Features and Benefits

ANTRONIX®

Retrofit Tap

RPT1000-E-G2 Series Philips® Compatible 1218 MHz with E-Option

Antronix offers a retrofit multi-tap plate, which is compatible with existing Philips® faceplates RPT Series – designed for operating frequencies up to 1218 MHz. The retrofit series multi-tap enables cable operators to upgrade their system to current digital broadband system standards. The Philips® 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 Philips® 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:
  CEG – Cable Equalizer
  CSG – Cable Simulator
  RAG – Return Path Attenuator
  HTG– 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.

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Electrical Specifications

RPT1000-E-G2 Series Philips® Compatible RPT1200-E-G2 Series

Model (RPT12XX)		04	08	11	14	17	20	23	26	29	32
Tap Loss	**Freq** (MHz)										
(dB)	5-1218	4.0	8.0	11.0	14.0	17.0	20.0	23.0	26.0	29.0	32.0
Tap Loss Tolerance (+/– dB)	5-19	1.5	1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
	20-899	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	900-1000	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	1001-1218	2.0	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Insertion Loss Max (dB)	5	–	3.9	2.0	1.3	1.2	1.0	0.7	0.7	0.7	0.7
	10	–	3.6	1.8	1.2	1.1	0.9	0.6	0.6	0.6	0.6
	30	–	3.5	1.8	1.2	1.1	0.9	0.6	0.6	0.6	0.6
	50	–	3.5	1.8	1.2	1.1	0.9	0.7	0.7	0.7	0.7
	100	–	3.6	2.0	1.3	1.2	1.0	0.8	0.8	0.8	0.8
	330	–	3.9	2.2	1.4	1.4	1.2	1.0	1.0	1.0	1.0
	450	–	4.2	2.4	1.6	1.5	1.3	1.1	1.1	1.1	1.1
	600	–	4.2	2.4	1.8	1.5	1.4	1.2	1.2	1.2	1.2
	750	–	4.2	2.6	1.8	1.5	1.5	1.3	1.3	1.3	1.3
	860	–	4.3	2.7	2.0	1.6	1.6	1.4	1.4	1.4	1.4
	1000	–	4.3	3.0	2.3	1.6	1.6	1.6	1.6	1.6	1.6
	1218	–	5.2	3.6	2.7	2.2	2.0	1.8	1.8	1.8	1.8
Tap to Output Isolation Min (dB)	5-9	–	18	20	22	26	29	32	35	38	40
	10-749	–	21	24	26	30	33	36	38	40	42
	750-899	–	20	22	23	28	31	34	36	38	40
	900-1218	–	20	22	23	27	30	32	34	36	38
Tap to Tap Isolation Min (dB)	5-9	20	20	20	20	20	20	20	20	20	20
	10-250	25	25	25	25	25	25	25	25	25	25
	251-749	23	23	23	23	23	23	23	23	23	23
	750-1218	20	20	20	20	20	20	20	20	20	20
Input/Output Return Loss Min (dB)	5-9	18	18	18	18	18	18	18	18	18	18
	10-749	18	17	18	18	18	18	18	18	18	18
	750-999	17	16	17	17	17	17	17	17	17	17
	1000-1218	16	16	16	16	16	16	16	16	16	16
Tap Port Return Loss Min (dB)	5-9	18	17	18	18	18	18	18	18	18	18
	10-749	18	18	18	18	18	18	18	18	18	18
	750-999	17	17	17	17	17	17	17	17	17	17
	1000-1218	16	16	16	16	16	16	16	16	16	16
Hum Modulation @ 12 Amps Max (dB)	5-49	–	–64	–64	–70	–70	–70	–70	–70	–70	–70
	50-599	–	–70	–70	–70	–70	–70	–70	–70	–70	–70
	600-749	–	–64	–64	–70	–70	–70	–70	–70	–70	–70
	750-1218	–	–60	–60	–70	–70	–70	–70	–70	–70	–70
RFI Min (dB)	5-1218	–105	–105	–105	–105	–105	–105	–105	–105	–105	–105

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Electrical Specifications

RPT1000-E-G2 Series Philips® Compatible RPT1400-E-G2 Series

Model (RPT14XX)		08	11	14	17	20	23	26	29	32	35
Tap Loss	**Freq** (MHz)										
(dB)	5-1218	8.0	11.5	14.5	17.0	20.0	23.0	26.0	29.0	32.0	35.0
Tap Loss Tolerance (+/– dB)	5-19	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	20-899	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	900-1000	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	1001-1218	2.0	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5
Insertion Loss Max (dB)	5	–	3.9	2.0	1.3	1.2	1.0	0.7	0.7	0.7	0.7
	10	–	3.6	1.8	1.2	1.1	0.9	0.6	0.6	0.6	0.6
	30	–	3.5	1.8	1.2	1.1	0.9	0.6	0.6	0.6	0.6
	50	–	3.5	1.8	1.2	1.1	0.9	0.7	0.7	0.7	0.7
	100	–	3.6	2.0	1.3	1.2	1.0	0.8	0.8	0.8	0.8
	330	–	3.9	2.2	1.6	1.4	1.2	1.0	1.0	1.0	1.0
	450	–	4.2	2.4	1.7	1.5	1.3	1.1	1.1	1.1	1.1
	600	–	4.4	2.6	1.9	1.5	1.4	1.2	1.2	1.2	1.2
	750	–	4.4	2.8	1.9	1.6	1.5	1.3	1.3	1.3	1.3
	860	–	4.4	3.0	2.1	1.8	1.6	1.4	1.4	1.4	1.4
	1000	–	4.5	3.1	2.4	2.0	1.7	1.5	1.5	1.5	1.5
	1218	–	5.2	3.6	2.7	2.2	2.0	1.8	1.8	1.8	1.8
Tap to Output Isolation Min (dB)	5-9	–	20	22	26	30	32	34	36	40	42
	10-749	–	23	27	30	34	36	38	40	42	44
	750-899	–	22	25	28	32	34	36	38	40	42
	900-1218	–	22	25	28	30	32	34	36	38	40
Tap to Tap Isolation Min (dB)	5-9	20	20	20	20	20	20	20	20	20	20
	10-250	25	25	25	25	25	25	25	25	25	25
	251-749	23	23	23	23	23	23	23	23	23	23
	750-1218	20	20	20	20	20	20	20	20	20	20
Input/Output Return Loss Min (dB)	5-9	17	18	18	18	18	18	18	18	18	18
	10-749	18	17	18	18	18	18	18	18	18	18
	750-999	17	17	17	17	17	17	17	17	17	17
	1000-1218	16	16	16	16	16	16	16	16	16	16
Tap Port Return Loss Min (dB)	5-9	18	18	17	18	18	18	18	18	18	18
	10-749	18	18	18	18	18	18	18	18	18	18
	750-999	17	17	17	17	17	17	17	17	17	17
	1000-1218	16	16	16	16	16	16	16	16	16	16
Hum Modulation @ 12 Amps Max (dB)	5-49	–	–64	–64	–70	–70	–70	–70	–70	–70	–70
	50-599	–	–70	–70	–70	–70	–70	–70	–70	–70	–70
	600-749	–	–64	–64	–70	–70	–70	–70	–70	–70	–70
	750-1218	–	–60	–60	–70	–70	–70	–70	–70	–70	–70
RFI Min (dB)	5-1218	–105	–105	–105	–105	–105	–105	–105	–105	–105	–105

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Electrical Specifications

RPT1000-E-G2 Series Philips® Compatible RPT1800-E-G2 Series

Model (RPT18XX)		12	15	18	21	24	27	30	33
Tap Loss	**Freq** (MHz)								
(dB)	5-1218	12.0	15.5	18.0	21.0	24.0	27.0	30.0	33.0
Tap Loss Tolerance (+/– dB)	5-19	2.0	2.5	2.0	2.0	2.0	2.0	2.0	2.0
	20-899	2.0	2.5	2.0	2.0	2.0	2.0	2.0	2.0
	900-1000	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
	1001-1218	3.0	3.2	3.0	3.0	3.0	3.0	3.0	3.0
Insertion Loss Max (dB)	5	–	3.9	2.0	1.3	1.1	0.8	0.6	0.6
	10	–	3.6	1.8	1.2	0.9	0.7	0.5	0.5
	30	–	3.5	1.8	1.2	0.9	0.7	0.5	0.5
	50	–	3.5	1.8	1.2	0.9	0.7	0.5	0.5
	100	–	3.6	2.0	1.3	1.1	0.8	0.6	0.6
	330	–	4.0	2.2	1.5	1.2	1.0	0.9	0.9
	450	–	4.2	2.4	1.7	1.3	1.2	0.9	0.9
	600	–	4.4	2.6	1.9	1.5	1.4	1.0	1.0
	750	–	4.5	2.8	1.9	1.6	1.4	1.2	1.2
	860	–	4.5	2.9	2.1	1.8	1.4	1.3	1.3
	1000	–	4.5	3.1	2.3	2.0	1.6	1.5	1.5
	1218	–	5.2	3.6	2.8	2.2	2.0	1.9	1.9
Tap to Output Isolation Min (dB)	5-9	–	23	25	28	30	34	36	38
	10-749	–	25	30	32	34	36	38	40
	750-899	–	25	27	29	32	34	36	38
	900-1218	–	23	26	28	29	30	32	34
Tap to Tap Isolation Min (dB)	5-9	20	20	20	20	20	20	20	20
	10-250	25	25	25	25	25	25	25	25
	251-749	23	23	23	23	23	23	23	23
	750-1218	20	20	20	20	20	20	20	20
Input/Output Return Loss Min (dB)	5-9	18	18	18	18	18	18	18	18
	10-749	17	17	17	17	17	17	17	17
	750-999	16	17	17	17	17	17	17	17
	1000-1218	16	16	16	16	16	16	16	16
Tap Port Return Loss Min (dB)	5-9	18	18	18	18	18	18	18	18
	10-749	17	17	17	17	17	17	17	17
	750-999	17	17	17	17	17	17	17	17
	1000-1218	16	16	16	16	16	16	16	16
Hum Modulation @ 12 Amps Max (dB)	5-49	–	–70	–70	–70	–70	–70	–70	–70
	50-599	–	–70	–70	–70	–70	–70	–70	–70
	600-749	–	–70	–70	–70	–70	–70	–70	–70
	750-1218	–	–70	–70	–70	–70	–70	–70	–70
RFI Min (dB)	5-1218	-105	–105	–105	–105	–105	–105	–105	–105

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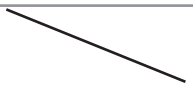
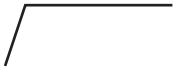
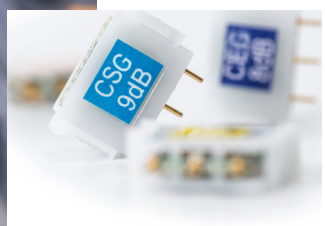
Retrofit Tap
RPT1000-E-G2 Series Philips® Compatible

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	(XXX)	Filter Shape	Conditioner Value (-XX)
Cable Equalizer	CEG		02, 04, 06, 08, 10, 12, 14 or 16 (dB)
Cable Simulator	CSG		03, 06, 09 or 12 (dB)
Return Path Attenuator	RAG		02, 04, 06, 08, 10, 12, 14, 16 or 18 (dB)
High Tap Filter	HTG		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



XXX – XX

Conditioner Value

Conditioner Type

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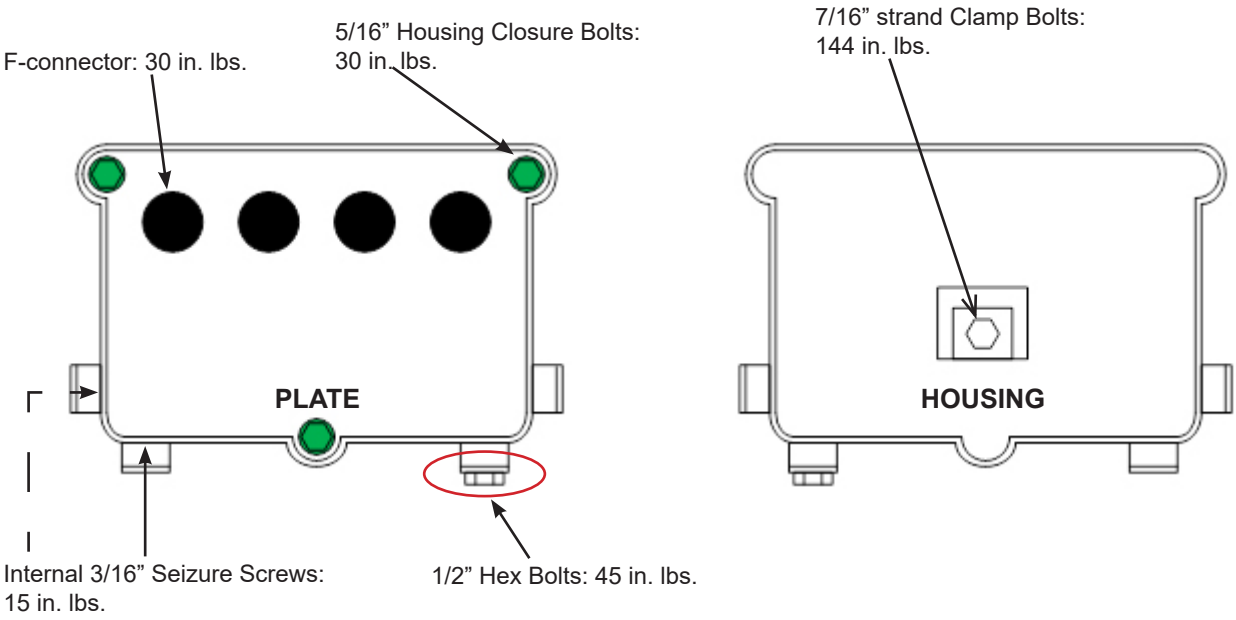
Torque

RPT1000-E-G2 Series Philips® Compatible Specifications



Accessory Ordering Guide

RPT1200-E/P-G2	2–Way Philips® Retrofit Tap Plate 1218 MHz w/E–Option
RPT1400-E/P-G2	4–Way Philips® Retrofit Tap Plate 1218 MHz w/E–Option
RPT1800-E/P-G2	8–Way Philips® Retrofit Tap Plate 1218 MHz w/E–Option
RPT1200-M-E-G2	2–Way Philips® Retrofit Full Tap Plate 1218 MHz w/E–Option
RPT1400-M-E-G2	4–Way Philips® Retrofit Full Tap Plate 1218 MHz w/E–Option
RPT1800-M-E-G2	8–Way Philips® Retrofit Full Tap Plate 1218 MHz w/E–Option

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