

**Low Cost SMT Dual Band Diplexer,
824 - 960/1850 - 1990 MHz (AMPS/PCS), 880 - 960/1700 - 1900 MHz (GSM/DCS)**

**DP52-0005
V2**

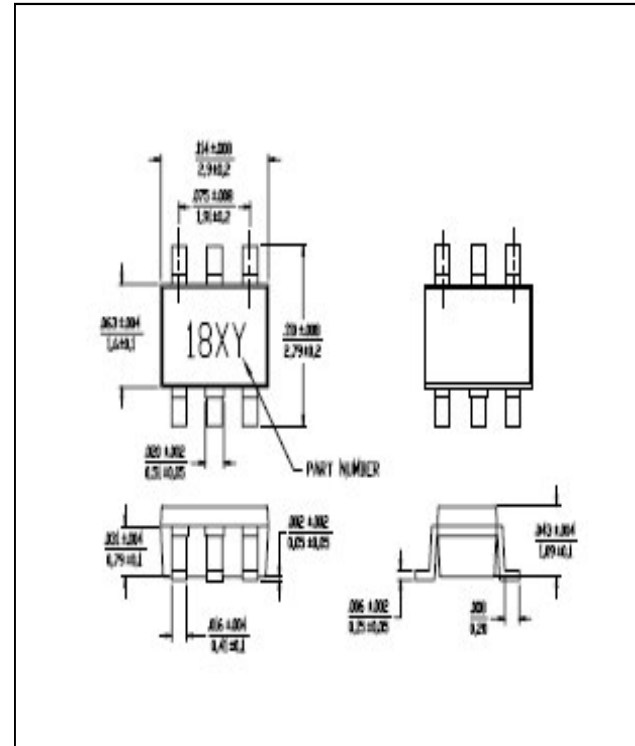
Features

- 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



880 - 960 / 824 - 960 MHz Typical Electrical Specifications¹, T_A = +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 MHz Typical Electrical Specifications¹, T_A = +25°C

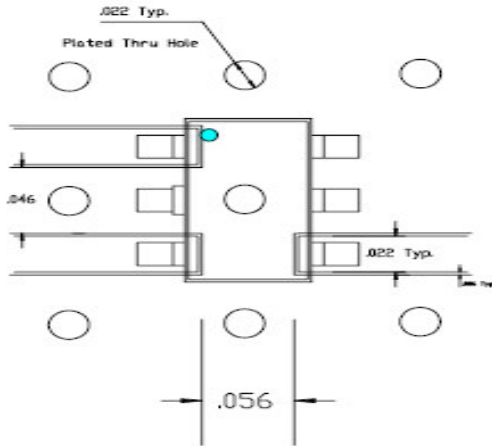
Parameter	Units	Min	Typ	Max
Passband Insertion Loss	dB	—	0.6	0.8
Stopband Isolation	dB	17	20	—
Passband VSWR	—	—	1.3	1.5

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

**Low Cost SMT Dual Band Diplexer,
824 - 960/1850 - 1990 MHz (AMPS/PCS), 880 - 960/1700 - 1900 MHz (GSM/DCS)**

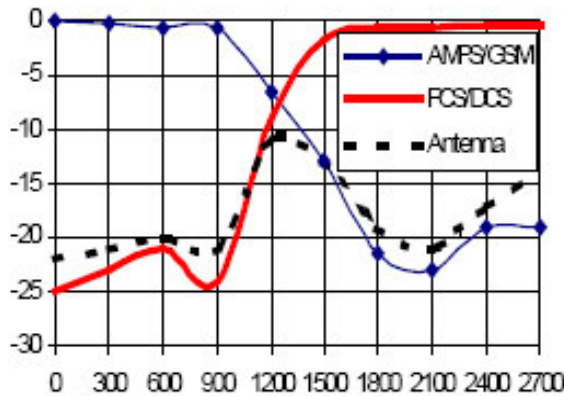
**DP52-0005
V2**

Recommended PCB Configuration

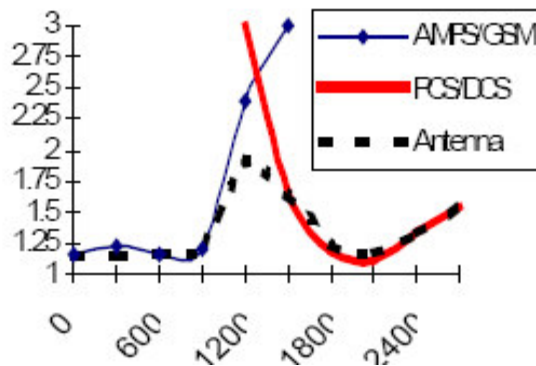


Typical Performance Curves

Insertion Loss vs Frequency



VSWR vs Frequency

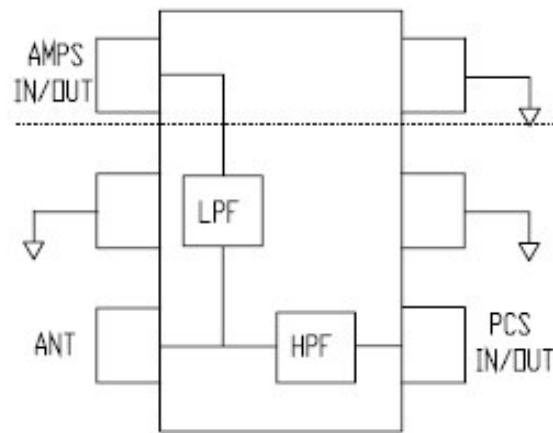


Ordering Information

Part Number	Package
DP52-005	SOT-26 Lead Plastic Package
DP52-0005-TR	Forward Tape and Reel ¹

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

Functional Diagram



Absolute Maximum Ratings¹

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

1. Exceeding these limits may cause permanent damage.