

Industrial IEEE 802.3bt Gigabit PoE Media Converter

JetCon3701GP-U IEEE802.3bt Gigabit PoE Media Converter



- Converts 10/100/1000TX to 100/1000 Fiber
- Flexible SFP Fiber transceiver design
- High Power 90W PoE PSE Media Converter
- IEEE 802.3af/at/bt Compliance
- Fault Alert for power
- Two way Link loss forwarding
- Power redundancy with wide range input
- Slim Case with IP-31 grade protection
- Wide range operating temperature
- Power Redundancy with 44-57V wide voltage input
- Railway Certification EN50121-4 Compliance



Wide Temp



Gigabit



Dual Power



EN50121-4

Overview

The JetCon 3701GP-U industrial Gigabit PoE Ethernet media converter is an advanced and cost effective high power PoE media converter. It is not only designed with IEEE 802.3af/at/bt compliance but also has slim metal case and IP-31 protection.

For its strong characteristics, it has dual power input and the functionality of real time redundant power backup results in a real Industrial Gigabit Ethernet Media Converter with a non-stop transmission. It also has 44-57V wide voltage inputs for different field using.

Most of Gigabit Ethernet Media converter features Link Loss Forwarding function (LLF) to forward link status change to alert remote or central management system. However, this is only for the cable event and is not enough for industrial network application. JetCon 3701GP-U provides an alarm relay to trigger out a real alarm signal for power event. It makes a result of maintenance time saving.

As the trend of fiber interface, JetCon 3701GP-U, combines a hot-swappable socket for Small Form-Factor Pluggable (SFP) fiber transceiver. To adopt different type of fiber optical cable or enlarge fiber network campus, the JetCon 3701GP-U just replace new fiber transceiver to meet the specification of optical fiber cable and achieve best inventory performance.

The JetCon 3701GP-U supports graceful traffic management ability, it also compliance with EN50121-4 certification. All of traffic will be forwarding by the packet precedence or priority ID and result as different service priority. Besides, it also filter unnecessary broadcast packet by broadcast storm control and drop abnormal packet to enlarge network performance.

Specification

Technology																												
Standard	IEEE802.3 10Base-T IEEE802.3u 100BaseTX/FX IEEE802.3ab 1000Base-T IEEE802.3z Gigabit Ethernet Fiber IEEE802.3x flow control and back-pressure IEEE802.1p Class of Service IEEE802.1Q Quality of Service IEEE 802.3af Power Over Ethernet IEEE 802.3at High Power PoE+ IEEE 802.3bt(draft 2.0) High Power PoE++																											
Performance																												
Forwarding Technology	Store and Forward technology with 64-10K bytes packet forwarding ability																											
System Throughput	1.49 Mpps																											
Packet buffer	1 Mbits																											
MAC Address	8k																											
Link Loss Forwarding	Two-way loss-signature auto forwarding																											
Event Alarm	relay alarm output for power events																											
Class of Service	Compliance with IEEE802.1p with WRR 8:4:2:1 for 4 queues - Highest/High/Low/Lowest. Packets are classified as Highest(6,7), High(4,5), Low(0,3), Lowest(1,2), default Low(0).																											
Quality of Service	Supports IPv4/IPv6 packet priority, DSCP and ToS. DSCP/ToS tag is prior to CoS tag if both exist in a frame. Queue Mapping Table: <table border="1" data-bbox="601 940 1098 1183"> <thead> <tr> <th>DSCP Value</th> <th>Forwarding Queue</th> <th>ToS Value</th> </tr> </thead> <tbody> <tr> <td>0-7</td> <td>Low</td> <td>0</td> </tr> <tr> <td>8-15</td> <td>Lowest</td> <td>1</td> </tr> <tr> <td>16-23</td> <td>Lowest</td> <td>2</td> </tr> <tr> <td>24-31</td> <td>Low</td> <td>3</td> </tr> <tr> <td>32-39</td> <td>High</td> <td>4</td> </tr> <tr> <td>40-47</td> <td>High</td> <td>5</td> </tr> <tr> <td>48-55</td> <td>Highest</td> <td>6</td> </tr> <tr> <td>56-63</td> <td>Highest</td> <td>7</td> </tr> </tbody> </table>	DSCP Value	Forwarding Queue	ToS Value	0-7	Low	0	8-15	Lowest	1	16-23	Lowest	2	24-31	Low	3	32-39	High	4	40-47	High	5	48-55	Highest	6	56-63	Highest	7
DSCP Value	Forwarding Queue	ToS Value																										
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Broadcast filtering	Default enabled Traffic threshold: 25Mbps @ 1000Mbps; 10Mbps @ 100Mbps; 1Mbps @ 10 Mbps																											
PoE forwarding conductor	RJ-45: V-(1,2,7,8), V+ (3,6,4,5)																											
PoE forwarding capability	PoE Port: 15W/IEEE802.3af, 30W/IEEE 802.3at. 60W/IEEE802.3bt,90W/IEEE802.3bt PoE System Power Budget: 90W at 75°C Ambient temperature																											
Interface																												
Enclosure Port	1 x 100/1000 Base-TX with Auto MDI/MDI-X function, Auto-Negotiation 1 x SFP socket with hot-swappable function for 100/1000 Ethernet SFP Transceiver																											
Alarm Contact	1 relay output with current carrying capacity of 1 A @ 24 VDC Terminal block: 4-Pin for redundant power input; 2-Pin for alarm relay output.																											
Cables	RJ-45 Connector: 4 pairs of Cat-5e UTP/STP cable Arrangement for 1000Base-T. Maximum link distance is 100meters.																											

Specification

Diagnostic LEDs	<p>System:</p> <ul style="list-style-type: none"> - 2 x Power (Green): On (Power On), Off (Power Off) - 1 x Link Loss Forwarding (Red): On (Link Loss), Off (Data Transfer) - 1 x Alarm (Red): On (Disconnect), Off (Connected) - 1 x Power over Ethernet (Green): On (PD Detect), Off (None-Detect) <p>Ethernet port:</p> <ul style="list-style-type: none"> - Link/Activity (Green): On (Link), Blinking (Activity) - Speed (Amber): On (Speed 1000), Off (Speed 10/100) <p>SFP port:</p> <ul style="list-style-type: none"> - Link/Activity (Green): On (Link), Fast Blinking (Speed 1000), Slow Blinking (Speed 100)
Power Connector	Removable Terminal Block: 44-57V power Input
Link Loss Forwarding	Default Enable
Power Requirement	
Power	<p>Removable Terminal Block: 44-57V power Input</p> <p>IEEE 802.3bt 90W PoE application: DC 52-57V</p> <p>IEEE 802.3bt 60W PoE application: DC 52-57V</p> <p>IEEE 802.3at 30W PoE application: DC 50-57V</p> <p>IEEE 802.3af 15.4W PoE application: DC 44-57V</p> <p>Power input with polarity reverse correction and over current protection.</p>
Power Consumption	3Watts/ DC 48V (without PoE loading)
Mechanical	
Enclosure Protection	Ingress Protection code - 31
Case	Slim metal case
Mounting	DIN Rail
Dimension	99(D) x 30(W) x 120(H) mm (Without Din-rail kit)
Weight	<p>0.6kg with package</p> <p>0.9kg without package</p>
Environmental	
Operating Temperature	-40°C - 75°C
Operating Humidity	0% - 95% non-condensing
Storage Temperature	-40°C - 80°C
Storage Humidity	0% - 95% non-condensing
Approvals	
EMI	CE/EN 55032 class A, FCC Class A, EN 61000-3-2 :2014, EN 61000-3-3, EN 61000-6-4, EN50121-4 (Compliance)
EMS	CE/ EN 55024, EN 61000-6-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11
Shock	IEC60068-2-27 (Compliance)
Vibration	IEC60068-2-6 (Compliance)
Free Fall	IEC60068-2-32 (Compliance)
Warranty	5 years
Ordering Information	
JetCon 3701GP-U	Industrial Gigabit PoE Ethernet Media Converter
Includes	<p>1x JetCon 3701GP-U Industrial Gigabit PoE Ethernet Media Converter</p> <p>1x Quick Installation Guide</p>
Optional Accessories	
Fiber Transceiver	<p>Gigabit Multi-Mode SFP Transceiver</p> <p>Gigabit Single-Mode SFP Transceiver</p> <p>Gigabit BIDI/WDM Single-Mode SFP Transceiver</p> <p>100Base Multi-Mode SFP Transceiver</p> <p>100Base Single-Mode SFP Transceiver</p> <p>100Base BIDI/WDM Single-Mode SFP Transceiver</p>