



# KSD-103-A, KSD-103-B



## Industrial 3-Port L2 Fast Ethernet Media Converter Switches



Panel Mounting Bracket  
PMB-400



The industrial rated KSD-103 Fast Ethernet switch series supports three switching-base segment communications and benefit the following applications and make fiber deployment easier:

- Copper to fiber bridging converter
- Multimode fiber to single mode fiber bridging converter
- Fiber cable extender
- Cascaded fiber networking

### Key Features:

- Provide 3 switching-base network segments
- Auto MDI/MDI-X crossover function on the TP copper port
- Support IEEE 802.3x flow control for full-duplex operation
- Support Back-pressure flow control for half-duplex operation
- 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

### Specifications:

Forwarding Method	Store-and-forward, Full wire speed switching
Packet Size	Support 1536 bytes max.
Packet Types	Transparent conversion with no modification to: <ul style="list-style-type: none"> <li>- Standard IEEE 802.3 Ethernet packet frames</li> <li>- IEEE 802.1Q tagged packet frames</li> <li>- RSTP packet frames</li> </ul>
TP Port	Shielded RJ-45 jack Auto MDI/MDI-X crossover function, auto-negotiation function Supports Cat. 5 UTP cable up to 100m
Fiber (FX) Port	Multimode ST, SC, Single mode SC, Bi-directional SC MMF 50/125µm, 62.5/125µm fiber cable, SMF 9/125µm cable 100Mbps Full-duplex, Far End Fault Indication support
Model Definition	KSD-103-A: 2 TP ports, 1 FX port, KSD-103-B: 1 TP port, 2 FX ports
Flow Control	IEEE 802.3x for Full-duplex, Back pressure for Half-duplex
LEDs	Power status, Port link/activity
DC Power Input	Screwed terminal block: 2 pairs of +/- contacts DC jack: -D 6.3mm/+D 2.0mm Voltage range: +7 ~ +50VDC, 4W max. @50V DC IN
Relay Output	Alarm events: power failure, specific fiber port link fault Interface: 2 terminal contacts (30VDC/1A max. or 120VAC/0.5A max.)
Dimension	28 x 82 x 95 mm, Weight: 250g



### Ordering Informations:

Model	KSD-103-A FX KSD-103-B FX1 FX2	Ref. Distance	Operating Temperature
-T	ST MMF	2km	-30 ~ +70°C
-C	SC MMF	2km	-30 ~ +70°C
-SL2	SC SMF	20km	-30 ~ +70°C
-SL3	SC SMF	30km	-30 ~ +70°C
-SL4	SC SMF	40km	-30 ~ +70°C
-SL6	SC SMF	60km	-30 ~ +70°C
-W3520	Bi-Di SC SMF	20km	-30 ~ +70°C
-W5320	Bi-Di SC SMF	20km	-30 ~ +70°C
-CSL2	FX1: SC MMF FX2: SC SMF	2km 20km	-30 ~ +70°C

### EMI EMS Safety Environmental Tests:

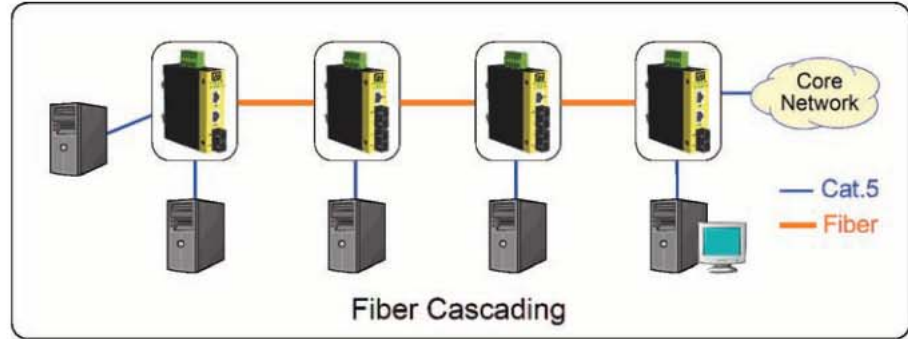
Test	Standard	Specifications
FCC/EMI	FCC Rule Part 15	Class B
CE/EMC/EMI	EN55022, CISPR 22	Class B
CE/EMC/Harmonic	EN 61000-3-2	< 75 W
CE/EMC/VFF	EN 61000-3-3	Clause 5
CE/EMC/EMS	EN 55024	
ESD Test	IEC 61000-4-2	Contact: +/-4KV Air: +/-8KV
RS Test	IEC 61000-4-3	Strength: 10V/m
EFT/BURST	IEC 61000-4-4	Level 3 Power: +/-2KV Signal: +/-1KV
Surge Immunity	IEC 61000-4-5	Power: 2KV Signal: 1KV
CS Test	IEC 61000-4-6	Level 3
Magnetic Field Imm.	IEC 61000-4-8	50Hz 100A/m
Voltage Dips Imm.	IEC 61000-4-11	Interruption: C Dips: B
Safety	EN 60950, IEC 60950	
Dielectric Voltage	IEEE 802.3	TR, 1500VAC/90sec
Insulation Resistance	IEEE 802.3	TR, 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	+80°C 90% RH 96hrs
Storage Test	IEC 68-2-48	-20°C 96hrs +85°C 40% RH 96hrs
Vibration Test	IEC 68-2-34	5~30Hz, 0.5g Operating

Housing	Enclosed metal with no fan
Mounting Support	DIN-Rail mounting, Panel mounting
Temperature	Operating Temperature: -30°C ~ +70°C Storage Temperature: -40°C ~ +85°C Relative Humidity: 5% ~ 95% non-condensing
Approval	FCC Class B, CE mark Class B, EN60950-1 safety

### Fiber Optical Specifications:

Model	FX & Cable	Wavelength	Tx Power*	Rx Sens.	Rx Max.
<b>KSD-103-A-xxx &amp; KSD-103-B-xxx</b>					
-T	ST MMF	1310nm	-20 ~ -14dBm	-32dBm	-8dBm
-C	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
-W3520	Bi-Di SC SMF	TX 1310nm RX 1550nm	-14 ~ -8dBm	-31dBm	0dBm
-W5320	Bi-Di SC SMF	TX 1550nm RX 1310nm	-14 ~ -8dBm	-31dBm	0dBm
<b>KSD-103-B-xxx</b>					
-CSL2	FX1: SC MMF FX2: SC SMF	1310nm 1310nm	-20 ~ -14dBm -15 ~ -8dBm	-31dBm -30dBm	0dBm -7dBm

\*Data for 62.5/125µm MMF, 9/125µm SMF



FCC Part 15, Class B  
CISPR 22 Class B

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