

Device Features

- Typical Isolation = 24.5 dB
- Typical Insertion Loss = 0.6 dB
- MSL 3 moisture rating
- Small Size and Low Profile
- RoHS2-compliant SOT-26 Plastic Package



BD19XX(XX=Wafer number)

Product Description

BeRex's Divider BD1926 is designed for PCS, WCDMA & TD-SCDMA 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 | 1700 | | 2300 | MHz |
| Insertion Loss | | 0.6 | 0.8 | dB |
| Isolation | 16.5 | 24.5 | | dB |
| IRL(S11) | | -16.0 | -11.5 | dB |
| ORL(S22/S33) | | -24.0 | -19.5 | dB |
| Amplitude Balance | | 0.07 | 0.2 | dB |
| Phase Balance | | 1.5 | 2.0 | 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

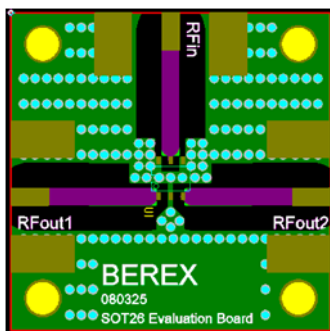
- Base station Infrastructure
- Commercial/Industrial/Military wireless system

Absolute Maximum Ratings

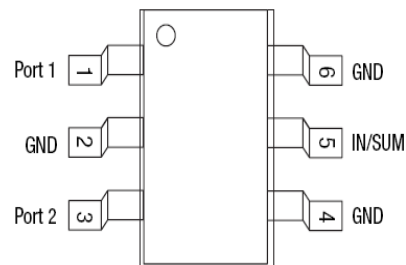
| Parameter | Rating |
|-----------------------|---------------|
| Input Power | 1W CW dBm |
| Storage Temperature | -55 to +155°C |
| Operating Temperature | -40 to +100°C |

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

Evaluation Board Drawing



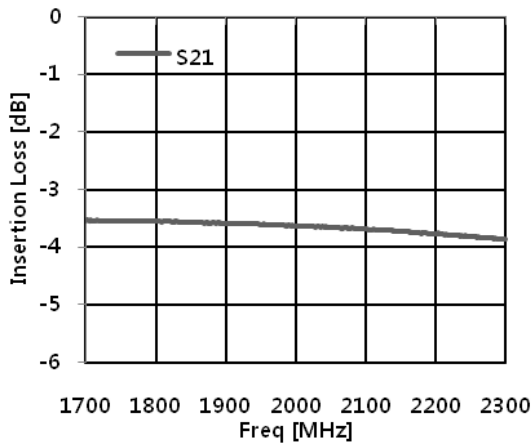
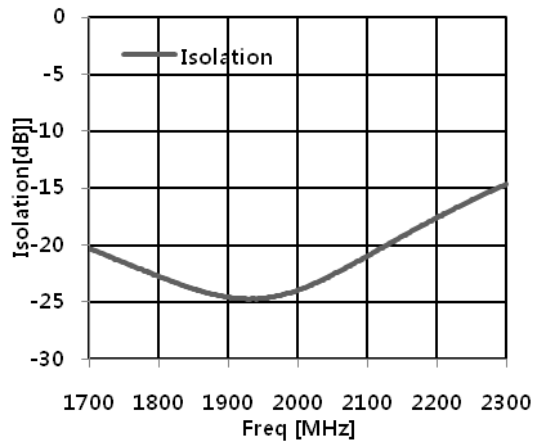
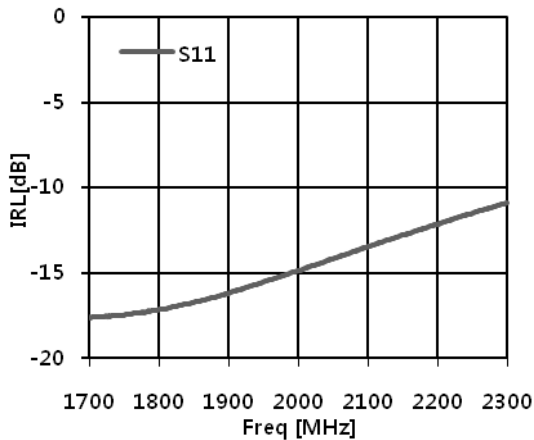
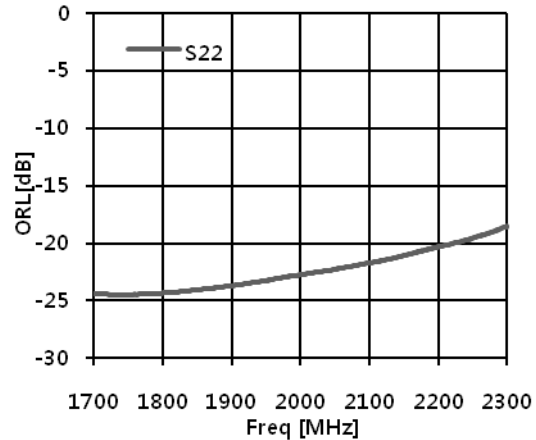
Function Block Diagram



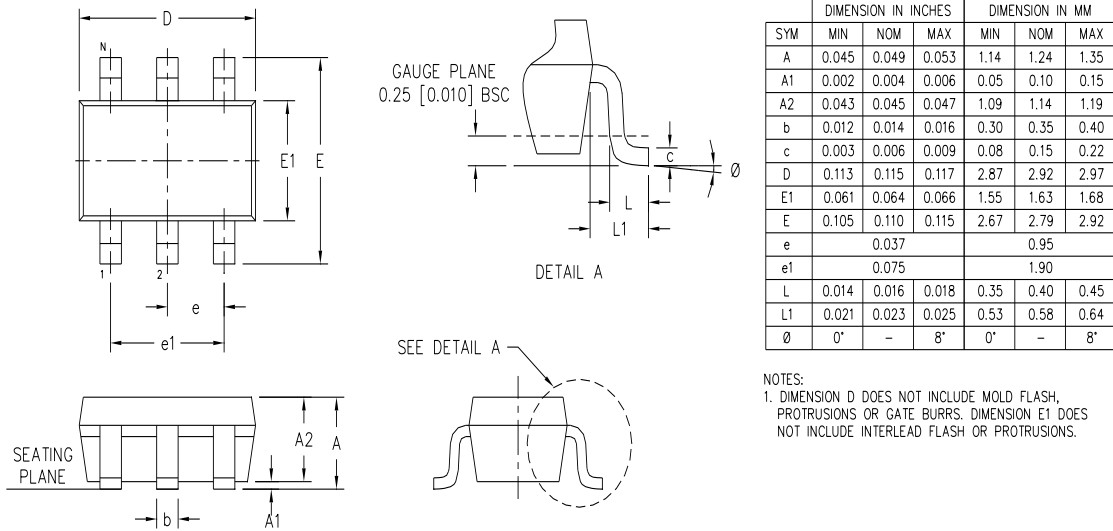
Pins 2,4 and 6 must be DC and RF grounded.

Typical Test Data

| Parameters | Unit | PCS, WCDMA & TD-SCDMA | | | | |
|-------------------|------|-----------------------|-------|-------|-------|-------|
| | | 1700 | 1800 | 1900 | 2075 | 2250 |
| 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 |

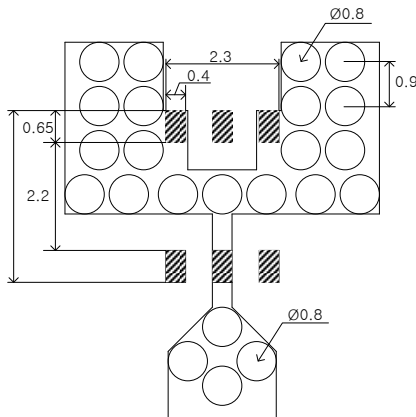
Insertion Loss vs. Frequency

Isolation vs. Frequency

IRL vs. Frequency

ORL vs. Frequency


Package Outline Drawing

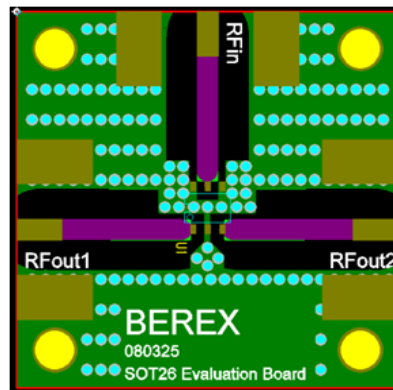


Suggested PCB Land Pattern and PAD Layout

PCB Land Pattern



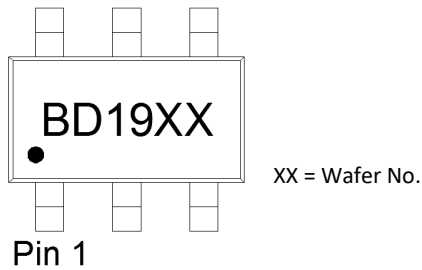
PCB Mounting



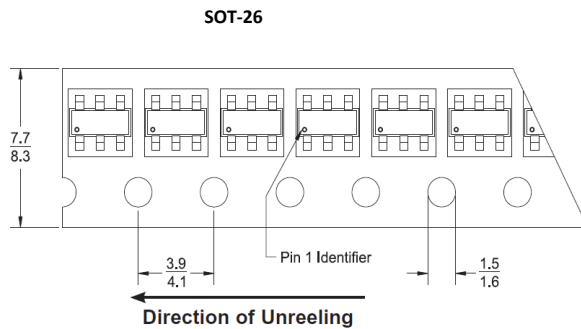
Note : All dimension _ millimeters

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 |
|---|---|---|---|---|