IPITEK
INTEGRATED PHOTONICS TECHNOLOGY
ISO 9001 Registered

1550 nm EXTERNALLY MODULATED TRANSMITTER- SHORT REACH

RMC-EMT-SR

FEATURES & BENEFITS

- **Full performance from 45 to 870 MHz**
- **Optimized for short reach fiber links in the 20-50 km range without EDFAs**
- **High optical output power of 11 dBm**
- **Options for manual or AGC operation**
- **Field Adjustable SBS Suppression**
- **Field Adjustable Electronic Dispersion Compensation (EDC)**
- **OMI / RF Gain Adjustment**
- **Electro-Fluorescence Status Display**
- **Front Panel RF Test Point**
- **RS-232 Control Interface**

The RMC-EMT-SR high performance 1550 nm externally modulated transmitter is engineered and optimized for broadband systems operations in the 20-50 km range. Advanced, high power, DFB laser technology allows these transmitters to be fielded without the use of expensive and performance degrading EDFAs. This unique externally modulated transmitter technology allows the EMT-SR transmitter to be used in many novel HFC applications and architectures.

The unit supports both NTSC or PAL format and provides full bandwidth operation to 870 MHz with an optical output power of 11 dBm. Moreover, the transmitter also offers options for DWDM applications.

The RMC-EMT-SR utilizes advanced fiber dispersion compensation circuitry to provide exceptional broadband performance. Moreover, field adjustable SBS control allows the transmitter to be optimized to meet any link requirement without the need to procure specifically tuned transmitters..

Engineered with the latest low power components, the RMC-EMT-SR is energy efficient. Level control is provided through an internal system that provides integrated software controlled AGC gain adjustments. The RMC-EMT-SR also includes a user selectable manual gain control that may be utilized instead of AGC.

A front panel status display panel provides immediate visual indication of the transmitter status. An onboard micro-controller provides complete monitoring and control of the unit. Software design includes both function control and unit monitoring. The controller system also provides alarm processing and status monitoring functions.

IPITEK FIBER OPTIC HFC ACCESS

SPECIFICATIONS

Optical:

Center Wavelength:	Standard 1555 nm, ±5 nm Optional ITU DWDM Channel
Optical Output Power:	11 dBm nominal
Noise Bandwidth:	NTSC: 4 MHZ, PAL: 5 MHz
SBS Threshold	>12 dBm
Optical Connector:	SC/APC or E-2000/APC

RF:

Bandwidth:	45 to 870 MHz
RF Input:	(Manual Mode) NTSC - 80 Channels +17 ±1.0dBmV/ch PAL - 60 Channels +18 ±1.0 dBmV/ch (CW Mode) NTSC - 80 Channels +19 ±1.0 dBmV/ch PAL - 60 Channels +20 ±1.0 dBmV/ch
Front Panel Control:	Gain/OMI Adjustment +2/-4 dB from nominal
Response Flatness:	± 0.50 dB, 45-550 MHz ± 0.75 dB, 45-870 MHz
Input Impedance:	75 ohms
Input Return Loss:	>16 dB

Performance:

Test/ Link Configuration:

- 11 dBm launch power
- 40 km SMF-28 (0.2 dB/km loss)
- 0 dBm at receiver

CNR:	54 dB
CSO:	-65 dBc
CTB:	-65 dBc

Mechanical/Electrical:

RF Input Connector:	Type F
Front Panel RF Tap:	-20 ±1 dB down from RF Input
Power:	
AC:	95-256 VAC, 50/60 Hz
DC:	36-60 VDC
Dimensions (WxDxH):	19.0" x 15.32" x 1.72"

Environmental:

Operating Temperature:	0ºC to 50ºC
Humidity:	20 to 95%, non-condensing
Storage Temperature:	-40ºC to +85ºC, 24hours

ORDERING INFORMATION

RMC-EMT-SR -	XXX	-	XX	-	XX	-	XX
External Modulation Transmitter for Short Range	Channel Plan N80 = 80 NTSC P60 = 60 PAL		Wavelength 15 = 1550 nm XX = ITU Channel		Connector SC = SC/APC E2 = E2000/APC		Power AC = 90-265 VAC, 50/60 Hz DC = 36-60 VDC

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