



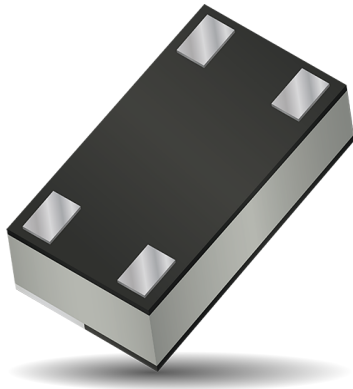
Thin-Film RF/Microwave Directional Couplers

CP0402 Wide Band High Directivity

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General Information



GENERAL DESCRIPTION

The ITF 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 ITF Coupler is offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

FEATURES

- Small size: 0402
- Inherent Low Profile
- Self Alignment during Reflow
- Excellent Solderability
- Low Parasitics
- RoHS compliant
- Better Heat Dissipation

APPLICATIONS

- Mobile Communications
- Satellite TV Receivers
- GPS
- Vehicle Location Systems
- Wireless LAN's

HOW TO ORDER

CP Style Directional Coupler	0402 Size 0402	W Type Wide Band	**** Frequency MHz	X Sub-Type	N Termination Code L = LGA Sn90, Pb10 **N = LGA Sn100 **RoHS compliant	TR Packaging Code TR = Tape and Reel
Not RoHS Compliant						



For RoHS compliant products, please select correct termination style.

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

Sn90Pb10 or Lead-Free Sn100 Nickel/Solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

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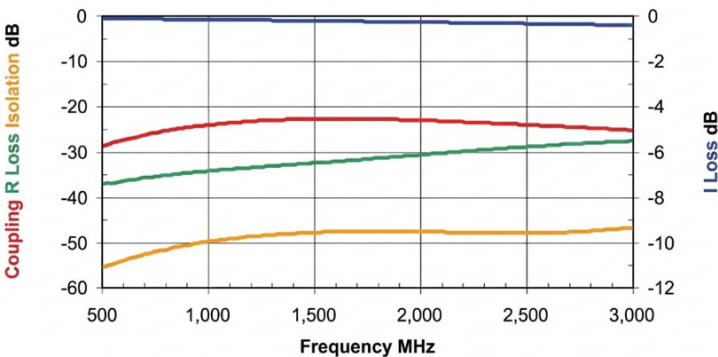
CP0402W2700FNTR



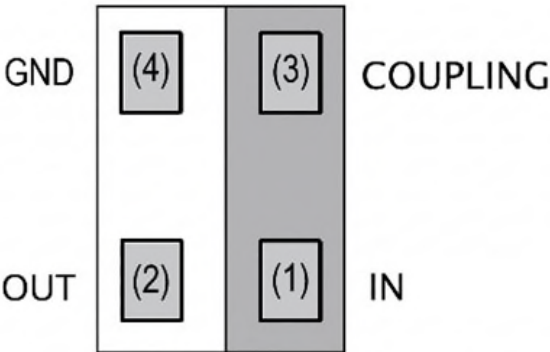
Coupler P/N CP0402W2700FNTR

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

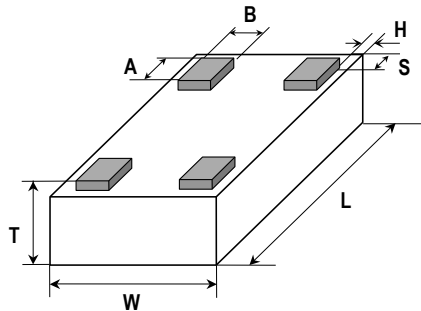
Important: Couplers can be used at any frequency within the indicated range.



TERMINALS (TOP VIEW)

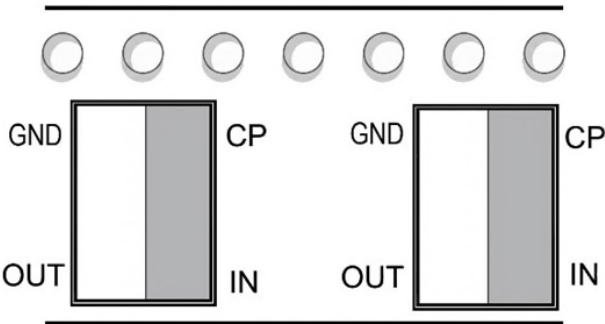


DIMENSIONS: millimeters (inches) (Bottom View)

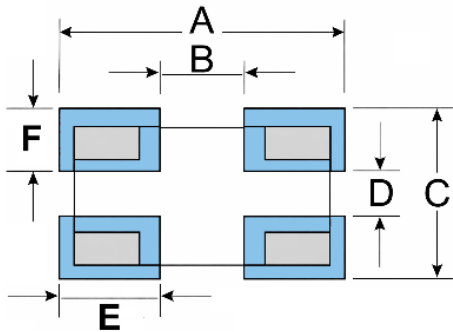


L	1.0±0.05 (0.040±0.002)
W	0.58±0.04 (0.023±0.002)
T	0.35±0.05 (0.014±0.002)
A	0.20±0.05 (0.008±0.002)
B	0.18±0.05 (0.007±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS: millimeters (inches)



A	1.15±0.05 (0.045±0.002)
B	0.53±0.05 (0.021±0.002)
C	0.55±0.05 (0.022±0.002)
D	0.15±0.05 (0.006±0.002)
E	0.31±0.05 (0.012±0.002)
F	0.20±0.05 (0.008±0.002)

*The recommended distance to the PCB Ground Plane is 0.254mm (0.010")

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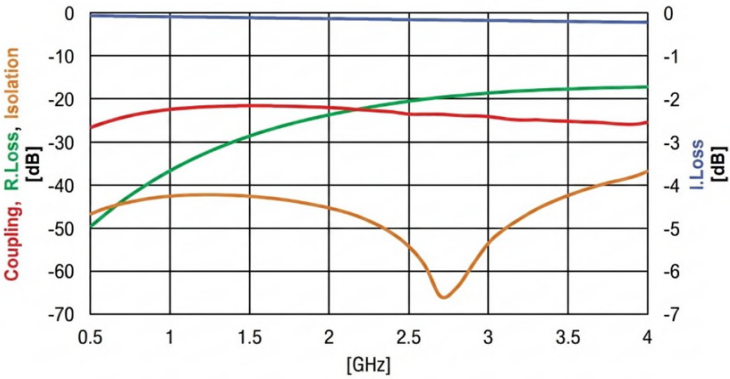
CP0402W3800GNTR Wide Band High Directivity



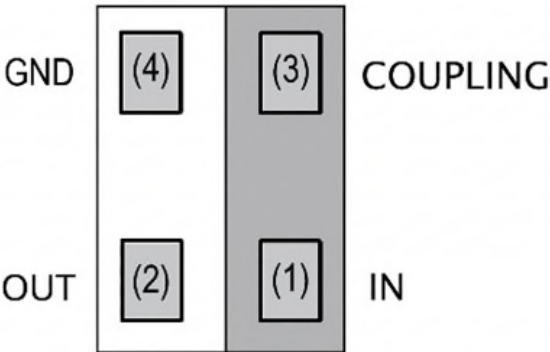
Coupler P/N CP0402W3800GNTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0402W3800GNTR	700 - 3,800	-24±2.5	-0.4	-18	-18

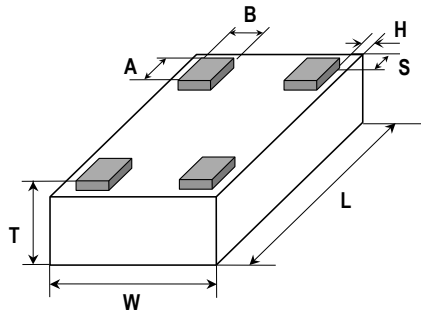
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TERMINALS (TOP VIEW)

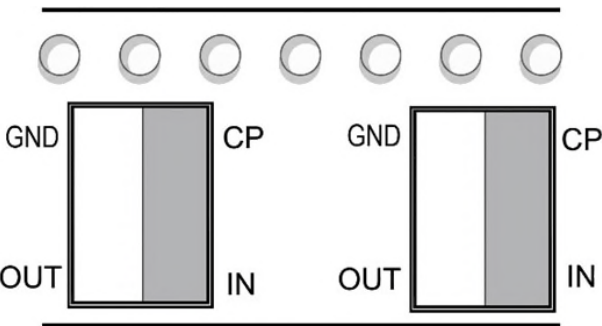


DIMENSIONS: millimeters (inches) (Bottom View)

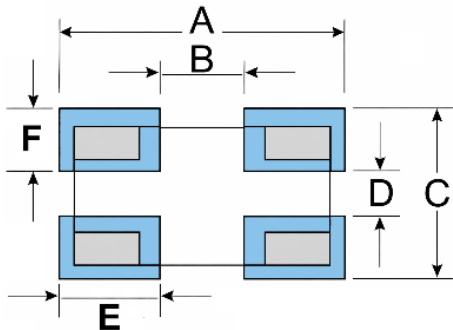


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T	0.35±0.05 (0.014±0.002)
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ORIENTATION IN TAPE



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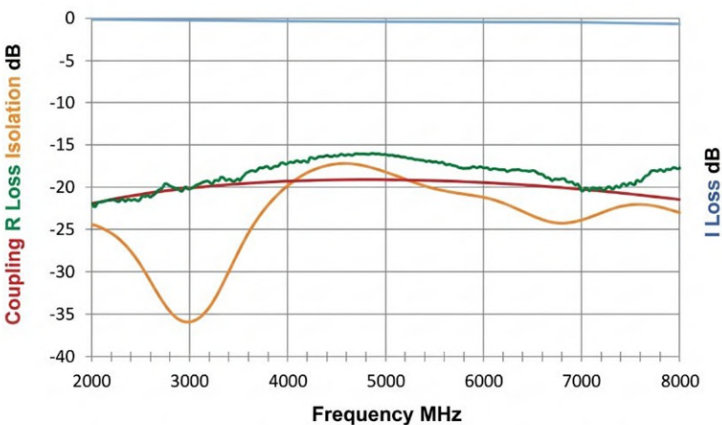
CP0402W4500JNTR Wide Band High Directivity



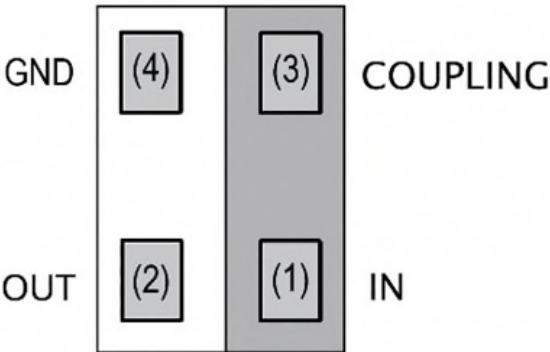
Coupler P/N CP0402W4500JNTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0402W4500JNTR	2,000 - 7,000	-20±2	-0.6	-15	-15

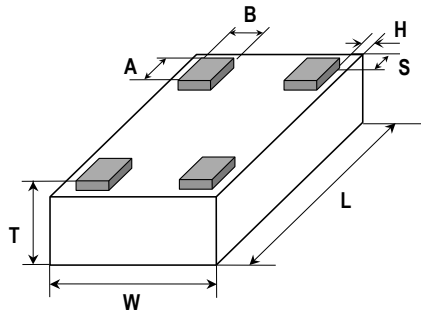
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TERMINALS (TOP VIEW)

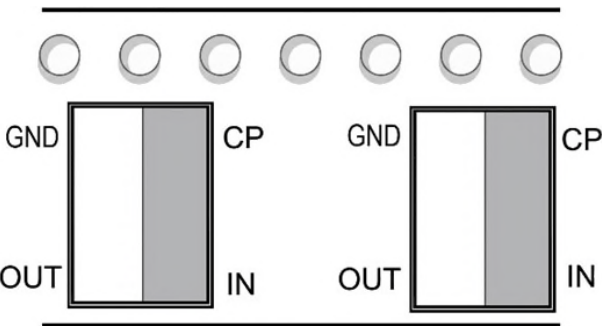


DIMENSIONS: millimeters (inches) (Bottom View)

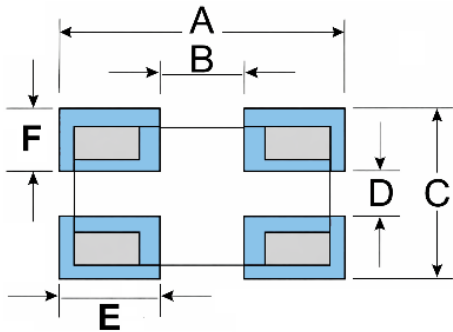


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W	0.58±0.04 (0.023±0.002)
T	0.35±0.05 (0.014±0.002)
A	0.20±0.05 (0.008±0.002)
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ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS: millimeters (inches)



A	1.15±0.05 (0.045±0.002)
B	0.53±0.05 (0.021±0.002)
C	0.55±0.05 (0.022±0.002)
D	0.15±0.05 (0.006±0.002)
E	0.31±0.05 (0.012±0.002)
F	0.20±0.05 (0.008±0.002)

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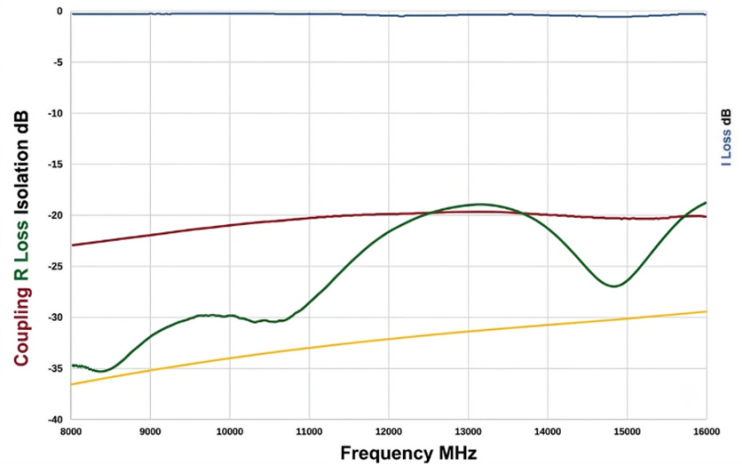
CP0402W16G0ANTR Wide Band High Directivity



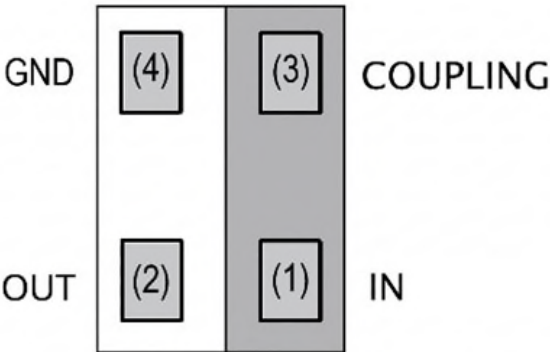
Coupler P/N CP0402W16G0ANTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0402W16G0ANTR	8 - 16	-20.5±2	-0.7	-13	-8

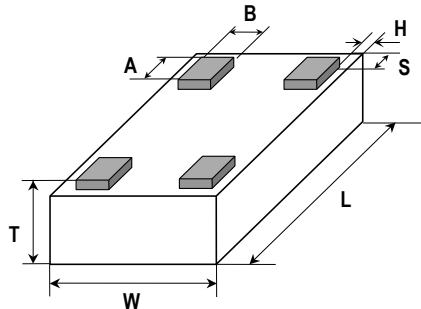
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TERMINALS (TOP VIEW)

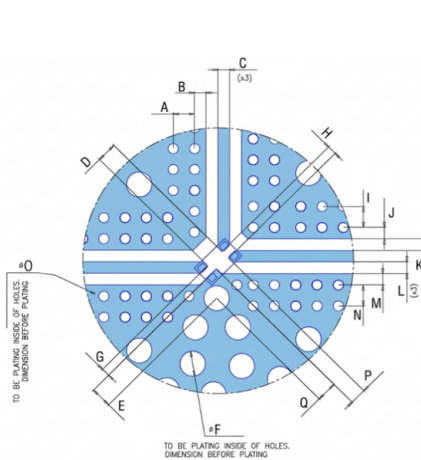


DIMENSIONS: millimeters (inches)
(Bottom View)



L	1.0±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)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

RECOMMENDED PAD LAYOUT DIMENSIONS:
millimeters (inches)



A, I, N	0.505±0.05 (0.020±0.002)
B, J, M	0.27±0.05 (0.011±0.002)
C	0.27±0.25 (0.011±0.001)
D	0.48±0.04 (0.019±0.002)
E	0.501±0.05 (0.020±0.002)
G	0.20±0.04 (0.006±0.002)
H	0.22±0.04 (0.009±0.002)
K, L	0.285±0.25 (0.011±0.001)
P	0.389±0.04 (0.015±0.002)
Q	0.492±0.04 (0.019±0.002)
ØF	0.6±0.05 (0.019±0.002)
ØO	0.24±0.05 (0.009±0.002)

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