

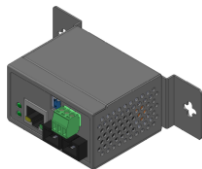
CS6011WDM-15A, CS6011WDM-15B

Rugged Industrial Media Converter, Wide range power input

18-36VAC/12-60VDC/or DC Jack, -40°C to +75°C

10/100M TX to 100M WDM SM 15km, smallest size on the planet.

Designed to fit into outdoor CAM enclosure.



Panel mount



Din Rail mount



CS6011WDM-15A
CS6011WDM-15B



Designed to fit into space-limited CAM enclosure, can also be used as Din-Rail mounted or panel mounted unit.

Models Available:

CS6011SC --- MM SC
CS6011ST --- MM ST
CS6011SC-30 ---SC SM fiber 30km
CS6011SFP --- SFP
CS6011WDM-15A (1310)
CS6011WDM-15B (1550)

Key Features:

True Mini, rugged design enclosure 59x36x49mm (LxWxD)
Supports 18V-36VAC/12V-60VDC/ or DC Jack socket
Supports Link Fault Pass through (LFP) function
Supports switch model and converter mode.
Surge protection diodes on power input.
ESD protection diodes on RJ-45 port
Provides Far End Fault function on FX port.
Provides increased Noise Immunity
Extended environmental specification -40°C to 75°C

Introduction

This true mini, rugged Industrial media converter is designed for where critical but space-limited outdoor CAM enclosure. It can be powered by wide range of VAC , VDC or external DC power adapter . With its multi-purpose design, it can also be used for Din-Rail or wall-mounted. It is an ideal unit for IP surveillance, traffic monitoring and Security application in critical environment. It can tolerate -40°C to 75°C in harsh environment to perform a reliable network.

Specification

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3u 100Base-FX Fast Ethernet IEEE802.3x Flow Control and Back Pressure
Data Processing	Store and Forward
Flow Control:	IEEE 802.3x Flow Control and Back Pressure
Architecture	Full wire speed conversion, Transparent conversion to 802.1Q VLAN tagged packets.
MAC address Table Size	1K
Packet Buffer Size	1Mbits
Network Connector :	RJ-45 10/100M BaseT(X) Auto negotiation, Auto MDI/MDI-X function, Full/Half duplex Fiber ports: 100BaseFX WDM SM 15km, SC, ST, SC SM 30km, SFP
LED indicators	Power, Speed, Link/Act Speed (TP port) Link/Act(TP and Fiber port)
DIP Switch	Link Fault Pass Through (LFP) Converter Mode, Switch Mode
Power protection	Surge protection diodes on power input
Connector protection	ESD protection diodes on TX port
Reserve polarity protection	Present
Overload current protection	Present
Power Input	18V-36VAC, 9V-60VDC, DC Jack terminal cable supported (DC Barrel Connector)
Conformance to UL Standards	Use Isolated power supply to conform with UL 508 standard
Power Consumption	Full Load: 1.92Watts at 48VDC
Removable Terminal Block	3 pin contact terminal block for power input Wire range: 0.34mm ² to 2.5mm ² Solid wire (AWG):12-24/14-22 Stranded wire(AWG): 12-24/14-22 Torque:5lb-In/0.5Nm/0.56Nm Wire Strip length: 7-8mm
Operating Temperature	-40°C~75°C
Operating Humidity	5% to 95% (Non-condensing)
Storage Temperature	-40°C~85°C
Housing Design	IP40 Design, high graded Aluminum

Case Dimension (W X D X H)	59x36x49mm (LxWxD)
Installation	DIN Rail mounted, Panel Mounted,
Safety	EN60950-1
EMC/EMS	CE, FCC, ROHS, VCCI

Fiber Optic Specification: WDM SM 15km 1310nm.

PART NUMBER	TX	RX	VOLTAGE	TEMPERATURE
LSB2-A3S-PI-N3	1310 nm	1550 nm	3.3 V	-40 °C to 85 °C

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNITS	NOTE
Storage Temperature	T_S	-40	85	°C	
Supply Voltage	V_{CC}	-0.5	4.0	V	
Input Voltage	V_{IN}	-0.5	V_{CC}	V	
Output Current	I_o	---	50	mA	
Operating Current	I_{OP}	---	400	mA	
Soldering Temperature	T_{SOLD}	---	260	°C	10 seconds on leads

Transmitter Electro-optical Characteristics

($V_{CC} = 3.1 \text{ V to } 3.5 \text{ V}$, LSB2-A3S-PC-N3: $T_A = 0^\circ \text{C to } 70^\circ \text{C}$, LSB2-A3S-PI-N3: $T_A = -40^\circ \text{C to } 85^\circ \text{C}$)

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNITS	NOTE
Data Rate	B	50	155	200	Mb/s	
Output Optical Power 9/125 μm fiber	P_{out}	-14	---	-8	dBm	Average
Extinction Ratio	ER	9	---	---	dB	
Center Wavelength	λ_c	1260	1310	1360	nm	
Spectral Width (RMS)	$\Delta\lambda$	---	---	4	nm	
Rise/Fall Time (10–90%)	$T_{r,f}$	---	1	2	ns	
Output Eye	Compliant with Telcordia GR-253-CORE Issue 3 and ITU-T recommendation G-957					
Data Input Current-Low	I_{IL}	-350	---	---	μA	
Data Input Current-High	I_{IH}	---	---	350	μA	
Transmitter Data Input Voltage-High	$V_{IH} - V_{CC}$	-1.1	---	-0.74	V	Note 1
Transmitter Data Input Voltage-Low	$V_{IL} - V_{CC}$	-2.0	---	-1.58	V	Note 1
Transmitter Data Input Differential Voltage	V_{DIFF}	0.3	---	1.6	V	Note 1

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNITS	NOTE
Data Rate	B	50	155	200	Mb/s	
Optical Input Power-maximum	P_{IN}	0	---	---	dBm	Note 1
Optical Input Power-minimum (Sensitivity)	P_{IN}	---	---	-31	dBm	Note 1
Operating Center Wavelength	λ_C	1480	---	1600	nm	
Return Loss	RL	---	---	-14	dB	$\lambda=1480\sim 1600\text{nm}$
Signal Detect-Asserted	P_A	---	---	-31	dBm	Average
Signal Detect-Deasserted	P_D	-45	---	---	dBm	Average
Signal Detect-Hysteresis	$P_A - P_D$	1.0	---	---	dB	
Signal Detect Output voltage-High	$V_{OH} - V_{CC}$	-1.1	---	-0.74	V	Note 2
Signal Detect Output voltage-Low	$V_{OL} - V_{CC}$	-2.0	---	-1.58	V	Note 2
Crosstalk	CRT	---	---	-45	dB	
Data Output Rise, Fall Time (10–90%)	$T_{r,f}$	---	1	2	ns	
Data Output Voltage-High	$V_{OH} - V_{CC}$	-1.1	---	-0.74	V	Note 2
Data Output Voltage-Low	$V_{OL} - V_{CC}$	-2.0	---	-1.58	V	Note 2

Fiber Optic Specification: WDM SM 15km 1550nm.

PART NUMBER	TX	RX	VOLTAGE	TEMPERATURE
LSB2-A3S-PI-N5	1550 nm	1310 nm	3.3 V	-40 °C to 85 °C

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNITS	NOTE
Storage Temperature	T_S	-40	85	°C	
Supply Voltage	V_{CC}	-0.5	4.0	V	
Input Voltage	V_{IN}	-0.5	V_{CC}	V	
Output Current	I_o	---	50	mA	
Operating Current	I_{OP}	---	400	mA	
Soldering Temperature	T_{SOLD}	---	260	°C	10 seconds on leads

Transmitter Electro-optical Characteristics

($V_{CC} = 3.1\text{ V to }3.5\text{ V}$, LSB2-A3S-PC-N5: $T_A = 0^\circ\text{C to }70^\circ\text{C}$, LSB2-A3S-PI-N5: $T_A = -40^\circ\text{C to }85^\circ\text{C}$)

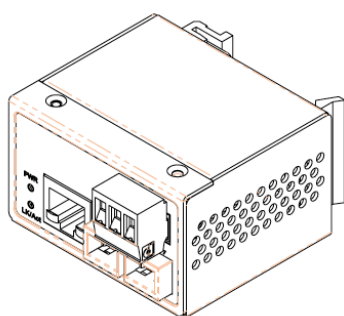
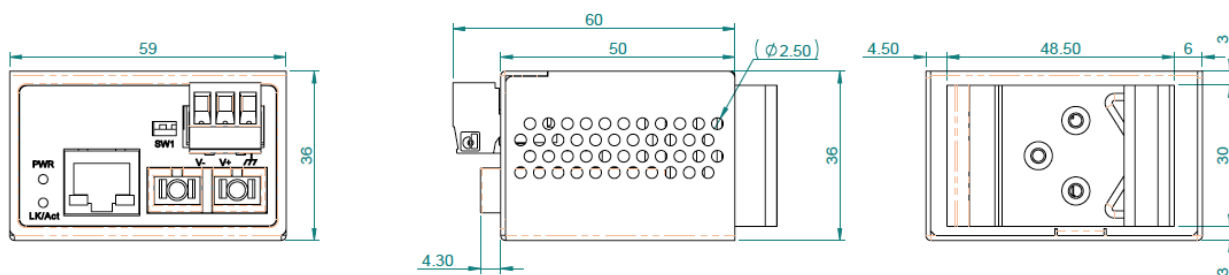
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Output Optical Power 9/125 μm fiber	P_{out}	-14	---	-8	dBm	Average
Extinction Ratio	ER	9	---	---	dB	
Center Wavelength	λ_C	1480	1550	1580	nm	
Spectral Width (RMS)	$\Delta\lambda$	---	---	3	nm	
Rise/Fall Time, 10%~90%	$T_{r,f}$	---	1	2	ns	
Output Eye	Compliant with Telcordia GR-253-CORE Issue 3 and ITU-T recommendation G-957					
Data Input Current - Low	I_{IL}	-350	---	---	μA	
Data Input Current - High	I_{IH}	---	---	350	μA	
Transmitter Data Input Voltage-High	$V_{IH} - V_{CC}$	-1.1	---	-0.74	V	Note 1
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Transmitter Data Input Differential Voltage	V_{DIFF}	0.3	---	1.6	V	Note 1

Receiver Electro-optical Characteristics

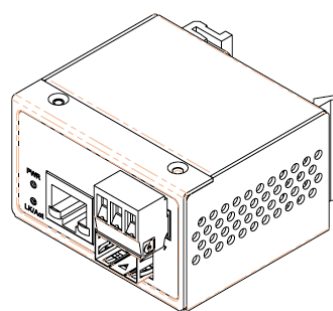
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PARAMETER	SYMBOL	MIN	TYP.	MAX	UNITS	NOTE
Data Rate	B	50	155	200	Mb/s	
Optical Input Power-maximum	P_{IN}	0	---	---	dBm	Note 1
Optical Input Power-minimum (Sensitivity)	P_{IN}	---	---	-31	dBm	Note 1
Operating Center Wavelength	λ_C	1260	---	1360	nm	
Return Loss	RL	---	---	-14	dB	$\lambda=1260\sim1360\text{nm}$
Signal Detect-Asserted	P_A	---	---	-31	dBm	Average
Signal Detect-Deasserted	P_D	-45	---	---	dBm	Average
Signal Detect-Hysteresis	$P_A - P_D$	1.0	---	---	dB	
Signal Detect Output voltage - High	$V_{OH} - V_{CC}$	-1.1	---	-0.74	V	Note 2
Signal Detect Output voltage - Low	$V_{OL} - V_{CC}$	-2.0	---	-1.58	V	Note 2
Crosstalk	CRT	---	---	-45	dB	
Data Output Rise, Fall Time	$T_{r,f}$	---	1	2	ns	
Data Output Voltage-High	$V_{OH} - V_{CC}$	-1.1	---	-0.74	V	Note 2
Data Output Voltage-Low	$V_{OL} - V_{CC}$	-2.0	---	-1.58	V	Note 2

Housing Dimension:



CS6011SC



CS6011SFP