801 Series

Substation Protocol Gateways

Product Description

801 series protocol converters can provide both industrial communication device and solution of the whole industrial automation system, which plays more important roles in industrial control and automation, especially in the substation automation.

Protocol conversion supported:

**Standard protocols that 801 support:** UCA2, Ethernet(TCP/IP), DNP, OPC, Modbus RTU & TCP, IEC60870-5 series(IEC101, IEC102, IEC103, IEC104), IEC61850, RS-232, RS485/422, CAN, etc.

**Non-standard protocol:** DC screen, power meter, safety equipments. The different protocols of data can convert with each other in the 801

Product Features

Low latency: 5 to 50ms latency.

Strong data processing ability.

Reliable communication management
## Specifications:

### Hardware:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/100MTCP/IP</td>
<td>2-6 nos</td>
</tr>
<tr>
<td>RS422/232/485</td>
<td>4-16 nos Di/DO 8 nos</td>
</tr>
<tr>
<td>LED lights</td>
<td>8 nos</td>
</tr>
</tbody>
</table>

### Software:

- Maximum channels: 200
- Maximum digital number/channel: 65536
- Maximum analog number/channel: 65536
- Maximum electric degree/channel: 65536
- Maximum output/channel: 65536
- Maximum analog output/channel: 65536
- Data forwarding base: 4
- Minimum data processing latency: 5ms
- Time synchronization precision: <1ms (Hardware synchronization)

### Technical specs:

- 400Mhz Freescale MPC8308 CPU
- 128M DDR2 Memory
- 128M Nand Flash
- 2 Ethernet Ports
- 4 RS-232/485 Isolation Serial Ports
- DIN-Rail Mount
### Others:

**System**
- **CPU**: Freescale MPC8308 PowerPC CPU, 400MHz
- **Memory**: DDR2 128M
- **Flash**: 8M Nor Flash, 128M Nand Flash
- **Operating System**: Linux 2.6.29.6

**LED**
- System: Power x1, RUN x1, LAN: 10/100/1000M x4 (Link x2, Act x2)
- Serial: Tx4, Rx4 x4

**Others**
- RTC, Buzzer, Watchdog Timer, Reset button, Console Port x1

**Serial Communication**
- **Console Port**: Console Port RJ45 connector x1, RS232 115200bps N, 8, 1
- **Serial Port**: 4xRS-232/485 TB Interface connector, software-selectable
  - RS-232 Signals: TxD, RxD, GND
  - RS-485 Signals: 485A(Data+), 485B(Data-)

**Protection**
- Built-in 15KV ESD protection for all signals, 2KV iCoupler
- Digital isolation protection

**Network Communication**
- **LAN**: Auto-sensing 10/100/1000Mbps x 2, RJ45
- Build-in 1.5KV magnetic isolation protection

### Power Requirements
- **Power Input**: Dual Power Input Design
  - PWR1: 9-48VDC or 9-48VAC
  - PWR2: 9-48VDC or 9-48VAC
- **Lost power alarm**: Relay empty node
- **Power Consumption**: 8W @ 12VDC

### Mechanical
- **Dimensions**: 200(L) x 121.01(W) x 54.1(H)
- **Installation**: DIN-Rail Mount

### Environmental
- **Operating Temperature**: -20-60°C
- **Storage Temperature**: -30-80°C

### Regulatory Approvals and Warranty
- **EMC**: GB/T 17626.2-2006 Class 4, GB/T 17626.4-2008 Class 4, GB/T 17626.5-2008 Class 4
- **Warranty**: 5 Years