

## RF Exposure Report

**Report No.:** SA170120E10E

**FCC ID:** ZMYGPT-2741GNAC

**Test Model:** GPT-2741GNAC

**Received Date:** Feb. 16, 2017

**Test Date:** Feb. 25, 2017

**Issued Date:** Dec. 10, 2019

**Applicant:** MitraStar Technology Corporation

**Address:** No. 6, Innovation Rd II, Hsinchu Science Park, Hsinchu 30076, Taiwan

**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Hsin Chu Laboratory

**Lab Address:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan.

**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,  
Taiwan.

**FCC Registration /  
Designation Number:** 723255 / TW2022

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### Release Control Record

Issue No.	Description	Date Issued
SA170120E10E	Original release.	Dec. 10, 2019

## 1 Certificate of Conformity

**Product:** Fiber Optic access equipment

**Brand:** MitraStar

**Test Model:** GPT-2741GNAC

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** MitraStar Technology Corporation

**Test Date:** Feb. 25, 2017

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.3 -2002

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**Prepared by :** Vivian Huang , **Date:** Dec. 10, 2019  
Vivian Huang / Specialist

**Approved by :** Clark Lin , **Date:** Dec. 10, 2019  
Clark Lin / Technical Manager

## 2 RF Exposure

### 2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### 2.2 MPE Calculation Formula

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 3.1416

R = distance between observation point and center of the radiator in cm

### 2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.

So, this device is classified as **Mobile Device**.

### 2.4 Antenna Gain Table

Transmitter Circuit	Brand	Model	Antenna Gain(dBi) Including cable loss	Frequency range	Antenna Type	Connector Type	Cable Length
Chain (0)	HONGBO	290-10434	2.5	2.4~2.4835GHz	Dipole	NA	80mm
Chain (1)	HONGBO	290-10434	2.98	2.4~2.4835GHz	Dipole	NA	80mm

Note:

1. For 802.11b/g mode will select Max Gain for the final test.

### 3 Calculation Result of Conducted Power

All test data was copied from the original test report (Report No.: SA170120E10A)

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
2412-2462	874.039	5.75	20	0.65352	1

Note: Directional gain =  $10 \log[(10^{G0/20} + 10^{G1/20})^2 / 2] = 5.75\text{dBi}$

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