MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

GENERAL ELECTRIC

ICMFA000000-ABAC

INDUSTRIAL EDGE DATA GATEWAY

Used with the applicable GE Mini Field Agent configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: General Electric ICMFA000000-ABAC

Field Agent*

A secure gateway between your operations and the cloud





Introducing the next layer in GE's Industrial Internet systems solution. GE's Field Agent technology is the critical link required in an IIoT chain for cloud-enabled analytics. Field Agents provide a rugged, pre-configured solution for secure data collection and conveyance from the machine.

Connect to nearly any industrial asset and leverage GE's Industrial Internet Platform to collect data, analyze trends and uncover insights that improve operations and asset performance.

Build out remote monitoring & diagnostics capabilities safely and securely, utilizing encrypted channels that preserve data time stamp, quality and fidelity.

Leverage the power of the Industrial Internet by accessing real-time asset performance data and advanced predictive analytics. Armed with this valuable information, operators can optimize equipment uptime and OEMs can proactively maintain and service their equipment fleet, improving operations, growing service revenues and winning new business.

Secure Data Collection

Data is a valuable asset in today's digital economy. With a GE Field Agent, data can be securely gathered from industrial machinery or plants and transferred to the cloud. Information can be collected across various industrial protocols and translated to a common format for distribution and analysis.

Enabling Advanced Analytics

Once machine data is collected and communicated via a Field Agent device, operators can run local analytic models to improve asset performance and predict failures before they occur, leading to reduced costs and new sources of revenue. Field Agents can also run local analytics to improve the performance of OEM machinery locally.

Powered by Predix*

GE's Field Agents are powered by Predix, a cloud platform-as-a-service (PaaS) built for industrial workloads. Predix empowers organizations to develop, deploy, and operate industrial apps in the cloud by securely connecting machines and data to people. By integrating Field Agents with other Predix platforms, such as Predix Asset Performance Management (APM) and Brilliant Factory solutions, operators can drive outcomes ranging from the reduction of unplanned downtime to improved asset output and efficiency.

Remote Updates and Troubleshooting

Distributed assets are often located in hard-to-reach or distant locations.

Getting to those assets can be quite challenging for an OEM or fleet operator, diverting valuable time and resources.

Field Agent devices are easy to manage with remote access. Updates and security patches can be deployed from a central location down to a Field Agent without traveling to the device. Field Agents also enable remote troubleshooting of distant assets.

A Range of Solutions

There are a range of Field Agent solutions designed for a variety of applications. Choose the right combination of form factor, protocol, tag capacity, connectivity, and controller functionality for your specific needs.

Easy Installation and Connectivity

Field Agent installation is simple and secure. It requires virtually no IT support from the end user. Once configured, Field Agent devices can be installed and transmitting data to the cloud in a matter of minutes.

Field Agent Specifications





Product	Mini Field Agent* with 4GLTE Cell Modem	Mini Field Agent*
Selection Criteria/Requirements	• Limited cabinet space available • Low power operation • Low cost • Integrated 4GLTE cellular support	• Limited cabinet space available • Low power operation • Low cost • Wired Ethernet
Form Factor	Small	Small
Protocols	Modbus TCP, OPC-UA standard. Others as published by GE or customer developed.	Modbus TCP, OPC-UA standard. Others as published by GE or customer developed.
Performance to run Predix applications	Limited	Limited
Capacity	Up to 1000 tags	Up to 1000 tags
Processor	800MHz ARM A8	800MHz ARM A8
Memory	512MBDDR3/2GB Flash	512MBDDR3/2GB Flash
Software	GE Field Agent based on Predix Machine, Linux	GE Field Agent based on Predix Machine, Linux
Interfaces	(4) Ethernet 10/100, RS232, RS485, CAN, USB, MicroSD, WiFi	(4) Ethernet 10/100, RS232, RS485, CAN, USB, MicroSD, WiFi
I/O	Digital Input, Relay Output	Digital Input, Relay Output
Cellular	4G LTE Modem	N/A
Carrier support	Customer SIM, AT&T	N/A
Power	9VDC-30VDC	9VDC-30VDC
Power Consumption	250mA@24VDC	250mA@24VDC
Dimensions	5.5D"x5.25H"x1.5"W	5.5D"x5.25H"x1.5"W
Environmental	-40° to 70° C	-40° to 70° C
ATEX	Zone 2	Zone 2
UL	Class 1 Div 2	Class 1 Div 2

ICMFA000000	Mini Field Agent, No WiFi, Global certs
ICMFA002US0	Mini Field Agent, w/WiFi, North American certs
ICMFA002EU0	Mini Field Agent, w/WiFi, EU certs
ICMFA001US0	Mini Field Agent with 4G/LTE Cellular & WiFi, No SIM, North American certs
ICMFA001US1	Mini Field Agent with 4G/LTE Cellular & WiFi, AT&T SIM, North American certs
ICMFA001EU0	Mini Field Agent with 4G/LTE Cellular & WiFi, No SIM, EU certs
ICMFA001EU1	Mini Field Agent with 4G/LTE Cellular & WiFi, AT&T SIM, EU certs
ICMFAMGMT1YR	One Year Service Contract for Mini Field Agent
ICMFADATA1GB	Monthly cellular plan for Mini Field Agent with GE provided SIM
ICMFAACC001	Mini Field Agent Panel Mount Kit
ICMFAACC002	24V DC 1A Power Supply with pre-wired connector for Mini Field Agent

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