

RF Directional Coupler

ECJ1001-D001082

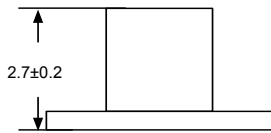
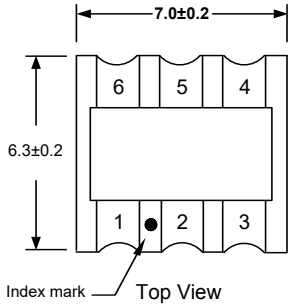
2023-12-14 Rev. 0



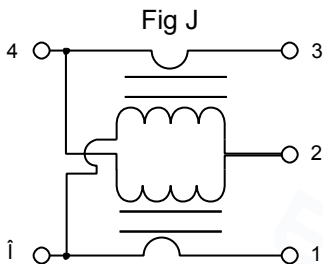
75Ω 10dB Directional Coupler

5-1800MHz

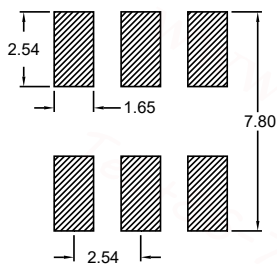
Outline Drawing(mm)



Electrical structure



Recommended layout(mm)



Pin Connections

Input	1
Coupling	3
Output	6
Ground	2
75Ω TERM EXTERNAL	4

Features

- Operating temperature range -40°C to +85°C
- Storage temperature range: -55°C to +100°C
- 260°C Reflow Compatible
- RoHS compliant and lead free
- Input Power: 1W Max
- DC Current: 250 mA Max

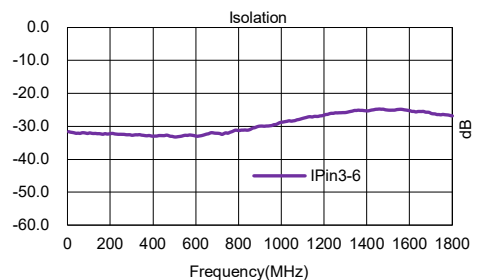
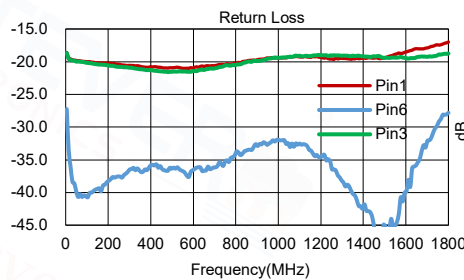
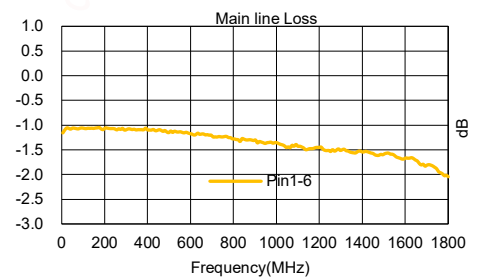
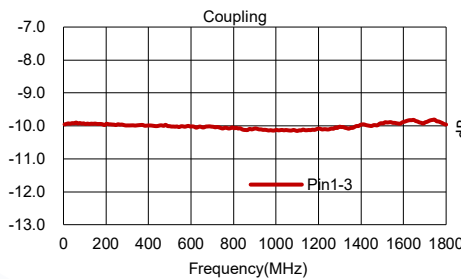
Applications

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

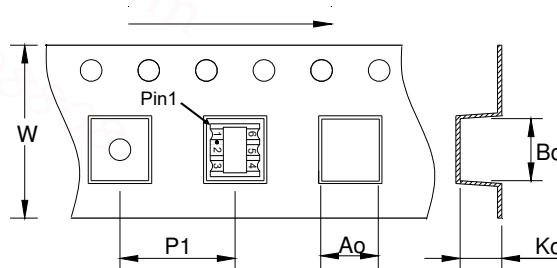
Replacement: RDC-10-182-75X+

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

Parameter	Test Conditions	Units	Min	Typ	Max
Coupling(Pin1-3)	5-1800MHz	dB	9.5	10.0	10.5
Main line Loss(Pin1-6)	5-1800MHz	dB	—	1.9	2.8
Input Return Loss(Pin1)	5-1800MHz	dB	18.0	20.0	—
Coupling Return Loss(Pin3)	5-1800MHz	dB	18.0	20.0	—
Output Return Loss(Pin6)	5-1800MHz	dB	20.0	30.0	—
Isolation(Pin3-6)	5-1800MHz	dB	20.0	25.0	—
Coupling Flatness(±)	5-1800MHz	dB		0.1	0.5



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