S87251 Series Terahertz Continuous Wave Power Sensor

(50GHz~1100GHz)

Product Overview

The S87251 series terahertz continuous wave power sensor is based on a USB2.0 interface and comes standard with dedicated software. It can be used independently by connecting to a host computer (such as a computer, laptop, or Saluki signal generator), and can also be paired with a Saluki S2439D power meter h ost. With a frequency coverage of 50GHz~1100GHz, it enables accurate measurement ofcontinuous wave sig nal power. When paired with the S2439D power meter, it can beremotely controlled via GPIB, LAN, and USB in terfaces.



Key Features

- Wide frequency coverage: 50GHz~1100GHz (in sub-bands);
- Wide power detection range and fast detection speed;
- Dedicated software with USB interface enables standalone testing — more convenient;
- Built-in non-volatile memory automatically stores calibration data and parameters, requiring no external calibration — plug and play for improved test efficiency.

Technical Specifications

Model	S87251NA	S87251N	S87251P	S87251QA
Frequency Range	50GHz~75GHz	60GHz~90GHz	75GHz~110GHz	90GHz~140GHz
Power Range	-40dBm~+20dBm	-40dBm~+20dBm	-40dBm~+20dBm	-40dBm~+20dBm
Port VSWR	≤1.30	≤1.30	≤1.30	≤1.35
Input Connector Type	WR15	WR12	WR10	WR8.0
Dimensions (W×H×D) (excluding pins and sleeve)	51.3mm×61.3mm×220.3mm			
Weight	≤0.8kg			

Model	S87251Q	S87251R	S87251SA	S87251S
Frequency Range	110GHz~170GHz	140GHz~220GHz	170GHz~260GHz	220GHz~330GHz
Power Range	-40dBm~+20dBm	-30dBm~+20dBm	-30dBm~+20dBm	-30dBm~+20dBm
Port VSWR	≤1.35	≤1.35	≤1.35	≤1.35
Input Connector Type	WR6.5	WR5.1	WR4.3	WR3.4
Dimensions (W×H×D) (excluding pins and sleeve)	51.3mm×61.3mm×203.6mm			
Weight	≤0.8kg			

Model	87251TA	87251T	87251U	87251V
Frequency Range	260GHz~400GHz	330GHz~500GHz	500GHz~750GHz	750GHz~1100GHz
Power Range	-30dBm~+20dBm	-30dBm~+20dBm	-30dBm~+20dBm	-30dBm~+20dBm
Port VSWR	≤1.50	≤1.50	≤1.80	≤1.80
Input Connector Type	WR2.8	WR2.2	WR1.5	WR1.0
Dimensions (W×H×D) (excluding pins and sleeve)	51.3mm×73.9mm×165.5mm			
Weight	≤0.8kg			
Remote Interface	USB2.0 interface, USB-TMC compatible			
Operating Temp.	10°C~40°C			
Storage Temp.	-40°C~70°C			
Calibration Interval	12 months			
Interface	Chinese/English			
Power Requirements	+5V,500mA			

Computer Requirements for the Terahertz Continuous Wave Power Sensor

The power sensor connects to a computer via the USB interface; the computer must meet the following requirements:

Computer Requirements		
Operating System	Windows11	64-bit
	Windows10	32-bit and 64-bit
	Windows7	32-bit and 64-bit
Hardware	Processor: 1GHz or higher (2GHz or higher recommended) Memory: 2GB or higher (4GB or higher recommended) Hard disk space: 1.0GB or higher Display: 1280×1024 or higher	
USB Power Requirements	+5V,500mA	