

# The Device of Data Transmission for Sim 900D

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**Abstract:** The description of the device of data transmission using the GSM module Sim 900D is presented. This device is used to monitoring the presence of voltage, transmit the temperature value and water level in reservoirs in residential and industrial buildings in the presence of cellular communication. The main functions of the device: automatic supply alarm signaling when the power supply disconnection at the facility, monitoring the ambient temperature in the mode of transmitting its value over SMS and sending over SMS the values of the water level in the expansion tanks of the heating system. The device comprises a SIM900D module with a SIM card, a PIC16F628 microcontroller, an HC-SR04 ultrasonic sensor and a DS18B20 temperature sensor. Connection the device to a computer for debugging of the microcontroller operating programs is provided. The device is powered by a 7-12 V battery or a power adapter. The advantage of the developed device is its efficiency, reliability, small size and is used to control the above parameters for various purposes in private houses and in the country house.

**Key words:** microcontroller programming, GSM module, ultrasonic sensor, temperature sensor.

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