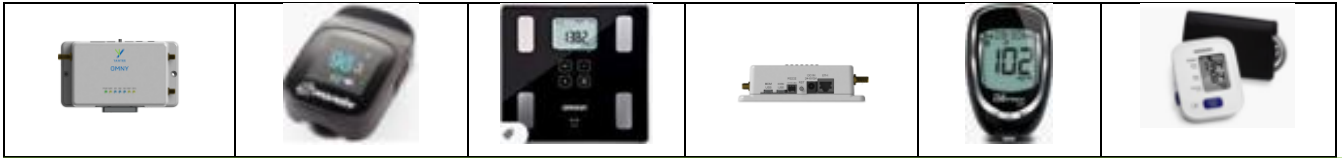# Yantrr OMNY-M1 Medical Hub

www.yantrr.com



'यंत्र' – Machine

Yantrr is a technology focused company that develops solutions in the domain of Operational Intelligence, Industrial IoT devices and Embedded system solutions.

Yantrr is happy to launch the OMNY hub to provide the IoMT (Internet of Medical Things) solutions for medical monitoring of patients in a remote setting. This is an opportunity for healthcare providers, hospitals, in home patients and seniors to get the necessary health parameters tested on an ongoing basis in a simple and secure manner with minimal support.
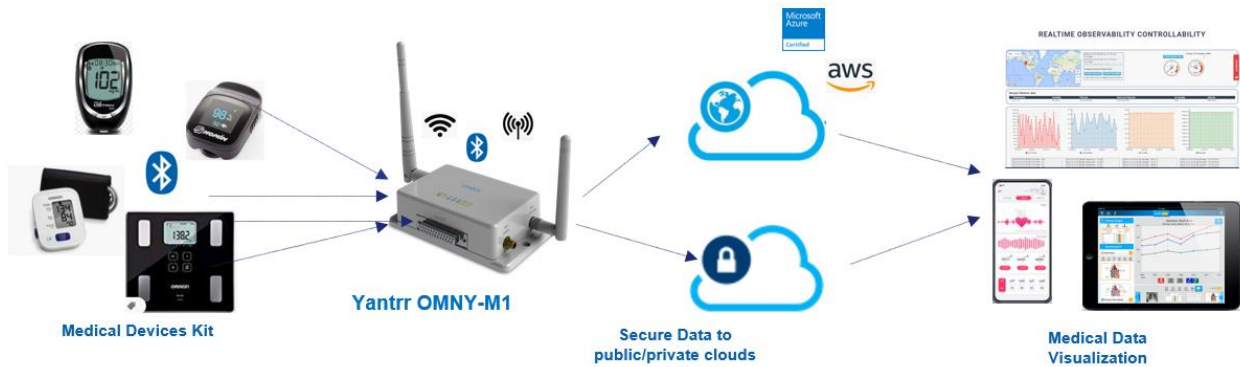


The future of medicine and healthcare is more and more patients receiving care in their own homes, and so there is going to be need for simple and secure remote monitoring devices. There are a variety of devices that are available in the market these days with the Bluetooth® Low Energy (BLE) technology that can be paired with phones and come with some or the other individual app. What Yantrr provides is a complete solution with a medical device kit, an Internet ready hub, secure data transfer to the cloud and visualization via dashboard

## Features

- Firmware is preconfigured out of the box for medical devices
- Ease of use, just use your medical devices without worrying about any app
- Mix and match support for Medical devices from different vendors
- Choose between cellular connectivity or WiFi, or both for portability
- Cellular connectivity makes it possible to carry the device and your kit wherever you go
- Data is sent to the configured cloud and can be used by doctors/hospitals care givers
- Can be configured for public or private cloud solutions.
- Upgrades and any changes to the device can be updated over the air automatically
- OEM and reseller agreements
- Open source software and protocols.
- Certifiable for Electronic certifications like FCC, CE, and carrier certifications like PTCRB etc

# Remote monitoring



The OMNY Firmware already supports the vitals in the table below with some of the medical devices in North America, and supporting the cellular certification of prominent telecommunication carriers.

| Device Category | Data |
|---|---|
| Glucometer | Blood Sugar |
| Weight Scale | Weight |
| Oximeter | SpO2 percentage |
| | Pulse rate in beats per minute |
| Blood Pressure Monitor | Systolic Pressure |
| | Diastolic Pressure |
| | Mean Arterial Pressure |
| | Pulse Rate |
| Body Composition Monitor | Body Fat Percentage |
| | Visceral Fat |
| | Body Weight |
| | Skeletal Muscle percentage |
| | Resting Metabolism |
| | Body Mass Index (BMI) |
| *Thermometer | *Body temperature* |
| *ECG | *ECG chart* |
| *Smart pillbox | *Controlled dosage* |

\* planned devices

# OMNY-M1 System Specifications

## 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
▸ FOTA

## 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
▸ AWS

## 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

## OEM product

Astute Tele Guardian™ solution for hospitals and home healthcare providers tracks patient health in real time using Astute CTR-01™ hub and web portal. This is based on the OMNY-M1 platform.

https://www.yantrr.com/astute-tele-guardian-goes-online-using-yantrr-omny-m1/
https://www.business.att.com/content/dam/attbusiness/briefs/att-iot-astute-hub-product-brief.pdf

## Customization and Custom development

Yantrr has a solid engineering team with many years of experience, and are keenly invested in open source technologies in IoT looking to expand business partnerships in many IoT application spaces.

Please contact Yantrr for OMNY-M1, its customizations or to develop your own customized hardware and embedded software support development. We shall be happy to help.
Stay safe, stay healthy

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