SDongleA-03 Quick Guide (4G)

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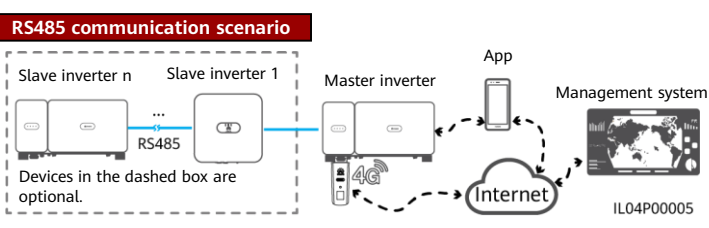
NOTICE

The information in this document is subject to change without notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

- SDongleA-03 Smart Dongle (the "Dongle" for short) is a smart communications expansion module that works with Huawei inverters to implement wireless communication between inverters and management systems through the 4G network.
- When multiple inverters are cascaded, only one Dongle or one SmartLogger is allowed.

1 Communication Scenario

RS485 communication scenario



NOTE

- In the networking, the inverter where the Dongle is installed is the master inverter, and other inverters are slave inverters. Slave inverters can communicate with the Dongle through cascading.
- This document uses the RS485 communication scenario as an example. For details about the MBUS communication scenario, see the user manual.
- This document uses connection to Huawei FusionSolar Smart PV Management System as an example. For details about connection to a third-party management system, see the user manual.
- The inverter model is subject to change without notice. The model information and device appearance in this document are for reference only. For more details, see the user manual.

User Manual

Number of Devices Required for Networking

Limited Number	Actual Number	
Maximum number of devices that can be connected to the Dongle	**Number of slave inverters**	**Number of other devices (such as power meters and energy storage devices)**
10	n ≤ 9	≤ 9 – n
2	n ≤ 1	≤ 1 – n

NOTE

- The number of devices that can be cascaded varies with the Dongle model. You can view the maximum number of devices that can be connected to the Dongle from the label on the external package.
- If cascaded inverters include a single-phase inverter or are connected to batteries, a maximum of three inverters can be cascaded.
- If devices are connected to the RS485-2, RS485_2, or 485B2 and 485A2 ports of the main inverter, the devices are not included as cascaded devices.

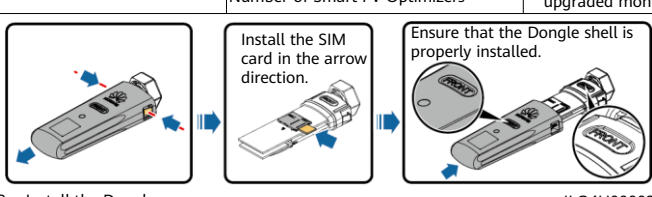
2 Installation and Commissioning

1. Install a SIM card.

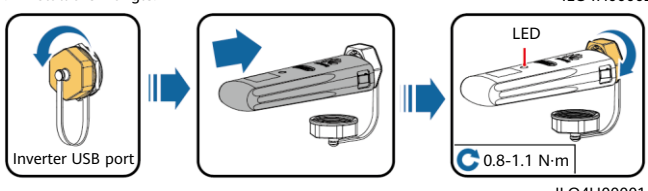
NOTE

- You need to prepare a standard SIM card (size: 25 mm x 15 mm; capacity: ≥ 64 KB). When connecting to Huawei FusionSolar Smart PV Management System, prepare a SIM card based on the traffic requirements in the following table.
- Before installing a SIM card, you need to remove the Dongle from an inverter.

Recommended Monthly Traffic for SIM Card Purchases			Traffic Support
Inverters	Without a power sensor or energy storage	10 MB + 4 MB x Number of inverters	• Device performance data can be refreshed every 5 minutes. • The Dongle logs, inverter logs, and IV diagnosis data can be exported monthly. The Dongle and inverters can be upgraded monthly.
	With a power sensor	10 MB + 7 MB x Number of inverters	
	With energy storage	13 MB + 7 MB x Number of inverters + 5 MB x Number of DC-DC converters	
	With a power sensor and energy storage	13 MB + 7 MB x Number of inverters + 5 MB x Number of DC-DC converters	
With Smart PV Optimizers		Inverter data usage + 2 MB + 0.2 MB x Number of Smart PV Optimizers	



2. Install the Dongle.



NOTE

Ensure that the AC or DC side of the inverter has been powered on.

3. Install the FusionSolar app. Perform the **Setup wizard** operations. If you have performed such operations, skip this step. If not, you can scan the QR code below to obtain the app quick guide which describes the **Setup wizard** operations.

FusionSolar app **Quick guide**

NOTE

- You can obtain SIM card parameters from the SIM card carrier. For more details about how to use the app, scan the QR code to obtain related documents.
- To create multiple installer accounts for a company, log in to the app and then tap **New User**.

LED		Remarks	Description
Color	**Status**		
N/A	Off	Normal	The Dongle is not secured or is not powered on.
Yellow (blinking green and red simultaneously)	Steady on		The Dongle is secured and powered on.
Green	Blinking in a 2-second cycle (on for 0.1s and then off for 1.9s)	Normal	Dialing (duration < 1 min)
		Abnormal	If the duration is longer than 1 min, the 4G parameter settings are incorrect. Reset the parameters.
	Blinking at long intervals (on for 1s and then off for 1s)	Normal	The dial-up connection is set up successfully (duration < 30s).
		Abnormal	If the duration is longer than 30s, the settings of the management system parameters are incorrect. Reset the parameters.
	Steady on	Normal	Successfully connected to the management system.
	Blinking at short intervals (on for 0.2s and then off for 0.2s)		The inverter is communicating with the management system through the Dongle.
Red	Steady on	Abnormal	The Dongle is faulty. Replace Dongle.
	Blinking at short intervals (on for 0.2s and then off for 0.2s)		The Dongle has no SIM card or the SIM card is in poor contact. Check whether the SIM card has been installed or is in good contact. If not, install the SIM card or remove and insert the SIM card.
	Blinking at long intervals (on for 1s and then off for 1s)		The Dongle fails to connect to the management system because it has no signals, weak signals, or no traffic. If the Dongle is reliably connected, check the SIM card signal through the app. If no signal is received or the signal strength is weak, contact the carrier. Check whether the tariff and traffic of the SIM card are normal. If not, recharge the SIM card or buy traffic.
Blinking red and green alternatively	Blinking at long intervals (red for 1s and green for 1s)		No communication with the inverter • Remove and insert the Dongle. • Check whether inverters match the Dongle. • Connect the Dongle to other inverters. Check whether the Dongle or the USB port of the inverter is faulty.
	Blinking at short intervals (red for 0.2s and green for 0.2s)	Normal	The Dongle is being upgraded locally.

3 Performance Parameters

Basic Parameters

Installation Mode	Plug-and-play (applicable to inverters only)	**SIM Card Type**	Standard SIM cards (25 mm x 15 mm)
Indicator	LED	**Typical Power Consumption**	3.5 W
Dimensions (W x H x D)	130 mm x 48 mm x 33 mm	**Operating Temperature**	–30°C to +65°C
Net Weight	90 g	**Relative Humidity**	5% RH to 95% RH
Ingress Protection Rating	IP65	**Storage Temperature**	–40°C to +70°C

Standard and Frequency Band

SDongleA-03-CN	LTE FDD: B1, B3, B8 LTE TDD: B38, B39, B40, B41 DC-HSPA+/HSPA+/HSPA/UMTS: B1, B5, B8, B9 TD-SCDMA: B34, B39 GSM/GPRS/EDGE: 900 MHz, 1800 MHz
SDongleA-03-EU	LTE FDD: B1, B3, B7, B8, B20 LTE TDD: B38, B40 WCDMA/HSDPA/HSUPA/HSPA+: B1, B8 GSM/GPRS/EDGE: 900 MHz, 1800 MHz
SDongleA-03-AU	LTE FDD: B1, B2, B3, B4, B5, B7, B8, B28 LTE TDD: B40 WCDMA: B1, B2, B5, B8 GSM: 850 MHz, 900 MHz, 1800 MHz, 1900 MHz
SDongleA-03-JP	LTE FDD: B1, B3, B8, B18, B19, B26 LTE TDD: B41 WCDMA: B1, B6, B8, B19
SDongleA-03-KR	LTE FDD: B1, B3, B5, B7 WCDMA: B1

4 Obtaining Documentation

NOTE

You can obtain the latest version of this document by scanning the following QR codes.

中文 English Deutsch Français
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