

**APPROVED**

Testing standards:  
GOST 30852.0-2002 (IEC 60079-0:1998),  
GOST 30852.10-2002 (IEC 60079-11:1998).

**Deputy Director of HTC "Pribor-Test", LLC**  
*signature* **G.K. Strelichev**

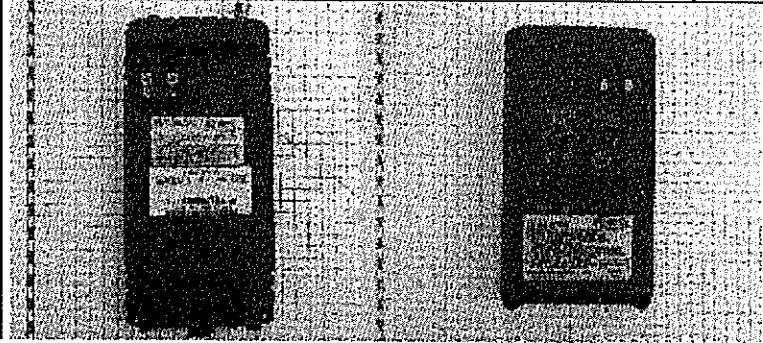
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Seal: Russian Federation \* Moscow \* Zelenograd \* Limited  
Liability Company \* OGRN 1065044033053 \* "Pribor-Test"

**EX TEST REPORT**

**NO. T160 LAB-EXP/12-15 DD. DECEMBER 24, 2015.**

**Test object - Portable explosion-proof radio station HX400IS**

1. Sample (-s) for testing Model/type	Portable explosion-proof radio station HX400IS			
2. Test centre Address	Hardware Test Centre "Pribor-Test", LLC 7, 4807 drive, bldg. 1, 141489, Zelenograd, Moscow Telephone: +7(499) 272-41-94, Fax: +7(495) 995-90-07 E-mail: <a href="mailto:info@pribor-test.ru">info@pribor-test.ru</a>			
3. Report prepared by Position/Signature Approval date	Yu.N. Teryaev Leading Test Engineer December 24, 2015			
4. Applicant Address	"RPN Sfera", LLC 6, 1 <sup>st</sup> Kozhevnichesty Lane, bldg. 1, 115114, Moscow			
5. Test basis	Request of "RPN Sfera", LLC			
6. Sampling Number of samples	"RPN Sfera", LLC Sampling Report No. 983/AO dd. December 02, 2015 One			
7. Sample receipt date	December 08, 2015			
8. Testing place	At Test Centre location			
9. Test method in accordance with	GOST 30852.0-2002 (IEC 60079-0:1998)		Explosion-proof electrical apparatus Part 0. General Requirements	
	GOST 30852.10-2002 (IEC 60079-11:1999)		Explosion-proof electrical apparatus Part 11. i intrinsically-safe circuit	
10. Test equipment	Description	Part number	Certificate Issue date	Validity
	Intrinsic safety circuit testing facility "STA facility"	02/но/12	B02-11-15 06.11.2015	06.11.2016
	Facility for mechanical testing "SMI FACILITY"	04/но/13	A04-10-13 21.10.2013	21.10.2016
	Set for electrical testing "KEI Set"	05/но/13	A05-11-13 18.11.2013	18.11.2016
	Set for heat testing "KTI Set"	06/но/13	A06-10-13 28.10.2013	28.10.2016
	Set for determination of non-metallic parts of enclosure surface resistance "KSP Set"	11/но/13	A11-19-13 19.10.2013	19.10.2016
11. Testing sample identification	HX400IS, Serial No. 3M160341, date of manufacture - 2015; complies with specified type and technical documentation.			
11.1. Apparatus manufacturer Location	"YAESU MUSEN CO., LTD" 2-5-8 Higashi-Shinagawa, Shinagawa-ku, Tokyo 140-0002, Japan			
11.2. Technical documentation	Operating instructions EM039N252 Set of drawings FNB-115LIIS			

<p>Explosion protection marking Specifications</p>	<p>1 Ex ib IIB T3 X</p> <p>Ambient temperature range: -30 °... +60 °C  Protection degree according to GOST 14254-96 (IEC 529-89): IPX8  Frequency range: 156.025 MHz - 163.275 MHz (marine)  134.000 MHz - 174.000 MHz (LMR)  Frequency spacing: 25 kHz/12.5 kHz  Frequency stability: +2.5 ppm  Antenna impedance: 50 Ohm  Supply voltage: 7.4 VDC  Power source: Li-ion battery; 7.4 V; 2300 mA/h  Current drain: 320 mA (reception), 50 mA (standby mode),  10 mA (standby, save mode is on)  1.6 A/0.8 A at 5 W/1 W correspondingly  Transmitter power: 5 W/1 W at 7.4 V supply</p>
<p>11.5. Explosion protection description</p>	<p>Portable explosion-proof radio station HX400IS features USB two-way unit. For detailed design description please see Operating Instructions.</p> <p>The Radio station safety features are ensured by explosion protection "ib intrinsically-safe circuit" according to GOST 30852.10-2002 and also design in accordance with GOST 30852.0-2002, namely:</p> <ul style="list-style-type: none"> <li>- The Radio station is executed in water-proof (IPX8 according to GOST 14254-96) enclosure with high mechanical strength;</li> <li>- The maximum Radio Station parts heat temperature does not exceed 200 °C considering the maximum ambient temperature (-30 °... +60 °C) that conforms to specified temperature rating T3;</li> <li>- The Radio station design, enclosure material properties, printing circuit wiring provide clearances, creepage distances and dielectric properties;</li> <li>- The circuit maximum current and voltage limitation;</li> <li>- Load of intrinsically-safe components shall not exceed 2/3 current nominal rating;</li> <li>- Design of Yaesu Musen FNB-115LIIS Li-ion battery (7.4 V; 2300 mA/h) that powers the Radio station;</li> </ul> <p>And also meeting of safety requirements indicated in Operating instructions and special application conditions (X mark in explosion protection marking) in the Radio station operation in explosive environments:</p> <ul style="list-style-type: none"> <li>- It is allowed to use only Yaesu Musen FNB-115LIIS Li-ion batteries;</li> <li>- Remove, discharge and charge the battery only outside the explosive zone;</li> <li>- It is allowed to use only chargers recommended by the manufacturer;</li> <li>- It is allowed to use only external speakerphones recommended by the manufacturer;</li> <li>- It is not allowed to open, repair and disconnection of the Radio station in explosive zone.</li> </ul>
<p>11.6. Photo/Copy of Ex-label Address</p>	 <p>The explosion protection marking and special application conditions in accordance with TR CU 012/2011 are made according to certification results and recommendations of certification body.</p>
<p>12. Explosion protection compliance inspection and test results</p>	<p>See. Annex A</p>

**CONCLUSION**

Apparatus samples  
**Portable explosion-proof radio station HX400IS**  
have passed tests for compliance with clauses of  
GOST 30852.0 -2002, GOST 30852. 10-2002 standards,  
applied to the tested apparatus.

*The test report cannot be reproduced in full or partially without prior  
written consent of the Test Centre.  
Test results shall refer only to tested samples.*

Перевод данного текста с русского языка на английский выполнен переводчиком

переводчик Степанова Ирина Васильевна

Российская Федерация

Город Москва

Девятнадцатого февраля две тысячи восемнадцатого года

Я, Виноградова Ольга Юрьевна, нотариус города Москвы, свидетельствую подлинность подписи переводчика Степановой Ирины Васильевны.

Подпись сделана в моем присутствии.

Личность подписавшего документ установлена.

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*[Handwritten signature]*  
О.Ю. Виноградова

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