RED-Health Test Report

For
HOLYBRO(H.K.) LIMITED
TELEMETRY RADIO 433MHZ

Model No.: HT03-V3, HT03

Prepared For : HOLYBRO(H.K.) LIMITED
Address : RM 1902 EASY COMM BLDG253-261 HENNESSY RD WANCHAI
          HONG KONG

Prepared By : Shenzhen Anbotek Compliance Laboratory Limited
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Report Number : SZAWW180522001-03H
Date of Test : May 22~Jun. 01, 2018
Date of Report : Jun. 01, 2018
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TEST REPORT

Applicant: HOLYBRO(H.K.) LIMITED
Manufacturer: Shenzhen HolyBro Hobby Technical Co., LTD
Product Name: TELEMETRY RADIO 433MHZ
Model No.: HT03-V3, HT03
Trade Mark: Holybro
Rating(s): Input: DC 5V, 100mA

Test Standard(s): EN 62479:2010

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. This report shows the EUT to be technically compliant with the EN 62479: 2010 requirements. The test results are contained in this report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full responsibility for the accuracy and completeness of these tests.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Test: May 22~Jun. 01, 2018

Prepared By: (Engineer / May Lu)

Reviewer: (Supervisor / Calvin Liu)

Approved & Authorized Signer: (Manager / Tom Chen)
1. General Information

1.1. Client Information

<table>
<thead>
<tr>
<th>Applicant</th>
<th>HOLYBRO(H.K.) LIMITED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>RM 1902 EASEY COMM BLDG253-261 HENNESSY RD WANCHAI HONG KONG</td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Shenzhen HolyBro Hobby Technical Co., LTD</td>
</tr>
<tr>
<td>Address</td>
<td>Floor 4, Jiang Hai Industry District, No.7 yonghe Road, Shi Yan Town, Bao'an District, Shenzhen City, Guangdong Province, China</td>
</tr>
</tbody>
</table>

1.2. Description of Device (EUT)

<table>
<thead>
<tr>
<th>Product Name</th>
<th>TELEMETRY RADIO 433MHZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model No.</td>
<td>HT03-V3, HT03</td>
</tr>
<tr>
<td>(Note: All samples are the same except the model number and shape, so we prepare &quot;HT03-V3&quot; for test only.)</td>
<td></td>
</tr>
<tr>
<td>Trade Mark</td>
<td>Holybro</td>
</tr>
<tr>
<td>Test Power Supply</td>
<td>DC 5V</td>
</tr>
<tr>
<td>Operation Frequency</td>
<td>433.160881-434.465881MHz</td>
</tr>
<tr>
<td>Number of Channel</td>
<td>10 Channels</td>
</tr>
<tr>
<td>Modulation Type</td>
<td>GFSK</td>
</tr>
<tr>
<td>Antenna Type</td>
<td>Columnar Antenna</td>
</tr>
<tr>
<td>Antenna Gain(Peak)</td>
<td>1.5 dbi</td>
</tr>
<tr>
<td>Max. Transmitting Power</td>
<td>8.53 dBm</td>
</tr>
</tbody>
</table>

**Remark:** 1) For a more detailed features description, please refer to the manufacturer’s specifications or the User’s Manual.

1.3. Auxiliary Equipment Used During Test

| N/A |
1.4 Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

FCC-Registration No.: 184111
Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registred and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 184111, July 31, 2017.

ISED-Registration No.: 8058A-1
Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A-1, June 13, 2016.

Test Location
All Emissions tests were performed at
Shenzhen Anbotek Compliance Laboratory Limited.
1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518102

1.5 Measurement Uncertainty

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Uncertainty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupied Channel Bandwidth</td>
<td>±5 %</td>
</tr>
<tr>
<td>RF output power, conducted</td>
<td>±1.5 dB</td>
</tr>
<tr>
<td>Power Spectral Density, conducted</td>
<td>±3 dB</td>
</tr>
<tr>
<td>Unwanted Emissions, conducted</td>
<td>±3 dB</td>
</tr>
<tr>
<td>All emissions, radiated</td>
<td>±6 dB</td>
</tr>
<tr>
<td>Temperature</td>
<td>±1 °C</td>
</tr>
<tr>
<td>Humidity</td>
<td>±5 %</td>
</tr>
<tr>
<td>DC and low frequency voltages</td>
<td>±3 %</td>
</tr>
<tr>
<td>Time</td>
<td>±5 %</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>±5 %</td>
</tr>
</tbody>
</table>
2. GENERAL PRODUCT INFORMATION

2.1 Product Function and Intended Use

The submitted sample is wireless transceiver includes transmitter and receiver.

2.2 Ratings and System Detail

<table>
<thead>
<tr>
<th>Transmitter</th>
<th></th>
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<tbody>
<tr>
<td>Frequency Range</td>
<td>433.160881-434.465881MHz</td>
</tr>
<tr>
<td>Power Supply</td>
<td>DC 5V</td>
</tr>
</tbody>
</table>
3. EN 62479 REQUIREMENT

3.1 General Description of Applied Standards
Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz).

3.2 Human exposure to the Electromagnetic fields
This International Standard provides simple conformity assessment methods for low-power electronic and electrical equipment to an exposure limit relevant to electromagnetic fields (EMF). If such equipment cannot be shown to comply with the applicable EMF exposure requirements using the methods included in this standard for EMF assessment, then other standards, including IEC 62311 or other (EMF) product standards, may be used for conformity assessment.

3.3 RF Exposure Evaluation
3.3.1 Limit:
According to EN 62479 clause 4.2 Low-power electronic and electrical equipment is deemed to comply with the provisions of this standard if it can be demonstrated using routes B, C or D that the available antenna power and/or the average total radiated power is less than or equal to the applicable low-power exclusion level \( P_{\text{max}} \).

\[ P_{\text{max}} = 20 \text{ mW} \ (13.1 \text{dBm}) \] according to ICNIRP guidelines, since the EUT is General public used.

Remark:
B: The input power level to electrical or electronic components that are capable of radiating electromagnetic energy in the relevant frequency range is so low that the available antenna power and/or the average total radiated power cannot exceed the low-power exclusion level defined in EN 62479 clause 4.2

C: The available antenna power and/or the average total radiated power are limited by product standards for transmitters to levels below the low-power exclusion level defined in EN 62479 clause 4.2

D: Measurements or calculations show that the available antenna power and/or the average total radiated power are below the low-power exclusion level defined in EN 62479 clauses 4.2.

3.3.2 Test result
The EIRP of the EUT which are below the max permitted sending level of 20 mW, and then the EUT is not need to conduct SAR measurement.

More details please refer to SZAWW180522001-04W.