

RF Surge Protection for RTCA DO-160 Applications

- ☑ Meets DO-160G Section 22, Indirect Lightning
- ☑ Including All Waveforms and Test Levels
- ☑ High-Speed Protection Designs
- ☑ Ultra-Low Let-Through Energy
- ☑ SMA-Female (Surge/Exposed) to SMA-Female (Protected) Connectors
- ☑ TNC Connector Option Available (Contact NexTek Sales)
- ☑ 10-100MHz, 900-2200MHz
- ☑ DC Block
- ☑ Tested and Verified Design
- ☑ Meets MIL-STD Environmental Requirements
- ☑ IPC-610 and J-STD 001 Compliant
- ☑ Material Traceability and Certification



Electrical & Transient Specifications

IMPEDANCE		50Ω	
FREQUENCY		10 MHz	900-2200 MHz
VSWR		1.45 MAX	1.45 MAX
RETURN LOSS		-15 dB MIN	-15 dB MIN
INSERTION LOSS (MAX @ 25°C)		0.20 dB	0.60 dB
RF POWER		6 dBm	27 dBm
RF COVER BONDING		2.5 mΩ MAX	
INGRESS (IEC529)		IP 67	
MAX SURGE CURRENT (IEC 61000-4-5; 8x20μs)		5kA	
RTCA/DO-160*	INPUT LEVEL (EXPOSED)	WAVEFORM	TYP LET THRU** (PROTECTED)
WF3	600V/24A	1MHz	30V
		10MHz	30V
WF4	300V/60A	6.4x69	5V
WF5	300V/1000A	4x120	1V
IEC-6100-4-5	± 6kV/3kA	1.2x50/8x20	<60V

* DIRECT PIN INJECTION

** INTO 50Ω LOAD

Environmental Ratings

Temperature Range	-50°C to +90°C
Salt Fog	MIL-STD-202 Method 101D / Condition B (35°C/96 hrs)
Immersion	MIL-STD-202 Method 104A / Condition A (65°C to 25°C w/NaCl – 2 cycles)
Moisture Resistance	MIL-STD-202 Method 106E (65°C/98% RH condensing/240 hrs)
Temperature Shock	MIL-STD-202 Method 107D / Condition B-1 (25 cycles -55°C to +100°C)
Life (Elevated Temperature)	MIL-STD-202 Method 108A / Condition A (96 hours at 100°C)
Dust and Waterproof Rating	IEC529 IP68 (dust-tight and water proof 24 hrs / 1 m)
Vibration	MIL-STD-202 Method 204D / Condition D (10Hz-2kHz 0.06"DA/20g)
Mechanical Shock	MIL-STD-202 Method 213 / Condition A (50g/11ms ~24")

Material and Finish

Component	Material	Finish
Main Body & Cover	6061-T6 Aluminum	Clear Conversion Coat; MIL-DTL-5541, TYII, CL3
Connector Shells	18-8 Stainless Steel	Passivate
Connector Contacts	BeCu	Gold
Insulators	PTFE	-
Weight	30g (1.0 oz)	

P/N Configuration

Series	Type	Surge Conn	Surge Gender	Conn	Protected Gender	Freq	Polarity	Voltage	Package
FP	D	S	F	S	F	HE	0	00	-E

Outline Drawing

Package Style "-E"

NOTES:

1. MARKING XX BASED ON CURRENT REVISIONS.
2. MARKING TO BE LASER ETCHED PER MIL-STD-130, CHARACTER HEIGHT .050 TO .130".
3. CONNECTOR SHALL WITHSTAND 10-IN-LB COUPLING NUT TORQUE.

