Wireless Portable Asset Monitoring System caters for all your monitoring needs.
The system integrates power measurement and communications in a single, flexible unit which can be tailored to suit a variety of energy monitoring and management installations. The panels have integrated wireless communication and 3 auxiliary pulsed inputs capable of receiving consumption data from other pulsed output utility meters such as gas and water meters. Data is reliably transmitted via mobile (GPRS) communications, viewed using RealTime Online™. Power quality monitoring is provided by MODBUS registers being communicated and displayed on RealTime Online™.
The system is also capable of receiving RF messages from other local transmitters. It has integrated 2G/3G modem to send stored data to the RealTime Online™, cloud based reporting software. The ULTRA RF Portable Meter has also an integrated ULTRA RF Transceiver capable of receiving wireless data upto 15km away.

Features
- 2G/3G Modem & GPS
- True cellular roaming capability
- Integrated RF 868MHz (915 US & AUS version)
- Wireless range upto 15km line of sight from ULTRA RF Transceiver
- Phase indicator LEDs
- 4 Analogue inputs
- 3 Digital Inputs
- 24VDC Output
- Alerts & Notifications
- Operates in conjunction with RealTime Online™ software
- Over the air remote configuration
- Duplex Bi-Directional communications via GPRS
- FCC, IC, ETSI, Approvals
- Conforms to EN 61010-1 Overvoltage Category III Accreditation UL, cUL, RCM/C-Tick, CB, CE

Technical Information
- RS485
- Bidirectional communication
- Optional Ethernet connectivity
- Enables transfer of data from remote site over UDP or FTP
- Split Core CT’s, ease of installations avoiding interruption to power supply
- Connection to a wide range of cables from 0.25mm2 to 4.00mm2
- Individual Harmonics to the 15th, THD to the 30th (Optional)
- Class 1 (1%) accuracy

Applications
- Automated Meter Reading
- Building Automation
- Wireless Alarm and Security Systems
- Industrial Monitoring and Control
- Critical Asset Monitoring

System Components

<table>
<thead>
<tr>
<th>System Components</th>
<th>Part no.</th>
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<tbody>
<tr>
<td>Portable Asset Monitor – GPRS/GPS - ULTRA RF – RF (UK)</td>
<td>3?????</td>
</tr>
<tr>
<td>Portable Asset Monitor – GPRS/GPS - ULTRA RF – RF (US/CAN)</td>
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</tr>
<tr>
<td>Portable Asset Monitor – GPRS/GPS - ULTRA RF (AUS)</td>
<td>2????</td>
</tr>
</tbody>
</table>
TECHNICAL DATASHEET
ULTRA RF Portable Asset Monitoring System

DETAILED SPECIFICATIONS

INTERFACES
RF Connector: SMA Male
SMA Reverse Polarity Female Jack (US Only)

Inputs: 3x Pulse Inputs
4 x Analogue 12 bit A to D (0-1V, 0-5V, 0-10V, 4-20mA)
1x RS485 (Baud rate 9600 Std)

Output: 1 x 100mA Motor Drive 3.3VDC Max

System: 3 Phase 3 or 4 Wire Unbalanced Load Voltage
U 480/277V 110/63V & 208/120V (optional).

Current I: 5 amp, 1 amp or 0.333V

Measurement Range: Voltage 20% to 120% Current 0.2% to 120%
Frequency Range: Fundamental 45 to 65Hz
Harmonics Up to 30th harmonic at 50Hz
(Option) Individual up to the 15th (Option)

ULTRA RF Radio Transceiver

Network Topologies: Point-to-Point, Point-to-MultiPoint

Security/Encryption: AES128 data encryption (Custom Key Per System)

Frequency Band: 868MHz UK (915MHz US & AUS)

RF Data rate: Variable bit rate

RF Technology: Frequency Hopping Spread Spectrum (FHSS) (US & AUS ONLY)

Modulation: DSSS

Output Power: 100mW (20dBm)

Maximum radiated power (EIRP): 45.13mV/m measured at 3 meter

Range Line of sight: Outdoor: up to 15km

Sensitivity: -135dBm

QOS Management: RSSI

Link Budget: 160dB maximum

Memory: 2Mb (Optional 8Mb)

ENVIROMENTAL

Temperature (Operating): -10°C to +55°C

Temperature (storage): -25°C to +70°C

Humidity: <75% non-condensing

PHYSICAL

Dimensions: L 470mm x W. 357mm x D 176mm

Weight: 3500g

Enclosure: Polypropylene

GPS Receiver

High sensitivity up to -159 dBm (with active antenna)

Accuracy < 2.5 m

Hot start < 5 s

Warm start < 35 s

Cold start < 35 s

2G Version

2G GSM Quad-Band: 850 / 900 / 1800 / 1900 MHz

2G Output power: Class 4 (2W) for 850 / 900
Class 1 (1W) for 1800 / 1900

GPRS Class 10: DL: max. 85.6 kbps,
UL: max. 42.8 kbps

ACCURACY

kWh: Class 1 per EN 62053-21 & BS 8431
ANSI C12.20 Class 0.5

kvarh: Class 2 per EN 62053-23 & BS 8431

kw & kVA: Class 0.25 IEC 60688

kvar: Class 0.5 IEC 60688

Amps & Volts: Class 0.1 IEC 60688

PF: ±0.2°

Neutral Current: Class 0.5 IEC 6068

CERTIFICATIONS

FCC ID: ZWZISL067
Industry Canada ID: 12053A-ISL067
CE: ETSI EN 300 220-2 V2.4.1 (2012-05)

SAFETY

Conforms to EN 61010-1 Overvoltage Category III Accreditation UL, cUL, RCM/Tick, CB, CE

ROHS: YES

Multi-Parameter Available via Display & MODBUS/TCP/IP
(* only available via remote communication port i.e. RS485, TCP/IP)

(* only available via remote communication port i.e. RS485, TCP/IP)

Volts, L-N & L-L
Amps
Power Factor
Import kWh, kvarh
kw
kW
Frequency
Hours run (on load)
Export kWh, kvarh
Inductive and capacitive kvarh
Peak Volts, L-N
Peak Amps
Neutral Amps
kw, kVA & kvar
Peak kW, kVA, & kvar Demand
Average Volt & Peak Amp Demand & Peak
*(Option) % THD Volts & Amps

True rms measurement of Volts & Amps – and true Power Measurement – to the 30th harmonic at 50Hz (>255Hz@60Hz).