



EtherNodePlus OTEN-100

Media Converter (Standalone; Single Wavelength; 10/100 Base-TX to 100 Base-FX)

Features / Benefits

- Bidirectional transmission of 10/100 BaseT Ethernet utilizing only one wavelength over SMF fiber
- Choice of 1310nm or (8) 1550nm ITU grid CWDM wavelengths to 60+ km without data collisions
- Fully compliant IEEE 802.3, IEEE 802.3x & IEEE 802.3u
- RJ-45 Port supports MDI/MDIX Auto-negotiation of half/full duplex 10 Base T/100 Base T
- Data packet forwarding & filtering at full wirespeed (10=>100Mbps; 100=>100Mbps; 10=>10Mbps)
- Supports backpressure for flow control for half duplex mode
- Status Mode DIP Switch to set the media converter port configuration to any working mode
- Six Diagnostic LEDs for power, TX link act, FX link/act, transfer speed, duplex mode & collision
- External AC/DC power supply (5 VDC); Battery backup UPS optional
- Low Power Consumption @ < 4 Watts
- Compact (6.7" x 5.2" x 1.4"), rugged standalone housing; Wall mounting with optional bracket kit
- For 16-slot, 3RU 19" EIA Chassis Mount version, see ***EtherNodePlus* OTEN-200/200W** spec sheet

The **OLSON TECHNOLOGY, INC. Model OTEN-100 *EtherNodePlus*** is a compact, cost-effective, standalone copper-to-singlemode optical fiber unmanaged media converter designed around the very latest ethernet transceiver technology. It reliably transports full duplex 10/100 BaseT Ethernet from 0 to 60+ km on a single strand of fiber utilizing only one optical wavelength (i.e. 1310nm or one of eight CWDM ITU Grid wavelengths from 1490nm thru 1610nm).



Fast Ethernet is one of the best choices for building LANs and WANs because of its high performance-to-cost ratio. However, since the copperbased unshielded twister pair (i.e. CAT5 UTP) transfer distance is typically less than 100 meters, this fiber-based media converter converts 10/100 TX (RJ-45) to 100FX (SC-APC) and can extend link transfer distance to over 60+ km. The unit is ideally suited for direct fiber transmission of IP "Triple Play" data, voice and/or video Ethernet-based signals in FTTH,

FTTP, PON, MDU, industrial, corporate, government, educational, I-Net or other applications where a high performance, compact media converter is required. It is easy to install and does not require software configuration or management, and can be deployed almost anywhere due to its small physical size and 5VDC powering.

The **Model OTEN-100 *EtherNodePlus*** can be used in pairs in a network topology to provide plug-and-play point-to-point access, or can be mated with its companion 3RU chassis-mounted version, the **Model OTEN-200**. In addition, the **OTEN-100** can be mounted into one of Olson's **NID-Series** weatherproof enclosures and teamed with a variety of UPS battery backup and PoE (Power over Ethernet) powering options for a robust Premises Gateway, enabling mission-critical deployment of VOIP telephony, Fast Ethernet and IP video services.

Moreover, if you're looking to deploy a video overlay passive optical network (VPON) over a single optical fiber, Olson's **Model OTEN-200W** (3RU Ethernet Module with integrated WDM/CWDM Mux and Xpress Port) and **Model OTEN-400W** (Ethernet + CATV) -or- **Model OTEN-500W** (Ethernet + DBS L-Band) product families seamlessly and cost-effectively blend traditional video over fiber transport platforms with 10/100 Base-TX to deliver true broadband access to a full slate of "Grand Slam" services (Analog Video, IP Video, IP Data, & IP Telephony).

Order From:



Toll Free: 800-423-2594
www.multicominc.com
multicom@multicominc.com

EtherNodePlus OTEN-100

ETHERNET SPECIFICATIONS

Cables:	(1) Cat. 5 UTP (1) SMF 9/125 μ m
Connectors:	(1) RJ-45 (1) SC/APC
TP Port:	IEEE 802.3 10BaseT; IEEE 803.3u 100BaseTX Shielded RJ-45 jack with Auto MDI/MDI-X detection Auto negotiation for speed and duplex auto detection Forced mode with speed and duplex settings Speed for 10Mbps or 100Mbps Full duplex or half-duplex support
FX Port:	802.3u 100BaseFX compliant; See Ordering Info (<i>below</i>) for wavelength options Forced 100Mbps, Full duplex (<i>factory default</i>)
LED Indicators:	Power, TX link/act, FX link/act, transfer speed, duplex mode and collision

ENVIRONMENTAL, ELECTRICAL & MECHANICAL SPECIFICATIONS

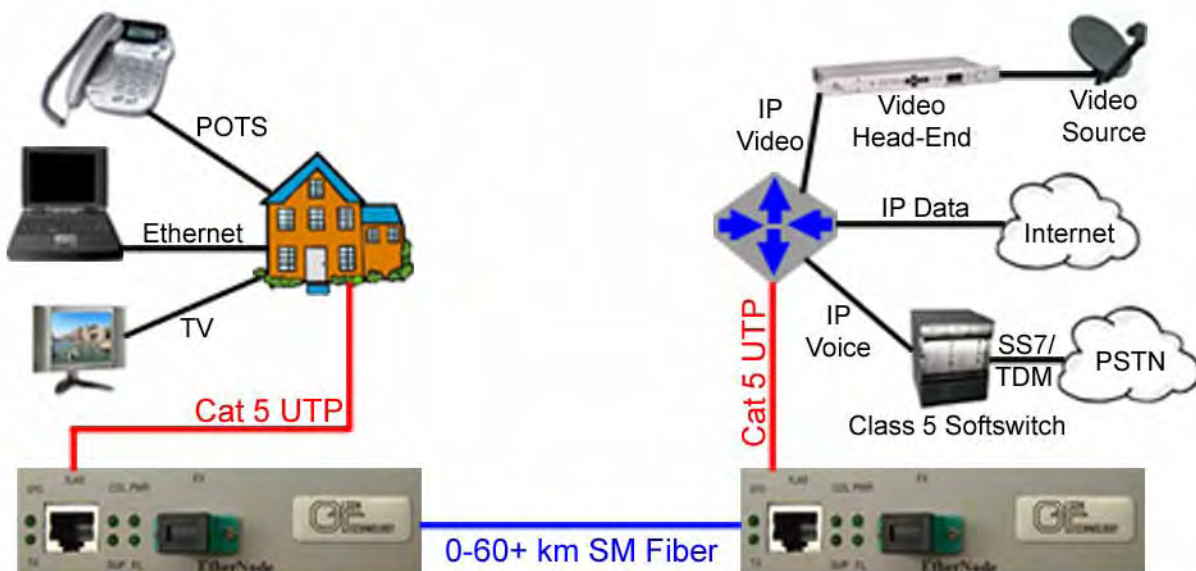
Environment:	Operating Temperature: -5° C to +50° C Storage Temperature: -20° C to +65° C Relative Humidity: 5% to 95% (<i>non-condensing</i>)
Electrical:	Power Input: + 5 VDC (<i>via OTEN-PS-12V</i>) Power Consumption: < 4 W
Mechanical:	Dimensions: 6.7" x 5.2" x 1.4" (170mm x 130mm x 34mm) (<i>L x W x H</i>) Weight: 0.5 lb (225g)

OPTICAL SPECIFICATIONS & ORDERING INFORMATION

<u>Model No.</u>	<u>Fiber /Connector</u>	<u>Wavelength</u>	<u>TX Power</u> (Min./Max.)	<u>RX Sensitivity</u> (Min./Max./Sat.)	<u>Path/Dist.</u> dB / km
OTEN-131-H-SA	SM/SC-APC	1310nm	-8 / -3 dBm	-34 / -35 / 0 dBm	26-32 / 0-40+
OTEN-1xx-H-SA	SM/SC-APC	1xx0nm	-5 / 0 dBm	-34 / -35 / 0 dBm	29-35 / 0-60+

NOTE: xx = 47, 49, 51, 53, 55, 57, 59 or 61 (i.e. 1470, 1490, 1510, 1530, 1550, 1570, 1590 or 1610 nm)

OTEN-PS-5V 120VAC to +5VDC power supply for OTEN-100/400W/500W
OTEN-WMKIT-1 Wall Mount Kit for OTEN-100/400W/500W



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EtherNodePlus OTEN-200/200W

Media Converter (3RU Module; Single Wavelength; 10/100 Base-TX to 100 Base-FX)

Features / Benefits

- Bidirectional transmission of 10/100 BaseT Ethernet utilizing only one wavelength over SMF fiber
- Choice of 1310nm or (8) 1550nm ITU grid CWDM wavelengths to 60+ km without data collisions
- Fully compliant IEEE 802.3, IEEE 802.3x & IEEE 802.3u
- RJ-45 Port supports MDI/MDIX Auto-negotiation of half/full duplex 10 Base T/100 Base T
- Data packet forwarding & filtering at full wirespeed (10=>100Mbps; 100=>100Mbps; 10=>10Mbps)
- Supports backpressure for flow control for half duplex mode
- Status Mode DIP Switch to set the media converter port configuration to any working mode
- Six Diagnostic LEDs for power, TX link act, FX link/act, transfer speed, duplex mode & collision
- Low Power Consumption @ < 4 Watts
- 16 Modules mount in 3RU 19" EIA OTEN-CH-16A chassis with 1 -or- 2 OTEN-PS Power Supplies
- For Standalone/Wall Mount version, see the *EtherNodePlus* OTEN-100 specification sheet
- **OTEN-200W** Module: with integrated WDM & Xpress port for **OTEN-400W/500W** applications

The **OLSON TECHNOLOGY, INC. Model OTEN-200/200W *EtherNodePlus*** is a cost-effective copper-to-singlemode optical fiber unmanaged media converter 3RU module designed around the very latest ethernet transceiver technology. It reliably transports full duplex 10/100 BaseT Ethernet from 0 to 60+ km on a single strand of fiber utilizing only one optical wavelength (i.e. 1310nm or one of eight CWDM ITU Grid wavelengths from 1490nm through 1610nm).



Fast Ethernet is one of the best choices for building LANs and WANs because of its high performance-to-cost ratio. However, since the copper-based unshielded twister pair (i.e. CAT5 UTP) transfer distance is typically less than 100 meters, this fiber-based media converter converts 10/100 TX (RJ-45) to 100FX (SC-APC) and can extend link transfer distance to over 60+ km. The unit is ideally suited for direct fiber transmission of IP "Triple Play" data, voice and/or video Ethernet-based signals in FTTH, FTTP, PON, MDU, industrial, corporate, government, educational, I-Net or other applications. It is easy to install and does not require software configuration or management.

The **Model OTEN-200 *EtherNodePlus*** 3RU module can be used in a network topology to provide plug-and-play point-to-point access when mated with its companion standalone remote **Model OTEN-100**. In addition, the companion **OTEN-100** can be mounted into one of Olson's **NID-Series** weatherproof enclosures and teamed with a variety of UPS battery backup and PoE (Power over Ethernet) powering options for a robust Premises Gateway, enabling mission-critical deployment of VOIP telephony, Fast Ethernet and IP video services.

Moreover, if you're looking to deploy a video overlay passive optical network (VPON) over a single optical fiber, the **OTEN-200W** (3RU Ethernet Module, with integrated WDM -or- CWDM Mux & Xpress port) operates seamlessly with Olson's companion **Model OTEN-400W** (Ethernet + CATV) -or- **Model OTEN-500W** (Ethernet + DBS L-Band) product families to cost-effectively blend traditional video over fiber transport platforms with 10/100 Base-TX to deliver true broadband access to a full slate of "Grand Slam" services (Analog Video, IP Video, IP Data, & IP Telephony).

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EtherNodePlus OTEN-200/200W

ETHERNET SPECIFICATIONS

TP Port:	IEEE 802.3 10BaseT; IEEE 803.3u 100BaseTX Shielded RJ-45 jack with Auto MDI/MDI-X detection Auto negotiation for speed and duplex auto detection Forced mode with speed and duplex settings Speed for 10Mbps or 100Mbps Full duplex or half-duplex support
FX Port:	802.3u 100BaseFX compliant; See Ordering Info (<i>below</i>) for wavelength options Forced 100Mbps, Full duplex (<i>factory default</i>)
Xpress Port (OTEN-200W Only):	from CATV -or- DBS source via SMF (<i>i.e. Optical Transmitter and/or EDFA</i>)
LED Indicators:	Power, TX link/act, FX link/act, transfer speed, duplex mode and collision

ENVIRONMENTAL, ELECTRICAL & MECHANICAL SPECIFICATIONS

Environment:	Operating Temperature: -5° C to +50° C Storage Temperature: -20° C to +65° C Relative Humidity: 5% to 95% (<i>non-condensing</i>)
Electrical:	Power Input: + 5 VDC (<i>via OTEN-PS-AC or -DC & OTEN-CH-16A</i>) Power Consumption: < 4 W
Mechanical:	Dimensions: 3.7" x 6.5" x 1.0" (95mm x 165mm x 25mm) (<i>W x L x H</i>) Weight: 0.5 lb (225g)
Cables	(<i>OTEN-200</i>): (1) Cat. 5 UTP (1) SMF 9/125 μ m (<i>OTEN-200W</i>): (1) Cat. 5 UTP (2) SMF 9/125 μ m
Connectors	(<i>OTEN-200</i>): (1) RJ-45 (1) SC/APC (<i>OTEN-200W</i>): (1) RJ-45 (2) SC/APC

OPTICAL SPECIFICATIONS & ORDERING INFORMATION

<u>Model No.</u>	<u>Fiber /Connector</u>	<u>Wavelength</u>	<u>TX Power</u> (Min./Max.)	<u>RX Sensitivity</u> (Min./Max./Sat.)	<u>Path/Dist.</u> dB / km
OTEN-231-H-SA	SM/SC-APC	1310 nm	-8 / -3 dBm	-34 / -35 / 0 dBm	26-32 / 0-40+
OTEN-2xx-H-SA	SM/SC-APC	1xx0 nm	-5 / 0 dBm	-34 / -35 / 0 dBm	29-35 / 0-60+
OTEN-231W-H-SA	SM/SC-APC	1310 nm	-8 / -3 dBm	-34 / -35 / 0 dBm	24-30 / 0-35+
OTEN-2xxW-H-SA	SM/SC-APC	1xx0 nm	-5 / 0 dBm	-34 / -35 / 0 dBm	27-33 / 0-50+

NOTE: xx = 47, 49, 51, 53, 55, 57, 59 or 61 (i.e. 1470, 1490, 1510, 1530, 1550, 1570, 1590 or 1610 nm)

OTEN-200-CH-16A	16-slot OTEN-200/200W chassis; Single/Dual Power Supply capable
OTEN-200-PS-AC	90-240 VAC to +5VDC OTEN-CH-16A power supply module with high speed fan
OTEN-200-PS-DC	48 VAC to +5VDC OTEN-CH-16A power supply module with high speed fan



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