

SIGNAL SOURCES

Signal Sources to 110 GHz (cont'd)

Overview

CW Microwave

Frequency	Model	Characteristics	Page
1 to 20 GHz 0.01 to 20 GHz	HP 83711A HP 83712A	Precision CW signals, pure and simple. +10 to -90 dBm, < -50 dBc harmonics, $< 1.5 \times 10^{-9}$ /day stability, optional 1 Hz frequency resolution. Noise figure meter and millimeter source module compatible. HP-IB and SCPI programming. <35 lbs.	250

High-Performance Microwave

Frequency	Model	Characteristics	Page
1 to 20 GHz 0.01 to 20 GHz	HP 83731A HP 83732A	Optimum choice for high-performance microwave receiver and subsystem test. +10 to -90 dBm, harmonics, < -55 dBc, spurious < -60 dBc. $< 1.5 \times 10^{-9}$ /day stability, optional 1 Hz frequency resolution. Built-in multimode pulse generator, <10 ns pulse rise/fall time, <25 ns pulse width. Logarithmic AM with >60 dB depth. FM with >300 modulation index 10 MHz peak deviation. HP-IB and SCPI programming. <35 lbs.	251
0.01 to 50 GHz	HP 8360 Series	Versatile synthesized sweeper covers many application needs. General-purpose sweeper with full network analyzer capability.	254

Swept Frequency Sources

Frequency	Model	Characteristics	Page
0.01 to 20 GHz	HP 83751 HP 83752	Synthesized microwave sweeper. Fully synthesized sweep. Continuous analog or digital step sweep, 2 MHz swept frequency accuracy, +17 dBm output power available. SCPI and HP-IB programmable, HP 8350 HP-IB mnemonics for drop-in replacement. Optimized for HP 8757 scalar network analyzers.	253
0.01 to 50 GHz	HP 8350 Series	Versatile programmable sweeper for microwave component test. Economical plug-ins cover a variety of frequency bands. Full vector and scalar network analyzer compatibility.	255

High-Performance Modular

Frequency	Model	Characteristics	Page
1 to 20 GHz	HP 70340A	Modular signal generator for MMS. Full performance signal source in half-rack width (4/8 MMS). Logarithmic AM, FM, and pulse modulation. Optional 1 Hz frequency resolution and internal multimode pulse generator. <10 ns pulse rise/fall times, <25 ns pulse width. HP-IB, SCPI and CIL programming. Ideal with HP 71500A microwave transition analyzer and HP 71600 Series error performance analyzers and pattern generators.	258
0.01 to 1 GHz	HP 70341A	Companion low-frequency module to HP 70340A. 1/8 MMS module adds 0.01 to 1 GHz frequency coverage when used with the HP 70340A. Extend high performance AM, FM, and pulse modulation to RF frequencies.	258

Frequency-Agile/Complex Signal Simulation

Frequency	Model	Characteristics	Page
10 to 3000 MHz	HP 11755A	Comdisco/Vector arbitrary waveform synthesizer. Computer-aided engineering for modeling block diagram level design simulations for communications system modules and subsystems. Creates complex software signal formats for testing on the block model, then downloads the complex signal to the HP VAWS signal simulation system for testing hardware with real-life signals with precision impairments.	260
DC to 50 MHz	HP 8770A/S	High-performance arbitrary waveform source for baseband simulation and advanced modulation. Simulates highly complex baseband and modulated carriers for radar/EW, video, communications, disk drive, and other applications. 12-bit resolution, excellent spectral purity. 125 MHz clock rate. Free WGL Toolbox Software runs on HP Technical Desktop Computer.	259
0.252 to 1030 MHz 0.252 to 2060 MHz	HP 8645A	Performance signal generator for testing frequency-agile radios and surveillance receivers. 15 μ s switching speed. Spectral purity. AM, FM, pulse modulation, FM deviation to 20 MHz. Flexible control of frequency.	261
DC to 50 MHz	HP 8791 Model 7	Baseband FASS. Architecturally equivalent to the Model 11, the Model 7 provides exceptional baseband performance to 50 MHz. Full arbitrary control of AM, FM, Φ M, and pulse make this high performance direct-digital synthesizer an excellent fit for entry-level FASS users in applications such as communications, digital, video, radar target simulation, and exciter design. Fully upgradable to Model 11 or 21.	263
0.01 to 3 GHz	HP 8791 Model 11	Reconfigurable agile-signal simulator for radar, EW, and spread-spectrum simulation. Advanced frequency-agile signal simulation for EW, radar, and communication receiver test. 100 ns frequency-hopping over 3 GHz. Arbitrary control over AM, FM, Φ M, pulse modulation and agile carrier. 40 MHz modulation bandwidth. Easy-to-use application-specific instrument-on-a-disk software. Optional upconversion available to 18 GHz, upgradable to Model 21.	263
0.05 to 18 GHz	HP 8791 Model 21	Microwave-agile simulator. Same as Model 11 (above), but uses state-of-the-art microwave-agile upconverter with 100 ns (typical) switching time for the entire range from 50 MHz to 18 GHz. Intended for "exotic" modulation requirements in radar/EW and secure communication applications.	263

Millimeter Sources

Frequency	Model	Characteristics	Page
26.5 to 40 GHz 33 to 50 GHz 40 to 60 GHz 50 to 75 GHz 75 to 110 GHz	HP 83554A HP 83555A HP 83556A HP 83557A HP 83558A	Efficient frequency multipliers. Effectively extends the performance of an 11 to 20 GHz microwave source HP 8673B/C/D, 8340, 8341, 8350B, 83751/52 or 8360 to the millimeter-wave frequency ranges.	265