

# **RADIO FREQUENCY EXPOSURE**

## LIMIT

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 levels in excess of the Commission's guidelines. See  $\frac{15.247(b)(4)}{and} = \frac{1307(b)(1)}{b}$ 

## **EUT Specification**

EUT	RF module
Model	MRF24G04B
Frequency Band (Operating)	GFSK/2406.0 MHz ~2472.5 MHz
Device Category	Portable (<20cm separation)
	Mobile (>20cm separation)
	□ Others
Exposure Classification	$\Box$ Occupational/Controlled exposure (S = 5mW/cm2)
	General Population/Uncontrolled exposure
	(S=1mW/cm2)
Antenna Diversity	Single antenna
	Multiple antennas
	■ Tx diversity
	□ Rx diversity
	□ Tx/Rx diversity
Max. Output Power	18.69dBm
Antenna Gain (Max)	Gain=3dBi (Numeric gain:2.0)
Evaluation Applied	MPE Evaluation
	□ SAR Evaluation
Note:	

#### Note:

1. The maximum output power is 18.69dBm (73.96mW) with 1.0 numeric antenna gain.

2. For mobile or fixed location transmitters, no SAR consideration applied. The minimum separation generally be used is at least 20 cm, even if the calculations indicate that the MPE distance would be lesser.

## **TEST RESULT**

No non-compliance noted.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

A101, No.65, Zhuji Highway,Tianhe District, Guangzhou, China Tel: +86-20-85543113 (32 lines) Fax: +8 Complaint line: +86-20-85533471 E-mail:

ou, China Fax: +86-20-38780406 E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



### Calculation

Given

$$S = \frac{P \times G}{4\Pi d^2}$$

(Equation 1)

Where d = distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power Density in mW / cm<sup>2</sup>

## Maximum Permissible Exposure

EUT Output Power=73.96mW

Numeric antenna gain=1.0

Substituting the MPE safe distance using d=20 cm into Equation 1 :

Yields

The power density S =73.96×2.0/ ( $4\Pi$ ×400) cm<sup>2</sup> =0.029mW/cm<sup>2</sup>

(For mobile or fixed location transmitters, the maximum power density is 1.0 mW / cm<sup>2</sup> even if the calculation indicates that the power density would be larger.)

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CENTRE OF TESTING SERVICE CO., LTD. A101, No.65, Zhuji Highway,Tianhe District, Guangzhou, China

Tel: +86-20-85543113 (32 lines) Complaint line: +86-20-85533471 ou, China Fax: +86-20-38780406 E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Report No.: CGZ3170303-00252-EF