

Melbye Raycore Taiwan Co., Ltd

Specification of CATV 1550nm Direct Modulated Transmitter

Part Number: ATXM-15DM-1xx10-DP

RAYCORE

Raycore is a fiber optic product brand name of Melbye Skandinavia AS.

MelbyeSM

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CATV 1550nm Direct Modulated Transmitter



1. Descriptions

The ATXM-15DM series is a family of high performance 1550nm direct modulated analog transmitters. These optical transmitters are packaged in a 1RU 19" standard chassis and are available in several configurations to meet various network requirements. The ATXM-15DM series transmitters provide a minimum optical output power of 6dBm or 10dBm. The ATXM-15DM series transmitters feature high carrier to noise ratio (CNR), superior flatness, low power consumption and easy to use. With integrated proprietary pre-distortion circuit, the ATXM-15DM series transmitter could provide excellent CSO and CTB performance. This family of transmitters is part of the full products developed by Raycore to support and enhance the deployment of traditional HFC, passive HFC and fiber to the home (FTTH) networks.

2. Features

- 19" standard 1U rack design
- High performance cooled DFB laser diode with integrated optical isolator
- 6dBm or 10 dBm optical output port
- Automatic/manual gain control (AGC/MGC)
- Local and remote status monitoring features (LCD, Web & SNMP with RJ45 interface)
- Support dual hot-swap power supplies, 90VAC~265VAC
- SBS: 16dBm

3. Specifications

Parameter	Unit	Specification	Note
Optical Performance			
Wavelength	nm	1550+/-10 or ITU wavelength	--
Output power	dBm	≥ 6 or 10	options
Optical connector	--	SC/APC	--
Output port	--	1	--
Laser type	--	DFB LD	--
SBS	dBm	16	--
RF Performance			
Bandwidth	MHz	45 to 1003	--
Return loss	-dB	≥16	--
Input level	dBuV/ch	80	487.25MHz-543.25MHz totally 8 channels
AGC	dB	+/-5	--
Impedance	ohm	75	
Flatness	dB	+/-0.75	--
Test point	dBuV	-80+/-1	Laser Input Power (-20dB)
Link Performance: 47~550MHz PAL-D/59CH or 45~550MHz NTSC-78CH, with 10km fiber, receive optical input power 0 dBm			
CNR	dB	51 for PAL system	--
CSO	dBc	≤-60 for PAL system	--
CTB	dBc	≤-62 for PAL system	--
Distance	km	10	--
Environment Performance			
Operating temperature	°C (°F)	0(32) ~ 50(122)	--
Storage temperature	°C (°F)	-20(-4) ~ 60(140)	--
Humidity	%	85	non-condensing
Stresses in excess of the absolute maximum ratings can cause permanent damage to the device. These are absolute stress ratings only. Functional operation of the device is not implied at these conditions. Exposure to absolute maximum ratings for extended periods can adversely affect device reliability			
Electrical/Physical Performance			
Supply voltage	VAC	90~265	50/60 Hz
Power consumption	W	<50	--
Dimensions	mm	370D x 483W x 44H	--
Weight	Kg	5.5	--

4. Ordering Information

Part Number	Descriptions
ATXM-15DM-10610-DP	CATV 1550nm Direct Modulated Transmitter (6dBm, 1003MHz, 10Km, Dual AC Power)
ATXM-15DM-11010-DP	CATV 1550nm Direct Modulated Transmitter (10dBm, 1003MHz, 10Km, Dual AC Power)