	MSM-OCEAN	F01-P06-TEST-MB-WAVE3
	<b>MB WAVES 03</b>	DATE: 24/01/20
		Ed 02

# CALIBRATION AND TEST REPORT

## MB-WAVES 03

<b>ORDER DATA</b>	Nº	PV20-250	CUSTOMER	Elecom Sp. z
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SERIAL NUMBER	
MB-Wave unit	039
MB-Wave PCB	920005
Motion reference unit	045004675

MB-WAVE Configuration	
<b>DIAGNOSTIC</b>	
Verify FW 1.07 is updated	<input checked="" type="checkbox"/> OK
Bootloader SW	V2
Wave height (min., max) (m.)	0 - 30
Wave period (min., max) (s.)	3 - 90
Wave direction	Where the wave comes from.
Measure time	20 minutes
Battery voltage	10 to 36V <input checked="" type="checkbox"/> OK
Power Avg. 30'	200< P< 350 mW <input checked="" type="checkbox"/> OK

SD CARD MEMORY					
MEMORY	Cap.	8 to 128 GB	32 GB	Extreme PRO	CLASS 10

GNSS ~ GPS			
Visible satellites	12	Used satellites	8
Sat. Adq time	< 5 minutes <input checked="" type="checkbox"/> OK		


Date: 10-07-20

Tested by: Oscar Aponte

MB-WAVE MESSAGE OUT VERIFICATION			
<b>MESSAGE DATA</b>			
Date/time UTC	<input checked="" type="checkbox"/> OK	RS232 baud.	115200 <input checked="" type="checkbox"/> OK
WGS84 Position.	<input checked="" type="checkbox"/> OK	Verb mode.	NO <input checked="" type="checkbox"/> OK
NMEA out.	<input checked="" type="checkbox"/> OK		

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<b>BASIC PERIPHERALS</b>			
<b>SUPPLY+ DATA CABLE</b>			
CABLE TYPE	Cable 6x0.5 PUR	LENGTH	1 meter
OPERATION	<input checked="" type="checkbox"/> OK	VISUAL INSPECTION	OK <input checked="" type="checkbox"/>
<b>GPS CABLE</b>			
CABLE TYPE	RG-58 N-TNC	LENGTH	3 meters
OPERATION	<input checked="" type="checkbox"/> OK	VISUAL INSPECTION	OK <input checked="" type="checkbox"/>
<b>ANTENA GPS</b>			
MANUFACTURER	PROCOM	MODEL	GPS-2000
OPERATION	<input checked="" type="checkbox"/> OK	VISUAL INSPECTION	OK <input checked="" type="checkbox"/>

## MOTION TEST AND CALIBRATION

### Motion Reference UNIT


**Serial number: 045004675**

**Date: 14-7-2020**

<b>Accelerometers status</b>	<b>X</b>	<b>Y</b>	<b>Z</b>	<b>Result</b>
Accelerometer bias	Pass	Pass	Pass	Pass
Accelerometers gain	Pass	Pass	Pass	Pass
Accelerometer noise	Pass	Pass	Pass	Pass
Accelerometers alignment	Pass	Pass	Pass	Pass
				<b>Pass</b>

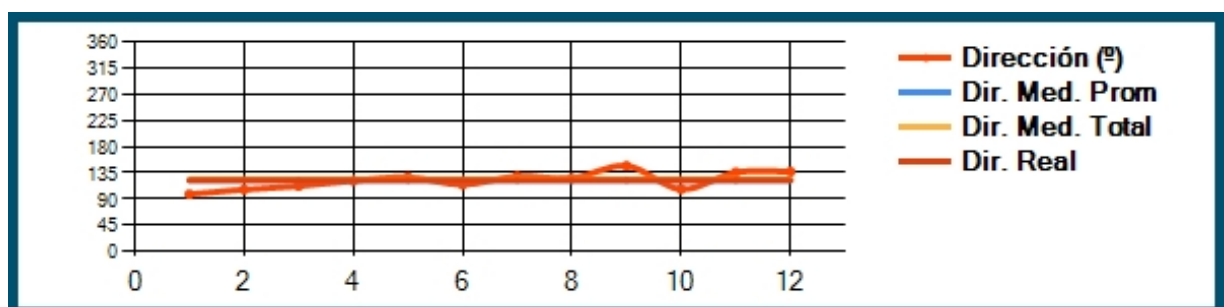
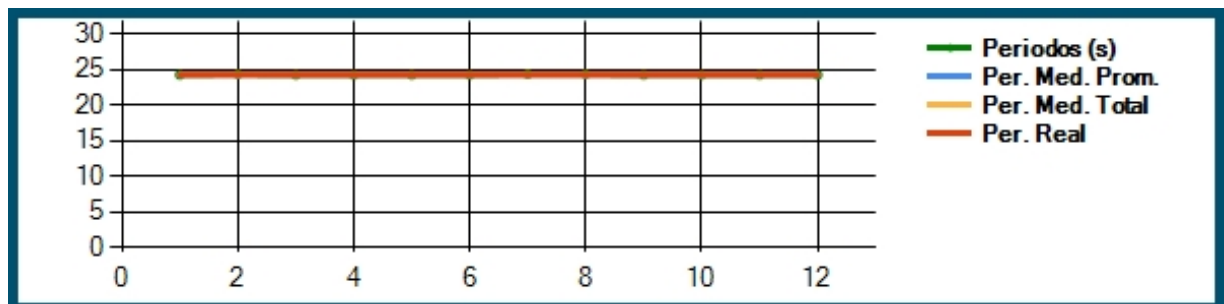
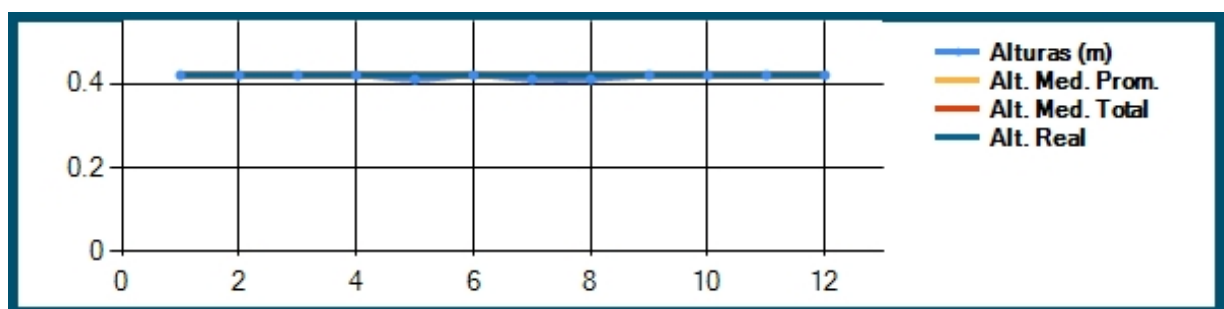
<b>Gyroscopes status</b>	<b>X</b>	<b>Y</b>	<b>Z</b>	<b>Result</b>
Gyroscopes bias	Pass	Pass	Pass	Pass
Gyroscopes gain	Pass	Pass	Pass	Pass
Gyroscopes noise	Pass	Pass	Pass	Pass
Gyroscopes linearity	Pass	Pass	Pass	Pass
Gyroscopes alignment	Pass	Pass	Pass	Pass
Gyroscopes g sensitivity	Pass	Pass	Pass	Pass
				<b>Pass</b>


<b>Magnetometers status</b>	<b>X</b>	<b>Y</b>	<b>Z</b>	<b>Result</b>
Magnetometers gain	Pass	Pass	Pass	Pass
Magnetometers noise	Pass	Pass	Pass	Pass
				<b>Pass</b>

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## HEAVE ACCURACY

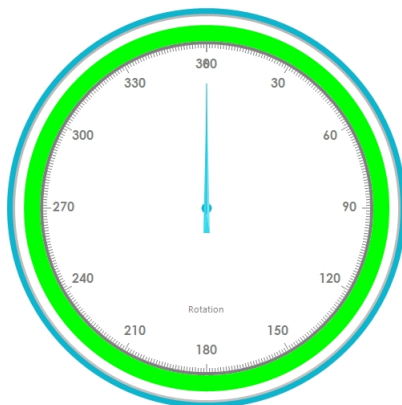
Test	General avg.	Partial avg.	Real data	Disp	ECM	OK
Height	0.42	0.42	0.42	0	0.01	☒
Period	24.3	24.3	24.3	0	0	☒
Direction	123.8	121.9	121.9	11.9	13.9	☒



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## ROTATION ACCURACY

<b>Test rotation</b>	<input checked="" type="checkbox"/> OK
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## VERTICAL DRIFT

<b>Test vertical drift</b>	<input checked="" type="checkbox"/> OK
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### Motion test

Date: 10-07-20

Tested by: Oscar Aponte

<b>PACKING</b>			
DC+DATA CABLE	<input checked="" type="checkbox"/> OK	GPS CABLE	115200 <input checked="" type="checkbox"/> OK
GPS ANTENA	<input checked="" type="checkbox"/> OK	LABEL	<input checked="" type="checkbox"/> OK
FIXING SCREWS	<input checked="" type="checkbox"/> OK		
VULCANIZING TAPE FOR EXTERNAL ANTENNA			<input checked="" type="checkbox"/> OK

Date: 10-07-20

Tested by: M. Martí

### FINAL APPROVAL

Date: 14-7-2020

Tested by: M. Martí