

Multichannel Optical Power Monitor MPA-100

The MPA-100 is a highly integrated rack model of pigtailed photo-detector array. Multi-channels optical power from MPO or MTP connectors are detected by photo-detector array. Photo-detector of Si type for 850nm range and InGaAs type for 1260~1610nm are available. The detected photo-current are converted to voltage output using a 16-bit DAQ interface.

The dimension is (W)482.6x(D)430x(H)44 mm. The highly integrated MPA-100 is available up to 80 channels. The MPA-100 is useful for many applications, such as testing and monitoring of transceivers for data communications in data centers, broadband / CATV, and telecommunications. Tap-PD model (fibers input&output, a partial power detection) is also available upon customer's request.



Features

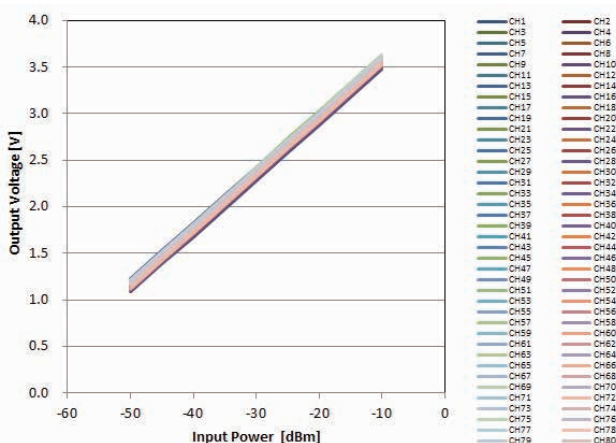
- ▶ Multi-channels photo-detector array up to 80 channels
- ▶ Power monitoring and testing at 850 nm SR4, SR10
- ▶ Wide-operating wavelength range: 1260 ~ 1610nm
- ▶ Wide-optical input range: -50 ~ -10 dBm
- ▶ Excellent linearity: +/- 0.6dB
- ▶ MPO adapter / High-density MPO, MTP connectors
- ▶ 16-bit DAQ voltage output by a USB interface
- ▶ 1U Size (44mm) slim design
- ▶ Custom model is available upon request

Applications

- ▶ Optical power testing of transceivers for IEEE 802.3ba based SR4 ,SR10, LR4, ER4
- ▶ Optical power monitoring for data communications, broadband / CATV networks, and telecommunication networks
- ▶ Optical power monitoring in data center equipment
- ▶ Optical power monitoring of Interconnections of active optical cables.

Measurements

Example of input power and output voltage for 80 channels.



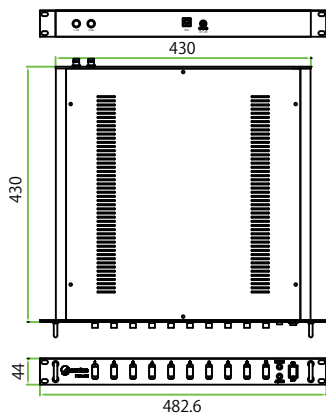
Specifications

Item	Min.	Max.	Units	Notes
Total optical input ports	32	80	channels	Options: 32, 48, 64, 72, 80
Wavelength range	SR Type	840	nm	SR: Silicon photodiode
	IR Type	1260		IR: InGaAs photodiode
Optical input power range	-50	+3	dBm	per channel
Absolute max optical input power	-	+10	dBm	
Optical noise limit	-	-55	dBm	Typ. -63 dBm@1550nm
Optical fiber	MMF, SMF		-	MMF: Core dia. 50 mm, Clad dia. 125mm SMF: ITU-T G.652
Optical adapter	MPO adapter		-	
Optical connector	MPO, MTP ²⁾			Gender: Pins(male), Polish: Angled polish (8°)
DAQ	16		bit	NI USB 6255 OEM
Data sampling rate	9,375		Samples/s	
PD response bandwidth 1)	10	-	kHz	Typ. 30+/-3 kHz
Linearity	-0.6	0.6	dBm	Typ. +/-0.1 dB, optical input power range
Digital Input & Output	USB		-	
Wavelength calibration data	SR Type	NO	-	
	IR Type	YES	-	Wavelength, optical power, output voltage
Power consumption	-	30	W	Typ. 20W, DC12V
Operating temperature	15	+35	°C	RH: 85%Max, No condensation
Storage temperature	-5	+70	°C	RH: 85%Max, No condensation
Weight	4.4		kg	
Warranty	1		Year	
External terminal	USB, Input / Output Trigger : BNC connector x 2 ports			
Accessories	AC adapter, power cord (AC100/240V-DC12V), USB cable (2m), operation manual, certificate of test, control software			

1) The bandwidth is defined as 3dB down (Linear scale: 0.7071) of optical frequency response. The response slope is designed in 20dB/dec.

2) Other adapters such as SC type and LC type are also available.

Dimensions Unit [mm]



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Santec Japan Corporation

5823 Ohkusa-Nenjozaka, Komaki, Aichi 485-0802, Japan Tel. +81-568-79-3536 Fax +81-568-79-1718

Santec USA Corporation

400 Kelby Street Suite 1501, Fort Lee, NJ 07024, USA Toll Free +1-800-726-8321(santec-1) Tel. +1-201-488-5505 Fax +1-201-488-7702

Santec Europe Ltd.

99 Park Drive Milton Park, Abingdon Oxfordshire, OX14 4RY, U.K. Tel. +44-20-3176-1550

Santec (Shanghai) Co., Ltd.

21F Room H, Hua Du Bldg., No.838 Zhangyang Road, Pudong District, Shanghai 200122 China Tel: +86-21-58361261, Fax: +86-21-58361263