

RF Exposure Report

Report No.: SA171129E01

FCC ID: 2AN3BVS93G001

Test Model: VS-93G001

Received Date: Nov. 29, 2017

Test Date: Dec. 08, 2017

Issued Date: Dec. 13, 2017

Applicant: CUBTEK INC.

- Address: Rm. 7, 6F., No.38, Taiyuan St., Zhubei City, Hsinchu County 30265, Taiwan (R.O.C.)
- **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.

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of raise. A failure to raise such issue within the prescribed time shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by any government agencies.



Table of Contents

| Releas | Release Control Record | | |
|-------------------|--|-------------------|--|
| 1 | Certificate of Conformity | . 4 | |
| | RF Exposure | | |
| 2.2 2.3 2.4 | Limits for Maximum Permissible Exposure (MPE) MPE Calculation Formula Classification Antenna Gain Calculation Result | . 5 . 5 . 5 | |



| | Release Control Record | | | | |
|-------------|------------------------|---------------|--|--|--|
| Issue No. | Description | Date Issued | | | |
| SA171129E01 | Original release. | Dec. 13, 2017 | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



1 Certificate of Conformity

| Product: | 77GHz Radar |
|----------------|---|
| Brand: | CUBTEK |
| Test Model: | VS-93G001 |
| Sample Status: | ENGINEERING SAMPLE |
| Applicant: | CUBTEK INC. |
| Test Date: | Dec. 08, 2017 |
| 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 : | Mary Ko | , Date: | Dec. 13, 2017 | |
|---------------|----------------------|---------|---------------|--|
| | Mary Ko / Specialist | | | |
| Approved by : | | , Date: | Dec. 13, 2017 | |
| | 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 | | | | | |
| 0.3-1.34 | 614 | 1.63 | (100)* | 30 | |
| 1.34-30 | 824/f | 2.19/f | (180/f ²)* | 30 | |
| 30-300 27.5 | | 0.073 | 0.2 | 30 | |
| 300-1500 | | | f/1500 | 30 | |
| 1500-100,000 | | | 1.0 | 30 | |

f = Frequency in MHz ; *Plane-wave equivalent power density

2.2 MPE Calculation Formula

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

where

 $Pd = power density in mW/cm^{2}$

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 25cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Antenna Gain

| Antenna Net Gain (dBi) | Antenna Type | Connector Type | Frequency range (GHz) | |
|------------------------|-----------------|----------------|--------------------------|--|
| 13.6 | Printed Antenna | none | 76 ~ 77 | |



2.5 Calculation Result

| Frequency (GHz) | Pout EIRP (dBm) | Pout EIRP (mW) | Distance (cm) | Power Density (mW/cm ²) | Limit (mW/cm ²) |
|--------------------|-----------------|----------------|------------------|--|--------------------------------|
| 76.47 | 38.90 | 7762.47 | 25 | 0.98835 | 1 |

--- END ---