

FCC RF Exposure Exemption report
for

Group Guide System

Model No.: EARME

FCC ID: NTMEARME

of

Applicant: OKAYO ELECTRONICS CO., LTD.

Address: No. 2, Gongye 10th Rd., Dali Dist., Taichung 41280, Taiwan

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: TW1477, TW1072

Industry Canada filed test laboratory Reg. No.: 20037, 5107A



Report No.: W6M22307-22839-EE

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C.
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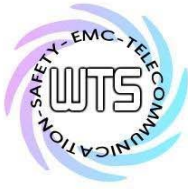
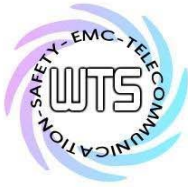


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1 General Information

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:

September 05, 2023

Rick Chen

Rick Chen.

Date

WTS-Lab.

Name

Signature

Technical responsibility for area of testing:

September 05, 2023

Kevin Wang

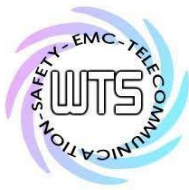
Kevin Wang

Date

WTS

Name

Signature



Worldwide Testing Services(Taiwan) Co., Ltd.

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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.35, Aly. 21, Ln. 228, Ankang Rd., Neihu Dist.,
Taipei City 114, Taiwan (R.O.C.)
Tel: 886-2-6613-0228

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.: TW1477, TW1072

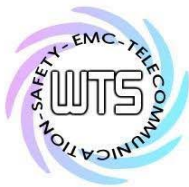
Industry Canada filed test laboratory Reg. No.: 20037, 5107A

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

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

1.3 Details of approval holder

Name: OKAYO ELECTRONICS CO., LTD.
Street: No. 2, Gongye 10th Rd., Dali Dist.,
Town: Taichung 41280,
Country: Taiwan



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M22307-22839-EE

FCC ID: NTMEARME

1.4 Application details

Date of receipt of test item: August 09, 2023

Date of test: from August 10, 2023 to September 05, 2023

1.5 General information of Test item

Type of test item: Group Guide System

Model no.: EARME

Multi-listing model no.: WAVE T, EARME x (x=1~9), ME x (x=1~9), MExT (x=1~9)

Brand name: OKAYO

Power supply: USB 5 Vd.c.

Battery 3.7 Vd.c., 1300 mAh, 4.81 Wh (TX)

Battery 3.7 Vd.c., 200 mAh, 0.74 Wh (RX)

Type of antenna: Wire Antenna

Antenna gain: 0 dBi

Technical data

Band	Mode	Channel	Power (dBm)	Limit (dBm)
900 MHz	4GFSK	Ch 1 : 902.5 MHz	7.67	30
		Ch 38 : 915 MHz	7.43	30
		Ch 2 : 927.5 MHz	7.03	30

Operation modes: Duplex

Sample no.: #02

Special statement: ./.

Classification:

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

Manufacturer: (if applicable)

Name: ./.

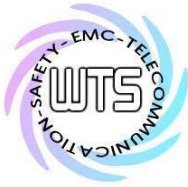
Street: ./.

Town: ./.

Country: ./.

1.6 Test standards

47 CFR PART 15 SUBPART C § 15.247 (2021-10)



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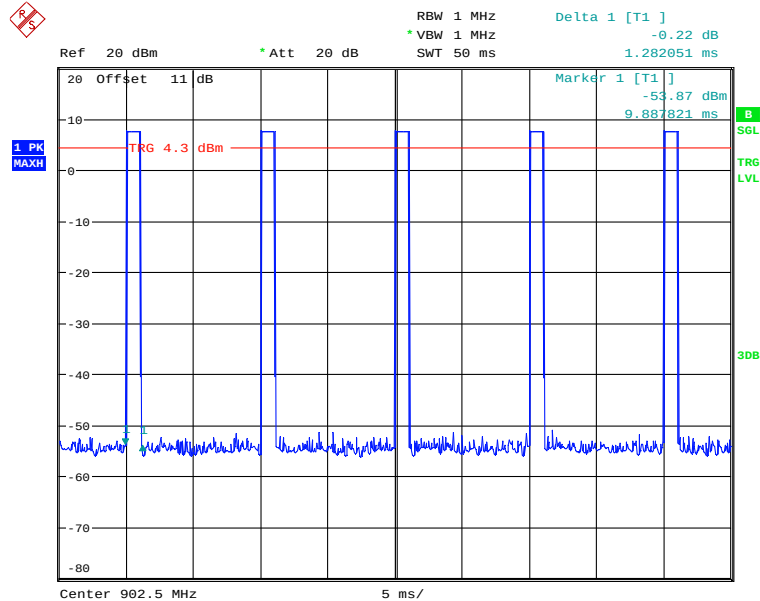
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1.7 Duty cycle and factor

The duty factor is computed as $[10 \log (1 / D)]$, where D is the duty cycle.

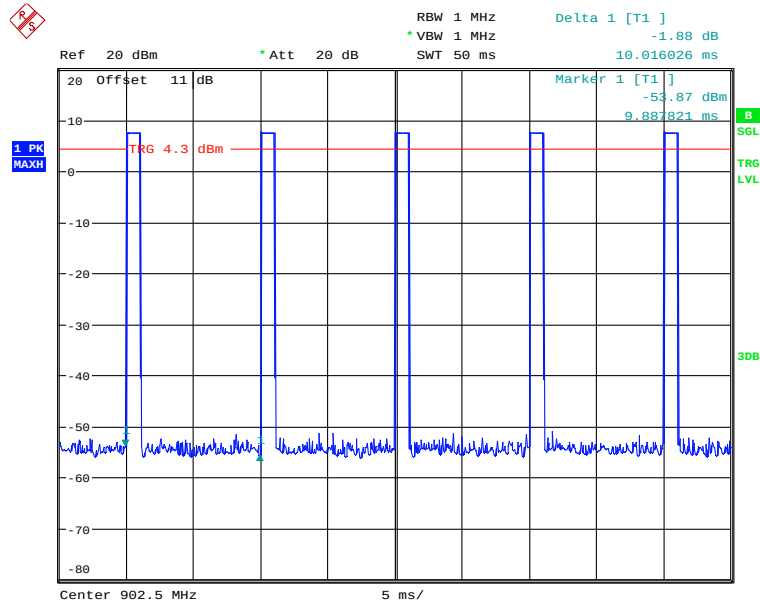
Mode	T _{on} (ms)	T _{on} +T _{off} (ms)	Duty cycle (%)	1/T - VBW (kHz)
4GFSK	1.282	10.016	12.80%	0.78

Duty cycle plot



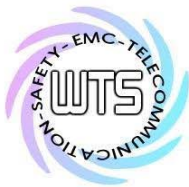
DUTY

Date: 1.SEP.2023 19:23:50



DUTY

Date: 1.SEP.2023 19:24:24



Registration number: W6M22307-22839-EE

FCC ID: NTMEARME

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.
Battery 3.7 Vd.c., 1300 mAh, 4.81 Wh (TX)
Battery 3.7 Vd.c., 200 mAh, 0.74 Wh (RX)

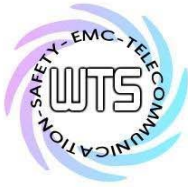
Extreme conditions parameters: ./.

Test item Name	Uncertainty
Estimation Result of Uncertainty of Conducted Output Power Measurement	Expanded Uncertainty : 1.48 dB

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

2.3 Test Equipment List

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2023/3/22	2024/3/21



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3 Equivalent Isotropic Radiated Power (EIRP)

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain

EIRP = 7.67 dBm + (0 dBi [antenna gain claimed by manufacturer]) = 7.67 dBm = 5.8479 mW

3.1 Exemption Limits for Routine Evaluation according to FCC KDB Publication

RESULT:

Test standard : FCC KDB Publication
447498 D01 General RF Exposure Guidance v06

According to 447498 D01 General RF Exposure Guidance v06:

SAR evaluation, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

3.2.1 Exemption Limits for Routine Evaluation – SAR Evaluation

SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table.

Table: SAR evaluation — Exemption limits for routine evaluation based on frequency and separation distance

MHz	5	10	15	20	25	mm
902.5	15.98	31.97	46.96	62.94	78.93	SAR Test Exclusion Threshold (mW)

MHz	30	35	40	45	50	mm
902.5	94.91	110.90	125.88	141.87	157.85	SAR Test Exclusion Threshold (mW)

Output power level shall be the higher of the maximum conducted or equivalent isotropically radiated power (e.i.r.p.) source-based, time-averaged output power.

Established separation distance is 5 mm.

Operating frequency band : 902.5-927.5 MHz

Max. output power level at 5 mm separation distance at 902.5 MHz
according to table is: 15.98 mW

The product is exempt from SAR Evaluation/Testing because the output power of 5.8479 mW is below the exemption limit of 15.98 mW.