

RTR-500MBS

Outline:

RTR-500MBS works with RTR-500 series data loggers. The data loggers measures temperature, humidity and other items. The RTR-500MBS monitors readings measured by the data logger and sends warning information by SMS or E-mail once a reading shows warning situation. The RTR-500MBS also downloads measurements from RTR-500 data loggers and sends the data by E-mail or FTP.

Control Part:

Control CPU (IC8) works for the followings:

- Communication instructions to RF Board for 900MHz band radio.
- Temporarily storing the data from the RF Board.
- Controlling 3G module and communication instructions to the module.
- Monitoring power supply.
- Command receiving from the computer / controlling response from the computer.
- Controlling RTR-500 Data Loggers by Optical Communication. (Ex. Initial Settings.)
- Receiving Data from GPS. (Optional function)

Power Section:

Either 4 AA alkaline batteries (LR3), a 5V only AC adapter, or external DC power (10 – 34V) is available as power supply. Power is converted to 4.0V by IC3 regulator and supplied to the circuit. It is possible to use the batteries in conjunction with the AC adapter or the external DC power. When batteries are installed in the device, if the AC adapter or external DC power is connected, power supply from the batteries is disabled by Solidsate Switch (QF1).

3G Part:

3G mobile phone communication is established using SIMCOM 3G module SIM5320A. GSM 850/1900MHz, UMTS 850/1900MHz frequency bands are used. 3G module is connected to Control CPU (IC8) using serial communication. SIM can be set to CN2 SIM Card Connector which is connected direct to the 3G module.

3G module sends / receives SMS by the control CPU. Also, the module sends E-mail and provides FTP communication using GPRS, HSPDA.

RF Part (Low Power Radio Part):

RF Part (RF Board) is a wireless module using 902.93760MHz to 927.12960MHz frequency. The RF Board executes wireless communication by directions from control CPU (IC8) via serial communication.