

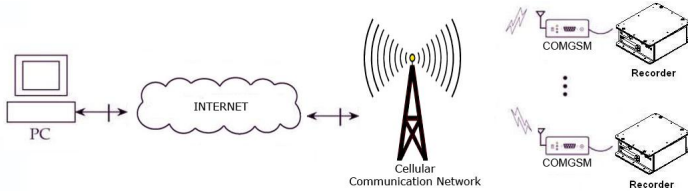
GPRS Cellular Network Transceiver - COMGSM

Features

- Cellular GPRS communication for ISAAC Instruments Recorders
- Worldwide compatible with Quad Band Radio Frequency (850/900/1800/1900)
- Fleet management and asset tracking in real time
- Rugged construction and small size
- FCC and IC certified.

Description

The COMGSM uses the cellular GPRS network to transmit data from an ISAAC Instruments Recorder to a PC.



The PC is connected to the internet with a known IP address. Once it is switched on, the ISAAC Instruments Recorder automatically connects to the ISAAC Instruments Communication Service, installed on a PC over the network.

The COMGSM can be used with the following antennas:

Part Number	Description
WRLGPR-AE1	Magnetic base antenna Europe & Asia (900/1800 Mhz)
WRLGPR-AN1	Magnetic base antenna North America (850/1900 MHz)
WRLAN4-111	Antenna to be fixed on the roof of the vehicle. 4 frequency bands for Wi-Fi, GPS, and cellular (850/1900 Mhz)

Note: Antenna may differ from the picture, shown in this datasheet.

Description of the LED status:

LED status	Description
OFF	The COMGSM is not powered
Green	The COMGSM is powered but not registered to the cellular network
Yellow	The COMGSM is registered to the network (allow 30s to 60s after applying power to the COMGSM)
Red	The COMGSM transfers information to ISAAC Instruments Communication Service

Installation

Setup:

- Remove the four screws (as indicated by the figure 1)



Figure 1



- Slide the SIM card cover to the "OPEN" direction and lift the cover (as indicated by the figure 2)
- Insert the SIM card
- Push the cover down and slide it toward the "LOCK" direction



Figure 2

- Using Dual-Lock™ Velcro, install the COMGSM, in a dry and well ventilated area, within 30 cm (12") of the Recorder. Avoid installing the module near any heat source
- To get the optimal wireless connectivity, install the antenna outside of the vehicle chassis, on a metallic surface
- Then plug the antenna to the SMA connector of the COMGSM
- Connect the COMGSM to one of the Recorder COM port (COM1, COM2 or COM3)
- Route the cable at least 20cm (8") away from high interference electrical devices, such as: ignition coils, plug leads, high-current leads, high emission electronic modules or antennas

Software configuration:

COM Port Activity: COMGSM – GPRS Transceiver.

IP address : The IP address of the PC on which the ISAAC Instruments Communication Service is installed.

TCP Port : The TCP port of ISAAC Instruments Communication Service.

APN : Access Point Name, refer to the provider of cellular communication.

Specifications

Description	Symbol	Min	Typ	Max	Unit
Power Requirements					
Power Supply Voltage	V	11		30	V
Idle Current	I_{idle}		15		mA
Transmit Current	I_{Tx}		100	250	mA
Performance					
Transmit Power output	TP_{out-W}		2		W
Class 4 – 850/900Mhz			1		W
Class 1 – 1800/1900Mhz	$TP_{out-dbm}$		-106		dBm
GPRS Packet Data					
Frequency	Freq		850-900-1800-1900		MHz
Mode			Class B, Multislot 10		
Protocol			GPRS Rel 97 and 99, SMG 31		
Coding Schemes			CS1-CS4		
Packet Channel			PBCCH/PCCCH		
Application Interface					
Internal Protocol			UDP/PAD, TCP/PAD		
SIM Access			Internal		
			3V with locking mechanism		
Antenna					
Connector	Con		SMA		
Impedance	Imp		50		Ohm
Certifications	FCC GCF PTCRB		FCC Part 15, 22 & 24 Version 3.11 Version 2.9.1 Industry Canada and CE Mark		
Environment					
Operating Temperature	T_{Oper}	-20 (-4)		60 (140)	°C (F)
Storage Temperature	T_{Stor}	-40 (-40)		85 (185)	°C (F)
Humidity		Up to 95% non-condensing			
Physical Properties					
Height	H		28.6 (1.125)		mm(in)
Width	W		62 (2.441)		mm(in)
Depth	D		110 (4.331)		mm(in)