



## Constellation CMDL-1 L-Band Downlink Module

### Advantages

- ✓ Hot Swappable
- ✓ Modular Design
- ✓ Integrated L-Band Mux-Tee
  - Flat Gain Profile
  - Linear Phase
- ✓ Integrated Power Injection
  - 24 VDC / 50W
  - Overload Protection
  - Short Circuit Protection
  - Fully Redundant Power
  - Other Voltages Available
- ✓ Integrated Distribution Amp
  - Adjustable L-Band Gain
- ✓ Integrated 10 MHz Reference
  - Adjustable Output Level

### Details

The Constellation CMDL-1 L-Band Downlink Module integrates a high gain broadband distribution amplifier, LNB power insertion, and 10 MHz reference clock into a single Constellation CMDL-1 module. The Constellation CMDL-1 Downlink Module plugs into any Constellation chassis which provides the module with fully redundant DC power, reference clock, and remote monitoring capability. The Constellation CMDL-1 Downlink Module is hot swappable and can be replaced in less than a minute. The Constellation CMDL-1 Downlink Module amplifier gain and reference output levels are easily adjusted at the front of the module.

# Constellation CMDL-1

## L-Band Downlink

### Module

DC Operation	Min	Typical	Max
Operating Current	110 mA	150 mA	180 mA
Operating Voltage	16 Volts	24 Volts	30 Volts
Output Current	-	-	2.35 A
Output Voltage	-	24 Volts	-

10 MHz Reference Frequency	Min	Typical	Max
Adjustable Range	-15 dB	-	+15 dB
Output Level	-	10 dBm	14 dBm

RF	Min	Typical	Max
Bandwidth	0.9 GHz	-	2.2 GHz
Gain	-10 dB	-	+20 dB
Impedance	-	50 $\Omega$ / 75 $\Omega$	-
Gain Step Size	1.5 dB	2 dB	2.5 dB
Gain Flatness	-1dB	-	+1dB
Antenna Port Return Loss (S11)	8 dB	12 dB	-
Modem Port Return Loss (S11) all Ports	9 dB	11 dB	-
Group Delay	-	+/- 0.5 nS	+/- 1.0 nS
Input Power (Antenna Port)	-	-10 dBm	-
Output Power (Modem Port)	-	10 dBm	-

