

ODCR directional couplers

- **Compatible with Regal RLDC directional couplers**
- **Excellent RF and hum modulation performance**
- **Designed for extreme environmental conditions**



Overview

ODCR outdoor directional couplers are compatible with Regal RLDC directional couplers. The ODCR series offers a variety of tap losses and provides excellent RF performance. ODCR couplers feature 5/8"-24 NEF-female ports for in and output cable connection on the housing.

The couplers may be strand mounted through the clamp at the back of the housing or surface mounted with an optional bracket. Tested under extreme environmental conditions, the couplers are designed to operate near salt water, along busy highways and in very hot conditions.

Line passives (directional couplers)

ODCR directional couplers

Specifications

		MHz	8dB		12dB		16dB	
			Typ	Max	Typ	Max	Typ	Max
Insertion loss (dB)	In to Out	5-65	1.5	1.9	0.8	1.2	0.7	1.1
		65-300	1.8	2.2	1.0	1.4	0.8	1.2
		300-550	2.2	2.6	1.3	1.7	1.0	1.4
		550-750	2.4	2.8	1.5	1.9	1.1	1.5
		750-862	2.6	3.0	1.6	2.0	1.6	2.0
		862-1006	2.6	3.0	1.7	2.1	1.4	1.8
	In to Tap	5-1006	8.6	10.0	11.4	14.0	15.7	17.0
Return loss (dB, typ)	All ports	5-15	19.2		20.0		22.1	
		15-550	22.3		24.1		27.0	
		550-1006	26.1		28.3		24.5	
Directivity	Out to Tap		Typ	Min	Typ	Min	Typ	Min
		5-65	36.4	22.0	30.9	22.0	41.1	22.0
		65-550	32.1	22.0	28.7	22.0	36.9	22.0
		550-1006	27.4	20.0	24.7	20.0	29.3	20.0
Screening efficiency (dB) ¹		5-300	>95					
		300-470	>90					
		470-950	>85					
		950-1000	>85					
Shielding effectiveness (dBi) ²		5-300	Avg 120					
		300-1000	Avg 110					
Power passing (Amps AC/DC)		15						
Hum modulation (dB, min) ³	All ports	-70						
Surge Class conformance ⁴	All ports	6KV combination wave 2 Ω 1.2/50µs (Combination wave C3)						
Material	Housing	Aluminum						
Impedance (Ohm, typ)		75						
Dimensions (mm)	L x H x D	140x112x72						
Equipment Approval	CE							

Remarks

- 1 Tested according to EN 50083-2 2006
- 2 Tested according to SCTE IPS-TP-403
- 3 At 10 Amp power passing
- 4 Tested according to IEC 61000-4-5 2006

Ordering information

Item Name	Article number
ODCR-08	10470132
ODCR-12	10470133
ODCR-16	10470134

Measurements taken at room temperature

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Mechanical & environmental specifications

Performance parameter		Details
Connectors	Input & Output	KS-female (5/8"-24NEF)
Water Immersion (IP08)	Tighten torque on connectors Water Head Duration Observation: No Water leak	2.26Nm (< 20 In-Lb) 2m (6.56 ft) 500 hrs No electrical degradation after dry
Temperature cycling with humidity (EN 60068-2-30:2005)	Temperature Extreme temp duration Transient Humidity Number of cycles Observation: (no water leakage)	+4°C to +60°C (+39.2°F to +140°F) 3 hrs 3 hrs 95% RH 20 No electrical degradation after dry
High Temperature cycling (EN 60068-2-2:2007)	Temperature Duration Observation: No crack or damage	+60°C (+140°F) 48 hrs No electrical degradation after dry
Drop Test (EN 60068-2-32:1993 , IEC 68-2-32:1975)	75cm (29.5 in) high onto concrete floor or metal plate surface Number of drop for each impact points Observation: No crack on metal	Corner, Edge & Port 1 No electrical performance degradation
Salt Fog (MSTM-B-117)	Tighten torque on connectors Temperature Salt percentage & Acidity Duration Number of cycles Observation: (No electrical performance degradation)	2.26Nm (< 20 In-Lb) +35°C (+95°F) 5% & pH7 1000 hrs Continues No metal corrosion or salt incursion
WEEE (2002/96/EC)	Complete product	Marked with wheelie bin logo
RoHS (2002/95/EC)	Complete product	Complies to RoHS
Temperature	Operating temperature	-40°C to +60°C (-40°F to +140°F)

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