



# CERTIFICATE *of* EXAMINATION



[Certificate Validation](#)

## NOTIFIED BODY EU-TYPE EXAMINATION CERTIFICATE

*NTEK2147-EU / 16 Dec 2024 / Rev A*

**Radio Equipment Directive (RED) 2014/53/EU**

MiCOM Labs Inc., Notified Body Number 2280 declares, on the basis of the assessment of the tests and the technical documentation provided by the applicant that the following product complies with the essential requirements of the above noted Directive.

Product Name:  
**Spatial Computing Box**

Approval Holder Name:  
**Matrixed Reality Technology Co., Ltd.**



  
**Gordon Hurst, Product Certifier**

This Certificate is Issued under the Authority of:  
**MiCOM Labs Inc., 575 Boulder Court, Pleasanton, California 94566, USA**

Notified Body Number: 2280



# Notified Body EU-Type Examination Certificate

**NTEK2147-EU / 16 Dec 2024 / Rev A**

**for Radio Equipment Directive (RED) 2014/53/EU**

Product Name:

**Spatial Computing Box**

Product Model Numbers: **X4100**

Brand Name: **XREAL**

**Approval Holder:** **Matrixed Reality Technology Co., Ltd.**, No.2-3 Xinji Road, Singapore Industrial Park, Xinwu District, Wuxi, Jiangsu, PRC

**Product Manufacturer:** **Matrixed Reality Technology Co., Ltd.**, No.2-3 Xinji Road, Singapore Industrial Park, Xinwu District, Wuxi, Jiangsu, PRC

## Standards

Group	Name
Article 3.1(a) Health & Safety	EN 50566:2017; EN 62209-2:2010; EN 62479:2010; EN IEC 62368-1:2020+A11:2020
Article 3.1(b) Electromagnetic Compatibility	EN 301 489-1 V2.2.3 EN 301 489-3 V2.3.2 EN 301 489-17 V3.2.4 EN 301 489-19 V2.2.1 EN 301 489-52 V1.2.1 EN 55032:2015+A1:2020 EN 55035:2017+A11:2020 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A2:2021
Article 3.2 Effective Use of Spectrum	EN 300 328 V2.2.2 EN 301 893 V2.1.1 EN 300 440 V2.2.1 EN 301 908-1 V15.2.1 EN 301 908-13 V13.2.1 TS 138 521-1 V16.4.0 TS 138 521-3 V16.4.0 EN 303 413 V1.2.1



# Notified Body EU-Type Examination Certificate

**NTEK2147-EU / 16 Dec 2024 / Rev A**

**for Radio Equipment Directive (RED) 2014/53/EU**

## Annex 1 to EU-Type Examination

### EU-Type examination on the essential requirements Article 3

<b>Article 3.1 - a) Health and Safety</b>	Assessed
<b>Article 3.1 - b) Electromagnetic compatibility</b>	Assessed
<b>Article 3.2 - Effective use of radio spectrum</b>	Assessed
<b>Article 3.3 - a) interworks with Accessories/Chargers</b>	Not Applicable
<b>Article 3.3 - b) interworks with Radio Networks</b>	Not Applicable
<b>Article 3.3 - c) can connect to interfaces</b>	Not Applicable
<b>Article 3.3 - d) does not harm the network, misuse network resources</b>	Not Applicable
<b>Article 3.3 - e) privacy protections</b>	Not Applicable
<b>Article 3.3 - f) fraud protections</b>	Not Applicable
<b>Article 3.3 - g) emergency services access</b>	Not Applicable
<b>Article 3.3 - h) assist users with disabilities</b>	Not Applicable
<b>Article 3.3 - i) integrity of software</b>	Not Applicable
<b>Article 3.4 - Subject to common charger requirements</b>	Not Applicable

#### Note 1: Article 3.4 Dates of Application

This aspect of the EU-Type Examination Certificate does not become legally applicable until the dates indicated below;-

**28th December 2024** – Date of Applicability for handheld mobile phones, tablets, digital cameras, headphones, headsets, handheld videogame consoles, portable speakers, e-readers, keyboards, mice, portable navigation systems, earbuds.

**28th April 2026** – Date of Applicability for laptops.

#### Description of Apparatus

Company Name	Matrixed Reality Technology Co., Ltd.
Certification No.	NTEK2147-EU
Issue Date / Rev	16 Dec 2024 / Rev A
Equipment Description	Spatial Computing Box
Hardware Version	X4100_DVT2
Firmware Version	N/A



# Notified Body EU-Type Examination Certificate

**NTEK2147-EU / 16 Dec 2024 / Rev A**

**for Radio Equipment Directive (RED) 2014/53/EU**

## Emission Information

Technology	Frequency MHz		Emission Designator	RF Power		Field Strength
	From	To		Max	Type	
BT	2402 MHz	2480 MHz		4.93dBm	EIRP	--
BLE	2402 MHz	2480 MHz		5.32 dBm	EIRP	--
WIFI2.4G	2412 MHz	2472 MHz		17.91dBm	EIRP	--
WIFI5.2G	5180 MHz	5240 MHz		16.61dBm	EIRP	--
WIFI5.3G	5260 MHz	5320 MHz		16.36dBm	EIRP	--
WIFI5.6G	5500 MHz	5700 MHz		16.55dBm	EIRP	--
WIFI5.8G	5745 MHz	5825 MHz		13.81dBm	EIRP	--
LTE B1	1920 MHz	1980MHz		24.7dBm	Conducted	--
LTE B3	1710 MHz	1785 MHz		24.74dBm	Conducted	--
LTE B7	2500 MHz	2570 MHz		23.78dBm	Conducted	--
LTE B8	880MHz	915 MHz		24.81dBm	Conducted	--
LTE B20	832 MHz	862 MHz		24.56dBm	Conducted	--
LTE B28	703 MHz	748MHz		24.47dBm	Conducted	--
LTE B38	2570 MHz	2620 MHz		23.56 dBm	Conducted	--
LTE B40	2300 MHz	2400 MHz		22.56dBm	Conducted	--
NR n1	1920 MHz	1980MHz		23.27dBm	Conducted	--
NR n3	1710 MHz	1785 MHz		23.45dBm	Conducted	--
NR n7	2500 MHz	2570 MHz		23.45dBm	Conducted	--
NR n8	880 MHz	815 MHz		23.64dBm	Conducted	--
NR n20	832 MHz	862 MHz		23.45dBm	Conducted	--
NR n28	703 MHz	748 MHz		23.28dBm	Conducted	--
NR n38	2570 MHz	2620 MHz		23.04dBm	Conducted	--
NR n40	2300 MHz	2400 MHz		23.82dBm	Conducted	--
NR n77	3300 MHz	4200 MHz		27.04dBm	Conducted	--
NR n78	3300 MHz	3800 MHz		26.68dBm	Conducted	--
EN-DC: DC_1A_n3A	1710 MHz	1785MHz		24.99dBm	Conducted	--
EN-DC: DC_1A_n7A	2500 MHz	2570 MHz		22.98 dBm	Conducted	--
EN-DC: DC_1A_n8A	880 MHz	815 MHz		25.09dBm	Conducted	--
EN-DC: DC_1A_20A	832 MHz	862 MHz		25.69 dBm	Conducted	--
EN-DC: DC_1A_28A	703 MHz	748 MHz		25.2 dBm	Conducted	--
EN-DC: DC_1A_38A	2570 MHz	2620 MHz		23.29dBm	Conducted	--
EN-DC: DC_1A_40A	2400 MHz	2300 MHz		22.96dBm	Conducted	--
EN-DC: DC_1A_77A	3300 MHz	4200 MHz		26.61dBm	Conducted	--
EN-DC: DC_1A_78A	3300 MHz	3800 MHz		26.36dBm	Conducted	--
EN-DC: DC_3A_n1A	1920 MHz	1980MHz		25.12dBm	Conducted	--
EN-DC: DC_3A_n7A	2500 MHz	2570 MHz		23.53dBm	Conducted	--



# Notified Body EU-Type Examination Certificate

**NTEK2147-EU / 16 Dec 2024 / Rev A**

**for Radio Equipment Directive (RED) 2014/53/EU**

## Emission Information - Continued

Technology	Frequency MHz		Emission Designator	RF Power		Field Strength
	From	To		Max	Type	
EN-DC: DC_3A_n20A	832 MHz	862 MHz		25.61dBm	Conducted	--
EN-DC: DC_3A_n8A	880 MHz	815 MHz		25.25dBm	Conducted	--
EN-DC: DC_3A_n28A	703 MHz	748 MHz		25.56dBm	Conducted	--
EN-DC: DC_3A_n38A	2570 MHz	2620 MHz		23.39dBm	Conducted	--
EN-DC: DC_3A_n40A	2300 MHz	2400 MHz		23.22 dBm	Conducted	--
EN-DC: DC_3A_n77A	3300 MHz	4200 MHz		26.86dBm	Conducted	--
EN-DC: DC_3A_n78A	3300 MHz	3800 MHz		26.53dBm	Conducted	--
EN-DC: DC_7A_n1A	1920 MHz	1980MHz		23.3dBm	Conducted	--
EN-DC: DC_7A_n3A	1710 MHz	1785 MHz		23.6dBm	Conducted	--
EN-DC: DC_7A_n8A	880 MHz	815 MHz		23.56dBm	Conducted	--
EN-DC: DC_7A_n20A	832 MHz	862 MHz		23.59dBm	Conducted	--
EN-DC: DC_7A_n28A	703 MHz	748 MHz		23.74 dBm	Conducted	--
EN-DC: DC_7A_n77A	3300 MHz	4200 MHz		26.9dBm	Conducted	--
EN-DC: DC_7A_n78A	3300 MHz	3800 MHz		26.44dBm	Conducted	--
EN-DC: DC_8A_n1A	1920 MHz	1980MHz		25.14dBm	Conducted	--
EN-DC: DC_8A_n3A	1710 MHz	1785 MHz		25.63dBm	Conducted	--
EN-DC: DC_8A_n7A	2500 MHz	2570 MHz		23.3dBm	Conducted	--
EN-DC: DC_8A_n40A	2300 MHz	2400 MHz		23.07dBm	Conducted	--
EN-DC: DC_8A_n77A	3300 MHz	4200 MHz		26.81dBm	Conducted	--
EN-DC: DC_8A_n78A	3300 MHz	3800 MHz		26.35dBm	Conducted	--
EN-DC: DC_20A_1A	1920 MHz	1980MHz		25.52 dBm	Conducted	--
EN-DC: DC_20A_3A	1710 MHz	1785 MHz		25.49dBm	Conducted	--
EN-DC: DC_20A_7A	2500 MHz	2570 MHz		23.38dBm	Conducted	--
EN-DC: DC_20A_38A	703 MHz	748 MHz		23.31dBm	Conducted	--
EN-DC: DC_20A_78A	3300 MHz	3800 MHz		26.52dBm	Conducted	--
EN-DC: DC_28A_3A	1710 MHz	1785 MHz		25.59dBm	Conducted	--
EN-DC: DC_28A_7A	2500 MHz	2570 MHz		22.94dBm	Conducted	--
EN-DC: DC_28A_77A	3300 MHz	4200 MHz		26.6dBm	Conducted	--
EN-DC: DC_28A_78A	3300 MHz	3800 MHz		26.27 dBm	Conducted	--
EN-DC: DC_38A_1A	1920 MHz	1980MHz		21.65dBm	Conducted	--
EN-DC: DC_38A_3A	1710 MHz	1785 MHz		24.33dBm	Conducted	--
EN-DC: DC_38A_8A	880 MHz	815 MHz		24.7dBm	Conducted	--
EN-DC: DC_38A_28A	2570 MHz	2620 MHz		24.82dBm	Conducted	--
EN-DC: DC_38A_78A	3300 MHz	3800 MHz		27.63dBm	Conducted	--
EN-DC: DC_40A_1A	1920 MHz	1980MHz		24.55dBm	Conducted	--
EN-DC: DC_40A_77A	3300 MHz	4200 MHz		27.54dBm	Conducted	--



# Notified Body EU-Type Examination Certificate

**NTEK2147-EU / 16 Dec 2024 / Rev A**

**for Radio Equipment Directive (RED) 2014/53/EU**

## Emission Information - Continued

Technology	Frequency MHz		Emission Designator	RF Power		Field Strength
	From	To		Max	Type	
EN-DC: DC_40A_78A	3300 MHz	4200 MHz		27.65dBm	Conducted	--
GPS	1575.42MHz	1575.42MHz		--	--	--

## Technical Construction File Details: (Documents Reviewed)

### Technical Report(s):

Article 3.1(a) Health & Safety:

S24080507303001

S24080507304001

Article 3.1(b) Electromagnetic Compatibility:

S24080507301001

Article 3.2 Effective Use of Spectrum:

S24080507302001

S24080507302002

S24080507302003

S24080507302004

S24080507302005

S24080507302006

S24080507302007

S24080507302008

### Supporting Documentation:

Service Agreement

Letter of Authorization

EU Application

EU Declaration of Conformity

Block Diagram

BOM or Parts List

External Photographs

Internal Photographs

Label and its Location

Operational Description

PCB Layout

Risk Assessment Report

Schematics

User Manual

## Scope

This EU-Type Examination Certificate is given in respect of compliance of radio spectrum use Article 3 Paragraph 2 of the RED Directive 2014/53/EU. The scope of the evaluation and this certificate relates only to those items identified in 'Annex 1 to EU - Type Examination Certificate' for the specific product and Certificate number referenced above.

EU Type Examination was performed according to Module B: EU-type examination procedure per Annex III the Directive on the essential requirements in Article 3, for the specific product and Certificate Number referenced above.

This EU Type Examination Certificate is based upon the review of the Technical Documentation and supporting evidence for the adequacy of the technical design solution, it is only valid in conjunction with the attached Annexes. The scope of this statement relates to a single sample of the apparatus identified above and of the submitted documents only.



### Annex 2 to EU-Type Examination Obligations of the Applicant

#### Ref RED 2014/53/EU Article 10 - Obligations of manufacturers

1. When placing their radio equipment on the market, manufacturers shall ensure that it has been designed and manufactured in accordance with the essential requirements set out in Article 3.
2. Manufacturers shall ensure that radio equipment shall be so constructed that it can be operated in at least one Member State without infringing applicable requirements on the use of radio spectrum.
3. Manufacturers shall draw up the technical documentation referred to in Article 21 and carry out the relevant conformity assessment procedure referred to in Article 17 or have it carried out. Where compliance of radio equipment with the applicable requirements has been demonstrated by that conformity assessment procedure, manufacturers shall draw up an EU declaration of conformity and affix the CE marking.
4. Manufacturers shall keep the technical documentation and the EU declaration of conformity for 10 years after the radio equipment has been placed on the market.
5. Manufacturers shall ensure that procedures are in place for series production to remain in conformity with this Directive. Changes in radio equipment design or characteristics and changes in the harmonised standards or in other technical specifications by reference to which conformity of radio equipment is declared shall be adequately taken into account.

When deemed appropriate with regard to the risks presented by radio equipment, manufacturers shall, to protect the health and safety of end-users, carry out sample testing of radio equipment made available on the market, investigate, and, if necessary, keep a register of complaints, of non-conforming radio equipment and radio equipment recalls, and shall keep distributors informed of any such monitoring.

6. Manufacturers shall ensure that radio equipment which they have placed on the market bears a type, batch or serial number or other element allowing its identification, or, where the size or nature of the radio equipment does not allow it, that the required information is provided on the packaging, or in a document accompanying the radio equipment.
7. Manufacturers shall indicate on the radio equipment their name, registered trade name or registered trade mark and the postal address at which they can be contacted or, where the size or nature of radio equipment does not allow it, on its packaging, or in a document accompanying the radio equipment. The address shall indicate a single point at which the manufacturer can be contacted. The contact details shall be in a language easily understood by end-users and market surveillance authorities.
8. Manufacturers shall ensure that the radio equipment is accompanied by instructions and safety information in a language which can be easily understood by consumers and other end-users, as determined by the Member State concerned. Instructions shall include the information required to use radio equipment in accordance with its intended use. Such information shall include, where applicable, a description of accessories and components, including software, which allow the radio equipment to operate as intended. Such instructions and safety information, as well as any labelling, shall be clear, understandable and intelligible.

The following information shall also be included in the case of radio equipment intentionally emitting radio waves:

- (a) frequency band(s) in which the radio equipment operates;
- (b) maximum radio-frequency power transmitted in the frequency band(s) in which the radio equipment operates.

9. Manufacturers shall ensure that each item of radio equipment is accompanied by a copy of the EU declaration of conformity or by a simplified EU declaration of conformity. Where a simplified EU declaration of conformity is provided, it shall contain the exact internet address where the full text of the EU declaration of conformity can be obtained.

10. In cases of restrictions on putting into service or of requirements for authorisation of use, information available on the packaging shall allow the identification of the Member States or the geographical area within a Member State where restrictions on putting into service or requirements for authorisation of use exist. Such information shall be completed in the instructions accompanying the radio equipment. The Commission may adopt implementing acts specifying how to present that information. Those implementing acts shall be adopted in accordance with the advisory procedure referred to in Article 45(2).





11. Manufacturers who consider or have reason to believe that radio equipment which they have placed on the market is not in conformity with this Directive shall immediately take the corrective measures necessary to bring that radio equipment into conformity, to withdraw it or recall it, if appropriate. Furthermore, where the radio equipment presents a risk, manufacturers shall immediately inform the competent national authorities of the Member States in which they made the radio equipment available on the market to that effect, giving details, in particular, of the noncompliance, of any corrective measures taken and of the results thereof.

12. Manufacturers shall, further to a reasoned request from a competent national authority, provide it with all the information and documentation in paper or electronic form necessary to demonstrate the conformity of the radio equipment with this Directive, in a language which can be easily understood by that authority. They shall cooperate with that authority, at its request, on any action taken to eliminate the risks posed by radio equipment which they have placed on the market.

#### Ref RED 2014/53/EU Article 11 - Authorised representatives

1. A manufacturer may, by a written mandate, appoint an authorised representative.

The obligations laid down in Article 10(1) and the obligation to draw up technical documentation laid down in Article 10(3) shall not form part of the authorised representative's mandate.

2. An authorised representative shall perform the tasks specified in the mandate received from the manufacturer. The mandate shall allow the authorised representative to do at least the following:

(a) keep the EU declaration of conformity and the technical documentation at the disposal of national market surveillance authorities for 10 years after the radio equipment has been placed on the market;

(b) further to a reasoned request from a competent national authority, provide that authority with all the information and documentation necessary to demonstrate the conformity of radio equipment;

(c) co-operate with the competent national authorities, at their request, on any action taken to eliminate the risks posed

#### Article 19 General principles of the CE marking

1. The CE marking shall be subject to the general principles set out in Article 30 of Regulation (EC) No 765/2008.

2. On account of the nature of radio equipment, the height of the CE marking affixed to radio equipment may be lower than 5 mm, provided that it remains visible and legible.

#### Article 20 Rules and conditions for affixing the CE marking and the identification number of the notified body

1. The CE marking shall be affixed visibly, legibly and indelibly to the radio equipment or to its data plate, unless that is not possible or not warranted on account of the nature of radio equipment. The CE marking shall also be affixed visibly and legibly to the packaging.

2. The CE marking shall be affixed before the radio equipment is placed on the market.

3. Member States shall build upon existing mechanisms to ensure correct application of the regime governing the CE marking and shall take appropriate action in the event of improper use of that marking.