



RF Exposure Report

Report No.: SA120113E07K

FCC ID: PQRFXA2000-G

Test Model: FXA2000-G

Received Date: Apr. 20, 2016

Test Date: May 04, 2016

Issued Date: May 25, 2016

Applicant: Contec Co., Ltd.

Address: 3-9-31, Himesato, Nishiyodogawa-ku Osaka Japan 555-0025

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 R.O.C.

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

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Release Control Record

| Issue No. | Description | Date Issued |
|--------------|-------------------|--------------|
| SA120113E07K | Original release. | May 25, 2016 |



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1 Certificate of Conformity

Product: IEEE802.11n/a/b/g Wireless LAN (Access point / Station)

Brand: CONTEC

Test Model: FXA2000-G

Sample Status: ENGINEERING SAMPLE

Applicant: Contec Co., Ltd.

Test Date: May 04, 2016

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

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 : Wendy Wu. , **Date:** May 25, 2016
Wendy Wu / Specialist

Approved by : May Chen , **Date:** May 25, 2016
May Chen / 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 ²) | 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

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm²

Pout = 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

| Brand | Model | Antenna Type | Peak Gain(dBi) (Exclude cable loss) | Net Gain (dBi) (Include cable loss) | Connector Type | Cable Length (cm) | Cable Loss (dB) | Transmitter Circuit |
|-------|--------|--------------|-------------------------------------|-------------------------------------|----------------|-------------------|-----------------|-----------------------|
| FDK | AN1523 | chip | 2.4GHz: 2 | 2.4GHz: 0.6 | U.FL | 16 | 1.4 | Chain (0) & Chain (1) |
| | | | 5GHz :1 | 5GHz :-0.4 | | | | |

3 Calculation Result Of Maximum Conducted Power

| Frequency Band (MHz) | Max Power (mW) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm ²) | Limit (mW/cm ²) |
|----------------------|----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2412 - 2462 | 597.443 | 3.61 | 20 | 0.27291 | 1 |
| 5180 - 5240 | 26.393 | 2.61 | 20 | 0.00957 | 1 |
| 5260 - 5320 | 31.436 | 2.61 | 20 | 0.01140 | 1 |
| 5500 - 5700 | 67.840 | 2.61 | 20 | 0.02461 | 1 |
| 5745 - 5825 | 101.569 | 2.61 | 20 | 0.03685 | 1 |

NOTE:

2.4GHz: Directional gain = 0.6dBi + 10log(2) = 3.61dBi.

5 GHz: Directional gain = -0.4dBi + 10log(2) = 2.61dBi

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