

MSM_	OCEAN
IMPINI-	OCEAN

MB WAVES 03

F01-P06-TEST-MB-WAVE3

DATE: 24/01/20

Ed 02

CALIBRATION AND TEST REPORT

MB-WAVES 03

ORDER DATA	N°	PV20-250	CUSTOMER	Elecom Sp. z

SERIAL NUMBER				
MB-Wave unit	039			
MB-Wave PCB	920005			
Motion reference unit	045004675			

MB-WAVE Configuration				
DIAGNOSTIC				
Verify FW 1.07 is updated	⊠ OK			
Bootloader SW	V2			
Wave height (min., max) (m.)	0.00 - 30			
Wave period (min., max) (s.)	3 - 90			
Wave direction	Where the wave comes from.			
Measure time	20 minutes			
Battery voltage	10 to 36V ⊠ OK			
Power Avg. 30'	200< P< 350 mW ⊠ 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	⊠OK		

Date: 10-07-20

Tested by: Oscar Aponte

MB-WAVE MESSAGE OUT VERIFICATION							
MESSAGE DATA							
Date/time UTC	⊠ OK	RS232 baud.	4800	⊠ OK			
WGS84 Position.	⊠OK	Verb mode.	NO	\boxtimes OK			
NMEA out.	⊠OK						

Date: 10-07-20

Tested by: Oscar Aponte

1/4



MSI	VI-C)CE	AN
TATOT	11 − C	\sim L	/ X

MB WAVES 03

F01-P06-TEST-MB-WAVE3

DATE: 24/01/20

Ed 02

BASIC PERIPHERALS							
SUPPLY+ DATA CABL	SUPPLY+ DATA CABLE						
CABLE TYPE	Cable 6x0.5 PUR	LENGTH	1 meter				
OPERATION	⊠ OK	VISUAL INSPECTION	OK 🖂				
GPS CABLE							
CABLE TYPE	RG-58 N-TNC	LENGTH	3 meters				
OPERATION	⊠ OK	VISUAL INSPECTION	OK 🖂				
ANTENA GPS	ANTENA GPS						
MANUFACTURER	PROCOM	MODEL	GPS-2000				
OPERATION	⊠ OK	VISUAL INSPECTION	OK 🗵				

MOTION TEST AND CALIBRATION

Motion Reference UNIT

Serial number: 045004675

Date: 14-7-2020

Accelerometers status	X	Y	Z	Result
Accelerometer bias	Pass	Pass	Pass	Pass
Accelerometers gain	Pass	Pass	Pass	Pass
Accelerometer noise	Pass	Pass	Pass	Pass
Accelerometers aligment	Pass	Pass	Pass	Pass
		-		Pass

Gyroscopes status	X	Y	Z	Result
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
		-	-	Pass

Magnetometers status	X	Y	Z	Result
Magnetometers gain	Pass	Pass	Pass	Pass
Magnetometers noise	Pass	Pass	Pass	Pass
	-		-	Pass



MSM-OCEAN

MB WAVES 03

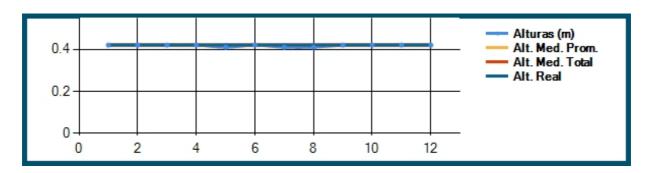
F01-P06-TEST-MB-WAVE3

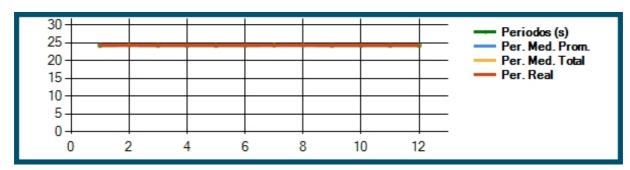
DATE: 24/01/20

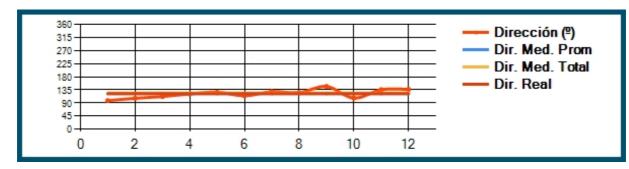
Ed 02

HEAVE ACCURACY

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









MSN	M-C	CE	4N
IVIOI	VI-U		-X1 N

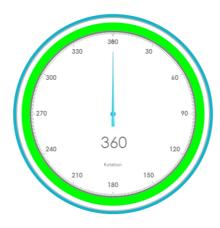
MB WAVES 03

F01-P06-TEST-MB-WAVE3 DATE: 24/01/20

Ed 02

ROTATION ACCURACY

Test rotation	⊠ OK
---------------	------



VERTICAL DRIFT

Test vertical drift	∇ \cap V	
Test vertical drift		

Motion test

Date: 10-07-20

Tested by: Oscar Aponte

PACKING						
DC+DATA CABLE	⊠ OK	GPS CABLE	4800	\boxtimes OK		
GPS ANTENA	⊠OK	LABEL		\boxtimes OK		
FIXING SCREWS	⊠ OK					
VULCANIZING TAPE FOR EXTERNAL ANTENNA				⊠ OK		

Date: 10-07-20 Tested by: M. Martí

FINAL APPROVAL

Date: 14-7-2020 Tested by: M. Martí