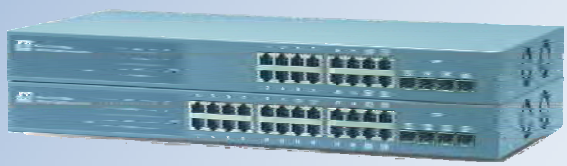
ACTIVE PRODUCTS








➢ 10/100Base-TX to 100Base-FX Media Converters

KC-300D, KC-300DM

The media converters are designed to convert 10Base-T or 100Base-T signals to/from 100Base-FX fiber signals. It is used to extend the connection distance between two Ethernet devices via fiber cable transparently with no performance degradation.The media converters not only support existing variety of multimode and single mode fibers but also support Bi-Di WDM and CWDM fiber network applications. It is also featured with design to support center chassis installation with optional power redundancy and management features when a larger fiber network is required.

Key Features:

- Convert speed and media type in full wire speed
- Support 10/100M dual speed on TP connections, auto-negotiation, and auto-MDI/MDI-X detection
- Link fault pass through function
- Transparent to 802.1Q VLAN tagged packets
- Far End Fault function on FX port
- Support desktop,wall, and DIN-rail mounting
- Support center chassis installation
- Low power consumption
- Support wide range of fiber options
- Provide user accessible settings for TP port configuration,disabling link fault pass through function

KC-300DM Specific

- Provides indications of remote media converter's TP port status
- Provides Loop Back Test function with connected remote media converter

Specifications:

TP Port	IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX Shielded RJ-45 jacks with Auto MDI/MDI-X detection Auto-negotiation for speed and duplex auto detection Forced mode with speed and duplex settings Speed for 10Mbps or 100Mbps, Full-duplex or half-duplex support
FX Port	IEEE 802.3u 100Base-FX compliant Forced 100Mbps, Full duplex (factory default) Far end fault Function
Cable	Cat. 5 UTP cable, MMF - 62.5/125µm, 50/125µm, SMF - 9 /125µm
LEDs	KC-300D: Power status TP Ports: Link/Act, Speed, Duplex status FX Ports: Link/Act status, Fiber signal detected KC-300DM: Power status TP Ports: Link/Act, Speed, Duplex status FX Ports: Link/Act status, Fiber signal detected Remote TP Ports: Link, Speed, Duplex status
Configuration Switches	Accessible settings: KC-300D - TP mode, TP duplex, TP speed, Link fault pass through KC-300DM - TP mode, TP duplex, TP speed, Link fault pass through, Auto status report
Packet Size	Up to 1522 bytes for store-and-forward mode No packet size limit for smart-forward mode (100-to-100)
Environment	Operating Temperature: -5°C to 50°C -20°C to 60°C (KC-300D-EC, KC-300DM-EC) Storage Temperature: -20°C to 80°C Relative Humidity: 5% to 95% non-condensing
Weight	KC-300D: 210g, KC-300DM: 213g
Dimension	108 x 72.5 x 23 mm (WxDxH)
Operating voltage	+5V ~ +12VDC (+/-5%)(Device DC Input)
Power Consumption	2 watts. (max.)
Approval	FCC class B, CE class B

KC-3DR:
Din-Rail mounting bracket

Fiber Optical Specifications : KC-300D-X, KC-300DM-X

Model	Connector	FiberCable	Wavelength	Tx Power	Sensitivity	Rx Max.
-T	ST Duplex	MMF	1310nm	-19~ -14dBm	-31dBm	-14dBm
-C	SC Duplex	MMF	1310nm	-19~ -14dBm	-31dBm	-14dBm
-EC	SC Duplex	MMF	1310nm	-20~ -14dBm	-31dBm	0dBm
-JM	MT-RJ	MMF	1310nm	-19~ -14dBm	-31dBm	-14dBm
-VM	VF-45	MMF	1310nm	-20~ -14dBm	-31dBm	-14dBm
-SA2	SC Duplex	SMF	1310nm	-15~ -8dBm	-31dBm	-7dBm
-SL2	SC Duplex	SMF	1310nm	-15~ -7dBm	-32dBm	-3dBm
-SL3	SC Duplex	SMF	1310nm	-15~ -8dBm	-34dBm	0dBm
-SL4	SC Duplex	SMF	1310nm	-5~ 0dBm	-34dBm	-3dBm
-SL6	SC Duplex	SMF	1310nm	-5~ 0dBm	-35dBm	0dBm
-SL7	SC Duplex	SMF	1310nm	-3~ +3dBm	-37dBm	0dBm
-SL9	SC Duplex	SMF	1310nm	0~ +5dBm	-37dBm	0dBm
-SL10	SC Duplex	SMF	1550nm	-3~ +3dBm	-37dBm	0dBm
-SL12	SC Duplex	SMF	1550nm	0~ +5dBm	-37dBm	0dBm
-W3515	Bi-Di SC	SMF	TX 1310nm RX 1550nm	-14~ -8dBm	-31dBm	0dBm
-W5315	Bi-Di SC	SMF	TX 1550nm RX 1310nm	-14~ -8dBm	-31dBm	0dBm
-W3540	Bi-Di SC	SMF	TX 1310nm RX 1550nm	-8~ 0dBm	-34dBm	0dBm
-W5340	Bi-Di SC	SMF	TX 1550nm RX 1310nm RX 1310nm	-8~ 0dBm	-34dBm	0dBm
-CxxW40	CWDM SC	SMF	Tx 1xx0nm RX 1100-1650nm	-5~ 0dBm	-35dBm	0dBm
-CxxW80	CWDM SC	SMF	Tx 1xx0nm RX 1100-1650nm	0~ +5dBm	-37dBm	0dBm

MMF : Multimode fiber 62.5/125 µm,50/125 µm
SMF : Single Mode fiber 9 /125 µm

Ordering Information:

KC-300D-X KC-300DM-X	Fiber Mode	Connector	Ref. Distance
-T	MM	Dual ST	2km
-C	MM	Dual SC	2km
-EC	MM	Dual SC	2km
-JM	MM	MT-RJ	2km
-VM	MM	VF-45	2km
-SA2	SM	Dual SC	20km
-SL2	SM	Dual SC	20km
-SL3	SM	Dual SC	30km
-SL4	SM	Dual SC	40km
-SL6	SM	Dual SC	60km
-SL7	SM	Dual SC	70km
-SL9	SM	Dual SC	90km
-SL10	SM	Dual SC	100km
-SL12	SM	Dual SC	120km
-W3515	SM	Bi-Di SC	15~20km
-W5315	SM	Bi-Di SC	15~20km
-W3540	SM	Bi-Di SC	40km
-W5340	SM	Bi-Di SC	40km
-CxxW40	SM	CWDM SC	40km
-CxxW80	SM	CWDM SC	80km

MM: Multimode Fiber
SM: Single Mode Fiber
Ref. Distance: Reference connection distance

➢ Web Smart 10/100/1000Base-T to 1000Base-X Gigabit Media Converter

KGC-310M

Key Features :

- Tri-speed 10/100/1000Mbps copper to 1000M fiber conversion
- Comply with IEEE 802.3, 802.3u, 802.3ab, 802.3z standard
- Support full wire speed conversion for Gigabit copper to Gigabit fiber
- Support auto-negotiation with link partners
- Provide SFP on fiber port for mounting variety of fiber options
- Provide loop back test function with link partner over fiber link
- Provide monitoring function for remote link partner's copper link status
- Support optional Din-Rail installation
- Support center chassis installation to achieve the advantages of central power, optional power redundancy and network management
- Ideal solution for multimode, short reach up to long reach single mode fiber, Bi-Di applications
- Web-based configuration management support
- Port operating mode, flow control and status monitoring functions
- Tagged or untagged packet filtering
- 802.1Q VLAN tag stripping and tagging
- Support Q-in-Q application with double tag capability
- Quality of Service (QoS) function with 8021.p, DSCP priority classifications
- Supports SNMP trap for port link change

Specifications:

Standard	IEEE 802.3, 802.3u, 802.3ab, 802.3z
Copper Port	Shielded RJ-45, 10/100/1000Mbps, Full/half duplex Auto-negotiation, Auto-MDI/MDI-X
Fiber Port	SFP connector with pre-configured SFP fiber transceiver 1000Mbps full duplex, Auto-negotiation Far End Fault support
Network Cables	Copper port: Cat.5e recommended or higher up to 100m Fiber port: MMF 50/125μm, 62.5/125μm, SMF 9/125μm
DIP Switches	Copper port operating mode Flow control Auto report for remote copper link status
LED Indication	Power status Local copper port status – link, speed, duplex Local fiber port link status Remote copper port status – link, speed, duplex Loop back test status

KC-3DR:
Din-Rail mounting bracket

Loop Back Test	Push button to start loop back test with link partner over fiber link
Mounting	Desktop, Wall, Din-Rail (optional), Center chassis
Center Chassis	Up to 16 units in one rack chassis with central power Support optional power redundancy and management
Power Input	+5 ~+12VDC (+/-5%) Consumption 2.5W max.@7.5V
Environment	Operating Temperature: -5°C ~ 55°C Storage Temperature: -20°C ~ 85°C Relative Humidity: 10% ~ 90%non-condensing
Dimension	108 x 72.5 x 23 mm (WxDxH)
Approval	FCC Class A, CE mark,CISPR 22 Class A
Management	
Management	Web-based browser interface
Port Control	Operating mode, flow control
Packet Filtering	802.1Q tagged packet filtering, Untagged packet filtering
802.1Q VLAN	Ingress 802.1Q tag stripping, Egress 802.1Q tagging (tag insertion)
QoS	Four priority levels 802.1p, DSCP-based priority classifications Service policy – strict priority, WFQ (Weighted Fairness Queuing)
Monitoring	Local Port status, Remote Port status, Port statistics
Maintenance	Restore factory default, reboot, firmware update
SNMP Trap	Trap events : boot up, Login failure, Copper port link change, Fiber port link change

Fiber Optical Specifications:

KGC-310M-x

Model Ext.	Fiber Port	Wavelength	Tx Power	Rx Sens.	Rx. max.
-SX	LC MMF	850nm	-9.5 ~ -4dBm	-18dBm	-1dBm
-LX	LC SMF	1310nm	-9.5 ~ -3dBm	-20dBm	-3dBm
-LX20	LC SMF	1310nm	-7 ~ 0dBm	-24dBm	-3dBm
-LX30	LC SMF	1310nm	-4 ~ +3dBm	-23dBm	-3dBm
-LX50	LC SMF	1550nm	-4 ~ +1dBm	-23dBm	-3dBm
-LX70	LC SMF	1550nm	0 ~ +5dBm	-23dBm	-3dBm
-W3510	Bi-Di LC SMF	Tx 1310nm Rx 1550nm	-9 ~ -3dBm	-21dBm	-3dBm
-W5310	Bi-Di LC SMF	Tx 1550nm Rx 1310nm	-9 ~ -3dBm	-21dBm	-3dBm
-W3520	Bi-Di LC SMF	Tx 1310nm Rx 1550nm	-8 ~ -3dBm	-23dBm	-3dBm
-W5320	Bi-Di LC SMF	Tx 1550nm Rx 1310nm	-8 ~ -3dBm	-23dBm	-3dBm
-W3410	Bi-Di LC SMF	Tx 1310nm Rx 1490nm	-9 ~ -3dBm	-20dBm	-3dBm
-W4310	Bi-Di LC SMF	Tx 1490nm Rx 1310nm	-9 ~ -3dBm	-20dBm	-3dBm
-W3410S	Bi-Di SC SMF	Tx 1310nm Rx 149nm	-9 ~ -3dBm	-20dBm	-3dBm
-W4310S	Bi-Di SC SMF	Tx 1490nm Rx 1310nm	-9 ~ -3dBm	-20dBm	-3dBm

Ordering Information:

KGC-310M-x

Model	Fiber			Distance
-	No SFP Transceiver			
-SX	LC	850	50/125 62.5/125	500m 200m
-LX	LC	1310	MMF SMF	550m 10km
-LX20	LC	1310	SMF	20km
-LX30	LC	1310	SMF	30km
-LX50	LC	1550	SMF	50km
-LX70	LC	1550	SMF	70km
-W3510	LC	Tx1310 Rx1550	Bi-Di SMF	10km
-W5310	LC	Tx1550 Rx1310	Bi-Di SMF	10km
-W3520	LC	Tx1310 Rx1550	Bi-Di SMF	20km
-W5320	LC	Tx1550 Rx1310	Bi-Di SMF	20km
-W3410	LC	Tx1310 Rx1490	Bi-Di SMF	10km
-W4310	LC	Tx1490 Rx1310	Bi-Di SMF	10km
-W3410S	SC	Tx1310 Rx1490	Bi-Di SMF	10km
-W4310S	SC	Tx1490 Rx1310	Bi-Di SMF	10km

KC-3DR	Din-Rail mounting bracket
KC-1300	Managed center chassis

➢ 1000Base-T to 1000Base-X Gigabit Media Converters

KGC-300

The Gigabit media converter is designed to convert 1000Base-T signals to/from 1000Base-X fiber signals. It is used to extend the connection distance between two Gigabit Ethernet devices via fiber cable transparently with no performance degradation.

With the SFP (Mini-GBIC) connector design, the media converter not only supports existing variety of multimode and single mode fibers, but also preserves the flexibility to adapt to any change of your fiber network in the future. It also supports center chassis installation with optional power redundancy and management features when a larger fiber network is required. With pre-configured fiber transceivers, the converter also can support Bi-Di WDM and CWDM fiber network applications.

Key Features:

- Comply with IEEE 802.3ab 1000Base-T, 802.3z 1000Base-SX/LX standard
- Provide direct media conversion for Gigabit copper and Gigabit fiber
- Support full wire speed conversion
- Support transparent conversion of any packet types with no packet length limitation
- Support auto-negotiation with link partners
- Provide link pass through between copper and fiber link
- Provide SFP on fiber port for mounting variety of fiber options
- Support optional Din-Rail installation
- Support center chassis installation to achieve the advantages of central power, optional power redundancy and management
- Ideal solution for multimode, short reach up to long reach single mode fiber, Bi-Di and CWDM applications

Specifications:

Standard	IEEE 802.3ab, 802.3z
Copper Port	Shielded RJ-45, 1000Mbps, Auto-negotiation capable, Auto-MDI/MDI-X
Fiber Port	SFP connector with pre-configured SFP fiber transceiver Far End Fault support
Network Cables	Copper port : Cat.5e recommended or higher up to 100m Fiber port : MMF 50/125μm, 62.5/125μm, SMF 9/125μm
LED Indication	Power status, SFP On status, Link status, Optical link status
Mounting	Desktop, Wall, Din-Rail (optional), Center chassis
Center Chassis	Up to 16 units in one rack chassis with one central power Support optional power redundancy and management
Power Input	+5 ~ +12VDC (+/-5%) Consumption 2W max.@7.5V
Environment	Operation Temperature: -5°C ~ 55°C Storage Temperature -20°C ~ 85°C Relative Humidity: 10% ~ 90% non-condensing
Dimension	108 x 72.5 x 23 mm (WxDxH)
Approval	FCC Class B, CE mark, CISPR 22 Class B

KC-3DR:
Din-Rail mounting bracket

Fiber Ordering Information:

Model Ext.	Fiber Port	Wavelength	Tx Power	Rx Sens.	Rx. max.
-SX	LC MMF	850nm	-9.5 ~ -4dBm	-18dBm	-1dBm
-LX	LC SMF	1310nm	-9.5 ~ -3dBm	-20dBm	-3dBm
-LX20	LC SMF	1310nm	-8 ~ -2dBm	-23dBm	-1dBm
-LX30	LC SMF	1310nm	-4 ~ +3dBm	-23dBm	-3dBm
-LX50	LC SMF	1550nm	-4 ~ +1dBm	-23dBm	-3dBm
-LX70	LC SMF	1550nm	0 ~ +5dBm	-23dBm	-3dBm
-W3510	Bi-Di LC SMF	Tx 1310nm Rx 1550nm	-9 ~ -3dBm	-21dBm	-3dBm
-W5310	Bi-Di LC SMF	Tx 1550nm Rx 1310nm	-9 ~ -3dBm	-21dBm	-3dBm
-W3520	Bi-Di LC SMF	Tx 1310nm Rx 1550nm	-8 ~ -3dBm	-23dBm	-3dBm
-W5320	Bi-Di LC SMF	Tx 1550nm Rx 1310nm	-8 ~ -3dBm	-23dBm	-3dBm
-W3540	Bi-Di LC SMF	Tx 1310nm Rx 1550nm	-3 ~ +2dBm	-23dBm	-1dBm
-W5340	Bi-Di LC SMF	Tx 1550nm Rx 1310nm	-3 ~ +2dBm	-23dBm	-1dBm
-W3410	Bi-Di LC SMF	Tx 1310nm Rx 1490nm	-9 ~ -3dBm	-20dBm	-3dBm
-W4310	Bi-Di LC SMF	Tx 1490nm Rx 1310nm	-9 ~ -3dBm	-20dBm	-3dBm
-W3410S	Bi-Di SC SMF	Tx 1310nm Rx 149nm	-9 ~ -3dBm	-20dBm	-3dBm
-W4310S	Bi-Di SC SMF	Tx 1490nm Rx 1310nm	-9 ~ -3dBm	-20dBm	-3dBm
Extended operating temperature -10 ~ 70°C					
-ESX	LC MMF	850nm	-9.5 ~ -4dBm	-18dBm	-1dBm
-ELX	LC SMF	1310nm	-9.5 ~ -3dBm	-20dBm	-3dBm

Ordering Information:

Model	Fiber			Distance
-	No SFP Transceiver			
-SX	LC	850	50/125 62.5/125	500m 200m
-LX	LC	1310	MMF SMF	550m 10km
-LX20	LC	1310	SMF	20km
-LX30	LC	1310	SMF	30km
-LX50	LC	1550	SMF	50km
-LX70	LC	1550	SMF	70km
-W3510	LC	Tx1310 Rx1550	Bi-Di SMF	10km
-W5310	LC	Tx1550 Rx1310	Bi-Di SMF	10km
-W3520	LC	Tx1310 Rx1550	Bi-Di SMF	20km
-W5320	LC	Tx1550 Rx1310	Bi-Di SMF	20km
-W3540	LC	Tx1310 Rx1550	Bi-Di SMF	40km
-W5340	LC	Tx1550 Rx1310	Bi-Di SMF	40km
-W3410	LC	Tx1310 Rx1490	Bi-Di SMF	10km
-W4310	LC	Tx1490 Rx1310	Bi-Di SMF	10km
-W3410S	SC	Tx1310 Rx1490	Bi-Di SMF	10km
-W4310S	SC	Tx1490 Rx1310	Bi-Di SMF	10km
-ESX	LC	850	MMF	500m
-ELX	LC	1310	SMF	10km

➢ Multimode to Single Mode Fiber Media Converters

KGC-311

Key Features:

- Complies with IEEE 802.3z 1000Base-SX/LX and IEEE 802.3u 100Base-FX standard
- Provides media conversion between single mode and multimode optical fiber media types
- Supports both 1000Mbps Gigabit Ethernet fiber and 100Mbps Fast Ethernet fiber applications
- Provides two SFP slots and supports standard SFP fiber transceivers
- Support center chassis installation with advantages of central power, power redundancy and management
- Provides LEDs for easy network monitoring

Specifications:

Standard	IEEE 802.3z 1000Base-SX/LX, IEEE 802.3u 100Base-FX
Fiber Ports	MM port: SFP-A slot for Multimode fiber transceiver SM port: SFP-B slot for Single mode fiber transceiver
Fiber Cable	MM port: MMF 62.5/125μm, 50/125μm SM port: SMF 9/125μm
LEDs	Power status, GE / FE status MM port optical link status, SM port optical link status
Mounting	Desktop, Wall, Din-Rail (optional), Center chassis
Center Chassis	Up to 16 units in one KC-1300 rack chassis Support optional power redundancy and management
Power Input	+5 ~ +12VDC (+/-5%), Consumption 2W max.@7.5V
Environment	Operation Temperature: -5°C ~ 55°C Storage Temperature -20°C ~ 85°C Relative Humidity: 10% ~ 70% non-condensing
Dimension	108 x 72.5 x 23 mm (WxDxH)
Compliance	FCC Class A, CE mark, CISPR 22 Class A

KC-3DR:
Din-Rail mounting bracket

Fiber Ordering Information:

Model Ext#	Port Type	Port Tx Power (dBm)	Connector	Rx Sensitivity (dBm)	Wavelength (nm)	Ref. Distance
FE 100Mbps series						
-FSL3	MM	-20 ~ -14	LC	-31	1310	2 km
	SM	-15 ~ -8	LC	-34	1310	30 km
-FSL6	MM	-20 ~ -14	LC	-31	1310	2 km
	SM	-5 ~ 0	LC	-35	1310	60 km
-FSL10	MM	-20 ~ -14	LC	-31	1310	2 km
	SM	-5 ~ 0	LC	-35	1550	100 km
-FW3520	MM	-20 ~ -14	LC	-31	1310	2 km
	SM	-14 ~ -8	Bi-Di LC	-32	Tx 1310 Rx 1550	20 km
-FW5320	MM	-20 ~ -14	LC	-31	1310	2 km
	SM	-14 ~ -8	Bi-Di LC	-32	Tx 1550 Rx 1310	20 km
GE 1000Mbps series						
-LX	MM	-9.5 ~ -4	LC	-18	850	200m/500m
	SM	-9.5 ~ -3	LC	-20	1310	10 km
-LX20	MM	-9.5 ~ -4	LC	-18	850	200m/500m
	SM	-8 ~ -2	LC	-23	1310	20 km
-LX30	MM	-9.5 ~ -4	LC	-18	850	200m/500m
	SM	-4 ~ +3	LC	-23	1310	30 km
-LX50	MM	-9.5 ~ -4	LC	-18	850	200m/500m
	SM	-4 ~ +1	LC	-23	1550	50 km
-LX70	MM	-9.5 ~ -4	LC	-18	850	200m/500m
	SM	0 ~ +5	LC	-23	1550	70 km
-W3510	MM	-9.5 ~ -4	LC	-18	850	200m/500m
	SM	-9 ~ -3	Bi-Di LC	-21	Tx 1310 Rx 1550	10 km
-W5310	MM	-9.5 ~ -4	LC	-18	850	200m/500m
	SM	-9 ~ -3	Bi-Di LC	-21	Tx 1550 Rx 1310	10 km
-W3410	MM	-9.5 ~ -4	LC	-18	850	200m/500m
	SM	-9 ~ -3	Bi-Di LC	-21	Tx 1310 Rx 1490	10 km
-W4310	MM	-9.5 ~ -4	LC	-18	850	200m/500m
	SM	-9 ~ -3	Bi-Di LC	-21	Tx 1490 Rx 1310	10 km
-W3520	MM	-9.5 ~ -4	LC	-18	850	200m/500m
	SM	-8 ~ -3	Bi-Di LC	-23	Tx 1310 Rx 1550	20 km
-W5320	MM	-9.5 ~ -4	LC	-18	850	200m/500m
	SM	-8 ~ -3	Bi-Di LC	-23	Tx 1550 Rx 1310	20 km

* GE: Gigabit Ethernet, FE: Fast Ethernet
* 200m/500m: 200 meters with MMF 62.5/125 , 500 meters with MMF 50/125

Ordering Information:

Model: KGC-311	FE/GE	MM Port	SM Port
-FSL3	FE	2km	30km
-FSL6	FE	2km	60km
-FSL10	FE	2km	100km
-FW3520	FE	2km	Tx 1310nm Bi-Di 20km
-FW5320	FE	2km	Tx 1550nm Bi-Di 20km
-LX	GE	200/500m	10km
-LX20	GE	200/500m	20km
-LX30	GE	200/500m	30km
-LX50	GE	200/500m	50km
-LX70	GE	200/500m	70km
-W3510	GE	200/500m	Tx 1310nm Bi-Di 10km
-W5310	GE	200/500m	Tx 1550nm Bi-Di 10km
-W3410	GE	200/500m	Tx 1310nm Bi-Di 10km
-W4310	GE	200/500m	Tx 1490nm Bi-Di 10km
-W3520	GE	200/500m	Tx 1310nm Bi-Di 20km
-W5320	GE	200/500m	Tx 1550nm Bi-Di 20km

➢ Intelligent Media Converter Center Chassis

KC-1300

Intelligent Media Converter Center Chassis

Product Highlights:

- Supports 16 slots for hot-plug converters
- 19" rack mountable
- Supports 90-264VAC and -48VDC power
- Power redundancy design
- Management
  - In-band console support
  - Web-based management
  - SNMP management
  - Telnet management
  - SNMP trapP

KC-1300 Intelligent Media Converter Center Chassis provides 16 slots for standalone media converters. A variety of optional media converts is provided and includes Gigabit copper to fiber and Fast Ethernet copper to fiber.

The chassis provides centered power supply to the installed media converters and serves as a converter center and wiring concentrator. The power system is featured with power redundancy for commercial AC and DC power input. For easy monitoring the media converter operation in each slot, KC-1300 also provides many network management interfaces including in-band console, telnet, web browsing, SNMP, and event SNMP trap for different application needs.

Key Features:

- Managed Media Converter Center with 19-inch rack-mountable 2U chassis
- Managed system accommodates up to 16 media converters
- Highly modularized chassis design with
  - modular media converters
  - modular management module
  - two system power modules for power redundancy
- Provides high availability and maintainability
- Power backup (dual power inputs) featured with two power chassis
- Visible system status indication
- Supports in-band Telnet, SNMP and web-based management
- Supports out-of-band direct console management
- Management from anywhere and any platform using a web browser
- Easy-to-use point and click user interface
- Photographic quality interface to configure and monitor the system
- Supports in-band event SNMP trap report
- TFTP Software Upgrade

Optional Media Converters

- Gigabit copper to Gigabit fiber converter
- Tri-speed 10/100/1000 copper to Gigabit fiber converter series
- 10/100 Fast Ethernet Copper to Fast Ethernet fiber converter series
- Multimode to single mode optical fiber media converter series

KC-300D

KGC-300

KGC-310M

KGC-311

KC-300DM

Specifications:

System Model	KC-1300-1A	KC-1300-2A	KC-1300-1D	KC-1300-2D
Management	Managed	Managed	Managed	Managed
System Model	**KC-1300L-1A**	**KC-1300L-2A**	**KC-1300L-1D**	**KC-1300L-2D**
Management	Unmanaged	Unmanaged	Unmanaged	Unmanaged
LEDs	Power1 , Power2 , CPU status, Fan status, Console Rx status, pork link status			
Number of Power	1 AC power	2 AC power	1 DC power	2 DC power
Input Voltage	90-264VAC	90-264VAC	-48VDC	-48VDC
Power Supply	60W	60W	60W	60W
19" Rack Mount	Yes	Yes	Yes	Yes
Number of MC Slots	16	16	16	16
Mechanical:				
Chassis Height (2U)	88mm	88mm	88mm	88mm
Dimension	443x88x300 mm	443x88x300 mm	443x88x300 mm	443x88x300 mm
Weight	5.5kg	6.2kg	5.5kg	6.2kg
(with 1 or 2 AC power, management module and no MC converters)				
Environmental:				
Operating Temperature	-5°C ~ 40°C			
Storage Temperature	-20°C ~ 80°C			
Relative Humidity	5% ~ 95% non-condensing			
Approval	FCC class A, CE class A			

Ordering Informations:

Chassis	Slots	Managed	Power
KC-1300L-1A	16	None	1 AC
KC-1300L-2A	16	None	2 AC
KC-1300-1A	16	Yes	1 AC
KC-1300-2A	16	Yes	2 AC
KC-1300L-1D	16	None	1 DC
KC-1300L-2D	16	None	2 DC
KC-1300-1D	16	Yes	1 DC
KC-1300-2D	16	Yes	2 DC

CE FC

FCC Part 15, Class A
CISPR 22 Class A

Information of Optional Standalone Media Converters:

KC-300D	10/100Base-TX to 100Base-FX media converter series
KC-300DM	10/100Base-TX to 100Base-FX media converter series with remote loopback test and remote TP link monitoring functions
KGC-300	1000Base-T to 1000Base-X media converter series
KGC-310	10/100/1000Base-T to 1000Base-X media converter series with remote loopback test and remote TP link monitoring functions
KGC-310M	Web Smart 10/100/1000Base-T to 1000Base-X media converter series with remote loopback test, remote TP link monitoring functions and web-based management
KGC-311	Multimode to single mode optical fiber media converter series

➢ Industrial 10/100Base-TX to 100Base-FX Media Converters

KCD-300

Industrial 10/100Base-TX to 100Base-FX Media Converters

DIN Rail Mounting Bracket

Panel Mounting Bracket

The industrial KCD-300 media converter series provides industrial strength Ethernet copper-to-fiber media conversion, allowing for 10Base-T-100Base-FX or 100Base-TX-100Base-FX over multi-mode or optional single-mode fiber optical media.

Benefits:

- Comprehensive configuration settings to increase flexibility for application needs
- Wide operating temperature range for temperature critical environment
- Support DIN rail mounting and panel mounting
- Provide two power input types to meet more application needs
- Accept wide power input voltage range for application flexibility
- Industrial-rated Emission and Immunity performance

Key Features:

- Support full wire speed conversion for 10/100 speed and media types
- Support auto-negotiation 10/100Mbps or forced mode on TP copper port
- Auto MDI/MDI-X crossover function on the TP copper port
- Provide Link Fault Pass Through function
- Provide comprehensive manual configuration settings
- Transparent conversion to 802.1Q VLAN tagged packets
- Provides Far End Fault function on FX (fiber) port
- Low power consumption
- Two power interface types: screw terminal block and DC Jack
- Supports wide power input voltage range
- Supports DIN rail mounting and optional screwed plane mounting
- Supports wide operating temperature range
- Industrial-rated Emission and Immunity performance

Specifications:

Conversion	10BASE-T to 100BASE-FX, 100BASE-TX to 100BASE-FX
Conversion Methods	Smart-forward mode: - Store-and-forward for 10M to 100M - Direct conversion for 100M to 100M Store-and-forward always mode
Packet Types	Transparent conversion with no modification to: - Standard IEEE 802.3 Ethernet packet frames - IEEE 802.1Q tagged packet frames
TP Port	Shielded RJ-45 jack Auto MDI/MDI-X crossover function Auto-negotiation function for speed and duplex mode Full-duplex and half-duplex support 10Mbps - Supports Cat. 3,4,5 UTP cable up to 100m 100Mbps - Supports Cat. 5 UTP cable up to 100m
Fiber (FX) Port	Multimode ST, SC, Single mode SC 100Mbps Full-duplex and half-duplex support

➢ Industrial 10/100Base-TX to 100Base-FX Media Converters

EMI EMS Safety Environmental Tests:

Test	Standard	Specifications
FCC/EMI	FCC Rule Part 15	Class B
CE/EMC/EMI	EN55022, CISPR 22	Class B
CE/EMC/Harmonic	EN 61000-3-2	< 75 W
CE/EMC/VFF	EN 61000-3-3	Clause 5
CE/EMC/EMS	EN 55024	
ESD Test	IEC 61000-4-2	+/-8KV
RS Test	IEC 61000-4-3	Strength: 10V/m
EFT/BURST	IEC 61000-4-4	Power: +/-4KV
Surge Immunity	IEC 61000-4-5	Data: +/-2KV
CS Test	IEC 61000-4-6	Level 3
Magnetic Field Imm.	IEC 61000-4-8	50Hz 40A/m
Voltage Dips Imm.	IEC 61000-4-11	Interruption: C Dips: A
Safety	EN 60950, IEC 60950	
Dielectric Voltage	IEEE 802.3	TP, 1500VAC/60sec.
Insulation Resistance	IEEE 802.3	TP, 500VDC/10Mohm
Cold Test	IEC 68-2-1 Test Ad	-20°C, 96hrs
Dry Heat Test	IEC 68-2-2 Test Bd	+70°C 40%RH 96hrs
Damp Heat Test	IEC 68-2-3	+60°C 90%RH 96hrs
Storage Test	IEC 68-2-48	-20°C 96hrs +85°C 40%RH 96hrs
Vibration Test	IEC 68-2-34	

Ordering Informations:

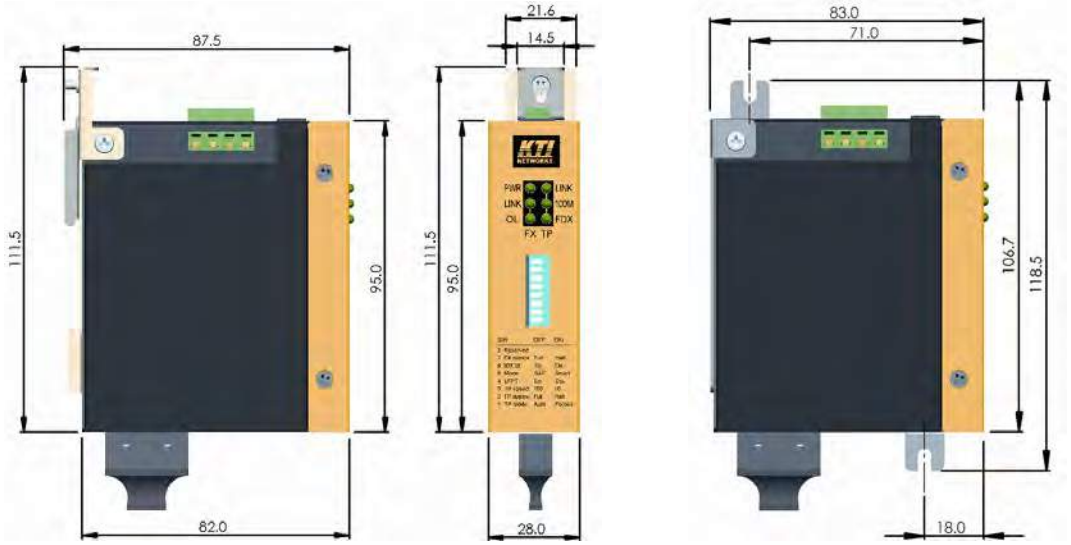
Model KCD-300-xxx	FX Port Fiber	Ref. Distance	Operating Temperature
-T	ST MMF	2km	-10 ~ 70°C
-C	SC MMF	2km	-10 ~ 70°C
-C1	SC MMF	2km	-20 ~ 70°C
-SL2	SC SMF	20km	-20 ~ 70°C
-SL3	SC SMF	30km	-20 ~ 70°C
-SL4	SC SMF	40km	-20 ~ 70°C
-SL6	SC SMF	60km	-20 ~ 70°C
-SL8	SC SMF	80km	-40 ~ 85°C
-SL10	SC SMF	100km	-20 ~ 70°C
-SL12	SC SMF	120km	-40 ~ 85°C
-W3515	Bi-Di SC SMF	15~20km	-20 ~ 70°C
-W5315	Bi-Di SC SMF	15~20km	-20 ~ 70°C

KCD-3PB	Panel mounting bracket for KCD-300

	MMF 50/125μm, 62.5/125μm fiber cable SMF 9/125μm cable Far End Fault Indication support
Flow Control	IEEE 802.3x for full-duplex, Back pressure for half-duplex
LEDs	- Power status - TP port link, activity, speed, duplex status - Per FX port link, activity, optical link status
Configuration Setting Switches	Auto/forced mode, TP speed, TP duplex FXduplex
DC Power Input	Screwed terminator block: 2 pairs of +/- contacts DC jack: -D 6.3mm / + D 2.0mm Operating voltage range: +7 ~ +30VDC
Power Consumption	3W max. @30VDC power input
Dimension	28 x 82 x 95 mm, Weight: 250g
Housing	Enclosed metal with no fan
Mounting Support	DIN Rail mounting, Panel mounting
Environment	Operating Temperature: See ordering information Storage Temperature: -20°C ~ 85°C Relative Humidity: 5% ~ 95% non-condensing
Approval	FCC Class B, CE/EMC Class B, EN60950 safety

Fiber Optical Specifications:

Model	FX & Cable	Wavelength	Tx Power	Rx Sens.	Rx Max.
-T	ST MMF	1310nm	-19 ~ -14dBm	-31dBm	-14dBm
-C	SC MMF	1310nm	-19 ~ -14dBm	-31dBm	-14dBm
-C1	SC MMF	1310nm	-20 ~ -14dBm	-31dBm	0dBm
-SL2	SC SMF	1310nm	-15 ~ -8dBm	-30dBm	-7dBm
-SL3	SC SMF	1310nm	-15 ~ -8dBm	-34dBm	0dBm
-SL4	SC SMF	1310nm	-5 ~ 0dBm	-34dBm	0dBm
-SL6	SC SMF	1310nm	-5 ~ 0dBm	-35dBm	0dBm
-SL8	SC SMF	1310nm	0 ~ +5dBm	-36dBm	0dBm
-SL10	SC SMF	1550nm	-5 ~ 0dBm	-35dBm	-3dBm
-SL12	SC SMF	1550nm	0 ~ +5Bm	-35dBm	-3dBm
-W3515	Bi-Di SC SMF	Tx 1310nm Rx 1550nm	-14 ~ -8dBm	-31dBm	0dBm
-W5315	Bi-Di SC SMF	Tx 1550nm Rx 1310nm	-14 ~ -8dBm	-31dBm	0dBm



➢ Industrial 1000Base-T to 1000Base-X Gigabit Media Converters

KCD-400

Industrial 1000Base-T to 1000Base-X Gigabit Media Converters

The industrial KCD-400 media converter series provides industrial strength Gigabit Ethernet copper -to-fiber media conversion,allowing for 1000Base-T-to-1000Base-Xover multi-mode or optional single-mode fiber optical media. With the SFP (Mini-GBIC) connector design,the media converter not only supports existing variety of multimode and single mode fibers,but also preserves the flexibility to adapt to any change of your fiber network in the future.

DIN Rail Mounting Bracket

Panel Mounting Bracket

Benefits:

- Plug and play design with no configuration setting
- Wide operating temperature range for temperature critical environment
- Support DIN-rail mounting and panel mounting
- Provide two power input types to meet more application needs
- Accept wide power input voltage range for application flexibility
- Industrial-rated Emission and Immunity performance

Key Features:

- Comply with IEEE 802.3ab 1000Base-T,802.3z 1000Base-SX/LX standard
- Provide direct media conversion for Gigabit copper and Gigabit fiber
- Support full wire speed conversion
- Support transparent conversion of any packet types with no packet length limitation
- Support auto-negotiation with link partners
- Provide link pass through between copper and fiber link
- Provide SFP on fiber port for mounting variety of fiber options
- Low power consumption
- Two power interface types:screw terminal block and DC Jack
- Supports DIN-rail mounting and optional screwed plane mounting

Specifications:

Standard	IEEE 802.3au, 802.3z
Conversion	Direct 1000BASE-T to 1000BASE-X with minimum latency
Packet Types	Transparent conversion with no modification to: - Standard IEEE 802.3 Ethernet packet frames - IEEE 802.1Q tagged packet frames
Copper Port	Shielded RJ-45,1000Mbps Auto-negotiation capable Auto-MDI/MDI-X crossover function
Fiber Port	SFP connector with pre-configured SFP fiber transceiver Far End Fault support
Network Cables	Copper port: Cat.5e recommended or higher up to 100m Fiber port: MMF 50/125μm, 62.5/125μm, SMF 9/125μm
LEDs	Power status, SFP ON status Link status, Optical link status

➢ Industrial 1000Base-T to 1000Base-X Gigabit Media Converters

EMI EMS Safety Environmental Tests:

Test	Standard	Specifications
FCC/EMI	FCC Rule Part 15	Class B
CE/EMC/EMI	EN55022, CISPR 22	Class B
CE/EMC/Harmonic	EN 61000-3-2	< 75 W
CE/EMC/VFF	EN 61000-3-3	Clause 5
CE/EMC/EMS	EN 55024	
ESD Test	IEC 61000-4-2	Contact: +/-6KV Air: +/-8KV
RS Test	IEC 61000-4-3	Strength: 10V/m
EFT/BURST	IEC 61000-4-4	DC IN: +/-3KV TP: +/-4KV
Surge Immunity	IEC 61000-4-5	+/-4KV
CS Test	IEC 61000-4-6	Level 3
Magnetic Field Imm.	IEC 61000-4-8	50Hz 40A/m
Voltage Dips Imm.	IEC 61000-4-11	Interruption: C Dips: A
Safety	EN 60950, IEC 60950	
Dielectric Voltage	IEEE 802.3	TP: 1500VAC/60sec.
Insulation Resistance	IEEE 802.3	TP: 500VDC/10Mohm
Cold Test	IEC 68-2-1 Test Ad	-20°C, 96hrs
Dry Heat Test	IEC 68-2-2 Test Bd	+70°C 40%RH 96hrs
Damp Heat Test	IEC 68-2-3	+60°C 90%RH 96hrs
Storage Test	IEC 68-2-48	-20°C 96hrs +85°C 40%RH 96hrs
Vibration Test	IEC 68-2-34	

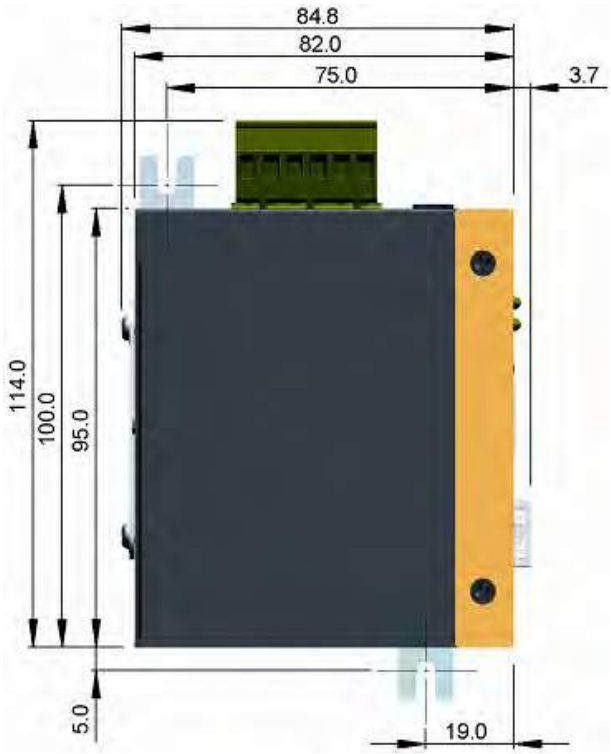
Ordering Informations:

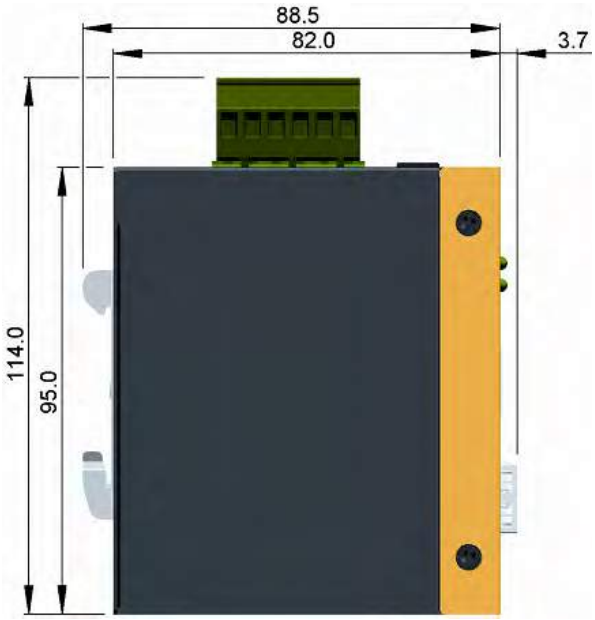
Model KCD-400-xxx	Fiber Mode	Connertor	Ref. Distance
-SX	62.5/125 50/125	LC	200m 500m
-LX	MM SM	LC	550m 10km
-LX20	SM	LC	20km
-LX100	SM	LC	100km

Network Cables	Copper port: Cat.5e recommended or higher up to 100m Fiber port: MMF 50/125μm, 62.5/125μm, SMF 9/125μm
LEDs	Power status, SFP On status Link status, Optical link status
DC Power Input	Screwed terminator block: 2 pairs of +/-contacts 1 pair of power alarm relay output contacts DC jack: -D 6.3mm /+D 2.0mm Operating voltage range: +7 ~ +30VDC
Power Consumption	2W max.@30VDC power input
Dimension	28 x 82 x 95 mm (WxDxH)
Weight	240 g
Housing	Enclosed metal with no fan
Mounting Support	DIN-Rail mounting,Panel mounting
Environment	Operating Temperature: -20°C ~ 70°C Storage Temperature: -20°C ~ 85°C Relative Humidity: 5% ~ 95%non-condensing
Approval	FCC Class B CE/EMC Class B, EN60950 safety

Fiber Optical Specifications: KCD-400-xxx

Model	Fiber	Wavelength	Tx Power	Rx Sens.	Rx Max.	Distance
-SX	LC 62.5/125 MMF 50/125 MMF	850nm	-9.5 ~ -4dBm	-18dBm	-1dBm	220m 500m
-LX	LC MMF SMF	1310nm	-9.5 ~ -3dBm	-20dBm	-3dBm	550m 10km
-LX20	LC SMF	1310nm	-7 ~ 0dBm	-24dBm	-3dBm	20km
-LX100	LC SMF	1550nm	0 ~ +5dBm	-30dBm	-8dBm	100km





➢ 16/24-Port 10/100/1000Mbps Web Smart Gigabit Ethernet Switches

KGS-1604, KGS-2404

16/24-Port 10/100/1000Mbps Web Smart Gigabit Ethernet Switches

Product Highlights:

- 4 SFP support
- 802.1Q VLAN
- QoS
- 802.1x authentication
- RSTP, STP support
- LACP link aggregafion
- IGMP snooping
- Port rate confrol

Key Features:

- Provide 16/24 10/100/1000Mbps Gigabit Ethernet ports and 4 SFP ports
- Provide in-band web-based management interface
- Provide full wire speed forwarding
- Support 802.3x flow control for full-duplex and backpressure for half-duplex
- Provide port status, statistic monitoring and control function
- Support port-based, 802.1Q Tag-based VLAN
- Provide QoS function
- Provide LACP link aggregation (trunking) function
- Provide 802.1x port access authentication function
- Support RSTP, STP function
- Provide port bandwidth control function
- Support jumbo frames
- Support SFP Modules hot-plugging

Specifications:

Standard	IEEE 802.3, 802.3u, 802.3ab, 802.3x, 802.1Q
Network Ports	KGS-1604 - 16 10/100/1000Mbps Gigabit copper ports KGS-2404 - 24 10/100/1000Mbps Gigabit copper ports Shielded RJ-45, auto-negotiation, auto-MDI/MDI-X support KGS-1604/2404 - 4 1000Mbps Gigabit fiber SFP ports SFP supports standard SFP fiber transceiver installation
Network Cables	10/100Mbps: Cat.5 up to 100m, 1000Mbps: Cat.5e or higher up to 100m
MAC Address Table	8K entries
Buffer Memory	400KB
Port Control	Speed, duplex mode, flow control
VLAN	Port based VLAN, 8021Q Tag-based VLAN
Port Link Aggregation	Trunking groups: 8 max., Ports/group: 12 (KGS-1604/2404)
QoS	4 priority queues per port - low priority, normal priority, medium priority, high priority
Port Mirroring	Mode: Rx data, Multiple source ports, One sniffer port
LED Indication	Per unit: power, CPU status, Per port: link/activity, 1000M, 100M status
Management Support	Web browser software
Management Objects	System Information, ports , VLANs, Aggregation, LACP, RSTP, 802.1x, IGMP Snooping, Mirror, QoS, Filter, Rate control, Storm control, SNMP
Environment	Operating temperature: 0°C ~ 50°C Storage temperature: -20°C ~ 70°C Humidity: 5% ~ 90% non-condensing
Dimension	442 x 209 x 44 mm (1U, 19" rack mountable)
Power	100-240VAC, 50-60Hz, Consumption 30W max.
Approval	FCC Class A, CE mark Class A

➢ 16/24-Port 10/100/1000Base-T Gigabit Ethernet Switches

KGS-116, KGS-124

16/24-Port 10/100/1000Base-T Gigabit Ethernet Switches

Key Features:

- Provide 16/24 10/100/1000Mbps Gigabit Fast Ethernet ports
- All ports support auto-negotiation and auto-MDI/MDI-X detection
- Support full/half-duplex transfer mode for 10/100Mbps
- Support full-duplex transfer mode for 1000Mbps
- Wire speed reception and transmission
- Store-and-Forward switching method
- Self learning for active MAC addresses up to 8K entries
- Supports IEEE 802.3x flow control for full-duplex mode and backpressure flow control for half-duplex mode

Specifications:

Standards	IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T		
Number of Ports	16/24 x 10/100/1000Mbps auto-negotiation & auto-MDI/MDI-X ports		
Network Ports	10Base-T: 100Base-TX: 1000Base-T:	Cat.3, 4, 5 or higher (100 meters max.) Cat.5, 5e or higher (100 meters max.) Cat.5, 5e or higher (100 meters max.)	
Network Data Transfer Rate	Ethernet: Fast Ethernet: Gigabit Ethernet:	10Mbps (Half-duplex) 100Mbps (Half-duplex)	20Mbps (Full-duplex) 200Mbps (Full-duplex) 2000Mbps (Full-duplex)
MAC Address Table	8K entries		
LEDs	Per Unit: Power Per Port: Link/ACT, and speed		
Environment	Operating temperature: Storage temperature: Humidity:	0°C ~ 40°C -20°C ~ 70°C 10% ~ 90%RH non-condensing	
Dimension	280 x 180 x 44 mm (19" rack mountable)		
Power	100-240VAC, 50-60Hz		
Power Consumption	KGS-116: 14 watts. (max.) KGS-124: 20 watts. (max.)		
Approval	FCC Class A, CE mark Class A		

Ordering Informaton:

KGS-116	16-Port 10/100/1000 Gigabit Ethernet Switches
KGS-124	24-Port 10/100/1000 Gigabit Ethernet Switches

➢ SFP Fiber Transceivers

SFP Fiber Transceivers

KTI provides a variety of optional Small Form-Factor Pluggable (SFP), which is also known as Mini-GBIC, fiber transceivers for the switches equipped with SFP connectors.The following information describes the specification of each SFP part, and it also indicates their applications in different KTI networking products.

Ordering Informations:

Part No.	GbE/FE	Connectors	Ref. Fiber Distance	Operating Temperature	RoHS	DDM
SFP-GLM-A	GbE	LC	MMF 550m	0°C~70°C	✔	
SFP-GLM-A-1310	GbE	LC	MMF 2km	0°C~70°C	✔	
SFP-GLS-10-A	GbE	LC	SMF 10km	0°C~70°C	✔	
SFP-GLS-20-A	GbE	LC	SMF 20km	0°C~70°C	✔	
SFP-GLSD-20-A	GbE	LC	SMF 20km	0°C~70°C	✔	✔
SFP-GLS-30-A	GbE	LC	SMF 30km	0°C~70°C	✔	
SFP-GLSD-30-A	GbE	LC	SMF 30km	0°C~70°C	✔	✔
SFP-GLS-50-A	GbE	LC	SMF 50km	0°C~70°C	✔	
SFP-GLSD-50-A	GbE	LC	SMF 50km	0°C~70°C	✔	✔
SFP-GLS-70-A	GbE	LC	SMF 70km	0°C~70°C	✔	
SFP-GLSD-70-A	GbE	LC	SMF 70km	0°C~70°C	✔	✔
SFP-GLSD-W3510-A	GbE	LC	Bi-Di SMF 10km	0°C~70°C	✔	✔
SFP-GLSD-W5310-A	GbE	LC	Bi-Di SMF 10km	0°C~70°C	✔	✔
SFP-GLS-W3510-A	GbE	LC	Bi-Di SMF 10km	0°C~70°C	✔	
SFP-GLS-W5310-A	GbE	LC	Bi-Di SMF 10km	0°C~70°C	✔	
SFP-GLS-W3520-A	GbE	LC	Bi-Di SMF 20km	0°C~70°C	✔	
SFP-GLS-W5320-A	GbE	LC	Bi-Di SMF 20km	0°C~70°C	✔	
SFP-GLS-W3540-A	GbE	LC	Bi-Di SMF 40km	0°C~70°C	✔	
SFP-GLS-W5340-A	GbE	LC	Bi-Di SMF 40km	0°C~70°C	✔	
SFP-GLS-CxxW50-A	GbE	LC	CWDM SMF 50km	0°C~70°C	✔	
SFP-GLS-CxxW80-A	GbE	LC	CWDM SMF 80km	0°C~70°C	✔	
SFP-FC-M-A	FE	LC	MMF 2km	0°C~70°C	✔	
SFP-FC-S30-A	FE	LC	SMF 30km	0°C~70°C	✔	
SFP-FCD-S30-A	FE	LC	SMF 30km	0°C~70°C	✔	✔
SFP-FC-S60-A	FE	LC	SMF 60km	0°C~70°C	✔	
SFP-FC-S100-A	FE	LC	SMF 100km	0°C~70°C	✔	
SFP-FC-W3520-A	FE	LC	SMF 20km	0°C~70°C	✔	
SFP-FC-W5320-A	FE	LC	SMF 20km	0°C~70°C	✔	
SFP-GLM-A-A	GbE	LC	MMF 550m	-20°C~85°C	✔	
SFP-GLMD-A-A	GbE	LC	MMF 550m	-20°C~85°C	✔	✔
SFP-GLS-10A-A	GbE	LC	SMF 10km	-40°C~85°C	✔	
SFP-FI-M-A	FE	LC	MMF 2km	-40°C~85°C	✔	
SFP-FI-S30-A	FE	LC	SMF 30km	-40°C~85°C	✔	

Optical Specifications:

Part No.	Wavelength	Tx Power	Rx Sens.	Rx Max.
SFP-GLM-A	850nm	-9.5 ~ -4	-18	-1
SFP-GLM-A-1310	1310nm	-9 ~ -1	-19	-1
SFP-GLS-10-A	1310nm	-9.5 ~ -3	-20	-3
SFP-GLS-20-A	1310nm	-8 ~ -2	-23	-1
SFP-GLSD-20-A	1310nm	-8 ~ -2	-23	-1
SFP-GLS-30-A	1310nm	-4 ~ +3	-23	-3
SFP-GLSD-30-A	1310nm	-4 ~ +3	-23	-3
SFP-GLS-50-A	1550nm	-4 ~ +1	-23	-3
SFP-GLSD-50-A	1550nm	-4 ~ +1	-23	-3
SFP-GLS-70-A	1550nm	0 ~ +5	-24	-3
SFP-GLSD-70-A	1550nm	0 ~ +5	-24	-3
SFP-GLSD-W3510-A	Tx: 1310nm Rx: 1550nm	-9 ~ -3	-21	-3
SFP-GLSD-W5310-A	Tx: 1550nm Rx: 1310nm	-9 ~ -3	-21	-3
SFP-GLS-W3510-A	Tx: 1310nm Rx: 1550nm	-9 ~ -3	-21	-3
SFP-GLS-W5310-A	Tx: 1550nm Rx: 1310nm	-9 ~ -3	-21	-3
SFP-GLS-W3520-A	Tx: 1310nm Rx: 1550nm	-8 ~ -3	-23	-3
SFP-GLS-W5320-A	Tx: 1550nm Rx: 1310nm	-8 ~ -3	-23	-3
SFP-GLS-W3540-A	Tx: 1310nm Rx: 1550nm	-3 ~ +2	-23	-1
SFP-GLS-W5340-A	Tx: 1550nm Rx: 1310nm	-3 ~ +2	-23	-1
SFP-GLS-CxxW50-A	Tx: 1xx0nm (1470~1610nm)	0 ~ +5	-24	-1
SFP-GLS-CxxW80-A	Tx: 1xx0nm (1470~1610nm)	0 ~ +5	-30	-8
SFP-FC-M-A	1310nm	-20 ~ -14	-31	-8
SFP-FC-S30-A	1310nm	-15 ~ -8	-34	0
SFP-FCD-S30-A	1310nm	-15 ~ -8	-34	0
SFP-FC-S60-A	1310nm	-5 ~ 0	-35	0
SFP-FC-S100-A	1550nm	-5 ~ 0	-35	0
SFP-FC-W3520-A	Tx: 1310nm Rx: 1550nm	-14 ~ -8	-32	0
SFP-FC-W5320-A	Tx: 1550nm Rx: 1310nm	-14 ~ -8	-32	0
SFP-GLM-A-A	850nm	-9.5 ~ -4	-18	-1
SFP-GLMD-A-A	850nm	-9.5 ~ -4	-18	0
SFP-GLS-10A-A	1310nm	-9.5 ~ -3	-20	-3
SFP-FI-M-A	1310nm	-20 ~ -14	-31	-8
SFP-FI-S30-A	1310nm	-15 ~ -8	-34	0

*Tx Power, Rx Sensitivity, Rx Power -dBm

Applications:

Model	Product	SFP Ports
KGC-300	GbE MC	GbE
KGC-311	MC	GbE, FE
KGC-310M	GbE MC	GbE
KG-500F	GbE NIC	GbE
KGS-510F	GbE Switch	GbE
KGS-612F	GbE Switch	GbE, FE (DDM)
KGD-400	GbE MC	GbE (Industrial)
KGD-600	GbE Switch	GbE (Industrial)

MC: media Converter
NIC: Network interface card

Plug in SFP Port

*GbE: Gigabit Ethernet
*FE: Fast Ethernet
*DDM: Digital Diagnostics Monitoring function

TOOLKITS

➢ Professional Network Installer's Tool Kit

P/N: NB-TLKT-N01

• 6pcs Professional Screwdriver
(-)3.0x75mm
(+)PH0x75mm
(-)5.0x100mm
(+)PH1x100mm
(-)6.0x150mm
(+)PH2x150mm
• 8pcs Folding Hex Key
• Flashlight
• Tape Measure
• Utility Knife
• Impact and punch down tool with 1 spare blade
• Desoldering Pump
• Soldering Iron
• Digital Multimeter
• Utility Component Storage Box
• Cable Tester
• Universal Stripping Tool
• Solder Reel
• Multipurpose Precise Cutter & Stripper
• 5" Long Nose Pliers ; 6" Side cutter ; 6" long nose plier ;6" combination pliers ; 6" Adjustable wrench
• 6 pcs precision screwdriver
• 4 1/2" Diagonal Cutting Pliers
• Cable Cutter
• Multi-Modular Plug Crimps, Strips, and Cuts Tool
• Ratchet Type - Modular Plug Crimping Tool
• Heavy-Duty ABS Carry Tool Case

➢ Network Maintenance Tool Kit

P/N: NB-TLKT-N02

• 6pcs Professional Screwdriver
(-)3.0x75mm
(+)PH0x75mm
(-)5.0x100mm
(+)PH1x100mm
(-)6.0x150mm
(+)PH2x150mm
• 4 1/2" Side Cutter
• 5" Long Nose Pliers
• Multipurpose Precise Cutter & Stripper
• Utility Knife
• 7pcs Folding Hex Key
• Multi-Modular Plug Crimps, Strips, and Cuts Tool
• Universal Stripping Tool
• Cable Tester
• Punch Down Tool with 66 &110/88 Blades with 1 spare blade
• Durable Zippered Storage Case

➢ Network Tool Kit

P/N: NB-TLKT-N03

• Multi-Modular Plug Crimps
• Universal Stripping Tool
• Impact and punch down tool with 1 spare blade
• 4 1/2" Side Cutter
• 5" Long Nose Pliers
• 4pcs Screwdrivers:
(-) 5 x 75mm ; (+) PH1 x 75mm
(-) 6 x 100 mm ; (+) PH2 x 100 mm
• LAN Cable Tester
• General Purpose Tool Pouch

➢ Cold Cure Fiber Optic Termination Kit (For SC/ST/FC/LC Connectors)

P/N: NB-TLKT-F01

- Fiber Optic Crimping Tool
- Precision Stripper
- Carbide Scribe
- SC & FC Polish Disc
- ST Polish Disc
- LC Polish Disc
- Cleanser
- Glass Working Pad
- Rubber Working Pad
- 4 1/2" Side Cutter
- 5 PCS Cleaning Swabs
- Goggles
- Fiber Optic Wipes(5 wet and 5 dry)
- 2 PCS 6um Brown Diamond Polish Film
- 2 PCS 1um Purple Diamond Polish Film
- 2 PCS 0.05um White Diamond Polish Film
- 150mm Multi-Purpose Electronic Scissors
- 2 PCS Epoxy Application Syringes
- Two Part Epoxy
- PU Carrying Case

➢ Fiber Optic Epoxy & Polish Termination Kit (For SC/ST/FC/LC Connectors)

P/N: NB-TLKT-F02 Contains all of the tools and consumable material necessary for epoxy and polish connector terminations

- Fiber optic kevlar cutter
- Jacket Stripper
- Mille or Clauss Stripper
- Grey Buffer Tube Stripper
- Universal Crimping tool
- Fiber Cable Stripper
- Round Cable Slitter
- Round Cable Cutter
- 24 Port Connnector Hot Oven
- Thermometer
- Rubber Polish Pad
- Utility knife
- 3.5M Tape Measure
- Precision tweezer
- Carbide fiber sceibe
- Black Marker
- 200X Universal Microscope
- Connector Cleaner
- Kim Wipes
- 4 oz.Bottle of Alcohol
- (75)2.5mm Foam Swabs
- Glass Polish Plate
- 2.5mm Universal Polish Puck
- 1.25mm Polish Puck
- (5)Diamond Polish Film 15um
- (5)Diamond Polish Film 9um
- (5)Diamond Polish Film 3um
- (5)Diamond Polish Film 1um
- (5)Diamond Polish Film 0.02um
- (6)Epoxy Application Syringe 3ml
- (5)EPO-TEK EPOXY
- Carrying Case(430×310×135mm)

➢ Fiber Fusion Splicing Tool Kit

P/N: NB-TLKT-F03 This professional tool kit is ideal for optical fiber fusion splicing. It includes all the most frequently need tools and supplies required for cable sheath removal and fusion splicing

- Kevlar Shears
- Clauss Fiber Stripper
- Fiber Cable Stripper
- Round Cable Slitter
- Utility knife
- Longitudinal Buffer Tube Slitter
- Optical Fiber Jacket Stripper
- Wire Rope Cutter
- Longitudinal Cable Shenth Slitter
- Carbide fiber sceibe
- 1/4" Driver Socket Set
- 7" Lineman's plier (178mm)
- 6" Flat nose plier (135mm)
- 6" Bent nose plier (130mm)
- 6Pcs Electronic Screwdriver Set
- Mini-Hacksaw
- 8Pcs Folding type hex key set(inch)
- Pro-soft Duplex color S/D(-)6×100mm
- Pro-soft Duplex color S/D(+)#2×100mm
- 8" Adjustable wrench
- 4 oz.Bottle of Alcohol
- IPA cleaner towels
- Blow Brush
- 3.5M Tape Measure
- Precision tweezer
- Black Marker
- Carrying Tool Case(430×310×135mm)