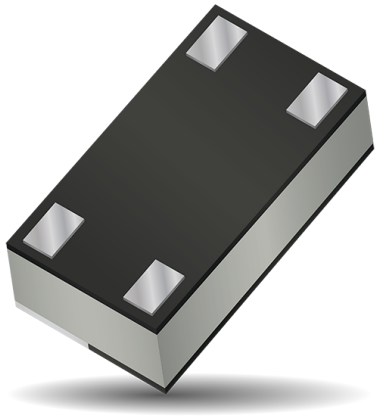
Thin-Film RF/Microwave Directional Couplers

CP0603 High Directivity LGA Type

Thin-Film RF/Microwave Directional Couplers

CP0603 High Directivity LGA Type

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: 0603
- Inherent Low Profile
- Self Alignment during Reflow
- Excellent Solderability
- Low Parasitics
- RoHS compliant
- Better Heat Dissipation
- Operating/Storage Temp -40°C to +85°C
- Power Rating 5W RF CW

APPLICATIONS

- 4G LTE
- 5G LTE
- Base Stations
- Automotive
- Industrial
- Mobile Communications
- Satellite TV Receivers
- GPS
- Vehicle Location Systems
- Wireless LAN's

HOW TO ORDER

CP	0603	X	****	X	N	TR
Style	**Size**	**Type**	**Frequency**	**Sub-Type**	**Termination Code**	**Packaging Code**
Directional Coupler	0603		MHz		L = LGA Sn90, Pb10 **N = LGA Sn100	TR = Tape and Reel

Not RoHS Compliant

**RoHS compliant

RoHS COMPLIANT

LEAD-FREE

LEAD-FREE COMPATIBLE COMPONENT

For RoHS compliant products, please select correct termination style.

QUALITY INSPECTION

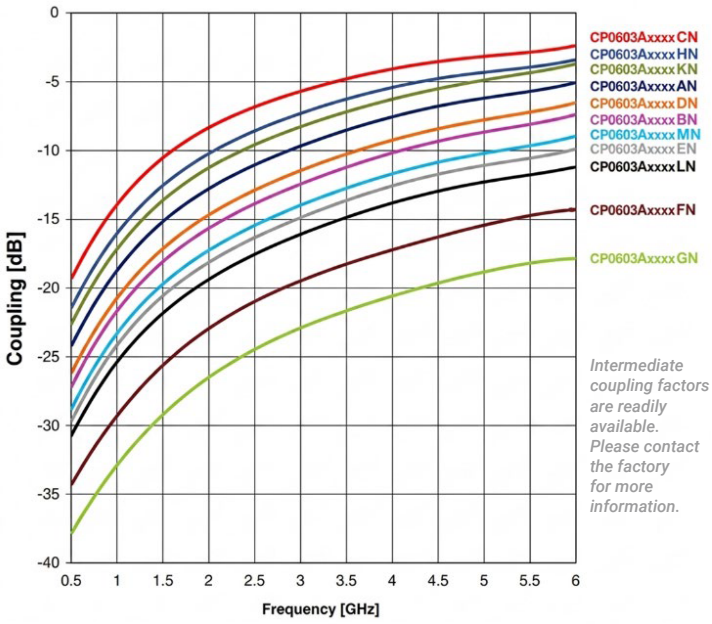
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

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

TERMINATION

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

CP0603 - TYPE SELECTION CHART



Intermediate coupling factors are readily available. Please contact the factory for more information.

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

Thin-Film RF/Microwave Directional Couplers

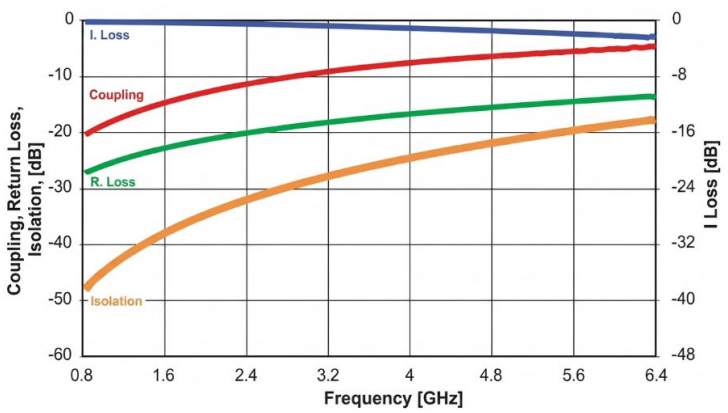
CP0603 High Directivity LGA Type

CP0603AxxxxANTR

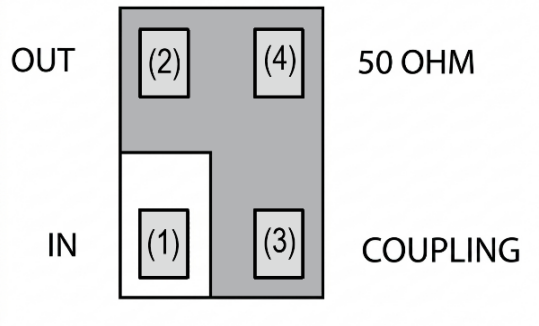
Coupler P/N CP0603AxxxxANTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0603A0836ANTR	824 - 849	-20.0	-0.25	-28	-22
CP0603A0881ANTR	869 - 894	-19.7	-0.25	-28	-22
CP0603A0902ANTR	890 - 915	-19.4	-0.25	-27	-22
CP0603A0947ANTR	935 - 960	-19.0	-0.25	-27	-22
CP0603A0897ANTR	880 - 915	-19.4	-0.25	-28	-22
CP0603A0942ANTR	925 - 960	-19.0	-0.25	-27	-22
CP0603A1441ANTR	1429 - 1453	-15.5	-0.40	-24	-22
CP0603A1747ANTR	1710 - 1785	-14.0	-0.50	-22	-22
CP0603A1842ANTR	1805 - 1880	-13.5	-0.50	-22	-22
CP0603A1880ANTR	1850 - 1910	-13.2	-0.50	-22	-22
CP0603A1960ANTR	1930 - 1990	-13.0	-0.55	-21	-22
CP0603A1907ANTR	1895 - 1920	-13.2	-0.50	-22	-22
CP0603A1890ANTR	1880 - 1900	-13.2	-0.50	-22	-22
CP0603A2442ANTR	2400 - 2484	-11.5	-0.75	-20	-22
CP0603A3500ANTR	3450 - 3550	-8.6	-1.3	-17	-20
CP0603A5000ANTR	4950 - 5050	-6.1	-2.2	-13	-14
CP0603A5500ANTR	5450 - 5550	-5.5	-2.5	-15	-13
CP0603A6000ANTR	5950 - 6050	-5	-3	-11.6	-13

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

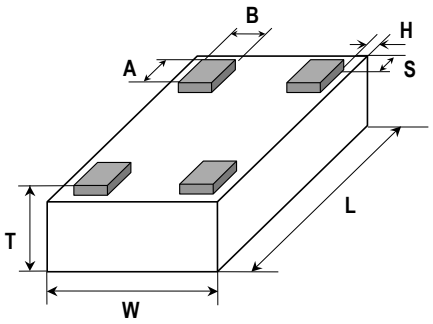


TERMINALS (TOP VIEW)



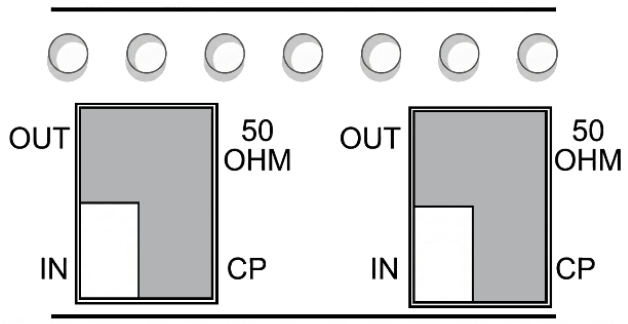
DIMENSIONS: millimeters (inches)

(Bottom View)



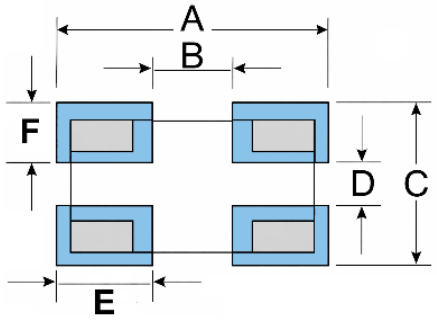
L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



A	1.75±0.05 (0.069±0.002)
B	0.75±0.05 (0.029±0.002)
C	1.10±0.05 (0.043±0.002)
D	0.30±0.05 (0.011±0.002)
E	0.50±0.05 (0.020±0.002)
F	0.40±0.05 (0.016±0.002)

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

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

Thin-Film RF/Microwave Directional Couplers

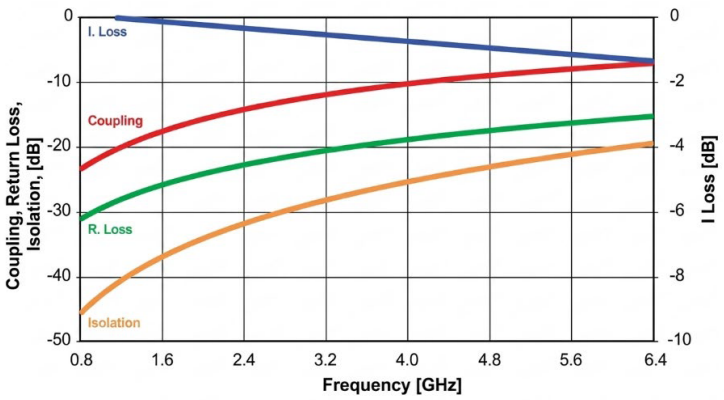
CP0603 High Directivity LGA Type

CP0603AxxxxBNTR

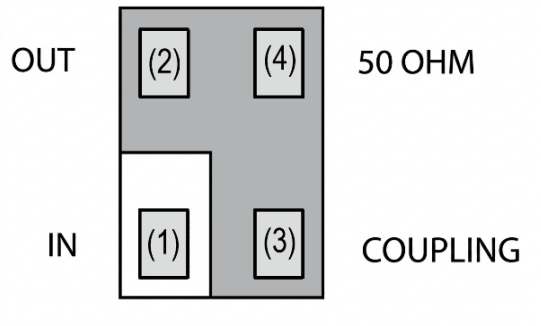
Coupler P/N CP0603AxxxxBNTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0603A0836BNTR	824 - 849	-23.0	-0.20	-31	-24
CP0603A0881BNTR	869 - 894	-22.7	-0.20	-31	-24
CP0603A0902BNTR	890 - 915	-22.5	-0.20	-31	-24
CP0603A0947BNTR	935 - 960	-22.0	-0.20	-30	-24
CP0603A0897BNTR	880 - 915	-22.5	-0.20	-31	-24
CP0603A0942BNTR	925 - 960	-22.0	-0.20	-30	-24
CP0603A1441BNTR	1429 - 1453	-18.5	-0.25	-27	-24
CP0603A1747BNTR	1710 - 1785	-17.0	-0.25	-25	-21
CP0603A1842BNTR	1805 - 1880	-16.4	-0.25	-25	-21
CP0603A1880BNTR	1850 - 1910	-16.2	-0.25	-25	-21
CP0603A1960BNTR	1930 - 1990	-16.0	-0.25	-24	-21
CP0603A1907BNTR	1895 - 1920	-16.1	-0.25	-25	-21
CP0603A1890BNTR	1880 - 1900	-16.2	-0.25	-25	-21
CP0603A2442BNTR	2400 - 2484	-14.2	-0.35	-23	-21
CP0603A3500BNTR	3450 - 3550	-11.2	-0.6	-20	-20
CP0603A5000BNTR	4950 - 5050	-8.4	-1.1	-16.7	-17
CP0603A5500BNTR	5450 - 5550	-7.8	-1.4	-15.7	-16
CP0603A6000BNTR	5950 - 6050	-7.2	-1.6	-15	-15

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

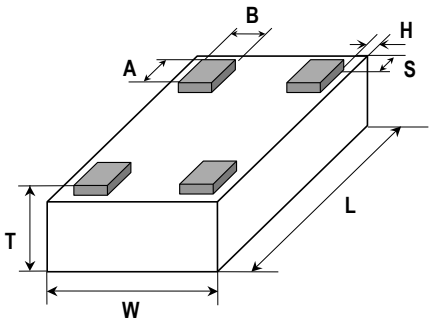


TERMINALS (TOP VIEW)



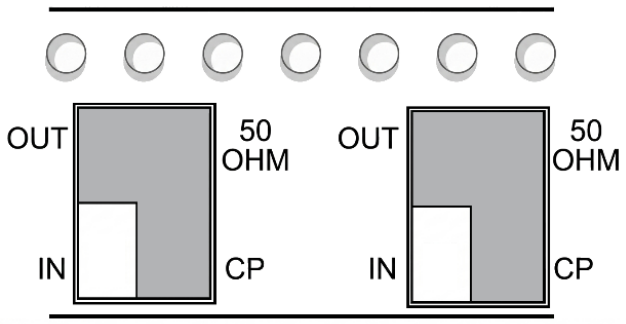
DIMENSIONS: millimeters (inches)

(Bottom View)



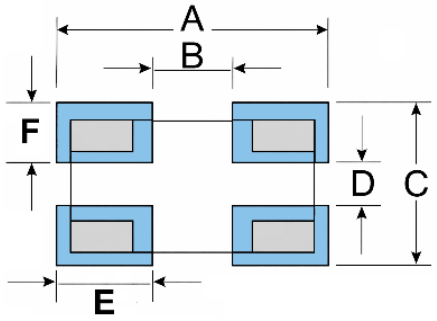
L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



A	1.75±0.05 (0.069±0.002)
B	0.75±0.05 (0.029±0.002)
C	1.10±0.05 (0.043±0.002)
D	0.30±0.05 (0.011±0.002)
E	0.50±0.05 (0.020±0.002)
F	0.40±0.05 (0.016±0.002)

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

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

Thin-Film RF/Microwave Directional Couplers

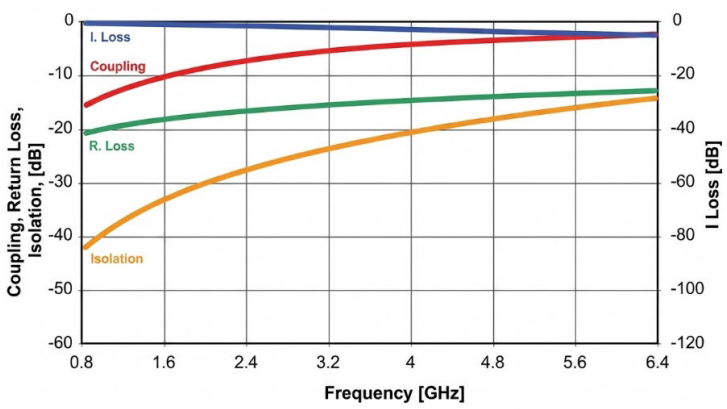
CP0603 High Directivity LGA Type

CP0603AxxxxCNTR

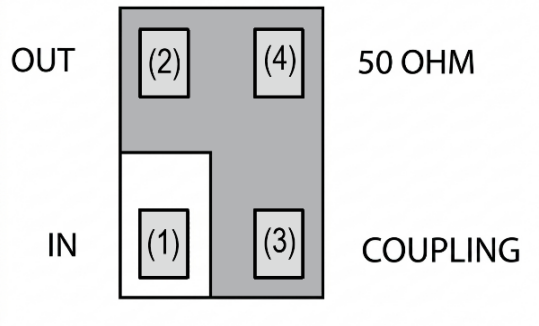
Coupler P/N CP0603AxxxxCNTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0603A0836CNTR	824 - 849	-15.2	-0.35	-23	-23
CP0603A0881CNTR	869 - 894	-15.0	-0.35	-23	-23
CP0603A0902CNTR	890 - 915	-14.7	-0.35	-23	-23
CP0603A0947CNTR	935 - 960	-14.3	-0.40	-22	-23
CP0603A0897CNTR	880 - 915	-14.7	-0.35	-23	-23
CP0603A0942CNTR	925 - 960	-14.3	-0.40	-22	-23
CP0603A1441CNTR	1429 - 1453	-11.0	-0.70	-19	-23
CP0603A1747CNTR	1710 - 1785	-9.5	-0.80	-18	-21
CP0603A1842CNTR	1805 - 1880	-9.0	-0.90	-17	-21
CP0603A1880CNTR	1850 - 1910	-8.8	-0.90	-17	-21
CP0603A1960CNTR	1930 - 1990	-8.5	-1.00	-17	-21
CP0603A1907CNTR	1895 - 1920	-8.8	-0.90	-17	-21
CP0603A1890CNTR	1880 - 1900	-8.8	-0.90	-17	-21
CP0603A2442CNTR	2400 - 2484	-7.0	-1.40	-15	-21
CP0603A3500CNTR	3450 - 3550	-4.8	-2.0	-23	-20
CP0603A5000CNTR	4950 - 5050	-3.0	-3.6	-21	-17
CP0603A5500CNTR	5450 - 5550	-3.0	-4.0	-20.6	-16
CP0603A6000CNTR	5950 - 6050	-2.5	-4.5	-20.5	-16

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

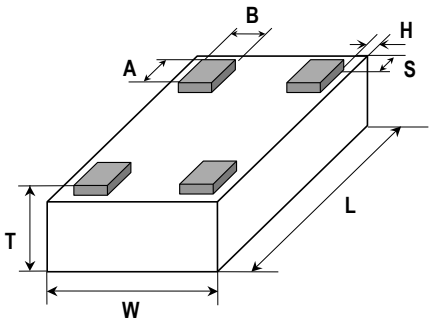


TERMINALS (TOP VIEW)



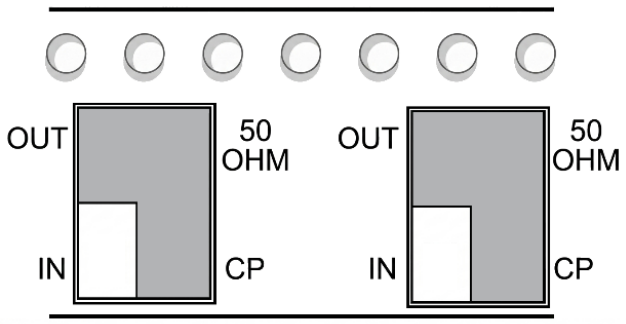
DIMENSIONS: millimeters (inches)

(Bottom View)



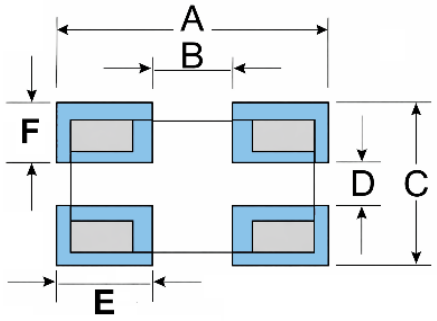
L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



A	1.75±0.05 (0.069±0.002)
B	0.75±0.05 (0.029±0.002)
C	1.10±0.05 (0.043±0.002)
D	0.30±0.05 (0.011±0.002)
E	0.50±0.05 (0.020±0.002)
F	0.40±0.05 (0.016±0.002)

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

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

Thin-Film RF/Microwave Directional Couplers

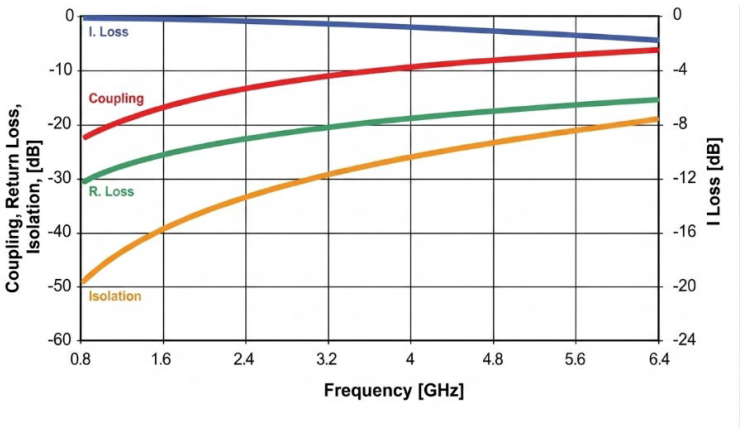
CP0603 High Directivity LGA Type

CP0603AxxxxDNTR

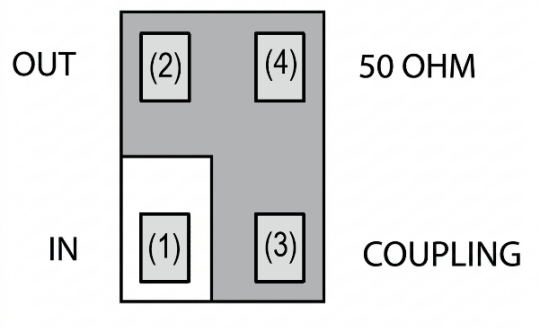
Coupler P/N CP0603AxxxxDNTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0603A0836DNTR	824 - 849	-22.0	-0.25	-31	-30
CP0603A0881DNTR	869 - 894	-21.8	-0.25	-30	-30
CP0603A0902DNTR	890 - 915	-21.3	-0.25	-30	-30
CP0603A0947DNTR	935 - 960	-21.0	-0.30	-30	-30
CP0603A0897DNTR	880 - 915	-21.3	-0.25	-30	-30
CP0603A0942DNTR	925 - 960	-21.0	-0.30	-30	-30
CP0603A1441DNTR	1429 - 1453	-17.7	-0.40	-27	-30
CP0603A1747DNTR	1710 - 1785	-16.0	-0.40	-25	-25
CP0603A1842DNTR	1805 - 1880	-15.4	-0.40	-25	-25
CP0603A1880DNTR	1850 - 1910	-15.2	-0.40	-24	-25
CP0603A1960DNTR	1930 - 1990	-15.0	-0.40	-24	-25
CP0603A1907DNTR	1895 - 1920	-15.2	-0.40	-24	-25
CP0603A1890DNTR	1880 - 1900	-15.2	-0.40	-24	-25
CP0603A2442DNTR	2400 - 2484	-13.3	-0.55	-22	-25
CP0603A3500DNTR	3450 - 3550	-10.1	-0.66	-25.3	-20
CP0603A5000DNTR	4950 - 5050	-7.8	-1.17	-21.1	-18
CP0603A5500DNTR	5450 - 5550	-6.8	-1.39	-19.9	-18
CP0603A6000DNTR	5950 - 6050	-6.3	-1.64	-18.8	-17

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

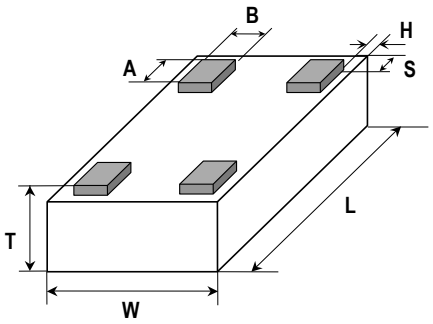


TERMINALS (TOP VIEW)



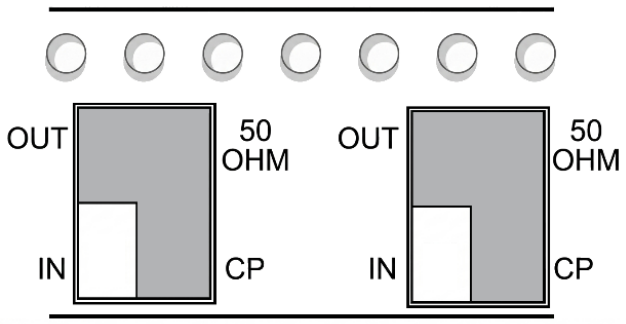
DIMENSIONS: millimeters (inches)

(Bottom View)



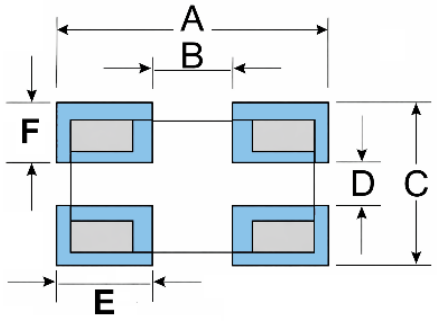
L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



A	1.75±0.05 (0.069±0.002)
B	0.75±0.05 (0.029±0.002)
C	1.10±0.05 (0.043±0.002)
D	0.30±0.05 (0.011±0.002)
E	0.50±0.05 (0.020±0.002)
F	0.40±0.05 (0.016±0.002)

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

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

Thin-Film RF/Microwave Directional Couplers

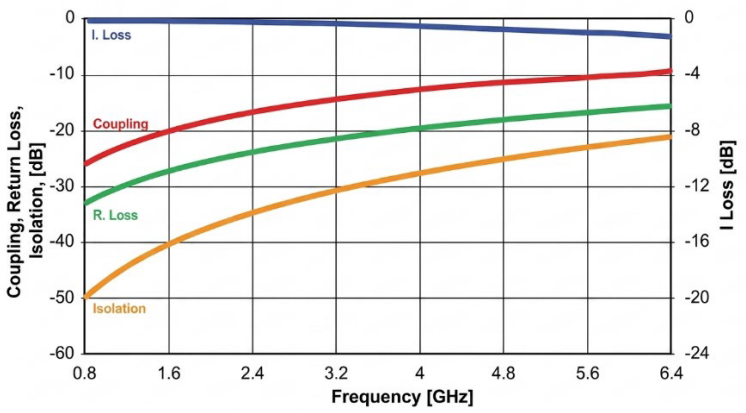
CP0603 High Directivity LGA Type

CP0603AxxxxENTR

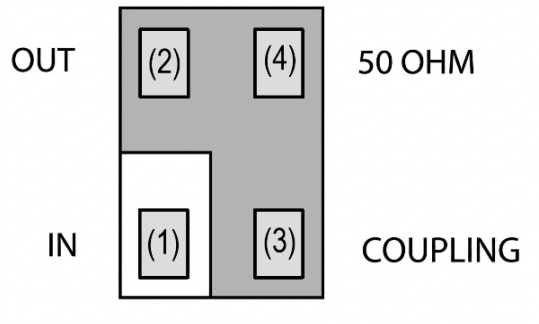
Coupler P/N CP0603AxxxxENTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0603A0836ENTR	824 - 849	-25.8	-0.20	-32	-21
CP0603A0881ENTR	869 - 894	-25.3	-0.20	-32	-21
CP0603A0902ENTR	890 - 915	-25.0	-0.20	-32	-21
CP0603A0947ENTR	935 - 960	-24.7	-0.20	-31	-21
CP0603A0897ENTR	880 - 915	-26.0	-0.20	-32	-21
CP0603A0942ENTR	925 - 960	-24.7	-0.20	-31	-21
CP0603A1441ENTR	1429 - 1453	-22.0	-0.25	-28	-21
CP0603A1747ENTR	1710 - 1785	-19.5	-0.30	-26	-21
CP0603A1842ENTR	1805 - 1880	-19.0	-0.30	-26	-21
CP0603A1880ENTR	1850 - 1910	-18.8	-0.30	-26	-21
CP0603A1960ENTR	1930 - 1990	-18.5	-0.30	-26	-21
CP0603A1907ENTR	1895 - 1920	-18.7	-0.30	-26	-21
CP0603A1890ENTR	1880 - 1900	-18.8	-0.30	-26	-21
CP0603A2442ENTR	2400 - 2484	-17.0	-0.40	-24	-21
CP0603A3500ENTR	3450 - 3550	-13.2	-0.5	-18	-20
CP0603A5000ENTR	4950 - 5050	-10.7	-0.9	-13	-16
CP0603A5500ENTR	5450 - 5550	-10.2	-1.2	-12	-15
CP0603A6000ENTR	5950 - 6050	-9.7	-1.4	-12	-14

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

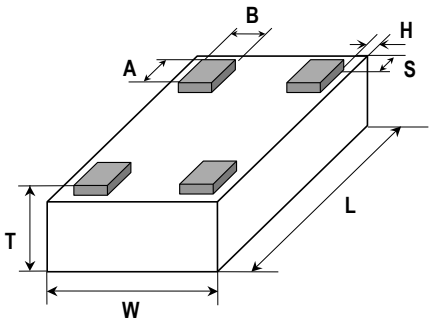


TERMINALS (TOP VIEW)



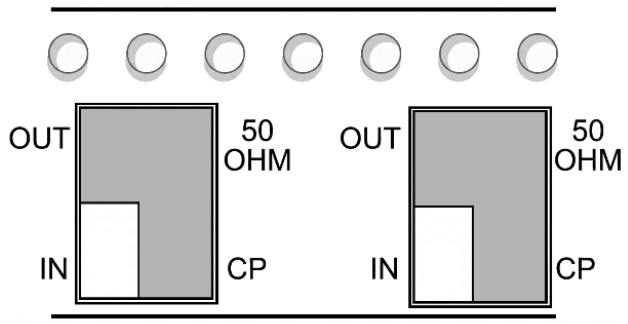
DIMENSIONS: millimeters (inches)

(Bottom View)



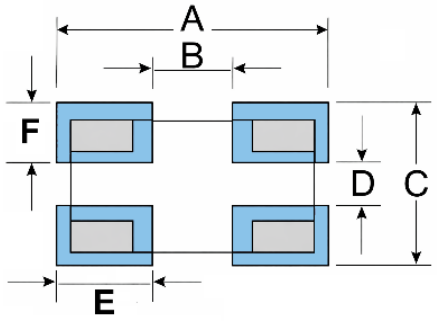
L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



A	1.75±0.05 (0.069±0.002)
B	0.75±0.05 (0.029±0.002)
C	1.10±0.05 (0.043±0.002)
D	0.30±0.05 (0.011±0.002)
E	0.50±0.05 (0.020±0.002)
F	0.40±0.05 (0.016±0.002)

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

Thin-Film RF/Microwave Directional Couplers

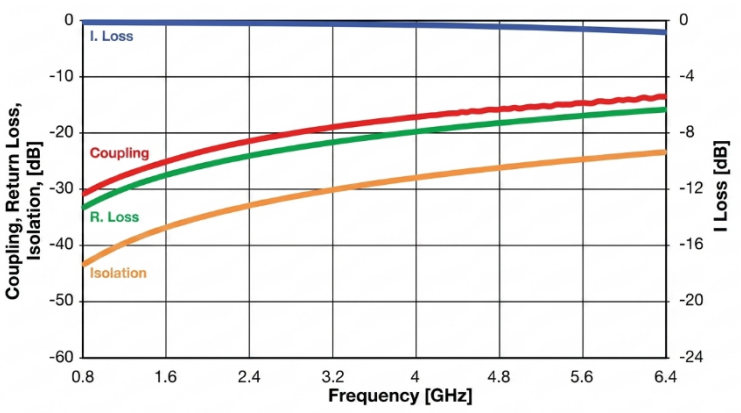
CP0603 High Directivity LGA Type

CP0603AxxxxFNTR

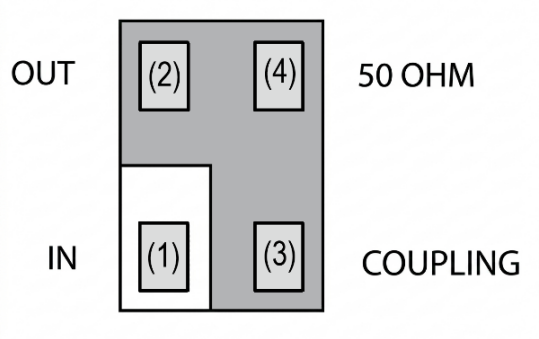
Coupler P/N CP0603AxxxxFNTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0603A0836FNTR	824 - 849	-31.2	-0.20	-32	-12
CP0603A0881FNTR	869 - 894	-30.8	-0.20	-32	-12
CP0603A0902FNTR	890 - 915	-30.5	-0.20	-30	-12
CP0603A0947FNTR	935 - 960	-30.2	-0.20	-30	-12
CP0603A0897FNTR	880 - 915	-30.5	-0.20	-30	-12
CP0603A0942FNTR	925 - 960	-30.2	-0.20	-30	-12
CP0603A1441FNTR	1429 - 1453	-27.0	-0.25	-28	-12
CP0603A1747FNTR	1710 - 1785	-25.0	-0.25	-27	-12
CP0603A1842FNTR	1805 - 1880	-26.5	-0.25	-27	-12
CP0603A1880FNTR	1850 - 1910	-24.3	-0.25	-27	-12
CP0603A1960FNTR	1930 - 1990	-24.0	-0.25	-28	-12
CP0603A1907FNTR	1895 - 1920	-24.2	-0.25	-27	-12
CP0603A1890FNTR	1880 - 1900	-24.2	-0.25	-27	-12
CP0603A2442FNTR	2400 - 2484	-21.5	-0.25	-25	-12
CP0603A3500FNTR	3450 - 3550	-17.8	-0.33	-20.0	-13
CP0603A5000FNTR	4950 - 5050	-15.4	-0.62	-14.86	-12
CP0603A5500FNTR	5450 - 5550	-14.8	-0.86	-13.58	-12
CP0603A6000FNTR	5950 - 6050	-14.3	-1.02	-12.58	-11

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

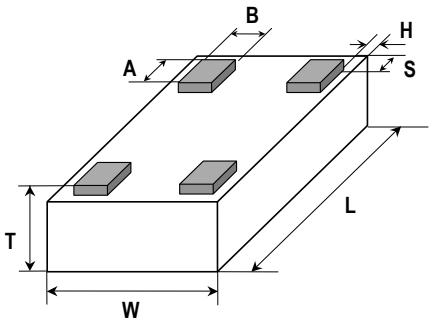


TERMINALS (TOP VIEW)



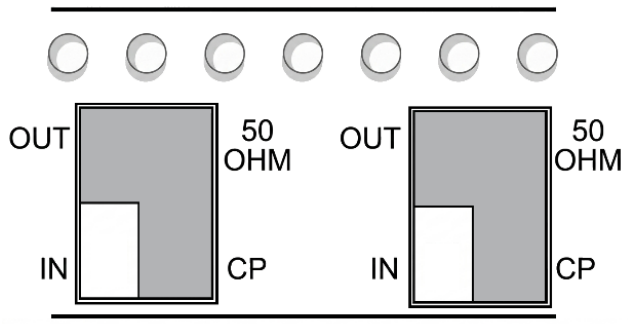
DIMENSIONS: millimeters (inches)

(Bottom View)



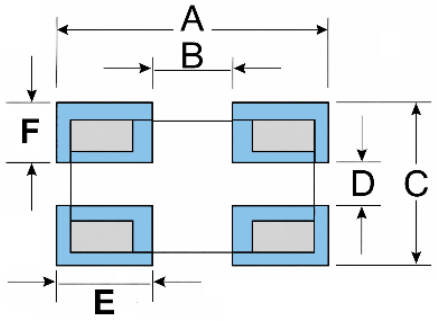
L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



A	1.75±0.05 (0.069±0.002)
B	0.75±0.05 (0.029±0.002)
C	1.10±0.05 (0.043±0.002)
D	0.30±0.05 (0.011±0.002)
E	0.50±0.05 (0.020±0.002)
F	0.40±0.05 (0.016±0.002)

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

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

Thin-Film RF/Microwave Directional Couplers

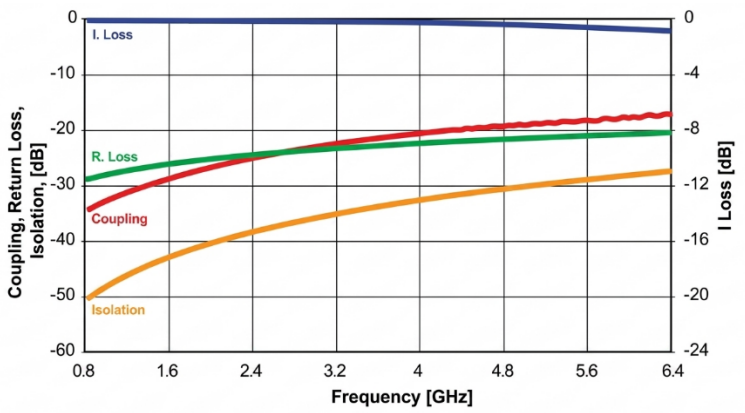
CP0603 High Directivity LGA Type

CP0603AxxxxGNTR

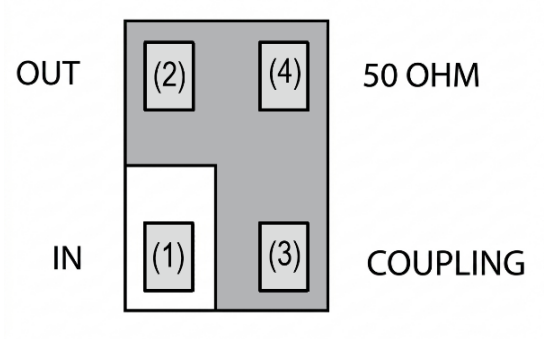
Coupler P/N CP0603AxxxxGNTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0603A0836GNTR	824 - 849	-34.2	-0.20	-30	-13
CP0603A0881GNTR	869 - 894	-33.8	-0.20	-30	-13
CP0603A0902GNTR	890 - 915	-33.6	-0.20	-30	-13
CP0603A0947GNTR	935 - 960	-33.2	-0.20	-29	-13
CP0603A0897GNTR	880 - 915	-33.6	-0.20	-30	-13
CP0603A0942GNTR	925 - 960	-33.2	-0.20	-29	-13
CP0603A1441GNTR	1429 - 1453	-30.0	-0.25	-25	-13
CP0603A1747GNTR	1710 - 1785	-28.5	-0.25	-24	-13
CP0603A1842GNTR	1805 - 1880	-28.0	-0.25	-24	-13
CP0603A1880GNTR	1850 - 1910	-27.7	-0.25	-24	-13
CP0603A1960GNTR	1930 - 1990	-27.5	-0.25	-23	-13
CP0603A1907GNTR	1895 - 1920	-27.6	-0.25	-24	-13
CP0603A1890GNTR	1880 - 1900	-27.7	-0.25	-24	-13
CP0603A2442GNTR	2400 - 2484	-25.5	-0.25	-22	-13
CP0603A3500GNTR	3450 - 3550	-21.6	-0.31	-20	-13
CP0603A5000GNTR	4950 - 5050	-19	-0.39	-16	-12
CP0603A5500GNTR	5450 - 5550	-18.5	-0.57	-15	-12
CP0603A6000GNTR	5950 - 6050	-18.0	-0.74	-14	-11

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

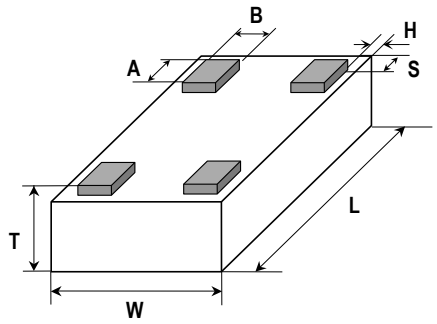


TERMINALS (TOP VIEW)



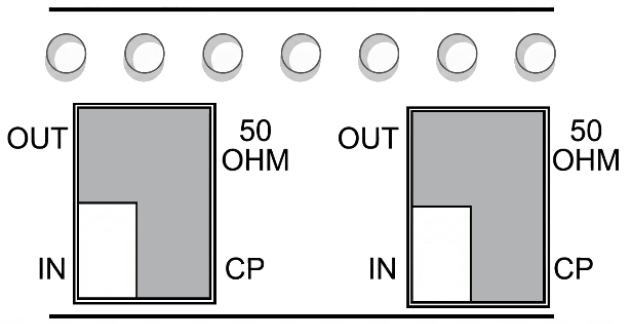
DIMENSIONS: millimeters (inches)

(Bottom View)



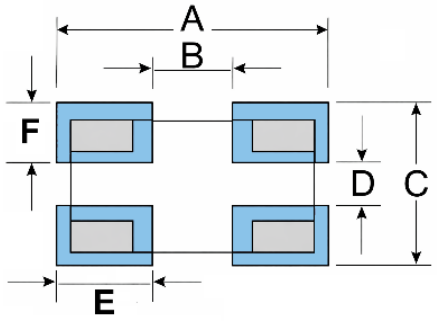
L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



A	1.75±0.05 (0.069±0.002)
B	0.75±0.05 (0.029±0.002)
C	1.10±0.05 (0.043±0.002)
D	0.30±0.05 (0.011±0.002)
E	0.50±0.05 (0.020±0.002)
F	0.40±0.05 (0.016±0.002)

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

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

Thin-Film RF/Microwave Directional Couplers

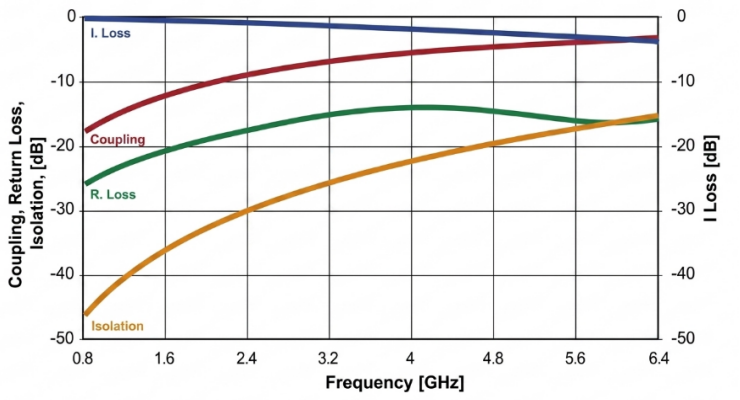
CP0603 High Directivity LGA Type

CP0603AxxxxHNTR

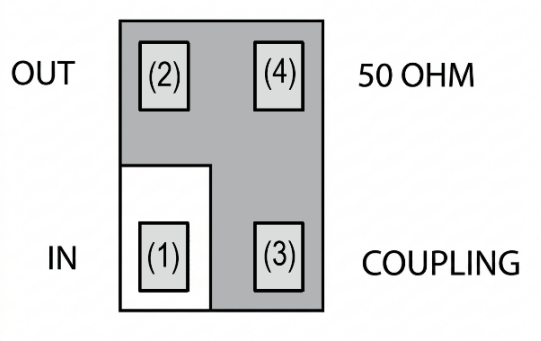
Coupler P/N CP0603AxxxxHNTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0603A0836HNTR	824 - 849	-17.3	-0.30	-26	-26
CP0603A0881HNTR	869 - 894	-17.0	-0.30	-25	-26
CP0603A0902HNTR	890 - 915	-16.7	-0.30	-25	-26
CP0603A0947HNTR	935 - 960	-16.3	-0.35	-25	-26
CP0603A0897HNTR	880 - 915	-17.0	-0.35	-25	-26
CP0603A0942HNTR	925 - 960	-16.3	-0.35	-25	-26
CP0603A1441HNTR	1429 - 1453	-13.0	-0.55	-22	-26
CP0603A1747HNTR	1710 - 1785	-11.4	-0.75	-20	-24
CP0603A1842HNTR	1805 - 1880	-11.0	-0.75	-20	-24
CP0603A1880HNTR	1850 - 1910	-10.8	-0.75	-19	-24
CP0603A1960HNTR	1930 - 1990	-10.5	-0.75	-19	-24
CP0603A1907HNTR	1895 - 1920	-10.7	-0.75	-19	-24
CP0603A1890HNTR	1880 - 1900	-10.8	-0.75	-19	-24
CP0603A2442HNTR	2400 - 2484	-8.8	-1.00	-17	-24
CP0603A3500HNTR	3450 - 3550	-5.9	-1.48	-25	-21
CP0603A5000HNTR	4950 - 5050	-4.4	-2.59	-22	-18
CP0603A5500HNTR	5450 - 5550	-4	-2.95	-22	-17
CP0603A6000HNTR	5950 - 6050	-3.5	-3.37	-21	-17

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

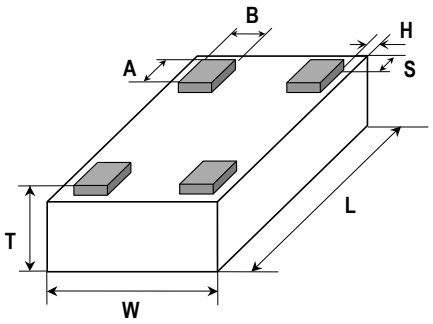


TERMINALS (TOP VIEW)



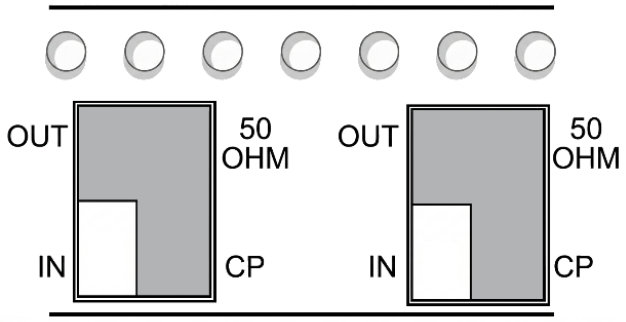
DIMENSIONS: millimeters (inches)

(Bottom View)



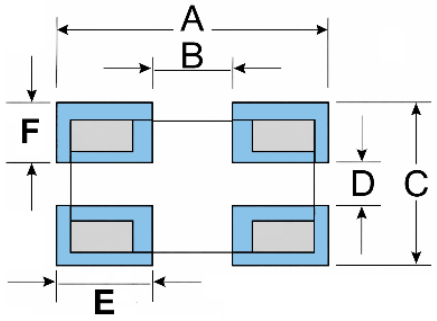
L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



A	1.75±0.05 (0.069±0.002)
B	0.75±0.05 (0.029±0.002)
C	1.10±0.05 (0.043±0.002)
D	0.30±0.05 (0.011±0.002)
E	0.50±0.05 (0.020±0.002)
F	0.40±0.05 (0.016±0.002)

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

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

Thin-Film RF/Microwave Directional Couplers

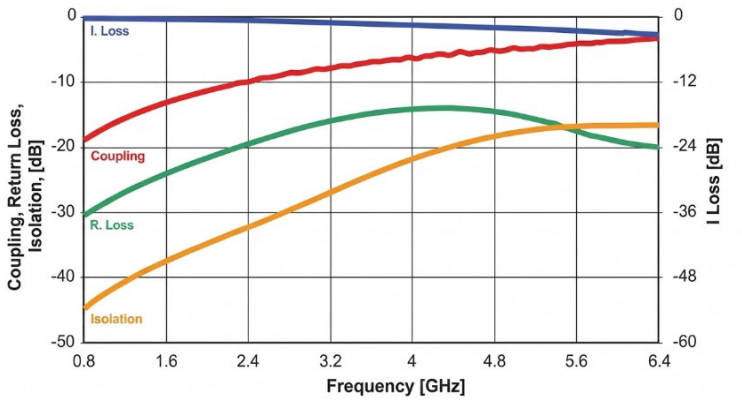
CP0603 High Directivity LGA Type

CP0603AxxxxKNTR

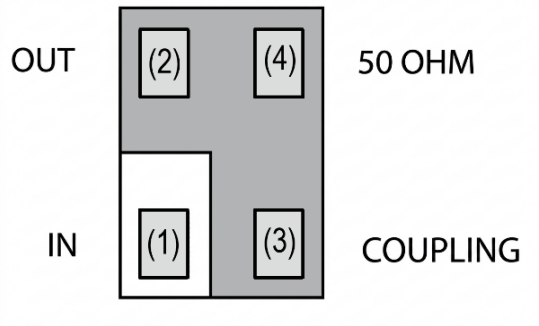
Coupler P/N CP0603AxxxxKNTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0603A0836KNTR	824 - 849	-18.5	-0.14	-30	-26
CP0603A0881KNTR	869 - 894	-18.1	-0.14	-29	-26
CP0603A0902KNTR	890 - 915	-17.6	-0.15	-29	-26
CP0603A0947KNTR	935 - 960	-17.3	-0.15	-29	-25
CP0603A0897KNTR	880 - 915	-17.9	-0.147	-29	-25
CP0603A0942KNTR	925 - 960	-17.6	-0.15	-29	-25
CP0603A1441KNTR	1429 - 1453	-14	-0.27	-25	-25
CP0603A1747KNTR	1710 - 1785	-12.4	-0.36	-23	-24
CP0603A1842KNTR	1805 - 1880	-12	-0.39	-22.5	-24
CP0603A1880KNTR	1850 - 1910	-11.8	-0.4	-22	-24
CP0603A1960KNTR	1930 - 1990	-11.4	-0.44	-22	-24
CP0603A1907KNTR	1895 - 1920	-11.5	-0.43	-22	-24
CP0603A1890KNTR	1880 - 1900	-11.7	-0.41	-22	-24
CP0603A2442KNTR	2400 - 2484	-9.7	-0.6	-19	-23
CP0603A3500KNTR	3450 - 3550	-7.2	-1.15	-15	-19
CP0603A5000KNTR	4950 - 5050	-4.7	-2.15	-15	-13
CP0603A5500KNTR	5450 - 5550	-4.2	-2.5	-17	-13
CP0603A6000KNTR	5950 - 6050	-3.7	-2.8	-19	-13

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

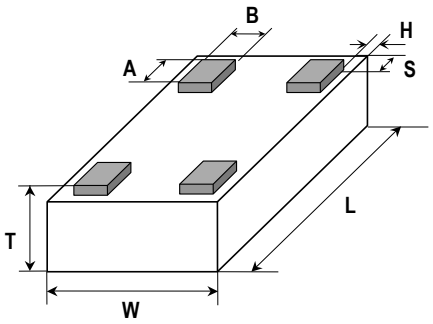


TERMINALS (TOP VIEW)



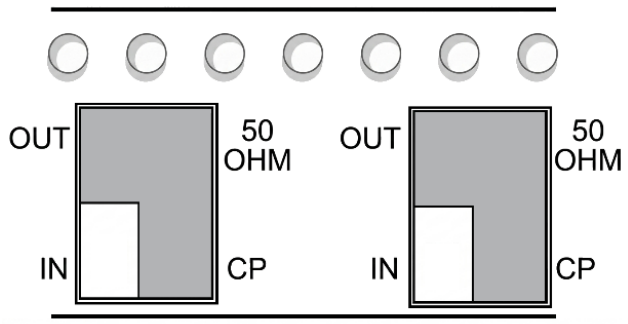
DIMENSIONS: millimeters (inches)

(Bottom View)



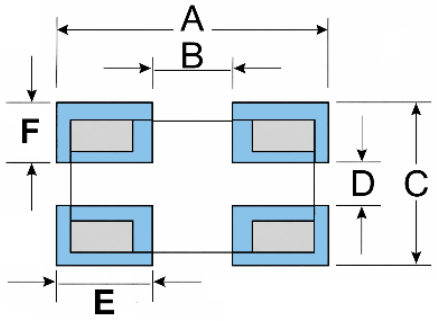
L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



A	1.75±0.05 (0.069±0.002)
B	0.75±0.05 (0.029±0.002)
C	1.10±0.05 (0.043±0.002)
D	0.30±0.05 (0.011±0.002)
E	0.50±0.05 (0.020±0.002)
F	0.40±0.05 (0.016±0.002)

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

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

Thin-Film RF/Microwave Directional Couplers

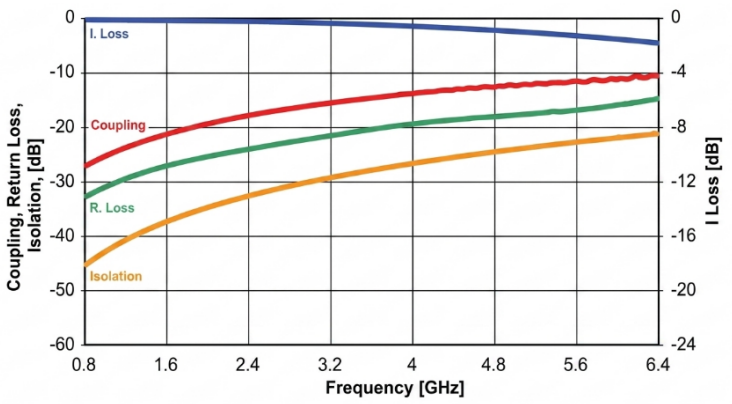
CP0603 High Directivity LGA Type

CP0603AxxxxLNTR

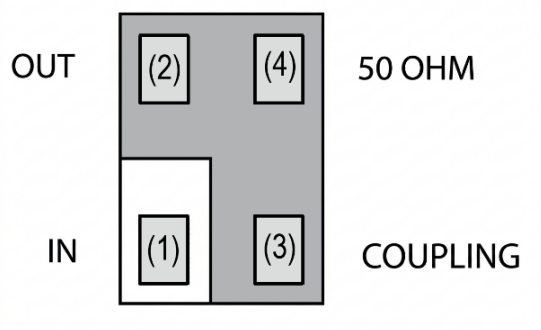
Coupler P/N CP0603AxxxxLNTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0603A0836LNTR	824 - 849	-26.89	-0.08	-32.5	-18
CP0603A0881LNTR	869 - 894	-26.55	-0.08	-32.2	-18
CP0603A0902LNTR	890 - 915	-26.2	-0.09	-31.9	-18
CP0603A0947LNTR	935 - 960	-25.87	-0.09	-31.5	-18
CP0603A0897LNTR	880 - 915	-26.2	-0.09	-31.9	-18
CP0603A0942LNTR	925 - 960	-25.87	-0.09	-31.5	-18
CP0603A1441LNTR	1429 - 1453	-22.31	-0.12	-28.1	-17.5
CP0603A1747LNTR	1710 - 1785	-20.51	-0.15	-26.4	-16.5
CP0603A1842LNTR	1805 - 1880	-20.03	-0.15	-26	-16.5
CP0603A1880LNTR	1850 - 1910	-19.87	-0.16	-26	-16.5
CP0603A1960LNTR	1930 - 1990	-19.57	-0.17	-25.5	-16.5
CP0603A1907LNTR	1895 - 1920	-19.77	-0.16	-25.7	-16.5
CP0603A1890LNTR	1880 - 1900	-19.87	-0.16	-25.8	-16.5
CP0603A2442LNTR	2400 - 2484	-17.7	-0.22	-23.9	-16.5
CP0603A3500LNTR	3450 - 3550	-14.85	-0.56	-20.6	-16
CP0603A5000LNTR	4950 - 5050	-12.4	-0.95	-17.8	-11
CP0603A5500LNTR	5450 - 5550	-11.83	-1.2	-17.1	-9
CP0603A6000LNTR	5950 - 6050	-11.08	-1.33	-15.9	-9

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

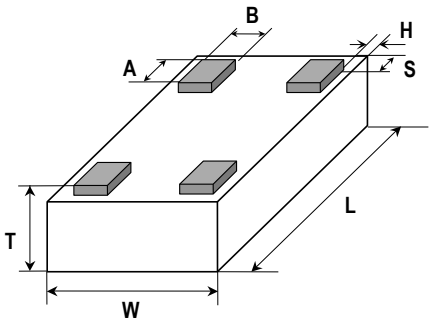


TERMINALS (TOP VIEW)



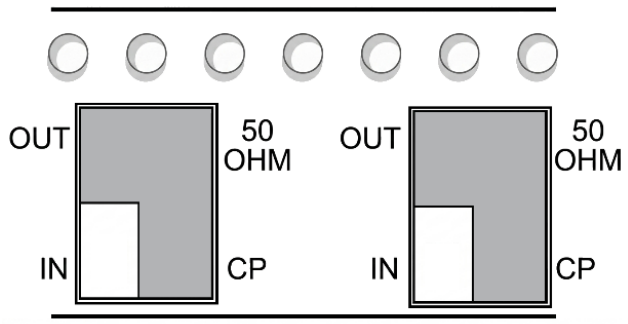
DIMENSIONS: millimeters (inches)

(Bottom View)



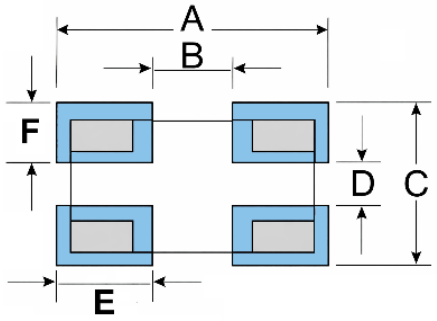
L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



A	1.75±0.05 (0.069±0.002)
B	0.75±0.05 (0.029±0.002)
C	1.10±0.05 (0.043±0.002)
D	0.30±0.05 (0.011±0.002)
E	0.50±0.05 (0.020±0.002)
F	0.40±0.05 (0.016±0.002)

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

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.

Thin-Film RF/Microwave Directional Couplers

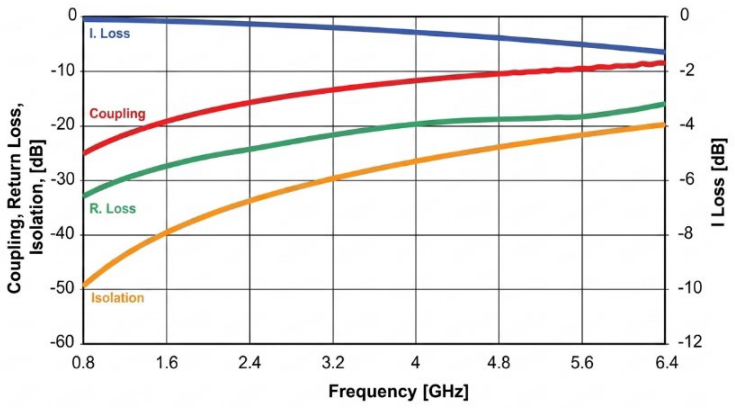
CP0603 High Directivity LGA Type

CP0603AxxxxMNTR

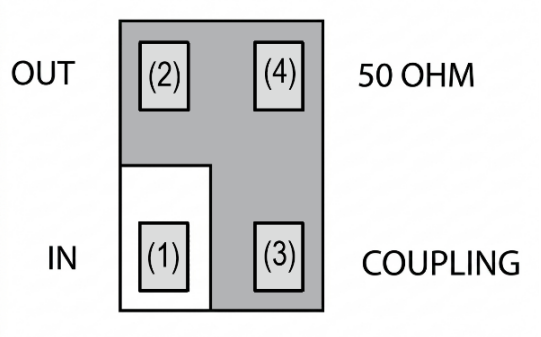
Coupler P/N CP0603AxxxxMNTR

P/N Examples*	Frequency Band [MHz]	Coupling [dB]	I. Loss max. [dB]	Return Loss [dB]	Directivity [dB]
CP0603A0836MNTR	824 - 849	-24.2	-0.20	-33	-23
CP0603A0881MNTR	869 - 894	-23.8	-0.20	-32	-23
CP0603A0902MNTR	890 - 915	-23.4	-0.20	-32	-23
CP0603A0947MNTR	935 - 960	-23.2	-0.20	-32	-23
CP0603A0897MNTR	880 - 915	-23.4	-0.20	-32	-23
CP0603A0942MNTR	925 - 960	-23.2	-0.20	-32	-23
CP0603A1441MNTR	1429 - 1453	-20.0	-0.25	-28	-23
CP0603A1747MNTR	1710 - 1785	-18.4	-0.25	-27	-20
CP0603A1842MNTR	1805 - 1880	-18.0	-0.25	-26	-20
CP0603A1880MNTR	1850 - 1910	-17.8	-0.25	-26	-20
CP0603A1960MNTR	1930 - 1990	-17.5	-0.25	-26	-20
CP0603A1907MNTR	1895 - 1920	-17.7	-0.25	-26	-20
CP0603A1890MNTR	1880 - 1900	-17.8	-0.25	-26	-20
CP0603A2442MNTR	2400 - 2484	-15.6	-0.35	-24	-20
CP0603A3500MNTR	3450 - 3550	-12.8	-0.58	-18	-20
CP0603A5000MNTR	4950 - 5050	-10.2	-1.0	-15	-16
CP0603A5500MNTR	5450 - 5550	-9.7	-1.2	-15	-14
CP0603A6000MNTR	5950 - 6050	-8.9	-1.5	-13.5	-9

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

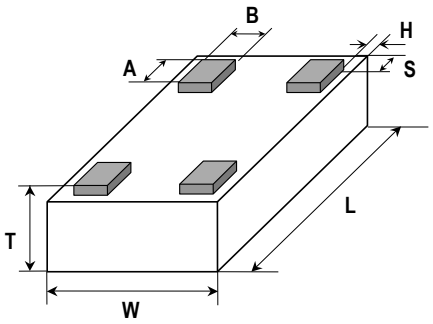


TERMINALS (TOP VIEW)



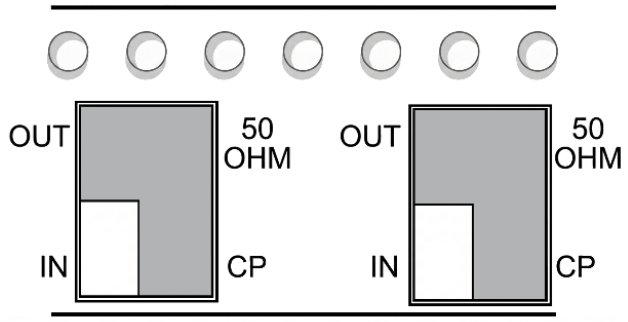
DIMENSIONS: millimeters (inches)

(Bottom View)



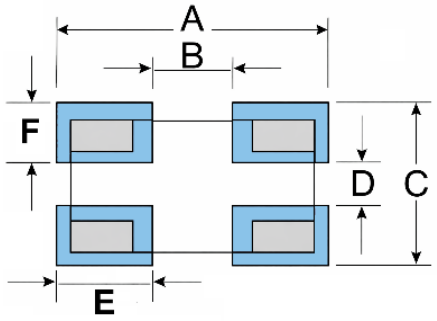
L	1.60±0.10 (0.063±0.004)
W	0.84±0.10 (0.033±0.004)
T	0.60±0.10 (0.024±0.004)
A	0.25±0.05 (0.010±0.002)
B	0.20±0.05 (0.008±0.002)
H	0.05±0.05 (0.002±0.002)
S	0.05±0.05 (0.002±0.002)

ORIENTATION IN TAPE



RECOMMENDED PAD LAYOUT DIMENSIONS:

millimeters (inches)



A	1.75±0.05 (0.069±0.002)
B	0.75±0.05 (0.029±0.002)
C	1.10±0.05 (0.043±0.002)
D	0.30±0.05 (0.011±0.002)
E	0.50±0.05 (0.020±0.002)
F	0.40±0.05 (0.016±0.002)

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

The Important Information/Disclaimer is incorporated in the catalog where these specifications came from or available online at www.kyocera-avx.com/disclaimer/ by reference and should be reviewed in full before placing any order.