

RF EXPOSURE REPORT



Applicant: MegaChips Corporation
1-1-1, Miyahara, Yodogawa-ku, Osaka, 532-0003, Japan
Manufacturer: MegaChips Corporation
1-1-1, Miyahara, Yodogawa-ku, Osaka, 532-0003, Japan
Product Name: MRF61_FI
Brand Name: MegaChips Corporation
Model No.: MFIM0002
FCC ID 2AGYI-WM0021
Date of EUT Received: Apr. 23, 2024
Issue Date: Mar. 04, 2025

Approved By

John Yeh

We hereby certify that:

The above equipment was evaluated by SGS Taiwan Ltd. The evaluation in this report is in compliance with FCC Rule Part §2.1091, KDB 447498 D01 v06.

The results of this report relate only to the sample identified in this report.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
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台灣檢驗科技股份有限公司

t (886-2) 2299-3279

f (886-2) 2298-0488

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Revision History					
Report Number	Revision	Description	Issue Date	Revised By	Remark
TESA2404000248E5	00	Original	Jul. 03, 2024	Kimmy Chiou	
TESA2404000248E5	01	Modify comment	Sep. 11, 2024	Kimmy Chiou	*
TESA2404000248E5	02	Modify comment	Dec. 31, 2024	Kimmy Chiou	*
TESA2404000248E5	03	Modify antenna supplier	Mar. 04, 2025	Kimmy Chiou	*

Note:

- 1、The remark "*" indicates modification of the report upon requests from certification body.

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1 DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

1.1 Product Description

Product Name:	MRF61_FI
Brand Name:	MegaChips Corporation
Model No.:	MFIM0002

1.2 Evaluation site

Laboratory	Site Address		FCC Designation number	ISED Company Number	CAB Identifier
SGS Taiwan Ltd. Central RF Lab. (TAF code 3702)	☐	No. 134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, 24803, Taiwan.	TW0027	4620A	TW3702
	☒	No. 2, Keji 1st Rd., Guishan Township, Taoyuan County, 333 Taiwan.	TW0028	4620E	
	☐	1F, No. 8, Alley 15, Lane 120, Sec. 1, Nei Hu Road, Nei Hu District, Taipei City, 222 Taiwan.	TW0029	23862	

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1.3 Antenna Information:

Antenna Type	Supplier	Antenna Part No.	Freq. (MHz)	Peak Antenna Gain (dBi)
Chip	Johanson Technology	0915AT43A0026001E	902 – 928	-1.00
Chip	Kyocera AVX	P822603	902 – 928	0.70
Dipole	Pulse Electronics	W1063	902 – 928	1.00
Monopole	molex	1052620002	902 – 928	1.50
Monopole	TE Connectivity Linx	ANT-916-CW-RCS	902 – 928	4.80
Monopole	molex	2111400100	902 – 928	1.00
Monopole	molex	1052620001	902 – 928	1.60

Note: Antenna information is provided by the applicant.

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2 FCC MAXIMUM PERMISSIBLE EXPOSURE (MPE)

2.1 FCC Standard Applicable

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

This is a Mobile device, the MPE is required.

According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100000	/	/	1.0	30

f = frequency in MHz

* = Plane-wave equipment power density

Prediction of MPE limit at a given distance

$$S=PG/4\pi R^2$$

Where: S = Power density

P = Power input to antenna

G = Power gain of the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

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2.2 Power Density Calculation (Worst Case)

FCC Standalone MPE

Operation Mode	Evaluation Frequency (MHz)	Operation Distance (cm)	Max. Output Power Include Tolerance (dBm)	Antenna Gain (dBi)	Max. EIRP (mW)	Power Density (PD) (mW/cm ²)	Limit (mW/cm ²)	Pass / Fail	Power Density / Limit
902~928	915.00	20	20	4.80	302.00	0.0601	0.610	Pass	0.099

Note: For conservativeness, the lowest uplink frequency of each band is used to determine the MPE limit of that band.

~ End of Report ~

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