

## **SAPPHIRE: SMCL-1G1S**

Industrial Media Converter - 1\*10/100/1000Tx + 1\*100/1000 SFP Slot





### **OVERVIEW**

### Flexible, Reliable and Industrial-grade Network Distance Extension Solution

AADONA SMCL-1G1S is an Industrial Gigabit Media Converter providing non-blocking wire-speed performance and great flexibility for Gigabit Ethernet extension in harsh industrial environment. It is equipped with one 10/100/1000BASE-T RJ45 copper and one 100/1000BASE-X SFP fiber optic interface delivered in an IP30 rugged strong case with redundant power system. The SMCL-1G1S is well suited for applications in deploying surveillance system, and securing control and wireless service in climatically demanding environments with wide temperature range from -40 to 75 degrees C. With 10K jumbo frame feature support, the SMCL-1G1S can handle extremely large amounts of data transmission in a secure topology linking to a backbone or high-power servers.

### Fiber-Optic Link Capability Enables Extension of Network Deployment

The SFP slot of the SMCL-1G1S is compatible with 100BASE-FX and 1000BASE-SX / LX / WDM through SFP (Small Form Factor Pluggable) fiber-optic transceivers. The fiber optic uplink capability guarantees the throughput to all nodes hooked into the network and the Gigabit Ethernet distance can be extended from 550 meters (multi-mode fiber cable) to 10/20/30/40/50/60/70/120 kilometers (single-mode fiber cable), and also the Fast Ethernet distance can be extended from 2km (multi-mode fiber cable) to 20/40/60 kilometers (single-mode fiber cable). It is the ideal product for applications within the factory data centers and distributions.

#### **Environmentally Hardened Design**

The SMCL-1G1S is equipped with the slim-type IP30 metal case for easy deployment in heavy Industrial demanding environments. With IP30 industrial case protection, the SMCL-1G1S provides a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curb-side traffic control cabinets. Being able to operate under the temperature range from -40 to 75 degrees C, the SMCL-1G1S can be placed in almost any difficult environment. The SMCL-1G1S also allows either DIN rail or wall mounting for efficient use of cabinet space.

### **Convenient and Reliable Power System**

To enhance the operation reliability and flexibility, the SMCL-1G1S is equipped with two DC power input connectors for redundant power supply installation.



### **FEATURES**

### **Key Features**

- 1-port 10/100/1000Tx Gigabit Ethernet
- 1-port 100/1000 SFP Slot
- Redundant Power Input Design, 12-48VDC
- IP30 Rugged Metal Case Design
- DIN-Rail Mounting, Wall Mounting
- Operating Temperature Range STD:  $-10^{\circ}$ C ~  $70^{\circ}$ C, EOT:  $-40^{\circ}$ C ~  $80^{\circ}$ C

### **Applications**

Hardened Environment Application

AADONA SMCL-1G1S Industrial Gigabit Media Converter offers full port Gigabit speed. It provides very high reliability and security features to make sure continuous operation in harsh environments such as transportations, factories, outdoors and places where extremely low or high temperatures can be experienced. Moreover, the SMCL-1G1S is also compatible with 100Mbps and 1000Mbps SFP transceivers to provide a strong, stable and long-distance connection and flexible industrial networking deployment.



# **SPECIFICATIONS**

| Model                             | SMCL-1G1S   |
|-----------------------------------|---|
| Downlink Port                     | 1*10/100/1000Paga TV P 1//5 part (Pata)   |
| Downlink Port                     | 1*10/100/1000Base-TX RJ45 port (Data)   |
| Uplink Port                       | 1*1000M Fiber port  |
| Power Input                       | 3 Group of independent power input<br>DC9-57V   |
| Network protocol                  | IEEE 802.3x IEEE 802.3 、IEEE 802.3u 、IEEE 802.3ab 、 IEEE 802.3ad IEEE 802.3q 、IEEE 802.3q/p IEEE 802.1w 、IEEE 802.1d 、IEEE 802.1S   |
| Port Specification                | 1 port 10/100/1000BaseT ( X ) auto detection, AUTO-MDI/MDI-X  |
| Transmission Mode                 | Store and Forward (full wirespeed)  |
| Bandwidth                         | 1Gbps   |
| Packet Forwarding                 | 1.1Mpps   |
| MAC                               | 1K  |
| Transmission Distance             | 10BASE-T: Cat3,4,5 UTP(≤250 meter) 100BASE-TX: Cat5 or higher lever UTP(≤100 meter) 1000BASE-TX: Cat5e or higher lever UTP(≤100 meter) 100BASE-SX:62.5µm/50µm MMF(2m~550m) 100BASE-LX:62.5µm/50µm MM(2m~550m) or 10µm SMF(2m-120km) |
| Watt                              | Standby power consumption≤ 0.6W; Network Full-load power consumption≤1W;  |
| LED Indicator                     | 2:(FIBER LED) Port1:(Green+Orange=Link LED) PW:(Power/system LED) EX:(Extension light) V1\V2\V3:( power LED)  |
| Operating<br>Temperature/Humidity | -40 $\sim$ +75°C ; 10% $\sim$ 90% RH No coagulation   |
| Storage<br>Temperature/Humidity   | -40 $\sim$ +85°C ; 5% $\sim$ 95% RH No coagulation  |
| Lightning Protection<br>Level     | 6KV 8/20us; 8KV ESD<br>IP40   |
| Product<br>Size (L*W*H)           | 180*82*30mm   |
| N.W(kg)                           | 0.25kg  |
| Installation                      | DIN guide rail type(additional wall hangers)  |
| Warranty                          | 3 Year Warranty   |

<sup>\*</sup>All specifications are subject to change without notice.



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