

Trans-Guard SMT Radio Lightning Protection Devices

Trans-Guard Lightning Solutions:

Lightning strikes to aircraft statistically occurs once in every 10000 hours of flight. Failure of radio equipment as a result of lightning damage may be catastrophic and deadly. Integrating Trans-Guard surface mount transient protection devices into your radio designs is a reliable maintenance free solution to the problem of transient protection that provides continuous protection for the life of your product.

Ease of integration:

Trans-Guard surface mount devices possess a small SMT footprint that will easily integrate into any radio design. Trans-Guard's unique patent-pending design yields extremely low insertion loss. This along with other RF design features of Trans-Guard makes Trans-Guard virtually non-intrusive with respect to the RF circuit it will be placed into, making RF design integration of Trans-Guard easy and painless.

Performance:

Whether your transient design requirements are for receiver, transmitter or transceiver applications, Trans-Guard unique patent-pending design offers extraordinary RF and transient protection performance in a small package. All Trans-Guard products are designed to IEC-61000-4 and DO/RTCA 160D test conditions for lightning and ESD protection. Features of all Trans-Guard products include:

- Low insertion loss
- Broad-band operation
- Virtually no RF parasitic to design around
- High RF power handling capability
- High transient and ESD capability
- Low cost

Reliable Maintenance Free Operation:

Trans-Guard patent-pending design has no gas tubes to burn out, no MOVs to degrade and no TVS diodes to short out. Making Trans-Guard an extremely reliable, maintenance free solution to the problem of protecting sensitive radio equipment from the ravages lightning discharge. Trans-Guard will provide continuous protection for the life of your equipment.

Applications:

Trans-Guard radio applications include:

- Aeronautical radios
- GPS
- Tactical radios
- Marine radios
- Satellite communication

Trans-Guard SMT Aeronautical Radio Lightning Protection Devices

Frequency 910001-001 910001-002	10 to 550 MHz 200 to 2000 MHz
Insertion Loss 910001-001 910001-002	0.2 dB max. 0.2 dB max.
Return Loss 910001-001 910001-002	16 dB min. 16 dB min.
Impedance	50 Ohm nominal
Transmit Power	100 Watts, CW
Lightning Protection	Per IEC 61000-4-5: 8x20 μS, 6kV, 3kA Peak let through voltage < 20V Per DO/RTCA 160D section 22: All test conditions Peak let through voltage < 20V
ESD Protection	Per IEC 61000-4-2: All test conditions Peak let through voltage < 20V Per DO/RTCA 160D section 25: All test conditions Peak let through voltage < 20V
DC Blocking	None
Outline	0.50" x 0.50" x 0.30" (12.7mm x 12.7mm x 7.6mm)
Mounting Interfaces	SMT pads
Notes:	1. Specifications subject to change without notice.

Outline & Mounting Drawings

