

Report No.:

T200508N03-MF



### IEEE C95.1 KDB 447498 D03 47 C.F.R. Part 1, Subpart I, Section 1.1310 47 C.F.R. Part 2, Subpart J, Section 2.1091

### **RF EXPOSURE REPORT**

For

### **Halo Transmitter**

Model: HALOBLETX-1

### Data Applies To: N/A



Trade Name:

Issued to

Instant Care, Inc. 2080 Wineridge PI.Suite A,Escondido,California,United States, 92029

> Issued By Compliance Certification Services Inc. Wugu Lab. No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan

Issued Date: May 28, 2020

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only. 除非另有說明,此報告結果僅對測試之樣品負責,同時此樣品僅保留90天。本報告未經本公司書面許可,不可部份複製。

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# **REVISION HISTORY**

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	May 28, 2020	Initial Issue	ALL	Angel Cheng



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# 1. TEST RESULT CERTIFICATION

#### We hereby certify that:

The equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirement of the applicable standards. The test record, data evaluation and Equipment under Test (EUT) configurations represented herein are true and accurate accounts of the measurement of the sample's RF characteristics under the conditions specified in this report.

APPLICABLE STANDARDS				
STANDARD	TEST RESULT			
IEEE C95.1 2005 KDB 447498 D03 47 C.F.R. Part 1, Subpart I, Section 1.1310 47 C.F.R. Part 2, Subpart J, Section 2.1091	No non-compliance noted			
Statements of Conformity				
Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.				

Approved by:

Komil Tson

Kevin Tsai Deputy Manager Compliance Certification Services Inc.



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### 2. LIMIT

According to §15.247(i), 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 § 1.1307(b)(1) of this chapter.

# 3. EUT SPECIFICATION

EUT	Halo Transmitter				
Model	HALOBLETX-1				
Brand	Instant Care				
RF Module	NORDIC	Model:	NRF52832		
Frequency band (Operating)	<ul> <li>802.11b/g/n HT20: 2412MHz ~ 2462MHz</li> <li>802.11n HT40: 2422MHz ~ 2452MHz</li> <li>Others 2402MHz ~ 2480MHz (BT 5.2)</li> </ul>				
Device category	<ul> <li>Portable (&lt;20cm separation)</li> <li>Mobile (&gt;20cm separation)</li> <li>Others</li> </ul>				
Exposure classification	$ \begin{tabular}{ c c } \hline & Occupational/Controlled exposure (S = 5mW/cm^2) \\ \hline & General Population/Uncontrolled exposure \\ (S=1mW/cm^2) \end{tabular} \end{tabular} $				
Antenna Specification	Multilayer Chip Antenna / 3.3 dBi (Numeric gain: 2.		eric gain: 2.14) worst		
Maximum Output power	GFSK(5.2)	-0.11 dBm	(0.975 mW)		
Maximum Average output power	GFSK(5.2)	-0.42 dBm	(0.908 mW)		
Maximum Tune up Power	GFSK(5.2)	0.50 dBm	(1.122 mW)		
Evaluation applied	MPE Evaluation*				
Reported Date	May 27, 2020				



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### 4. TEST RESULTS

No non-compliance noted.

<u>Calculation</u>

Given  $E = \frac{\sqrt{30 \times P \times G}}{d}$  &  $S = \frac{E^2}{377}$ Where E = Field strength in Volts / meter P = Power in Watts G = Numeric antenna gain d = Distance in meters S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377d^2}$$

Changing to units of mW and cm, using:

$$P(mW) = P(W) / 1000$$
 and  
 $d(cm) = d(m) / 100$ 

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$
 Equation 1

Where d = Distance in cm P = Power in mW G = Numeric antenna gain S = Power density in mW / cm<sup>2</sup>



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## 5. MAXIMUM PERMISSIBLE EXPOSURE

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

 $S = 0.000199 \times P \times G$ 

Where P = Power in mW

G = Numeric antenna gain

 $S = Power density in mW / cm^2$ 

#### GFSK(5.2):

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm <sup>2</sup>	Limit (mW/cm2)	Result
Mid	2442	1.122	2.14	20	0.0005	1	Pass