

## OTR 8-way outdoor taps



- Compatible with Regal RMT2002 taps
- Ingress Safe™ - unique passive ingress reduction technology
- AC-RF bypass switch, allowing faceplates to be changed without loss of power or RF
- Designed for extreme environmental conditions
- Option to incorporate plug-in conditioning modules
- Faceplate only option available



### Overview

OTR 8-way outdoor taps are compatible with Regal RMT2002 series taps. Providing integrated Ingress Safe™ noise reduction technology, 6 kV surge protection and excellent RF performance, OTR taps feature sealed female F-ports for drop cable connection on the faceplate and 5/8"-24 NEF-female ports for in and output cable connection on the housing. The housing has an AC-RF bypass switch as standard, allowing faceplates to be changed without loss of power or RF through the tap housing.

The taps 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 taps are designed to operate near salt water, along busy highways and in very hot conditions.

As an option these taps can accept field configurable plug-in modules which provide increased flexibility in system design. It is possible to use cable equalizers, return path attenuators, and cable simulators in order to fine-tune return path performance.

#### Ingress Safe

Our patented Ingress Safe technology uses a phase cancellation technique to considerably reduce ingress created within the home. It has no adverse effect on the CATV spectrum and is transparent to the forward and reverse path signals.

- Significantly reduces noise on CATV networks, improving network performance
- Field tests show Ingress Safe units in the distribution network can deliver improvement in the carrier to noise ratio that averages from between 3 dB and 12 dB, depending on the network topology
- Prevents or delays the need to deploy technicians to rectify faults caused by the cumulative effects of ingress on network performance and customer service.

#### CPD Safe

CPD (Common Path Distortion) is well known for producing signal interference on networks. It is caused by electrolytic corrosion or the oxidisation of dissimilar metals when in close contact.

- Removes a primary cause of CPD
- Reduces signal interference on the network
- Drives fewer reported faults
- Reduces truck rolls
- Improves customer service

## Specifications

		MHz	11dB		14dB		17dB		20dB		23dB		26dB		29dB		32dB		
			Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	
Insertion loss (dB) <sup>1</sup>	In to Out	5-65	N/A		3.2	3.6	1.2	1.6	0.8	1.2	0.6	1.0	0.3	0.7	0.3	0.7	0.3	0.7	
		65-300	N/A		3.5	3.9	1.5	1.9	1.0	1.4	0.8	1.2	0.5	0.9	0.4	0.8	0.4	0.8	
		300-550	N/A		4.3	4.7	2.1	2.5	1.5	1.9	1.2	1.6	1.0	1.4	0.8	1.2	0.8	1.2	
		550-750	N/A		4.5	4.9	2.4	2.8	1.7	2.1	1.3	1.7	1.1	1.5	0.9	1.3	0.9	1.3	
		750-862	N/A		4.6	5.0	2.7	3.1	2.0	2.4	1.6	2.0	1.3	1.7	1.2	1.6	1.2	1.6	
		862-1006	N/A		4.7	5.2	2.7	3.2	2.0	2.5	1.6	2.1	1.4	1.9	1.2	1.7	1.2	1.7	
	In to Tap	5-65	10.5	12.0	14.1	15.0	17.4	18.0	19.3	21.0	22.9	24.0	25.9	27.0	28.7	30.0	32.0	33.0	
		65-550	11.0	12.0	14.0	15.0	17.5	18.0	19.4	21.0	23.0	24.0	26.1	27.0	28.7	30.0	32.0	33.0	
		550-1006	12.3	13.0	14.8	16.0	17.7	19.0	19.4	22.0	23.0	25.0	25.8	28.0	28.2	31.0	32.0	34.0	
	Return loss (dB, typ)	All ports	5-65	27.5		30.2		26.6		27.1		27.0		31.1		30.4		29.8	
			15-550	27.1		28.4		27.4		26.5		27.6		28.1		28.9		28.1	
			550-1006	22.8		22.8		24.4		24.5		24.1		23.3		24.8		23.0	
Isolation (dB)	In to Tap	5-65	40.0	25.0	34.7	25.0	37.2	25.0	36.7	25.0	37.2	25.0	39.2	25.0	39.3	25.0	37.5	25.0	
		65-550	34.5	25.0	38.8	25.0	37.2	25.0	36.6	25.0	34.1	25.0	36.9	25.0	38.0	25.0	34.5	25.0	
		550-1006	27.7	22.0	33.4	22.0	34.3	22.0	33.6	22.0	30.0	22.0	30.9	22.0	31.7	22.0	29.0	22.0	
Directivity	Out to Tap	5-65	N/A		39.2	27.0	32.6	29.0	36.1	31.0	47.3	33.0	52.8	35.0	55.5	37.0	53.5	39.0	
		65-550	N/A		35.0	27.0	34.6	29.0	38.0	31.0	45.6	33.0	47.1	35.0	49.7	37.0	55.5	39.0	
		550-1006	N/A		31.2	24.0	39.0	26.0	31.5	28.0	38.5	30.0	39.5	32.0	40.7	34.0	52.0	36.0	
Screening efficiency (dB) <sup>2</sup>	5-300	>95																	
	300-470	>90																	
	470-950	>85																	
	950-1000	>85																	
Shielding effectiveness (dBi) <sup>3</sup>	5-300	Avg 120																	
	300-1000	Avg 110																	
Ingress Safe		Ports 3,4,7,8																	
Power passing (Amps AC/DC) <sup>4</sup>		12																	
Hum modulation (dB, min) <sup>5</sup>	All ports	-70																	
DC power blocking		All F ports																	
Surge Class conformance <sup>6</sup>	All ports	6KV combination wave 2 Ω 1.2/50µs (Combination wave C3)																	
Impedance (Ohm, typ)		75																	
Dimensions (mm)	L x H x D	139.1x117.5x74.5																	
Equipment Approval		CE																	

### Ordering information

#### Remarks

- Ports 3,4,7,8 has an additional 0.4 dB loss due to Ingress Safe circuitry
- According to EN 50083-2 2006
- Tested according to SCTE IPS-TP-403
- Range between 60-90 VAC/ VDC
- At 10 Amp power passing
- Tested according to IEC 61000-4-5 2005  
Measurements taken at room temperature

Item Name	Article number	Item Name	Article number	Item Name	Article number
OTR-8-11/IC-T	19003751	OTRF-8-11/I-T	19003800	OTR-8-11/I-T	10470095
OTR-8-14/IC	19003752	OTRF-8-14/I	19003801	OTR-8-14/I	10470096
OTR-8-17/IC	19003753	OTRF-8-17/I	19003802	OTR-8-17/I	10470097
OTR-8-20/IC	19003754	OTRF-8-20/I	19003803	OTR-8-20/I	10470098
OTR-8-23/IC	19003755	OTRF-8-23/I	19003804	OTR-8-23/I	10470099
<b>OTR-8-26/IC</b>	<b>19003756</b>	OTRF-8-26/I	19003805	OTR-8-26/I	10470100
OTR-8-29/IC	19003757	OTRF-8-29/I	19003806	OTR-8-29/I	10470101
OTR-8-32/IC	19003758	OTRF-8-32/I	19003807	OTR-8-32/I	10470102

## Mechanical & environmental specifications

Performance parameter		Details
<b>Port Sealing</b>	Environmental (epoxy) seal	All F-ports
<b>Connectors</b>	Input & Output Tap ports ANSI/SCTE 01 (Outdoor) comply F-connector Torque F-connector Brass with NiSn (60/40) plating F connector Inserts F-inner spring with Ag plating	KS-female (5/8"-24NEF) TAP ports - F Female All F-ports 10Nm (88.51 In-Lb) >1.5µm >0.6µm
<b>Water Immersion</b> (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
<b>Temperature cycling with humidity</b> (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 60 No electrical degradation after dry
<b>High Temperature cycling</b> (EN 60068-2-2:2007)	Temperature Duration Observation: No crack or damage	+60°C (+140°F) 48 hrs No electrical degradation after dry
<b>Drop Test</b> (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
<b>Salt Fog</b> (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) +25°C 5% & pH7 8hrs on-16hrs off 20 No metal corrosion or salt incursion
<b>WEEE</b> (2002/96/EC)	Complete product	Marked with wheelie bin logo
<b>RoHS</b> (2002/95/EC)	Complete product	Complies to RoHS
<b>Temperature</b>	Operating temperature	-40°C to +60°C (-40°F to +140°F)

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