

Dual Band 2-Way SMT Power Divider

1700~2300MHz PCS, WCDMA & TD-SCDMA

Device Features and Description

- 24.5dB Typical Isolation
- 0.6dB Typical Insertion Loss
- Small Size and Low Profile
- MSL 1 moisture rating
- Lead-free/Green/RoHS compliant package
- Industry Standard SOT-26 SMT Plastic Package
- Chip is fully passivated for enhanced performance and reliability



BD19XX(XX=Wafer number)

Electrical specifications

Parameters	Unit	Min	Typ	Max
Frequency Range	MHz	1700		2300
Insertion Loss	dB		0.6	0.8
Isolation	dB	16.5	24.5	
IRL(S11)	dB		-16.0	-11.5
ORL(S22,S33)	dB		-24.0	-19.5
Amplitude Balance	dB		0.1	0.2
Phase Balance	deg		1.5	2.0

All specifications apply with the following test conditions,

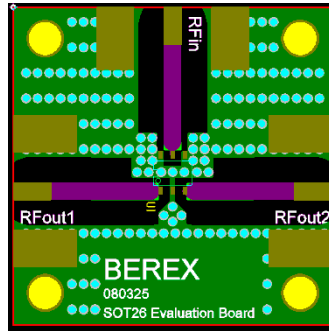
1. Device performance is measured on BeRex evaluation board at 25C, 50 ohm system
2. Insertion Loss: Above 3.0dB

Absolute Maximum Ratings

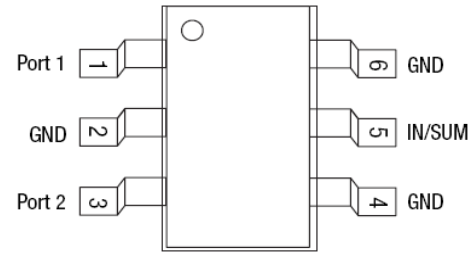
Parameters	Rating
Input Power	1W CW
Storage Temperature	-55 to +155°C
Operating Temperature	-40C to +85°C

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

Evaluation Board Drawing



Function Block Diagram

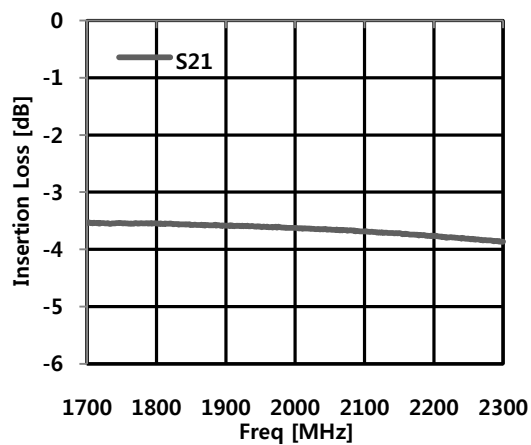


Pins 2,4 and 6 must be DC and RF grounded.

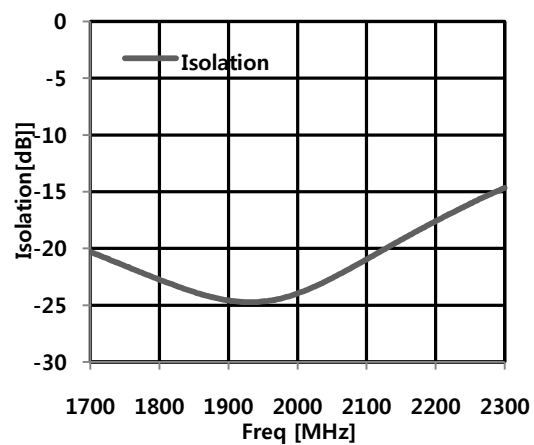
Typical Test Data

Parameters	Unit	PCS, WCDMA & TD-SCDMA				
Frequency Range	MHz	1700	1800	1900	2075	2250
Insertion Loss	dB	0.51	0.51	0.55	0.63	0.76
Isolation	dB	20.1	22.5	24.8	21.6	16.8
IRL(S11)	dB	-17.4	-17.1	-16.3	-14.1	-11.9
ORL(S22,S33)	dB	-24.9	-25.0	-24.4	-22.7	-19.9
Phase Diff.	deg	1.4	1.5	1.5	1.5	1.4
Amplitude Balance	dB	0.04	0.07	0.07	0.06	0.04

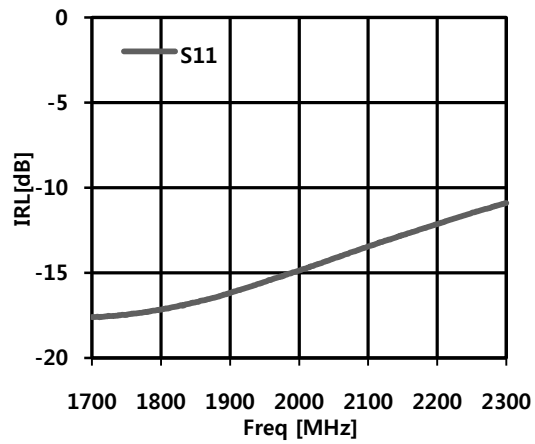
Insertion Loss vs. Frequency



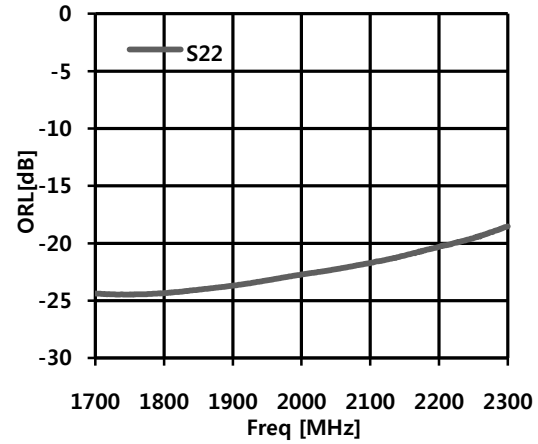
Isolation vs. Frequency



IRL vs. Frequency

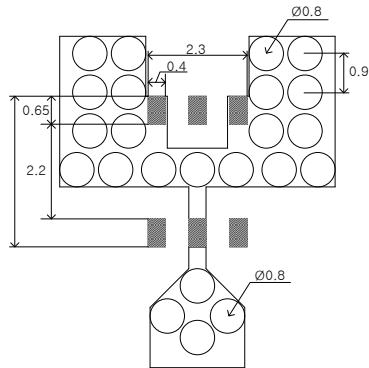


ORL vs. Frequency

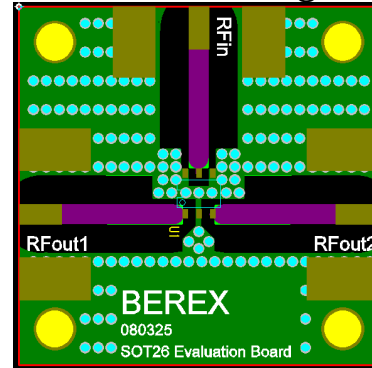


Suggested PCB Land Pattern and PAD Layout

PCB Land Pattern



PCB Mounting



Note : All dimension are in millimeters

Visit <http://www.berex.com> for PCB layout

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

NATO CAGE code:

2	N	9	6	F
---	---	---	---	---

NOTICE

BeRex Corporation reserves the right to make changes of product specification or to discontinue product at any time without notice.