

Broadband 3G™ Radar - Specifications



REV:0.05

Characteristic	Technical Data	
General		
Compliance	<ul style="list-style-type: none"> CE, FCC (ID: RAY3G4G), IC: 4697A-3G4G 	
Environmental	<ul style="list-style-type: none"> IEC60945 4th edition 2002-2008 Operating Temperature: -25° to +55°C (-13° to +130°F) Relative humidity: +35° C (95° F), 95% RH Waterproof: IPX6 	
Relative wind velocity	51 m/sec (Max:100 Knots)	
Power consumption (with 10m cable)	Operating: 18W (Typ.) @ 13.8Vdc Standby: 2W (Typ.) @ 13.8Vdc ~ 150mA	
DC input (at end of radar cable)	9V to 31.2Vdc (12/24 Volt systems). Reverse polarity protection	
Transmitter source (pre-heating time)	No magnetron – Instant On™	
Outside dimensions	Height 280 mm x Diameter 489 mm (Height 11" x Diameter 19.3")	
Scanner weight (no cable)	7.4 kg (16.31 lbs)	
Radar and Antenna Parameters		
Radar ranges	50 m (200 ft) to 24 nm with 17 range settings (nm/sm/km)	
Rotation (mode dependent)	24/36 rpm +/-10%	
Transmitter frequency	X-band - 9.3 to 9.4Ghz	
Transmitter source (warm-up time)	No Magnetron – all solid state. Instant On™	
Plane of polarization	Horizontal Polarization	
Transmitter peak power output	165mW (nominal)	
Main bang dead zone & tuning	None – not a pulse radar	
Sea and rain clutter	5X less than a pulse radar	
Sweep repetition frequency	200Hz	
Sweep time	1.3ms+/- 10%	
Sweep bandwidth	75 MHz max	
Horizontal beam width (Tx and Rx antenna)	5.2°+/-10% (-3dB width)	
Vertical beam width (Tx and Rx antenna)	25°+/-20% (-3dB width)	
Side lobe level (Tx and Rx antenna)	Below -18dB (within ±10°);Below -24dB (outside ±10°)	
Noise figure	Less than 6dB	
Coms/Cabling/Mounting		
Com protocol	High Speed Ethernet and Serial	
Heading	NMEA0183 / NMEA2000 / SimNet with interface box	
Inter connecting cable length	Lowrance 10 m (33 ft) Simrad, B&G 20 m (65.6 ft)	
Maximum inter connecting cable length	30 m (98.5 ft) – available as option	
Bolts (4)	M8x30 - 304 stainless steel	
Footprint	W233 mm (9.17") (port / starboard) x L141.5 mm (5.55") (matches Garmin GMR18HD / Raymarine RD218 footprint)	
Compatible Displays		
Simrad:	Lowrance:	B&G:
NSE/NSO	HDS 5", 7", 8", 10"	Zeus 8" & 12"

** Specifications subject to change without notice. **

280mm
Tall



488mm
Wide

