

## MR510

### Personal Locator Beacon

#### Overview

Becker Avionics offers since 1970 the best in SAR technology and has delivered more than 30000 beacons.

The new generation of Becker's MR510 PLBs offers military-grade performance, with advanced features including multi-constellation GNSS receiver technology, which make it easier and quicker for COSPAS-SARSAT satellites to pick up distress signals and relay an accurate location to rescuers.

Pinpointing the location of the person in distress will quickly help search and rescue agencies to better locate individuals and save lives.



It is a rugged, multipurpose survival radio and locator device designed for civil and military aircrews, naval and ground personnel.

Transmissions from the MR510 are omnidirectional and continuous for at least 24 hours at extreme temperatures (-40°C) to help facilitate detection by satellites, aircraft or vessels, or by any other land, sea or airborne installation monitoring these frequencies.

#### Features

- Fully self-contained (transceiver, V/UHF/C-S antennas, with latest generation 72 channel GNSS receiver)
- Compact, lightweight, state-of-the-art technology
- Manual or automatic activation by lanyard or water immersion
- Life vest and ejection seat capability
- Designed for all airborne, land and marine applications
- Multi-band radio covering all emergency frequencies (121.5 MHz, 243.0 MHz and 406 MHz)
- Two-way VHF or UHF voice communication (programmable)
- Integrated Built-In-Test features
- COSPAS-SARSAT certification
- Compliance with: Stanag 7007 P 1 PSAR, MIL-STD 810E, ED-14E (DO-160E)

#### Accessories

- Test and programmer equipment
- Pressure container
- Different activation sets on request
- Other accessories on request



## Technical Data

MR510	Specification
<b>Operating frequencies</b>	F1 (VHF): 121.500 MHz $\pm$ 1.5 MHz F2 (UHF): 243.000 MHz $\pm$ 3 MHz F3 (UHF): 406.037 MHz others on request
<b>Modulation</b>	Beacon and voice mode: AM (121.5 MHz; 243.0 MHz) COSPAS-SARSAT: C/S Specification T.001
<b>Antenna</b>	Tri-frequency built-in antenna and connector for external antenna
<b>Operating temperature</b>	-40...+55 °C, Class 1 -20...+55 °C, Class 2
<b>Battery</b>	Lithium type (LiSO <sub>2</sub> ), Life time > 5 years
<b>BITE</b>	Self test with acoustic and optical indication for: GO / NO GO
<b>Transmitter</b>	
Output power	VHF 100 mW UHF 100 mW C/S 5 W
Voice mode F1/F2	VHF/UHF 50 mW
Modulation	Beacon mode: A2X not less than 60%, audio frequency swept at 2 to 3 sweeps per second Voice mode: A3E AM 80% COSPAS-SARSAT: Messages C/S T.001
<b>VHF/UHF-Receiver F1/F2</b>	
Sensitivity	-87 dBm, for 6 dB (S+N)/N, m=30%, 1 kHz
Audio output	$\geq$ 100 mW, 90% modulation at 1000 Hz
GNSS receiver	72 channel, GPS L1C/A, GLONASS L10F, Galileo E1-B/C, SBAS L1C/A
<b>Design standards</b>	STANAG 7007 C/S T.001, C/S T.007, C/S T.012 MIL-STD-810F ED 14E/ DO-160E, ED 12B/ DO-178B RoHS-Directive, WEEE-Directive
<b>Dimensions HxWxD</b>	162.15 x 90 x 46,6 mm (antenna folded, storage position)
<b>Weight</b>	$\leq$ 650 g with battery



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