PD10G0MG-WM

PoE SURGE PROTECTION DEVICE

General Description

PD10G0MG series is a surge protection device designed for signal and power line protection against transient surge events. The device integrates our patented surge blocking technology with coordinated shunt and series protection elements to provide reliable protection for connected equipment. This design helps safeguard sensitive electronics even in applications where secondary protection is not available. A built-in status indicator provides clear visual indication when the protection module has reached the end of its operational life.
Note: 10Gbit only work with CAT.6A cable. Transmission distance depends on cable quality.

Features

- *10G PoE (802.3af/at/bt)*
- *Protect all Surge Test Mode*
- *Failure Indicator (Red)*
- *IEC 61643-21*
- *IEC 61000-4-5*
- *ITU-T K.21*

Fig.1 Appearance

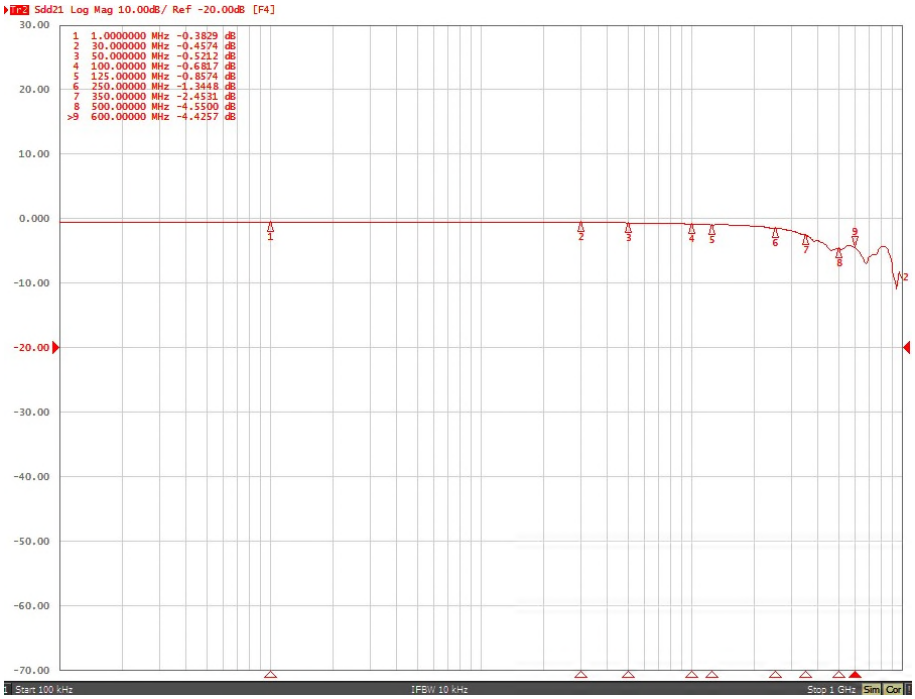
DEVICE CHARACTERISTICS

Electrical Characteristics			
Parameter	**Symbol**	**Value**	**Unit**
Max Discharge Current Note (1)	I_{NMAX}	10	KA
Nominal Common Mode Discharge Current	I_{NCM}	8	KA
Nominal Differential Mode Discharge Current	I_{NDM}	1.0	KA
Nominal PoE Mode Discharge Current	I_{NPOE}	0.2	KA
Maximum Operation DC Voltage	V_{DC}	60	VDC
Maximum Operation DC Current	I_{DC}	1	A
Common Mode Protection Level Note (2)	V_{PCM}	20	KV
Differential Mode Protection Level Note (3)	V_{PDM}	6	KV
PoE Mode Protection Level Note (4)	V_{PPOE}	2	KV
Common Mode Clamping Voltage	V_{CCM}	600	V
Differential Mode Clamping Voltage	V_{CDM}	20	V
PoE Mode Clamping Voltage	V_{CPOE}	150	V
Data Rate	-	1000/10000	Mb/s
Insertion Loss Note (5)	$IL_{(Max)}$	3	dB
Return Loss Note (5)	$RL_{(Max)}$	-8	dB
Power Dissipation Note (6)	P_D	2.0	W
Response Time	-	5	ns
Operation Temperature	T_J	-40 ~ 85	°C

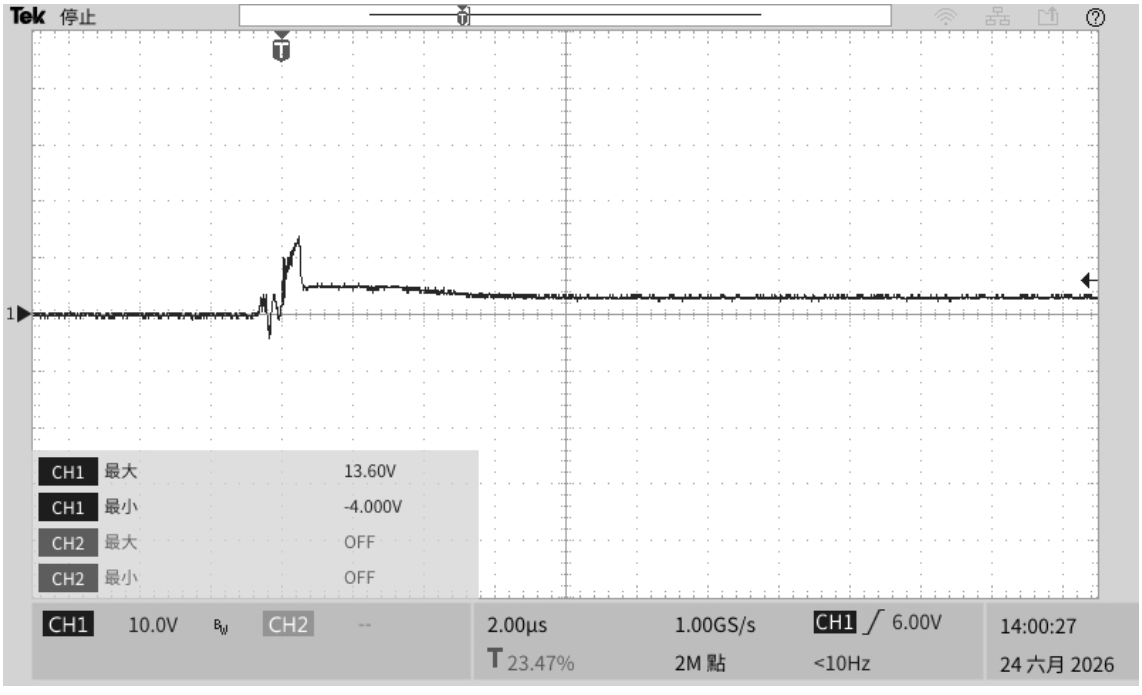
Note:
(1) Measured at 8/20us current wave
(2) Measured at 10/700us telecom wave
(3) Measured at 10/700us telecom wave
(4) Measured at 1.2/50us combination wave
(5) Measured at 10MHz/400MHz
(6) Measured at 1A DC current

PERFORMANCE DEMONSTRATION

Transfer Characteristic

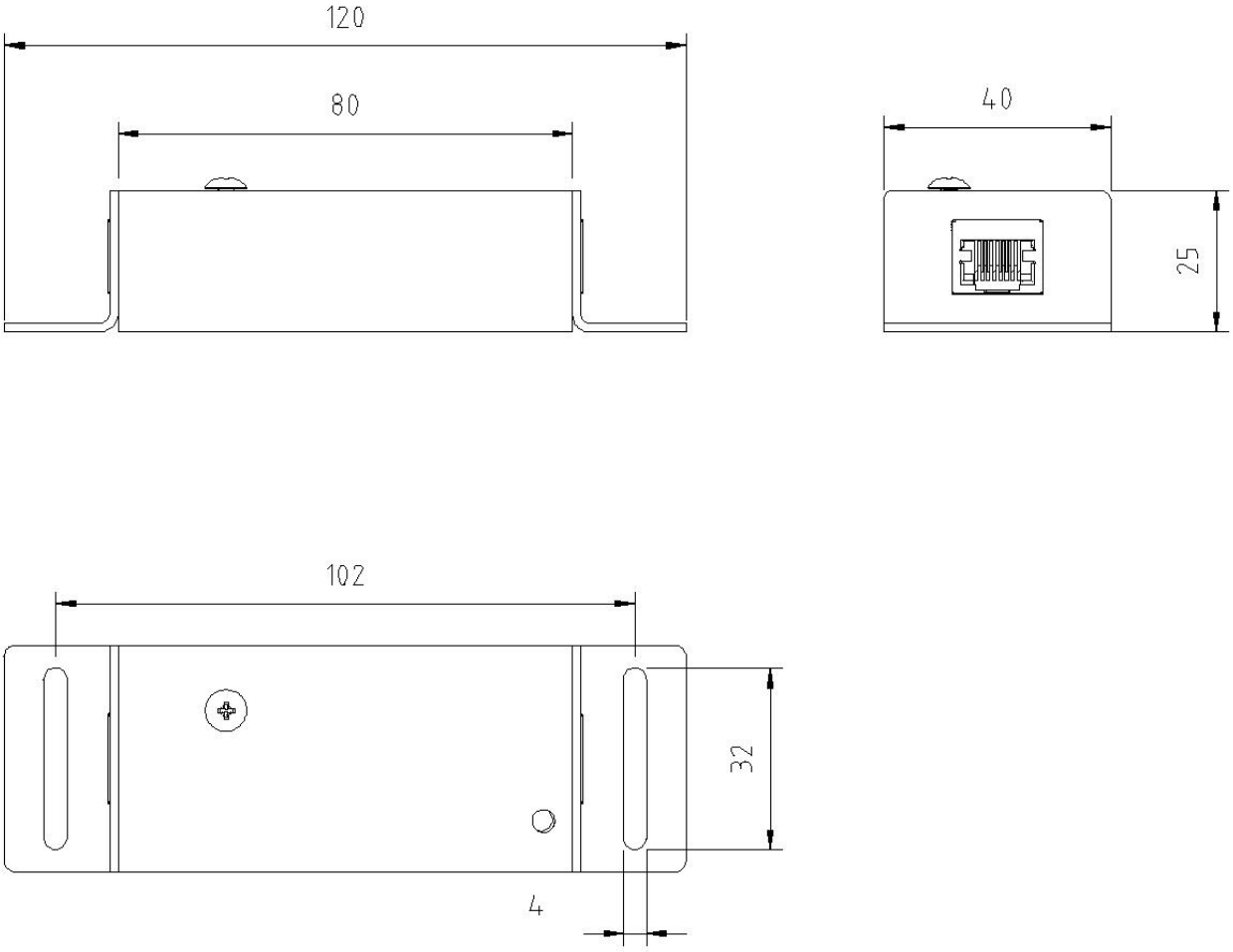


Differential Clamping Waveform



DEVICE OUTLINE

Dimension : mm



Revision History	*Description*
v2.0	Re-organize datasheet layout