PD26A

1800-3000MHz Power Splitter

Features

- 22.1 dB Isolation at 2600MHz
- 0.84 dB Insertion loss less 3dB split at 2600MHz
- Lead-free / Green / RoHS-compliant SOT-26 Package

Applications

- Mobile Infrastructure
- Cellular, GSM
- PCS, WCDMA, WiBro, WiMax
- W-LAN / ISM
- RFID / Fixed Wireless

Functional Diagram

*** Marking : *D26**

Function	Pin No.
RF IN	5
OUT1 / OUT2	1 / 3
Ground	2,4,6

Description

The PD26A is a high performance Power Splitter in a high quality SOT-26 package. The device features low loss, high isolation. The device can be good input/output matching and exceptional amplitude/phase balance. The product is targeted for use as wireless infrastructure applications. All devices are 100% RF and DC tested.

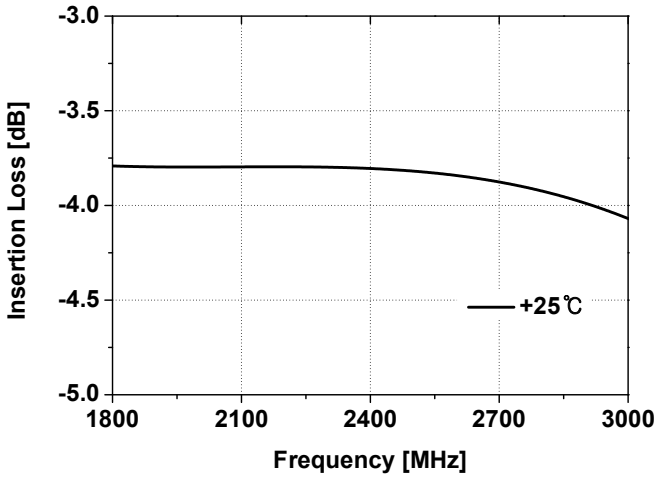
Specifications

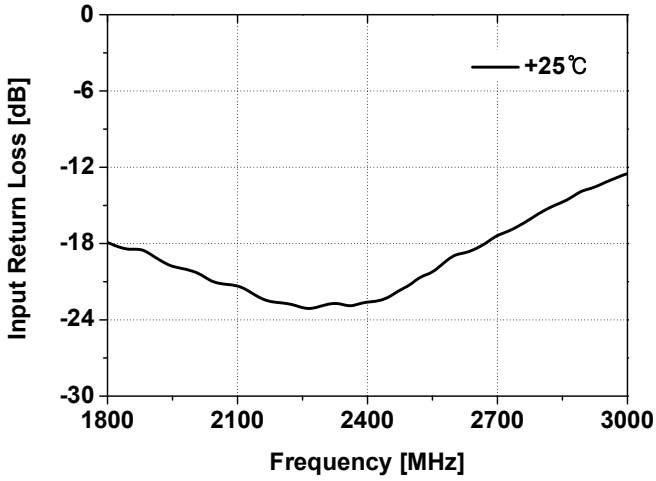
Symbol	Units	Freq.	Min.	Typ.	Max.
Insertion Loss	dB	1800 MHz 2300 MHz 2600 MHz 3000 MHz		0.79 0.79 0.84 1.07	
Isolation	dB	1800 MHz 2300 MHz 2600 MHz 3000 MHz		-14.0 -22.1 -22.1 -16.0	
Input Return Loss	dB	1800 MHz 2300 MHz 2600 MHz 3000 MHz		-18 -22 -18 -12	
Output Return Loss	dB	1800 MHz 2300 MHz 2600 MHz 3000 MHz		-14 -17 -22 -24	
Amplitude Balance	dB	1800 MHz 2300 MHz 2600 MHz 3000 MHz		0.01 0.02 0.01 0.02	
Phase Balance	deg	1800 MHz 2300 MHz 2600 MHz 3000 MHz		0.33 0.26 0.43 0.75	

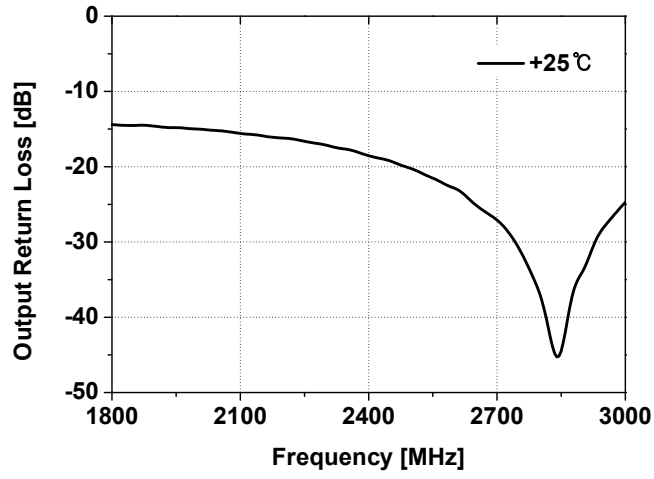
Test Conditions : T=25°C, 50ohm System. Insertion Loss is less 3dB split.

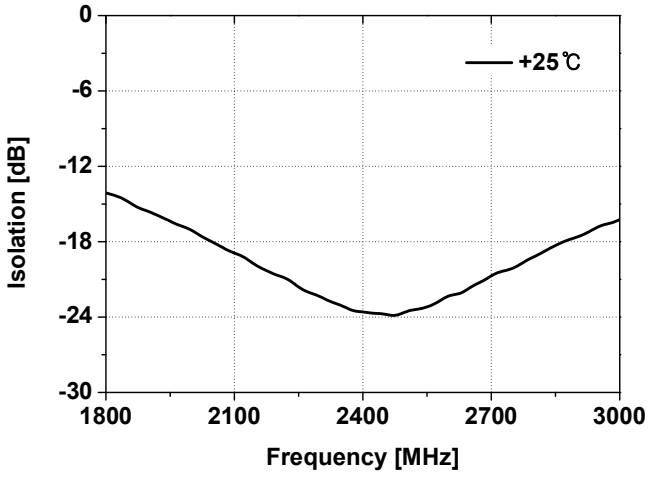
Typical RF Performance

Frequency	MHz	1800	2300	2600	3000
Insertion Loss	dB	0.79	0.79	0.84	1.07
Isolation	dB	-14.0	-22.1	-22.1	-16.0
Input Return Loss	dB	-18	-22	-18	-12
Output Return Loss	dB	-14	-17	-22	-24
Amplitude Balance	dB	0.01	0.02	0.01	0.02
Phase Balance	deg	0.33	0.26	0.43	0.75







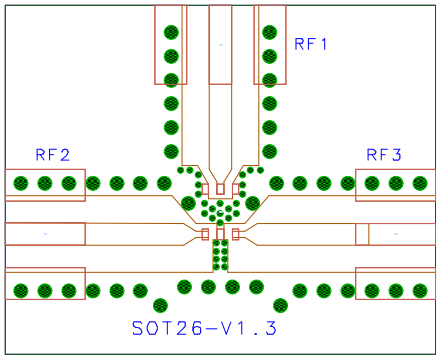


Absolute Maximum Ratings

Parameter	Rating	Unit
RF Power Input	30	dBm
Storage Temperature	-55 to +150	°C
Ambient Operating Temperature	-40 to +85	°C

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

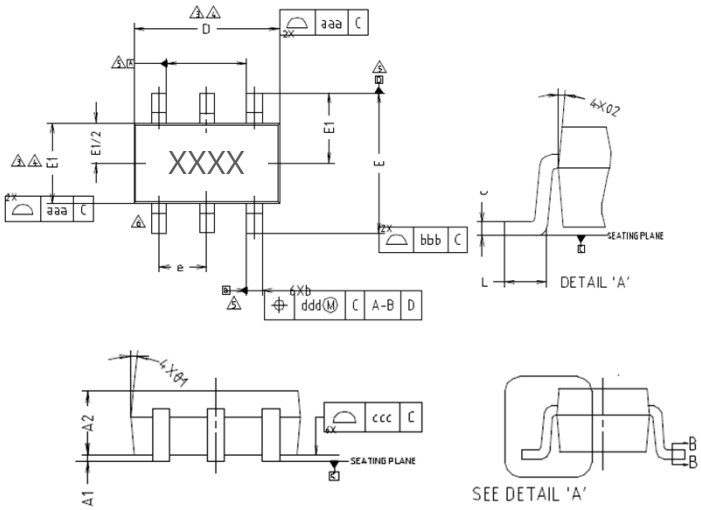
Evaluation Board Layout (2.7cm x 2.2cm)



Mounting Instructions

1. Use a large ground pad area with many plated through-holes as shown.
2. We recommend 1 oz copper minimum.
3. Measurement for our data sheet was made on 0.8mm thick FR-4 Board.
4. Add as much copper as possible to inner and outer layers near the part to ensure optimal thermal performance.
5. RF trace width depends on the board material and construction.

Lead-free /RoHS Compliant / Green SOT-26 Package Outline



SYMBOL	MILLIMETERS			NOTE	SYMBOL	TOLERANCES OF FORM AND POSITION	NOTE
	MINIMUM	NOMINAL	MAXIMUM				
A1	0.000	0.050	0.100		aaa	0.15	
A2	1.000	1.100	1.200		bbb	0.20	
b	-	1.410	0.450		ccc	0.10	
c	0.100	0.150	0.190		ddd	0.10	
D	2.800	2.900	3.000	3,4			
E	2.600	2.800	3.000				
E1	1.500	1.600	1.700	3,4			
e	0.930	1.950	0.970				
L	0.400	-	-				
θ1	5° REF						
θ2	5° REF						