



# FCC Part 96.47 TEST REPORT

FCC ID : UZ7MC345A  
Equipment : Mobile Computer  
Brand Name : ZEBRA  
Model Name : MC345A  
Applicant : Zebra Technologies Corporation  
3 Overlook Point, Lincolnshire, IL 60069 USA  
Manufacturer : Zebra Technologies Corporation  
3 Overlook Point, Lincolnshire, IL 60069 USA  
Standard : FCC Part 96.47  
RF Interface : NR n48/n78

The product was received on Oct. 25, 2024, and testing was performed from Nov. 19, 2024 to Nov. 21, 2024. We, Sporton International Inc. Wensan Laboratory, 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 Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Approved by: Jones Tsai

**Sporton International Inc. Wensan Laboratory**

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C)



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## History of this test report

| Report No. | Version | Description             | Issue Date    |
|------------|---------|-------------------------|---------------|
| FG4O2228F  | 01      | Initial issue of report | Jan. 15, 2025 |
|            |         |                         |               |
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|            |         |                         |               |

## 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/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.

**Disclaimer:**

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

**Reviewed by:** Keven Cheng

**Report Producer:** Mila Chen



# 1 General Description

## 1.1 Product Feature of Equipment Under Test

| Product Feature                 |                                                                                                                                                     |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Equipment                       | Mobile Computer                                                                                                                                     |
| Brand Name                      | ZEBRA                                                                                                                                               |
| Model Name                      | MC345A                                                                                                                                              |
| FCC ID                          | UZ7MC345A                                                                                                                                           |
| Sample 1                        | SKU 9 (Brick+SE5800+38 Keypad)                                                                                                                      |
| Sample 2                        | SKU 10 (Gun+SE4770+29 Keypad)                                                                                                                       |
| Sample 3                        | SKU 11 (Gun+SE5500+47 Keypad)                                                                                                                       |
| EUT supports Radios application | WCDMA/HSPA/LTE/5G NR/NFC<br>WLAN 11a/b/g/n HT20/HT40<br>WLAN 11ac VHT20/VHT40/VHT80/VHT160<br>WLAN 11ax HE20/HE40/HE80/HE160<br>Bluetooth BR/EDR/LE |
| HW Version                      | EV                                                                                                                                                  |
| SW Version                      | 14-10-10.00-UG-U00-PRD-NEM-04                                                                                                                       |
| MFD                             | 14SEP24                                                                                                                                             |
| EUT Stage                       | Identical Prototype                                                                                                                                 |

**Remark:**

1. The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.
2. All the tests performed with Sample 1 and Battery 1 Standard Battery (7000mAh).



| Stage              | MC34 WWAN SKU list |           |           |         |           |
|--------------------|--------------------|-----------|-----------|---------|-----------|
| Configuration      | SKU3               | SKU6      | SKU9      | SKU10   | SKU11     |
| WW/WL              | WWAN               | WWAN      | WWAN      | WWAN    | WWAN      |
| Form Factor        | FA                 | FA        | FA        | FA      | FA        |
| SKU                | Prem               | Prem+     | Prem+     | Prem    | Prem+     |
| Brick / Gun        | Gun                | Gun       | Brick     | Gun     | Gun       |
| DDR size           | 6GB                | 6GB       | 6GB       | 6GB     | 6GB       |
| UFS size           | 64GB               | 128GB     | 128GB     | 64GB    | 128GB     |
| Scan engine        | SE5500             | SE5800    | SE5800    | SE4770  | SE5500    |
| FF Camera          | None               | 5MP (PN)  | 5MP (PN)  | None    | 5MP (PN)  |
| RF Camera          |                    | 13MP (PN) | 13MP (PN) |         | 13MP (PN) |
| Keypad             | 47                 | 47        | 38        | 29      | 47        |
| Battery            | 7000mAh            | 7000mAh   | 7000mAh   | 7000mAh | 7000mAh   |
| Region (ROW or NA) | NA                 | NA        | NA        | NA      | NA        |

| Specification of Accessories                    |            |       |              |                    |
|-------------------------------------------------|------------|-------|--------------|--------------------|
| Adapter<br>USB Wall Charger                     | Brand Name | Zebra | Model Number | PWR-WUA5V12W0US    |
| Battery 1<br>Standard Battery (7000mAh)         | Brand Name | Zebra | Model Number | BT-000375          |
|                                                 |            |       | Manufacturer | TWS                |
| Battery 2<br>Standard Battery (7000mAh)         | Brand Name | Zebra | Model Number | BT-000375          |
|                                                 |            |       | Manufacturer | Inventus           |
| Battery 3<br>BLE Battery (7000mAh)              | Brand Name | Zebra | Model Number | BT-000444          |
| Battery 4<br>BLE Battery (7000mAh)              | Brand Name | Zebra | Model Number | BT-000375          |
|                                                 |            |       | Manufacturer | TWS                |
| Type C USB Cable                                | Brand Name | Zebra | Model Number | CBL-TC5X-USBC2A-01 |
| USB Cable Cup                                   | Brand Name | Zebra | Model Number | CBL-MC33-USBCHG-01 |
| Soft Holster for Gun Type                       | Brand Name | Zebra | Model Number | SG-MC3021212-01R   |
| Soft Holster for Brick Type                     | Brand Name | Zebra | Model Number | SG-MC3X-SHLSTB-01  |
| USB-C PTT Headset                               | Brand Name | Zebra | Model Number | HDST-USBC-PTT1-01  |
| USB-C to 3.5mm adapter                          | Brand Name | Zebra | Model Number | ADP-USBC-35MM1-01  |
| 3.5mm To Quick Disconnect<br>(QD) Adapter Cable | Brand Name | Zebra | Model Number | ADP-35M-QDCBL1-01  |
| 3.5mm PTT Headset                               | Brand Name | Zebra | Model Number | HDST-35MM-PTT1-01  |
| 3.5mm PTT HS2100 Headset                        | Brand Name | Zebra | Model Number | HS2100             |
| Quick Disconnect (QD) Cable                     | Brand Name | Zebra | Model Number | CBL-HS2100-QDC1-01 |



## 1.2 Modification of EUT

No modifications are made to the EUT during the entire test sessions.

## 1.3 Testing Laboratory

|                    |                                                                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Site          | Sporton International Inc. Wensan Laboratory                                                                                                     |
| Test Site Location | No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist.,<br>Taoyuan City 333010, Taiwan (R.O.C.)<br>TEL: +886-3-327-0868<br>FAX: +886-3-327-0855 |
| Test Site No.      | <b>Sporton Site No.</b><br>TH05-HY                                                                                                               |
| Test Engineer      | Alston                                                                                                                                           |
| Temperature        | 21 ~ 22 °C                                                                                                                                       |
| Relative Humidity  | 45 ~ 52 %                                                                                                                                        |

FCC designation No.: TW3786

## 1.4 Applicable Standards

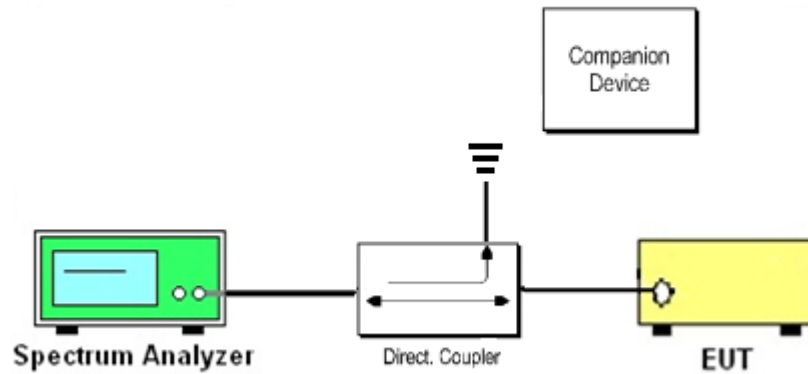
- ♦ FCC Part 96.47
- ♦ FCC KDB 940660 D01 Part 96 CBRS Eqpt v03
- ♦ WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification

### Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF 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 a 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

The following procedure is following in accordance with WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification, using the certified Airspan NR CBSD (FCC ID: PIDAS2900) as companion device to present compliance with Part 96.47 requirement for End User Device (EUD):

### <For n48>

1. Configure SAS granted CBSD to operate at frequency 3560-3600 MHz and power level 10 dBm/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 if EUD stops transmission within 10 seconds.
5. Configure SAS granted CBSD to operate at frequency 3650-3690 MHz and power level 20 dBm/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 if EUD stops transmission within 10 seconds.

### <For n78>

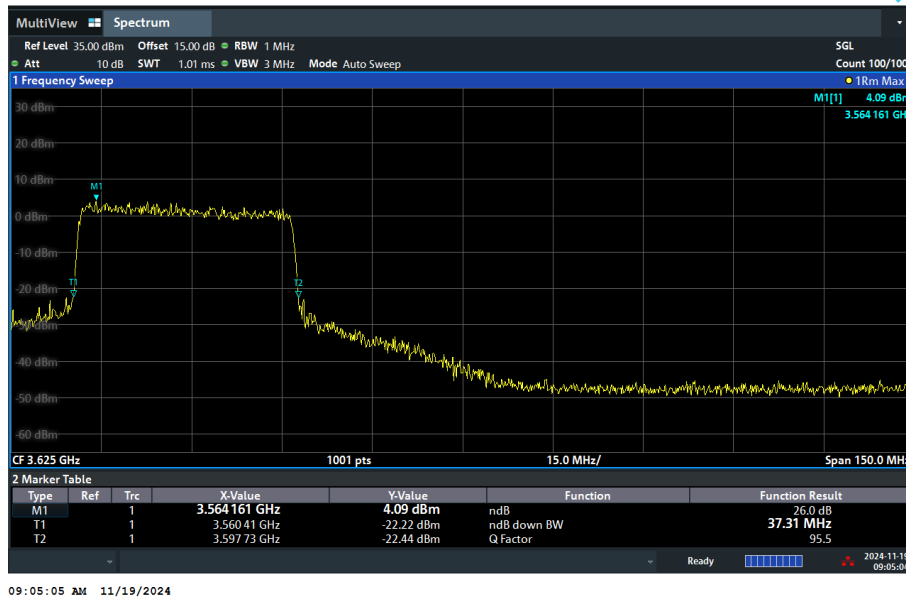
1. Configure SAS granted CBSD to operate at frequency 3550-3650 MHz and power level 10 dBm/MHz
2. Enable CBSD service from Airspan ACP management
3. Check EUD Tx Frequency and power
4. Disable CBSD service from Airspan ACP management
  - a. Check if EUD stops transmission within 10 seconds.
5. Configure SAS granted CBSD to operate at frequency 3600-3700 MHz and power level 20 dBm/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 if EUD stops transmission within 10 seconds.

### 3.3 Test Result

<For n48>

**[Step 1] Configure SAS granted CBSD to operate at frequency 3560-3600 MHz and power level 10 dBm/MHz**

**[Step 3] Check EUD Tx Frequency and power**



09:05:05 AM 11/19/2024

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



09:08:53 AM 11/19/2024

[Step 5] Configure SAS granted CBSD to operate at  
frequency 3650-3690 MHz & power level 20 dBm/MHz

[Step 7] Check EUD Tx Frequency and power



08:37:29 AM 11/19/2024

[Step 8.a.] After changing the frequency and power level,  
The EUD discontinues operating, changes frequencies, or changes its operational power level within 10 seconds  
right after receiving instructions from its associated CBSD. Test result is a PASS.



08:39:47 AM 11/19/2024

<For n78>

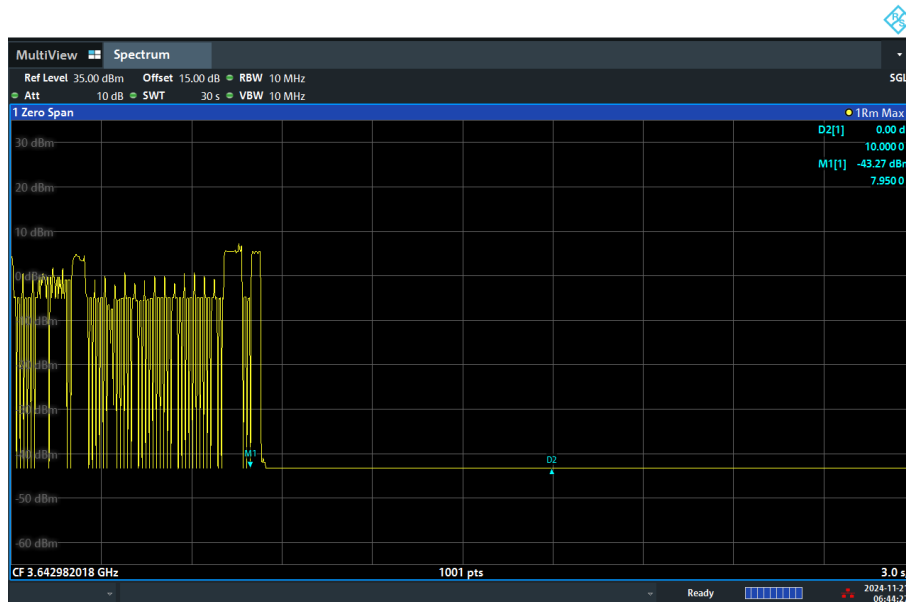
**[Step 1] Configure SAS granted CBSD to operate at  
frequency 3550-3650 MHz and power level 10 dBm/MHz**

**[Step 3] Check EUD Tx Frequency and power**



06:42:31 AM 11/21/2024

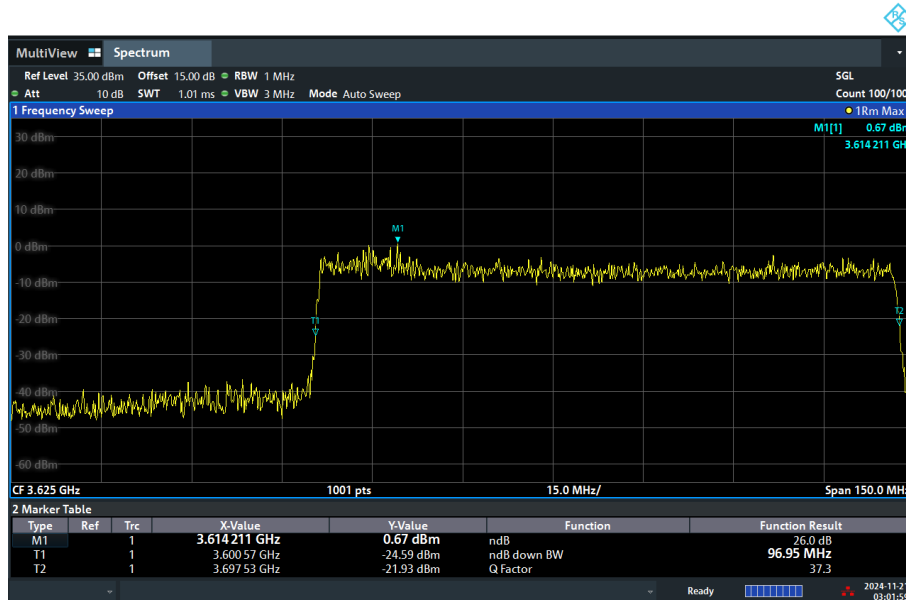
**[Step 4.a.] EUD stops transmission within 10 seconds right after receiving instructions from its associated CBSD.**



06:44:28 AM 11/21/2024

**[Step 5] Configure SAS granted CBSD to operate at  
frequency 3600-3700 MHz & power level 20 dBm/MHz**

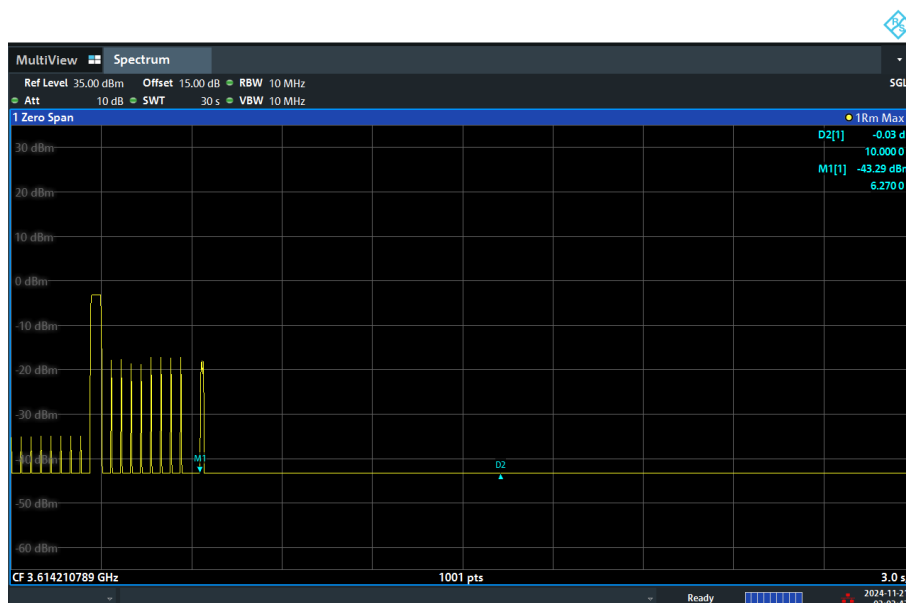
**[Step 7] Check EUD Tx Frequency and power**



03:02:00 AM 11/21/2024

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

The EUD discontinues operating, changes frequencies, or changes its operational power level within 10 seconds right after receiving instructions from its associated CBSD. Test result is a PASS.



03:03:42 AM 11/21/2024



## 4 Measuring Equipment List

| Instrument        | Brand Name | Model No. | Serial No. | Characteristics | Calibration Date | Test Date                       | Due Date      | Remark                 |
|-------------------|------------|-----------|------------|-----------------|------------------|---------------------------------|---------------|------------------------|
| Spectrum Analyzer | R&S        | FSV3044   | 101467     | 10Hz~44GHz      | Jan. 18, 2024    | Nov. 19, 2024~<br>Nov. 21, 2024 | Jan. 17, 2025 | Conducted<br>(TH05-HY) |