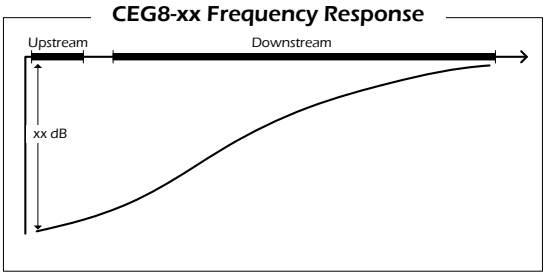
Features and Benefits

1.8 GHz E-Option Plug-In Conditioner
Conditioning at the Tap
CEG8 Cable Equalizer

Antronix's patented E-Option conditioning multi-tap accommodates a variety of plug-in modules that provide signal conditioning in the downstream and/or upstream for optimum system performance. E-Option allows each tap location to be conditioned individually, affecting only the tap ports without impacting the through insertion loss. E-Option solves design challenges such as high/low passive upstream loss, negative/positive tilt compensation, and return path ingress and noise concerns.

- **Compact Size**
  One plug-in affects all tap ports equally without degrading the through path insertion loss.
- **Compatible with the Antronix 1.8 GHz multi-taps**
  The yellow plug-in is compatible with the Antronix 1.8 GHz MGT and RPT multi-taps.
- **Does not affect the through path of the multi-tap**
- **Cable Equalizer (CEG8)**
  Equalizer the full bandwidth to compensate for excessive negative tilt usually occurring at the end of the network cascade.



1.8 GHz Cable Equalizer Plug-In Conditioner

The cable equalizer is used to equalize the entire bandwidth from 5 to 1800 MHz. The cable equalizer is normally used on taps towards the end of the line. The advantages of this equalizer are:

- It equalizes the full bandwidth to overcome excessive negative tilt associated with long coaxial lines allowing the distribution line to be extended.
- It adds attenuation on the upstream band allowing cable modems to operate at a higher output and lowers the noise/ingress coming from the customer's premises, thus achieving a greater signal to noise/ingress ratio in the return path.
- It conditions the tap ports for correct signal levels for proper set-top operation and to meet FCC specifications.
- It is available in a variety of values to meet your design criteria.

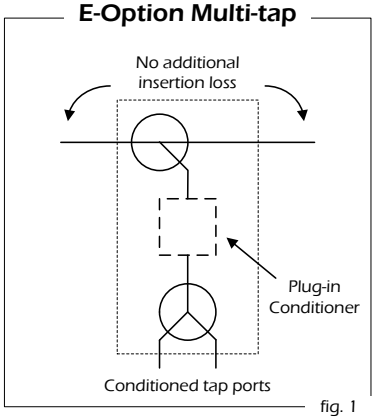


fig. 1

Ordering Guide

Plug-in	Available values
CEG8	2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22

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Specifications
CEG8 Cable Equalizer

Model		CEG8-02	CEG8-04	CEG8-06	CEG8-08	CEG8-10	CEG8-12
Equalizer Value @ 1800 MHz		2	4	6	8	10	12
Insertion Loss dB (max)	5	2.9	4.2	6.4	8.2	10.5	12.4
	50	2.9	4.2	6.4	8.2	10.5	12.4
	258	2.7	4.1	6.1	7.5	9.3	10.8
	492	2.5	3.8	5.6	6.8	8.0	8.9
	750	2.3	3.4	5.0	6.0	6.8	7.0
	870	2.2	3.1	4.6	5.5	6.2	6.2
	1002	2.1	2.9	4.2	5.0	5.5	5.5
	1218	1.9	2.5	3.5	4.3	4.3	4.3
	1602	1.7	1.8	2.2	2.5	2.5	2.5
	1800	1.6	1.6	1.6	1.6	1.6	1.6
Return Loss dB (min)	5-10	16	16	16	16	16	16
	10-800	16	16	16	16	16	16
	800-1000	15	15	15	15	15	15
	1000-1218	15	15	15	15	15	15
	1218-1800	15	15	15	15	15	15

Model		CEG8-14	CEG8-16	CEG8-18	CEG8-20	CEG8-22
Equalizer Value @ 1800 MHz		14	16	18	20	22
Insertion Loss dB (max)	5	14.5	16.3	18.3	20.5	22.8
	50	14.5	16.3	18.3	20.5	22.8
	258	13.3	14.5	15.5	16.7	17.5
	492	11.5	12.2	12.3	12.5	12.7
	750	9.0	9.2	8.5	8.8	9.0
	870	8.0	8.0	7.2	7.5	8.0
	1002	6.8	6.8	6.0	6.2	6.8
	1218	5.0	5.0	4.2	4.5	5.0
	1602	2.5	2.5	2.0	2.3	2.5
	1800	1.6	1.6	1.6	1.6	1.6
Return Loss dB (min)	5-10	16	16	16	16	16
	10-800	16	16	16	16	16
	800-1000	15	15	15	15	15
	1000-1218	15	15	15	15	15
	1218-1800	15	15	15	15	15

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