



## Test Report

Product Name : Giant Wireless cycle computer of Continuum 9W  
Model No. : Continuum 9W  
FCC ID. : ZP6TW0636

Applicant : G.pulse International Co., Ltd.  
Address : No.16-3, Lane 852, Tu Cheng Road, TaiLi,  
Taichung Hsien, Taiwan

Date of Receipt : 2011/05/31  
Issued Date : 2011/07/06  
Report No. : 116063R-RFUSP38V01  
Report Version : V1.0

The test results relate only to the samples tested.

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This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

## Test Report Certification

Issued Date : 2011/07/06

Report No. : 116063R-RFUSP38V01

**QuiTek**

Product Name : Giant Wireless cycle computer of Continuum 9W  
產品名稱  
Applicant : G.pulse International Co., Ltd.  
申請商  
Address : No.16-3, Lane 852, Tu Cheng Road, TaiLi, Taichung Hsien,  
申請商地址 Taiwan  
Manufacturer : G.pulse International Co., Ltd.  
製造商  
Manufacturer Address : No.16-3, Lane 852, Tu Cheng Road, TaiLi, Taichung Hsien,  
製造商地址 Taiwan  
buyer 's name: : STRENGTH MASTE FITNESS TECH CO.LTD.  
買家名稱  
Model No. : Continuum 9W  
型號  
FCC ID. : ZP6TW0636  
EUT Voltage : DC 3V  
產品電壓  
Trade Name : Giant  
商標  
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C 15.209: 2010  
ANSI C63.4: 2009  
Test Result : Complied

The test results relate only to the samples tested.

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Documented By

:



(Sandy Chuang / Adm. Specialist)

Reviewed By

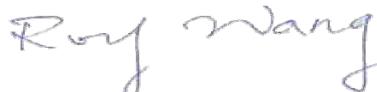
:



( JuBo Shen / Engineer )

Approved By

:



( Roy Wang / Manager )

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**1. GENERAL INFORMATION****1.1. EUT Description**

Product Name	Giant Wireless cycle computer of Continuum 9W
Trade Name	Giant
Model No.	Continuum 9W
FCC ID	ZP6TW0636
Frequency Range	123~125KHz
Channel Number	1
Antenna Type	Loop
Type of Modulation	ASK

Component	
1	9 Function Wireless meter (EUT (RX))*1
2	Wireless speed bracket (EUT (TX))*1
3	Bracket*1
4	Rubber pad for bracket*1
5	Rubber pad for speed sensor*1
6	3V Lithium battery*2 (meter*1 & speed sensor*1)
7	Irreversible cable tie*4 (meter*2 & speed sensor*2)
8	Magnet set*1

## Frequency of Each Channel:

Channel	Frequency
Channel 1	125KHz

## Note:

1. This device is a Giant Wireless cycle computer of Continuum 9W device included a 125KHz transmitting function.
2. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.209.

### 1.3. Test Mode

QuiTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Pre-Test Mode	
TX	Mode 1: Transmit
Final Test Mode	
TX	Mode 1: Transmit

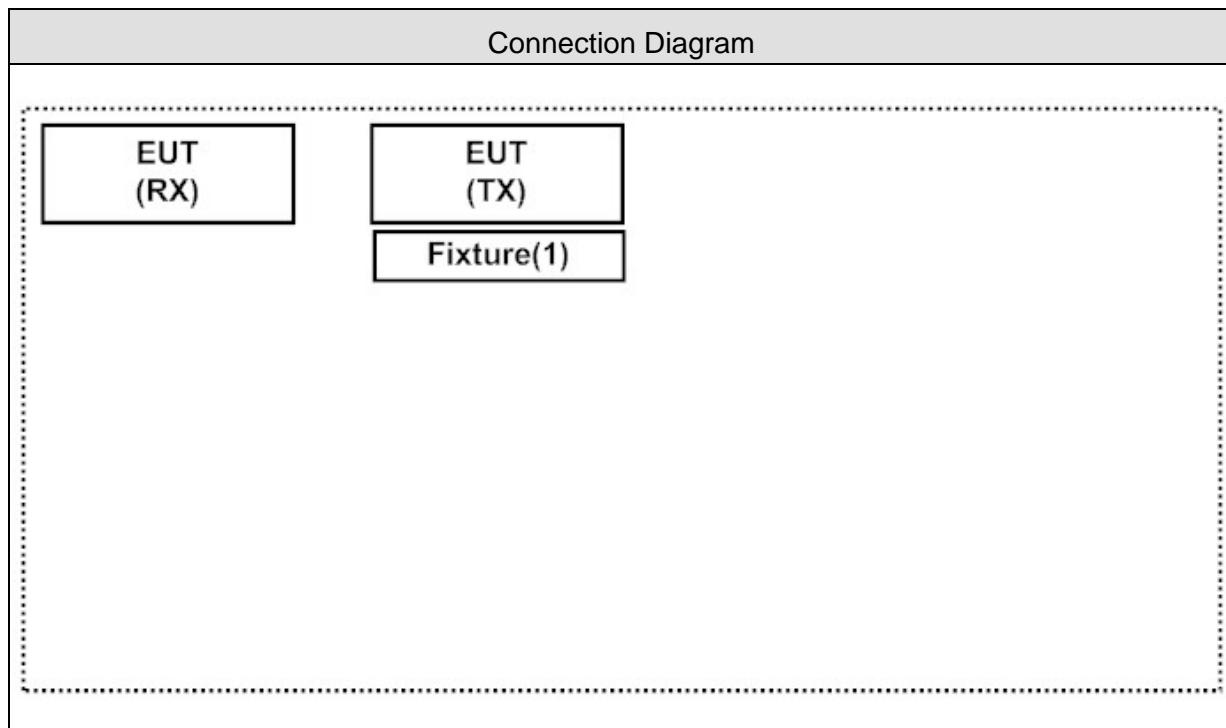
Emission	
Performed Item	Test
Conducted Emission	No
Radiated Emission	Yes

#### 1.4. Tested System Details

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1 Fixture	G.Pluse	N/A	N/A	DoC	--

#### 1.5. Configuration of tested System



#### 1.6. EUT Exercise Software

1	Setup the EUT and simulators as shown on 1.4.
2	Turn on the power.
3	The RF signal's status will continue transmit through EUT(TX).
4	Repeat the above procedure (3)

## 1.7. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	ANSI.C63.4 CE	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	ANSI.C63.4 RE	15 -35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000

Site Description: September 27, 2010 File on

Federal Communications Commission  
Laboratory Division  
7435 Oakland Mills Road  
Columbia, MD 21046  
Registration Number: 365520  
Accredited by TAF  
Accreditation Number: 1313  
Effective through: December 27, 2013



Site Name: Quietek Corporation

Site Address: No. 75-2, 3rd Lin, Wangye Keng, Yonghxing  
Tsuen, Qiongliong Shiang, Hsinchu County 307, Taiwan  
TEL : 886-3-592-8858 / FAX : 886-3-592-8859  
E-Mail : service@quietek.com

## 2. Radiated Emission

### 2.1. Test Equipment

The following test equipments are used during the test:

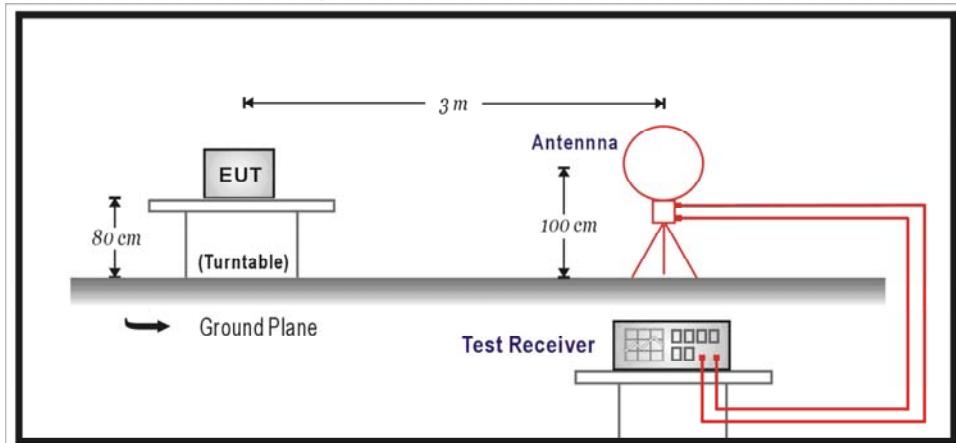
#### Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895	2011/08/14
Loop Antenna	R&S	HLA 6120	26739	2011/07/06
Pre-Amplifier	QuiTek	AP-025C	CHM-0706049	2012/03/10
PSA Series Spectrum analyzer	Agilent	E4440A	MY46187335	2012/01/06
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2012/03/21

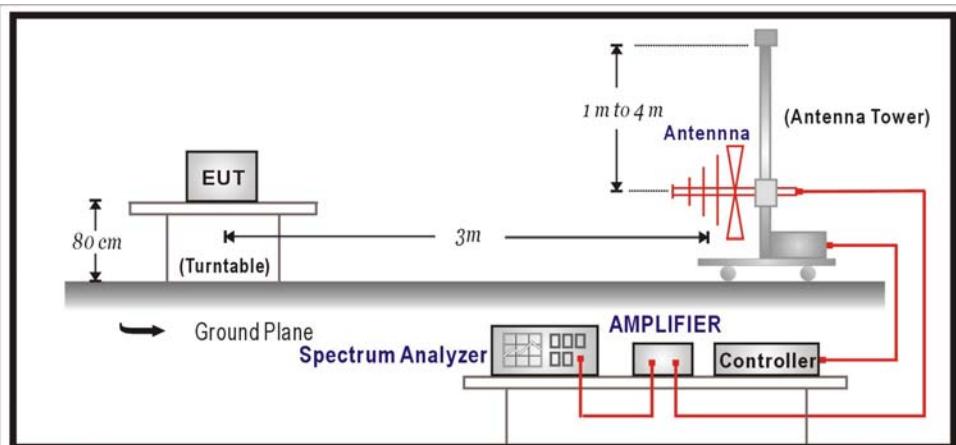
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

### 2.2. Test Setup

Under 30MHz Test Setup:



Under 1GHz Test Setup:



### 2.3. Limits

<b>FCC Part 15 Subpart C Paragraph 15.209 Limits</b>			
Frequency MHz	uV/m	dBuV/m	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	See Remark <sup>1</sup>	300
0.490-1.705	24000/F(kHz)	See Remark <sup>1</sup>	30
1.705-30	30	29.54	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV).

2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
4. When the very low emission of EUT, the 3m measurement distance was performed. Regards to an inverse linear extrapolation 40dB/dec is adopted.

### 2.4. Test Procedure

Under 30MHz Test:

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum electric field strength. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna which is 1.0 meter above ground. All X-axis, Y-axis and Z-axis polarization of the antenna are set on measurement.

The emission limit shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limit in these three bands are based on measurements employing an average detector.

**Under 1GHz Test:**

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4:2009 on radiated measurement.

On any frequency the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

The bandwidth below 30MHz setting on the field strength meter is 9kHz and above 30MHz is 120kHz.

**2.5. Test Specification**

According to FCC Part 15 Subpart C Paragraph 15.209: 2010

**2.6. Test Result**

Product	Giant Wireless cycle computer of Continuum 9W			
Test Item	Fundamental			
Test Mode	Mode 1: Transmit			
Date of Test	2011/06/21	Test Site		Site3

Fundamental at 3m

Test Conditions	Frequency (MHz)	Cable Loss (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)
X-axis	0.125	0.29	23.2	23.49	105.67
Y-axis	0.125	0.29	23.2	23.49	105.67
Z-axis	0.125	0.29	23.4	23.69	105.67

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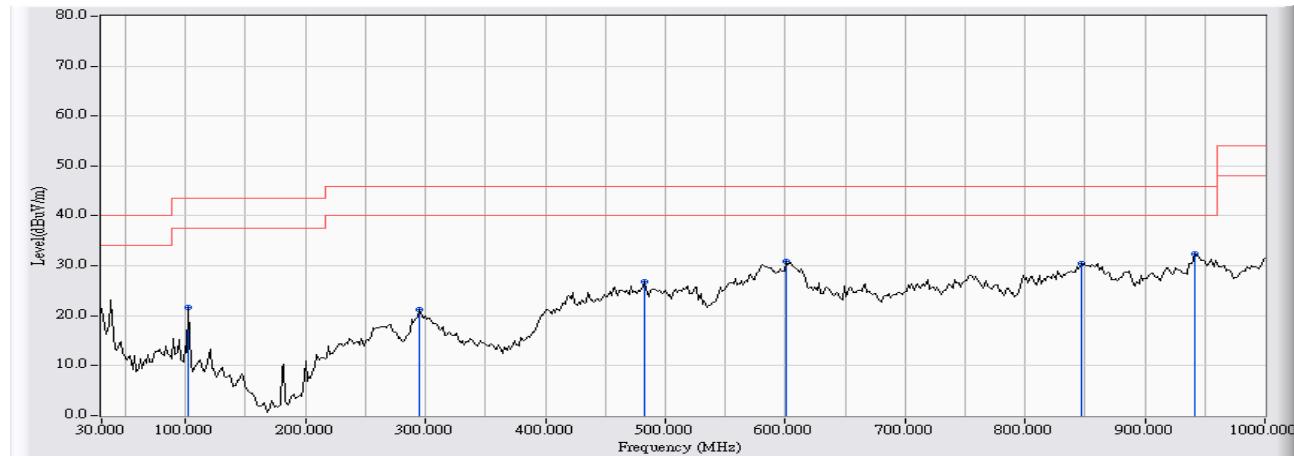
Product	Giant Wireless cycle computer of Continuum 9W		
Test Item	Radiated Emission		
Test Mode	Mode 1: Transmit		
Date of Test	2011/06/21	Test Site	Site3

## Spurious Emission(&lt;30MHz)

Frequency:9KHz-30MHz(Z-axis)				
Frequency (MHz)	Cable loss(dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)
0.235	0.29	23.2	23.49	100.18
0.278	0.29	24.3	24.59	98.72
0.524	0.29	23.35	23.64	73.22
0.711	0.29	26.13	26.42	70.57
1.2	0.29	27.8	28.09	66.02
1.34	0.29	27.67	27.96	65.06

**30 MHz – 1 GHz Spurious:**

Site : CB1	Time : 2011/06/21 - 22:23
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_ITE_30-1G(2010) - HORIZONTAL	Power : DC 3V
EUT : Giant Wired cycle computer of Continuum 9W	Note : Tx

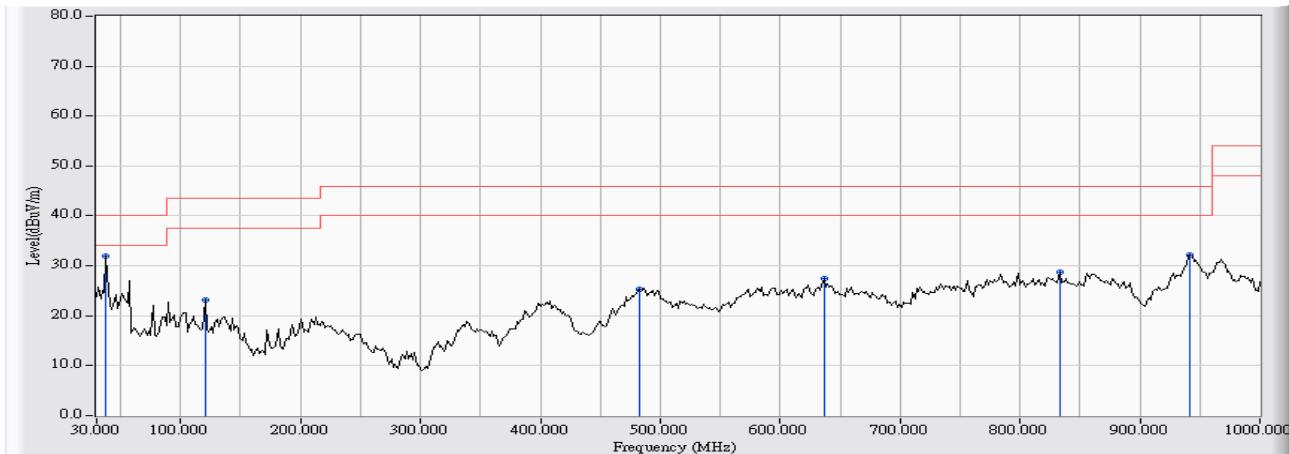


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	102.750	-11.288	32.881	21.593	-21.907	43.500	PEAK
2	295.133	-1.883	23.167	21.284	-24.716	46.000	PEAK
3	482.667	3.290	23.490	26.780	-19.220	46.000	PEAK
4	600.683	8.494	22.331	30.825	-15.175	46.000	PEAK
5	846.417	8.473	21.997	30.470	-15.530	46.000	PEAK
6	*	10.421	21.879	32.300	-13.700	46.000	PEAK

**Note:**

1. All Reading Levels are Quasi-Peak value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	Time : 2011/06/21 - 22:25
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_ITE_30-1G(2010) - VERTICAL	Power : DC 3V
EUT : Giant Wired cycle computer of Continuum 9W	Note : Tx



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	38.083	-0.159	32.145	31.986	-8.014	40.000	PEAK
2		120.533	-5.411	28.481	23.069	-20.431	43.500	PEAK
3		482.667	3.052	22.271	25.323	-20.677	46.000	PEAK
4		636.250	4.220	23.145	27.366	-18.634	46.000	PEAK
5		833.483	5.915	22.928	28.843	-17.157	46.000	PEAK
6		941.800	10.765	21.440	32.205	-13.795	46.000	PEAK

#### Note:

1. All Reading Levels are Quasi-Peak value.
2. " \* ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor