XE-33 XIO Series

Triple Redundant, high speed, rugged edge computing LTE RTU

Control and Monitor your assets on a real time basis with XE33#XIO series, with a host of local connectivity interfaces viz Ethernet, Serial, USB, Digital Inputs, Digital Outputs and Analog Inputs.

With triple redundant Data connectivity comprising of one Fast Ethernet WAN and Dual LTE Cat 4 WANs, Niseva Technologies XNET EDGE XE-33 Series aims to take connectivity speed and reliability to the next level.

Packed with a powerful dual core CPU, aided by intelligent programmable Linux based embedded software, host of Industrial protocols natively supported, and seamless integration with DNET, the XE-33 series is a perfect choice for Enterprise, Industrial and IOT deployments.

Equipment Monitoring and Control

Industrial Protocol Support

IOT Cloud Connectors

```
1  model = Sketchup.active_model
2  selection = model.selection
3  edges = selection.grep(Sketchup::Edge)
4  outerEdges = []
5
6  edges.ea
7    faces = edge.faces
8    outerEdges << edge if faces.length <= 1
9  end #do
10
11 selection.clear
12 selection.add outerEdges
```
Scripting

Interface Capabilities:

12 Optically isolated Digital Inputs : 6 Digital Outputs : 4 Analog Inputs : 1 RS232 with Modbus, DLMS, IEC101, DNP3 support : 2 Fast Ethernet LAN ports with Modbus, DLMS, IEC 104, DNP3 support : 865-867 MHz RF for short range connectivity

Industrial Protocol Support

Modbus RTU Master
Modbus TCP Master
IEC 60870-5-101 Master / Slave
IEC 60870-5-104 Master / Slave
IEEE 62056-21 DLMS
DNP3 Slave
DLMS Master

Hardware Options

	Variants	
	XE-33 XIO#1C	XE-33XIO#2C
RS 232	✓	✓
USB 3.0	✓	✓
LAN	✓	✓
WAN	✓	✓
PD-PoE	✓	✓
RTC	✓	✓
GNSS	✗	✓
LTE CAT 4	✓	✓✓

Applications

- Distribution Transformer Monitoring
- Fault Detection
- Load Break Switches monitoring and Control
- RMU Monitoring and Control
- Value and Pump Monitoring and Control
- Industrial Automation

IOT Cloud Connectors

MQTT – MQTTS
FTP – FTPS
HTTP – HTTPS
TCP

4G LTE + 4G LTE
Dual Simultaneous 4G LTE

Advance Routing and VPN

XNET is an integrated Device Management and Data Management Platform aimed at managing mass deployments as well as providing data visualization, analytics, alerts, reports and 3rd party system integration.

Device Specifications

Hardware Interfaces for XE-33XIO#1C
2 X 1Gbps Ethernet LAN Ports
1 X 1Gbps Ethernet WAN Port
1 X Full RS232
1 X USB 3.0 type A for console access
1 X CAT 4 LTE Cellular
1 X Mini SIM
PD PoE over WAN interface
12 Isolated Digital Inputs – 0 – VCC
6 Digital Outputs – 200mA Open Collector
4 Analog Inputs – 4-20mA or RTD
865 - 867Mhz RF Optional

Additional interfaces for XE-33XIO#2C
1 X CAT 4 LTE Cellular
1 X Mini SIM
GNSS

Hardware Details
CPU- 880MHz Dual Core
Flash – 16MB, SD Card
RAM – 256MB

Cellular
LTE FDD: B1/B3/B5/B8
LTE TDD: B34/B38/B39/B40/B41
TD-SCDMA: B34/B39
WCDMA: B1/B8
GSM: 900/1800MHz

Cellular Data Rates
LTE CAT 4:
LTE FDD: Max 150Mbps (DL)/Max 50Mbps (UL)
LTE TDD: Max 130Mbps (DL)/Max 30Mbps (UL)

UMTS:
DC-HSDPA: Max 42Mbps (DL)
HSUPA: Max 5.76Mbps (UL)
WCDMA: Max 384Kbps (DL)/Max 384Kbps (UL)

GSM:
EDGE: Max 296Kbps (DL)/Max 236.8Kbps (UL)
GPRS: Max 107Kbps (DL)/Max 85.6Kbps (UL)

LED
Power / Boot LED
Signal Strength
Device Network Registration
Cellular Data Activity
LAN / WAN Data activity
Digital Inputs and Outputs

Power
11-28 VDC
 Max Power consumption:
XE33XIO#1C – 6W& XE33XIO#2C – 9W

Operating Temperature
-30 to +70 degree Celsius

Routing Features
DHCP Server, DHCP Client, Static Routes, Traffic
Routing, Port Forwarding, Dynamic DNS, NAT

Performance Redundancy
Triple redundancy with 1 x Fast ethernet WAN and 2 x
Cat 4 LTE WAN
Simultaneous operation for all WANs and load
balancing or failover between WANs
Data Connectivity Watchdog and Hardware Watchdog

Security and Tunnelling
IPSec with IKEV1, IKEV2, Selectable encryption
schemes, Selectable Hash Algorithms and Dead Peer
Detection
Zone Based Firewall
Stateful packet inspection and Sync Flood Protection
Sim Pin
Source / Destination IP address binding

Management
Web based local and remote configuration
SNMP V1, V2, V3

Industrial Protocol support
Modbus Master
IEC 101 Master / Slave
IEC 104 Master / Slave
Modbus to IEC 104 Convertor
IEC 101 to IEC 104 Convertor
DNP3 Slave
DLMS Master

Connectivity Protocols
TCP/UDP/FTP/HTTP/MQTT/NTP/ICMP/HTTPS*/SMTP*/
FTPS*/SMTPS*

Programming Capabilities
Linux Operating System
Development APIs

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