

Cellular Plug-in with Data Plan for the US

For Commercial Systems:

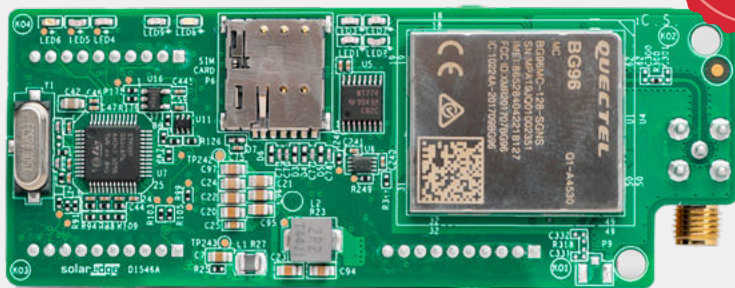
CELL-A-R05-US-S-S4

CELL-A-R05-US-S-S5

And for Residential Systems:

CELL-A-R05-US-S-S2

CELL-A-R12-US-S-S2



5/12
YEAR
WARRANTY

COMMUNICATION

Cellular Internet Connectivity for Commercial and Residential Installations

- Compatible for inverters with a display
- Connects SolarEdge inverters wirelessly to the internet
- No need for internet infrastructure at site
- Installed within the inverter enclosure for outdoor resilience, or in the communication gateway
- Supports high bandwidth monitoring of inverters, power optimizers, batteries, meters and weather stations
- Enables remote analysis and troubleshooting
- 5-year/12-year data plan is included
- Comprehensive coverage in the US

/ Cellular Plug-in with Data Plan

For The US

CELL-A-R05-US-S-S2, CELL-A-R12-US-S-S2, CELL-A-R05-US-S-S4, CELL-A-R05-US-S-S5

COMPATIBLE INVERTERS		SExxxx-xxxxxxNxxx (INVERTERS WITH A DISPLAY)	UNIT
Coverage ⁽¹⁾	Refer to the following link and select the CAT M1 option: https://www.solaredge.com/index.php/us/products/communication/cellular-communication-options#/		
Monitoring	Continuous connection with 5 minute telemetry from all connected inverters		
Supported Residential Systems (CELL-A-R05-US-S-S2/ CELL-A-R12-US-S-S2)	Residential systems: 1 inverter, up to 45 power optimizers, and 1 meter Residential StorEdge systems: 1 inverter connected, up to 30 power optimizers, 2 batteries and 1 meter		
Supported Power of Commercial Systems	Up to 200 (for CELL-A-R05-US-S-S4)	Up to 1000 (for CELL-A-R05-US-S-S5)	kW AC
Number of Monitored Inverters with a single Cellular Plug-in	Commercial: Up to 32 inverters, limited by the system AC size ⁽²⁾ Residential: 1 inverter		
Data Plan Duration	5 or 12 years prepaid plan (depends on R05 or R12 part numbers respectively)		
RF PERFORMANCE		Operating Frequency	
LTE Cat M1 FDD	Freq (MHz) / Band	Modem Transmit / Receive	
	2100 (B1)	1920-1980 / 2110-2170	MHz
	1900 (B2)	1850-1910 / 1930-1990	MHz
	1800 (B3)	1710-1785 / 1805-1880	MHz
	1700 (B4)	1710-1755 / 2110-2155	MHz
	850 (B5)	824-849 / 869-894	MHz
	900 (B8)	880-915 / 925-960	MHz
	700 (B12)	699-716 / 729-746	MHz
	700 (B13)	777-787 / 746-756	MHz
	850 (B18)	815-830 / 860-875	MHz
	850 (B19)	830-845 / 875-890	MHz
	800 (B20)	832-862 / 791-821	MHz
	1900 (B25)	1850-1915 / 1930-1995	MHz
	850 (B26)	814-849 / 859-894	MHz
	700 (B28)	703-748 / 758-803	MHz
LTE Cat M1 TDD	1900 (B39)	1880 / 1920	MHz
Maximum transmit power	23		dBm
Receiver Input Sensitivity Cat M1, 1.4 MHz Bandwidth, CE Mode A	-107		dBm
LTE Cat-M1 bandwidth	1.4		MHz
LTE Cat-M1 modulation	Downlink: OFDMA, 16 QAM Uplink: SC-FDMA, 16 QAM		
ANTENNA			
Dual Antenna Bands	824-960	1710-2170	MHz
Antenna Type	Outdoor		
Antenna Connector	RP-SMA or N plug ⁽³⁾		
VSWR	≤4.0		
Gain	2		dBi
Polarization	Vertical		
Material	PC Lexan 503R-WH5151L or WH8G952 Sabic		
Dimensions (Length x Diameter)	7.87 x 0.78 / 200 x 20		in / mm
STANDARD COMPLIANCE			
EMC and Radio	FCC parts 15, 22, 24 class B; Industry Canada (IC): ICS-003, RSS-102		
Safety	cUL, UL60950		
RoHS	Yes		
INSTALLATION SPECIFICATIONS			
Dimensions (L x W x H)	3.56 x 1.35 x 0.55 / 90.54 x 34.5 x 14.2		in / mm
Operating Temperature	-40 to +85 / -40 to +185		°C / °F
Mounting	Built into the inverter or purchased separately		
Power consumption	1000 (@ 23 dBm output power)		mW
SIM CARD HOLDER			
Type	Nano Sim		

- (1) Available only in the US. For 12 year data plans - in the event that third party cellular technology currently used by SolarEdge (LTE Cat-M1) is phased out or becomes otherwise unavailable, SolarEdge shall ship replacement parts such as modem and/or SIM card of a prevailing technology. Upon such replacement, the new prevailing hardware shall continue to be covered for the remainder of the original data plan duration. Customer is responsible for verifying that the region of installation is covered by the LTE Cat-M1 network prior to any installation by accessing: <https://www.solaredge.com/index.php/us/products/communication/cellular-communication-options#/>. SolarEdge shall not be responsible or liable for unavailability or discontinuance of network coverage in a specific area or region or any network downtime
- (2) For larger systems, use multiple cellular plug-ins
- (3) Two types of antennas may be supplied interchangeably

CELL-A-R05-US-S-S2, CELL-A-R12-US-S-S2, CELL-A-R05-US-S-S4, CELL-A-R05-US-S-S5

The diagram illustrates a cellular-based monitoring system architecture. On the left, four white, rectangular monitoring units are shown. The first three are labeled 'RS485-1' and the fourth is labeled 'RS485-2'. A dashed line connects the first three units, and a solid line connects the fourth unit to a 'Meter (optional)' component. The 'RS485-2' unit is also connected to a green circuit board, which is further connected to the 'Meter (optional)'. A cellular tower icon is positioned above the 'RS485-2' unit, indicating its communication capability. To the right, a 'Cellular Tower' is shown with a signal icon. A 'Monitoring Platform' is represented by a globe icon with 'www' and a tablet displaying a data visualization. The entire system is powered by a 'Power Source' (represented by a battery icon) connected to the first three units.

The diagram illustrates the system architecture for monitoring inverters. It is divided into two main sections: a single inverter setup and a multi-inverter setup.

Single Inverter Setup: A single inverter is connected to a cellular tower, which is then connected to a monitoring platform. The monitoring platform displays a web interface with a map and data.

Multi-Inverter Setup: Three inverters are connected to a single cellular tower, which is then connected to a monitoring platform. The monitoring platform displays a web interface with a map and data.