

PRODUCT EQUALITY DECLARATION

Product Equality

March 14, 2023

We, as a manufacturer, hereby declare that our product has variant model names as listed below. Each model has a different configuration and entire test was performed with basic model. There is no technical difference among the listed models that have different configurations.

A. Modular Information

FCC	FCC ID	BEJTM05FNNAGM0
	Original Grant Date	3 March 2023
	Modular	Single Modular
ISED	IC Certification Number	2703H-TM05FNNAGM0
	Approved Date	9 March 2023
	HVIN	TM05FNNAGM0, TM05FNNAGM1
	PMN	TM05FNNAGM0, TM05FNNAGM1

B. Difference between Host configuration and Modular configuration.

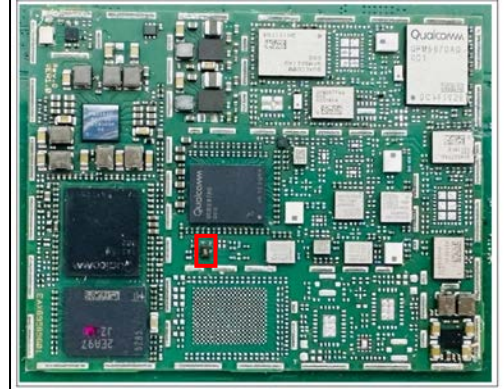
Modular	FCC ID	BEJTM05FNNAGM0
	IC Certification Number	2703H-TM05FNNAGM0
	Equipment Type	Single Modular
	HVIN/PMN	TM05FNNAGM0, TM05FNNAGM1
Host	FCC ID	BEJTFGMEIBBCD1
	IC Certification Number	2703H-TFGMEIBBCD1
	HVIN/PMN	TFGMEIBBCD1, TFGMEIBBCD2, TFGMEIBBCD3
Difference	Same hardware and software specification. Host equipment device is the modular and jig that we used for the testing within enclosures.	

C. Difference between Basic and Variant

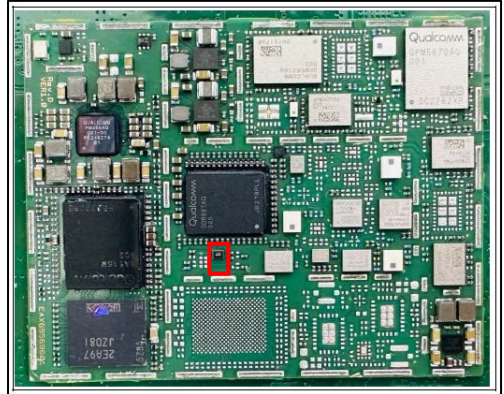
Basic Model	TFGMEIBBCD1	FCC ID - BEJTFGMEIBBCD1 IC Certification Number - 2703H-TFGMEIBBCD1
Variant Model	TFGMEIBBCD2	
	TFGMEIBBCD3	

Difference	Same to RF module with Basic model except following function.	
	TFGMEIBBCD1	Dual/Single GNSS and Ultra-super cruise service supported.
	TFGMEIBBCD2	Single GNSS and Ultra-super cruise service doesn't supported.
	TFGMEIBBCD3	Single GNSS and Ultra-super cruise service doesn't supported. eUICC part is different with TFGMEIBBCD2.

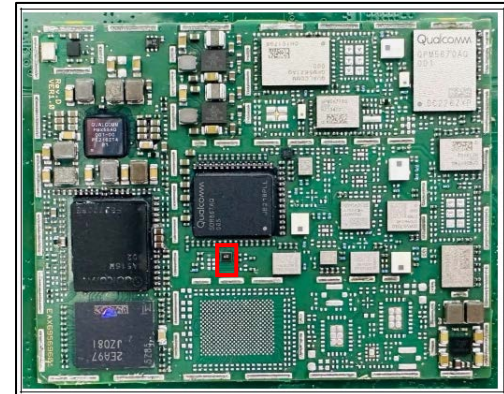
Basic Model(TFGMEIBBCD1)



Variant Model(TFGMEIBBCD2)



Variant Model(TFGMEIBBCD3)



D. Test Reports

Following test reports are referenced.

Mode	FCC ID, IC Certification Number	Test Report Reference	Date
WCDMA	BEJTM05FNNAGM0, 2703H-TM05FNNAGM0	F690501-RF-RTL003823-1	02 March 2023
LTE	BEJTM05FNNAGM0, 2703H-TM05FNNAGM0	F690501-RF-RTL003820-1	02 March 2023
		F690501-RF-RTL003822-1	02 March 2023
		F690501-RF-RTL003824-1	02 March 2023
NR	BEJTM05FNNAGM0	F690501-RF-RTL003821-1	02 March 2023
		F690501-RF-RTL003825-1	02 March 2023
		F690501-RF-RTL003827-1	02 March 2023
	2703H-TM05FNNAGM0	F690501-RF-RTL003821-1	02 March 2023
		F690501-RF-RTL003825-1	02 March 2023
		F690501-RF-RTL003828-1	02 March 2023
MPE	BEJTM05FNNAGM0	F690501-RF-RTL003826-2	03 March 2023
	2703H-TM05FNNAGM0	F690501-RF-RTL003829-1	02 March 2023

E. Test in host configuration

The only difference of modular (TM05FNNAGM0) and host equipment (TFGMEIBBCD1) is the host equipment has enclosure. TM05FNNAGM0 was tested in standalone configuration without enclosure. TFGMEIBBCD1 has enclosure added around the modular without having any modification or differences. All the software and hardware are identical in both configurations.

Spot check of conducted power was performed to make sure conducted power is not changed. Conducted power in host configuration has been verified and all the conducted measurement can be referenced.

We also performed radiated spurious emission of LTE B4, B14, B66 and LTE CA 5B, 66B and WCDMA IV, V and 5G NR n41, n77, n78 in worst modes(below 1 GHz, above 1 GHz) based on original test result of TM05FNNAGM0. Radiated spurious emission test results were equivalent as original test result of the modular.

Mode	Radiated Spurious Emission				Deviation [dB]
	Band	Worst Frequency [MHz]	TM05FNNAGM0 [dBm]	TFGMEIBBCD1 [dBm]	
LTE	LTE 14	793.0	-46.37	-45.00	-1.37
	LTE 66/4	1717.5	-17.50	-18.29	0.79
LTE CA	5B	829.0 + 836.2	-48.48	-51.32	-2.84
	66B	1717.5 + 1726.8	-17.31	-17.63	-0.32
WCDMA	IV	1712.4	-21.07	-23.37	2.30
	V	836.6	-56.42	-56.38	0.04
5G NR	n41 FCC SISO	2511.00	-53.16	-53.20	-0.04
	n41 ISED SISO	2510.01	-53.09	-53.25	-0.16
	n41 FCC MIMO	2592.99	-53.01	-53.13	-0.12
	n41 ISED MIMO	2515.02	-52.91	-53.13	-0.22
	n77/78 SISO	3510.00	-53.69	-53.71	-0.02
		3740.01	-53.10	-53.11	-0.01
	n77/78 MIMO	3500.01	-53.66	-53.79	-0.13
		3840.00	-52.98	-53.12	-0.14

We also performed radiated spurious emission of LTE CA 5A-66A, 13A-66A and 5G NR n13, n66 in worst modes(within a margin of 5 dB) based on original test result of TM05FNNAGM0. Radiated spurious emission test results were equivalent as original test result of the modular.

Mode	Radiated Spurious Emission				Deviation [dB]
	Band	Worst Frequency [MHz]	TM05FNNAGM0 [dBm]	TFGMEIBBCD1 [dBm]	
LTE CA	5A-66A	5A : 826.5, 66A : 1717.5	-17.95	-18.92	-0.97
	13A-66A	13A : 779.5, 66A : 1717.5	-16.36	-17.66	-1.30
5G NR	n13	782.0	-43.29	-45.83	-2.54
	n66	1712.5	-14.98	-15.07	-0.09

F. Conclusion

Based on the analysis and additional test, it has been proven that the variant model and the enclosure does not affects radiated spurious emission or other requirements. We hereby request the variant and a new equipment authorization application with referencing original test reports.

Sincerely Yours



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