

Device Features

- Typical Isolation = 25.5 dB @ 4.9GHz
- Typical Insertion Loss = 0.8 dB @ 4.9GHz
- Typical Amplitude Diff. = 0.02 @ 4.9GHz
- Typical Phase Diff. = 1.6 @ 4.9GHz
- RoHS2-compliant 12L QFN 3x3 Plastic Package



BD4526(YYWWXX=Wafer number)

Product Description

BeRex's Divider BD4526 is designed for LTE, ISM, instrumentation, WLAN and 5G with low Insertion Loss and high Isolation. This chip is fully passivated for enhanced performance and reliability and packaged in RoHS2-compliant with QFN3x3 surface mount package.

Typical Performance

All specifications apply to the following test conditions.

Device performance _ measured on BeRex E/B at 25°C, 50ohm system.

Parameter	Min	Typical	Max	Unit
Frequency Range	2700		6000	MHz
Test Frequency		4500		MHz
Insertion Loss*		0.7	2	dB
Isolation	15	32.5		dB
IRL(S11)		-20.0	-10.0	dB
ORL(S22/S33)		-27.0	-10.0	dB
Amplitude Diff.		0.02	0.3	dB
Phase Diff.		1.4	5	deg

* Insertion Loss: Above 3.0dB. Evaluation board loss de-embedded.

Absolute Maximum Ratings

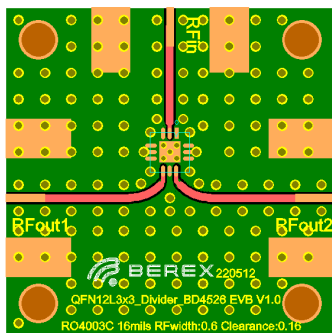
Parameter	Rating
Input Power	2W CW
Storage Temperature	-55 to +155°C
Operating Temperature	-40 to +105°C

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

Applications

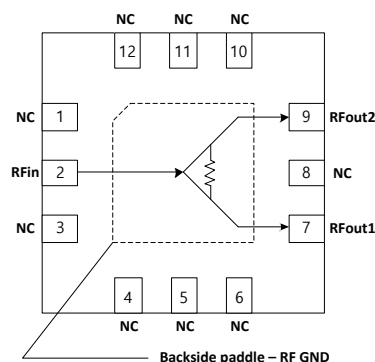
- Base station Infrastructure
- Commercial/Industrial/Military wireless system
- 5G Wireless Infrastructure
- Satellite communications

Evaluation Board Drawing



*RO4003C_0.4T, RFwidth:0.6 Clearance:0.16

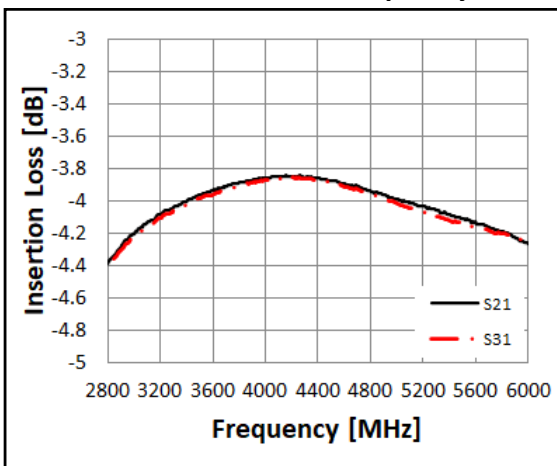
Function Block Diagram



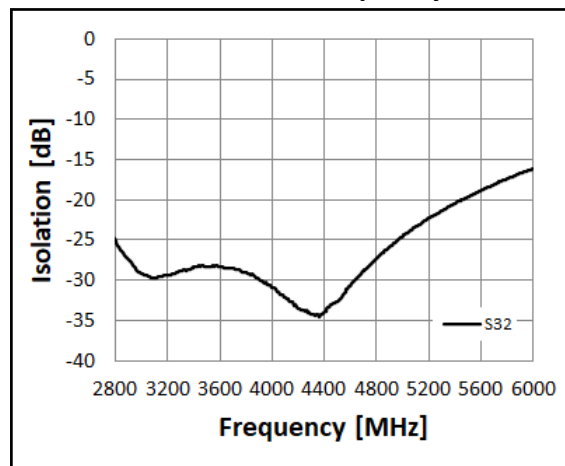
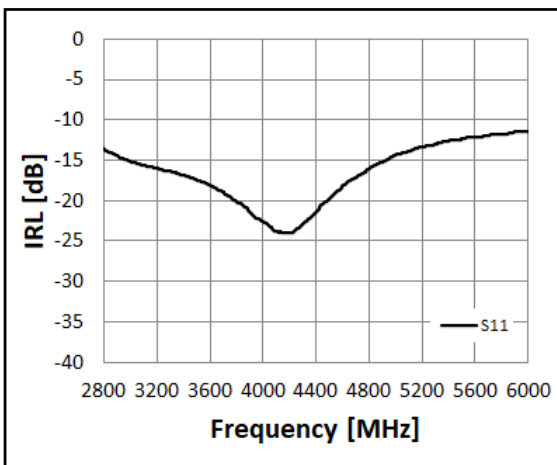
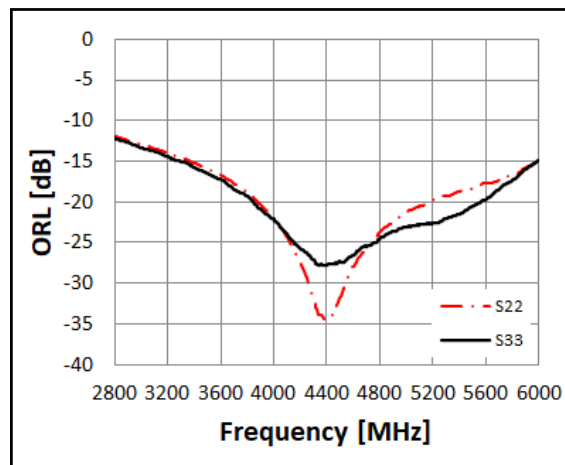
Typical Test Data

Parameters	Unit	WLAN & 5G				
Frequency Range	MHz	2800	3600	4500	4900	5800
Insertion Loss*	dB	1.25	0.8	0.7	0.8	0.9
Isolation	dB	25.0	28.5	32.5	25.5	17.5
IRL(S11)	dB	-13.5	-18.0	-20.0	-15.0	-12.0
ORL(S22,S33)	dB	-12.0	-17.0	-27.0	-22.0	-17.0
Phase Diff.	deg	1.0	1.2	1.4	1.6	1.8
Amplitude Diff.	dB	0.04	0.03	0.02	0.02	0.04

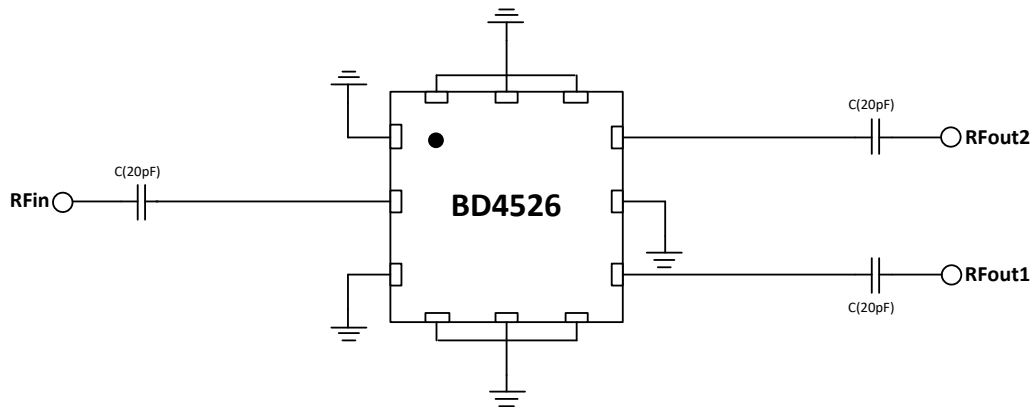
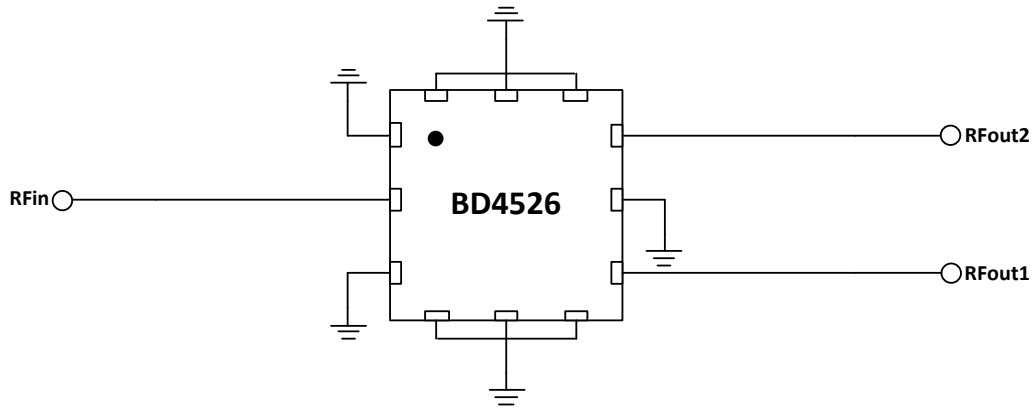
*. Insertion Loss: Above 3.0dB. Evaluation board loss de-embedded.

Insertion Loss vs. Frequency


Insertion loss: w/o board loss compensation.

Isolation vs. Frequency

IRL vs. Frequency

ORL vs. Frequency


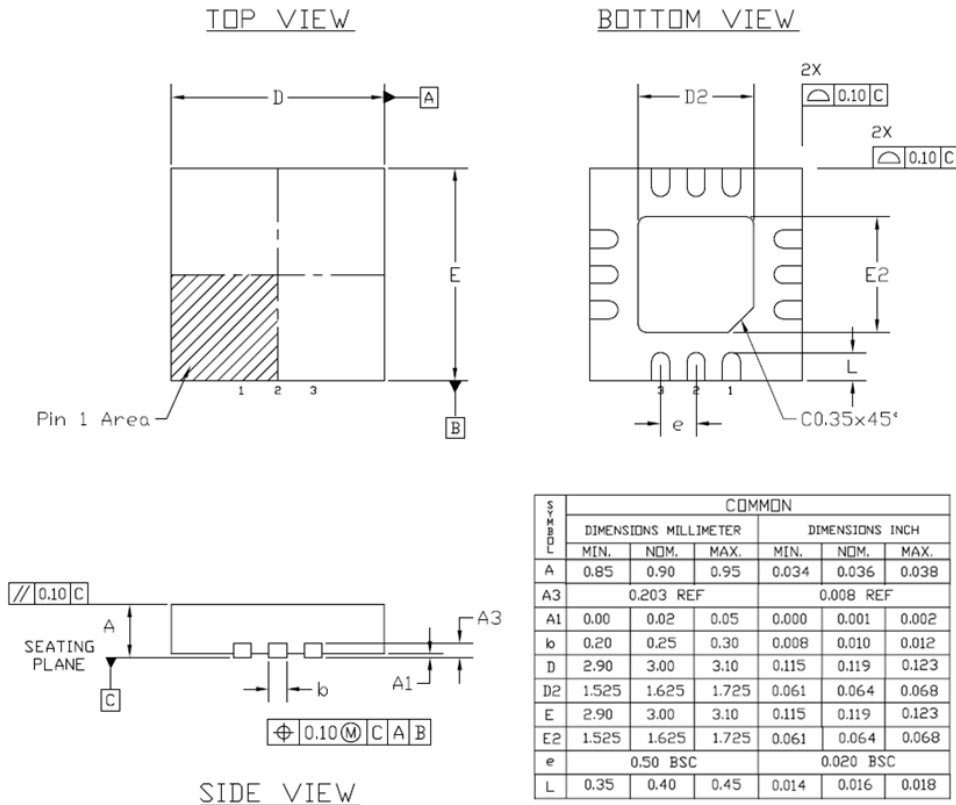
Typical Divider Application



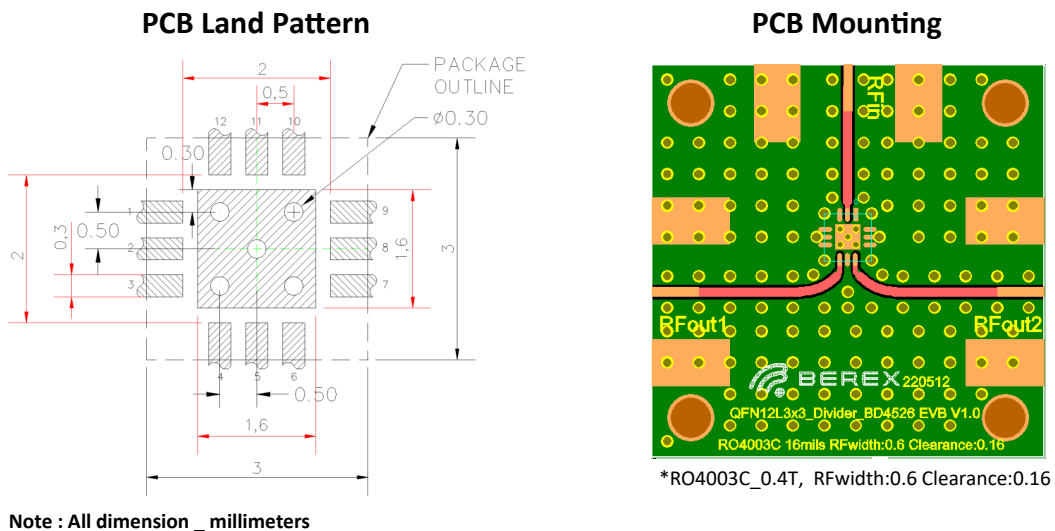
Notes:

1. Suggest to add Capacitors of DC Blocker between Pins and external circuit to prevent DC signal entry to guarantee parts normal work.

Package Outline Drawing



Suggested PCB Land Pattern and PAD Layout

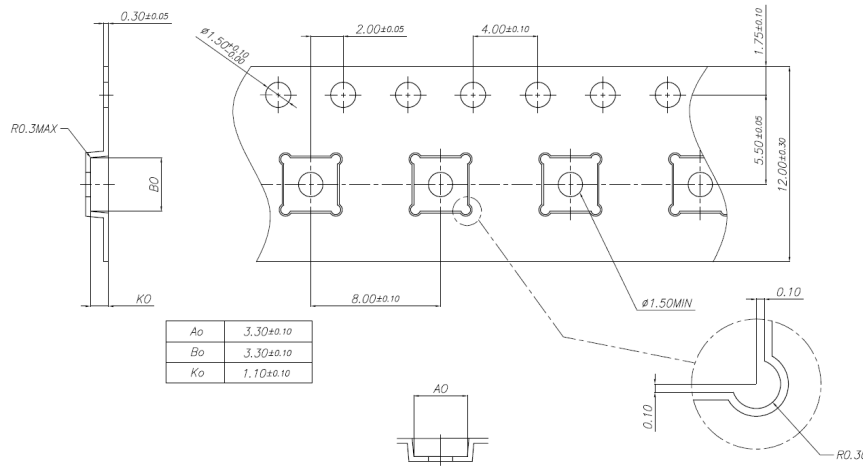


Package Marking



YYWWXX = Wafer No.

Tape & Reel



Packaging information:

Tape Width (mm): 8

Reel Size (inches): 7

Device Cavity Pitch (mm): 4

Devices Per Reel: 1000

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

ESD Rating: Class 0B
Value: Passes $\leq 125V$
Test: Human Body Model (HBM)
Standard: JEDEC Standard JS-001-2017

MSL Rating: Level 1 at +260°C convection reflow
Standard: JEDEC Standard J-STD-020



Proper ESD procedures should be followed when handling this device.

RoHS Compliance

This part is compliant with Restrictions on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive 2011/65/EU as amended by Directive 2015/863/EU.

This product also is compliant with a concentration of the Substances of Very High Concern (SVHC) candidate list which are contained in a quantity of less than 0.1%(w/w) in each components of a product and/or its packaging placed on the European Community market by the BeRex and Suppliers.

NATO CAGE code:

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