



KCD-302



Industrial Tri-segment Media Converter

Panel Mounting Bracket
KCD-3PB



The industrial KCD-302 converter series supports three switching-base segment communications with one 10/100 copper port and two 100M fiber ports. It can forward data traffic from copper to more than one fiber cables or between two fiber cables. This makes fiber cable deployment easier. It also can be used as a fiber cable extender to extend the cable length or convert data from multimode fiber to single mode fiber.

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:

- Provides 3 switching-base network segments - 1 x TP copper, 2 x Fiber
- Supports full wire speed forwarding between any two of three segments
- Support auto-negotiation 10/100Mbps or forced mode on TP copper port
- Auto MDI/MDI-X crossover function on the TP copper port
- Supports IEEE 802.3x flow control for full-duplex operation
- Supports Back-pressure flow control for half-duplex operation
- Low power consumption
- Two power interface types: screw terminal block and DC Jack

Specifications:

Forwarding	10BASE-T to 100BASE-FX, 100BASE-TX to 100BASE-FX 100BASE-FX to 100BASE-FX 100BASE-FX multimode to 100BASE-FX single mode
Forwarding Method	Store-and-forward, Full wire speed switching
Packet Size Support	1536 bytes max.
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 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



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 68-2-6	5-30Hz, 0.5g Operating

Ordering Information:

Model KCD-302-xxx	FX Ports	Ref. Distance	Operating Temperature
-2T	FX1 ST MMF FX2 ST MMF	2km 2km	-20 ~ 70°C
-2C	FX1 SC MMF FX2 SC MMF	2km 2km	-20 ~ 70°C
-2C1	FX1 SC MMF FX2 SC MMF	2km 2km	-20 ~ 70°C
-2SL2	FX1 SC SMF FX2 SC SMF	20km 20km	-20 ~ 70°C
-2SL3	FX1 SC SMF FX2 SC SMF	30km 30km	-20 ~ 70°C
-2SL4	FX1 SC SMF FX2 SC SMF	40km 40km	-20 ~ 70°C
-2SL6	FX1 SC SMF FX2 SC SMF	60km 60km	-20 ~ 70°C
-C1SL2	FX1 SC MMF FX2 SC SMF	2km 20km	-20 ~ 70°C
-2W3515	Bi-Di SC SMF	15-20km	-20 ~ 70°C
-2W5315	Bi-Di SC SMF	15-20km	-20 ~ 70°C

KCD-3PB	Panel mounting bracket for KCD-302
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FCC Part 15, Class B
CISPR 22 Class B

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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. @+30V (DC IN)

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% ~ 90% non-condensing

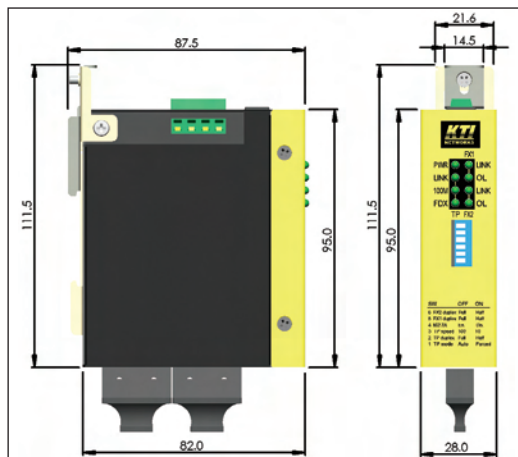
Approval

FCC Class B, CE/EMC Class B, EN60950 safety

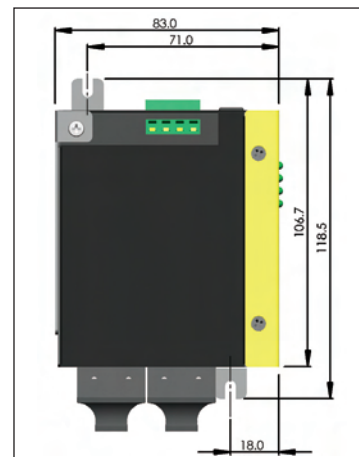
Fiber Optical Specifications:

Model	FX & Cable	Wavelength	Tx Power*	Rx Sens.	Rx Max.
-2T	FX1: ST MMF	1310nm	-20 ~ -14dBm	-32dBm	-8dBm
	FX2: ST MMF	1310nm	-20 ~ -14dBm	-32dBm	-8dBm
-2C	FX1: SC MMF	1310nm	-20 ~ -14dBm	-31dBm	0dBm
	FX2: SC MMF	1310nm	-20 ~ -14dBm	-31dBm	0dBm
-2C1	FX1: SC MMF	1310nm	-20 ~ -14dBm	-31dBm	0dBm
	FX2: SC MMF	1310nm	-20 ~ -14dBm	-31dBm	0dBm
-2SL2	FX1: SC SMF	1310nm	-15 ~ -8dBm	-30dBm	-7dBm
	FX2: SC SMF	1310nm	-15 ~ -8dBm	-30dBm	-7dBm
-2SL3	FX1: SC SMF	1310nm	-15 ~ -8dBm	-34dBm	0dBm
	FX2: SC SMF	1310nm	-15 ~ -8dBm	-34dBm	0dBm
-2SL4	FX1: SC SMF	1310nm	-5 ~ 0dBm	-34dBm	0dBm
	FX2: SC SMF	1310nm	-5 ~ 0dBm	-34dBm	0dBm
-2SL6	FX1: SC SMF	1310nm	-5 ~ 0dBm	-35dBm	0dBm
	FX2: SC SMF	1310nm	-5 ~ 0dBm	-35dBm	0dBm
-C1SL2	FX1: SC MMF	1310nm	-20 ~ -14dBm	-31dBm	0dBm
	FX2: SC SMF	1310nm	-15 ~ -8dBm	-30dBm	-7dBm
-2W3515	Bi-Di SC SMF	TX 1310nm RX 1550nm	-14 ~ -8dBm	-31dBm	0dBm
-2W5315	Bi-Di SC SMF	TX 1550nm RX 1310nm	-14 ~ -8 Bm	-31dBm	0dBm

*Data for 62.5/125µm MMF, 9/125µm SMF



DIN-Rail Dimension



Panel Dimension