# JANUS REMOTE COMMUNICATIONS



# **Janus Hardware Building Blocks**



# We do IoT — From Idea Through Integration www.janus-rc.com

# IOT MONITORING AND CONTROL DEVICES

**Janus Remote Communications** has provided custom and off-the-shelf products and solutions for the global IoT marketplace since 2002. Our significant internal design and manufacturing resources, coupled with our experience in diverse communications technologies, helps us to create original and pragmatic solutions for customer application requirements.

Janus offers numerous IoT "Building Block" products enabling customers to quickly and easily build their own IoT solutions. Our North American and International regulatory certifications helps customers quickly and cost effectively move their products and solutions to market – circumventing the arduous and expensive carrier end device certifications. www.janus-rc.com

# Besides our standard OTS products, Janus offers solutions and services in these areas:

System Architecture Firmware Design Applications Software Hardware Manufacturing Hardware Design Database Design User Interface Tools

## **Applications**

Fleet ManagementTelematicsAsset TrackingRemote Monitoring SystemsSecurity SystemsRemote Meter ReadingTelemetryVending Machines

## **Supported Cellular Wireless Technologies**

HSPA+ LTE CAT-M1 LTE CAT 4 LTE CAT 1 NB-loT



Janus Remote Communications is part of the Connor-Winfield Corporation group of companies.

For over 50 years, Connor-Winfield has been providing electronic hardware, software/firmware, and manufacturing solutions to companies around the world.



## **Janus Embedded Modems**

## **Common Footprint (CF) Socket Modems**

LTE910CF CAT1, CAT4 and CAT-M1

The Janus line of CF socket modems are carrier end device certified, footprint compatible, GNSS enabled, embedded modems for use in



communication networks. They were specifically designed to provide customers with cost effective modems that are easily integrated into new and existing designs, require limited customer certification resources, and are interchangeable to allow for maximum network flexibility while removing the worry of product obsolescence. Their "end product" carrier certification allows users to integrate any cellular CF modem into their application with no further carrier certification requirements.

- Operating Temperature: -40°C to +85°C
- Input Voltage Range: 4.75 to 5.25Vdc (5.0Vdc Nominal)
- Dimensions: 2.5" x 1.4" x 0.325"
- GNSS Availability
- Carrier Certified: AT&T, Verizon, Rogers
- Regulatory Approvals: PTCRB, FCC, ISED Canada

## Embedded Cellular XF Footprint Socket Modems LTE910XF CAT1, CAT4 and CAT-M1



The Janus line of XF Cellular Socket modems, based on industry standard 20-pin connector footprint, are small, cost effective, PTCRB and carrier certified "end product" modems available on the market today. They are specifically designed

to provide customers with cost-effective products that are easily integrated into new and existing designs. Their "end product" carrier certification allows users to integrate any cellular XF modem into their application with no further carrier certification requirements.

The XF Footprint Socket Modems combine the full features and functionalities of cellular modules with the flexibility of a "Socket" DIP design, sharing the same 20-pin footprint and offer users the ability to easily configure their applications for communications via any cellular protocol worldwide.

- Industry Standard 20-pin Connectors
- PCB Mount
- Size: 1.14" x 1.3" x 0.256"
- Temp Range: -40°C to 85°C
- Input Voltage: 3.5 to 5.5Vdc
- Carrier Certified: AT&T, Verizon, Rogers
- Regulatory Approvals: PTCRB, FCC, ISED Canada

"Companies with simple or even complex remote wireless applications will find a Janus product the perfect integrated cellular solution for their requirements", states Dave Jahr, General Manager of Janus. "We design all our products with our customers in mind — to be costeffective, feature and function rich."

# JANUS GLOBAL CELLULAR MODEM SOLUTIONS

# **CellBridge**<sup>TM</sup>

The **Janus CellBridge™** family of Global IoT solutions provide our customers with powerful new hardware, software and connectivity tools to quickly and easily integrate certified cellular modems into their end applications, giving them unrivaled operation, monitoring and control features and functions.

#### **CellBridge Hardware**

Janus offers customers several different **CellBridge™** hardware platforms to meet their end application integration requirements. All modems, terminals and gateways are PTCRB, RED and North American carrier "end device" certified for use in 4G LTE CAT-M1 and NB2 (NB-IoT) cellular communication network applications.

The **CellBridge™** devices provide customers with cost-effective products that are easily integrated into new and existing designs. Their "end device" classification allows users to integrate any certified **CellBridge™** device into their end application with little or no further regulatory or carrier requirements globally.

# Telit ONE3DGE

Telit offers ME310G1-WW and ME910G1-WW with OneEdge, a software suite integrated with deployment and management tools to address the complexity expected with the exponential growth in the number of IoT devices. The following components include:

- Lightweight M2M protocol enables comprehensive device management, FOTA updates and application enablement of low-power devices with the goal of more robust and secure connections.
- Telit simWISE<sup>™</sup>, a module-embedded SIM technology, enables reduced footprint, streamlined manufacturing and logistics, secure communications for connected devices.
- Telit IoT AppZone can run code and applications directly inside the Telit module.
- Telit's Connection Manager automates operations for connection to cellular networks.
- Location services provide the position of devices even in the absence of a GNSS connection.

## CellBridge<sup>™</sup> Enclosed Cellular Modems!

LTE910T3 v20.00 T3 Enclosed Terminal

LTE910T2 v20.00 Enclosed Gateway with Cortex M4 Processing Power

**LTE400AP v20.00** Enclosed Edge SBC with Advanced Connectivity

See Page 4 for more information

#### CellBridge™ Global Cellular Modems -

Quickly and easily add to your new and existing designs

#### LTE310SMT v1.00 CAT-M1/NB2 Global Cellular Modem

The Janus CellBridge<sup>™</sup> SMT LTE310SMT v1.00 LGA surface mount embedded modem makes it easier than ever for

customers to integrate 4G LTE cellular technology into their end applications. They are specifically designed to be machine placed during the pick & place production process.



No more hand assembly or pin connection issues in the field.

The LTE310SMT v1.00 can be deployed globally with their dual mode LTE Cat M1/NB2 (NB-IoT) and 2G fallback frequency bands. They are highly recommended for new designs and are an ideal migration path for existing 2G or 3G devices. Both current and updated designs benefit from a significant extension in life cycle with LTE Cat M1/NB2.

#### LTE910CF v20.00 CAT-M1/NB2 4G Cellular Socket Modem

The Janus CellBridge™ CF

**LTE910CF v20.00** Common Footprint (CF) embedded modem makes it easier than ever for customers to integrate 4G LTE cellular technology into their end applications.



The **LTE910CF v20.00** CAT-M1/NB2 Socket Modem uses the Telit ME910G1-WW as its cellular engine and has global PTCRB, AT&T, Verizon and RED certifications. The **LTE910CF v20.00** units operate in CAT-M1/NB2 LTE 4G and 2G bands. (See bands on our website)

**LTE910CF v20.00** modems are pin compatible with the full line of Janus' CF Socket Modem Products.

#### LTE910XF v20.00 CAT-M1/NB2 4G Cellular Socket Modem

The CellBridge<sup>™</sup> XF LTE910XF v20.00 CAT-M1/NB2 Socket Modem uses the Telit ME910G1-WW as its cellular engine and has global PTCRB, AT&T, Verizon

and RED certifications. The LTE910XF v20.00 units operate in CAT-M1/NB2 LTE 4G and 2G bands (see bands on our website).

The full XF line shares the Industry Standard 20-pin connector footprint and is flexible in implementation - both into new product designs and with existing products.



# **Custom Design** Solutions for your IoT Applications

# Janus Hardware and **Gateway Product** Solutions

## LTE910PS POTSwap

#### **POTS Replacement – POTS to Wireless**

The LTE910PS POTSwap allows land line telephones and

modems to replace their POTS (plain old telephone service) connection with a wireless cellular connection. An internal land line modem allows legacy dial-up modem equipment to connect to remote TCP/IP networks. Fixed location voice applications can connect directly to the PSTN (Public



Switched Telephone Network). Both dial-in and dial-out data and voice applications are supported.

An FXS connection (RJ11 jack) provides complete Central Office emulation including dial tone, ringing and busy signal generation as well as DTMF detection and generation. The POTSwap emulates all the functions of a wired telephone connection, is fully compatible with all common modem standards and can be configured to emulate all international telephone line standards.

Wireless connectivity is provided by the Janus line of Common Footprint (CF) Socket modems, available for all cellular carriers.

## LTE400AP Cellular SBC

The LTE400AP Open Platform Intelligent Cellular Terminals are complete wireless communication devices with integrated ARM9™ processors and expanded memory. They include Serial (RS-232/ RS-485), USB and Ethernet connectivity with a voltage input range from 7 to 26 VDC.

- Incorporates Janus CF Modems
- Ethernet/USB/Serial Connectivity
- Embedded Linux OS
- 6 Exposed GPIOs
- Dimensions: 3.15" x 4.27" x 1.18"
- Ruggedized Aluminum Enclosure

#### Visit www.janus-rc.com to learn more about Janus Remote Communications!

Our website is your one-stop location for news, general product information, documentation, downloads, links and supplemental material regarding Janus products and services. We continually update our web resources to help you guickly and easily achieve your IoT application goals.

# JANUS REMOTE C O M M U N I C A T I O N S

# LTE910T3 - Serial/USB to Cellular Bridge

The LTE910T3 is a low cost cellular terminal housed in

a compact, rugged aluminum enclosure. Powered by 5 Vdc and offering USB and Serial connectivity, the LTE910T3 allows for easy integration into any IoT application.



Incorporating carrier end device certified Common Footprint Socket modems, the LTE910T3 provides a hardware solution with direct access to the cellular network of your choice. External connectors allow the customer to choose the precise antenna for their application needs.

Designed specifically for IoT applications, the LTE T3 products are ideal for use in all telemetry and telematic applications including fleet and asset management, vending, security, alarm monitoring, and e-maintenance.

## LTE910T2 Cellular Gateway

Our LTE910T2 second generation Standard (T2) products are

highly adaptable and cost-effective cellular terminals incorporating an embedded 32-bit Cortex M4™ 150MIPS processor with 256KB Flash/96KB+4KB RAM. The T2 offers standard serial and USB (OTG) connectivity, 4-20 mA current loops, an



accelerometer, and an input power range of 7-28 VDC.

- Incorporates Janus CF Socket Modems
- Operating Temperature: -40°C to +85°C
- Serial Connection (RS-232)
- USB (OTG)
- Operating Voltage: -7 to 28 VDC
- Ryton Enclosure
- Dimensions: 2.6" x 3.75" x 1.2"

Telit wireless solutions

**Technology Partner** 

## WIRELESS MODULES

Telit is the global leader in Internet of Things (IoT) enablement. Telit offers the industry's broadest portfolio of integrated products, platforms and services to support and enable IoT deployments from things to apps. Our portfolio of modules addresses all cellular communication technologies, GNSS and short-to-long range wireless applications.



For more information about the Telit, please visit www.telit.com.

Telit modules are marketed and deployed worldwide.

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