



SPOT CHECK EVALUATION

FCC ID : PY322300575
Equipment : NightHawk M6 5G Mobile Hotspot
Model Name : MR6550
Applicant : Netgear Inc
350 E. Plumeria Drive, San Jose, CA 95134, United States
Standard : 47 CFR Part 30

The product was received on Mar. 06, 2023 and testing was performed from Mar. 08, 2023 to Mar. 24, 2023. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this spot check report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Approved by: Louis Wu

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History of this test report

Version	Description	Issue Date
01	Initial issue of report	Mar. 24, 2023



1. Introduction Section

FCC ID: PY321100529 and FCC ID: PY322300575 (variant model) use the same identical internal printed circuit board layouts, and based on their similarity, spot check and data referencing for the FCC Part 30 (equipment class: 5GM) has been used following FCC KDB 484596 D01 v01. The spot check data in this report is used to justify the data reuse.

The applicant should take full responsibility that the test data as referenced in this report represent compliance for this FCC ID (FCC ID: PY322300575).



2. Model Difference Information

PY321100529 and PY322300575 use the identical internal printed circuit board layout, and the major differences which may relate to RF are listed below:

- PY322300575 vs PY321100529: they are identical in hardware including the hardware components population. On PY322300575, software change to enable FR2 n261.
- PY322300575 vs PY321100529: on PY322300575, software change to enable some LTE bands and FR1 bands.
- PY322300575 vs PY321100529: on PY322300575, software change to enable HPUE in n77.
- PY322300575 vs PY321100529: on PY322300575, a software feature is enabled to increase WLAN power level in the 2.4GHz, 5GHz and 6GHz bands when the device connects to AC mains.

The detail of similarity and difference is illustrated in the operational description. Based on the information, spot check of conducted power and emission level was performed and presented in this report to justify the data referencing.



3. Spot Check Verification Data Section

EIRP and radiated spurious emission test configurations were selected from the worst cases identified in the parent model and tested to demonstrate the test data from original model remains representative for the variant model.

Summary for EIRP and RSE spot check is listed as below:

Test Item	Mode	PY321100529 Parent Worst Result	PY322300575 Variant Check Result	Difference (dB)
EIRP (dBm)	WWAN NR n260_Module 0 (2CC)	24.41	24.37	-0.04
	WWAN NR n260_Module 0 (3CC)	24.39	24.08	-0.31
	WWAN NR n260_Module 0 (4CC)	24.90	23.62	-1.28
	WWAN NR n260_Module 1 (2CC)	24.78	23.41	-1.37
	WWAN NR n260_Module 1 (3CC)	24.86	23.22	-1.64
	WWAN NR n260_Module 1 (4CC)	25.06	23.96	-1.1

Test Item	Mode	ANT	PY321100529 Parent Worst Result	PY322300575 Variant Check Result	Difference (dB)
Radiated Spurious Emission (Band Edge) (dBm)	WWAN NR n260	M0 (3CC)	-14.00	-15.99	-1.99
		M1 (3CC)	-14.47	-20.11	-5.64
Radiated Spurious Emission (Harmonic) (dBm)	WWAN NR n260	M0 (2CC)	-31.26	-33.63	-2.37
		M1 (3CC)	-33.49	-33.61	-0.12

Conclusion:

Radiated spurious emission test against the variant model based on the worst-case condition from the original model was performed in this filing to demonstrate the test data from original model remains representative for the variant model.

The spot check emission level is not degraded more than 3dB, and the emission level is compliant, data referencing is justified according to the guidance in the KDB inquiry



4. Reference detail Section

Rule Part	Equipment Class	Wireless Technology	Frequency Band (MHz)	Reference FCC ID (Parent)	Type Grant/ Permissive Change	Reference Title	FCC ID Filling (Variant)
30	5GM	NR	n260	PY321100529	Class II Permissive Change	FG190614-10	PY322300575



5. List of Measuring Equipment

<Radiation for FCC Part 30>

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170584	18GHz-40GHz	Dec. 14, 2022	Mar. 08, 2023~ Mar. 24, 2023	Dec. 13, 2023	Radiation (03CH18-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV3044	101009	10Hz~44GHz	Nov. 22, 2022	Mar. 08, 2023~ Mar. 24, 2023	Nov. 21, 2023	Radiation (03CH18-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801607/2	N/A	Nov. 29, 2022	Mar. 08, 2023~ Mar. 24, 2023	Nov. 28, 2023	Radiation (03CH18-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801589/2	N/A	Nov. 29, 2022	Mar. 08, 2023~ Mar. 24, 2023	Nov. 28, 2023	Radiation (03CH18-HY)
Turn Table	EMEC	N/A	N/A	Phi/Theta 0~360 Degree	N/A	Mar. 08, 2023~ Mar. 24, 2023	N/A	Radiation (03CH18-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table	N/A	Mar. 08, 2023~ Mar. 24, 2023	N/A	Radiation (03CH18-HY)
Harmonic Mixer	Rohde & Schwarz	RPG FS-Z60	100986	40GHz to 60GHz	Apr. 09, 2021	Mar. 08, 2023~ Mar. 24, 2023	Apr. 08, 2024	Radiation (03CH18-HY)
Harmonic Mixer	Rohde & Schwarz	FSZ-90	101811	60GHz to 90GHz	Nov. 16, 2021	Mar. 08, 2023~ Mar. 24, 2023	Nov. 15, 2024	Radiation (03CH18-HY)
Harmonic Mixer	Rohde & Schwarz	RPG FS-Z140	101128	90GHz to 140GHz	Oct. 26, 2020	Mar. 08, 2023~ Mar. 24, 2023	Oct. 25, 2023	Radiation (03CH18-HY)
Harmonic Mixer	Rohde & Schwarz	RPG FS-Z220	101014	140GHz to 220GHz	Dec. 06, 2021	Mar. 08, 2023~ Mar. 24, 2023	Dec. 05, 2024	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-UPRR00	1410300003	40-60 GHz	Jul. 06, 2021	Mar. 08, 2023~ Mar. 24, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-EPRR00	1372000000	60-90 GHz	Jul. 06, 2021	Mar. 08, 2023~ Mar. 24, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-FPRR00	1011500008	90-140 GHz	Jul. 06, 2021	Mar. 08, 2023~ Mar. 24, 2023	Jul. 05, 2024	Radiation (03CH18-HY)
Antenna	Quinstar	QWH-GPRR00	QWH-GPRR00-01	140-220 GHz	Jul. 06, 2021	Mar. 08, 2023~ Mar. 24, 2023	Jul. 05, 2024	Radiation (03CH18-HY)

Note: Test equipment calibration is traceable to the procedure of ISO17025.

—————THE END—————