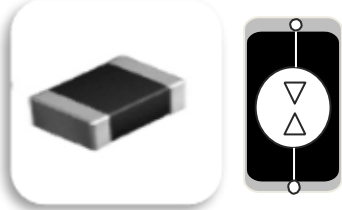


Ultra Low Capacitance ESD Suppressor components

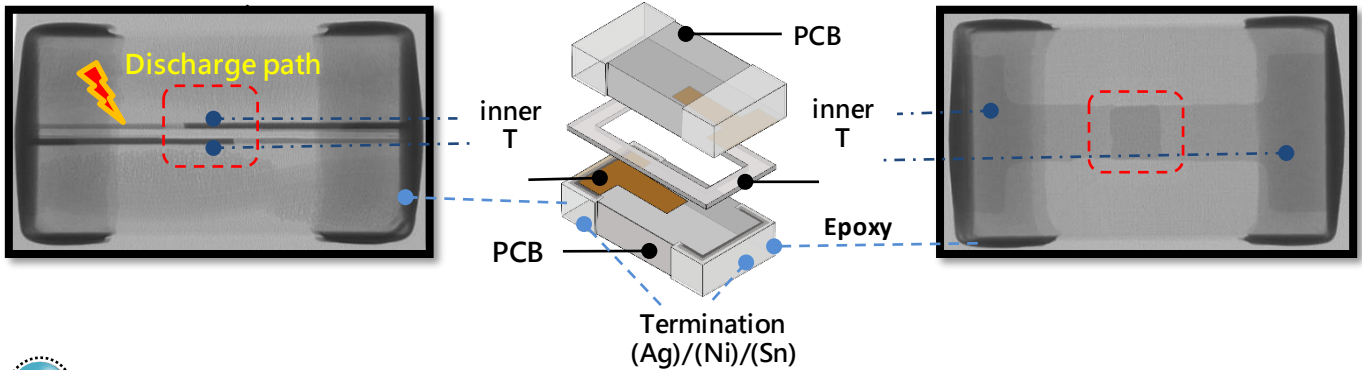
Description :



Among various port specifications, the high-speed transmission speed is as high as 10G or more, so the requirements for the parasitic capacitance of the protection element are relatively strict, which must be below 0.1pF. The ultra-low capacitance electrostatic STD (0R05) developed by SFI is ultra-low Capacitor (0.05pF) components can be applied to ultra-high-speed transmission interfaces to protect the circuit from problems caused by electrostatic persecution °

Product Introduction :

The main structure of the ultra-low capacitance electrostatic suppressor is composed of two printed circuit boards (PCB), an insulating frame (Epoxy), and two T-shaped inner electrodes. The insulating frame is located between two printed circuit boards, forming a main structure with a cavity inside. In this manufacturing method, the thickness of the insulating frame can be adjusted to adjust the relative distance of different printed circuit boards, and then the trigger voltage of the electrostatic suppressor can be adjusted , and use the designed discharge path method to release the electrostatic



Specification :

Part No.	Working Voltage	Typical ESD Trigger Voltage	Typical ESD Clamping Voltage at 30ns	Leakage Current (at Initial State)	Leakage Current (after ESD Test)	Cap. Value at 1MHz
Symbol	$V_{DC(max.)}$	$V_{trigger(typ.)}$	$V_c(typ.)$	I_{LDC}	I_{LDCA}	C
Unit	V	V	V	μA	μA	pF
SFI0402TD060-0R05P-11	6	300	30	<0.05	<10	0.05pF (max. 0.10pF)
SFI0402TD120-0R05P-11	12	300	30	<0.05	<10	0.05pF (max. 0.10pF)
SFI0402TD240-0R05P-11	24	300	30	<0.05	<10	0.05pF (max. 0.10pF)

*also have 603 size

Other Parameter :

1.2 Reference Data	Value
Operation ambient temperature	-50°C~ +85°C
Storage temperature	-50°C~ +125°C
Withstanding ESD capability	Level 4
Body	Glass fiber epoxy resin
End termination	Ag/Ni/Sn
Complies with standard	IEC61000-4-2
Complies with RoHs standard	Yes

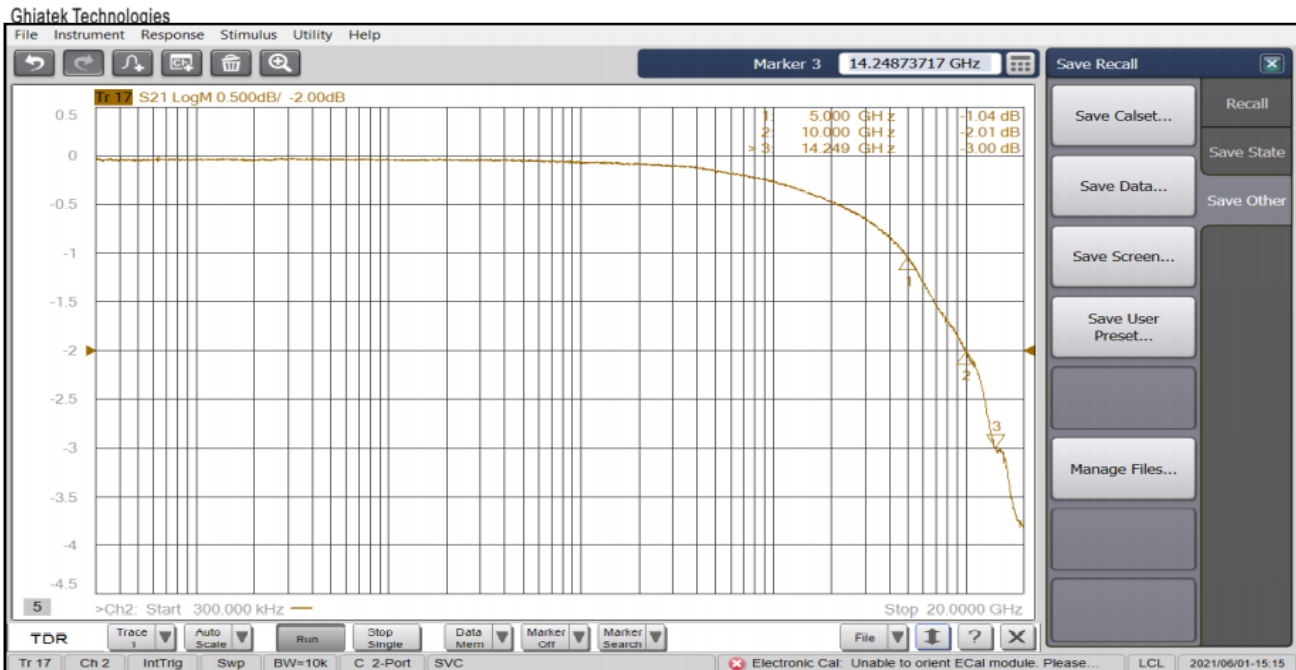
Application :

All ultra high speed data line

- USB 3.1
- HDMI 2.0
- Thunderbolt
- Wi-Fi 6
- Ethernet 10G
- Antenna

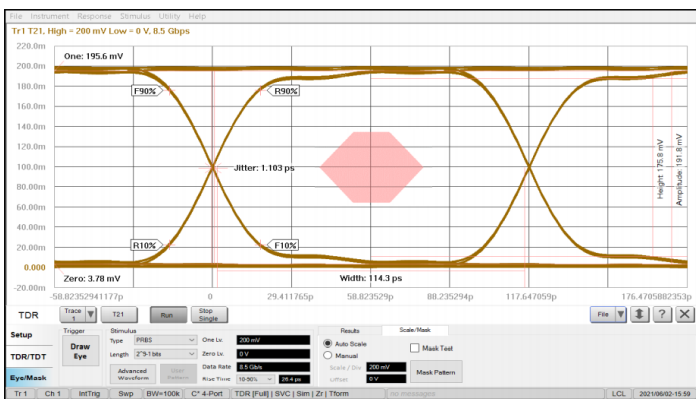
Ultra Low Capacitance ESD Suppressor components

Inserction Loss:



Start_Freq.	End_Freq.	Spec_Max	Spec_Min	5G Hz	10G Hz	14.249G Hz
0.3	20000	--	--	-1.04	-2.01	-3.00
M Hz	M Hz	dB/cable	dB/cable	--	--	--

Eyes Diagram :



Eyes test range 20G

Application Circuit :

