

**IEEE C95.1 2005
KDB 447498 D01 V06
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

Stream

Model:

**7610 Dual pH/ORP/ION, 7620 Dual EC, 7630 Dual DO, 7650 Dual
pH/ORP/ION/EC/DO, 6610 pH/ORP/ION/EC, 6620 pH/ORP/ION/DO, 6630
EC/DO, 5610 pH/ORP, 5620 EC 5630 DO**

Trade Name: JENCO

Issued to

**Jenco Electronics, Ltd
4F.,No.80,Sonde Rd., Xinyi Dist., Taipei City 110, Taiwan**

Issued by

**Compliance Certification Services Inc.
No.11, Wugong 6th Rd., Wugu Dist.,
New Taipei City 24891, Taiwan. (R.O.C.)
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Issued Date: January 23, 2017**



Testing Laboratory
1309

Revision History

Rev.		Issue Date		Revisions	Effect Page	Revised By
00		January 23, 2017		Initial Issue	ALL	Becca Chen

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1. TEST RESULT CERTIFICATION

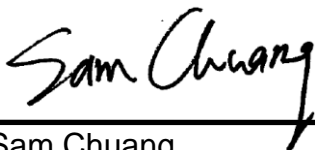
We hereby certify that:

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.

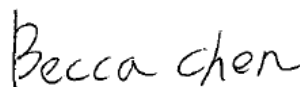
APPLICABLE STANDARDS	
STANDARD	TEST RESULT
IEEE C95.1 2005 KDB 447498 D03 47 C.F.R. Part 1, Subpart I, Section 1.1310 47 C.F.R. Part 2, Subpart J, Section 2.1091	No non-compliance noted

Approved by:

Prepared by:



Sam Chuang
Manager
Compliance Certification Services Inc.



Becca Chen
Report coordinator
Compliance Certification Services Inc.

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

Product	Stream																																																							
Model Number	7610 Dual pH/ORP/ION, 7620 Dual EC, 7630 Dual DO, 7650 Dual pH/ORP/ION/EC/DO, 6610 pH/ORP/ION/EC, 6620 pH/ORP/ION/DO, 6630 EC/DO, 5610 pH/ORP, 5620 EC 5630 DO																																																							
Model Discrepancy	<p>Difference of the model numbers (list on this report) are just for marketing purpose only and please see as below:</p> <table border="1"> <thead> <tr> <th>Model number</th><th>pH/ORP</th><th>EC</th><th>DO</th><th>pH/ORP/ION</th></tr> </thead> <tbody> <tr> <td>7610 Dual pH/ORP/ION</td><td>N/A</td><td>N/A</td><td>N/A</td><td>2</td></tr> <tr> <td>7650 Dual pH/ORP/EC/DO/ION</td><td>N/A</td><td>2</td><td>2</td><td>2</td></tr> <tr> <td>7630 Dual DO</td><td>N/A</td><td>N/A</td><td>2</td><td>N/A</td></tr> <tr> <td>7620 Dual EC</td><td>N/A</td><td>2</td><td>N/A</td><td>N/A</td></tr> <tr> <td>6630 EC/DO</td><td>N/A</td><td>1</td><td>1</td><td>N/A</td></tr> <tr> <td>6620 pH/ORP/ION/DO</td><td>N/A</td><td>N/A</td><td>1</td><td>1</td></tr> <tr> <td>6610 pH/ORP/ION/EC</td><td>N/A</td><td>1</td><td>N/A</td><td>1</td></tr> <tr> <td>5630 DO</td><td>N/A</td><td>N/A</td><td>1</td><td>N/A</td></tr> <tr> <td>5620 EC</td><td>N/A</td><td>1</td><td>N/A</td><td>N/A</td></tr> <tr> <td>5610 pH/ORP</td><td>1</td><td>N/A</td><td>N/A</td><td>N/A</td></tr> </tbody> </table>	Model number	pH/ORP	EC	DO	pH/ORP/ION	7610 Dual pH/ORP/ION	N/A	N/A	N/A	2	7650 Dual pH/ORP/EC/DO/ION	N/A	2	2	2	7630 Dual DO	N/A	N/A	2	N/A	7620 Dual EC	N/A	2	N/A	N/A	6630 EC/DO	N/A	1	1	N/A	6620 pH/ORP/ION/DO	N/A	N/A	1	1	6610 pH/ORP/ION/EC	N/A	1	N/A	1	5630 DO	N/A	N/A	1	N/A	5620 EC	N/A	1	N/A	N/A	5610 pH/ORP	1	N/A	N/A	N/A
Model number	pH/ORP	EC	DO	pH/ORP/ION																																																				
7610 Dual pH/ORP/ION	N/A	N/A	N/A	2																																																				
7650 Dual pH/ORP/EC/DO/ION	N/A	2	2	2																																																				
7630 Dual DO	N/A	N/A	2	N/A																																																				
7620 Dual EC	N/A	2	N/A	N/A																																																				
6630 EC/DO	N/A	1	1	N/A																																																				
6620 pH/ORP/ION/DO	N/A	N/A	1	1																																																				
6610 pH/ORP/ION/EC	N/A	1	N/A	1																																																				
5630 DO	N/A	N/A	1	N/A																																																				
5620 EC	N/A	1	N/A	N/A																																																				
5610 pH/ORP	1	N/A	N/A	N/A																																																				
Trade Name	JENCO																																																							
Frequency band (Operating)	<input checked="" type="checkbox"/> 802.11b/g/n HT 20: 2412MHz ~ 2462MHz <input type="checkbox"/> Others																																																							
Device category	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others																																																							
Exposure classification	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm ²) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm ²)																																																							
Antenna Specification	PIFA Antenna 2.4GHz: Antenna Gain : 4.00 dBi (Numeric gain: 2.51)																																																							
Maximum Average output power	IEEE 802.11b Mode: 18.14 dBm (65.163 mW) IEEE 802.11g Mode: 17.00 dBm (50.119 mW) IEEE 802.11n HT 20 Mode: 16.64 dBm (46.132 mW)																																																							
Maximum Tune up Power	IEEE 802.11b Mode: 19.00 dBm (79.433 mW) IEEE 802.11g Mode: 18.00 dBm (63.096 mW) IEEE 802.11n HT 20 Mode: 17.50 dBm (56.234 mW)																																																							
Evaluation applied	<input checked="" type="checkbox"/> MPE Evaluation* <input type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A																																																							

4. TEST RESULTS

No non-compliance noted.

Calculation

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:

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

Changing to units of mW and cm, using:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$

$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

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

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

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 / cm²

IEEE 802.11b mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
11	2462	79.433	2.51	20	0.0397	1

IEEE 802.11g mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
1	2412	63.096	2.51	20	0.0315	1

IEEE 802.11n HT 20 mode:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm2)
6	2437	56.234	2.51	20	0.0281	1