RF Exposure Evaluation declaration

Product Name : HD Digital Satellite Receiver

Model No. : TELE-P6

FCC ID : 2AR5S-TELE-P6

Applicant : KIWISAT LLC

Address : 1111 Pennsylvania Avenue, NW Washington,
District of Columbia 20004, United States

Date of Receipt : Dec. 28, 2018

Date of Declaration : Feb. 13, 2019

Report No. : 18C0554R-SAUSP03V00

Report Version : V1.0

Testing Laboratory
3023

Issued Date: Feb. 13, 2019
Report No.: 18C0554R-SAUSP03V00

Product Name	HD Digital Satellite Receiver
Applicant	KIWISAT LLC
Address	1111 Pennsylvania Avenue, NW Washington, District of Columbia 20004, United States
Manufacturer	TELE System Communications Pte. Ltd.
Model No.	TELE-P6
FCC ID.	2AR5S-TELE-P6
Trade Name	Kiwisat
Applicable Standard	FCC 47 CFR 1.1310
Test Result	Complied

Documented By : Elephant Chen

(Senior Adm. Specialist / Elephant Chen)

Tested By : wen Lee

(Engineer / Wen Lee)

Approved By :

(Director / Vincent Lin)

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	HD Digital Satellite Receiver
Model No.	TELE-P6
Trade Name	Kiwisat
FCC ID	2AR5S-TELE-P6
Frequency Range	2412-2462MHz for 802.11b/g/n-20BW, 2422-2452MHz for 802.11n-40BW
Number of Channels	802.11b/g/n-20MHz: 11, n-40MHz: 7
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 150Mbps
Type of Modulation	802.11b:DSSS (DBPSK, DQPSK, CCK) 802.11g/n:OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	PCB Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto

1.2. Antenna List :

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	SHIFENG ELECTRONIC CO., LTD	EAN00EE008Y1	PCB Antenna	-4.3 dBi for 2.4 GHz

2. RF Exposure Evaluation

2.1. 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: $Pd = (Pout*G)/(4*pi*r^2)$

Where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

2.2. Test Result of RF Exposure Evaluation

Product : HD Digital Satellite Receiver
Test Item : RF Exposure Evaluation

WLAN 2.4G Peak Gain: -4.3dBi

Band	Frequency	Conducted Peak Power (dBm)	Duty Cycle (%)	Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm^2)	Limit (mW/cm^2)	Pass/Fail
802.11b	2412	15.54	97.69	36.7	0.003	1	Pass
802.11g	2437	19.83	48.18	199.6	0.015	1	Pass
802.11n20	2412	19.30	61.17	139.1	0.010	1	Pass
802.11n40	2452	19.19	38.51	215.5	0.016	1	Pass

Note: The conducted output power is refer to report No.: 18C0554R-RFUSP26V00 from the DEKRA.