

EXM-2i™ In-band Point-to-Point Radio Indoor Unit



- Cost-effective PDH and packet IDU optimized for highly-efficient (64QAM) backhaul applications in-band to cellular and PCS
- Extremely flexible, software-configurable
 - ✓ Programmable Bandwidths and Symbol Rates
 - ✓ Programmable Modulation Modes
 - ✓ Programmable FEC
 - ✓ Mix PDH and Ethernet traffic
- FlexBand™ technology allows flexible bandwidth occupancy from a single IDU
 - ✓ 1x T1/E1 in 400/533 KHz w/ overhead (25 dB BW)
 - ✓ 4x T1/E1 in 1.5 /2.0 MHz w/ overhead (25 dB BW)
- Built-in PDH and Ethernet line interfaces
 - ✓ PDH: 4xE1/T1
 - ✓ Built-in 2-port Ethernet
- Optional errorless receive switching for diversity and hot-standby operation
- Single cable interface to Outdoor Unit
- Extensive management interface support
 - ✓ Web-based link management
 - ✓ SNMP and craft menu applications
 - ✓ RS-232 craft interface
 - ✓ Radio link service channel
- Low-power design
 - ✓ Convection cooled, no fans
 - ✓ +/- 18 to 75 VDC supply
- Field-upgradeable firmware
- 1U 19-inch rack mount unit (unprotected)

Escape Communications' EXM-2i™ Indoor Unit is an extremely versatile medium-capacity IDU solution. A single, low-cost inventory item serves both CEPT and ANSI interfaces.

Escape's Flexible Signal Processing™ architecture allows complete flexibility in combining telco circuit-switched data (1 to 4 E1 or T1) and packet data (Ethernet) within the selected transport capacity. The radio link can be controlled and monitored remotely via the web-based Link Manager. SNMP monitoring and a local command-line-interface are provided.

EXM-2i™ is designed for easy adoption by an OEM to fit seamlessly into their product line. The EXM-2i provides significant flexibility in a low-cost, fanless mechanical design. It is feature-rich including SNMP interfaces, a hot stand-by interface, auxiliary control and alarm interfaces, a craft interface, and a web-based Link Manager. The ODU interface can be customized to meet specific Tx/Rx frequency plans and protocols.

EXM-2i™ is currently in production, available for demonstration and evaluation to qualified OEMs. The EXM-2i is a member of the EXM-2 product family. For IDUs serving the traditional microwave licensed bands, please see Escape's EXM-2L and EXM-2L16.

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Escape is a provider of leading-edge broadband, wideband, and gigaband modem technologies.

EXM-2i™ Point-to-Point Microwave Radio Indoor Unit

EXM-2i Specifications

Programmable Modulation Modes	QPSK, 16QAM, 32QAM, and 64QAM		
Programmable Channel BWs (FlexBand™)	CEPT/ETSI	Nx533KHz where N is number of E1's	
	ANSI/FCC	Nx400KHz where N is number of T1's	
Programmable Forward Error Correction	<ul style="list-style-type: none"> Configurable Reed-Solomon coding Configurable interleaving frame length 		
End-to-end latency	≤ 1 ms		
Link quality metrics	Supports ITU-T G.826		
Spurious and Out-of-Band Emissions	ETSI and FCC compliant		
Interference Immunity	ETSI and FCC compliant		
Errorless receive path switching	Optional		
Sensitivity Threshold for BER of 10 ⁻⁸ (RS-encoded with T=12 error-correcting)	Modulation	Net bps	Eb/No (dB)
	QPSK	1.81	8.8 dB
	16QAM	3.62	12.3 dB
	32 QAM	4.53	14.4 dB
	64 QAM	5.44	16.9 dB

Transmit Spectral Mask

T1 in 400 KHz

