



DMT24, DMT34 & DMT44 DWDM Directly Modulated Transmitter Modules:

Applications:

- ▶ DWDM node segmentation
- ▶ High density applications
- ▶ Short haul applications

Features:

- ▶ Bandwidth: 50-1218 MHz
- ▶ Dual/Triple/Quad transmitters per module
- ▶ High Density Design: Up to 16 transmitters per RU
- ▶ Transmitter versions available in any wavelength combination and in the ITU Interoperable Wavelength Plan Groups 1 through 4
 - ▶ DMT24 - Two ITU lasers with common broadcast & two narrowcast inputs
 - ▶ DMT34 - Three ITU lasers with common broadcast & three narrowcast inputs
 - ▶ DMT44 - Four ITU lasers with individual, unicast RF inputs
- ▶ Optional output port configurations
 - ▶ Multiplexed single output
 - ▶ Multiplexed single output with express port
 - ▶ Individual wavelength outputs
- ▶ Front access
 - ▶ LC/APC optical output connectors
 - ▶ Selectable RF test point
 - ▶ LED indicators for RF & optical power alarms
- ▶ Local & remote status monitoring & management via SNMP, CLI & web-based GUI

ATX's ChromaFlex 1.2 GHz DMTx4 directly modulated C-Band DWDM transmitter combines high performance with the highest density platform enabling operators to conserve precious headend space.

Ideally suited for short to medium range node segmentation & the migration to node+0 & DOCSIS® 3.1. The DMTx4 is available in three configurations to support different levels of density & RF combining configurations.

The DMT24 & DMT34 offer two & three ITU transmitters respectively per module along with separate internal RF combining of broadcast/narrowcast signals. The DMT44 allows operators to take advantage of the highest density with four ITU transmitters per module for applications where the broadcast/narrowcast signals are externally combined.

Each version is housed in a single-slot ChromaFlex module using rear facing blind mating RF connectors, supporting hot-swappable modules with a fixed mid-plane allowing rapid replacement without disconnecting RF cables. Front panel optical LC/APC connectors & F-81 common test point selectable for each RF input.



DMT24 Transmitter (front view)



DMT34 Transmitter (front view)



DMT44 Transmitter (front view)

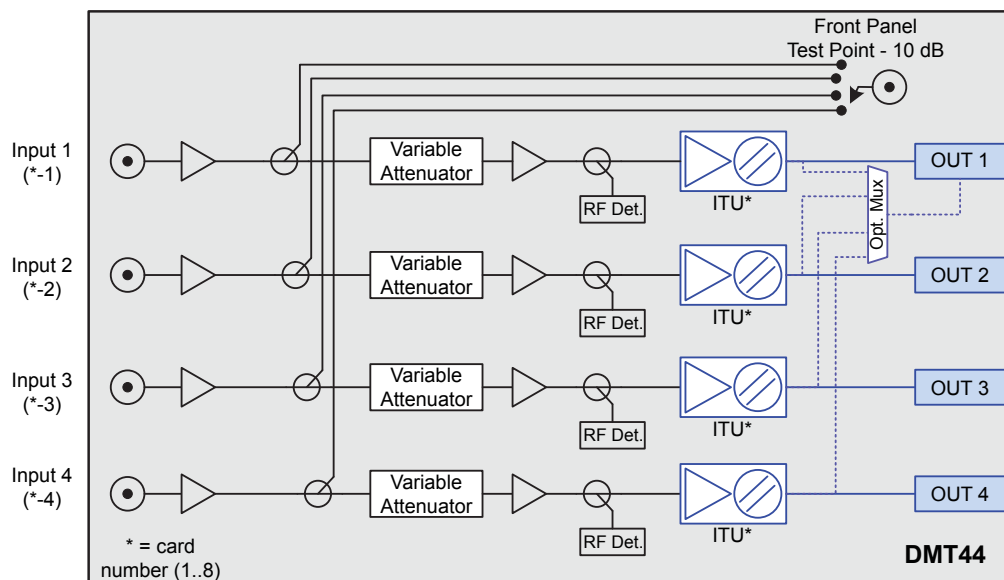
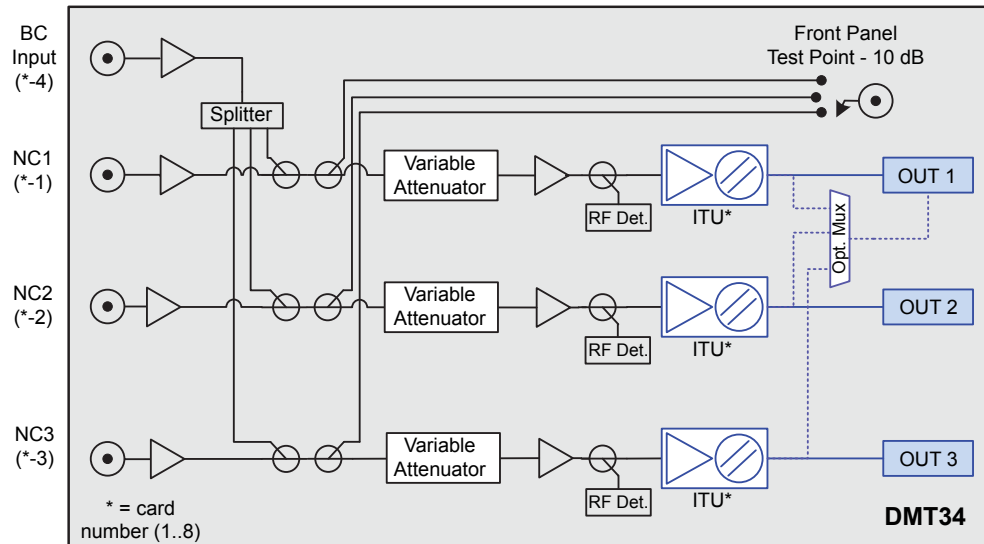
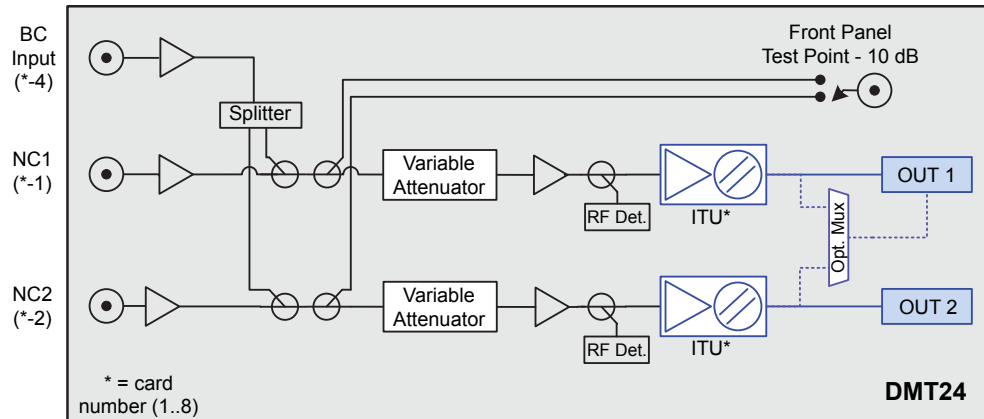
DMT24, DMT34 & DMT44 DWDM Directly Modulated Transmitter Modules:

DMT24, DMT34 & DMT44 DWDM Transmitter Specifications

SPECIFICATIONS		DMT24 / DMT34 / DMT44						
OPTICAL PARAMETER								
WAVELENGTH	1530-1562nm ITU Channels: 20-59							
OPTICAL POWER	10 dBm							
OPTICAL CONNECTOR	LC/APC							
RF PARAMETER								
RF PASSBAND ⁽¹⁾	54-1218 MHz							
FLATNESS	± 0.75 dB (Typ ± 0.5 dB)							
RETURN LOSS	> 16 dB							
RF TEST POINT ⁽²⁾	-10 dB (± 0.75 dB)							
LINK LENGTH SETTING ⁽³⁾	0-50 km							
TOTAL COMPOSITE RF INPUT (Broadcast + Narrowcast)	35 dBmV							
CHANNEL LOADING / RF INPUT (dBmV/channel) ⁽⁴⁾	BC ANALOG		SC-QAM			OFDM		
30 An + 125 QAM	17 dBmV		11 dBmV					
157 QAM			13 dBmV					
125 QAM + 192 MHz OFDM			13 dBmV			28 dBmV Total Power		
157 QAM + 192 MHz OFDM			12 dBmV			27 dBmV Total Power		
LINK PERFORMANCE (Excluding Source) ⁽⁴⁾	CNR	CTB/CSO	MER	BER	WL	DISTANCE	RX INPUT	
30 An + 125 QAM	> 51	> 68	> 38	< 1E-06	4 WL (3.5 dB Passive Loss)	25 km	0 dBm	
157 QAM			> 40	< 1E-09	4 WL (3.5 dB Passive Loss)	25 km	0 dBm	
125 QAM + 192 MHz OFDM			> 40	< 1E-09	4 WL (3.5 dB Passive Loss)	25 km	0 dBm	
157 QAM + 192 MHz OFDM			> 39	< 1E-09	4 WL (3.5 dB Passive Loss)	25 km	0 dBm	
157 QAM			> 40	< 1E-09	4 WL (3.5 dB Passive Loss)	40 km	-3 dBm	
157 QAM + 192 MHz OFDM			> 39	< 1E-09	4 WL (3.5 dB Passive Loss)	40 km	-3 dBm	
MANAGEMENT								
LOCAL	Hand-held Display, CLI, GUI							
REMOTE	SNMP Enterprise MIB, GUI, Telnet							
ELECTRICAL & OPERATIONAL								
POWER CONSUMPTION	DMT24 - 20W / DMT34 - 28W / DMT44 - 34W							
OPERATING TEMPERATURE	0°C to +50°C (+32°F to +122°F)							
STORAGE TEMPERATURE	-40°C to +65°C (-40°F to +149°F)							
HUMIDITY	Max. 85% Non-condensing							
DIMENSIONS	ChromaFlex One-slot Module, 1.25"H x 3.5"W x 13.5"D (3.18H x 8.89W x 34.29D cm)							
WEIGHT	2.0 lbs (0.9 kg)							
NOTES:								
(1) Unicast channels unique to each laser should be placed > 270 MHz.								
(2) Relative to any RF input.								
(3) 1 km steps.								
(4) 'n An' means tested with n* contiguous NTSC analog channels starting at 54 MHz.								
'n QAM' means tested with n* contiguous ITU-T J.83 ANNEX B QAM 256 channels starting at 54 MHz (or last analog).								
RF levels given are nominal (recommended). Internal AGC will compensate approx. +/- 3 dB change from these levels.								

DMT24, DMT34 & DMT44 DWDM Directly Modulated Transmitter Modules:

Functional Schematics



DMT24, DMT34 & DMT44 DWDM Directly Modulated Transmitter Modules:

Ordering Information

Part Number Format: DMT__-____-____ a b c d e f g h i j		
DMT a b	c d e f g	h i j
Base Model	ITU Channels 20-62 & Spacing	Optical Ports: Number of Output Ports, Test Points, Express Ports & Reflector Port Type (Max. of 4)
a = Transmitter Count	c = ITU Channel Group	h = Number of Output Ports & Test Points
2 = One BC & Two NC Inputs	0 = Same ITU per TX	M = Muxed Single Output with LC/APC
3 = One BC & Three NC Inputs	1 = 100 GHz Spacing, Contiguous	N = Muxed Single Output & Test Point with LC/APC
4 = Four Unicast Inputs	2 = 200 GHz Spacing, Contiguous	2 = Two Individual Outputs
b = Output Power	d e = First ITU Channel	3 = Three Individual Outputs
4 = 10 dBm	f g = Last ITU Channel	4 = Four Individual Outputs
	Special: IIWG* = ITU Interoperable Wavelength Plans, * = 1-4 1 : 26, 24, 22, 21 2 : 39, 36, 33, 28 etc. Sxxxx = Special model. See custom description.	i = Express Port Types
		0 = None
		1 = One Forward Express Port
		2 = Two Forward Express Ports
		3 = One Forward & One Return Express Port
		4 = Return Express Port
		j = Return Reflector Port Type
		0 = None

Products or features contained herein may be covered by one or more U.S. or foreign patents. DOCSIS® and other non-ATX product and company names mentioned in this data sheet are the property of their respective companies.

Specifications subject to change without notice.



powered by
InnoTrans