Quick Fact Sheet

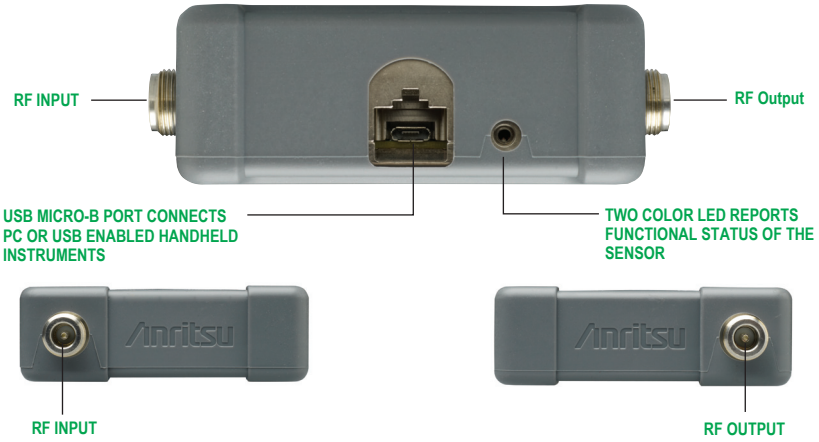
MA24105A Inline Peak Power Sensor

Keep your system up and running longer with an inline, bi-directional, peak power sensor. Measure a wide variety of signals from CW to LMR, Tetra, APCO/P25 to cellular (3G and 4G/WiMAX) to tactical military radar and avionics through either the PowerXpert™ PC software or a software option on industry-leading Anritsu handheld products. Measurements are made easy for any test skill level.

Excellent tool for LTE average power measurements!

Measurements Performed: Peak power, true-RMS power and duty cycle.

Calculations Performed: Burst average power, crest factor, Complimentary Cumulative Distribution Function (CCDF), VSWR, return loss, and reflection coefficient.



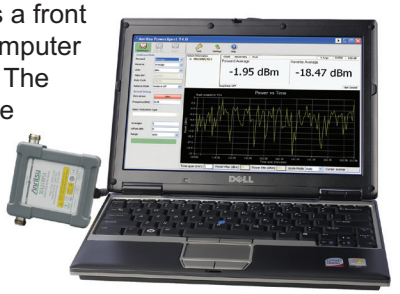
Feature	Benefit
In-line power measurement	Minimal system downtime, monitor DUT in-service Widest measurement range in its class
Bi-directional sensor	Measure both transmitted and reflected power
True-RMS measurements over a wide bandwidth	Accurate average power measurements on signals in the major cellular and communication bands
Standalone, cost-effective, plug and play device	Easy to use, no meter nor elements required
Lab quality yet field ready	No field calibration required for NIST traceable results

Operation with Anritsu Handheld Instruments

Handheld instruments having the high accuracy power meter software Option 19 can operate the MA24105A Inline Peak Power Sensor. The MA24105A is currently compatible with Site Master™ (S3xxE), Spectrum Master™ (MS271xE and MS272xB/C), Cell Master™ (MT821xE), BTS Master™ (MT822xB), and VNA Master™ (MS20xxB/C). The power sensor easily connects to these instruments via a USB A/Micro-B cable.

Operation with Personal Computer (PC)*

The power sensor can be used with a personal computer running Microsoft® Windows via USB. It comes with the Anritsu PowerXpert™ application (version 2.11 or greater) for data display, analysis, and sensor control. The software provides a front panel display making the personal computer appear like a traditional power meter. The application has abundant features, like data logging, power versus time graphing, and inclusion of an offset, that enable quick and accurate measurements.



*Host Operating System (PowerXpert™ version 2.11 compatibility): Microsoft® Windows® Vista, Window® 7, Windows® XP, and Windows® 2000

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Selected Specifications

Sensor	
Frequency Range	350 MHz to 4 GHz
Measurement Range	2 mW to 150 W (+3 dBm to +51.76 dBm), 300 W pulse (+54.77 dBm)
Input Return Loss (typical)	≥ 32 dB from 350 MHz to 4 GHz (1.05:1 VSWR)
Insertion Loss (typical)	≤ 0.06 dB from 350 MHz to 1.25 GHz
	≤ 0.11 dB from > 1.25 GHz to 4 GHz
Directivity (typical)	≥ 31 dB from 350 MHz to < 1 GHz ≥ 32 dB from ≥ 1 GHz to ≤ 2 GHz ≥ 29 dB from ≥ 2 GHz to ≤ 3 GHz ≥ 30 dB from > 3 GHz to 4 GHz
Measurement Channels	2 (Forward and Reverse)
Signal Channel Bandwidth	Average: 100 Hz Peak (Selectable): 4 MHz (full) 200 kHz 4 kHz

Characteristic Performance	Forward/Reverse True-RMS/ Average Power	Peak Power (typical)	Burst Average Power (typical)	CCDF
Uncertainty*	± 3.8%	Full BW: ± 5.4% + 400 mW	User Mode: < ± 3.8%	± 0.2%
Measurement Range	2 mW to 150 W (+ 3 dBm to + 51.76 dBm)	2 W to 300 W (+ 33 dBm to + 54.77 dBm)		
Measurement Speed (typical)[1]	1.7 meas per sec	2.5 meas per sec	0.7 meas per sec	1.6 meas per sec

General	
Size (H x W x D)	102 mm x 87 mm x 30 mm; not include N connectors
Weight	535 g (1.18 lb)

Notes:
All specs are applicable after twenty minutes warm-up at room temperature and after zeroing unless specified otherwise.
(1) Measurement speed is based on time between measurements while data-logging
* See datasheet for specified performance and a breakdown of uncertainty factors.

Environmental Tests were performed per MIL-PRF-28800F (Class 2)	
Operating Temperature Range	0 °C to + 55 °C (0 °F to + 131 °F)
Storage Temperature Range	– 50 °C to + 80 °C (– 58 °F to + 176 °F)
Humidity	45% relative humidity at 55 °C (non-condensing) 75% relative humidity at 40 °C (non-condensing) 95% relative humidity at 30 °C (non-condensing)
Shock	30 g's half-sine, 11 ms duration
Vibration	Sinusoidal: 5 Hz to 55 Hz, 3 g's max. Random: 10 Hz to 500 Hz Power Spectral Density: 0.03 g2 /Hz
EMC	Meets EN 61326, EN 55011
Safety	Meets EN 61010-1

Ordering Information

MA24105A	Inline Peak Power Sensor

Available Options	
Option Number	**Description**
MA24105A-098	Option 98, Standard calibration to Z540, ISO-17025
MA24105A-099	Option 99, Premium calibration to Z540, ISO-17025

Included Accessories	
Model	**Description**
2000-1606-R	1.8 m USB 2.0 A to Micro-B cable
2300-526	Product CD - Anritsu PowerXpert and USB power sensors
10585-00021	Quick Start Guide

Optional Accessories	
Model	**Description**
01-200	Calibrated torque wrench for N connector

See datasheet for model and description of additional accessories below

Power Attenuators

Precision Terminations
(For use with appropriate Power Attenuators)

Precision Coaxial Adapters

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