

# CANTADA

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## Constellation CMDL-2 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
  - Selectable Output Voltage
- ✓ Integrated Distribution Amp
  - Adjustable L-Band Gain
- ✓ Two Isolated Output Modem Ports
- ✓ Integrated 10 MHz Reference
  - Adjustable Output Level
- ✓ Integrated 22 kHz Reference

### Details

The Constellation CMDL-2 L-Band Downlink Module integrates a high gain broadband distribution amplifier, LNB power insertion, 22 kHz, 10 MHz reference clock, and two output modem ports into a single Constellation CMDL-2 module. The Constellation CMDL-2 Downlink Module plugs into any Constellation chassis which provides the module with fully redundant DC power, and reference clock. The Constellation CMDL-2 Downlink Module is hot swappable and can be replaced in less than a minute. The Constellation CMDL-2 Downlink Module amplifier gain and reference output levels are easily adjusted at the front of the module. Output voltage is selectable at the rear of the module. Both voltage and 22 kHz can be independently enabled or disabled at rear of the module.



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### Specifications

DC Operation	Min	Typical	Max	RF	Min	Typical	Max
Operation Current	110 mA	150 mA	180 mA	Bandwidth	0.9 GHz	-	2.2 GHz
Operation Voltage	16 Volts	24 Volts	30 Volts	Gain	-10dB	-	+20 dB
Output Voltage	23.5 17.5 11.5	24 Volts 18 Volts 12 Volts	- 18.2 12.2	Impedance Order Option	-	50 Ω / 75 Ω	-
Output Current	@24 Volts @18 Volts @12 Volts	- -	2.35 Amps 2.80 Amps 4.00 Amps	Gain Step Size	1.5 dB	2 dB	2.5 dB
10 MHz Reference Frequency	Min	Typical	Max	Gain Flatness	-1 dB	-	+1 dB
Adjustable Range	-15 dB	-	+15 dB	Antenna Port Return Loss (S11)	8 dB	12 dB	-
Output Level	-	10 dBm	14 dBm	Modem Port Return Loss (S11)	9 dB	11 dB	-
22 kHz Reference Frequency	Min	Typical	Max	Group Delay	-	+/- 0.5 nS	+/- 1.0 nS
Frequency	-	22 kHz	+/- 2 kHz	Input Power (Antenna Port)	-	-10 dBm	-
Level	-	2.2 Vpp	+/- 0.2	Output Power (Modem Port)	-	10 dBm	-
				Output Port Isolation	28 dB	30 dB	-

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