

RF Exposure Requirements

Test Report Number EOTEL133

Applied Standard(s) FCC Part15 Subpart C , 15.247(i) 、 1.1307(b)(1)

Date of Issue 20th August, 2015

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Test Date(s) 29th May, 2015 - 30th May, 2015, 20th August, 2015

Product Name Equipment built-in 2.4GHz band transceiver module

Model Number HRF-2401

Serial Number -

Applicant (Client) Address 62-1, Toyooka-Cho, Kita-ku, Hamamatsu-city Shizuoka, 433-8103, Japan
HERUTU ELECTRONICS CORPORATION

Manufacturer Address 62-1, Toyooka-Cho, Kita-ku, Hamamatsu-city Shizuoka, 433-8103, Japan
HERUTU ELECTRONICS CORPORATION

FCC ID / IC FCC ID : T82HRF-2401

Test Result

The test result for the electromagnetic compatibility tests as described in the section 1 to 2 and in this page was:

Pass

Tested by: Katsutoshi Hatanaka Approved by: Koji Imai
Katsutoshi Hatanaka Koji Imai
Test Engineer Testing Group Leader

Checked box (☒) indicates that the listed condition, standard or equipment is applicable for this Report.
Blank box (☐) indicates that the listed condition, standard or equipment is not applicable for this Report.
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Test results of this report refer only to the EUT tested here.

1. Calculation

According to 15.247(i) and 1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100MHz to 6GHz at test separation distances $\leq 50\text{mm}$ are determine by :

$[(\text{max power of channel, including tune-up tolerance, mW}) / (\text{minimum test separation distance, mm})]$

$[\sqrt{f(\text{GHz})}] \leq 3.0$ 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.

The test exclusions are applicable only when the minimum test separation distance is $\leq 50\text{mm}$ and for transmission frequencies between 100MHz and 6GHz. When the minimum test separation distance is $< 5\text{mm}$, a distance of 5mm is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitter with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

$$\text{Result} = P \sqrt{F} / D$$

P : Maximum turn-up power in mW

F : Channel Frequency in GHz

D : Minumum test separation distance in mm

2. Results

CH	Frequency (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
L	2403	1.32	1.0 \pm 1	2.0	1.585	0.49	3
M	2441	1.29	1.0 \pm 1	2.0	1.585	0.50	3
H	2478	1.07	1.0 \pm 1	2.0	1.585	0.50	3

Table 1 RF Exposure Requirements

Result : Pass