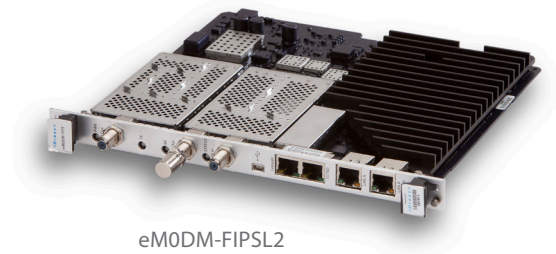# Evolution eM0DM
Line Card
Models eM0DM, eM0DM-FIPSL2

eM0DM-FIPSL2

The Evolution eM0DM line card is suited for supporting secure voice, data, and video communication links for mission-critical military applications in conjunction with an Evolution modulator card (such as eM1D1). The line card features a multi-channel demodulator with up to 8 channels operating in either multi-frequency D-TDMA or SCPC Return mode and with aggregate TDMA and SCPC Return channels of up to 7.5 Msps and 40 Mbps respectively. The eM0DM card is designed to meet the guidelines of MIL-STD 810F for operation in harsh environments.

Network Configuration

Modem	Multiple demodulators (subject to software version and license)	
	TDMA	SCPC Return
Channels	M=1, 4, or 8*	M= 1, or 8*
Modulation	BPSK, QPSK, 8PSK	BPSK, QPSK, 8PSK
FEC	2D 16-State, TPC** (M=1 only)	2D 16-State
Symbol Rates	Single Channel mode (M=1): Up to 7.5 Msps Multi-channel mode M=4, 8: Up to 5.875 Msps Up to 7.5 Msps aggregate symbol rate	Multi Channel Mode (M=1; 8): Up to 11.75 Msps Up to 40 Mbps aggregate carrier info rate
Max Info Rate	M=1: 12.8 Mbps[1]	M=1: 18.8 Mbps[2]
Max IP Data Rate	M=1: 11.1 Mbps[1]	M=1: 18.2 Mbps[2]
	Notes: [1]QPSK, 6/7 FEC, Single Channel Demod	*[2]QPSK, 4/5 FEC*
Interoperability	Compatible with Series 15100 Universal Hub (5IF/20 Slot) chassis Compatible with Evolution 8-Series remotes and with eM1D1 line card for the outbound Requires iDX 3.0 software or above in multi-channel mode & SCPC Return Requires iDX 2.3 software or above in single channel mode	

Interfaces

SatCom Interfaces	RxIF: Type-F, 950–2000 MHz (WGS), -5dBm (max) composite, -130+10*log(Fsym)dBm (min) single carrier
Data Interfaces	LAN: RJ-45 Two 100/1000Base-T, one 10/100Base-T RS-232: RJ-45 (console connection)
Security	TRANSEC (subject to software version), FIPS 140-2 Level 2 Compliant

Mechanical/Environmental

Redundancy	Hot-Swappable Software controlled Auto-Failover by cards with same or greater multi-channel licenses
Weight	Model eM0DM: 1.2 lbs (0.6 kg) Model eM0DM-FIPSL2: 1.5 lbs (0.7 kg)
Operating Temperature	-22° to +140°F (-30° to +60°C), conformally coated, tested in accordance with MIL-STD 810F
Certification	FCC, CE, and RoHS Compliant

* All carriers within 36 MHz IF bandwidth
** TPC not supported for use with DVB-S2 outbound in iDX 3.0 and above

Specifications are subject to change without notice

iDirect Government

DCSA CAGE: 503H8