PMB30 - Personal Survival Radio

Dual (CSAR/SAR) personal survival radio

The PMB30 **P**ersonal **M**odular **B**eacon is a small but powerful long-endurance Personal Survival Radio that provides a complete solution for military or paramilitary applications in combat and non-combat environments. Featuring an embedded GNSS receiver, large LCD display, and advanced electronics, the PMB30 assures precise global positioning, easy navigation, and extensive interrogatable two-way messaging. Fully back-compatible with all previous ASARS versions and interoperable with airborne Locator Systems (ALS) like ARS-700, ARS-700G, ARS-7000 and other NATO SAR systems, the field-proven PMB30 provides essential, quick, and accurate location and rescue information for searching aircrews and land forces. Automatic activation ensures immediate initiation of SAR transmissions without requiring human intervention, even if the aircrew are unconscious or injured.

The PMB30 features a unique Erase Mode for emergency situations when the beacon must be left behind.

Elbit Systems™
C⁴I and Cyber

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A long-life, large-capacity LiMnO2 battery pack provides extended operation capabilities. Online battery monitoring alerts the operator to the remaining capacity. Beacon mode enables operation with non-SAR equipped aircraft.

Technical Highlights

Characteristic	Performance
Frequency range	225-299.975 MHz + 121-122 MHz
Number of channels	3,000 in 25 kHz steps
Cospas-Sarsat capability	Transmission of C/S protocol (406 MHz)
Pre-programmed channels	UHF: 10
Non-programmable channel	VHF: 121.5 MHz
Position accuracy	GPS ,Galileo – 10m accuracy
Modulation type	· AM (voice or swept tone) · FSK (narrow bad data) · OOK, PSK for ASARS (transponder)
Transmit power output	· 0.2W (Beacon in UHF) · 0.45W (Voice in UHF) · 0.1W (121.5 MHz VHF) · Adaptable power management
Sensitivity	-107 dBm
Battery type	$LiMnO_2$
Battery life	>24 hrs. @ 1:10 T/R ratio >24 hrs. in B+C Beacon mode @ -20°C >60 hrs. in C mode only @ -20°C >48 hrs. in economy mode
Battery life monitor	"Fuel-Gage" battery indication
Display	LCD, 33x22 mm (WxH)
Water-tightness	Withstands 10m water depth immersion
Size (battery included)	145x81x29 mm (HxWxD)
Weight (Battery Included)	<590 gr.
Operating temperatures	-20°C to + 55°C
Storage temperature	-40°C to + 85°C

Operational Highlights

· Cospas-Sarsat (406 MHz) approved

· LPI/LPD transponder operation, extremely low probability of interception/ detection

· GPS, GALILEO response to ALS interrogations or another PMB on the ground, or manually initiated and received from/at the ALS and/or PMB

· Navigation along 40 programmable waypoints

· Transmission of GPS location data and digital emergency messages to the ARS-7000 or at the C/S 406 frequency band

· Remote activation and operation by ALS

· 24 hours operational [Tx/Rx ratio of 1:10] and over 48 hours in economy mode

· Enhanced multi-waveform compatible with STANAG 7007

· Radio status indication (self-test)

· Automatic activation: 3 axis g-switch, lanyard, water sensor

· One-hand operation

· Advanced cyber protection

· Erase mode

· Combat (CSAR) / non-combat (SAR) – configuration

· Easy configuration controlled by PMB intuitive MMI and PC application for extended configurations

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Additional products from PMB series:

· PMB10 for customers who do not need CS

· PMB20 peace time beacon only

· PMB40 Iridium SBD capability

· PMB50 CS & Iridium SBD capabilities

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