

Telecom and ISP FTTx Solution

■ Telecom / ISP

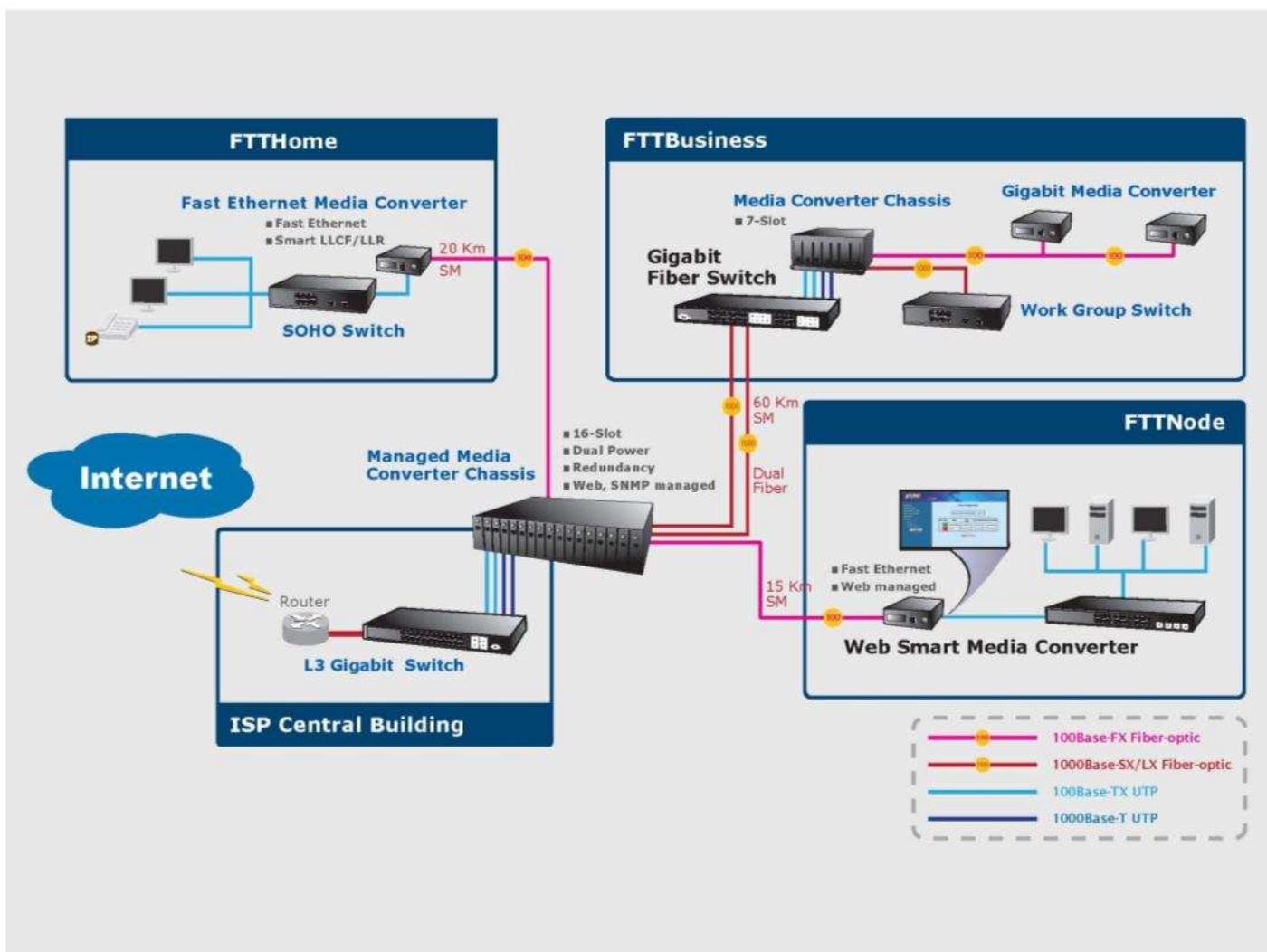
Building a network solution of FTTH (Fiber To the Home) or FTTC (Fiber to the Curb) for ISPs, PLANET Manageable family of chassis and FST, GST converters offer the multiple selections for FTTx deployment. Manageable family is a series of managed Media Conversion Center that provides hot plug and play slots for various types of converters. Through the management interface, the entire status of the converters could be remotely controlled within the chassis from on/off and status/statistics of ports, as well as the advanced features like redundant links.

■ Protect Investment

New networking applications can take the advantage of an Ethernet connection for both power and connectivity. PLANET media converter products bring the power and data from the carrier and needs no extra power supply which saves additional investment of deployment.

■ Extension & Expansion

With the feature-rich chassis, at least 16 converters can easily expand the fiber-optic networks by simply plug and play. The wiring distance of PLANET media converter chassis is extendable from 2 up to 120 kilometers and the media converter transmission distance is up to 120 kilometers and available upon request as well.



Managed Media Converter Chassis

16-Slot SNMP Managed Converter Chassis

MC-1610MR / MC-1610MR48

- Configurable through console, Telnet, Web and SNMP
- Provides SNMP status of power, fan and converters with trap functions for any chassis and connectivity events
- TS-1000 version 1 and version 2 OAM function for remote Terminal monitoring and management
- Remote Syslog and local System log
- Managed IP Filter and Denial of Service
- Temperature Threshold Configuration / Alarm
- Supports up to sixteen hot-swappable slide-in modular media converter
- Supports the PLANET smart series Fast Ethernet FST-80x and Gigabit Ethernet GST-70x / GST-80x Media Converter
- Two power slots for redundant power support
- Options of 100~240V AC or -48V DC supplies
- Bay power isolation ensure each bay is electrically isolated from each other
- Up to two fans installation for increased air-flow for system cooling



Front



Rear

Smart Media Converter

10/100/1000T to 1000SX/LX Smart Converter

GST-80x

- DIP switch for smart function setting
- Auto MDI/MDIX on TP port
- LLR / LLCF for fiber connection diagnostic
- Manageable through MC-1600MR / MR48, MC-1610MR / MR48
- Bandwidth Control, VLAN configure by Chassis
- TS-1000 OAM terminal CPE



Model	GST-802	GST-802S20	GST-805A	GST-806A	GST-806B20
10/100TX	SC	SC	SFP	WDM	WDM
Max. Fiber Distance	550m	20km	120km Vary on SFP module *	20km	20km

* Refer to page 17 for the available SFP modules.

10/100TX to 100FX Media Converter

FST-80x / FST-81x

- Auto-negotiation on TP port
- LED indicators for status monitor
- Various optional fiber connector on different model
- Auto MDI / MDI-X on TP port
- Manageable through MC-1600MR / MR48, MC-1610MR / MR48
- TS-1000 OAM terminal CPE (FST-81x)
- 9K Jumbo frame (FST-81x)

Model	FST-801 FST-811	FST-802 FST-812	FST-802S15 FST-812S15	FST-806A20 FST-816A20	FST-806B20 FST-816B20
Fiber Connector	ST	SC	SC	WDM	WDM
Max. Fiber Distance	2km	2km	15km	20km	20km



Media Converter Chassis

7/15-Slot Unmanaged Converter Chassis

MC-700 / MC-1500 / MC-1500R

- Hot-swappable feature on each slot
- LED indicators for system status monitor
- VC-20x / ICS-10x / FT-80x / FT-90x / GT-70X / GT-80X / FT-1105A / FT-1205A compatible
- Redundant power supply support (MC-1500R)
VC-20x / ICS-10x compatible
- 10/19-inch Rack mountable



Model	MC-700	MC-1500	MC-1500R
Interface	10 inch	19 inch	19 inch
Number of Converter Slot	7	15	15
Power Input	100-240V AC	100-240V AC	100-240V AC
Optional Redundant Power	-	-	-48V DC or 100-240V AC

Gigabit Ethernet Media Converter

10/100/1000T to 1000SX/LX Media Converter

GT-80x

- Auto-negotiation, Auto MDI / MDI-X on TP port
- LED indicators for status monitor
- Various optional fiber connector on different model
- 10/19-inch chassis compatible (MC-700 / MC-1500R / MC-1500)
- 9K Jumbo frame
- OAM Terminal (TS-1000 and IEEE 802.3ah) supported
- Hardware based dying gasp event notification
- Link Fault Pass through (LFP) support



10/100/1000T to Dual 1000SX/LX Media Converter

GT-1205A

- Dual 1000Base-X mini-GBIC SFP Slot
- One 10/100/1000Base-T Copper Port
- 3-Port Gigabit Data Switching
- IEEE 802.3x Flow Control
- Wall Mounting or DIN-Rail Support
- Support Fiber Optical up to 120km (Vary on SFP module)



Model	GT-802	GT-802S	GT-805A	GT-806A1/ GT-806A60	GT-806B15/ GT-806B60	GT-1205A
Fiber Connector	SC	SC	SFP	WDM	WDM	SFP
Mode	Multimode	Single mode	Vary on module	Single mode	Single mode	Vary on module
Max. Fiber Distance	550m	10km	~120km Vary on SFP module	15 km/60 km	15 km/60 km	~120km Vary on SFP module

Fast Ethernet Media Converter

10/100TX to 100FX Media Converter

FT-80x

- Auto MDI/MDI-X on TP port
- Various optional fiber connector on different model
- Rear DIP switch for FX duplex mode selection
- Side DIP switch for LFP mode selection
- 10/19-inch chassis compatible (MC-700 / MC-1500R / MC-1500)

Model	FT-801	FT-802	FT-802S15	FT-802S35	FT-806A20	FT-806B20
Fiber Connector	SC	SC	SC	SC	WDM	WDM
Max. Fiber Distance	2km	2km	15km	35km	20km	20km



3-Port Media Converter

FT-1105A / FT-1205A

- Auto MDI/MDI-X on TP port
- Hardware redundant swap less than 10 ms
- 3-Port Switch mode or Redundant mode
- LBR (Loop Back Reply) on / off selection
- 10/19-inch chassis compatible (MC-700 / MC-1500R / MC-1500)

Model	FT-1105A	FT-1205A
Redundant Port	Dual TP	Dual Fiber
Fiber Connector	100FX SFP*	100FX SFP
Max. Fiber Distance	~60km	



* Refer to page 19 for the available 100FX SFP modules.

Manageable Standalone Media Converter

10/100/1000Base-T to 1000Base-SX/LX Managed Media Converter

GT-90x

- IP-Based Web interface for remote management
- SNMP v1, v2c and SNMP Trap for alarm notification of events
- IEEE 802.1Q VLAN / Q-in-Q VLAN and Management VLAN control
- TS-1000 / IEEE 802.3ah OAM for remote terminal monitoring and management
- Remote Loop Back Test Function for link diagnostic
- IEEE 802.1p Tag priority / IP Address priority / IP DSCP QoS
- Bandwidth control and Broadcast / Multicast / Unicast storm control
- Compact size, standalone or work with PLANET MC-7/15R/15 family media chassis

Model	GT-902	GT-902S	GT-905A	GT-906A15 / GT-906A60	GT-906B15 / GT-906B60
Fiber Connector	SC	SC	SFP	WDM	WDM
Max. Fiber Distance	550m	10km	~120km	15 km/60 km	15 km/60 km



10/100Base-TX to 100Base-FX/SFP Managed Media Converter

FT-90x

- IP-Based Web interface for remote management
- SNMP Trap for alarm notification of events
- IEEE 802.1Q VLAN and Management VLAN control
- TS-1000 OAM for remote terminal monitoring and management
- Remote Loop Back Test Function for link diagnostic
- IEEE 802.1p Tag priority Class of Service
- Bandwidth control
- Compact size, standalone or work with PLANET MC-7/15R/15 family media chassis
- Wall mountable design

Model	FT-902	FT-902S15	FT-902S35	FT-905A	FT-906A20	FT-906B20
Fiber Connector	SC	SC	SC	SFP	WDM	WDM
Max. Fiber Distance	2km	15km	35km	~60km	20km	20km



VDSL2 Media Conversion

10/100TX to VDSL2 Media Converter

VC-201A

- ITU-T G.993.2 VDSL2 (Profile 17a)
- Two RJ-11 connectors, one for VDSL2 and the other for POTS connection
- Built-in POTS splitter
- CO/CPE mode selectable via DIP switch
- Compact size, standalone or work with MC-700 / MC-1500R / MC-1500 family Media chassis



10/100TX to Coaxial VDSL2 Converter

VC-202A

- ITU-T G.993.2 VDSL2 (Profile 17a)
- Coaxial to Copper media Converter
 - One BNC port connect with Coaxial cable
 - One 10/100Base-TX copper
 - Long reach Ethernet distance up to 3.0km
- CO/CPE mode selectable via DIP switch
- Compact size, standalone or work with MC-700 / MC-1500R / MC-1500 family Media chassis

10/100TX to VDSL2 Media Converter

VC-231

- ITU-T G.993.2 VDSL2 (Profile 17a/30a)
- One RJ-11 connector for VDSL2 connection
- CO/CPE mode selectable via DIP switch
- Selectable target profile and SNR margin
- Up to 100/100Mbps bandwidth
- Support extensive LED indicators for network diagnostics
- Compact size - Standalone or work with MC-7/15 family Media Chassis



Model	VC-201A	VC-202A	VC-231
VDSL2 Profile	17a	17a	17a / 30a
Long Reach Connector	RJ-11	Coaxial / RG-58	RJ-11
Max. Down/ Up Stream	100/55 Mbps	100/60 Mbps	100/100 Mbps
Max. Phone Wire Distance	1.5km	3.0km	1.4km

Serial over Ethernet Media Conversion

RS-232 / 422 / 485 over IP Ethernet Media Converter

ICS-100 / ICS-102 / ICS-102S15

- RS-232 / RS-422 and RS-485 to Ethernet economy solution
- IP-Based Web interface for remote management
- Selectable serial operate mode
- Virtual COM, TCP Server, TCP Client/UDP Client connections
- Supports PLANET Smart Discovery Utility
- SMTP EMail for alarm notification of events
- Supports standalone (Server mode) or pair-operation (Converter mode)
- LED indicators for easy network diagnose
- Compact size, standalone or work with PLANET MC-7/15R/15 family media chassis
- Wall mountable design



Model	ICS-100	ICS-102	ICS-102S15
Serial Interface	DB9 RS-232 / RS-422 / RS-485		
Fast Ethernet Interface	10/100Base-TX	100Base-FX	
Connector	RJ-45	SC	SC
Mode	-	Multimode	Single mode
Max. Distance	100m	2km	15km



Plastic Optical Fiber

10/100Base-TX to 100Base-FX SMI Fast Ethernet Converter

FT-807 / FT-807L

- Complies with IEEE 802.3u, 10/100Base-TX and 100Base-FX
- RJ-45 TP to POF (Plastic Optic Fiber interface) conversion
- POF Connector:
 - FT-807: SMI - Small Multimedia interface
 - FT-807L: OptoLock plug-less POF interface
- Low-Cost and High-Speed Data Transmission
- Compact Size and Easy Installation
- Plug and Play

Model	FT-807	FT-807L
LAN Interface	10/100Base-TX RJ-45	10/100Base-TX RJ-45
Fiber Interface	SMI	OptoLock
Max. Distance	50m	50m



FT-807



SMI Interface



FT-807L








OptoLock Interface

Video over Fiber Optical Converter

Video over Fiber Media Converter Kit

VF-102-KIT

- Video + Data over fiber transmission
- 8 bit Video Signal digital sampling
- PAL, NTSC, SECAM compatible
- 20km max. distance
- Data Type: RS-422 / RS-485
- Standalone or work with PLANET MC-700/1500/1500R converter chassis
- Plug and Play

Model	Fiber	Photo	Mode	Transmission Distance
VF-101-KIT	ST		Multi-mode	2km
VF-102SC-KIT	SC		Multi-mode	2km
VF-102S15-KIT	SC		Single-mode	15km
VF-102-KIT	FC		Single-mode	20km
VF-106-KIT	SC / WDM		Single-mode	20km



VF-102-KIT



Din Rail Installation
(Optional Kit-Apply to PLANET converter of the same form factor)



Chassis Installation



Wall Mount Installation