Yantrr Electronic Systems Pvt Ltd

www.yantrr.com

OMNY-M1 Series

Microsoft Azure Certified

| Front | Top View | Rear |

Low Power Real Time Operational Intelligence

Securely Connect Remote Sensors to IoT Cloud Platforms

Versatile Dual-Core Low-Power Embedded CPU • Compact RTOS • LTE CAT M1 Low-Power WAN • Wi-Fi • BT4.2/BLE

(Note: Photos are for illustration, features and specifications are as per current design, configurable as required)

| Environment | Healthcare | Asset Tracking | Retail | Metering | Industrial Control |

Embedded CPU System

- Dual-core 32-bit microprocessor running at up to 240MHz
- CPU Deep-sleep mode with Ultra Low Power co-processor
- Dynamic power scaling
- 520KB SRAM, 16MB FLASH
- 16KB Non-volatile SRAM in RTC
- RTOS based firmware with OTA updates

I/O Interfaces & Sensors

- 10/100bps LAN
- UART RS232/RS485
- DI/DO, 4-20ma current loop AI with 12bit SAR ADC
- Wireless sensors (BLE Beacons, WiFi)
- Built-in 3-axis gyroscope

Wireless LAN Connectivity

- Integrated WiFi 802.11 b/g/n with ultra-low-power mode
- Integrated Bluetooth 4.2 / BLE
- Built-in WLAN antenna

Cellular WAN Connectivity

- Integrated Cellular Modem
  - Worldwide bands LTE CAT M1 / NB-IoT
  - Up to 1Mbps DL/UL speed
  - Low power deep-sleep mode for long operational life running on battery
- micro SIM socket

Cloud Analytics Integration

- Yantrr Device Cloud
- Microsoft Azure Certified
- AWS
- ThingsBoard IoT platform Support

Operating Conditions

- 24-6V/2A DC supply with optional solar/re-chargeable battery backup
- Extended industrial temperature range
- Available industrial IP66 class enclosure for outdoor weather protection

OMNY-M1 System Specifications

	Model: OMNY-M1-BG96
CPU	Dual-core 240MHz Ultra Low Power (ULP) CPU system 50mA normal, 150uA in low power sleep mode
FLASH	16MByte (Built-in) Up to 64MB SD Card (Optional)
RAM	8.5Mbyte
Power Supply	DC 24V-6V, 1.5A, 2.5mm barrel connector
Battery Backup	LiPo battery backup (2-pin JST)
Built-In I/O Interfaces	1x RS232 (2.5mm Pluggable Terminal Block) 1x 10/100Mbit LAN (RJ45) (Optional) 1x Industrial Extension (25pin D-Sub Miniature) 1x USB (FLASH Download/Console Monitor)
Integrated WiFi	802.11 B/G/N with optional external antenna via IPEX connector
Integrated Bluetooth	v4.2 BR/EDR and BLE with optional external antenna (common with WiFi)
Integrated Sensors	3-Axis Accelerometer Temperature (0 - 65 °C) Humidity (0 - 100% RH) Pressure (300 - 1100 hPa)
LEDs	Power, Battery Status, 3x user defined, 2x Modem Status
Switches/Buttons	Reset, 2x user defined tactile buttons
Integrated Cellular Modem	Worldwide bands LTE CAT-M1 and NB1: LTE-FDD: B1/B2/B3/B4/B5/B8/B12/ B13/B18/B19/B20/B26/B28 LTE-TDD: B39 (for Cat M1 only) GSM/2G fallback: GSM850/EGSM900/ DCS1800/PCS1900 with external SMA mount antenna, u.FL option Approvals: GCF, CE, FCC/PTCRB, Verizon/AT&T/Vodafone plus others
Integrated Positioning	GPS, GLONASS, BeiDou/Compass, Galileo and QZSS with external SMA mount antenna, u.FL option Sensitivity: -157 dBm TTFF @ open sky: 31s (cold), 2.4s (warm)
Certifications	EN 55022:2010, 609500-1 FCC Rule 15 Subpart B

OMNY-M1-IE (Industrial Extension) Specifications

	Model: OMNY-IE
Serial I/O	Isolated RS485/Modbus (2.5mm Terminal Block)
Digital I/O	Isolated 2x DI (12V tolerant) (2.5mm Terminal Block) Isolated 2x DO (5V) (2.5mm Terminal Block)
Analog I/O	Isolated 2x 4-20ma current loop receiver (2.5 mm Terminal Block), 12-bit SAR ADC with up to <> sampling rate

For all Sales, OEM, Distribution inquiries write to sales@yantrr.com, for technical questions write to support@yantrr.com

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