

Device Features

- Typical Isolation = 23 dB
- Typical Insertion Loss = 0.6 dB
- MSL 3 moisture rating
- Small Size and Low Profile
- RoHS2-compliant SOT-26 Plastic Package



BD09XX(XX=Wafer number)

Product Description

BeRex's Divider BD0926 is designed for Cellular & GSM band with low Insertion Loss and Isolation. This chip is fully passivated for enhanced performance and reliability and packaged in RoHS2-compliant with SOT-26 surface mount package.

Typical Performance¹

Parameter	Min	Typical	Max	Unit
Frequency Range	700		1000	MHz
Insertion Loss		0.6	0.8	dB
Isolation	16.5	23.0		dB
IRL(S11)		-17.0	-14.5	dB
ORL(S22/S33)		-20.0	-15.0	dB
Amplitude Balance		0.05	0.2	dB
Phase Balance		0.4	0.5	deg

*All specifications apply to the following test conditions,

1. Device performance _ measured on BeRex E/B at 25°C, 50ohm system.
2. Insertion Loss: Above 3.0dB.

Applications

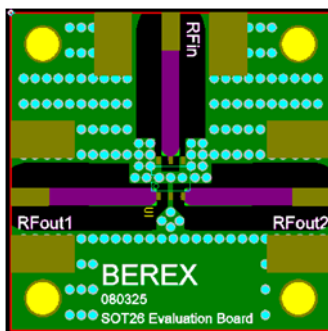
- Base station Infrastructure
- Commercial/Industrial/Military wireless system

Absolute Maximum Ratings

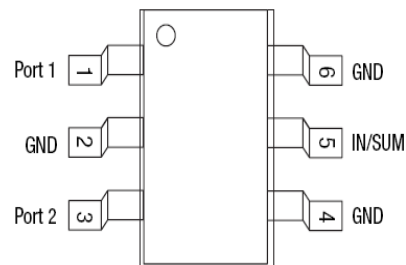
Parameter	Rating
Input Power	1W CW dBm
Storage Temperature	-55 to +155°C
Operating Temperature	-40 to +85°C

Operation of this device above any of these parameters may result in permanent damage.

Evaluation Board Drawing



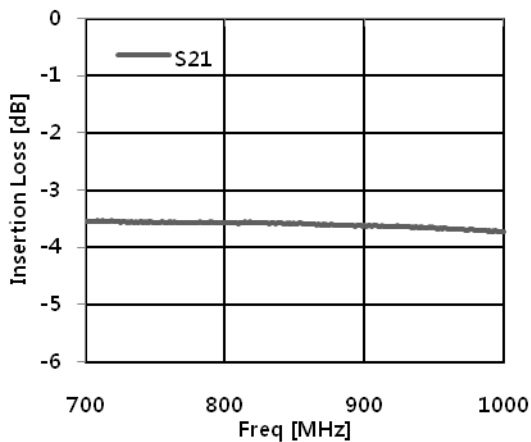
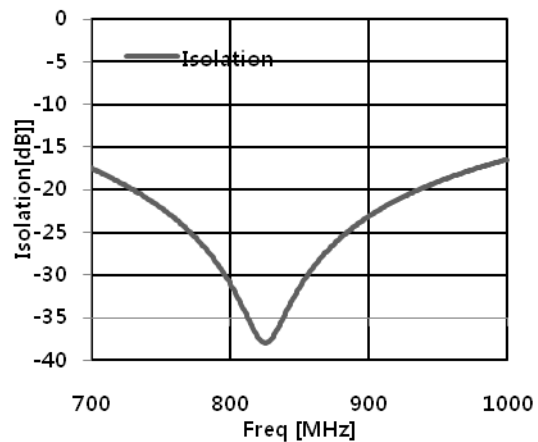
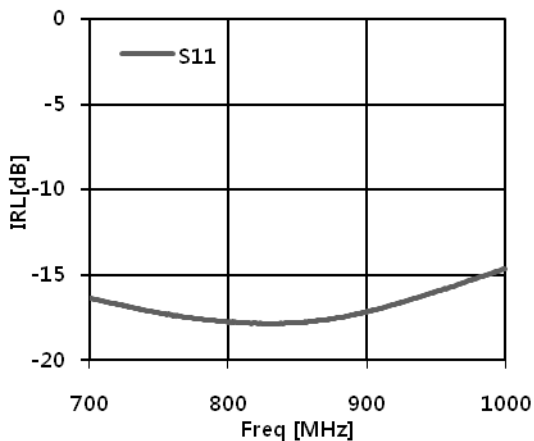
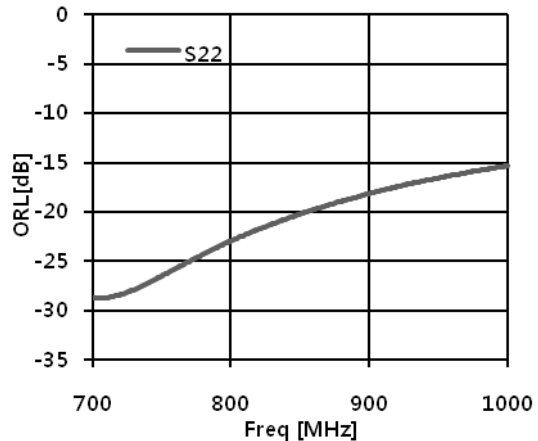
Function Block Diagram



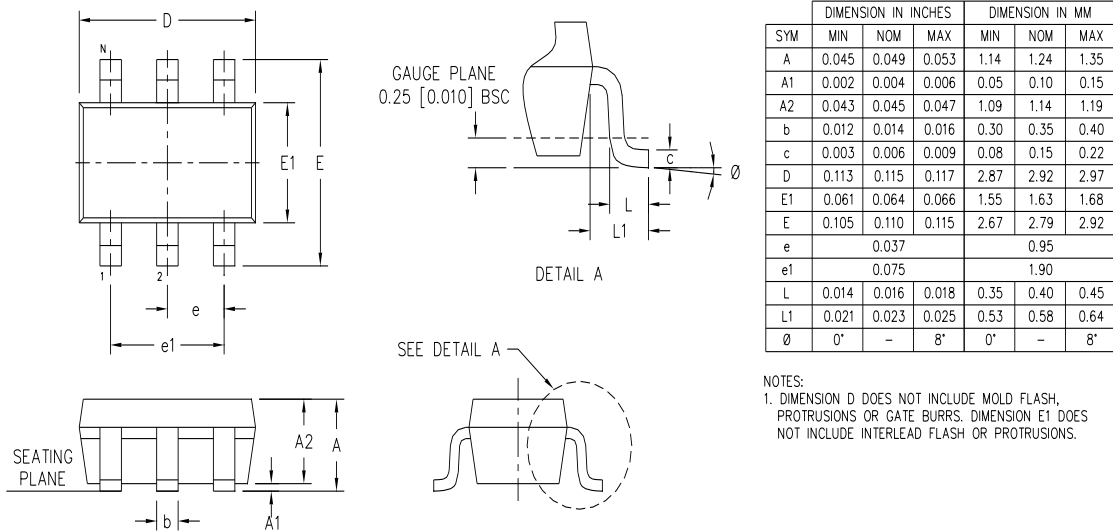
Pins 2,4 and 6 must be DC and RF grounded.

Typical Test Data

Parameters	Unit	Cellular & GSM900						
		700	750	800	850	900	950	1000
Frequency Range	MHz	700	750	800	850	900	950	1000
Insertion Loss	dB	0.54	0.55	0.55	0.57	0.59	0.63	0.70
Isolation	dB	17.39	22.03	30.99	31.43	23.06	18.99	16.37
IRL(S11)	dB	-16.30	-17.18	-17.68	-17.87	-17.30	-16.15	-14.75
ORL(S22,S33)	dB	-27.8	-25.66	-22.59	-20.03	-18.20	-16.69	-15.50
Phase Diff.	deg	0.13	0.22	0.23	0.23	0.24	0.41	0.42
Amplitude Balance	dB	0.01	0.01	0.01	0.01	0.02	0.02	0.02

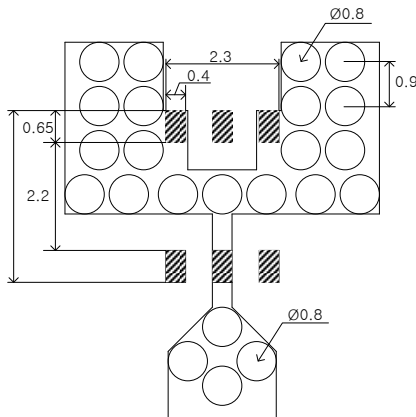
Insertion Loss vs. Frequency

Isolation vs. Frequency

IRL vs. Frequency

ORL vs. Frequency


Package Outline Drawing

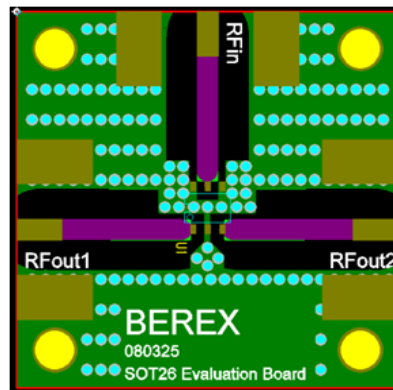


Suggested PCB Land Pattern and PAD Layout

PCB Land Pattern



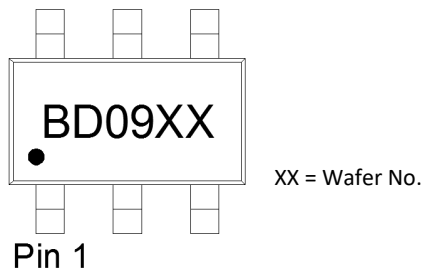
PCB Mounting



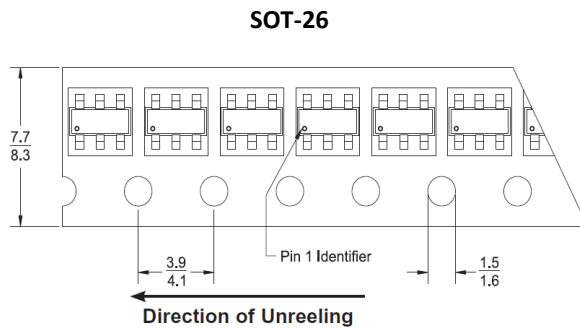
Note : All dimension _ millimeters

PCB lay out _ on BeRex website

Package Marking



Tape & Reel



Packaging information:

Tape Width (mm): 8

Reel Size (inches): 7

Device Cavity Pitch (mm): 4

Devices Per Reel: 3000

Lead plating finish

100% Tin Matte finish

(All BeRex products undergoes a 1 hour, 150 degree C, Anneal bake to eliminate thin whisker growth concerns.)

MSL / ESD Rating**MSL Rating:** Level 3 at +265°C convection reflow**Standard:** JEDEC Standard J-STD-020

Proper ESD procedures should be followed when handling this device.

NATO CAGE code:

2	N	9	6	F
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