FT8X0DB Series

OT Systems

10-bit Digital 8-ch Video with 1 or 2 Bi-directional Data

The FT8X0DB series supports optical transmission of high-quality 10-bit PCM coded video with bi-directional data through one fiber either in multimode or singlemode.

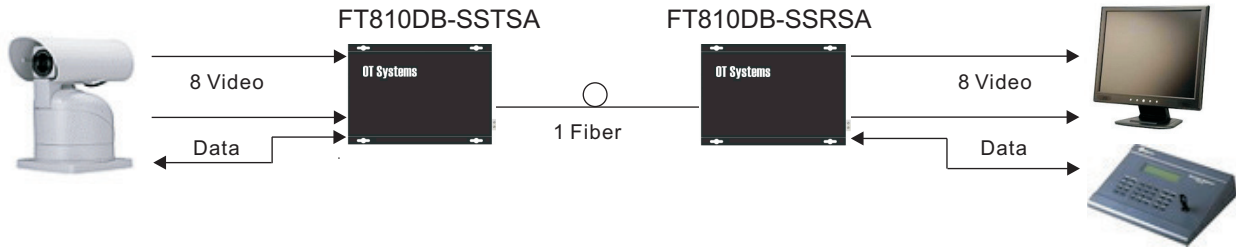
It provides a cost-effective solution for the transmission of eight-channel video together with either one or two data channel(s). Either standalone or card module is available for different installation requirements.

10-bit Digital Video

Features

- Eight-channel non-compressed 10-bit digital video transmission
- No video degradation over max. operating distance
- Signal to noise ratio better than 65 dB
- Supports NTSC, PAL & SECAM video systems
- Gold plated BNC connector
- Supports one or two bi-directional data
- Supports multi-protocol data in RS232, RS422 & RS485(2 or 4-wire) Tri-state formats
- External access for data format selection via DIP switches
- Laser diode for optical transmission
- Optimum sensitivity for power budget concerns
- Excellent suppression of EMI & RFI and elimination of ground loop
- Adjustment and maintenance free
- No setup just plug-and-play
- Hot-swappable card modules
- Duplicated LED indicators on the front and rear of the unit for the convenience of observation
- Transient voltage protection on power supply and all signal inputs & outputs
- Robust design for harsh environment applications
- Standalone or card module

Typical Application



FT8X0DB Series

Ordering Information

Model	Description	No. of Fibers (Wavelengths)	Optical Power Budget	Max. Distance
	MULTIMODE (62.5/125 um)			
FT810DB-SMT FT810DB-SMR	8 Video Transmitter/1 Data Transceiver 8 Video Receiver/1 Data Transceiver	1 (1310/1550 nm)	23 dB	1 km
FT820DB-SMT FT820DB-SMR	8 Video Transmitter/2 Data Transceiver 8 Video Receiver/2 Data Transceiver			
	SINGLEMODE (9/125 um)			
FT810DB-SST FT810DB-SSR	8 Video Transmitter/1 Data Transceiver 8 Video Receiver/1 Data Transceiver	1 (1310/1550 nm)	17 dB	40 km
FT820DB-SST FT820DB-SSR	8 Video Transmitter/2 Data Transceiver 8 Video Receiver/2 Data Transceiver			
FT810DB-SSTL FT810DB-SSRL	8 Video Transmitter/1 Data Transceiver 8 Video Receiver/1 Data Transceiver	1 (1310/1550 nm)	24 dB	60 km
FT820DB-SSTL FT820DB-SSRL	8 Video Transmitter/2 Data Transceiver 8 Video Receiver/2 Data Transceiver			

Accessories: FT-C18. 19" rack mount chassis (purchased separately) for housing card modules
FT-PA/12V. 12VDC power adapter included for standalone (US, European, UK or Australian power plug)

Options: Model numbers specified above are for Card Modules, please add '***SA***' for Standalone. eg. FT810DB-SMT***SA***
ST type connector is standard. For FC type, specify '***F***' in the model number. Eg. FT810DB-***F***MT

NOTES: (1) Transmission distance will suffer if additional losses are introduced by the optical connectors, fusions, splices and the fibers within the network.
(2) Operating distance of multimode is limited by the characteristics of the fiber bandwidth.
(3) Power adaptor is manufactured by third party and is supplied with fitted screw-terminal output cables.
(4) Please feel free to consult factory for any special requirement and customization

Specifications

Video

No. of Channels:	8
Bandwidth:	6.5MHz per channel
Format:	PAL / NTSC / SECAM
Input / Output:	1.0 Vp-p, 75 ohms
Differential Gain:	< 1% typical
Differential Phase:	< 1° typical
Signal-to-Noise Ratio:	> 65dB

Data

No. of Channels:	1 or 2
Data Direction:	Bi-directional
Data Interface:	DIP switch-selectable RS232, RS422, RS485(2 or 4-wire) Tri-state
Data Format:	MPD (Manchester, Bi-phase, etc)
Data Rate:	0~256Kbps

Connectors

Optical:	ST (standard), FC
Video:	BNC
Data:	7-pin screw terminal
Power:	SA: 2-pin screw terminal Card: Futurebus connector

Electrical and Mechanical

Power:	SA: 12VDC @ 6.0W Card: From FT-C18 chassis
Dimensions (HxWxD):	SA: 50 x 156 x 212mm Card: 154 x 41 x 212mm
Weight:	SA: 0.97kg Card type: 0.45kg
No. of rack slots:	2
LED Indicators:	Power, Video per channel, Optical carrier detected, Data Tx & Rx

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

ISO 9001:2000 FM 88638

Lifetime Warranty

Due to continuous improvement, all product specifications are subject to change without further notice.