



AVT fiber Hub



Your industrial 1394b to fiber Hub.

AVT's external 1394b to fiber hub offers users the ability to convert from 1394b electrical signals to glass optical fiber in a robust industrial housing. The hub is equipped with an optical transceiver with LCLC receptacle to bridge distances up to 500 m at 800 Mbps with 50 μm /125 μm multimode fiber. Three electrical 1394b ports can be used for additional hub functionality. This solution enables **longer distance applications** associated with the **elimination of common ground** problems with e.g. **Stingray** and **Pike** cameras. **Marlin**, **Dolphin**, **Guppy** and **Oscar** cameras can also be connected by the use of legacy cables. The device can be ordered either with a top-hat rail (DIN rail) snap mounting or a mounting plate. This makes the hub an ideal solution for industrial applications.

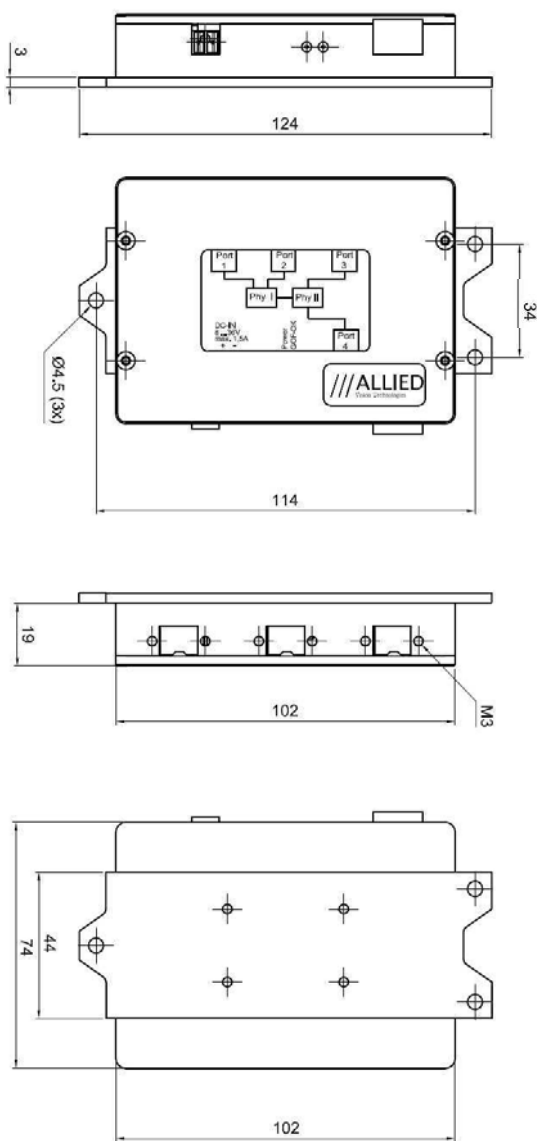
Highlights

- 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 300 m
- Easy plug & play, no driver required
- LEDs indicate for power and optical connection
- Compatible with all AVT 1394b cameras
- Compatible with all AVT 1394a cameras by the use of legacy cables
- Compatible with all AVT Software Packages¹
- Locking power in connector

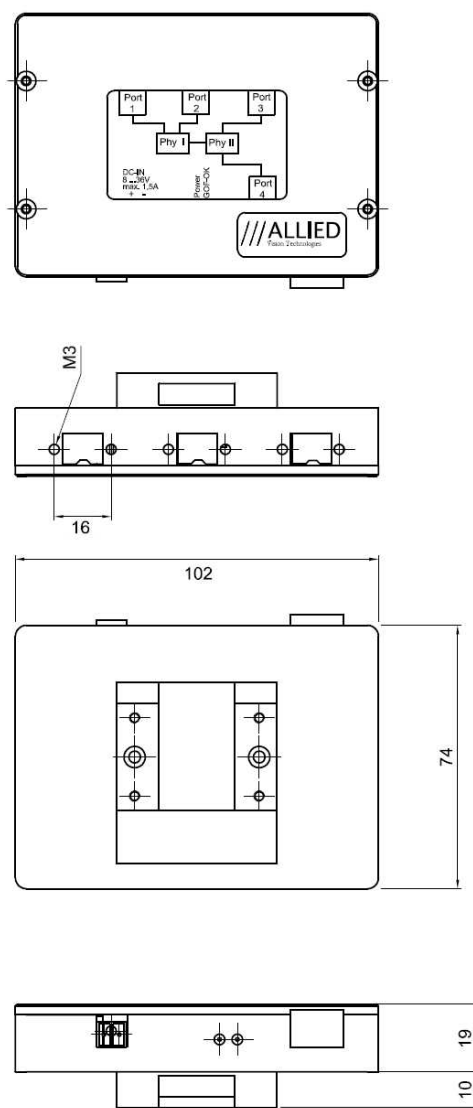
¹ For details refer to the corresponding releases

Drawing

AVT fiber Hub with mounting plate



AVT fiber Hub with snap-on mounting rail



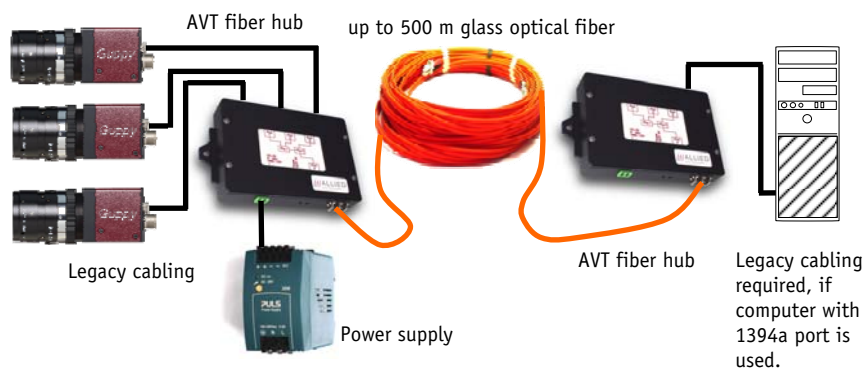
Technical Specifications

Feature	Description
Device type	3-port 1394b hub with one fiber port
1394 chipset	TI: 2x TSB81BA3
Electrical ports	3x 1394b, supplying bus power (1500 mA, lead fuse), with 3 mm screw threads
Power consumption	≈ 1.5 W + 0.5 W per port
Optical port	1x glass optical fiber (GOF) port with LCLC receptacle, removable dust protection for unused port ² Small form factor, Gigabit optical transceiver with vertical cavity surface emitting laser (VCSEL) @ 850 nm Supporting S800 Beta/ S400 Beta/ S200 Beta/ S100 Beta transfer modes ³
Speed	100, 200, 400, 800 Mbps transfer rate
Bandwidth	100/80/64 MByte/s at 800 Mbps (gross/net/video)
OS support	Windows NT 4.0, 2000, XP, 2003, Linux 2.4.x/2.6.x
Compliance	FCC, CE, RoHS; GOF transceiver: UL 1950, class 1 laser safety compl.
External power	8 V – 36 V DC, supplying bus power up to 45 W; lead fuse 3 A DC connector: Phoenix Minicon 1.5/2-ST-3.5
Dimensions	102 mm x 74 mm x 19 mm (W x L x H), without mounting
Mass	170 g without mounting
Operating temp.	+5°C... 50°C
Mounting options	Mounting plate or top-hat rail (DIN rail) snap mounting
Options: cables	Various lengths, sold separately

² Dust protection has to be taken off before fiber cable can be connected.

³ With a 1394a camera or a computer port connected on the electrical side, the GOF port translates to 1394b language, but a 1394a speed (S400 Beta/ S200 Beta/ S100 Beta), thus enabling long distance application and the elimination of the common ground.

Applications



Only the upper configuration is able to transfer 64 MByte/s. The total video bandwidth of the latter configuration is limited to 32 MByte/s due to the fact that the bus switches to 1394a mode and speed.

Ordering information:

AVT fiber Hub	Hub, 1x fiber, 3x 1394b copper, mounting plate	E3000074
AVT fiber Hub	Hub, 1x fiber, 3x 1394b copper, snap-on mounting rail	E3000084

Cable options:

Fiber optic cable 10 m for optical repeater	62.5/125 μm, LCLC connector, indoor	10 m	K1200095
Fiber optic cable 30 m for optical repeater	62.5/125 μm, LCLC connector, indoor	30 m	K1200087
Fiber optic cable 50 m for optical repeater	62.5/125 μm, LCLC connector, indoor	50 m	K1200085
Fiber optic cable 100 m for optical repeater	62.5/125 μm, LCLC connector, indoor	100 m	K1200086
Fiber optic cable 150 m for optical repeater	62.5/125 μm, LCLC connector, indoor	150 m	K1200088
Fiber optic cable 200 m for optical repeater	62.5/125 μm, LCLC connector, indoor	200 m	on request
Fiber optic cable 300 m for optical repeater	62.5/125 μm, LCLC connector, indoor	300 m	on request
Fiber optic 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, 2x ferrite	K1200201
Cable 5.0 m 9-pin - 9-pin, industrial	IEEE 1394b; 2x screw lock, 5.0 m, black, 2x ferrite	K1200133
Cable 7.5 m 9-pin - 9 pin, industrial	IEEE 1394b; 2x screw lock, 7.5 m, black, 2x ferrite	K1200134
Cable 4.5 m 9-pin - 6-pin, industrial	IEEE1394b/a; 9-pin (screw lock) / 6-pin (latch), 4.5 m	K1200171

Power supplies:

Power supply 12 V DC, 30 W	2.5 A, Phoenix connector 3.5 mm for AVT Hub	E3100016
Power supply 24 V DC, 30 W	top-hat rail (DIN Rail) snap mounting	K3100024
Power supply 24 V DC, 50 W	top-hat rail (DIN Rail) snap mounting	K3100023

Notes:

Remote power supply needed either at camera or remote device.
Fiber cables with higher mechanical grades: available upon request.