中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

SAR TEST REPORT

Applicant: **Inrico Technologies Co., Ltd**

Address: 3/F, Building No.118, High Tech Industrial Park, 72 Guowei Road, Luohu District, Shenzhen, China

FCC ID: **2AIV6-2-T529A**

Product Name: **Intelligent Two Way Radio**

Model Number: **T529A**

Standard(s): **47 CFR Part 2(2.1093)**

The above equipment has been tested and found compliance with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR21120024-SAA1**

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Reviewed By: **Sun Zhong**

Sun Zhong

Title: Manager

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SAR TEST RESULTS SUMMARY

Operation Frequency Bands	Highest Reported 1g SAR (W/kg)			Limits (W/kg)
	Face Up (Gap 10mm)	Body-Worn (Gap 0mm)	Hotspot (Gap 10mm)	
GSM 850	**0.75**	0.69	/	**1.6**
PCS 1900	0.26	0.49	/	
WCDMA Band 2	0.32	0.48	/	
WCDMA Band 5	0.65	0.45	/	
LTE Band 2	0.30	0.47	/	
LTE Band 5	0.74	0.63	/	
LTE Band 7	0.29	0.39	/	
LTE Band 12&17	0.35	0.31	/	
LTE Band 38	0.06	0.30	/	
LTE Band 40	0.13	0.11	/	
LTE Band 66&4	0.13	**0.72**	/	
Maximum Simultaneous Transmission SAR				
Items	**Face Up (Gap 10mm)**	**Body-Worn (Gap 0mm)**	**Hotspot (Gap 10mm)**	**Limits**
Sum SAR(W/kg)	**0.89**	**1.00**	/	1.6
SPLSR	N/A	N/A	N/A	0.04

***Note**: The test data of 2G/3G/4G, please refer to FCC ID: 2AIV6-T529A, SAR report of RDG200407009-20, issued by Bay Area Compliance Laboratories Corp. (Dongguan) on 2020-08-14.*

Note:
EUT is electrical identical with the product Intelligent Two Way Radio (model: T529A, FCC ID: 2AIV6-T529A) under Inrico Technologies Co., Ltd. The difference between those two products is EUT is enable the BT&Wi-Fi function by software and remove the NFC circuit, and the current device had been tested and verified the SAR results of WWAN consistently with the original device, test data of these items please refer to the test report: RDG200407009-20.

Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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CONTENTS

SAR TEST RESULTS SUMMARY 2
TEST FACILITY 3
DECLARATIONS 3
1. GENERAL INFORMATION 5
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) 5
1.2.2 Test Specification, Methods and Procedures 6
MAXIMUM TARGET OUTPUT POWER 7
TEST RESULTS: 7
ANTENNAS LOCATION: 9
ANTENNA DISTANCE TO EDGE 9
STANDALONE SAR TEST EXCLUSION CONSIDERATIONS 9
STANDALONE SAR ESTIMATION: 10
SAR SIMULTANEOUS TRANSMISSION DESCRIPTION 11

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

Device Type:	Portable
Exposure Category:	Population / Uncontrolled
Antenna Type(s):	External Antenna for GSM&WCDMA& LTE Antenna Internal Antenna for Wi-Fi&Bluetooth Antenna
DTM Type:	Class B
Multi-slot Class:	GPRS(Class 12); EGPRS(Class 12)
Body-Worn Accessories:	Belt Clip and Microphone
Face-Head Accessories:	None
Operation Mode :	GPRS/EDGE Data, WCDMA(R99 (Voice+Data), HSDPA/HSUPA/DC-HSDPA/HSPA+), FDD-LTE, TDD-LTE, Wi-Fi and Bluetooth
Frequency Band:	GSM 850: 824-849 MHz(TX); 869-894 MHz(RX) PCS 1900: 1850-1910 MHz(TX); 1930-1990 MHz(RX) WCDMA Band 2: 1850-1910 MHz(TX); 1930-1990 MHz(RX) WCDMA Band 5: 824-849 MHz(TX); 869-894 MHz(RX) LTE Band 2: 1850-1910 MHz(TX); 1930-1990 MHz(RX) LTE Band 4: 1710-1755 MHz(TX) ; 2110-2155 MHz(RX) LTE Band 5: 824-849 MHz(TX); 869-894 MHz(RX) LTE Band 7: 2500-2570 MHz(TX); 2620-2690 MHz(RX) LTE Band 12: 699-716 MHz(TX); 729-746 MHz(RX) LTE Band 17: 704-716 MHz(TX); 734-746 MHz(RX) LTE Band 38: 2570-2620 MHz(TX); 2570-2620 MHz(RX) LTE Band 40: 2305-2315 MHz(TX); 2305-2315 MHz(RX) 2350-2360 MHz(TX); 2350-2360 MHz(RX) LTE Band 66: 1710-1780 MHz(TX); 2110-2200 MHz(RX) Wi-Fi 2.4G: 2412 -2472 MHz/2422 -2462 MHz Bluetooth: 2402 -2480 MHz
Conducted RF Power:	GSM 850 : 32.20 dBm*; PCS 1900: 26.04 dBm* WCDMA Band 2: 20.64 dBm*; WCDMA Band 5: 22.26 dBm*; LTE Band 2: 22.98 dBm*; LTE Band 4: 22.42 dBm* LTE Band 5: 23.99 dBm*; LTE Band 7: 23.45 dBm* LTE Band 12: 22.72 dBm*; LTE Band 17: 23.16 dBm* LTE Band 38: 23.09 dBm*; LTE Band 40: 23.33 dBm* LTE Band 66: 22.12 dBm* Wi-Fi 2.4G: 8.08 dBm Bluetooth(BDR/EDR): 6.45 dBm BLE: 6.24 dBm
Power Source:	3.7 VDC Rechargeable Battery
Normal Operation:	Face Up and Body-worn

***Note**: The test data of WWAN, please refer to FCC ID: 2AIV6-T529A, SAR report of RDG200407009-20, issued by Bay Area Compliance Laboratories Corp. (Dongguan) on 2020-08-14.*

1.2.2 Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE 1528-2013, the following FCC Published RF exposure KDB procedures:

KDB 447498 D01 General RF Exposure Guidance v06
KDB 648474 D04 Handset SAR v01r03
KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
KDB 865664 D02 RF Exposure Reporting v01r02
KDB 941225 D01 3G SAR Procedures v03r01
KDB 941225 D05 SAR for LTE Devices v02r05

TCB Workshop April 2019: RF Exposure Procedures

Maximum Target Output Power

Max Target Power(dBm)			
Mode/Band	Channel		
	Low	Middle	High
WLAN 2.4G(802.11b)	8.2	8.2	8.2
WLAN 2.4G(802.11g)	8	8	8
WLAN 2.4G(802.11n20)	8	8	8
WLAN 2.4G(802.11n40)	8	8	8
Bluetooth BDR/EDR	7	7	7
BLE_1M	6.5	6.5	6.5

Test Results:

Wi-Fi 2.4G:

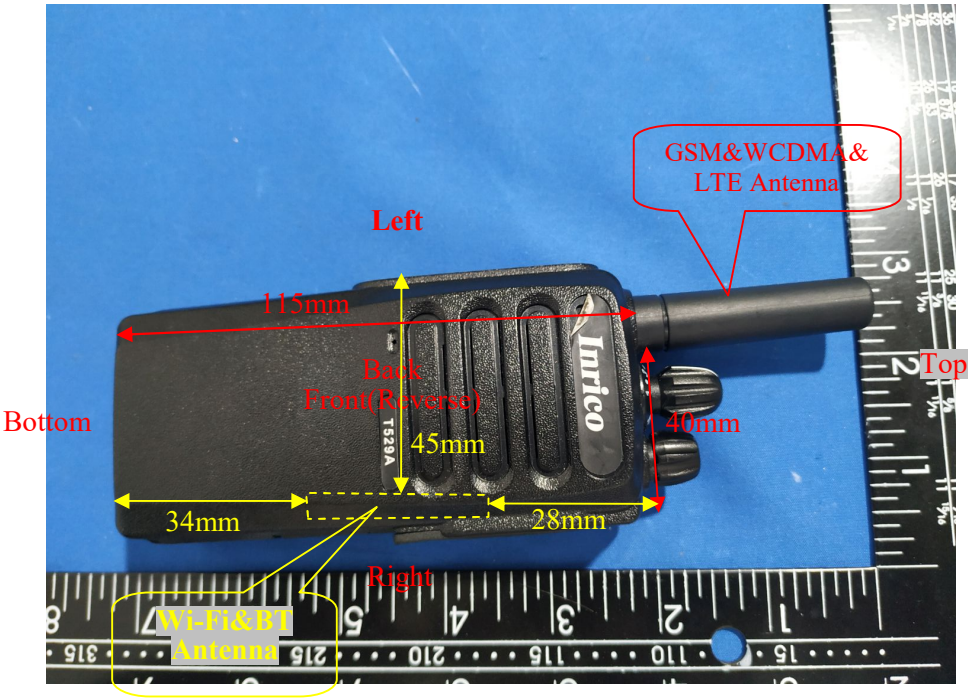
Mode	Channel frequency (MHz)	Data Rate	Conducted Average Output Power(dBm)
802.11b	2412	1Mbps	7.73
	2442		**8.08**
	2472		7.57
802.11g	2412	6Mbps	7.84
	2442		7.86
	2472		7.81
802.11n HT20	2412	MCS0	7.84
	2442		7.94
	2472		7.89
802.11n HT40	2422	MCS0	7.94
	2442		7.89
	2462		7.95

Bluetooth:

Mode	Channel frequency (MHz)	RF Output Power (dBm)
BDR(GFSK)	2402	**6.45**
	2441	5.85
	2480	5.03
EDR(π/4-DQPSK)	2402	5.48
	2441	5.21
	2480	4.47
EDR(8DPSK)	2402	5.86
	2441	5.39
	2480	4.63
BLE_1M	2402	6.24
	2440	5.81
	2480	5.11

***Note**: The test data of WWAN, please refer to FCC ID: 2AIV6-T529A, SAR report of RDG200407009-20, issued by Bay Area Compliance Laboratories Corp. (Dongguan) on 2020-08-14.*

Antennas Location:



Antenna Distance To Edge

Antenna Distance To Edge(mm)						
Antenna	**Back**	**Front**	**Left**	**Right**	**Top**	**Bottom**
WWAN Antenna(GSM/WCDMA/LTE)	< 5	< 5	< 5	40	< 5	115
Wi-Fi&BT Antenna	< 5	< 5	45	< 5	28	34

Standalone SAR test exclusion considerations

Mode	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Distance (mm)	Calculated value	Threshold (1-g)	SAR Test Exclusion
2.4G WLAN	2472	8.2	6.61	0	2.1	3	**Yes**
BT	2480	7	5.01	0	1.6	3	**Yes**

Note: *The bluetooth based peak power for calculation, and Wi-Fi based average power for calculation.*

NOTE:

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤7.5 for 10-g extremity SAR, where

1. f(GHz) is the RF channel transmit frequency in GHz.
2. Power and distance are rounded to the nearest mW and mm before calculation.
3. The result is rounded to one decimal place for comparison.
4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

Standalone SAR estimation:

Mode	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Distance (mm)	Estimated 1-g (W/kg)
WLAN Face Up	2472	8.2	6.61	10	0.14
WLAN Body	2472	8.2	6.61	0	0.28
BT Face Up	2480	7	5.01	10	0.11
BT Body	2480	7	5.01	0	0.21

Note: *The bluetooth based peak power for calculation, and Wi-Fi based average power for calculation.*

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
[(max. power of channel, including tune-up tolerance , mW)/(min. test separation distance,mm)] · [√f(GHz)/x]
W/kg for test separation distances ≤50 mm;
where x = 7.5 for 1-g SAR.
When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion

SAR SIMULTANEOUS TRANSMISSION DESCRIPTION

Simultaneous Transmission:

Description of Simultaneous Transmit Capabilities		
Transmitter Combination	**Simultaneous?**	**Hotspot?**
WWAN(GSM/WCDMA/LTE) + Bluetooth	√	×
WWAN(GSM/WCDMA/LTE) + WLAN	√	×
WLAN + Bluetooth	×	×

Simultaneous SAR test exclusion considerations:

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR < 1.6W/kg
		SAR1	SAR2	
GSM 850+Bluetooth	Face Up	0.75	0.11	**0.86**
	Body Back	0.69	0.21	0.9
PCS 1900+ Bluetooth	Face Up	0.26	0.11	0.37
	Body Back	0.49	0.21	0.7
WCDMA Band 2+ Bluetooth	Face Up	0.32	0.11	0.43
	Body Back	0.48	0.21	0.69
WCDMA Band 5+ Bluetooth	Face Up	0.65	0.11	0.76
	Body Back	0.45	0.21	0.66
LTE Band 2+ Bluetooth	Face Up	0.30	0.11	0.41
	Body Back	0.47	0.21	0.68
LTE Band 5+ Bluetooth	Face Up	0.74	0.11	0.85
	Body Back	0.63	0.21	0.84
LTE Band 7+ Bluetooth	Face Up	0.29	0.11	0.4
	Body Back	0.39	0.21	0.6
LTE Band 12&17+ Bluetooth	Face Up	0.35	0.11	0.46
	Body Back	0.31	0.21	0.52
LTE Band 38+ Bluetooth	Face Up	0.06	0.11	0.17
	Body Back	0.30	0.21	0.51
LTE Band 40+ Bluetooth	Face Up	0.13	0.11	0.24
	Body Back	0.11	0.21	0.32
LTE Band 66&4+ Bluetooth	Face Up	0.13	0.11	0.24
	Body Back	0.72	0.21	**0.93**

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		ΣSAR < 1.6W/kg
		SAR1	SAR2	
GSM 850+Wi-Fi 2.4G	Face Up	0.75	0.14	**0.89**
	Body Back	0.69	0.28	0.97
PCS 1900+ Wi-Fi 2.4G	Face Up	0.26	0.14	0.4
	Body Back	0.49	0.28	0.77
WCDMA Band 2+ Wi-Fi 2.4G	Face Up	0.32	0.14	0.46
	Body Back	0.48	0.28	0.76
WCDMA Band 5+ Wi-Fi 2.4G	Face Up	0.65	0.14	0.79
	Body Back	0.45	0.28	0.73
LTE Band 2+ Wi-Fi 2.4G	Face Up	0.30	0.14	0.44
	Body Back	0.47	0.28	0.75
LTE Band 5+ Wi-Fi 2.4G	Face Up	0.74	0.14	0.88
	Body Back	0.63	0.28	0.91
LTE Band 7+ Wi-Fi 2.4G	Face Up	0.29	0.14	0.43
	Body Back	0.39	0.28	0.67
LTE Band 12&17+ Wi-Fi 2.4G	Face Up	0.35	0.14	0.49
	Body Back	0.31	0.28	0.59
LTE Band 38+ Wi-Fi 2.4G	Face Up	0.06	0.14	0.2
	Body Back	0.30	0.28	0.58
LTE Band 40+ Wi-Fi 2.4G	Face Up	0.13	0.14	0.27
	Body Back	0.11	0.28	0.39
LTE Band 66&4+ Wi-Fi 2.4G	Face Up	0.13	0.14	0.27
	Body Back	0.72	0.28	**1.00**

***Note**: The test data of WWAN, please refer to FCC ID: 2AIV6-T529A, SAR report of RDG200407009-20, issued by Bay Area Compliance Laboratories Corp. (Dongguan) on 2020-08-14.*

Conclusion:

Sum of SAR: **ΣSAR ≤ 1.6 W/kg** therefore simultaneous transmission SAR with Volume Scans is **not required**.

******* END OF REPORT *******