

# EU-Type Examination Certificate

## 0470-RED-233006

In compliance with Directive (EU) No 2014/53 of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment (RED), this certificate applies to the product(s)

**406 MHz EPIRB (Cospas-Sarsat)  
Model: Tron 60GPS**

Placed on the market under the name or trademark of

**Jotron AS  
Ringdalskogen 8  
3270 Larvik  
Norway**

This certificate attests that all provisions concerning the assessment and verification of performance described in the standard(s)

<b>Art 3.1a:</b>	<b>EN 62368-1:2014 + A11:2017</b>	
<b>Art 3.1b:</b>	<b>ETSI EN 301 489-1 V2.2.3</b>	<b>ETSI EN 301 489-3 V2.3.2</b>
	<b>ETSI EN 301 489-19 V2.2.1</b>	<b>IEC 60945:2002/COR1:2008</b>
<b>Art 3.2:</b>	<b>EN 61097-2:2021/COR1:2021</b>	
	<b>ETSI EN 302 152-1 V1.1.1</b>	

as per Annex III (Module B) for the performance set out in this certificate, are applied.

Certificate issued October 06, 2023  
Certificate was first issued October 06, 2023

Certificate revision: 1.0

**For NEMKO (Notified Body 0470)**  
Authorized signatory: Roy Uggerud




This certificate has been granted by Nemko Group AS, Philip Pedersens vei 11, NO-1366 Lysaker, Norway

This certificate remains valid, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Nemko. Should the specified regulations or standards be amended, the products are to be re-approved prior to being placed on the market. Nemko is designated by the Norwegian Notified Authority as a Notified Body under the terms of the Norwegian regulations. This certificate is issued within the scope of the "Provisions for certification - Electrical products - Radio Equipment Directive 2014/53/EU" (Nemko C355), which is available on request.

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## ANNEX 1 – PRODUCT SPECIFICATIONS

### PRODUCT DESCRIPTION

Equipment type: **406 MHz EPIRB (Cospas-Sarsat)**  
Model/type: **Tron 60GPS**  
HW / SW / FW versions: **Hardware: 1307**  
**Software:1.13**  
Brand/trade name:   
Supply voltage: **Battery operated, 8 x 1.5V AA batteries**  
Rated power: **-**

### TECHNICAL CHARACTERISTICS

Transmitter type: **EPIRB**  
Intended purpose: **Used in case of emergency at sea**  
Frequency range: **406.037 MHz and 121.5 MHz**  
Transmit power: **406.037 MHz: 37 dBm**  
**121.5 MHz: 20 dBm**  
Modulation type: **406.037 MHz: Phase modulation**  
**121.5 MHz: A9 Homing signal**  
Maximum duty cycle: **406.037 MHz: 1%**  
**121.5 MHz: 96%**  
Number of channels: **-**  
Channel separation: **-**  
Antenna type: **Integral antenna**  
Maximum antenna gain: **-1 dBi**  
**406.037 MHz: -1 dBi**  
**121.5 MHz: -3 dBi**

### MANUFACTURER

Name: **Jotron AS**  
Address: **Ringdalskogen 8**  
**3270 Larvik**  
**Norway**

### ADDITIONAL INFORMATION

None.

## ANNEX 2 - SCHEDULE OF APPROVAL

### SCOPE OF EXAMINATION

<input checked="" type="checkbox"/> Protection of Health and Safety, according to Article 3(1)(a).	COMPLIES
<input checked="" type="checkbox"/> Electromagnetic Compatibility (EMC), according to Article 3(1)(b).	COMPLIES
<input checked="" type="checkbox"/> Radio Spectrum Use, according to Article 3(2).	COMPLIES
<input checked="" type="checkbox"/> Special Radio Features, according to Article 3(3)(a)-(f).	N/A

### APPLICATIONS/LIMITATIONS

No limitations

### MARKING OF PRODUCT

The Manufacturer and Type Designation shall be applied to the product in a visible location.  
The equipment shall carry the CE marking of the European Union.

### TYPE EXAMINATION DOCUMENTATION

Article	Standard	Test report number	Issued by
3.1a	EN 62368-1	REP015407	Nemko Scandinavia AS
3.1b	ETSI EN 301 489 series	TEST REPORT No. 11/11 Issue 1 REP016878	Testing center Omega, Ukraine Nemko Scandinavia AS
	IEC 60945	TEST REPORT No. 11/11 Issue 1	Testing center Omega, Ukraine
3.2	EN 61097-2	TEST REPORT No. 11/11 Issue 1	Testing center Omega, Ukraine
	ETSI EN 302 152-1	TEST REPORT No. 11/11 Issue 1 REP016878	Testing center Omega, Ukraine Nemko Scandinavia AS

#### Additional documentation

- RED technical file by Jotron dated: 2023-09-27

### ADDITIONAL INFORMATION

None.

#### Certificate Revision

Revision #	Date	Description
1.0	2023-10-06	First issued

<< End of certificate >>