

OKAYO Electronics Co., Ltd.
No. 2, Gongye 10th Rd., Dali Dist., Taichung 41280, Taiwan

Federal Communications Commission
Authorization and Evaluation Division
Equipment Authorization Branch
7435 Oakland Mills Road
Columbia, MD 21046

Applicant's declaration concerning RF Radiation Exposure

We hereby indicate that the product
Product description: Group Guide System
Model No: OTG-102T, OTG-100T

The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. The integral antennas used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter within the host device.

A safety statement concerning minimum separation distances from enclosure of the
Product : Group Guide System
will be integrated in the user's manual to provide end-users with transmitter operating conditions for satisfying RF exposure compliance.

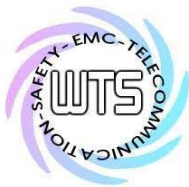
The appropriate information can be drawn from the test report no: W6M21910-19417-C-7
and the accompanying calculations.

Company: OKAYO Electronics Co., Ltd.
Address: No. 2, Gongye 10th Rd., Dali Dist., Taichung 41280, Taiwan

Date: 2019-11-29

Signature





Registration number: W6M21910-19417-C-7

FCC ID: NTMOTG-102T

3.2 Equivalent Isotropic Radiated Power (EIRP)

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain

EIRP = -2.58 dBm + (2.7 dBi [antenna gain claimed by manufacturer]) = 0.12 dBm = 1.0280 mW

3.3 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.

3.3.1 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
2480	9.95	18.92	28.87	37.84	47.79	SAR Test Exclusion Threshold (mW)

MHz	30	35	40	45	50	mm
2480	56.74	66.69	76.63	85.61	95.56	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 : 2402-2480 MHz

Max. output power level at 5 mm separation distance at 2480 MHz
according to table is: 9.95 mW

The product is exempt from SAR Evaluation/Testing because the output power of 1.0280 mW is below the exemption limit of 9.95 mW.

Equivalent Isotropic Radiated Power (EIRP)

EIRP = max. conducted output power + antenna gain

EIRP = 9.07 dBm + (0 dBi [antenna gain claimed by manufacturer]) = 8.07 mW

Exemption Limits for Routine Evaluation according to FCC KDB Publication

According to the KDB 447498 D01 v06 section 4.3.1, for 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [f(\text{GHz})] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz

- Power and distance are rounded to the nearest mW and mm before calculation

- The result is rounded to one decimal place for comparison

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

Frequency (MHz)	Exemption Limits (mW)				
	At separation distance of 5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
471.25	21.67 mW	44.34 mW	66.01 mW	87.73 mW	110.34 mW

Frequency (MHz)	Exemption Limits (mW)				
	At separation distance of 30 mm	At separation distance of 35 mm	At separation distance of 40 mm	At separation distance of 45 mm	At separation distance of 50 mm
471.25	132.01 mW	154.68 mW	176.35 mW	198.07 mW	220.69 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: 471.25-607.75 MHz

Max. output power level at 5 mm separation distance at 471.25 MHz according to table is: 21.67 mW

Therefore the product exempts SAR test.

Photo below shows the separation distance between the antenna and outside enclosure.





