



Transmission Solutions Specialists

HD&Video Fiber Optic Transmission Products Catalog



OT Systems Ltd
www.ot-systems.com

Company

OT Systems specializes in the design and manufacturing of high-quality, value-based fiber optic transmission devices. Found in early 2000s by a team of internationally experienced security industry professionals, our management team has more than a century of combined experience in video surveillance and communication applications. OT Systems' products span a variety of application requirements, offer transmission flexibility and have been installed in thousands of applications worldwide. Our products are particularly suitable for security and transportation surveillance, such as airports, warehouses, railways, highway / toll station controls, perimeter protection, manufacturing facilities, institutions and all other areas where video and data transmission quality is a top priority.

Dedicated to ensuring customer satisfaction our design team can recommend suitable models that best fit customers' specific project requirements and budget. We provide timely technical support to aid in installation and post installation troubleshooting.

OT Systems' reputation for reliable, competitive fiber products continue to grow in the security industry, thanks to the company's dedication to engineering excellence and customized service. The company takes pride in meeting all customer expectations and guarantees complete satisfaction. OT Systems is one of the largest fiber optic transmission manufacturers with ISO9001:2008 quality endorsed manufacturing facilities. We are always committed to offering the following advantages to our customers:

- Customization of products to meet product specific customer requirements
- Top quality seasoned system design support and product selection assistance
- Timely technical support to aid in installation and post installation troubleshooting
- Comprehensive in-house training for system design and product selection
- Customer satisfaction guaranteed

We look forward to working with you!

*The **OT Systems** Team*

Model Selection Guide

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NHD100Micro

Microtype 1-ch HD-SDI Video



Description

The advanced NHD100Micro series supports optical transmission of non-compressed HD-SDI or SD-SDI signal format through one multimode or singlemode optical fiber. Capable of transmitting signal up to 20km on singlemode fiber and 1km on multimode fiber, it retains excellent video quality. This compact yet ruggedized unit is ideal for installation in most camera housings. Plug-and-Play design ensures ease of installation requiring no electrical or optical adjustments.



Features

Video

- ▶ Non-compressed HD-SDI or SD-SDI signal transmission
- ▶ Support SMPTE 259M and 292M standards
- ▶ Support data rate up to 1.485Gbps
- ▶ Support resolution 720p50/60, 1080i50/60, 1080p25/30
- ▶ No video degradation over the maximum operating distance

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
- ▶ Designed for use in harsh environments
- ▶ Microtype fits within most camera housings
- ▶ Wide operating temperature range of -40°C to +75°C

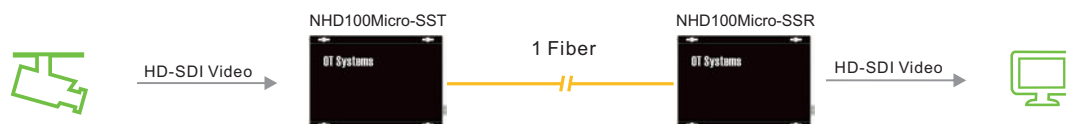
Local and remote diagnostics

- ▶ Service-friendly LED status indicators on front of the module

Warranty

- ▶ Comprehensive Lifetime Warranty

Typical Application



Specifications

Video

Number of Channels	1
Format	SD-SDI, HD-SDI
Data Rate	1.485Gbps (maximum)
Standard	SMPTE 259M, 292M
Max Resolution	720p50/60, 1080i50/60, 1080p25/30
I/O Impedance	75 Ohm
Video Input/Output Level	800mVp-p±10%
Transmission Distance	Over 100m (Belden 1694A)
Jitter	Around 0.2 UI

LED

SDI Signal Indication (Presence)	Green / On
Power	Green / On

Connectors

SDI Input / Output	BNC
Optical Input / Output	ST (standard), FC (optional)
Power	2-pin screw terminal

Electrical and Mechanical

Power	12VDC @150mA
Dimensions(WxHxD)	36.2 x 24.5 x 101mm(Max)
Shipping Weight	0.15kg

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)
Multi-mode (62.5/125µm)	NHD100Micro-SMT	Microtype 1 - ch HD-SDI Transmitter	1310	9	1
	NHD100Micro-SMR	Microtype 1 - ch HD-SDI Receiver			
Single-mode (9/125µm)	NHD100Micro-SST	Microtype 1 - ch HD-SDI Transmitter	1310	12	20
	NHD100Micro-SSR	Microtype 1 - ch HD-SDI Receiver			

- | | |
|---------------|--|
| Options | <ul style="list-style-type: none"> ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMT. Please feel free to consult factory if longer transmission distance is required. |
| Power Adaptor | <ul style="list-style-type: none"> Power adaptor is included. |

- 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.



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NHD110DRMicro

Microtype 1-ch HD-SDI Video with 1-ch Reverse Data



Description

The advanced NHD110DRMicro series supports optical transmission of non-compressed HD-SDI or SD-SDI signal format and Reverse Data modules through one multimode or singlemode optical fiber. Capable of transmitting signal up to 20km on singlemode fiber and 500m on multimode fiber, it retains excellent video quality, as well as RS-422/485 serial data ports. This compact yet ruggedized unit is ideal for installation in most camera housings. Plug-and-Play design ensures ease of installation requiring no electrical or optical adjustments.



Features

Video

- ▶ Non-compressed HD-SDI or SD-SDI signal transmission
- ▶ Support SMPTE 259M and 292M standards
- ▶ Support data rate up to 1.485Gbps
- ▶ Support resolution 720p50/60, 1080i50/60, 1080p25/30
- ▶ No video degradation over the maximum operating distance

Data

- ▶ Meets EIA RS-422/485 specifications
- ▶ Simplex operation
- ▶ Transparent to data encoding
- ▶ Data rates 115,200bps maximum

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
- ▶ Designed for use in harsh environments
- ▶ Microtype fits within most camera housings
- ▶ Wide operating temperature range of -40°C to +75°C

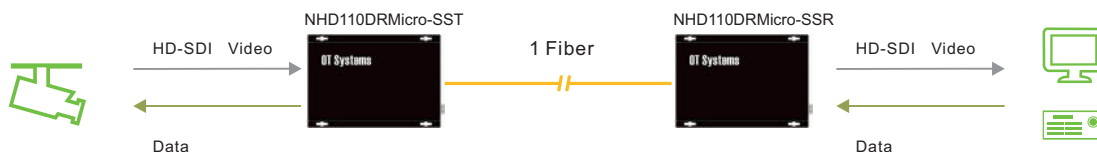
Local and remote diagnostics

- ▶ Service-friendly LED status indicators on front of the module

Warranty

- ▶ Comprehensive Lifetime Warranty

Typical Application



Specifications

Video

Number of Channels	1
Format	SD-SDI, HD-SDI
Data Rate	1.485Gbps (maximum)
Standard	SMPTE 259M, 292M
Max Resolution	720p50/60, 1080i50/60, 1080p25/30
I/O Impedance	75 Ohm
Video Input/Output Level	800mVp-p±10%
Transmission Distance	100m (Belden 1694A)
Jitter	Around 0.2 UI

Data

Number of Channels	1
Data Direction	Reverse only (from RX to TX)
Data Interface	RS422 and RS485 (4-wire)
Selection Method	DIP switch-selectable
Line Termination	DIP switch-selectable
Data Rate	0~115,200bps
Data Protocol	Protocol transparency

LED

SDI Signal Indication (Presence)	Green/lit
Data TX / RX Status	Green/lit
Power	Green / On

Connectors

SDI Input / Output	BNC
Optical Input / Output	ST (standard), FC (optional)
Data Input / Output	7-pin screw terminal
Power	2-pin screw terminal

Electrical and Mechanical

Power	12VDC @250mA
Dimensions(WxHxD)	36.2x 35 x 101mm(Max)
Shipping Weight	~0.2kg

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)
Multi-mode (62.5/125µm)	NHD110DRMicro-SMT	Microtype 1 - ch HD-SDI Transmitter with 1-ch Data Receiver	1310 1550	6	0.5
	NHD110DRMicro-SMR	Microtype 1 - ch HD-SDI Receiver with 1-ch Data Transmitter			
Single-mode (9/125µm)	NHD110DRMicro-SST	Microtype 1 - ch HD-SDI Transmitter with 1-ch Data Receiver	1310 1550	12	20
	NHD110DRMicro-SSR	Microtype 1 - ch HD-SDI Receiver with 1-ch Data Transmitter			

- | | |
|---------------|--|
| Options | <ul style="list-style-type: none"> ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMT. Please feel free to consult factory if longer transmission distance is required. |
| Power Adaptor | <ul style="list-style-type: none"> Power adaptor is included. |

- 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.



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NHD100Micro3G

Microtype 1-ch 3G-SDI Video



Description

The advanced NHD100Micro3G series supports optical transmission of non-compressed 3G-SDI, HD-SDI or SD-SDI signal format through one singlemode optical fiber. Capable of transmitting signal up to 20km, it retains excellent video quality. This compact yet ruggedized unit is ideal for installation in most camera housings. Plug-and-Play design ensures ease of installation requiring no electrical or optical adjustments.



Features

Video

- ▶ Non-compressed 3G-SDI, HD-SDI or SD-SDI signal transmission
- ▶ Support SMPTE 259M, 292M and 424M standards
- ▶ Support data rate up to 2.970 Gbps
- ▶ Support resolution 720p50/60, 1080i50/60, 1080p25/30, 1080p50/60
- ▶ No video degradation over the maximum operating distance

Optical

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

Robust Design

- ▶ Plug-and-Play design, no in-field adjustments required
- ▶ Designed for use in harsh environments
- ▶ Microtype fits within most camera housings
- ▶ Wide operating temperature range of -40°C to +75°C

Local and remote diagnostics

- ▶ Service-friendly LED status indicators on front of the module

Typical Application



Specifications

Video

Number of Channels	1
Format	SD-SDI, HD-SDI, 3G-SDI
Data Rate	2.97Gbps (maximum)
Standard	Support SMPTE 259M, 292M, 424M
Max Resolution	720p50/60, 1080i50/60, 1080p25/30
	1080p50/60
I/O Impedance	75 Ohm

LED

SDI Signal Indication (Presence)	Green / On
Power	Green / On

Connectors

SDI Input / Output	BNC
Optical Input / Output	ST (standard), FC (optional)
Power	2-pin screw terminal

Electrical and Mechanical

Power	12VDC @150mA
Dimensions(WxHxD)	36.2 x 24.5 x 101mm(Max)
Shipping Weight	0.15kg

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)
Single-mode (9/125µm)	NHD100Micro3G-SST	Microtype 1 - ch 3G-SDI Transmitter	1310	10	20
	NHD100Micro3G-SSR	Microtype 1 - ch 3G-SDI Receiver			

- Options
- ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMT.
 - Please feel free to consult factory if longer transmission distance is required.

- Power Adaptor
- Power adaptor is included.

- 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.



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NHD100S

Miniature 1-ch HD-SDI Video



Features

Video

- ▶ Non-compressed HD-SDI or SD-SDI signal transmission
- ▶ Support SMPTE 259M and 292M standards
- ▶ Support data rate up to 1.485Gbps
- ▶ Support resolution 720p50/60, 1080i50/60, 1080p25/30
- ▶ No video degradation over the maximum operating distance

Optical

- ▶ One fiber design
- ▶ Laser-based optics
- ▶ Multimode or Singlemode
- ▶ ST or FC connectors available

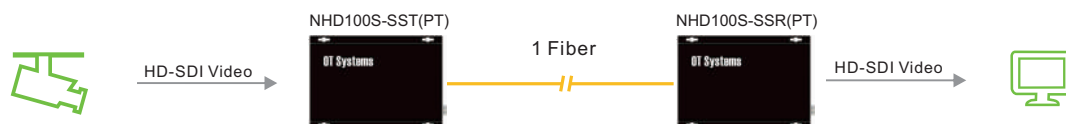
Robust Design

- ▶ Plug-and-Play design, no in-field adjustments required
- ▶ Miniature size fits within most camera housings
- ▶ BNC connector with short Coax cable for flexible placement in housing or on DVR
- ▶ Operating temperature range of 0°C to +50°C

Description

The advanced NHD100S series supports optical transmission of non-compressed HD-SDI or SD-SDI signal format through one multimode or singlemode optical fiber. Capable of transmitting signal up to 20km on singlemode fiber and 1km on multimode fiber, it retains excellent video quality. This miniature yet ruggedized unit is ideal for installation in most camera housings or directly plugged into the camera or DVR because of its light weight. Plug-and-Play design ensures ease of installation requiring no electrical or optical adjustments.

Typical Application



Specifications

Video

Number of Channels	1
Format	SD-SDI, HD-SDI
Data Rate	1.485Gbps (maximum)
Max Resolution	720p50/60, 1080i50/60, 1080p25/30
I/O Impedance	75 Ohm

LED

Power	Green / On
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Connectors

SDI Input / Output	BNC with Coax cable (~10cm)
Optical Input / Output	ST (standard), FC (optional)
Power	DC Jack (3.5 mm)

Electrical and Mechanical

Power	12VDC @100mA
Dimensions(WxHxD)	82 x 22 x 22mm (PT Coax cable 10cm)
Shipping Weight	0.10kg

Environmental

Operating Temp	0 °C to +50 °C (Tested -10 °C to +60 °C)
Storage Temp	-20 °C to +60 °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)
Multi-mode (62.5/125µm)	NHD100S-SMT	Miniature 1 - ch HD-SDI Transmitter	1310	6	1
	NHD100S-SMT(PT)	Miniature 1 - ch HD-SDI Transmitter with short Coax cable			
	NHD100S-SMR	Miniature 1 - ch HD-SDI Receiver			
	NHD100S-SMR(PT)	Miniature 1 - ch HD-SDI Receiver with short Coax cable			
Single-mode (9/125µm)	NHD100S-SST	Miniature 1 - ch HD-SDI Transmitter	1310	10	20
	NHD110S-SST(PT)	Miniature 1 - ch HD-SDI Transmitter with short Coax cable			
	NHD110S-SSR	Miniature 1 - ch HD-SDI Receiver			
	NHD110S-SSR(PT)	Miniature 1 - ch HD-SDI Receiver with short Coax cable			

- Options
- ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMT.
 - Please feel free to consult factory if longer transmission distance is required.
- Power Adaptor
- Power adaptor is included.

- 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.



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FTD100Micro

Microtype 8-bit Digital 1-ch Video



Features

Video

- ▶ NTSC or PAL video standards supported
- ▶ Non-compressed 8-bit digitally encoded video
- ▶ No video degradation over the maximum operating distance

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
- ▶ Wide operating temperature range of -40°C to +75°C
- ▶ Designed for use in harsh environments

Local and remote diagnostics

- ▶ Service-friendly LED status indicators on front of the module

Warranty

- ▶ Comprehensive Lifetime Warranty

Description

The FTD100Micro Series offers 8-bit PCM digital video transmission with no video degradation over the entire operating distance (up to 20km) and a small, but mighty design that fits into most CCTV camera housings.

The cost-effective unit features high-performance laser-based optics for the clearest, most reliable data transmission over one fiber in both single and multi-mode. This plug-and-play product provides instant product compatibility for most major security manufacturers' equipment and reliability in harsh environments.

These units are compatible with the FTD100 transmitters/receivers and FTD100-XXR3 receivers.

Typical Application



Specifications

Video

Number of Channels	1
Format	NTSC/PAL
Input/Output	1 Volt pk-pk (75 ohms)
Bandwidth	>=6MHz
Differential Gain	<1% Typical
Differential Phase	<1 Degree Typical
SNR-CCIR weighted	>60dB

LED

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

Connectors

Video Input / Output	BNC
Optical Input / Output	ST (standard), FC (optional)
Power	2-pin screw terminal

Electrical and Mechanical

Power	12VDC(24VAC*)@1.8W / From MR-C10
Dimensions(WxHxD)	36.2 x 24.5 x 101(118*)mm(Max)
Shipping Weight	0.1kg

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

* Specifications of FTD100Micro24 Models

Ordering Information

Fiber Type	Part Number	Description	Wavelengths (nm)	Optical Power Budget (dB)	Max. Distance (Km)	No. of slots
Multi-mode (62.5/125µm)	FTD100Micro-SMT	Microtype 1 - ch Video Transmitter	1310	23	4	NA
	FTD100Micro24-SMT	Microtype 1 - ch Video Transmitter(24VAC)				
	FTD100Micro-SMR	Microtype 1 - ch Video Receiver				
Single-mode (9/125µm)	FTD100Micro-SST	Microtype 1 - ch Video Transmitter	1310	17	20	NA
	FTD100Micro24-SST	Microtype 1 - ch Video Transmitter(24VAC)				
	FTD100Micro-SSR	Microtype 1 - ch Video Receiver				

Options	<ul style="list-style-type: none"> ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMT. Please feel free to consult factory if longer transmission distance is required.
Power Adaptor	<ul style="list-style-type: none"> Power adaptor is included.
Rack Mount Chassis	<ul style="list-style-type: none"> MR-C10 is to be purchased separately. Please refer to accessories section for 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.

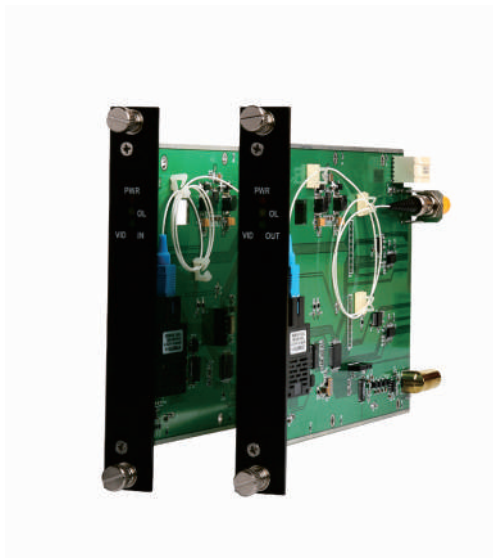


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FTD100

Card Module 8-bit Digital 1-ch Video



Features

Video

- ▶ NTSC or PAL video standards supported
- ▶ Non-compressed 8-bit digitally encoded video
- ▶ No video degradation over the maximum operating distance

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

Description

The FTD100 8-Bit Digital Video transmission product, features high-performance laser-based optics for the clearest, most reliable data transmission over one fiber for both single and multi-mode with no video degradation over the entire operating distance (up to 20km).

This plug-and-play product provides instant product 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 operates in FT-C18 Rack Mount Chassis.

These units are compatible with the FTD100Micro transmitters/receivers and FTD100-XXR3 receivers.

Typical Application



Specifications

Video

Number of Channels	1
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	>60dB

LED

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

Connectors

Video Input / Output	BNC
Optical Input / Output	ST (standard), FC (optional)
Power (Rack-Mount)	Bus connector

Electrical and Mechanical

Power	From FT-C18 Chassis
Dimensions(WxHxD)	148 x 20.4 x 213mm(Max)
Shipping Weight	0.16kg

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)	FTD100-SMT	1 - ch Video Transmitter	1310	23	4	1
	FTD100-SMR	1 - ch Video Receiver				
Single-mode (9/125µm)	FTD100-SST	1 - ch Video Transmitter	1310	17	20	1
	FTD100-SSR	1 - ch Video Receiver				

- Options
- ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMT.
 - Please feel free to consult factory if longer transmission distance is required.
- 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.
 - 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.

FTD100-XXR3

3 Independent Optical Channels 8-bit Digital Video Receiver



Features

Video

- ▶ NTSC or PAL video standards supported
- ▶ Non-compressed 8-bit digitally encoded video
- ▶ 3 independent channel receiver in one module
- ▶ No video degradation over the maximum operating distance

Optical

- ▶ Three independent fiber inputs
- ▶ 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

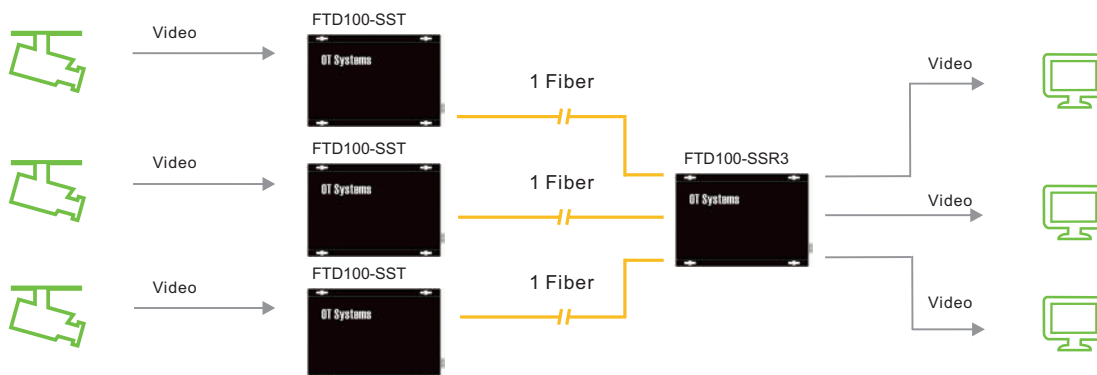
Description

The 8-Bit Digital Video transmission series' FTD100-XXR3 3-channel video fiber receivers feature high-performance laser-based optics for the clearest, most reliable data transmission over one fiber for both single and multi-mode with no video degradation over the entire operating distance (up to 20km).

Supporting 3 independent channels of 8-bit PCM digital video, this plug-and-play product provides instant product compatibility for most major security manufacturers' equipment and reliability in harsh environments, a perfect complement to any commercial, government or intelligent transportation application. The product features in card module or standalone type.

These units are compatible with the FTD100Micro and FTD100 transmitters.

Typical Application



Specifications

Video

Number of Channels	3 (from independent Transmitters)
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	>60dB

LED

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

Connectors

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

Electrical and Mechanical

Power (Standalone)	12VDC @ 6W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.68kg
Shipping Weight (Rack Mount)	0.22kg

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)	FTD100-SMR3	3 Independent Optical Channels 8-Bit Digital Video Receiver	1310	23	4	1
Single-mode (9/125µm)	FTD100-SSR3	3 Independent Optical Channels 8-Bit Digital Video Receiver	1310	17	20	1

Options	<ul style="list-style-type: none"> ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMR3 For Standalone Type, please add "SA". E.g. SMR3SA Please feel free to consult factory if longer transmission distance is required.
Power Adaptor	<ul style="list-style-type: none"> Power adaptor included for 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.

FTD110DBMicro

Microtype 8-bit Digital 1-ch Video with 1-ch Bi-directional Data



Features

Video

- › NTSC or PAL video standards supported
- › Non-compressed 8-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

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.
- › Microtype for Wall-mount installation
- › Wide operating temperature range of -40°C to +75°C
- › Designed for use in harsh environments

Warranty

- › Comprehensive Lifetime Warranty

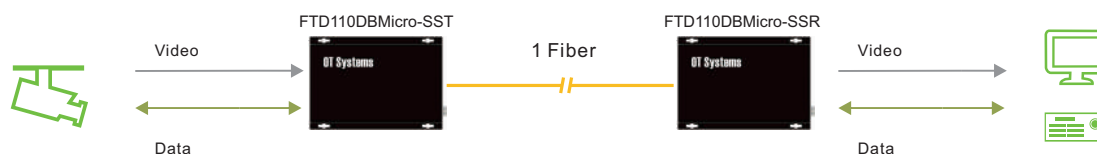
Description

The FTD110DBMicro 8-Bit Digital Video and Data Modules, features high-performance laser-based optics for the clearest, most reliable data transmission over one fiber for both single and multi-mode with no video degradation over the entire operating distance (up to 20km), as well as RS-232/422/485 serial data ports.

This plug-and-play product provides instant product compatibility for most major security manufacturers' equipment and reliability in harsh environments, a perfect compliment to any commercial, government or intelligent transportation application. This small, but mighty, design also comes ready for wall-mounted applications.

These units are compatible with the FTD110DBMicro transmitters/receivers and FTD110DB-XXR3 receivers.

Typical Application



Specifications

Video

Number of Channels	1
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	>60dB

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)

LED

Video Signal Indication (Presence)	Green LED lit
Data 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)
Data Input / Output	7-pin screw terminal
Power	2-pin screw terminal

Electrical and Mechanical

Power	12VDC(24VAC*)@ 2.4W
Dimensions(WxHxD)	36.2 x 35 x 101(118")mm(Max)
Shipping Weight	0.12kg

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

* Specifications of FTD110DBMicro24 Models

Ordering Information

Fiber Type	Part Number	Description	Wavelengths (nm)	Optical Power Budget (dB)	Max. Distance (Km)
Multi-mode (62.5/125µm)	FTD110DBMicro-SMT	Minitype 1 - ch Video Transmitter with 1-ch bidirectional Data Transceiver	1310 1550	23	4
	FTD110DBMicro24-SMT	Minitype 1 - ch Video Transmitter with 1-ch bidirectional Data Transceiver (24VAC)			
	FTD110DBMicro-SMR	Minitype 1 - ch Video Receiver with 1-ch bidirectional Data Transceiver			
Single-mode (9/125µm)	FTD110DBMicro-SST	Minitype 1 - ch Video Transmitter with 1-ch bidirectional Data Transceiver	1310 1550	17	20
	FTD110DBMicro24-SST	Minitype 1 - ch Video Transmitter with 1-ch bidirectional Data Transceiver (24VAC)			
	FTD110DBMicro-SSR	Minitype 1 - ch Video Receiver with 1-ch bidirectional Data Transceiver			

Options	<ul style="list-style-type: none"> ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMT. Please feel free to consult factory if longer transmission distance is required.
Power Adaptor	<ul style="list-style-type: none"> Power adaptor is included.
Rack Mount Chassis	<ul style="list-style-type: none"> MR-C10 is to be purchased separately. Please refer to accessories section for 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.

FTD110DB

Card Module 8-bit Digital 1-ch Video with 1-ch Bi-directional Data



Features

Video

- ▶ NTSC or PAL video standards supported
- ▶ Non-compressed 8-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

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

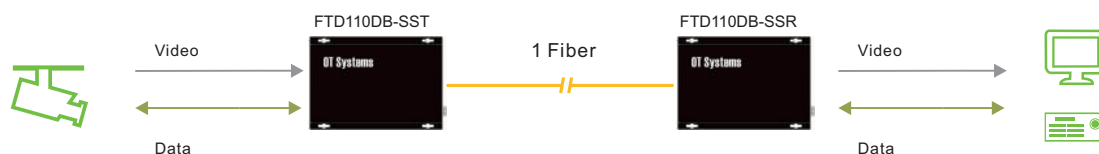
Description

The FTD110DB 8-Bit Digital Video and Data Modules, features high-performance laser-based optics for the clearest, most reliable data transmission over one fiber for both single and multi-mode with no video degradation over the entire operating distance (up to 20km), as well as RS-232/422/485 serial data ports.

This plug-and-play product provides instant product 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 operates in FT-C18 rack mount chassis.

These units are compatible with the FTD110DBMicro transmitters/receivers and FTD110DB-XXR3 receivers.

Typical Application



Specifications

Video

Number of Channels	1
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	>60dB

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)

LED

Video Signal Indication (Presence)	Green LED lit
Data 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)
Data Input / Output	7-pin screw terminal
Power (Rack-Mount)	Bus connector

Electrical and Mechanical

Power	From FT-C18 Chassis
Dimensions(WxHxD)	148 x 20.4 x 213mm(Max)
Shipping Weight	0.16kg

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)	FTD110DB-SMT	1 - ch Video Transmitter with 1-ch bidirectional Data Transceiver	1310 1550	23	4	1
	FTD110DB-SMR	1 - ch Video Receiver with 1-ch bidirectional Data Transceiver				
Single-mode (9/125μm)	FTD110DB-SST	1 - ch Video Transmitter with 1-ch bidirectional Data Transceiver	1310 1550	17	20	1
	FTD110DB-SSR	1 - ch Video Receiver with 1-ch bidirectional Data Transceiver				

- Options
- ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMT.
 - Please feel free to consult factory if longer transmission distance is required.
- 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.
 - 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.

FTD110DB-XXR3

3 Independent Optical Channels 8-bit Digital Video Receiver with Bi-directional Data Transceiver



Features

Video

- ▶ NTSC or PAL video standards supported
- ▶ Non-compressed 8-bit digitally encoded video
- ▶ 3 independent channel receiver in one module
- ▶ 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

Optical

- ▶ Three independent fiber inputs
- ▶ 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

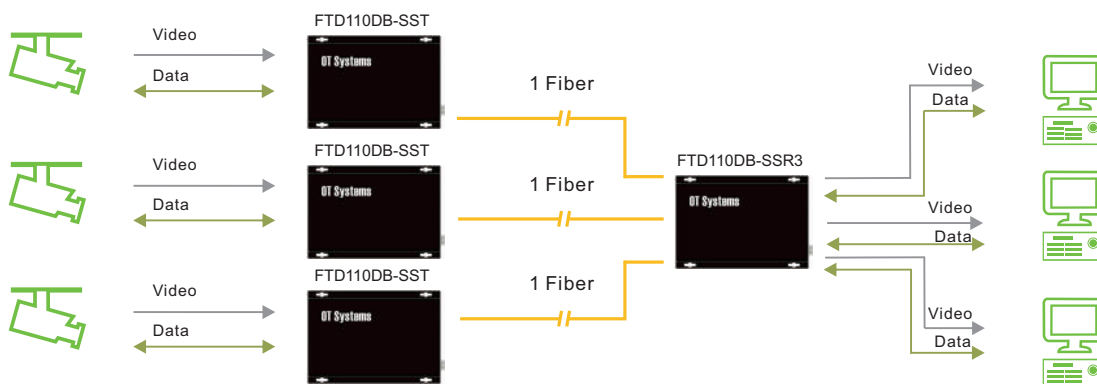
Description

The 8-Bit Digital Video and Data Modules series FTD110DB-XXR3, the 3-channel video fiber receiver and data transceiver, features high-performance laser-based optics for the clearest, most reliable data transmission. The FTD110DB-XXR3 supports 3 independent channels of 8-bit PCM digital video with bi-directional data in both single and multi-mode with no video degradation over the entire operating distance (up to 20km), as well as RS-232/422/485 serial data.

This plug-and-play product provides instant product 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 in card module or standalone type.

These units are compatible with the FTD110DBMicro and FTD110DB transmitters.

Typical Application



Specifications

Video

Number of Channels	3 (from independent Transmitters)
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	>60dB

Data

Number of Channels	3
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)

LED

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

Connectors

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

Electrical and Mechanical

Power (Standalone)	12VDC @ 8.4W
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)	0.9kg
Shipping Weight (Rack Mount)	0.4kg

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)	FTD110DB-SMR3	3 Independent Optical Channels 8-Bit Digital Video Receiver with Bi-directional Data Transceiver	1310 1550	23	4	2
Single-mode (9/125µm)	FTD110DB-SSR3	3 Independent Optical Channels 8-Bit Digital Video Receiver with Bi-directional Data 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. FMR3. For Standalone type, please add "SA". E.g. SMR3SA Please feel free to consult factory if longer transmission distance is required.
Power Adaptor	<ul style="list-style-type: none"> Power adaptor is included for 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.

FTD110DACB

8-bit Digital 1-ch Video with Bi-directional Data, Audio & Contact Closure



Features

Video

- ▶ NTSC or PAL video standards supported
- ▶ Non-compressed 8-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

Contact Closure

- ▶ 2ms response time
- ▶ Normally open

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

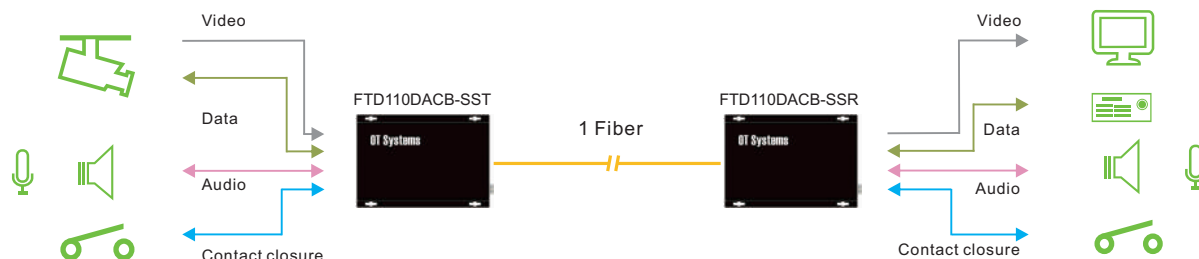
- ▶ Comprehensive Lifetime Warranty

Description

The FTD110DACB series features high-performance laser-based optics for the clearest, most reliable data transmission. The video, data, audio and contact closure series fiber transmission products support fiber optic transmission of 8-Bit PCM coded video, bi-directional data, bi-directional audio and bi-directional contact closure in both single and multi-mode 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 data, audio and control 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.

Typical Application



Specifications

Video

Number of Channels	1
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	>60dB

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)

Contact Closures

Number of Channels	1
Direction	Bi-directional
Input Type	Dry Contact/TTL input
Output Type	Dry contact, NO/NC
Dry contact Output Rating	Max. 32VDC/VAC @ 100mA

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
Data In / Out	Red/Green LED lit
Contact Closure In / Out	Red/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)
Data Input / Output	7-pin screw terminal
Contact Closure Input / Output	5-pin screw terminal
Audio Input / Output	5-pin screw terminal
Power (Standalone)	2-pin screw terminal
Power (Rack-Mount)	Bus connector

Electrical and Mechanical

Power (Standalone)	12VDC @ 4.2W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.56kg
Shipping Weight (Rack Mount)	0.16kg

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)	FTD110DACB-SMT	1 - ch Video Transmitter with bidirectional Data, Audio and Contact Closure Transceiver	1310 1550	23	4	2
	FTD110DACB-SMR	1 - ch Video Receiver with bidirectional Data, Audio and Contact Closure Transceiver				
Single-mode (9/125µm)	FTD110DACB-SST	1 - ch Video Transmitter with bidirectional Data, Audio and Contact Closure Transceiver	1310 1550	17	20	2
	FTD110DACB-SSR	1 - ch Video Receiver with bidirectional Data, Audio and Contact Closure Transceiver				

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 for 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.

FT100 / FT200 / FT400 / FT800

10-bit Digital 1 / 2 / 4 / 8-ch Video



Features

Video

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

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
- ▶ Solid-state current limiters
- ▶ Wide operating temperature range of -40°C to +75°C
- ▶ Designed for use in harsh environments

Warranty

- ▶ Comprehensive Lifetime Warranty

Description

The 10-Bit Digital Video transmission transmitters, receivers and multiplexer products feature 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 20km).

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 in card module or standalone type.

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

LED

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

Connectors

Video Input / Output	BNC
Optical Input / Output	ST (standard), FC (optional)
Power (Standalone)	2-pin screw terminals
Power (Rack-mount)	Bus connector

Electrical and Mechanical

FT100

Power (Standalone)	12VDC @ 3W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.56kg
Shipping Weight (Rack Mount)	0.16kg

FT200 / FT400

Power (Standalone)	12VDC @ 4.2W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.58kg (Max)
Shipping Weight (Rack Mount)	0.25kg (Max)

FT800

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)	0.82kg
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

Ordering Information

Fiber Type	Part Number	Description	Wavelengths (nm)	Optical Power Budget (dB)	Max. Distance (Km)	No. of slots
Multi-mode (62.5/125µm)	FT100-SMT FT100-SMR	1 - ch Video Transmitter 1 - ch Video Receiver	1310	23	4	1
	FT200-SMT FT200-SMR	2 - ch Video Transmitter 2 - ch Video Receiver	1310	23	2	1
	FT400-SMT FT400-SMR	4 - ch Video Transmitter 4 - ch Video Receiver	1310	23	2	1
	FT800-SMT FT800-SMR	8 - ch Video Transmitter 8 - ch Video Receiver	1310	23	1	2
Single-mode (9/125µm)	FT100-SST FT100-SSR	1 - ch Video Transmitter 1 - ch Video Receiver	1310	17	20	1
	FT200-SST FT200-SSR	2 - ch Video Transmitter 2 - ch Video Receiver	1310	17	20	1
	FT400-SST FT400-SSR	4 - ch Video Transmitter 4 - ch Video Receiver	1310	17	20	1
	FT800-SST FT800-SSR	8 - ch Video Transmitter 8 - ch Video Receiver	1310	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.

FT110DB / FT210DB / FT410DB / FT810DB

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



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

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

Description

The FT110DB/FT210DB/FT410DB/FT810DB 10-Bit Digital Video and Data transmission products, support fiber optical transmission of 10-Bit PCM coded video (up to 8 channels) with one bi-directional data and 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



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)

LED

Video Signal Indication (Presence)	Green LED lit
Data 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)
Data Input / Output	7-pin screw terminal
Power (Standalone)	2-pin screw terminal
Power (Rack-Mount)	Bus connector

Electrical and Mechanical

FT110DB / FT210DB

Power (Standalone)	12VDC @ 4.8W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.56kg
Shipping Weight (Rack Mount)	0.2kg

FT410DB

Power (Standalone)	12VDC @ 5.4W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.58kg (Max)
Shipping Weight (Rack Mount)	0.25kg (Max)

FT810DB

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

Ordering Information

Fiber Type	Part Number	Description	Wavelengths (nm)	Optical Power Budget (dB)	Max. Distance (Km)	No. of slots
Multi-mode (62.5/125µm)	FT110DB-SMT FT110DB-SMR	1 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 1550	23	4	1
	FT210DB-SMT FT210DB-SMR	2 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 1550	23	2	1
	FT410DB-SMT FT410DB-SMR	4 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 1550	23	2	1
	FT810DB-SMT FT810DB-SMR	8 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 1550	23	1	2
Single-mode (9/125µm)	FT110DB-SST FT110DB-SSR	1 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 1550	17	20	1
	FT210DB-SST FT210DB-SSR	2 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 1550	17	20	1
	FT410DB-SST FT410DB-SSR	4 - ch Video Transmitter / Receiver with 1-ch bidirectional Data Transceiver	1310 1550	17	20	1
	FT810DB-SST FT810DB-SSR	8 - ch Video Transmitter / Receiver with 1-ch bidirectional Data 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.

FT120DB / FT220DB / FT420DB / FT820DB

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



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

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

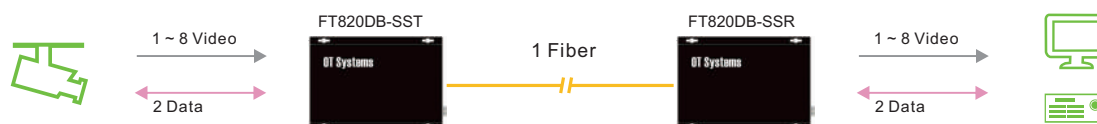
- ▶ Comprehensive Lifetime Warranty

Description

The FT120DB/FT220DB/FT420DB/FT820DB 10-Bit Digital Video and Data transmission products, support fiber optical transmission of 10-Bit PCM coded video (up to 8 channels) with two bi-directional data and 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 provides instant product compatibility for most major security manufacturers' equipment and reliability in harsh environments, a perfect complement to any commercial, government or intelligent transportation application. The product features in card module or standalone type.

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

Data

Number of Channels	2
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)

LED

Video Signal Indication (Presence)	Green LED lit
Data 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)
Data Input / Output Connectors	7-pin screw terminals
Power (Standalone)	2-pin screw terminals
Power (Rack-Mount)	Bus connector

Electrical and Mechanical

FT120DB

Power (Standalone)	12VDC @ 5.4W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.76kg
Shipping Weight (Rack Mount)	0.3kg

FT220DB / FT420DB

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)

FT820DB

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

Ordering Information

Fiber Type	Part Number	Description	Wavelengths (nm)	Optical Power Budget (dB)	Max. Distance (Km)	No. of slots
Multi-mode (62.5/125µm)	FT120DB-SMT FT120DB-SMR	1 - ch Video Transmitter / Receiver with 2-ch bidirectional Data Transceiver	1310 1550	23	4	1
	FT220DB-SMT FT220DB-SMR	2 - ch Video Transmitter / Receiver with 2-ch bidirectional Data Transceiver	1310 1550	23	2	2
	FT420DB-SMT FT420DB-SMR	4 - ch Video Transmitter / Receiver with 2-ch bidirectional Data Transceiver	1310 1550	23	2	2
	FT820DB-SMT FT820DB-SMR	8 - ch Video Transmitter / Receiver with 2-ch bidirectional Data Transceiver	1310 1550	23	1	2
Single-mode (9/125µm)	FT120DB-SST FT120DB-SSR	1 - ch Video Transmitter / Receiver with 2-ch bidirectional Data Transceiver	1310 1550	17	20	1
	FT220DB-SST FT220DB-SSR	2 - ch Video Transmitter / Receiver with 2-ch bidirectional Data Transceiver	1310 1550	17	20	2
	FT420DB-SST FT420DB-SSR	4 - ch Video Transmitter / Receiver with 2-ch bidirectional Data Transceiver	1310 1550	17	20	2
	FT820DB-SST FT820DB-SSR	8 - ch Video Transmitter / Receiver with 2-ch bidirectional Data 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.

FT110DBE / FT210DBE / FT410DBE

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



Description

The FT110DBE/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.



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 signal

Optical

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

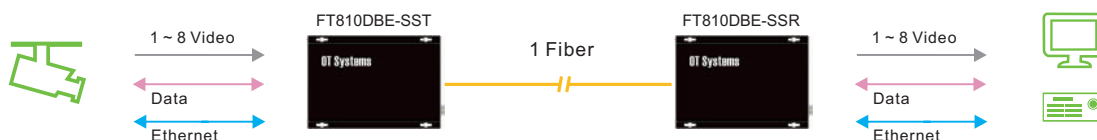
Robust Design

- ▶ 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

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

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	<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.

FT110CB / FT210CB / FT410CB / FT810CB

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



Features

Video

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

Contact Closure

- ▶ Bi-directional contact closure
- ▶ 2ms response time
- ▶ Normally open

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

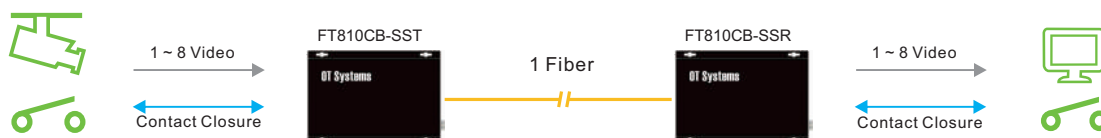
- ▶ Comprehensive Lifetime Warranty

Description

The FT110CB/FT210CB/FT410CB/FT810CB 10-Bit Digital Video and Contact Closure transmission products, support fiber optical transmission of 10-Bit PCM coded video (up to 8 channels) with one bi-directional contact closure and features high-performance laser-based optics for the clearest, most reliable data transmission. The video and contact closure series products support fiber optic transmission of 10-Bit PCM coded video and bi-directional contact closure in both single and multi-mode with no video degradation over the entire operating distance (up to 20 km).

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

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

Contact Closure

Number of Channels	1
Direction	Bi-directional
Input	Dry Contact or TTL Input
Output	Dry Contact, NO or NC
Dry Contact Output Rating	Max. 32VDC/VAC @ 100mA

LED

Video Signal Indication (Presence)	Green LED lit
Contact Closure Input / Output	Red/Green LED lit
Optical Carrier Detected	Yellow / Active
Power	Red/On

Connectors

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

Electrical and Mechanical

FT110CB / FT210CB

Power (Standalone)	12VDC @ 4.8W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.56kg
Shipping Weight (Rack Mount)	0.2kg

FT410CB

Power (Standalone)	12VDC @ 5.4W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.58kg
Shipping Weight (Rack Mount)	0.25kg

FT810CB

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

Ordering Information

Fiber Type	Part Number	Description	Wavelengths (nm)	Optical Power Budget (dB)	Max. Distance (Km)	No. of slots
Multi-mode (62.5/125µm)	FT110CB-SMT FT110CB-SMR	1 - ch Video Transmitter / Receiver with 1-ch bidirectional Contact Closure Transceiver	1310 1550	23	4	1
	FT210CB-SMT FT210CB-SMR	2 - ch Video Transmitter / Receiver with 1-ch bidirectional Contact Closure Transceiver	1310 1550	23	2	1
	FT410CB-SMT FT410CB-SMR	4 - ch Video Transmitter / Receiver with 1-ch bidirectional Contact Closure Transceiver	1310 1550	23	2	1
	FT810CB-SMT FT810CB-SMR	8 - ch Video Transmitter / Receiver with 1-ch bidirectional Contact Closure Transceiver	1310 1550	23	1	2
Single-mode (9/125µm)	FT110CB-SST FT110CB-SSR	1 - ch Video Transmitter / Receiver with 1-ch bidirectional Contact Closure Transceiver	1310 1550	17	20	1
	FT210CB-SST FT210CB-SSR	2 - ch Video Transmitter / Receiver with 1-ch bidirectional Contact Closure Transceiver	1310 1550	17	20	1
	FT410CB-SST FT410CB-SSR	4 - ch Video Transmitter / Receiver with 1-ch bidirectional Contact Closure Transceiver	1310 1550	17	20	1
	FT810CB-SST FT810CB-SSR	8 - ch Video Transmitter / Receiver with 1-ch bidirectional Contact Closure 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.

FT110AB / FT210AB / FT410AB / FT810AB

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



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

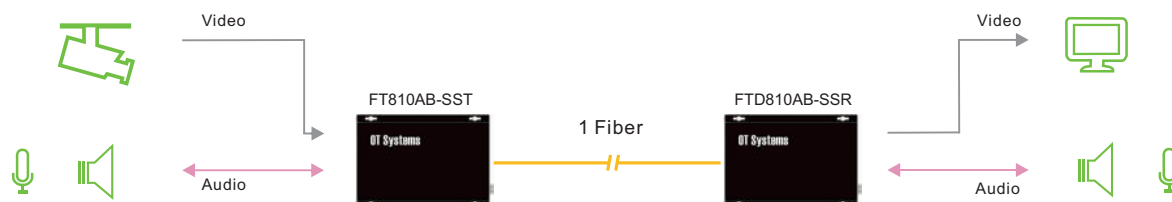
- ▶ Comprehensive Lifetime Warranty

Description

The FTD110AB/FT210AB/FT410AB/FT810AB 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 1 channel bi-directional audio in both single and multi-mode 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 compliment to any commercial, government or intelligent transportation application. The product features in card module or standalone type.

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

FT110AB / FT210AB

Power (Standalone)	12VDC @ 4.8W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.56kg
Shipping Weight (Rack Mount)	0.2kg

FT410AB

Power (Standalone)	12VDC @ 5.4W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.58kg (Max)
Shipping Weight (Rack Mount)	0.25kg (Max)

FT810AB

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

Ordering Information

Fiber Type	Part Number	Description	Wavelengths (nm)	Optical Power Budget (dB)	Max. Distance (Km)	No. of slots
Multi-mode (62.5/125µm)	FT110AB-SMT FT110AB-SMR	1 - ch Video Transmitter / Receiver with 1-ch bidirectional Audio Transceiver	1310 1550	23	4	1
	FT210AB-SMT FT210AB-SMR	2 - ch Video Transmitter / Receiver with 1-ch bidirectional Audio Transceiver	1310 1550	23	2	1
	FT410AB-SMT FT410AB-SMR	4 - ch Video Transmitter / Receiver with 1-ch bidirectional Audio Transceiver	1310 1550	23	2	1
	FT810AB-SMT FT810AB-SMR	8 - ch Video Transmitter / Receiver with 1-ch bidirectional Audio Transceiver	1310 1550	23	1	2
Single-mode (9/125µm)	FT110AB-SST FT110AB-SSR	1 - ch Video Transmitter / Receiver with 1-ch bidirectional Audio Transceiver	1310 1550	17	20	1
	FT210AB-SST FT210AB-SSR	2 - ch Video Transmitter / Receiver with 1-ch bidirectional Audio Transceiver	1310 1550	17	20	1
	FT410AB-SST FT410AB-SSR	4 - ch Video Transmitter / Receiver with 1-ch bidirectional Audio Transceiver	1310 1550	17	20	1
	FT810AB-SST FT810AB-SSR	8 - ch Video Transmitter / Receiver with 1-ch bidirectional Audio 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 is included in Standalone type only.
- 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.

FT120AB / FT220AB / FT420AB / FT820AB

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



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

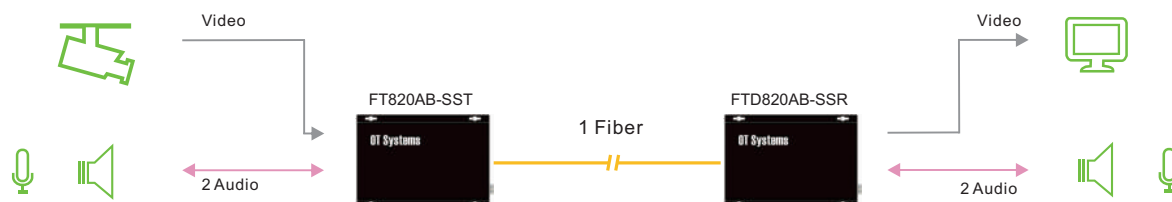
- ▶ Comprehensive Lifetime Warranty

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 multi-mode 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 compliment to any commercial, government or intelligent transportation application. The product features in card module or standalone type.

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

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.

FT010DB / FT040DB

Serial Data Transceivers



RS232	1
RS422	~
RS485	4
DATA	↔

Features

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

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

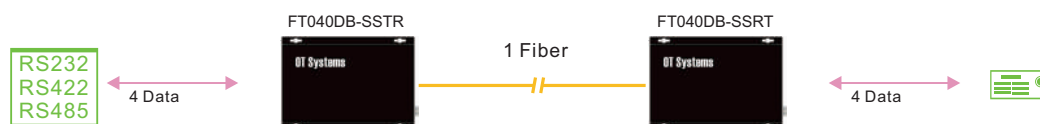
Description

OT Systems FT010DB/FT040DB data series offers a plug-and-play solution that provides instant product compatibility for EIA compliant serial interface equipment and reliability in harsh environments, a perfect compliment to any commercial, government or intelligent transportation application. The FT010DB/FT040DB transmits up to 4-channels of bi-directional serial data.

The Data Series offers compatibility for the three most common data sources and does not require the input and output data interfaces to be the same. Compatible data interfaces include EIA RS-232, RS-422 and (2- or 4- wire) RS-485 with tri-state, data interfaces and are transparent to data protocol.

The product features in card module or standalone type.

Typical Application



Specifications

Data

Number of Channels	1 / 4
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)

LED

Data In / Out	Red/Green LED lit
Optical Carrier Detected	Yellow / Active
Power	Red/On

Connectors

Data Input / Output	7-pin screw terminals
Optical Input / Output	ST (standard), FC (optional)
Power (Standalone)	2-pin screw terminal block
Power (Rack-Mount)	Bus connector

Electrical and Mechanical

FT010DB

Power (Standalone)	12VDC @ 3.6W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.6kg
Shipping Weight (Rack Mount)	0.16kg

FT040DB

Power (Standalone)	12VDC @ 3.6W
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)	0.78kg
Shipping Weight (Rack Mount)	0.28kg

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)	FT010DB-SMTR	1-ch bidirectional Data Transceiver	1310 1550	23	4	1
	FT010DB-SMRT	1-ch bidirectional Data Transceiver				
	FT040DB-SMTR	4-ch bidirectional Data Transceiver	1310 1550	23	4	2
	FT040DB-SMRT	4-ch bidirectional Data Transceiver				
Single-mode (9/125μm)	FT010DB-SSTR	1-ch bidirectional Data Transceiver	1310 1550	17	20	1
	FT010DB-SSRT	1-ch bidirectional Data Transceiver				
	FT040DB-SSTR	4-ch bidirectional Data Transceiver	1310 1550	17	20	2
	FT040DB-SSRT	4-ch bidirectional Data Transceiver				
Options <ul style="list-style-type: none">ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMTR.For Standalone type, please add "SA". E.g. SMTRSAPlease 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.

FT010CB / FT080CF

Contact Closure Transceivers



Features

Contact Closure

- 2ms response time
- Normally open

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

Description

The FT010CB and FT080CF contact closure series transmits one channel of bi-directional contact closure or up to 8-channels of one-way contact closures. This series feature high-performance laser-based optics for the clearest, most reliable transmission in both single and multi-mode with no video degradation.

A plug-and-play product, provides compatibility in most application designs and reliability in harsh environments, a perfect compliment to any commercial, government or intelligent transportation application. The product features in card module or standalone type.

Typical Application



Specifications

Contact Closures

Number of Channels	1 / 8
Direction (FT010CB)	Bi-directional
Direction (FT080CF)	Forward
Input Type	Dry Contact or TTL input
Output Type	Dry Contact, NO or NC
Dry contact Output Rating	Max. 32VDC/VAC @ 100mA

LED

Contact Closure Input / Output	Red/Green LED lit
Optical Carrier Detected	Yellow / Active
Power	Red/On

Connectors

Contact Closure Input / Output	5-pin screw terminal
Optical Input / Output	ST (standard), FC (optional)
Power (Standalone)	2-pin screw terminal block
Power (Rack-mount)	Bus connector

Electrical and Mechanical

FT010CB

Power (Standalone)	12VDC @ 2.4W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.58kg
Shipping Weight (Rack Mount)	0.2kg

FT080CF

Power (Standalone)	12VDC @ 4.2W
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)	0.78kg
Shipping Weight (Rack Mount)	0.28kg

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)	FT010CB-SMTR	1-ch bidirectional Contact Closure Transceiver	1310 1550	23	4	1
	FT010CB-SMRT	1-ch bidirectional Contact Closure Transceiver				
	FT080CF-SMT	8-ch One-way Contact Closure Transmitter	1310	23	4	2
	FT080CF-SMR	8-ch One-way Contact Closure Receiver				
Single-mode (9/125µm)	FT010CB-SSTR	1-ch bidirectional Contact Closure Transceiver	1310 1550	17	20	1
	FT010CB-SSRT	1-ch bidirectional Contact Closure Transceiver				
	FT080CF-SST	8-ch One-way Contact Closure Transmitter	1310	17	20	2
	FT080CF-SSR	8-ch One-way Contact Closure Receiver				

Options	<ul style="list-style-type: none"> ST type connector is standard. For FC type, specify "F" in the suffix. E.g. FMTR/FMT For Standalone type, please add "SA". E.g. SMTRSA/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.

FT010AF / FT040AF / FT010AB/ FT040AB

24-bit Digital 1 / 4-ch Audio - Forward / Bi-directional



Features

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

Description

The FT010AF/FT040AF/FT010AB/FT040AB series features high-performance laser-based optics for the clearest, most reliable data transmission. The audio series fiber transmission products support fiber optic transmission of forward/bi-directional audio both single and multi-mode with no 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 data, audio and control interface. Created for reliability in harsh environments, this series provides a perfect compliment to any commercial, government or intelligent transportation application. The product features in card module or standalone type.

Typical Application



Specifications

Audio

Number of Channels	1 / 4
Audio Direction (FT010AF/FT040AF)	Forward
Audio Direction (FT010AB/FT040AB)	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

Connectors

Optical Input / Output	ST (standard), FC (optional)
Audio Input / Output	5-pin screw terminal
Power (Standalone)	2-pin screw terminal block
Power (Rack-mount)	Bus connector

LED

Audio In / Out	Red/Green LED lit
Optical Carrier Detected	Yellow / Active
Power	Red/On

Electrical and Mechanical

FT010AF / FT010AB

Power (Standalone)	12VDC @ 3W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.58kg
Shipping Weight (Rack Mount)	0.2kg

FT040AF / FT040AB

Power (Standalone)	12VDC @ 4.8W
Power (Rack Mount)	From FT-C18 Chassis
Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 20.4 x 213mm(Max)
Shipping Weight (Standalone)	0.62kg
Shipping Weight (Rack Mount)	0.22kg

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)	FT010AF-SMT	1 Audio One Way Transmitter	1310	23	4	1
	FT010AF-SMR	1 Audio One Way Receiver				
	FT040AF-SMT	4 Audio One Way Transmitter				
	FT040AF-SMR	4 Audio One Way Receiver				
	FT010AB-SMTR	1 Audio Bi-directional Transeceiver	1310 1550	23	4	1
	FT010AB-SMRT	1 Audio Bi-directional Transeceiver				
	FT040AB-SMTR	4 Audio Bi-directional Transeceiver				
	FT040AB-SMRT	4 Audio Bi-directional Transeceiver				
Single-mode (9/125µm)	FT010AF-SST	1 Audio One Way Transmitter	1310	17	20	1
	FT010AF-SSR	1 Audio One Way Receiver				
	FT040AF-SST	4 Audio One Way Transmitter				
	FT040AF-SSR	4 Audio One Way Receiver				
	FT010AB-SSTR	1 Audio Bi-directional Transeceiver	1310 1550	17	20	1
	FT010AB-SSRT	1 Audio Bi-directional Transeceiver				
	FT040AB-SSTR	4 Audio Bi-directional Transeceiver				
	FT040AB-SSRT	4 Audio Bi-directional Transeceiver				

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. SMRSA Please feel free to consult factory if longer transmission distance is required.
Power Adaptor	Power adaptor is included for 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.

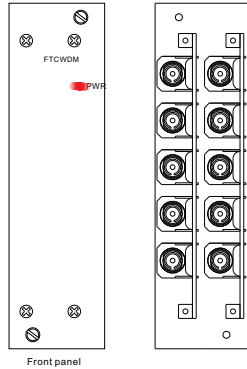


OT Systems Ltd., November 2013

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

FT-CWDM

Coarse Wavelength Division Module



■ Features

General

- ▶ FC or ST optical connector
- ▶ 9 different common CWDM wavelengths available
- ▶ Additional reverse wavelengths are used when reverse data, audio and contact closure are required
- ▶ Chassis mount structure, compatible with FT-C18
- ▶ Passive Optical module, no power required

Warranty

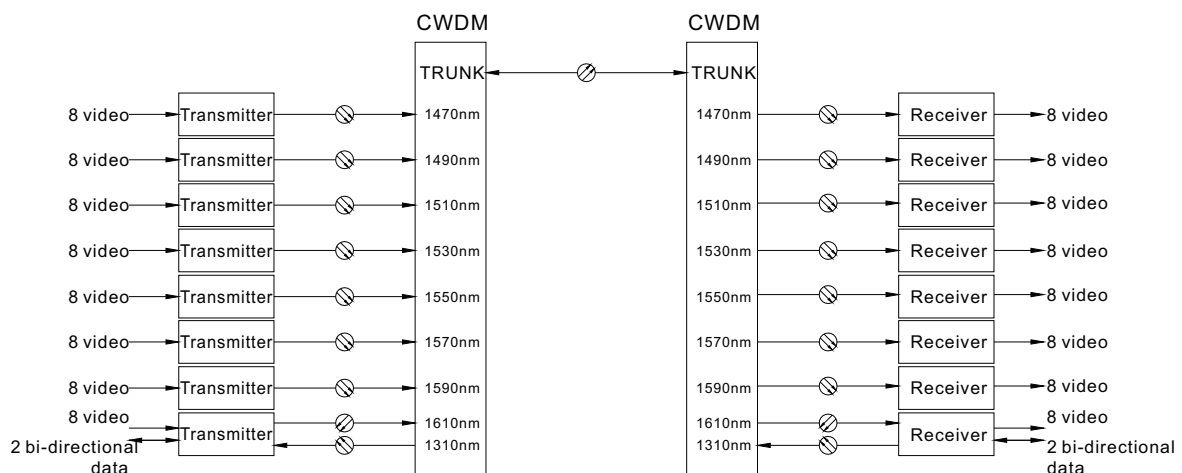
- ▶ Comprehensive Lifetime Warranty

Description

The FT-CWDM series supports up to 64 channels of video and optical data, audio and contact closure signals in either direction on a single fiber.

It provides a flexible solution for the transmission of complicated signals in limited fiber situations.

■ Typical Application



Specifications

CWDM Wavelength (nm)

X=2	1550, 1570
X=4	1510, 1530, 1550, 1570
X=6	1510, 1530, 1550, 1570, 1590, 1610
X=8	1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610
Reverse	1310

Optical Insertion Loss

T module	=< 3.0dB
R module	=< 3.0dB
T and R pair	=< 5.5dB
Reverse 1310nm	=< 1.5dB

Channel Isolation

Trunk Port	>30 dB
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Electrical and Mechanical

Dimensions(WxHxD)	148 x 20.4 x 213mm (1 slot)
	148 x 40.8 x 213mm (2 slot)
Shipping Weight	0.5kg (Max)
No. of rack slots	1 / 2

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
N/A	FT-CWDM-TX	X Channel Optical CWDM module Transmitter				
	FT-CWDM-TXR	X Channel Optical CWDM module Transmitter with Reverse Wavelength Tap module				
	FT-CWDM-RX	X Channel Optical CWDM module Receiver				
	FT-CWDM-RXR	X Channel Optical CWDM module Receiver with Reverse Wavelength Tap module				

- Options
- X denotes the number of different forward wavelengths used in CWDM
- 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.
 - Please feel free to consult factory for any special requirement and customization.

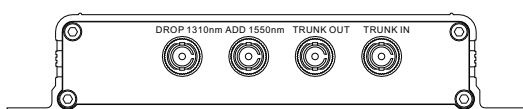


OT Systems Ltd., November 2013

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

FT-AD

Add / Drop Module



■ Features

General

- ▶ FC or ST optical connector
- ▶ 9 different common CWDM wavelengths available
- ▶ Inserts one wavelength at different location and tap off another wavelength in reverse direction for return data over a single fiber
- ▶ Video, data, audio and contact closure signals can be added to or dropped off over eight different locations along a single fiber
- ▶ Standalone or chassis mount structure, compatible with FT-C18
- ▶ Passive Optical module, no power required

Warranty

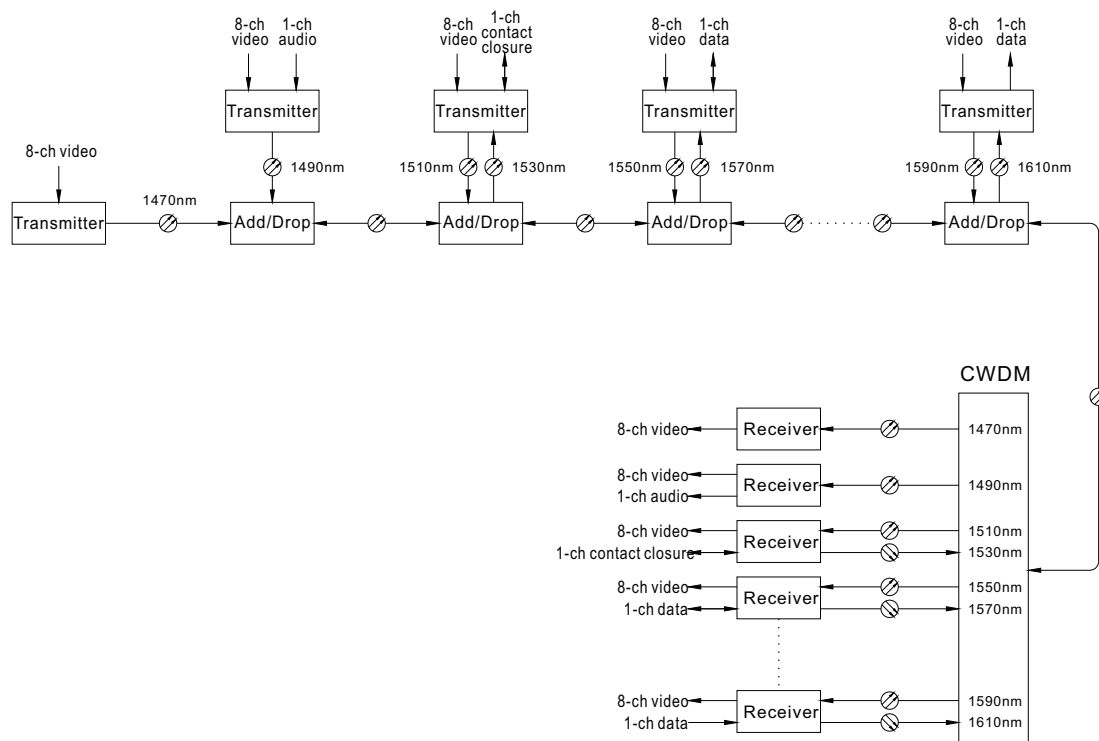
- ▶ Comprehensive Lifetime Warranty

Description

The FT-ADD/DROP series supports video, data, audio and contact closure signals to be added to or dropped off over eight different locations along one single-mode fiber.

It provides a flexible solution for the transmission of complicated signals in limited fiber situations.

■ Typical Application



Specifications

CWDM Wavelength (nm)

A	1470
B	1490
C	1510
D	1530
E	1550
F	1570
G	1590
H	1610

Add/Drop Wavelength Insertion Loss Return

Add / Drop Port	=< 1.5dB
Reverse Tap Port	=< 13.5±1dB

Channel Isolation

Trunk Port	>30 dB
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Electrical and Mechanical

Dimensions(WxHxD) (Standalone)	156 x 30.5 x 223mm(Max)
Dimensions(WxHxD) (Rack Mount)	148 x 40.8 x 213mm(Max)
Shipping Weight (Standalone)	0.75kg(Max)
Shipping Weight (Rack Mount)	0.3kg(Max)
No. of rack slots	1

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
N/A	FT-AD-X	CWDM 1 Channel Optical Add/Drop module				
	FT-ADT-X	CWDM 1 Channel Optical Add/Drop module with Reverse Wavelength Tap module				

Options	<ul style="list-style-type: none"> X denotes the nine different wavelengths used in CWDM, represented by alphabets A to I by definition indicating 1470nm to 1610nm at an interval of 20nm. For Standalone type, please add "SA". E.g. FT-AD-XSA
Power Adaptor	<ul style="list-style-type: none"> Power adaptor is included for 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.
 - 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.

MR-C10

19" Rack for Microtype Products



■ Features

Robust Design

- ▶ Dedicated for Microtype products from various products series
- ▶ Mount in standard 19" cabinets, occupying 1U height
- ▶ Power supply provided
- ▶ Hot-swappable design
- ▶ Wide operating temperature range of -30 °C~60 °C

Compatible Microtype products

- ▶ NHD100Micro, NHD110DRMicro, FTD100Micro, FTD110DBMicro, ET1111 series and ET1100C Series

Warranty

- ▶ 2 year Warranty

■ Description

The MR-C10 Rack is dedicated and designed for all OT Systems Microtype products. The 19" 1U-high rack conveniently houses and monitors all Microtype units. This rack option offers easy installation and instant viewing of all Microtype units' LED indicators.

The rack is powered by a 12V power supply and supports a maximum of 10 Micro units. The rack features "hot-swappable" capabilities, allowing any Microtype unit to be removed and restored without affecting the operation the units in the rack.

■ Specifications

Electrical and Mechanical

Input Voltage	90 ~ 264VAC 46 ~ 63Hz
Input Current	1.0A@115VAC
	0.5A@230VAC
Output Voltage	12 VDC
Output Current	3.34A DC (max)
Output Power	40W (max)
Efficiency (Typ.)	89%
Protections	Short circuit / Overload / Over voltage
Power Input Connector	3 pole AC inlet IEC320-C14 (Cable supplied)
Power Output Connector	Open wire for Terminal Block
Dimensions(HxWxL)	42 x 483 x 112 mm
Shipping Weight	0.7kg
No. of installation position	10

Environmental

Operating Temp	-40°C to +75°C
Storage Temp	-40°C to +85°C
Relative Humidity	0 to 95% non-condensing

■ Ordering Information

Part Number	Description
MR-C10	1U 19" Rack for Microtype Products (includes 12V Power Adaptor)



OT Systems Ltd., November 2013

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



FT-C18

18-slot 19" Rack Mount Chassis



Features

Robust Design

- ▶ Rack mountable Chassis for all card modules
- ▶ Mounts in standard 19" cabinets, occupying only 4U height
- ▶ Hot-swappable design
- ▶ An optional blank filler panel is available for unused rack spaces
- ▶ Wide operating temperature range of -40°C to +75°C
- ▶ Designed for use in harsh environments

Warranty

- ▶ Comprehensive Lifetime Warranty

Description

FT-C18 19" 4U high chassis is a quality design for the rack mounting of FT series optical transmitters, receivers, CWDM, optional SNMP modules and power supply units. All electrical, video and optical connections are easily managed at the rear of the chassis provided by each rack card module, along with led indicators for ease during cable connections. Each rack card modules performance and status LED indicators are also viewed and described on the front panel of the chassis.

The chassis provides an FT-PSU/12V power supply plus 18-slot spaces for rack card modules. The chassis offers each FT series rack card module the ability to "hot-swap" allowing any rack card module to be removed and restored without affecting the operation of any other rack card module.

Specifications

Electrical and Mechanical

Power Supply Input (FT-PSU/12V)	100 ~240 VAC, 50/60Hz
Input Current	2A@115VAC 1A@230VAC
Power Supply Output	12 VDC
Output Current	11A DC (max)
Output Power	132W (max)
Fuse	4A, 250V
Power Input Connector	Recessed IEC 320 3-pin male (Cable supplied)
Dimensions(HxWxD)	176 x 486 x 226 mm
Number of Slots	18
Shipping Weight	5.9kg

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

Part Number	Description	No. of slots
FT-C18	18-slot 19" Rack Mount Chassis with one Power Supply Unit (FT-PSU/12V) and 18 empty slots	NA



OT Systems Ltd., November 2013

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OT Systems Fiber Products Warranty

1. Warrantee. OT Systems (herein "Seller") guarantees the integrity of the products sold to buyers or original End Users (herein "Buyers") as a whole in regards of the usages and applications as stipulated in the product manuals.
- a) Seller warrants that all finished products manufactured under the brand name of OT Systems shall be free from defects in material and workmanship right upon the ex-factory date and the products shall conform to the Seller's specifications as published.
- b) All Fiber products sold to Buyers are under a limited life-time warranty offered by Seller while all other Accessories are under a one-year warranty offered by Seller, subject to the exclusion from liability in the occurrence of misuse, abuse or improper handling, vandalism, or any acts in contravention of the instructions, rules, or guidelines as stipulated in the product manuals.
- c) The limited life-time warranty support is limited to five years from the announcement of obsolescence or discontinuation of the manufacture of the product whichever is sooner.
- d) Defective products claimed for warranty will, at the discretion of Seller, be repaired or replaced in part or in whole. All repaired parts or replacements, are under warranty for the remaining period of the original warranty period.
- e) In case that the defects cannot be rectified under the reasonable efforts of Seller, as subject to the availability of all possible resources, Seller is open to negotiation to reach for an equitable solution with the concerned parties.
2. Call for Service. To call for warrantee service, first contact Seller's Customer Service Representative. A Return Merchandise Authorization number (RMA#) will be issued if the returning of the product is deemed necessary. All claims must be in written form with all the particulars which are self-evident to support such claim.
3. Cost incurred. All freight charges for return shipments of parts or products are at Buyer's costs.
4. Exclusion. The aforesaid warranties are exclusive and in lieu of and supersede all other warranties as appropriate whether written, verbal, implied or statutory. No other implied or statutory warrantee of merchantability or fitness for particular purposes shall apply.

OT Systems RMA Policy

1. RMA (Return Merchandise Authorization) Policy
Should you experience any defects with our products, please complete a RMA request form on our website <http://www.ot-systems.com> prior to returning the products.
2. Copy of Purchase Order/Proforma Invoice should be enclosed with the returning RMA request form.
3. An RMA number will be given to you. This RMA number must accompany the product returned to OT systems.
The RMA number should be displayed on the outside of the returning packaging. All returned products without an RMA number will be sent back to the buyer.
4. The purchaser is to bear all delivery charges to the returning products.
5. RMA numbers are valid for 30 days. A new RMA number must be applied if this RMA 30-days period expires.
6. All in-warranty defective items must have an RMA number and repairs are free of charge.
7. All out-of- warranty items to be repaired must have an RMA number. Charges will be applied and invoice with chargeable items, will be issued to the buyer.



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