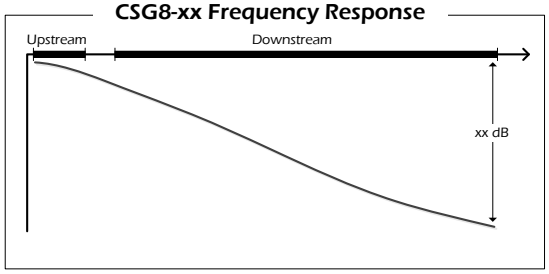
Features and Benefits

1.8 GHz E-Option Plug-In Conditioner
Conditioning at the Tap
CSG8 Cable Simulator

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 Simulator (CSG8)**
  Simulate a fixed amount of cable to overcome large positive tilt usually found immediately following an amplifier or node.



1.8 GHz Cable Simulator Plug-In Conditioner

The cable simulator is used in the latest system designs that incorporate high output amplifiers allowing the full use of the amplifier gain and large positive tilts. The cable simulator is normally used in the first few taps after an amplifier. The advantages of the cable simulator are:

- It simulates a fixed amount of cable thus overcoming excessive positive tilts.
- It provides lower upstream attenuation in high value taps so cable modems can overcome the large passive loss associated with high tap values.
- 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.

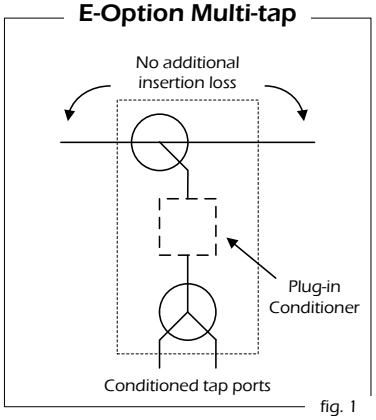


fig. 1

Ordering Guide

Plug-in	Available values
CSG8	2, 3, 4, 6, 8, 9, 10, 12, 15, 18, 21

440 Forsgate Drive, Cranbury, NJ 08512 • T: 609.860.0160 • F: 609.860.1687 • antronix.com

ANTRONIX®

Specifications
CSG8 Cable Simulator

Model		CSG8-02	CSG8–03	CSG8-04	CSG8-06	CSG8-08	CSG8-09
Cable Simulator Value @ 1800 MHz		2	3	4	6	8	9
Insertion Loss dB (max)	5	0.1	0.1	0.1	0.1	0.1	0.1
	50	0.1	0.1	0.1	0.1	0.2	0.2
	258	0.3	0.4	0.6	0.7	0.9	1.0
	492	0.6	0.9	1.3	1.6	2.3	2.4
	750	0.9	1.5	2.2	2.7	3.6	3.8
	870	1.1	1.7	2.6	3.3	4.3	4.6
	1002	1.3	2.0	3.0	3.8	5.0	5.4
	1218	1.6	2.4	3.5	4.6	6.1	6.8
	1602	2.1	3.0	4.1	5.7	7.7	8.8
	1800	2.3	3.3	4.5	6.2	8.4	9.5
Return Loss dB (min)	5-10	18	18	18	18	18	18
	10-800	17	17	17	17	17	17
	800-1000	17	17	17	17	17	17
	1000-1218	16	16	16	16	16	16
	1218-1800	16	16	16	16	16	16

Model		CSG8-10	CSG8-12	CSG8-15	CSG8-18	CSG8-21
Cable Simulator Value @ 1800 MHz		10	12	15	18	21
Insertion Loss dB (max)	5	0.1	0.1	0.1	0.1	0.1
	50	0.2	0.2	0.2	0.3	0.3
	258	1.2	1.3	1.7	2.0	3.0
	492	3.0	3.2	4.0	4.6	6.3
	750	4.8	5.2	6.7	7.6	10.0
	870	5.6	6.3	8.0	9.0	11.5
	1002	6.6	7.4	9.4	10.4	13.5
	1218	8.1	9.2	11.6	13.0	16.0
	1602	10.0	11.7	14.7	17.1	20.5
	1800	10.5	12.5	15.6	18.6	21.0
Return Loss dB (min)	5-10	18	18	18	18	18
	10-800	17	17	17	17	17
	800-1000	17	17	17	17	17
	1000-1218	16	16	16	16	16
	1218-1800	16	16	16	16	16

440 Forsgate Drive, Cranbury, NJ 08512 • T: 609.860.0160 • F: 609.860.1687 • antronix.com