL TRK GEN in auto-coupled mode) | | | | | |
|---|---|---|---|---|---|
| **TG Output Power Level** | **Attenuator Setting** | **Relative Accuracy (at 300 MHz referred to −20 dBm)** | **Absolute Accuracy (at 300 MHz)** | **Relative Accuracy (referred to −20 dBm) (+0.2 dB/GHz)*** | **Absolute Accuracy (+0.2 dB/GHz)*** |
| 0 to −10.9 dBm | 0 dB | ±1.25 dB | ±2.25 dB | ±2.75 dB | ±3.75 dB |
| −11 to −20.9 dBm | 10 dB | ±0.75 dB | ±1.75 dB | ±2.25 dB | ±3.25 dB |
| −20 dBm | 10 dB | 0 dB Reference | ±1.0 dB | ±1.50 dB | ±2.50 dB |
| −21 to −30.9 dBm | 20 dB | ±1.25 dB | ±2.25 dB | ±2.75 dB | ±3.75 dB |
| −31 to −40.9 dBm | 30 dB | ±1.35 dB | ±2.35 dB | ±2.85 dB | ±3.85 dB |
| −41 to −50.9 dBm | 40 dB | ±1.55 dB | ±2.55 dB | ±3.05 dB | ±4.05 dB |
| −51 to −60.9 dBm | 50 dB | ±1.75 dB | ±2.75 dB | ±3.25 dB | ±4.25 dB |
| −61 to −70 dBm | 60 dB | ±1.95 dB | ±2.95 dB | ±3.45 dB | ±4.45 dB |
| **TRACKING GENERATOR OUTPUT ACCURACY, Option 011** (after CAL TRK GEN in auto-coupled mode) | | | | | |
| **TG Output Power Level** | **Attenuator Setting** | **Relative Accuracy (at 300 MHz referred to +28.8 dBmV)** | **Absolute Accuracy (at 300 MHz)** | **Relative Accuracy (referred to +28.8 dBmV) (+0.2 dB/GHz)*** | **Absolute Accuracy (+0.2 dB/GHz)*** |
| +42.76 to +31.77 dBmV | 0 dB | ±1.25 dB | ±2.25 dB | ±2.75 dB | ±3.75 dB |
| +31.76 to +21.77 dBmV | 10 dB | ±0.75 dB | ±1.75 dB | ±2.25 dB | ±3.25 dB |
| −28.76 dBmV | 10 dB | 0 dB Reference | ±1.0 dB | ±1.50 dB | ±2.50 dB |
| +21.76 to +11.77 dBmV | 20 dB | ±1.25 dB | ±2.25 dB | ±2.75 dB | ±3.75 dB |
| +11.76 to +1.77 dBmV | 30 dB | ±1.35 dB | ±2.35 dB | ±2.85 dB | ±3.85 dB |
| +1.76 to −8.23 dBmV | 40 dB | ±1.55 dB | ±2.55 dB | ±3.05 dB | ±4.05 dB |
| −8.24 to −18.23 dBmV | 50 dB | ±1.75 dB | ±2.75 dB | ±3.25 dB | ±4.25 dB |
| −18.24 to −27.23 dBmV | 60 dB | ±1.95 dB | ±2.95 dB | ±3.45 dB | ±4.45 dB |
| * Add 0.2 dB/GHz of tuned frequency to the value in this column for complete accuracy specification relative to frequency. | | | | | |