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FCC MPE REPORT

Certification

Applicant Name:
Franklin Technology Inc.

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Geumcheon-gu, Seoul, Korea, (08502)

Date of Issue:
February 01, 2019

Location:
HCT CO., LTD.,
74, Seoicheon-ro 578beon-gil, Majang-myeon,
Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA
Report No.: HCT-RF-1902-FC011

FCC ID: XHG-T720

APPLICANT: Franklin Technology Inc.

Model(s): T720

EUT Type: Home Phone Connect

The measurements shown in this report were made in accordance with the procedures specified in §2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998, 21 U.S.C. 853(a)

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Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-1902-FC011	February 01, 2019	- First Approval Report

RF Exposure Statement

1. LIMITS

According to §1.1310 and §2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	*(100)	30
1.34 - 30.....	824/f	2.19/f	*(180/ f ²)	30
30 - 300.....	27.5	0.073	0.2	30
300 - 1500.....			f/1500	30
1500 - 100.000.....			1.0	30

F = frequency in MHz

* = Plane-wave equivalent power density

2. MAXIMUM PERMISSIBLE EXPOSURE Prediction

Prediction of MPE limit at a given distance

$$S = PG/4\pi R^2$$

S = Power density

P = power input to antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

3.RESULTS

3-1. LTE5 BAND

Max Peak output Power at antenna input terminal	24.000	dBm
Max Peak output Power at antenna input terminal	0.2512	W
Prediction distance	20.000	cm
Prediction frequency	824 ~ 849	MHz
Antenna Gain(typical)	4.876	dBi
Antenna Gain(numeric)	3.073	-
Power density at prediction frequency(S)	0.154	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.549	mW/cm ²

2.1091

EIRP	28.876 (dBm)
ERP	26.726 (dBm)
ERP	0.47 (W)
ERP Limit	1.50 (W)
MARGIN	5.04 (dB)

3-2. LTE12 BAND

Max Peak output Power at antenna input terminal	24.000	dBm
Max Peak output Power at antenna input terminal	0.2512	W
Prediction distance	20.000	cm
Prediction frequency	699 ~ 716	MHz
Antenna Gain(typical)	3.767	dBi
Antenna Gain(numeric)	2.381	-
Power density at prediction frequency(S)	0.154	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.466	mW/cm ²

2.1091

EIRP	27.767 (dBm)
ERP	25.617 (dBm)
ERP	0.37 (W)
ERP Limit	1.50 (W)
MARGIN	6.08 (dB)

3-3. LTE25 BAND

Max Peak output Power at antenna input terminal	24.000	dBm
Max Peak output Power at antenna input terminal	0.2512	W
Prediction distance	20.000	cm
Prediction frequency	1850 ~ 1915	MHz
Antenna Gain(typical)	4.885	dBi
Antenna Gain(numeric)	3.080	-
Power density at prediction frequency(S)	0.154	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

2.1091

EIRP	28.885 (dBm)
ERP	26.735 (dBm)
ERP	0.47 (W)
ERP Limit	3.00 (W)
MARGIN	8.04 (dB)

3-4. LTE41 BAND

Max Peak output Power at antenna input terminal	23.500	dBm
Max Peak output Power at antenna input terminal	0.2239	W
Prediction distance	20.000	cm
Prediction frequency	2496 ~ 2690	MHz
Antenna Gain(typical)	5.194	dBi
Antenna Gain(numeric)	3.307	-
Power density at prediction frequency(S)	0.137	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

2.1091

EIRP	28.694 (dBm)
ERP	26.544 (dBm)
ERP	0.45 (W)
ERP Limit	3.00 (W)
MARGIN	8.23 (dB)

3-5. CDMA BAND(CDMA)

Max Peak output Power at antenna input terminal	24.000	dBm
Max Peak output Power at antenna input terminal	0.2512	W
Prediction distance	20.000	cm
Prediction frequency	824.70 ~ 848.31	MHz
Antenna Gain(typical)	4.876	dBi
Antenna Gain(numeric)	3.073	-
Power density at prediction frequency(S)	0.154	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.550	mW/cm ²

2.1091

EIRP	28.876 (dBm)
ERP	26.726 (dBm)
ERP	0.47 (W)
ERP Limit	1.50 (W)
MARGIN	5.03 (dB)

3-6. CDMA BAND(PCS CDMA)

Max Peak output Power at antenna input terminal	23.500	dBm
Max Peak output Power at antenna input terminal	0.2239	W
Prediction distance	20.000	cm
Prediction frequency	1851.25 ~ 1908.75	MHz
Antenna Gain(typical)	4.885	dBi
Antenna Gain(numeric)	3.080	-
Power density at prediction frequency(S)	0.137	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

2.1091

EIRP	28.385 (dBm)
ERP	30.535 (dBm)
ERP	1.13 (W)
ERP Limit	3.00 (W)
MARGIN	4.24 (dB)