# ReliaCELL 10-20

**Ruggedized Cellular Adapter - 2G/3G/LTE and GPS**

- **Global 2G/3G/LTE Cellular Support**
- **Easy Cellular Technology Migration**
- **Certified and Carrier Approved**
- **Rugged and Compact**
- **Easy Installation**
- **ESF Ready**

## Features

**Global 2G/3G/LTE Cellular** - The ReliaCELL 10-20 is the ready-to-go solution to provide cellular connectivity for new and already existing projects of any size
**Easy Cellular Technology Migration** - Mix and match any ReliaCELL 10-20 model: 2G/3G/LTE variants share the same design allowing plug-in migration between cellular technologies
**Certified and Carrier Approved** - Instantly add at no extra cost cellular certifications and carrier approvals to any system
**Rugged and Compact** - Ideally suited for harsh environments with an impact-resistant and sealed IP67 enclosure
**Easy Installation** - Ready for deployment with standard Linux and Windows software drivers, and compatible with any device with a USB 2.0 interface
**ESF Ready** - Natively supported by Everyware Software Framework (ESF), the Eurotech OSGi middleware for IoT Edge Gateways

## Description

The ReliaCELL 10-20 is a pre-certified, rugged cellular adapter that is easily mountable to flat surfaces. Deployable for products sold globally, this device modularizes the cellular component of embedded product development to allow it to be added to any system without incurring additional cellular certifications costs.
With its sealed and flexible design, the ReliaCELL 10-20 improves Time-to-Market and costs associated with the implementation of a cellular solution. It becomes an easy addition to existing or new applications with a simple USB 2.0 connection and SMA connectors for antennas.

The ReliaCELL 10-20 is offered in several cellular technologies, including the latest 4G LTE categories, providing the flexibility to upgrade any IoT application as the requirements evolve from 2G to 3G to 4G. It is possible to simply switch from a 3G to a 4G ReliaCELL 10-20 solution without changing the key components of the appliance and incurring significant hardware replacement costs.
The ReliaCELL 10-20 is supported by Everyware Software Framework (ESF), a commercial, enterprise-ready edition of Eclipse Kura, the open source Java/OSGi middleware for IoT Edge Gateways. Distributed and supported by Eurotech, ESF adds advanced security, diagnostics, provisioning and remote access. It supports ready-to-use field protocols (including Modbus, OPC-UA, S7), MQTT connectivity, web-based visual data flow programming and deep configuration.

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EUROTECH

| Ordering Code: RECELL-10-20-XX | | | | | | |
|---|---|---|---|---|---|---|
| **XX** | | -20 | -36, -37 | -43 | -44 | -45 |
| **CELLULAR** | Technology | 2G Quad Band GPRS | 3G Penta Band HSPA+ | 4G LTE Cat 4 (UMTS/GSM Fallback) | | 4G LTE Cat 1 |
| | Upload | 16-24Kbps | Up to 5.76Mbps | Up to 50Mbps | | Up to 5 Mbps |
| | Download | 32-4 Kbps | Up to 21Mbps | Up to 150Mbps | | Up to 10Mbps |
| | Bands/Frequencies | GSM/GPRS: Band 2,3,5,8 | UMTS: Bands 1,2,5,6,8,10; GSM/GPRS/ EDGE: Bands 2,3,5,8 | LTE: Bands 2,4,5,12,13; UMTS: Bands 2,5 | LTE: Bands 1,3,7,8,20; UMTS: Bands 1,8; GSM: Bands 3,8 | LTE: Bands 2,4,5,12, 25,26 |
| **GNSS** | Constellation | GPS, Galileo, GLONASS | GPS, Galileo, GLONASS, BeiDou | No | | |
| | Accuracy | 1.5 meters | 3 meters | No | | |
| | Tracking Sens | -162dBm | -166dBm | No | | |
| | Time to First Fix (TIFF) | 1 sec hot / 35 sec cold | 1.8 sec hot / 30 sec warm / 42 sec cold | No | | |
| | Data Output | NMEA, RTCM | NMEA 0183 | No | | |
| **ENVIRONM.** | Operating Temp | - 40 to +85°C | | | | |
| **APPROVALS** | Regulatory | CE | -36: KR Regulatory \| -37: JP Regulatory | FCC Part 15 B, PTCRB | CE | FCC Part 15 B, PTCRB |
| | Safety | UL 60950-1/ CSA-22.2 | UL 60950-1/ CSA-22.2, IEC- 60950-2 | UL 60950-1 | EN 60950-1 | UL 60950-1 |
| | Shock and Vibration | SAE/J1455 | | | | |
| | Environmental | RoHS2, REACH | | | | |
| | Market | EU | 36: KR \| -37: JP | US | EU | US |
| | Carrier | Any | - | AT&T, Verizon | Any | Sprint |
| **INTERFACES** | USB | 1x USB 2.0 Type A Compatible for Cellular Only | | | | |
| | Dual SIM | Yes | | | | |
| **ANTENNAS** | Cellular | SMA (Main & Diversity, where applicable) | | | | |
| | GPS | SMA (Optional - not on all modules) | | No | | |
| **POWER** | Input | 5VDC@500mA Typical | | | | No |
| **PHYSICAL** | Enclosure | Black Polycarbonate | | | | Gray |
| | Ingress | IP67 | | | | |
| | Mounting | 4x M2.5 screws, metric | | | | |

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