

Testing Report

NFC Antenna(13.56 MHz)

Customer Name: AJAX SYSTEMS

Product Name: EN54 FireHub Jeweller

Sample Model: -

Issue Date: 2026.03.11

 Engineer: B.Hermaniuk	Date: 2026.03.11
 Approver: O. Tymoshenko	Date: 2026.03.11

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1. General Information

1.1. General information of testing institutions

Name	«AJAX SYSTEMS MANUFACTURING» LLC
Address	5 Sklyarenka Str., Kyiv, 04073, Ukraine
Web-address	https://ajax.systems/
E-mail	kuraksa.s@ajax.systems

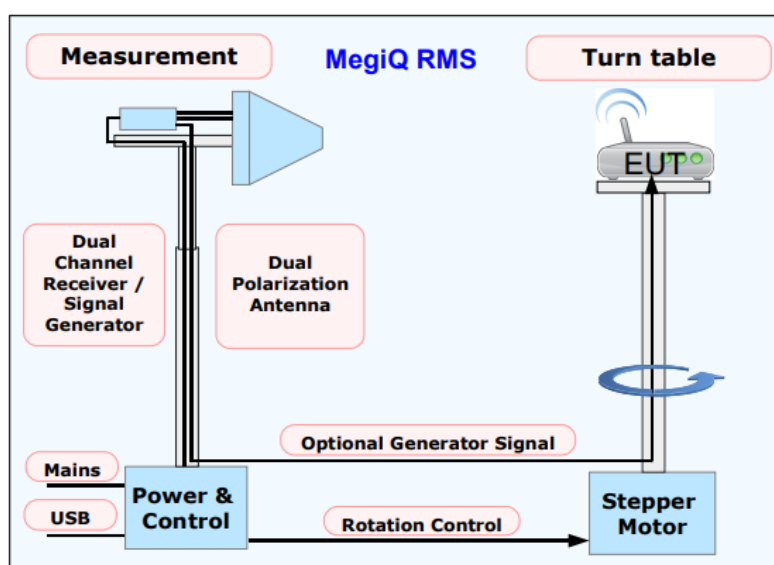
1.2. Testing principle

The MegiQ Radiation Measurement System (RMS) is a compact test system that performs 3-axis radiation pattern measurement in non-anechoic spaces.



RMS0440 – RMS0460
RMS0640 – RMS0660

Measurement System



1.3. Test equipment

Equipment	Manufacturer	Model	Identifier (serial number)	Calibration date
Vector network analyzer	MegiQ	RMS0460	00003028	10/2024 – 10/2025
Antenna	Narda Safety Test Solutions	LP-02	001ZX10321	8/2024 – 8/2025
Shielded room		—	—	—
Power&Control unit	MegiQ	---	—	—
Turn table	MegiQ	---	—	—
Personal computer	ASUS	Vivobook S M5606UA-MX026	380000281174	—

1.4. Test environment

Temperature	22.5°C
Humidity	58%RH
Pressure	100.20kPa

1.5. Statement

- (1) The test results in the report are only applicable to the tested samples and the tested samples work under the environment described in the report.
- (2) Only «AJAX SYSTEMS MANUFACTURING» LLC have the right to modify the report, and the modification information shall be annotated in the revision form.
- (3) Any objection to this report shall be raised within 30 days after formal confirmation of the report.
- (4) This report is invalid if there is any evidence that the sample information provided is falsified.
- (5) The report is invalid without the signature of the approver

2. Sample Information

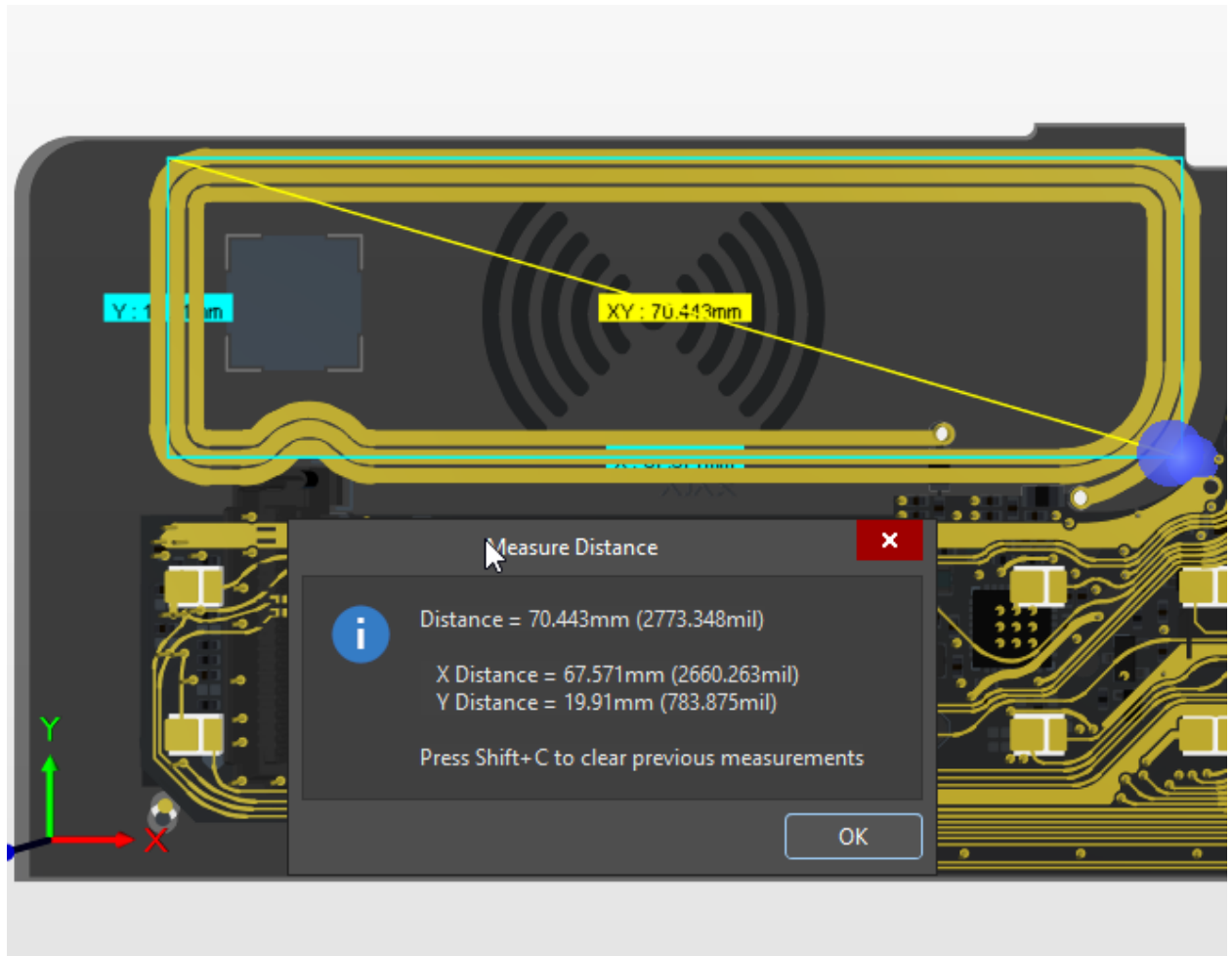
2.1. Client

Name	«AJAX SYSTEMS MANUFACTURING» LLC
Address	5 Sklyarenka Str., Kyiv, 04073, Ukraine
Manufacturer	«AJAX SYSTEMS MANUFACTURING» LLC

2.2. Description of EUT

Product Name	EN54 FireHub Jeweller
Antenna Size	20mm*68mm
Serial No.	-
Antenna Type	Planar Coil
Test Item	VSWR; Antenna gain; Radiation pattern
Frequency Range	13.56MHz
HW info	ECP.001.MBR.001v4 ECP.001.LED.001v4 ECP.001.PWB.001v4 ECP.001.GSM.001v3 ECP.001.BKT.001v1

2.3.EUT appearance



3. Test Result

3.1. Test standard

Name	Parameter	Method	Standard no.
Mobile communication antenna	Antenna gain	Generic specification for antennas used in the mobile communications	GB/T 9410-2008
	Radiation pattern		
	VSWR		
Antenna		IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149-1979
	Gain and directivity		

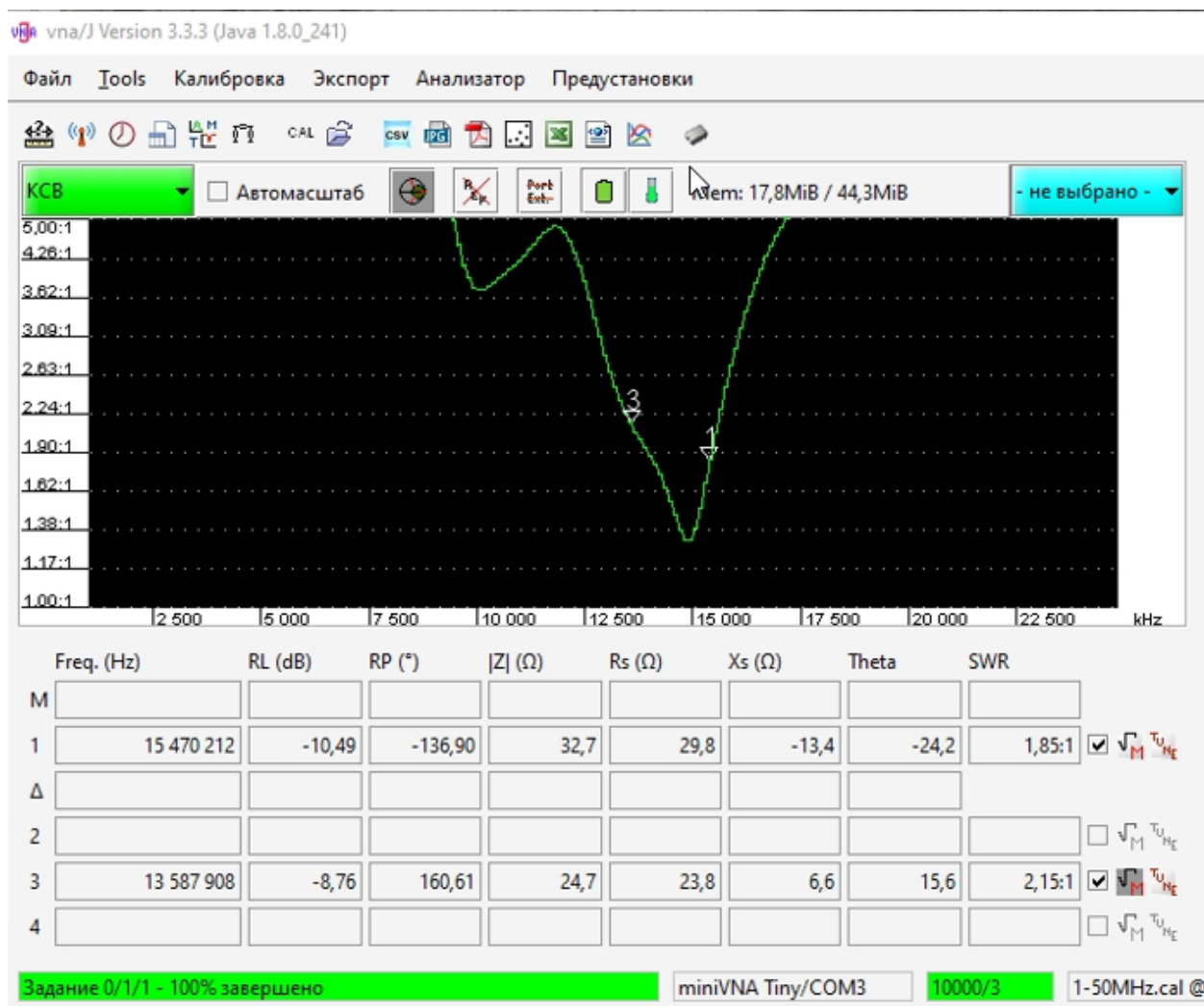
3.2. Test uncertainty

The uncertainty was calculated on the basis of the GUM published by ISO, using the inclusion factor of K=2 and the 95% confidence level to express the extended uncertainty.

Item	Uncertainty
VSWR	± 0.2
Antenna gain	± 0.6
Radiation efficiency	± 0.6

3.3. Test data

3.3.1. VSWR parameters



3.3.2. VSWR data

Frequency/MHz	13.56
VSWR	2.1

3.3.3. Typical efficiency and gain

Frequency/MHz	13.56
Peak Gain/dBi	-7

3.3.4. Typical free space radiation pattern

13.56 MHz

