PLS power meters

— Frequency range 50 MHz ...6/25.5/50 GHz

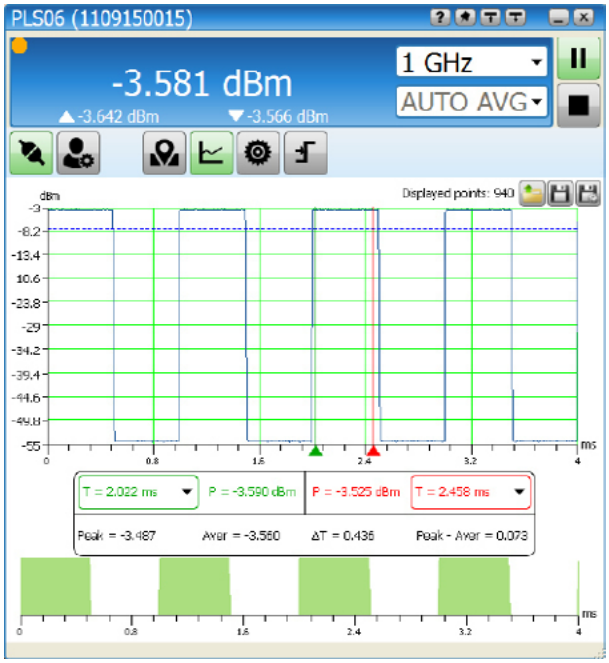
— Dynamic range from −50 to +20 dBm

— Internal zeroing function, eliminates requirement for external calibration

— Measurement of modulated signals

— Power supply and control via USB 2.0/3.0

The device is designed to measure microwave signal power between 50 MHz and 6/26.5/50 GHz. PLS power meters are used for manufacturing and monitoring of high-frequency and microwave devices, analyzing, tuning and testing microwave assemblies, used in communications, instrument engineering and measuring equipment.



PLS provides the following main advantages:

— operation as a part of measuring systems;

— absolute and relative power measurement modes;

— displaying results in linear and logarithmic scales;

— display of pulse waveform (PLS06);

— logging measured data in computer file.

Power meters are provided with connectors for external synchronization. SCPI-based text command system provides integration of the device with automated instrumentation systems.

Software

PLS-Client software is used to interact with the device.

— user-friendly interface;
— saving measurement data to file;
— setting of compensation for attenuation/amplification of external devices;
— graphic display of measurement data;
— connection and control of the device via a smartphone on Android OS;
— signal-wave envelope display (in accumulation mode, available for PLS06);
— time markers to monitor signal power variations;
— saving/downloading profiles for measuring circuits.

Specifications

	PLS06	PLS26	PLS50
Operating frequency range	50 MHz ...6 GHz	50 MHz ...26.5 GHz	50 MHz ...50 GHz
Power measurement range	−50...+20 (10 nW ...100 mW)	−50...+20 (10 nW ...100 mW)	−50...+20 (10 nW ...100 mW)
Allowable measurement error in −50...−40 dBm power range, %	± 15	± 15 (50 MHz ...26.5 GHz)	± 7 (50 MHz ...40 GHz) ± 20 (40...50 GHz)
Allowable measurement error in −40...−10 dBm power range, %	± 10	± 7 (50 MHz ...18 GHz) ± 10 (18...26.5 GHz)	± 7 (50 MHz ...18 GHz) ± 10 (18...40 GHz) ± 15 (40...50 GHz)
Allowable measurement error in −10...20 dBm power range, %	± 7	± 5 (50 MHz ...3 GHz) ± 7 (3...5 GHz) ± 5 (5...18 GHz) ± 7 (18...26.5 GHz)	± 5 (50 MHz ...3 GHz) ± 7 (3...5 GHz) ± 5 (5...18 GHz) ± 7 (18...26.5 GHz) ± 10 (26.5...40 GHz) ± 15 (40...50 GHz)
Input VSWR, max	1.2	1.2 (50 MHz ...18 GHz) 1.3 (18...26.5 GHz)	1.2 (50 MHz ...18 GHz) 1.3 (18...26.5 GHz) 1.5 (26.5...40 GHz) 2.0 (40...45 GHz) 2.3 (45...50 GHz)
Wave impedance, Ohm	50	50	50
Measurement time			
Time required to establish operating mode, sec, max.	< 5	< 5	< 5
Single measurement, meas./sec, max.	< 20	< 20	< 20
On-line measurements (in accumulation mode), meas./sec, min.	12 000	—	—
Trigger			
Trigger input impedance	1 kOhm / 50 Ohm (variation in software)	1 kOhm / 50 Ohm (variation in software)	1 kOhm / 50 Ohm (variation in software)
Logical zero level, V	< 1.5	< 1.5	< 1.5
Logical one level, V	> 3.6	> 3.6	> 3.6
Max. trigger output current, mA	100	100	100
Connector types			
Microwave output	Type N, SMA (male or female)	3.5 mm (male), type IX, ver. 3 (male)	2.4 mm (male)
Trigger input/output	MCX, female	MCX, female	MCX, female
Power and control	USB 2.0 Mini-B	USB 2.0 Mini-B	USB 2.0 Mini-B
Operating temperature range, °C	+5...+50	+5...+50	+5...+50
Dimensions, mm	125 × 65 × 25	135 × 65 × 25	135 × 65 × 25
Weight, kg	0.25	0.35	0.35

Ordering information

Versions	
PLS06-11M	Power meter, 50 MHz ...6 GHz, connector type N (male)
PLS06-11F	Power meter, 50 MHz ...6 GHz, connector type N (female)
PLS06-12M	Power meter, 50 MHz ...6 GHz, connector type SMA (male)
PLS06-12F	Power meter, 50 MHz ...6 GHz, connector type SMA (female)
PLS26-13M	Power meter, 50 MHz ...26.5 GHz, connector type 3.5 mm (male)
PLS26-03M	Power meter, 50 MHz ...26.5 GHz, connector type IX. ver. 3 (male)
PLS50-05M	Power meter, 50 MHz ...50 GHz, connector type 2.4 mm (male)
Supply set	
MCX-BNC cable assemblies	2 pcs. 0.8 m each
USB 2.0 type-A – USB 2.0 Mini-B	Power and control cable assembly, 1.2 m, with screws on USB 2.0 Mini-B connector

Ordering example

— PLS06-11M power meter – 1 pcs.