Thin-Film Directional Couplers

CP0402 High Directivity LGA Termination

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GENERAL DESCRIPTION

ITF (Integrated Thin-Film) TECHNOLOGY

The ITF High Directivity 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.

APPLICATIONS

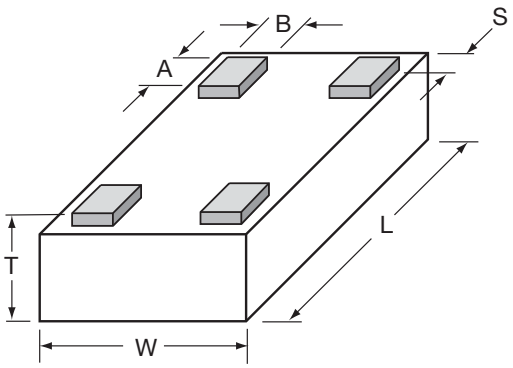
- Mobile Communications
- Satellite TV Receivers
- GPS
- Vehicle Location Systems
- Wireless LAN's

FEATURES

- Inherent Low Profile
- Self Alignment during Reflow
- Excellent Solderability
- Low Parasitics
- Better Heat Dissipation
- Operating/Storage Temp -40°C to +85°C
- Power Rating 3W RF Cont

DIMENSIONS: (Bottom View)

millimeters (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	0.05±0.05 (0.002±0.002)

HOW TO ORDER

CP	0402	X	****	X	N	TR
Style Directional Coupler	**Size** 0402	**Type**	**Frequency** (MHz)	**Sub Type**	**LGA Termination** L = LGA Sn90, Pb10 **N = LGA Sn100	**Packaging Code** TR = Tape and Reel

**RoHS compliant

QUALITY INSPECTION

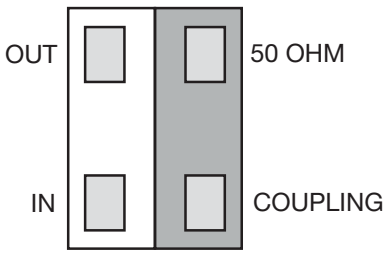
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- 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.

TERMINALS (Top View)



Not RoHS Compliant

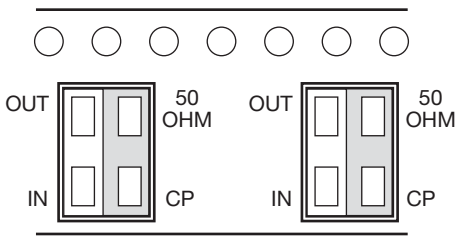
LEAD-FREE

LEAD-FREE COMPATIBLE COMPONENT

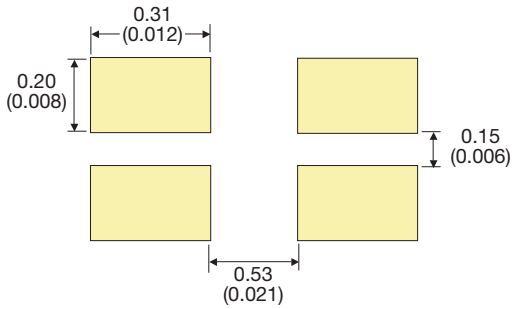
RoHS COMPLIANT

For RoHS compliant products, please select correct termination style.

ORIENTATION IN TAPE



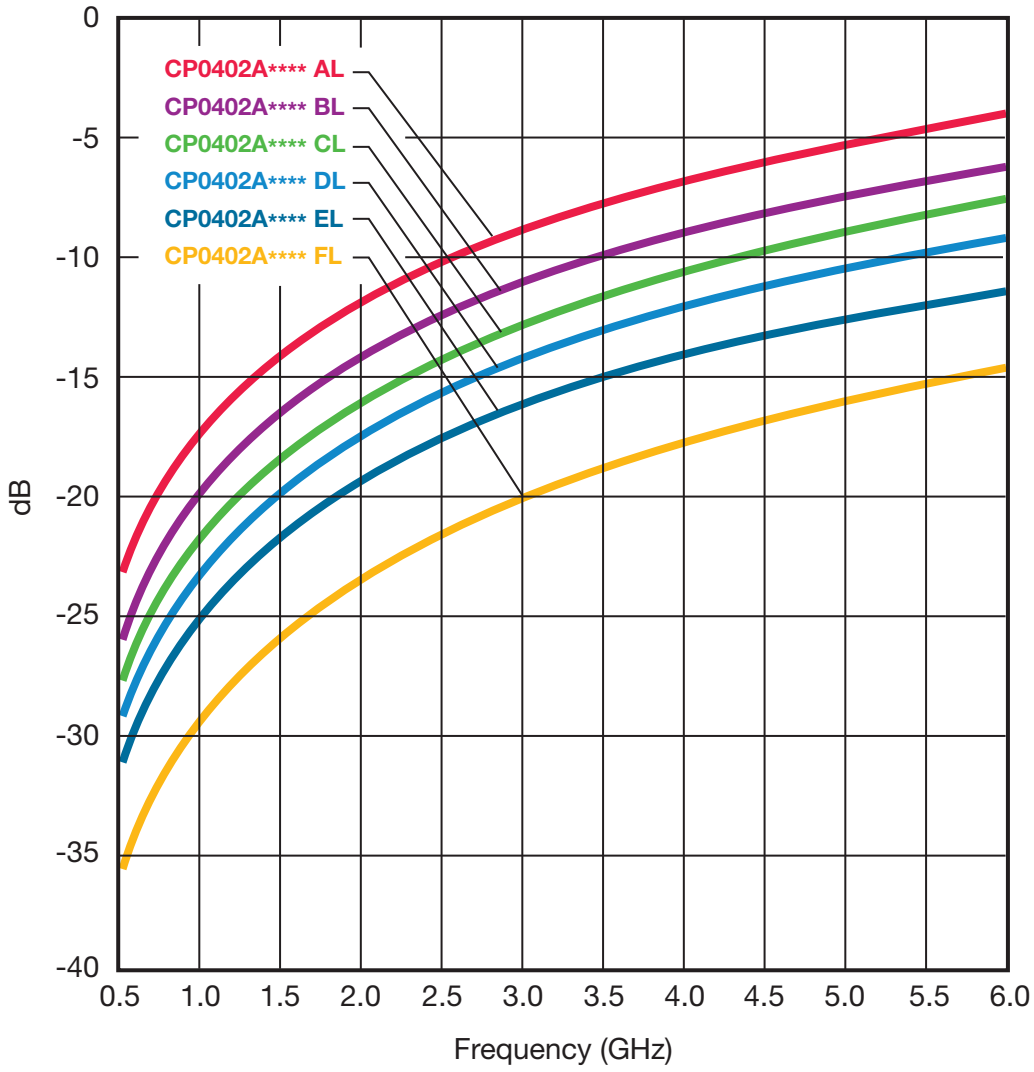
Recommended Pad Layout Dimensions mm (inches)



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

COUPLER TYPE SELECTION GRAPH

Coupling vs. Frequency



Intermediate coupling factors are readily available.
Please contact factory.

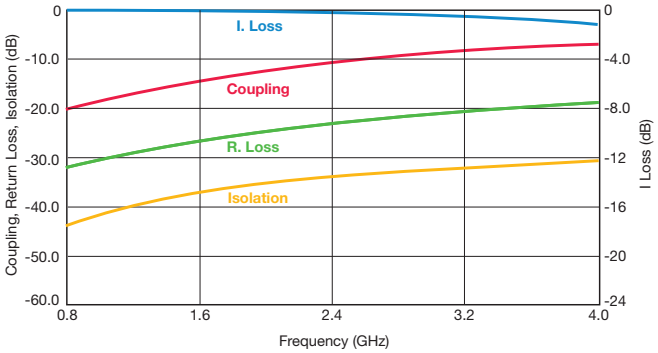
Thin-Film Directional Couplers

CP0402 High Directivity LGA Termination

Coupler P/N CP0402AxxxxAL

Application	P/N Examples	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
AMPS	CP0402A0836AL	824 - 849	19.10	0.25	32	21
	CP0402A0881AL	869 - 894	18.60		31	
GSM	CP0402A0902AL	890 - 915	18.50			
	CP0402A0947AL	935 - 960	18.00			
E-GSM	CP0402A0897AL	880 - 915	18.50			
	CP0402A0942AL	925 - 960	18.00			
PDC	CP0402A1441AL	1429 - 1453	14.50	0.40	28	
PCN	CP0402A1747AL	1710 - 1785	13.00	0.50	26	
	CP0402A1842AL	1805 - 1880	12.50			
PCS	CP0402A1880AL	1850 - 1910	12.30		25	
	CP0402A1960AL	1930 - 1990	12.00			
PHP	CP0402A1907AL	1895 - 1920	12.30			
DECT	CP0402A1890AL	1880 - 1900				
Wireless LAN	CP0402A2442AL	2400 - 2484	10.30	0.70	23	

CP0402AxxxxALTR

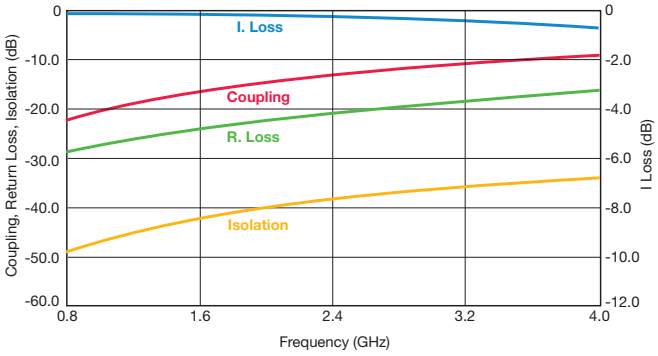


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Coupler P/N CP0402AxxxxBL

Application	P/N Examples	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
AMPS	CP0402A0836BL	824 - 849	22.00	0.20	28	27
	CP0402A0881BL	869 - 894	21.70			
GSM	CP0402A0902BL	890 - 915	21.50			
	CP0402A0947BL	935 - 960	21.00	0.25	27	
E-GSM	CP0402A0897BL	880 - 915	21.50	0.20	28	
	CP0402A0942BL	925 - 960	21.00	0.25	27	
PDC	CP0402A1441BL	1429 - 1453	17.50		24	
PCN	CP0402A1747BL	1710 - 1785	16.00	0.30		
	CP0402A1842BL	1805 - 1880	15.50	0.35	23	
PCS	CP0402A1880BL	1850 - 1910				
	CP0402A1960BL	1930 - 1990	15.00		22	
PHP	CP0402A1907BL	1895 - 1920	15.50		23	
DECT	CP0402A1890BL	1880 - 1900				
Wireless LAN	CP0402A2442BL	2400 - 2484	13.30	0.40	21	

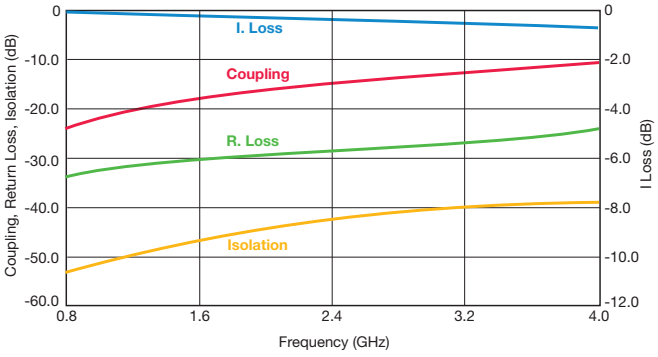
CP0402AxxxxBLTR



Coupler P/N CP0402AxxxxCL

Application	P/N Examples	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
AMPS	CP0402A0836CL	824 - 849	23.60	0.20	33	22
	CP0402A0881CL	869 - 894	23.00			
GSM	CP0402A0902CL	890 - 915			26	
	CP0402A0947CL	935 - 960	22.50		33	
E-GSM	CP0402A0897CL	880 - 915	23.00		25	
	CP0402A0942CL	925 - 960	22.50		32	
PDC	CP0402A1441CL	1429 - 1453	19.00	0.25	31	30
PCN	CP0402A1747CL	1710 - 1785	17.20		30	
	CP0402A1842CL	1805 - 1880	17.00			
PCS	CP0402A1880CL	1850 - 1910	16.80			
	CP0402A1960CL	1930 - 1990	16.50		29	
PHP	CP0402A1907CL	1895 - 1920	16.80			
DECT	CP0402A1890CL	1880 - 1900			30	
Wireless LAN	CP0402A2442CL	2400 - 2484	14.70	0.45	28	

CP0402AxxxxCLTR



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

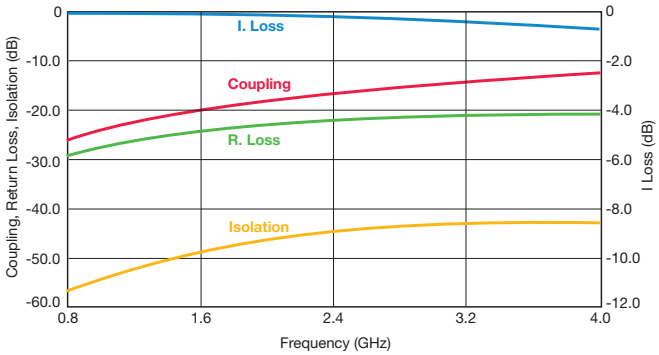
Thin-Film Directional Couplers

CP0402 High Directivity LGA Termination

Coupler P/N CP0402AxxxxDL

Application	P/N Examples	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
AMPS	CP0402A0836DL	824 - 849	25.20	0.20	29	20
	CP0402A0881DL	869 - 894	24.80		28	
GSM	CP0402A0902DL	890 - 915	24.70			
	CP0402A0947DL	935 - 960	24.10			
E-GSM	CP0402A0897DL	880 - 915	24.70			
	CP0402A0942DL	925 - 960	24.10			
PDC	CP0402A1441DL	1429 - 1453	20.50		25	
PCN	CP0402A1747DL	1710 - 1785	19.00		24	23
	CP0402A1842DL	1805 - 1880	18.50	0.25	23	
PCS	CP0402A1880DL	1850 - 1910	18.20			
	CP0402A1960DL	1930 - 1990	18.00			
PHP	CP0402A1907DL	1895 - 1920	18.10			
DECT	CP0402A1890DL	1880 - 1900	18.20			
Wireless LAN	CP0402A2442DL	2400 - 2484	16.00	0.35	22	

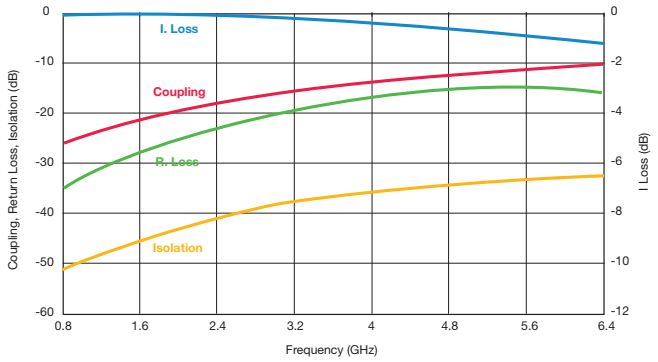
CP0402AxxxxDLTR



Coupler P/N CP0402AxxxxEL

Application	P/N Examples	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
AMPS	CP0402A0836EL	824 - 849	27.20	0.20	35	25
	CP0402A0881EL	869 - 894	26.80		34	
GSM	CP0402A0902EL	890 - 915	26.50			
	CP0402A0947EL	935 - 960	26.00			
E-GSM	CP0402A0897EL	880 - 915	26.50			
	CP0402A0942EL	925 - 960	26.00			
PDC	CP0402A1441EL	1429 - 1453	22.30	0.25	29	
PCN	CP0402A1747EL	1710 - 1785	20.50		27	23
	CP0402A1842EL	1805 - 1880	20.30		26	
PCS	CP0402A1880EL	1850 - 1910	20.00			
	CP0402A1960EL	1930 - 1990				
PHP	CP0402A1907EL	1895 - 1920				
DECT	CP0402A1890EL	1880 - 1900				
Wireless LAN	CP0402A2442EL	2400 - 2484	18.00	0.35	23	

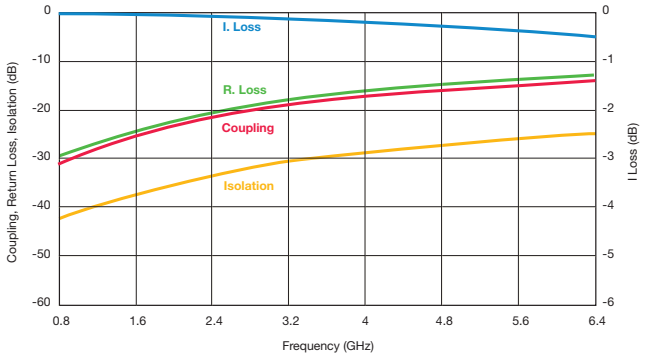
CP0402AxxxxELTR



Coupler P/N CP0402AxxxxFL

Application	P/N Examples	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
AMPS	CP0402A0836FL	824 - 849	31.00	0.20	29.10	11
	CP0402A0881FL	869 - 894	30.70		28.60	
GSM	CP0402A0902FL	890 - 915	30.60		28.50	
	CP0402A0947FL	935 - 960	30.00		28.10	
E-GSM	CP0402A0897FL	880 - 915	30.60		28.50	
	CP0402A0942FL	925 - 960	30.00		28.10	
PDC	CP0402A1441FL	1429 - 1453	26.50		25.00	
PCN	CP0402A1747FL	1710 - 1785	25.00		23.80	
	CP0402A1842FL	1805 - 1880	24.50		23.60	
PCS	CP0402A1880FL	1850 - 1910	24.20		23.50	
	CP0402A1960FL	1930 - 1990	24.00		23.30	
PHP	CP0402A1907FL	1895 - 1920	24.20		23.40	
DECT	CP0402A1890FL	1880 - 1900			23.50	
Wireless LAN	CP0402A2442FL	2400 - 2484	22.00	0.25	22.60	

CP0402AxxxxFLTR



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

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
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Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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