Product Features

- **Star topology:** Offer more flexible RS-485/RS-422 star bus structure with RS-485 interface input/output adopting independent drive modes. Change the original single bus structure into network structure which can greatly enhance the stability for engineering construction and system.

- **Industrial class photoelectric isolation:** Offer over 3KV of photoelectric isolation to all RS-485 interfaces, and effectively solve the transmission problems caused by outside lightning strike, surge and potential difference.

- **Automatic data direction control:** Solve data direction problem through hardware, judge and control data transmission direction automatically.

- **Short/open circuit protection:** Possess RS-485 port malfunction alarming function, and can cut off malfunctioned port automatically, which can ensure the isolation of malfunctioned RS-485 PORT connected with it in order to ensure the proper operation of devices in other net segments.

Product Description

ATC-1204 is a RS-485 bus split hub specially designed to meet the demand of RS-485 system in complicated electromagnetic field environment. The product supports maximum 115.2KBPS transmission speed. The RS-485 interface has adopted photoelectric isolation technology to ensure safe and credible data communication, and prevent inducing lightning strike and surge to conversion board and devices. The built-in photoelectric isolator and 600W surge protection circuit can offer 3500V isolation voltage, effectively inhibit lightning and ESD and prevent lightning strike and common code interference. It has adopted external switch power supply, safe and credible, quite suitable for outdoor engineering application.

In RS-485 working mode, the adopted identification circuit can detect data direction and switch to control it automatically, easily to solve the time lag of RS-485 during receiving and conversion. The transmission distance of RS-485 interface has exceeded 1200 meters with stable performance. It is a data interface conversion product with superexcellent performance and good price and can be widely applied to freeway charge system, road monitoring system and electric power collection system. Reasonable use of ATC-1204 RS-485 HUB can help you design a unique and highly credible RS-485 system.
Pin Assignment

### RS-232C RJ45 definition (Uplink port)

<table>
<thead>
<tr>
<th>RJ-45 connector</th>
<th>definition</th>
<th>Signal direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>TXD</td>
<td>OUT</td>
</tr>
<tr>
<td>3</td>
<td>RXD</td>
<td>IN</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
<td>-</td>
</tr>
</tbody>
</table>

### RS-485 RJ45 definition (port 1-port 5)

<table>
<thead>
<tr>
<th>RJ-45 connector</th>
<th>RS-485</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2</td>
<td>485+</td>
</tr>
<tr>
<td>3, 4</td>
<td>485-</td>
</tr>
<tr>
<td>7, 8(port 5 only)</td>
<td>Protection grounding</td>
</tr>
</tbody>
</table>

Order Information

ATC-1204 4-port RS-485 hub (HUB) RS-232C/485

Specifications

#### Serial Interface

<table>
<thead>
<tr>
<th>Interface Type</th>
<th>EIA/TIA RS-232C, RS-485 standard (RJ45)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Rate</td>
<td>300 ~ 115.2Kbps</td>
</tr>
<tr>
<td>Transmission Media</td>
<td>0-5 km</td>
</tr>
<tr>
<td>Working Mode</td>
<td>Asynchronous half duplex</td>
</tr>
<tr>
<td>Connector</td>
<td>RS-232C</td>
</tr>
<tr>
<td></td>
<td>RS-485</td>
</tr>
<tr>
<td>Serial Line Protection</td>
<td>RS-485 interface 1000W lightning strike and surge protection on each line</td>
</tr>
<tr>
<td>Isolation</td>
<td>Isolation voltage 3500VRMS 500VDC sequence</td>
</tr>
</tbody>
</table>

#### LED Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD</td>
<td>Indicates data transmitting</td>
</tr>
<tr>
<td>RD</td>
<td>Indicates data receiving</td>
</tr>
<tr>
<td>PWR</td>
<td>Power indicator</td>
</tr>
<tr>
<td>E1-E4</td>
<td>Port 2-port 5 malfunction alarming light</td>
</tr>
</tbody>
</table>

Physical Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>Iron</td>
</tr>
<tr>
<td>Weight</td>
<td>0.6Kg</td>
</tr>
<tr>
<td>Dimensions</td>
<td>140mmx130mmx30mm</td>
</tr>
</tbody>
</table>

Environmental Limits

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>-20 ~ 70°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40 ~ 85°C</td>
</tr>
<tr>
<td>Ambient Relative Humidity</td>
<td>5% to 95%( non-condensing)</td>
</tr>
</tbody>
</table>

Standards and Certifications

- RoHS
- CE
- FCC

Package Checklist

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATC-1204</td>
<td>1 PCS</td>
</tr>
<tr>
<td>RJ45 to RS232C cable</td>
<td>1PCS</td>
</tr>
</tbody>
</table>

Contact us

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