

# e-NAVCON

## System 6 Racon

SeaBeacon® 2 System 6, a frequency agile radar beacon (racon), has provided dependable service to all marine radars, including those with modern narrow band receivers. e-NAVCON combines the SeaBeacon® 2 System 6 with an in-built **AIS AtoN transponder** to provide the mariner with two forms of electronic signatures, one of which is independent of the GPS network increasing accuracy and redundancy.



### CHARACTERISTICS

- AIS message 21 – Provides vessels with an AIS message which will be displayed on their AIS display system.
- Greater radar operational range – e-NAVCON provides improvements in receiver dynamic range, receiver sensitivity, power consumption and transmitter power.
- e-NAVCON is internally pressurized.

### THE E-NAVCON ADVANTAGE

- Combined AIS and Radar transponder in one package; no possibility of interference between different manufacturers equipment.
- No outside antenna cabling, eliminating potential connection problems.
- Single or dual power supply options providing additional redundancy.



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Pressurising racons with nitrogen provides added protection against the corrosive marine environment.

- Proportional scaling – Ensures length of racon trace appearing on the radar screen is generally uniform on all range settings.
- Patent pending.
- FCC approved November 2016.
- Designed and built in USA; your passport to reliability and customer service.



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Technical Details	
Frequency of Operation	9.3 to 9.5GHz
Frequency Matching Accuracy	± 1MHz
Output Power to Antenna	>0.5W
Pulsewidth Response	
Minimum	50 nanoseconds
Maximum	2000 nanoseconds
Racon Response Display Scaling	Racon Response (±µsec typical)
System Sensitivity	
X-Band	Better than -50 dBm
Response Rate – Maximum	10KHz
Response Delay – Maximum (100 metres)	667 nanoseconds
Radar Blanking	External blanking control ports available
System Test Monitor	
Built-in	Audible Beeper
External A	Transistor Switch for Go/No Go
External B	RS-232C Communications Port for monitor, control and field programming features
Quiescent Period	Programmable 0 to 60 seconds
Extended Quiescent	Programmable selectable
Active Period	Programmable 4 to 60 seconds
X-Band Antenna Specifications	
Gain	6dBi
Polarisation	Horizontal
Vertical Divergence	22 degrees
Effective Radiated Power	>2.25W
AIS	
Transmit Frequency Range	156.025MHz ~ 162.025MHz
Transmit Power (selectable)	2, 5 and 12W
GPS Receiver Channels	50
GPS Sensitivity	Better than -159 dBm
Transmit Power (selectable)	2, 5 and 12W
VHF and GPS Antenna	Internal
Standards	IALA A-126 Ed. 1.4 ITU-R M 1371-4-R
MESSAGE 21 CONTENT	
MMSI Number	Name of AtoN, Position
Position Accuracy	RAIM Indicator, Type of Position Fixing
Device Time Stamp	Dimension of AtoN, Type of AtoN
Virtual AtoN Target Flag	8 bits of reserved for regional application
Power Supply Input Voltage	9.0 to 15.6VDC
Lightning Protection – Surge Protection	1 millisecond at 3000 volts
Quiescent Power Consumption	0.3W
Nominal Power Consumption	
Light Traffic	1.0W
Heavy Traffic	1.3W
Submersion Capability – Maximum Depth (Pressurized)	10 metres (35 feet)
Positive pressurization	Available with or without
Dimensions	
Diameter (including lift ring)	353mm (13.9in)
Height	807mm (31.8in)
Weight (includes 4.5 metres external cable and all stainless-steel mounting hardware) – GMU	13.6kg (30lbs)
Base Housing	Aluminum
Temperature Range	-40° C to +70° C

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