

Product: [OWL 4G North America + WLAN](#) 



LTE Ethernet Gateway, USA, Canada, WLAN, VPN, GPS, Dual SIM, Serial, IO, Vehicles (E-Mark)

Product Description

Industry 4.0 and Industrial IoT Cellular Router and Gateway. Optimized for 4G applications with edge pre-computing. 11ac Wave 2 WLAN, GPS, VPN and openly programmable and extendable Linux. Rugged and approved for vehicles.

Technical Specifications

Product description

Type:	OWL-L02.01-W02.01-F02-U01-A02-VXX.X.XX
Name:	OWL 4G North America + WLAN
Description:	Industry 4.0 and Industrial IoT Cellular Router and Gateway. Optimized for 4G distributed applications with edge pre-computing. VPN and open extendable Linux. Integrated WLAN 802.11ac.
Part Number:	942284101
Availability:	Available for Order
Port type and quantity:	2x Ethernet, 2x Antenna, 1x GPS, 2x SIM, 1x Power, 2x I/O, 2x Serial, 2x WLAN
Radio protocol:	IEEE 802.11ac Wave 2 (2x2 MIMO), 802.11d, 802.11e, 802.11h, 802.11i, 802.11r
Country certification:	USA, Canada
Processor:	ARMv7
Hard disk space:	Flash memory (512MB User data storage, 830MB User module storage)
RAM:	512MB

More Interfaces

Serial:	On 10-pin panel socket (connector included): RS485, RS232, Serial2TCP, Serial2UDP
Ethernet:	2x Ethernet: 10/100 Mbit/s (RJ45)
Power Supply:	Via 2-pin terminal block 3.5mm (included)
Signaling contact:	On 10-pin panel socket (connector included): Digital Input, Digital Output

Radio technology

Antenna connector:	3 x SMA Female (Cellular, Diversity, GPS), 2x RP-SMA Female (WLAN)
Frequency band:	WCDMA: 850(Band 5) / 1700(Band 4) / 1900(Band 2) MHz, LTE (4G): 600(Band 71) / 700(Bands 12,13,14) / 850(Band 5) / 1700(Band 4,66) / 1900(Band 2) MHz
Transmission rate:	LTE Category 4: 150Mbps Download, 50 Mbps Upload
Additional radio features:	GNSS (GPS, GLONASS)

Power requirements

Current consumption:	Idle 2.5 W, Average 4 W, Maximum 11 W
Operating Voltage:	9 V DC to 36 V DC
Redundancy functions:	Dual VRRPv2 (with ping probes), Dual VRRPv3 (with ping probes), multiple routed interfaces (ping monitoring, failover and load balancing), PPPoE bridge mode

Diagnostics features

Monitoring:	Syslog (UDP), SNMPv1/2c/3
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Security features

Authentication:	User Management (local, RADIUS, TACACS+, mixed)
Stateful inspection firewall:	Static Firewall IPv4/IPv6 with Incoming and Forwarding Ruleset, DoS protection

Service

Other services:	DHCP Server (IPv4/IPv6, dynamic and static leases, IPv6 Prefix Delegation, DNS proxy) , DynDNS client , PPPoE , FTP server , E-Mail via SMTP , SMS (notifications and commands) , Telnet server
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Software

Operating system:	Custom embedded Linux with Busybox Shell
VPN:	OpenVPN, IPSec, GRE, L2TP, PPTP
Switching:	VLAN (via Scripting), tunneled VLANs (via Scripting) , IGMP
Management:	HTML5, SSH, SNMPv1/2c/3, Automatic configuration and firmware fetch from a web- or ftpserver, backup and restore with drag & drop
Diagnostics:	One click support report package, System log, Linux kernel log, reboot log, signal strength history (60 days), SSH linux shell, Signal strength LED indicators
Configuration:	Simple to edit text file configuration, HTTP, HTTPS, SMS, SSH, Telnet, 4 Configuration Profiles, automatic via web/ftp, SNMPv1/2c/3
Security:	HTTPS, SSH, Authentication with RADIUS or TACACS+, activate cellular interface with SMS, Ethernet 802.1X (EAP-PEAP/MsCHAPv2 or EAP-TLS)
Time synchronisation:	SNTP Client, SNTP Server , Battery for RTC (CR1225), GPS
Routing:	Static unicast routing, Multinetting, IP masquerading, Port forwarding, Multiple routes with priority and load sharing, 1:1 NAT
Dynamic routing:	Dual VRRPv2 (with ping probes), Dual VRRPv3 (with ping probes), multiple routed interfaces (ping monitoring, failover and load balancing)

Ambient conditions

MTBF (MIL-HDBK-217F-2, parts count):	55.2 Years
Degree of Protection when Installed:	IP30
Operating temperature:	-40-+65 °C
Storage/transport temperature:	-40-+85 °C
Relative humidity (non-condensing):	0-95 %

Mechanical construction

Weight:	520 g
Housing:	Metal
Mounting:	DIN Rail and Wall mounting
Protection class:	IP30

Approvals

Safety of industrial control equipment:	UL/EN/AS/NZS 62368-1:2014 (formerly EN 60950-1)
Transportation:	E8 (vehicles) , EN 45545-1 (fire) , EN 45545-2 HL1/HL2/HL3
Radio:	PTCRB, AT&T, Verizon (pending), FCC CFR-47:2017 Part 15 Subpart B Class A, FCC CFR-47:2016 Part 22 Subpart H, FCC CFR-47:2016 Part 24 Subpart E

WLAN Access Point

Access Point Functionality:	Yes, open and secured (WEP, WPA-PSK, WPA-Enterprise, WPA2-PSK, WPA2-Enterprise, 802.1X - Radius with EAP-PEAP/MsCHAPv2 or EAP-TLS), AP and Client function can be used in parallel (only on the same channel, AP channel takes priority)
Number of SSIDs:	1
Max. Number of Connected Clients:	50

WLAN Client

Client / STA Functionality:	Yes, open and secured (WEP, WPA-PSK, WPA-Enterprise, WPA2-PSK, WPA2-Enterprise, 802.1X - Radius with EAP-PEAP/MsCHAPv2 or EAP-TLS), AP and Client function can be used in parallel (only on the same channel, AP channel takes priority)
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Scope of delivery and accessories

Modules and components:	User modules pre-installed: GPS, User modules as separate download: Lua, Python
Accessories:	942042105 Indoor LTE Antenna , 942042108 Indoor GPS antenna , 942117001 50Ohm terminator for cellular antenna , 943981015 2x2 WLAN Through-hole antenna , 943662015 Rail Power Supply
Scope of delivery:	Device, DIN rail clip, wall mount wings, 2-pin power connector, 10-pin connector for I/O and RS232/RS485

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