POYNTING
BEYOND A CONNECTED LIFE

RF LIGHTING ARRESTER

ACCESSORIES | LIGHTNING ARRESTER SERIES

BI-DIRECTIONAL RF LIGHTNING ARRESTER FOR TYPES SMA F/M INTERFACES

DC – 7 GHz

Poynting Antennas proudly introduces the A-RFLA-SMSF-070 RF lightning arrester, an outdoor protective device designed to safeguard connected equipment from potential damage caused by voltage surges due to lightning strikes and induced electrical surges.

The RFLA lightning arrester diverts the high-voltage surge away from sensitive equipment, allowing it to safely discharge to the ground. This is especially crucial for outdoor antennas, which are often mounted at the highest point in an area and thus more susceptible to lightning strikes.

The A-RFLA-SMSF-070 lightning arrester is a bi-directional RF device that can protect against surges coming from both directions (antenna to equipment and vice versa). This ensures comprehensive protection for all connected devices.

Key Features

- **Surge Protection**: Shields against voltage spikes due to lightning strikes
- **Bi-directional Protection** especially in systems where surges come from multiple sources
- **Broad Frequency Range** from DC to 7 GHz making it versatile and compatible with various communication technologies such as Cellular, Wi-Fi, and Satellite systems
- **Low Insertion Loss** to maintain signal integrity while providing protection
- **High Surge Current Capacity** capable of handling high surge currents from lightning strikes
- **Durable Build**: Robust Brass construction to withstand harsh environmental conditions ensuring long-term reliability
- **Easy Installation**: Simple setup saves time and effort
- **Compliance**: Meets industry standards for reliability

Application Areas

- Telecommunication Infrastructure
- Broadcast and Media Communications Setups
- Wi-Fi and Wireless Networks
- Satellite and GNSS Systems

Electrical Specifications

Frequency Range	DC – 7 GHz
Connector Impedance	50 Ohm
VSWR	<1.4:1 across 90% of the bands
Insertion Loss	<1 dB across 90% of the bands
Dielectric Withstanding Voltage	≥2500V RMS, 50Hz at sea level
Rated DC Voltage	230 Volts
Working Voltage	≤1000Volts RMS, 50Hz at sea level
Maximum Impulse Discharge Current	10 KA
Protection Circuit	Gas Discharge Tube

Mechanical Specifications

Product Dimensions	55 x 25 x 39 mm
Weight:	85g
Shell Material	Brass
Shell Plating	Ternary Alloy (Cu-Zn-Sn)
Input Connector	SMA Female
Output Connector	SMA Male
Wear/Mating Cycles	≥500

Ordering Information

Order Product Code	A-RFLA-SMSF-070
EAN Number	6009710929155

Environmental Specifications, Certification & Approvals

Temperature Range (Storage/Operating)	-45°C to +80°C
Relative Humidity	≤95%
Water Ingress Protection Ratio/Standard	IP 67
CE & RoHS Compliant	Yes
Safety and Performance Standards	UL 1449 : 2006
Surge Immunity & EMC Standards	IEC 61000-4-5:2014+AMD1:2017

Revised: February 2025

Regulatory Compliance: RoHS 2011/65/EU Compliant | ISO 9001:2015
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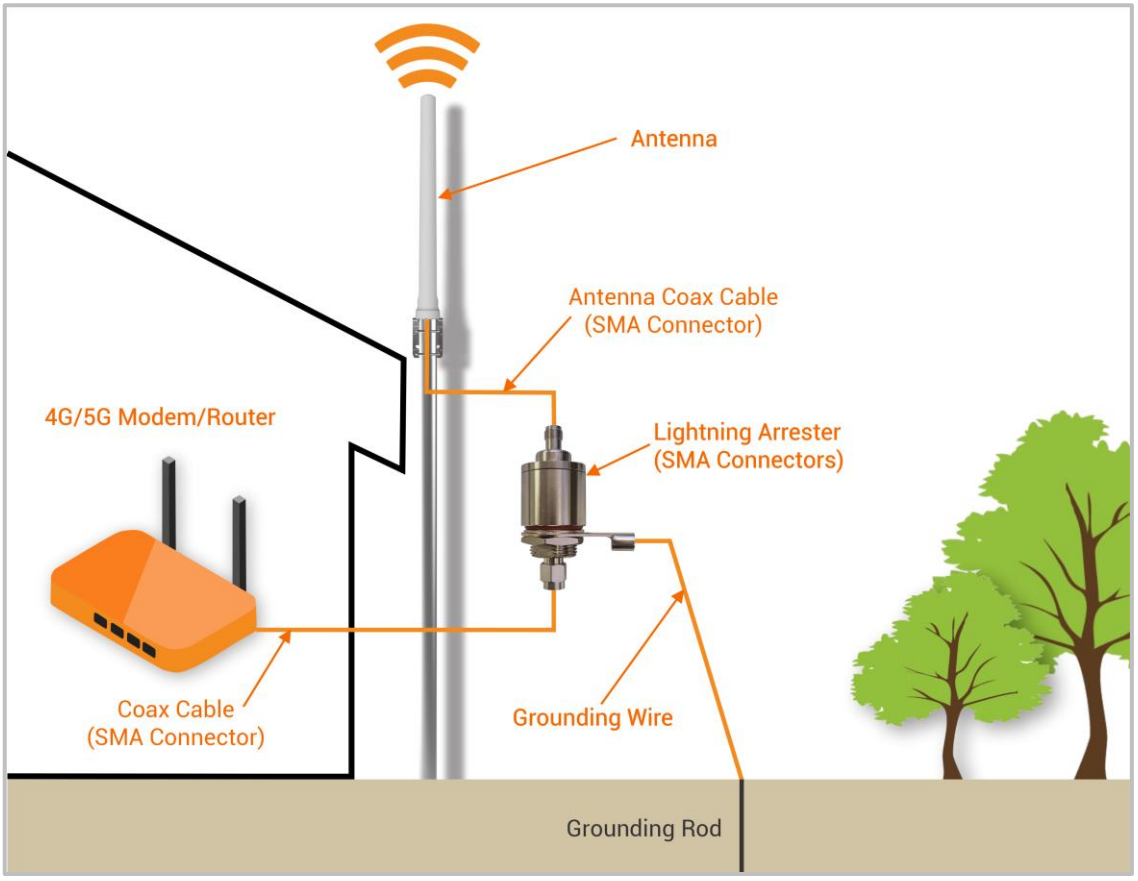
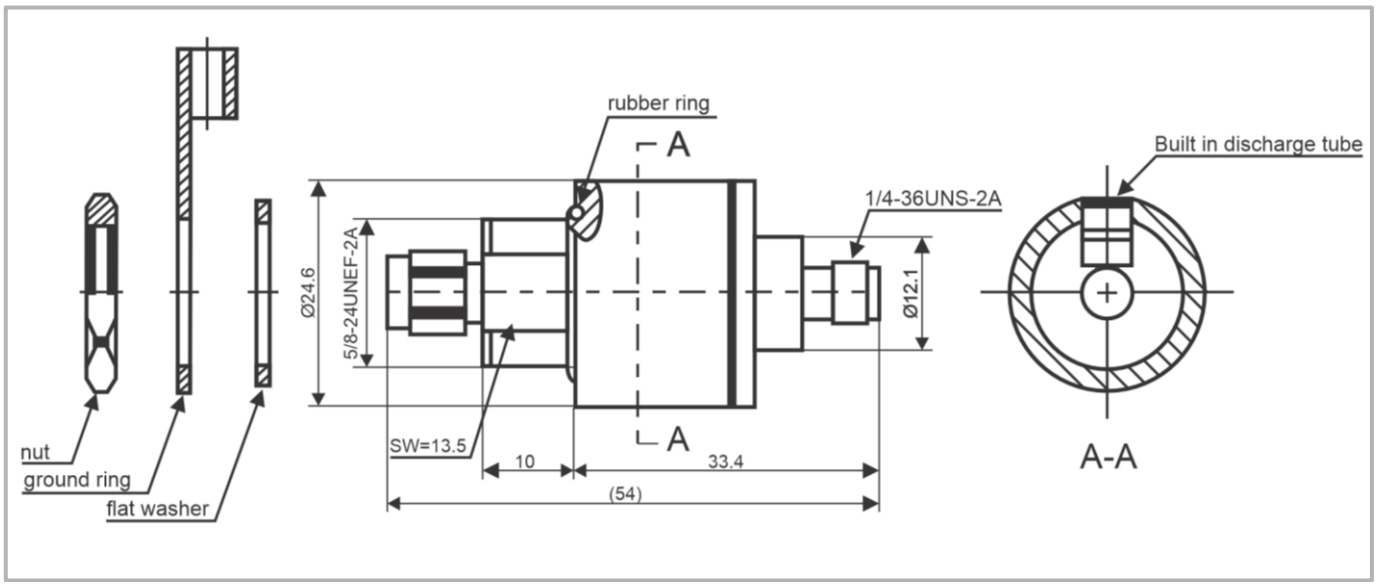


Lightning Arrester Technical Drawings



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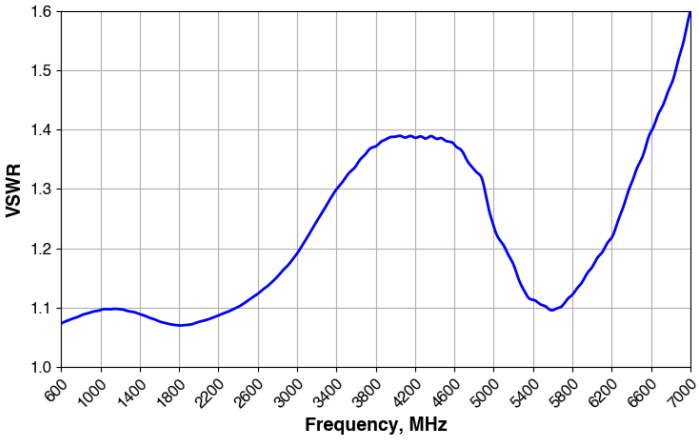
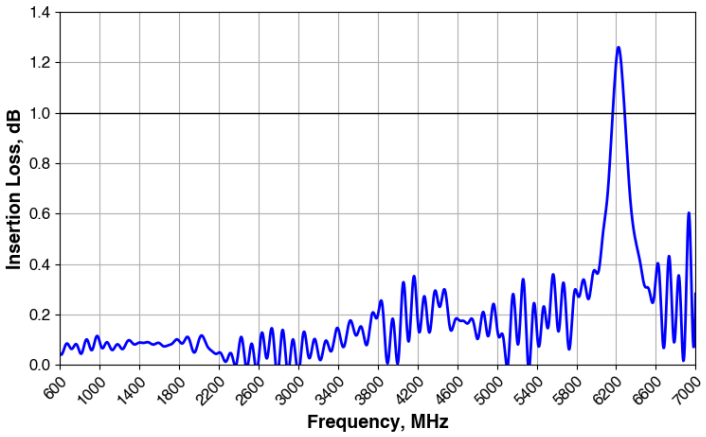
LIGHTNING ARRESTR PERFORMANCE PLOTS

VSWR



Insertion Loss



Voltage Standing Wave Ratio (VSWR)*

VSWR is a measure of how efficiently radio-frequency power is transmitted from a power source, through a transmission line, into a load. In an ideal system, 100% of the energy is transmitted which corresponds to a VSWR of 1:1.

The A-RFLA-SMSF-070 delivers superior performance with a VSWR of <1.4:1 across 90% of the bands.

**VSWR measured at the ports and unused ports terminated with 50Ω load*

Insertion Loss

Insertion loss measures the signal power lost when a component is placed in a transmission line.
Lower insertion loss is preferable, as it indicates minimal signal attenuation.

The A-RFLA-SMSF-070 has an insertion loss of <1 dB across 90% of the band from DC to 7GHz.

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