



Registration
No.910917

SAR REPORT

Report No.: SRTC2016-9004(F)-0021

Product Name: IVT Corporation i145 module

Product Model: i145

Applicant: IVT Corporation

Manufacturer: IVT Corporation

Specification: FCC Part §2.1091, §2.1093, §1.1307(b)

FCC ID: S78-IVTI145

The State Radio_monitoring_center Testing Center (SRTC)

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1. GENERAL INFORMATION

1.1 Notes of the test report

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The test results relate only to individual items of the samples which have been tested.

1.2 Information about the testing laboratory

Company:	The State Radio_monitoring_center Testing Center (SRTC)
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1.3 Applicant's details

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1.4 Manufacturer's details

Company:	IVT Corporation
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Country or Region:	P.R.China
Contacted person:	Jason Zhu
Tel:	010-82898219
Fax:	010-82898219
Email:	yong.zhu@ivtwireless.com

2 DESCRIPTION OF THE DEVICE UNDER TEST

2.1 Final Equipment Build Status

Bluetooth

Frequency Range	2.4GHz~2.4835GHz
Number of Channel	79
Modulation Type	GFSK, π /4DQPSK, 8DPSK
Duplex Mode	TDD
Channel Spacing	1MHz
Data Rate	1Mbps, 2 Mbps, 3 Mbps
Antenna Type	Fixed Internal
Antenna Gain	0dBi
Power Supply	Battery or Charger
Rated Power Supply Voltage	5.0V
HW Version	i145_20151030
SW Version	BSE_AUD_2.1.0.7
Serial number	20151030

Bluetooth BLE

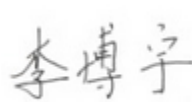
Frequency Range	2.4GHz~2.4835GHz
Number of Channel	40
Modulation Type	GFSK
Duplex Mode	TDD
Channel Spacing	1MHz
Data Rate	1Mbps
Antenna Type	Fixed Internal
Antenna Gain	0dBi
Power Supply	Battery or Charger
Rated Power Supply Voltage	5.0V
HW Version	i145_20151030
SW Version	BSE_AUD_2.1.0.7
Serial number	20151030

3 REFERENCE SPECIFICATION

Specification	Version	Title
2.1091	June 23, 2015	Radiofrequency radiation exposure evaluation: mobile devices.
2.1093	June 23, 2015	Radiofrequency radiation exposure evaluation: portable devices.
1.1307(b)	Apr. 22, 1986	Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.
KDB447498	D01	General RF Exposure Guidance

4 RESULT SUMMARY

No.	Test case	FCC reference
1	SAR	FCC Part §2.1091, FCC Part §2.1093, FCC Part §1.1307(b) KDB447498 D01

This Test Report Is Issued by: Mr. Tao Hongbo 	Checked by: Mr. Li Boyu 
Tested by: Mr. Li Bin 	Issued date: 2016/6/28

5 Test Results

SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm

According to the KDB447498 4.3.1(a)

For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

Summary of Transmitters for Head

Band/Mode	Max. power of channel, including tune-up tolerance, (dBm)	Max. power of channel, including tune-up tolerance, (mW)	Min. test separation distance, (mm)	The calculation results (1g)	SAR test exclusion Threshold (1g)	SAR Required
(2.4~2.4835)GHz Bluetooth	8.03	6.35	5	2.0	≤ 3.0	No

According to the KDB447498 appendix A

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

Summary of Transmitters for Body

Band/Mode	Max.RF output power (dBm)	Max.RF output power (mW)	SAR test exclusion Threshold (mW)	SAR Required
(2.4~2.4835)GHz Bluetooth	8.03	3.21	≤ 10	No

According to the KDB447498 D01 section 7.1 determine the device is exclusion from SAR test.

---End of Test Report---