



May 02, 2022

TUV SUD America CB
10 Centennial Drive FL2
Peabody, MA 01960

Attention: Director of Certification

RE: Analysis of RF Exposure for Mobile and Portable Device per KDB 447498 D04 Interim General RF Exposure Guidance v01

FCC ID: YETL41-7EB

1. General Information:

Applicant: Nextivity Inc.
Environment: General Population/Uncontrolled Exposure
Exposure Conditions: Mobile

2. Technical Information:

Minimum Test Separation Distance: 20 cm for DL and 65 cm for UL
Operating Frequency: 700MHz Narrowband and 800MHz/NPSPAC Public Safety

	NU/Donor (UL)	CU/Server (DL)
Antenna Type	LPDA Model A62-V44-200	Omni Model A11-V43-100
Antenna Gain	12 dBi	2.5 dBi*
Maximum Transmitter Conducted Power	26.28 dBm	27.02
Maximum Transmitter EIRP	38.28 dBm	29.52 dBm

*1.1dBi used for calculations as this antenna will have ≥ 1.4 dB cable loss when deployed with the EUT as declared by the manufacturer.

3. EUT technical parameters and transmitter type that can transmit at the same time:

Technical Parameters for NU/Donor (UL)	800MHz/NPSPAC	700MHz Narrowband
Frequency (GHz)	0.810884	0.801875
Frequency (MHz)	810.884	801.875
Separation Distance (cm)	65.00	65.00
Separation Distance (m)	0.6500	0.6500
Antenna Gain (dBi)	12.00	12.00
ERP Easily Determined	YES	YES
1-g body or 10-g extremity	Body	Body



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Conducted Power (dBm)	26.28	26.07
Conducted Power (mW)	424.62	404.58
Duty Factor (Source-Based) %	100.0	100.0
Maximum (Source-Based) Time-Averaged Conducted Power (mW)	424.62	404.58
Maximum (Source-Based) Time-Averaged ERP (mW)	4103.52	3909.81
Maximum (Source-Based) Time-Averaged EIRP (mW)	6729.77	6412.10
Maximum Output (mW)	4103.52	3909.81

Technical Parameters for CU/Server (DL)	800MHz/NPSPAC	700MHz Narrowband
Frequency (GHz)	0.85588	0.769
Frequency (MHz)	855.88	769
Separation Distance (cm)	20.00	20.0
Separation Distance (m)	0.2000	0.200
Antenna Gain (dBi)	1.10	1.10
ERP Easily Determined	YES	YES
1-g body or 10-g extremity	Body	Body
Conducted Power (dBm)	27.02	26.84
Conducted Power (mW)	503.50	483.06
Duty Factor (Source-Based) %	100.0	100.0
Maximum (Source-Based) Time-Averaged Conducted Power (mW)	503.50	483.06
Maximum (Source-Based) Time-Averaged ERP (mW)	395.51	379.45
Maximum (Source-Based) Time-Averaged EIRP (mW)	648.63	622.30
Maximum Output (mW)	503.50	483.06

4. Exemption Types:

NU/Donor (UL) is exempt per MPE-Based Exemption (47 CFR 1.1307(b)(3)(i)(C))	800MHz/NPSPAC	700MHz Narrowband
$\lambda / 2\pi$ (m)	0.059	0.060
$R \geq \lambda / 2\pi$	YES	YES
Maximum (Source-Based) Time-Averaged ERP (W)	4.1035	3.9098
ERP Threshold (W)	4.3853	4.3365
Exemption	YES	YES
Contribution Ratio (ERP / ERP _{th})	0.936	0.902



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Distance to Limit (cm)	62.88	61.72
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Simultaneous Transmission and Summation of Contribution (NU)		
Maximum Output (mW)	4.1035	3.9098
P _{th} (mW)	4.3853	4.3365
Exemption	YES	YES
Contribution Ratio (P / P _{th})	0.936	0.902

CU/Server (DL) is exempt per MPE-Based Exemption (47 CFR 1.1307(b)(3)(i)(C))	800MHz/NPSPAC	700MHz Narrowband
$\lambda / 2\pi$ (m)	0.056	0.062
$R \geq \lambda / 2\pi$	YES	YES
Maximum (Source-Based) Time-Averaged ERP (W)	0.3955	0.3795
ERP Threshold (W)	0.4382	0.3937
Exemption	YES	YES
Contribution Ratio (ERP / ERP _{th})	0.903	0.964
Distance to Limit (cm)	19.00	19.63

Simultaneous Transmission and Summation of Contribution (CU)		
Maximum Output (mW)	0.3955	0.3795
P _{th} (mW)	0.4382	0.3937
Exemption	YES	YES
Contribution Ratio (P / P _{th})	0.903	0.964

Sincerely,

Ferdie S. Custodio

Name

Authorized Signatory

Title: Senior EMC Test Engineer /Wireless Team Lead