

DC Block

# Matching Transformer

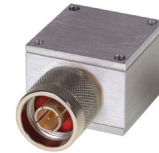
Z7550-FMSFDC+

50/75Ω

1 to 2500 MHz

## The Big Deal

- Low loss (0.5 dB) matching device
- Wideband coverage, 1-2500MHz
- Blocks DC
- Connectorized package



Generic photo used for illustration purposes only  
CASE STYLE: H795-3

## Product Overview

Z7550-FMSFDC+ is a DC Blocking matching transformer that allows impedance matching between 50Ω and 75Ω systems with minimum reflection in to the circuit. This matching transformer will find its application in any system where 50Ω-75Ω matching is required

## Key Features

| Feature               | Advantages  |
|-----------------------|---|
| Low insertion loss    | Low insertion loss ensures minimum signal loss through the device and at the same time provides 50-75 impedance transformation. |
| Very good return loss | Return loss of 20dB ensures minimum reflection with maximum power transfer  |
| Connectorized package | The connectorized package is easy to interface with other devices and well suited for test setups.                              |

### 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](http://www.minicircuits.com/MCLStore/terms.jsp)



# DC Block Matching Transformer

## Z7550-FMSFDC+

50/75Ω 1 to 2500 MHz

### Maximum Ratings

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature   | -55°C to 100°C |

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

### Features

- Low loss (0.5 dB) matching device
- Wideband coverage, 1-2500MHz
- Blocks DC
- Connectorized package



Generic photo used for illustration purposes only

CASE STYLE: H795-3

Connectors Model

75Ω F-M Z7550-FMSFDC+

50Ω S-F

### +RoHS Compliant

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

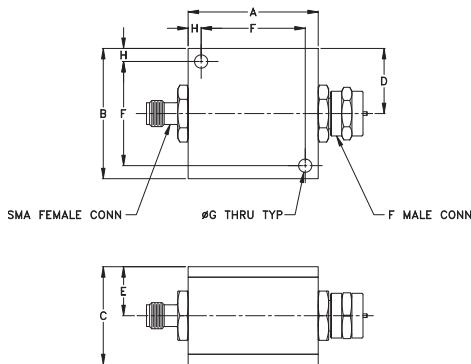
### Applications

- Impedance matching

### Coaxial Connections

|        |            |
|--------|------------|
| Input  | SMA-Female |
| Output | F-Male     |

### Outline Drawing

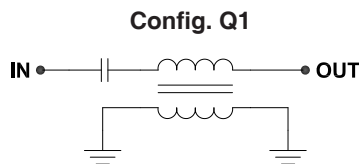


### Outline Dimensions (inch mm)

|       |       |       |       |       |
|-------|-------|-------|-------|-------|
| A     | B     | C     | D     | E     |
| 1.25  | 1.25  | .94   | .63   | .47   |
| 31.75 | 31.75 | 23.88 | 16.00 | 11.94 |
| F     | G     | H     | wt    |       |
| 1.000 | .125  | .125  | grams |       |
| 25.40 | 3.18  | 3.18  | 49.8  |       |

Note: Please refer to case style drawing for details

### Functional Schematic



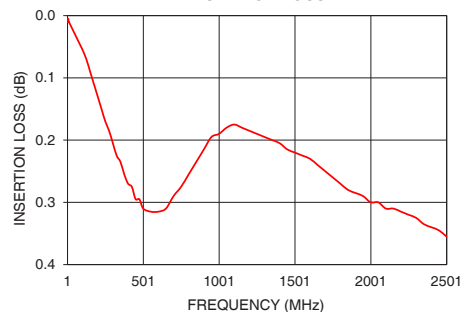
### Electrical Specifications at 25°C

| Parameter       | Frequency (MHz) | Min. | Typ. | Max. | Unit |
|-----------------|-----------------|------|------|------|------|
| Frequency Range | -               | 1    | -    | 2500 | MHz  |
| Insertion Loss  | 1-950           | -    | 0.35 | 0.8  | dB   |
|                 | 950-2500        | -    | 0.5  | 1.0  |      |
| VSWR            | 1-950           | -    | 1.5  | 1.8  | :1   |
|                 | 950-2500        | -    | 1.2  | 1.5  |      |
| Power           | 1-2500          | -    | -    | 1    | W    |

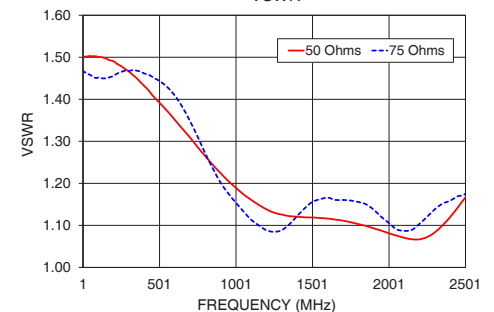
### Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | VSWR |      |
|-----------------|---------------------|------|------|
|                 |                     | 50 Ω | 75 Ω |
| 1               | 0.01                | 1.50 | 1.47 |
| 10              | 0.01                | 1.50 | 1.46 |
| 100             | 0.06                | 1.50 | 1.45 |
| 250             | 0.17                | 1.48 | 1.46 |
| 300             | 0.21                | 1.47 | 1.47 |
| 950             | 0.20                | 1.21 | 1.18 |
| 1500            | 0.22                | 1.12 | 1.16 |
| 2150            | 0.31                | 1.07 | 1.09 |
| 2300            | 0.33                | 1.08 | 1.14 |
| 2500            | 0.36                | 1.17 | 1.18 |

Z7550-FMSFDC+  
INSERTION LOSS



Z7550-FMSFDC+  
VSWR



### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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](http://www.minicircuits.com/MCLStore/terms.jsp)



[www.minicircuits.com](http://www.minicircuits.com) P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

REV. B  
ECO-005139  
Z7550-FMSFDC+  
EDU1479  
URJ  
201202  
Page 2 of 2