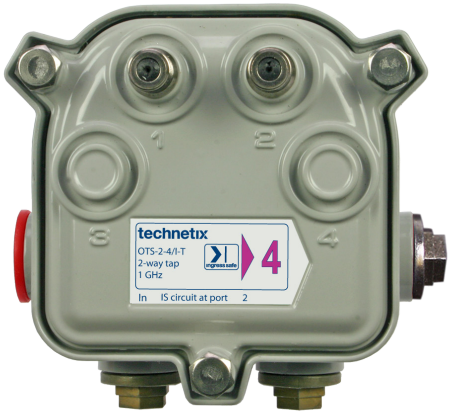
OTS 2-way outdoor taps

- **Compatible with standard Scientific Atlanta 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

OTS outdoor passives are compatible with standard Scientific Atlanta taps. The series includes 8-, 4- and 2-way taps with a variety of tap losses. Providing integrated Ingress Safe™ noise reduction technology, 6 kV surge protection and excellent RF performance, the 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

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Specifications

		MHz	4dB		8dB		11dB		14dB		17dB		20dB	
Insertion loss (dB)[1]	In to Out		Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max
		5-65	N/A		3.1	3.5	1.3	1.7	0.7	1.1	0.7	1.1	0.3	0.7
		65-300			3.4	3.8	1.4	1.8	0.9	1.3	0.8	1.2	0.5	0.9
		300-550			4.1	4.5	2.0	2.4	1.4	1.8	1.3	1.7	0.9	1.3
		550-750			4.3	4.7	2.3	2.7	1.6	2.0	1.4	1.8	1.0	1.4
		750-862			4.4	4.8	2.5	2.9	1.9	2.3	1.6	2.0	1.2	1.6
		862-1006			4.4	4.9	2.5	3.0	1.9	2.4	1.7	2.2	1.2	1.7
	In to Tap	5-65	4.0	4.0	7.7	9.0	11.2	12.0	14.2	15.0	16.7	18.0	19.8	21.0
		65-550	4.1	4.5	7.6	9.0	11.2	12.0	14.2	15.0	16.7	18.0	19.8	21.0
		550-1006	4.6	5.0	7.7	9.0	11.1	12.5	14.2	15.0	17.0	18.0	20.1	22.0
Return loss (dB, typ)	All ports	5-15	30.1		32.9		22.9		28.3		28.5		34.9	
		15-550	28.1		31.4		26.6		29.7		30.8		31.9	
		550-1006	27.6		30.0		28.7		25.8		25.4		27.6	
Isolation (dB)	In to Tap		Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min
		5-65	36.8	25.0	30.7	25.0	29.6	25.0	30.9	25.0	33.7	25.0	37.4	25.0
		65-550	32.6	25.0	32.9	25.0	34.7	25.0	33.9	25.0	35.9	25.0	33.4	25.0
		550-1006	30.1	22.0	25.7	22.0	30.0	22.0	31.9	22.0	31.5	22.0	29.2	22.0
Directivity	Out to Tap	5-65	N/A		27.0	25.0	31.8	27.0	30.2	29.0	35.2	31.0	48.2	33.0
		65-550			28.8	25.0	34.3	27.0	31.0	29.0	38.1	31.0	43.2	33.0
		550-1006			27.9	22.0	29.2	24.0	27.0	26.0	39.3	28.0	39.7	30.0
Screening efficiency (dB)[2]		5-300	>95											
		300-470	>90											
		470-950	>85											
		950-1000	>85											
Shielding effectiveness (dBi)[3]		5-300	Avg 120											
		300-1000	Avg 110											
Ingress Safe		Port 2												
Power passing (Amps AC/DC)[4]		12												
Hum modulation (dB,	All ports	-70												
Surge Class	All ports	6KV combination wave 2 Ω 1.2/50µs (Combination wave C3)												
Impedance (Ohm, typ)		75												
Dimensions (mm)	L x H x D	95.7x94.8x72.2												
Equipment Approval	CE													

Remarks

1	Port 2 has an additional 0.4 dB loss due to Ingress Safe circuitry
2	According to EN 50083-2 2006
3	Tested according to SCTE IPS-TP-403
4	Range between 60-90 VAC/ VDC
5	At 10 Amp power passing
6	Tested according to IEC 61000-4-5 2005
	Measurements taken at room temperature
	23 dB, 26 dB, 29 dB, and 32 dB also available

Ordering information

Item Name	Article nb.
OTS-2-4/I-T	10480940
OTS-2-8/I	10480941
OTS-2-11/I	10480942
OTS-2-14/I	10480943
OTS-2-17/I	10480944
OTS-2-20/I	10480945
OTS-2-23/I	10480946
OTS-2-26/I	10480947

Item Name	Article nb.
OTS-2-4/IC-T	19003759
OTS-2-8/IC	19003760
OTS-2-11/IC	19003761
OTS-2-14/IC	19003762
OTS-2-17/IC	19003763
OTS-2-20/IC	19003764

Item Name	Article nb.
OTS-2-4/I-T-F	19001784
OTS-2-8/I-FP	19001814
OTS-2-11/I-FP	19001815
OTS-2-14/I-FP	19001816
OTS-2-17/I-FP	19001817
OTS-2-20/I-FP	19001818

Item Name	Article nb.
OTSF-2-4/IC-T	19003808
OTSF-2-8/IC	19003809
OTSF-2-11/IC	19003810
OTSF-2-14/IC	19003811
OTSF-2-17/IC	19003812
OTSF-2-20/IC	19003813

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Mechanical & environmental specifications

Performance parameter		Details
Port Sealing	Environmental (epoxy) seal	All F-ports
Connectors	Input & Output	KS-female (5/8"-24NEF)
	Tap ports	TAP ports - F Female
	ANSI/SCTE 01 (Outdoor) comply	All F-ports
	F-connector Torque	10Nm (88.51 In-Lb)
	F-connector Brass with NiSn (60/40) plating	>1.5µm
	F connector Inserts F-inner spring with Ag plating	>0.6µm
Water Immersion	Tighten torque on connectors	2.26Nm (< 20 In-Lb)
(IP08)	Water Head	2m (6.56 ft)
	Duration	500 hrs
	Observation: No Water leak	No electrical degradation after dry
Temperature cycling with humidity	Temperature	+4°C to +60°C (+39.2°F to +140°F)
	Extreme temp duration	3 hrs
	Transient	3 hrs
	Humidity	95% RH
	Number of cycles	20
	Observation: (no water leakage)	No electrical degradation after dry
High Temperature cycling	Temperature	+60°C (+140°F)
(EN 60068-2-2:2007)	Duration	48 hrs
	Observation: No crack or damage	No electrical degradation after dry
Drop Test	75cm (29.5 in) high onto concrete floor or metal plate surface	Corner, Edge & Port
(EN 60068-2-32:1993 ,	Number of drop for each impact points	1
IEC 68-2-32:1975)	Observation: No crack on metal	No electrical performance degradation
Salt Fog	Tighten torque on connectors	2.26Nm (< 20 In-Lb)
(MSTM-B-117)	Temperature	+35°C (+95°F)
	Salt percentage & Acidity	5% & pH7
	Duration	1000 hrs
	Number of cycles	Continues
	Observation: (No electrical performance degradation)	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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