















- Wide DC power supply Input voltage range
- RS-485 & USB Interface
- GSM Tower based Location Identifier
- GSM/GPRS based M2M Communication
- ZigBee & GPS Compliant
- Routes to dedicated Cloud Server for Data Storage, Data Analytics & Infographics
- Over The Air (OTA) Firmware Update
- Input Surge & Reverse Polarity Protection
- One Analog Input sensing channel
- Compact Size

1.0 DRV Product Family

- The DRV 2.0 product family is a GSM based remote data monitoring system that has the ability to operate from wide supply voltage range.
- Wireless transfer of data to Internet cloud is achieved through GPRS. DRV 2.0 monitors and controls a wide range of electronic equipment through its RS-485 interface. RS-485 can be operated in either half or full duplex communication mode.
- DRV 2.0 also features an analog input port for analog signal sensing, monitoring and control. As an example, the analog input port can be used for monitoring battery string voltage in telecom shelters.
- The acquired data can be routed through SMS/GPRS to an optional cloud server for data storage, data analytics and infographics. Host computer systems can also be interfaced to DRV 2.0 using the USB port for local monitoring and control.
- Data time-stamps are obtained through mobile network-time and physical location of the system can be determined using GSM tower based location identifier.
- DRV 2.0 product family also offers GPS and ZigBee options. These features are factory installed at the time of ordering. The GPS feature is useful for precise geo location such as in vehicle tracking. The ZigBee feature can be used to monitor and control local network of equipment such as street lamps, home Automation and Industrial Data monitoring.
- DRV 2.0 is a robust, compact sized device and is perfectly suitable for installation in harsh environment.

2.0 Applications

Battery Monitoring System (Telecom Shelters)		
Remote Monitoring of Renewable Energy Systems		
ZigBee based Solution		
Home Automation		
Industrial Data Monitoring		
Vehicle Tracking & Logging		

### 3.0 Specification

3.1	Input supply voltage range	5-60V DC
3.2	Voltage sense range	0-600V DC
3.3	GSM/GPRS	Dual Band: 900/1800 MHz, GPRS Class 10
3.4	ZigBee	Can be operated in all operating modes
3.5	GPS	High accuracy of <math><0.01^\circ</math> & fast location tracking <math>< 35s</math> for first time
3.6	Temperature Sense	Inbuilt Ambient Temperature Measurement
3.7	Power Consumption	<i>GSM/GPRS</i> : Max 0.02 joules burst, for hunt-mode - while network registration; max 0.4 watts, under normal operations  <i>ZigBee</i> : max 0.59 watts during communication  <i>GPS</i> : max 0.1 watts in full power tracking mode, otherwise 33mW in lower power tracking & 0.1mW in hibernation
3.8	Interfaces	USB 2.0 full speed  RS-485 @ default 11520bps baud, Communication configurable for half or full duplex operation in hardware

### 4.0 Protective Functions

4.1	Input voltage surge protection
4.2	Input reverse polarity protection

### 5.0 Environmental Conditions

5.1	Operating Temperature	-40 to 85° C
5.2	Storage Temperature	-40 to 85° C

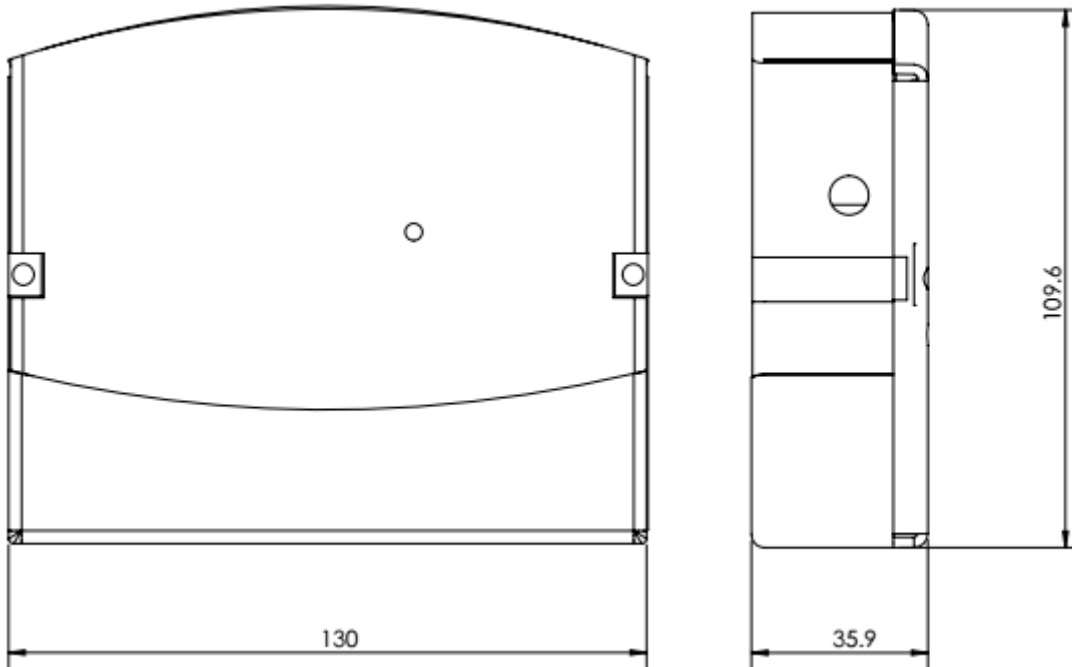
### 6.0 Mechanical

6.1	Dimensions (WxHxD)	W: 130mm, H:109.6mm, D:35.9mm (excluding antenna)
6.2	Weight	210g
6.3	DC input connector	2.0mm DC Power Jack, Right Angle
6.4	RS-485 connector	Connector Terminal Block 5Pos (Phoenix Contact)
6.5	USB connector	Connector recipient Mini USB 2.0 5pos (Hirose Electric)

7.0 Reliability



8.0 Outline Drawing



All dimensions are in millimeters

All Specifications are subject to change without notice