

6630

USB RF Power Sensor



Main Features

- 9 kHz to 3 GHz frequency range
- 100 nW to 1 W (-40 to +30 dBm) power range
- True RMS response
- Excellent power linearity (0.2 dBm typical)
- USB and fiber optic/USB connection
- Response time 45 ms
- Settling time 50 to 180 ms
- Measuring range LED indicator
- Robust, compact, lightweight
- Win6630 software included

The 6630 Power Sensor is the ideal solution for true RMS RF power measurements in a wide variety of applications, including EMC immunity testing, CDN and clamp calibration, as well as for measuring the input power of antennas or GTEM cells. Using a directional coupler, both direct and reflected power can be measured easily and accurately.

The optional 6630FOA Fiber Optic Adapter allows communication with a fiber optic link up to 80 meters long, providing the utmost immunity even in the harshest electromagnetic environments, for applications such as bulk current injection tests and in-chamber installations.

The 6630 Power Sensor can be coupled with the SW WIN6630 utility to make it a fully autonomous meter, or act as a stand-alone sensor. Through a straightforward protocol it can communicate with customer-made SW, making it the ideal feedback tool for automated systems.

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SPECIFICATIONS

Frequency range	9 kHz to 3 GHz	
Power measurement range	100 nW to 1 W (-40 dBm to +30 dBm)	
Maximum input power	2 W peak envelope max 300 ms	
RF connector	N male, 50 Ω	
Max. SWR (25 °C ± 10 °C)	10 kHz to 300 kHz	1,10 from +30 dBm to -9 dBm
	>300 kHz to 100 MHz	1,05
	>100 MHz to 1 GHz	1,10
	>1 GHz to 3 GHz	1,25
	10 kHz to 3 GHz	1,20 from < -9 dBm to -40 dBm
Power linearity (25 °C ± 10 °C)	-40 dBm to +30 dBm @ 50 MHz	0,2 dB
Measurement accuracy (25 °C ± 10 °C) ^{1,2}	< 0,35 dB	
Measurement paths	High power path	+30 dBm to -9 dBm
	Low power path	-9 dBm to -40 dBm
	Switching point hysteresis	1 dB typical
Operating temperature	-10 °C to +50 °C	
Power supply	5 Volt DC – 100 mA (from USB Port)	
PC Interface (protocol available for software developers)	USB 1.0	1.1 2.0
Dimensions (W x H x D)	30 x 30 x 95 mm	
Weight	0,12 kg	

1. Max. SWR source = 1,25
 2. Calculated with worst calibration uncertainties to the calibration factor of 0,17 dB



6630FOA Fiber Optic Adapter

Ordering information:

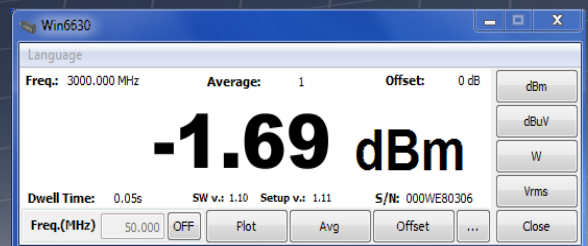
6630 RF Power sensor includes:
 6630-USB cable, PC utility Win6630, carrying case 170/30N, user manual, calibration reports

Optional accessories:

6630FOA Fiber Optic Adapter. Converts the USB of the 6630 into a fiber optic compatible signal, for optimal noise immunity or simply to extend the link up to 80 m
 Includes: 10 m fiber optic cable, USB-OC Optical Converter, battery charger, UK and USA plug adapter, user's manual
 FO-6630/10 Fiber optic cable (10 m)
 FO-6630/20 Fiber optic cable (20 m)
 FO-6630/40 Fiber optic cable (40 m)
 FO-6630/80 Fiber optic cable (80 m)



Power vs Time plot



Win6630 Main window

Related products and services

Generators

Amplifiers/Systems

- 3010: EMI Signal Generator 9 kHz to 1 GHz
- 3030: EMI Signal Generator 9 kHz to 3 GHz
- 6000N: Power Amplifier 9 kHz to 230 MHz / 10W
- COND-IS: RF Conducted Immunity System
- RAD-IS: RF Radiated Immunity System
- AUT-IS: Automotive Immunity System

Antennas

- BC-01: Biconical Antenna 30 to 200 MHz
- BL-01: Biconical Log Periodic Antenna 30 MHz to 6 GHz
- DR-01: Double-ridged horn Antenna 6 to 18 GHz
- LP-02: Log Periodic Antenna 200 MHz to 3 GHz
- LP-03: Log Periodic Antenna 800 MHz to 6 GHz
- LP-04: Log Periodic Antenna 200 MHz to 6 GHz
- Antenna Set AS-02 (BC01+LP02+TR01)
- Antenna Set AS-03 (BC01+LP02+LP03+TR01)
- Antenna Set AS-04 (BC01+LP04+TR01)
- Antenna Set AS-05 (BC01+LP04+DR01+TR01)
- Antenna Set AS-06 (BC01+LP02+LP03+DR01+TR01)
- Antenna Set AS-07 (BL01+TR01)
- Antenna Set AS-08 (BL01+DR01+TR01)

Probes/Calibration services

- EP-600: Field probe 100 kHz to 9,25 GHz 0,14 to 140 V/m
- EP-601: Field probe 10 kHz to 9,25 GHz 0,5 to 500 V/m
- EP-602: Field probe 5 kHz to 9,25 GHz 1,5 to 1500 V/m
- EP-603: Field probe 300 kHz to 18 GHz 0,17 to 170 V/m
- EP-604: Field probe 300 kHz to 26,5 GHz 0,4 to 800 V/m
- OR03: Optical Programmable Repeater with probes
- CAL-6630: Traceable calibration
- LAT-6630: Accredited calibration



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