Mobile Base Station

RTR-500MBS-A Features and Specs

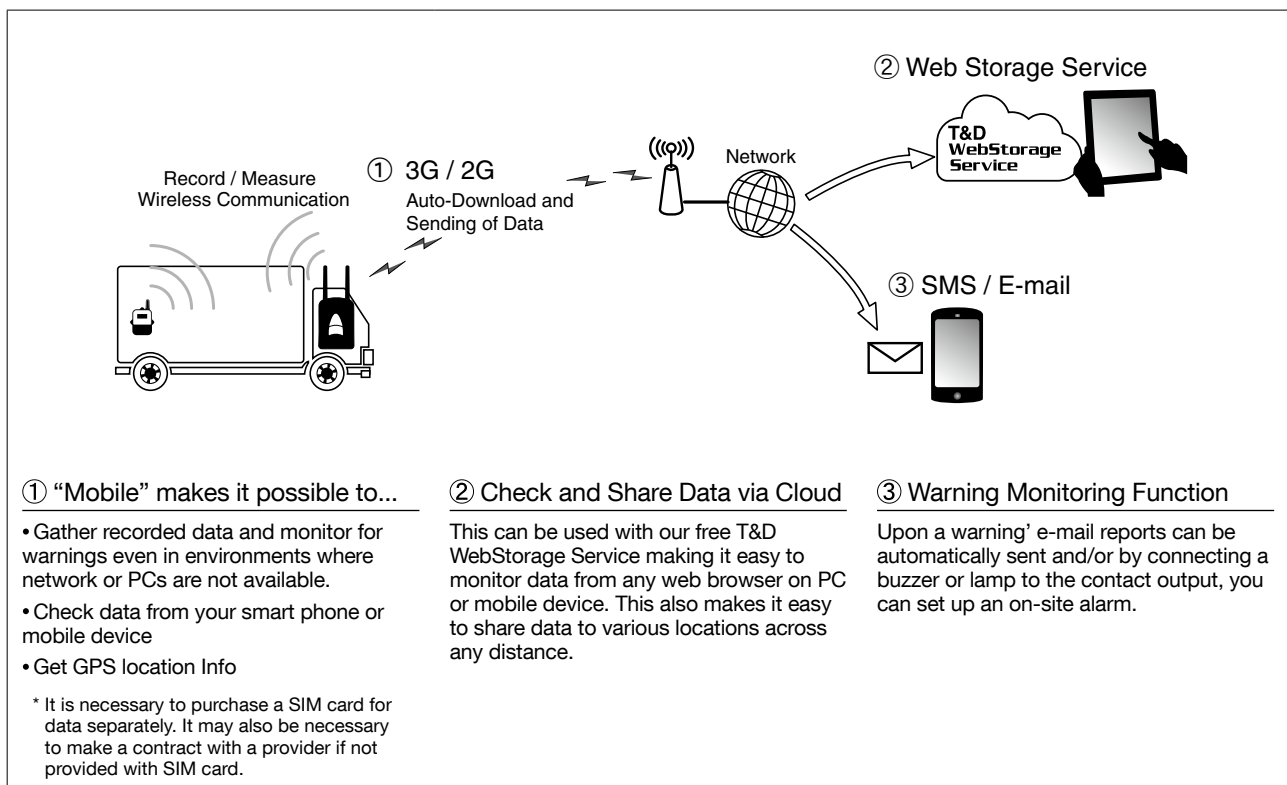| **Data Transfer**	**Data Monitoring**	**Warning Monitoring**	**Warning Notification**
3G Mobile Communication (SIM Card)	T&D Cloud Service, Internet	Set Limit Exceeded / Sensor Error / Communication Error etc...	E-mail / External Contact Output

This model mobile base station is designed for use with 3G cellular networking in cases where PCs and LAN networks are non existent or impractical.
It collects data from nearby data loggers via wireless radio communication and then automatically sends it via 3G/2G cell phone networking to the set FTP server or e-mail. It is also compatible with T&D WebStorage Service making it easy to collect data and monitor readings without having to setup your own recipient server.

② Web Storage Service

Record / Measure
Wireless Communication

① 3G / 2G
Auto-Download and
Sending of Data

Network

T&D WebStorage Service

③ SMS / E-mail

① "Mobile" makes it possible to...

• Gather recorded data and monitor for warnings even in environments where network or PCs are not available.

• Check data from your smart phone or mobile device

• Get GPS location Info

  * It is necessary to purchase a SIM card for data separately. It may also be necessary to make a contract with a provider if not provided with SIM card.

② Check and Share Data via Cloud

This can be used with our free T&D WebStorage Service making it easy to monitor data from any web browser on PC or mobile device. This also makes it easy to share data to various locations across any distance.

③ Warning Monitoring Function

Upon a warning' e-mail reports can be automatically sent and/or by connecting a buzzer or lamp to the contact output, you can set up an on-site alarm.

Extension Possible for Wireless Communication

The communication range between logger and base is about 150 meters (500 ft), but this can be easily extended by adding a repeater unit.

Choice of Power Supply

The collector will run for about 2 days* solely off 4 AA alkaline batteries, but for use over longer periods use the optional AC adaptor or an external power source (DC10-24V).

  *Actual battery life is not guaranteed.

Various Warning Settings

Warning Monitoring settings can be made for upper and lower limits, sensor error, logger battery level, communication error, and contact input.

Register up to 20 Data Loggers

It is possible to manage up to 20 separate data loggers (remote units) from one RTR-500MBS-A. And for easy management you can create up to 4 groups, and up to 5 repeaters can be added to each group.

  * For RTR-574 and RTR-576, registration of one unit will be counted as two units.

Remote Monitoring of Location with GPS

Connecting a commercially available GPS antenna makes it possible to add location info to your data.

Communication DLL specs for the RTR-500 Series, as well as, file formats for Current Readings Files and Recorded Data Files (XML) are available free of charge to our customers. With these it is possible to develop and create your own applications and systems.

T&D

RTR-500MBS-A Specifications

	RTR-500MBS-A
Compatible Devices	Remote Units: RTR-501 / 502 / 503 / 507 / 574 / 576 / 505-TC / 505-Pt / 505-V / 505-mA / 505-P (Including L Type and H Type) Repeater: RTR-500
Maximum Number of Registrations	Remote Units: 20 units (*1) Repeaters: 5 units x 4 groups

Communication Interfaces	US: Mobile Data Communication
	    WCDMA/HSDPA: 850 / 1900 MHz
	    GSM/GPRS: 850 / 900 / 1800 / 1900 MHz
	    Between Base Unit(s) - (Repeaters) - Remote Unit(s)
	      - Wireless Communication (short range radio communication)
	        FCC Part15 Section247 / IC RSS-210 (Frequency Range: 902 to 928MHz, RF Power: 7mW)
	      - Optical Communication (proprietary protocol)
	        With compatible Remote Units except RTR-574 and RTR-576
	    Between Base Unit - PC
	      USB Communication (For Setup)
	
	EU: Mobile Data Communication
	    WCDMA/HSDPA: 900 / 2100 MHz
	    GSM/GPRS: 850 / 900 / 1800 / 1900 MHz
	    Between Base Unit(s) - (Repeaters) - Remote Unit(s)
	      - Wireless Communication (short range radio communication)
	        ETSI EN 300 220 (Frequency Range: 869.7 to 870MHz, RF Power: 5mW)
	      - Optical Communication (proprietary protocol)
	      With compatible Remote Units except RTR-574 and RTR-576
	    Between Base Unit - PC
	      USB Communication (For Setup)

Wireless Transmission Range	Approx. 150 meters (500 ft) if direct and unobstructed

Communication Time	About 2 min. : Data Download Time from Remote Unit (for 16,000 readings Via wireless communication
	    The same amount of time will be necessary for each Repeater.
	    Does not include communication time from Base Unit to server or e-mail.

External Alarm Input/Output Terminal (*2)	Input Terminal: Contact Input
	  Internal Pull-up: 3V 100kΩ
	  Maximum Input Voltage: 30V
	Output Terminal: Photo Mos Relay Output
	  Voltage when OFF: AC/DC 50V or less
	  Current when ON: 0.1A or less
	  Resistance when ON: 35Ω

Communications Protocol	SMTP (POP before SMTP, SMTP-AUTH ⟨LOGIN⟩), SMTPS (SMTP over SSL), FTP, SMS (*3)
Power	AA Alkaline Battery (LR6) x 4, AC Adaptor (AD-05A3 or AD-05C1), External Power Supply (DC 10-24V)
Battery Life (*4)	Approx. 2 days under the following conditions (Expected battery life with only AA alkaline batteries) only one Remote Unit and no Repeaters, warning monitoring ON, downloading data once a day, sending current readings at a 10 minute interval
Dimensions	H 96 ㎜ x W 66 ㎜ x D 39 ㎜, Antenna Length : 109 ㎜
Weight	Approx. 130 g
Operating Environment	Temperature: 10 to 55 °C −10 to 55°C with external power connected Humidity: 90%RH or less (no condensation)
Accessories	AA Alkaline Battery (LR6) x 4, Antenna x 2 (Cellular/Local), USB Mini-B Cable (US-15C), External Power Cable (BC-0302), Software (CD-ROM), Manual (Warranty Included)
GPS Interface (*5)	Connector: SMA Male Plug, Power Supply: 2.5 to 2.7V
SIM Card (*3) (*6)	Standard Size SIM Card (WCDMA or GSM)
Software: RTR-500MBS for Windows	
Compatible Devices	Remote Units: RTR-501 / 502 / 503 / 507 / 574 / 576 / 505-TC / 505-Pt / 505-V / 505-mA / 505-P (Including L Type and H Type) Repeater: RTR-500
Compatible OS (*7)	Microsoft Windows 10 32 / 64 bit Microsoft Windows 8 32 / 64 bit Microsoft Windows 7 32 / 64 bit Microsoft Windows Vista 32 bit (SP1 or later)
Display Languages (*8)	English

*1: For RTR-574 and RTR-576, registration of one unit will be counted as two units.
*2: In order to use the external alarm terminal, please prepare a compatible connector: JST PAP-04V-S.
*3: SMS is required for some functions of the RTR-500MBS-A. If SMS is necessary, make sure that the contract you have with your carrier includes this service.
*4: Battery life varies depending upon multiple factors including number of warning reports sent, ambient temperature, frequency of communication, and battery performance. All estimates are based on operations carried out with a new battery and are in no way a guarantee of actual battery life.
*5: In order to use the GPS function (to attach geographical positioning info to current readings data), please purchase a compatible GPS antenna.
*6: Please prepare a contracted SIM card separately.
*7: For installation, it is necessary to have Administrator (Computer Administrator) rights.
*8: We recommend using an operating system in the same language as the display language. Operation in different languages is not guaranteed.
The specifications listed above are subject to change without notice.