

RF Directional Coupler

ECJ0701-C143106

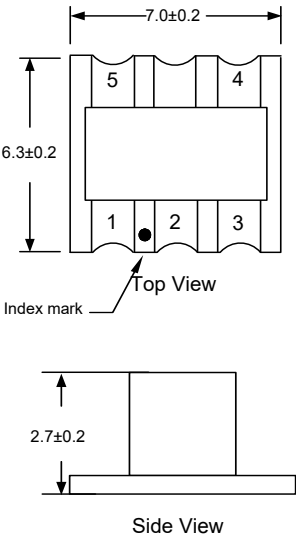
2024-12-23 Rev. 1



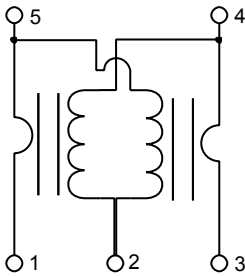
75Ω 7.0dB Directional Coupler

5-1225MHz

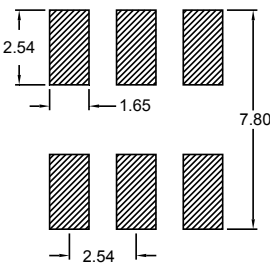
Outline Drawing(mm)



Electrical structure



Recommended layout(mm)



Pin Connections

Input	1
Coupling	3
Output	5
Ground	2
External 75 Ω	4

Features

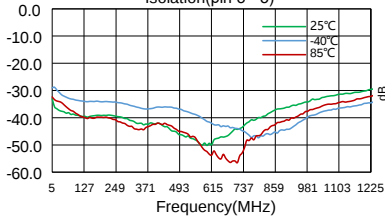
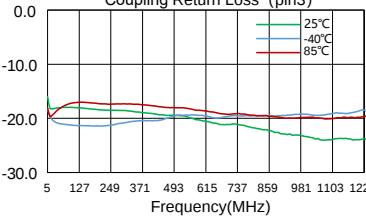
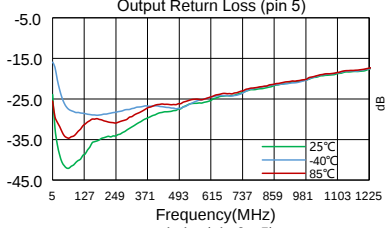
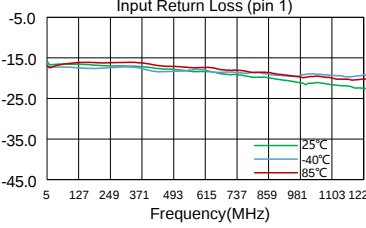
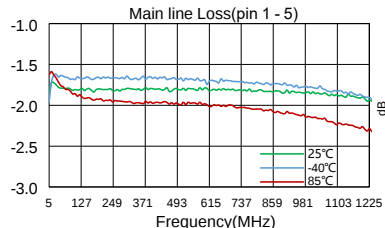
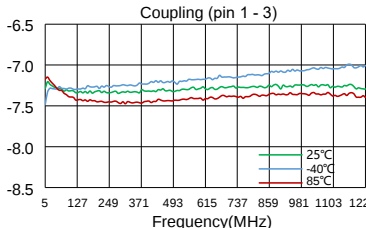
- Operating temperature range:-40℃ to +85℃
- Storage temperature range: -55℃ to +100℃
- 260℃ Reflow Compatible
- RoHS compliant and lead free
- Input Power:2W MAX
- DC Current:500 mA MAX

Applications

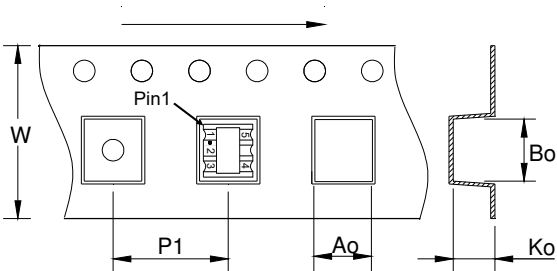
- For Docsis 3.0&4.0Cable Modem.
- For Wideband Push-pull Amplifiers.
- For CATV Amplifiers Module & Set top box.
- For CATV Optical Receivers and Amplifiers.

Electrical Specifications:TA=25℃, 0dBm, Z0=75Ω

Parameter	Test Conditions	Units	Min	Typ	Max
Coupling(Pin1-3)	5-1225MHz	dB	7.0	7.5	8.0
Main line Loss(Pin1-5)	5-700MHz 700-1225MHz	dB	—	1.8 2.0	2.0 2.2
Input Return Loss(Pin1)	5-700MHz 700-1225MHz	dB	15.0 15.0	17.0 16.0	—
Output Return Loss(Pin5)	5-700MHz 700-1225MHz	dB	18.0 18.0	26.0 20.0	—
Coupling Return Loss(Pin3)	5-700MHz 700-1225MHz	dB	15.0 15.0	18.0 16.0	—
Isolation(Pin3-5)	5-100MHz 100-700MHz 700-1225MHz	dB	28.0 40.0 26.0	35.0 42.0 29.0	— — —



Carrier Tape Orientation



Tape & Reel Information

Parameter	Units	Value
Qty per reel	PCS	1500
Reel Size	mm	330
Tape Width	mm	24.00
Pitch	mm	12.00
Ao	mm	7.20
Bo	mm	8.10
Ko	mm	3.80