

G4 GPS EPIRB Technical Specification

General

Approved to	COSPAS-SARSAT T.001 class 2 RTCM SC110-STD Version 2 class 2 ETS 300 066 IEC 1097-2
Complies with	EN 60945 Part 80 of FCC regulations
Operating temperature range	-20°C to +55°C
Storage temperature range	-30°C to +70°C
Operational life	48 hours minimum at -20°C
Battery type	9V lithium manganese dioxide
Battery expiry	6 years from date of manufacture

Electrical

406.025MHz transmitter

Frequency	406.028MHz $\pm$ 3KHz
Output power	5W $\pm$ 2dB
Data encoding	Bi-phase L
Modulation	Phase modulation: 1.1 rads $\pm$ 0.1 rads
Transmission time	520ms $\pm$ 1%
Repetition period	50 secs $\pm$ 2.5 secs

121.5MHz homing transmitter

Frequency	121.5MHz $\pm$ 3KHz
Output power	50mW $\pm$ 3dB PERP
Transmit duty cycle	Continuous
Modulation format	3K20A3X
Modulation frequency sweep	1300Hz to 350Hz
Modulation duty cycle	41% $\pm$ 5%
Sweep repetition rate	3Hz $\pm$ 1Hz
Sweep direction	Programmable UP or DOWN

GPS receiver/engine

Centre frequency	Band L1. 1.57542GHz
Received signal sensitivity	-175dBW minimum.
Maximum number of satellites tracked	12

Transmit Antenna

Type	Flexible, vertical whip
Characteristics	Vertically polarised, omni-directional

Receive Antenna

Type

Ceramic dielectric patch

Characteristics

Right hand circular polarised. Nominal +3dBi gain.

Optical Homer

Type

Xenon discharge tube

Flash rate

20 to 23 flashes per minute

Light output

> 0.75 candela over 75% of the horizontal plane

External Interfaces

Programming interface

Infra-red link via RS232 port on a PC.

Manual activation

Sealed membrane switch. Protected by sliding cover.

Automatic activation

Sea water switch contacts. Activation within 5 seconds of immersion.

Self test

Sealed membrane switch. Press and hold to activate self test. Confirmation of successful self test by 3 flashes of strobe light.

Physical characteristics

Weight

730 grams nominal

Height

210mm to base of antenna.

Width

110.5mm at maximum