FT110DBE / FT210DBE / FT410DBE

10-bit Digital 1 / 2 / 4-ch Video with 1-ch Bi-directional Data & 10/100Mbps Ethernet

Features

Video

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

Data

- Meets EIA RS-232/422/485 specifications
- Full RS-485 Tri-state support
- Half or full-duplex operation
- Transparent to data encoding
- Data rates from 0 to 256kbps

Ethernet

- Supports full duplex 100Mbps Ethernet singal

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 -40ºC to +75ºC
- Designed for use in harsh environments

Warranty
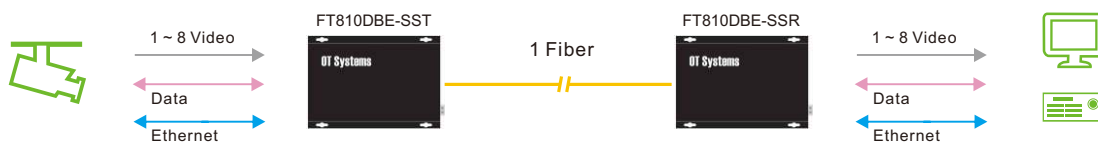
- Comprehensive Lifetime Warranty

Description

The FT110BDE/FT210DBE/FT410DBE 10-Bit Digital Video, Data and Ethernet transmission products, support fiber optical transmission of 10-Bit PCM coded video (up to 8 channels) with one bi-directional data and 100Mbps Ethernet, also features high-performance laser-based optics for the clearest, most reliable data transmission in both single and multi-mode with no video degradation over the entire operating distance (up to 20 km).

This plug-and-play product family provides instant compatibility for most major security manufacturers' equipment and reliability in harsh environments, a perfect compliment to any commercial, government or intelligent transportation application. The product features card module or standalone type.

Typical Application

FT110DBE / FT210DBE / FT410DBE

▍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

Data

Number of Channels	1
Data Direction	Bi-directional
Data Interface	RS232, RS422, RS485 2 or 4-wire Tri-state
Selection Method	DIP switch-selectable
Data Rate	0~256kbps
Data Format	MPD (Manchester, Bi-phase, etc)

Connectors

Video Input / Output	BNC
Optical Input / Output	ST (standard), FC (optional)
Data Input / Output	7-pin screw terminal
Ethernet	8-pin RJ45
Power (Standalone)	2-pin screw terminal
Power (Rack-Mount)	Bus connector

Electrical and Mechanical

FT110DBE / FT210DBE

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)	0.76kg
Shipping Weight (Rack Mount)	0.4kg

FT410DBE

Power (Standalone)	12VDC @ 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)	0.8kg (Max)
Shipping Weight (Rack Mount)	0.32kg (Max)

LED

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

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

▍Ordering Information

Fiber Type	Part Number	Description	Wavelengths (nm)	Optical Power Budget (dB)	Max. Distance (Km)	No. of slots
Multi-mode (62.5/125µm)	FT110DBE-SMT FT110DBE-SMR	1 - ch Video Transmitter / Receiver with 1-ch bidirectional Data & 10/100 Mbps Ethernet Transceiver	1310 | 1550	23	1	2
	FT210DBE-SMT FT210DBE-SMR	2 - ch Video Transmitter / Receiver with 1-ch bidirectional Data & 10/100 Mbps Ethernet Transceiver	1310 | 1550	23	1	2
	FT410DBE-SMT FT410DBE-SMR	4 - ch Video Transmitter / Receiver with 1-ch bidirectional Data & 10/100 Mbps Ethernet Transceiver	1310 | 1550	23	1	2
Single-mode (9/125µm)	FT110DBE-SST FT110DBE-SSR	1 - ch Video Transmitter / Receiver with 1-ch bidirectional Data & 10/100 Mbps Ethernet Transceiver	1310 | 1550	17	20	2
	FT210DBE-SST FT210DBE-SSR	2 - ch Video Transmitter / Receiver with 1-ch bidirectional Data & 10/100 Mbps Ethernet Transceiver	1310 | 1550	17	20	2
	FT410DBE-SST FT410DBE-SSR	4 - ch Video Transmitter / Receiver with 1-ch bidirectional Data & 10/100 Mbps Ethernet Transceiver	1310 | 1550	17	20	2

Options	▪ 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	▪ Power adaptor is included in Standalone type only.
Rack Mount Chassis	▪ 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.