

18-40GHz Broadband Directional Coupler



Product Overview

AT Microwave offers high performance and broadband directional couplers from DC-67GHz, with SMA, 2.92mm, 2.4mm and 1.85mm connectors.

Based on our excellent design work, precise machine tolerance and outstanding quality plating, we can provide band pass filter with low insertion loss, good return loss and high rejection at the same time.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Broadband Performance
- ✓ Excellent Coupling Accuracy
- ✓ High Directivity
- ✓ Good Return Loss

Application

- ✓ 5G Communication
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

Parameter	Min	Typical	Max
Frequency		18-40GHz	
Mean Coupling		10 dB	
Coupling Accuracy		+/-1.0dB	
Main Line Extra Insertion Loss		-0.8dB	-1.8dB
Main Line VSWR		1.5	1.8
Coupling Line VSWR		1.5	1.8
Directivity	10dB	13dB	
CW Power			20W
Peak Power			3kW
Spec Temp		25C	



Mechanical Information

Item	Description
Input Port	2.92mm Female
Output Port	2.92mm Female
Case Material	Aluminum
Finish	Painted
Weight	80g
Size:	See outline

Absolute Maximum Ratings Table

Parameter	Value
RF Input Power CW	20W
Operating Temperature	-40 to + 85C
Storage Temperature	-55 to +125C

Note:

Following is the simplified block diagram a directional coupler.

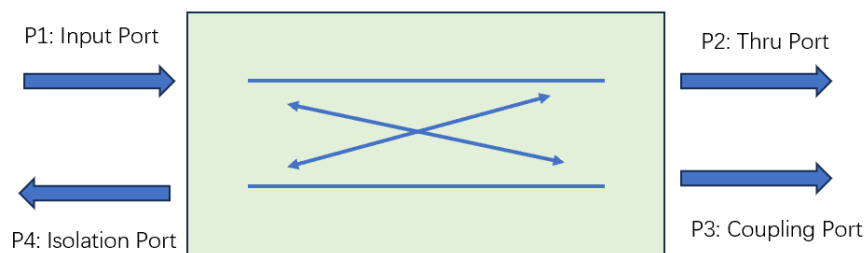
AT Microwave defines insertion loss, coupling value, isolation and directivity as:

Insertion Loss = P2+P3-P1

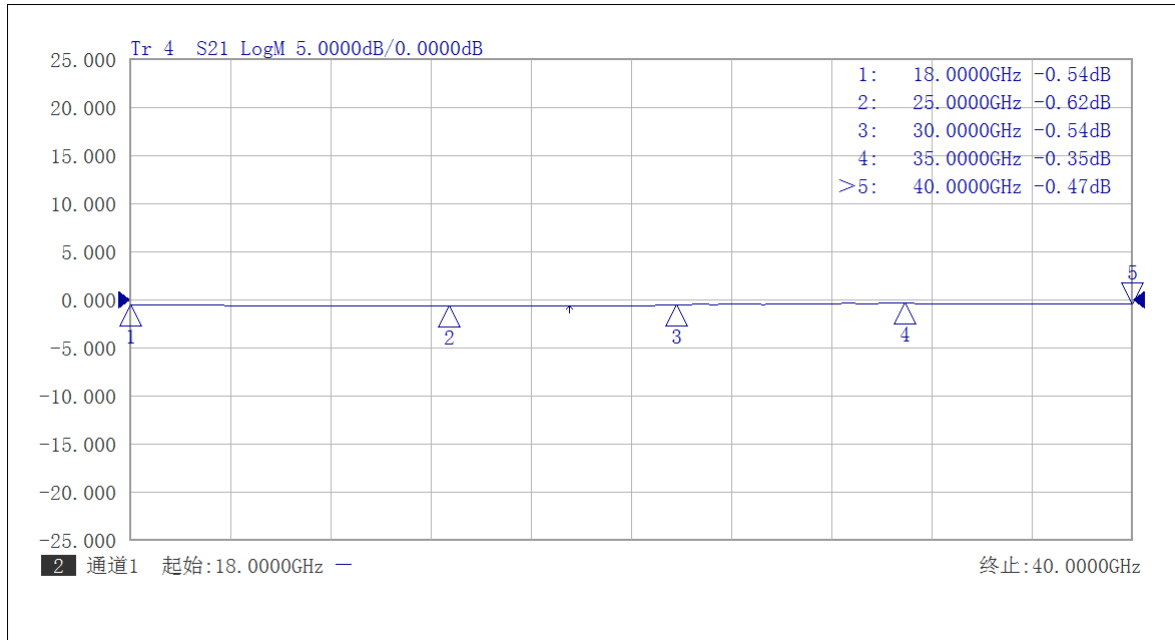
Coupling Value=P3/P1

Isolation Value=P4/P1

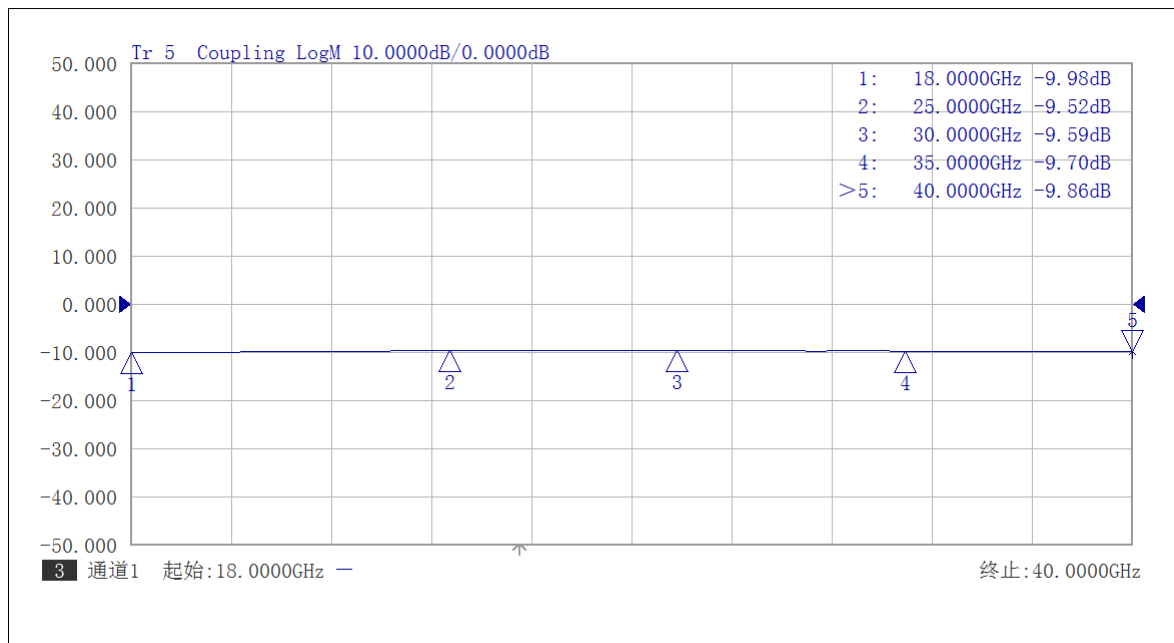
Directivity=Isolation-Coupling



TEST DATA(25C)

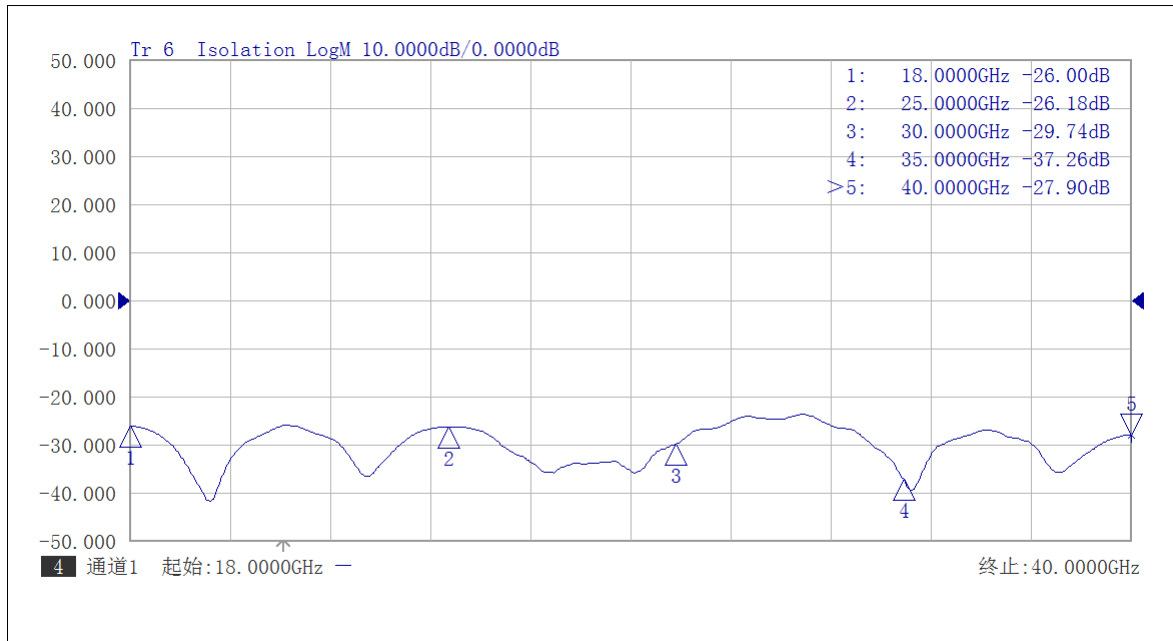


Insertion Loss vs Frequency

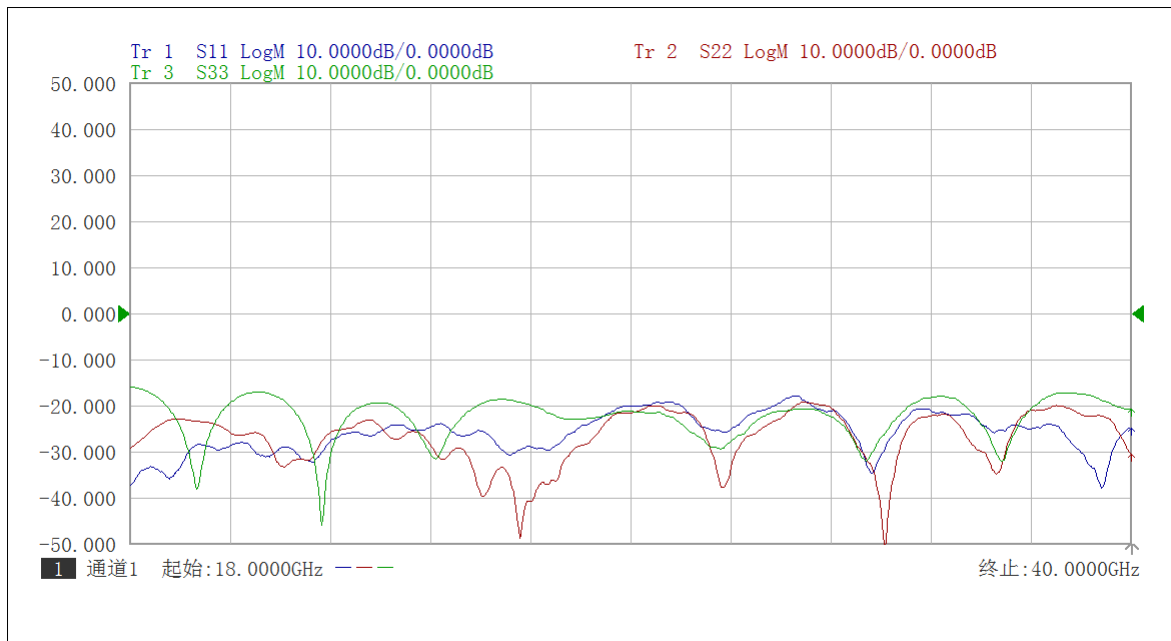


Coupling vs Frequency





Isolation vs Frequency



Return Loss vs Frequency



Dimension: (unit in mm)

