Product Specification Report

Supplier Name：		IGEN Tech Co., Ltd.
Supplier Part No.：		
Customer Name：		
Customer Part No.：		
Product Name：		DIN-Rail Logger（4G）
Product Type：		LD4G-2
Data Package：		
Firmware Version：		
Inverter Type：		
Inverter Protocol：		
Effective Date：		
Customer Approval		Supplier Approval
Confirmed By	Approved By	

Version	Note	Updated Time	Updated By
1.0			

Introduction

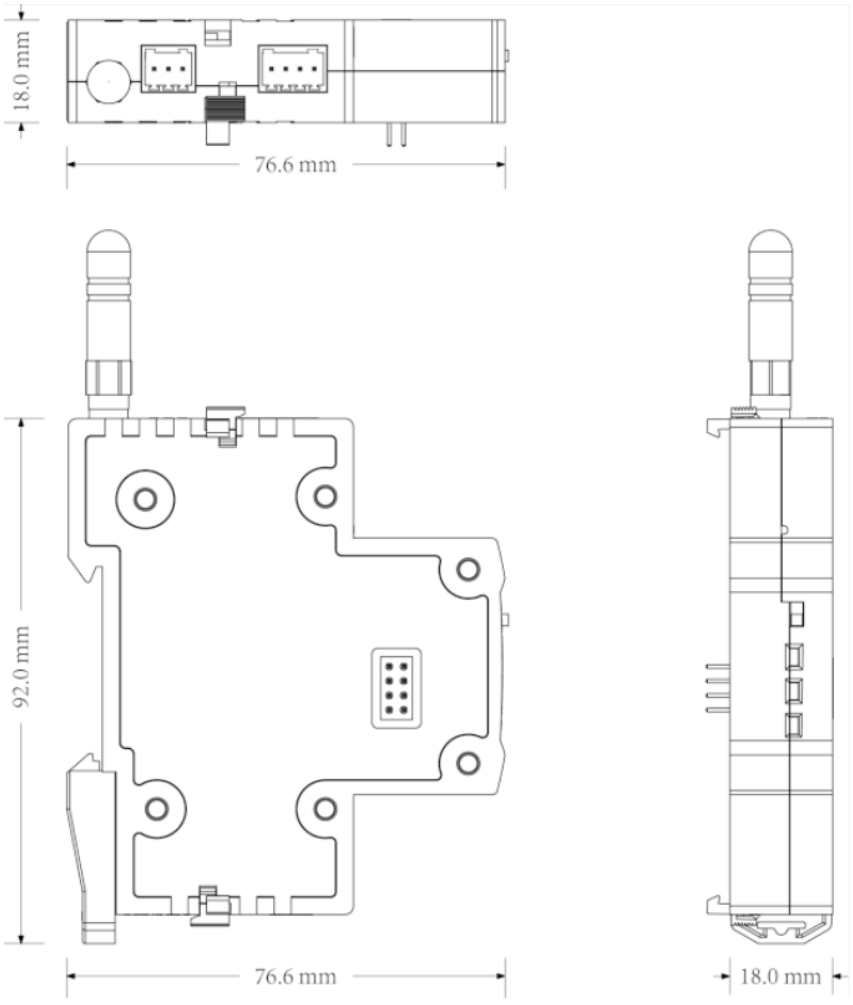
By collecting operating data and power generation of inverter, DIN-Rail Logger(4G) can run a long-term and efficient monitoring of PV system.
Logger can connect to multiple inverters, which enables to collect all the data of PV system from the inverter. Meanwhile, remote monitoring cloud platform (SOLARMAN Portal) provides powerful data support for the logger. Logger sends the data to the monitoring platform via 4G. The real-time status and historical data can be displayed with graphs, enabling intuitive and clear understanding of PV System. Furthermore, customized alerts can notify users of any malfunction or defect immediately via SMS and E-mail, which realizes the management of PV system at anytime and anywhere, also simplifies the maintenance significantly.
Logger has internal integrated 4G module and pluggable MicroSIM slot, which is applicable to the power plant projects in remote areas where no cable laying.

Product Parameter

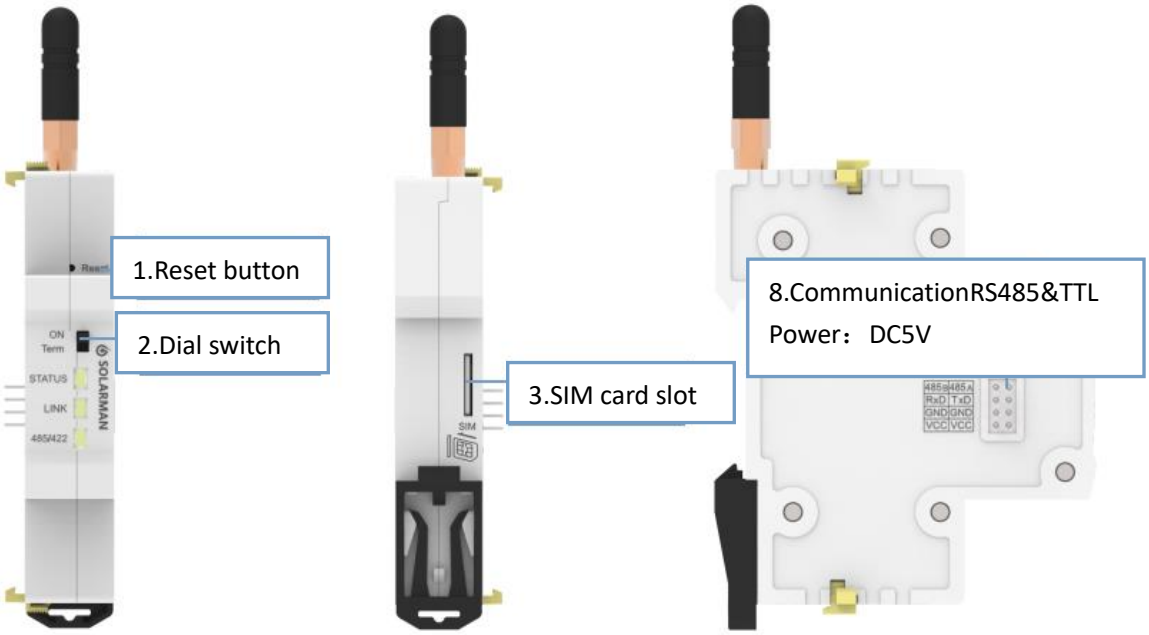
	Parameter	Value
Wireless Parameter	Network Parameter	LTE-FDD：B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28
		LTE-TDD：B38/B39/B40/B41
		UMTS：B1/B2/B4/B5/B6/B8/B19
		GSM：850/900/1800/1900MHz
		（GNSS：GPS, GLONASS, BeiDou/Compass, Galileo, QZSS）not available
	Transmitting Power	Class 4(33dBm±2dB) for GSM850
		Class 4(33dBm±2dB) for GSM900
		Class 1(30dBm±2dB) for DCS1800
		Class 1(30dBm±2dB) for PCS1900
		Class E2(27dBm±3dB) for GSM850 8-PSK
		Class E2(27dBm±3dB) for GSM900 8-PSK
		Class E2(26dBm±3dB) for DCS1800 8-PSK
		Class E2(26dBm±3dB) for PCS1900 8-PSK
		Class 3(24dBm+1/-3dB) for WCDMA bands
		Class 3(23dBm±2dB) for LTE-FDD bands
		Class 3(23dBm±2dB) for LTE-TDD bands
	Antenna	External SMA-4G sucker antenna
Hardware Parameter	Data Interface	RS485/RS232/RS422
	Working Voltage	DC5V ~DC12.0V
	Working Power	4W
	Indicator Light	One connected to inverter
		One connected to server
		One connected to 4G
	Memory	Default: 2MBYTE FLASH
	SIM Card	MicroSIM Slot
	Working Temperature	-30℃~+70℃

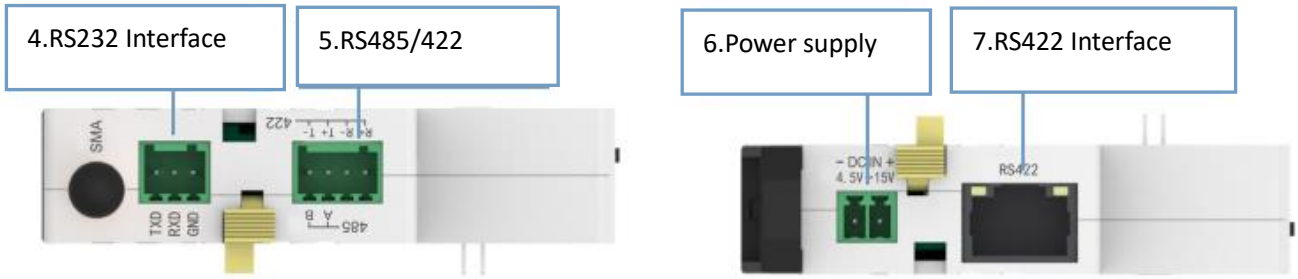
	Working Humidity	10%-90%, no condensation
	Storage Temperature	-45℃~+90℃
	Storage Humidity	<40%
	External Interface	4PIN Terminal
	Installation	DIN-Rail
	Applicable Area	Worldwide
Software Parameter	No. of Connection	5
	Serial COM Rate	Default:9600bps （1200-57600bps configurable）
	Uploading Interval	Default: 5 mins （1-15 mins configurable）
	Configuration	AT+Instruction Set
		Remote Server
	Firmware Upgrade	Remote Upgrade
		Local Serial Upgrade
	Other	Real-time control, data-resuming

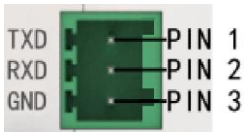
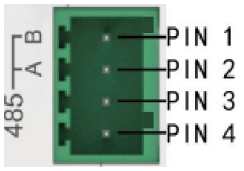
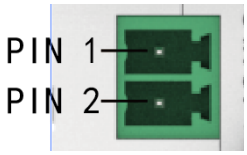
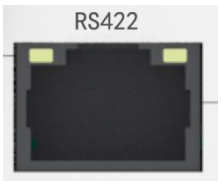
Product Size

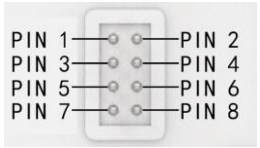


Interface Identification





Region		Picture	Description	Network Name	Type	Instruction
1	Reset Button		Press			Sending and Receiving Data
2	485 Terminal Matched Resistance: 120Ω		ON/OFF			ON: connected，otherwise disconnected. (Default: Term)
3	SIM Card Assembling					Insert MicroSIM here
4	PIN1		RS232 Sending Data	TXD	RS232_ TX	RS232 Sending Data
	PIN2		RS232 Receiving Data	RXD	RS232_ RX	RS232 Receiving Data
	PIN3		Ground	GND	GND	Ground
5	PIN1		RS485 B Sending and Receiving Data	485B-	I/O	485 Bus B
	PIN2		RS485 A Sending and Receiving Data	485A+	I/O	485 Bus A
	PIN3		RS422 R- Receiving Data	R-	O	422 Bus R-
	PIN4		RS422 R+ Receiving Data	R+	O	422 Bus R+
6	PIN1		GND	GND	Power	External Power：GND
	PIN2		Power VCC	DC_VIN	Power	External power：DC5V ~DC12.0V（At least 3W power supply）
7	RJ-45		RS422			

8	PIN1		RS485 B Sending and Receiving Data	485B-	I/O	485 Bus B
	PIN2		RS485 A Sending and Receiving Data	485A+	I/O	485 Bus A
	PIN3		Receiving Data	RX	I	TTL Electrical Level
	PIN4		Sending Data	TX	O	TTL Electrical Level
	PIN5		GND	GND	Power	External Power：GND
	PIN6					
	PIN7		Power VCC	DC_VIN	Power	External power：DC5V ~DC12.0V（At least 3W power supply）
	PIN8					

Product Picture

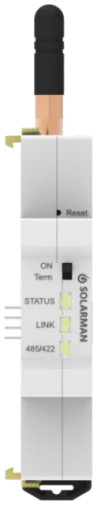


Fig. 5.1 Front view

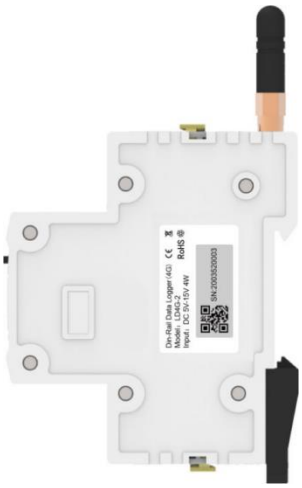


Fig. 5.2 Right view

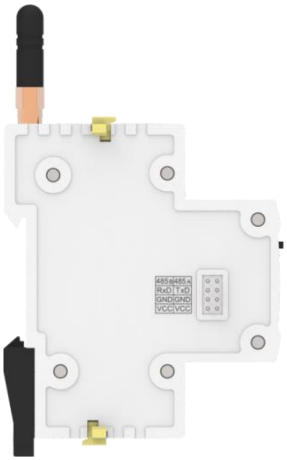


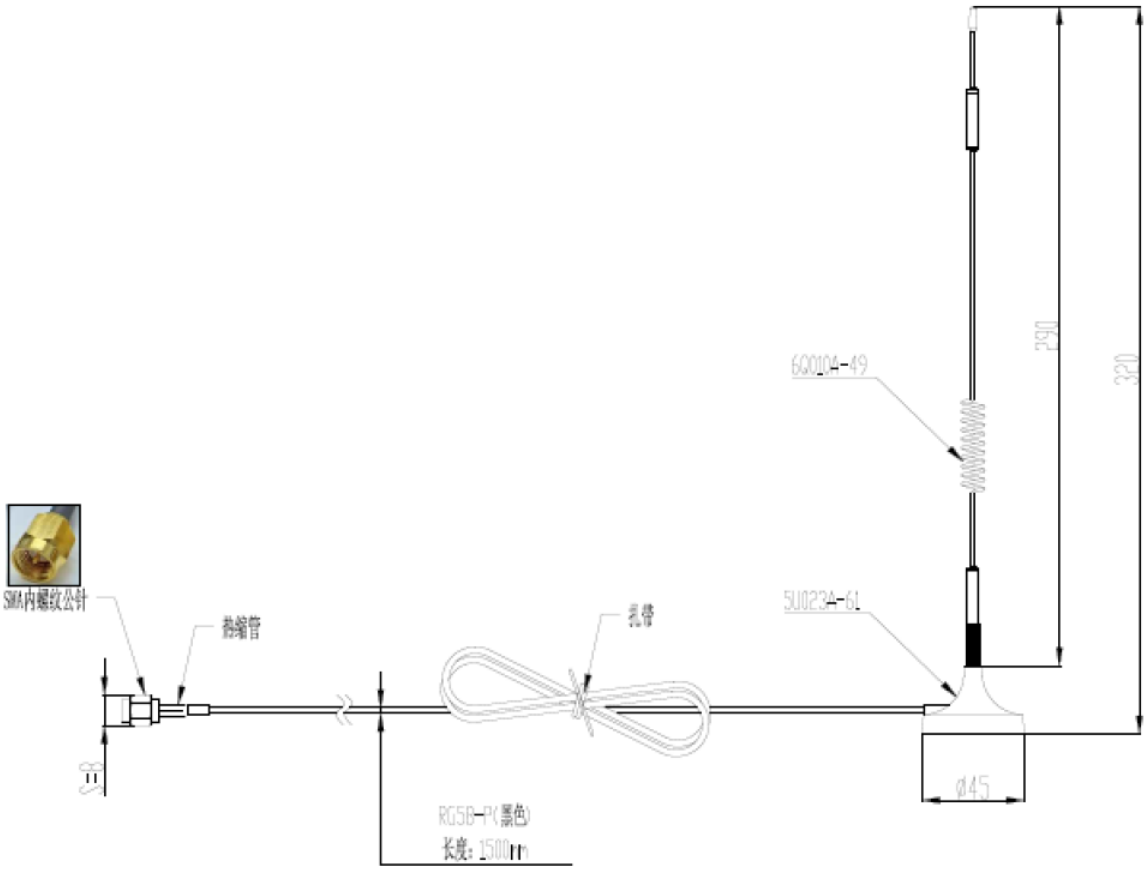
Fig. 5.3 Left view

External Antenna

According to the requirements for 4G communication standard, the applicable frequency range for external SMA sucker antenna is GSM850/ EGSM900/ DCS1800/ PCS1900MHz/ CDMA800/

CDMA2000/ WCDMA900/ WCDMA2100/ WIFI(2.4G)/ TD-SCDMA2100/ LTE.

Classification	Parameter
Frequency Rang-MHz	2G/3G/4G/WIFI
VSWR	≤3.0
Input Impedance-Ω	50Ω
Gain-dBi	4dBi
Working Temperature-℃	-40℃~+85℃
Antenna Color	Black
Input connector	SMA



Package



Components：Connecting terminal x3, DIN-Rail Logger x1, Pin x17.

Firmware Configuration

Firmware Configuration	
Domain Name：	access1.solarmanpv.com(SOLARMAN 3.0)
IP：	47.102.152.71(SOLARMAN 3.0)
Port No.：	10000(SOLARMAN 3.0)
APN：	internet

Contact

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Product List

No.	Name	Quantity	Note
1	DIN-Rail Logger	1	--
2	Terminal	3	2Pin x1 3Pin x1 4Pin x1
3	P-needle	1	--
4	SMA Sucker Antenna	1	--