



CDM-625 Advanced Satellite Modem New Product Introduction

Product Bulletin
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Comtech EF Data is pleased to introduce the next generation of satellite modems – the CDM-625 Advanced Satellite Modem. The CDM-625 Advanced Satellite Modem builds on Comtech EF Data's legacy of providing the most efficient satellite modems. It is the first modem to combine advanced forward error correction (FEC), such as Low Density Parity Check (LDPC) codes, with the revolutionary DoubleTalk[®] Carrier-in-Carrier[®] bandwidth compression allowing for maximum savings under all conditions. This combination of advanced technologies enables multi-dimensional optimization, allowing satellite communications users to:

- Minimize operating expenses (OPEX)
- Maximize throughput without using additional transponder resources
- Maximize availability (margin) without using additional transponder resources
- Minimize capital expenses (CAPEX) by allowing a smaller BUC/HPA and/or antenna
- Or, a combination to meet specific business needs

The CDM-625 is the ideal platform for mobile and telecom operators, satellite service providers, government and military entities, enterprise users and others requiring two-way connectivity at data rates ranging from 18 kbps up to 25 Mbps. Common applications for the CDM-625 are:

- Cellular backhaul
- Providing T1/n x E1/T2/E2 connectivity
- Transmission of voice, video & data
- High speed trunking
- Offshore communications
- Communications-on-the-move (Land vehicles/trains)
- Satellite news gathering

The CDM-625 includes a number of advanced features and enhancements:

- DoubleTalk Carrier-in-Carrier Bandwidth Compression
- 70/140 MHz (50 – 180 MHz) and L-band capability in the same unit with ability to transmit on 50 – 180 MHz and receive on L-band and vice versa
- Integrated LDPC and 2nd Generation Turbo Product Coding (TPC) Codec providing the widest range of FEC and modulation
- Increased Data & Symbol Rate Range
 - Data Rate: 18 kbps to 25 Mbps
 - Symbol Rate: 18 ksps to 12.5 Msps
- Widest Range of Built-in Data Interfaces

- 4-port 10/100BaseT Ethernet
- EIA 422/530 DCE
- V.35 DCE
- X.21 DCE & DTE
- G.703 T1 /E1 /T2 /E2
- Quad G.703 E1
- ASI
- LVDS
- HSSI
- 5-tap Adaptive Equalizer
- Open Network Modes compatible with IESS-308 / 309 / 310 / 314
- IP-based management – SNMP, http and Telnet
- Standard High Stability Internal Reference ($\pm 6 \times 10^{-8}$) with ability to provide 10 MHz out

Other key features include:

- Modulation: BPSK, QPSK/OQPSK, 8-PSK/8-QAM and 16-QAM
- Forward Error Correction (FEC): Viterbi, Concatenated Reed Solomon, Turbo Product Code (TPC) (IESS 315 Compliant), Low Density Parity Check (LDPC) Code and TCM
- Drop & Insert for T1/E1
- Enhanced D&I++ for Single T1/E1
- Enhanced D&I++ for Quad E1
- Engineering Service Channel (ESC/ESC++)
- Embedded Distant end Monitor and Control (EDMAC)
- Automatic Uplink Power Control (AUPC)
- L-Band Operation: 10 MHz reference for BUC, FSK communications and optional BUC power supply
- L-band Operation: 10 MHz reference and LNB power supply
- 1:1 and 1:N Redundancy Options

The CDM-625 is also backwards compatible with the CDM-600/L Satellite Modems. It even supports a CDM-600/L emulation mode that makes it easy to deploy in existing networks using CDM-600/L without changes to the 1:N redundancy switches or the management platform.

For additional detail on the new CDM-625 Advanced Satellite Modem, please refer to our web site www.comtechefdata.com. To place your order, please contact your Comtech EF Data sales associate.



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