



# FCC Part 96.47 TEST REPORT

FCC ID : UZ7TC58A1  
Equipment : Touch Computer  
Brand Name : Zebra  
Model Name : TC58A1  
Applicant : Zebra Technologies Corporation  
1 Zebra Plaza, Holtsville, NY 11742  
Manufacturer : Zebra Technologies Corporation  
1 Zebra Plaza, Holtsville, NY 11742  
Standard : FCC Part 96.47  
RF Interface : NR n48

The product was received on Apr. 18, 2022 and testing was started from Apr. 20, 2022 to Apr. 20, 2022. We, Sporton International (USA) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has 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 (USA) Inc., the test report shall not be reproduced except in full.

Approved by: Neil Kao

**Sporton International (USA) Inc.**  
1175 Montague Expressway, Milpitas, CA 95035



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### History of this test report

Report No.	Version	Description	Issued Date
FG222202L	01	Initial issue of report	Jun. 17, 2022



### Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3	96.47	End User Device additional requirement	Pass	-

**Conformity Assessment Condition:**

The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.

**Comments and Explanations:**

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Touch Computer
Brand Name	Zebra
Model Name	TC58A1
FCC ID	UZ7TC58A1
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/5G NR/NFC/GNSS WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE
HW Version	EV3
SW Version	athena_A11_userdebug_GMS_RelKey_2022-02-22-2145_ product_SE
MFD	19FEB22
DUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer.

Specification of Accessories				
Adapter	Brand Name	Zebra	Part Number	PWR-WUA5V12W0US
Battery (1X)	Brand Name	Zebra	Part Number	BT-000442-0020
Battery (1.5X)	Brand Name	Zebra	Part Number	BT-000442-0820
USB TYPE A to TYPE C cable	Brand Name	Zebra	Part Number	CBL-TC5X-USBC2A-01
USB TYPE C to 3.5mm audio connector	Brand Name	Zebra	Part Number	ADP-USBC-35MM1-01
3.5mm Earphone	Brand Name	Zebra	Part Number	HDST-35MM-PTVP-01
USB TYPE C Earphone	Brand Name	Zebra	Part Number	HPST-USBC-PTT1-01
Headset Jumper	Brand Name	Zebra	Part Number	CBL-TC51-HDST35-01
Trigger Handle	Brand Name	Zebra	Part Number	TRG-NGTC5-ELEC-01
Soft Holster	Brand Name	Zebra	Part Number	SG-NGTC5TC7-HLSTR-01
TC53/TC58 RUGGED BOOT	Brand Name	Zebra	Part Number	SG-NGTC5EXO1-01

## 1.2 Modification of EUT

No modifications are made to the EUT during all test items.



### 1.3 Testing Laboratory

Test Site	Sporton International (USA) Inc.
Test Site Location	1175 Montague Expressway, Milpitas, CA 95035 TEL : 408 9043300
Test Site No.	<b>Sporton Site No.</b> TH01-CA
Test Engineer	Kaying Xiong
Temperature	17 ~ 20 °C
Relative Humidity	39 ~ 43 %

### 1.4 Applicable Standards

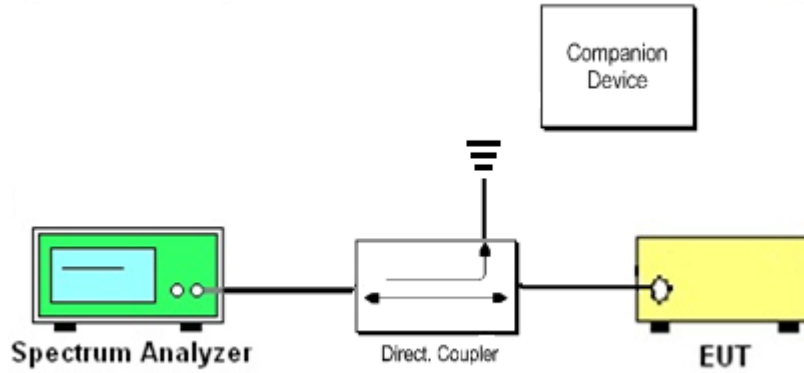
- ♦ FCC Part 96.47
- ♦ FCC KDB 940660 D01 Part 96 CBRS Eqpt v03
- ♦ WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification

**Remark:**

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The A2LA code is not including all the FCC KDB listed without accreditation.

## 2 Test Configuration of Equipment Under Test

### 2.1 Connection Diagram of Test System



The companion device is certified NR CBSD (FCC ID: PIDAS2900)



### 3 End User Device additional requirement

#### 3.1 Test Requirement

FCC Part 96.47

(a) End User Devices may operate only if they can positively receive and decode an authorization signal transmitted by a CBSD, including the frequencies and power limits for their operation.

(1) An End User Device must discontinue operations, change frequencies, or change its operational power level within 10 seconds of receiving instructions from its associated CBSD.

#### 3.2 Test Procedure

Following procedure can be done by applying WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification, use the certified Airspan NR CBSD (FCC ID: PIDAS2900) as companion device to show compliance with Part 96.47 requirement for End User Device (EUD):

1. Setup with frequency 3570-3590MHz and power level 14dBm/MHz
2. Enable CBSD service from Airspan ACP management
3. Check EUD Tx Frequency and power
4. Disable CBSD service from Airspan ACP management
  - a. Check EUD stops transmission within 10seconds.
  
5. Setup with frequency 3670-3690MHz and power level 4dBm/MHz
6. Enable CBSD service from Airspan ACP management
7. Check EUD Tx Frequency and power
8. Disable CBSD service from Airspan ACP management
  - a. Check EUD stops transmission within 10seconds.

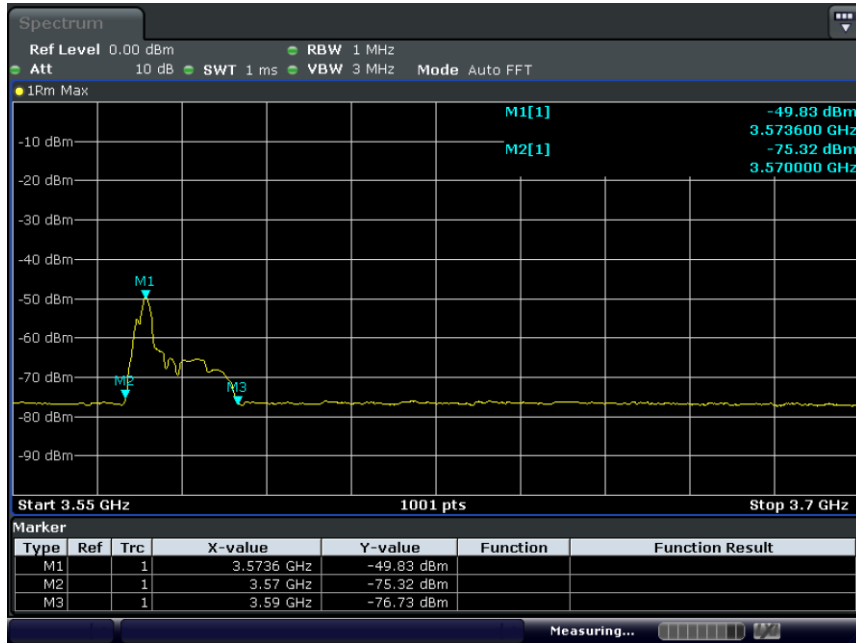




### 3.3 Test Result

[Step 1] Setup with frequency 3570-3590MHz and power level 14dBm/MHz

[Step 3] Check EUD Tx Frequency and power



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[Step 4.a.] EUD stops transmission within 10 seconds of receiving instructions from its associated CBSD.

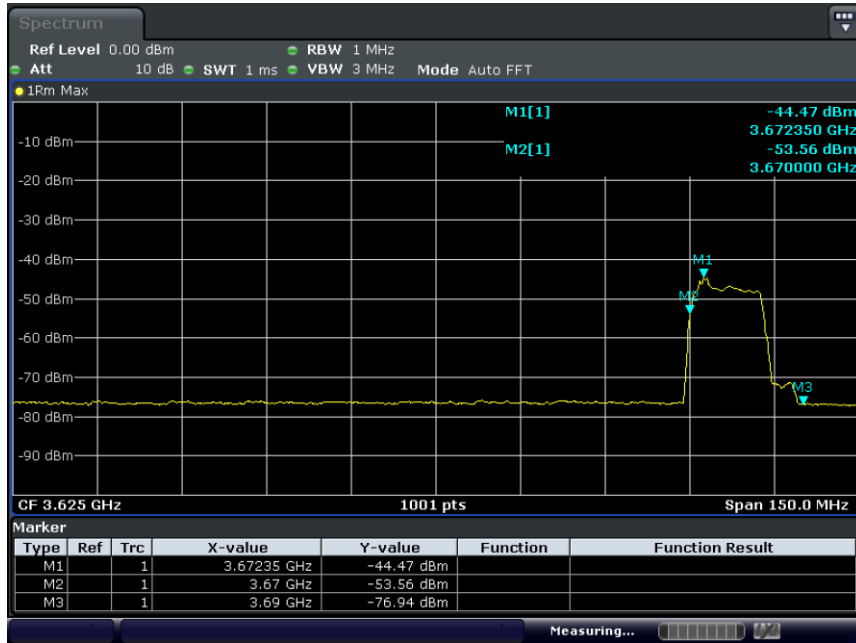


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[Step 5] Setup with 3670-3690MHz & power level 4dBm/MHz

[Step 7] Check EUD Tx Frequency and power



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[Step 8.a.] After changing the frequency and power level,

The module (EUT) discontinues operations, change frequencies, or change its operational power level within 10 seconds of receiving instructions from its associated CBSD. Test result is PASS.



Date: 20.APR.2022 19:32:59



## 4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV13	101559	10Hz~13.6GHz	Jun. 02, 2021	Apr. 20, 2022	Jun. 01, 2022	TH01-CA