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TEST REPORT

FCC MPE Test for T720C
Certification

APPLICANT
Franklin Technology Inc.

REPORT NO.
HCT-RF-2112-FC030

DATE OF ISSUE
December 16, 2021

Tested by
Jae Mun Do

Technical Manager
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Additional Model
-

Applicant	**Franklin Technology Inc.** 906 JEI Platz, 186, Gasan digital 1-ro, Gumcheon-Gu, Seoul 08502, South Korea
Eut Type	Home Phone Connect
Model Name	T720C
FCC ID	XHG-T720C

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.
This test results were applied only to the test methods required by the standard.

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	December 16, 2021	Initial Release

Engineering Statement:
The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance.

If this report is required to confirmation of authenticity, please contact to www.hct.co.kr

RF Exposure Statement

1. Limit

According to § 1.1310, § 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 to the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

3. RESULTS

- CDMA BC0-

Max Peak output Power at antenna input terminal	24.00	dBm
Max Peak output Power at antenna input terminal	0.251	mW
Prediction distance	20.00	cm
Prediction frequency	824.7 ~ 848.3	MHz
Antenna Gain including Cable (typical)	4.876	dBi
Antenna Gain including Cable (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

EIRP	28.88	(dBm)
ERP	26.73	(dBm)
ERP	0.47	(W)
ERP Limit	1.50	(W)
MARGIN	5.03	(dB)

- PCS CDMA BC1-

Max Peak output Power at antenna input terminal	23.50	dBm
Max Peak output Power at antenna input terminal	0.224	mW
Prediction distance	20.00	cm
Prediction frequency	1851.3 ~ 1908.8	MHz
Antenna Gain including Cable (typical)	4.885	dBi
Antenna Gain including Cable (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

EIRP	28.39	(dBm)
ERP	30.54	(dBm)
ERP	1.13	(W)
ERP Limit	3.00	(W)
MARGIN	4.24	(dB)

- LTE Band 5-

Max Peak output Power at antenna input terminal	24.00	dBm
Max Peak output Power at antenna input terminal	0.251	mW
Prediction distance	20.00	cm
Prediction frequency	824 ~ 849	MHz
Antenna Gain including Cable (typical)	4.876	dBi
Antenna Gain including Cable (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

EIRP	28.88	(dBm)
ERP	26.73	(dBm)
ERP	0.47	(W)
ERP Limit	1.50	(W)
MARGIN	5.04	(dB)

- LTE Band 2-

Max Peak output Power at antenna input terminal	23.50	dBm
Max Peak output Power at antenna input terminal	223.87	mW
Prediction distance	20.00	cm
Prediction frequency	1860.0 ~ 1900.0	MHz
Antenna Gain including Cable (typical)	4.885	dBi
Antenna Gain including Cable (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

EIRP	28.39	(dBm)
ERP	26.24	(dBm)
ERP	0.420	(W)
ERP Limit	3.00	(W)
MARGIN	8.54	(dB)

- LTE Band 13-

Max Peak output Power at antenna input terminal	24.50	dBm
Max Peak output Power at antenna input terminal	281.84	mW
Prediction distance	20.00	cm
Prediction frequency	779.5 ~ 784.5	MHz
Antenna Gain including Cable (typical)	3.767	dBi
Antenna Gain including Cable (numeric)	2.381	-
Power density at prediction frequency(S)	0.133	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.520	mW/cm^2

EIRP	28.27	(dBm)
ERP	26.12	(dBm)
ERP	0.41	(W)
ERP Limit	1.50	(W)
MARGIN	5.64	(dB)

- LTE Band 66(4)-

Max Peak output Power at antenna input terminal	24.00	dBm
Max Peak output Power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	1715 ~ 1775	MHz
Antenna Gain including Cable (typical)	4.247	dBi
Antenna Gain including Cable (numeric)	2.659	-
Power density at prediction frequency(S)	0.133	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm^2

EIRP	28.25	(dBm)
ERP	26.10	(dBm)
ERP	0.407	(W)
ERP Limit	3.00	(W)
MARGIN	8.67	(dB)