FWB1GLC-PCI01

RoHS Compliance

Industrial 1394b PCI card with GOF port.

IOI's 32/64 bit PCI adapter with integrated GOF port offers users the ability to connect AVT's high end cameras, especially of the Stingray and Pike family with integrated GOF port, directly to their PC in a very simple way. This solution enables very long distance applications associated with the elimination of common ground problems without the use of external hubs. The card is equipped with a high quality optical transceiver with LCLC receptacles to bridge distances up to 500 m at 800 Mbps with 50 µm/125 µm multimode fiber. PCI 32/64 Bit theoretical bandwidth[1] of up to 132/264 MByte/s ensures low latency transmission of the up to 64 MByte/s of video data at full speed from AVT's 1394b cameras. Two additional 1394 bilingual connectors with screw locking enable the direct connection of 1394b cameras with copper interface. Marlin, Guppy and Oscar cameras can also be connected by the use of legacy cables.

[1] Practical bandwidth is lower and dependent on individual systems/software conditions. Mega = 1.000.000

Highlights

- Up to 64 MByte/s bus video bandwidth
- B signalling eliminates common ground
- Compliant with IEEE 1394b (2002)
- Backward compatible with IEEE 1394a (2000)
- Up to 800 Mbps @ 500 m cable length @ 850 nm wavelength
- GOF port Class 1 laser safety compliant
- Multimode fiber 50 µm/125 µm up to 500 m or 62.5 µm/125 µm up to 200 m
- Easy plug & play, no driver required
- LED for optical connection on card
- Compatible with all AVT 1394b cameras
- Compatible with all AVT 1394a cameras by the use of legacy cables
- Compatible with all AVT Software Packages[2]
- Power in connector to supply power
- Screw locking for 1394b ports

[2] For details refer to the corresponding releases

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ALLIED Vision Technologies

Technical Specifications

Feature	Description
Adapter type	1394b 32/84 bit PCI Card with LCLC GOF port
1394 chipset	TI TSB82AA2 (link); TI TSB81BA3D (phy)
Ports	2x 1394 bilingual[3], screw locking, supplying bus power (max. 1500 mA) per port; 1x Glass Optical Fiber (GOF) port with LCLC receptacles, removable dust protection for unused port[5]. Small form factor Gigabit optical transceiver with vertical cavity surface emitting laser (VCSEL) @ 850 nm. Supporting S800Beta/ S400Beta/ S200Beta/ S100Beta transfer modes6
Speed	100, 200, 400, 800 Mbps transfer rate
Bandwidth	100/80/64 MByte/s at 800 Mbps (gross/net/video)
# cameras (DMA's)	up to 4 (External repeater for more than 3 required)
OS support	Windows XP, 2003, 7; Linux 2.4.x/2.6.x[8]
Compliance	FCC, CE, RoHS directive (2002/95/EC), WEEE directive (2002/96/EC), GOF-transceiver: UL 1950, class 1 laser safety compliant
Power	12 V – 32 V DC, supplying bus power, max. 1500 mA
Operating temperature	+5°C… 50°C
Dimensions	165 mm x 120 mm
Mass	80 g
External power in	13 V – 32 V DC (big IDE 4-pin cable adapter included[9])
Options: cables	GOF cables, various lengths and grades; copper cables various lengths, with or without screw locking at both sides, sold separately

[3] Bilingual ports can either operate in 1394b or 1394a, depending on the device (cable) attached.
[4] Screw locking: Do not apply excessive force in order not to damage port or threads. There remains a gap between the connector and the plug.
[5] Dust protection has to be taken off before fiber cable can be connected.
[6] With a 1394a camera or a computer port connected on the electrical side, the GOF port translates to 1394b language, but a 1394a speed (S400Beta/ S200Beta/ S100Beta), thus enabling long distance application and the elimination of the common ground.
[7] DFP may require exchange of MS-driver, depending on service pack.
[8] On request: Contact your local support.
[9] External power is required, when connecting more than one Pike via copper per card.

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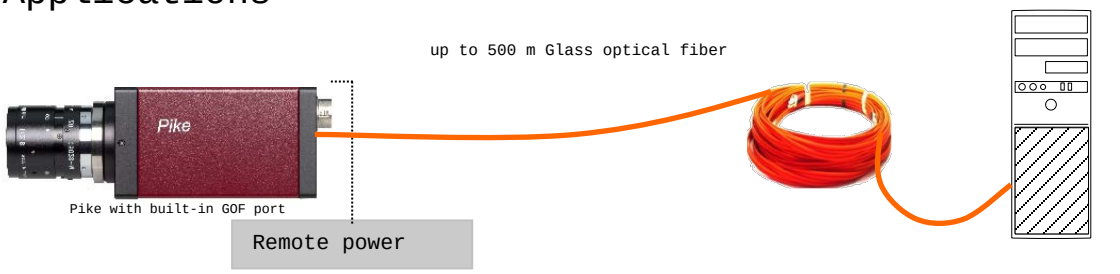
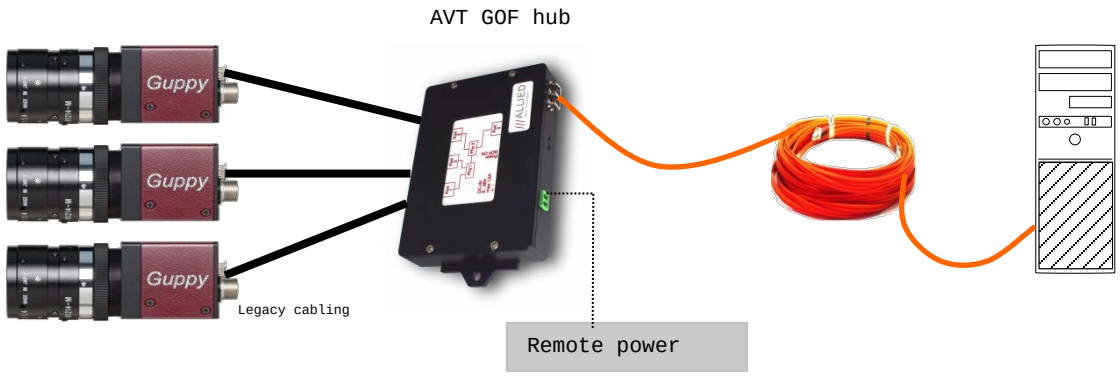
Applications





The total video bandwidth of the latter configuration is limited to 32 MByte/s due to the fact that the bus switches to 1394a speed.

Ordering information:

FWB1GLC-PCI01	2x 1394b & GOF (DUPLEX LC) to PCI Host Adapter, industrial	K0000348

Cable options:

GOF cable 10 m for optical repeater	62.5/125 µm, LCLC connector, indoor 10 m	K1200095
GOF cable 30 m for optical repeater	62.5/125 µm, LCLC connector, indoor 30 m	K1200087
GOF cable 50 m for optical repeater	62.5/125 µm, LCLC connector, indoor 50 m	K1200085
GOF cable 100 m for optical repeater	62.5/125 µm, LCLC connector, indoor 100 m	K1200086
GOF cable 150 m for optical repeater	62.5/125 µm, LCLC connector, indoor 150 m	K1200088
GOF cable 200 m for optical repeater	62.5/125 µm, LCLC connector, indoor 200 m	on request
GOF cable 300 m for optical repeater	62.5/125 µm, LCLC connector, indoor 300 m	on request
GOF cable 400 m for optical repeater	62.5/125 µm, LCLC connector, indoor 400 m	on request

Cable 0.5 m 9-pin - 9-pin, industrial	IEEE 1394b; 2x screw lock, 0.5 m, black	K1200306
Cable 5.0 m 9-pin - 9-pin, industrial	IEEE 1394b; 2x screw lock, 5.0 m, black	K1200169
Cable 7.5 m 9-pin - 9 pin, industrial	IEEE 1394b; 2x screw lock, 7.5 m, black	K1200308
Cable 4.5 m 9-pin - 6-pin, industrial	IEEE 1394b/a; 9-pin (screw lock) / 6-pin (latch), 4.5 m	K1200171

Notes:
Remote power supply needed either at camera or remote device.
Different cables available upon request.

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