

Product: [OWL LTE M12](#) 



LTE Ethernet Gateway, Europe, M12, VPN, GPS, Dual SIM, Serial, IO, USB, MicroSD, Transportation (EN50155)

Product Description

Transportation EN50155 Cellular Router and Gateway. Optimized for 4G applications with edge pre-computing. VPN and openly programmable and extendable Linux. VRRP for router redundancy. Dead reckoning for GPS even inside tunnels.

Technical Specifications

Product description

Type:	OWL LTE M12-S20T5A12221GTDBHHXX.X.XX
Name:	OWL LTE M12
Description:	Transportation EN50155 Cellular Router and Gateway. Optimized for distributed 4G applications with edge pre-computing. VPN and open extendable Linux. VRRP for router redundancy. Dead reckoning for GPS even inside tunnels.
Part Number:	942147002
Port type and quantity:	2x Ethernet, 2x Antenna, 1x GPS, 2x SIM, 1x Power, 4x I/O, 1x USB, 1x Serial, 1x MicroSD
Serial:	8-port M12 A-Coded (connector NOT included): RS232 , Serial2TCP , Serial2UDP
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
Hard disk space:	Can be extended with MicroSD (up to 64GB)

Product Life Cycle

Availability:	Limited
Last Order Date:	2022-10-31

More Interfaces

USB interface:	1 x 5-pin M12 A-coded socket (connector NOT included)
SIM Cards:	2x 2FF (3V, 1.8V), only one active at a time, can be configured independently, automatic switch on connection failure
Ethernet:	2x Ethernet: 10/100 Mbit/s (M12 D-Coded)
Power Supply:	M12 A-coded 5-pin (connector NOT included)
Signaling contact:	8-port M12 A-Coded (connector NOT included): 2x Digital Input, 2x Digital Output

Radio technology

Antenna connector:	3 x SMA Female (Cellular, Diversity, GPS)
Frequency band:	GPRS/EDGE (2G): 900(Band 8) /1800(Band 3) MHz, UMTS/HSPA+ (3G): 900(Band8) /2100(Band 2) MHz, LTE (4G): 800(Band 20) /900(Band 8) /1800(Band 3) /2100(Band 1) /2600(Band 7) MHz
Transmission rate:	LTE Category 4: 150 Mbit/s Download, 50 Mbit/s Upload
Additional radio features:	GNSS (GPS, GLONASS, Galileo, QZSS), Dead Reckoning

Power requirements

Current consumption:	Idle 2.5 W, Average 4 W, Maximum 11 W
Operating Voltage:	12 V DC to 36 V DC, PoE PD on request
Power consumption:	4 to 11 W
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

Modules and components:	User modules pre-installed: GPS, User modules as separate download: GPS Dead Reckoning, Lua, Python, NodeRED
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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, 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: Gb 25 °C):	38 Years
Degree of Protection when Installed:	IP40
Operating temperature:	-40-+70 °C
Storage/transport temperature:	-40-+85 °C
Relative humidity (non-condensing):	0-95 %
Protective paint on PCB:	Yes (conformal coating)

Mechanical construction

Dimensions (WxHxD):	203x62x127 mm
Weight:	960 g
Housing:	Metal
Mounting:	Wall mounting
Protection class:	IP40

Approvals

Safety of industrial control equipment:	EN 60950-1
Safety of information technology equipment:	EN 60950-1
Environmental:	EN 61000-6-2, EN 301 489, EN 61131 for use in automation environment
Transportation:	EN 50155 (Onboard), EN 50121-4 (Trackside), EN 45545-2:2013 + A1:2015 HL3 (Fire)
Radio:	EN 301 511, EN 301 489(-1,-7,-24), EN 301 908(-1,-2,-13)

Reliability

Guarantee:	60 months (please refer to the terms of guarantee for detailed information)
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Scope of delivery and accessories

Accessories:	942042105 Indoor LTE Antenna , 942042108 Indoor GPS antenna , 942087001 Terminal cable M12 to DB9 , 933170100 M12 A-coded connector (Power/USB) , 934637655 Ethernet M12-D to RJ45 (4 meters) , 107521 Single-Ended M12-A (5 meters) for I/O or RS232 , 943662015 Rail Power Supply
Scope of delivery:	Device, Wall mount brackets

Further Instructions

Product Documentation:	https://www.doc.hirschmann.com
Certificates:	https://www.doc.hirschmann.com/certificates.html
Software Download:	https://hirschmann-support.belden.com/en-US/downloads

History

Update and Revision: Revision Number: 0.144 Revision Date: 01-02-2024

Variants

Item #	Type
942147002	OWL LTE M12-S20T5A12221GTDBHHXX.X.XX

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