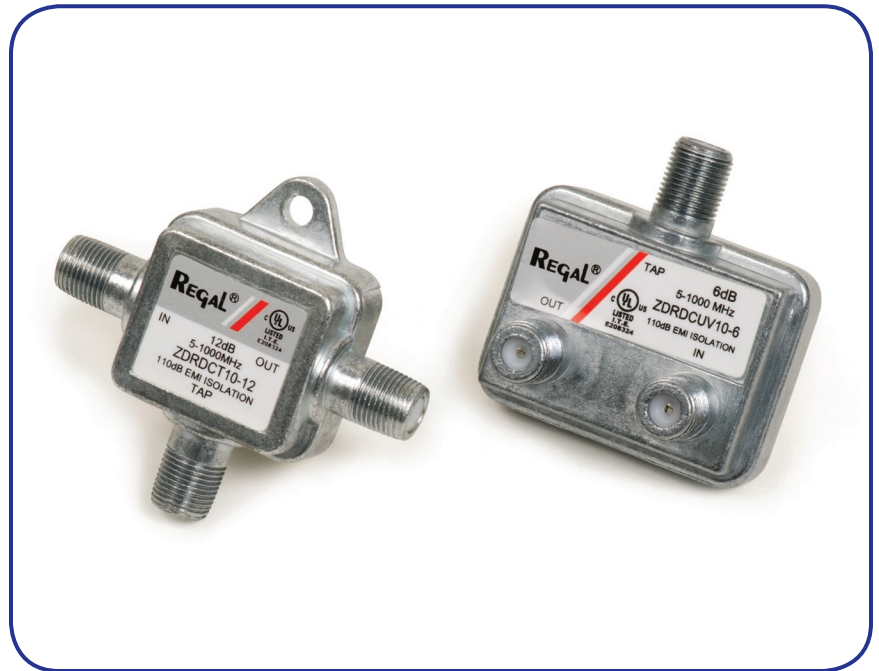




Regal®

1 GHz Zinc Directional Couplers



Features

- 1 GHz bandwidth with low loss characteristics
- Chromate treated zinc alloy housing resists corrosion and extends product life
- Housing design prohibits water migration
- Tin plated phosphorus bronze conical center conductor seizure mechanisms
- Includes 1kV blocking capacitors
- UL® compliance
- ½" flat sealed F-ports
- Standard 1" spacing between F-port
- Printed wiring board
- Prevents ferrite core saturation and magnetization
- Heavy duty mounting tabs ensure secure mounting
- Mechanical integrity maintains EMI isolation and prevents breakage of the epoxy weather seal
- Various range of tap values to accommodate many applications

Application

Regal Zinc Directional Couplers provide specified coupling (tap) signal loss between input and tap ports for a loop through system in a multiple dwelling unit. There are two distinct designs of single output directional couplers. The ZDRDCUV10 "L" shaped indoor/outdoor coupler is commonly used in conjunction with a wall plate. The tap port is fed through the center hole of the wall plate with the coupler positioned behind the wall. The ZDRDCT10 "T" type coupler is equipped with heavy duty mounting tabs for positioning in any convenient location.

Specifications

Intermodulation (spurious signals and 2nd harmonics): -45 dBmV w/+55 dBmV return, after 6kV ring wave surge

Surge withstand: 6kV, 200 amp, 100 kHz ring wave – IEEE 587 (C62.41 - 1991) Category A3 standard

"T" Configuration 1 GHz Zinc Directional Couplers

Model # ZDRDCT10-	4	6	9	12	16	20	24	27	30
Tap Loss (dB)	4	6.5	9.5	12	16	20	24	27	30

Tap Loss Tolerance

5-500 MHz	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0
501-600 MHz	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0
601-890 MHz	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0
891-1002 MHz	±1.0	±1.0	±1.0	±1.0	±1.0	±1.0	±1.2	±1.2	±1.2

Insertion Loss (dB) (Max)

5-10 MHz	3.5	1.7	1.3	0.9	0.7	0.7	0.7	0.7	0.7
11-400 MHz	3.7	1.8	1.4	0.9	0.7	0.7	0.7	0.7	0.7
401-500 MHz	3.9	2.1	1.5	1.0	0.8	0.8	0.8	0.8	0.8
501-600 MHz	4.0	2.5	1.7	1.2	0.8	0.8	0.8	0.8	0.8
601-890 MHz	4.5	3.0	2.2	1.6	1.2	1.0	1.0	1.0	1.0
891-1002 MHz	4.5	3.0	2.4	1.8	1.3	1.2	1.2	1.2	1.2

Return Loss (dB) (Min)

5-10 MHz	16	16	16	16	16	16	16	15	15
11-50 MHz	18	18	18	18	18	18	18	18	18
51-400 MHz	20	20	20	20	20	20	20	20	20
401-500 MHz	19	19	19	19	19	19	19	19	19
501-600 MHz	18	18	18	18	18	18	18	18	18
601-890 MHz	17	17	17	17	17	17	17	16	16
891-1002 MHz	16	16	16	16	16	16	16	16	16

Isolation (dB) (Min)

5-10 MHz	22	25	28	30	32	35	40	42	44
11-400 MHz	24	25	28	30	32	35	40	42	44
401-500 MHz	24	25	28	29	31	33	39	45	46
501-600 MHz	23	23	28	27	29	32	37	42	44
601-890 MHz	21	22	25	23	25	28	32	34	35
891-1002 MHz	20	22	22	22	25	30	30	32	34

EMI Shielding (dB) (Min)

5-1002 MHz	120	120	120	120	120	120	120	120	120
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Specifications are subject to change without notice

Specifications (cont'd)

Intermodulation (spurious signals and 2nd harmonics): -45 dBmV w/+55 dBmV return, after 6kV ring wave surge

Surge withstand: 6kV, 200 amp, 100 kHz ring wave – IEEE 587 (C62.41 - 1991) Category A3 standard

"L" Configuration 1GHz Zinc Directional Couplers

Model # ZDRDCU10-	4	6	9	12	16	20	24	27	30
Tap Loss (dB)	3.7	7	9	12	16.5	20	23.7	27	30
Tap Loss Tolerance-	4	6	9	12	16	20	24	27	30
5-500 MHz	±1.2	±1.0	±1.0	±1.0	±1.0	±1.3	±1.0	±1.3	±1.3
501-600 MHz	±1.2	±1.2	±1.3	±1.0	±1.5	±1.3	±1.0	±1.3	±1.3
601-890 MHz	±1.3	±1.5	±1.3	±1.2	±1.5	±1.3	±1.0	±1.5	±1.3
891-1002 MHz	±1.8	±1.2	±1.0	±1.5	±1.2	±1.0	±1.2	±1.7	±1.5

Insertion Loss (dB) (Max)

5-10 MHz	3.5	1.7	1.3	0.9	0.7	0.7	0.7	0.7	0.7
11-400 MHz	3.7	1.8	1.3	0.9	0.7	0.7	0.7	0.7	0.7
401-500 MHz	3.9	2.0	1.5	1.1	0.8	0.8	0.8	0.8	0.8
501-600 MHz	4.0	2.2	1.7	1.2	0.8	0.8	0.8	0.8	0.8
601-890 MHz	4.5	2.6	2.0	1.4	1.2	1.2	1.2	1.2	1.2
891-1002 MHz	4.5	2.8	2.2	1.6	1.4	1.2	1.2	1.2	1.2

Return Loss (dB) (Min)

5-10 MHz	16	16	16	16	16	16	16	16	16
11-50 MHz	18	18	18	18	18	18	18	18	18
51-400 MHz	20	20	20	20	20	20	20	20	20
401-500 MHz	19	19	19	19	19	19	19	19	19
501-600 MHz	18	18	18	18	18	18	18	18	18
601-890 MHz	17	17	17	17	17	17	17	17	17
891-1002 MHz	16	16	16	16	16	16	16	16	16

Isolation (dB) (Min)

5-10 MHz	20	25	28	29	32	35	40	42	44
11-400 MHz	24	27	28	30	32	35	40	42	44
401-500 MHz	24	25	28	29	31	33	40	45	46
501-600 MHz	23	24	28	27	29	32	37	42	44
601-890 MHz	21	23	25	23	25	28	32	34	35
891-1002 MHz	20	22	22	22	25	30	30	32	34

EMI Shielding (dB) (Min.)

5-1002 MHz	110	110	110	110	110	110	110	110	110
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Specifications are subject to change without notice

1 GHz Zinc Directional Couplers

Ordering Information

A RRIS#	Mfg#	Description
709810	ZDRDCT10-4	Directional Coupler, T-Type, 4 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709811	ZDRDCT10-6	Directional Coupler, T-Type, 6 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709812	ZDRDCT10-9	Directional Coupler, T-Type, 9 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709813	ZDRDCT10-12	Directional Coupler, T-Type, 12 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709814	ZDRDCT10-16	Directional Coupler, T-Type, 16 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709815	ZDRDCT10-20	Directional Coupler, T-Type, 20 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709816	ZDRDCT10-24	Directional Coupler, T-Type, 24 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709817	ZDRDCT10-27	Directional Coupler, T-Type, 27 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709818	ZDRDCT10-30	Directional Coupler, T-Type, 30 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709837	ZDRDCU10-4	Directional Coupler, L-Type, 4 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709838	ZDRDCU10-6	Directional Coupler, L-Type, 6 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709839	ZDRDCU10-9	Directional Coupler, L-Type, 9 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709840	ZDRDCU10-12	Directional Coupler, L-Type, 12 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709841	ZDRDCU10-16	Directional Coupler, L-Type, 16 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709842	ZDRDCU10-20	Directional Coupler, L-Type, 20 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709843	ZDRDCU10-24	Directional Coupler, L-Type, 24 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709844	ZDRDCU10-27	Directional Coupler, L-Type, 27 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated
709845	ZDRDCU10-30	Directional Coupler, L-Type, 30 dB, Digital Capable with 360 Conical Seizure Mechanism, Flat F-Ports, UL® Listed, 110 dB EMI, Zinc Plated

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