



ADC Energy

Improving network integrity with reliable products and services

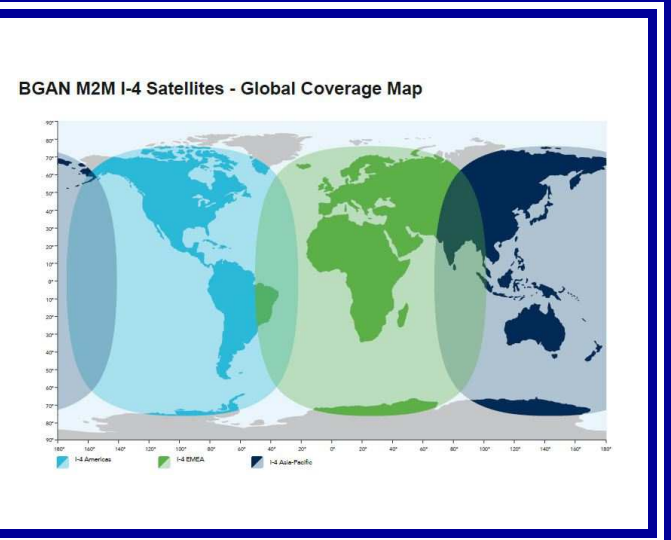
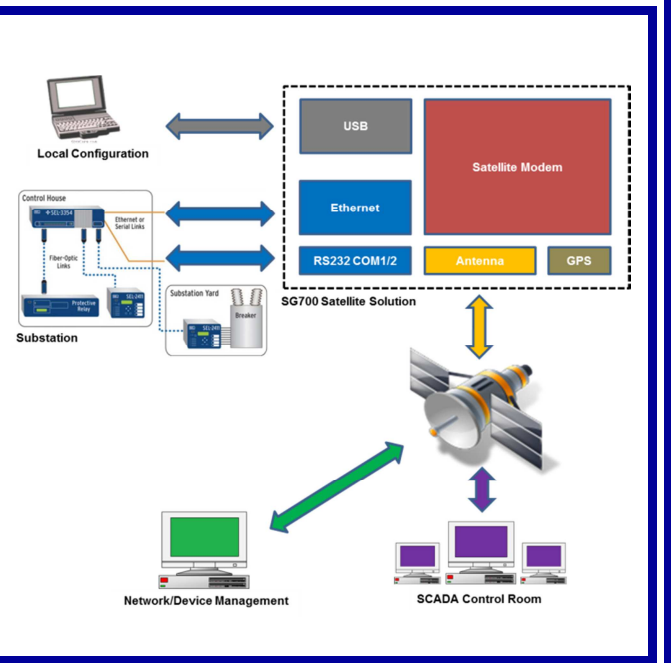
SG700 Satellite Communication Solution

The SG700 Satellite Communication Solution was developed to provide a cost effective always-on, reliable and real-time IP communication connection. It is the perfect solution for applications in the utility smart grid. The ground breaking satellite technology of the SG700 system makes it possible to connect your remote substations and equipment directly to your SCADA system no matter where it is located.

The extremely small form factor of the antenna and modem allows you to mount it on any structure. It is pre-configured to automatically connect to the satellite network upon installation. Installation takes 10 minutes and no special tools or training is required. The exceptional low power consumption (<4W) makes it possible to provide IP connectivity to sites that are off the power grid. It is designed to withstand extreme environmental conditions of -40° to 75° C and is sealed to IP65.

The remote over the air (OTA) application update function, combined with powerful processing capability, makes the SG700 Satellite Communication System future proof ensuring that product functionality can grow with the utility's needs as it accelerates towards the Smart Grid.

- ✓ High bandwidth low latency
- ✓ Cost effective hardware and network
- ✓ Bi-directional IP connection (TCP)
- ✓ IP security and routing
- ✓ Low power
- ✓ Easy installation
- ✓ Ethernet and serial interfaces



Technical Specifications

Operational

- Communication via Inmarsat BGAN worldwide satellite network. End to end TCP/IP connection.
- Low latency +/-1200-1700ms with 128kbs uplink and downlink.
- Watchdog mechanism to periodically verify network connectivity and take action if a problem is detected.
- Full IP routing capability.
- Remote WEB interface for configuration, setup and status.
- Local configuration via the USB port or the Ethernet port.
- Basic installation; no PC required.
- Antenna can be pole mounted.
- Satellite Transmit Frequency 1626.5–1675 MHz Satellite Receive Frequency 1518–1559 MHz GPS Frequency 1574.42–1576.42 MHz
- Over The Air device software updates.

Security

- Multiple security levels with password protection.
- Configurable Firewall protecting the RTU/equipment from unauthorised access.

Interfaces

- 4 x Ethernet ports through interface router.
- 1 or 2 RS232 serial ports with bi-directional serial to IP conversion. Up to 16 Serial ports can be provided.
- USB port for local configuration of the Communication parameters.
- Screw terminal for power supply.
- Antenna dimensions: 385 x 385 x 33mm, 1.9Kg with 10 meter coax cable. IP65.
- Modem dimensions: 200 x 150 x 45mm, 1.5Kg. IP40.

Power supply

- Input Voltage +12 Vdc/+24 Vdc nominal.
- Normal Operation Wattage 3 to 4 watts for open full-time TCP-IP connection.
- Hibernation (wakes on any activity) < 0.01 watt @ 12 Vdc (0.01 Watt) + 30 seconds to establish network.
- Transmission Wattage Short transmission bursts may pull up to 20 watts.

Environment and approvals

- EMI, EMC and Safety approved.
- CE and FCC approved.
- ROHS/WEEE compliant.