



E02153



## AMBRA SOLUTIONS LAYER 2 LTE RUGGED MODEM

The E02153 Rugged LTE modem is Ambra Solutions' feature filled wireless device to meet your ethernet over LTE connectivity requirements. It provides the data bandwidth for your data intensive solutions as well as integrating other functionalities, such as multiple I/O, CAN bus, Ignition input, BLE and GPS. These functionalities which make it one of the most flexible devices on the market as well as making it compatible with Ambra Solutions' proprietary iPS tracking solution for fleet and asset geo tracking capabilities.

### FEATURES AND BENEFITS

- Rugged Enclosure for industrial, outdoor harsh environment and mining applications
- LTE 4G and 5G ready modem
- iPS ready for asset tracking indoor and outdoor
- Linux Based OS
- Layer 2 tunneling
- Web UI for device configuration and management

### FREQUENCY BANDS

Model	E02153-XX-XX-01	E02153-XX-XX-02	E02153-XX-XX-03	E02153-XX-XX-04	E02153-XX-XX-05
Category	LTE CAT6	LTE CAT11	LTE CAT18	5G NR & LTE CAT20	5G NR & LTE CAT20+
GNSS Support	GPS, GLONASS, Galileo, BeiDou	GPS, GLONASS, Galileo, BeiDou	GPS, GLONASS, Galileo, BeiDou	GPS, GLONASS, Galileo, BeiDou	GPS, GLONASS, Galileo, BeiDou
Speeds	Up to 300 Mbps DL Up to 50 Mbps UL	Up to 600 Mbps DL Up to 75 Mbps UL	Up to 1200 Mbps DL Up to 150 Mbps UL	5G : Up to 5,5 Gbps DL ; Up to 2,7 Gbps UL 4G : Up to 2,4 Gbps DL ; Up to 211 Mbps UL	Up to 5,5 Gbps DL Up to 3 Gbps UL
Supported bands	B1, B2, B3, B4, B5, B7, B8, B12, B13, B20, B25, B26, B29, B30, B41	B1, B2, B3, B4, B5, B7, B8, B12, B13, B17, B20, B25, B26, B28, B29, B30, B38, B40, B41, B66	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B20, B25, B26, B28, B29, B30, B32, B38, B39, B40, B41, B42, B46, B48, B66, B71	5G Sub-6 FDD and TDD Sub-6 GHz: n1, n2, n3, n5, n7, n12, n14, n20, n28, n30, n41, n66, n71, n77, n78, n79 LTE: B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B14, B17, B18, B19, B20, B25, B26, B27, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71	5G Sub-6 FDD and TDD Sub-6 GHz: n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79 LTE: B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B18, B19, B20, B21, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71

### PRODUCT PINOUT

<b>J1 (PWR+CAN) - M12-5 Series</b>	Power + / 9VDC to 60 VDC operational; Protection towards SAEJ1113 / ISO7637; OVP 200VDC Reverse polarity protection up to 100V; 550mA typical at 9VDC (5W max power consumption) IGN / Wakes unit from sleep Power - / Battery GND CAN Lo / Either CAN or NOP dry contact with pin 5 CAN (250, 500, 1000) Can Hi / Either CAN or NOP dry contact with pin 4	<b>ETH0 - Ethernet M12 Series</b>	1 Gig 10/100/1000 Compatible passive POE and POE+ 802,3 at/af M-12 X-Coded connector	
<b>J2 GPIO</b>	The J2/GPIO connector can be ordred in various I/O configuration : - Input 4-20mA, -0-60V Analog input - Digital output (low side) 0.3A - Output 4-20mA - M12 A-Coded 8 positions connector	<b>ETH1 - Ethernet M12 Series</b>	100Mb 10/100 M-12 X-Coded connector	
<b>RF Connectors</b>	LTE1 - N-Type LTE2 - N-Type	Bluetooth - N-Type GPS - TNC	<b>ETH2 - Ethernet M12 Series</b>	100Mb 10/100 M-12 X-Coded connector

### SPECIFICATIONS

Environmental	Mechanical	Sensors			
Operating Temperature	-40°C to 85°C	Case Material	Aluminium blue anodized	Acclerometer	Temperature sensor
Storage Temperature	-40°C to 85°C	Dimensions	170mm x 111,75mm	Gyroscope	Voltmeter
Ingress Protection	IP67	Weight	2 lbs	Magnetometer	
EMC	IEC/EN 61000-6-3, ICES-003	Vibration	MIL-810	Pressure sensor	

### EMBEDDED SENSORS

### ORDERING INFORMATION

CAT Type	1-port ethernet	3-port-ethernet
CAT6 (4G)	E02153-00-00-01	E02153-01-00-01
CAT11 (4G)	E02153-00-00-02	E02153-01-00-02
CAT18 (4G)	E02153-00-00-03	E02153-01-00-03
CAT20 (4G + 5G)	E02153-00-00-04	E02153-01-00-04
CAT20+ (4G + 5G)	E02153-00-00-05	E02153-01-00-05

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