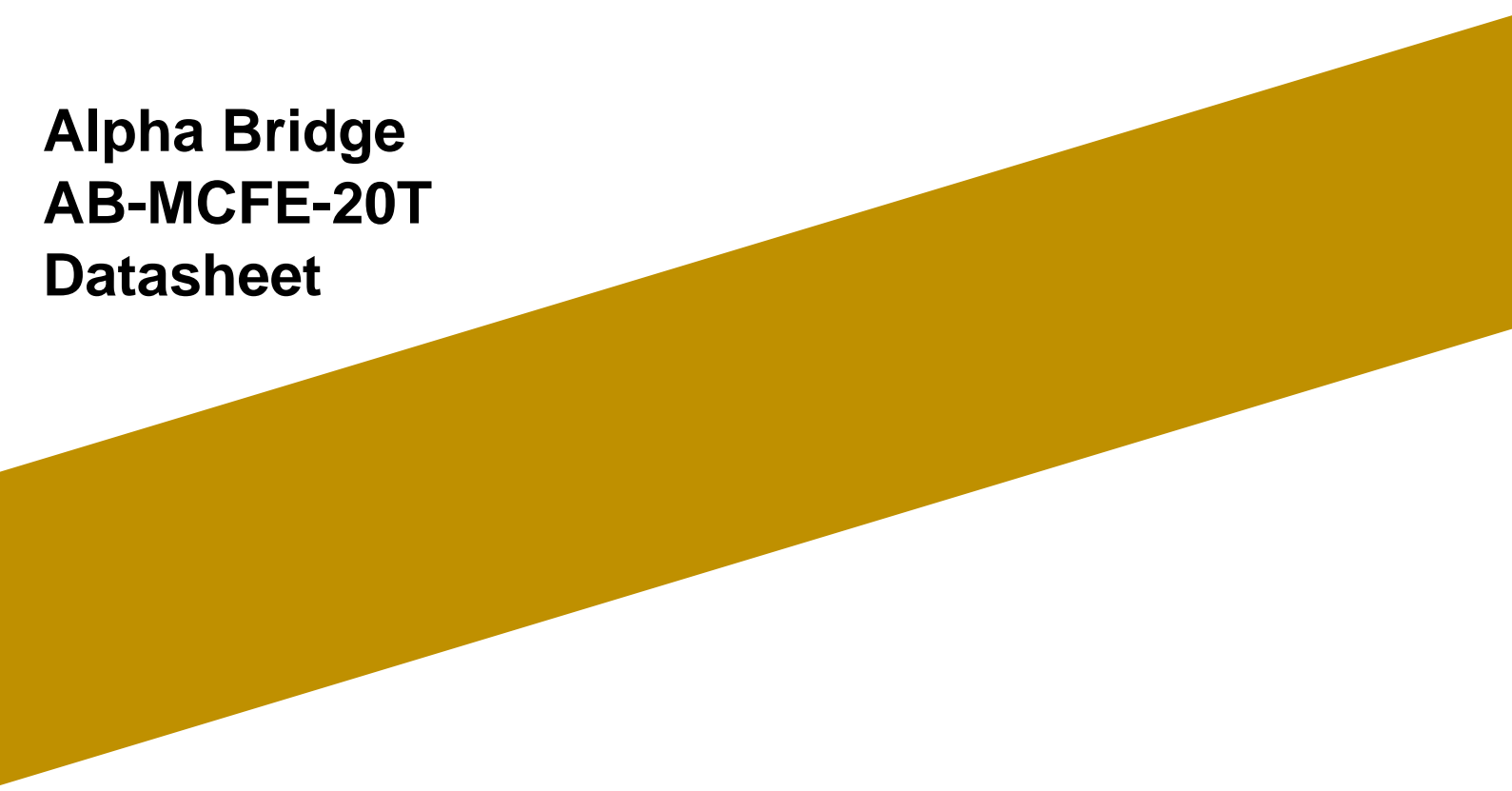


**Alpha Bridge  
AB-MCFE-20T  
Datasheet**



## 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.

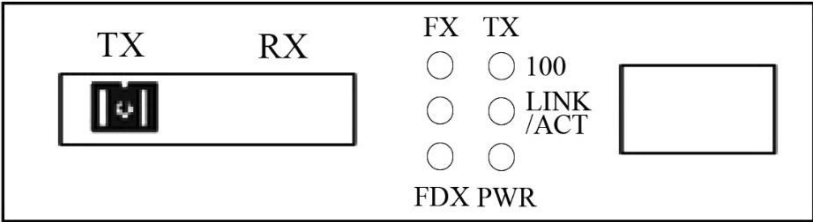
## Specification

<b>Optical Specs.</b>	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
<b>Ethernet Specs.</b>	Cable	Twisted-pair
	Transmission Type	10/100Mbps Full Duplex/Half Duplex
	Distance	100meter
<b>BER</b>		<1E-9
<b>Data Buffer</b>		1024kb
<b>Power</b>		2.5w
<b>Power Temp. Variation</b>		0.2mw /°C

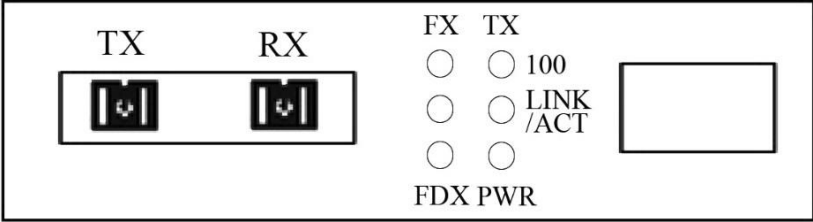
<b>Operate Temp.</b>	0~70°C	
<b>Storage Temp.</b>	-40~85°C	
<b>Humidity</b>	95% non-condensing	
<b>Power Supply</b>	AC100~240V -50/60Hz +5V DC, -48VDC (optional)	
<b>Weight</b>	0.4KG	
<b>Dimension</b>	External power	95x70x26mm
	Internal power	140x110x30mm

**Front Panel**

10/100M BiDi SC front panel



10/100M Dual SC front panel



**Back Panel**

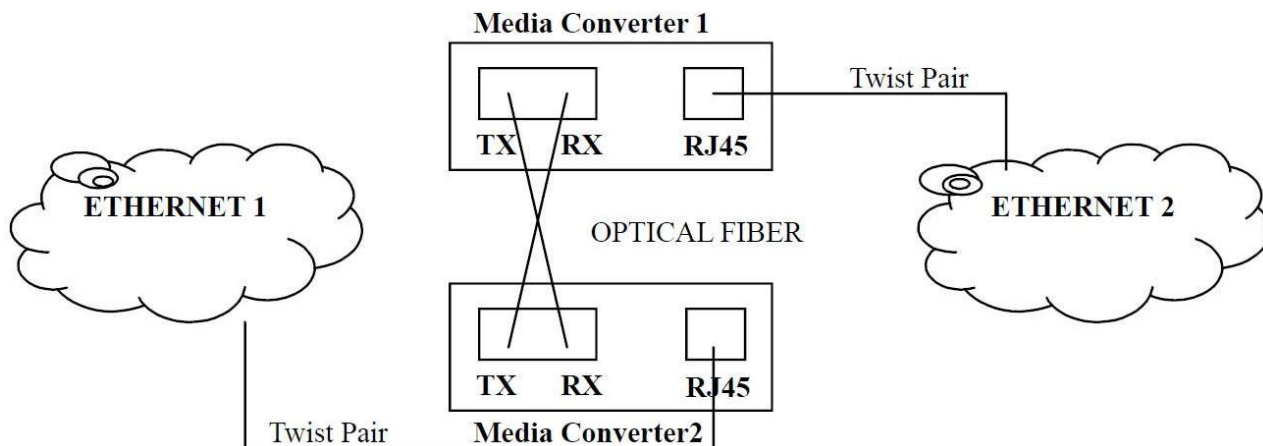


**LED Indicator Description**

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

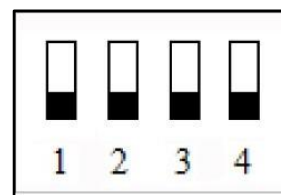
## Application



## 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-20T	10/100Mbps	T1310/R1550	20	-15~-3	-34	SM BiDi SC

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

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