



WiPOM Supported Hardware

WiPOM on Peripheral Board



WiPOM on Cortex-M Embedded Board



WiPOM on Cortex-A Embedded Board



WiPOM on Cellular Board



WiPOM on Cellular Gateway



WiPOM on Cellular Modem



WiPOM on Embedded PC (Windows, Linux)



WiPOM on a Cortex Module



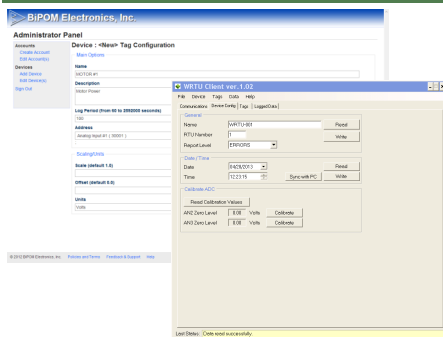
WiPOM on Cellular Module



WiPOM on a Cortex Chip



WiPOM Software



WiPOM Client Windows software communicates with WiPOM boards through USB:

- Configure device name, date/time, calibration
- Add / edit / delete tags
- Show logged data, events and alarms for selected time range
- Export collected data to Excel

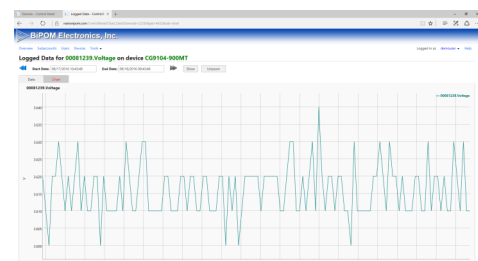
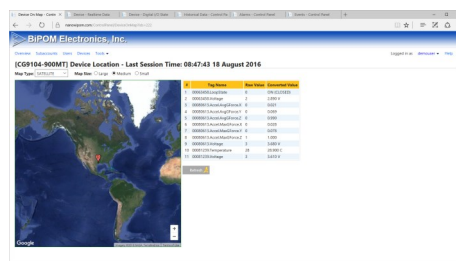
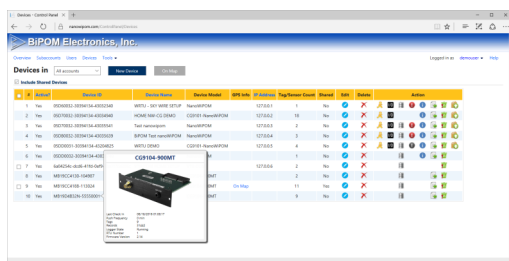
Most of the WiPOM Client functions are also available from **WiPORTAL** below, accessing the field devices over the air from our web portal.

- Configure device name, date/time, calibration
- Add / edit / delete tags
- Collect data to database on server
- Export collected data to Excel

WiPORTAL

For customers who do not have an extensive IT Department yet need real-time remote data reporting and critical "Alerts", BiPOM offers **WiPORTAL**.

It is a simplified, low-cost, cloud/server service that provides timely and critical information 24/7. This service has been in operation for over five years. It is effective, reliable, low-cost and yet provides easy, password protected access, real-time data and immediate alerts with customer selected thresholds. Custom formats and alerts are provided to fit individual customer needs. If you have CloudGate, Sierra Wireless or other BiPOM wireless systems, this is immediately available. Please contact sales@bipom.com for signing up.





MODBUS Tools

MB Client is a MODBUS Master software for communicating with MODBUS Slave devices. **MB Client** and Built-in **MODBUS Simulator** supports MODBUS RTU and MODBUS TCP

MB Client v. 1.52 - [VTB Vibration Sensor.rtu]

File Tools Commands View Project Help

Alias (name)	Register Ad...	Value
Axis #1		
<input checked="" type="checkbox"/> Accel	40173	
<input checked="" type="checkbox"/> Accel S1A1	40191	
<input checked="" type="checkbox"/> Accel S2A1	40209	
<input checked="" type="checkbox"/> Velocity	40179	
<input checked="" type="checkbox"/> Velocity S1A1	40197	
<input checked="" type="checkbox"/> Velocity S2A1	40215	
Axis #2		
<input checked="" type="checkbox"/> Accel	40175	
<input checked="" type="checkbox"/> Velocity	40181	
<input checked="" type="checkbox"/> Accel S1A2	40193	
<input checked="" type="checkbox"/> Accel S2A2	40211	
<input checked="" type="checkbox"/> Velocity S1A2	40199	
<input checked="" type="checkbox"/> Velocity S2A2	40217	
Axis #3		
<input checked="" type="checkbox"/> Accel	40177	
<input checked="" type="checkbox"/> Velocity	40183	
<input checked="" type="checkbox"/> Accel S1A3	40195	
<input checked="" type="checkbox"/> Accel S2A3	40213	
<input checked="" type="checkbox"/> Velocity S1A3	40201	

07:14:54.350 : Checking for software updates...

MODBUS Client

MB Simulator v. 1.12

File Help

COM Serial Port Settings

COM Port: Baud Rate: Parity: Data Bits: Open Port Close Port

Handshakes Stop Bits:

None 1

☐ Only Send Exception Exception Code: 1

MB Simulator Options

Devices: Device Configuration:

RTU111 Coils Digital Inputs Analog Inputs Holding

Register Number	Value
#40001	1
#40002	2
#40003	3
#40004	4
#40005	5
#40006	6
#40007	7
#40008	8
#40009	9

Add Delete ☒ Show All Registers ☐ Show Hex

Messages: Clear Messages

MODBUS Simulator

- Unlimited number of registers
- Supports grouping of registers
- Support both MODBUS RTU and MODBUS TCP
- Coloring registers
- Different display formats - signed/unsigned, 16/32 bits, float/double formats
- Ability of adding units to every register
- Polls as a single read for efficiency
- MODBUS Simulator simulates unlimited devices, up to 1000 registers of each type



CloudGate Cellular Gateways

Cloudgate LTE delivers a faster, richer and smoother LAN to WWAN routing and GPS functionality in a single basic unit certified on all major USA cellular operators (LTE Bands 4/13/17 with 3G Fall back to HSPA+). In addition CloudGate LTE is equipped with many new features: ignition sensing & timed wakeup - ideal for telematics and solar applications, expanded RAM, Flash and an SD memory slot - great for running more sophisticated applications on the CloudGate.

- High speed LTE
- Automatic connection monitoring and error recovery
- Secure, redundant firmware and configuration images
- Unique software and hardware configuration flexibility
- Automatic provisioning of custom middleware
- Expandable memory storage



CloudGate Rev3 Americas

CloudGate M2M Gateway Americas with Ethernet and Active GPS- LTE Bands 2/4/5/13/17 with 3G Fall back



CloudGate Rev4 Worldwide

CloudGate LTE Worldwide (Rev 4) with Ethernet and active GPS. 20 LTE bands (EMEA, Americas, Asia) including TDD bands (China)



CloudGate Micro

Industrial grade, cost-effective cellular connectivity. 20 LTE bands (EMEA, Americas, Asia) including TDD bands (China)



CloudGate Mini

CloudGate Mini bundle (CG Micro + IO expansion card). 20 LTE bands (EMEA, Americas, Asia) including TDD bands (China)



CloudGate Nano

LTE multiband IoT gateway providing internet connectivity at LTE Cat M1/ Cat NB1 data rates.



CloudGate Ethernet

The CloudGate Ethernet is an M2M gateway providing internet connectivity



Remote I/O Unit

METRIO is designed for distributed remote I/O connectivity. The METRIO can be connected to any Modbus-RTU master using RS485 wire, or using an optional wireless option card. Up to 12 I/O expansion boards can be installed onto the METRIO base carrier, for a flexible mix of I/O, and any of our over 40 peripheral boards.

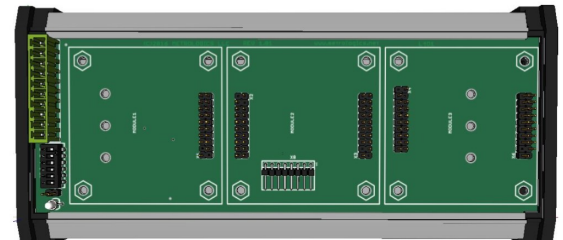
Main Features

- Remote I/O expansion system
- Small form factor for mounting in your enclosure
- 12 to 30 VDC power input using on-board terminal blocks
- Connects to your Modbus-RTU master as a slave I/O unit
- RS485, 2-wire (direct connection using on-board terminal blocks)
- Long-range ZigBee wireless mesh radio (using a plug-in expansion card in slot 1), or 900 MHz radio module
- On-board slave node addressing switch • On-board LED's for communication and power status
- PC based application for configuring wireless node address, and setting up tag based Modbus-RTU registers
- Stack up to six optional expansion I/O boards in any combination
- DIN-Rail mounting housing included, tool-less installation

Optional Common Expansion Boards

- 8 analog Inputs (12 bit, 4-20 mA, or 0-5 VDC, strap selectable)
- 11 analog inputs (12 bit, 0-4.096 VDC) 1 analog output (10 bit)
- 8 analog outputs (10 bit)
- 8 Digital Inputs, opto-coupled, dry contact or voltage input, strap selectable
- 4 high current relay outputs
- 1 Thermocouple, with cold-junction compensation
- 12 Thermocouples, with cold-junction compensation
- Wireless (ZigBee, SiFlex)
- Custom designed expansion boards available on request

Uses: I/O expansion for RTU's, PLC's, PC's, any intelligent Modbus master, etc.





CloudGate Peripherals

Data Logger/RTU/PLC/IO



Coprocessor with RS232, RS485, 2 analog inputs, 4 digital inputs, 2 digital outputs, optional DIN-rail breakout terminal board, WiPOM inside.
CG9101-nanoWiPOM

ZigBee/Bluetooth



Cellular, GPS, Bluetooth, ZigBee and Wi-Fi all in one compact device.
CG9102-MultiWireless

Dual RS232, single USB, microSD



Two RS-232 and one USB Host/OTG expansion board with microSD socket.
CG9103-2RS232-1USB

Monnit™ ALTA



Connects low power Monnit™ sensors to cellular networks through CloudGate.
CG9104-900MT

SiFlex 900MHz Radio



Connects low power SiFlex™ wireless modules to cellular networks through CloudGate.
CG9105-SiFL

4 USB



The 4USB peripheral board connects many off-the-shelf USB "gadgets" to CloudGate for building advanced remote monitoring systems
CG9106-4USB

Monnit™ ALTA Rear Slot



Option CloudGate Monnit ALTA 433, 868 and 900MHz Card rear slot.
CG2127-12144
CG2128-12145
CG2129-12148

LoraWan



The LoRaWAN base station expansion card for CloudGate. Connecting LoraWan Sensors to the Cloud.
CG2124-12129

WiFi



CloudGate WiFi Peripheral Card (WLAN Expansion / WLAN Access Point Card).
CG2101-11921
CG2102-11994

4-port Ethernet PoE



CloudGate 4-Port Ethernet Switch Peripheral Card, With Power over Ethernet (PoE).
CG1103-11935

4-port Ethernet non-PoE



CloudGate 4-Port Ethernet Switch Peripheral Card, Without Power over Ethernet (PoE).
CG1104-11936

1-port Ethernet



CloudGate 1-Port Ethernet Expansion Peripheral Card.
CG1109-11991

Telematics



CloudGate Telematics Expansion Card with I/O Daughter Board.
CG5106-11984

Single RS232



CloudGate RS232 Serial Port Peripheral Card.
CG1101-11919

Single RS232, single RS485



CloudGate RS232 and RS485 Serial Peripheral Card.
CG1102-11920

Smart Metering



The CloudGate expansion card that covers all your wired interface needs. Ideal for smart building, street cabinets & energy optimization.
CG1124-12154

Smart City



This card allows you to make a full-fledged Smart City Solution with your CloudGate Gateway.
CG1118-12064

KNX Interface



This Card provides the CloudGate with a TP1 interface to a KNX installation. It can also accept a range of Option or third party developed I/O expanders that match the card to specific applications.
CG1110-12012

Bluetooth Low Energy (BLE)



Option CloudGate BLE Card (nRF52), Bluetooth Low Energy Expansion Card, front slot.
CG1119-12096

Development Board



Development Peripheral Card.
CG1105-11937

Breadboard



CloudGate Breadboard Card.
CG1108-11980

Gateway Cables



120-140-1013:
Option CloudGate DC Power Cable (3 Meter)



1008649:
Option CloudGate AC Power Supply (US)



1008504:
Option CloudGate AC Power Supply (EU)



Cellular Modems

Skywire™ 4G LTE CAT 4 Embedded Modem



The latest Skywire 4G LTE Cat 4 embedded modem. This is the fastest and most cost-effective way to bring cellular connectivity to your IoT products. The CAT 4 modem delivers exceptional download and upload speeds and has fallback to 3G.

NL-SW-LTE-TC4APG - Asia-Pacific Version
NL-SW-LTE-TC4NAG - North America Version
NL-SW-LTE-TC4EU - Europe Version

NL-SW-LTE-S7588



NimbeLink's® end-device-certified Skywire™ LTE CAT4 embedded modem is the fastest on Verizon, AT&T and T-Mobile cellular networks and perfect for high-bandwidth applications. This modem offers the same ultra-small size as Digi's XBee® Standard interface in the Skywire™ family. HSPA+ fallback is available on Verizon and AT&T.

NL-SW-LTE-S7648



The patented Skywire™ 4G LTE CAT 1 modem is end-device certified with PTCRB, FCC, IC and AT&T carrier certified which enables fast and cost-effective development. And, like all Skywire's, this modem is designed to be easy to integrate and accelerate time to market.

NL-SW-HSPA



The Skywire™ Embedded 3G GSM modem is a member of the Skywire™ family of plug-in cellular products. With bands that support EMEA, N. America, S. America and Asia, this modem is a globally deployable 3G GSM modem. Supports HSPA+ and includes a Micro-SIM card slot that can accommodate Micro-SIM form factor SIM cards from any carrier.

BRD-mPCIe-SW



The BRD-mPCIe-SW full size mini PCI express adapter board adds cellular connectivity to any device with a mini-PCIe slot: Embedded PCs, laptops, industrial tablets or custom PC boards, without the cost and delay of obtaining FCC and carrier certifications. This adapter board accepts NimbeLink's NL-SW-LTE-S7588 certified Skywire™ cellular modem.

NL-AB-MPCIE



Mini-PCI Express Half Size adapter board for all Skywire products except NL-SW-HSPA. It is designed to let product developers easily add cellular connectivity to any device with a mini-PCIe slot-embedded PCs, laptops, or custom PC boards—without the cost and delay of obtaining FCC and carrier certification.

GL Series



The GL Series provides essential global connectivity to connect your products via a Serial or USB high speed interface. The small form factor makes it easy to integrate with products and because it has already been certified you can simply connect and begin sending and receiving data remotely.

GL8200		GL7500		GL7600	
Global	3G HSPA: B1, B2, B5, B6, B8 DC 4.75V to 32V, 800 mA peak	EMEA	4G LTE Cat-1: B3, B8, B20 DC 4.75V to 32V, 600 mA peak	Americas	4G LTE Cat-4: B2, B4, B5, B13, B17 DC 4.75V to 32V, 800 mA peak

CELIA



CELIA series of products are cellular internet appliances with USB, or RS232 interface to a host computer. CELIA adds wireless connectivity to many devices such as embedded microcontroller boards, PLC's, industrial equipment, instruments, PC's, PLC's, laptops and tablets — without the cost and delay of obtaining FCC and carrier certification. The board has a NimbeLink Skywire™ LTE CAT4 cellular modem module with up to 150 Mbit/second in downlink, 50 Mbit/second in uplink. The small form factor fits easily in many enclosures, instruments panels and devices.

- Compact, extruded aluminum enclosure with flanges for mounting

Skywire™ 4G LTE CAT 3 Embedded Modem



This Skywire 4G LTE CAT 3 modem leverages Category 3 technology and supports LTE, HSPA+, and UMTS communication, minimizing costs of hardware and network access. This modem delivers 100Mbps download and 50Mbps upload, and features a U.FL port for antenna flexibility.

NL-SW-LTE-TSVG-B - for Verizon
NL-SW-LTE-TNAG-B - for AT&T

NL-SW-LTE-GELS3-C



NimbeLink is expanding its award-winning Skywire family of cellular modems with the addition of a 4G LTE CAT 1 embedded modem. This new product is comparable in price and speed to 15 year-old 2G technology, but is specifically designed to bring 4G LTE capabilities to the Internet of Things (IoT) and machine-to-machine (M2M) applications.

NL-SW-LTE-S7618RD



The patented Skywire modem is end-device certified and enables the fastest and most cost-effective time to market. Created by a product company for product companies, which is available with bundled data plans from Verizon. The modem is targeted for the United States and uses the latest 4G LTE CAT1 technology.

BRD-mPCIe-X



The BRD-mPCIe-X full size mini PCI express adapter board adds cellular connectivity to any device with a mini-PCIe slot: Embedded PCs, laptops, industrial tablets or custom PC boards, without the cost and delay of obtaining FCC and carrier certifications. Accepts all the NimbeLink NL-SW series certified Skywire™ cellular modems (except the NL-SW-HSPA).

BRD-mPCIe-XB

Mini PCI Express to XBee interface board, USB



NL-SWN-LTE-NRF9160

The NL-SWN-LTE-NRF9160 offers LTE-M (CAT M1) and NB-IoT (NB1, NB2) connectivity for global applications, and also includes an integrated GPS/GNSS radio. This super small LTE M/NB-IoT embedded modem is packed with some big possibilities.



Skywire™ 4G LTE-M Global Embedded Modem



This new Skywire modem offers LTE-M (CAT M1) and NB-IoT (NB1, NB2) connectivity for global applications with fallback to 2G.

NL-SW-LTE-QBG95 - Quectel BG95 Embedded
NL-SW-LTE-QBG96 - Quectel BG96 Embedded

- Plug-and-play operation with Linux, Windows 7,8,10 and Embedded
- Customer can use any antenna without requiring re-certification



Sierra Wireless Airlink Cellular Gateways

ES450

The Airlink® ES450 is a reliable, secure LTE (4G) Enterprise Gateway & Terminal Server with Ethernet/Serial/USB.

Voltage: 9 to 36 VDC, Low Power mode triggerable upon low voltage, timer delay (ignition sense), periodic timer.

Supported Bands:

- LTE: B2, B4, B5, B13, B17, B25
- WCDMA: B1, B2, B4, B5, B8
- EV-DO/CDMA: BC0, BC1, BC10
- GSM/GPRS/EDGE: Quad-band



RV50/RV50X

AirLink® RV50 is the industry's lowest power and most rugged LTE gateway. RV50X supports an extensive range of LTE bands worldwide, and delivering up to 300 Mbps downlink speeds.



RV50 (North America)	RV50 (International)	RV50X (North America & EMEA)	RV50X (Asia Pacific)
LTE CAT3: B2,B4,B5,B13,B17,B25 HSPA/HSPA+: B1,B2,B4,B5,B8 CDMA 1X/EV-DO: B1,B2,B4,B5,B8 EDGE/GSM/GPRS: Quad-band	LTE CAT3: B1,B3,B7,B8,B20 HSPA/HSPA+: B1,B2,B5,B8 EDGE/GSM/GPRS: Quad-band	LTE CAT 6: B1,B2,B3,B4,B5,B7,B8,B12,B13,B20,B25,B26,B29, TDD B41 HSPA/HSPA+: B1,B2,B3,B4,B5,B8	LTE CAT 6: B1,B3,B5,B7,B8,B18,B19,B21,B28, TDD38,TDD39,TDD40,TDD41 HSPA/HSPA+: B1,B5,B6,B8,B9,B19 TD-SCDMA: B39
Input Voltage: 7 to 36 VDC, LTE Idle Power: 900mW (75 mA @ 12VDC), Standby Mode Power: 53 mW (4.4 mA @ 12 VDC) triggered on low voltage, I/O or periodic timer			

GX450

AirLink GX450 Rugged, Mobile 4G XLTE Gateway with Ethernet/Serial/USB/GPS, Ideal for in-vehicle field deployments in law enforcement, fire, EMS, utilities, commercial fleets and taxis.



GX450 WIFI	GX450 I/O	GX450 Multi-Ethernet
GX450 4G XLTE Gateway + WiFi	GX450 4G XLTE Gateway + I/O ports	GX450 4G XLTE Gateway + Multi-Ethernet
North American Model		International Model
Supported Bands	- LTE: 1900(B2), AWS(B4), 850(B5), 700(B13), 700(B17), 1900(B25) - WCDMA: 2100(B1), 1900(B2), AWS(B4), 850(B5), 900(B8) - EV-DO/CDMA: 800(BC0), 1900(BC1), 1700(BC10) - GSM/GPRS/EDGE: Quad-band	- LTE: 2100(B1), 1800(B3), 2600(B7), 900(B8), 800(B20) - WCDMA: 2100(B1), 1900(B2), 850(B5), 900(B8) - GSM/GPRS/EDGE: Quad-band
POWER	Input Voltage: 9 to 36 VDC, Low Power mode triggered on low voltage, timer delay (ignition sense), or periodic timer	

MP70

AirLink® High performance, LTE-Advanced vehicle router.

- Offers high performance vehicle area network (VAN)
- Provides connected vehicle awareness
- Purpose built for vehicles
- Provides secure intelligent communications
- Network management in the cloud or in the enterprise data center



MG90

AirLink® High Performance Multi-Network Vehicle Router.

- Selects best available network based on user-defined policies
- Seamless network handover and sub-second network switching
- Consolidated security with the AirLink® Connection Manager
- Remote, real-time network insight and control with the Mobility Manager
- Purpose built for vehicles



United States	North America & EMEA	Asia Pacific
LTE CAT3: B2,B4,B5,B13,B17,B25 WCDMA/HSPA+/EVDO: B1,B2,B4,B5,B8 EVDO: BC0, BC1, BC10 EDGE/GSM/GPRS: Quad-band CDMA: BC0, BC1, BC10	LTE CAT6: B1,B2,B3,B4,B5,B7,B8,B12,B13,B20,B25,B26,B29,TDD B41 WCDMA/HSPA+/EVDO: B1,B2,B3,B4,B5,B8	LTE CAT 6: B1,B3,B5,B7,B8,B18,B19,B21,B28, TDD38,TDD39,TDD40,TDD41 WCDMA/HSPA+/EVDO: B1,B5,B6,B8,B9,B19 TD-SCDMA: B39
Operating Voltage: 7 to 36 VDC. (Low voltage disconnect to prevent battery drain)		

United States	North America & EMEA	Asia Pacific
LTE CAT3: B2,B4,B5,B13,B17,B25 WCDMA/HSPA+/EVDO: B1,B2,B4,B5,B8 EVDO: BC0, BC1, BC10 CDMA 1X/EV-DO: B1,B2,B4,B5,B8 EDGE/GSM/GPRS: Quad-band CDMA: BC0, BC1, BC10	LTE CAT6: B1,B2,B3,B4,B5,B7,B8,B12,B13,B20,B25,B26,B29,TDD B41 WCDMA/HSPA+/EVDO: B1,B2,B3,B4,B5,B8	LTE CAT 6: B1,B3,B5,B7,B8,B18,B19,B21,B28, TDD38,TDD39,TDD40,TDD41 WCDMA/HSPA+/EVDO: B1,B5,B6,B8,B9,B19 TD-SCDMA: B39
Operating Voltage: 7 to 36 VDC. Power modes: ON 30W (2.5A @12V); Standby 135mW (11mA@12V)		

FX30 Series



The FX30 is the industry's smallest, most rugged programmable 3G/4G LTE cellular gateway. Providing an integrated, secure embedded application environment, tightly integrated with the cloud, the FX30 enables swift, scalable and global deployments of IoT applications for any connected machine or infrastructure.

POWER CONSUMPTION

- Ignition Off: 400 µW (65µW at 5V)
- Ultra Low Power Mode: 2 mW
- Idle mode <1W
- GSM/GPRS max 2.6W, GSM burst 7.2W (USB at 70Mbps and Ethernet at 55 Mbps)
- WCDMA/HSDPA/HSUPA max 3.3W (USB at 70Mbps and Ethernet at 55 Mbps)

	FX30	FX30S Serial	FX30 LTE Americas Verizon	FX30 LTE Americas AT&T, T-Mobile
AIR INTERFACE	HSPA+ / EDGE / GSM / GPRS	HSPA+ / EDGE / GSM / GPRS	LTE Cat-M1	LTE Cat-M1 3G UMTS/HSPA+
FREQUENCY BANDS	3G: B1 / B2 / B5 / B6 / B8 / B19 2G: 850 / 900 / 1800 / 1900	3G: B1 / B2 / B5 / B6 / B8 / B19 2G: 850 / 900 / 1800 / 1900	Cat-M1: B4 / B13	Cat-M1: B2 / B4 / B5 / B12 3G: B2 / B4 / B5
VOLTAGE	DC 4.75V to 32V			

LX40

AirLink® most compact LTE and LTE-M / NB-IoT router.

- Most compact LTE router in its class supporting 150Mbps/50Mbps
- Power-over-Ethernet, ideal for fixed low power applications
- LTE and LTE-M/NB-IoT variants for global deployments
- Remote, secure network management in the cloud or in the enterprise
- Supports edge processing and IoT applications with ALEOS Application Framework (AAF)



APPROVED CARRIERS	MAX SPEEDS (DL/UL Mbps)	WI-FI	HOST INTERFACE
Verizon, AT&T	LTE: 150/50 LTE-M: 300kbps/375kbps NB-IoT: 27kbps/65kbps	2.4/5GHz (Optional) 802.11b/g/n/ac 1x1 SISO 1 SSID	1 Ethernet (10/100/1000) 1 USB 2.0 (Micro) 1 GPIO PoE - Powered Device
Operating Voltage: 7-36VDC, PoE - Powered Device			

LX60

AirLink® first industrial LTE and LTE-M / NB-IoT router.

- Dual Gigabit Ethernet, RS-232, RS-485 and multiple I/O
- Remote, secure network management in the cloud or in the enterprise
- LTE and Global LTE-M/NB-IoT variants provide excellent cellular performance for IoT and machine applications for global deployments
- Supports edge processing and IoT applications with ALEOS Application Framework (AAF)



APPROVED CARRIERS	MAX SPEEDS (DL/UL Mbps)	WI-FI	HOST INTERFACE
Verizon, AT&T	LTE: 150/50 LTE-M: 300kbps/375kbps NB-IoT: 27kbps/65kbps	2.4/5GHz (Optional) 802.11b/g/n/ac 1x1 SISO 1 SSID	2 Ethernet (10/100/1000) 1 Serial (RS232/485) 1 USB 2.0 (micro) 5 GPIO
Operating Voltage: 7-36VDC			



Monnit® Gateways

ALTA Serial MODBUS Gateway



Monnit® Serial MODBUS Gateway acts as a data concentrator for Monnit® wireless sensor networks. incorporates Monnit's APN and Serial RS-232C and RS-485 Interfacing hardware

MNG2-9-SG-SMG	MNG2-8-SG-SMG	MNG2-4-SG-SMG	MNG2-91-SG-SMG
900 MHz	868 MHz	433 MHz	920 MHz Korea

ALTA Ethernet Gateway 4



Monnit's Ethernet Gateways allow your Monnit® Wireless Sensors to communicate with the iMonnit™ Online Wireless Sensor Monitoring and Notification System without the need for a PC.

MNG2-9-EGW-CCE MNG2-9-EGW-CCE-POE	MNG2-8-EGW-CCE MNG2-8-EGW-CCE-POE	MNG2-4-EGW-CCE MNG2-4-EGW-CCE-POE
900 MHz	868 MHz	433 MHz

Monnit® ALTA Wireless Sensors

ALTA sensors offer 3 to 4 times the range of standard sensor platforms, extending non-line-of-sight reach to an exceptional 1,200+ feet through walls (12-14 walls typical). Using Frequency-hopping Spread Spectrum (FHSS) also allows ALTA sensors to have better interference immunity from other wireless devices. Superior power management provides ALTA sensors with almost twice the battery life of Monnit's standard wireless sensors.

- Coin cell sensors (-W1 option) typically last 3+ years.
- AA (-W2 option) and Industrial (-IN option) sensors typically last up to 12+ years.

ALTA products employ Monnit's new Encrypt-RF® Security (256-bit Diffie Hellman key exchange and AES-128 CBC encryption for all sensor data messages), so security is maintained at all communication points from sensor to gateway, gateway to software, then back again.

Integrated on-board data storage allows ALTA sensors to store data messages if communication to a wireless gateway is disrupted (power outage, Internet

Button Press Sensor allows a notification signal to be sent when immediate contact is important. This button includes an LED response indicator to confirm that the system has received the alert.



MNS2-9-W1-PB-ST MNS2-9-W2-PB-ST	MNS2-8-W1-PB-ST MNS2-8-W2-PB-ST	MNS2-4-W2-PB-ST
900 MHz	868 MHz	433 MHz

Temperature Sensor use a thermistor to accurately measure temperatures. These sensors are perfect for monitoring ambient temperatures around the sensors physical location. User customization allows you to set the frequency of readings and the ability to set thresholds for alerts via SMS text and/or email. NIST certified product is available



MNS2-9-W1-TS-ST MNS2-9-W2-TS-ST	MNS2-8-W1-TS-ST MNS2-8-W2-TS-ST	MNS2-4-W1-TS-ST MNS2-4-W2-TS-ST
900 MHz	868 MHz	433 MHz

Humidity sensor allow you to monitor the relative humidity of the air within a room or enclosure. Ideal for monitoring humidity within greenhouses, industrial spaces, museums, saunas and humidors. They can also be used for residential applications such as controlling mold, mildew or dust



MNS2-9-W1-HU-RH MNS2-9-W2-HU-RH	MNS2-8-W1-HU-RH MNS2-8-W2-HU-RH	MNS2-4-W1-HU-RH MNS2-4-W2-HU-RH
900 MHz	868 MHz	433 MHz

Differential Air Pressure Sensor measures the pressure difference between two input ports and transmits the measurement to iMonnit.



MNS2-9-W2-PS-DP-LPO	MNS2-8-W2-PS-DP-LPO	MNS2-4-W2-PS-DP-LPO
900 MHz	868 MHz	433 MHz

Air Speed Sensor measures the pressure difference between two input ports, the temperature, and altitude determines the speed at which the air is moving in a system and transmits the measurement to iMonnit.



MNS2-9-W2-PS-AV-LPO	MNS2-8-W2-PS-AV-LPO	MNS2-4-W2-PS-AV-LPO
900 MHz	868 MHz	433 MHz

Voltage Meter are capable of measuring the voltage off another device, battery, or sensor. Examples of interfacing devices include, but are not limited to: Strain Gauge, Pressure Transducer, RTD, Thermistor, or Thermocouple, Piezo Electric sensors, Photoresistor, Industrial Accelerometer, any kind of variable resistor, any kind of sensor that outputs a voltage, etc.



0-5 VDC	MNS2-9-W1-VM-005, MNS2-8-W1-VM-005 MNS2-9-W2-VM-005, MNS2-8-W2-VM-005, MNS2-4-W2-VM-005
0-10 VDC	MNS2-9-W1-VM-010, MNS2-8-W1-VM-010
0-200 VDC	MNS2-9-W2-VM-200, MNS2-8-W2-VM-200, MNS2-4-W2-VM-200
500 VAC/VDC	MNS2-9-W1-VM-500, MNS2-8-W1-VM-500 MNS2-9-W2-VM-500, MNS2-8-W2-VM-500, MNS2-4-W2-VM-500, MNS2-91-W2-VM-500

Voltage Detector detects the presence or absence of electricity.



500 VAC	MNS2-9-W1-VD-AC, MNS2-8-W1-VD-AC MNS2-9-W2-VD-AC, MNS2-8-W2-VD-AC, MNS2-4-W2-VD-AC
200 VDC	MNS2-9-W1-VD-200, MNS2-8-W1-VD-200 MNS2-9-W2-VD-200, MNS2-8-W2-VD-200, MNS2-4-W2-VD-200

Ultrasonic Sensor can be used in a variety of applications for measuring distances between the sensor and objects in its path. ALTA ultrasonic sensors are impervious to target surface and color, and feature auto-calibration algorithms which allow them to adapt to variable environmental



MNS2-9-W2-US-ST	MNS2-8-W2-US-ST	MNS2-4-W2-US-ST
900 MHz	868 MHz	433 MHz

Open/Closed Sensor provide information on the status of doors, windows, cabinets, etc. Know if a building or area is being accessed when it should not be, or if a door or window has been left open. Alerts can be setup to notify a user by SMS text, email or voice call.



MNS2-9-W1-OC-ST MNS2-9-W2-OC-ST	MNS2-8-W1-OC-ST MNS2-8-W2-OC-ST	MNS2-4-W2-OC-ST
900 MHz	868 MHz	433 MHz



Monnit® ALTA Wireless Sensors

Carbon Monoxide (CO) Sensor allows you to monitor the level of carbon monoxide (CO) gas in the surrounding air. It has a small footprint and low cost but boast industry leading, premium performance specifications and are the longest lifetime sensors in the industry and the only CO sensor on the market powered by a coin cell battery.



MNS2-9-W2-GS-C1, MNS2-8-W2-GS-C1, MNS2-4-W2-GS-C1, MNS2-91-W2-GS-C1

Hydrogen Sulfide (H₂S) Gas Sensor

allows you to monitor the level of Hydrogen Sulfide (H₂S)

- Measuring Range 0-50 PPM
- Measuring Principle Electrochemical reaction of H₂S
- Resolution ± 0.1 PPM



MNS2-9-W2-GS-H2S, MNS2-8-W2-GS-H2S, MNS2-4-W2-GS-H2S

Air Quality – PM Meter measures PM1, PM2.5 and PM10 concentrations in the air and transmits the measurement to iMonnit. The PM2.5 meter works by turning on a small fan at the beginning of a measurement cycle to bring in a volume of ambient air and measuring the particulate matter (PM) content of that sample volume.



MNS2-9-W2-AQ-P25A-LPO, MNS2-8-W2-AQ-P25A-LPO, MNS2-4-W2-AQ-P25A-LPO

Accelerometer can be used in a host of applications where knowing impact, vibration, inclination, etc. is required..



Accelerometer - Tilt	MNS2-9-W1-AC-TL, MNS2-8-W1-AC-TL MNS2-9-W2-AC-TL, MNS2-8-W2-AC-TL, MNS2-4-W2-AC-TL
Accelerometer - Impact Detection	MNS2-9-W1-AC-IM, MNS2-8-W1-AC-IM MNS2-9-W2-AC-IM, MNS2-8-W2-AC-IM, MNS2-4-W2-AC-IM
Accelerometer - G-Force Snapshot	MNS2-9-W1-AC-GS, MNS2-8-W1-AC-GS MNS2-9-W2-AC-GS, MNS2-8-W2-AC-GS, MNS2-4-W2-AC-GS

Accelerometer - Vibration Meter is designed to measure continuous vibration and be low powered so it captures vibration for less than a second during its Measurement Interval.



MNS2-9-W2-AC-VM	MNS2-8-W2-AC-VM	MNS2-4-W2-AC-VM
900 MHz	868 MHz	433 MHz

Accelerometer - Advanced Vibration Meter reports vibration (acceleration, velocity, displacement, or acceleration peak), frequency (Hz/RPM), and crest factor on all three axes. It also reports duty cycle and temperature.



MNS2-9-W2-AC-ADV	MNS2-8-W2-AC-ADV	MNS2-4-W2-AC-ADV
900 MHz	868 MHz	433 MHz

Light Meter measures the intensity of light in lux (luminescence/unit area), from 0 - 1000 lux.



MNS2-9-W2-LS-LM	MNS2-8-W2-LS-LM	MNS2-4-W2-LS-LM
900 MHz	868 MHz	433 MHz

Pressure Meter measure pressure from a 5 volt pressure transducer and transmits the pressure measurement to iMonnit.



50 PSIG	MNS2-9-W2-PS-050, MNS2-8-W2-PS-050, MNS2-4-W2-PS-050
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Activity Detection Sensor can be used to detect vibration, or sudden movement etc.



MNS2-9-W1-MV-VD MNS2-9-W2-MV-VD	MNS2-8-W1-MV-VD MNS2-8-W2-MV-VD	MNS2-4-W2-MV-VD
900 MHz	868 MHz	433 MHz

Water Rope Sensor detects conductive liquids anywhere along the length of the detection rope by using two wires covered with conducting polymer. When water or conductive liquid contacts the rope, the sensor will immediately turn on the RF radio and transmit the data to the wireless gateway and iMonnit Online Sensor Monitoring and Notification System.



MNS2-9-W1-WS-WR MNS2-9-W2-WS-WR	MNS2-8-W1-WS-WR MNS2-8-W2-WS-WR	MNS2-4-W2-WS-WR
900 MHz	868 MHz	433 MHz

Water Detect Sensor alert you via SMS text and/or email when there is water detected, preventing potential property damage that results from flooding or leaks. This sensor can also be used to detect a lack of water, allowing you to know when a container is nearing empty.



MNS2-9-W1-WS-WD-L03 MNS2-9-W2-WS-WD-L03	MNS2-8-W1-WS-WD-L03 MNS2-8-W2-WS-WD-L03	MNS2-4-W2-WS-WD-L03
900 MHz	868 MHz	433 MHz

Infrared Motion Sensor use an infrared sensing technology to accurately detect movements made by people/animals within 16.4 ft (5 m) range. User customization allows you to receive notifications by SMS text or email the instant motion is detected.



MNS2-9-W1-MS-IR MNS2-9-W2-MS-IR	MNS2-8-W1-MS-IR MNS2-8-W2-MS-IR	MNS2-4-W2-MS-IR
900 MHz	868 MHz	433 MHz

Dry Contact Sensor can be used to detect contact between two wired contact points. This sensor can be used with an external mechanical switch or a contact plate to alert the user via SMS text and/or email when the contacts touch or a switch is triggered.



MNS2-9-W1-DC-CF-L01 MNS2-9-W2-DC-CF-L01	MNS2-8-W1-DC-CF-L01 MNS2-8-W2-DC-CF-L01	MNS2-4-W2-DC-CF-L01
900 MHz	868 MHz	433 MHz

AC Current Meter measure the RMS current of an alternating current (AC) system using a current transformer (CT)



20 Amp	MNS2-9-W2-CM-020, MNS2-8-W2-CM-020, MNS2-4-W2-CM-020
150 Amp	MNS2-9-W2-CM-150, MNS2-8-W2-CM-150, MNS2-4-W2-CM-150
500 Amp	MNS2-9-W2-CM-500, MNS2-8-W2-CM-500, MNS2-4-W2-CM-500

0-20 mA Current Meter are capable of measuring the current off another device or sensor, up to 20mA (DC).



MNS2-9-W1-MA-020 MNS2-9-W2-MA-020	MNS2-8-W1-MA-020 MNS2-8-W2-MA-020	MNS2-4-W2-MA-020
900 MHz	868 MHz	433 MHz

Pulse Counter can be integrated with up to four, dry contact or mechanical switch and closure devices to count the number of actuations occurring within a given time frame for each input.



MNS2-9-W1-PC-01 MNS2-9-W2-PC-01	MNS2-8-W1-PC-01 MNS2-8-W2-PC-01	MNS2-4-W2-PC-01
900 MHz	868 MHz	433 MHz

ALTA Industrial Wireless Sensors come in an IP65, NEMA 4X, CE rated, sealed, and weatherproof enclosure. They are powered by a single, replaceable, Industrial grade 3.6 V battery. An optional solar powered version is also available.



Monnit Wi-Fi Sensors come in with an integrated 802.11 b/g radio transmitter that can be easily programmed to work with any existing Wi-Fi network.

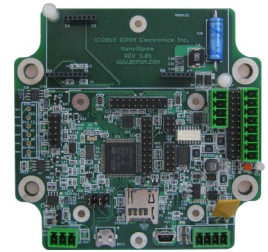




IIoT platforms

nanoWiPOM is a miniature wireless remote monitoring computer. Taking advantage of cellular networks, nanoWiPOM allow remote monitoring of voltages, currents, frequencies and many other physical parameters.

- Preinstalled WiPOM firmware with tag support, alarms, event and data logger, communications support
- Based on the Cortex™-M7 microcontroller
- LTE modem support
- One USB device port, one RS485 serial port, two RS232 serial ports
- Analog input terminals (2 x 4-20mA or 0-6V jumper selectable)
- Digital input terminals (4 x dry contacts or voltage inputs)
- Digital output terminals (2 x 0.5A)
- Battery for real-time clock
- 10-30 Volt input power range
- Web Portal allows remote data access and tag configuration
- Windows based WiPOM Client allows data upload and tag configuration
- 32MB DataFlash
- microSD holder (option)



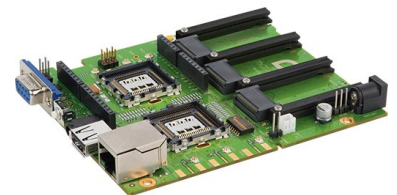
mangOH Red is the smallest hardware platform that enables new low-power IoT applications. The industrial-grade reference design offers a revolutionary most power-efficient to achieve 10 years of battery life. It's built with the capabilities that the industrial maker community need for collecting and sending IoT sensor data to the cloud.

- Credit card size form-factor ideal for rapidly building proof-of-concepts
- A snap-in socket to add any CF3™ - compatible modules, including wireless modules (2G to 4G & LTE-M/NB-IoT) to achieve up to 10 years of battery life
- An IoT Expansion Card slot to plug in any technology based on the IoT Expansion Card open standard
- An Integrated Sierra Wireless Smart SIM with up to 100 MB free data, depending on region, and can also be used with any commercially available SIM
- Integrated with the AirVantage IoT platform to create, deploy and manage solutions in the cloud
- The Cortex-M4 processor runs real-time operating system
- Built-in Accelerometer/Gyroscope, Pressure and Light sensors
- Built-in audio jack allows mangOH Red to make two-way voice calls
- Simply connect the board to a console via USB connector
- Offers a microSD slot for easy off-line updates and storage
- Board can operate on single cell Lithium polymer, DC power supply or USB. There is a battery charger for charging the battery as well
- Built-in Wi-Fi b/g/n and Bluetooth 4.2 BLE
- 26-pin Raspberry Pi-compatible connector
- Integrated Cloud Services
- Open Source Linux



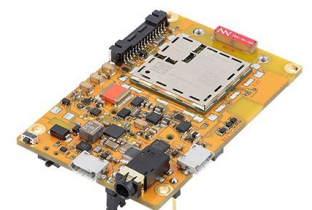
mangOH Green is the first hardware platform that enables rapid prototyping and faster time-to-market of new IoT applications. The industrial-grade reference design offers unprecedented flexibility and expandability for collecting and sending IoT sensor data to the cloud.

- Connects to any 2G, 3G or 4G LTE mobile networks in the world with the CF3 based wireless modules from Sierra Wireless
- SIM Card slot allows you to utilize Smart SIM card and its Connectivity Service that delivers multi-operator coverage, superior data service quality, and resilience to outages
- 3 X IoT Expansion Card Connectors let you add any combination of wired, wireless and sensor technologies to your board
- With serial and ethernet connectivity built-in, you can develop wired and wireless products without any expertise in connecting to mobile or pan networks
- Built-in audio jack allows mangOH Red to make two-way voice calls
- Simply connect the board to a console via USB connector
- Offers a microSD slot for easy off-line updates and storage
- Board can operate on single cell Lithium polymer, DC power supply or USB. There is a battery charger for charging the battery as well
- You can plug in any Arduino Shields to the board to add hundreds of expansion possibilities
- Standard Eurocard or Custom 3D Case
- Integrated Cloud Services
- Open Source Linux
- Equipped with an accelerometer and gyroscope



mangOH Yellow introducing the super smart edge open source solution for IoT. Smaller than a credit card yet jam-packed with super sensors, mangOH Yellow connects your devices to any LTE-M and NB-IoT networks in the world, reducing cost, lowering power consumption, while extending coverage and expanding capacity.

- Compact form-factor you could build on, test, or even take any IoT application to market including small tracking devices
- A snap-in socket to add any CF3-compatible modules, including wireless modules (2G to 4G & LTE-M/NB-IoT, GPS) to achieve up to 10 years of battery life
- Built-in Accelerometer, Gyroscope, Magnetometer, Pressure, Humidity, Acoustic mic, Air Index quality, temperature, and Light sensors
- An IoT Expansion Card slot to plug in any technology based on the IoT Expansion Card open standard
- Robust connectivity APIs lets you access cloud and network services such as voice calls, SMS, data, radio controls
- Maintained Linux distribution based on the long-term supported Linux kernel (LTSI) hosted by the Linux Foundation
- Includes a cellular modem for wirelessly connecting your IoT applications over a mobile network
- Built-in Wi-Fi b/g/n and Bluetooth 4.2 BLE, Bluetooth Mesh, NFC tag
- Built-in antennas for cellular, GPS, WiFi, Bluetooth and NFC
- 15 pin IO expansion connector, SD card, 2-way audio connector
- Cloud and connectivity provided for Octave (3 months free usage)
- Powerful ARM-based application processor with GNSS receiver
- Can be powered by a battery for low-power wireless applications
- Octave platform from Sierra Wireless (3 months subscription included)
- Pre-integrated with the open source Legato Linux platform for application-level development
- Multiple LEDs, buzzer and touch button
- Battery charger and battery gauge
- 3D-printable case designs available
- 100 MB of data with Sierra Wireless Smart SIM
- Connect to your cloud infrastructure
- Built-in sensors including Accelerometer, and Gyroscope
- Device and SIM management provided through AirVantage





WebCatPlus Web Server

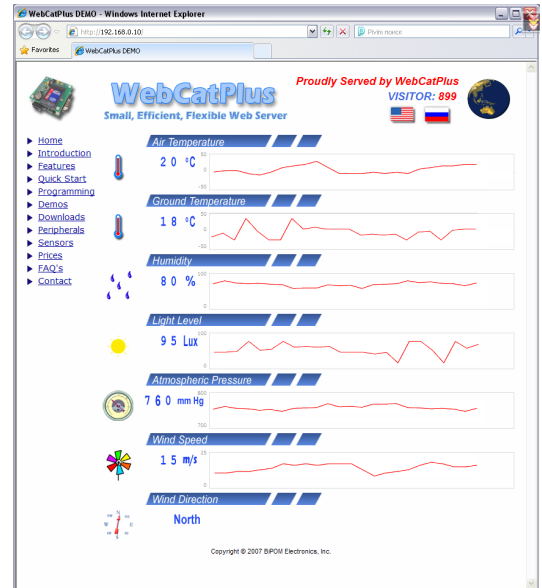
WebCatPlus, one of the world's smallest web servers. Occupying only 2.4" by 2.35" footprint and consuming under 110mA of current, WebCatPlus can operate from a small wall adapter or even batteries, yet allow you to monitor your data and control operations from around the world.

Combined with a large selection of peripheral boards from BiPOM Electronics, WebCatPlus packs versatility and power into a truly small form factor.

Turn relays on and off, rotate and tilt cameras, display alarms on LCD and VFD displays, reboot/reset PC's, activate robotic arms, watch motor speed, log temperature and humidity, display pressure and thousands of other real-world, real-time control and monitoring applications are possible.

No more need for dedicated, power-hungry PC's or expensive embedded processor boards for simple to complex web-based monitoring and control.

All this is now possible without a single line of programming. WebCatPlus comes pre-loaded with a web server application that can read PC file format. Simply generate your HTML's with your favorite editor (for example, FrontPage, Dreamweaver, etc.), insert tags to monitor data from real hardware, insert commands to control real hardware and you are ready to monitor and control the world.



WebCatPlus Web Server is not limited to HTML pages. All client side scripting languages, such as Java applets, Java scripts, VB Scripts are supported.

Memory size of the web site is limited by the MMC size. It is possible to have megabytes (even Gigabytes !!!) of web pages.

WebCatPlus Web Server Features :

- Based on BiPOM's MINI-MAX/ARM-E board
- 32-bit ARM7 microcontroller (LPC2138, 58.9824 MHz)
- Second 8-bit AVR® CPU (ATTINY2313, 8 MHz)
- 512K Flash, 32K RAM, 1MB DataFlash
- Expansion bus interface to low-cost peripheral boards
- JTAG programming interface
- LCD connector (programmable contrast adjustment for the LCD)
- 10MBit (10Base-T) Ethernet port (ENC28J60)
- Current consumption 110 mA
- Dimensions: 2.4" x 2.35" x 1.2"
- 31 Digital I/O's
- Two RS-232 Serial ports, I2C (2-wire) bus
- Watchdog Timer
- In-system programmer to upload WEB server firmware
- 6-12VDC power supply
- Real Time Clock with Lithium battery backup option
- FAT12/FAT16/FAT32, long name support
- ARP, ICMP, IP, TCP, HTTP stack
- Online Demo available at www.bipom.com/wc.php

Additional modules (peripheral boards and sensors):

- Analog to digital converters
- Digital to analog converters
- Additional data storage
- 7- segment LED displays
- Opto-isolated input board
- I/O expander board
- Motor controller boards
- Thermocouple inputs
- Various digital sensors to measure temperature, humidity and others



Product	Base Board	Speed	Storage	Specifics
WebCatPlus	MINI-MAX/ARM-E	Slow	Smallest	Files served from serial EEPROM. Low cost.
WebCatPlus-MMC-1	MINI-MAX/ARM-E	Medium	Large	Files served from MultiMediaCard (MMC).



Data Plans

BiPOM is an authorized reseller for T-Mobile, Verizon and Sierra Smart SIM M2M Business Plans.

Cellular LTE Rate Plans (SIM-based) :



Verizon Plans

- Plans are pooled.
- Plans come with a static IP. Static IP's are public and do not require a VPN connection.
- Contact BiPOM for a VPN arrangement.
- APN = **vzwinternet** for dynamic IP plans
- APN = **so01.vzwstatic** for static IP plans
- All SIM cards can be configured either as dynamic or static IP.
- All SIM cards support SMS



Monthly Limit	
1MB	100MB
5MB	250MB
10MB	500MB
20MB	1GB
50MB	2GB

Sierra Wireless Smart SIM

The Sierra Wireless Smart SIM and Connectivity Service deliver multi-operator coverage, superior data service quality, and resilience to outages, whether your application is global, regional or local. It is also one of the first to support the new GSMA [eSIM/eUICC](#) specification for remote operator provisioning critical to many new IoT use cases.



- Multi-operator connectivity
- Smart network selection
- Resilient to outages
- Global or regional plans
- eSIM/eUICC ready
- Managed by our AirVantage IoT Platform

Sensors

VTB-Sensor/VTB-RS485 Sensor is addressable with a smart programmable design enabling reliability engineers and maintenance professionals to have a one-size-fits-all vibration sensor for both critical and non-critical balance of plant machines. The VTB-Sensor is suitable for rotating machine applications such as motors, pumps, fans, compressors, engines, centrifuges, cooling towers as well as reciprocating machines such as compressors and pumps. The sensor provides overall vibration level outputs for the X, Y and Z axis in acceleration, and velocity as well as provides a temperature output. It has programmable low-pass, high-pass or band-pass filter capability. The VTB-Sensor also takes user-defined periodic snapshots of the dynamic vibration information for real-time automated machine condition analysis. VTB-Sensor "All in one Sensor" includes:

- 3 (X, Y, Z) axis high frequency vibration sensors
- 3 (X, Y, Z) axis low frequency vibration sensors
- 1 RTD temperature sensor
- Smart addressable microprocessor for onboard signal conditioning
- Outputs in acceleration, velocity, displacement or impact to detect looseness
- User-defined dynamic signal "snapshot" for condition monitoring
- Programmable filters (high, low and band-pass)
- Automatic calibration verification, diagnostics
- Universal mounting, any axis any orientation
- Multi-color sensor status LED
- Wide operating temperature range -40°C to +105°C
- Frequency response: 0.4 Hz to 1,000Hz (standard), .04Hz to 5,000 Hz (option)
- Small compact enclosure 2.0" X 2.0" X 1.25" (51mm X 51mm X 32mm)
- 1/4-28 UNF mounting studs, 1/2"NPT flex conduit connection ready





Antennas and Accessories

Internal Antennas:

— Adhesive Mount —



2JP0524P-UFL-150MM :
Cellular Strip Antenna - Rigid - Black - 150mm cable - u.FL



2JF0424P-UFL-150MM :
Cellular Strip Antenna - Flexible - Black - 150mm cable - u.FL



2JF0101P-UFL-150MM :
GNSS Strip Antenna - Flexible - Black - 150mm cable - u.FL



2JP0624P-UFL-150MM :
Cellular Strip Antenna - Rigid - Black - 150mm cable - u.FL



2JF0624P-UFL-150MM:
Cellular Strip Antenna - Flexible - Black - 150mm cable - u.FL



2JF0924P-UFL-150MM :
Cellular Strip Antenna - Flexible - Black - 150mm cable - u.FL



2JP0102P-013MC081-MHF4_GETUSA :
Cellular Strip Antenna - Flexible - Black - 100mm cable - MHF4

— Surface Mount —



2JS20 :
Cellular Ceramic Patch Antenna



2JE20 :
Cellular Ceramic Brick Antenna



2JE18 :
Cellular Fiberglass Brick Antenna



2JS10 :
GPS Ceramic Patch Antenna

— Thru-Hole Mount —



2JCP2540101GA :
2J Antennas - GPS/GLO Ceramic Patch Antenna - Thru-Hole



2JCP1840101GA :
2J Antennas - GPS/GLO Ceramic Patch Antenna - Thru-Hole

External Antennas:

— External - Connector Mount —



2JW1124-BL-SM :
Blade Antenna - Cellular - Black - SMA



2JW1024-BL-SM :
Swivel Monopole Antenna - Cellular - Black - SMA



2JW1002-RPSMAM :
Swivel Antenna - WiFi/BT/ZigBEE/ISM 2.4/5.0 GHz - Black - RP-SMA



2JW1102-RPSMAM :
Blade Antenna - WiFi/BT/ZigBEE/ISM 2.4/5.0 GHz - Black - RP-SMA



2J0115-868-C109N :
Stub Antenna - 868 MHz - Black - SMA



2J0115-915-C109N :
Stub Antenna - 915 MHz - Black - SMA



2J0B15-868-C884G :
Stub Antenna - 868 MHz - Black - RP-SMA



2J0B15-915-C884G :
Stub Antenna - 915 MHz - Black - RP-SMA



2JW1001_GETUSA :
Swivel Antenna - GPS/GLONASS / BeiDou / Galileo 1561-1606 MHz - Black - SMA

— External - Screw Mount —



2J7741BGFA-BL-SM-3MLL100 :
Salt Shaker Antenna - 2 Cellular + 1 GNSS Black - 3 Meter Cable - SMA



2J7724B-BL-SM-1MLL100 :
Cellular Salt Shaker Antenna Black - 1 Meter Cable - SMA



2J6A24B-BL-SM-1MLL100 :
Cellular Mini Dome Antenna Black - 1 Meter Cable - SMA



2J6A24B-BL-SM-1MLL100 :
Cellular Mini Dome Antenna Black - 1 Meter Cable - SMA

— External - Adhesive/Magnetic Mount —



2J7741MPGFA-BL-SM3M-LL100 :
Salt Shaker Antenna - 2 Cellular + 1 GNSS Black - 3 Meter Cable - SMA



2J6041MPGFA-BL-SM3M-LL100 :
Puck Antenna - 2 Cellular + 1 GNSS Black - 3 Meter Cable - SMA

Antenna Cables:

Cables w/ SMA Bulkhead Connector



C485G-011.5MC137-UFL: 1.37mm diameter Coaxial cable - Total length 11.5 cm*
C485G-016.5MC137-UFL: 1.37mm diameter Coaxial cable - Total length 16.5 cm*
C485G-021.5MC137-UFL: 1.37mm diameter Coaxial cable - Total length 21.5 cm*
C485G-011.5MC081-MHF4: 0.81mm diameter Coaxial cable - Total length 11.5 cm*
C485G-016.5MC081-MHF4: 0.81mm diameter Coaxial cable - Total length 16.5 cm*
C485G-021.5MC081-MHF4: 0.81mm diameter Coaxial cable - Total length 21.5 cm*

Cables w/ RP-SMA Bulkhead Connector

C495G-011.5MC137-UFL: 1.37mm diameter Coaxial cable - Total length 11.5 cm*
C495G-016.5MC137-UFL: 1.37mm diameter Coaxial cable - Total length 16.5 cm*
C495G-021.5MC137-UFL: 1.37mm diameter Coaxial cable - Total length 21.5 cm*
C495G-011.5MC081-MHF4: 0.81mm diameter Coaxial cable - Total length 11.5 cm*
C495G-016.5MC081-MHF4: 0.81mm diameter Coaxial cable - Total length 16.5 cm*
C495G-021.5MC081-MHF4: 0.81mm diameter Coaxial cable - Total length 21.5 cm*

Antenna Mounts:



GMB-60-240-XX-N
PCTEL NMO Mini Magnetic Mount Base - Includes 20' of RG58/U coaxial Cable - No Connector



K-794
PCTEL NMO Permanent Thick Mount (Up To 1/2") - Includes 17' of RG58/U Coaxial Cable - No Connector



NMO58U-NC
PCTEL NMO Permanent Mount (Mounts from .030" - .065") - Includes 17' of RG58/U Coaxial Cable - No Connector



TGBWP45C-NC
PCTEL NMO Bracket Mount - Includes 17' of RG58/U Coaxial Cable - No Connector