# **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

ER SENSOR

100nW - 1W (-40 dBm to +30 dBm 9 kHz - 3 GHz Max power 2W Zin 50 Ω S/N 000WX10302

- 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 msec
- Measuring range LED indicator
- Robust, compact, lightweight
- Win6630 Software included

## Accurate for laboratory, fast for manufacturing and robust for field applications.

The 6630 Power Sensor is the ideal solution for true RMS RF power measurements in a wide variety of applications, including EMC immunity test systems, 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.



## 6630

#### **USB RF Power sensor**

#### 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	Type-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 $\pm$ 10 °C)	-40 dBm to +30 dBm @ 50 MHz	0,2 dB
		0,2 UB
Measurement accuracy <sup>1, 2</sup> (25 °C $\pm$ 10 °C)	< 0,35 dB	
Measurements path	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

#### **Ordering Information:**

**6630 RF Power sensor.** Includes: 6630-USB Cable; PC Utility Win6630; Carrying Case 170/30N; Operating Manual; Calibration reports.



#### 6630F0A Fiber Optic Adapter

x

dBm dBuV

#### **Optional accessories:**

Win6630

Freq.: 3000.000 MHz

**Narda** Safety Test Solutions®

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



Power vs Time plot

## **Related Products**

#### 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
- LP-02: Log Periodic Antenna 200 MHz to 3 GHz
- LP-03: Log Periodic Antenna 800 MHz to 6 GHz
- Antenna Set AS-02 / AS-03

A BRAND OF

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Internet: www.narda-sts.it

Streep (MHz)
Streep (MHz)<

#### **Probes/Service**

- 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

Offset:

0 dB

- 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 and its probes
- CAL-6630: Traceable calibration
- LAT-6630: Accredited calibration
- LAT-6630: Accredited calibrat

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