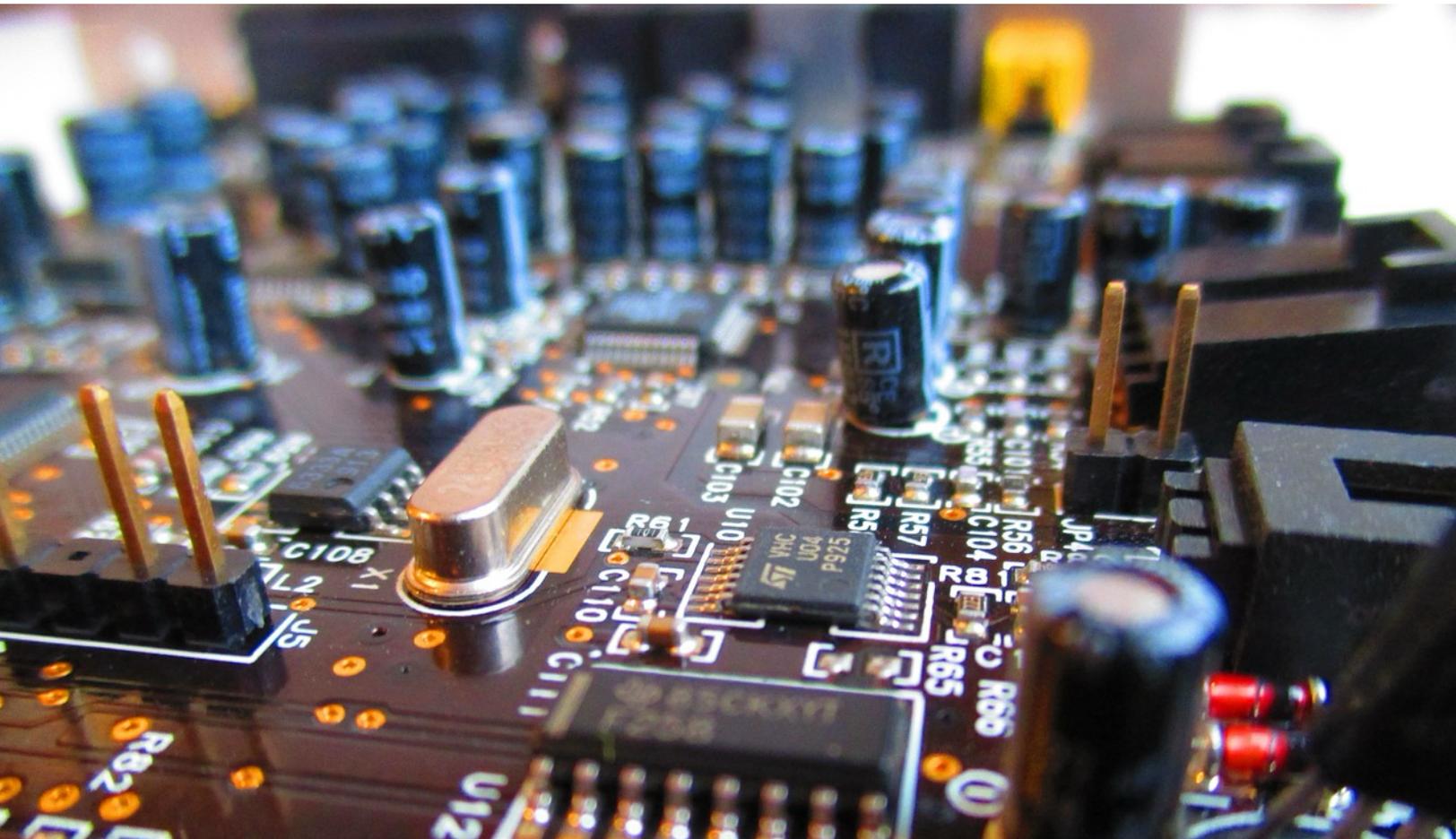




Solar PV Monitoring & Analytics

DATASHEET – DATALOGGER

TRACKSO ELITE GATEWAY 4G-LAN



A product of Free Spirits **Green Labs**

A RENEWABLE ENERGY COMPANY

www.trackso.in



Smart IoT Data Loggers

TrackSo IoT data loggers are India's leading smart plug 'n' play gateways which can be connected with more than 100 brands of solar PV inverters, energy meters, weather monitoring stations, variable frequency drives [VFDs], string monitoring systems and all analog, digital and MODBUS enabled sensors.

- Easy to install, economical to maintain and upgrade.
- Features dual-server functionality with logger enabled for both servers (64 MB + 64MB), storing up to 17,500 logs per server.
- Direct Data Transmission to PM-Kusum / MNRE
- Support all major brands of inverter with Modbus RTU RS-485 & Modbus TCP/IP
- Possible to connect different brands of inverters within a single plant.
- Stores all data to the on-board memory during internet unavailability.
- LED Indicators to identify the power, signal, Modbus connection status.
- Very low consumption of data on mobile networks



Retrofit for all MODBUS networks



Up to 20 days of On-board data storage



Connects up to 20 slave devices



Remote configuration available Over the air



Integrates with all sensors Analog 0-10V, 4-20ma



Delivered with IP-65 Enclosure



SMS enabled Slave control ability



Optional Battery Backup



Connectivity SIM (4G/3G/2G Network) & LAN

Connects all assets

Solar PV Strings



Weather Station



Solar PV Systems



Energy Meter



Water Pump



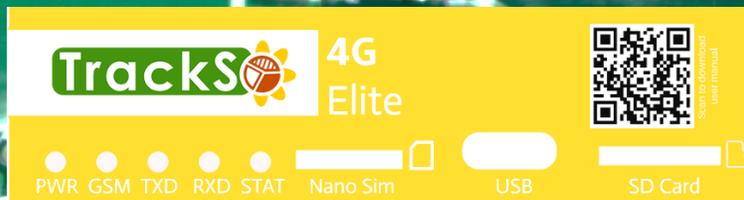
Specifications

Category	Component	Details
System	Data Log Flash Memory	(64 MB + 64MB), storing up to 17,500 logs per server
	WDT (watchdog)	Yes
Modem	LTE	FDD-Asia - B1/B3/B5/B8 TDD-Asia- B34/B38/B39/B40/B4 GSM Band- Asia - B3/B8 Bandwidth- Asia - 1.4/3/5/10/15/20 MHz
	Transmitting Power	Class 3 (23dBm±2dB) for LTE FDD Class 3 (23dBm±2dB) for LTE TDD Class E2 (27dBm±3dB) for EDGE 900MHz Class E2 (26dBm±3dB) for EDGE 1800MHz Class 4 (33dBm±2dB) for EGSM900 Class 1 (30dBm±2dB) for DCS1800
	Interface	RJ45 Ethernet 10BASE-T or 100BASE-TX (Auto)
	Speed	10/100 Ethernet Half/ Full Duplex (Auto negotiating)
	USB Utility port	use for device configuration and debug
Serial ports	RS485	1 x RS-485 use for communication with slave device
	Ethernet	Allows Modbus TCP communication
	Modbus Protocol	Modbus RTU Master, TCP Modbus Maste
	Slaves	Upto 20
	Baud Rate	Supports: 2400, 4800, 9600, 19200, 38400, 57600, 115200
	I/O Port (Optional)	Analog Inputs
Digital Inputs		2 Analog Voltage ports can be utilized as DI Input ports
Power	Operating Voltage	12V to 24V DC (Reverse Polarity Protection)
Mechanical	Casing	Plastic Casing
	Degree of Protection	IP 20 (Indoor)
	Dimensions (W x L x H)	100mm x 118mm x 34mm
	Installation	Wall Mounting
Environmental	Operating Temperature	-25 °C to +55 °C
	Ambient Relative Humidity	5 ~ 95% RH, non-condensing

Note:

1. UPS Power Supply for the Device is required.
2. To be installed indoors or in an IP65 Enclosure for Outdoor Installation

Elite 4G-LAN



Pin Diagram

+12V	AI+	NO
GND	AI-	COM
D-	A/DI-2	DI2
D+	A/DI-1	DI1

Pin	Name	Description
12	DI1	Digital Input
11	DI2	Digital Input
10	COM	Relay (Optional)
9	No	
8	AD2	Analog V Input 0-24V
7	AD1	Analog V Input 0-24V
6	AI -	Analog A Input - (4-20ma)
5	AI +	Analog A Input + (4-20ma)
4	D-	RS485 - / Data-
3	D+	RS485+ / Data+
2	GND	Ground Pin
1	+12V	DC IN - Input voltage: 12V~24V/1A.

LED Patterns

LED	NAME	DESCRIPTION
GREEN	POWER	Light when device is powered ON
RED	GSM	LED Status Connection State
		Flashing (ON for 100ms and OFF for 100ms) SIM Card not found
		Flashing (ON for 500ms and OFF for 500ms) Searching for GSM Network
		Flashing (ON for 0.1s and OFF for 2.9s) Once at every 3sec GSM Network Registered
		Flashing twice at every 3sec GPRS IP Connected
		Flashing 5times GPRS IP Sending data
		LED OFF GSM Fault
GREEN	COM TX	Blink on data transmission in RS485 port
YELLOW	COM RX	Blink on data reception in RS485 port

FREE SPIRITS GREEN LABS PVT. LTD.

Sales: sales@trackso.in , Support: support@trackso.in

21000+

UNITS MONITORED Inverters, Sensors, Meters, Water Pumps

8000+

SOLAR SITES Rooftop & Commercial, Solar Water Pumps, Zero Export systems

Monitoring Sites

