

# Low Cost SMT Dual Band Diplexer

824 - 960 / 1850 - 1990 MHz (AMPS/PCS)

880 - 960 / 1700 - 1900 MHz (GSM/DCS)

## Features

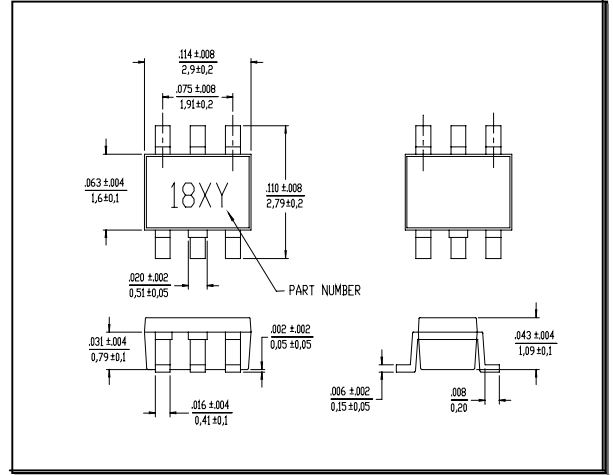
- Small Size and Low Profile
- Industry Standard SOT-26 SMT Plastic Package
- Superior Repeatability
- Passbands 824 - 960 MHz and 1850 - 1990 MHz
- Passbands 880 - 960 MHz and 1700 - 1900 MHz
- Typical Passband Insertion Loss: 0.5 dB
- 2 Watt Power Handling
- Low Cost

## Description

M/A-COM's DP52-0005 is an IC-based monolithic Diplexer in a low cost SOT-26 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 AMPS/PCS and GSM/DCS dual mode portable devices.

The DP52-0005 is fabricated using a passive-integrated circuit process. The process features full-chip passivation for increased performance and reliability.

## SOT-26



## Ordering Information

Part Number	Package
DP52-0005	SOT-26 Lead Plastic Package
DP52-0005-TR	Forward Tape and Reel <sup>1</sup>

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

## 880 – 960 / 824 – 960 Typical Electrical Specifications<sup>1</sup>, T<sub>A</sub> = +25°C

Parameter	Units	Min.	Typ.	Max.
Passband Insertion Loss	dB	—	0.7	0.9
Stopband Isolation	dB	17	19	—
Passband VSWR	—	—	1.3	1.5

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

## 1700 - 1900 / 1850 - 1990 Typical Electrical Specifications<sup>1</sup>, T<sub>A</sub> = +25°C

Parameter	Units	Min.	Typ.	Max.
Passband Insertion Loss	dB	—	0.6	0.8
Stopband Isolation	dB	17	20	—
Passband VSWR	—	—	1.3	1.5

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

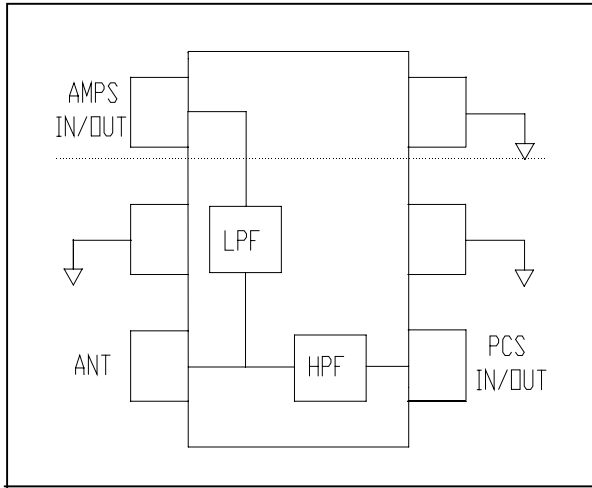
Note: Specifications subject to change without notice.

**Absolute Maximum Ratings<sup>1</sup>**

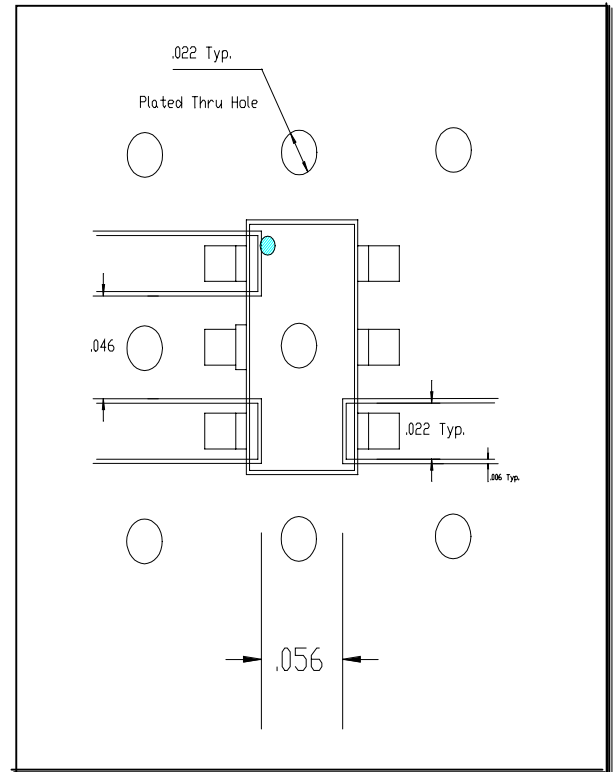
Parameter	Absolute Maximum
Input Power	2 W CW
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

1. Exceeding these limits may cause permanent damage.

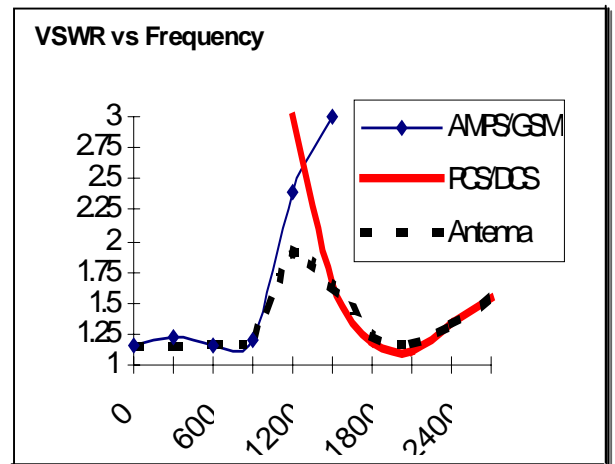
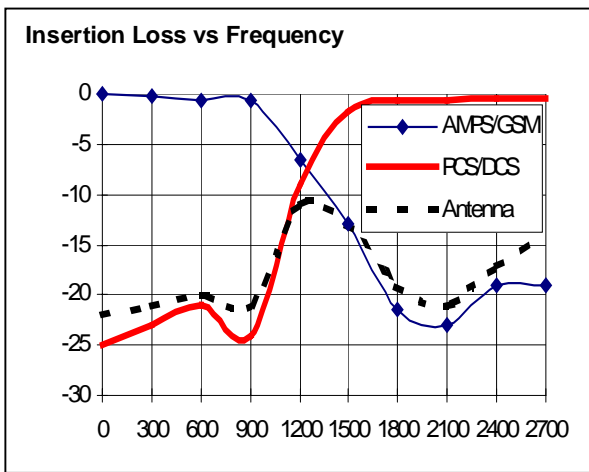
**Functional Diagram**



**Recommended PCB Configuration**



**Typical Performance @ +25°C**



Specifications subject to change without notice.

■ North America: Tel. (800) 366-2266, Fax (800) 618-8883  
 ■ Asia/Pacific: Tel.+81-44-844-8296, Fax +81-44-844-8298  
 ■ Europe: Tel. +44 (1344) 869 595, Fax+44 (1344) 300 020

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