

DEKRA Testing and Certification S.A.U.

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Report: 54022

RF exposure analysis for the equipment

Model: NTG6 ENTRY/MID

FCC ID: T8GNTG6EM

IC: 6434A-NTG6EM

The device under evaluation consists of a Radio with Navigation, Tuner, DAB, BT, Wi-Fi.

For the RF technologies listed below, as stated into DEKRA test reports 54022RRF.004 and 54022RRF.003A1, the maximum output power and antenna gain values are: (it is considered the worst case of simultaneous transmission)

Frequency band (MHz)	Mode	Frequency Range (MHz)	CONDUCTED OUTPUT POWER (dBm)	CONDUCTED OUTPUT POWER (mW)	Antenna gain (dBi)	Antenna gain (numerical)	Duty cycle (%)	Evaluation distance (cm)	Power density (mW/cm ²)	FCC MPE limit (mW/cm ²)	ISED MPE limit (mW/cm ²)	MPE RATIO
2400-2483,5	WLAN	2412-2462	13,75	23,714	2,2	1,66	100%	20	0,0078	1,0000	0,5366	0,0146
	Bluetooth	2402-2480	7,48	5,598	0,7	1,17	100%	20	0,0013	1,0000	0,5351	0,0024
5725-5850	WLAN	5745-5825	13,23	21,038	0,9	1,23	100%	20	0,0051	1,0000	0,9710	0,0053

Results are:

Σ of MPE ratios (ISED): 0,0223

Σ of Power density (mW/cm²): 0,0142

Σ of Power density (W/m²): 0,142

Note: worst case of simultaneous transmission was considered as listed below:

technologies	Working chips
BT + Wifi SISO 2.4 + Wifi SISO 5G +	BT WLAN0.MAC1 (2.4) + WLAN0.MAC0 (5G) +

MPE exposure limits

The table below is excerpted from Table 1B of 47 CFR 1.1310 titled Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure:

Frequency Range (MHz)	Power density (mW/cm ²)	Averaging time (minutes)
300 – 1500	f (MHz) /1500	30
1500 – 100.000	1,0	30

The table below is excerpted from RSS-102, Issue 5, titled "Table 4: RF Field Strength Limits for Devices Used by the General Public":

Frequency Range (MHz)	Power density (W/m ²)	Averaging time (minutes)
300 – 6000	0.02619 · f ^{0.6834}	6

Using the equation $S = \frac{PG}{4\pi R^2}$ to calculate the exposure to electromagnetic fields

where: S = power density (in appropriate units, e.g. mW/cm²)
 P = power input to the antenna (in appropriate units, e.g., mW)
 G = power gain of the antenna in the direction of interest relative to an isotropic radiator
 R = distance to the centre of radiation of the antenna (appropriate units, e.g., cm)

Assessment summary

The addition of power densities is less than the limits established by FCC and ISED, then the NTG6 ENTRY/MID complies with the regulation for mobile exposure conditions.

Yours sincerely,

P.A. 

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