

RF Exposure Evaluation Report

Product : EMEET StreamCam One
Trade mark :  EMEET
Model/Type reference : E7004, E700401, E700402, E700403, E700405
Serial Number : N/A
Report Number : EED32O81229005
FCC ID : 2ALCN-E7004
Date of Issue : Oct. 18, 2022
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF Exposure Guidance v06
Test result : PASS

Prepared for:

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2 Version

Version No.	Date	Description
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4 General Information

4.1 Client Information

Applicant:	SHENZHEN EMEET TECHNOLOGY CO., LTD.
Address of Applicant:	Unit 2C, Building A6, Guangming Science Park, Guanguang Road 3009, Guangming District, Shenzhen, China
Manufacturer:	SHENZHEN EMEET TECHNOLOGY CO., LTD.
Address of Manufacturer:	Unit 2C, Building A6, Guangming Science Park, Guanguang Road 3009, Guangming District, Shenzhen, China
Factory:	SHENZHEN EMEET INTELLIGENT TECHNOLOGY CO., LTD
Address of Factory:	A401、B401, Building B5, Guangming Science Park, Guanguang Road, Fenghuang community, Fenghuang Street, Guangming District, Shenzhen, China

4.2 General Description of EUT

Product Name:	EMEET StreamCam One
Model No.:	E7004, E700401, E700402, E700403, E700405
Test Model No.:	E7004
Trade mark:	
EUT Supports Radios application:	Bluetooth 5.0 dual mode: 2402-2480MHz 2.4GHz Wi-Fi: IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz IEEE 802.11n(HT40): 2422MHz to 2452MHz 5GHz Wi-Fi: U-NII-1: 5180-5240MHz; U-NII-3: 5745-5825MHz

4.3 Product Specification subjective to this standard

Frequency Range:	Bluetooth : 2402-2480MHz 2.4GHz Wi-Fi: IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz IEEE 802.11n(HT40): 2422MHz to 2452MHz 5GHz Wi-Fi: U-NII-1: 5180-5240MHz; U-NII-3: 5745-5825MHz
Modulation Type:	IEEE for 802.11b:DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g:OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20/HT40): OFDM (64QAM, 16QAM,QPSK,BPSK) IEEE 802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11ac(HT20/HT40/HT80): OFDM (BPSK, QPSK, 16QAM, 64QAM) BT/BLE: GFSK, 8DPSK, $\pi/4$ DQPSK
Test Power Grade:	Default
Antenna Type (Bluetooth):	FPC Antenna
Antenna Gain (Bluetooth):	3.13dBi

Antenna Type (Wi-Fi):	FPC Antenna
Antenna Gain (Wi-Fi):	Ant1 (2.4G WIFI): 0.42dBi, Ant1(5G WIFI): 3.5dBi Ant2 (2.4G WIFI): 4.52dBi, Ant2(5G WIFI): 3.43dBi
Function (Wi-Fi):	☒ SISO ☒ 2x2 MIMO ☐ 3x3 MIMO ☐ 4x4MIMO
Power Supply:	DC 3.65V
Max Conducted Peak Output Power:	BLE:1.43dBm, BT: 1.03dBm, 2.4G WIFI:17.07dBm, 5G WIFI:8.98dBm The Max Conducted Peak Output Power data refer to the report EED32O81229001, EED32O81229002, EED32O81229003, EED32O81229004
Sample Received Date:	Aug. 11, 2022
Sample tested Date:	Aug. 11, 2022 to Sep. 27, 2022
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified. Model No.: E7004, E700401, E700402, E700403, E700405 Only the model E7004 was tested. E7004, E700401, E700402, E700403, E700405 have the same hardware,software,electrical circuit design, layout, components used and internal wiring. These models are mainly used for the division of sales areas,so only different in model name.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$

$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

5.2 Maximum Permissible Exposure

Substituting the MPE safe distance using $d = 20$ cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

BLE:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
0	2402	1.39	2.056	20	0.0006	1

BT Classic:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
0	2402	1.268	2.056	20	0.0005	1

2.4G WIFI:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
11	2437	50.933	2.831	20	0.0287	1

5G WIFI:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm ²	Limit (mW/cm ²)
157	5825	7.907	2.203	20	0.0035	1

1) For BT Classic and WIFI

BT and WIFI can not transmit simultaneously.

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*** End of Report ***