F-Female to F-Female 0-3 GHz 90V Coaxial Lightning Protector
Model: AL-FFFF-9

Applications

- Cable television receivers
- Cable modems
- CCTV cameras
- DSS receivers & VSAT equipment
- DBS installations



Features

- Reliable performance from DC ~ 3 GHz
- Bi-directional protection
- Protector will pass DC
- Replaceable gas tube element
- Optional 230V, 350V and 600V gas tubes available

RoHS Compliant

Description

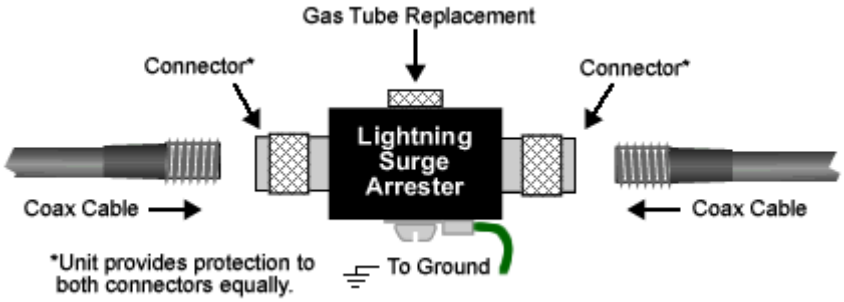
The AL-FFFF-9 is a high quality 90V, 75 Ohm gas discharge tube suppressor featuring wide-band operation up to 3 GHz. This unit features an F-Female to F-Female connector.

Due to its low cost and superior RF performance, this unit is ideal for protecting Cable Television Receivers, Cable Modems, CCTV Cameras, DSS Receivers, VSAT equipment, DBS installations and more. Since this protector will pass DC, it is suitable for applications where DC is carried through the coax cable, such as remote amplifiers and LNB's and down-converters.

Both connector ports of this unit are equally protected. This provides protection no matter which way it is installed. Either port can face the antenna or either port can face the equipment.

The unit's replaceable gas tube element, multi-strike capability, and fast response time make it suitable for a wide range of applications. A ground lug and terminal are supplied directly on the lightning protector housing, which provides superior grounding.

Replacement gas tube elements are available on the L-com web site.



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Specifications

Electrical Specifications

Frequency Range	0 – 3 GHz
VSWR	1:1.3 Max. (0 – 3 GHz)
Insertion Loss	0.4 dB Max. (0 – 3 GHz)
Impedance	75 Ohm
Gas Tube Element: **DC Breakdown Voltage Indicated**	90V 20%
Gas Tube Impulse Breakdown Voltage	1000V 20%
Gas Tube Insulation Resistance	10,000 MΩ
Maximum Withstand Current	5 KA

RF Power Rating

Voltage Rating	**DC ~ 30 MHz**		**30 ~ 500 MHz**		**500 MHz ~ 3 GHz**	
	PEP[1]	**CW**[2]	**PEP**[1]	**CW**[2]	**PEP**[1]	**CW**[2]
90 Volt	110W	55W	65W	32W	20W	10W

Notes:
1 - Peak Envelope Power (PEP): The average power supplied to the antenna transmission line by a transmitter during one radio frequency cycle at the crest of the modulation envelope taken under normal operating conditions.

2 - Continuous Wave (CW): A wave of constant amplitude and constant frequency.

Mechanical Specifications

Connectors	F-Female to F-Female
Connector Body Material	Nickel Plated Brass
Body Material	Aluminum
Pin Material	Gold Plated Brass
O-Ring Material	Rubber
Ground Lug	10 AWG Max.
Dimensions (L x H x W)	3.2 x 1.6 x 0.8 in. (82 x 40 x 20mm)
Weight	3.17 oz (89.8g)
RoHS Compliant	Yes

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