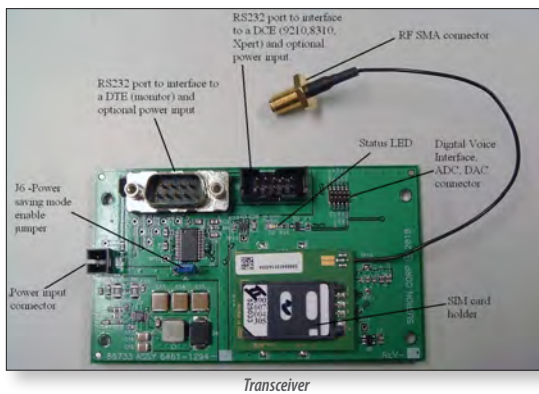


Extremely Flexible Communications for Automatic Weather Stations, Flood Warning Systems, Hydrological Monitoring & Control Networks & More

Sutron's GSM/GPRS Communications w/Internet GPRS-1

- ✓ *2-Way Data Transceiver for Remote Equipment*
- ✓ *Easily Integrates into Sutron Loggers*
- ✓ *Very affordable communications for most remote stations with coverage.*



Features

- ▶ GPRS modems use wireless cellular technology and provide data access in most areas where a typical cell phone works.
- ▶ US Domestic service is provided by **T-Mobile**
- ▶ International service is offered in 130 countries. Different rate plans are available based on the location of the modem and how much data you need to send.
- ▶ Sutron has a number of plans with low cost charges per byte
- ▶ With its small size, GPRS-1 can fit inside most any product.
- ▶ Sutron also offers a variety of antenna and cabling to use with the GPRS-1.
- ▶ 2 way communication wherever GPRS/GSM coverage is available
- ▶ Data delivered via SMS/GPRS
- ▶ Web hosting available from Sutron
- ▶ Multiple power input options via a 2-pin power connector or a single RS-232 port for data and power
- ▶ Status LED to indicate idle, standby and network connectivity.

Specifications

Mechanical	
Dimensions	4.00" x 2.35" with mounting holes 1.7"x3.625"
Weight	60 gms
RS232 Connector	DB9 M (DCE) and 2x5 Shrouded, 0.1 inch spacing
Antenna Connector	SMA Female
Power Connector	pin 9 of RS232 or 2 pin molex
Enclosure	optional
Electrical	
Input Voltage	8v-20VDC @0.65 amp max
Power Consumption @12v	Avg During Tx – 40 mA Idle (Connected to Network) – 3 mA
Status LED	Green – Network status
GPRS Transceiver	
FCCID	TBD
Frequency	Quad-Band EGSM 850 / 900/ 1800 / 1900 MHz
Output Power	Class 4 (2W) @ 850/900 MHz Class 1 (1W) @ 1800/1900 MHz
SMS	<ul style="list-style-type: none"> • Point to Point (mobile originated and mobile terminated) • Concatenated SMS • SMS cell broadcast • Test and PDU mode
Circuit Switched Data Transmission	<ul style="list-style-type: none"> • Asynchronous transparent circuit switched data (CSD) up to 14.4 kbps • Asynchronous transparent circuit switched data (CSD) up to 14.4 kbps
GPRS Data	<ul style="list-style-type: none"> • GPRS class 10 • Mobile station class B • Coding scheme 1 to 4 • PBCCH support
Additional Features	<ul style="list-style-type: none"> • SIM holder • Fixed dialing number • Embedded TCP/IP stack Including TCP, IP, UDP, SMTP, and FTP protocols
FTP Protocols	<ul style="list-style-type: none"> • SIM holder • Fixed dialing number • Embedded TCP/IP stack Including TCP, IP, UDP, SMTP, and FTP protocols
Max SMS Send/Receive Size	160 characters
Environmental	
Operating Temperature	-40 to +85°C

GSM/GPRS COMMUNICATIONS

Ordering

Transceiver	
GPRS-1	GPRS TX/RX, no enclosure
GPRS -1-B	GPRS -1 with panel bracket
GPRS -1-O	GPRS -1 with non-NEMA enclosure
GPRS -1-N	GPRS -1 with NEMA enclosure (available 2011)
Service	
USUB.MON	GPRS, US Unbundled service, 1 month
USUB.1MB	GPRS, US Unbundled service, 1MB pooled
USB500K	GPRS, US Bundled 500K service, 1 month
USUB500K.1MB	GPRS, US Bundled 500K plan, 1MB add'l data
USB15M.MON	GPRS, US Bundled 15MB service, 1 month
USB15M.1MB	GPRS, US Bundled 15MB plan, 1MB add'l data
USBUNL-MON	GPRS, US Bundled Unlimited service, 1 month
SMS.30	SMS, 30 messages a month
SMS.100	SMS, 100 messages a month
SMS.400	SMS, 400 messages a month
SMS.1000	SMS, 1000 messages a month
SMS.UNL	SMS, Unlimited messages a month
SMS.1MSG	Charge for each message over planned amount
SWIN-ASetup	SutronWIN Account setup
SWIN-SSetup	SutronWIN Station setup
SWIN-CPage	SutronWIN Custompage
SWIN-StnHostDay	SutronWIN
IRID.SAct	IRIDIUM, Station Activation
IRID12K.1	IRIDIUM, 12K bytes per month, 1 month
IRID.XB1000	Charge for 1000 bytes over allotted amount
IRID.MC	IRIDIUM, Mailbox checks when not transmitting data (1 free per day)
GPRS Accessory Equipment	
1291-1028	Swivel Antenna with 5dBi gain
TRAB821/18503P	Dual band cellular/PCS Antenna Cellular - 821-896 MHz PCS - 821-896 MHz
CAF825	Quad Band Omni Directional Antenna
LL400-15-S-T	Antenna Cable, LL400, 15 feet, SMA-TNC



GSM DB Phantom Antenna - Specifications

	142-174 MHz	210-230 MHz	
GAIN	UNITY	UNITY	
Frequency Range	142-160 MHz 150-168 MHz 156-172 MHz	210-230 MHz	
VSWR	< 1.5: 1 850 kHz	<1.5:1 2.2 MHz	
	<2.0: 1 1.0 MHz	<2.0: 1 4.0 MHz	
Maximum Power	60 watts	100 watts	
Bandwidth	1.5 MHz	4 MHz	
Impedance	50 ohms	50 ohms	
Height	3 1/2"	2 3/4"	
GAIN	3 DB -MEG.	3 DB -MEG.	
Frequency Range	410-425 MHz 430-450 MHz 450-470 MHz 470-490 MHz	806-866 MHz 821-896 MHz 890-960 MHz 902-928 MHz	2400-2500 MHz
VSWR	<1.5: 1 10 MHz <2.0: 1 20 MHz	<1.8:170 MHz	< 1.5: 1 100 MHz
Maximum Power	150 watts 100 watts NGP	150 watts	100 watts
Bandwidth	>20 MHz	>70 MHz	>100 MHz
Impedance	50 ohms	50 ohms	50 ohms
Height	3 1/2"	2 1/2"	3 1/2"



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