



Specifications	CRM500GA /CRM510GA	Remarks
<b>Performance</b>		
Magnetic Bias (Gauss)	± 0.005	
Magnetic Range (Gauss)	± 0.65	
Linearity (% full scale)	± 0.1	
Sensor Axes Alignment to Case (°)	± 0.2	
Noise (nT/√Hz) <sup>1</sup>	2	
Data Output Rate (Hz)	>50Hz	
<b>Environment</b>		
Operating Temperature Range (°C)	-55 to +70	
RTCA/DO-160D Qualification	D2XBBB[(TEE1P)(UFF1)]XWXXXXZBABC[WWW] MA3G33XAA	
<b>Electrical</b>		
Communications Protocol	RS-422	
Baud Rate	38400	
Power Input	1.5 W @ 9 to 32 V	
<b>Physical</b>		
Size CRM500GA (in)	3.370 OD x 2.03	
(cm)	8.56 OD x 5.15	
Size CRM510GA (in)	4.37 x 2.62 x 1.65	without connector
(cm)	11.10 x 6.70 x 4.20	without connector
Connector CRM500GA	6-pin non-magnetic circular (D38999/26FA35PN)	Shell size 9
Connector CRM510GA	13-pin non-magnetic circular (D38999/25NB35PN)	Shell size 11
Weight CRM500GA (lbs)	< 0.5	
Weight CRM510GA (lbs)	< 0.5	

Pin	Function
1	DC Power In
2	DC Power Gnd
3	RS-422 TX+
4	RS-422 TX-
5	Do Not Connect
6	Do Not Connect

CRM500GA Pin Diagram

Pin	Function
1	DC Power In
2	DC Power Gnd
3	RS-422 TX+
4	RS-422 TX-
10	Case Ground
11	Signal Ground

CRM510GA Pin Diagram

Byte	Description
0	Header (0xAA)
1	Header (0x55)
2	X Acceleration (MSB)
3	X Acceleration (LSB)
4	Y Acceleration (MSB)
5	Y Acceleration (LSB)
6	Z Acceleration (MSB)
7	Z Acceleration (LSB)
8	X Magnetic Field (MSB)
9	X Magnetic Field (LSB)
10	Y Magnetic Field (MSB)
11	Y Magnetic Field (LSB)
12	Z Magnetic Field (MSB)
13	Z Magnetic Field (LSB)
14	Model (MSB)
15	Model (LSB)
16	Built-In-Test (MSB)
17	Built-In-Test (LSB)
18	Checksum (MSB)
19	Checksum (LSB)

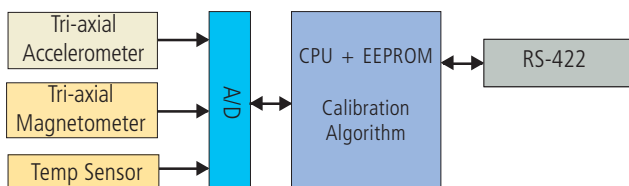
CRM Series Digital Output Data Format

magnetometers

Notes

<sup>1</sup>Limited by A/D resolution

Specifications subject to change without notice



CRM Block Diagram



CRM510GA



Ordering Information

Model	Description
CRM500GA-200	Strapdown 3-Axis Fluxgate Magnetometer
CRM510GA-200	Strapdown 3-Axis Fluxgate Magnetometer