

MAXNET® II

Platinum Series

RF & Optical Signal Management

Patented
U.S.# 7,142,414



Active Products

3RU Active Chassis
(front view)

1310nm Forward Path Optical Transmitter:

- ▶ Patented forward path optical transmitters (FPTs) with integrated RF 8-way narrowcast combining technology optimize rack space efficiency
- ▶ Install up to 12 /10 transmitters with integrated narrowcast combining with remote/redundant powering
- ▶ Provisioned with MCX connectors (MPTX8-*) for direct connection to MCX terminated minicable or with F connectors (MPTX8F-* / MPTX4F-*) for interfacing with “wire once” F connector backplane for connection to F connector terminated RG59/6
- ▶ “Wire once” backplane concept allows users to hot swap multiport transmitter modules without ever having to remove connections to the RF lashup
- ▶ Optimized RF isolation in both the narrowcast-broadcast (>50 dB) & narrowcast-narrowcast (>50 dB) inputs eliminates network isolation concerns
- ▶ Ultra low narrowcast signal level input requirements eliminates the requirement for any amplification in the narrowcast lash up
- ▶ RF attenuation can be controlled remotely on a port by port basis
- ▶ MPTX8-* / MPTX4F-* modules come equipped with front access RF test point (MCX) and MPTX8F-* modules come equipped with front access RF test point (F) & narrowcast insertion point (MCX)
- ▶ Front LEDs indicate transmitter module power & status
- ▶ AGC or MGC modes of operation (AGC mode utilizes continuous RF attenuation)
- ▶ Front access to AGC/MGC control, transmitter mute, NC attenuator, & RF attenuator (MGC mode)
- ▶ Voltage, current, temperature, fan status, RF power, optical power, RF and optical power threshold, RF attenuator level (MGC), transmitter mute, are easily monitored & controlled over the network (HMS compliant (SNMP v2c)) or through a web browser; e-mail alarm notification is also supported

NOTE: MPTX8F-* & MPTX4F-* (F connector based transmitter modules) require MP3FA chassis



RF & Optical Signal Management

1310nm Forward Path Optical Transmitter:

1310nm Forward Path Optical Transmitter Specifications

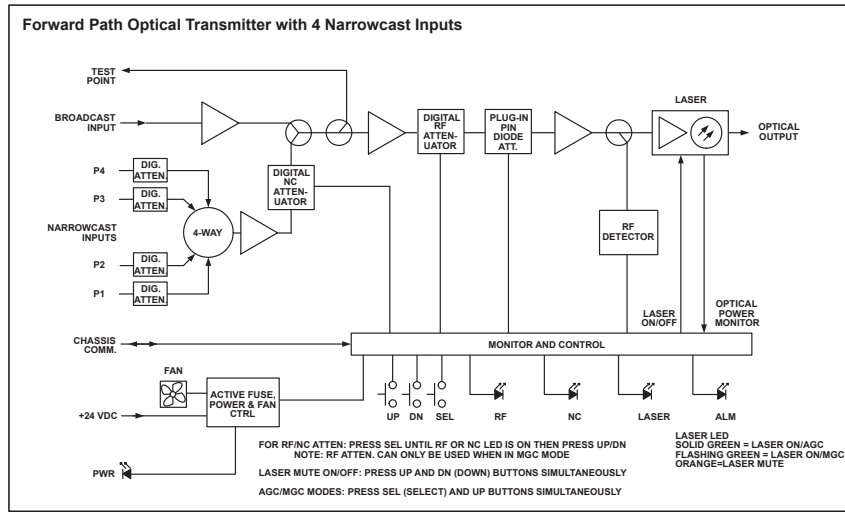
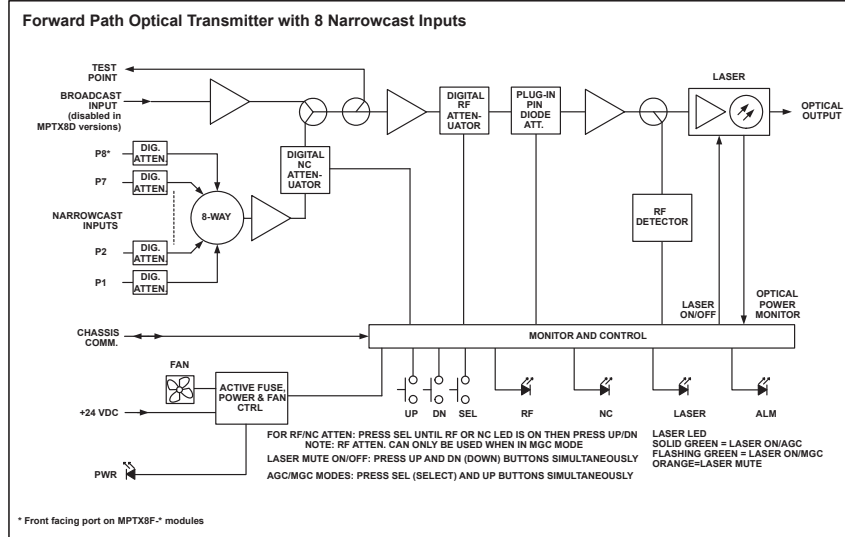
RF & OPTICAL SPECIFICATIONS	
WAVELENGTH	1310 +/- 20 nm
OUTPUT POWER	2 to 15 dBm in 1 dB Increments / Nominal -0.5 + 1.0 dB
CONNECTOR TYPE	SC/APC (std.), Others on Special Order
BANDWIDTH	50 - 1000 MHz
FLATNESS	50 - 550 MHz
	50 - 1000 MHz
	BROADCAST +/- 0.5 dB
	NARROWCAST +/- 1.0 dB
BROADCAST PORT RF INPUT LEVEL	13-19 dBmV (Analog) + QAM @ -6 dB
AUTOMATIC GAIN CONTROL (AGC)	Range: 6 dB (for Above Mentioned Broadcast Input Levels)
MIN. NARROWCAST PORT RF INPUT LEVEL ⁽²⁾	7 dBmV (Digital QAM)
INPUT RETURN LOSS (Min. 50-1000 MHz)	Broadcast: 17 dB / Narrowcast: 18 dB
TEST POINT	Front: -20 dB +/- 1.0 dB Relative to Broadcast Input
ISOLATION (Min. 50-1000 MHz) ⁽⁴⁾	Narrowcast - Broadcast: >50 dB / Narrowcast - Narrowcast >50 dB
MANUAL GAIN CONTROL (MGC)	Set and Control: Front Access Pushbutton, HMS SNMP v2c, Web Browser, Proprietary Network Interface Range: 15.5 dB Digital Attenuator
NARROWCAST PORT ATTENUATION	0-31 dB in 0.5 dB steps, each port adjustable separately
MUTE	Front Access Pushbutton, HMS SNMP v2c, Web Browser
CSO ⁽¹⁾	> 65 dBc
CTB ⁽¹⁾	> 70 dBc
C/N	> 53 dB (assuming link loss is all fiber and received power is 0 dBm)
OTHER	
TRANSMITTER STATUS INDICATION	Front LEDs, HMS SNMP v2c, Web Browser, Proprietary Network Interface
CURRENT ⁽³⁾	300mA
NOTES:	
(1) 80 NTSC modulated analog carriers, 50-550 MHz & 550-1000 MHz QAM at -6 dBc (AGC mode).	
(2) Adjust broadcast input levels and/or narrowcast input levels and/or narrowcast attenuator to optimize QAM levels relative to analog carriers.	
(3) DC current required from 24V chassis bus.	
(4) Assumes QAM input of 19 dBmV and NC port attenuation of 12 dB. Up to 12 dB lower QAM input levels possible by reducing port attenuation.	

Ordering Information

Part Number	Description
MPTX8-**	1310nm Forward Path Optical Transmitter with 8 Narrowcast Inputs, ** dBm, SC/APC; ** = 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14 15
MPTX8F-**	1310nm Forward Path Optical Transmitter with 8 Narrowcast Inputs (7 rear and 1 front), with F Backplane (including MPTXFBP), Front Fiber, ** dBm, SC/APC; ** = 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14 15
MPTXFBP	Replacement F Connector Backplane for MPTX8F-* Modules; Fastens to MP3FA Chassis
MPTX4F-**	1310nm Forward Path Optical Transmitter with 4 Narrowcast Inputs, with F Backplane (including MPTX4FBP), Front Fiber, ** dBm, SC/APC; ** = 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14 15
MPTX4FBP	Replacement F Connector Backplane for MPTX4F-* Modules; Fastens to MP3FA Chassis

1310nm Forward Path Optical Transmitter:

Functional Schematics

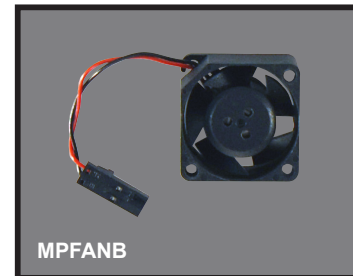


Replacement Fan:

- ▶ Front access replacement fan

Ordering Information

Part Number	Description
MPFANB	Replacement Fan for MAXNET II Transmitters



Specifications subject to change without notice.