

## DM24 CALIBRATION

**WORKS ORDER:** 4318

**DIGITISER SERIAL NUMBER:** C789

**SENSOR SERIAL NUMBER:** T35365

SYSTEM ID: 4318

UNIT ID: 5365

OUTPUT DATA FORMAT: GCF

BAUD RATE: 38400

BOOTLOADER: BOOT1030.IMG

DSP SOFTWARE: DSPSI1060.BIN

SYSTEM: ARMFWDM103b70.IMG

### VELOCITY CHANNELS

Channel:	5365Z2	Vertical	3.210 $\mu\text{V}/\text{Count}$	552.499E-12 M/S/Count
	5365N2	North/South	3.195 $\mu\text{V}/\text{Count}$	531.800E-12 M/S/Count
	5365E2	East/West	3.191 $\mu\text{V}/\text{Count}$	534.683E-12 M/S/Count

### MASS POSITION CHANNELS

Sample Rate: 4 samples/sec (Default)

Channel:	5365M8	Vertical	306.07 $\mu\text{V}/\text{Count}$	365.239E-9 M/S <sup>2</sup> /Count
	5365M9	North/South	306.33 $\mu\text{V}/\text{Count}$	350.095E-9 M/S <sup>2</sup> /Count
	5365MA	East/West	306.38 $\mu\text{V}/\text{Count}$	351.355E-9 M/S <sup>2</sup> /Count

Sample Rate: 1 samples/sec

Channel:	5365M8	Vertical	1.20 $\mu\text{V}/\text{Count}$	1.427E-9 M/S <sup>2</sup> /Count
	5365M9	North/South	1.20 $\mu\text{V}/\text{Count}$	1.368E-9 M/S <sup>2</sup> /Count
	5365MA	East/West	1.20 $\mu\text{V}/\text{Count}$	1.372E-9 M/S <sup>2</sup> /Count

### CAL SIGNAL MONITOR

5365X2 / 5365C2 3.209  $\mu\text{V}/\text{Count}$

### GPS RECEIVER

PWM: 8000 Counts

At Temperature Reading: 23°C

### POWER CONSUMPTION

Digitiser Power Consumption

80mA @ 12v

GPS Power Consumption

28mA @ 12v

## CMG-3ESP CALIBRATION SHEET

WORKS ORDER: 4318                      DATE: 19-Feb-2008  
SERIAL NUMBER: T35365                  TESTED BY: P. Yarham

	Velocity Output V/m/s (Differential)	Mass Position Output (Acceleration output) V/m/s <sup>2</sup>	Feedback Coil Constant Amp/m/s <sup>2</sup>
VERTICAL	2 x 2905	838	0.01782
NORTH/SOUTH	2 x 3004	875	0.01861
EAST/WEST	2 x 2984	872	0.01856

Power Consumption: 65mA @ +12V input  
Calibration Resistor: 51000

NOTE: A factor of 2 x must be used when the sensor outputs are used differentially (also known as push-pull or balanced output). Under no conditions should the negative outputs be connected to the signal ground. A separate signal ground pin is provided.

## POLES AND ZEROS TABLE

WORKS ORDER NUMBER: 4318

SENSOR SERIAL NO: T35365

Velocity response output, Vertical Sensor:

<u>POLES (HZ)</u>	<u>ZEROS HZ</u>
$-7.07 \times 10^{-3} \pm j7.07 \times 10^{-3}$	0
-180	0
-160	
-80	

Normalizing factor at 1 Hz: A = 2304000

Sensor Sensitivity: See Calibration Sheet.

Velocity response output, Horizontal Sensors:

<u>POLES (HZ)</u>	<u>ZEROS (HZ)</u>
$-7.07 \times 10^{-3} \pm j7.07 \times 10^{-3}$	0
-180	0
-160	
-80	

Normalizing factor at 1 Hz: A = 2304000

Sensor Sensitivity: See Calibration Sheet.

**NOTE:** The above poles and zeros apply to the vertical and the horizontal sensors and are given in units of Hz. To convert to Radian/sec multiply each pole or zero with  $2\pi$ . The normalizing factor A should also be recalculated.