

Type N/SMA F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz, 90W, IP67, 9 V Max., 5mJ, 20kA, Gas Discharge Tube



GT-NFSF-AL

Features

- Surge current of 20kA
- Max Power 90W(RMS)
- Frequency range from DC to 7 GHz
- N Female to SMA Female connectors
- Waterproof IP67 rated
- DC Pass
- VSWR <1.4
- CE & RoHS compliant
- Bidirectional

Applications

- WiFi
- GPS
- Land mobile radio

Description

RF surge protector (also known as lightning arrester or surge arrester) GT-NFSF-AL from PolyPhaser, utilizing a gas tube (GT or GDT). This RF surge protector component is manufactured in a coaxial in-line design with wide operating frequency range. All PolyPhaser RF surge protector products are available in stock with same day shipping.

Electrical Specifications

Surge Protector Type
DC Handling

Gas Discharge Tube
DC Pass

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		7	GHz
Impedance		50		Ohms
VSWR			1.4:1	
Insertion Loss			0.25	dB
Operating Voltage (DC)			9	Volts
Input Power, CW			90	Watts
Surge Current IEC 61000-4-5 8/20μs waveform			20	kA
Throughput Energy			5	mJ
Sparkover Impulse Voltage @ 1000V/μs		500		Volts
Sparkover Voltage (DC)		300 ±20%		Volts
Holdover Voltage		80		Volts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
[Type N/SMA F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz, 90W, IP67, 9 V Max., 5mJ, 20kA, Gas Discharge Tube GT-NFSF-AL](#)

Type N/SMA F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz, 90W, IP67, 9 V Max., 5mJ, 20kA, Gas Discharge Tube



GT-NFSF-AL

@ <150ms

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 3	3 to 4	4 to 7			GHz
VSWR, Typ	1.1:1	1.3:1	1.4:1			
Insertion Loss, Max	0.1		0.25			dB

Mechanical Specifications

Width/Diameter	0.86 in [21.84 mm]
Height	1.98 in [50.29 mm]
Weight	1 lbs [453.59 g]

Configuration

Input Connector	N Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-55 to 85 deg C
Ingress Protection (IP) Rating	IP67

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
[Type N/SMA F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz, 90W, IP67, 9 V Max., 5mJ, 20kA, Gas Discharge Tube GT-NFSF-AL](#)

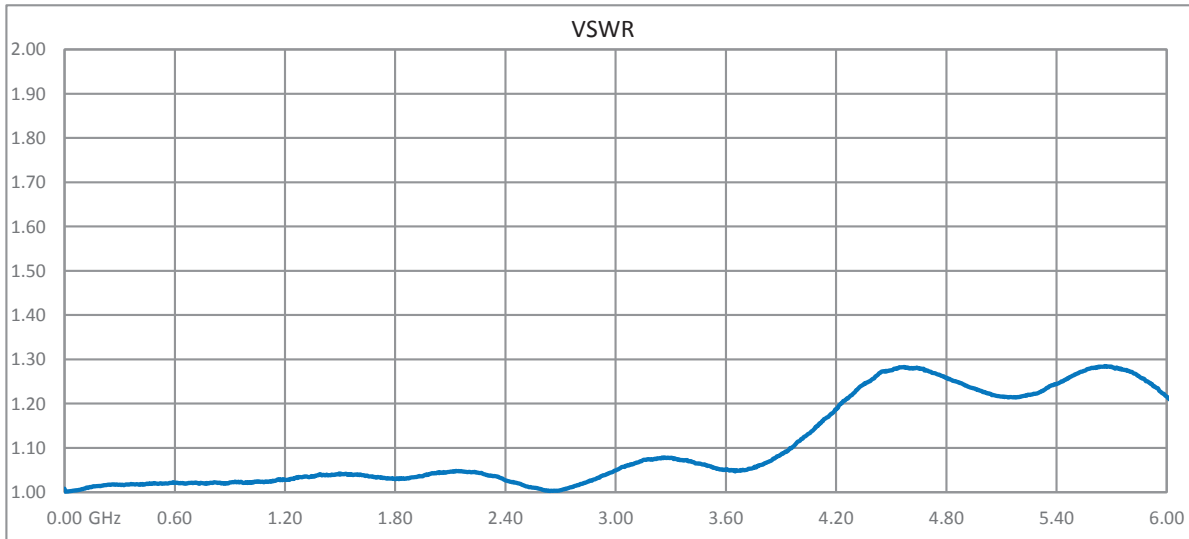


Type N/SMA F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz,
90W, IP67, 9 V Max., 5mJ, 20kA, Gas Discharge Tube



GT-NFSF-AL

Typical Performance Data



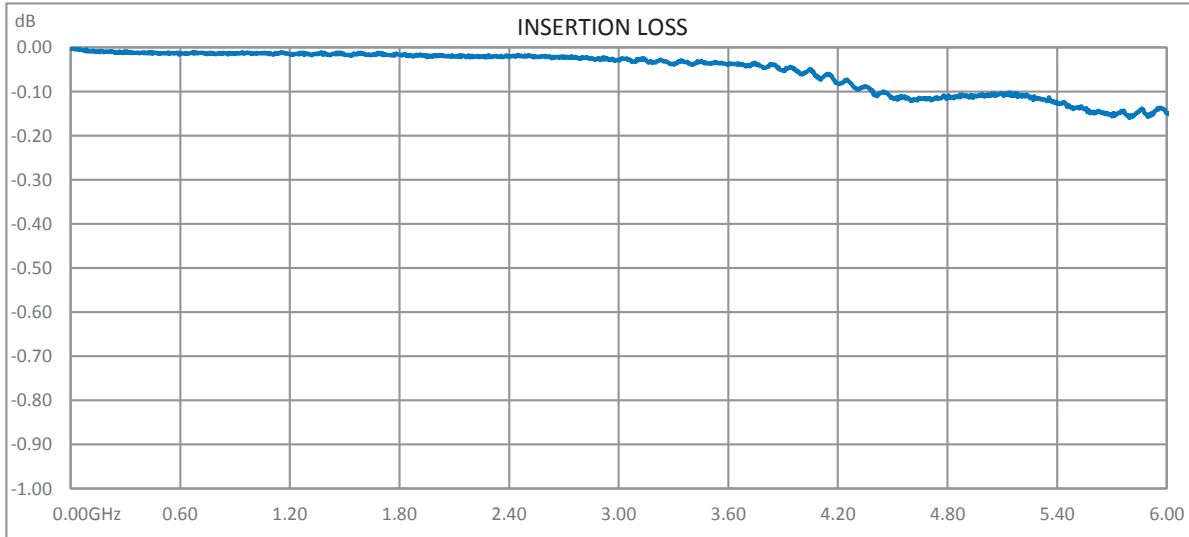
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:
[Type N/SMA F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz, 90W, IP67, 9 V Max., 5mJ, 20kA, Gas Discharge Tube GT-NFSF-AL](#)



Type N/SMA F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz, 90W, IP67, 9 V Max., 5mJ, 20kA, Gas Discharge Tube



GT-NFSF-AL



PolyPhaser protects and increases the reliability of global RF communications networks, including transportation, telecommunications, defense, security and industrial applications, with superior RF surge protection technologies including DC Block, DC Pass and Ultra Low PIM. Backed by responsive service and expert technical support PolyPhaser continually expands its product offering and services to serve engineers' urgent needs for RF components in mission critical communication networks.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Type N/SMA F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz, 90W, IP67, 9 V Max., 5mJ, 20kA, Gas Discharge Tube GT-NFSF-AL](#)

URL: <https://www.polyphaser.com/type-n-sma-surge-protector-7ghz-4ghz-gas-discharge-tube-gt-nfsf-al>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. PolyPhaser reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. PolyPhaser does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and PolyPhaser does not assume any liability arising out of the use of any part or documentation.

Type N/SMA F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz,
 90W, IP67, 9 V Max., 5mJ, 20kA, Gas Discharge Tube

GT-NFSF-AL CAD Drawing

FEMALE 'SMA' CONNECTOR

FEMALE 'N' CONNECTOR

1.98 [50.2]

.89 [22.6]

Ø .86 [21.8]

.53 [13.5]

**SPIKEGuard
 GT-NFSF-AL
 PolyPhaser**

**SPIKEGuard
 GT-NFSF-AL
 PolyPhaser**

HARDWARE KIT INCLUDES:

QTY.	DESCRIPTION
1	BRACKET MOUNTING AL
2	NUT 8-32 HEX 18-8 SS
2	WASHER #8 410 SS INTERNAL
2	SCREW 8-32x.50 PHIL MS PAN 18-8 SS
1	O-RING 016 SILICONE
1	NUT 5/8-24 303 HEX SS

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

PolyPhaser

SHEET 1 of 1
 SCALE 1:1

TITLE GAS TUBE NON-REPLACE N/SMA

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [] ARE MILLIMETERS
 TOLERANCES: FRACTIONS± 1/32 .XXF± .03 ANGLES± 1° .XXX± .010
 NOTICE: THE INFORMATION AND DESIGN IN THIS DRAWING ARE THE PROPERTY OF POLYPHASER CORP. ALL RIGHTS RESERVED.
 THIRD-ANGLE PROJECTION

SIZE A CAGE 30992 PROD CAT RFP DRAWING NUMBER GT-NFSF-AL REV A

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.