**Product Datasheet**

# 2-port 10/100M Fiber Media Converter Board

## (ONV0110-MCX)

## OVERVIEW

The ONV0110-MCX is a 10/100M fiber media converter board independently developed by ONV. It has 1*10/100Base-TX RJ45 port and 1*155M uplink SC fiber port. User can select different optical modules, such as multi-mode dual fiber, single-mode dual fiber, and single-mode single fiber. The media converter adopts the enterprise-class Taiwan Realtek company's carrier-grade chip solution, which has stable performance, good quality, and high cost performance. It is suitable for optical fiber access application scenarios such as security monitoring, wireless coverage, intelligent transportation, and safe cities to form a cost-effective and stable communication network. Unmanaged mode, plug, and play, no configuration, easy to use.

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# FEATURE

■ **10/100M photoelectric Ethernet transmission**

◇ Support non-blocking wire-speed forwarding.

◇ Support full-duplex based on IEEE 802.3x and half-duplex based on Backpressure.

◇ Support 10/100M RJ45 port and 155M SC fiber port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ **Easy to use and simple to maintain**

◇ Full-duplex/half-duplex working mode with auto-negotiation function.

◇ Automatic identification of twisted pair MDI/MDI-X cross lines and parallel lines.

◇ LED working status indication for network diagnosis and fault checking, reducing maintenance workload.

◇ Compatible with IEEE802.3u 100Base-TX/FX network protocol,10/100M R45 port rate auto-negotiation.

◇ Plug and play, no configuration required, centralized power supply and centralized connection management through 2U-16 slot rack.

# TECHNICAL SPECIFICATION

| Model | ONV0110-MCX | ONV0110-SCX | ONV0110S-SCX-A/B |
|---|---|---|---|
| **Interface Characteristics** | | | |
| Interface | 1*155M uplink SC fiber port (Data)<br>1*10/100Base-TX RJ45 port (Data) | | |
| Ethernet Port | 10/100Base-TX auto-sensing, full/half duplex MDI/MDI-X self-adaption | | |
| Twisted Pair Transmission | 10BASE-T: Cat3,4,5 UTP(≤100 meters)<br>100BASE-TX: Cat5 or later UTP(≤100 meters) | | |
| Optical Fiber Port | 155Mbps, multi-mode | 155Mbps,single-mode | 155Mbps,single-mode |

| | dual fiber SC port | dual fiber SC port | single fiber SC port |
|---|---|---|---|
| Optical Cable/ Distance | Multi-mode: 850nm/ 0-500m, 1310nm/ 0-2km | Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km. | |

**Chip Parameter**

| | |
|---|---|
| Network Protocol | IEEE802.3 10BASE-T, IEEE802.3i 10Base-T<br>IEEE802.3u 100Base-TX, IEEE802.3u 100Base-FX, IEEE802.3x |
| Forwarding Mode | Store and Forward(Full Wire Speed) |
| Switching Capacity | 1.0Gbps |
| Forwarding Rate@64byte | 0.3Mpps |
| MAC | 1K |
| Buffer Memory | 768K |
| Jumbo Frame | 1536byte |
| LED Indicator | Power: PWR (Green), Data: L/A (Green)<br>Half/full duplex: FDX (Green), Fiber: FX(Green), Rate: 10/100 (Green) |

**Power Supply**

| | |
|---|---|
| Power Supply | Centralized power supply by 16-slot 2U rack |
| Total PWR / Input Voltage | 3W/ (5VDC) |
| Power Consumption | Standby<1W, Full Load<3W |

**Physical Parameter**

| | |
|---|---|
| Operation TEMP / Humidity | -20°C~+55°C, 5%~90% RH Non condensing |
| Storage TEMP / Humidity | -40°C~+85°C, 5%~95% RH Non condensing |
| Dimension (L*W*H) | 100*80*3mm |

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| Net Weight | <0.03kg |
|---|---|
| Installation | Must be installed and used with 2U-16 slot rack |
| **Certification & Warranty** | |
| Lightning Protection | Port Lightning protection: 4KV 8/20us, Protection level: IP30 |
| Certification | CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS |
| Warranty | 3 years, lifelong maintenance. |

## CONNECTION DIAGRAM

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# ORDERING INFORMATION

| Model | Description |
|---|---|
| ONV0110-MCX | 10/100M **multi-mode dual fiber** media converter board with 1*10/100M RJ45 port and 1*155M SC fiber port. 850nm/1310nm/ 0-2km, with 16 slot 2U rack. |
| ONV0110-SCX | 10/100M **single-mode dual fiber** media converter board with 1*10/100M RJ45 port and 1*155M SC fiber port. 1310nm/ 0-20km. with 16 slot 2U rack. |
| ONV0110S-SCX-A | 10/100M **single-mode single fiber** media converter board with 1*10/100M RJ45 port and 1*155M SC fiber port. 1310nm/1550nm/ 0-20km. with 16 slot 2U rack. |
| ONV0110S-SCX-B | 10/100M **single-mode single fiber** media converter board with 1*10/100M RJ45 port and 1*155M SC fiber port. 1310nm/1550nm/ 0-20km. with 16 slot 2U rack. |
| **Note:** The board must be used in a 16-slot 2U rack, the single board cannot be used normally. ||

# PACKING LIST

| Packing List | Content | Qty | Unit |
|---|---|---|---|
| | 2-port 10/100M fiber media converter board | 1 | SET |
| | User Guide | 1 | PC |
| | Warranty Card | 1 | PC |

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# CONTACT US

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