

CDCL-1 Series 1 GHz Directional Coupler



Description:

This Hi-Q series directional coupler is designed for wall plate mounting in a loop system, and has many other applications in the CATV plant. This series is ideally suited for precision signal management in digital two-way plants. Designed for superior performance in systems transporting both digital and analog signals where the highest isolation and RF performance are required. The Hi-Q design features SMT technology combined with premium quality ferrites and blocking capacitors on all ports for long-term stability in performance. It is available in tap values of 3, 6, 9, 12, 16, 20, and 24dB.

Features:

- L-type directional coupler (90 degree configuration)
- Output tap values: 3, 6, 9, 12, 16, 20 & 24dB
- 5-1010 MHz bandwidth
- 6KVA rated capacitors on output F ports that comply to IEE spec (C62.41 Cat A3)
- 360° degree 24K gold plated contacts
- Sealed F-ports that comply to SCTE specifications
- Low inter-modulation >110dB
- -120 dB RFI shielding
- Corrosion resistant die cast plated zinc housing
- Excellent quality, 100% factory QC tested
- CE approved

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Specifications:

PARAMETER	FREQUENCY (MHz)	CDCL-1-03		CDCL-1-06		CDCL-1-09		CDCL-1-12		CDCL-1-16		CDCL-1-20		CDCL-1-24	
		TYP.	QA.	TYP.	QA.	TYP.	QA.	TYP.	QA.	TYP.	QA.	TYP.	QA.	TYP.	QA.
Tap Loss Input to Tap Maximum (dB)	5-15	3.6	3.7	6.6	6.7	9.6	9.7	12.7	12.8	16.6	16.7	20.6	20.7	24.6	24.7
	15-50	3.6	3.7	6.6	6.7	9.6	9.7	12.7	12.8	16.6	16.7	20.6	20.7	24.6	24.7
	50-550	3.7	3.8	6.7	6.8	9.7	9.8	12.8	12.9	16.7	16.8	20.7	20.8	24.7	24.8
	550-750	3.7	3.8	6.7	6.8	9.7	9.8	12.8	12.9	16.7	16.8	20.7	20.8	24.7	24.8
	750-1010	3.8	4.0	6.9	7.0	9.8	10.0	12.9	13.0	16.8	17.0	20.8	21.0	24.8	25.0
Insertion Loss Input to Output Maximum (dB)	5-15	3.5	3.7	2.3	2.6	1.2	1.6	0.8	1.0	0.5	0.6	0.5	0.6	0.5	0.6
	15-50	3.5	3.7	2.2	2.6	1.2	1.6	0.8	1.0	0.5	0.6	0.5	0.6	0.5	0.6
	50-550	3.6	3.8	2.5	2.6	1.4	1.7	0.8	1.0	0.5	0.6	0.6	0.8	0.6	0.8
	550-750	3.6	3.8	2.6	2.8	1.8	2.0	1.0	1.2	0.6	0.8	0.7	0.8	0.7	0.8
	750-1010	3.8	4.0	2.6	3.2	1.8	2.1	1.2	1.3	0.8	1.0	0.8	1.0	0.8	1.0
Port/Port Isolation Output to Tap Minimum(dB)	5-15	25	24	28	25	26	25	32	30	32	30	36	35	35	32
	15-50	30	28	30	28	28	26	32	30	32	30	38	36	35	32
	50-550	30	28	32	27	27	25	30	28	30	28	35	32	35	32
	550-750	26	25	25	24	26	24	28	26	28	26	35	32	32	30
	750-1010	26	25	25	23	25	24	26	25	26	25	34	28	32	30
Return Loss Input / Output Minimum(dB)	5-15	22	22	22	20	22	20	20	19	19	18	25	24	20	19
	15-50	26	24	25	23	25	24	22	20	20	19	29	28	25	19
	50-550	25	24	24	21	24	23	26	24	22	20	29	28	22	20
	550-750	24	22	22	21	23	22	24	22	21	20	25	24	21	20
	750-1010	24	22	22	20	23	22	22	21	21	20	22	20	21	20
Return Loss Tap Port Minimum(dB)	5-15	22	22	22	20	22	20	20	19	19	18	25	24	20	19
	15-50	26	24	25	23	25	24	22	20	20	19	29	28	25	19
	50-550	25	24	24	21	24	23	26	24	22	20	29	28	22	20
	550-750	24	22	22	21	23	22	24	22	21	20	25	24	21	20
	750-1010	24	22	22	20	23	22	22	21	21	20	22	20	21	20
RFI (dB)	5-1010	-130	-120	-130	-120	-130	-120	-130	-120	-130	-120	-130	-120	-130	-120
Impedance	5-1010	75 Ohm													
Spurious Signals Including 2 nd Harmonics	-45dBmV after 6KV ring wave surge Measuring with a 55dBmV return input carrier														
Surge Protection	6KV Ring Wave Surge, IEEE C62,41 Cat A3														
Waterproof Test(Min)	15 PSI														
Operating Temperature	-40 degrees C to +60 degrees C														
Corrosion Resistance	Meets SCTE/ANSI Specification														

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