

# TEST REPORT

EVALUATION Test for T720C

**APPLICANT**  
Franklin Technology Inc.

**DATE OF ISSUE**  
January 05, 2022

**Tested by**  
Jae Mun Do

  
(signature)

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<p><b>TEST REPORT</b> EVALUATION Test for T720C</p>	<p><b>DATE OF ISSUE</b> January 05, 2022</p> <p><b>Additional Model</b> -</p>
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<p><b>Applicant</b></p>	<p><b>Franklin Technology Inc.</b> 906 JEI Platz, 186, Gasan digital 1-ro, Gumcheon-Gu, Seoul 08502, South Korea</p>
<p><b>FCC ID</b></p>	<p>XHG-T720C</p>
<p><b>Equipment Class(es) Rule Part(s)</b></p>	<p>PCB 22, § 24, § 2</p>
<p><b>Application's Statement</b></p>	<p>The applicant takes full responsibility that the test data referenced below represents compliance for this FCC ID.</p>
<p><b>Differences Brief Description</b></p>	<p>hardware and software of this device are identical to the implementation in XHG-T720. The operational description includes detailed information about the changes between the devices. The data from that application has been verified through appropriate spot checks to demonstrate compliance for this device as shown in the summary table below.</p>
<p><b>Test Reference</b></p>	<p>KDB 484596 D01 Reference Test Data v01</p>

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
1	January 05, 2022	Revised the 2 pages.

If this report is required to confirmation of authenticity, please contact to [www.hct.co.kr](http://www.hct.co.kr)



The detail test data can be found in this documents, Appendix A.

Category	Spot Check	Verdict
Licensed EMC	ERP / EIRP	Share
	RSE	Share

Reference Detail Section

Reference FCC ID	Equipment Class	Report Title	Section
XHG-T720	PCB	CDMA Report	All sections
		LTE B5 Report	All sections



## Appendix A. The Spot check test data

### 1.1 Conducted Power

-CDMA-

Band	Channel	SO2			SO2		
		RC1/1			RC3/3		
		(dBm)		Diviation	(dBm)		Diviation
		Original	Reuse	(dB)	Original	Reuse	(dB)
CDMA	1013	23.31	23.59	-0.28	23.31	23.62	-0.31
	384	23.18	23.74	-0.56	23.14	23.82	-0.68
	777	22.89	23.51	-0.62	22.92	23.54	-0.62
PCS	25	21.89	22.79	-0.90	21.91	22.73	-0.82
	600	22.41	22.83	-0.42	22.38	22.78	-0.40
	1175	22.32	22.46	-0.14	22.30	22.41	-0.11

Band	Channel	SO55			SO55			TDSO SO32		
		RC1/1			RC3/3			RC3/3		
		(dBm)		Diviation	(dBm)		Diviation	(dBm)		Diviation
		Original	Reuse	(dB)	Original	Reuse	(dB)	Original	Reuse	(dB)
CDMA	1013	23.31	23.86	-0.55	23.29	23.83	-0.54	23.28	23.78	-0.50
	384	23.15	23.81	-0.66	23.08	23.85	-0.77	23.12	23.81	-0.69
	777	22.96	23.58	-0.62	22.95	23.80	-0.85	22.91	23.63	-0.72
PCS	25	21.90	22.77	-0.87	21.80	22.74	-0.94	21.92	22.78	-0.86
	600	22.32	22.80	-0.48	22.30	22.75	-0.45	22.41	22.70	-0.29
	1175	22.33	22.44	-0.11	22.37	22.34	0.03	22.38	22.30	0.08



-LTE Band 5-

Frequency (MHz)	Channel	Resource Block Size	Resource Block Offset	Original (dBm)		Reuse (dBm)		Divation (dBm)	
				QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
824.7	20407	1	0	23.40	22.28	23.64	22.49	0.24	0.21
		1	3	23.40	22.35	23.63	22.62	0.23	0.27
		1	5	23.33	22.13	23.60	22.46	0.27	0.33
		3	0	23.33	22.36	23.52	22.40	0.19	0.04
		3	1	23.50	22.57	23.59	22.54	0.09	-0.03
		3	3	23.30	22.31	23.57	22.46	0.27	0.15
836.5	20525	1	0	23.34	22.58	23.46	22.28	0.12	-0.30
		1	3	23.53	22.58	23.40	22.08	-0.13	-0.50
		1	5	23.40	22.56	23.42	21.95	0.02	-0.61
		3	0	23.37	22.54	23.18	22.40	-0.19	-0.14
		3	1	23.36	22.61	23.49	22.39	0.13	-0.22
		3	3	23.37	22.62	23.35	22.56	-0.02	-0.06
848.3	20643	1	0	23.42	22.28	23.77	22.36	0.35	0.08
		1	3	23.24	22.43	23.62	22.45	0.38	0.02
		1	5	23.21	22.20	23.63	22.32	0.42	0.12
		3	0	23.32	22.34	23.40	22.60	0.08	0.26
		3	1	23.28	22.31	23.33	22.60	0.05	0.29
		3	3	23.27	22.27	23.42	22.42	0.15	0.15
		6	0	22.32	21.20	22.51	21.35	0.19	0.15

LTE Conducted Average Output Powers (1.4 MHz Band 5 LTE)



Frequency (MHz)	Channel	Resource Block Size	Resource Block Offset	Original (dBm)		Reuse (dBm)		Divation (dBm)	
				QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
825.5	20415	1	0	23.41	22.36	23.65	22.45	0.24	0.09
		1	7	23.46	22.44	23.60	22.38	0.14	-0.06
		1	14	23.49	22.45	23.56	22.23	0.07	-0.22
		8	0	22.32	21.33	22.53	21.62	0.21	0.29
		8	3	22.35	21.36	22.62	21.44	0.27	0.08
		8	7	22.27	21.37	22.58	21.40	0.31	0.03
		15	0	22.34	21.41	22.52	21.39	0.18	-0.02
836.5	20525	1	0	23.29	22.17	23.51	22.55	0.22	0.38
		1	7	23.38	22.61	23.45	22.12	0.07	-0.49
		1	14	23.30	22.44	23.48	22.01	0.18	-0.43
		8	0	22.29	21.54	22.45	21.20	0.16	-0.34
		8	3	22.28	21.62	22.42	21.40	0.14	-0.22
		8	7	22.26	21.62	22.41	21.24	0.15	-0.38
		15	0	22.19	21.35	22.38	21.15	0.19	-0.20
847.5	20635	1	0	23.56	22.25	23.44	22.24	-0.12	-0.01
		1	7	23.60	22.70	23.42	22.07	-0.18	-0.63
		1	14	23.39	22.09	23.43	22.24	0.04	0.15
		8	0	22.53	21.14	22.29	21.52	-0.24	0.38
		8	3	22.42	21.10	22.42	21.50	0.00	0.40
		8	7	22.33	21.40	22.36	21.42	0.03	0.02
		15	0	22.41	21.47	22.47	21.44	0.06	-0.03

LTE Conducted Average Output Powers (3 MHz Band 5 LTE)



Frequency (MHz)	Channel	Resource Block Size	Resource Block Offset	Original (dBm)		Reuse (dBm)		Diviation (dBm)	
				QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
826.5	20425	1	0	23.34	22.17	23.52	22.38	0.18	0.21
		1	12	23.48	22.50	23.51	22.05	0.03	-0.45
		1	24	23.37	22.44	23.38	22.04	0.01	-0.40
		12	0	22.34	21.21	22.46	21.40	0.12	0.19
		12	6	22.39	21.31	22.57	21.50	0.18	0.19
		12	11	22.49	21.35	22.53	21.46	0.04	0.11
		25	0	22.39	21.45	22.48	21.49	0.09	0.04
836.5	20525	1	0	23.27	22.15	23.57	22.08	0.30	-0.07
		1	12	23.46	22.17	23.50	22.24	0.04	0.07
		1	24	23.37	22.08	23.38	22.24	0.01	0.16
		12	0	22.23	21.15	22.40	21.33	0.17	0.18
		12	6	22.26	21.29	22.43	21.49	0.17	0.20
		12	11	22.25	21.27	22.38	21.33	0.13	0.06
		25	0	22.16	21.13	22.36	21.35	0.20	0.22
846.5	20625	1	0	23.33	22.01	23.53	22.10	0.20	0.09
		1	12	23.53	22.25	23.52	22.20	-0.01	-0.05
		1	24	23.27	22.06	23.50	22.15	0.23	0.09
		12	0	22.45	21.31	22.27	21.39	-0.18	0.08
		12	6	22.43	21.32	22.31	21.38	-0.12	0.06
		12	11	22.42	21.31	22.43	21.45	0.01	0.14
		25	0	22.39	21.35	22.23	21.26	-0.16	-0.09

LTE Conducted Average Output Powers (5 MHz Band 5 LTE)





Frequency (MHz)	Channel	Resource Block Size	Resource Block Offset	Original (dBm)		Reuse (dBm)		Divation (dBm)	
				QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
829.0	20450	1	0	23.39	22.10	23.67	22.34	0.28	0.24
		1	24	23.65	22.43	23.65	22.28	0.00	-0.15
		1	49	23.32	22.13	23.53	22.31	0.21	0.18
		25	0	22.42	21.38	22.55	21.46	0.13	0.08
		25	12	22.45	21.36	22.40	21.32	-0.05	-0.04
		25	24	22.35	21.39	22.43	21.45	0.08	0.06
		50	0	22.37	21.28	22.45	21.42	0.08	0.14
836.5	20525	1	0	23.36	22.06	23.52	22.32	0.16	0.26
		1	24	23.73	22.50	23.51	22.36	-0.22	-0.14
		1	49	23.41	22.17	23.50	22.28	0.09	0.11
		25	0	22.26	21.30	22.43	21.32	0.17	0.02
		25	12	22.24	21.37	22.38	21.36	0.14	-0.01
		25	24	22.31	21.36	22.35	21.42	0.04	0.06
		50	0	22.27	21.14	22.48	21.33	0.21	0.19
844.0	20600	1	0	23.52	22.23	23.60	22.27	0.08	0.04
		1	24	23.83	22.35	23.51	22.14	-0.32	-0.21
		1	49	23.40	22.09	23.48	22.22	0.08	0.13
		25	0	22.53	21.25	22.33	21.44	-0.20	0.19
		25	12	22.52	21.45	22.28	21.17	-0.24	-0.28
		25	24	22.49	21.52	22.18	21.31	-0.31	-0.21
		50	0	22.40	21.26	22.23	21.35	-0.17	0.09

LTE Conducted Average Output Powers (10 MHz Band 5 LTE)



1.2 RADIATED SPURIOUS EMISSIONS

Mode, Channel, (Frequency)	Freq. (MHz)	Measured Level (dBm)	Ant. Gain (dBd)	Substitute Level (dBm]	C.L	Pol.	Result (dBm)
CDMA850 CH 777 (848.3)	1 696.60	-49.02	9.97	-59.27	2.04	H	-51.33
PCS CH 1175 (1908.8)	9 544.00	-58.84	10.98	-42.98	5.14	V	-37.13
LTE B5 CH 20415 (825.5)	1 651.00	-41.58	9.70	-51.90	1.99	H	-44.19

Modulation	Frequency		Mode	Original (dBm)	Reuse (dBm)	Deviation (dB)
	MHz	Ch.				
CDMA850	1 696.60	777	1xRTT	-52.03	-51.33	0.70
PCS	9 544.00	1175	1xRTT	-37.27	-37.13	0.14
LTE B5 (B.W 3 MHz)	1 651.00	20415	QPSK	-39.76	-44.19	-4.43



## 2. List of test equipment

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
H.P.F	FBSR-02B(WHK1.2/15 G-10EF)	T&M SYSTEM	-	03/02/2022	Annual
H.P.F	FBSR-02B(WHK3.3/18 G-10EF)	T&M SYSTEM	-	03/02/2022	Annual
Power Splitter(DC ~ 26.5 GHz)	11667B	Hewlett Packard	11275	04/07/2022	Annual
DC Power Supply	E3632A	Agilent	MY40010147	06/28/2022	Annual
Dipole Antenna	UHAP	Schwarzbeck	557	04/05/2023	Biennial
Dipole Antenna	UHAP	Schwarzbeck	558	04/05/2023	Biennial
Chamber	SU-642	ESPEC	93008124	03/15/2022	Annual
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	147	08/30/2022	Biennial
Horn Antenna(1 ~ 18 GHz)	BBHA 9120D	Schwarzbeck	9120D-1298	09/15/2023	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170342	10/13/2022	Biennial
Horn Antenna(15 ~ 40 GHz)	BBHA 9170	Schwarzbeck	BBHA9170124	02/11/2022	Biennial
Signal Analyzer(10 Hz ~ 26.5 GHz)	N9020A	Agilent	MY52090906	05/18/2022	Annual
ATTENUATOR(20 dB)	8493C	Hewlett Packard	17280	06/01/2022	Annual
Spectrum Analyzer(10 Hz ~ 40 GHz)	FSV40	REOHDE & SCHWARZ	100931	09/29/2022	Annual
Base Station	8960 (E5515C)	Agilent	MY48360800	08/18/2022	Annual
Loop Antenna(9 kHz ~ 30 MHz)	FMZB1513	Schwarzbeck	1513-333	03/19/2022	Biennial
Bilog Antenna	VULB9160	Schwarzbeck	3150	03/03/2023	Biennial
Hybrid Antenna	VULB9168	Schwarzbeck	760	02/22/2023	Biennial
Wideband Radio Communication Tester	MT8821C	Anritsu Corp.	6262116770	07/12/2022	Annual
Wideband Radio Communication Tester	MT8820C	Anritsu Corp.	6201026545	01/07/2022	Annual
SIGNAL GENERATOR (100 kHz ~ 40 GHz)	SMB100A	REOHDE & SCHWARZ	177633	07/05/2022	Annual
Signal Analyzer(5 Hz ~ 40.0 GHz)	N9030B	KEYSIGHT	MY55480167	06/02/2022	Annual
FCC LTE Mobile Conducted RF Automation Test Software	-	HCT CO., LTD.,	-	-	-