

Manufacturer: Tokinomo Marketing SA

Name: Oscar Frau

Product: Tokinomo V4

Title: Project Handler

FCC ID: 2ASEI-TOKIV4

Signature: 

MPE limits (§1.1310)

Mode	Frequency MHz	Duty Cycle %	Antenna		EIRP ¹ dBm	EIRP mW	Distance cm	PD ² mW/cm^2	PD Limit ³ mW/cm^2	Margin dB	2.1091 EIRP Limit mW	2.1091 EIRP Margin dB	PD/PD Limit	Worst PD/PD values to be considered
			Power dBm	Gain dBi										
BLE ⁴	2480,0	100	10,32	2,5	12,82	19,1	20	0,004	1,000	24,19	1260	18,18	0,00381	0,01935
WiFi ⁵	2462,0	100	17,38	2,5	19,88	97,3	20	0,019	1,000	17,13	1260	11,12	0,01935	
LTE B4 ⁶	1755	100	22,80	5	27,80	602,6	20	0,120	1,000	9,21	1260	3,20	0,11988	0,11988
FCC Co-Location =			0,13923	< 1										

¹EIRP = (Power dBm + Antenna Gain dBi) + 10 x Log (Duty Cycle % / 100)

²PD = EIRP / (4xπxD²)

³CFR 47 Part 1, §1.1310(e), table 1

⁴See FCC ID: 2A14I-AP6212; Report No: DRTFCC1610-0133, p.

⁵See FCC ID: 2A14I-AP6212; Report No: DRTFCC1610-0134, p. 16

⁶See Test report 444569TRFWL, §8.3

New Cellular antenna, type LY-P11-002-V1, Gain 5 dBi

New WiFi 2.4 GHz/BT antenna, type SXW-WIFI-W10, Gain 2.5 dBi

2.1091 EIRP Limit

1.1307 (b)(3)(i)(C) exemption limit

RF Source Frequency MHz	F MHz	R m	λ m	λ/2π m	R/(λ/2π)	Threshold ERP W	Threshold EIRP W	Threshold EIRP mW	EIRP mW	Margin dB
300-1500										
1500-100000	2480,0	0,20	0,121	0,0193	10,4	0,76800	1,260	1260	19,1	18,18
	2462,0	0,20	0,122	0,0194	10,3	0,76800	1,260	1260	97,3	11,12
	1755	0,20	0,171	0,0272	7,35	0,76800	1,260	1260	602,6	3,20

1.1307 (b)(3)(i)(B) exemption limit

0.3 GHz ≤ f ≤ 1.5 GHz							
0.5 cm ≤ d ≤ 20 cm							
f	ERP _{20cm}		d	Pth	Threshold EIRP	EIRP	Margin
GHz	mW	x	cm	mW	mW	mW	dB
1,5	3060	1,796	20	3060	5018		
0.3 GHz ≤ f ≤ 1.5 GHz							
20 cm < d ≤ 40 cm							
f	ERP _{20cm}			Pth = ERP _{20cm}			
GHz	mW			mW			
1.5 GHz < f ≤ 6.0 GHz							
0.5 cm ≤ d ≤ 20 cm							
f	ERP _{20cm}		d	Pth			
GHz	mW	x	cm	mW			
6	3060	2,097	20	3060	5018		
1.5 GHz < f ≤ 6.0 GHz							
20 cm < d ≤ 40 cm							
f	ERP _{20cm}			Pth = ERP _{20cm}			
GHz	mW			mW			
1755	3060			3060	5018	602,6	9,21
2480,0	3060			3060	5018	19,1	24,2
2462,0	3060			3060	5018	97,3	17,13