

# Features and Benefits

# ANTRONIX®

## Retrofit Tap Plate RRT-Series Regal® Compatible

Antronix offers a retrofit multi-tap plate, which is compatible with existing Regal® faceplates (RRT Series – narrow body and RRTW Series – wide body). The retrofit series multi-tap enables cable operators to upgrade their system to current digital broadband system standards. The Regal® Retrofit Multi-tap plate features Antronix's patented Drop Signal conditioning (E-Option) for the most flexible multi-tap 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.



- **Design is Compatible with Regal® Brand Housings**

The design gives system operators the ability to upgrade to the Antronix advantage.

- **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** Patent no. 6,570,465 B2

E-Option allows the signal conditioning at the tap to meet all network scenarios.

Plug-in modules include:

CE – Cable Equalizer

CS – Cable Simulator

RA – Return Path Attenuator

HT – High Tap Value Filter

HP – High Pass 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 Multi-tap Values**

Quick and easy identification of tap values.

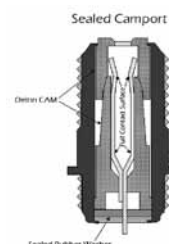
- **Integrated Drip Wells, Numbered Ports and Strip Gauge**

- **Ribbed Main Line Entry Ports**

Ensures proper adhesion of heat shrink.

- **Capacitively Coupled F-ports**

Provides superior Hum-mod performance.



## Electrical Specifications

### RRT-Series Regal® Compatible     RRT1200 Series

Model (RRT12XX)		04	08	11	14	17	20	23	26	29	32
<b>Tap Loss</b>	<b>Freq (MHz)</b>										
(dB)	5-1002	4	8	11	14	17	20	23	26	29	32
<b>Tap Loss Tolerance</b> (+/- 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
	900-1002	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.3
<b>Insertion Loss</b> Max (+/- dB)	5	-	3.2	1.7	1.2	1.1	0.8	0.7	0.5	0.5	0.5
	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
1002	-	5.0	3.7	2.9	2.2	1.7	1.7	1.7	1.7	1.7	
<b>Tap to Output Isolation</b> Min (dB)	5-10	-	20	20	23	26	30	36	38	40	42
	10-750	-	21	23	26	30	32	38	38	40	42
	750-900	-	20	22	25	28	31	34	34	36	38
	900-1002	-	20	22	23	25	29	32	32	34	36
<b>Tap to Tap Isolation</b> Min (dB)	5-10	20	20	20	20	20	20	20	20	20	20
	10-750	23	23	23	23	23	23	23	23	23	23
	750-1002	20	20	20	20	20	20	20	20	20	20
<b>Input/Output Return Loss</b> Min (dB)	5-30	18	18	18	18	18	18	18	18	18	18
	30-600	18	17	18	18	18	18	18	18	18	18
	600-750	18	17	18	18	18	18	18	18	17	17
	750-1002	17	17	17	17	17	17	17	17	17	17
<b>Tap Port Return Loss</b> Min (dB)	5-30	17	17	17	17	17	17	17	17	17	17
	30-600	18	18	18	18	18	18	18	18	18	18
	600-750	18	18	18	18	18	18	18	18	18	18
	750-1002	16	16	16	16	16	16	16	16	16	16
<b>Hum Modulation @ 10 Amps</b> Max (dB)	5-30	-	-64	-64	-70	-70	-70	-70	-70	-70	-70
	30-600	-	-70	-70	-70	-70	-70	-70	-70	-70	-70
	600-750	-	-64	-64	-70	-70	-70	-70	-70	-70	-70
	750-1002	-	-60	-60	-70	-70	-70	-70	-70	-70	-70

## Electrical Specifications

### RRT-Series Regal® Compatible     RRT1400 Series

Model (RRT14XX)		08	11	14	17	20	23	26	29	32	35
<b>Tap Loss</b>	<b>Freq (MHz)</b>										
(dB)	5-1002	8.0	11	14	17	20	23	26	29	32	35
<b>Tap Loss Tolerance</b> (+/- 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
	900-1002	2.0	2.0	1.8	1.8	1.8	1.8	2.0	2.0	2.6	2.6
<b>Insertion Loss</b> Max (+/- dB)	5	-	3.5	1.6	1.2	1.1	0.7	0.7	0.4	0.4	0.4
	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
	1002	-	5.0	3.6	2.5	2.1	1.8	1.8	1.8	1.8	1.8
<b>Tap to Output Isolation</b> Min (dB)	5-10	-	20	20	20	25	30	32	34	36	38
	10-750	-	23	25	28	33	36	37	38	39	42
	750-900	-	22	25	28	31	34	35	36	37	39
	900-1002	-	22	25	26	31	32	33	35	36	38
<b>Tap to Tap Isolation</b> Min (dB)	5-10	20	20	20	20	20	20	20	20	20	20
	10-750	23	23	23	23	23	23	23	23	23	23
	750-1002	20	20	20	20	20	20	20	20	20	20
<b>Input/Output Return Loss</b> Min (dB)	5-30	17	17	17	17	17	17	17	17	17	17
	30-600	18	18	18	18	18	18	18	18	18	18
	600-750	18	17	18	18	18	18	18	18	17	17
	750-1002	17	16	17	17	17	17	17	17	16	16
<b>Tap Port Return Loss</b> Min (dB)	5-30	17	16	17	17	17	17	17	17	17	17
	30-600	18	18	18	18	18	18	18	18	18	18
	600-750	18	18	18	18	18	18	18	18	18	18
	750-1002	17	17	17	17	17	17	17	17	17	17
<b>Hum Modulation @ 10 Amps</b> Max (dB)	5-50	-	-64	-64	-70	-70	-70	-70	-70	-70	-70
	50-600	-	-70	-70	-70	-70	-70	-70	-70	-70	-70
	600-750	-	-64	-64	-70	-70	-70	-70	-70	-70	-70
	750-1002	-	-60	-60	-70	-70	-70	-70	-70	-70	-70

## Electrical Specifications

### RRT-Series Regal® Compatible    RRTW1200 Series

Model (RRTW12XX)		04	08	11	14	17	20	23	26	29	32
<b>Tap Loss</b>	<b>Freq (MHz)</b>										
	(dB)	5-1002	4	8	11	14	17	20	23	26	29
<b>Tap Loss Tolerance</b> (+/- 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
	900-1002	1.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.0
<b>Insertion Loss</b> Max (+/- dB)	5	-	3.4	1.7	1.1	0.8	0.7	0.4	0.4	0.4	0.4
	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
1002	-	4.5	3.6	2.1	1.9	1.8	1.7	1.7	1.7	1.7	
<b>Tap to Output Isolation</b> Min (dB)	5-10	-	19	20	25	27	30	35	38	40	42
	10-750	-	23	23	25	30	33	35	37	40	42
	750-900	-	20	22	23	28	30	33	35	37	40
	900-1002	-	20	22	22	25	28	30	33	35	37
<b>Tap to Tap Isolation</b> Min (dB)	5-10	20	20	20	20	20	20	20	20	20	20
	10-750	23	23	23	23	23	23	23	23	23	23
	750-900	20	20	20	20	20	20	20	20	20	20
	900-1002	20	20	20	20	20	20	20	20	20	20
<b>Input/Output Return Loss</b> Min (dB)	5-10	17	17	18	18	18	18	18	18	18	18
	10-30	18	18	18	18	18	18	18	18	18	18
	30-750	17	17	17	17	17	17	17	17	17	17
	750-1002	16	16	16	16	16	16	16	16	16	16
<b>Tap Port Return Loss</b> Min (dB)	5-10	18	16	18	18	18	18	18	18	18	18
	10-30	18	18	18	18	18	18	18	18	18	18
	30-750	16	16	16	16	16	16	16	16	16	16
	750-1002	16	16	16	16	16	16	16	16	16	16
<b>Hum Modulation @ 10 Amps</b> Max (dB)	5-50	-	-64	-64	-70	-70	-70	-70	-70	-70	-70
	50-600	-	-70	-70	-70	-70	-70	-70	-70	-70	-70
	600-750	-	-64	-64	-70	-70	-70	-70	-70	-70	-70
	750-1002	-	-60	-60	-64	-64	-64	-64	-64	-64	-64

## Electrical Specifications

### RRT-Series Regal® Compatible     RRTW1400 Series

Model (RRTW14XX)		08	11	14	17	20	23	26	29	32	35
<b>Tap Loss</b>	<b>Freq (MHz)</b>										
(dB)	5-1002	7.5	11	14	17	20	23	26	29	32	35
<b>Tap Loss Tolerance</b> (+/- 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
	900-1002	2.0	2.5	1.8	1.8	1.8	1.8	1.8	1.8	2.0	2.0
<b>Insertion Loss</b> Max (+/- dB)	5	-	3.4	1.7	1.2	1.0	0.8	0.4	0.4	0.4	0.4
	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
1002	-	5.4	3.6	2.8	2.1	1.8	1.7	1.7	1.7	1.7	
<b>Tap to Output Isolation</b> Min (dB)	5-10	-	20	20	28	33	35	38	40	42	45
	10-750	-	23	25	27	31	35	35	38	40	42
	750-900	-	20	23	25	30	32	32	35	38	40
	900-1002	-	20	23	25	30	32	32	32	34	38
<b>Tap to Tap Isolation</b> Min (dB)	5-10	20	20	20	20	20	20	20	20	20	20
	10-750	23	23	23	23	23	23	23	23	23	23
	750-900	20	20	20	20	20	20	20	20	20	20
	900-1002	20	20	20	20	20	20	20	20	20	20
<b>Input/Output Return Loss</b> Min (dB)	5-10	18	18	18	18	18	18	18	18	18	18
	10-30	18	18	18	18	18	18	18	18	18	18
	30-750	17	17	17	17	17	17	17	17	17	17
	750-1002	16	16	16	16	16	16	16	16	16	16
<b>Tap Port Return Loss</b> Min (dB)	5-10	18	17	18	18	18	18	18	18	18	18
	10-30	18	18	18	18	18	18	18	18	18	18
	30-750	17	17	17	17	17	17	17	17	17	17
	750-1002	16	16	16	16	16	16	16	16	16	16
<b>Hum Modulation @ 10 Amps</b> Max (dB)	5-50	-64	-64	-70	-70	-70	-70	-70	-70	-70	-70
	50-600	-70	-70	-70	-70	-70	-70	-70	-70	-70	-70
	600-750	-64	-64	-70	-70	-70	-70	-70	-70	-70	-70
	750-1002	-60	-60	-64	-64	-64	-64	-64	-64	-64	-64


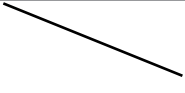



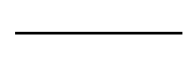
## Electrical Specifications

### RRT-Series Regal® Compatible    RRTW1800 Series

Model (RRTW18XX)		11	14	17	20	23	26	29	32
<b>Tap Loss</b>	<b>Freq (MHz)</b>								
(dB)	5-1002	11	14	17	20	23	26	29	32
<b>Tap Loss Tolerance</b> (+/- 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
	900-1002	2.3	2.3	1.8	1.8	1.8	1.8	1.8	2.3
<b>Insertion Loss</b> Max (+/- 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	2.0	1.3	1.0	1.0	0.9	0.9
	600	-	4.2	2.2	1.4	1.2	1.1	1.0	1.0
	700	-	4.4	2.3	1.5	1.3	1.2	1.2	1.2
	800	-	4.6	2.4	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
1002	-	5.0	2.9	2.0	1.8	1.7	1.7	1.7	
<b>Tap to Output Isolation</b> Min (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
	900-1002	-	23	23	27	31	32	34	36
<b>Tap to Tap Isolation</b> Min (dB)	5-10	20	20	20	20	20	20	20	20
	10-750	23	23	23	23	23	23	23	23
	750-1002	20	20	20	20	20	20	20	20
<b>Input/Output Return Loss</b> Min (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
	750-1002	17	16	17	17	17	17	17	17
<b>Tap Port Return Loss</b> Min (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
	750-1002	16	16	16	16	16	16	16	16
<b>Hum Modulation @ 10 Amps</b> Max (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
	750-1002	-	-60	-60	-70	-70	-70	-70	-70

## Retrofit Tap Plate RRT-Series Regal® Compatible

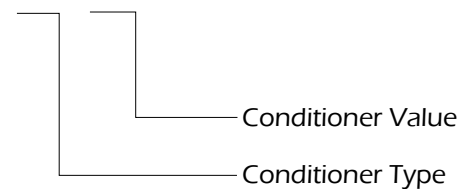
General	
Flatness (5-1000 MHz)	±0.35 dB (min)
RFI (5-1000 MHz)	-100 dB (min)
Current	12 Amps Continuous
Nominal Impedance	75 Ω
F-connector Type	ANSI/SCTE Compliant CamPort® F-connectors
Environmental	
Operating Temperature	-40 °C to 60 °C
Corrosion Resistance	Meets SCTE/ANSI Specification

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		—

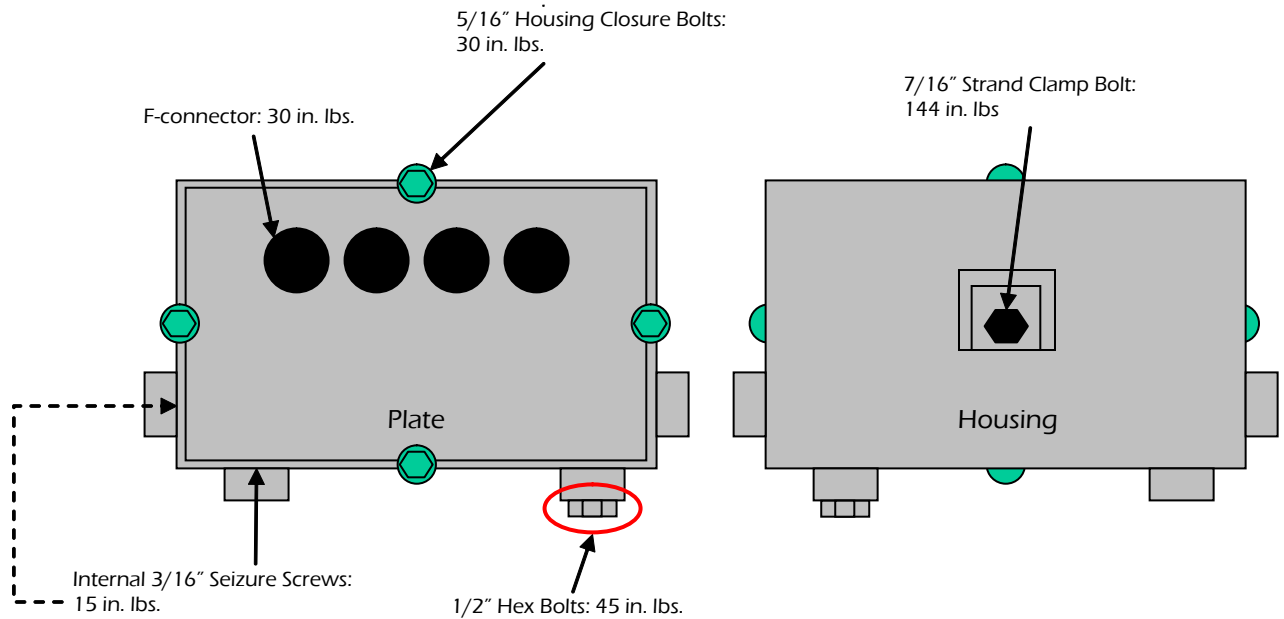
\*\* Jumper (JP) is shipped with all E-Option taps unless requested. Patent no 6,570,465 B2



**XX - XX**



## RRT-Series Regal® Compatible Torque Specifications



### Accessory Ordering Guide

<b>RRT1200-E/P</b>	2-Way Regal® Retrofit (narrow body) Tap Plate w/E-Option
<b>RRT1400-E/P</b>	4-Way Regal® Retrofit (narrow body) Tap Plate w/E-Option
<b>RRTW1200-E/P</b>	2-Way Regal® Retrofit (wide body) Tap Plate w/E-Option
<b>RRTW1400-E/P</b>	4-Way Regal® Retrofit (wide body) Tap Plate w/E-Option
<b>RRTW1800-E/P</b>	8-Way Regal® Retrofit (wide Body) Tap Plate w/E-Option

