

SolarEdge

Wireless Communication ZigBee Products



Interconnect With Ease

- Interconnects inverters wirelessly
- Connects wirelessly between an inverter and a remote internet gateway
- ZigBee unit installed within the inverter enclosure for outdoor resilience
- Replaces either RS485 or Ethernet wiring
- External antennas for long or non-line-of-sight links
- No operating costs





Zigbee Wireless Communication Products

SE1000-ZB02-MST
SE1000-ZB02-SLV
SE1000-ZB00-DG2-X

OVERVIEW

SolarEdge offers ZigBee products for wireless connectivity. These enable either wireless mesh network between multiple inverters at a site, or wireless link between a single inverter and a remote internet gateway point.

Wireless connectivity allows simplifying installations, making them more reliable – no outdoor cabling protection required, safe – no lightning protection required and aesthetic – no long cables and fixtures.

SolarEdge provides both ZigBee modules for installation within the inverter, and a home ZigBee-Ethernet gateway for connecting to the Internet.

ZigBee is the de-facto standard for low-rate, high-reliability wireless protocol for telemetry communications. The products come pre-configured to work with SolarEdge installations. No operating costs involved.

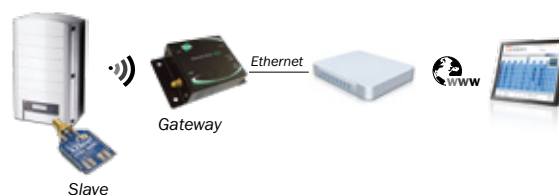
Use Cases

① Inter-Inverter Wireless Communication



Replacing RS485 inverters interconnections

② Ethernet Gateway Configuration



Replacing Ethernet connection to Internet gateway

TECHNICAL DATA

PERFORMANCE		
RF Data Rate	250	kbps
Indoor/Urban Range*	15 / 50	m / ft
Outdoor/RF Line of Sight Range*	250 / 800	m / ft
Frequency Band	2.4	GHz
Transmit Power	10 / 10	mW / dBm
Receiver Sensitivity (1% PER)	-102	dBm
Encryption	128-bit AES	
Scan Channels	15	
ZIGBEE UNIT FOR INVERTER		
Antenna	2.11" helical whip, RP-SMA connector	
Dimensions (HxWxD)	22.0 x 32.9 x 4.1 / 0.9 x 1.3 x 0.2	mm / in
Regulatory Approvals	FCC (USA), IC (Canada), ETSI (Europe), C-Tick (Australia), Telec (Japan)	
ZIGBEE GATEWAY UNIT		
Antenna	External, 4" dipole	
Port	RJ45, 10/100 Ethernet	
Power Supply	9-30	VDC
Power Consumption (Idle/In Comm.)	1.2 / 3.4	W
Operating Temperatures	-30 – 70 / -22 – 158	°C / °F
Dimensions (HxWxD)	13.9 x 7.0 x 2.9 / 5.5 x 2.7 x 1.1	cm / in
Weight	0.2 / 0.4	kg / lb
Regulatory Approvals	EN60950, CE, FCC Part 15 (Class A)	
PACKAGES		
① Inter-Inverter Communication	1 Digi XBee-Pro Coordinator module, antenna (for master inverter)	SE1000-ZB02-MST
	1 Digi XBee-Pro Router module, antenna (for slave unit(s))	SE1000-ZB02-SLV
② Ethernet Gateway	1 Digi ConnectPort X2 Gateway, 1 Digi XBee-Pro Router module, antennas	SE1000-ZB00-DG2-X
ADDITIONAL FEATURES		
Management Software	Digi Device Discovery, HTTP interface (Gateway unit)	

*Approximate numbers. Might be higher or lower depending on specific installation conditions

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