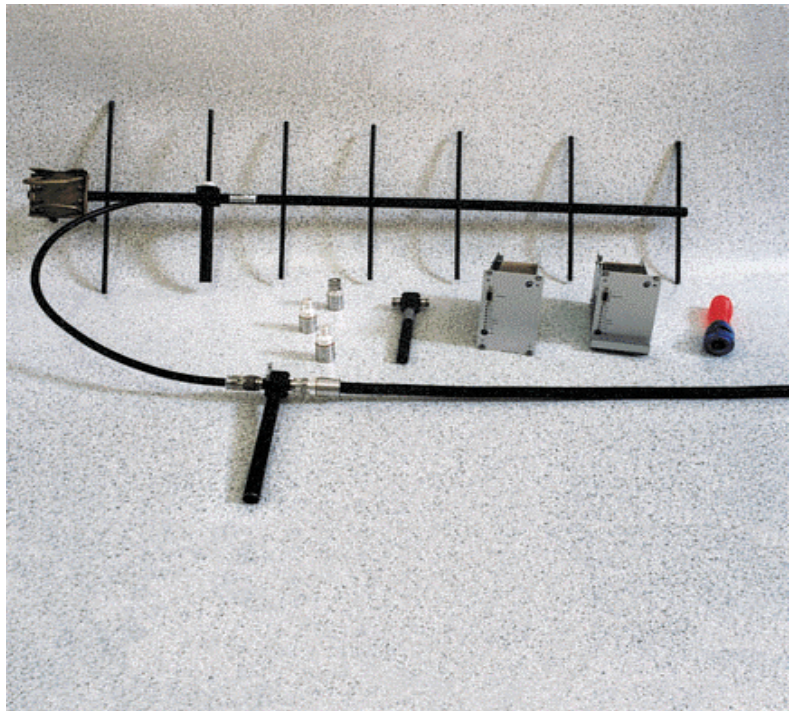


## GS-TCV Telemetry Transceiver

### Features

- r Digital Telemetry including modem to interface with RS-232 devices
- r UHF 380 - 470 MHz
- r Standardised Interface
- r Data Rates at 9600 and 19200 Baud
- r Half-duplex operation for variety of applications
- r 1 Watt RF Output Power with minimal Keyup/Down Sideband Noise
- r Superior sensitivity of  $-116$  dBm
- r Meets ETS 300.113 Highlevel Data Transmission



### Outline

The GS-TCV Transceiver is designed for international markets and are FCC and European ETSI compliant for voice and data applications. They are one of the few synthesised units to meet the stringent ETSI 300.113 highlevel data transmission specification.

The UHF version is available at 25 kHz, 12.5 kHz channel steps. AT 25 kHz spacing, the user can set a data-throughput of up to 19200 Baud, whereas at 12.5 kHz, the data-throughput is set to 9600 Baud.

Superior specifications are the result of the latest technology providing fat attack synthesisers with a lock time of less than 5 milliseconds, 10 mWatt to 1 Watt RF output power with minimal key-up/down sideband noise,

and superior frequency stability. This telemetry transceiver is designed specifically for data, features such as extremely low group delay provides an environment to transmit complex data modulations.

Two power minimisation features are designed into the GS-TCV. A Sleep Mode which draws no more than 3 mA or an inherent Cold Start which means the unit will reach an operational state in less than 50 milliseconds allowing the user to cycle the power on and off as a power conservation method.

Standardised interface for compatibility with all GeoSIG telemetry products.

# Specifications GS-TCV

## General Characteristics

Frequency Range: 380 - 470 MHz (to be specified at time of order)  
Frequency Control: Synthesised  
Operating Voltage: 9 - 30 VDC  
Operating Temperature: -25°C to + 55°C  
Data Interface: RS232 DB9  
Wideband Data Interface: none, modem integrated

## Receiver

RF Input Impedance: 50 ohms  
Sensitivity: -116 ... -110 dBm (BER < 0.001)  
Co-channel rejection: > -12 dB  
Adjacent channel  
Selectivity: > 60 dB  
Intermodulation  
Attenuation: > 65 dB  
Spurious radiations: < 2 nW

## Transmitter

Carrier power: 10 mW ... 1 W / 50 ohm  
Carrier power stability: + 2 dB/- 3 dB  
Adjacent channel power: acc. To ETS 300 113  
Spurious radiations: acc. To ETS 300 113

RF Output Impedance: 50 ohms

Duty Cycle: up to 100%

Attack Time(Simplex): < 5 ms  
Power consumption: 1.8 VA typ. (RX)  
6.0 VA typ. (TX)  
0.05 VA typ. (sleep)

## Data Modem

Interface: RS-232  
Interface connector: 15 Pin DSUB  
Data speed of interface: 300 – 38400 Baud  
Data formats: Asynchronous data

## Environment/Housing

Operating Temperature: -25°C to + 55°C  
Type: Aluminium housing  
Size: 121 x 83 x 60 mm  
Weight: 0.5 kg  
Antenna Connector: TNC female 50 ohm  
User Interface Connector: 15 Pin DSUB  
Programming: Via frontpanel connector

## Ordering Information

Specify: Frequency in MHz

## Specifications subject to change

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