JCOM IOT

Battery Recorder Kit

Batteries are backup energy sources that provide backup power supply to the BS in case of interruptions in the external network or its failure. According to the statistics of cellular operators, the failure of batteries can reach 10% of the total number of batteries. This figure coincides with the stated data from the battery manufacturers. At present, the condition control is carried out by external inspection of the battery during the visit of the operating engineer to the BS, which, given the large number of BSs, does not allow to effectively monitor the condition of the battery.

System purpose

- remote testing (inspection) of accumulator batteries directly connected to rectifier units (RU) of base stations (BS) in manual or automatic mode at random and controlled from the operator's workplace shutdowns, the purpose of which is timely identification of faulty batteries and groups of batteries and notification of maintenance personnel;
- accounting of batteries by manufacturer, type, year of manufacture, installation and technical condition, in order to issue various statistical reports;
- drawing conclusions about the quality of supplied products (% of defects, operating time, etc.), in order to determine the best manufacturer of batteries;
- automatic calculation of the time of autonomous operation of the BS from the battery in case of external power supply failure by predicting the voltage drop on the battery at known currents.

Scope of application

Computer and computing LAN/WAN/MAN networks, digital fixed and mobile telecommunication networks SDH, NGN, LTE, WiMAX, DAB/DVB networks, industrial automated production, energy, oil and gas systems and security complexes, automated process control systems, Automated Information and Measuring System of Commercial Energy Metering (AIMSCEM), as well as other areas where it is necessary to maintain autonomous power supply:

- telecom operators;
- agricultural insurance;
- recreational areas, parks, reserves, campgrounds, vacation homes;
- business centers, hotels and other administrative buildings;
- agriculture;
- transportation services;
- sports complexes;
- forestry;
- road services;
- military facilities;
- energy sector;
- industrial enterprises;
- environmental monitoring.

Implementation of the battery monitoring system at base stations makes it possible to preventively identify problematic monoblocks in order to replace them and preserve the performance of all batteries at the BS as a whole, to ensure continuous monitoring of all batteries and remotely determine the real battery life (operating time) at the BS when discharged.

Technical specifications

Name of characteristic	Value
Supply voltage at contacts	"+12V", "GND": 8...+12.0V
Current consumption max.	80 mA
Measurement error	±0.0005 V
The serial interface baud rate is equal to	9600 bps
Galvanic isolation voltage between inputs and other circuits	2 kV
Mounting on DIN rail	35mm