

7/16 F/F Bulkhead Coaxial RF Surge Protector, 698MHz - 2.7GHz,  
DC Block, 500W, IP67, .005uJ, 40kA, Filter, Low PIM



## TSX-DFF

### Features

- Surge current of 40kA
- Max Power 500W
- Frequency range from 698 MHz to 2700 MHz
- Waterproof IP67 rated
- 7/16 DIN-type Female connectors
- DC Block
- VSWR <1.1:1
- Low insertion loss
- CE & RoHS compliant
- Bidirectional

### Applications

- Cellular communication systems
- Public safety systems
- Emergency response systems
- Industrial Communications

### Description

RF surge protector (also known as lightning arrester) TSX-DFF from PolyPhaser utilizing a patented spiral inductor design enables an almost instantaneous response to a lightning surge to protect critical hardware while maintaining the RF performance. 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

Surge Filter  
DC Block

| Description                                    | Minimum | Typical | Maximum | Units |
|--|---------|---------|---------|-------|
| Frequency Range                                | 0.698   |         | 2.7     | GHz   |
| Impedance                                      |         | 50      |         | Ohms  |
| VSWR   |         |         | 1.1:1   |       |
| Return Loss                                    |         |         | 26      | dB    |
| Insertion Loss                                 |         |         | 0.1     | dB    |
| Passive Intermodulation                        |         |         | -155    | dBc   |
| Input Power, CW                                |         |         | 500     | Watts |
| Surge Current<br>IEC 61000-4-5 8/20µs waveform |         | 20      | 40      | kA    |
| Throughput Energy<br>for 3kA @ 8/20µs waveform |         |         | 5       | nJ    |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:  
[7/16 F/F Bulkhead Coaxial RF Surge Protector, 698MHz - 2.7GHz, DC Block, 500W, IP67, .005uJ, 40kA, Filter, Low PIM TSX-DFF](#)

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### Mechanical Specifications

#### Size

|                |                    |
|----------------|--------------------|
| Length         | 3.37 in [85.6 mm]  |
| Width/Diameter | 1.45 in [36.83 mm] |
| Weight         | 1 lbs [453.59 g]   |

#### Configuration

|                  |                 |
|------------------|-----------------|
| Input Connector  | 7/16 DIN Female |
| Output Connector | 7/16 DIN Female |

### Environmental Specifications

#### Temperature

|                 |                  |
|-----------------|------------------|
| Operating Range | -50 to +85 deg C |
| Storage Range   | -50 to +85 deg C |

|                                |                    |
|--------------------------------|--------------------|
| Ingress Protection (IP) Rating | IP67               |
| Vibration                      | 1G at 5Hz to 100Hz |

### Compliance Certifications

|                   |        |
|-------------------|--------|
| RoHS Compliant    | Yes    |
| CE Compliant      | Yes    |
| UL Certifications | UL497E |

### Plotted and Other Data

Notes:

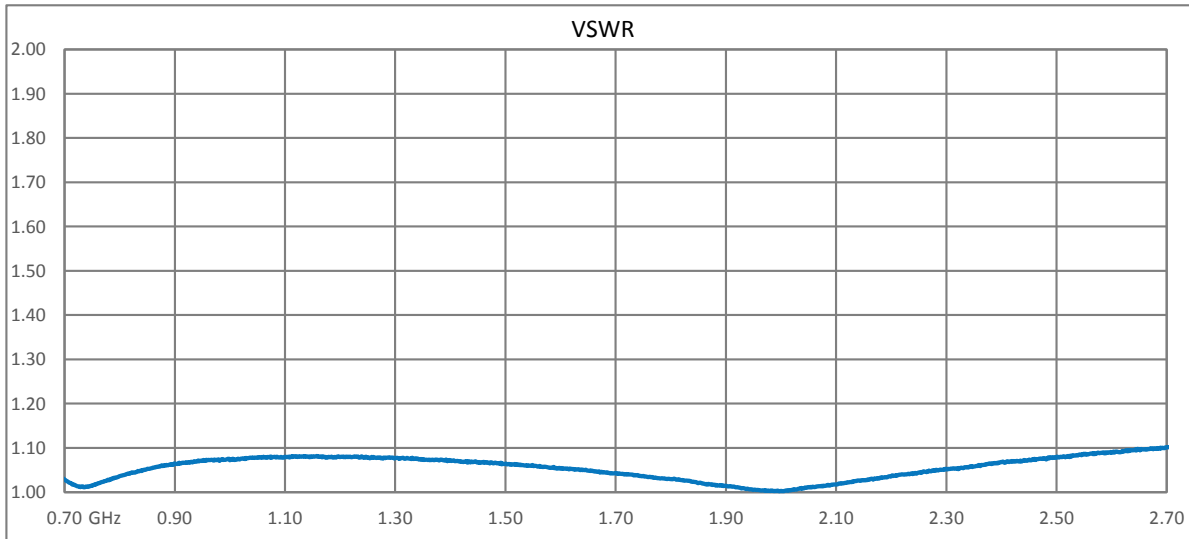
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications:  
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## TSX-DFF

### Typical Performance Data

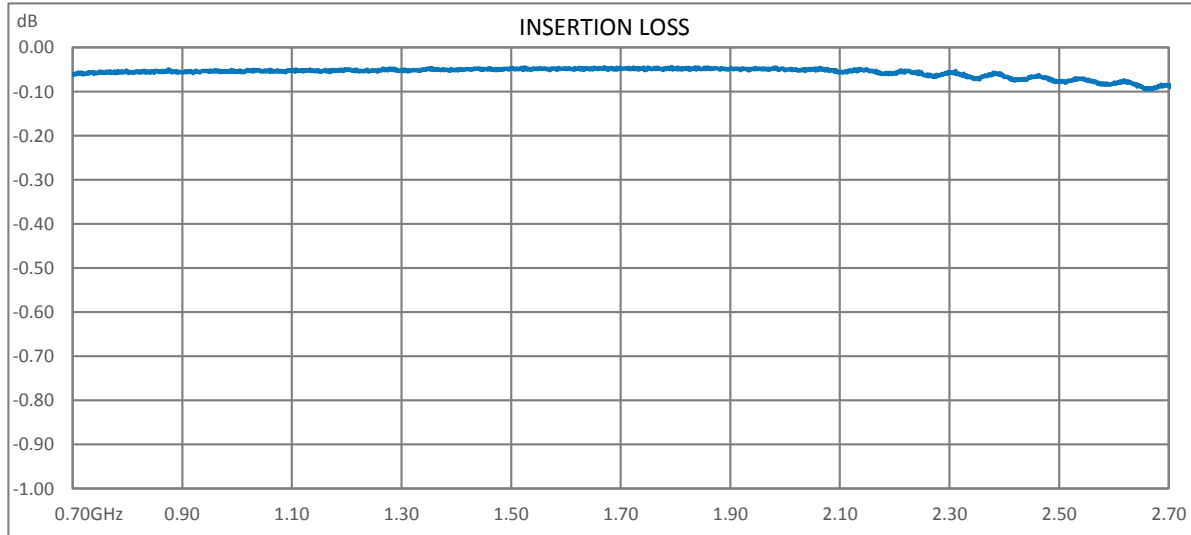


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## TSX-DFF



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.

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TSX-DFF CAD Drawing

3.37 [85.5]

2X .83 [21]

2X M29 X 1.5  
(FEMALE DIN CONNECTOR)

Ø 1.45 [36.8]

.99 [25]

**PolyPhaser**  
TSX-DFF  
698MHz to 2.7GHz  
© 2018 RETURN LOSS  
U.S. PATENT 6,091,222  
6,116,227, 6,236,201 & 6,498,791  
EMPT

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ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SHEET 1 of 1  
SCALE 1:1

**PolyPhaser**

TITLE BI-DIRECTIONAL BROADBAND DC BLOCK FILTER DIN FEMALE

SIZE A CAGE 30992 PROD CAT RFP DRAWING NUMBER TSX-DFF REV A

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE IN INCHES DIMENSIONS IN [ ] ARE MILLIMETERS  
TOLERANCES: FRACTIONS: . . . . . XX± .03 . . . . . XXX± .010 ANGLES: ± . . . . . XXX± .010  
THIRD-ANGLE PROJECTION

HARDWARE KIT INCLUDES:

| QTY | DESCRIPTION                     |
|-----|---------------------------------|
| 1   | NUT M29 X 1.5 SST DIN           |
| 1   | WASHER 1.15ID FLAT SST TYPE 304 |
| 1   | O-RING 025 SILICONE             |

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