



Bundesrepublik Deutschland

Federal Republic of Germany

Bundesamt für Seeschifffahrt und Hydrographie

Federal Maritime and Hydrographic Agency



BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

EC TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

Bundesamt für Seeschifffahrt und Hydrographie, specified as a "notified body" under the terms of „Schiffssicherheitsgesetz“ of 9. September 1998 (BGBl. I, p. 2860) modified last 25. June 2004 (BGBl. I, p. 1391), did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the Navigation requirements of Marine Equipment Directive (MED) 96/98/EC as modified by Directive 2002/75/EC.

Applicant **MX Marine, Leica Geosystems**
Address **23868 Hawthorne Blvd, Suite 201 Torrance, CA. USA 90505-5908
and
Ocean Quay (Unit 2), Southampton, SO14 5QY, United Kingdom**

Manufacturer **MX Marine, Leica Geosystems**
Address **23868 Hawthorne Blvd, Suite 201 Torrance, CA. USA 90505-5908
and
Ocean Quay (Unit 2), Southampton, SO14 5QY, United Kingdom**

Annex A.1 Item **4.14 GPS Equipment**
(No & item designation)

Product Name **MX421 GPS/DGPS Smart Antenna**

Trade Name(s) **See annex to this certificate**

Specified Standard(s)

IMO Resolution MSC.112 (73)	IEC 61108-1 (Global positioning system (GPS) – Receiver equipment, Edition 2, 2003)
	IEC 61162-1 (Serial interface, Edition 2, 2000)
	IEC 60945 (Environmental conditions, Edition 3, 1996)

This certificate remains valid unless cancelled, expired or revoked.

Date of issue: **2. September 2004** Issued by: **Bundesamt für Seeschifffahrt und Hydrographie
Bernhard-Nocht-Str. 78, 20359 Hamburg, Germany
Notified body 0735**

Expiry date: **1. September 2009**

Certificate No.: **BSH 6581 / 080 335 / 2004**

USCG Approval No.: **165.130/EC0735/080335/2004**

This certificate consists of 3 pages.



by order

Falk Bethke



Components necessary for operation:

Component	Type name	Part No.
GPS/DGPS Smart Antenna	Either: MX421 or MX421B	P/N 725373 or 725374
GPS Software	Version 4.9x	
User interface unit	Either: MX420/2 or MX420/8	See Annex 1 of this certificate
Application Software	Version 2.0x	

Approval Documentation:

- MX421 High Precision GPS Sensor Installation Manual. P/N 723594, Rev. D, April 2004
- MX420 Navigation System Operator's Manual. P/N 3508 102 70040, April 2004
- MX420 Navigation System Installation & Service Manual. P/N 3508 102 70060, May 2003

Limitations on the acceptance or use of the product:

Places of production:

- MX421 GPS Smart Antenna Navman NZ Limited
- MX421B DGPS Smart Antenna 13-17 Kawana Street,
Northcote, Auckland
New Zealand
- User interface unit MX420 BB electronics A/S
Ane Stauningsvej 21
8700 Horsens
Denmark

Notes:

The manufacturer shall inform Bundesamt für Seeschifffahrt und Hydrographie, as the notified body, of any modifications to the type-tested product(s) that may affect compliance with the requirements or conditions laid down for use of the product(s).

In case the specified regulations or standards are amended during the validity of this certificate, the product(s) must be re-certified before being placed on board vessels to which such amended regulations or standards apply.

The Mark of Conformity (wheelmark) may only be affixed to the type approved equipment, and a Manufacturer's Declaration of Conformity may only be issued, if the product quality system fully complies with the Marine Equipment Directive and is certified by a notified body against ANNEX B module D, E, or F of the Directive.

Example for the Application of the "Mark of Conformity":

xxxx number of the Notified Body responsible for quality surveillance module
yy Last two digits of the year in which the mark is affixed.

U.S. Coast Guard Approval

The Manufacturer is allowed to affix the U.S. Coast Guard approval number (USCG approval number) as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004.

Notice on legal remedies available:

Objection to this document may be filed within one month after notification. The objection must be filed in writing to, or put on record at, Federal Maritime and Hydrographic Agency, Bernhard-Nocht-Str. 78, 20359 Hamburg, Germany

ANNEX TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. BSH 6581 / 080 335 / 2004

The equipment is also distributed by the following vendors under the noted trade names:

Vendor	Type designation	Part No.	
MX Marine Leica Geosystems A/S Ocean Quay (Unit 2) Southampton SO14 5QY United Kingdom	- MX420 GPS	350810270200 / 725373 or 350810270210 / 725373	
	- MX420 DGPS	350810270200 / 725374 or 350810270210 / 725374	
	- AP MK12 GPS	350810270220 / 725373	
	- AP MK12 DGPS	350810270220 / 725374	
SAM Electronics GmbH Behringstrasse 120 D-22763 Hamburg Germany	- DEBEG 4422 GPS	} Containing user interface unit MX420/2	350810270250 / 725373
	- DEBEG 4422 DGPS		350810270250 / 725374
	- DEBEG 4428 GPS	} Containing user interface unit MX420/8	350810270270 / 725373
	- DEBEG 4428 DGPS		350810270270 / 725374
Northrop Grumman Sperry Marine 118 Burlington Road, New Malden KT3 4NR, Surrey United Kingdom	- LMX420 GPS	350810270280 / 725373 or 350810270290 / 725373	
	- LMX420 DGPS	350810270280 / 725374 or 350810270290 / 725374	
KELVIN HUGHES LTD New North Road, Hainault, Ilford IG6 2UR, Essex United Kingdom	- MX420 GPS	350810270300 / 725373 or 350810270310 / 725373	
	- MX420 DGPS	350810270300 / 725374 or 350810270310 / 725374	
Raytheon Marine GmbH Zeyestrasse 16-24 D-24106 Kiel Germany	- MX420 GPS	350810270330 / 725373 or 350810270340 / 725373	
	- MX420 DGPS	350810270330 / 725374 or 350810270340 / 725374	