

## CDCL3-1 Series 3 GHz Directional Coupler



### Description:

This 3GHz Hi-Q series directional coupler is an “L-Type” that can be used in wall plate mounting in a loop system, and has many other applications in the CATV plant. This series is ideally suited for precision signal management in digital two-way plants. Designed for superior performance in systems transporting both digital and analog signals where the highest isolation and RF performance are required. The Hi-Q design features SMT technology combined with premium quality ferrites and blocking capacitors on all ports for long-term stability. It is available in tap values of 3, 6, 9, & 12dB.

### Features:

- L-type directional coupler
- Output tap values: 3, 6, 9 & 12dB
- 10-3000 MHz bandwidth
- 360° degree 24K gold plated contacts
- Sealed F-ports that comply to SCTE specifications
- -120 dB RFI shielding
- Corrosion resistant die cast plated zinc housing
- Excellent quality, 100% factory QC tested
- CE approved

**Century Electronics Ltd.**

Unit 4-11240 Bridgeport Road, Richmond, BC Canada V6X 1T2

Phone: 604-273-3419 | Fax: 604-273-5619 | Web: [www.centuryelectronic.com](http://www.centuryelectronic.com)



# Century Electronics

## Specifications:

| PARAMETER   | FREQUENCY<br>(MHz) | CDCL3-1-03                     |      | CDCL3-1-06 |      | CDCL3-1-09 |      | CDCL3-1-12 |      |
|---|--------------------|--------------------------------|------|------------|------|------------|------|------------|------|
|   |                    | TYP.                           | QA.  | TYP.       | QA.  | TYP.       | QA.  | TYP.       | QA.  |
| Tap Loss<br>Input to Tap<br>Maximum (dB)            | 10-40              | 4.8                            | 5.0  | 6.5        | 7.0  | 9.0        | 9.5  | 12.0       | 12.5 |
|   | 40-900             | 5.3                            | 5.5  | 7.0        | 7.5  | 9.5        | 10.0 | 12.5       | 13.0 |
|   | 900-1750           | 5.5                            | 5.7  | 7.5        | 8.0  | 10.0       | 10.5 | 13.0       | 13.5 |
|   | 1750-2300          | 6.0                            | 6.1  | 9.0        | 10.0 | 10.5       | 11.0 | 13.5       | 14.0 |
|   | 2300-3000          | 6.3                            | 6.5  | 10.0       | 11.0 | 12.0       | 13.0 | 14.0       | 15.0 |
| Insertion Loss<br>Input to Output<br>Maximum (dB)   | 10-40              | 4.8                            | 5.0  | 2.0        | 2.3  | 2.0        | 2.3  | 1.8        | 2.0  |
|   | 40-900             | 5.3                            | 5.5  | 2.0        | 2.5  | 2.0        | 2.5  | 2.0        | 2.5  |
|   | 900-1750           | 5.5                            | 5.7  | 3.2        | 3.5  | 3.2        | 3.5  | 3.2        | 3.5  |
|   | 1750-2300          | 5.7                            | 5.9  | 3.5        | 4.0  | 3.5        | 4.0  | 3.8        | 4.0  |
|   | 2300-3000          | 5.8                            | 6.0  | 4.5        | 5.5  | 4.3        | 5.0  | 4.0        | 4.5  |
| Port/Port Isolation<br>Output to Tap<br>Minimum(dB) | 10-40              | 17                             | 16   | 20         | 18   | 20         | 18   | 20         | 18   |
|   | 40-900             | 21                             | 20   | 22         | 20   | 22         | 20   | 22         | 20   |
|   | 900-1750           | 21                             | 20   | 22         | 20   | 22         | 20   | 22         | 20   |
|   | 1750-2300          | 20                             | 19   | 20         | 18   | 20         | 18   | 20         | 18   |
|   | 2300-3000          | 18                             | 17   | 20         | 18   | 20         | 18   | 20         | 18   |
| Return Loss<br>Input/Output<br>Minimum(dB)          | 10-40              | 12                             | 12   | 15         | 14   | 15         | 14   | 15         | 14   |
|   | 40-900             | 12                             | 12   | 18         | 16   | 18         | 16   | 18         | 16   |
|   | 900-1750           | 14                             | 12   | 18         | 16   | 18         | 16   | 18         | 16   |
|   | 1750-2300          | 14                             | 13   | 18         | 16   | 18         | 16   | 18         | 16   |
|   | 2300-3000          | 14                             | 13   | 18         | 16   | 18         | 16   | 18         | 16   |
| Return Loss<br>Tap Port<br>Minimum(dB)              | 10-40              | 15                             | 14   | 15         | 14   | 15         | 14   | 15         | 14   |
|   | 40-900             | 18                             | 16   | 18         | 16   | 18         | 16   | 18         | 16   |
|   | 900-1750           | 18                             | 16   | 18         | 16   | 18         | 16   | 18         | 16   |
|   | 1750-2300          | 19                             | 17   | 19         | 17   | 19         | 17   | 19         | 17   |
|   | 2300-3000          | 15                             | 14   | 15         | 14   | 15         | 14   | 15         | 14   |
| RFI (dB)  | 10-3000            | -130                           | -120 | -130       | -120 | -130       | -120 | -130       | -120 |
| Impedance   | 10-3000            | 75 Ohm                         |      |            |      |            |      |            |      |
| Power Passing                                       | 1000 mA            | One Port Power Passing         |      |            |      |            |      |            |      |
| Waterproof Test ( Min)                              |                    | 15 PSI                         |      |            |      |            |      |            |      |
| Operating Temperature                               |                    | -40 degrees C to +60 degrees C |      |            |      |            |      |            |      |
| Corrosion Resistance                                |                    | Meets SCTE/ANSI Specification  |      |            |      |            |      |            |      |

**Century Electronics Ltd.**

Unit 4-11240 Bridgeport Road, Richmond, BC Canada V6X 1T2

Phone: 604-273-3419 | Fax: 604-273-5619 | Web: [www.centuryelectronic.com](http://www.centuryelectronic.com)