NextWave

# 10/100BASE-TX to 100BASE-FX Bridge Media Converters


NW-FC2100 series is a Fast Ethernet Bridge 100BASE-FX fiber to 10/100BASE-TX shielded twisted pair (STP) converter. It supports both half-duplex and full-duplex operations and a variety of fiber options. The converter auto-adapts to the highest level of performance supported by the device connected to the STP port. When the device is a switch or a workstation that supports full duplex, the converter adapts to the full-duplex mode and provides an effective 200Mbps bandwidth. When the connected device is a hub or a workstation that supports only half duplex, the converter adapts to the half-duplex mode and provides the nominal 100Mbps bandwidth. An override switch provides total manual control over the half/full-duplex operation in fiber-optic interface. The fiber port of the converter operates at 1310 nm and uses ST, SC, MTRJ, VF45 or WDM connectors. Multi-mode models that support distances up to 2km and single-mode models that support distances up to 15/20/35/50/60km are available.

NW-FC2100 series is with LFP (Link Fault Pass-through function) (LLCF/LLR) and the DIP switch design. LLCF/LLR can immediately alarm administrators the problem of the link media and provide efficient solution to monitoring the net. The DIP switch provides the disabling or enabling of the LFP function.

LLCF (Link Loss Carry Forward) means when a device is connected to the converter and the TP line loses the link, the converter's fiber will disconnect the link of transmit. LLR (Link Loss Return) means when a device is connected to the converter and the fiber line loses the link, the converter's fiber will disconnect the transmit link. Both can immediately alarm administrators the problem of the link media and provide efficient solution to monitoring the net.

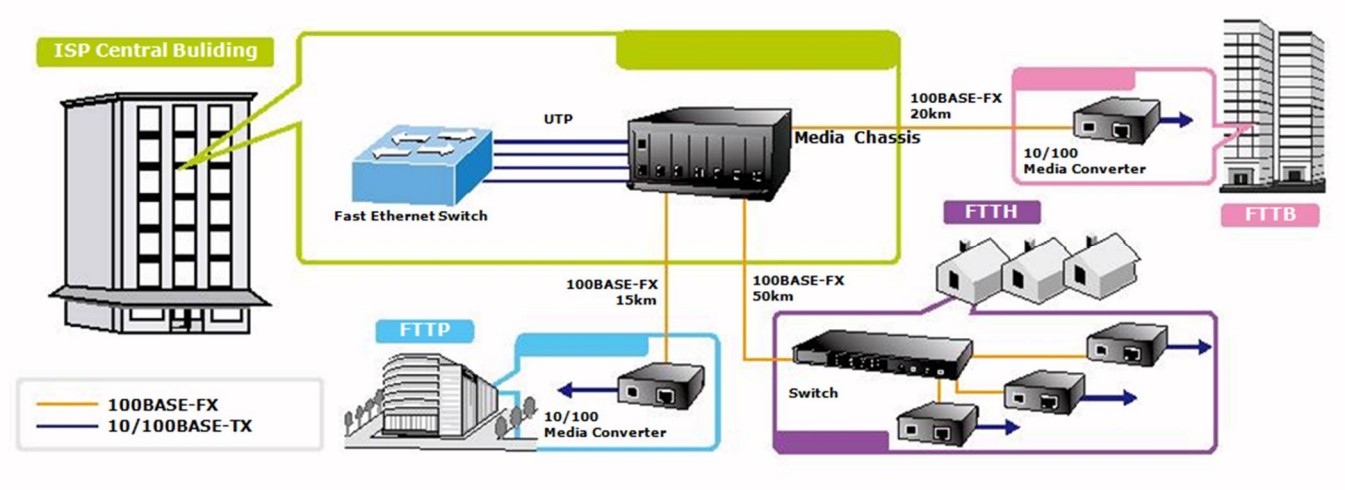
## Features

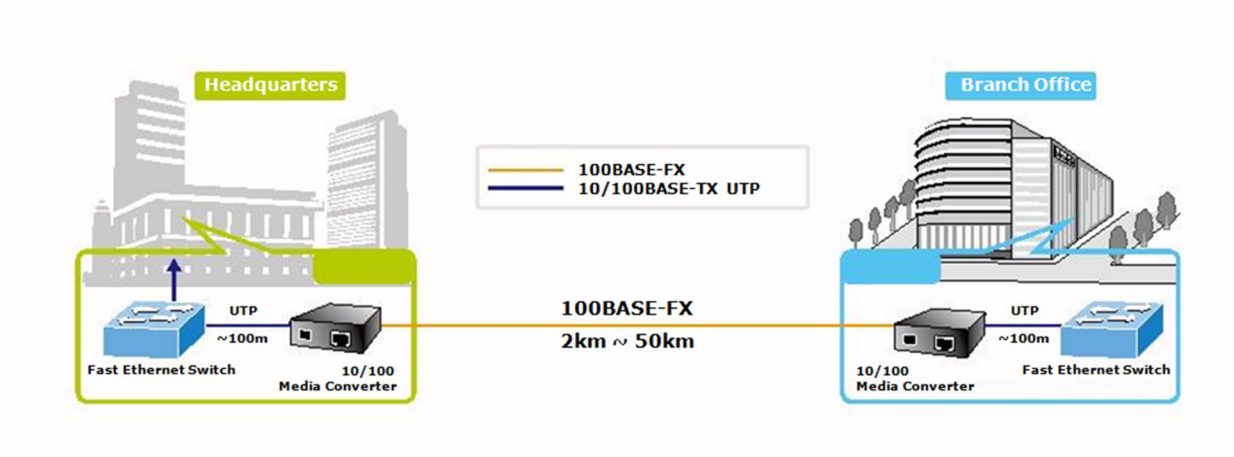
- Complies with IEEE 802.3, IEEE 802.3u 10/100BASE-TX, 100BASE-FX standard
- Connectors: One RJ45 (auto-MDI/MDI-X) twisted pair,EIA568
- One fiber-optic, 1310nm wavelength, connector type and distance vary with model
  - NW-FC2100D-20A : Tx-1310nm, Rx-1550nm
  - NW-FC2100D-20B: Tx-1550nm, Rx-1310nm
  - NW-FC2100D-40A: Tx-1310nm, Rx-1550nm
  - NW-FC2100D-40B: Tx-1550nm, Rx-1310nm
  - NW-FC2100D-60A: Tx-1310nm, Rx-1550nm
  - NW-FC2100D-60B: Tx-1550nm, Rx-1310nm
- Data Transfer Rate:
  - TP: 10/100Mbps
  - FX: 100Mbps
- Duplex mode support:
  - Full or half-duplex mode by auto-negotiation (TP)
  - Full or half-duplex mode by DIP switch (FX)
- LED indicators: PWR, FX LNK/ACT, FX FDX/COL, TP 100, TP LNK/ACT, TP FDX/COL
- DIP switch: 2 DIP switches
  - Rear DIP switch: FX duplex mode selection
  - Side DIP switch: LFP (Link Fault Pass-through) mode section

# Application

## Standalone and Centralized Management Media Converter Installation

To meet the demand for the growing network, NW-FC2100 series has provided the advanced media conversion technology. The NW-FC2100 series media converter provides various fiber connecting types to meet different network applications. It is very flexible for the NW-FC2100 series to work as a standalone device or install into the central standard media converter chassis for providing centralized power. The NW-FC2100 series is an ideal solution to building a network solution of FTTH (Fiber to the Home) or FTTC (Fiber to the Curb) and FTTB (Fiber to the Building) for ISPs, campuses and enterprises.



NextWave

# Specifications

| | |
|---|---|
| Product | NW-FC2100 Series |
| Protocol | IEEE 802.3, 10BASE-T<br>IEEE 802.3u, 100BASE-TX<br>IEEE 802.3u, 100BASE-FX |
| Dimensions (W x D x H) | Vary on product |
| Weight | Vary on product |
| Power Input | 5V DC, 2A, max. |
| Power Supply | AC Adapter 100-240VAC Frequency: 50-60Hz |
| Enclosure | Compact-sized metal housing<br>Case with anticorrosion treatment<br>Electrostatic paint |
| Connectors and Cables | |
| Shielded Twisted-pair | RJ45, Category 5 (EIA/TIA 568) |
| Multi-mode Cable | 50/125, 62.5/125 µm |
| Single-mode (SM) Cable | 9/125 µm |
| Supported Distances and Functions | |
| Shielded Twisted-pair | 100m |
| Multi-mode Fiber Optic | 500m (half-duplex)<br>2km (full-duplex) |
| Single-mode (SM) | 20km (full-duplex)<br>40km (full-duplex)<br>60km (full-duplex)<br>80km (full-duplex)<br>100km (full-duplex)<br>120km (full-duplex) |
| Port Mode | TP: Half and full duplex, auto-negotiation<br>FX: Half and full duplex via DIP switch |
| Environment & Emissions | |
| Operating Environment | Temperature: 0~50° C<br>Humidity: 5~90% non-condensing |
| Storage Environment | Temperature: -40~70 degrees C<br>Humidity: 5~90% non-condensing |
| Emissions | FCC Class A, CE Class A |