



Quarra 10G PTP Ethernet Switch



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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 configured 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 and options include an internal layer 1 Synchronous Ethernet module.

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

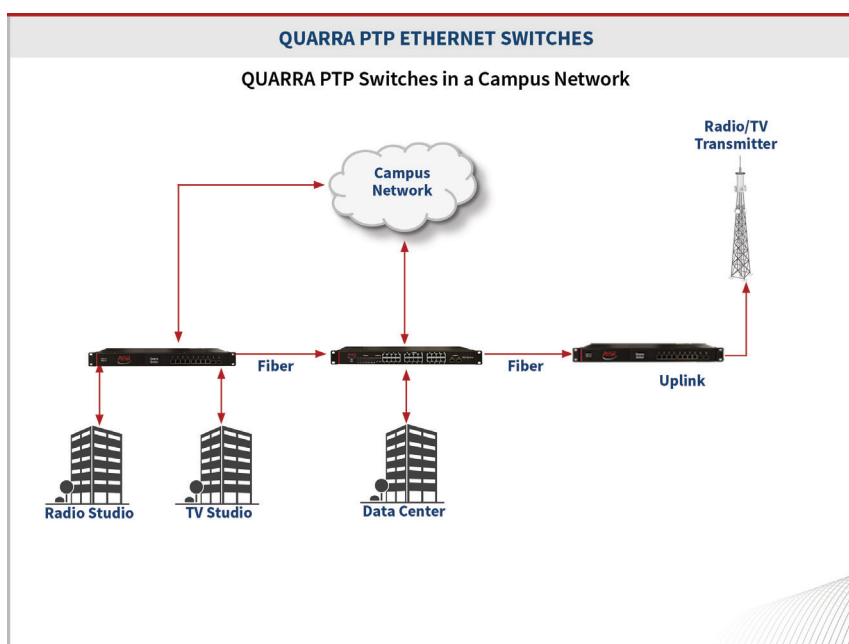
- ST 2110-10 System Timing and Definition
- ST 2059-2 SMPTE Profile for Use of IEEE-1588 Precision Time Protocol in Professional Broadcast Applications

RAVENNA AES67 approved

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

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.



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-TREE Service 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



IEC/EN60950 safety certification



UPDATED 05/29/2018
 All specifications subject to change without notice. ©2018

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



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