

Octave and Broadband Directional Couplers



RLC Electronics' Broadband Directional Coupler provide the ultimate in flat coupling and high directivity over the 2 to 18 GHz band. These miniaturized units are ideal where stringent wide band specifications must be maintained.

Specifications

C-1-2-3

Model Number	Frequency Range (GHz)	Directivity Min (dB)	VSWR (Max)	Frequency Deviation (dB)	Loss Max. (dB)*
C-0205-	0.25-0.50	25	1.15	±0.75	0.20
C-0510-	0.50-1.00	25	1.15	±0.75	0.20
C-0912-	0.96-1.235	25	1.10	±0.25	0.15
C-1020-	1.00-2.00	20	1.15	±0.75	0.25
C-1530-	1.50-3.00	20	1.20	±0.75	0.25
C-2040-	2.00-4.00	20	1.25	±0.75	0.30
C-3060-	3.00-6.00	20	1.25	±0.75	0.35
C-4080-	4.00-8.00	18	1.35	±0.75	0.40
C-8012-	8.00-12.40	16	1.45	±0.75	0.40
C-12180-	12.40-18.00	15	1.50	±1.00	0.60
C-218-6** C-218-10** C-218-16**	2.00-18.00	15 < 12.4 12 > 12.4	1.5	±1.00	0.90 0.90 0.65
C-0770-10 C-0770-16 C-0770-20	0.7-7.0	20	1.25	±1.00	0.60

Coupling(Nominal): 6+/- .5dB, 10+/- .5dB, 20+/- 1.0dB 30+/- 1.0db

Power: 50 watts ave: C-218; 20 watts average. 5KW peak: C-218; 3 KW peak, C-0770, 50 watts average, 5KW peak

Impedance: 50 Ohms

Operation Curves: See page 101

Connector Type: SMA female

Temperature: -55 C to +85 C

Environment: MIL-E-5400, Class 1A

note: * Does not include coupling loss **Coupling referenced to output port.

Outlines: See page 101

To designate the coupler desired use:

1: 0205, 0510, etc for model number

2: Coupling value in dB

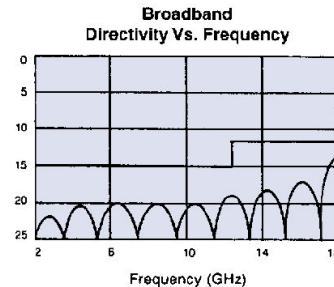
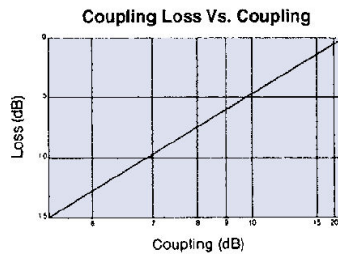
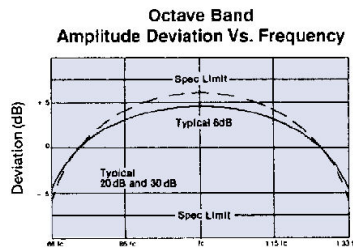
3: "T" for built in 2 watt termination, U for no termination.

C-218 and C-0770 are available with terminations only.

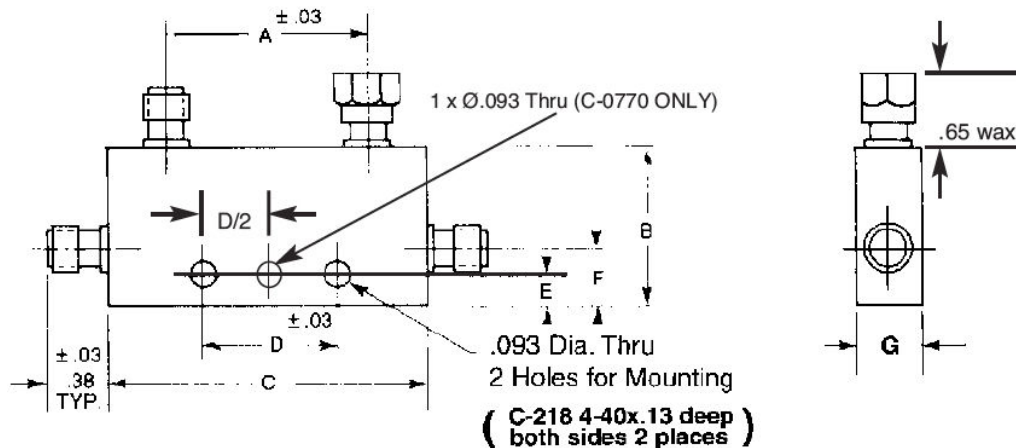
Example: C-2040-6-T a 6 dB coupler, 2 to 4 GHz frequency band, with internal termination



Typical Operating Curves



Outline Drawing



Model No.	A	B	C	D	E	F	G
C-0205	1.50	2.00	2.13	1.97	1.75	.31	.38
C-0510	2.64	.75	3.14	2.98	.50	.25	.38
C-0912	1.92	.75	2.43	2.27	.50	.25	.38
C-1020	1.32	.75	1.83	1.67	.50	.25	.38
C-1530	.96	.75	1.47	1.31	.50	.25	.38
C-2040	.66	.75	1.17	1.01	.50	.25	.36
C-3060	.50	.75	1.00	.84	.50	.25	.38
C-4080	.50	.75	1.00	.84	.50	.25	.38
C-8012	.50	.75	1.00	.84	.50	.25	.38
C-12180	.50	.75	1.00	.84	.50	.25	.38
C-218	1.63	.86	2.12	1.12	.44	.39	.53
C-0770	2.50	.68	3.00	2.00	.075	.25	.39



RLC ELECTRONICS, INC.

83 Radio Circle, Mount Kisco, New York 10549 - Telephone: 914-241-1334 - Fax: 914-241-1753
e-mail: sales@rlcelectronics.com - www.rlcelectronics.com