Features and Benefits

# CEJ E-Option Plug-In Conditioners

## Cable Equalizers-Conditioning at the Tap
## Milenium NXT Series 1.2 GHz Plug-ins

Antronix E-Option conditioning 2 GHz MHT series mult-itaps accommodate a variety of plug-in modules that provide signal conditioning in either the downstream 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 return loss, negative/positive tilt compensation and return path ingress and noise reduction.

- **Compact Size**
  One plug-in affects all tap ports equally while not affecting the through port.
- **Compatible with Antronix 2 GHz MHT Milenium NXT 2.0 series Multi-taps**
- **Cable Equalizers CEJ 5-1218 MHz**
  It equalizes the legacy and extended frequency bands to 1.2 GHz to compensate for excessive negative tilt usually occurring at the end of the transmission line.

- **Does not affect the through path of the Multi-tap**

### Advantages:

- The CEJ is used to equalize the entire bandwidth from 5 to 1218 MHz.
- The cable equalizer is normally used on taps towards the end of the lines.
- It equalizes the full bandwidth to overcome excessive negative tilt associated with long coaxial lines allowing modems to operate at a higher output and lowers the noise and ingress coming from the customer's premise, thus achieving a greater signal to noise/ ingress ratio in the return path.
- It conditions the tap ports for the correct signal levels for proper set top operation and to meet FCC specifications.
- It is available in a variety of values to meet your needs.


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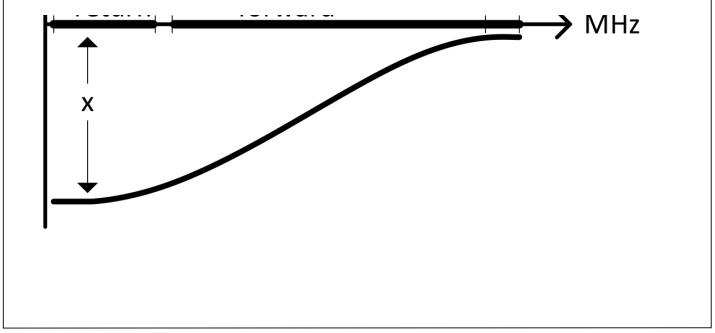
# Electrical Specifications
# 1.2 GHz Cable Equalizer Filter Plug In (CEJ)

| | | CEJ-02 | CEJ-04 | CEJ-06 | CEJ-08 | CEJ-10 | CEJ-12 | CEJ-14 | CEJ-16 | CEJ-18 | CEJ-20 | CEJ-22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bandwidth** (MHz) | | **5-1218** | | | | | | | | | | |
| **Cable Equalizer** (dB) | | 2.0 | 4.0 | 6.0 | 8.0 | 10.0 | 12.0 | 14.0 | 16.0 | 18.0 | 20.0 | 22.0 |
| **Insertion Loss** (dB Max) | 5 | 3.0 | 4.2 | 6.1 | 8.0 | 9.2 | 11.1 | 13.8 | 16.7 | 18.4 | 20.2 | 22.3 |
| | 50 | 3.0 | 4.2 | 6.1 | 8.0 | 9.2 | 11.1 | 13.6 | 16.5 | 18.2 | 20.0 | 22.2 |
| | 85 | 2.9 | 4.2 | 6.0 | 7.9 | 9.1 | 10.8 | 13.2 | 15.8 | 17.6 | 19.3 | 21.1 |
| | 102 | 2.9 | 4.2 | 5.9 | 7.8 | 9.0 | 10.7 | 13.0 | 15.6 | 17.3 | 18.9 | 20.7 |
| | 204 | 2.7 | 4.0 | 5.6 | 7.1 | 8.5 | 9.7 | 11.3 | 13.6 | 15.1 | 16.7 | 17.8 |
| | 258 | 2.5 | 3.9 | 5.4 | 6.9 | 8.2 | 9.1 | 10.5 | 12.6 | 14.1 | 15.7 | 16.3 |
| | 300 | 2.4 | 3.8 | 5.3 | 7.0 | 7.8 | 8.5 | 9.9 | 11.9 | 13.5 | 14.5 | 15.0 |
| | 396 | 2.2 | 3.5 | 4.7 | 6.2 | 7.1 | 7.3 | 8.4 | 10.3 | 11.6 | 12.9 | 13.3 |
| | 450 | 2.1 | 3.4 | 4.5 | 6.0 | 6.6 | 6.6 | 7.6 | 9.5 | 10.8 | 11.9 | 12.1 |
| | 550 | 2.0 | 3.3 | 4.1 | 5.5 | 5.8 | 5.5 | 6.3 | 8.0 | 8.9 | 9.9 | 9.8 |
| | 684 | 1.9 | 3.0 | 3.5 | 4.6 | 4.7 | 4.1 | 4.7 | 6.1 | 6.8 | 7.8 | 7.8 |
| | 750 | 1.9 | 2.8 | 3.2 | 4.0 | 4.0 | 3.6 | 4.1 | 5.3 | 6.0 | 6.7 | 6.8 |
| | 870 | 1.8 | 2.5 | 2.6 | 3.1 | 3.1 | 2.7 | 3.1 | 4.0 | 4.6 | 5.0 | 5.1 |
| | 1002 | 1.6 | 2.1 | 2.0 | 2.1 | 3.2 | 2.0 | 2.1 | 2.6 | 3.2 | 3.4 | 3.3 |
| | 1218 | 1.4 | 1.4 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.5 | 1.6 | 1.6 |
| **Return Loss** (dB Min) | 5-10 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | 10-800 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | 800-1002 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| | 1002-1218 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |

## CEJ-x Frequency Response





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