



MPE/RF EXPOSURE TEST REPORT

FCC CFR 47 Part 1.1310

Report No.: DEKR199_FCC_MPE

Company: Advanced Automotive Antennas, S.L

Model: TCU-FITAX-3.5

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To: FCC CFR 47 Part 1.1310

Test Report Serial No.: DEKR199_FCC_MPE

This report supersedes: NONE

Applicant: Advanced Automotive Antennas, S.L
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This Test Report is Issued Under the Authority of:

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1. MAXIMUM PERMISSABLE EXPOSURE

Calculations for Maximum Permissible Exposure Levels

Power Density = P_d (mW/cm²) = $EIRP / (4 * \pi * d^2)$

$EIRP = P * G$

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

Numeric Gain = $10^{(G \text{ (dBi)}/10)}$

The calculations in the table below use the highest conducted power values. These calculations represent worst case in terms of the exposure levels.

The calculations in the table below use the highest Calculated Conducted Power value for LTE, and WiFi together with the antenna gain specified for the EUT. The DRSC Radio values include actual conducted power from testing. These calculations represent worst case in terms of exposure levels.

Freq. Band (MHz)	Ant Gain (dBi)	Numeric Gain (numeric)	Max Calc. Peak Output Power (dBm)	Peak Output Power (mW)	Calculated Power Density (mW/cm ²) @ 20cm	Power Density Limit (mW/cm ²)	Min Calculated safe distance for Limit (cm)
698-798 (LTE 700)	-2	0.63	35.6	3630.78	0.456	0.46533333	19.793
791-862 (LTE 800)	2.5	1.78	31.7	1479.11	0.523	0.52733333	19.923
880-960 (GSM 900)	3	2.00	31.5	1412.54	0.561	0.58666667	19.552
1710-1990 (GSM1800, PCS 1900)	4	2.51	33	1995.26	0.997	1	19.971
1900-2200 (UMTS)	5.5	3.55	31.5	1412.54	0.997	1	19.971
2500-2690 (LTE 2600)	3.5	2.24	33.5	2238.72	0.997	1	19.971
2400-2485, WiFi	-1.5	0.71	30.00	1000.00	0.141	1	7.506
5014-5925 WiFi	-1.5	0.71	30.00	1000.00	0.141	1	7.506
5800-6000 DRSC	7.00	5.01	20.00	100.00	0.100	1	6.315

NOTE: Although the device has dual antenna ports they cannot transmit simultaneously.

Specification

Maximum Permissible Exposure Limits –

FCC §1.1310 Table 1: ii) Limits for General Population/Uncontrolled Exposure
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