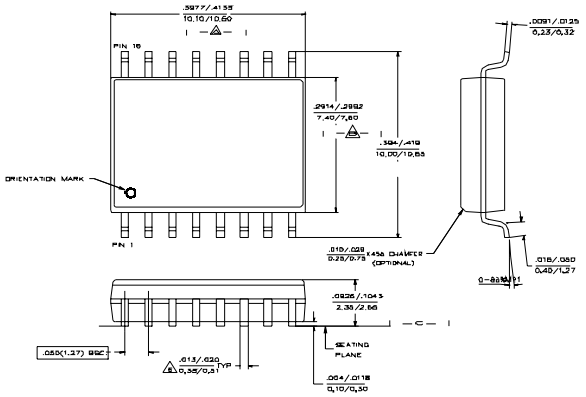
M/A-COM

Low Cost SMT Dual Band Diplexer 400-700/1100-1940 MHz

Features

- Small Size and Low Profile
- Industry Standard SOW-16 SMT Plastic Package
- Superior Repeatability
- Passbands 400-700 MHz and 1100-1940 MHz
- Typical Passband Insertion Loss: 0.5 dB
- 2 Watt Power Handling
- Low Cost

SOW-16



16-Lead SOP outline dimensions
Wide body (.300)
(All dimensions per JEDEC No. MS-013-AA, Issue C)
Dimensions in () are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx=±0,25)
.xx = ± 0.02 (.x=±0.5)

Description

M/A-COM's DP52-0004 is an IC-based monolithic Diplexer in a low cost SOW-16 plastic package. This Diplexer is ideally suited for applications where small size, low insertion loss, superior repeatability and low cost are required. Typical applications include WMT/PCS and dual mode portable devices.

The DP52-0004 is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

Ordering Information

Part Number	Package
DP52-0004	S0W-16 Lead Plastic Package
DP52-0004-TR	Forward Tape and Reel[1]

1. If specific reel size is required, consult factory for part number assignment.

400MHz/1100-1940MHz Typical Electrical Specifications[1], T_A = +25°C

Parameter	Units	Min	Typ	Max
Passband Insertion Loss	dB	—	1.8	2.8
Stopband Isolation	dB	21	30	—
Passband VSWR	—	—	1.88	2.06

1. All specifications apply with a 50-Ohm source and load impedance.

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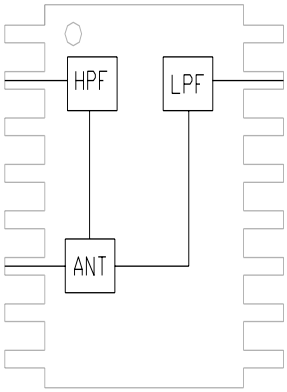
Absolute Maximum Ratings[1]

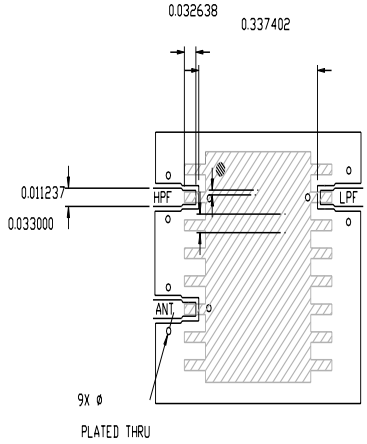
Parameter	Absolute Maximum
Input Power	2 W CW
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

1. Exceeding these limits may cause permanent damage.

Functional Diagram



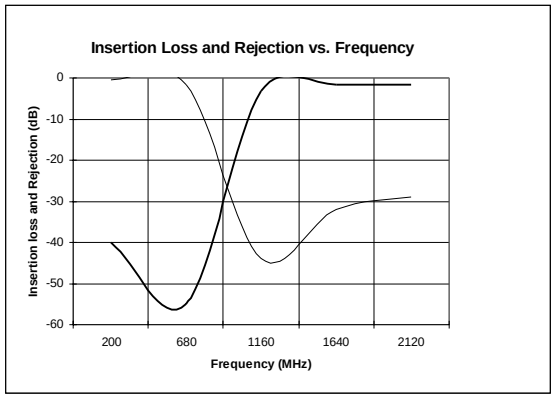
Recommended PCB Configuration



DP52-0004-G PCB LAYOUT (SOIC-16 CASE)
SCALE: 1X
CIRCUIT MATERIAL: FR4, .028 THICK
ALL PORTS ARE 50 OHMS

Typical Performance @ +25°C

Insertion Loss vs Frequency



VSWR vs Frequency