

**Product:** [OWL 4G Europe + WLAN](#) 

LTE Ethernet Gateway, Europe, 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-L01.01-W01.01-F02-U01-A02-VXX.X.XX
Name:	OWL 4G Europe + 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:	942283101
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:	Europe (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherland, Poland, Portugal, Romania, Sweden, Slovakia, Slovenia, Spain), Iceland, Liechtenstein, Norway, Switzerland, Turkey
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:	GPRS/EDGE (2G): 900/1800 MHz, UMTS/HSPA+ (3G): 900(Band 8) / 2100(Band 1) MHz, LTE (4G): 700(Band 28A) / 800(Band 20) / 900(Band 8) / 1800 (Band 3) / 2100(Band 1) / 2300(Band 40) / 2500(Band 41) / 2600(Band 7, Band 38) 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)
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Stateful inspection firewall:	Static Firewall IPv4/IPv6 with Incoming and Forwarding Ruleset, DoS protection
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## 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)
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:	EN 62311:2008, 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:	ETSI EN 300 328:2016 V2.1.1, Draft ETSI EN 301 489-1:2017 V2.2.0, Draft ETSI EN 301 489-17:2017 V3.2.0, Draft ETSI EN 301 489-19:2017 V2.1.0, Draft ETSI EN 301 489-52:2016 V1.1.0, ETSI EN 301 511:2017 V12.5.1, ETSI EN 301 893:2017 V2.1.1, ETSI EN 301 908-1:2016 V11.1.1, ETSI EN 301 908-2:2017 V11.1.2, ETSI EN 301 908-13:2017 V11.1.2, ETSI EN 303 413

## 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

## 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
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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