RF EXPOSURE EVALUATION REPORT

FCC ID	:	RI7FN990A28HP
Equipment	:	5G NR Module
Brand Name	:	Telit Cinterion
Model Name	:	FN990A28-HP
Marketing Name	:	FN990A28-HP
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

Cona Huang

Approved by: Cona Huang / Deputy Manager

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History of this test report

Report No.	Version	Description	Issued Date
FA270608-44	Rev. 01	Initial issue of report	Jun. 27, 2025

1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	5G NR Module
Brand Name	Telit Cinterion
Model Name	FN990A28-HP
Marketing Name	FN990A28-HP
FCC ID	RI7FN990A28HP
Wireless Technology and Frequency Range	LTE Band 106: 897.5 MHz ~ 900.5 MHz
Mode	LTE: QPSK, 16QAM, 64QAM, 256QAM
HW	1.00
SW	M0R.130006

Reviewed by: Jason Wang

Report Producer: Daisy Peng

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.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f2)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

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:

$$S = \frac{PG}{4\pi R^2}$$

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

<LTE>

Band	Frequency (MHz)	Max Conducted output power (per Tune-up) (dBm)	Duty Cyle (%)	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 allowed (dBi)**
106	897.5	23.5	100	23.50	0.2	0.598	0.9818	3.00	34.8	11.2	11.2	11.2	**11.2**

3.2. Consider Ttransmit with WLAN/BT

<LTE>

Band	Frequency (MHz)	Max Conducted output power (per Tune-up) (dBm)	Duty Cyle (%)	AVG Power with Duty Cycle (dBm)	Distance (m)	FCC MPE Limit (mW/cm^2)	**FCC/IC MPE Result / FCC/IC 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)	**Consider Sim-Tx (Gain)**	**Max gain allowed (dBi)**
106	897.5	23.5	100	23.50	0.2	0.598	0.7798	3.00	34.8	11.2	11.2	11.2	10.2	**10.2**

<WLAN/BT>

Band	Frequency (MHz)	Max EIRP (dBm)	Duty Cyle (%)	AVG EIRP with Duty Cycle (dBm)	Distance (m)	FCC MPE Limit (mW/cm^2)	**FCC/IC MPE Result / FCC/IC MPE Lmit** (mW)/cm^2
2.4GHz WLAN	2402	24.0	100	24.00	0.2	1.000	0.050
5GHz WLAN	5150	24.0	100	24.00	0.2	1.000	0.050
Bluetooth	2402	15.0	100	15.00	0.2	1.000	0.006

General Note:

1. 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.

<EN-DC Simtaneous Transmission analysis with WLAN/BT>

LTE Power Density / Limit	**WLAN Power Density / Limit**	**Bluetooth Power Density / Limit**	**∑(Power Density / Limit) of LTE + WLAN + Bluetooth**
0.7798	0.05	0.006	0.8358

General Note:

1. ∑(Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)], for LTE + WLAN + Bluetooth.
2. 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.