

TNC F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz,
DC Pass, 90W, IP67, 4mJ, 20kA, Gas Discharge Tube



GT-TFF-AL

Features

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

Applications

- WiFi
- GPS
- Land mobile radio

Description

RF surge protector (also known as lightning arrester or surge arrester) GT-TFF-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		1.1:1	1.4:1		
Insertion Loss		0.1	0.5	dB	
Input Power, CW	90W @ 30MHz 9W @ 3GHz		90	Watts	
Surge Current	IEC 61000-4-5 8/20µs waveform		20	kA	
Throughput Energy			4	mJ	
Sparkover Impulse Voltage	@1000V/µs	500		Volts	
Sparkover Voltage (DC)		300 ±20%			
Holdover Voltage	@<150ms	80		Volts	

Specifications by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 2	2 to 3	3 to 4	4 to 7		GHz
VSWR, Typ	1.1:1	1.25:1	1.4:1	1.4:1		
Insertion Loss, Max	0.1	0.1	0.25	0.5		dB

TNC F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz,
DC Pass, 90W, IP67, 4mJ, 20kA, Gas Discharge Tube



GT-TFF-AL

Mechanical Specifications

Size

Length	2.36 in [59.94 mm]
Width/Diameter	0.86 in [21.84 mm]
Weight	0.2 lbs [90.72 g]

Configuration

Input Connector	TNC Female
Output Connector	TNC Female

Environmental Specifications

Temperature

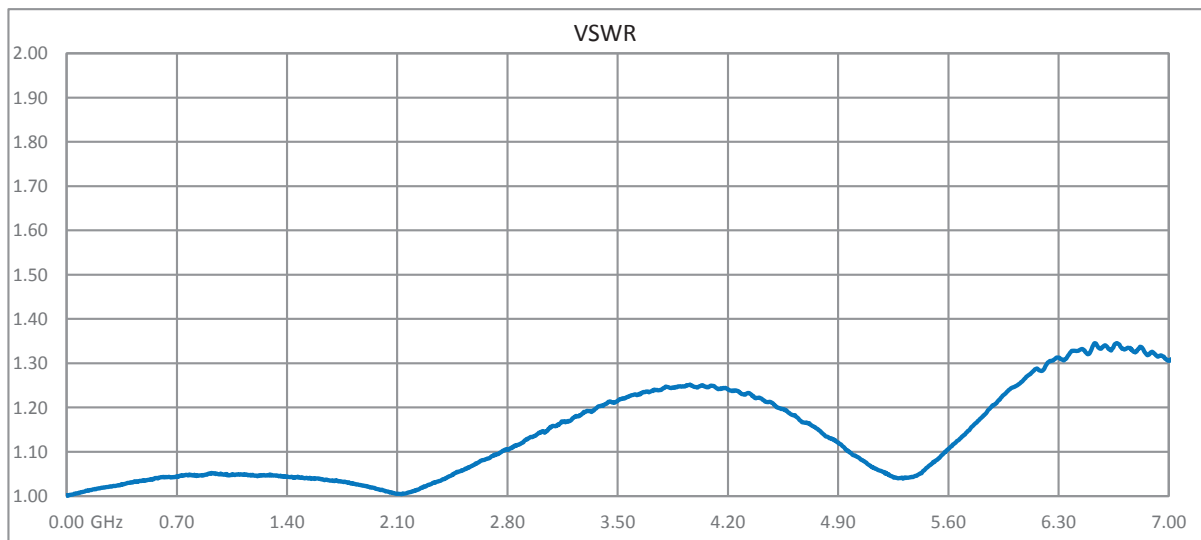
Operating Range	-55 to +85 deg C
Ingress Protection (IP) Rating	IP67

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

Plotted and Other Data

Notes:

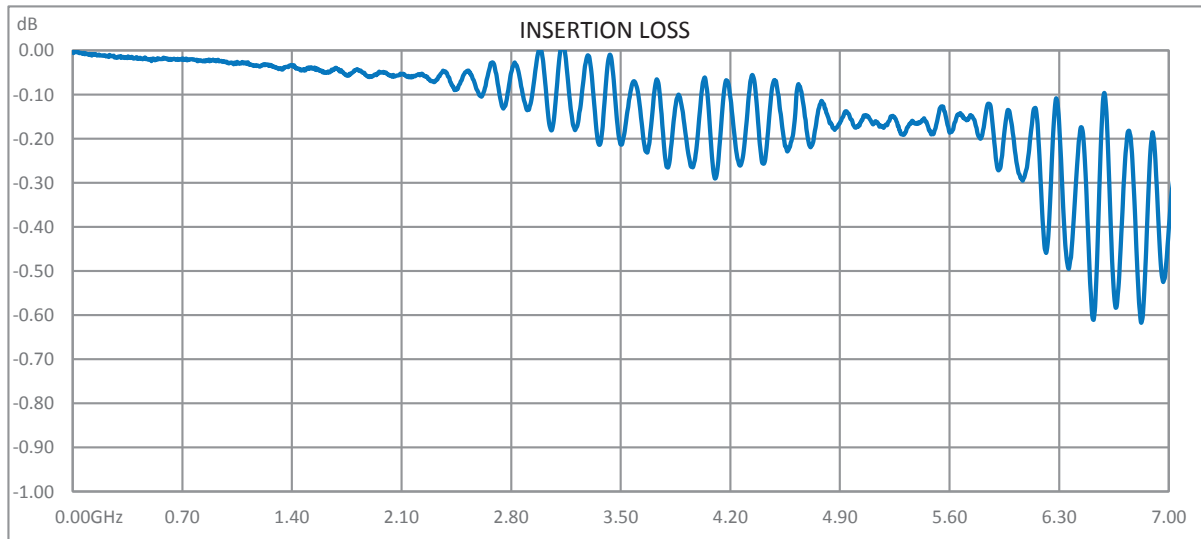
Typical Performance Data



TNC F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz,
DC Pass, 90W, IP67, 4mJ, 20kA, Gas Discharge Tube



GT-TFF-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: [TNC F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz, DC Pass, 90W, IP67, 4mJ, 20kA, Gas Discharge Tube GT-TFF-AL](https://www.polyphaser.com/tnc-surge-protector-7ghz-4ghz-gas-discharge-tube-gt-tff-al-p.aspx)

URL: <https://www.polyphaser.com/tnc-surge-protector-7ghz-4ghz-gas-discharge-tube-gt-tff-al-p.aspx>

The information contained within 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 liability arising out of the use of any part or document.

GT-TFF-AL CAD Drawing

TNC F/F Bulkhead Coaxial RF Surge Protector, DC - 7GHz, DC Pass, 90W, IP67, 4mJ, 20kA, Gas Discharge Tube

5/8-24 THREADS WITH DOUBLE D CUT FOR BULKHEAD MOUNTING BOTH ENDS

2X .82 [20.8]

2.36 [59.9]

2X .43 [10.8]

2X .53 [13.5]

∅.86 [21.8]

TNC FEMALE CONNECTORS BOTH ENDS

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS		SHEET 1 of 1	
TOLERANCES:		SCALE 1:1	
FRACTIONS=± 1/32	XXF=± .01		
ANGLES=± 1°	XXXF=± .005		
NOTE: THE INFORMATION AND DESIGN IN THIS DOCUMENT ARE THE PROPERTY OF POLYPHASER AND ARE UNCLASSIFIED.			
THIRD-ANGLE PROJECTION			

TITLE		GAS TUBE NON-REPLACEABLE	
		dc-7GHZ 50-100 TNC FEM	
SIZE	CAGE	PROD CAT	REV
A	30992	RFP	A
DRAWING NUMBER		GT-TFF-AL	

HARDWARE KIT INCLUDES:	
QTY.	DESCRIPTION
1	BRACKET MOUNTING AL 5052-H32
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

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.