

ARRIS Taps

9000-L Power Bypass Tap 1 GHz Multi-Tap

FEATURES

- 1 GHz bandwidth capacity
- Brass SCTE F-ports with drip lips and rubber boots provide water resistance
- Environmental coating on the housing provides excellent corrosion resistance
- Strip gauges and heat-shrink ridges and 90° rotating seizure mechanism for easy installation
- 2.5 kV surge resistance, which meets ANS/IEEE C62.41-1991, Class B, 2500 V surge
- Network power capacity of 90 VDC and VAC up to 60 Hz
- Improved power passing circuitry handles 12 A continuous current
- Improved low-frequency performance (5 MHz) increases return bandwidth
- Increased hard-line port lengths improve heat shrink/weather seal
- Continuous RF signal and AC power bypass circuit eliminates service interruptions when faceplates are removed
- A 90° rotating seizure mechanism makes installation easy
- 9000-L-PBT faceplates are interchangeable between other 9000-L-PBT housings



APPLICATION

The ARRIS 9000-L Power Bypass Tap (PBT) series 1 GHz multi-tap device taps off part of the input RF signal, dividing it into multiple outputs and allowing remaining signal to pass through. A multi-tap combines a directional coupler and splitter to produce a specific value or signal loss from the multi-tap's input to its tap ports and are available in 2-way, 4-way, and 8-way models that offer 2-, 4-, and 8-tap ports, respectively. The compact design fits easily into a 6-inch pedestal.

The aluminum die-cast housing is pressure tested to 10 psi and coated with a protective finish, providing excellent corrosion resistance. Rubber boots inside the brass SCTE F-ports provide water resistance. A single alloy at contact points eliminates the galvanic couple and corrosion that accompanies aluminum-to-brass connections. F-ports contain not only rubber boots providing water resistance, but also a capacitor blocking hum modulation originating from the subscriber home and additionally, protection from transients traveling on subscriber drop cables. The AC power bypass circuit eliminates service interruptions while faceplates are removed. The 12 A current rating meets future system requirements.

9200-L-PBT 2-WAY TAP SPECIFICATIONS

	Freq. MHz	9204	9208	9211	9214	9217	9220	9223	9226	9229	9232	Temp
Attenuation (In-Tap) dB	5-6	4.0 ± 2.0	8.0 ± 2.5	11.0 ± 2.0	14.0 ± 2.0	17.0 ± 2.0	19.0 ± 2.0	22.0 ± 2.0	25.0 ± 2.0	28.0 ± 2.0	31.0 ± 2.0	± 0
	6-10	4.0 ± 2.0	8.0 ± 2.0	11.0 ± 2.0	14.0 ± 2.0	17.0 ± 2.0	20.0 ± 2.0	23.0 ± 2.0	26.0 ± 2.0	29.0 ± 2.0	32.0 ± 2.0	± 0
	10-20	4.0 ± 1.5	8.0 ± 1.5	11.0 ± 1.5	14.0 ± 1.5	17.0 ± 1.5	20.0 ± 1.5	23.0 ± 1.5	26.0 ± 1.5	29.0 ± 1.5	32.0 ± 1.5	± 0
	20-900	4.0 ± 1.5	8.0 ± 1.5	11.0 ± 1.5	14.0 ± 1.5	17.0 ± 1.5	20.0 ± 1.5	23.0 ± 1.5	26.0 ± 1.5	29.0 ± 1.5	32.0 ± 1.5	± 1
	900-1002	4.0 ± 2.0	8.0 ± 2.0	11.0 ± 2.0	14.0 ± 2.0	17.0 ± 2.0	20.0 ± 2.0	23.0 ± 2.0	26.0 ± 2.0	29.0 ± 2.0	32.0 ± 2.0	± 1
Insertion Loss max (in-out, dB)	5	—	3.5	2.1	1.2	1.0	1.1	0.8	0.8	0.8	0.8	+0.1
	10	—	3.4	2.0	1.0	0.9	1.0	0.6	0.6	0.6	0.6	+0.1
	30	—	3.3	1.9	0.9	0.7	0.7	0.6	0.6	0.6	0.6	+0.1
	50	—	3.3	1.8	0.9	0.7	0.7	0.6	0.6	0.6	0.6	+0.1
	100	—	3.3	1.8	0.9	0.8	0.8	0.6	0.6	0.6	0.6	+0.1
	330	—	3.3	2.0	1.1	1.0	0.9	0.7	0.7	0.7	0.7	+0.1
	450	—	3.8	2.2	1.1	1.1	0.9	0.8	0.8	0.8	0.8	+0.1
	550	—	4.0	2.3	1.2	1.1	1.0	0.9	0.9	0.9	0.9	+0.1
	600	—	4.2	2.4	1.3	1.2	1.0	0.9	0.9	0.9	0.9	+0.2
	750	—	4.7	2.6	1.4	1.3	1.2	1.0	1.0	1.0	1.0	+0.2
Isolation min (Out-Tap, dB)	862	—	5.1	2.8	1.6	1.5	1.4	1.2	1.2	1.2	1.2	+0.2
	1002	—	5.4	3.2	1.9	1.6	1.6	1.4	1.4	1.4	1.4	+0.2
	5-6	—	15	15	19	23	26	28	30	32	34	±0
	6-10	—	15	15	19	23	28	30	33	34	36	±0
	10-30	—	20	20	20	24	29	30	34	34	36	±0
	30-750	—	22	24	26	30	33	36	38	40	42	±0
Isolation (Out-Tap) Min (dB)	750-1002	—	20	22	25	28	31	34	36	38	40	±0
	5-10	15	15	15	15	15	15	15	15	15	15	-1.0
	10-30	20	20	20	20	20	20	20	20	20	20	-1.0
	30-450	25	25	25	25	25	25	25	25	25	25	-1.0
	450-750	23	23	23	23	23	23	23	23	23	23	-1.0
Return Loss min (in & out, dB)	750-1002	20	20	20	20	20	20	20	20	20	20	-1.0
	5-10	15	14	15	15	15	15	15	15	15	15	-1.0
	10-30	17	17	17	17	17	17	17	17	17	17	-1.0
	30-600	18	18	18	18	18	18	18	18	18	18	-1.0
	600-900	17	17	17	17	17	17	17	17	17	17	-1.0
Return Loss min (Tap, dB)	900-1002	15	15	15	15	15	15	15	15	15	15	-1.0
	5-10	15	13	15	15	15	15	15	15	15	15	-1.0
	10-30	16	16	16	16	16	16	16	16	16	16	-1.0
	30-600	18	18	18	18	18	18	18	18	18	18	-1.0
	600-900	16	16	16	16	16	16	16	16	16	16	-1.0
Hum Modulation (Out-Tap) Min (dB)	900-1002	15	15	15	15	15	15	15	15	15	15	-1.0
	5-10	—	-58	-58	-58	-58	-58	-58	-58	-58	-58	-1.0
	10-30	—	-64	-64	-64	-64	-64	-64	-64	-64	-64	-1.0
	30-450	—	-70	-70	-70	-70	-70	-70	-70	-70	-70	-1.0
	450-750	—	-64	-64	-64	-64	-64	-64	-64	-64	-64	-1.0
RFI Max (dB)	750-1002	—	-60	-60	-60	-60	-60	-60	-60	-60	-60	-1.0
	5-600	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-1.0
	600-1002	-90	-90	-90	-90	-90	-90	-90	-90	-90	-90	-1.0

9400-L-PBT 4-WAY TAP SPECIFICATIONS

	Freq. MHz	9408	9411	9414	9417	9420	9423	9426	9429	9432	9435	Temp
Attenuation (In-Tap) dB	5-6	8.0 ± 2.0	13.0 ± 2.5	14.0 ± 2.0	17.0 ± 2.0	20.0 ± 2.0	23.0 ± 2.0	25.0 ± 2.0	28.0 ± 2.0	31.0 ± 2.0	34.0 ± 2.0	± 0
	6-10	8.0 ± 2.0	12.0 ± 2.0	14.0 ± 2.0	17.0 ± 2.0	20.0 ± 2.0	23.0 ± 2.0	26.0 ± 2.0	29.0 ± 2.0	32.0 ± 2.0	35.0 ± 2.0	± 0
	10-20	8.0 ± 1.5	11.0 ± 1.5	14.0 ± 1.5	17.0 ± 1.5	20.0 ± 1.5	23.0 ± 1.5	26.0 ± 1.5	29.0 ± 1.5	32.0 ± 1.5	35.0 ± 1.5	± 0
	20-900	8.0 ± 1.5	11.0 ± 1.5	14.0 ± 1.5	17.0 ± 1.5	20.0 ± 1.5	23.0 ± 1.5	26.0 ± 1.5	29.0 ± 1.5	32.0 ± 1.5	35.0 ± 1.5	± 1
	900-1002	8.0 ± 1.5	11.0 ± 2.5	14.0 ± 2.3	17.0 ± 2.2	20.0 ± 2.0	23.0 ± 1.9	26.0 ± 1.7	29.0 ± 1.6	32.0 ± 1.8	35.0 ± 2.0	± 1
Insertion Loss max (in-out, dB)	5	—	3.8	2.1	1.5	1.1	1.1	0.8	0.8	0.8	0.8	+0.1
	10	—	3.6	2.0	1.4	1.0	1.0	0.7	0.7	0.7	0.7	+0.1
	30	—	3.5	1.8	1.1	0.7	0.7	0.5	0.5	0.5	0.5	+0.1
	50	—	3.5	1.8	1.1	0.7	0.7	0.5	0.5	0.5	0.5	+0.1
	100	—	4.0	1.8	1.1	0.8	0.7	0.5	0.5	0.5	0.5	+0.1
	330	—	4.3	2.1	1.3	1.0	0.9	0.7	0.7	0.7	0.7	+0.1
	450	—	4.3	2.3	1.4	1.0	0.9	0.8	0.8	0.8	0.8	+0.1
	550	—	4.4	2.4	1.5	1.1	1.0	0.9	0.9	0.9	0.9	+0.1
	600	—	4.7	2.5	1.5	1.1	1.0	0.9	0.9	0.9	0.9	+0.2
	750	—	5.1	2.7	1.6	1.2	1.2	1.0	1.0	1.0	1.0	+0.2
Isolation min (Out-Tap, dB)	862	—	5.2	3.0	1.8	1.4	1.1	1.1	1.1	1.1	1.1	+0.2
	1002	—	5.4	3.3	2.1	1.6	1.6	1.4	1.4	1.4	1.4	+0.2
	5-6	—	17	19	21	25	29	30	32	35	38	±0
	6-10	—	17	20	21	25	29	32	32	36	41	±0
	10-30	—	20	21	22	27	30	34	34	36	42	±0
Isolation (Out-Tap) Min (dB)	30-750	—	24	27	30	33	36	38	40	42	44	±0
	750-1002	—	22	25	28	31	34	36	38	40	42	±0
	5-10	15	15	15	15	15	15	15	15	15	15	-1.0
	10-30	20	20	20	20	20	20	20	20	20	20	-1.0
	30-450	25	25	25	25	25	25	25	25	25	25	-1.0
Return Loss min (in & out, dB)	450-750	23	23	23	23	23	23	23	23	23	23	-1.0
	750-1002	20	20	20	20	20	20	20	20	20	20	-1.0
	5-10	15	13	15	15	15	15	15	15	15	15	-1.0
	10-30	17	16	17	17	17	17	17	17	17	17	-1.0
	30-600	18	18	18	18	18	18	18	18	18	18	-1.0
Return Loss min (Tap, dB)	600-900	17	17	17	17	17	17	17	17	17	17	-1.0
	900-1002	15	15	15	15	15	15	15	15	15	15	-1.0
	5-10	15	15	15	15	15	15	15	15	15	15	-1.0
	10-30	16	16	16	16	16	16	16	16	16	16	-1.0
	30-600	18	18	18	18	18	18	18	18	18	18	-1.0
Hum Modulation (Out-Tap) Min (dB)	600-900	16	16	16	16	16	16	16	16	16	16	-1.0
	900-1002	15	15	15	15	15	15	15	15	15	15	-1.0
	5-10	—	-58	-58	-58	-58	-58	-58	-58	-58	-58	-1.0
	10-30	—	-64	-64	-64	-64	-64	-64	-64	-64	-64	-1.0
	30-450	—	-70	-70	-70	-70	-70	-70	-70	-70	-70	-1.0
RFI Max (dB)	450-750	—	-64	-64	-64	-64	-64	-64	-64	-64	-64	-1.0
	750-1002	—	-60	-60	-60	-60	-60	-60	-60	-60	-60	-1.0
	5-600	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-1.0
	600-1002	-90	-90	-90	-90	-90	-90	-90	-90	-90	-90	-1.0

9800-L-PBT 8-WAY TAP SPECIFICATIONS

	Freq. MHz	9812	9815	9818	9821	9824	9827	Temp
Attenuation (In-Tap) dB	5-6	12.0 ± 2.0	17.0 ± 2.5	18.0 ± 2.0	21.0 ± 2.5	24.0 ± 2.5	27.0 ± 2.5	± 0
	6-10	12.0 ± 2.0	16.0 ± 2.0	18.0 ± 2.0	21.0 ± 2.5	24.0 ± 2.5	27.0 ± 2.5	± 0
	10-20	12.0 ± 1.7	15.0 ± 2.5	18.0 ± 1.5	21.0 ± 2.5	24.0 ± 2.5	27.0 ± 2.5	± 0
	20-900	12.0 ± 1.8	15.0 ± 2.0	18.0 ± 1.5	21.0 ± 1.5	24.0 ± 1.5	27.0 ± 1.5	± 1
	900-1002	12.0 ± 2.3	15.0 ± 2.5	18.0 ± 1.9	21.0 ± 2.4	24.0 ± 2.1	27.0 ± 2.1	± 1
Insertion Loss max (in-out, dB)	5	—	3.8	2.2	1.4	1.0	0.9	+0.1
	10	—	3.8	2.1	1.2	0.8	0.8	+0.1
	30	—	3.5	2.0	1.0	0.7	0.7	+0.1
	50	—	3.5	1.9	1.0	0.7	0.7	+0.1
	100	—	4.0	1.8	1.2	0.7	0.7	+0.1
	330	—	4.2	2.1	1.3	0.9	0.8	+0.1
	450	—	4.4	2.3	1.3	1.1	1.0	+0.1
	550	—	4.5	2.4	1.4	1.1	1.1	+0.1
	600	—	4.7	2.6	1.4	1.3	1.2	+0.2
	750	—	5.1	2.8	1.6	1.2	1.2	+0.2
	862	—	5.3	3.2	1.8	1.4	1.4	+0.2
	1002	—	5.4	3.5	2.2	1.8	1.6	+0.2
Isolation min (Out-Tap, dB)	5-6	—	21	21	24	27	30	±0
	6-10	—	21	22	26	29	32	±0
	10-30	—	21	24	27	30	34	±0
	30-750	—	27	30	32	34	38	±0
	750-1002	—	25	28	30	33	34	±0
Isolation (Out-Tap) Min (dB)	5-10	15	15	15	15	15	15	-1.0
	10-30	20	20	20	20	20	20	-1.0
	30-450	25	25	25	25	25	25	-1.0
	450-750	23	23	23	23	23	23	-1.0
	750-1002	20	20	20	20	20	20	-1.0
Return Loss min (in & out, dB)	5-10	15	13	15	15	15	15	-1.0
	10-30	17	16	17	17	17	17	-1.0
	30-600	18	18	18	18	18	18	-1.0
	600-900	17	17	17	17	17	17	-1.0
	900-1002	15	15	15	15	15	15	-1.0
Return Loss min (Tap, dB)	5-10	15	15	15	15	15	15	-1.0
	10-30	15	15	15	15	15	15	-1.0
	30-600	18	18	18	18	18	18	-1.0
	600-900	16	16	16	16	16	16	-1.0
	900-1002	15	15	15	15	15	15	-1.0
Hum Modulation (Out-Tap) Min (dB)	5-10	—	-58	-58	-58	-58	-58	-1.0
	10-30	—	-64	-64	-64	-64	-64	-1.0
	30-450	—	-70	-70	-70	-70	-70	-1.0
	450-750	—	-64	-64	-64	-64	-64	-1.0
	750-1002	—	-60	-60	-60	-60	-60	-1.0
RFI Max (dB)	5-600	-100	-100	-100	-100	-100	-100	-1.0
	600-1002	-90	-90	-90	-90	-90	-90	-1.0

GENERAL SPECIFICATIONS

Power

Continuous Current, A	12 at 60°C
Power Soak Test, A	15 at 60°C for 2 hours

Physical

Dimensions (w x h x d), cm (in.) ¹	12.4 x 9.7 x 6.1 (4.0 x 3.8 x 2.4)
Weight, kg (lb)	0.36 (0.8)
Connector Type ²	Standard CATV KS entry connectors for cable up to 0.625 in. diameter
Pin length, cm (in.)	3.7 (1.44)
Operational Environmental Protection, IP Rating	IP-67 per IEC 60529

Notes:

1. Height dimensions include plug; depth includes half-inch F-ports and strand clamp/bolt in closed position.
2. Pin connector (0.067 in. diameter) is recommended for best RF performance.

ORDERING INFORMATION

ARRIS #	Product #	Mfg #	Description
724096	1200540	9204-L-PBT	TAP; 2-WAY 1 GHZ 4 DB RF ONLY 12 AMP
724126	1200541	9208-L-PBT	TAP; 2-WAY 1 GHZ 8 DB RF ONLY 12 AMP
724078	1200542	9211-L-PBT	TAP; 2-WAY 1 GHZ 11 DB RF ONLY 12 AMP
724081	1200543	9214-L-PBT	TAP; 2-WAY 1 GHZ 14 DB RF ONLY 12 AMP
724082	1200544	9217-L-PBT	TAP; 2-WAY 1 GHZ 17 DB RF ONLY 12 AMP
724097	1200545	9220-L-PBT	TAP; 2-WAY 1 GHZ 20 DB RF ONLY 12 AMP
724084	1200546	9223-L-PBT	TAP; 2-WAY 1 GHZ 23 DB RF ONLY 12 AMP
724343	1200547	9226-L-PBT	TAP; 2-WAY 1 GHZ 26 DB RF ONLY 12 AMP
725979	1200548	9229-L-PBT	TAP; 2-WAY 1 GHZ 29 DB RF ONLY 12 AMP
725980	1200549	9232-L-PBT	TAP; 2-WAY 1 GHZ 32 DB RF ONLY 12 AMP
724026	1200550	9408-L-PBT	TAP; 4-WAY 1 GHZ 8 DB RF ONLY 12 AMP
724017	1200551	9411-L-PBT	TAP; 4-WAY 1 GHZ 11 DB RF ONLY 12 AMP
724001	1200552	9414-L-PBT	TAP; 4-WAY 1 GHZ 14 DB RF ONLY 12 AMP
724003	1200553	9417-L-PBT	TAP; 4-WAY 1 GHZ 17 DB RF ONLY 12 AMP
723984	1200554	9420-L-PBT	TAP; 4-WAY 1 GHZ 20 DB RF ONLY 12 AMP
723994	1200555	9423-L-PBT	TAP; 4-WAY 1 GHZ 23 DB RF ONLY 12 AMP
724157	1200556	9426-L-PBT	TAP; 4-WAY 1 GHZ 26 DB RF ONLY 12 AMP
725161	1200557	9429-L-PBT	TAP; 4-WAY 1 GHZ 29 DB RF ONLY 12 AMP
725981	1200558	9432-L-PBT	TAP; 4-WAY 1 GHZ 32 DB RF ONLY 12 AMP
723997	1200560	9812-L-PBT	TAP; 8-WAY 1 GHZ 12 DB RF ONLY 12 AMP
723995	1200561	9815-L-PBT	TAP; 8-WAY 1 GHZ 15 DB RF ONLY 12 AMP
723971	1200562	9818-L-PBT	TAP; 8-WAY 1 GHZ 18 DB RF ONLY 12 AMP
723968	1200563	9821-L-PBT	TAP; 8-WAY 1 GHZ 21 DB RF ONLY 12 AMP
724009	1200564	9824-L-PBT	TAP; 8-WAY 1 GHZ 24 DB RF ONLY 12 AMP
724242	1200565	9827-L-PBT	TAP; 8-WAY 1 GHZ 27 DB RF ONLY 12 AMP

RELATED PRODUCTS

Digital Return Transmitter	Optical Patch Cords
SFPs	Optical Passives
Fiber Service Cable	Installation Services

Note: Specifications are subject to change without notice.

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ARRIS 1GHz MultiTaps_DS_09AUG16

(rev 08-2016)

Ask us about the complete Access Technologies Solutions portfolio:

Taps

Fiber-Deep

DOCSIS® 3.1

Node Segmentation

HPON™/RfOG

FTTx

Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656