

Triple Band 2-Way SMT Power Divider

1900~2500MHz PCS, WCDMA & TD-SCDMA, WiBro

Device Features and Description

- 20dB Typical Isolation
- 0.6dB Typical Insertion Loss
- Small Size and Low Profile
- MSL 1 moisture rating
- Lead-free/Green/RoHS compliant package
- Application: commercial, space, military wireless system
- Industry Standard SOT-26 SMT Plastic Package
- Chip is fully passivated for enhanced performance and reliability



BD23XX(XX=Wafer number)

Electrical specifications

Parameters	Unit	Min	Typ	Max
Frequency Range	MHz	1900		2500
Insertion Loss	dB		0.65	0.9
Isolation	dB	15	20	
IRL(S11)	dB		-15	-10
ORL(S22,S33)	dB		-22	-18
Amplitude Balance	dB		1.0	2.0

All specifications apply with the following test conditions,

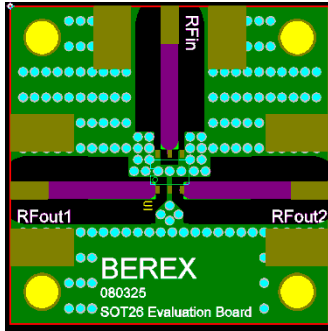
1. Device performance is measured on BeRex evaluation board at 25C, 50 ohm system
2. Insertion Loss: Above 3.0dB

Absolute Maximum Ratings

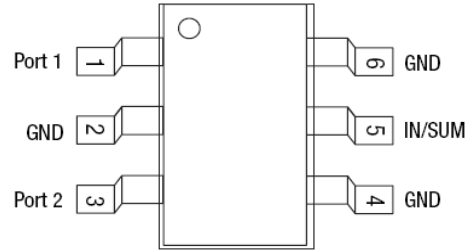
Parameters	Rating
Input Power	1W CW
Storage Temperature	-55 to +155°C
Operating Temperature	-40C to +85°C

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

Evaluation Board Drawing



Function Block Diagram

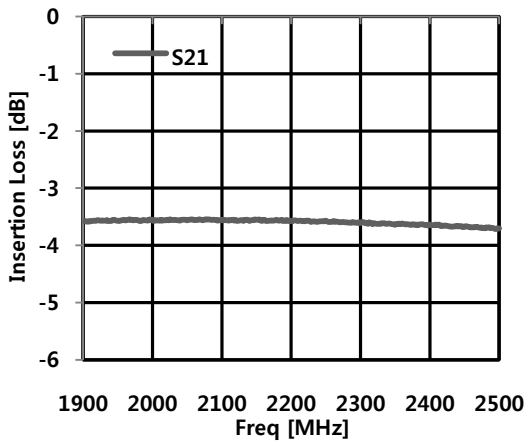


Pins 2,4 and 6 must be DC and RF grounded.

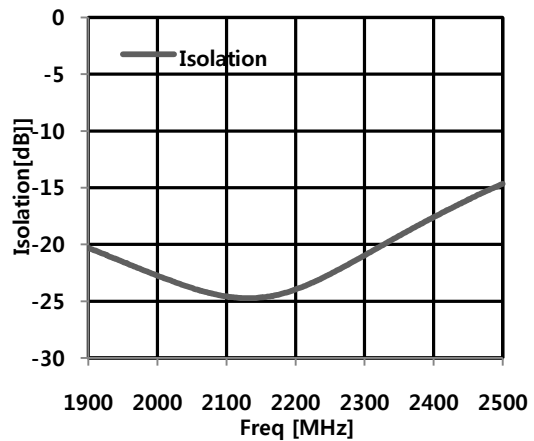
Typical Test Data

Parameters	Unit	WCDMA & TD-SCDMA			WiBro		
		1900	2075	2250	2200	2350	2500
Frequency Range	MHz	1900	2075	2250	2200	2350	2500
Insertion Loss	dB	0.58	0.59	0.64	0.62	0.69	0.77
Isolation	dB	23.33	27.55	23.28	24.47	19.58	15.03
IRL(S11)	dB	17.93	17.05	14.94	15.89	13.83	12.10
ORL(S22,S33)	dB	21.92	23.04	22.90	22.81	22.00	20.09
Phase Diff.	deg	0.69	0.76	0.60	0.84	0.56	0.62
Amplitude Balance	dB	0.03	0.04	0.06	0.05	0.06	0.09

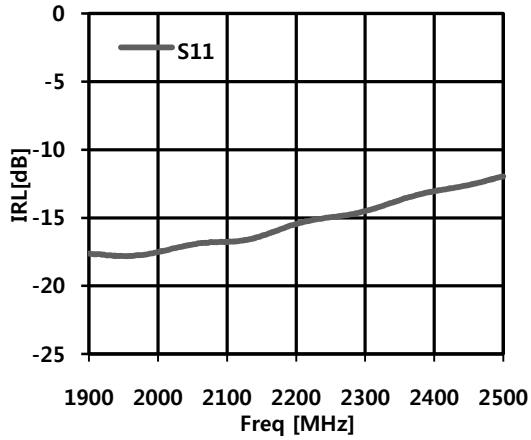
Insertion Loss vs. Frequency



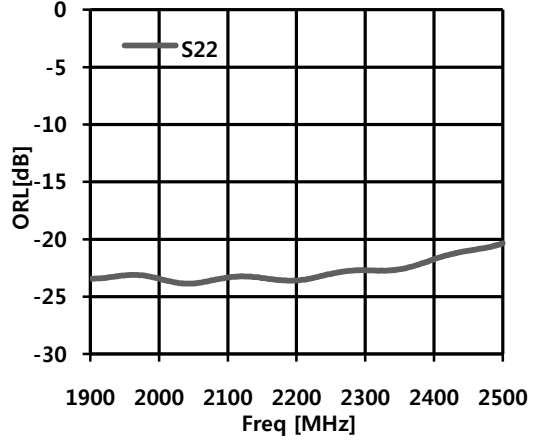
Isolation vs. Frequency



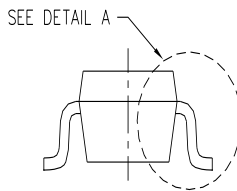
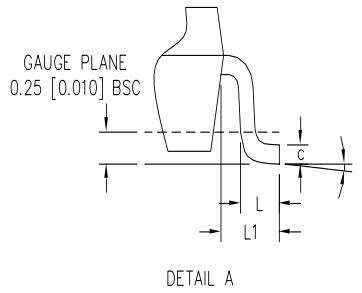
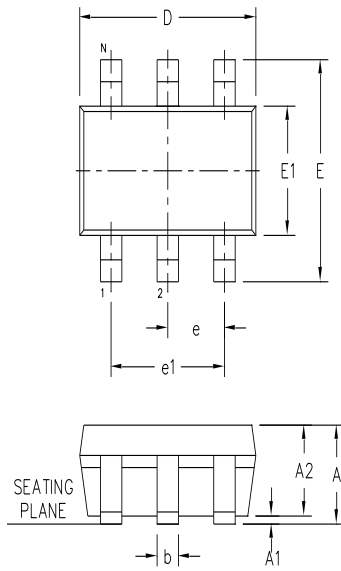
IRL vs. Frequency



ORL vs. Frequency



Package Drawing

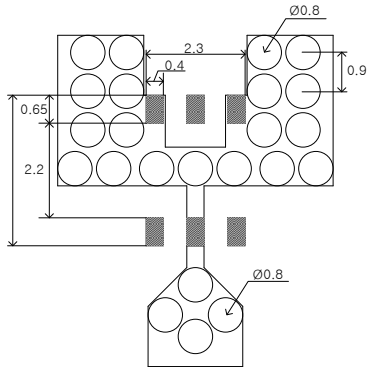


SYM	DIMENSION IN INCHES			DIMENSION IN MM		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.045	0.049	0.053	1.14	1.24	1.35
A1	0.002	0.004	0.006	0.05	0.10	0.15
A2	0.043	0.045	0.047	1.09	1.14	1.19
b	0.012	0.014	0.016	0.30	0.35	0.40
c	0.003	0.006	0.009	0.08	0.15	0.22
D	0.113	0.115	0.117	2.87	2.92	2.97
E1	0.061	0.064	0.066	1.55	1.63	1.68
E	0.105	0.110	0.115	2.67	2.79	2.92
e		0.037			0.95	
e1		0.075			1.90	
L	0.014	0.016	0.018	0.35	0.40	0.45
L1	0.021	0.023	0.025	0.53	0.58	0.64
Ø	0"	-	8"	0"	-	8"

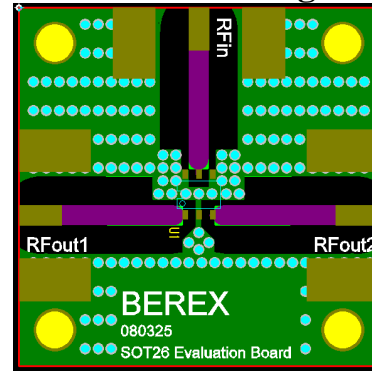
NOTES:
 1. DIMENSION D DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS. DIMENSION E1 DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSIONS.

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
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NOTICE

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