Quarra 10G PTP Ethernet Switch

Quarra 10G PTP Ethernet Switch

Carrier grade Ethernet switches with the industry's IEEE 1588v2 timing.

The Quarra range of switches is designed for carrier class applications where accurate timing and control is required. These switches are aimed at the professional markets of audio/video broadcast, defense and security, finance, utilities, telecom and enterprise IT.

Designed as a standard 1RU rackmount unit with dual power supplies, the switch is configurationed with 10 Gigabit interfaces

supporting a best in class layer 2 IEEE 1588v2 algorithm. A 1pps external reference input from GPS is included as standard.

The Quarra switches support IGMP v2/3, QoS, Protection switching, VLAN, MEF service delivery, and network OAM.

■ FEATURES

Industry's most Accurate IEEE 1588 Timing & Synchronization for nanosecond accurate timing.

1pps reference. Network wide synchronization using IEEE1588.

SMPTE Standards-based Timing
- ST 2110-10 System Timing and Definition
- ST 2059-2 SMPTE Profile for Use of IEEE-1588 Precision Time Protocol in Professional Broadcast Applications
- Supports Boundary and Transparent Clock

RAVENNA AES67 approved

Full management from Web GUI or command line interface. No training required-units can be quickly and easily configured.
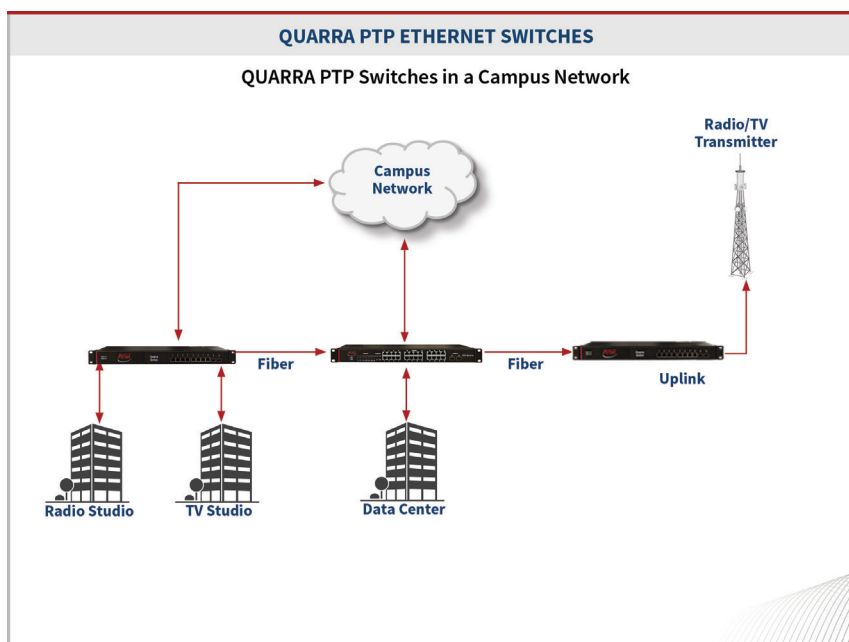
JSON/RPC control and monitoring

Ideal for:
- Live Video/Audio broadcast/production over IP utilizing IEEE 1588 timing, QoS, and Multicast filtering.
- Broadcast DTT/DTV IP distribution, utilizing IEEE 1588 timing to replace or backup GPS timing at base stations.
- Telecoms networks, providing high level of network timing.
- Financial/trading networks, utilizing our IEEE1588 precise nanosecond time synchronization.

Interfaces:
- 24 RJ45 ports (10/100/1000Mb/s)
- 2 SFP+ ports (10Gb/s)
- 2 X2 ports (10Gb/s)

QUARRA PTP ETHERNET SWITCHES

QUARRA PTP Switches in a Campus Network

■ SPECIFICATIONS

Carrier Ethernet

Layer-2 IEEE 1588v2 : Precision Time Protocol (PTP) timing and synchronization

IEEE 802.1ad : Provider bridging (VLAN Q-in-Q) switch - 8 MACs, 4K VLANs

Per queue MEF E-LINE or per port MEF E-LAN, E-TREEService Points

- Per port per queue Dual Leaky Bucket Service Policers with PCP or DSCP remarking per Service port

- Static tagging options per Service Point

OAM Hardware for generating CCM messages, CCM checking is done by software

- Software of OAM and protection switching

Quality of Service

EPS and ERPS Protection Switching

TCAM-based VLAN classification and translation with pattern matching against Layer-2 through Layer-4 information

Up to 256 QoS and VLAN TCAM entries

Eight QoS queues per port with strict or deficit weighted round-robin scheduling (DWRR)

DSCP translation, both ingress and/or egress

DSCP remarking based on QoS and VLAN TCAM entries

VLAN (PCP, DEI and VID) translation, both ingress and egress

Per-queue, per-port policing and shaping, programmable in steps of 100 kbps

Per-flow policing through TCAM-based pattern matching, Up to 256 policers

Full-duplex flow control (IEEE 802.3x) and half-duplex backpressure, symmetric and asymmetric

Layer 2 Switch

Port mirroring

Port-based access control

IEEE 802.3ad : Link aggregation

IEEE 802.1x : Network Access Control

IEEE 802.1w : Rapid Spanning Tree Protocol

IEEE 802.1s : Multiple Spanning Tree Protocol

Simple Network Management Protocol (SNMP)

Independent and shared VLAN learning

256 VLAN egress tagging TCAM entries

Link aggregation traffic distribution is programmable and based on Layer-2 through Layer-4 information

Basic Switching - Forwarding, address learning and address aging

VLAN IEEE 802.1Q (4,096 VLAN's) - Push / pop / translate up to two VLAN tags; translation in ingress and / or egress

8,192 MAC addresses. Including Generic Attribute Registration Protocol (GARP)

Wire-speed hardware-based learning and CPU-based learning configurable per port

Also available from Artel:

Quarra 1G PTP Ethernet Switches

Multicast

8K Layer-2 Multicast group addresses with 64 port masks

8K IPv4/IPv6 multicast groups

Internet Group Management Protocol v2 & v3

Multicast Listener Discovery (MLDv1)

Multicast Listener Discovery (MLDv2) with source specific multicast forwarding

Physical, Environmental and Electrical

Electrical rating	100-240Vac, 0.4-0.2A, 50-60Hz , 50Watts (Maximum)
Maximum Temp	0-40C
Relative Humidity	10 to 95% (non-condensing)
Dimensions (h, w, d)	1.75" x 17.25" x 8.0" (44.45mm x 438.15mm x 203.2mm)
Weight	7.0lbs. (3.2kg.)

IEC/EN60950 safety certification

UPDATED 05/12/2020
All specifications subject to change without notice. ©2020

Ordering Information

Description	Product Number
QUARRA 10G PTP Ethernet Switch	
Rackmount Switch with Dual Power Supply	390-100001-00

SFP Options - *See InfinityLink SFP/SFP+/XFP Compatibility Chart*

Sales

Artel

T: +1 978-263-5775
sales@artel.com
customercare@artel.com
www.artel.com