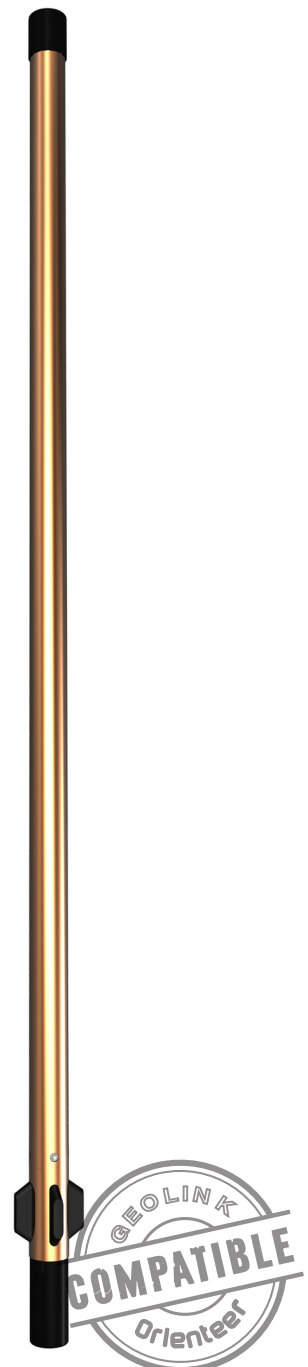


# GAMMA RAY MODULE (SGR)

A rugged scintillation based Gamma Ray Module designed for the toughest conditions. The module provides real time and memory storage of natural background Gamma radiation, serial communications, and a unique shock and vibration dampening system to enhance the life of the sensor. The module is designed to be fully compatible with the Negative Pulse MWD System, but may be operated independently or in conjunction with other legacy MWD systems.

## Key features include:

- ▶ Real time data and Memory storage
- ▶ High temperature qualified (175DegC Option)
- ▶ Stabilised measurement over temperature
- ▶ Serial communications
- ▶ Geolink system compatible
- ▶ Up to 20Kpsi Pressure rating
- ▶ Variable averaging
- ▶ Low battery voltage detect
- ▶ Fully calibrated





Description	Value	Units	Comments
<b>Sensor Performance</b>			
Measurement Energy Threshold	>50	keV	
Measurement Resolution	1.0	AAPI	
Accuracy	+/-1.5%	Over Range	Over full temperature range
Vertical Resolution	6.0	inches	Nominal
<b>Mechanical</b>			
Diameter (Housing)	LP	1.895	inches
		48.13	mm
Length	HP	2.000	inches
		58.94	inches
	SGR <sup>2</sup>	1497.0	mm
		63.03	inches
	MGR <sup>3</sup>	1601.0	mm
		45.75	inches
1162.0		mm	
49.84		inches	
		1266.0	mm
		50.80	mm
<b>Electrical</b>			
Operating Voltage	+14.5V	Volts	Nominal
Power Consumption	0.3	Watts	Nominal
Output	TTL/CMOS and PCL Interface		
<b>Environmental</b>			
Operating Temperature	-25 to 150	°C	(see note 1)
	-13 to 302	°F	
Survival Temperature	-40 to 165	°C	
	-40 to 329	°F	
Vibration	30	g pk	50 – 1000Hz
	20	g rms	50 – 1000Hz
Shock	1000	g	0.5mS Half Sine
<b>Notes:</b> 1. 175°C option available 2. SGR - Single Gamma Ray (Combined Battery) 3. MGR - Modular Gamma Ray (Separate Battery Module)			

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## Product Support

Azimuth Oilfield Systems Ltd. provides a responsive repair, calibration and product support service. Experienced personnel are available to troubleshoot or repair equipment, and provide general product technical assistance. If you need effective sensor support for your business, then contact [support@azimuthmwd.com](mailto:support@azimuthmwd.com) for more information.

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