Low-Cost Three-Way Power Splitter/Combiner 824 - 960 MHz

DS53-0001

V2.00

Features

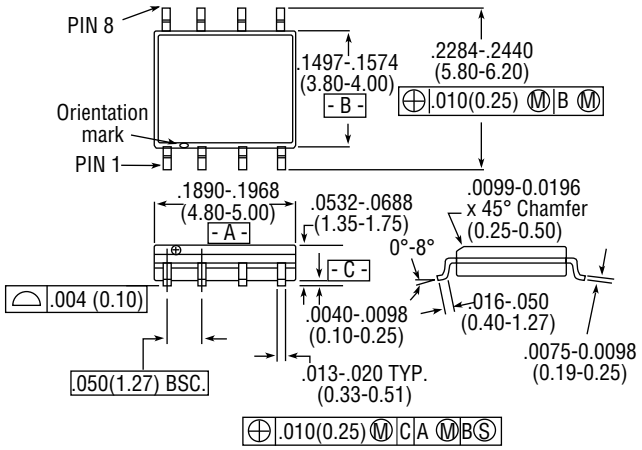
- Small Size and Low Profile
- Industry Standard SOIC-8 SMT Plastic Package
- Superior Repeatability
- Excellent Insertion Loss 0.6 dB Typical
- Low Cost
- GSM, AMPS, CDPD, ARDIS, RAM Frequency Coverage

Description

M/A-COM's DS53-0001 is an IC based monolithic power splitter in a low cost SOIC-8 plastic package. This 3-way power splitter is ideally suited for applications where small size, low profile and low cost, without sacrificing performance, are required. Typical applications include base stations, portables and PCMCIA cards for cellular applications. Available in tape and reel.

The DS53-0001 is a fabricated using a passive integrated circuit process. The process features full chip passivation for increased performance and reliability.

SO-8



8- Lead SOP outline dimensions
Narrow body .150
(All dimensions per JEDEC No. MS-012-AA, Issue C)

Dimensions in ( ) are in mm.
Unless Otherwise Noted: .xxx = ±0.010 (.xx = ±0.25)
.xx = ±0.02 (.xx = ±0.5)

Ordering Information

Model No.	Description
DS53-0001	SOIC-8 Lead Plastic Package
DS53-0001-TR	Forward Tape & Reel*
DS53-0001-RTR	Reverse Tape & Reel*

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

Typical Electrical Specifications[1], T_A = +25°C

Parameter	Unit	Min.	Typ.	Max.
Insertion Loss above 4.78 dB	dB	–	0.6	0.7
Isolation	dB	15	18	–
VSWR	–	–	1.4:1	1.6:1
Amplitude Balance	dB	–	0.6	0.8
Phase Balance	°	–	2°	4°

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

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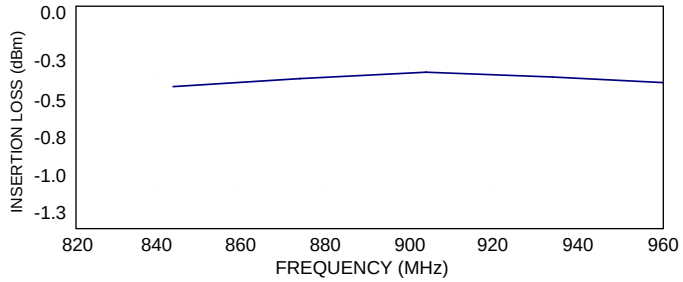
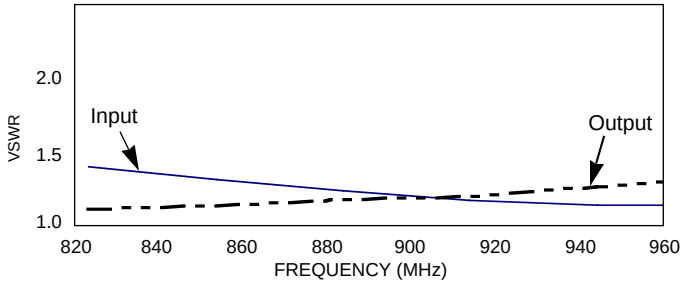
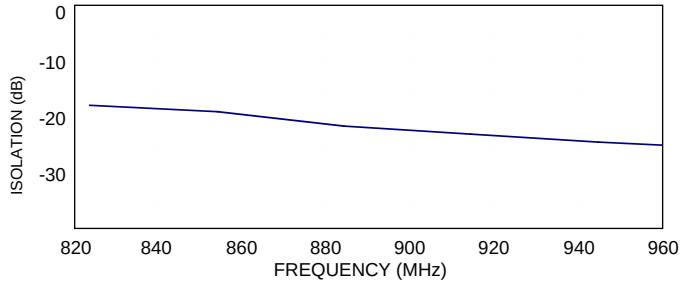
INSERTION LOSS vs FREQUENCY (ABOVE THEORETICAL SPLIT LOSS)



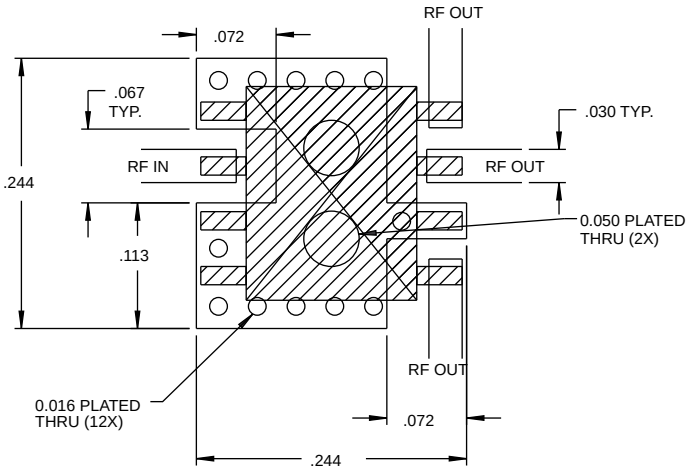
VSWR vs FREQUENCY



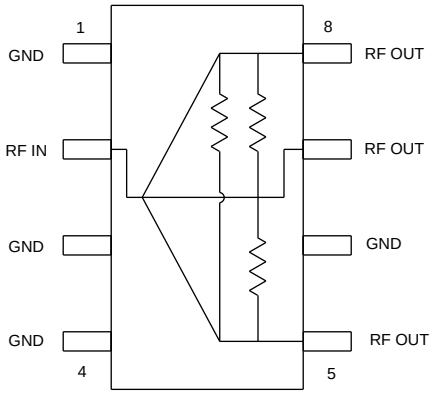
ISOLATION vs FREQUENCY



Recommended PCB Configuration



Functional Diagram



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