MULTITECH®

CREATE • CONNECT • COMMUNICATE

MultiConnect® rCell 100 Series

Industrial Cellular Router for Hazardous Locations with Ethernet and Serial Interfaces

MULTITECH 50 1970-2020

mPower EDGE INTELLIGENCE

DeviceHQ

MultiConnect® rCell 100 Series is a simple to deploy cellular router designed to connect industrial and critical infrastructure assets with a high degree of reliability. Core to the product is the aspect of device management using the DeviceHQ® portal. DeviceHQ allows management of your device fleet, allowing updates, as well as connectivity and usage alarms, and device location (with GPS/Wi-Fi). Powered by 7-32 VDC the MultiConnect rCell is ideal for mobile and solar applications where primary or secondary power is provided as DC. With a portfolio of security measures including VPN, the user is afforded secure connection for remote engagement such as PLC/RTU programming and custody transfer data collections.

These models are certified for use in hazardous locations in the United States and Europe, with **Class I Division 2** Zone 2 or ATEX certifications, and rated -40° to +60° C operating temperature.
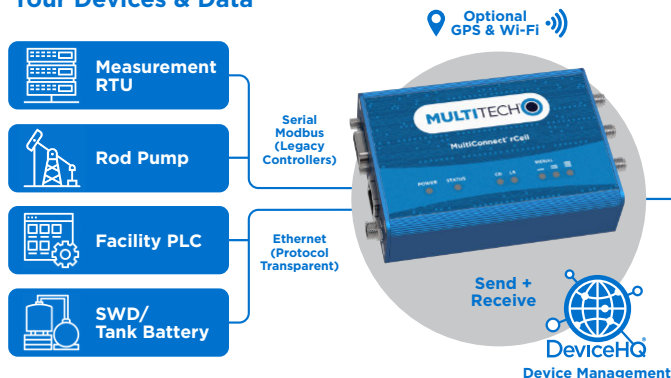
BENEFITS

• Life of network assurance with DeviceHQ management platform

* Serial and Ethernet allows migration of legacy devices

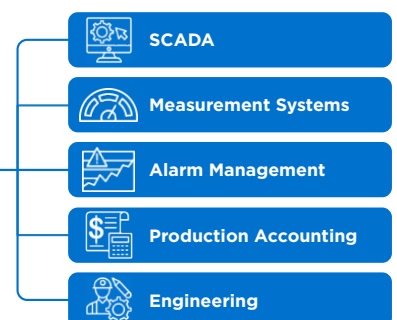* Optional Wi-Fi eliminates cables to locally connected devices

FEATURES

• 4G-LTE Cat 4 (with 2G/3G fallback)

• Optional GPS & Wi-Fi capabilities

• A single unit for use on Verizon and AT&T

• Serial and Ethernet interface with Modbus translation

• Rugged, military and SAE tested

• Remote device management (firmware version control)

• Two-year warranty, upgradable to five years

Your Devices & Data

- Measurement RTU
- Rod Pump
- Facility PLC
- SWD/ Tank Battery

Serial Modbus (Legacy Controllers)

Ethernet (Protocol Transparent)

Optional GPS & Wi-Fi

Send + Receive

DeviceHQ Device Management

Wireless Service Provider

Multi-Carrier Support

Polling Engine or Broker

Insight + Action + Control

- SCADA
- Measurement Systems
- Alarm Management
- Production Accounting
- Engineering

www.multitech.com/rcell100

HIGHLIGHTS

The MultiConnect rCell hazardous location models are designed to meet the USA and European Union certifications and guidelines to control the risks from dangerous substances igniting. These models of the MultiConnect rCell 100 Series hardware are certified for installation in explosive environments and designed to protect property and prevent loss of life. They are ideal for applications in oil and gas and other environments where safety standards are beyond that of standard MultiConnect rCell models. These environments are defined as areas in which an explosive mixture is not likely to occur in normal operation and if it does occur it will exist for only a short time.

Hazardous Location Special Considerations of Use:

The MultiConnect rCell 100 Series cellular routers are intended for installation into an IECEx/ATEX certified and IP54 minimum rated enclosure in accordance with IEC/EN 60079-0 and accessible only by the use of a tool.

The routers shall only be used in an area of not more than pollution degree 2, as defined in IEC/EN 60664-1. A transient protection device shall be provided at the power supply to the equipment that is set at a level not exceeding 140% of 32 VDC.

When designing power cable, connector, wire assembly, and any plastics or over molding must be rated at +70° C or higher. Wire gauge size (AWG) will need to be determined by installer based on device power requirements and length of wire required. Reference hardware guide for additional information.

mPower™ Edge Intelligence is MultiTech's embedded software offering used on programmable gateways and smart routers and helps deliver programmability, network flexibility, enhanced security and manageability for scalable Industrial Internet of Things (IIoT) solutions.

MultiTech DeviceHQ® is the M2M industry's first IoT online application store to enable customers to easily deploy and scale applications to their connected devices. Drag-and-drop tools easily allow customers to create and manage applications for in-field assets.

HARDWARE SPECIFICATIONS

Models	MTR-LNA7	MTR-LEU7
Performance	LTE Cat 4	
Frequency Band (MHz)	4G: B2(1900), B4(AWS1700), B5(850), B12(700), B13(700) 3G: B2(1900), B4(AWS1700), B5(850)	4G: B1(2100), B3(1800), B7(2600), B8(900), B20(800), B28A(700) 3G: B1(2100), B8(900) 2G: B3(1800), B8(900)
Packet Data*	Up to 150 Mbps downlink/ Up to 50 Mbps uplink (Category 4)	
Diversity/MIMO	Rx Diversity and MIMO DL 2x2	
SMS	Point-to-Point Messaging, Mobile-Terminated SMS, Mobile-Originated SMS	
Voltage	7V to 32VDC	
Connectors		
Cellular	Female SMA	
Wi-Fi	Reverse polarity female SMA	
GPS	Female SMA	
SIM	Micro SIM (3FF); 1.8 and 3V	
LAN	RJ-45, 10/100 BaseT	
RS-232	DE9	
Power	2.5 mm miniature (screw-on) Switchcraft P/N 712RA	
Physical Description		
Dimensions (L x W x H)	4.17" x 3.0" x 1.15" (10.6 cm x 7.6 cm x 2.9 cm)	
Weight	0.51 lbs (0.231 Kg)	
Chassis Type	Aluminum	
IP-Rating	Designed for IP30 Rating	
Environmental		
Operating Temperature†	-40° to +60° C (-40° to +140° F)	
Storage Temperature	-40° to +85° C (-40° to +185° F)	
Humidity	Relative humidity 15% to 93% noncondensing	
Certifications		
Regulatory	EMC and Radio Compliance, FCC Part 15 Class B, FCC Part 22H, FCC Part 24E, FCC Part 27	CE mark, RED (EU)
Safety	UL 60950-1 2nd ED, CAN/CSA C22.2 No. 60950-1, IEC 62368-1	IEC60950-1(EU), IEC62368-1 (EU)
Hazardous Locations	Class 1,Division 2 GROUP A,B,C,D CLASS 2 OR LPS INPUT UL 121201 and CSA C22.2 No. 213 CID2	ATEX EN IEC 60079-0:2018 & EN 60079-7:2015 +A1:2018 Temperature Code: T5 Certification number: DEMKO 20 ATEX 2346X
Network	Verizon/AT&T/PTCRB	EU carriers
Quality	MIL-STD-810G: High Temp, Low Temp, Cold Dwell, Random Vibration and Sine Vibration SAE J1455: Random Vibration and Sine Vibration	

* Actual performance speeds may be affected by a variety of attributes such as cell tower distance, data loads, packet sizes, etc.
† Device has been tested up to +85° C. UL Recognized @ 40° C, limited by AC power supply. UL Recognized @ 60° C when used with the fused DC power cable, part number FPC-532-DC. Note: The radio's performance may be affected at the temperature extremes. This is considered normal. There is no single cause for this function. Rather, it is the result of an interaction of several factors, such as the ambient temperature, the operating mode and the transmit power.

ORDERING INFORMATION

MultiConnect® rCell 100 Series 4G-LTE Models

Model	Description	Region
MTR-LNA7-B07-HZ	LTE Cat 4 Router with Fallback and DIN rail mounting plate (AT&T/Verizon)	US/Canada
MTR-LNA7-B10-HZ	LTE Cat 4 Router with Fallback, Wi-Fi/BT/GPS, and DIN rail mounting plate (AT&T/Verizon)	US/Canada
MTR-LEU7-B07-HZ	LTE Cat 4 Router with Fallback and DIN rail mounting plate (Europe)	Europe/GB
MTR-LEU7-B10-HZ	LTE Cat 4 Router with Fallback, Wi-Fi/BT/GPS, and DIN rail mounting plate (Europe)	Europe/GB

Services & Warranty

MultiTech's comprehensive Support Services programs offer a full array of options to suit your specific needs. These services are aimed at protecting your investment, extending the life of your solution or product, and reducing total cost of ownership. Our seasoned technical experts, with an average tenure of more than 10 years, can walk you through smooth installations, troubleshoot issues and help you with configurations.

Technical Support Services

At MultiTech, we're committed to providing you personalized attention and quality service while providing you a quick response to your product support needs. We have several options of support for you to choose from.

For additional information on Support Services as well as other service offerings, please contact your MultiTech representative or visit www.multitech.com/support.go

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