



# 6820E/6821E

Fiber Optic Fast Ethernet Switching Transceivers

10/100 Ethernet  
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**“Fiber Optic 10/100 Ethernet Switching Transceiver for Ultralong Distance”**



**“Our data network products are diversified, reliable, and economical.”**

### Applications

10/100 Ethernet LAN Extension

10/100 Ethernet Backbone Connection

### Features

Versions Available with One or One Pair of Fiber per Link

Ultra-Long Distance Extension for > 80 Km

10/100 Mbps Auto Negotiation

Auto Crossover for TP Port

Support Link Alarm

Support Switch Mode and Pure Converter Mode

**1 Fiber Solution also Available (WDM)**

The 6820E/6821E Series is a high performance Fiber Optic Fast Ethernet Switching Transceiver that extends the RJ45 port of the Fast Ethernet Device beyond the copper cable limitation, via one multimode or singlemode fiber pair (6820E), or one singlemode fiber (6821E). Using the 6820E/6821E, the distance can be extended several km with the multimode version. In full duplex mode, the distance can be more than 80 km when equipped with the ultralong singlemode version. Options are also available for more than 100 km coverage.

The 6820E/6821E transceivers are frequently used to extend distance among the Fast Ethernet segments from switches to switches, from switches to workstations, or from file servers to routers. They are also used to link 10/100 Ethernet segments together, extending distances between 10/100 Ethernet routers, and 10/100 Ethernet switches, etc. The 6820E/6821E can be used in harsh environments because of its fiber optic benefits. Data security is also assured, because fiber optic cable is virtually impossible to tap without detection.

The 6820E/6821E is available with two packaging options: a rugged, standalone, and compact unit, or a plug-in card for a card cage system. Fully compliant to the IEEE 802.3 Standard, this transceiver can be plugged directly into the RJ45 port of any standard 10/100 Ethernet device. Its LEDs indicate power, transmitting, receiving, and optical link for ease in installing and troubleshooting

The 6820E/6821E design is capable of addressing a variety of non-standard configurations. Contact us to discuss your custom, OEM/private brand and high volume requirements.



Doing More With One Fiber



# 6820E/6821E

Fiber Optic Fast Ethernet Switching Transceivers

Network Data Transmission Systems



## Electrical

Data Interfaces	IEEE 802.3 10/100 Ethernet
Channel Capacity	1
Operation	Half or Full Duplex, Auto-Negotiation
Connector	RJ45

## Physical

Dimension: (H x W x D)	
for standalone	1.1" x 2.8" x 3.9"
for card-cage plug-in card	5.24" x 0.94" x 11.6"
Power Level	+5 VDC @ 1.6A
Operating Temperature	0 to +50°C
Humidity	0 to 95% RH, non-condensing
Status Indicators	Power, FDX, TP Link, Optical Link

## Optical

Fiber Type	Multimode or Singlemode
Number of Fibers	2 (6820) or 1 (6821)
Operating Wavelength	1310, or 1550 nm
Fiber Optic Connector	SC (Multimode and Singlemode)

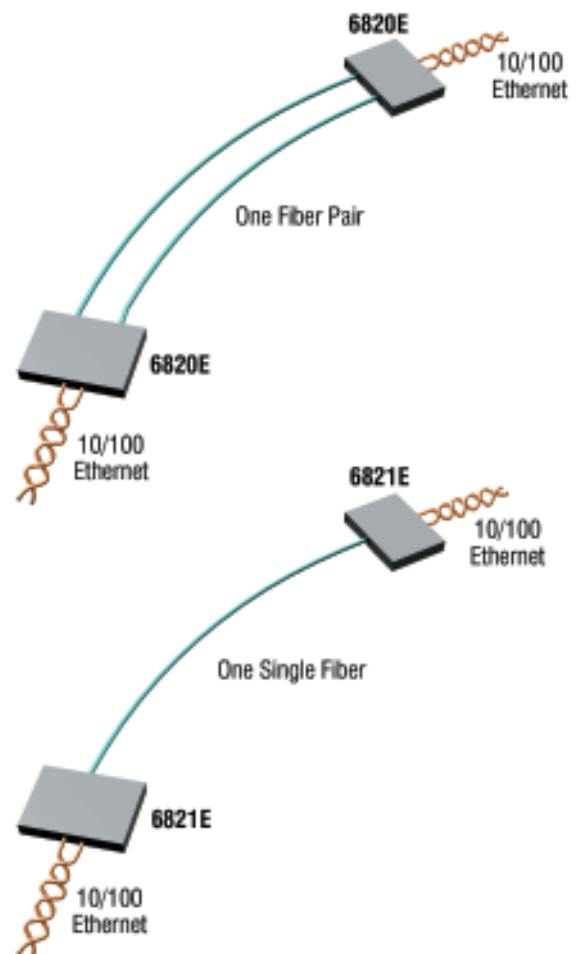
### Typical Power Budget and Transmission Distance

Application	Power Budget (1)	Typical Distance KM (2)	Typical Distance Miles (2)
Multimode Fiber	10	2	1.6
Singlemode Fiber	25	40	25
Singlemode Long Distance	30	80	50

(1) These are typical values for the 6820E/6821E Series. The actual values may vary.

(2) These are typical distance coverage figures. The maximum distance coverage may be greater than these typical numbers, depending on fiber type, fiber bandwidth, connector splicing losses, chromatic dispersion, environmental factors, etc.

## Applications



### Doing More With One Fiber

Subject to continued product enhancement, we reserve the right to change the above specifications and description without notice.

