MT
4100

1xRTT (CDMA2000)/HSDPA (UMTS 3G) Mobile Tracking Device

The Novatel Wireless MT 4100 is an ultra-low power 1xRTT (CDMA2000) and HSDPA (UMTS 3G) telematics solution with backwards compatibility to GSM/GPRS that delivers feature flexibility to support the most demanding global 2G/3G applications. It is designed for fleet management, insurance telematics, vehicle leasing, transportation/trucking, and emergency response providers to optimize their mobile resources and improve their bottom line. The MT 4100 builds upon its predecessors with enhanced performance, additional digital inputs, and a second serial port to expand interface capabilities to third-party peripherals that deliver high-demand features.

Advanced Fleet Features

Once fitted to a vehicle and integrated into a fleet management application, fleet managers see immediate return on investment with improvements in driver productivity and performance throughout the day with instant vehicle location monitoring. The MT 4100 delivers on critical features to drive efficiencies and reduce operational costs offering two serial interfaces, 1-Wire® support enabling driver identification, multiple GPIO for interface flexibility, polygon geofencing for monitoring of more geometrically complex areas, dual three-axis accelerometers for driver behavior monitoring, optional backup battery for continued communications when power is lost or cut, and much more. The MT 4100 also includes optional routing and optimization with Garmin® Fleet Management Interface (FMI)—today's most popular, cost-efficient fleet management solution. Additionally, with our built-in Smart Agent support for the FMI interface, you save development resources, time to market, and ongoing airtime expense compared to an externally controlled interface.

Quick Deployment & Device Management

All Novatel Wireless integrated devices are designed for full compatibility with our N4A™ Services Enablement Platform (SEP) that includes the N4A Communications and Management Software (CMS) and N4A Device Manager, which provide accelerated device provisioning, deployment, shipping, monitoring, and tracking worldwide. Once you've experienced this level of visibility and control over your decision-clarifying assets, you'll wonder how you managed without it.

Device Benefits

- Flexible application customization through Smart Agent programmable rules and event engine
- Innovative internal cellular and GPS antenna design
- Configurable driver behavior reporting, polygon geofencing, driver ID, and multiple GPIOs
- Smart Agent support for Garmin FMI v2.6 with speed limit alerts (optional)
- Low power sleep mode and power management for 12V & 24V in one device for passenger cars, trucks, and transit vans worldwide
- Air interface options: 1xRTT (CDMA2000) and HSDPA (UMTS 3G)
  GPIO Capabilities:
- 2 Serial interfaces for expanded peripheral support
- 5 Programmable digital inputs
- 3 Programmable digital latched outputs
- 2 Analog inputs (1:0-32V and 1:0-16V)

NOVATEL WIRELESS

1xRTT (CDMA2000)/HSDPA (UMTS 3G) Mobile Tracking Device

Housing
- Dimensions: (L x W x H) 81.9 x 51.9 x 26.4 mm
- Weight with Battery: 81 g (2.9 oz); Without Battery: 71.8 g (2.5 oz)
- Rugged textured plastic enclosure, Vo fire rated

Radio Technology
- Cellular Technology: 1xRTT (CDMA2000) or HSDPA (UMTS 3G)
- Frequency (MHz)
  - 1xRTT (CDMA): 800/1900
  - HSDPA (UMTS)
        3G: 850/1900 (Bands V, II) (NA) or
        900/2100 (Bands VIII, I) (ROW)
        GSM/GPRS/EDGE Fallback: 900/1800

Packet Data
- Protocol: IS-95, IS-2000
- Packet Channel: FCH/SCCH/DCCH/SCH

SMS Functionality
- CDMA SMS: Text, MO/MT
- HSDPA SMS: Text, PDU, MO/MT, Cell Broadcast

GPS Functionality
- GPS Protocols: NMEA, Binary
- Buffered GPS Message Feature

Standard Features
- Virtual Odometer and Distance Reporting
- Vehicle Speed and Speed Alerts
- Idle Time Reporting with Ignition Detection and GPS
- Vehicle Battery Monitoring and Low Voltage Detection
- FOTA Enabled
- I/O Control
- Timed Reporting
- Alarm/Event Reporting
- Status Change Reports
- Circular and Polygon Geofencing
- Backward Compatible with GSM/GPRS under HSDPA
- Motion/Tow Alert, Hard Braking/Acceleration and Event Detection with Dual 3-axis Accelerometer

Interfaces and I/O
- Cellular/GPS Antenna: Internal
- I/O Connector: 22-pin Molex
- Wired Ignition
- Digital Inputs: 5 Programmable Inputs
- Digital Outputs: 3 Programmable Outputs- 2 Drive/Sink, 1 Sink Only
- Analog Inputs: 2 Analog Inputs (1: 0-32V, 1: 0-16V)
- 1-Wire® Interface for Driver ID (iButton®) and/or Temp. Sensors
- LEDs: Power (Green), Cellular (Green), GPS (Red)

- Serial Data I/O: 2- RS-232 Ports, 1- RS-232 with Flow Control (RX/TX/RTS/CTS), 1- RS-232 with 2-Wire (RX/TX)
- Garmin® Interface: Version 2.6 with Speed Limit Alerts (Optional)

Optional Accessories
- Power Harness with fuse
- Development/Integration Cable
- 1-Wire® Temperature Sensor
- Garmin® FMI Interface Cable
- Driver ID iButton® & Readers
- Starter Development Kit
- Mounting Bracket

Interface
- Host Protocols: AT Commands, UDP API, FOTA
- Internal Protocols: UDP API, TCP API, UDP PAD, TCP PAD
- API Control/Status: AT Commands, UDP API, TCP API, AT Commands Over SMS

Environment Specifications
- Operating: Non-Battery -30ºC to 85ºC
                    Battery -20ºC to 60ºC
- Storage: Non battery -40ºC to 85ºC
                  Battery -20ºC to 60ºC
- Humidity: Up to 95% non-condensing
- Vibration: In Accordance with SAE J1211

Battery
- Optional Rechargeable Lithium-Ion
- Battery Recharging Range is 0 to +45ºC (Internal Battery Temp.)

Power Specifications
- DC Voltage: Supports 12V & 24V Operation (SAE J1211 & J1455)
- Cellular Operating Power (Typical) @ 14.2 VDC: Avg (mA)
- CDMA BC0 - 800 MHz: < 66 mA (GPS Off)
- CDMA BC1 - 1900 MHz: < 63 mA (GPS Off)
- Idle (GPS On): < 54 mA (Registered)
- Idle (GPS Off): < 33 mA (Registered)
- Low Power Mode: < 1.3 mA

Certifications
- FCC: Parts 15, 22, 24
- Industry Canada
- RoHS Compliant
- Carrier Certifications: Verizon; Sprint (Pending)

Part Numbers
- RTT2201-00 (1xRTT Version with Battery)
- RTT2201-01 (1xRTT Version without Battery)
- UMT2202-00 ROW (HSDPA Version with Battery)
- UMT2202-01 ROW (HSDPA Version without Battery)
- UMT2203-00 NA (HSDPA Version with Battery)
- UMT2203-01 NA (HSDPA Version without Battery)

NOVATEL WIRELESS

ISO 9001:2008 Certified