



for M2M applications

Maestro Wireless Solutions designs and offers a comprehensive portfolio of wireless industrial modems and integration services for the Machine to Machine (M2M) markets.

Heritage Gateway Series

A new generation of quad-band GSM/GPRS/EDGE modem using different option boards. This new model will empower your wireless connectivity.

According to your needs, the option board (I/O expander, ethernet, C-GPS,...) combining the hardware & the software could be customized to cater for different applications and you could also develop your own card or choosing a Maestro option board.

The Maestro Heritage Wavenis Add-on Board is now available.

Industrial Series

The Industrial Series is a cellular wireless modem combining a self-maintenance capability (Comm Alive function) and a Programmable Logic Controller-like functionality (PLC) with a wide range of interfaces. With rugged metal casing, status leds, optional DIN rail mounting and battery back up capability; It is the perfect device for maximum communication stability and powerful management of events.

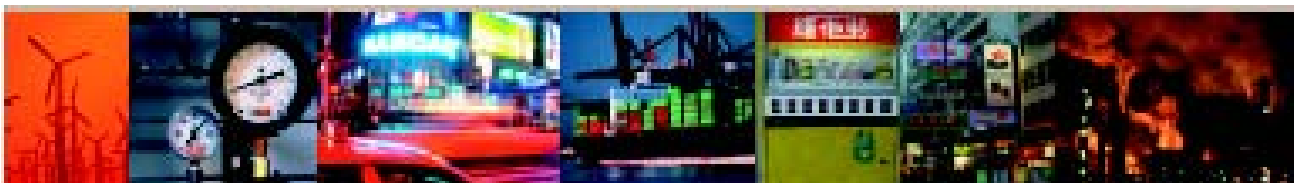
Maestro 100evo Series

Maestro 100 Evolution series is the perfect solution for demanding M2M applications.

Compact and fully featured, the Maestro 100evo series can easily be integrated into industrial application from electricity meters to intrusion alarms or vending machines. Maestro 100evo modems are GPRS Quadband and full type approved, making them immediately usable worldwide. Renowned for their outstanding reliability, Maestro 100evo modems are the perfect devices to integrate in each of your projects facing tough conditions or extended lifetime requirements.

Asset Tracking Series

The Asset Tracking series combines GSM/GPRS and GPS technologies in compact and industrial grade design. It will enable your to have immediate reporting of vehicle status such as position, speed, mileage, ignition. It has embedded or external antennas at your choice, optional battery back-up, remote firmware / software upgrade and diagnostics commands, to enable you fit your applications in the best way. And it is absolutely ideal for fleet management.



100_{evo} Series

maestro



empowering wireless

Easy to use, reliable, industrial modems

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100_{evo} Series



100evo Crystal : GPRS, plastic casing
(Transparent bitpipe)

100evo Lite : GPRS, Metal Casing,
(local config.)
+ Smart Pack Lite
+ 1 Digital Input

100evo IP : GPRS, Metal Casing,
(remote config.)
+ Smart Pack II
+ 1 Digital Input

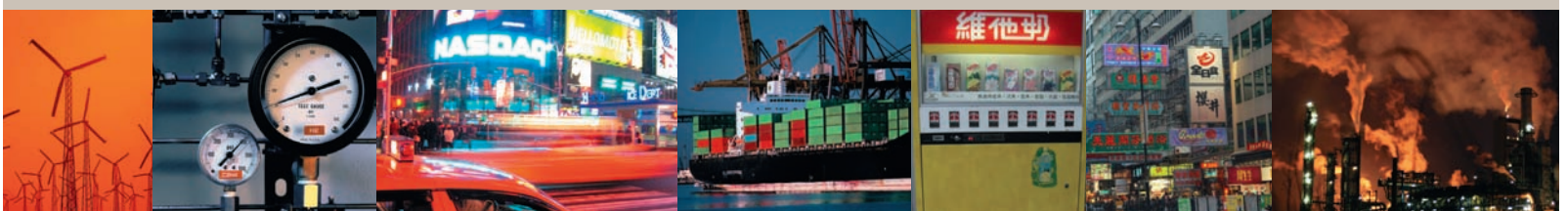
100evo Advance : GPRS, Metal Casing, IDS
(Advance temperature)
+ Smart Pack II
+ 1 Digital Input
+ 1 Analog Input
+ Extended Temperature

Versatility

Maestro 100evo series provides different features regarding connectivity, intelligence or configuration software. You can thus get all the advantages of instant integration.



Smart
Pack II
BACK II



Technical information

Maestro 100evo modems are available in metal or plastic casing.



TECHNOLOGY				
GSM	Quadband			
GPRS	Class 10			
Voice/Data/Fax/SMS	✓			
TCP/IP	Full TCP/IP Stack			
INTERFACES				
SIM Plug-in card reader	1.8/3 V.			
RS232 on 15 pin Sub-D connector	✓			
Pin power supply connector	4 pin DC			
SMA antenna connector (50 ohm)	✓			
POWER SUPPLY				
Input voltage	6 to 32V DC			
POWER CONSUMPTION				
GSM 850/900 (PCL 5)	203mA at 6V			
DCS 1800/PCS 1900 (PCL0)	140mA at 6V			
GPRS 850/900 CL10 (PCL5)	388mA at 6V			
GPRS 1800/1900 CL10 (PCL0)	232mA at 6V			
Idle consumption	45mA at 6V			
Idle consumption (RS232 not connected)	18mA at 6V			
Sleep Mode	4mA at 6V			
CERTIFICATIONS/COMPLIANCES				
CE, GCF, RoHS Certification				
VOICE, DATA AND SMS FEATURES				
Data circuit asynchronous, transparent and non-transparent up to 14,400 bit/s ; Automatic fax group 3 (Class 1 and Class 2) ; MNP2, V.42bis ; Text and PDU SMS ; Point to point SMS (MT/MO) ; UCS2 Character Set Management				
FUNCTIONAL FEATURES				
AT command set (GSM 07.05, GSM 07.07 and Wavecom)	> 300			
FEATURES/PRODUCTS				
	M100evo Crystal	M100evo Lite	M100evo IP	M100evo Advanced
Input - Digital	N/A	1	1	1
Input - Analog	N/A			1
Download Over The Air	N/A		Optional	
Autorestore - timer reset			✓	
OTHER FEATURES				
Operating status LED				✓
Casing	Plastic			Metal

Distributor's Contact

DIMENSIONS	
Size (mm)	88x60x26 90x72x23
Weight (g)	70 100
TEMPERATURE RANGE	
Operating / Storage	-30~+75 °C / -40~+85 °C -30~+85 °C / -40~+85 °C

OPTIONAL ACCESSORIES (ADDITIONAL ACCESSORIES ARE ALSO AVAILABLE UPON REQUEST)				
GSM antenna 900/1800 Mhz	✓	✓	✓	✓
GSM antenna 850/1900 Mhz	✓	✓	✓	✓
RS232 cable interface	✓	✓	✓	✓
Din Clip (metal casing only)	N/A	✓	✓	✓

SMART PACK II FEATURES					
I/O Monitoring	N/A	✓	✓	✓	
GPRS and IP configuration		✓	✓	✓	
Call Screening		Smart Pack Lite (Local Configuration)	✓	✓	✓
DynDNS			✓	✓	✓
Remote AT Command			✓	✓	✓
Ping			✓	✓	✓
Status check and monitoring		✓	✓	✓	

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Stable, powerful and versatile

The Maestro Industrial 10 is a GPRS Remote Terminal Unit (RTU) for industrial environment offering two SIM slots for automatic network failover and data logging SD card slot.

Fully programmable inputs, timers, counters and alarms provide a very powerful control tool and future-proof solution for industrial applications in the telemetry, SCADA, security, farming, home and office automation industries.

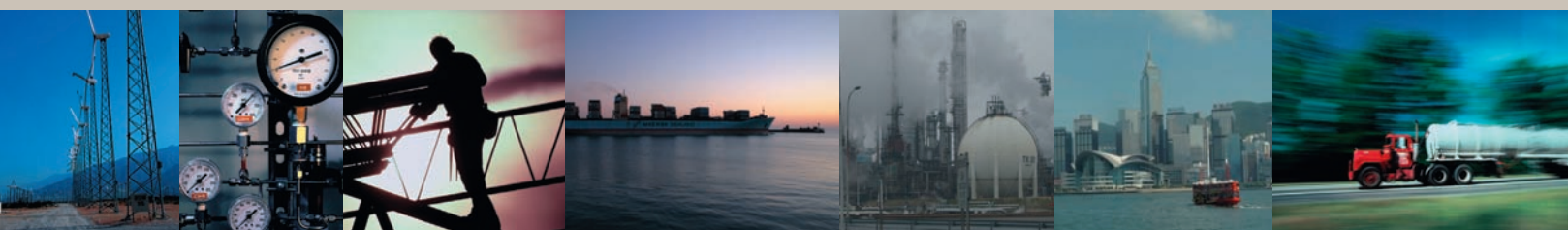
Features



- RS232 and RS485 Serial Ports
- 4 Digital Inputs, 2 Analog Inputs
- 2 Relay Outputs
- Server or Client mode
- SMS/GPRS alarms
- Audio Interface
- Expansion port for extra I/O
- Dual SIM card
- Data logging card slot

Ultimate in Stability

Telemetry users know that their devices are often in remote or inaccessible areas. The last thing they can afford is continuously visit sites to reset devices. By using proven and patented technology, MI-10 is kept alive in the most adverse field conditions.



TECHNOLOGY	
GSM	Quadband
GPRS	Class 10
TCP/IP	✓

FUNCTIONAL FEATURES	
Programmability	Proprietary script
AT command set (GSM 07.05 and 07.07 and Wavecom)	>300
Modem status autocheck	✓
Autorestore - timer reset	✓
Modbus Support	✓

CONFIGURATION	
Software watchdog on microcontroller	✓
Auto-reset	-Every 24hrs (only if not in data call) -Loss of network authentication > 10 min. -Unterminated data call > 1 hour
Configurable GPRS	Automatic re-attachement after time out when no data flow
Send commands over the air	Over SMS Over Data Call Over TCP (GPRS)
GPRS connection backed up by SMS	If data sending by GPRS connection fails, fallback to SMS sending
Programmable Logic Controller-like functionality	Easy but powerful programming and management of events
Events	Digital input (X4); Analog input (X2); Relay output (X2); Audio output
Action driven by the events	Auto-sending of pre-programmed messages over SMS or TCP socket connection
Example of uses	-Get signal strength remotely -Send ordinary alarms via GPRS or SMS -Event triggered TCP connection -Change reset parameters remotely

INTERFACES	
SIM Plug-in card reader	1.8/3 V
Power Supply	3 pin terminal block
SMA antenna connector (50 ohm)	✓

DATA CONNECTIVITY	
RS232 on D-Sub 9pin female or	
RS485 on 2 pin terminal block	

EXPANSION FEATURES (Optional)	
Isolated Digital or Analog Inputs	4
Relay Contact Outputs	4
Smart Inputs - Pulse Counter Inputs or Normal Digital Inputs	8
Smart Outputs - Internal/ External Relay	8

OTHER FEATURES	
Operating status LEDs	20
Casing	Die Cast Zinc Alloy
DIN rail mounting	✓

DIMENSIONS	
Size (mm)	170x80x35
Weight (g)	725

TEMPERATURE RANGE	
Operating	-20~+60 °C
Storage	-25~+70 °C

POWER	
Power Supply Input voltage	85V AC to 264V AC or 110V DC to 370V DC
Rated Current Consumption	0.24A
AC/DC	AC or DC
Built-in power supply	✓
Battery back-up	8V DC to 30V DC

CERTIFICATIONS/COMPLIANCES	
CE Certification	✓
GCF Certification	✓
ROHS Compliance	✓

OPTIONAL ACCESSORIES (ADDITIONAL ACCESSORIES ARE ALSO AVAILABLE UPON REQUEST)	
ACC-A01	GSM antenna 900/1800 MHz
ACC-A05	GSM antenna 850/1900 MHz
ACC-DIN	Din Rail Mounting Clip

ORDERING CODE	
MI-10 - Maestro Industrial 10 Bundle	
MI-10+Acc-CA04B+Acc-A01	

Distributor's Contact

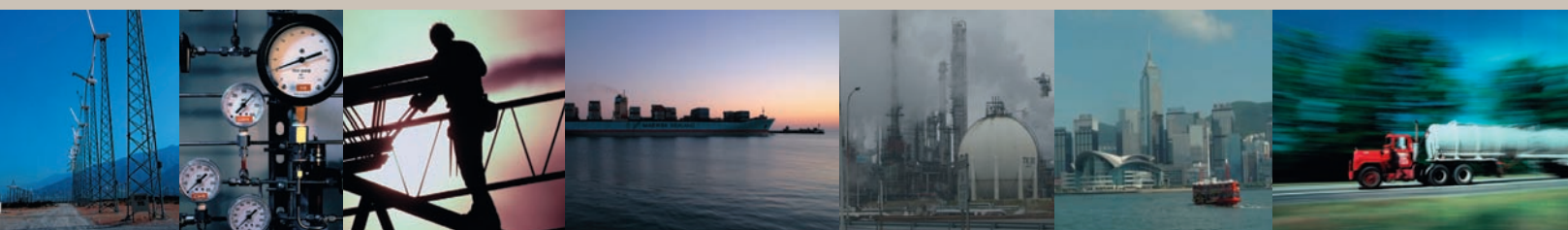


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Heritage Series

maestro



empowering wireless

Adaptable, powerful and tailor-made modem

Maestro Heritage combines industrial-grade design GSM/GPRS/EDGE technologies with pluggable boards for Machine to Machine applications.

This modular and scalable design concept transforms the Heritage into a Multitechnology Gateway which features a powerful operating system offering Download Over The Air capabilities and innovative embedded applications.

Being customizable both in terms of hardware and software, the Maestro Heritage modem is the best tailored solution of choice in direct response to market needs.

Option boards (patented technologies) :

Maestro Heritage main unit is available with a series of option boards to serve specific applications.



I/O Board



6+6 digital inputs/outputs
✓ Monitoring and Control

Analog Board



4 AI, DI and DO ports
✓ Monitoring and Control

Ethernet Board



allows IP connectivity
✓ Sales & Payment
✓ Home & Security

Bluetooth Board



Transparent RS232 over Bluetooth transmission
✓ Cable replacement
✓ Healthcare

GPS Board

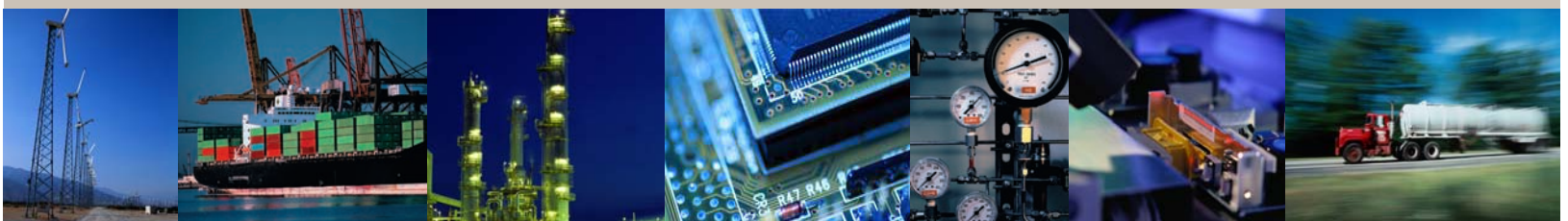
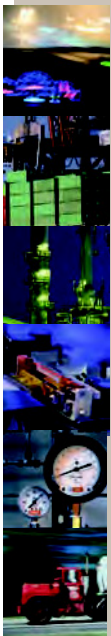


✓ Vehicle Remote Management

Wavenis Board



RF wireless connectivity
✓ Monitoring and Control
✓ Wireless Sensor Network



Heritage Series

Technical information



GENERAL FEATURES
- Quadband GSM 850/900/1800/1900 MHz
- GPRS class 10 / EDGE class 10
- ETSI GSM Phase 2+ compliant
- LED Bar RSSI (Receive Signal Strength Indication)
- LED indication of Network Registration, Up / Down Data Traffic and EDGE availability
- Expansion slot for add-on module for customised functions
- Din Rail Mountable
- Real time clock backup up by Supercap
- Built-in watchdog chip to prevent modem lock-up
- Control via AT commands (GSM 07.05, GSM 07.07 and Wavecom)
- Maestro's software pre-installed (see below)
- Temperature range:
- Operational: -40°C to +85°C
- Storage: -40°C to +85°C
- Casing: plastic ABS material
- Dimensions: 79 x 84 x 27mm
- Weight: 100g

ELECTRICAL CHARACTERISTICS
- Supply voltage range: 5-32V DC
- Power consumption
- GSM 850/900 (PCL 5): 310mA@5V, 50mA@32V
- DCS 1800/PCS 1900 (PCL 0): 240mA@5V, 40mA@32V
- GPRS 850/900 CL10 (PCL 5): 520mA@5V, 80mA@32V
- GPRS 1800/1900 CL10 (PCL 0): 390mA@5V, 70mA@32V
- Idle consumption: 80mA@5V, 18mA@32V
- Output power:
- 2W for GSM850/900 GPRS850/900
- 1W for GSM1800/1900 GPRS1800/1900
- 0.5W for EGPRS 850/900
- 0.4W for EGPRS 1800/1900

GPRS / EDGE
- GPRS Multislot class 10 / EGPRS Multislot class 10
- Mobile station class B
- PBCH support
- Coding schemes CS1 to CS4 for GPRS
- Coding schemes MCS1 to MCS9 for EGPRS

CSD DATA TRANSMISSION
- Asynchronous, Transparent & Non Transparent
- CSD up to 14.4 kbps

SMS
- Point-to point MO/MT
- Text & PDU
- Cell Broadcast

FAX
- Fax G3 (class 1 & class 2)

INTERFACE
- Antenna: SMA female connector
- RS232 on 9 pin female Sub-D connector
- DC power supply connector
- Sim card: 1.8V / 3V

SOFTWARE SUPPORT
Processor: Wavecom Wireless CPU (Memory 256 KB SRAM & 1.5MB Flash)
OS : Wavecom's OPEN AT
Pre-installed features
- AUTOTCP
- AT Command Over SMS
- Modem status check & monitoring
- Command Line Interface to program sequence of actions driven by events
- Download Over The Air (DOTA) for application software upgrade
- Download Over The Air (DOTA) for firmware upgrade (available at a later stage)
Optional features
- Wireless gateway for Modbus RTU protocol
- Modbus Master with SMS server
- Modbus I/O

CERTIFICATIONS
CE
R&TTE
FCC
AT&T
RoHS compliant



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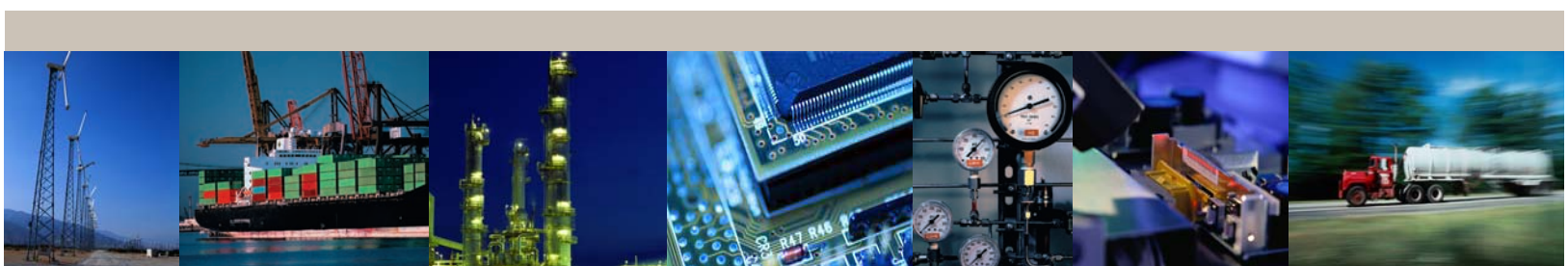
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Heritage 3G

maestro



empowering wireless

Multi-functional, reliable, and modular modem

The Maestro Heritage 3G combines industrial-grade design and UMTS technology for Machine-to-Machine applications.

The modular and scalable design concept transforms the Heritage 3G into a Multi-technology Gateway featuring a powerful operating system, download over the air capabilities and innovative embedded applications.

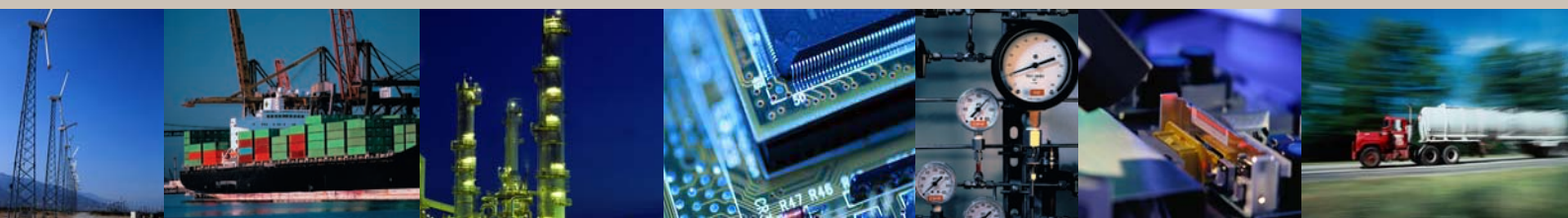
Being customizable both in terms of hardware and software, the Maestro Heritage Gateway is the solution of choice in direct response to project tailoring needs.

Main Features

- ✓ Quad-band GSM 850/900/1800/1900 MHz
- ✓ Tri-band UMTS 850/1900/2100 MHz
- ✓ Real Time Clock Backup
- ✓ Built-in watchdog chip
- ✓ High speed data transfer
 - Down: 7.2Mbps/ Up: 2Mbps
- ✓ Expansion slot for additional multi-technology connectivity

Low Latency and High Transfer Rate

Providing always-on Internet connectivity and high data transfer rate capability, the Maestro Heritage 3G enables devices in remote sites to be monitored and data to be transferred to a central server continuously. With additional Ethernet or short range wireless connectivity, remote users can easily access to their on-site equipments transparently any time, virtually everywhere.



GENERAL FEATURES
- Quad-band GSM 850/900/1800/1900 MHz
- Tri-band UMTS/HxDPA (WCDMA/FDD) 2100/1900/850 MHz
- GPRS class 12 / EDGE class 12
- 3GPP FDD Release 6 HSUPA Compliant
- LED Bar RSSI (Receive Signal Strength Indication)
- LED indication of Network Registration, Up / Down Data Traffic and 3G availability
- Expansion slot for add-on module for customized functions
- Din Rail Mountable
- Real time clock backup up by Supercap
- Built-in watchdog chip to prevent modem lock-up
- Control via AT commands (GSM 07.05, GSM 07.07 and Wavecom)
- Maestro's software pre-installed (see below)
- Temperature range:
- Operating Functional: -30°C to +75°C
- Storage: -30°C to +75°C
- Casing: plastic ABS material
- Dimensions: 79 x 84 x 27mm
- Weight: 100g

ELECTRICAL CHARACTERISTICS
- Supply voltage range: 7-32V DC
- Power consumption:
- GSM 850/900 (PCL 5): 200mA@7V, 170mA@12V, 60mA@32V
- DCS 1800/PCS 1900 (PCL 0): 250mA@7V, 150mA@12V, 50mA@32V
- GPRS 850/900 CL12: 450mA@7V, 260mA@12V, 90mA@32V
- GPRS 1800/1900 CL12: 380mA@5V, 200mA@12V, 80mA@32V
- UMTS Connected Mode BAND II @ +22 dBm:
500mA@7V, 320mA@12V, 120mA@32V
- HSDPA Data Transfer2 Cat.8 7.2Mbits/s BAND II @ +22 dBm:
600mA@7V, 380mA@12V, 140mA@32V
- Idle consumption: 100mA@7V, 38mA@12V, 18mA@32V
- Output power:
- 33dBm for GSM 850/900 GPRS 850/900
- 30dBm for GSM 1800/1900 GPRS 1800/1900
- 24dBm for 3G (all bands)

GPRS / EDGE
- GPRS Multislot class 12 / EGPRS Multislot class 12
- Mobile station class B
- PBCH support
- Coding schemes CS1 to CS4 for GPRS
- Coding schemes MCS1 to MCS9 for EGPRS

CSD DATA TRANSMISSION
- Asynchronous, Transparent & Non Transparent
- CSD up to 14.4 kbps

SMS
- Point-to-point MO/MT
- Text & PDU
- Cell Broadcast

FAX
- Fax G3 (class 1 & class 2)

INTERFACE
- Antenna: SMA female connector
- RS232 on 9 pin female Sub-D connector
- DC power supply connector
- Sim card: 1.8V / 3V

SOFTWARE SUPPORT
Processor: Sierra Wireless CPU
OS : Sierra OPEN AT
Maestro Heritage Softool:
- AUTOTCP
- Remote AT Command
- Modem status check & monitoring
- Download Over The Air (DOTA) for application software upgrade
- Command String: event script language
- Auto PIN
- Email
- Call Screening
- Framework for Auto-Report solutions
- PC configuration software (Windows)

CERTIFICATIONS
CE
R&TTE
RoHS compliant

ORDERING CODE
HB3G010 - Maestro Heritage 3G Main Unit Bundle EUR/ASIA
HER3G+Acc-PS01+Acc-A011+Acc-CA07+Acc-D02+SP03
HB3G011 - Maestro Heritage 3G Main Unit Bundle US
HER3G+Acc-PS09+Acc-A011+Acc-CA07+Acc-D02+SP03
HB3G012 - Maestro Heritage 3G Main Unit Bundle ANZ
HER3G+Acc-PS10+Acc-A011+Acc-CA07+Acc-D02+SP03

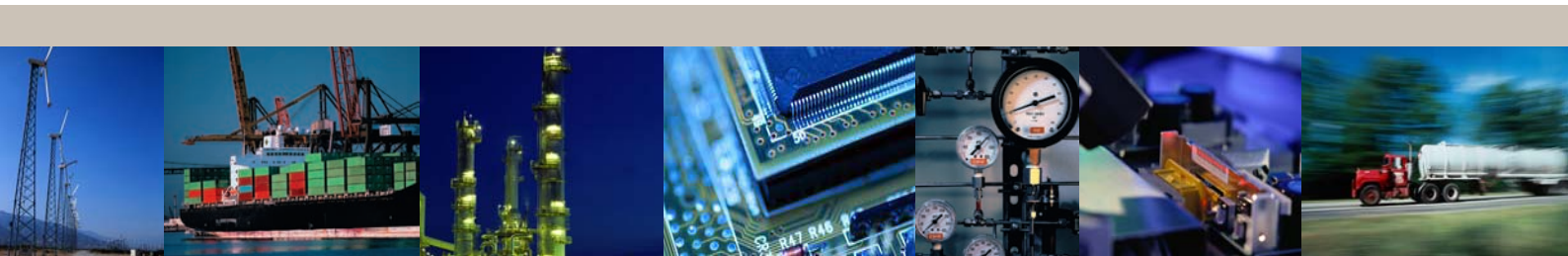


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Heritage I/O Series

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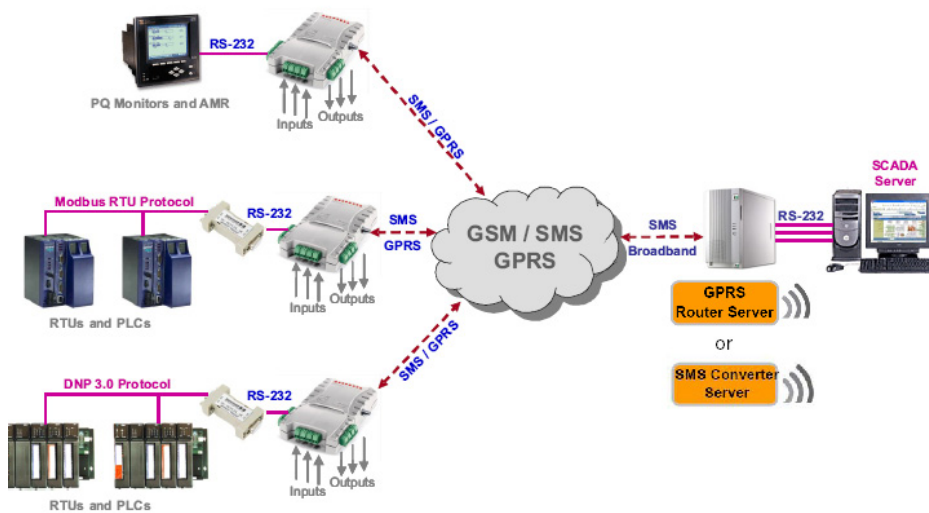
empowering wireless

Easy to use, reliable, industrial solutions

Maestro Wireless Solutions specialises in developing wireless solutions for SCADA and telemetry industry. The Heritage - I/O series solutions integrates I/O capabilities with wireless communications via SMS or GPRS. It supports standard industry protocols such as Modbus RTU or DNP 3.0 protocol and is compatible with most SCADA server software or Human Machine Interfaces (HMIs) that support these protocols. In addition to its own I/Os, the Heritage - I/O series unit is also a wireless gateway for external devices, making it a cost-effective, flexible and powerful remote I/O and communications device.

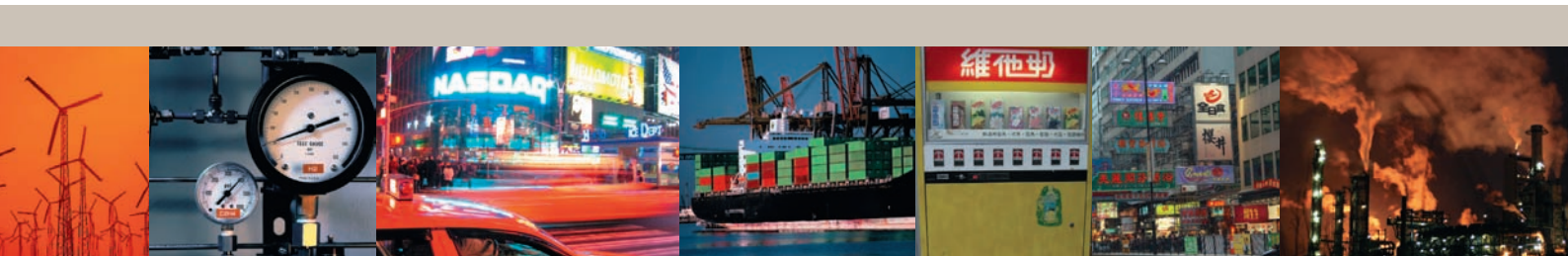
The Heritage - I/O series solutions is fully compatible with Maestro SMS Converter or Maestro GPRS Router Server for larger systems.

script label



Features

- NO FIX IP NEEDED AT THE REMOTE SITE
- Compatible with Modbus RTU and DNP 3.0 protocol and devices.
- Functions 1 -6 are supported in Modbus RTU protocol mode and Level 1 functions in DNP3.0 mode.
- Digital inputs also act as counters, each with its own multiplying factor. Support manual reset.
- Time-stamping of digital input events, accurate to 1ms, even in Modbus RTU protocol mode. Time synchronisation from SCADA server or telecommunications GSM / GPRS network.
- Programmable Modbus addresses for I/Os to suit different applications.
- Embedded firmware application upgradable in the field.



Heritage I/O Series

Technical information

APPLICATIONS
Water Utilities : fresh and waste water level alarms, pump control, flow measurements etc.
Electrical Utilities: fault indicators, reclosers, transformer temperature alerts, feeder monitoring & control, power quality etc.
Metering: water, electricity and gas
Rental or mobile equipment remote monitoring & control
Building management, HVAC
Street lights: power consumption and control
Security: movement detection and video transmission
Load profiling for electrical & water parameters, sensor measurements such as pressure, temperature, humidity, flow rate etc.
Connect to HART Multiplexers for remote communications with Asset Management Systems
FUNCTIONAL FEATURES
Supports external attached devices to the serial port. Act as a wireless (SMS or GPRS) gateway for other devices using Modbus RTU or DNP 3.0 protocol.
Compatible with the Maestro SMS Converter Server in transparent SMS mode.
Compatible with the Maestro GPRS ROUTER Server (for large systems) in transparent GPRS mode.
User-friendly Graphical User Interface (GUI) for configuration, downloading and uploading.
Easy to configure - setup within minutes. The configuration parameters can be saved and downloaded into other Heritage - I/O series units
Use standard OpenAT programming platform
AES 128 Bit encryption
Developed for worldwide usage
No fix IP needed at the remote site
PRE-INSTALLED FEATURES
AUTOTCP
AT Command over SMS
Modem status check and monitoring
Command line Interface to program sequence of actions driven by events
Download Over The Air (DOTA) for application software upgrade
Download Over The Air (DOTA) for firmware upgrade (available at a later stage)
OTHER FEATURES
Operating status LEDs
DIN rail mounting



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Designed by SEVENMAGINE (www.sevenimage.com)





Analog input/pulse counting, industrial solutions

With an intelligent m2mgateway embedded firmware, 4 pulse counters, 4 digital outputs and 4 analog inputs ports, Maestro Heritage Analog Input/Pulse Counting Gateway flexibly integrates with your existing industrial devices and and back-end server to provide analog-to-wireless solutions without requiring costly and time-consuming changes to your existing operation.

In demanding M2M environment, data such as flow, level, speed, pressure or temperature needs to pro-actively monitor and control complex industrial process. Maestro Heritage Analog Input/Pulse Counting Gateway is ideally developed for projects involving all these kind of essential ingredients.

Main features :

Analog-to-wireless industrial solutions:

4 AI

- 16 bits ADC resolution

4 DI

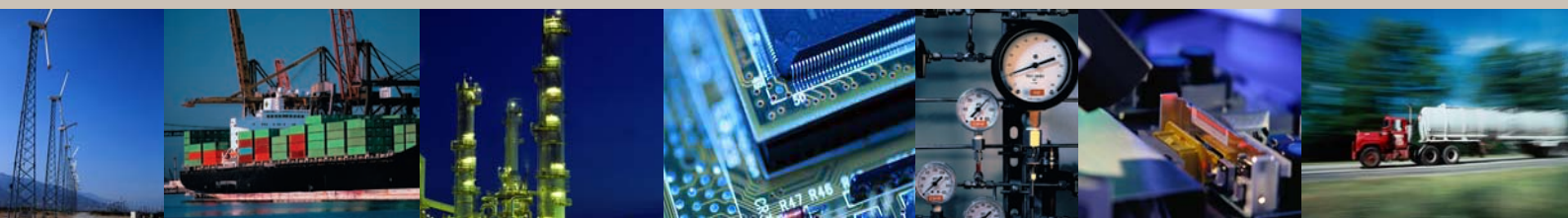
- Use as a 16 bits pulse counter
- Voltage and dry contact triggering with more than 500 pulses per second
- Standard input

4 DO

- Open collector
- Drive relay
- Trigger alarm

Easy Integration to your Operation

Maestro m2mgateway.net is your new versatile solutions to remotely monitor your industrial operation or environmental data. m2mgateway.net is the inventive combination of a customize firmware embedded in the modem and a parser script reference design to help you integrating seamlessly your new flow of data into your SCADA system and environmental back end, ERP or CRM. For more information connect to m2mgateway.net.



Technical information

Maestro Heritage Softool

The Maestro Heritage Softool is a free and ready-to-use configuration software dedicated to the Maestro Heritage Analog Input/Pulse Counting Gateway, also available for the Maestro Heritage Series.

The Maestro Heritage Softool is a small Windows application that let you easily configure your Maestro Heritage Gateways within two mouse clicks. With the Maestro Heritage Softool, you can set up and test your Gateways in a smooth and clean GUI without inputting complicated commands or codes. This tool includes unique features like auto TCP connection, remote program update, modem status check and monitoring, dynamic DNS.



more info: www.maestro-wireless.com

Heritage Analog Input/Pulse Counting Add-on Board Features

4 Input - Analog	
Input type and range	configurable by software, either 0-20 mA or 0-10 V
ADC resolution	16 bits
ESD, overvoltage protection	Yes

4 Input - Digital	
Use as	a 16 bits pulse counter or standard input
Voltage and dry contact triggering	with more than 500 pulses per second
0 - 24 V	Yes
ESD, overvoltage protection	Yes

4 Output - Digital	
Open collector	Yes
Maximum load current Iload	= 600 mA
Load voltage Vload	= 160 V DC
Driving relay	of 30 V maximum

Software	
AT commands	(GSM 07.05, GSM 07.07 and Wavecom)
Maestro Heritage Softool	✓
m2mgateway.net	✓

Dimension	
Size (mm)	79 x 74 x 27 mm
Weight (g)	100g

Temperature Range	
Operating	-20 °C ~ +70 °C
Storage	-40 °C ~ +85 °C




Power Supply	
Input Voltage	5 - 32 V DC provided from Maestro Heritage Main Unit
AC/DC	DC

Other Feature	
Casing	Industrial Grade ABS Plastic
DIN rail mounting	✓
Software for configuration	✓

Certification	
CE	✓
R&TTE	✓
FCC	✓
RoHS compliant	✓

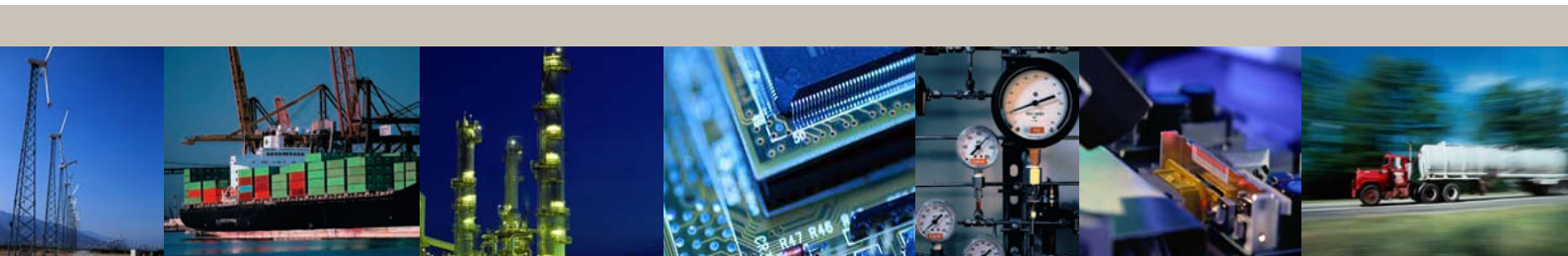
Distributor's Contact

Maestro Heritage Analog Input/ Pulse Gateways can be deployed and managed for a wide range of industrial and enterprise solutions as a main communication solution.

-  Green Technology
-  Industrial Automation
-  Metering

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 Designed by SEVENMAGINE (www.sevenimage.com)



Heritage Series

maestro

empowering wireless

Add Ethernet connectivity to the Heritage

Maestro Heritage Ethernet Router is a gateway allowing data transmission from GSM/GPRS/EDGE into TCP/IP. Whether you need a primary solution or an always-ready redundant connectivity, the Maestro Heritage Ethernet Router provides easy and cost-effective data communications. Virtually any remote sites or devices can now join a corporate IP network. Supporting a large number of internet security protocol, this 2.75 G Wireless WAN cellular router is the perfect solution for highly demanding professionals operating in the industrial applications fields.

Main features :

Add Ethernet connectivity to the Heritage Main Unit:

- Use the Heritage as a cellular router
- Establish RS232 over Internet connection
- 2 digital inputs, 2 digital outputs
- 15 pins connector for additional I/O and diagnostic/configuration

On-Demand Customization & Development

Using its embedded Open Platform and Easy to customize option board, Maestro Heritage makes it simple to adapt for any application. Thanks to a dedicated design team, the customer is supported all along the development process of its own board (JDM, OEM design services), therefore enabling him to reduce significantly his solution's time to market.



Heritage Series



Technical information

FEATURES/Add-On Board	Ethernet
-----------------------	----------

TECHNOLOGY	
Ethernet 10/100 base T	
Cellular Router Capabilities	
RS232 over Ethernet Connection	
RFC 2217 partial support (SerialNet over Telnet), SSL3/TLS1, FTP, E-mail, remote update, web remote	
Port Forwarding	

FUNCTIONAL FEATURES	
Input - Digital	Two 5V opto-isolated digital inputs
Output - Digital	Two 32V max., 600mA max. opto-isolated output for driving relays
Firmware and Software Upgrade	Over Internet or RS232
AT Command Set	AT+I Commands
Configuration	Using RS232 through terminal or configuration software
Security protocol supported	SSL3/TLS1, HTTPS, FTPS, RSA, AES128/256, 3DES, RC-4, SHA-1, MD-5, WEP, WPA and WPA2

OTHER FEATURES	
Operating status LED	On Ethernet Connector
Casing	SECC steel
DIN rail mounting	✓
Software for configuration	✓

INTERFACES	
Heritage 40 pins connectors	✓
External Connector	14 pins (RS232 & I/O) / Ethernet

DIMENSIONS	
Size (mm)	79 x 60 x 25mm
Weight (g)	62 g

TEMPERATURE RANGE	
Operating	-20°C ~ +55°C
Storage	-40°C ~ +85°C

POWER SUPPLY	
Input voltage	Provided by Maestro Heritage
AC/DC	DC

POWER CONSUMPTION	
Nominal	0.5W (estimate)
Idle	0.25W





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 Designed by MAESTRO MARKETING DPMT and SEVENMAGINE (www.sevenmagine.com)



Add Bluetooth connectivity to the Heritage

Maestro Wireless Solutions Bluetooth® Add-On for Maestro Heritage immediately give wireless connectivity between your Bluetooth® equipment and the Maestro Heritage.

Enjoy a GPRS/EDGE-Bluetooth Class 1 Gateway that will be integrated seamlessly in your existing facilities, achieving a range of up to 150m with a bit rate of 732kbps.

This Heritage Bluetooth® Add-on was especially design to target the healthcare and marketing vertical markets.

Main features:

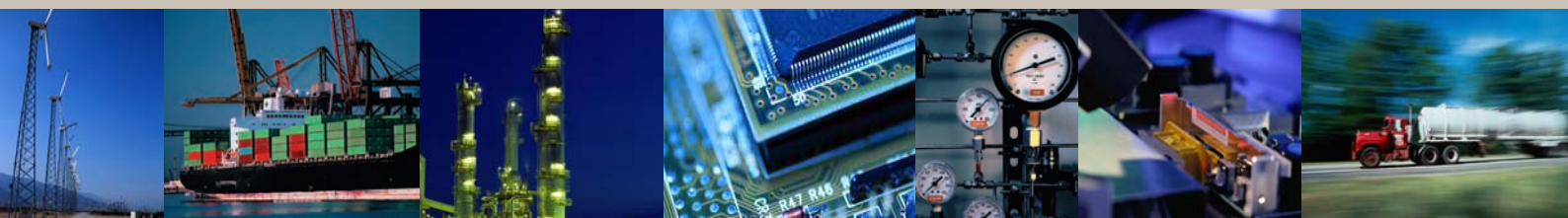
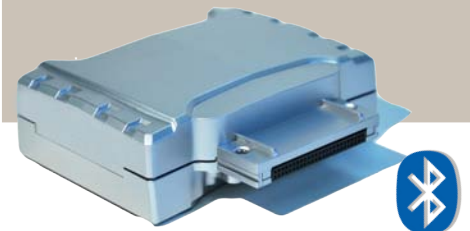
Transform your Heritage into a Cellular-Bluetooth Gateway:

- Transparent RS232 over Bluetooth transmission
- Industrial grade bluetooth: up to 150 meters at 732 kbps
- Embedded antenna
- High temperature range -30°C / +70°C



On-Demand Customization & Development

Using its embedded Open Platform and Easy to customize option board, Maestro Heritage makes it simple to adapt for any application. Thanks to a dedicated design team, the customer is supported all along the development process of its own board (JDM, OEM design services), therefore enabling him to reduce significantly his solution's time to market.



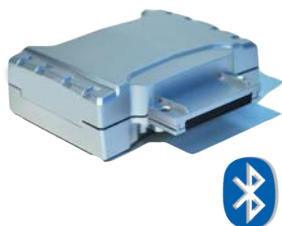
Serial connection between a device (meter, machine, transceiver, etc.) and a host computer (PC, PLC, etc.) is usually made by a simple cable. This universal solution is extremely cheap, very reliable and easy to set up.

But what if the device is too far from the computer? Rule of thumb is that serial cable length should not exceed fifteen meters.

Again, what if the device can not be reached? Having the device and the computer in different rooms can make the cable routing difficult.

Moreover, what if you want to connect several devices one after the other, but you cannot easily plug and unplug a cable?

To address that kind of issues, Maestro Wireless Solutions propose a range of Bluetooth® Dongle for transparent RS232 over Bluetooth® transmission, ideal for cable replacement and master/slave networking.



more info: www.maestro-wireless.com

Maestro Bluetooth Add-on Board	
Bluetooth V2 stack	Baseband, Link manager, L2CAP, RFCOMM, SDP
Bit rate	723kbps
Comm and Data profiles	GAP, SDAP, SPP, DUN, SPP config.
UART TTL ports	TXD - RXD - RTS - CTS (& DTR - DSR - DCD - RI / Profil DUN)
UART rate	Standard from 9.6 to 115,2kbps
Additional applications	Link setup and configuration - through AT commands
Using mode	Transparent serial link in addressed secured
Frequency	FHSS / 2.402 to 2.480GHz
Radiated RF power	100mW (20dBm)
Sensitivity	To -87dBm for BER = 10-3
Range in free field	150m (integrated antenna)
Operating voltage	3.8 to 20V
Stand-by unconnected consumption	22mA
Connected consumption	25mA
Transmission consumption	60mA
Burst transmission consumption	380mA
Power supply connector / DB9	3.5 mm DC µJack (or / Pin 9 « RI » on request)
Power supply connector / DB15	Pin 13 « RI » (or / 3.5 mm DC µJack on request)
Temperature range	-30°C / +70°C
Size	65 x 40 x 25 mm
Fully compliant with RTTE EN 300-328 / EN 301-489 (Europe) & FCC P15 / IC (US & CAN)	

Other available board:



6+6 Digital I/O

GPS

Ethernet



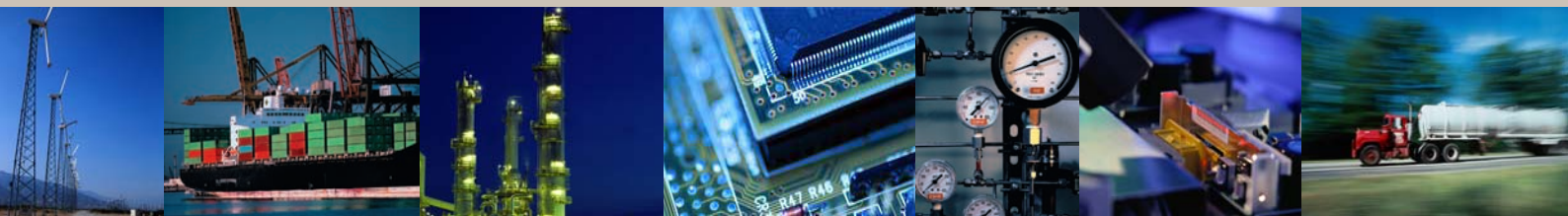
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Heritage Series

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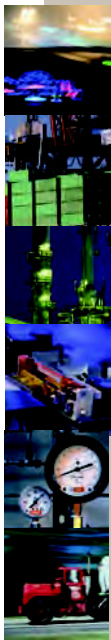
empowering wireless

Wavenis RF to Cellular gateway

Maestro Heritage short range RF Gateway immediately gives wireless connectivity between your Wavenis end points and your application. Compact, easy to set-up and scalable you will quickly enjoy full 2 way communications. Available in ISM 433, 868, and 915 MHz frequency band and full type certified, this is the ideal solution for worldwide deployments. Maestro Heritage Gateway can also be used for remote management, allowing end-users to query nodes over any distance at any time.

Main features :

- Transparent Wavenis over GPRS link
- Remote access to your Wavenis nodes
 - Star, Tree, Mesh network
- External antenna with SMA connector
- Uses non-licensed ISM bands
- Optional battery backup
- High temperature range -30°C / +70°C



Maestro Heritage Wavenis Enable Gateway



Metal Casing also Available



Heritage Series

Technical information

GENERAL FEATURES

- Wavenis 25mW transceiver with protocol stack in on-board CPU
- Full 2 way communication (back-end to Gateway; Gateway to end-nodes)
- Operating software on PC/Windows with client-server architecture (optional)
- Wireless on-site configuration via tablet PC, with Wavenis module (optional)

GATEWAY BEHAVIOR:

- Remote access to Wavcard resources and network nodes over cellular link
- Native integration in existing tools
- Other behaviors available on demand

RF PROPERTIES

- Operates in license-free ISM 433, 868 and 915MHz frequency bands
- 25mW radiated RF power

TEMPERATURE RANGE:

- Operating: -30°C / +70°C
- Storage: -40°C / +85°C

DIMENSIONS:

- 65 x 40 x 25 mm

GATEWAY CERTIFICATIONS

- CE
- R&TTE
- FCC
- RoHS compliant

Network topology exemple:



Fully compatible with all Wavenis products:



Softool Enable :

Softool
Embedded Intelligence - Empowered User Experience
10 Features - No Premium charge

- DynDNS
- Auto TCP Connection
- Advanced programming script
- TCP Terminal
- Ping
- Remote Program Updating
- Modem status check and monitoring
- Call Screening
- AT command through SMS

maestro 

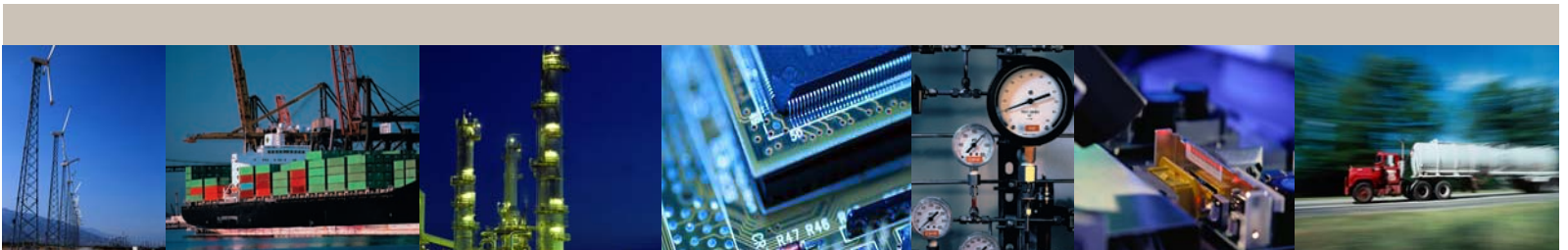
Maestro Wireless Solutions is member of the Wavenis Open Standard Alliance

Distributor's Contact



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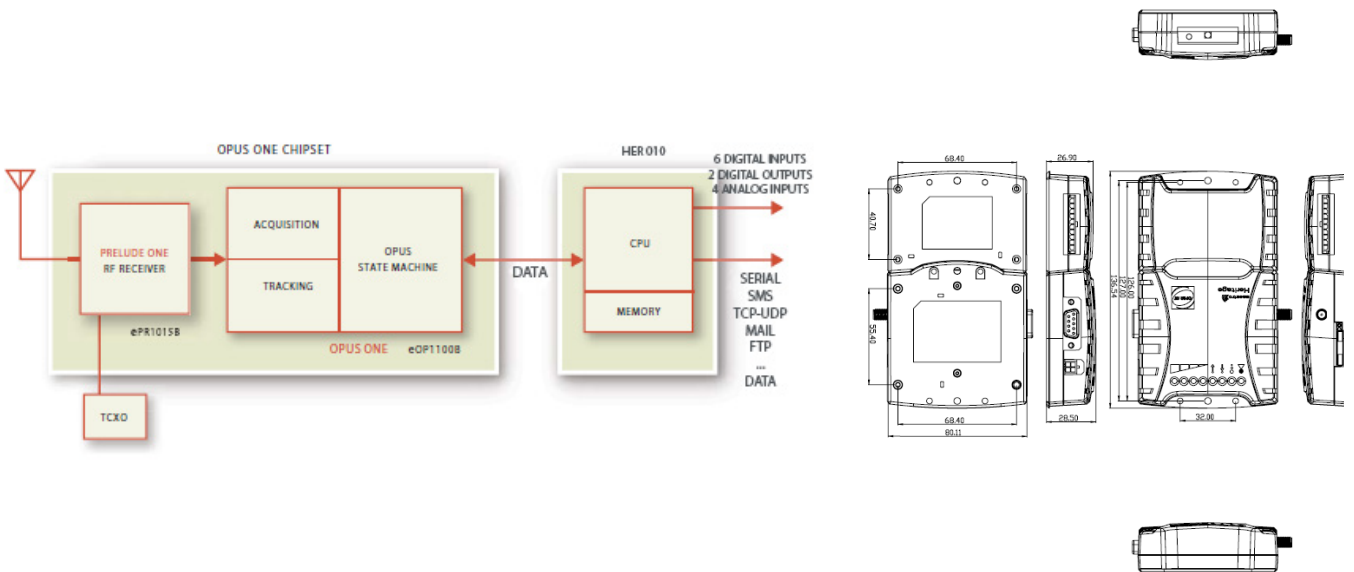


Heritage GPS Board

Less redundancy, lower power consumption, and unparalleled cost savings.

FEATURES

- Versatile:** 32 channel receiver/baseband processor chipset
operates in Autonomous and Assisted-GPS mode
8 Channel Tracking
- Ultra-high Sensitivity:** **-157 dBm sensitivity** ensures position fix availability
indoors, outdoors and in urban canyons
- Fast:** < 4 sec TTFF ensures user satisfaction
- Highly Accurate:** < 7 m outdoor, < 30 m indoor typical, live-sky measurements
- Low Power:** 110 mW power consumption while tracking, intelligent
power management helps extend battery life in handheld
products



HARDWARE - SPECIFICATION

6 Input ports – Opto-Coupler

High voltage isolation to protect the unit ($V_{iso} = 1,500V_{rms} \text{ \& } 2000V_{DC}$)

Wide range input voltage from 5 to 24VDC

2 Output ports – Opto-Coupler (Open Collector)

High voltage isolation to protect the unit ($V_{iso} = 1,500V_{rms} \text{ \& } 2000V_{DC}$)

Maximum Load current $I_{load} = 600mA$

Load voltage $V_{load} = 160V_{DC}$

4 Analog Inputs

Input voltage range 0-24VDC

Over-voltage protection (Maximum input voltage $\sim 30V_{DC}$)

10 bits resolution



GPS - SPECIFICATION

Position Accuracy:

Outdoors1: $< 7 \text{ m}$, 50% CEP, Open Sky1

Indoors2: $< 30 \text{ m}$, 50% CEP

Start-up Times:

Hot Start: Outdoors1: $< 3 \text{ sec}$ Indoors2: $< 20 \text{ sec}$

Warm Start: $< 37 \text{ sec}$

Cold Start: $< 44 \text{ sec}$

Supply Voltage:

OPUS One Core: 1.2 V, I/O: 3.0 V

Power Consumption:

Deep Sleep Mode: $< 99 \mu W$

Opus One Search Mode: 174 mW

Opus One Track Mode: Outdoors: 112 mW / Indoors: 164 mW



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3G Industrial Router

maestro



empowering wireless

Stable and powerful Industrial 3G Ethernet Router

The Maestro 3G Industrial Router is designed to allow fast connectivity to the Internet, to back-end applications, or to other devices. Maestro 3G Industrial Router is a GPRS/EDGE/UMTS/HSPA+ wireless single port router for fast wireless IP connectivity. By using the 3GIR, it is possible to connect remote sites to a central site by using the built-in IP-IP tunneling feature. Devices can communicate across firewalls and handle bidirectional communications across a NAT barrier.

Configuration :

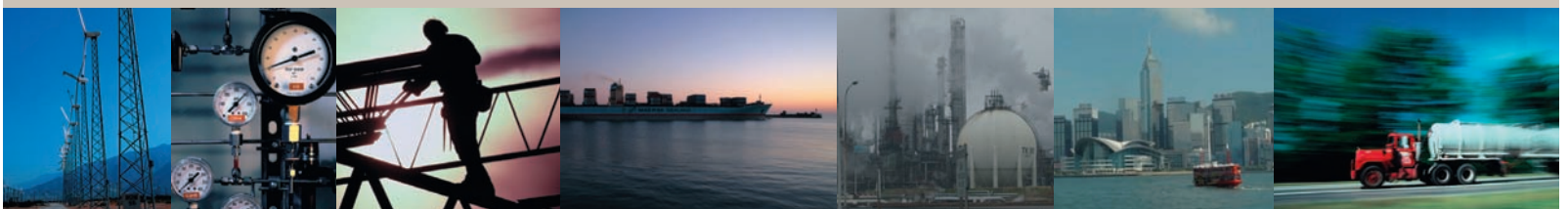
Configuration couldn't be easier with the native web-based setup front-end.

Features :

- High Speed 21Mbps Connectivity
- DHCP, DNS, NTP, DNAT support
- IP-IP tunneling
- VPN client support
- SIM failover (dual sim card)
- Wide mains input range
- Optional battery back-up
- 20 LEDs for visual check

Dual SIM, Dual PSU, The Ultimate Industrial Router

Designed for critical industrial applications the Maestro 3GIR features two cellular SIM slots for automatic network failover should the primary connection be lost. An additional power input is also available to plug a battery back-up.



3GIR



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Technical information

GENERAL FEATURES

- Multiband GSM 850/900/1800/1900 MHz
- Multiband W-CDMA 850/1900/2100 MHz
- GPRS class 12 / EDGE class 10
- 3G UMTS: Up to 384 Kbits/sec
- HSDPA: 2Mbps/sec: Category 5
- HSPA+ mode: Up to 21Mbps/sec downlink
- ETSI GSM Phase 2+ compliant
- LED Bar RSSI (Receive Signal Strength Indication)
- LED indication of Network Registration, Up / Down Data Traffic and network availability
- Din Rail Mountable
- Temperature range:
 - Functional: -40°C to +85°
 - Storage: -40°C to +85°C
- Casing: metal
- Dimensions: 170x80x35
- Weight: 700g

INTERFACES

- Mains : 85VAC-264VAC / 120VDC-370VDC
- Data : RJ45 10Mbps/100Mbps Ethernet
- DC : 8VDC-30VDC input
- Antenna: Gold-plated SMA female

INTEGRATED SERVER FUNCTIONS

- DNS Proxy/ DHCP Server

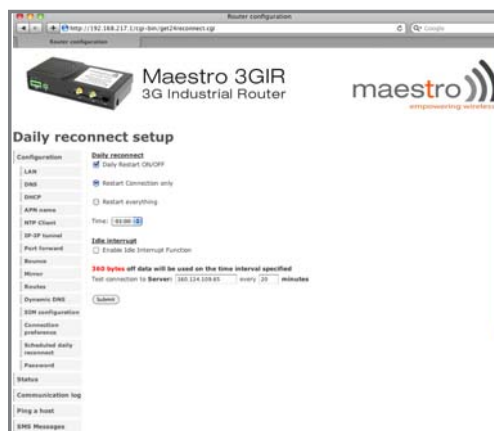
FIREWALL

- NAT (Network Address Translation) for internal subnets
- Active connection tracking for UDP and TCP traffic
- NAT-ing of ICMP traffic

IP PROTOCOL SUPPORT

- Basic ICMP/TCP /UDP
- Supports IPComp compression transport
- VPN Client support, (eg. Checkpoint Firewall-1 VPN)
- DHCP Server configuration
- APN name and authentication
- Connection status /system log display
- Trouble-shooting page (ping)
- Static IP routing
- DNAT
- IP-IP Tunneling
- Network Preference selection

Maestro 3GIR features an embedded configuration tool for easy set-up and remote maintenance



Always-on broadband connection to critical data applications:

Maestro 3GIR can be deployed and managed for a wide array of industrial and enterprise solutions as a main or redundant communication solution.

- Wireless networking
- Retail / Point-of-Sale
- Vending / Kiosks
- Multimedia
- Remote monitoring and control



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