

Quasar™ 100Mb Smart Ethernet Switch

Features

High-speed, full duplex networking on a single fibre redundant ring or over copper with self-managed control.

The CNSIQ100 Smart Ethernet Switch is designed for applications that demand ultra-reliable network performance with sub second recovery for mission critical surveillance, security, industrial and automation applications.

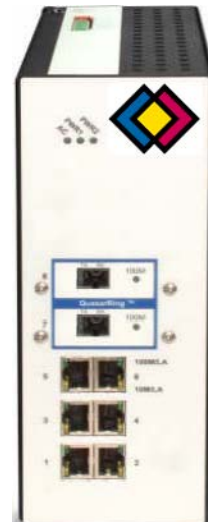
CNSIQ Smart Switches are more powerful than typical Ethernet Switches:

- ◆ Ultra-reliable due to unique failure resolution capabilities
- ◆ Self-healing Ring Redundancy Technology recovers network quickly
- ◆ "Plug and Go" interfacing of IP-based Video cameras and sensors
- ◆ Fault tolerant, self recovering network virtually eliminates downtime
- ◆ Single-fibre, full duplex solution for easy, cost effective implementation and management
- ◆ Self-Healing Fibre Ethernet Ring using Cat 5e/Cat6 Structured Cable
- ◆ Self-Managing Ethernet Switch, Auto Configuring

- ◆ Auto-negotiating 10/100Mbps

- ◆ Plug-n-Play PTZ serial interface control

- ◆ Compatible with both single-mode and multi-mode cable without changing hardware
- ◆ Link monitoring of fibre network status for enhanced control or Ring Break Alarm relay
- ◆ Quasar's ring topology provides interconnectivity for hundreds of devices, scalable to any network size
- ◆ Field upgradeable to protect equipment investment and add future functionality



Description

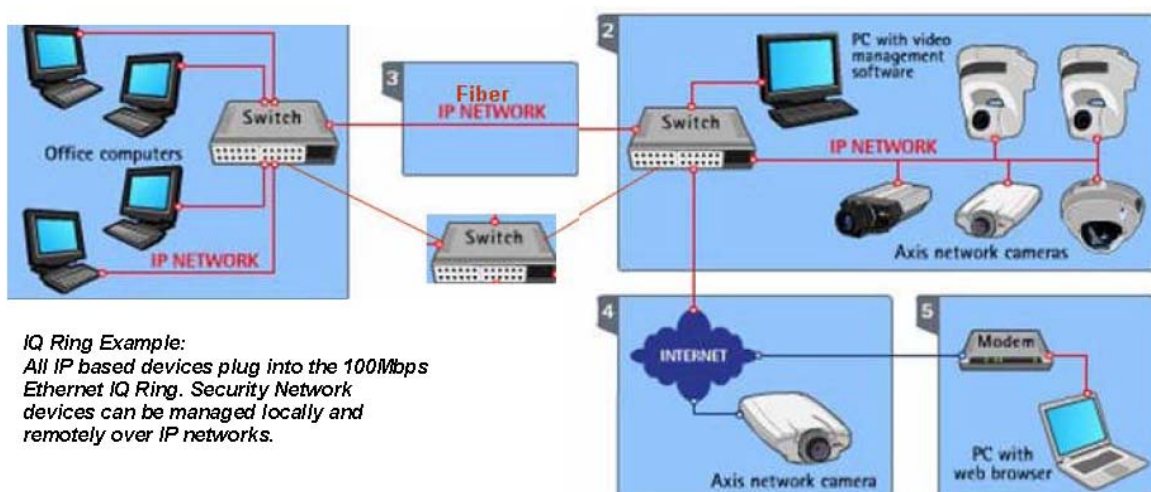
The CNSIQ100 Smart Switch offers fast, reliable performance with sub-second recovery for mission critical applications.

Simply plug and play — the CNSIQ100 Smart Switch will auto-configure into a self-healing network utilising patent-pending Quasar Ring technology on a single fibre. The self-healing ring is automatically created with no spanning tree or complicated design required. If a failure occurs, the redundant single-fibre ring automatically recovers — keeping your network up and running and virtually eliminating downtime.

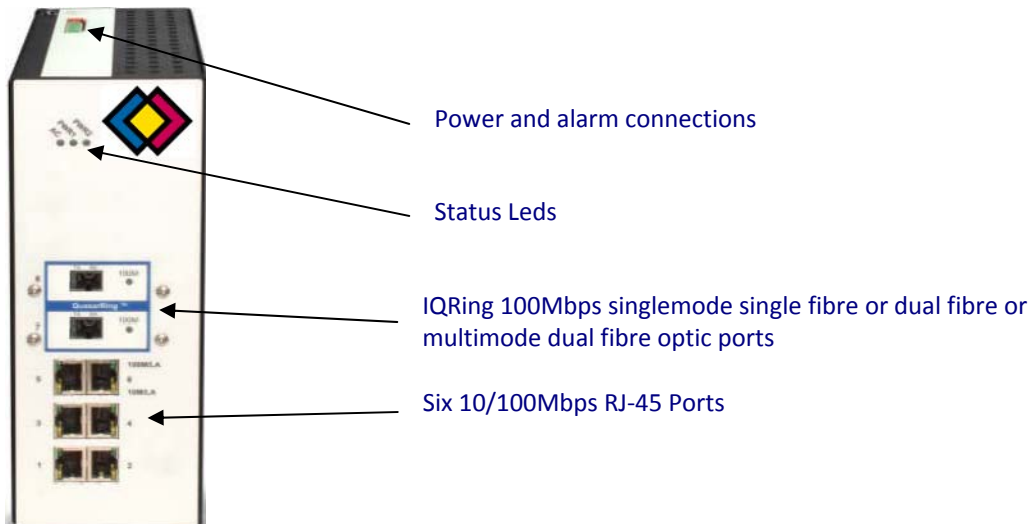
For more information on implementing Self-managed IP- based Ethernet networks please refer to the associated discussion document on our web site, details at the end of this data sheet.

Self-Managing Fibre – based IQ Switch™ - The CNSIQ100 Smart Switch utilises Intelligent Quasar technology that automatically configures key network parameters when IQ Switches are connected together providing secure mission critical network recovery. True Plug and Go Set-up CNSIQ100 switches are extremely easy to set up:

1. Connect the fibres, Ethernet and any control interface cables
2. Power on the CNSIQ100
3. The CNSIQ100 auto provisions all networking configurations
4. The entire ring and all devices are up and running



CNSIQ100 Interfaces



Multi-Vendor Compatibility

The CNSIQ100 is compatible with all IP-based Ethernet Switches and Routers. When connected to other vendors' equipment in a typical Star/Tree topology, the CNSIQ100 looks like any other standard switch and is interoperable with Spanning Tree Protocol. The Intelligent Quasar technology does not effect the operation of the non-IQ elements as the other network elements do not utilise the IQ Ring functionality. It is possible that customers will have an IQ Ring network of IQ Switches that attaches to a non-self-healing, non-self-managing IP based network. The Intelligent Quasar technology enhances the network reliability for mission critical applications.

IP Video Camera Initialisation and Video Stream Transmission

When IP-based devices such as IP Video cameras are attached to the CNSIQ100, the CNSIQ100 auto negotiates the port speed to match the device. At the Video Control centre, the IP address to be used by the camera is input by an Administrator. Once this information is assigned, the camera will initiate transmission of the IP Video stream over the IQ Ring back to the Video Control centre.

Specifications

Environmental Specifications

Operating Temperature	Commercial 0 to 70°C
Input Voltage	Redundant 12-48VDC, 12-36VAC
Humidity	95% non-condensing
Certifications	UL, CE, FCC Part 15, IEEE 802.3

Electrical Specifications

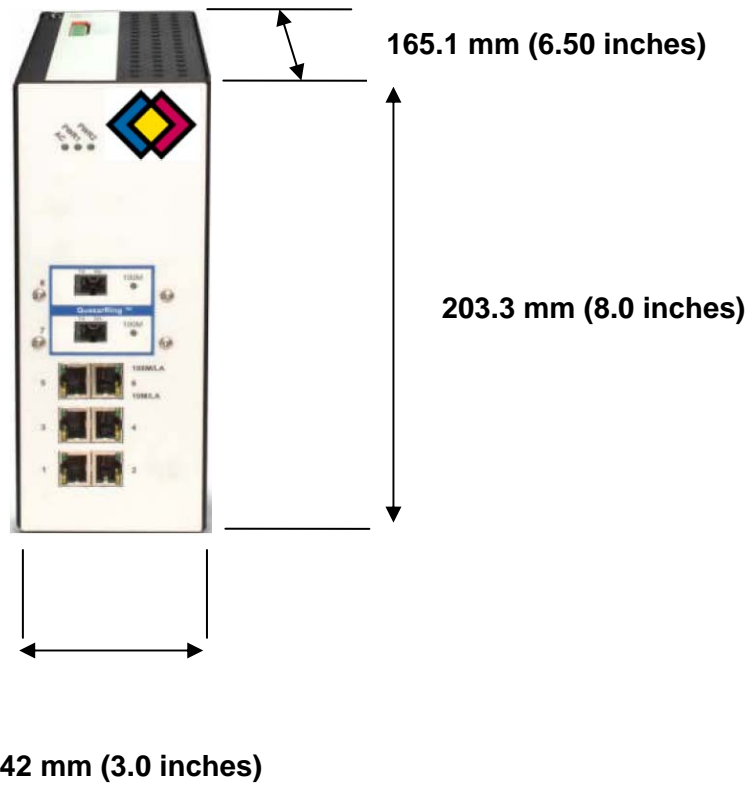
(all values at ambient temperature)

Single Mode 1310/1550 nm or Multi-mode Fibre Ports	2 field upgradeable SC-connector TX/RX ports
Single Mode 1310/1550 nm single Fibre Distance	15km (9.3miles) standard between Nodes <i>(assuming 2 connector Insertion loss of 0.6dB/each,0.35dB fibre loss/km, 2dB margin)</i>
Multi-mode 1310nm Fibre Maximum Distance between Nodes	2km (1.25 miles)
Ethernet Connections	6 ports RJ-45 10/100Mbps Auto-negotiating, F/H duplex
Fibre Break and Power Alarms	Fibre Break Alarm Relay Open when Ring is not connected, Power Alarm Relay Closed when one or either DC input voltages is not present

Mechanical Specifications

Dimensions	203 x 165 x 77 mm (8 x 6.5 x 3 inches)
Weight	2.0Kgs (4.4 pounds)
Power Consumption	10 Watts total
Mounting Options	Wall Mount, or DIN-

Dimensions



Ordering Information

Part no.	Description
CNSIQ100MM	Multimode 1310nm Redundant Smart Ethernet Switch
CNSIQ100MM/UMM	Multimode 1310nm Redundant Smart Ethernet Switch with Multimode Fibre Dual SC Uplink
CNSIQ100MM/USM	Multimode 1310nm Redundant Smart Ethernet Switch with Singlemode SC Fibre Uplink
CNSIQ100SM	Singlemode 1310nm/1550nm Redundant Smart Ethernet Switch
CNSIQ100SM/UMM	SingleMode 1310nm/1550nm Redundant Smart Ethernet

CNSIQ100SM/USM Switch with Multimode Dual SC Fibre Uplink
Singlemode 1310nm/1550nm Redundant Smart Ethernet
Switch with Singlemode SC Fibre Uplink

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