Features and Benefits

ANTRONIX®

1.0 GHz Retrofit Regal Tap
RRT Series Taps

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.

E-Option plug-ins affect all 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 t 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.
- **E-Option Drop Signal Conditioning Standard**
  Allows the signal conditioning at the tap to meet any network needs. Plug-in modules include:
  - Cable Equalizer
  - Cable Simulator
  - Return Path Attenuator
  - High Tap Value Filter
- **Ribbed Main Line Entry Ports**
  Ensures proper adhesion of heat shrink.
- **Integrated Drip Wells, Numbered Ports and Strip Gauge**

2 Port Narrowbody Tap Electrical Specifications
RRT12000M-E

Model (RRT12XXM-E)		04	08	11	14	17	20	23	26	29	32
Specification	Freq (MHz)										
Tap Value (dB)	5-1002	4	8	11	14	17	20	23	26	29	32
Tap Loss Tolerance (±dB)	5-500	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	500-600	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	600-900	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	900-1002	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3
Insertion Loss Max (dB)	5	-	3.9	2.0	1.4	1.1	1.0	0.8	0.8	0.8	0.8
	10	-	3.7	1.9	1.4	1.1	0.8	0.8	0.8	0.8	0.8
	50	-	3.7	1.7	1.3	1.1	0.7	0.7	0.7	0.7	0.7
	100	-	3.9	2.0	1.4	1.1	0.9	0.9	0.9	0.9	0.9
	300	-	3.9	2.2	1.5	1.2	1.1	1.0	1.0	1.0	1.0
	400	-	4.0	2.3	1.6	1.3	1.2	1.1	1.1	1.1	1.1
	500	-	4.1	2.4	1.8	1.4	1.3	1.2	1.2	1.2	1.2
	600	-	4.4	2.4	1.9	1.5	1.4	1.3	1.3	1.3	1.3
	700	-	4.8	2.8	2.0	1.6	1.5	1.4	1.4	1.4	1.4
	800	-	5.0	3.1	2.3	1.8	1.6	1.6	1.6	1.6	1.6
	900	-	5.0	3.4	2.7	2.0	1.6	1.6	1.6	1.6	1.6
	1002	-	5.0	3.6	3.0	2.2	1.7	1.7	1.7	1.7	1.7
Output to Tap Isolation Min (dB)	5-10	-	19	19	20	25	28	32	34	36	37
	10-750	-	21	22	26	30	31	34	36	38	39
	750-900	-	20	20	23	28	30	33	34	36	38
	900-1002	-	20	20	22	25	29	31	32	34	36
Tap to Tap Isolation Min (dB)	5-10	20	19	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
Input/Output Return Loss Min (dB)	5-30	16	16	16	16	16	16	16	16	16	16
	30-600	17	17	17	17	17	17	17	17	17	17
	600-750	17	17	17	17	17	17	17	17	17	17
	750-1002	16	16	16	16	16	16	16	16	16	16
Tap Port Return Loss Min (dB)	5-30	16	16	16	16	16	17	17	17	17	17
	30-600	17	17	17	17	17	17	17	17	17	17
	600-750	17	17	17	17	17	17	17	17	17	17
	750-1002	16	16	16	16	16	16	16	16	16	16
Hum Modulation at 12 Amps (dB)	5-10	-	-60	-60	-60	-60	-60	-60	-60	-60	-60
	10-750	-	-65	-65	-65	-65	-65	-65	-65	-65	-65
	750-1002	-	-60	-60	-60	-60	-60	-60	-60	-60	-60

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4 Port Narrowbody Tap Electrical Specifications
RRT14000M-E

Model (RRT14XXM-E)		8	11	14	17	20	23	26	29	32	35
Specification	Freq (MHz)										
Tap Value (dB)	5-1002	8	11	14	17	20	23	26	29	32	35
Tap Loss Tolerance (±dB)	5-500	2.0	2.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
	500-600	2.0	2.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
	600-900	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3
	900-1002	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3
Insertion Loss Max (dB)	5	-	3.9	2.0	1.4	1.1	0.9	0.9	0.9	0.9	0.9
	10	-	3.7	1.9	1.4	1.1	0.9	0.9	0.9	0.9	0.9
	50	-	3.7	1.9	1.2	1.1	0.9	0.9	0.9	0.9	0.9
	100	-	3.9	2.0	1.4	1.1	1.0	0.9	0.9	0.9	0.9
	300	-	4.1	2.2	1.5	1.4	1.2	1.0	1.0	0.9	0.9
	400	-	4.2	2.3	1.7	1.5	1.3	1.1	1.1	1.0	1.0
	500	-	4.4	2.4	1.8	1.6	1.3	1.2	1.2	1.2	1.2
	600	-	4.5	2.5	1.8	1.7	1.5	1.3	1.3	1.3	1.3
	700	-	4.8	2.8	2.0	1.8	1.5	1.4	1.4	1.4	1.4
	800	-	5.0	3.0	2.4	1.9	1.6	1.6	1.6	1.6	1.6
	900	-	5.0	3.4	2.9	2.0	1.6	1.6	1.6	1.6	1.6
	1002	-	5.0	3.6	3.2	2.2	1.8	1.8	1.8	1.8	1.8
Output to Tap Isolation Min (dB)	5-10	-	19	22	26	28	30	34	36	37	38
	10-750	-	23	25	28	33	35	37	38	39	40
	750-900	-	22	25	26	31	34	35	36	37	38
	900-1002	-	21	24	25	29	31	32	34	35	37
Tap to Tap Isolation Min (dB)	5-10	20	19	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
Input/Output Return Loss Min (dB)	5-30	16	16	16	16	16	16	16	16	16	16
	30-600	16	16	16	16	16	16	16	16	16	16
	600-750	16	16	16	16	16	16	16	16	16	16
	750-1002	16	16	16	16	16	16	16	16	16	16
Tap Port Return Loss Min (dB)	5-30	16	16	16	16	16	17	17	17	17	17
	30-600	17	17	17	17	17	17	17	17	17	17
	600-750	17	17	17	17	17	17	17	17	17	17
	750-1002	16	16	16	16	16	16	16	16	16	16
Hum Modulation at 12 Amps (dB)	5-10	-	-60	-60	-60	-60	-60	-60	-60	-60	-60
	10-750	-	-65	-65	-65	-65	-65	-65	-65	-65	-65
	750-1002	-	-60	-60	-60	-60	-60	-60	-60	-60	-60

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2 Port Widebody Tap Electrical Specifications

RRTW12000M-E

Model (RRTW12XXM-E)		04	08	11	14	17	20	23	26	29	32
Specification	Freq (MHz)										
Tap Value (dB)	5-1002	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
	900-1002	1.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.0
Insertion Loss Max (dB)	5	-	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	-	3.3	1.6	1.1	0.7	0.6	0.5	0.5	0.5	0.5
	300	-	3.5	1.7	1.2	0.8	0.7	0.6	0.6	0.6	0.6
	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
Output to Tap Isolation Min (dB)	5-10	-	19	20	25	27	30	35	38	40	42
	10-400	-	25	25	28	32	35	37	40	42	44
	400-600	-	23	23	28	32	35	35	37	40	42
	600-750	-	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
Tap to Tap Isolation 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
Input/Output Return Loss Min (dB)	5-10	18	18	18	18	18	18	18	18	18	18
	10-500	18	18	18	18	18	18	18	18	18	18
	500-600	18	18	18	18	18	18	18	18	18	18
	600-900	17	17	17	17	17	17	17	17	17	17
	900-1002	16	16	16	16	16	16	16	16	16	16
Tap Port Return Loss Min (dB)	5-10	18	16	18	18	18	18	18	18	18	18
	10-500	18	18	18	18	18	18	18	18	18	18
	500-600	17	17	17	17	17	17	17	17	17	17
	600-1002	16	16	16	16	16	16	16	16	16	16
Hum Modulation at 12 Amps (dB)	5-50	-	-64	-64	-65	-65	-65	-65	-65	-65	-65
	50-600	-	-65	-65	-65	-65	-65	-65	-65	-65	-65
	600-750	-	-64	-64	-65	-65	-65	-65	-65	-65	-65
	750-1002	-	-60	-60	-65	-65	-65	-65	-65	-65	-65

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4 Port Widebody Tap Electrical Specifications
RRTW14000M-E

Model (RRTW14XXM-E)		8	11	14	17	20	23	26	29	32	35
Specification	Freq (MHz)										
Tap Value (dB)	5-1002	8	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
	900-1002	2.0	2.5	1.8	1.8	1.8	1.8	1.8	1.8	2.0	2.0
Insertion Loss Max (dB)	5	-	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
	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	1.2	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
Output to Tap Isolation Min (dB)	5-10	-	20	20	28	33	35	38	40	42	45
	10-400	-	25	25	30	33	37	40	42	44	46
	400-600	-	23	25	30	31	35	35	38	40	42
	600-750	-	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
Tap to Tap Isolation 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
Input/Output Return Loss Min (dB)	5-10	18	18	17	18	18	18	18	18	18	18
	10-500	18	18	18	18	18	18	18	18	18	18
	500-600	18	17	18	18	18	18	18	18	18	18
	600-900	17	17	17	17	17	17	17	17	17	17
	900-1002	16	16	16	16	16	16	16	16	16	16
Tap Port Return Loss Min (dB)	5-10	18	17	18	18	18	18	18	18	18	18
	10-500	18	18	18	18	18	18	18	18	18	18
	500-600	17	17	17	17	17	17	17	17	17	17
	600-1002	16	16	16	16	16	16	16	16	16	16
Hum Modulation at 12 Amps (dB)	5-50	-	-64	-64	-65	-65	-65	-65	-65	-65	-65
	50-600	-	-65	-65	-65	-65	-65	-65	-65	-65	-65
	600-750	-	-64	-64	-65	-65	-65	-65	-65	-65	-65
	750-1002	-	-60	-60	-65	-65	-65	-65	-65	-65	-65

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8 Port Widebody Tap Electrical Specifications

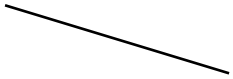
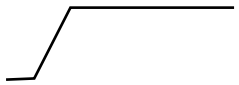
RRTW18000M-E

Model (RRTW18XXM-E)		11	14	17	20	23	26	29	32
Specification	Freq (MHz)								
Tap Value (dB)	5-1002	11	14	17	20	23	26	29	32
Tap Loss Tolerance (±dB)	5-500	1.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	500-600	1.3	1.5	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
Insertion Loss Max (dB)	5	-	3.4	2.0	1.1	1.0	0.8	0.6	0.6
	50	-	3.4	1.6	1.0	0.8	0.7	0.5	0.5
	300	-	3.6	1.7	1.1	0.9	0.9	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	1.3	1.3
	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
Output to Tap Isolation 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
Tap to Tap Isolation 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
Input/Output Return Loss Min (dB)	5-10	18	18	17	18	18	18	18	18
	10-750	18	18	18	18	18	18	18	18
	750-900	17	16	17	17	17	17	17	17
	900-1002	17	16	17	17	17	17	17	17
Tap Port Return Loss Min (dB)	5-10	18	18	18	18	18	18	18	18
	10-500	18	18	18	18	18	18	18	18
	500-750	16	16	16	16	16	16	16	16
	750-1002	16	16	16	16	16	16	16	16
Hum Modulation at 12 Amps (dB)	5-50	-	-64	-64	-65	-65	-65	-65	-65
	50-600	-	-65	-65	-65	-65	-65	-65	-65
	600-750	-	-64	-64	-65	-65	-65	-65	-65
	750-1002	-	-60	-60	-65	-65	-65	-65	-65

Specifications
RRT Series Taps

General	
Impedance	75Ω
F-connector Type	ANSI/SCTE-01 Compliant CamPort® F-port
Power Rating	12 Amps Continuous, 60 to 90 VA

Environmental	
Operating Temperature	-40°C to +60°C
Surge Withstand	6 kV Combination Wave Surge per IEEE C62.41 Category B3 on all 5/8-24 ports 6 kV Ring Wave Surge per IEEE C62.41 Category A3 on all F-ports
Pressure Seal (psi)	15 psi
Corrosion Resistance	ANSI/SCTE-143 salt spray for 1000 hours
Screening Effectiveness	100 dB (min)

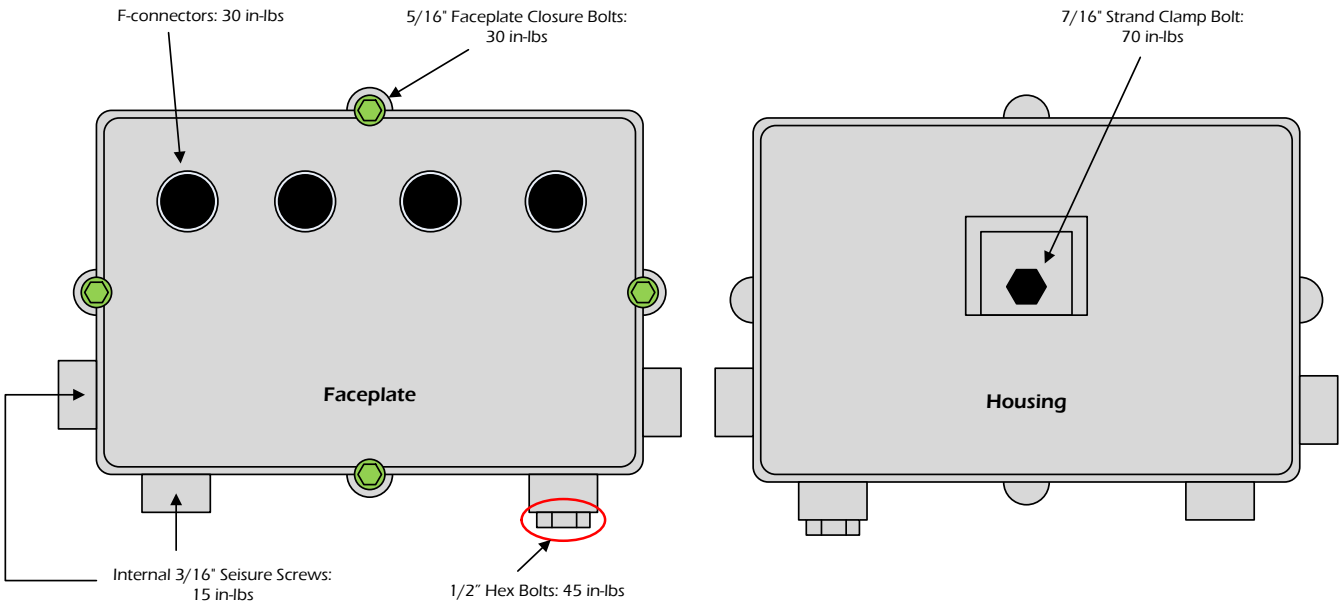
Plug In Conditioner	Type (XX)	Filter Shape	Conditioner Value (-YY)
Cable Equalizer	CE		02, 04, 06, 08, 10, 12, 14, 16 (dB)
Cable Simulator	CS		03, 06, 09, 12 (dB)
Return Path Attenuator	RA		02, 04, 06, 08, 10, 12, 14, 16, 18 (dB)
High Tap Filter	HT		03, 06, 09, 12, 15 (dB)
High Pass Filter	HP		54 (MHz)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

** Jumper (JP) is shipped pre-installed with all E-Option taps.

XX – XX

- Conditioner Value
- Conditioner Type

Torque Specifications
RRT Series Taps



Ordering Guide

Full Tap Model Numbers	
RRT1200M-E	2-Port Regal Retrofit (narrow body) Tap with E-Option
RRT1400M-E	4-Port Regal Retrofit (narrow body) Tap with E-Option
RRTW1200M-E	2-Port Regal Retrofit (wide body) Tap with E-Option
RRTW1400M-E	4-Port Regal Retrofit (wide body) Tap with E-Option
RRTW1800M-E	8-Port Regal Retrofit (wide body) Tap with E-Option
Faceplate Model Numbers	
RRT1200-E/P	2-Port Regal Retrofit (narrow body) Tap Plate with E-Option
RRT1400-E/P	4-Port Regal Retrofit (narrow body) Tap Plate with E-Option
RRTW1200-E/P	2-Port Regal Retrofit (wide body) Tap Plate with E-Option
RRTW1400-E/P	4-Port Regal Retrofit (wide body) Tap Plate with E-Option
RRTW1800-E/P	8-Port Regal Retrofit (wide body) Tap Plate with E-Option