

Retrofit Tap Plate

RRT-Series Regal[®] Compatible



Overview

Antronix offers a retrofit tap plate, which mates with existing Regal[®] housings (RRT Series – narrow body and RRTW Series – wide body). The retrofit series tap plates enable cable operators to upgrade their existing multitap to current digital broadband system standards without re-splicing. The Regal[®] Retrofit Tap plate features Antronix's patented Drop Signal conditioning (E-Option) for the most flexible multitap in existence.

E-Option plug-ins affect all of the drop ports on a tap, while not affecting the through insertion loss. E-Option overcomes past design difficulties by equalizing forward and return drop signals with negative/positive tilt compensation, return path attenuation, or overcoming excessive loss in high tap values for reliable cable modem transmission.

Ordering Information

RRT1200-E/P	2-Way Regal [®] Retrofit (narrow body) tap plate w/ E-option
RRT1400-E/P	4-Way Regal [®] Retrofit (narrow body) tap plate w/ E-Option
RRTW1200-E/P	2-Way Regal [®] Retro-fit (wide body) tap plate w/ E-Option
RRTW1400-E/P	4-Way Regal [®] Retro-fit (wide body) tap plate w/ E-Option
RRTW1800-E/P	8-Way Regal [®] Retro-fit (wide body) tap plate w/ E-Option

Features & Benefits

- **Designed to fit Regal[®] brand housings**
The design gives system operators the Antronix advantage without re-splicing
- **SCTE Compliant Brass F-ports with CamPort[®]**
Patented auto-seizing F-port features a "Cam Activated Mechanism" to provide full contact pressure (>2,000 grams) on the center conductor for maximum reliability.
- **Rotational seizure posts**
A single tap housing functions as either aerial or pedestal configuration
- **12 Amperes Current passing**
- **E-Option Drop Signal Conditioning standard**
E-Option allows the signal conditioning at the tap to meet all network scenarios. Plug-in modules include:
 - CE – Cable Equalizer
 - RA – Return Path Attenuator
 - HP – High Pass Filter
 - CS – Cable Simulator
 - HT – High Tap Value Filter
- **Four stage corrosion protection process**
 - A 360 Aluminum alloy housing (most corrosive resistant alloy for die casting)
 - Housing is impregnated with a sealer to prevent porosity
 - Clear chromate coating applied inside and out
 - Double baked-on coating of polyurethane applied for superior protection
- **Heat-treated stainless steel hardware with proprietary plating**
Reduces galvanic reactions and provides superb corrosion protection
- **Color coded multitap values**
Quick and easy identification of tap values
- **Integrated drip wells, numbered ports, and strip gauge**
- **Ribbed main line entry ports**
Ensures proper adhesion of heat shrink
- **Capacitively coupled F-ports**
Provides superior Hum-mod performance

Electrical Specifications (RRT1200 Series)

	Model (RRT12xx)	04	08	11	14	17	20	23	26	29	32
Tap Loss											
	Freq (MHz)										
(dB)	5 – 1000	4	8	11	14	17	20	23	26	29	32
Tap Loss Tolerance											
(+/- dB)	5 – 500	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5	1.5	1.5
	500 – 600	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.8	1.8	1.8
	600 – 900	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0
	900 – 000	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.3
Insertion Loss											
Maximum	5	–	3.2	1.7	1.2	1.1	0.8	0.7	0.5	0.5	0.5
(dB)	10	–	3.2	1.7	1.2	1.1	0.8	0.7	0.5	0.5	0.5
	50	–	3.2	1.6	1.1	1.0	0.7	0.6	0.4	0.4	0.4
	100	–	3.2	1.8	1.2	1.1	0.9	0.8	0.6	0.4	0.6
	300	–	3.3	1.8	1.2	1.1	0.9	0.8	0.6	0.6	0.6
	400	–	3.7	2.0	1.4	1.2	0.9	0.9	0.7	0.7	0.7
	500	–	4.0	2.2	1.6	1.3	1.0	1.0	0.8	0.8	0.8
	600	–	4.3	2.4	1.8	1.4	1.1	1.1	0.9	0.9	0.9
	700	–	4.6	2.7	2.0	1.6	1.2	1.3	1.1	1.1	1.1
	800	–	4.8	3.1	2.2	1.8	1.4	1.5	1.3	1.3	1.3
	900	–	4.9	3.3	2.4	2.0	1.6	1.6	1.5	1.5	1.5
	1000	–	5.0	3.7	2.9	2.2	1.7	1.7	1.7	1.7	1.7
Tap to Output Isolation											
Minimum	5 – 10	–	20	20	23	26	30	36	38	40	42
(dB)	10 – 750	–	21	23	26	30	32	38	38	40	42
	750 – 900	–	20	22	25	28	31	34	34	36	38
	900 – 1000	–	20	22	23	25	29	32	32	34	36
Tap to Tap Isolation											
Minimum	5 – 10	20	20	20	20	20	20	20	20	20	20
(dB)	10 – 750	23	23	23	23	23	23	23	23	23	23
	750 – 1000	20	20	20	20	20	20	20	20	20	20
Input/Output Return Loss											
Minimum	5 – 30	18	18	18	18	18	18	18	18	18	18
(dB)	30 – 600	18	17	18	18	18	18	18	18	18	18
	600 – 750	18	17	18	18	18	18	18	18	17	17
	750 – 1000	17	17	17	17	17	17	17	17	17	17
Tap Port Return Loss											
Minimum	5 – 30	17	17	17	17	17	17	17	17	17	17
(dB)	30 – 600	18	18	18	18	18	18	18	18	18	18
	600 – 750	18	18	18	18	18	18	18	18	18	18
	750 – 1000	16	16	16	16	16	16	16	16	16	16
Hum Modulation @ 10 Amps											
Maximum	5–30	–	-64	-64	-70	-70	-70	-70	-70	-70	-70
(dB)	30–600	–	-70	-70	-70	-70	-70	-70	-70	-70	-70
	600–750	–	-64	-64	-70	-70	-70	-70	-70	-70	-70
	750–1000	–	-60	-60	-70	-70	-70	-70	-70	-70	-70

Specifications Subject to change without notice

Electrical Specifications (RRT1400 Series)

	Model (RRT14xx)	08	11	14	17	20	23	26	29	32	35
Tap Loss											
	Freq (MHz)										
(dB)	5 – 1000	8.0	11	14	17	20	23	26	29	32	35
Tap Loss Tolerance											
(+/-dB)	5 – 500	1.0	1.0	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0
	500 – 600	1.3	1.3	1.5	1.5	1.5	1.5	1.3	1.3	1.6	1.6
	600 – 900	1.7	1.7	1.5	1.5	1.5	1.5	1.7	1.7	2.1	2.1
	900 – 1000	2.0	2.0	1.8	1.8	1.8	1.8	2.0	2.0	2.6	2.6
Insertion Loss											
Maximum	5	–	3.5	1.6	1.2	1.1	0.7	0.7	0.4	0.4	0.4
(dB)	10	–	3.5	1.6	1.2	1.1	0.7	0.7	0.4	0.4	0.4
	50	–	3.5	1.4	1.0	1.0	0.6	0.6	0.4	0.4	0.4
	100	–	3.5	1.4	1.0	1.0	0.6	0.6	0.4	0.4	0.4
	300	–	3.8	1.7	1.2	1.1	0.8	0.8	0.6	0.6	0.6
	400	–	4.1	1.9	1.3	1.2	0.9	0.9	0.7	0.7	0.7
	500	–	4.3	2.0	1.4	1.3	0.9	0.9	0.8	0.8	0.8
	600	–	4.5	2.2	1.6	1.4	1.1	1.1	0.9	0.9	0.9
	700	–	4.8	2.5	1.8	1.5	1.3	1.3	1.1	1.1	1.1
	800	–	5.0	2.8	2.0	1.7	1.5	1.5	1.3	1.3	1.3
	900	–	5.0	3.1	2.2	1.9	1.6	1.6	1.5	1.5	1.5
	1000	–	5.0	3.6	2.5	2.1	1.8	1.8	1.8	1.8	1.8
Tap to Output Isolation											
Minimum	5 – 10	–	20	20	20	25	30	32	34	36	38
(dB)	10 – 750	–	23	25	28	33	36	37	38	39	42
	750 – 900	–	22	25	28	31	34	35	36	37	39
	900 – 1000	–	22	25	26	31	32	33	35	36	38
Tap to Tap Isolation											
Minimum	5 – 10	20	20	20	20	20	20	20	20	20	20
(dB)	10 – 750	23	23	23	23	23	23	23	23	23	23
	750 – 1000	20	20	20	20	20	20	20	20	20	20
Input/Output Return Loss											
Minimum	5 – 30	17	17	17	17	17	17	17	17	17	17
(dB)	30 – 600	18	18	18	18	18	18	18	18	18	18
	600 – 750	18	17	18	18	18	18	18	18	17	17
	750 – 1000	17	16	17	17	17	17	17	17	16	16
Tap Port Return Loss											
Minimum	5 – 30	17	16	17	17	17	17	17	17	17	17
(dB)	30 – 600	18	18	18	18	18	18	18	18	18	18
	600 – 750	18	18	18	18	18	18	18	18	18	18
	750 – 1000	17	17	17	17	17	17	17	17	17	17
Hum Modulation @ 10 Amps											
Maximum	5 – 50	–	-64	-64	-70	-70	-70	-70	-70	-70	-70
(dB)	50 – 600	–	-70	-70	-70	-70	-70	-70	-70	-70	-70
	600 – 750	–	-64	-64	-70	-70	-70	-70	-70	-70	-70
	750 – 1000	–	-60	-60	-70	-70	-70	-70	-70	-70	-70

Specifications Subject to change without notice

Electrical Specifications (RRTW1200 Series)

Model (RRTW12xx)	04	08	11	14	17	20	23	26	29	32	
Tap Loss											
(dB)	5 – 1000	4	8	11	14	17	20	23	26	29	32
Tap Loss Tolerance											
(+/- dB)	5 – 500	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.5	1.5	1.5
	500 – 600	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.5	1.5	1.5
	600 – 900	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	900 – 1000	1.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.0
Insertion Loss											
Maximum	5	–	3.4	1.7	1.1	0.8	0.7	0.4	0.4	0.4	0.4
(dB)	10	–	3.4	1.7	1.1	0.8	0.7	0.4	0.4	0.4	0.4
	50	–	3.4	1.5	1.0	0.7	0.6	0.4	0.4	0.4	0.4
	100	–	3.4	1.6	1.1	0.7	0.6	0.5	0.5	0.5	0.5
	300	–	3.3	1.7	1.2	0.8	0.7	0.6	0.6	0.6	0.6
	400	–	3.7	1.8	1.3	0.9	0.8	0.7	0.7	0.7	0.7
	500	–	3.9	2.0	1.3	1.0	1.0	0.8	0.8	0.8	0.8
	600	–	4.2	2.2	1.4	1.1	1.1	0.9	0.9	0.9	0.9
	700	–	4.5	2.4	1.5	1.2	1.2	1.1	1.1	1.1	1.1
	800	–	4.5	2.8	1.6	1.4	1.4	1.3	1.3	1.3	1.3
	900	–	4.5	3.2	1.8	1.6	1.6	1.5	1.5	1.5	1.5
	1000	–	4.5	3.6	2.1	1.9	1.8	1.7	1.7	1.7	1.7
Tap to Output Isolation											
Minimum	5 – 10	–	19	20	25	27	30	35	38	40	42
(dB)	10 – 750	–	23	23	25	30	33	35	37	40	42
	750 – 900	–	20	22	23	28	30	33	35	37	40
	900 – 1000	–	20	22	22	25	28	30	33	35	37
Tap to Tap Isolation											
Minimum	5 – 10	20	20	20	20	20	20	20	20	20	20
(dB)	10 – 750	23	23	23	23	23	23	23	23	23	23
	750 – 900	20	20	20	20	20	20	20	20	20	20
	900 – 1000	20	20	20	20	20	20	20	20	20	20
Input and Output Return Loss											
Minimum	5 – 10	17	17	18	18	18	18	18	18	18	18
(dB)	10 – 30	18	18	18	18	18	18	18	18	18	18
	30 – 750	17	17	17	17	17	17	17	17	17	17
	750 – 1000	16	16	16	16	16	16	16	16	16	16
Tap Return Loss											
Minimum	5 – 10	18	16	18	18	18	18	18	18	18	18
(dB)	10 – 30	18	18	18	18	18	18	18	18	18	18
	30 – 750	16	16	16	16	16	16	16	16	16	16
	750 – 1000	16	16	16	16	16	16	16	16	16	16
Hum Modulation @ 12 Amps											
Maximum	5 – 50	–	–64	–64	–70	–70	–70	–70	–70	–70	–70
(dB)	50 – 600	–	–70	–70	–70	–70	–70	–70	–70	–70	–70
	600 – 750	–	–64	–64	–70	–70	–70	–70	–70	–70	–70
	750 – 1000	–	–60	–60	–64	–64	–64	–64	–64	–64	–64

Specifications subject to change without notice

Electrical Specifications (RRTW1400 Series)

Model (RRTW14xx)		08	11	14	17	20	23	26	29	32	35
Tap Loss											
(dB)	5 – 1000	7.5	11	14	17	20	23	26	29	32	35
Tap Loss Tolerance											
(+/- dB)	5 – 500	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.0	2.0
	500 – 600	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.0	2.0
	600 – 900	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.0	2.0
	900 – 1000	2.0	2.5	1.8	1.8	1.8	1.8	1.8	1.8	2.0	2.0
Insertion Loss											
Maximum	5	–	3.4	1.7	1.2	1.0	0.8	0.4	0.4	0.4	0.4
(dB)	10	–	3.4	1.7	1.2	1.0	0.8	0.4	0.4	0.4	0.4
	50	–	3.4	1.5	1.0	0.9	0.7	0.4	0.4	0.4	0.4
	100	–	3.5	1.5	1.0	0.9	0.7	0.5	0.5	0.5	0.5
	300	–	3.7	1.6	1.2	1.1	0.8	0.6	0.6	0.6	0.6
	400	–	4.0	1.8	1.3	1.1	0.8	0.7	0.7	0.7	0.7
	500	–	4.2	1.9	1.4	1.2	0.9	0.8	0.8	0.8	0.8
	600	–	4.5	2.2	1.5	1.3	1.0	0.9	0.9	0.9	0.9
	700	–	4.7	2.5	1.7	1.4	0.2	1.1	1.1	1.1	1.1
	800	–	5.0	2.8	2.0	1.6	1.4	1.3	1.3	1.3	1.3
	900	–	5.2	3.1	2.3	1.8	1.6	1.5	1.5	1.5	1.5
	1000	–	5.4	3.6	2.8	2.1	1.8	1.7	1.7	1.7	1.7
Tap to Output Isolation											
Minimum	5 – 10	–	20	20	28	33	35	38	40	42	45
(dB)	10 – 750	–	23	25	27	31	35	35	38	40	42
	750 – 900	–	20	23	25	30	32	32	35	38	40
	900 – 1000	–	20	23	25	30	32	32	32	34	38
Tap to Tap Isolation											
Minimum	5 – 10	20	20	20	20	20	20	20	20	20	20
(dB)	10 – 750	23	23	23	23	23	23	23	23	23	23
	750 – 900	20	20	20	20	20	20	20	20	20	20
	900 – 1000	20	20	20	20	20	20	20	20	20	20
Input and Output Return Loss											
Minimum	5 – 10	18	18	18	18	18	18	18	18	18	18
(dB)	10 – 30	18	18	18	18	18	18	18	18	18	18
	30 – 750	17	17	17	17	17	17	17	17	17	17
	750 – 1000	16	16	16	16	16	16	16	16	16	16
Tap Return Loss											
Minimum	5 – 10	18	17	18	18	18	18	18	18	18	18
(dB)	11 – 30	18	18	18	18	18	18	18	18	18	18
	30 – 750	17	17	17	17	17	17	17	17	17	17
	750 – 1000	16	16	16	16	16	16	16	16	16	16
Hum Modulation @ 12 Amps											
Maximum	5 – 50	–	-64	-64	-70	-70	-70	-70	-70	-70	-70
(dB)	50 – 600	–	-70	-70	-70	-70	-70	-70	-70	-70	-70
	600 – 750	–	-64	-64	-70	-70	-70	-70	-70	-70	-70
	750 – 1000	–	-60	-60	-64	-64	-64	-64	-64	-64	-64

Specifications subject to change without notice

Electrical Specifications (RRTW1800 Series)

	Model (RRTW18xx)	11	14	17	20	23	26	29	32
Tap Loss									
(dB)	5 – 1000	11	14	17	20	23	26	29	32
Tap Loss Tolerance									
(+/- dB)	5 – 500	1.0	1.0	1.5	1.5	1.5	1.5	1.5	1.5
	500 – 600	1.3	1.3	1.5	1.5	1.5	1.5	1.5	1.8
	600 – 900	1.8	1.8	1.5	1.5	1.5	1.5	1.5	2.0
	900 – 1000	2.3	2.3	1.8	1.8	1.8	1.8	1.8	2.3
Insertion Loss									
Maximum (dB)	5	–	3.4	2.0	1.1	1.0	0.8	0.6	0.6
	10	–	3.4	2.0	1.1	0.8	0.8	0.6	0.6
	50	–	3.4	1.6	1.0	0.8	0.7	0.5	0.5
	100	–	3.5	1.6	1.1	0.9	0.7	0.6	0.6
	300	–	3.6	1.7	1.1	0.9	0.7	0.7	0.7
	400	–	3.8	1.8	1.2	1.0	1.0	0.8	0.8
	500	–	4.0	1.9	1.3	1.0	1.0	0.9	0.9
	600	–	4.2	2.0	1.4	1.2	1.1	1.0	1.0
	700	–	4.4	2.1	1.5	1.3	1.2	1.2	1.2
	800	–	4.6	2.3	1.6	1.5	1.4	1.4	1.4
	900	–	4.8	2.6	1.8	1.6	1.5	1.5	1.5
	1000	–	5.0	2.9	2.0	1.8	1.7	1.7	1.7
Tap to Output Isolation									
Minimum (dB)	5 – 10	–	20	20	24	30	34	34	36
	10 – 750	–	25	23	31	34	36	38	40
	750 – 900	–	24	23	28	32	34	36	37
	900 – 1000	–	23	23	27	31	32	34	36
Tap to Tap Isolation									
Minimum (dB)	5 – 10	20	20	20	20	20	20	20	20
	10 – 750	23	23	23	23	23	23	23	23
	750 – 1000	20	20	20	20	20	20	20	20
Input and Output Return Loss									
Minimum (dB)	5 – 30	18	18	17	18	18	18	18	18
	30 – 600	18	18	18	18	18	18	18	18
	600 – 750	18	18	18	18	18	18	18	18
	750 – 1000	17	16	17	17	17	17	17	17
Tap Return Loss									
Minimum (dB)	5 – 30	18	18	18	18	18	18	18	18
	30 – 600	18	18	18	18	18	18	18	18
	600 – 750	18	18	18	18	18	18	18	18
	750 – 1000	16	16	16	16	16	16	16	16
Hum Modulation @ 12 Amps									
Maximum (dB)	5 – 50	–	-64	-64	-70	-70	-70	-70	-70
	50 – 600	–	-70	-70	-70	-70	-70	-70	-70
	600 – 750	–	-64	-64	-70	-70	-70	-70	-70
	750 – 1000	–	-60	-60	-70	-70	-70	-70	-70

Specifications subject to change without notice

General Specifications


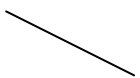

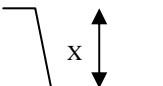

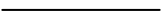
Flatness (5 – 1000 MHz) ±0.35 dB (min)
RFI (5 – 1000 MHz) –100 dB (min)
Current 12 Amps Continuous
Nominal Impedance 75Ω
F-Connector Type ANSI/SCTE Compliant CamPort® F-connectors

Environmental Specifications

Operating Temperature –40 °C to 60 °C
Corrosion Resistance Meets ANSI/SCTE Specification

E-Option Plug-in Conditioner Ordering Matrix

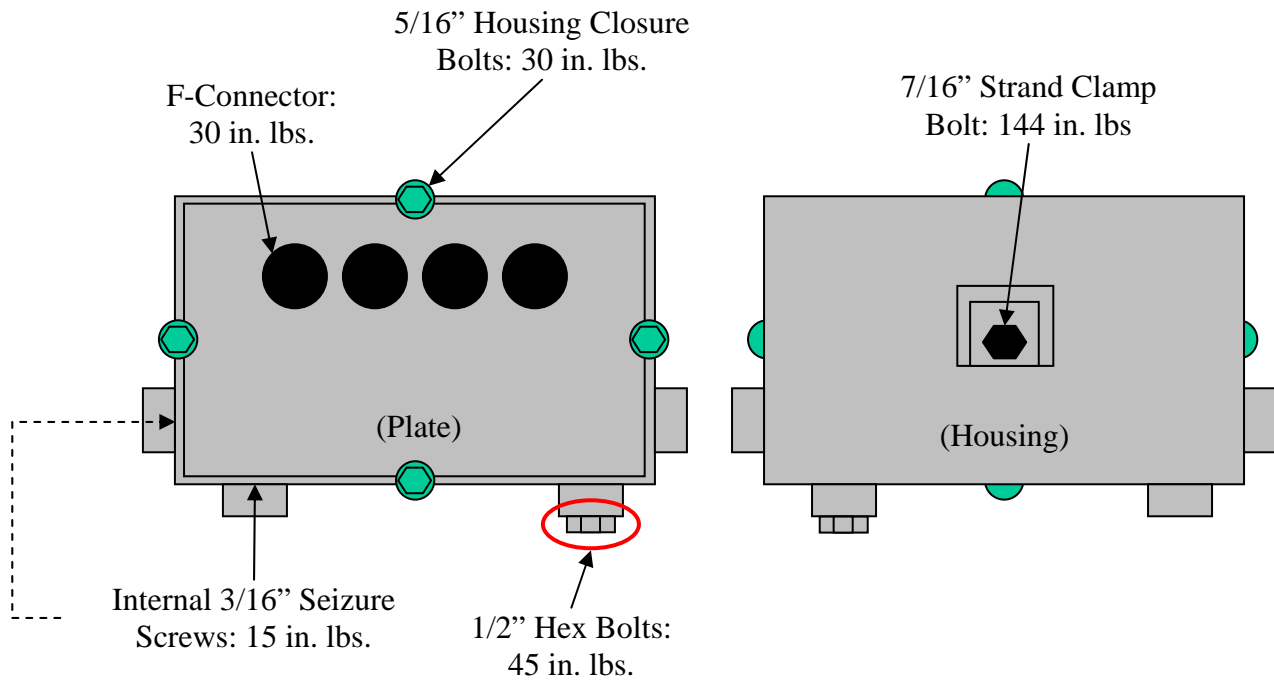
Conditioner Type $\overline{\text{XX}}$ - $\overline{\text{XX}}$ Conditioner Value

Plug in Conditioner	(XX)	Filter Shape	Conditioner Value (-XX)
Cable Equalizer	CE		02, 04, 06, 08, 10, 12, 14 or 16 (dB)
Cable Simulator	CS		03, 06, 09 or 12 (dB)
Return Path Attenuator	RA		02, 04, 06, 08, 10, 12, 14, 16 or 18 (dB)
High Tap Filter	HT		03, 06, 09, 12 or 15 (dB)
High Pass Filter	HP		52 or 54 (MHz)
Jumper**	JP		-

** Jumper (JP) is shipped with all E versions unless indicated

Specifications subject to change without notice

Torque Specifications



Specifications subject to change without notice