

IOG951-0TL21 IOG951-06L21 4G IIoT LoRa Edge Gateway

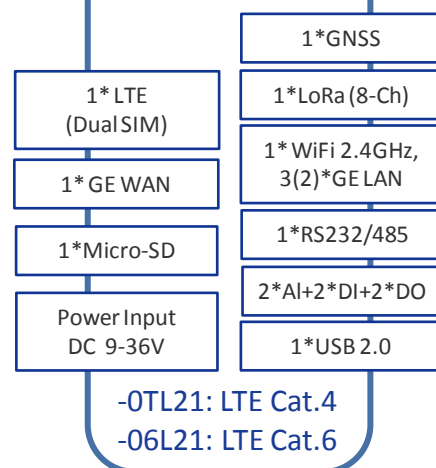


The IOG951 is optimized to acquire, process and filter large amount of real-time data. It creates secure IIoT system and enables cloud integration providing full operational control over field devices from any place in the world. The cost-effective industrial network solution is easy to scale connecting wide range of assets as systems, logic controllers, actuators, and sensors.

Applications:

- Industrial IoT and networking
- System cloud integration
- Smart City and ITS
- Remote monitoring
- LoRaWAN

IOG951-0xL21



Industrial IoT & cloud integration

- LoRa Gateway, Network Server
- HTTP, MQTT, Modbus TCP/RTU/ASCII



Data & access security

- VPN, Firewall; TR-069, SNMP Remote
- VLAN grouping, I/O ports disablement



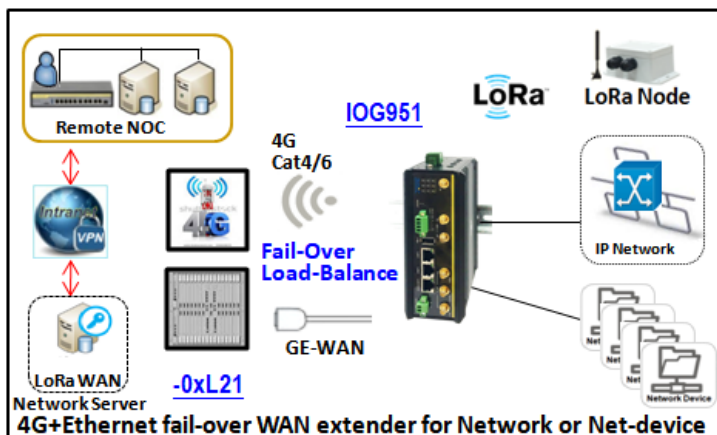
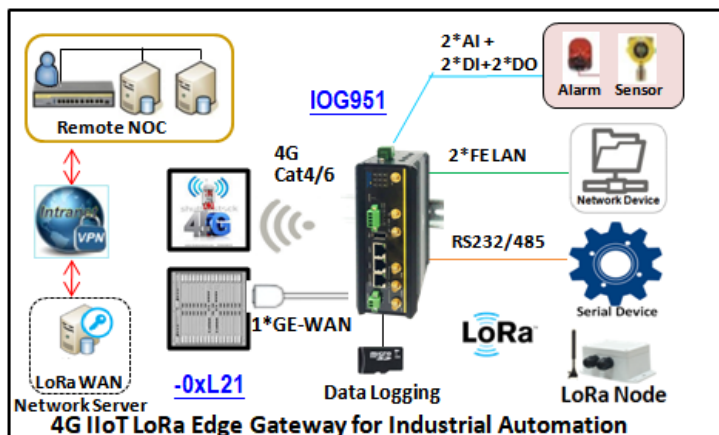
Robust low-latency networking

- Multi-WAN Failover / Load Balance
- 4G, Gigabit Ethernet



Open platform for developers

- Python, Node-RED, AWS GG
- AMIT Linux SDK



Specification Summary

Device Interface

- **4G Module:** 1*4G, 2*micro-SIM (3FF), with GNSS
- **Ethernet:** 3*RJ45 GE ports
- **WiFi:** 1*11n-2*2 WiFi
- **LoRa:** 1*LoRa (8*Channel)
- **Field Bus:** 1*RS232/485 (Terminal Block)
- **Log Storage:** 1*USB, 1*Micro-SD
- **I/O:** 2*AI (0~10V, 12bit ADC, sampling rate upto 125KHz),
2*DI (Isolated, "Logic 0": 0~2V, "Logic 1": 5V~30V),
2*DO (Isolated, Non-Relayed Output, 24V/300mA for each port)
- **Power Input:** 1* DC 9V ~ 36V (Terminal Block)
- **Antenna Con.:** 2*SMA (F)-4G, 1* SMA(F)-GNSS,
2*SMA (M)-WiFi, 1*SMA(F)-LoRa

WAN & Uplink

- **WAN:** Cellular & Config. Ether-WAN; Failover, Load Balance
- **Cellular:** 3GPP, 3G/4G, IP Pass-through, IPv4/6
- **Ether-WAN:** Dynamic IP, Static IP, PPPoE, PPTP, L2TP
- **Network Monitor:** ICMP/DNS Query

WiFi

- **Standard:** 802.11 Industry Compliance
- **Mode:** AP Router, WDS Only, WDS Hybrid Modes
- **Functions:** Multi-SSID, WMM
- **Security:** WEP, WPA, WPA2, WPA-PSK, WPA2-PSK, 802.1x

Protocol

- **LAN & VLAN:** DHCP Server/Relay, Port/Tag based VLAN
- **IPv6:** Dual Stack, Static IPv6, DHCPv6, PPPoEv6
- **Port Forward:** NAT 1-1, 1-many, transversal, DMZ, Virtual Server & Computer, VPN Pass-through
- **Routing:** Static, Dynamic - RIP1/RIP2, OSPF, BGP
- **QoS:** Policy-based, 802.1q and TOS for priority queues

Field Comm.

- **Virtual COM:** RFC2217, TCP Client, TCP Server, UDP
- **Modbus:** Gateway for Modbus TCP/RTU/ASCII Master/Slave Access;
Slave for Device Status/Information Access
- **Data Interchange:** OPC UA Server, MQTT Broker, MQTT Client
- **Data Logging:** Sniffer, Off-line / Full-time Proxy, mixed modes

Security

- **VPN Tunneling:** IPSec, OpenVPN, PPTP, L2TP, GRE
- **Scenario:** Site/Host to Site/host; Hub and Spoke; Dynamic VPN
- **VPN Capability:** IPSec: up to 16 tunnels
- **Firewall:** SPI Firewall with Stealth Mode, IPS
- **Access Control:** Packet Filter, URL Blocking, MAC Filter

Administration

- **Configuration:** Web UI, CLI, Command Script, Python
- **Management:** SNMPv3 Std. & AMIT MIB, TR069
- **System:** Upgrade, Backup & Restore, Reboot & Reset, SysLog
- **Diagnostic:** Packet Analyzer, Diagnostic Tools

Service

- **Cellular Toolkit:** Data Usage, SMS, SIM PIN, USSD, Network Scan
- **Event Handling:** User Defined Manage/Notify Event; Action & Trigger by SMS, Mail, Syslog, SNMP Trap, Modbus, I/O
- **GNSS:** GPS Location Tracking
- **LoRa:** LoRa Gateway, Public Network Server (external), Private Network Server (internal, up to 300 nodes)
- **User Application:** Node-RED, AWS GreenGrass supported

Environment

- **OP/Storage Temp.:** -30°C ~ 70°C ; -40°C ~ 85°C
- **Humidity:** 10%~95% (non-condensing)
- **Enclosure:** Metal Body with Aluminum Extrusion Covers,
DIN-Rail, Bracket (Optional)
- **Dimension:** 62x125x160mm (w/o mounting kit)
62x135x160mm (with DIN Rail kit)

Certificate - CE

- Standards & Regulation
- EMI: EN 55032: 2015 +AC: 2016 Class B
- EMS: EN 55024, IEC 61000-4, IEC 61000-6
- Radio: EN 301 489, EN50385
- Safety: EN 62368-1

Package Accessory

- 1*Device
- 3*Terminal Block (for DC Power, Serial, I/O)
- 1*RJ45 Cable
- 1*DIN Rail Kit, 1*Screw Bag

SKU Information:

IOG951-0TL21-00-yy : LTE Cat.4

IOG951-06L21-00-yy : LTE Cat.6

'yy': Area Variant. As below table

yy	Skew	Band	Module Certi.	System Cert.
E0	EU Taiwan	B1/3/7/8/20/28	CE,GCF NCC	CE
U0	US	B2/B4/B5/B12/B13/B14/B 66/B71	PTCRB, AT&T Veizon	TBC
J0	Japan	B1/8/9/18/19/21/41	Telec, NTT,KDDI, Softbank	Telec
C0	China	B3/39/40/41	MII, SRRC	TBC
A0	Australia	B1/3/5/7/28/40	RCM	TBC

Comment:

- Specifications are subject to change without prior notice.
- Besides CE, other regional certification needs to be checked for availability.
- Supported cellular & LoRa frequency depends on regional hardware version.

Mechanic Drawing

(1) Left View



(2) Top View



(3) Front View



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