

ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR LOW-POWER, NON-LICENSED TRANSMITTER

Test Report No. : E151R-095

AGR No. : A14NA-046R

Applicant : Golfzon Co., Ltd.
Address : 898, Taprip-dong, Yuseong-gu, Daejeon, South Korea

Manufacturer : Golfzon Co., Ltd.
Address : 898, Taprip-dong, Yuseong-gu, Daejeon, South Korea

Type of Equipment : Kinetic Chain Analyzer Receiver

FCC ID. : N5Y-KNCR01

IC Certification No. : 10324A-KNCR01

Model Name : KNCR01

Serial number : N/A

Total page of Report : 7 pages (including this page)

Date of Incoming : January 28, 2014

Date of issue : December 01, 2014

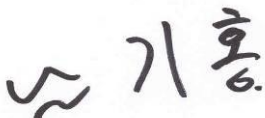
SUMMARY

The equipment complies with the regulation; **FCC PART 15 SUBPART C Section 15.247 and IC RSS-Gen Issue 4, November 2014 and RSS 210 Issue 8, December 2010**

This test report only contains the result of a single test of the sample supplied for the examination.

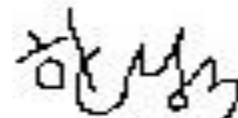
It is not a generally valid assessment of the features of the respective products of the mass-production.

Prepared by:



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Revision History

Issued Report No.	Issued Date	Revisions	Effect Section
E151R-095	December 01, 2014	Initial Issue	All

1. VERIFICATION OF COMPLIANCE

Applicant : Golfzon Co., Ltd.
 Address : 898, Taprip-dong, Yuseong-gu, Daejeon, South Korea
 Contact Person : Jaewoo Lee / Senior Research Engineer
 Telephone No. : +82-70-8660-4076
 FCC ID : N5Y-KNCR01
 IC CERTIFICATION NO. : 10324A-KNCR01
 Model Name : KNCR01
 Serial Number : N/A
 Date : December 01, 2014

EQUIPMENT CLASS	FCC: DTS – DIGITAL TRNSMISSION SYSTEM IC: Low Power License-Exempt Radio-communication Device
E.U.T. DESCRIPTION	Kinetic Chain Analyzer Receiver
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	ANSI C63.10: 2013
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC PART 15 SUBPART C Section 15.247 and RSS 210 Issue 8 December 2010, RSS-Gen Issue 4 November 2014.
Modifications on the Equipment to Achieve Compliance	None
Final Test was Conducted On	3 m, Semi Anechoic Chamber

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC& IC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

2. GENERAL INFORMATION

2.1 Product Description

The Golfzon Co., Ltd., Model KNCR01 (referred to as the EUT in this report) is a Kinetic Chain Analyzer Receiver. The product specification described herein was obtained from product data sheet or user's manual.

Device Type	Kinetic Chain Analyzer Receiver	
Temperature Range	0 °C ~ + 55 °C	
Operating Frequency	2 402 MHz , 2 440 MHz , 2 478 MHz	
RF Output Power	Antenna 1	-1.44 dBm
	Antenna 2	-1.50 dBm
	Antenna 3	-1.50 dBm
Number of Channel	3 Channel	
Modulation Type	GFSK	
Antenna Type	Pattern Antenna	
USED RF CHIP	Marker: NORDIC	
	Model Name: nRF24L01+	
Antenna Gain	Antenna 1	4.29 dBi
	Antenna 2	4.48 dBi
	Antenna 3	4.42 dBi
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)	8 MHz, 16 MHz	
EUT HW/SW version	FVIN : v2014072202	
	HW version : v1.2	

2.2 Alternative type(s)/model(s); also covered by this test report.

-. None

3. EUT MODIFICATIONS

-. None

4. RADIO FREQUENCY EXPOSURE

4.1 RF Exposure Limit

According to the FCC rule §1.1310, the limit for General Population/Uncontrolled exposure is 1 mW/cm² for the device operating 1 500 ~ 100 000 MHz.

4.2 EUT Description

Kind of EUT	Kinetic Chain Analyzer Receiver	
Operating Frequency Band	☐ Wireless Microphone: 494.000 MHz ~ 501.000 MHz and 498.200 MHz ~ 505.200 MHz ☐ WLAN: 2 412 MHz ~ 2 462 MHz ☐ WLAN: 5 180 MHz ~ 5 320 MHz / 5 500 MHz ~ 5 700 MHz ☐ WLAN: 5 745 MHz ~ 5 825 MHz ☐ Bluetooth: 2 402 MHz ~ 2 480 MHz ☒ GFSK Modulation: 2 402 MHz , 2 440 MHz , 2 478 MHz	
Device Category	☐ Portable (< 20 cm separation) ☐ Mobile (> 20 cm separation) ☒ Others	
Max. Output Power	Antenna 1	-1.44 dBm
	Antenna 2	-1.50 dBm
	Antenna 3	-1.50 dBm
Used Antenna	Pattern Antenna	
Used Antenna Gain	Antenna 1	4.29 dBi
	Antenna 2	4.48 dBi
	Antenna 3	4.42 dBi
Exposure Evaluation Applied	☒ MPE ☐ SAR ☐ N/A	

4.3 Test Result

According to the procedure, KDB 447498 D01, the standalone SAR test exclusion threshold is

$$[(\text{Max. Power of channel, including tune-up tolerance, mW})/(\text{Mim. test separation distance, mm})] \times [\sqrt{f(\text{GHz})}] < 3$$

$$= [0.794/5] \times \sqrt{2.48} = 0.25$$

Conclusion: The SAR test exclusion threshold is less than 3, so the device meets the RF Exposure Requirement and excluded SAR Test.

	Frequency (MHz)	Target Power W/tolerance (dBm)	Max tune up power (dBm)	Max tune up power (mW)	Separation distance (mm)	RF exposure
(GFSK)	2 480	-1.5 ± 0.5	-1.0	0.794	5	0.25