
RF Exposure Evaluation Report

Product Name : Logistics Monitoring Tag
Model No. : GWS-CSCG Tag
FCC ID : WL6GWS-CSCGTAG

Applicant : ELITEGROUP COMPUTER SYSTEMS CO., LTD

Address : No. 239, SEC. 2, TI DING BLVD, TAIPEI 11493, TAIWAN

Date of Receipt : Sep12, 2017

Date of Declaration : Oct. 13, 2017

Report No. : 1790144R-RFUSP02V00

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

The test report shall not be reproduced without the written approval of QuieTek Corporation.

Issued Date: Oct. 13, 2017

Report No.: 1790144R-RFUSP02V00



Product Name	Logistics Monitoring Tag
Applicant	ELITEGROUP COMPUTER SYSTEMS CO., LTD
Address	No. 239, SEC. 2, TI DING BLVD, TAIPEI 11493, TAIWAN
Manufacturer	Golden Elite Technology (SHENZHEN) CO., LTD.
Model No.	GWS-CSCG Tag
FCC ID.	WL6GWS-CSCGTAG
EUT Rated Voltage	DC 3.3V(Power by battery)
EUT Test Voltage	DC 3.3V (Power by battery)
Trade Name	ECS
Applicable Standard	FCC 47 CFR 1.1310
Test Result	Complied

Documented By :



(Senior Adm. Specialist / Genie Chang)

Tested By :



(Engineer / Kevin Liu)

Approved By :



(Director / Vincent Lin)

1. RF Exposure Evaluation

1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18°C and 78% RH.

1.3. Test Result of RF Exposure Evaluation

Product : Logistics Monitoring Tag
Test Item : RF Exposure Evaluation

RF Exposure :

Operation Frequency	2405-2480MHz
Maximum Conducted output power	5.04dBm
Antenna gain	1dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)
3.191537855	0.000799

Power density is lower than the limit (1 mW/cm²).