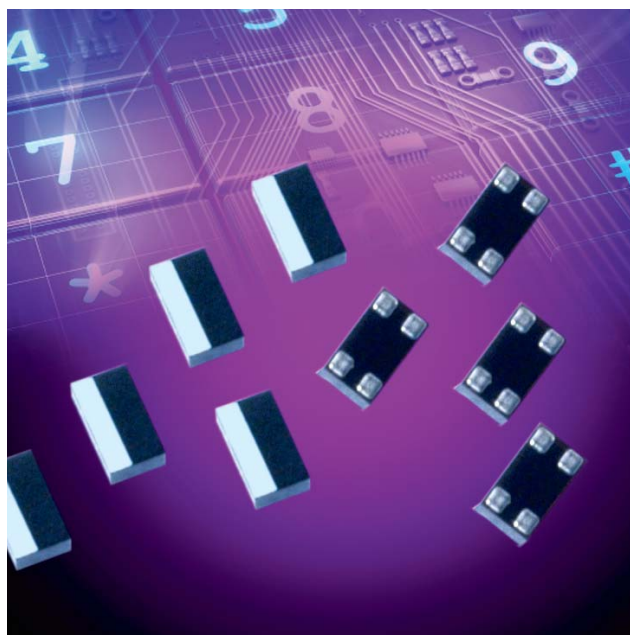


Thin Film Directional Couplers

Wide Band High Directivity



CP0402W2700FNTR



HOW TO ORDER

CP 0402 W XXXX X N TR

Type Wide Band
Frequency (MHz)
Sub-Type
LGA Termination Sn100
Taped & Reeled

QUALITY INSPECTION

Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance: 125°C, I_R , 4 hours

TERMINATION

Nickel/Lead Free solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

OPERATING TEMPERATURE

-40°C to +85°C

ITF TECHNOLOGY

The ITF High Directivity Wide Band LGA Coupler is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The Wide Band High Directivity Coupler displays a stable coupling factor over a wide frequency band.

APPLICATIONS

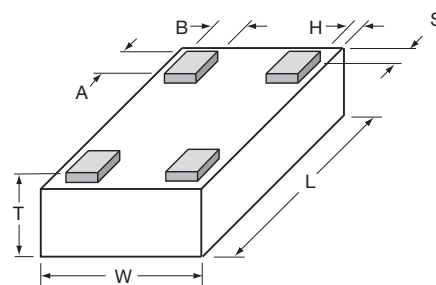
- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's

LAND GRID ARRAY ADVANTAGES

- Inherent Low Profile
- Self Alignment during Reflow
- Excellent Solderability
- Low Parasitics
- Better Heat Dissipation

DIMENSIONS (Bottom View)

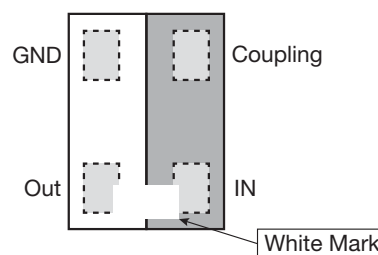
mm (inches)



L	1.00±0.05 (0.040±0.002)
W	0.58±0.04 (0.023±0.002)
T	0.35±0.05 (0.014±0.002)

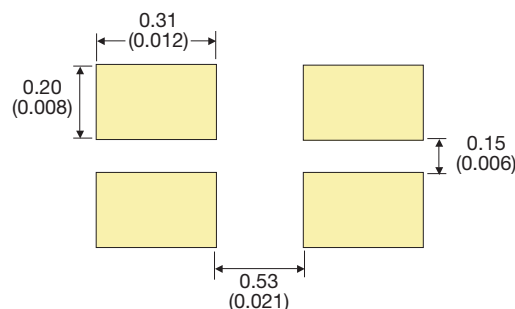
A	0.20±0.05 (0.008±0.002)
B	0.18±0.05 (0.007±0.002)
S, H	0.05±0.05 (0.002±0.002)

TERMINALS (Top View)



Recommended Pad Layout Dimensions

mm (inches)



Thin Film Directional Couplers

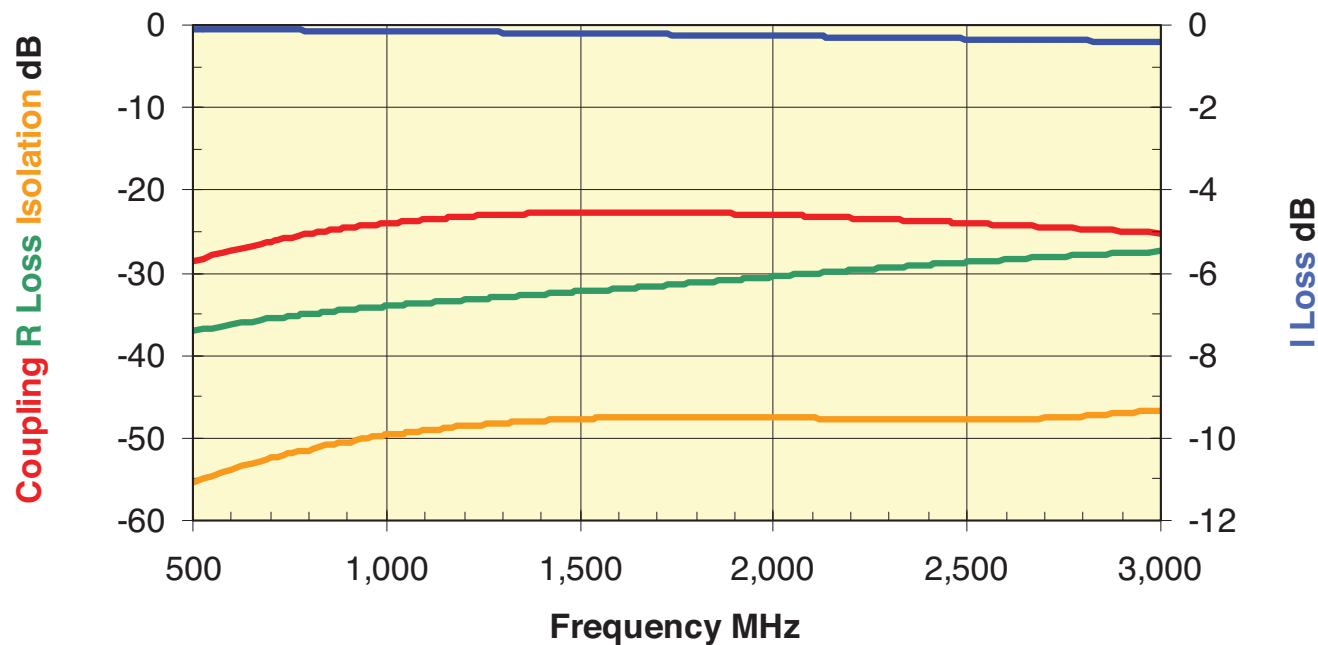
Wide Band High Directivity



CP0402W2700FNTR

Directional Coupler Type CP0402W2700FNTR

P/N	Frequency [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0402W2700FNTR	700-2,700	24±2	0.3	18	20



Thin Film Directional Couplers

Wide Band High Directivity

CP0402W2700FNTR Test Jigs

GENERAL DESCRIPTION

These jigs are designed for testing the CP0402W2700FNTR High Directivity Couplers using a Vector Network Analyzer.

They consist of a dielectric substrate, having 50Ω microstrips as conducting lines and a bottom ground plane located at a distance of 0.254mm (0.010") from the microstrips.

The substrate used is Neltec's NH9338ST0254C1BC.

The connectors are SMA type (female), 'Johnson Components Inc.' Product P/N: 142-0701-841.

Both a measurement jig and a calibration jig are provided.

The calibration jig is designed for a full 2-port calibration, and consists of an open line, short line and through line. LOAD calibration can be done by a 50Ω SMA termination.

MEASUREMENT PROCEDURE

When measuring a component, it can be either soldered or pressed using a non-metallic stick until all four ports touch the appropriate pads. Set the VNA to the relevant frequency band. Connect the VNA using a 10dB attenuator on the jig

terminal connected to port 2. Follow the VNA's instruction manual and use the [calibration jig](#) to perform a full 2-Port calibration in the required bandwidths.

Place the coupler on the [measurement jig](#) as follows:

GND (Coupler)	→ Connector 1 (Jig)	IN (Coupler)	→ Connector 3 (Jig)
Coupling (Coupler)	→ Connector 2 (Jig)	Out (Coupler)	→ Connector 4 (Jig)

To measure I. Loss connect:

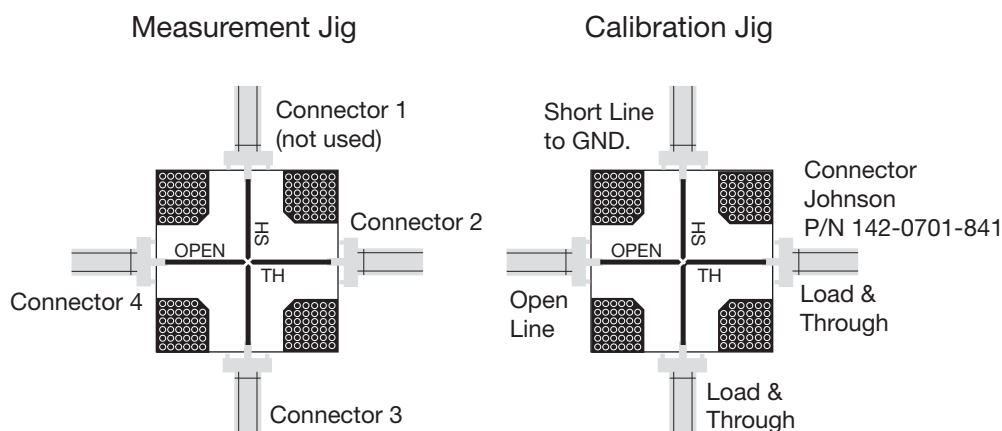
Connector 3 (Jig)	→ Port 1 (VNA)	Connector 2 (Jig)	→ 50Ω
Connector 4 (Jig)	→ Port 2 (VNA)		

To measure R. Loss and Coupling connect:

Connector 3 (Jig)	→ Port 1 (VNA)	Connector 4 (Jig)	→ 50Ω
Connector 2 (Jig)	→ Port 2 (VNA)		

To measure Isolation connect:

Connector 4 (Jig)	→ Port 1 (VNA)	Connector 2 (Jig)	→ Port 2 (VNA)
Connector 3 (Jig)	→ 50Ω		



AMEYA360

Components Supply Platform

Authorized Distribution Brand :



Website :

Welcome to visit www.ameya360.com

Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd
Minhang District, Shanghai , China

➤ Sales :

Direct +86 (21) 6401-6692
Email amall@ameya360.com
QQ 800077892
Skype ameyasales1 ameyasales2

➤ Customer Service :

Email service@ameya360.com

➤ Partnership :

Tel +86 (21) 64016692-8333
Email mkt@ameya360.com