

PORTABLE SIGNAL GENERATOR



200 MHz to 40 GHz

Continuous-wave and pulsed output
Portable instrument
Ethernet; USB; touchscreen control
0.2 Hz at 20-40 GHz; below 20 GHz not
separately specified frequency step
Switching time: $\leq 200 \mu\text{s}$
230 × 140 × 50 mm package

The OPTFS-40L is a portable signal generator with an output frequency range of 200 MHz to 40 GHz. Control interface: Ethernet; USB; touchscreen. The frequency step is 0.2 Hz at 20-40 GHz; below 20 GHz not separately specified. Frequency switching time: $\leq 200 \mu\text{s}$. Output power: -40 to +10 dBm. Dimensions: 230 × 140 × 50 mm. Weight: ≤ 2.0 kg. Operating temperature: 0 to +40 °C.

TECHNICAL SPECIFICATIONS

OPTFS-40L

Property	Value
Output frequency range	200 MHz-40 GHz
Frequency step	0.2 Hz at 20-40 GHz; below 20 GHz not separately specified
Frequency switching time	≤200 μs
Output power	-40 to +10 dBm
Power step	0.1 dB
Output power accuracy	±0.5 dB (0 to +10 dBm); ±2.0 dB (-40 to 0 dBm)
Frequency temperature stability	±0.3 ppm; external reference synchronization supported
Frequency accuracy	±0.3 ppm; external reference synchronization supported
Spurious level	-70/-65 dBc (typical/maximum; 0.2-20 GHz); -65/-60 dBc (typical/maximum; 20-40 GHz); at 0 dBm and +25 °C
Harmonic level	-20 dBc at 0 dBm and +25 °C
Pulse modulation depth	≥60 dBc at +5 dBm and +25 °C
Pulse width	100 ns-10 ms
Pulse period	500 ns-10 ms
Pulse rise/fall time	≤50 ns / ≤100 ns
Power supply	220 V power adapter
RF connector	SMA-KFD
Power connector	D000-055; 5.5 × 2.1 mm
Control interface	Ethernet; USB; touchscreen
Operating temperature	0 to +40 °C
Storage temperature	-20 to +55 °C
Dimensions	230 × 140 × 50 mm
Weight	≤2.0 kg

TECHNICAL INFORMATION

OPTFS-40L | Phase Noise (dBc/Hz)

Output Frequency	100 Hz	1 kHz	10 kHz	100 kHz	1 MHz
1 GHz	≤ -108	≤ -127	≤ -137	≤ -137	≤ -137
5 GHz	≤ -98	≤ -116	≤ -125	≤ -125	≤ -125
10 GHz	≤ -92	≤ -112	≤ -120	≤ -120	≤ -120
20 GHz	≤ -85	≤ -105	≤ -114	≤ -114	≤ -114
40 GHz	≤ -79	≤ -99	≤ -108	≤ -108	≤ -108

Column headings specify frequency offset from the carrier. Output frequency is listed in the first column. Values and limit signs follow the source tables.

Front and Rear Panels

