



RF EXPOSURE EVALUATION REPORT

FCC ID : 2AM8R-DCM-NA1-100
Equipment : DCM-NA1-100 (Device Connectivity Module)
Brand Name : DriverI/DCM
Model Name : DCM-NA1-100
Applicant : Netradyne Inc
9191 Towne Centre Drive, Suite 200, San
Diego, CA 92122
Manufacturer : VVDN Technology
B-22, Infocity Sector-34,
Gurgaon-122001, Haryana, India
Standard : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated in accordance with 47 CFR Part 2.1091 for the device and pass the limit.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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



Approved by: Cona Huang / Deputy Manager

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issued Date
FA951441	Rev. 01	Initial issue of report	Aug. 22, 2019

**1. Description of Equipment Under Test (EUT)**

Product Feature & Specification	
EUT Type	DCM-NA1-100 (Device Connectivity Module)
Brand Name	DriverI/DCM
Model Name	DCM-NA1-100
FCC ID	2AM8R-DCM-NA1-100
Wireless Technology and Frequency Range	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz
Mode	LTE: QPSK, 16QAM
HW Version	Rev A
SW Version	SWI9X15Y_07.12.09.00_00_SPRINT_001.020_000
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

Reviewed by: Jason Wang

Report Producer: Wan Liu

2. Maximum RF average output power among production units

Mode		Maximum Average power(dBm)
LTE	Band 2	24
	Band 4	24
	Band 5	24
	Band 12	23.5
	Band 25	23.5
	Band 26	24



3. 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/f ²)	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/f ²)	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



4. Radio Frequency Radiation Exposure Evaluation

4.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum EIRP (W)	Average EIRP (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)
LTE Band 2	1850.7	4.06	24.00	28.060	0.640	639.735	0.127	1.000
LTE Band 4	1710.7	4.06	24.00	28.060	0.640	639.735	0.127	1.000
LTE Band 5	824.7	2.43	24.00	26.430	0.440	439.542	0.087	0.550
LTE Band 12	699.7	2.43	23.50	25.930	0.392	391.742	0.078	0.466
LTE Band 25	1850.7	4.06	23.50	27.560	0.570	570.164	0.113	1.000
LTE Band 26	814.7	2.43	24.00	26.430	0.440	439.542	0.087	0.543

Note: For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.

Conclusion:

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