A3 ALPHA® meter with
wireless cellular communication option

General

The A3 ALPHA meter may be ordered with a wireless cellular communication option: the Wireless WAN Interface Card. The Wireless WIC is available in CDMA 1xRTT and GSM GPRS versions, providing a high speed cellular communication channel.

This leaflet provides general information for the Wireless WIC that is installed within an A3 ALPHA meter.

■   For information on installing the A3 ALPHA meter, see the "ALPHA Meter Installation Instructions" (IL42-4001Q or later)

⚠ WARNING

Use authorized utility procedures to install and service metering equipment. Dangerous voltages are present. Equipment damage, personal injury, or death can result if safety precautions are not followed.

Use circuit closing devices on current transformer secondaries (3S, 4S, 5S, 5A, 6S, 6A, 8S, 9S, 10S, 10A, 26S, 29S, 35S, 36S, and 36A meters). Equipment damage, personal injury, or death can result if circuit closing secondaries are not used.

Location of antennas

See Figure 1 for the location of the Wireless WIC antenna. If the A3 ALPHA meter is serving as an EA_Gatekeeper, then the A3 ALPHA meter has 2 antennas: the Wireless WIC antenna is in the upper position and the EA_LAN antenna is in the lower position.

The Wireless WIC antenna and the EA_LAN antenna (if present) are fix-mounted to the periphery of the A3 ALPHA meter's electronic housing. The Wireless WIC antenna and the EA_LAN antenna (if present) are not adjustable or removable.

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Modular EA_Gatekeeper integrator's guide

General

This leaflet explains how to properly install the modular EA_Gatekeeper radio into approved Elster devices. The modular EA_Gatekeeper has the following configurations:

Description	Model number
EA_Gatekeeper, CDMA 1xRTT, internal WAN antenna	EA_GKMOD_C
EA_Gatekeeper, CDMA 1xRTT, external WAN antenna	EA_GKMOD_CX

Integration instructions

To properly install and integrate the modular EA_Gatekeeper radio into the approved Elster device, refer to the Elster drawing: 5D25969.

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FCC Compliance

Important

The modular EA_Gatekeeper radio complies with Part 15 of the FCC Rules. Changes or modifications not expressly approved by Elster could void the user's authority to operate the equipment.

FCC & IC Information

- FCC ID: QZCWWIC-CM1
- IC: 4557A-WWICCM1

Compliance Statement

This device complies with Part 15 of the FCC Rules and Class B digital apparatus requirements for ICES-003. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and ICES-003. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna
- increase the separation between the equipment and the receiver
- connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- consult the dealer or an experienced radio/TV technician for help

If you experience trouble with this equipment, please use the Return Material Request (RMR) feature available from Elster by calling +1 800 338 5251. Do not attempt to repair this equipment yourself.

Antenna Compliance

The modular EA_Gatekeeper radio has been tested and certified with the internal antenna(s) and external antenna(s) provided by Elster. The internal antenna(s) must not be modified or replaced.

Caution

The antennas used for these transmitters must be installed to provide a separation of at least 20 cm from all persons and must not be collocated or operated in conjunction with any other antenna or transmitter except as documented in the FCC application. These devices have been approved for simultaneous transmission of the collocated EA_LAN and cellular/PCS transmitters. Users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Elster
Raleigh, North Carolina USA

IL42-5021A

Wireless WIC internal antenna

Electronic housing of the A3 ALPHA meter

Internal antenna for connection to the EA_LAN
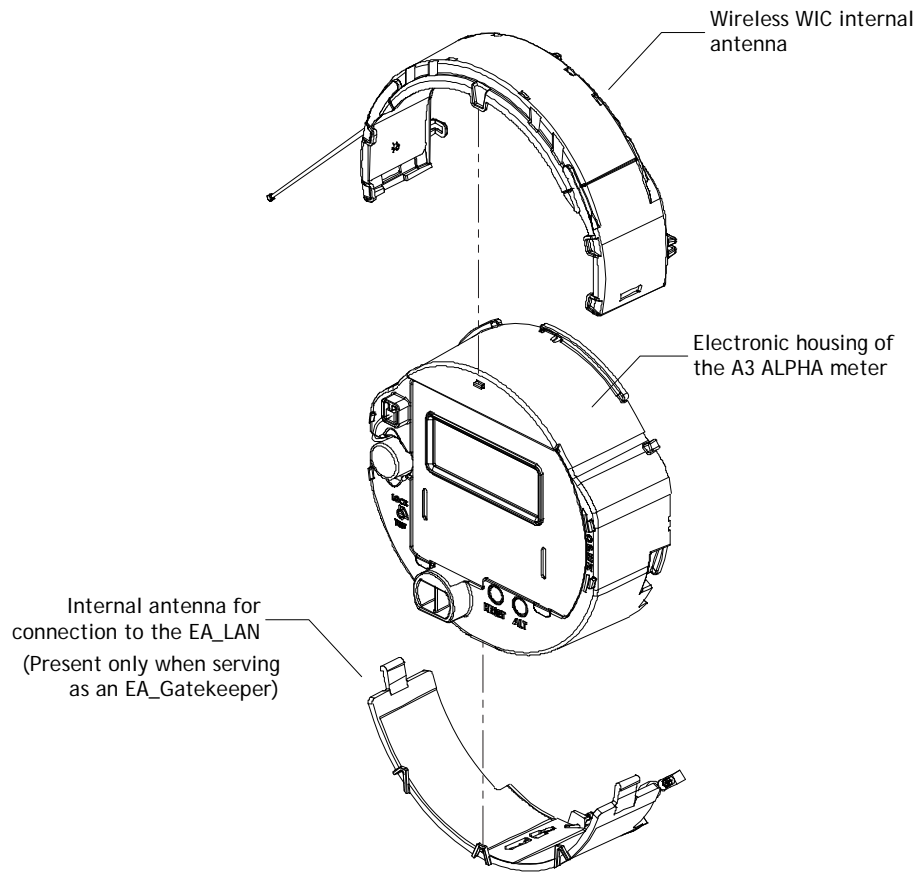
(Present only when serving as an EA_Gatekeeper)

Figure 1. Location of the internal antennas

Placing the A3 ALPHA meter with Wireless WIC into service

See IL42-4001Q or later for the A3 ALPHA meter installation instructions. When planning the meter installation, consider the following additional guidelines:

- Since the Wireless WIC and EA_LAN (if present) are high frequency communication devices, site the meter so that the front of the meter has the best possible view of the surrounding terrain.

- Do not place metal structures (other than the meter socket and related cabling) within 20 cm of the meter.

After the A3 ALPHA meter is installed and powered as instructed in IL42-4001Q or later, the installation is complete. If on-site verification of the Wireless WIC operation is desired, the following steps may be taken:

To verify that the Wireless WIC is operational:

1. After installing and powering the A3 ALPHA meter, wait approximately 5 minutes for the Wireless WIC to connect to the cellular network and initialize.

2. Using Metercat and an optical probe connection, perform a diagnostic read. For information on using Metercat and performing diagnostic reads, see the Metercat software documentation or online Help.

3. Once the diagnostic read is performed, select the Special Option Board section. Several operational parameters are provided, including the following:

Item	Expected status
WAN Wireless Status	
Status	Connected means the Wireless WIC is registered to the cellular network
Received Signal Strength Indication (RSSI)	The RSSI may vary between 0 and 31, with 31 indicating the best possible signal strength. An RSSI value of 99 indicates an unknown or non-detectable signal.
WAN IP address	The IP address provided by the cellular network.