GW7300 Series Ruggedised Router

Cost-effective, DIN Rail mountable router for:

- Sub stations
- Transport and rail
- Remote security monitoring
- Digital signage
- Electrical power industry
- Utility applications

Overview

The Virtual Access GW7300 industrial M2M router is designed for use in outdoor equipment and cabinets at roadsides, substations and remote telemetry locations. Applications include SCADA, Telemetry, security, emergency services and other critical infrastructure. The GW7300 can be automatically provisioned over an IP network with a minimum of effort using the Virtual Access Activator auto provisioning server. This means that the units can be deployed without requiring any configuration by installers.

The GW7300 is a weather proofed, ruggedised router suitable for high isolation scenarios such as electrical transformation centres, substations and outdoor cabinets. It is DIN Rail or wall mountable.

The GW7300 offers 8 Ethernet ports and supports GPRS, 3G, LTE, RS232, RS485 and optionally ADSL. It offers secure WAN connectivity for internet and private networking environments over 3G broadband paths. It is available in DC or AC power variants

Environmentally Hardened

The GW7300 router is designed to meet the IP53 standard for ingress protection and EN standards for harsh environments such as electric power, rail and roads.

Ingress protection

To protect against rain and dust, the box is completely sealed other than the bottom connectors.

External vibration

The device is designed to withstand environments such as roadsides where there is a high level of vibration.

The GW7300 is tested to random vibration, drop, topple and bump standards to ensure the device will continue to operate under conditions that would not be tolerated by commercial grade communications products. It has an optional conformal coating that protects against condensation.

EMC immunity, Safety, ESD and Electrical Isolation

Environments such as substations and transport can contain high levels of radiated emissions from switchgear, tracks and other power sources. In addition there are tight safety regulations to prevent injury or equipment damage. These require far higher levels of isolation than commercial grade communications equipment. The device is designed to meet the high EMC, safety, ESD and isolation standards mandated by these applications.

Dual SIM

The GW7300 router incorporates the latest wireless technology. Dual SIM architecture ensures that a backup 3G/LTE network can take over should the primary network fail. The router detects a network problem and fails over to a standby SIM/APN if necessary, ensuring customers' SLAs are upheld. The GW7300 3G/LTE functions also include support for inbound and outbound SMS, so for instance, if all other WAN services are unavailable, commands can be sent to the router to perform diagnostics or even reset function.

Automatic Failover

Optional automatic failover from fixed to wireless circuits ensures business connectivity through network or last mile circuit outages, whilst email alerting and auto-failback confirm primary circuit restoration.

Eight Port 10/100 Managed Switch

The eight port 10/100 managed switch enables multiple devices to be connected in remote environments with the ability to segment into individually filtered subnets or DMZs. Tagged VLAN (802.1q) segmentation offers further versatility for diverse network applications.

GE SFP Socket (optional)

The optional GE SFP socket suits many standard fibre optic SFPs.

Advanced Security & Routing Features

GW7300 routers deliver business grade security services including:

- IPSec (3DES and AES)
- L2TP
- Stateful Firewall

Wide Power Input and Extended Temperature

Certain deployment scenarios require wide variations in power input and temperature. The GW7300 router offers either AC or DC power inputs as well as low power consumption and an extended temperature range of -40°C to +70°C.

Software Features

Management
- SMS management support
- Local and remote advanced configuration through embedded web server
- HTTP/HTTPS
- Command Line Interface via Telnet or SSH
- TFTP client download/upload
- Configuration change log
- Dial modem for out-of-band management
- SNMP agent
- Non-volatile battery-backed RAM log storage
- Telnet server

Optional ADSL
- G.992.1 & G.992.2 Annex A and B
- G.992.2 G.lite
- G.992.3 ADSL2
- G.992.5 ADSL2+ Annex A and M
- PPP over ATM routing (RFC2364)
- PPPoE over 1483)
- LLC encapsulation
- VC multiplexing

Quality of Service
- QoS support of classification and marking
- Full DiffServ support

Fault Investigation and Reporting
- Event logging
- Packet tracing
- Syslog support

Service Features
- Configurable host traffic monitoring applet
- DHCP server/client
- DHCP relay
- DNS proxy
- Port forwarding
- Packet filtering and firewalling

- Performance Monitor

Routing Features
- IPv4 and IPv6
- DynDNS
- NAT
- NAT Traversal
- NTP Client
- VLAN support
- Packet filtering
- Firewall
- Port forwarding
- Static routes
- BGPv4
- OSPF
- RIP (v1 and v2)
- Virtual Router Redundancy Protocol (VRRP)
- IPSec
- L2TP
- GRE

IPSec
- DMVPN
- Hardware security engine for high performance encryption and authentication
- Manual and automatic key management
- HMAC-MD5-96 and HMAC-SHA-1-96
- AES (256bit)
- 3DES (168bit) with explicit IV

IKE-related VPN Specification
- Main mode, aggressive mode and quick mode
- Authentication using RSA signatures, DSS signatures and pre-shared keys interworking
- DPD

Hardware Features

ADSL Interface (optional)
- RJ11 socket

LAN Interfaces
- Eight 10/100 base-T Ethernet ports
- Auto detects full- or half-duplex operation
- Auto detects a regular or crossover cable for easy connection to a switch or hub
- Optional 1 Gigabit Ethernet SFP port

VLAN Support
- Tag-based 802.1Q VLAN or port-based VLAN on 8 ports

Serial Interface
- RS232 or RS485 option

SFP Ethernet Interfaces
- One Gigabit Ethernet SFP port
- Supports copper or fibre SFPs

SIM
- 2 SIM slots

Antenna
- 2 x right angle antennas (supplied as standard) See antenna datasheet for antenna options
- Advanced receiver diversity type 3i

Approvals and CE Certificates
- EN60950 safety approval
- EN55022 and EN55024 EMC

Power Options
- 100V-240V AC
- 12V DC
- 48V DC
- IEC 61850-3 Compliant PSU

Operating Temperature
- Operating air temperature -20°C to +70°C
- Optional operating air temperature -40°C to +70°C

Physical and Environment
- Unit size: H80 x W200 x D165(mm)
- Optional conformal PCB coating for harsh environments

GW7300 Series Ruggedised Router									
	Ethernet	ADSL2+	3G	4G/LTE	CDMA450	RS232	RS485	Internal PSU	Industrial Option
GW7304	8					1	1	✓	✓
GW7304-3G	8		✓			1	1	✓	✓
GW7304-LTE	8			✓		1	1	✓	✓
GW7304-CDMA450	8				✓	1	1	✓	✓
GW7314	8	1				1	1	✓	✓
GW7314-3G	8	1	✓			1	1	✓	✓
GW7314-LTE	8	1		✓		1	1	✓	✓
GW7314-CDMA450	8	1			✓	1	1	✓	✓

Wireless WAN Parameters		
Variant	Modes	Bands
3G	WCDMA/HSPA/EDGE/GPRS	850/900/1900/2100/850/900/1800/1900
4G/LTE	LTE/WCDMA/HSPA/EDGE/GPRS	B1/B2/B3/B5/B7/B8/B20/850/900/1900/2100 850/900/1800/1900
CDMA450	CDMA450 Rev A and B; R-UIM support	Band Class 5 Block Designators A & B