# **FCC SAR Test Report**

APPLICANT : Zebra Technologies Corporation

**EQUIPMENT**: Touch computer

BRAND NAME : Zebra

MODEL NAME : TC75GK

FCC ID : UZ7TC75GK

STANDARD : FCC 47 CFR Part 2 (2.1093)

**ANSI/IEEE C95.1-1992** 

IEEE 1528-2013

We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and had been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Eric Huang / Deputy Manager

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Approved by: Jones Tsai / Manager

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Report No.: FA672834-03

### SPORTON INTERNATIONAL INC.

No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.)

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FCC ID: UZ7TC75GK

Issued Date : Oct. 06, 2016

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# **Revision History**

Report No. : FA672834-03

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA672834-03	Rev. 01	Initial issue of report	Oct. 06, 2016

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### 1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Zebra Technologies Corporation, Touch computer, TC75GK,** are as follows.

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		Highest SAR Summary			Highest
Equipment Class	Frequency Band	Head (Separation 0mm)	Body-worn (Separation 15mm)	Hotspot (Separation 10mm)	Simultaneous Transmission
Ciass	Dariu	1g SAR (W/kg)			1g SAR (W/kg)
	GSM850	0.85	1.11	1.14	
	GSM1900	0.24	1.28	1.30	
	WCDMA II	0.25	1.22	1.16	
	WCDMA IV	0.26	1.24	1.07	
Licensed	WCDMA V	0.44	0.48	0.66	1.59
	LTE Band 4	0.21	0.91	1.19	
	LTE Band 12 / 17	0.28	0.36	0.46	
	LTE Band 2 / 25	0.26	1.09	1.09	
	LTE Band 5 / 26	0.32	0.44	0.47	
DTS	2.4GHz WLAN	0.31	0.15	0.33	1.54
NII	5GHz WLAN	0.12	0.37	0.55	1.59
DSS	Bluetooth		< 0.01		1.58
Date of Testing: 2016/9/5 ~ 2016/9/13					

### Remark:

- 1. LTE band 2 / 5 / 17 SAR test was covered by Band 25 / 26 / 12 ; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if,
  - a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
  - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications

### 2. Administration Data

Testing Laboratory			
Test Site SPORTON INTERNATIONAL INC.			
Test Site Location	No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978		

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Applicant Applicant		
Company Name Zebra Technologies Corporation		
Address	1 Zebra Plaza Holtsville, NY 11742	

Manufacturer Manufacturer			
Company Name Wistron Corporation			
Address	21F, No. 88, Sec. 1, Hsin Tai Wu Rd., Hsichih Dist, New Taipei City 221, Taiwan R.O.C.		

## 3. Equipment Under Test (EUT) Information

	Product Feature & Specification			
Equipment Name	Touch computer			
Brand Name	Zebra			
Model Name	TC75GK			
FCC ID	UZ7TC75GK			
IMEI Code	359111070013885			
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1852.4 MHz ~ 1752.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 26: 814 MHz ~ 849 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.3GHz Band: 5500 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.6Hz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz			
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA LTE: QPSK, 16QAM 802.11a/b/g/n/ac HT20/HT40/VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE NFC:ASK			
HW Version	DV			
SW Version	Android version 6.0.1			
FW Version	91-10-05-MG-00			
MFD	14JUL16			
GSM / (E)GPRS Transfer	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can			
mode automatically switch between Packet and Circuit Switched Network.				
EUT Stage Engineering sample				

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### 4. Re-use of Measured Data

#### 1. Introduction Section:

Portions of the design of (FCC ID: UZ7TC75GK, model: TC75GK) and (FCC ID: UZ7TC75EK, model: TC75EK) share the identical hardware, PCB layout, antenna, the only difference between them is that, the CDMA and LTE Band 13 capability is disabled in (FCC ID: UZ7TC75GK, model: TC75GK) via software. Thus, for some bands, the certification data collected on (FCC ID: UZ7TC75EK, model: TC75EK) can be taken to be representative of (FCC ID: UZ7TC75GK, model: TC75GK) will reuse the SAR test results from (FCC ID: UZ7TC75EK, model: TC75EK).

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#### 2. Difference Section:

(FCC ID: UZ7TC75GK, model: TC75GK) is a variant model of (FCC ID: UZ7TC75EK, model: TC75EK) with some disable transmission bands because of market segmentation. The device which use the same internal printed circuit board, the variations are CDMA and LTE B13 functionality are disabled and LTE Band 13 related components are depopulated, all other bands are exactly identical and won't impact the RF performance of WWAN/WLAN/BT/NFC,. All the divergent bands have been properly tested to ensure compliance. The detailed comparison of (FCC ID: UZ7TC75GK, model: TC75GK) and (FCC ID: UZ7TC75EK, model: TC75EK) is included in the Operational Description.

The re-used SAR data includes the following bands provided in Appendix A-1 and A-2 (Sporton SAR Report No. FA672834 for the reference device FCC ID: UZ7TC75EK, model: TC75EK):

- GSM850 / 1900, WCDMA B2 / B4 / B5, LTE B2 / B4 / B5 / B12 / B17 / B25 / B26, WLAN and Bluetooth.

#### 3. Spot Check Verification Data Section:

The device which use the same internal printed circuit board, the variations are CDMA and LTE B13 functionality are disabled and LTE Band 13 related components are depopulated, all other bands are exactly identical and won't impact the RF performance of WWAN/WLAN/BT/NFC, therefore SAR spot check is not required.

#### 4. Reference detail Section:

<b>Equipment Class</b>	Reference FCC ID	Folder Test/RF Exposure	Report Title/Section
PCE	UZ7TC75EK	RF Exposure (FA672834)	All sections applicable
DTS	UZ7TC75EK	RF Exposure (FA672834)	All sections applicable
NII	UZ7TC75EK	RF Exposure (FA672834)	All sections applicable
DSS	UZ7TC75EK	RF Exposure (FA672834)	All sections applicable

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