Thin-Film Directional Couplers

CP0402 High Directivity LGA Termination

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

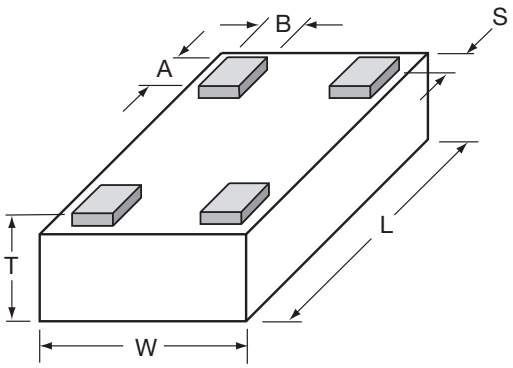
- Mobile Communications
- Satellite TV Receivers
- GPS
- Vehicle Location Systems
- Wireless LAN's

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

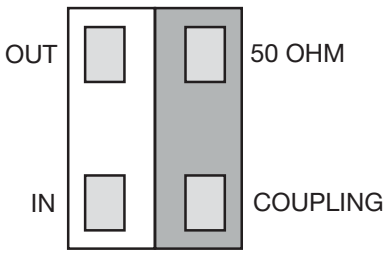
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- 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

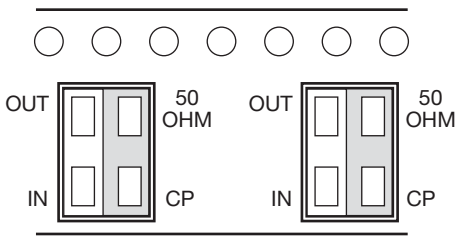
LEAD-FREE

LEAD-FREE COMPATIBLE COMPONENT

RoHS COMPLIANT

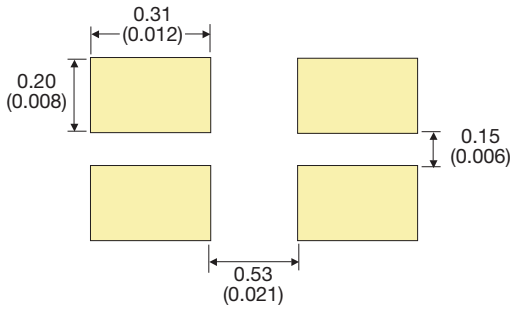
For RoHS compliant products, please select correct termination style.

ORIENTATION IN TAPE



Recommended Pad Layout Dimensions

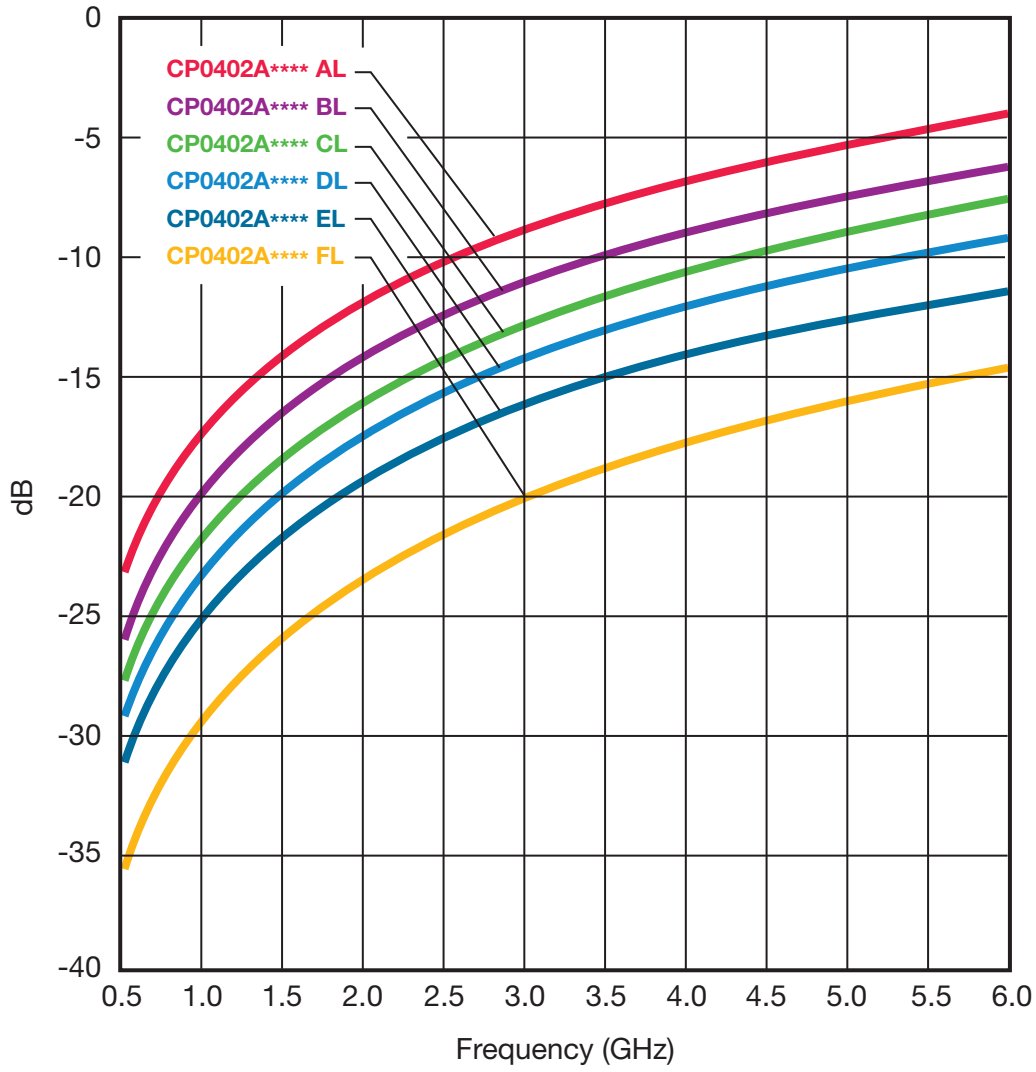
mm (inches)



*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.

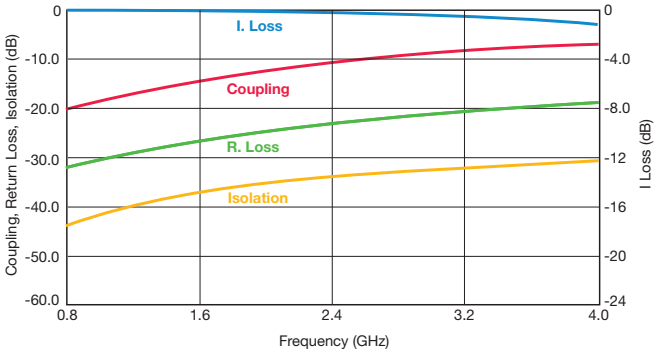
Thin-Film Directional Couplers

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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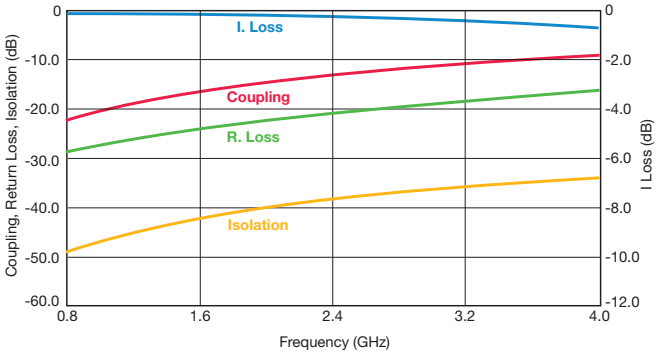
Coupler P/N CP0402AxxxxBL

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	

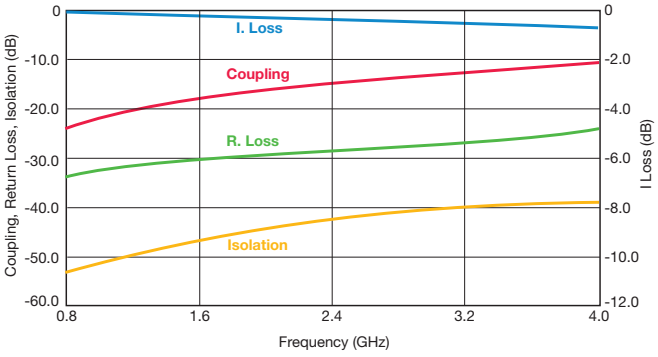
CP0402AxxxxBLTR



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.

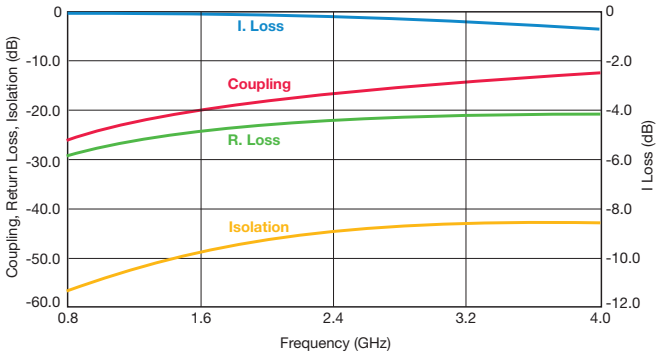
Thin-Film Directional Couplers

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	

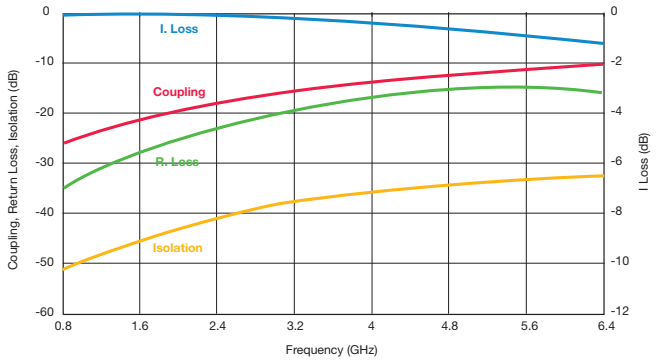
CP0402AxxxxDLTR



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	

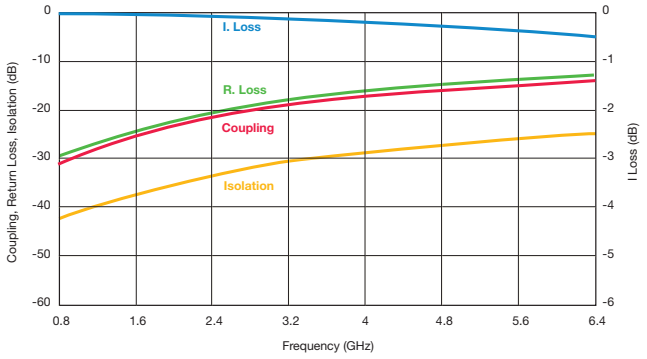
CP0402AxxxxELTR



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.

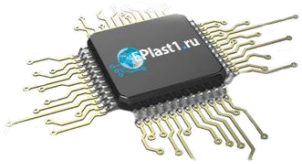
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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