PRODUCT DATA SHEET

Communications Module

for GE kV2c™ Meter

Adding two-way wireless communications to an already feature-rich meter

- Enables two-way communications with the Silver Spring network for robust metering schedules and over-the-air meter programming
- Supports 900 MHz communication for the NAN and 2.4 GHz communication for the HAN
- Integrates with Silver Spring UtilityIQ application suite to improve service delivery, reliability, and efficiency
- Enables remote data acquisition, meter program management, and real-time alerts
- Provides full security and encryption for today's stringent requirements

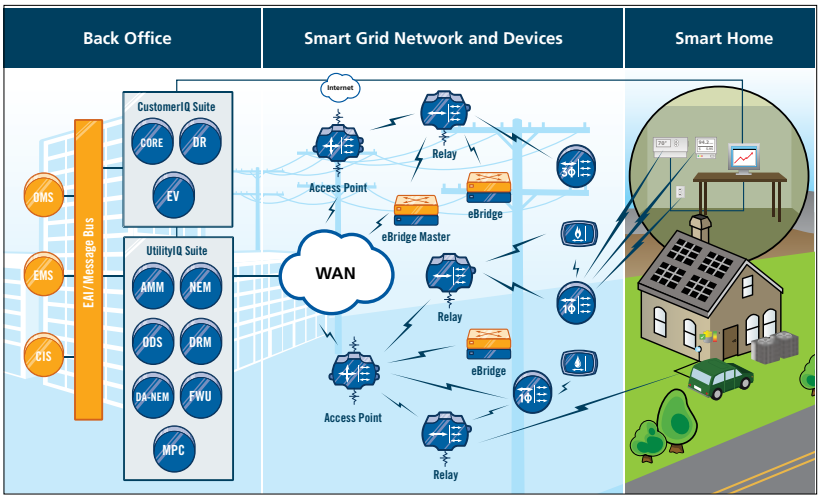
Bringing the utility and the customer closer together—to benefit both

The Silver Spring Smart Energy Platform combines network infrastructure, software, and professional services to enable a range of smart grid applications. Communications with next-generation electricity meters is a fundamental building block of the smart grid.

The Silver Spring Communications Module provides internal wireless networking for Advanced Metering capability for the GE kV2c polyphase commercial and industrial meter. This module easily installs inside the kV2c meter to connect your utility to your customers over a two-way data collection and management network. The combination of the kV2c and Silver Spring Communications Module is a key component of the smart grid network, providing greater efficiency and more reliable service delivery.

The kV2c meter offers revenue metering along with real-time instrumentation, true power-quality monitoring, and real cost-of-service measurements. It performs all metrology calculations, while the Communications Module reads the resulting parameters directly from the internal meter register and transmits this data back to the utility.

The Communications Module accesses demand, consumption, time-of-use, interval, and alarms as well as power-quality data. Its two-way wireless functionality supports remote data acquisition, meter program management, and real-time asynchronous alerts for meter tampering or outages. And metering schedules can be programmed over the air at any time for specific interval, register, or security reads, with access to both logged and instantaneous data.



An advanced, IP-based network enables the smart grid—from the data center to the customer premise.

About Silver Spring Networks

Silver Spring Networks is a leading Smart Grid solution provider that enables utilities to achieve operational efficiencies, reduce carbon emissions and empower their consumers with new ways to monitor and manage their energy consumption. Silver Spring provides the hardware, software and services that allow utilities to deploy and run multiple advanced solutions, including Smart Metering, Demand Response, Distribution Automation and Distributed Generation, over a single, unified network. The Silver Spring Smart Energy Platform is based on open, Internet Protocol (IP) standards, allowing continuous, two-way communication between the utility and devices on the grid. Silver Spring has numerous deployments with leading utilities in the US and abroad, including Florida Power & Light, Pacific Gas & Electric, Pepco Holdings, Inc., Jemena Electricity Networks Limited and United Energy Distribution, among others.
For additional information, please visit **www.silverspringnetworks.com.**

FEATURES & SPECS

Communication Module for GE kV2c™ Meter

Communications Module features

- Full, two-way 902-928 MHz FHSS communications
- Robust security and encryption
- One-watt transmitter
- Dynamic network discovery and self healing
- Scheduled and on-demand meter reads
- Alarm detection and clearing
- Time synchronization and management
- Support for a wide range of meters and forms
- Continuous neighbor monitoring and route calculation
- Over-the-air firmware upgrades and meter programming
- "Under glass" design
- Low meter burden
- Power outage and restoration notification

GE kV2c Meter features

- Revenue accuracy (with DC detection capability)
- Installation verification and tamper detection tools
- Coincident demand measures
- Power-quality monitoring and analysis
- 20-channel recording
- Totalization options (with four external inputs)
- 4-Quadrant industrial or substation measures
- Per-phase AC instrumentation (amps, volts, and frequency)

Specifications: Communications Module

NAN Communications	Data rate: 100 Kbps Frequency: 902-928 MHz Spread spectrum technology: FHSS Transmitter output: 30 dBm Receiver sensitivity: -97 dBm for 1% PER
HAN Communications	Protocol: ZigBee Smart Energy Profile 1.0 Data rate: 250 Kbps Frequency: 2.4 GHz ISM Band Spreading technology: Direct Sequence PHY/MAC: 802.15.4 Transmitter output: 20 to 23 dBm (200 mW) Receiver sensitivity: -97 dBm for 1% PER Power, Transmit: 1.6 W (1.8 W max.)
Environmental	Operating temperature: -40°C to +85°C (-40°F to +185°F) Humidity: 0% to 95%, non-condensing
Protocols /Security	Addressing: IPv6 Encryption: Advanced Encryption Standard (AES-128 or AES-256) Security: Secure Hash Algorithm 256-bit (SHA-256) and RSA-1024 or ECC-256
Approvals	FCC Part 15.247 Industry Canada: RSS-210 ANSI: C12.20

Specifications: GE kV2c Polyphase Meter

Available forms	ANSI Form 1S, 2S, 3S, 4S, 9S, 12S, 16S, 36S, 45S
Operating voltage	120 VAC- 480 VAC, +10% to -20%
Operating temperatures	-40°C to +85°C (-40°F to +185°F)
Standards	ANSI C12.1, C12.10, C12.18, C12.19, C12.20
Accuracy	ANSI C12.20 0.2 accuracy

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