

Matching Pad

Z7550R-FMSF+

50/75Ω

DC to 2500 MHz

The Big Deal

- Excellent matching VSWR, 1.2:1 typical
- 0.25W Power Handling
- SMA-F (50Ω) to F-Type-M (75Ω) Connectors



CASE STYLE: H16

Product Overview

Mini-Circuits' Z7550R-FMSF+ is a coaxial 50/75Ω resistive matching pad covering the DC to 2500 MHz frequency range, supporting impedance matching in a wide range of systems including CATV, broadband networks, and more. This model is ideal for 50/75Ω impedance matching in systems where minimizing mismatch and signal reflections is a priority. The matching pad handles RF input power up to 0.25W and comes housed in a rugged, compact aluminium alloy case (1.25 x 1.25 x 0.75") with SAM-F (50Ω) to F-Type-M(75Ω) connectors.

Key Features

| Feature | Advantages |
|----------------------------------------|-------------------------------------------------------------------------------------------------------|
| Wideband, DC to 2500 MHz | Supports a wide variety of applications including CATV and DOCSIS® 3.1 systems and equipment. |
| Excellent matching VSWR, 1.2:1 typ. | Enables excellent signal power transmission from input to output, minimizing over all systems losses. |
| 0.25W power handling | Supports a range of systems power requirements. |
| Compact size, 1.25 x 1.25 x 0.75" | Accommodates tight space requirements for crowded systems layouts. |
| SMA-F (50Ω) to Type-M (75Ω) connectors | Supports connections between components with different connector types. |

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp



Matching Pad

Z7550R-FMSF+

50/75Ω DC to 2500 MHz

Maximum Ratings

Operating Temperature -40°C to 85°C

Storage Temperature -55°C to 100°C

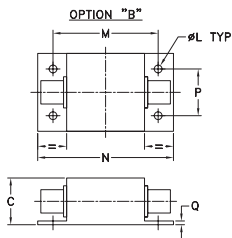
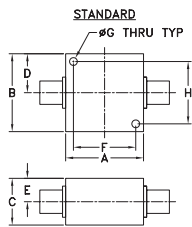
Permanent damage may occur if any of these limits are exceeded.

Coaxial Connections

Input SMA-Female

Output F-Male

Outline Drawing

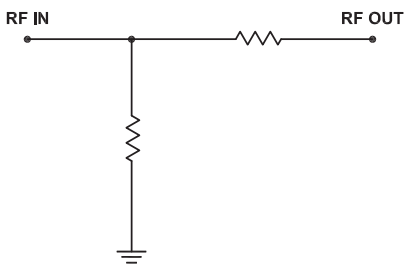


Outline Dimensions (inch mm)

| A | B | C | D | E | F | G | H |
|-------|-------|-------|-------|------|-------|------|-------|
| 1.25 | 1.25 | .75 | .63 | .38 | 1.000 | .125 | 1.000 |
| 31.75 | 31.75 | 19.05 | 16.00 | 9.65 | 25.40 | 3.18 | 25.40 |

| J | K | L | M | N | P | Q | wt |
|----|----|------|-------|-------|-------|------|-------|
| -- | -- | .125 | 1.688 | 2.18 | .750 | .06 | grams |
| -- | -- | 3.18 | 42.88 | 55.37 | 19.05 | 1.52 | 70.0 |

Functional Schematic

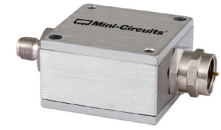


Features

- Minimum loss pad
- Wideband coverage, DC-2500MHz
- Connectorized package

Applications

- Impedance matching
- Cable / CATV & Broadband Fiber Networks



CASE STYLE: H16

Connectors Model

75Ω F-M Z7550R-FMSF+

50Ω S-F

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

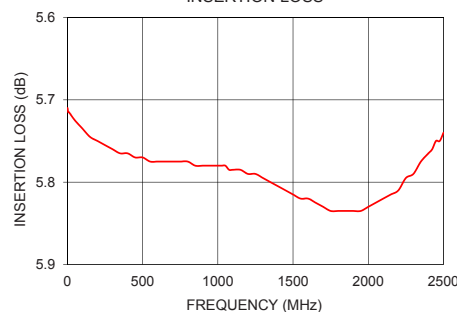
Electrical Specifications at 25°C

| Parameter | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|-----------------|-----------------|------|------|------|------|
| Frequency Range | - | DC | - | 2500 | MHz |
| Insertion Loss | 10 | - | 5.7 | 6.0 | dB |
| | 950-2500 | - | 5.9 | 6.3 | |
| VSWR | 10 | - | - | 1.2 | :1 |
| | 950-2500 | - | - | 1.6 | |
| Power | DC-2500 | - | - | 0.25 | W |

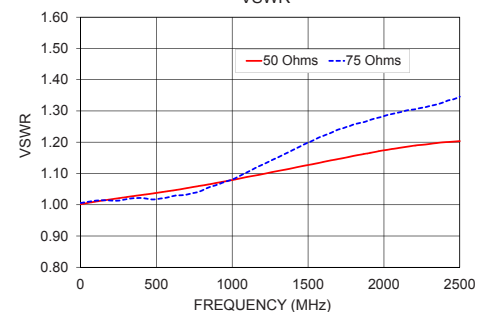
Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | VSWR | |
|-----------------|---------------------|------|------|
| | | 50 Ω | 75 Ω |
| 10 | 5.72 | 1.00 | 1.01 |
| 50 | 5.73 | 1.01 | 1.01 |
| 100 | 5.74 | 1.01 | 1.01 |
| 250 | 5.76 | 1.02 | 1.01 |
| 950 | 5.78 | 1.07 | 1.07 |
| 1500 | 5.82 | 1.13 | 1.20 |
| 2000 | 5.83 | 1.17 | 1.28 |
| 2150 | 5.82 | 1.19 | 1.30 |
| 2300 | 5.79 | 1.19 | 1.32 |
| 2500 | 5.74 | 1.20 | 1.35 |

Z7550R-FMSF+
INSERTION LOSS



Z7550R-FMSF+
VSWR



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