

Portable signal source (PTFS)

The PTFS series portable signal sources are high-performance, compact RF/microwave signal generators designed for field and laboratory applications. Available in models PTFS-20, PTFS-40, PTFS-20L, and PTFS-40L, these devices offer frequency ranges from 200 MHz to 40 GHz, with optional low phase noise configurations (L-series). interfaces, ensuring seamless integration into diverse test setups.

Featuring a lightweight design (≤ 2.9 kg) and rugged portability, they support both continuous-wave and pulsed outputs, making them ideal for demanding environments. The series includes versatile control options such as Ethernet, USB, and touchscreen.



Applications Include:

Wireless Communication Testing:

Ideal for 5G, satellite, and millimeter-wave system validation.

Research and Development:

Enables precision signal generation for academic and industrial R&D in RF/microwave engineering.

Radar and Defense Systems:

Suitable for pulse modulation testing, radar signal simulation, and electronic warfare applications.

Field Maintenance:

Portable design supports on-site calibration, troubleshooting, and maintenance of RF equipment.

Product Features:

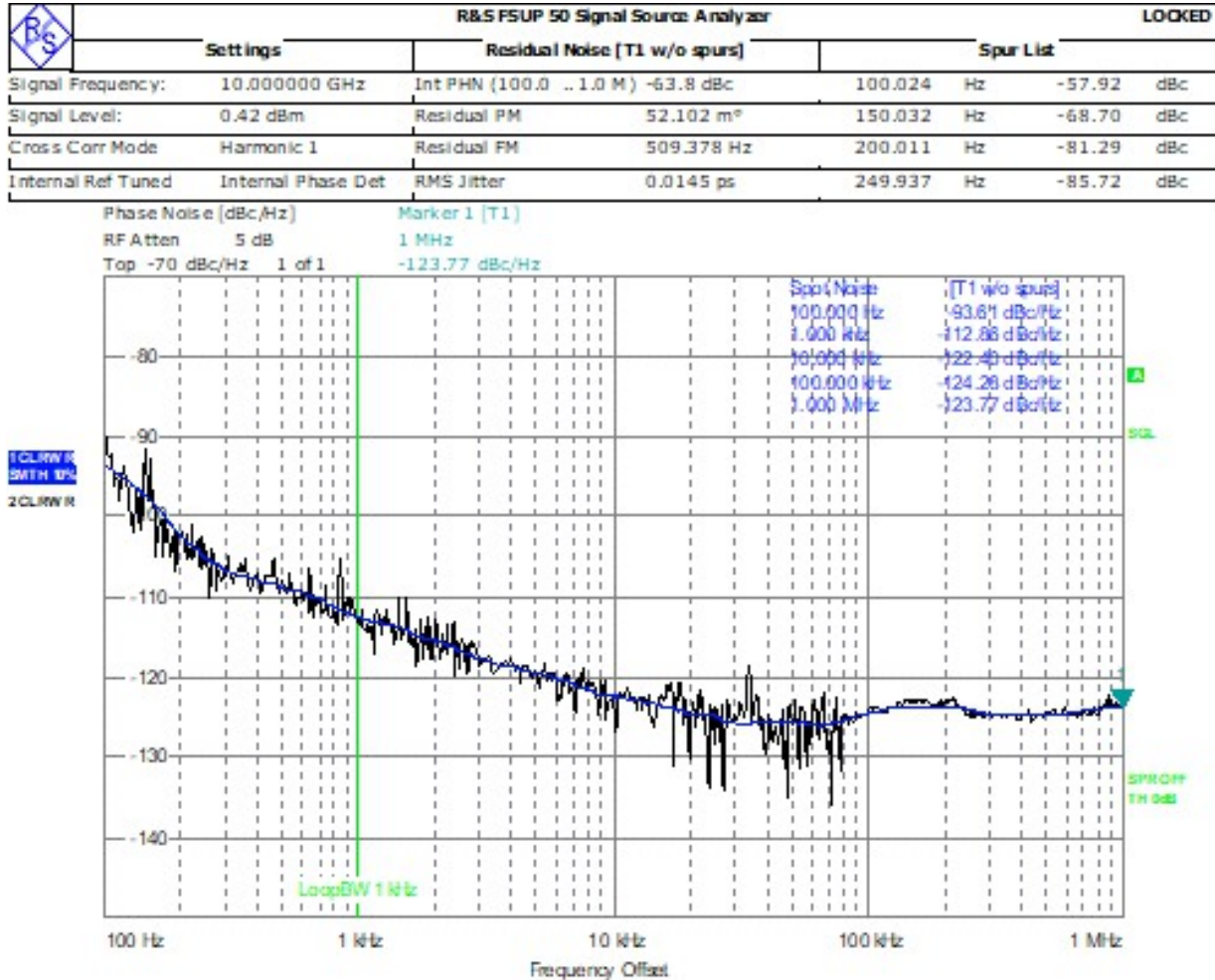
- The maximum output frequency is 40GHz
- 50dB dynamic power output range
- Low phase noise option
- Small size, easy to carry in the field
- Continuous-wave, pulsed output
- Support network port, serial port, touch screen control

kTB Portable signal source (PTFS)

The PTFS series portable signal sources are high-performance, compact RF/microwave signal generators designed for field and laboratory applications.

Product Features	Specification name		Indicator parameters					Remark
RF output	Output frequency range		200MHz~20GHz (PTFS-20/PTFS-20L) 200MHz~40GHz (PTFS-40/PTFS-40L)					
	Frequency stepping		0. 1Hz 0. 2Hz (20GHz~40GHz)					
	Frequency switching time		≤200us					
	Output power range		-40dBm~ + 10dBm					
	Power stepping		0. 1dB					
	Output power accuracy		±0. 5dB (0~ + 10dBm) ±2. 0dB (-40~0dBm)					
	Frequency-temperature stability		±0. 3ppm (Synchronizable External Reference)					
	Frequency accuracy		±0. 3ppm (Synchronizable External Reference)					
	Phase Noise (PTFS-20/40)	Frequency	1GHz	5GHz	10GHz	20GHz	40GHz	
		dBc/Hz@100Hz	-105	-91	-85	-79	-73	
		dBc/Hz@1kHz	-125	-113	-107	-101	-95	
		dBc/Hz@10kHz	-135	-122	-116	-110	-104	
		dBc/Hz@100kHz	-135	-122	-116	-110	-104	
		dBc/Hz@1MHz	-135	-125	-116	-110	-104	
	Phase Noise (PTFS-20L/40L)	Frequency	1GHz	5GHz	10GHz	20GHz	40GHz	
		dBc/Hz@100Hz	-108	-98	-92	-85	-79	
		dBc/Hz@1kHz	-127	-116	-112	-101	-99	
		dBc/Hz@10kHz	-137	-125	-120	-114	-108	
dBc/Hz@100kHz		-137	-125	-120	-114	-108		
dBc/Hz@1MHz		-137	-125	-120	-114	-108		
Spurious (typical/maximum)		-70dBc/-65dBc (0. 2~20GHz) -65dBc/-60dBc (20~40GHz)					Output power 0dBm, +25° C	
harmonic wave		-20dBc						
Pulse modulation	Modulation depth		≥60dBc					Output power 5dBm, +25° C
	Pulse modulation width		≤100ns~10ms					
	Pulse period		500ns~10ms					
	Rising/falling edge		≤30ns/50ns					
Power supply requirements	Operating voltage		220V power adapter					
Temperature and environmental characteristics	Operating temperature		0℃~+40℃					
	Storage temperature		-20℃~+55℃					
Exterior volume	volume		230*140*50 (mm)					
	weight		≤2. 9kg					
	Interface requirements		RF interface: SMA-KFD; Power interface: D000-055. 5x2. 1mm					
	Control mode		Ethernet, USB, touch screen control					

Typical Test Curves



Graph of the typical value of phase noise

Selection List:

Product Information	Frequency range
PTFS-20	Frequency output range: 200MHz~20GHz
PTFS-40	Frequency output range: 200MHz~40GHz
PTFS-20L	Frequency output range: 200MHz~20GHz, low phase noise frequency output
PTFS-40L	Frequency output range: 200MHz~40GHz, low phase noise frequency output

Accessories:

When PTFS series products are delivered, the following table requires complete sets of products to be delivered with accessories:

No.	Attachments	Quantity	Remark
1	100V~240V adapter	1	
2	Grounding wire	1	
3	Ethernet cable (1m)	1	
4	USB to serial cable	1	

Delivery Documentation:

When PTFS series products are delivered, the following table requires complete sets of product

No.	Attachments	Quantity	Remark
1	Factory inspection report	1	
2	Product Certificate	1	
3	Instruction manual for the product	1	Paper/electronic version

