

micro **PLUS** 24

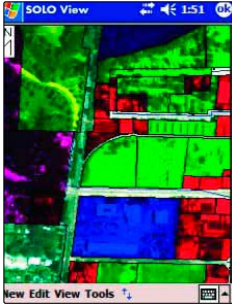
Rugged PDA



Metering with
Radio Control

RICCIUS + SOHN
INFORMATION

A color screen to take full advantage of your software's features.



microPLUS 24

Maximum operating time, endurance, and reliability for your field data



Trust the microPLUS 24 for all tough field applications

Pushing greater quantities of data to field operatives, reducing or eliminating paper forms and improving data security are all methods used to increase productivity and reduce costs. By streamlining your procedures, reducing management time and improving data reliability, RICCIUS+SOHN's microPLUS computers will enhance your performance in the field.

You can count on microPLUS 24 when portability, data security and maximum operating time are crucial. Extra lightweight but with exceptional environment resistance features, this series offers an innovative modular design that saves time and money on long-term service and provides customization options to suit your different applications.



Rain/Immersion
IP67
MIL-STD-810F



Dust
IP67
MIL-STD-810F



Heat
+60°C/+140°F



Cold
-30°C/-22°F



Shock
MIL-STD-810F
1-meter drop
onto plywood
over concrete



Wireless



15 hours operation
under typical conditions

Specifications

Operating System	▶ Windows Mobile 2003 software for Pocket PCs	
Bundled/Available Software	<ul style="list-style-type: none"> ▶ Pocket Word ▶ Pocket Excel ▶ Inbox (Outlook e-mail client) ▶ Calendar ▶ Contacts ▶ Tasks ▶ Notes 	<ul style="list-style-type: none"> ▶ Calculator ▶ Desktop version of Outlook ▶ Windows Media Player ▶ Microsoft Pictures ▶ ActiveSync 3.7 ▶ Online Help
Processor	▶ Intel PXA255 XScale CPU	<ul style="list-style-type: none"> ▶ 200 MHz (microPLUS 24-1 & microPLUS 24-2) ▶ 400 MHz (microPLUS 24-3 & microPLUS 24-4)
Memory	<ul style="list-style-type: none"> ▶ Memory 64 MB high-speed SDRAM 64 MB or 128 MB nonvolatile Flash storage 6 MB reserved 	<ul style="list-style-type: none"> ▶ Storage – Onboard nonvolatile NAND Flash 64 MB (microPLUS 24-1 & 3) 128 MB (microPLUS 24-2 & 4) 16 MB reserved
Display	▶ 240x320 pixel (1/4 VGA) color TFT with LED front light.	<ul style="list-style-type: none"> ▶ Sunlight-readable color TFT display ▶ Rugged waterproof design
Keyboard	<ul style="list-style-type: none"> ▶ Easy-to-use keypad The buttons have a distinct, tactile feel and are widely spaced, so it's easy to push the right one even when you're wearing gloves. 	▶ Input option for handwriting recognition
Power Supply	▶ Batteries: 3800 mAh NiMH rechargeable pack	▶ 15 hours of continuous room-temperature operation with default settings
Voice System Communications	▶ Integrated speaker The speaker is front-mounted for maximum clarity and volume.	
Communications I/O	▶ Standard 9-pin (male) D-shell RS-232 serial and USB ports	
Expansion bay	▶ 1x Type I and 1x Type II CompactFlash slots	
Dimensions	▶	
Weight	▶ 17 ounces (490 g) including rechargeable PowerBoot Module	
Temperature Range	▶ -22 to 140 °F (-30 to 60 °C)	
Environmental Resistance	<ul style="list-style-type: none"> ▶ Humidity MIL-STD-810F, Method 507.4 ▶ Water IP67, sealed against accidental immersion (1 m for 30 min.) MIL-STD-810F, Method 512.4, Procedure I ▶ Sand and dust IP67, MIL-STD-810F, Method 510.4, Procedures I & II ▶ Vibration MIL-STD-810F, Method 514.5, Procedure I, Fig. 17 & 18 	<ul style="list-style-type: none"> ▶ Drop MIL-STD-810F, Method 516.5, Procedure IV 26 drops from 4 ft (1.22 m) onto plywood over concrete 6 additional drops at -4°F (-20°C) 6 additional drops at 140°F (60°C) ▶ Altitude MIL-STD-810F, Method 500.4, Procedures I, II & III 15,000 ft at 73°F (23°C)
Standard Accessories	<ul style="list-style-type: none"> ▶ Rechargeable PowerBoot Module ▶ Standard CF-Cap ▶ AC charger ▶ USB data cable ▶ User's guide 	<ul style="list-style-type: none"> ▶ CD-ROM ▶ Hand strap ▶ Two stylus pens ▶ Package of 10 screen protectors
Optional Accessories	<ul style="list-style-type: none"> ▶ Carry case ▶ Deluxe case with belt clip and neck strap ▶ Stylus lanyard ▶ Serial interface cable ▶ AA PowerBoot Module ▶ Extended CF-Cap 	<ul style="list-style-type: none"> ▶ Range pole bracket ▶ Tripod bracket ▶ 12V vehicle charging cable ▶ Holux GPS CompactFlash card ▶ Socket Communications 802.11b kit ▶ Socket Bluetooth Kit
Warranty	▶ Manufacturer's warranty: 1 year parts and labour, repaired in our workshops. ▶ Optional DAP CARE warranty extension available for even greater peace of mind.	



9-pin RS-232 serial and USB ports



AA PowerBoot Module



Extended CF-Cap

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Communication skills for ultra low powered objects



WAVEFLOW is a telemetry wireless products family suited for metering applications.

The **WAVEFLOW** family is based on the low cost, ultra low power **WAVENIS** RF technology, allowing up to ten years of battery life time.

The highly optimized design of the **WAVEFLOW** make them ideal for markets with mass production volume and severe environmental constraints.

FUNCTIONAL FEATURES

- 4 meter inputs
- Maximum input frequency : 2Hz
- Digital debounce input filtering
- Programmable internal Data logging.
- Programmable Measure period.
- Programmable threshold alarms.
- Operation modes :
 - Periodic frame transmission with a programmable period.
 - Data measure transmission on frame request.
 - Can be programmed to act as a radio repeater for other devices.
- Time and Date management with day and night configuration.
- Time synchronization on a specific radio frame.
- End battery life detection.
- Wire cut detection.
- Easy Plug and Play installation.
- Average consumption optimised by a sophisticated management of the awakening period allowing more than 10 years battery life duration

TECHNICAL CHARACTERISTICS

- Input interface: open collector or dry contact.
- Radio range : up to 1 km In line of sight.
- ISM 433/868/915 MHz Bands single channel or frequency hopping spread spectrum.
- Gaussian Frequency Shift Keying Modulation (GFSK)
- Data Rate : up to 32Kbits/s
- Half duplex operation
- Receiver sensitivity : -110 dBm (BER =1%, 9.6kbps)
- Output power: +14 dBm with integrated antenna.
- Full Compatibility with the high reliability **WAVENIS** RF network.
- Approved to : EN300-220-1
- EMC conformity with EN 300-683

MECHANICALS CHARACTERISTICS

- Functional temperature range (module) : [-20°C ; +70°C]
- IP65 or IP68 casing
- Dimensions (H/L/P) : 12x4x3cm
- Weight : from 110g to 160g



Communication skills for ultra low-powered objects.



RADIO FUNCTIONS

WAVEFLOW is able to establish a 2-ways transmission link with a control point. It can be programmed through the air to offer the following services:

- periodical transmission of informations to the central node
- warning messages sending on specific events
- peer-to-peer mode
- capability to relay frames to join modules away from the basis
- capability to update configuration parameters through the air

WAVEFLOW can also be integrated in a network and interoperates with others wavenis modules. the wavenis protocol offers also network services such as broadcast and polling.

REMOTE ACCESS

WAVEFLOW products are compatible with following equipments :

- **WAVEPORT** : radio modem
- **WAVECARD** : transceiver board
- **WAVECELL** : GSM/**WAVENIS** concentrator
- Hand Held Computer : **WAVENIS** has been embedded on Husky, DAP, and Palm 5xx
- All the Coronis family products

Depending on application profile, **CORONIS SYSTEMS** provides :

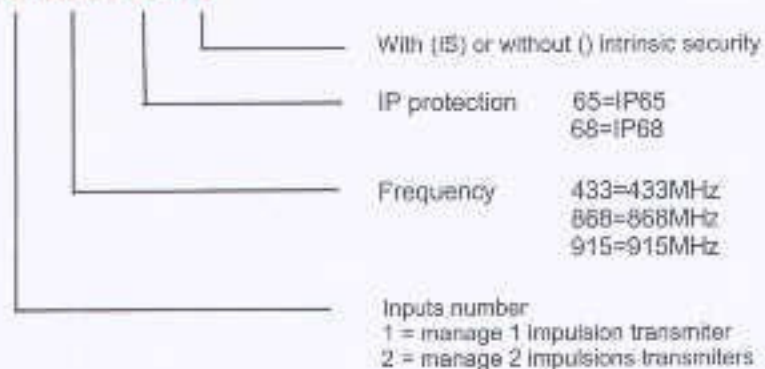
- Data Management Software
- Technical support to achieve your own implementation of the radio transceiver.
- Development of specific transceiver with customized specifications.



Example of a Waveflow installed and plugged to 2 water meters.

Product selection guide

WAVEFLOW 2-868-65-IS

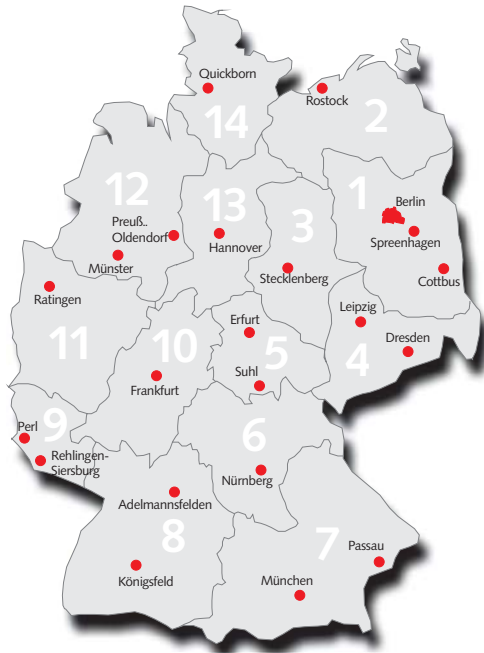


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