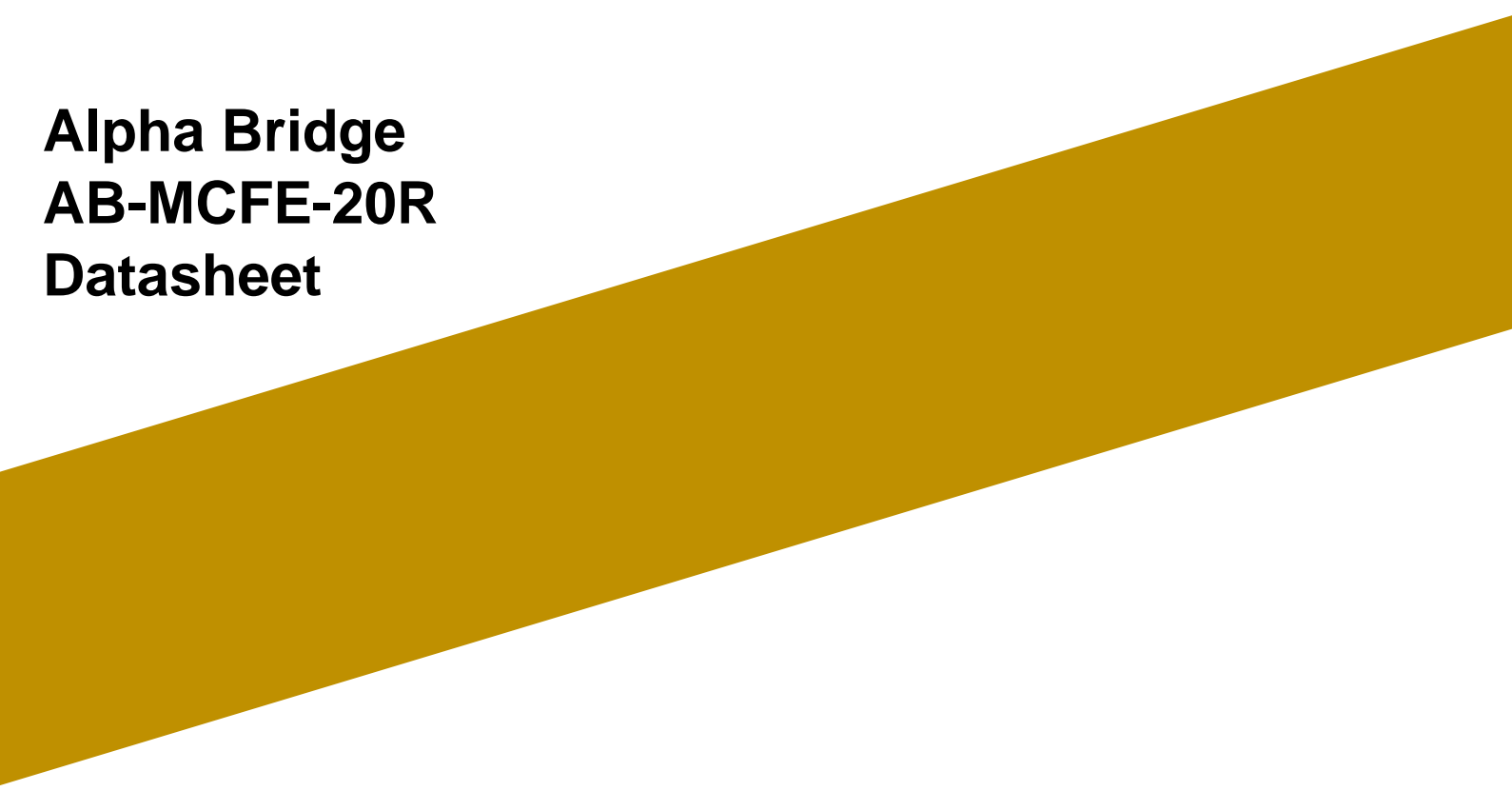


**Alpha Bridge
AB-MCFE-20R
Datasheet**



Features

- Supports 100Base-FX standard;
- Supports auto MDI-MDIX function;
- LED display for link/activity, full/half duplex, 10/100M
- Supports modified cut-through frame forwarding for low latency;
- Supports pure converter mode data forwarding for extremely low latency;
- Supports flow control for full and half duplex operation;
- Bandwidth control;
- Forward 1600 bytes packet for management;
- max. transmission distance can be 120km;
- SC (default)/FC/ST supported.

Optional Features

- Supports link fault pass through function (LFP);
- Supports for end fault function;
- Support EEPROM configuration;
- Pass all packets without address and CRC check;
- Forward fragments.

Standard

- IEEE802.3 ETHERNET STANDARD
- IEEE802.3u FAST ETHERNET STANDARD
- IEEE802.3x FLOW CONTROL STANDARD
- IEEE802.3ab FRAME SIZE STANDARD

Description

The media converter transmits the Ethernet signal transmission media from the CAT Cable to the optical fiber. It can extend the transmission distance up to 120km. Using a media converter is an economical solution to achieve long-distance transmission based on current status.

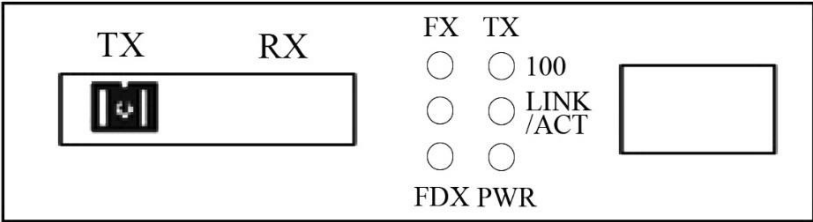
Specification

| | | |
|------------------------------|-----------------------|--|
| Optical Specs. | Fiber Port | 1port SC, FC/ST/LC optional |
| | Fiber Type | Dual Fiber or BiDi |
| | Wavelength & Distance | Dual Fiber: Multimode 1310nm 2km Single mode 1310nm, 1550nm from 10km to 120 km BiDi: 1310/1550nm 2/10/20/40km; 1490/1550nm 60/80/100/120km |
| Ethernet Specs. | Cable | Twisted-pair |
| | Transmission Type | 10/100Mbps Full Duplex/Half Duplex |
| | Distance | 100meter |
| BER | | <1E-9 |
| Data Buffer | | 1024kb |
| Power | | 2.5w |
| Power Temp. Variation | | 0.2mw /°C |

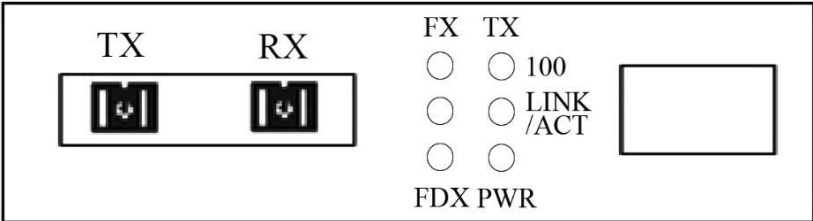
| | | |
|----------------------|---|--------------|
| Operate Temp. | 0~70°C | |
| Storage Temp. | -40~85°C | |
| Humidity | 95% non-condensing | |
| Power Supply | AC100~240V -50/60Hz +5V DC, -48VDC (optional) | |
| Weight | 0.4KG | |
| Dimension | External power | 95x70x26mm |
| | Internal power | 140x110x30mm |

Front Panel

10/100M BiDi SC front panel



10/100M Dual SC front panel



Back Panel

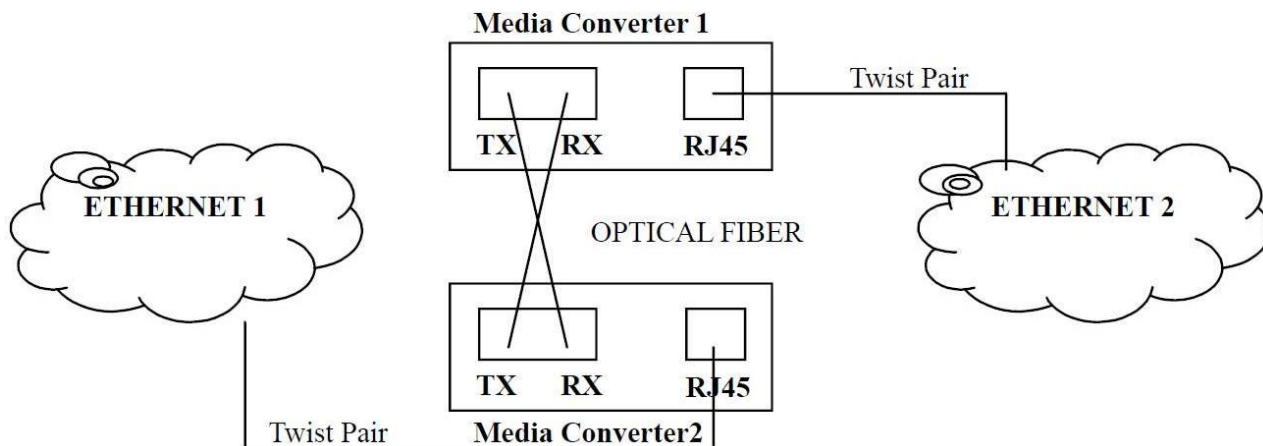


LED Indicator Description

| LED | STATUS | |
|-------------|--------|-------------------------------|
| PWR | ON | Power ON |
| | OFF | Power OFF |
| FDX | ON | Full Duplex |
| | OFF | Half Duplex |
| FX | ON | Transmit Fiber Optical Signal |
| | OFF | No Fiber Optical Signal |
| TX | ON | 100Base-TX |
| | OFF | No Ethernet Signal |
| TX-LINK/ACT | ON | Linked on UTP Port |
| | FLASH | Activity |
| | OFF | Not Linked |
| FX-LINK/ACT | ON | Linked on Fiber Port |

| | | |
|--|-------|------------|
| | FLASH | Activity |
| | OFF | Not Linked |

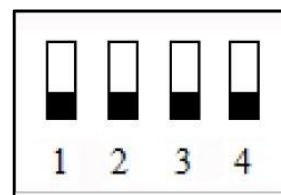
Application



Dip Switch

The top position is ON; the Low position is OFF

| | | |
|-------|-----|----------------------------------|
| PIN 1 | ON | LFP enable |
| | OFF | LFP disable |
| PIN 2 | OFF | Store and forward switch |
| PIN 3 | OFF | |
| PIN 2 | OFF | Modified cut-through switch |
| PIN 3 | ON | |
| PIN 2 | ON | Converter mode |
| PIN 3 | OFF | |
| PIN 2 | ON | Auto change forward |
| PIN 3 | ON | |
| PIN 4 | ON | TP force speed mode, duplex mode |



Ordering Information

| Part Number | Rate | Wavelength(nm) | Distance(km) | Tx Power | Rx Sen. (db) | Fiber |
|-------------|------------|----------------|--------------|----------|--------------|------------|
| AB-MCFE-20R | 10/100Mbps | T1550/R1310 | 20 | -8~-3 | -34 | SM BiDi SC |

Note: All information in this document is subject to change without notice.

Copyright @ Alpha Bridge Technologies Private Limited

This document is ABTPL Public Information. ABTPL reserves the right to alter, update, and otherwise change the information contained in the document from time to time. www.alphabridge.tech