

FT120AB / FT220AB / FT420AB / FT820AB

10-bit Digital 1 / 2 / 4 / 8-ch Video with 2-ch Bi-directional Audio



Description

The FTD120AB/FT220AB/FT420AB/FT820AB series features high-performance laser-based optics for the clearest, most reliable data transmission. The video and audio series fiber transmission products support fiber optic transmission of 8-Bit PCM coded video and 2 channels bi-directional audio in both single and multimode with no video degradation over the entire operating distance (up to 20km).

This budget-friendly plug-and-play product provides instant compatibility for most major security manufacturers' equipment and supports audio interface. Created for reliability in harsh environments, this series provides a perfect complement to any commercial, government or intelligent transportation application. The product features in card module or standalone type.



Features

Video

- ▶ NTSC or PAL video standards supported
- ▶ Non-compressed 10-bit digitally encoded video
- ▶ No video degradation over the maximum operating distance

Audio

- ▶ 20Hz – 20KHz Bandwidth
- ▶ Transmit Balanced or Unbalanced Line-level Audio

Optical

- ▶ One fiber design
- ▶ High performance laser-based optics
- ▶ Multimode or Singlemode
- ▶ ST or FC connectors available

Robust Design

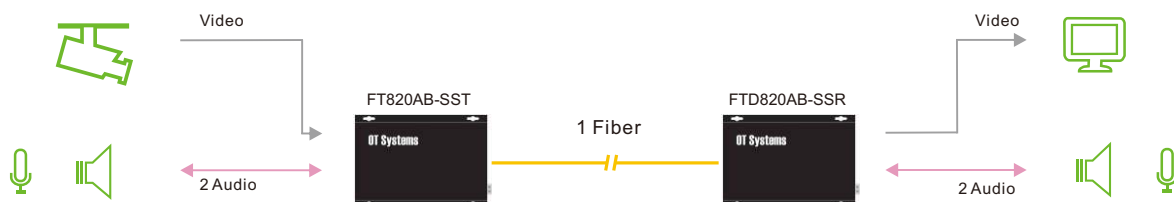
- ▶ Plug-and-Play design, no in-field adjustments required.
- ▶ Hot-swappable design
- ▶ Wide operating temperature range of -40°C to +75°C
- ▶ Designed for use in harsh environments

Warranty

- ▶ Comprehensive Lifetime Warranty

Video Transmission

Typical Application



Specifications

Video

Number of Channels	1 / 2 / 4 / 8
Format	NTSC/PAL/SECAM
Input/Output	1 Volt pk-pk (75 ohms)
Bandwidth	>=6MHz
Differential Gain	<1% Typical
Differential Phase	<1 Degree Typical
SNR-CCIR weighted	>65dB

Audio

Number of Channels	1
Audio Direction	Bi-directional
Input / Output Type	Balanced or Unbalanced
Input Level / Impedance	0 dBm(nominal), 10K ohms
Output Level	+4dBm
Bandwidth	20Hz-20KHz
Signal-to-Noise Ratio(SNR)	>66dB

LED

Video Signal Indication (Presence)	Green LED lit
Audio In / Out	Red/Green LED lit
Optical Carrier Detected	Yellow / Active
Power	Red/On

Connectors

Video Input / Output	BNC
Optical Input / Output	ST (standard), FC (optional)
Audio Input / Output	7-pin screw terminal
Power (Standalone)	2-pin screw terminal
Power (Rack-Mount)	Bus connector

Electrical and Mechanical

FT120AB / FT220AB / FT420AB	
Power (Standalone)	12VDC @ 5.4W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 50.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 41.4 x 213mm(Max)
Shipping Weight (Standalone)	0.8kg (Max)
Shipping Weight (Rack Mount)	0.32kg (Max)

FT820AB	
Power (Standalone)	12VDC @ 6.6W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 50.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 41.4 x 213mm(Max)
Shipping Weight (Standalone)	0.82kg
Shipping Weight (Rack Mount)	0.35kg

Environmental

Operating Temp	-40°C to +75°C
Storage Temp	-40°C to +85°C
Relative Humidity	0 to 95% non-condensing
MTBF	> 100,000 hours

Video Transmission

Ordering Information

Fiber Type	Part Number	Description	Wavelengths (nm)	Optical Power Budget (dB)	Max. Distance (Km)	No. of slots
Multi-mode (62.5/125µm)	FT120AB-SMT FT120AB-SMR	1- ch Video Transmitter / Receiver with 2-ch bidirectional Audio Transceiver	1310 1550	23	4	2
	FT220AB-SMT FT220AB-SMR	2- ch Video Transmitter / Receiver with 2-ch bidirectional Audio Transceiver	1310 1550	23	2	2
	FT420AB-SMT FT420AB-SMR	4- ch Video Transmitter / Receiver with 2-ch bidirectional Audio Transceiver	1310 1550	23	2	2
	FT820AB-SMT FT820AB-SMR	8- ch Video Transmitter / Receiver with 2-ch bidirectional Audio Transceiver	1310 1550	23	1	2
Single-mode (9/125µm)	FT120AB-SST FT120AB-SSR	1- ch Video Transmitter / Receiver with 2-ch bidirectional Audio Transceiver	1310 1550	17	20	2
	FT220AB-SST FT220AB-SSR	2- ch Video Transmitter / Receiver with 2-ch bidirectional Audio Transceiver	1310 1550	17	20	2
	FT420AB-SST FT420AB-SSR	4- ch Video Transmitter / Receiver with 2-ch bidirectional Audio Transceiver	1310 1550	17	20	2
	FT820AB-SST FT820AB-SSR	8- ch Video Transmitter / Receiver with 2-ch bidirectional Audio Transceiver	1310 1550	17	20	2

Options	<ul style="list-style-type: none"> ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMT. For Standalone type, please add "SA". E.g. SMTSA Please feel free to consult factory if longer transmission distance is required.
Power Adaptor	<ul style="list-style-type: none"> Power adaptor is included in Standalone type only.
Rack Mount Chassis	<ul style="list-style-type: none"> FT-C18 is to be purchased separately. Please refer to accessories section for the details.

Notes:

- Transmission distance will suffer if additional losses are introduced by the optical connectors, fusions, splices and the fibers within the network.
- Operating distance of multimode is limited by the characteristics of the fiber bandwidth.
- Power adaptor is manufactured by third party and is supplied with fitted screw - terminal output cables.
- Please feel free to consult factory for any special requirement and customization.



OT Systems Ltd., November 2013
Due to continuous improvement, all product specifications are subject to change without further notice.