RF EXPOSURE REPORT

Applicant	Amphenol Thermometrics,Inc.
Address	967 WINDFALL ROAD ST. MARYS PA 15857 USA

Manufacturer or Supplier	Shenzhen Everbest Machinery Industry Co., Ltd
Address	19th Building, 5th Region, Baiwangxin Industrial Park, SongBai Rd.,Baimang, Xili, Nanshan, Shenzhen China
Product	Face Recognition Scanner
Brand Name	ADVANCE IR»
Model	TSCAN-750
Additional Models & Model Difference	N/A
Date of tests	May. 21, 2020 ~ Jun. 22, 2020

☒ **FCC Part 2 (Section 2.1091)**

☒ **KDB 447498 D01**

☒ **IEEE C95.1**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Tested by Breeze Jiang Senior Project Engineer / EMC Department	Approved by Glyn He Assistant Manager / EMC Department
	 Date: Sep. 14, 2020

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FM200521N025	Original release	Jun. 24, 2020
FM2008WDG0192	Based on the original report FM200521N025 changed the information of applicant, FCC ID number, model No. and brand name.	Sep. 14, 2020

After the verification of worst case of AC Power Conducted Emission and Transmitter Radiated Emissions, all test data can be referred to the original report and showed in this report.

1. CERTIFICATION

FCC ID:	2AJQZ-TSCAN-750
PRODUCT:	Face Recognition Scanner
BRAND NAME:	ADVANCE IR»
MODEL NO.:	TSCAN-750
ADDITIONAL NO.:	N/A
TEST SAMPLE:	Engineering Sample
APPLICANT:	Amphenol Thermometrics,Inc.
STANDARDS:	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1

1. RF EXPOSURE LIMIT

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm^2)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

2. MPE CALCULATION FORMULA

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

3. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

4. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Mode	Transmitter Circuit	Peak Gain (dBi)	Antenna Type
BT	Chain 0	2.32	Integral Antenna
WIFI	Chain 0	2.32	Integral Antenna

5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

The tuned conducted Average Power (declared by client)

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
BT (GFSK)	2402-2480MHz	-2	+-3.5	-5.5	1.5
BT (8DPSK)	2402-2480MHz	-6.5	+-3.5	-10	-3
BT-LE (GFSK)	2402-2480MHz	7	+-2	5	9
802.11b	2412-2462MHz	15	+-1	14	16
802.11g	2412-2462MHz	14	+-1	13	15
802.11n HT20	2412-2462MHz	13	+-1	12	14

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
BT (GFSK)	2402	0.98
BT (8DPSK)	2402	-4.19
BT-LE (GFSK)	2402	7.36
802.11b	2462	15.43
802.11g	2462	14.02
802.11n HT20	2437	13.29

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
BT 2402-2480	9	2.32	20	0.002696	1.0
WiFi 2412-2462	16	2.32	20	0.013512	1.0

CONCLUSION:

The BT and WiFi can transmit simultaneously, the formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1

CPD = Calculation power density

LPD = Limit of power density

(0.002696/1)+(0.013512/1) = 0.016208<1, which is less than the “1” limit.

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