

SA  
-G+



## GSM/GPRS/1xRTT Telemetry Platform

Novatel Wireless's SA family of telemetry devices features superior performance in a small package for ultimate flexibility. Coupled with the robust N4A™ Communications & Management platform, devices can be provisioned, monitored and reconfigured remotely from almost anywhere in the world.

### Broad Applications

From the oil pipeline to the soft drink dispenser, today's visionary companies rely on automated data transmission and measurement between devices to improve the efficiency of device management. SA-G+ is a compact device that provides reliable connectivity for Programmable Logic Controllers (PLCs), Remote Terminal Units (RTUs), bar code scanners, or any other serial device. It is a small device that bridges serial-based endpoint to the modern dream of "the Internet of Things".



### Simple & Reliable Operation

Designed with GSM/GPRS or 1xRTT connectivity for reliable global coverage, the SA family connects the world's leading companies to their fixed assets, Anywhere, Anytime. Similar to Novatel Wireless's industry-leading portfolio of integrated Mobile Tracking products, the SA family is simple and reliable. Simply attach your serial device and you are ready to reach the "cloud" through your cellular service provider.

### Flexible Deployment

Fixed assets of various types can benefit greatly from this fully programmable platform, a wide operational environment and much more. The units are designed to be flexibly provisioned, supplying critical information from industrial automation applications, supply chain environments, fixed asset deployments, and a host of applications where companies require connectivity to serially connected and sensor generated data.

### Device Benefits

The SA-G+ has the right features and right price, meeting the needs of customers:

- Compact, economical IP based platform
- Full GSM/GPRS or 1xRTT Connectivity
- Simple serial connectivity
- Auto-registration on start-up
- Firmware-Over-The-Air (FOTA) enabled

## GSM/GPRS/1xRTT Telemetry Platform

## Housing

- Dimensions: (L x W x H) 63.5 x 63.5 x 23.9 mm
- Weight: 80g
- Antenna: SMA connector
- Rugged textured plastic

## Radio Technology

- GSM/GPRS: 850/900/1800/1900 MHz  
56.6 kbps Downlink/14.4 kbps Uplink
- Sensitivity: -106 dBm (Typical)
- Transmit Power: Class 4 (2W@850/900 MHz)  
Class 1 (1W@1800/1900 MHz)
- 1xRTT: 850/1900 MHz  
153 kbps Downlink/Uplink

## SMS Functionality

- Text, PDU, MO/MT, Cell Broadcast

## Packet Data

- Mode: Class B, Multislot 10
- Protocol: GSM/GPRS Release 97, AMR Release 99
- Coding Schemes: CS1-CS4
- Packet Channel: PBCCH/PCCCH

## Interface

- Host Protocols: AT commands, UDP API, CMUX, PPP
- Internal Protocols: PPP, UDP API, TCP API, UDP PAD, TCP PAD
- API Control/Status: AT commands, UDP API, TCP API, AT commands over SMS
- Physical Interface: RS-232C
- Peripheral Interface: 8-pin I/O: Mic in, headset out, ground, input power, 2 user-defined I/O, and 1 dedicate output

## Environment

- Operating: -30°C to 70°C
- Storage: -40°C to 85°C
- Compliant: -20°C to +60°C
- Humidity: Up to 95% non-condensing

## Power

- Operating Voltage: 6 - 40 V DC

## GSM Operating Power (Typical) @ 9 V DC

- Band: GSM 850/900 MHz  
GSM 1800/1900 MHz
- Mode: 1 TX/1RX; Idle; Sleep
- Average (mA): 200; 160; 50 DRX5; 20
- Peak (A): 1.30; 0.92

## Certifications

- FCC: Parts 15, 22 & 24
- PTCRB: Version 5.2
- CE: Yes
- GCF: Version 3.37.0
- RoHS Compliant: Yes
- Industry Canada: Yes

## Product Part Numbers

- GSM1318-50 (GSM/GPRS)
- RTT1201-50 (1xRTT)

## Accessory Part Numbers

- CAB1308, Cable with power and ground wires
- ANT2011, Pentaband, Swivel Mount

## Power Supply Part Number

- PSA1000, 8-pin

## SIM Access

- External: 1.8/3V with locking mechanism

## For More Information:

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