# Modular Optical Node Platform

The QAMnet mNode series is a modular platform for fullycustomized optical node.



## **Product Description**

The QAMnet mNODE series is a modular platform for a fully-customized optical node. Designed to meet the requirements for next generation deep fiber HFC, RF over Glass (RFoG) and Cable Passive Optical Networks (Cable PON) applications, the mNODE provides a flexible and cost-effective transport solution. With our patented multiple wavelength technology, the mNODE provides a bandwidth upgrade solution that is also fully compatible with existing HFC/CATV infrastructure and installation.

#### **Features**

- Designed for deep fiber, RFoG and Cable PON applications
- Compatible with existing HFC/CATV infrastructure and installation
- Patented multiple wavelength technology that is capable of:
- DWDM channels for forward path broadcasting or narrowcasting
- CWDM for high bandwidth return path data grooming
- Incorporates GPON /EPON into HFC
- Internal EDFA up to +24dBm
- Robust construction for outdoor operation

## **Applications**

✓ HFC ✓ FTTH ✓ RFoG ✓ CATV ✓ Cable PON

#### PRODUCT SPECIFICATIONS

## Mechanical Specifications

Dimensions	10.25" x 20.25" x 8.5" (Outdoors Model)	
Shipping Weight	65 lbs	
Operating Temperature Range	-40°C to +50°C	
Storage Temperature Range	-50°C to +70°C	
Power Supply	Dual 60 VAC for outdoor units	
Power Consumption	150 W Maximum	
Control / Monitoring	Optical Input and Output LEDs	
Optical Connectors	SC/APC	
Cast Material	Aluminum	

### Ordering Information

#### mNode

See Back for Customization

#### Additional Informaton

Depending on the system architecture and bandwidth requirements, mNODE can be configured with all functional blocks to enable deep fiber HFC, RFoG or Cable PON installation. These building blocks include: an EDFA, fiber splitters, a wavelength Add/drop, a WDM/CWDM multiplexer, a CWDM return path laser, return receivers and a protective optical switch.

Based on our patented technologies, the mNODE provides a higher versatility of functions and greater bandwidth capabilities than the tradition node design. The QAMnet design team will assist our customers in selecting the necessary functions from standard modules. There are two versions of the mNODE optical node. The mNODE is available with a weather-resistant outdoor housing.

# Configuration and Ordering Information

Modules	Specifications A	Specifications B
Forward Path		
EDFA	Input Level:  ☐ Standard : -5 to +7dBm  ☐ Low Input: -15 to +3dBm	Output power level:  +17dBm +20dBm +23dBm
Fiber Splitter	Operating wavelength:         1310nm       1470nm         1490nm       1510nm         1530nm       15500nm         1570nm       1590nm         1610n	Number of output ports:  16 8 4 2
WDM Combiner	Operating wavelength:           1310nm         1470nm           1490nm         1510nm           1530nm         15500nm           1570nm         1590nm           1610nm	Number of WDM: ☐ 16 ☐ 8 ☐ 4 ☐ 2 ☐ 1
Optical Switch	□ 2 to 1	
Return Path		
<b>Return</b> Receiver	Frequency range: ☐ 5 to 45 MHz ☐ 5 to 200 MHz	Number of receivers:  16 8 4 2
WDM Combiner	Operating wavelength:         1310nm       1470nm         1490nm       1510nm         1530nm       15500nm         1570nm       1590nm         1610nm	Number of WDM: ☐ 16 ☐ 8 ☐ 4 ☐ 2 ☐ 1
Return Transmitter	Output power level and type:  3dBm DFB  10dBm DFB	Number of transmitter:      8     4     2     1
	Operating wavelength:         □ 1310nm       □ 1470nm         □ 1530nm       □ 15500nm         □ 1610nm	☐ 1490nm ☐ 1510nm ☐ 1570nm ☐ 1590nm



