

FCC RF Exposure Exemption report

for

Receiver Unit

Model No.: E02C

FCC ID: YWO-E02C

of

Applicant: ELECOM CO., LTD.

**Address: Fushimimachi 4-1-1, Chuo-ku, Osaka City, Osaka
Japan 541-8765**

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: TW1072, TW1140, TW1146, TW1477, TW0037

Industry Canada filed test laboratory Reg. No.: 20037, 31634



Report No.: W6M22603-25043-EE

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.
TEL: 886-2-66068877 FAX: 886-2-66068879 E-mail: wts@wts-lab.com

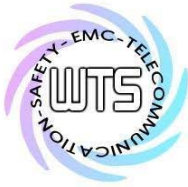
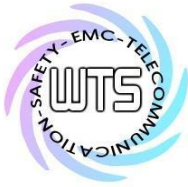


TABLE OF CONTENTS

1	GENERAL INFORMATION.....	2
1.1	NOTES	2
1.2	TESTING LABORATORY	3
1.2.1	Location	3
1.2.2	Details of accreditation status	3
1.3	DETAILS OF APPROVAL HOLDER	3
1.4	APPLICATION DETAILS.....	4
1.5	GENERAL INFORMATION OF TEST ITEM.....	4
1.6	TEST STANDARDS	4
2	TECHNICAL TEST.....	5
2.1	SUMMARY OF TEST RESULTS.....	5
2.2	TEST ENVIRONMENT	5
2.3	TEST EQUIPMENT LIST.....	6
3	RF EXPOSURE TEST EXEMPTIONS	7
4	EXEMPTION CALCULATION.....	9



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22603-25043-EE

FCC ID: YWO-E02C

1 General Information

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification.

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems. The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

Laboratory disclaimer-

1. The test results of this test report relate exclusively to the item tested as specified in 1.5.
2. The test report may only be reproduced or published in full.
3. Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.
4. Antenna gain is provided by applicant and laboratory issue relevant data and results.

Tester:

April 08, 2026

Sky Liu

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

April 08, 2026

Kevin Wang

Date

WTS

Name

Signature



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22603-25043-EE

FCC ID: YWO-E02C

1.2 Testing laboratory

1.2.1 Location

10m OATS

No.5-1, Lishui, Shuang Sing Village, Wanli Dist.,
New Taipei City 207, Taiwan (R.O.C.)

3 meter semi-anechoic chamber

No. 99, Sec. 1, Balian Rd., Xizhi Dist.,
New Taipei City 221032, Taiwan (R.O.C.)

Worldwide Testing Services (Taiwan) Co., Ltd.
6F., No. 58, Ln. 188, Ruiguang Rd., Neihu Dist.,
Taipei City 114, Taiwan (R.O.C.)
Tel: 886-2-6606-8877

1.2.2 Details of accreditation status

Accredited testing laboratory

FCC filed test laboratory Reg. No.: TW1072, TW1140, TW1146, TW1477, TW0037

Industry Canada filed test laboratory Reg. No.: 20037, 31634

Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd.

Name:	./.
Accredited no.:	./.
Street:	./.
Town:	./.
Country:	./.

1.3 Details of approval holder

Name:	ELECOM CO., LTD.
Street:	Fushimimachi 4-1-1, Chuo-ku,
Town:	Osaka City, Osaka
Country:	Japan 541-8765



Registration number: W6M22603-25043-EE

FCC ID: YWO-E02C

1.4 Application details

Date of receipt of test item (1st): August 28, 2025 (NCC)
Date of test (1st): from August 29, 2025 to September 08, 2025 (NCC)
Date of receipt (2nd): March 27, 2026

1.5 General information of Test item

Type of test item: Receiver Unit
Model no.: E02C
Brand name: ELECOM
Multi-listing model no.: ./.
Transmitting frequency: 2403-2480 MHz
Maximum output power: 85.69 dBuV/m
Sample no.: #02

Classification:

Fixed Device	☐
Mobile Device (Human Body distance > 20cm)	☐
Portable Device (Human Body distance < 20cm)	☒

Manufacturer: (if applicable)

Name: ./.
Street: ./.
Town: ./.
Country: ./.

1.6 Test standards

47 CFR FCC Part 2 Subpart J, section 2.1093

FCC KDB Publicatio

447498 D04 Interim General RF Exposure Guidance v01



Registration number: W6M22603-25043-EE

FCC ID: YWO-E02C

2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed. ☒

or

The deviations were ascertained in the course of the tests performed. ☐

2.2 Test environment

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Power supply: USB 5 Vd.c.

Extreme conditions parameters: ./.

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Output Power Measurement (3M-966A)	Expanded Uncertainty : 0.009-30 MHz : 1.85 dB 30-1000 MHz : 4.21 dB 1-18 GHz : 3.19 dB 18-40 GHz : 1.90 dB

The decision rule is: Measurement uncertainty is not included in the calculation of test results.



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22603-25043-EE

FCC ID: YWO-E02C

2.3 Test Equipment List

966A

20dB Bandwidth&Bandedge&Power&Bandedge&Spurious Emission

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-RE 153	Signal Analyzer	FSV40	101929	R&S	2025/9/10	2026/9/9
ETSTW-RE 154	EMI Test Receiver	ESR3	102829	R&S	2026/2/13	2026/4/8
ETSTW-RE 160	Amplifier Module	CHC 3	None	WTS	2025/7/11	2026/7/10
ETSTW-RE 177	TRILOG Broadband Antenna	VULB 9168&EMCI-N-6-06	01380&AT-06007	SCHWARZBECK&EMC	2025/3/10	2026/3/9
ETSTW-RE 178	Double Ridged Guide Horn Antenna	DRH18-E	210505A18ES	RFSPIN	2026/3/26	2027/3/25
ETSTW-Cable 077	SMA type cable (10m)	EMC104-SM-SM-10000	230511	EMCI	2025/7/11	2026/7/10
ETSTW-Cable 084	SMA type cable (1m)	SF104-11SMA-1000	816477/4	HONOVA	2025/7/11	2026/7/10
ETSTW-Cable 089	SMA type cable (2m)	SF104-11SMA-2000	SN 811889/4	HUBER+SUHNER	2025/7/11	2026/7/10
WTSTW-SW 002	EMI TEST SOFTWARE	EZ EMC	None	Farad	Version ETS-03A1 Version EMEC-3A1+	
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2025/7/31	2026/7/30
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2025/9/12	2026/9/11
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2025/9/12	2026/9/11
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2025/9/12	2026/9/11

AC Conducted Emission

Code No.	Test equipment	Mode No.	Serial No.	Brand	Cal. Date	Next Cal. Date
ETSTW-CE 032	EMI Test Receiver	ESR3	102830	R&S	2025/5/5	2026/5/4
ETSTW-CE 035	AC Power Source	AFC-150	A2000386	All power	Function Test	
ETSTW-CE 034	Line-Impedance Stabilisation	NSLK8127	01087	SCHWARZBECK	2025/7/17	2026/7/16
ETSTW-Cable 092	BNC Cable (3m)	EMCCFD-300-BM-BM-3000	240108	EMCI	2026/1/8	2027/1/7
WTSTW-SW 002	EMI TEST SOFTWARE	EZ EMC	None	Farad	Version ETS-03A1 Version EMEC-3A1+	



Registration number: W6M22603-25043-EE

FCC ID: YWO-E02C

3 RF Exposure Test Exemptions

3.1 1-mW Test Exemption

$$P \leq 1\text{mW}$$

When the aggregate maximum available power of all transmitting antennas is ≤ 1 mW in the same time-averaging period.

3.2 SAR-Based Exemption

Max. time-averaged power(conducted power) or $ERP \leq P_{th}$

$$P_{th}(\text{mW}) = ERP_{20\text{cm}} \left(\frac{d}{20}\right)^x \text{ for distance } d \leq 20\text{cm}$$

$$P_{th}(\text{mW}) = ERP_{20\text{cm}} \text{ for distance } 20\text{cm} < d \leq 40\text{cm}$$

$$x = -\log_{10} \left(\frac{60}{ERP_{20\text{cm}} \sqrt{f}} \right)$$

$$ERP_{20\text{cm}}(\text{mW}) \quad 0.3\text{GHz} \leq f < 1.5\text{GHz}: 2040 * f$$

$$1.5\text{GHz} \leq f \leq 6\text{GHz}: 3060$$

d: cm

f: GHz

Table B.2 – Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)										
		5	10	15	20	25	30	35	40	45	50
	300	39	65	88	110	129	148	166	184	201	217
	450	22	44	67	89	112	135	158	180	203	226
	835	9	25	44	66	90	116	145	175	207	240
	1900	3	12	26	44	66	92	122	157	195	236
	2450	3	10	22	38	59	83	111	143	179	219
	3600	2	8	18	32	49	71	96	125	158	195
	5800	1	6	14	25	40	58	80	106	136	169



Registration number: W6M22603-25043-EE

FCC ID: YWO-E02C

3.3 MPE-Based Exemption

General frequency and separation-distance dependent MPE-based effective radiated power (ERP) thresholds are in Table B.1 to support an exemption from further evaluation from 300 kHz through 100 GHz.

>300kHz & distance $R > \lambda/2\pi$, MPE-based exemption

Table B.1 –Thresholds for single RF sources subject to routine environmental evaluation

RF Source Frequency			Minimum Distance			Threshold ERP
f_L MHz	-	f_H MHz	$\lambda_L / 2\pi$	-	$\lambda_H / 2\pi$	W
0.3	-	1.34	159 m	-	35.6 m	$1,920 R^2$
1.34	-	30	35.6 m	-	1.6 m	$3,450 R^2/f^2$
30	-	300	1.6 m	-	159 mm	$3.83 R^2$
300	-	1,500	159 mm	-	31.8 mm	$0.0128 R^2/f^2$
1,500	-	100,000	31.8 mm	-	0.5 mm	$19.2 R^2$

f: MHz

R: m

$\lambda/2\pi$

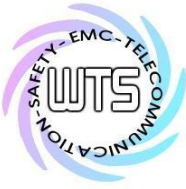
$v=f \lambda$

v: speed of light = $3 \times 10^8 m/s$

f: frequency (Hz)

λ : wavelength

f (MHz)	$\lambda / 2\pi$ (m)	$\lambda / 2\pi$ (mm)
0.125	382	381,972
13.56	3.52	3,521
300	0.159	159
918	0.052	52
2400	0.020	19.9
5250	0.009	9.09
5600	0.009	8.53
5825	0.008	8.20
6000	0.008	7.96
7000	0.007	6.82
10000	0.005	4.77



Registration number: W6M22603-25043-EE

FCC ID: YWO-E02C

4 Exemption calculation

1-mW Test Exemption

The maximum power is 85.69 dBuV/m (0.11mW)

$$0.11\text{mW} \leq 1\text{mW}$$

The device is qualify for simultaneous transmission SAR exemption.