USB20-1GBE-HS10

visual engineering
LIGHTWARE

USB 2.0 over LAN host side extender

Part No: 91810031

It is not uncommon that the distance between a USB 2.0 device and a host is more than 5 meters. In such cases, a direct USB cable cannot be used to connect them reliably. With the help of this host side extender USB 2.0 extension solutions can be built that make use of CAT5e/6/7 cables up to 100 meters. Both LAN and direct cable infrastructures are supported.

Another challenging situation where these extenders can be of help is when USB 2.0 devices from multiple locations need to be connected to a single host at the same time. Using a LAN infrastructure, up to 7 compatible device side extenders can be paired to this host side extender.

A host may be connected to a set of USB devices at a given point of time but there are many situations when the need to manage this set dynamically arises. The host side extender under discussion meets the above need because any of its paired host side extenders can be unpaired and new pairings can be formed with any compatible device side extender which is also present on the same LAN.

Highlight Features

- LAN and direct cable connectivity supported
- Transparent USB extension
- Throughput up to 480 Mbps
- Dynamic pairing to up to 7 compatible device side extenders

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Specifications

General	
Traffic types	All USB 2.0 and USB 1.1 traffic types
Extension range (network infrastructure)	maximum 100m (330 ft) using solid core CAT5e/6/7 cables
Extension range (direct connection)	maximum 100m (330 ft) using a single CAT5e/6/7 cable
Throughput (USB 2.0)	maximum 480 Mbps
Throughput (USB 1.1)	maximum 12 Mbps
Supported device types	Control, Interrupt, Isochronous and Bulk
Compliance	FCC, CE, UKCA
Electrical safety	EN 62368-1:2020
EMC (emission)	EN 55032:2015+A1:2020
EMC (immunity)	EN 55035:2017+A11:2020
RoHS	EN 63000:2018
Warranty	3 years
Operating temperature	0° to +50°C (+32° to +122°F)
Storage temperature	-20° to +70˚C (-4° to +158˚F)
Operating humidity	10% to 90%, non-condensing
Cooling	passive
Pairing control	with pairing buttons and a UDP control protocol

Power	
Power supply option	USB VBUS from host
Power consumption (min)	1W
Heat dissipation	4 BTU/h

Enclosure	
Rack mountable	Yes, 1U high
Enclosure material	1 mm steel
Dimensions in mm	100.4 W x 75.3 D x 26 H
Dimensions in inch	3.95 W x 2.96 D x 1.02 H
Weight	TBD

Ports	
USB host port	
Connector type	B-type receptacle
USB compliance	USB 2.0
Device class	All device classes
Ethernet port	
Connector type	RJ45 female connector
Ethernet data rate	Gigabit Ethernet
Power over Ethernet (PoE)	Not supported