

RF EXPOSURE EVALUATION REPORT

FCC ID : RI7FN990B40
Equipment : 5G NR Module
Brand Name : 
Model Name : FN990B40
Marketing Name : FN990B40
Applicant : Telit Communications S.p.A.
Via Stazione Di Prosecco 5/B, Trieste 34010, Italy
Manufacturer : Telit Communications S.p.A.
Via Stazione Di Prosecco 5/B, Trieste 34010, Italy
Standard : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full



Approved by: Cona Huang / Deputy Manager



SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
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History of this test report

Report No.	Version	Description	Issued Date
FA4O1530	Rev. 01	Initial issue of report	Apr. 17, 2025
FA4O1530	Rev. 02	Update section 1	Aug. 18, 2025



1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
Equipment Name	5G NR Module
Brand Name	 Telit Cinterion
Model Name	FN990B40
Marketing Name	FN990B40
FCC ID	RI7FN990B40
Wireless Technology and Frequency Range	WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz, 3550 MHz ~ 3600 MHz LTE Band 43: 3600 MHz ~ 3700 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n13: 777 MHz ~ 787 MHz 5G NR n14: 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n53 : 2483.5 MHz ~ 2495 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz
Mode	RMC 12.2Kbps HSDPA HSUPA DC-HSDPA LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM
FVIN	M0W.003001
SW Version	M0W.003001
HW Version	1.00

Reviewed by: Jason Wang
 Report Producer: Carlie Tasi



2. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Table with 5 columns: Frequency range (MHz), Electric field strength (V/m), Magnetic field strength (A/m), Power density (mW/cm²), Averaging time (minutes). It is divided into two sections: (A) Limits for Occupational/Controlled Exposures and (B) Limits for General Population/Uncontrolled Exposure.

The MPE was calculated at 20 cm to show compliance with the power density limit. The following formula was used to calculate the Power Density:

S = PG / (4πR²)

- Where:
S = Power Density
P = Output Power at Antenna Terminals
G = Gain of Transmit Antenna (linear gain)
R = Distance from Transmitting Antenna



3. Radio Frequency Radiation Exposure Evaluation

3.1. Standalone Power Density Calculation

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Band	Frequency (MHz)	Max Conducted output power (per Tune-up) (dBm)	Duty Cycle (%)	AVG Power with Duty Cycle (dBm)	Distance (m)	FCC MPE Limit (mW/cm ²)	FCC MPE Result / FCC MPE Limit Ratio	FCC EIRP/ERP limit (W)	ERP limit (dBm)	Ant Gain to meet FCC MPE limit (dBi)	Ant Gain to meet FCC ERP/EIRP limit (dBi)	Max Gain to meet FCC ERP/EIRP and MPE limit (dBi)	Max Gain to consider same Frequency (dBi)	Max gain allowed (dBi)
2	1850	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
4	1710	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
5	824	24.5	100	24.50	0.2	0.549	0.998	7.00	38.5	9.9	14.0	9.9	9.9	9.9

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Band	Frequency (MHz)	Max Conducted output power (per Tune-up) (dBm)	Duty Cycle (%)	AVG Power with Duty Cycle (dBm)	Distance (m)	FCC MPE Limit (mW/cm ²)	FCC MPE Result / FCC MPE Limit Ratio	FCC EIRP/ERP limit (W)	ERP limit (dBm)	Ant Gain to meet FCC MPE limit (dBi)	Ant Gain to meet FCC ERP/EIRP limit (dBi)	Max Gain to meet FCC ERP/EIRP and MPE limit (dBi)	Max Gain to consider same Frequency (dBi)	Max gain allowed (dBi)
2	1850	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
4	1710	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
5	824	24.5	100	24.50	0.2	0.549	0.998	7.00	38.5	9.9	14.0	9.9	9.9	9.9
7	2500	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
12	699	24.5	100	24.50	0.2	0.466	0.979	3.00	34.8	9.1	10.3	9.1	9.1	9.1
13	777	24.5	100	24.50	0.2	0.518	0.988	3.00	34.8	9.6	10.3	9.6	9.6	9.6
14	788	24.5	100	24.50	0.2	0.525	0.997	3.00	34.8	9.7	10.3	9.7	9.7	9.7
17	704	24.5	100	24.50	0.2	0.469	0.972	3.00	34.8	9.2	10.3	9.2	9.1	9.1
25	1850	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
26	824	24.5	100	24.50	0.2	0.549	0.998	7.00	38.5	9.9	14.0	9.9	9.9	9.9
30	2305	23.0	100	23.00	0.2	1.000	0.050	0.25	24.0	14.0	1.0	1.0	1.0	1.0
38	2570	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
41_PC3	2496	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
41_PC2	2496	26.5	100	26.50	0.2	1.000	0.281	2.00	33.0	10.5	6.5	6.5	5.0	5.0
42	3550	22.5	100	22.50	0.2	1.000	0.040	0.20	23.0	14.5	0.5	0.5	0.5	0.5
43	3600	22.5	100	22.50	0.2	1.000	0.040	0.20	23.0	14.5	0.5	0.5	0.5	0.5
48	3550	22.5	100	22.50	0.2	1.000	0.040	0.20	23.0	14.5	0.5	0.5	0.5	0.5
66	1710	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
70	1695	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
71	663	24.5	100	24.50	0.2	0.442	0.985	3.00	34.8	8.9	10.3	8.9	8.9	8.9



<5G NR>

Band	Frequency (MHz)	Max Conducted output power (per Tune-up) (dBm)	Duty Cycle (%)	AVG Power with Duty Cycle (dBm)	Distance (m)	FCC MPE Limit (mW/cm ²)	FCC MPE Result / FCC MPE Limit Ratio	FCC EIRP/ERP limit (W)	ERP limit (dBm)	Ant Gain to meet FCC MPE limit (dBi)	Ant Gain to meet FCC ERP/EIRP limit (dBi)	Max Gain to meet FCC ERP/EIRP and MPE limit (dBi)	Max Gain to consider same Frequency (dBi)	Max gain allowed (dBi)
n2	1850	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
n5	824	24.5	100	24.50	0.2	0.549	0.998	7.00	38.5	9.9	14.0	9.9	9.9	9.9
n7	2500	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
n12	699	24.5	100	24.50	0.2	0.466	0.979	3.00	34.8	9.1	10.3	9.1	9.1	9.1
n13	777	24.5	100	24.50	0.2	0.518	0.988	3.00	34.8	9.6	10.3	9.6	9.6	9.6
n14	788	24.5	100	24.50	0.2	0.525	0.997	3.00	34.8	9.7	10.3	9.7	9.7	9.7
n25	1850	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
n26	824	24.5	100	24.50	0.2	0.549	0.998	7.00	38.5	9.9	14.0	9.9	9.9	9.9
n30	2305	23.0	100	23.00	0.2	1.000	0.050	0.25	24.0	14.0	1.0	1.0	1.0	1.0
n38	2570	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
n41_PC3	2496	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
n41_PC2	2496	27.5	100	27.50	0.2	1.000	0.354	2.00	33.0	9.5	5.5	5.5	5.0	5.0
n48	3550	22.5	100	22.50	0.2	1.000	0.040	0.20	23.0	14.5	0.5	0.5	0.5	0.5
n53	2483.5	24.5	100	24.50	0.2	1.000	0.199	1.00	30.0	12.5	5.5	5.5	5.5	5.5
n66	1710	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
n70	1695	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
n71	663	24.5	100	24.50	0.2	0.442	0.985	3.00	34.8	8.9	10.3	8.9	8.9	8.9
n77_PC3	3450	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
n77_PC2	3450	27.5	100	27.50	0.2	1.000	0.177	1.00	30.0	9.5	2.5	2.5	2.0	2.0
n78_PC3	3450	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
n78_PC2	3450	27.5	100	27.50	0.2	1.000	0.177	1.00	30.0	9.5	2.5	2.5	2.0	2.0



Band	Frequency (MHz)	Max Conducted output power (per Tune-up) (dBm)	Duty Cycle (%)	AVG Power with Duty Cycle (dBm)	Distance (m)	FCC MPE Limit (mW/cm ²)	FCC MPE Result / FCC MPE Limit Ratio	FCC EIRP/ERP limit (W)	ERP limit (dBm)	Ant Gain to meet FCC MPE limit (dBi)	Ant Gain to meet FCC ERP/EIRP limit (dBi)	Max Gain to meet FCC ERP/EIRP and MPE limit (dBi)	Max Gain to consider same Frequency (dBi)	Max gain allowed (dBi)
n2_UL MIMO_PC3	1850	25.0	100	25.00	0.2	1.000	0.397	2.00	33.0	12.0	8.0	8.0	8.0	8.0
n2_UL MIMO_PC2	1850	28.0	100	28.00	0.2	1.000	0.397	2.00	33.0	9.0	5.0	5.0	5.0	5.0
n7_UL MIMO_PC3	2500	25.0	100	25.00	0.2	1.000	0.397	2.00	33.0	12.0	8.0	8.0	8.0	8.0
n25_UL MIMO_PC3	1850	25.0	100	25.00	0.2	1.000	0.397	2.00	33.0	12.0	8.0	8.0	8.0	8.0
n25_UL MIMO_PC2	1850	28.0	100	28.00	0.2	1.000	0.397	2.00	33.0	9.0	5.0	5.0	5.0	5.0
n30_UL MIMO	2305	23.0	100	23.00	0.2	1.000	0.050	0.25	24.0	14.0	1.0	1.0	1.0	1.0
n38_UL MIMO	2570	25.0	100	25.00	0.2	1.000	0.397	2.00	33.0	12.0	8.0	8.0	8.0	8.0
n41_UL MIMO_PC3	2496	25.0	100	25.00	0.2	1.000	0.397	2.00	33.0	12.0	8.0	8.0	8.0	8.0
n41_UL MIMO_PC2	2496	28.0	100	28.00	0.2	1.000	0.397	2.00	33.0	9.0	5.0	5.0	5.0	5.0
n41_UL MIMO_PC1.5	2496	31.0	100	31.00	0.2	1.000	0.397	2.00	33.0	6.0	2.0	2.0	2.0	2.0
n48_UL MIMO	3550	22.0	100	22.00	0.2	1.000	0.035	0.20	23.0	15.0	1.0	1.0	0.5	0.5
n66_UL MIMO_PC3	1710	25.0	100	25.00	0.2	1.000	0.199	1.00	30.0	12.0	5.0	5.0	5.0	5.0
n66_UL MIMO_PC2	1710	28.0	100	28.00	0.2	1.000	0.199	1.00	30.0	9.0	2.0	2.0	2.0	2.0
n70_UL MIMO	1695	25.0	100	25.00	0.2	1.000	0.199	1.00	30.0	12.0	5.0	5.0	5.0	5.0
n77_UL MIMO_PC3	3450	25.0	100	25.00	0.2	1.000	0.199	1.00	30.0	12.0	5.0	5.0	5.0	5.0
n77_UL MIMO_PC2	3450	28.0	100	28.00	0.2	1.000	0.199	1.00	30.0	9.0	2.0	2.0	2.0	2.0
n77_UL MIMO_PC1.5	3450	29.0	100	29.00	0.2	1.000	0.199	1.00	30.0	8.0	1.0	1.0	1.0	1.0
n78_UL MIMO_PC3	3450	25.0	100	25.00	0.2	1.000	0.199	1.00	30.0	12.0	5.0	5.0	5.0	5.0
n78_UL MIMO_PC2	3450	28.0	100	28.00	0.2	1.000	0.199	1.00	30.0	9.0	2.0	2.0	2.0	2.0
n78_UL MIMO_PC1.5	3450	29.0	100	29.00	0.2	1.000	0.199	1.00	30.0	8.0	1.0	1.0	1.0	1.0

3.2. Transmit with WLAN/BT

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Band	Frequency (MHz)	Max Conducted output power (per Tune-up) (dBm)	Duty Cycle (%)	AVG Power with Duty Cycle (dBm)	Distance (m)	FCC MPE Limit (mW/cm ²)	FCC MPE Result / FCC MPE Lmit Ratio	FCC EIRP/ERP limit (W)	ERP limit (dBm)	Ant Gain to meet FCC MPE limit (dBi)	Ant Gain to meet FCC ERP/EIRP limit (dBi)	Max Gain to meet FCC ERP/EIRP and MPE limit (dBi)	Max Gain to consider same Frequency and Sim-Tx (dBi)	Max gain allowed (dBi)
2	1850	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
4	1710	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
5	824	24.5	100	24.50	0.2	0.549	0.889	7.00	38.5	9.9	14.0	9.9	9.4	9.4

<LTE>

Band	Frequency (MHz)	Max Conducted output power (per Tune-up) (dBm)	Duty Cycle (%)	AVG Power with Duty Cycle (dBm)	Distance (m)	FCC MPE Limit (mW/cm ²)	FCC MPE Result / FCC MPE Lmit Ratio	FCC EIRP/ERP limit (W)	ERP limit (dBm)	Ant Gain to meet FCC MPE limit (dBi)	Ant Gain to meet FCC ERP/EIRP limit (dBi)	Max Gain to meet FCC ERP/EIRP and MPE limit (dBi)	Max Gain to consider same Frequency and Sim-Tx (dBi)	Max gain allowed (dBi)
2	1850	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
4	1710	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
5	824	24.5	100	24.50	0.2	0.549	0.889	7.00	38.5	9.9	14.0	9.9	9.4	9.4
7	2500	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
12	699	24.5	100	24.50	0.2	0.466	0.872	3.00	34.8	9.1	10.3	9.1	8.6	8.6
13	777	24.5	100	24.50	0.2	0.518	0.880	3.00	34.8	9.6	10.3	9.6	9.1	9.1
14	788	24.5	100	24.50	0.2	0.525	0.888	3.00	34.8	9.7	10.3	9.7	9.2	9.2
17	704	24.5	100	24.50	0.2	0.469	0.866	3.00	34.8	9.2	10.3	9.2	8.6	8.6
25	1850	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
26	824	24.5	100	24.50	0.2	0.549	0.889	7.00	38.5	9.9	14.0	9.9	9.4	9.4
30	2305	23.0	100	23.00	0.2	1.000	0.050	0.25	24.0	14.0	1.0	1.0	1.0	1.0
38	2570	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
41_PC3	2496	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
41_PC2	2496	26.5	100	26.50	0.2	1.000	0.281	2.00	33.0	10.5	6.5	6.5	5.0	5.0
42	3550	22.5	100	22.50	0.2	1.000	0.040	0.20	23.0	14.5	0.5	0.5	0.5	0.5
43	3600	22.5	100	22.50	0.2	1.000	0.040	0.20	23.0	14.5	0.5	0.5	0.5	0.5
48	3550	22.5	100	22.50	0.2	1.000	0.040	0.20	23.0	14.5	0.5	0.5	0.5	0.5
66	1710	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
70	1695	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
71	663	24.5	100	24.50	0.2	0.442	0.878	3.00	34.8	8.9	10.3	8.9	8.4	8.4



<5G FR1>

Band	Frequency (MHz)	Max Conducted output power (per Tune-up) (dBm)	Duty Cycle (%)	AVG Power with Duty Cycle (dBm)	Distance (m)	FCC MPE Limit (mW/cm ²)	FCC MPE Result / FCC MPE Limit Ratio	FCC EIRP/ERP limit (W)	ERP limit (dBm)	Ant Gain to meet FCC MPE limit (dBi)	Ant Gain to meet FCC ERP/EIRP limit (dBi)	Max Gain to meet FCC ERP/EIRP and MPE limit (dBi)	Max Gain to consider same Frequency and Sim-Tx (dBi)	Max gain allowed (dBi)
n2	1850	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
n5	824	24.5	100	24.50	0.2	0.549	0.889	7.00	38.5	9.9	14.0	9.9	9.4	9.4
n7	2500	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
n12	699	24.5	100	24.50	0.2	0.466	0.872	3.00	34.8	9.1	10.3	9.1	8.6	8.6
n13	777	24.5	100	24.50	0.2	0.518	0.880	3.00	34.8	9.6	10.3	9.6	9.1	9.1
n14	788	24.5	100	24.50	0.2	0.525	0.888	3.00	34.8	9.7	10.3	9.7	9.2	9.2
n25	1850	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
n26	824	24.5	100	24.50	0.2	0.549	0.889	7.00	38.5	9.9	14.0	9.9	9.4	9.4
n30	2305	23.0	100	23.00	0.2	1.000	0.050	0.25	24.0	14.0	1.0	1.0	1.0	1.0
n38	2570	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
n41_PC3	2496	24.5	100	24.50	0.2	1.000	0.354	2.00	33.0	12.5	8.5	8.5	8.0	8.0
n41_PC2	2496	27.5	100	27.50	0.2	1.000	0.354	2.00	33.0	9.5	5.5	5.5	5.0	5.0
n48	3550	22.5	100	22.50	0.2	1.000	0.040	0.20	23.0	14.5	0.5	0.5	0.5	0.5
n53	2483.5	24.5	100	24.50	0.2	1.000	0.199	1.00	30.0	12.5	5.5	5.5	5.5	5.5
n66	1710	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
n70	1695	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
n71	663	24.5	100	24.50	0.2	0.442	0.878	3.00	34.8	8.9	10.3	8.9	8.4	8.4
n77_PC3	3450	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
n77_PC2	3450	27.5	100	27.50	0.2	1.000	0.177	1.00	30.0	9.5	2.5	2.5	2.0	2.0
n78_PC3	3450	24.5	100	24.50	0.2	1.000	0.177	1.00	30.0	12.5	5.5	5.5	5.0	5.0
n78_PC2	3450	27.5	100	27.50	0.2	1.000	0.177	1.00	30.0	9.5	2.5	2.5	2.0	2.0



Band	Frequency (MHz)	Max Conducted output power (per Tune-up) (dBm)	Duty Cycle (%)	AVG Power with Duty Cycle (dBm)	Distance (m)	FCC MPE Limit (mW/cm ²)	FCC MPE Result / FCC MPE Limit Ratio	FCC EIRP/ERP limit (W)	ERP limit (dBm)	Ant Gain to meet FCC MPE limit (dBi)	Ant Gain to meet FCC ERP/EIRP limit (dBi)	Max Gain to meet FCC ERP/EIRP and MPE limit (dBi)	Max Gain to consider same Frequency and Sim-Tx (dBi)	Max gain allowed (dBi)
n2_UL MIMO_PC3	1850	25.0	100	25.00	0.2	1.000	0.397	2.00	33.0	12.0	8.0	8.0	8.0	8.0
n2_UL MIMO_PC2	1850	28.0	100	28.00	0.2	1.000	0.397	2.00	33.0	9.0	5.0	5.0	5.0	5.0
n7_UL MIMO_PC3	2500	25.0	100	25.00	0.2	1.000	0.397	2.00	33.0	12.0	8.0	8.0	8.0	8.0
n25_UL MIMO_PC3	1850	25.0	100	25.00	0.2	1.000	0.397	2.00	33.0	12.0	8.0	8.0	8.0	8.0
n25_UL MIMO_PC2	1850	28.0	100	28.00	0.2	1.000	0.397	2.00	33.0	9.0	5.0	5.0	5.0	5.0
n30_UL MIMO	2305	23.0	100	23.00	0.2	1.000	0.050	0.25	24.0	14.0	1.0	1.0	1.0	1.0
n38_UL MIMO	2570	25.0	100	25.00	0.2	1.000	0.397	2.00	33.0	12.0	8.0	8.0	8.0	8.0
n41_UL MIMO_PC3	2496	25.0	100	25.00	0.2	1.000	0.397	2.00	33.0	12.0	8.0	8.0	8.0	8.0
n41_UL MIMO_PC2	2496	28.0	100	28.00	0.2	1.000	0.397	2.00	33.0	9.0	5.0	5.0	5.0	5.0
n41_UL MIMO_PC1.5	2496	31.0	100	31.00	0.2	1.000	0.397	2.00	33.0	6.0	2.0	2.0	2.0	2.0
n48_UL MIMO	3550	22.0	100	22.00	0.2	1.000	0.035	0.20	23.0	15.0	1.0	1.0	0.5	0.5
n66_UL MIMO_PC3	1710	25.0	100	25.00	0.2	1.000	0.199	1.00	30.0	12.0	5.0	5.0	5.0	5.0
n66_UL MIMO_PC2	1710	28.0	100	28.00	0.2	1.000	0.199	1.00	30.0	9.0	2.0	2.0	2.0	2.0
n70_UL MIMO	1695	25.0	100	25.00	0.2	1.000	0.199	1.00	30.0	12.0	5.0	5.0	5.0	5.0
n77_UL MIMO_PC3	3450	25.0	100	25.00	0.2	1.000	0.199	1.00	30.0	12.0	5.0	5.0	5.0	5.0
n77_UL MIMO_PC2	3450	28.0	100	28.00	0.2	1.000	0.199	1.00	30.0	9.0	2.0	2.0	2.0	2.0
n77_UL MIMO_PC1.5	3450	29.0	100	29.00	0.2	1.000	0.199	1.00	30.0	8.0	1.0	1.0	1.0	1.0
n78_UL MIMO_PC3	3450	25.0	100	25.00	0.2	1.000	0.199	1.00	30.0	12.0	5.0	5.0	5.0	5.0
n78_UL MIMO_PC2	3450	28.0	100	28.00	0.2	1.000	0.199	1.00	30.0	9.0	2.0	2.0	2.0	2.0
n78_UL MIMO_PC1.5	3450	29.0	100	29.00	0.2	1.000	0.199	1.00	30.0	8.0	1.0	1.0	1.0	1.0



<WLAN/BT>

Band	Frequency (MHz)	Max EIRP (dBm)	Duty Cycle (%)	AVG EIRP with Duty Cycle (dBm)	Distance (m)	FCC MPE Limit (mW/cm ²)	FCC/IC MPE Result / FCC/IC MPE Limit (mW/cm ²)
2.4GHz WLAN	2402	24.0	100	24.00	0.2	1.000	0.0500
5GHz WLAN	5150	24.0	100	24.00	0.2	1.000	0.0500
Bluetooth	2402	15.0	100	15.00	0.2	1.000	0.0063

General Note:

- This MPE analysis is applicable to any collocated transmitters with transmit power for WLAN ERIP is estimated 24dBm and for Bluetooth EIRP is estimated 15dBm.

< Simtaneous Transmission analysis with WLAN/BT>

WWAN Power Density / Limit	WLAN Power Density / Limit	Bluetooth Power Density / Limit	Σ (Power Density / Limit) of WWAN + WLAN + Bluetooth
0.889	0.05	0.0063	0.9453

General Note:

- The device support DPS (Dynamic Power Share) function to achieve higher uplink data rate keeping the total power unchanged in 5G NR NSA EN-DC mode according to 3GPP 38.213, when the equipment has a dynamic power sharing capability, it adjusts the LTE or NR transmission power so that the instantaneous total power does not exceed the specified value, when the maximum transmission power of NR (P LTE, P NR) and the specified total power (P total) have been set and the instantaneous calculated total transmission power exceeds P total, the NR transmission power is reduced so that the actual transmission power of the user equipment will not exceed Ptotal power. So, if the LTE and NR standalone SAR is testing at total power level, the EN-DC combine MPE(LTE+NR) will not higher than the each standalone LTE and NR MPE, therefore, the simultaneous transmission analysis is used standalone MPE at total power level to show compliance.
- Σ (Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)], for WWAN + WLAN + Bluetooth
- Considering the collocation with the four transmitters of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 3 collocated transmitters is compliant.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.