

## **RP-IPG816-2F**

### **16-P Gigabit PoE + 2-SFP(1G) slot Industrial PoE Switch**

RP-IPG816-2F is the highly reliable industrial PoE switch with 16-port 10/100/1000-T PoE+ and 2 1000Base-X fiber optic interfaces. It adheres to IEEE 802.3af/at PoE standards, delivering up to 30W per port for powering devices like IP cameras and access points. The switch's DIP switch configuration simplifies setup, enabling functions such as port isolation, QoS, and PoE watchdog.

With a wide power input range of 44-57VDC and redundant power design, RP-IPG816-2F ensures system reliability, even in challenging environments. Its fan-less, IP40-rated cabinet and DIN-rail installation capability make it ideal for industrial use. It can operate seamlessly in temperatures ranging from -40°C to 75°C and offers high-level EMI/EMC protection.

RP-IPG816-2F shines in heavy industrial settings like factories, transportation systems, oil and gas facilities, chemical plants, IP surveillance, and processing automation. It excels in environments that exceed commercial product specifications, making it the top choice for industrial Ethernet networking, thanks to its rugged design and versatile features.



## **Features**

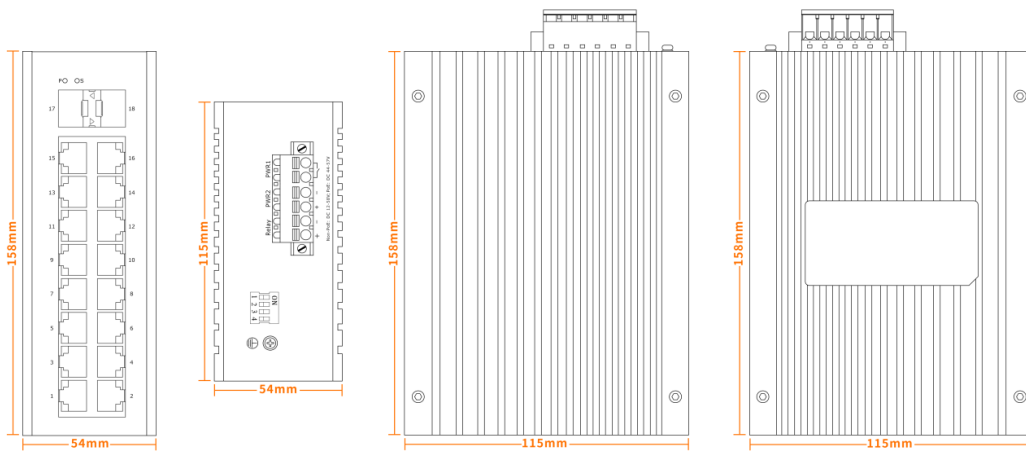
- 16\*10/100/1000Base-T RJ45 PoE ports, 2\*1000Base-X SFP slots
- DC 44-57V input, redundant power supply with polarity reverse/over-voltage protection
- Support one channel output relay alarm (terminal block Pin 5/6)
- Complies with IEEE802.3af PoE and IEEE802.3at PoE+ standard
- Support powerful Dip switch function: Dip 1: Link aggregation; Dip 2: 250m long distance (1-4 ports); Dip 3: QoS(1-2 ports); Dip 4: PoE watchdog
- Support 10K Bytes Jumbo frame
- Support 6KV surge protection and ESD: Air-15kV, Contact-8kV Protection
- IP40 fan-less and Din-rail hardware design
- Operation temperature: -40°C ~ +75°C

## Specifications

|                                    |                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standards</b>                   | <ul style="list-style-type: none"> <li>• IEEE 802.3 10Base-T Ethernet</li> <li>• IEEE 802.3u Fast Ethernet</li> <li>• IEEE 802.3ab Gigabit Ethernet</li> <li>• IEEE 802.3x Full-Duplex Flow Control</li> <li>• IEEE 802.3az Energy Efficient Ethernet</li> <li>• IEEE 802.3af Power-Over-Ethernet</li> <li>• IEEE 802.3at Power Over Ethernet plus PSE</li> </ul> |
| <b>Interface</b>                   | <ul style="list-style-type: none"> <li>• 16 x 10/100/1000Base-T PoE/PoE+</li> <li>• 2 x 1000Base-X SFP</li> </ul>                                                                                                                                                                                                                                                 |
| <b>Dip Switch</b>                  | <ul style="list-style-type: none"> <li>• Link aggregation</li> <li>• 250m long distance mode (1-4 ports)</li> <li>• QoS (1-2 ports)</li> <li>• PoE watchdog</li> </ul>                                                                                                                                                                                            |
| <b>Switching capacity</b>          | <ul style="list-style-type: none"> <li>• 36G</li> </ul>                                                                                                                                                                                                                                                                                                           |
| <b>Packet forwarding rate</b>      | <ul style="list-style-type: none"> <li>• 53.5Mpps</li> </ul>                                                                                                                                                                                                                                                                                                      |
| <b>MAC address table</b>           | <ul style="list-style-type: none"> <li>• 8K</li> </ul>                                                                                                                                                                                                                                                                                                            |
| <b>VLAN</b>                        | <ul style="list-style-type: none"> <li>• 4K</li> </ul>                                                                                                                                                                                                                                                                                                            |
| <b>Buffer</b>                      | <ul style="list-style-type: none"> <li>• 2M</li> </ul>                                                                                                                                                                                                                                                                                                            |
| <b>Forwarding delay</b>            | <ul style="list-style-type: none"> <li>• &lt;5us</li> </ul>                                                                                                                                                                                                                                                                                                       |
| <b>Jumbo Frame</b>                 | <ul style="list-style-type: none"> <li>• Support 10Kbytes</li> </ul>                                                                                                                                                                                                                                                                                              |
| <b>MDX/MIDX</b>                    | <ul style="list-style-type: none"> <li>• Support</li> </ul>                                                                                                                                                                                                                                                                                                       |
| <b>Watchdog</b>                    | <ul style="list-style-type: none"> <li>• Support</li> </ul>                                                                                                                                                                                                                                                                                                       |
| <b>Network Topology</b>            |                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Star topology</b>               | <ul style="list-style-type: none"> <li>• Support</li> </ul>                                                                                                                                                                                                                                                                                                       |
| <b>Bus topology</b>                | <ul style="list-style-type: none"> <li>• Support</li> </ul>                                                                                                                                                                                                                                                                                                       |
| <b>Tree Topology</b>               | <ul style="list-style-type: none"> <li>• Support</li> </ul>                                                                                                                                                                                                                                                                                                       |
| <b>Power parameters</b>            |                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Input voltage</b>               | <ul style="list-style-type: none"> <li>• 44-57VDC, redundant power input</li> </ul>                                                                                                                                                                                                                                                                               |
| <b>Input current</b>               | <ul style="list-style-type: none"> <li>• 5.7A Max</li> </ul>                                                                                                                                                                                                                                                                                                      |
| <b>PoE power budget</b>            | <ul style="list-style-type: none"> <li>• Full loading without PoE ≤10W</li> <li>• PoE power budget ≤240W</li> </ul>                                                                                                                                                                                                                                               |
| <b>Connector</b>                   | <ul style="list-style-type: none"> <li>• Removable 6-pin terminal block, pin 5/6 for relay alarm output</li> </ul>                                                                                                                                                                                                                                                |
| <b>Alarm port</b>                  | <ul style="list-style-type: none"> <li>• One relay output for power failure. Alarm relay current carry ability: 1A@24VDC</li> </ul>                                                                                                                                                                                                                               |
| <b>Reverse polarity protection</b> | <ul style="list-style-type: none"> <li>• Support</li> </ul>                                                                                                                                                                                                                                                                                                       |
| <b>Over-voltage protection</b>     | <ul style="list-style-type: none"> <li>• Support</li> </ul>                                                                                                                                                                                                                                                                                                       |
| <b>Over-current protection</b>     | <ul style="list-style-type: none"> <li>• Support</li> </ul>                                                                                                                                                                                                                                                                                                       |
| <b>Mechanical structure</b>        |                                                                                                                                                                                                                                                                                                                                                                   |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>LED Indicators</b>      | <ul style="list-style-type: none"> <li>• P (Power indicator) Green</li> <li>• S (System status indicator) Red</li> <li>• 1-16 (Copper ports indicators) Green / (PoE status indicators) Yellow</li> <li>• 17-18 (Fiber ports) Green</li> </ul>                                                                                                                                                           |
| <b>Case protection</b>     | <ul style="list-style-type: none"> <li>• IP40</li> </ul>                                                                                                                                                                                                                                                                                                                                                 |
| <b>Installation method</b> | <ul style="list-style-type: none"> <li>• Din-rail</li> </ul>                                                                                                                                                                                                                                                                                                                                             |
| <b>Dimension</b>           | <ul style="list-style-type: none"> <li>• 54*115*158mm (WxHxD)</li> </ul>                                                                                                                                                                                                                                                                                                                                 |
| <b>Environment</b>         | <ul style="list-style-type: none"> <li>• Operating temperature: -40°C~+75°C</li> <li>• Storage temperature -40°C~+85°C</li> <li>• Operating Humidity: 10 to 90% (Non-Condensing)</li> </ul>                                                                                                                                                                                                              |
| <b>EMS</b>                 | <ul style="list-style-type: none"> <li>• Surge protection of power: IEC 61000-4-5 DC:6KV/4KV (8/20us)</li> <li>• Surge protection of Ethernet ports: IEC 61000-4-5 6KV/2KV (10/700us)</li> <li>• RS: IEC 61000-4-3 80 MHz-1 GHz:10 V/m</li> <li>• EFT: IEC 61000-4-4 power interface: 4K ; Ethernet ports: 2K</li> <li>• CS: IEC 61000-4-6 10V</li> <li>• ESD: IEC 61000-4-2 Level 4 (8K/15K)</li> </ul> |
| <b>EMI</b>                 | <ul style="list-style-type: none"> <li>• FCC Part 15B Class A</li> </ul>                                                                                                                                                                                                                                                                                                                                 |
| <b>Shock</b>               | <ul style="list-style-type: none"> <li>• IEC 60068-2-27</li> </ul>                                                                                                                                                                                                                                                                                                                                       |
| <b>Free fall</b>           | <ul style="list-style-type: none"> <li>• IEC 60068-2-32</li> </ul>                                                                                                                                                                                                                                                                                                                                       |
| <b>Vibration</b>           | <ul style="list-style-type: none"> <li>• IEC 60068-2-6</li> </ul>                                                                                                                                                                                                                                                                                                                                        |
| <b>Certification</b>       | <ul style="list-style-type: none"> <li>• CE/FCC/RoHS</li> </ul>                                                                                                                                                                                                                                                                                                                                          |

## Dimension



## Ordering information

**RP-IPG816-2F** 16-P Gigabit PoE + 2-SFP(1G) slot Industrial PoE Switch