



## Compliance Certification Services (Kunshan) Inc.

CCSEM-TRF-001 Rev. 02 Sep 01, 2023

Report No.: KSCR240100004301

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# TEST REPORT

**Application No.:** KSCR2401000043AT  
**FCC ID:** 2A28USN339D  
**Applicant:** COOSEA GROUP (HK) COMPANY LIMITED  
**Address of Applicant:** UNIT 5-6 16/F MULTIFIELD PLAZA 3-7A PRAT AVENUE TSIMSHATSUI KL  
**Manufacturer:** COOSEA GROUP (HK) COMPANY LIMITED  
**Address of Manufacturer:** UNIT 5-6 16/F MULTIFIELD PLAZA 3-7A PRAT AVENUE TSIMSHATSUI KL  
**Equipment Under Test (EUT):**  
**EUT Name:** Smart Phone  
**Model No.:** SN339D  
**Standard(s):** FCC Part 96.47  
FCC KDB 940660 D01 Part 96 CBRS Eqpt v03  
WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification  
WINNF-18-IN-00178 CBRS End User Device as UUT Test Guidelines  
**Date of Receipt:** 2024-01-08  
**Date of Test:** 2024-01-16 to 2024-01-29  
**Date of Issue:** 2024-01-30

<b>Test Result:</b>	<b>Pass*</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

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<i>Revision Record</i>			
<i>Version</i>	<i>Description</i>	<i>Date</i>	<i>Remark</i>
00	Original	2024-01-18	/

<b>Authorized for issue by:</b>			
<b>Tested By</b>			
	_____		
	<b>Damon Zhou /Project Engineer</b>		
<b>Approved By</b>			
	_____		
	<b>Terry Hou /Reviewer</b>		



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## 2 Test Summary

Item	Standard	Test Case ID	Result
End User Device additional requirement	96.47	/	Pass

The UUT is an End User Device. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

**Test standards:**

FCC Part 96.47

FCC KDB 940660 D01 Part 96 CBRS Eqpt v03

WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification

WINNF-18-IN-00178 CBRS End User Device as UUT Test Guidelines



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## 4 General Information

### 4.1 Details of E.U.T.

Power supply:	DC3.8V
Sample Type:	End User device
Transmitter Frequency Band:	LTE: Band 48 5GNR: n48
Transmitter Frequency Range:	Band 48/n48:3550~3700MHz
Antenna Type:	Integrated Antenna
Hardware Version:	1.0
Software Version:	SN339DD10010
Antenna Gain:	-0.63dBi (Provided by the manufacturer)

### 4.2 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 7.25 \times 10^{-8}$
2	RF conducted power	$\pm 0.75\text{dB}$
3	Temperature test	$\pm 1^{\circ}\text{C}$
4	Humidity test	$\pm 3\%$
5	Supply voltages	$\pm 1.5\%$
6	Time	$\pm 3\%$

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### 4.3 Description of Support Units

#### For LTE test:

Description	Manufacturer	Model No.	Serial No.
EPC	Lanner Electronics Inc.	LICA-1513A	LR202002004052
Router	TP-LINK	TL-R860+	1175379002425
Base station	Baicells	pBS31010 (FCC ID: 2AG32PBS31010)	12020002912122B0001

#### For 5G NR test:

Description	Manufacturer	Model No.	Serial No.
5GC	astir	astir_5GC	A372768X0507398
Router	TP-Link	TL-R860+	1175379002425
Base Band Unit	BTI	sCELL- G52091NAX	L603JESE1I
Remote Radio Unit	BTI	RU4370 (FCC ID: WBK-RU4370)	C0214921000004S

#### 4.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

- 1.SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
- 2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).
3. Sample source: sent by customer.

#### 4.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

- **FCC**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

- **ISED**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

- **VCCI**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

#### 4.6 Deviation from Standards

None

#### 4.7 Abnormalities from Standard Conditions

None

## 5 Equipment List

Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
Laptop	Lenovo	Y510P	HFL000026	N/A	N/A
Spectrum Analyzer	KEYSIGHT	N9020A	KUS2001M00 1-2	2023/8/24	2024/8/23
Shield Room	YanChuang	N/A	KS301115-2	N/A	N/A
Coaxial Cable	Thermax	N/A	13	2023/9/16	2024/9/15
Attenuator	Mini-Circuits	NAT-6-2W	15542-1	N.C.R.	N.C.R.
Humidity / Temperature Indicator	Renke	RS-WS-N01- 6J	1032844	2023/3/22	2024/3/21





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## 6 Test Method and Environment

### 6.1 End User Device Conformance and Performance

Test Requirement: FCC Part 96.47

Test Method: WINNF-18-IN-00178 CBRS End User Device as UUT Test Guidelines

### 6.2 Test Environment

Environmental Conditions: 25°C, 65%RH

### 6.3 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.
- b). 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.

### 6.4 Test Procedure

Following procedure can be done by applying WINNF-TS-0122-V1.0.2 CBRS CBSD Test Specification, use the certified LTE Base station CBSD (FCC ID: 2AG32PBS31010) and 5GNR Base station CBSD (FCC ID: WBK-RU4370) as companion device to show compliance with Part 96.47 requirement for End User Device (EUD):

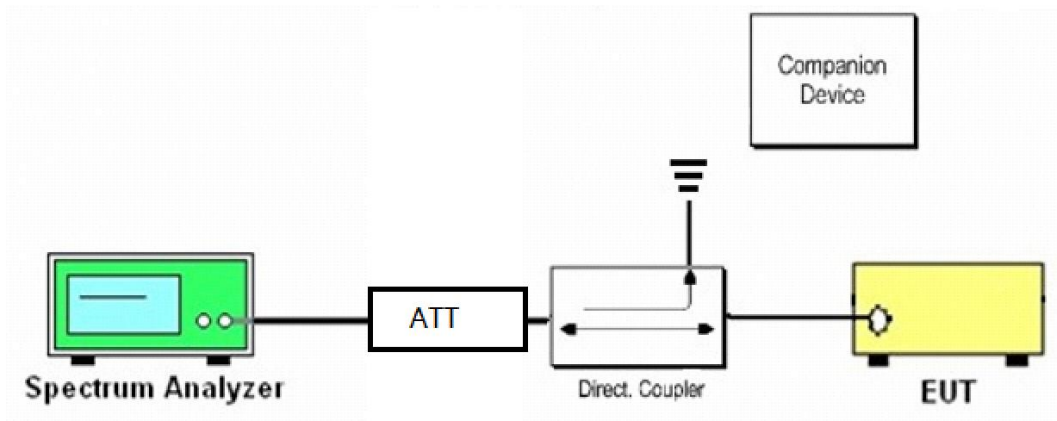
For LTE:

1. Setup with frequency 3550-3570MHz and power level 20dBm/MHz;
2. Enable CBSD service ;
3. Check EUD Tx Frequency and power;
4. Disable AP service ;
5. Check EUD stops transmission within 10seconds;
6. Setup with 3640-3660MHz & power level 8dBm/MHz;
7. Enable CBSD service;
8. Check EUD Tx Frequency and power;
9. Disable CBSD service;
10. Check EUD stops transmission within 10seconds.

For 5G NR:

1. Setup with frequency 3550-3650MHz and power level 20dBm/MHz;
2. Enable CBSD service ;
3. Check EUD Tx Frequency and power;
4. Disable AP service ;
5. Check EUD stops transmission within 10seconds;
6. Setup with 3600-3700MHz & power level 8dBm/MHz;
7. Enable CBSD service;
8. Check EUD Tx Frequency and power;
9. Disable CBSD service;
10. Check EUD stops transmission within 10seconds.

### 6.5 Test Setup



For LTE:

End User Device as UUT, the companion device is certified CBRS (FCC ID: 2AG32PBS31010)

For 5G NR:

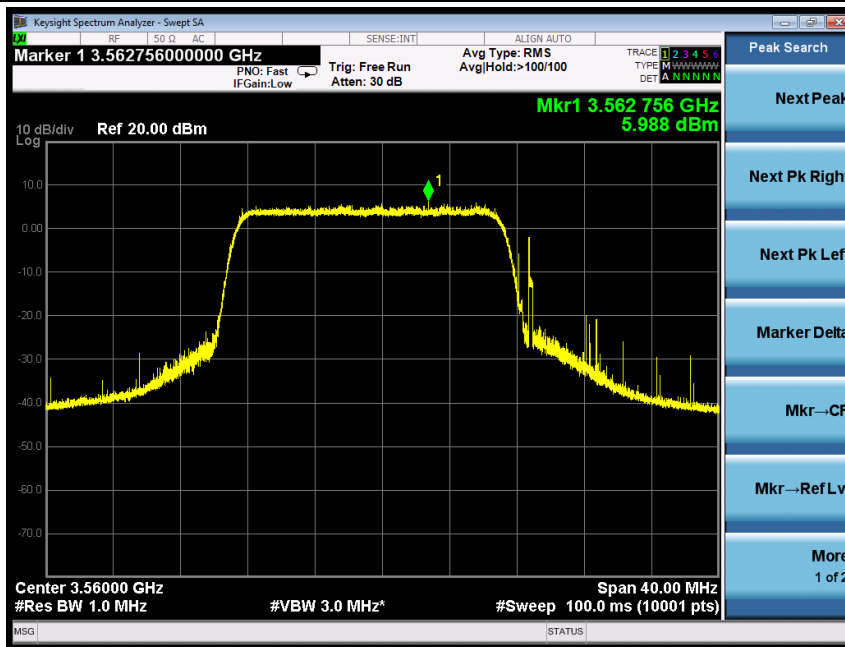
End User Device as UUT, the companion device is certified CBRS (FCC ID: WBKRU4370)

### 6.6 Test Result

For LTE

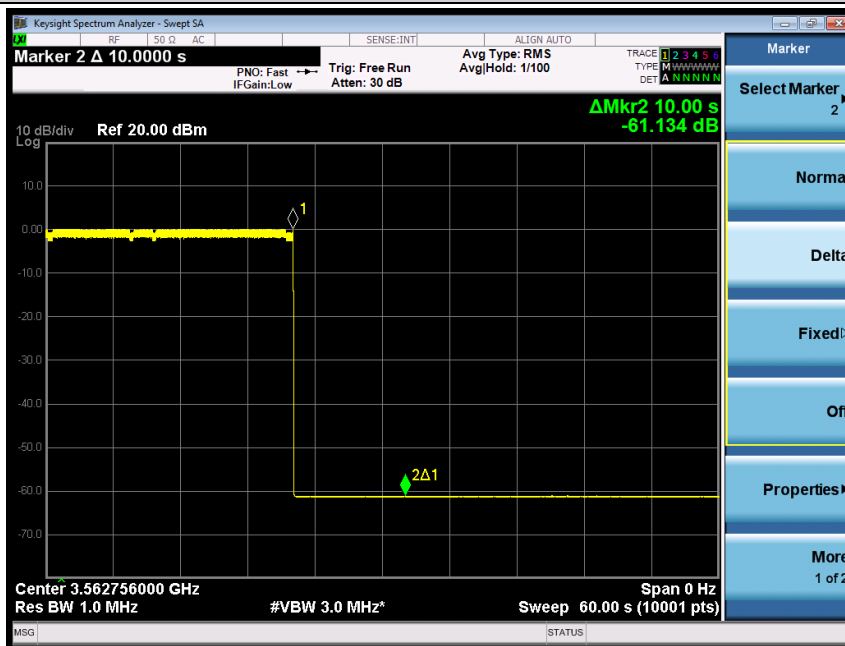
[Step 1] Setup with frequency 3550-3570MHz and power level 20dBm/MHz

[Step 3] Check EUD Tx Frequency and power



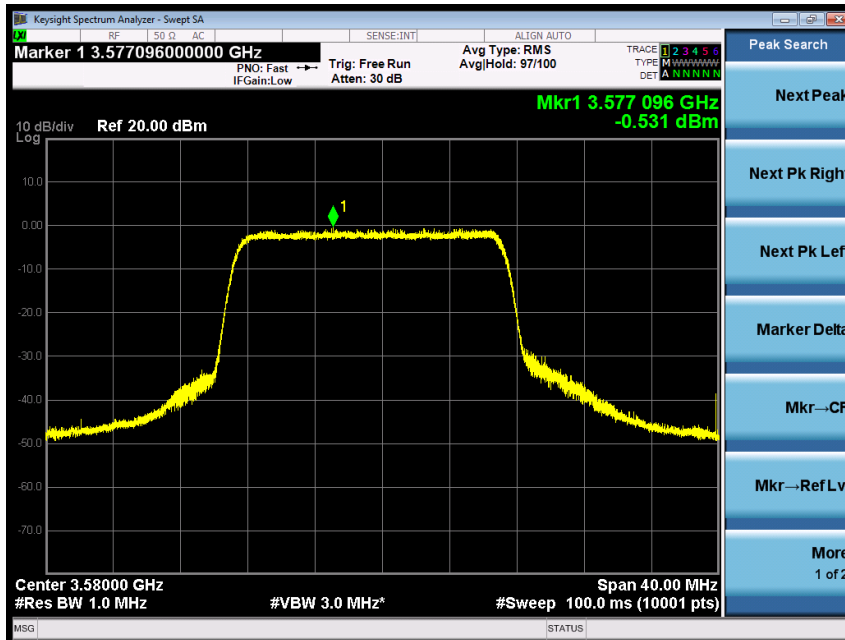
$EIRP\ PSD = 5.988 - 0.63 + 4.5 = 9.858\text{ dBm/MHz}$ , Antenna gain is  $-0.63\text{ dBi}$ , the path loss is  $4.5\text{ dB}$

[Step 5] EUD stops transmission within 10 seconds of receiving instructions from its associated CBSD.



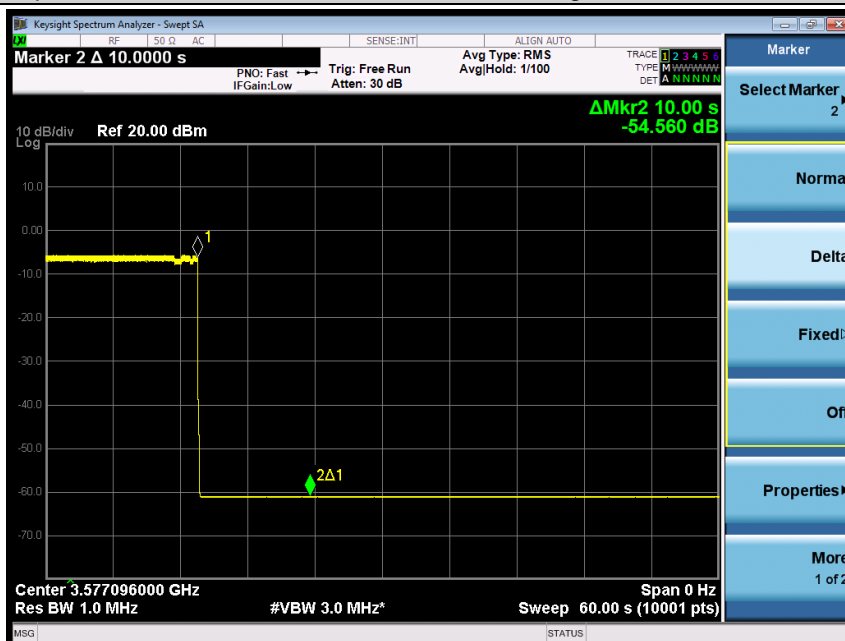
[Step 6] Setup with frequency 3640-3660MHz and power level 8dBm/MHz

[Step 8] Check EUD Tx Frequency and power



$EIRP\ PSD = -0.563 - 0.63 + 4.5 = 3.307\text{ dBm/MHz}$ , Antenna gain is  $-0.63\text{ dBi}$ , the path loss is  $4.5\text{ dB}$

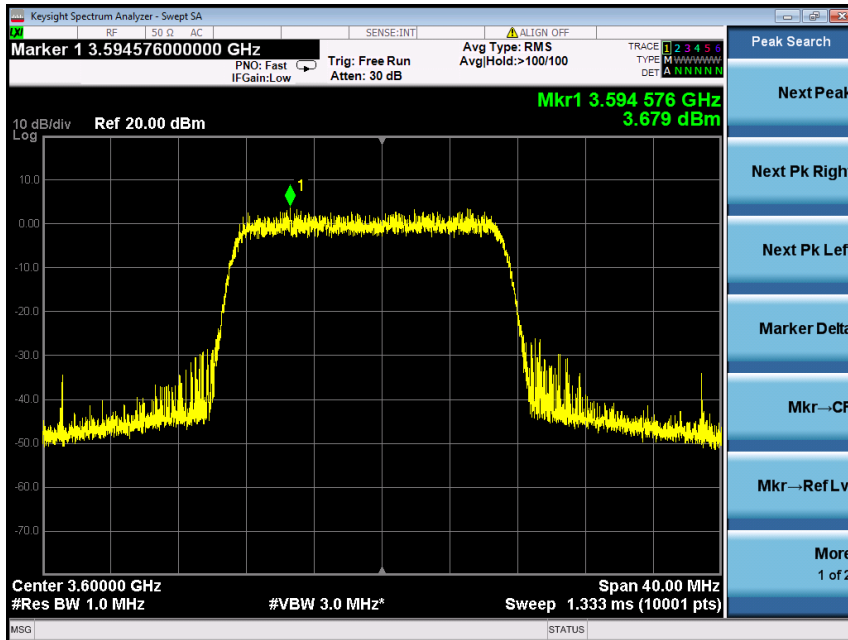
[Step 10] EUD stops transmission within 10 seconds of receiving instructions from its associated CBSD.



For 5GNR

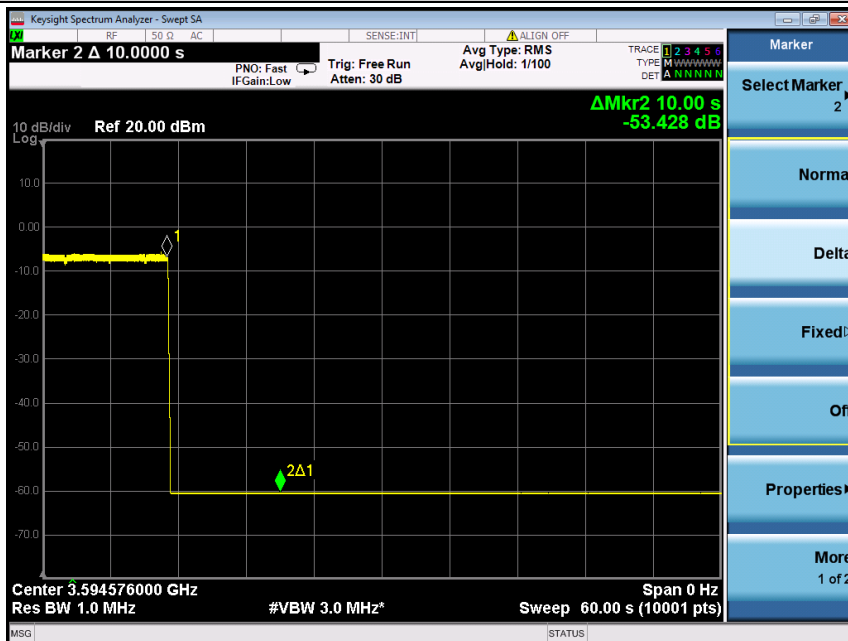
[Step 1] Setup with frequency 3550-3650MHz and power level 20dBm/MHz

[Step 3] Check EUD Tx Frequency and power



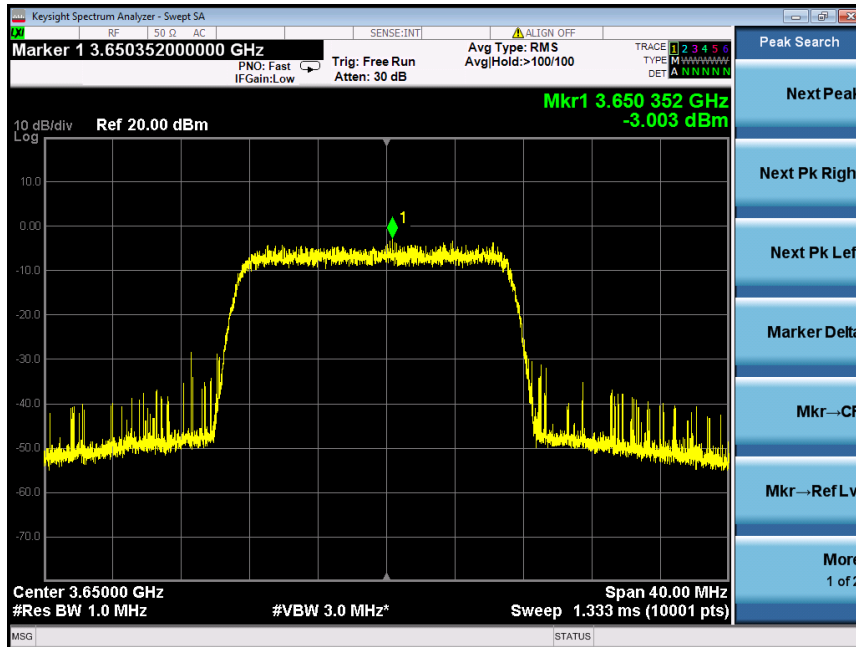
$EIRP\ PSD = -3.679 - 0.63 + 4.5 = 7.549\text{ dBm/MHz}$ , Antenna gain is  $-0.63\text{ dBi}$ , the path loss is  $4.5\text{ dB}$ ,

[Step 5] EUD stops transmission within 10 seconds of receiving instructions from its associated CBSD.



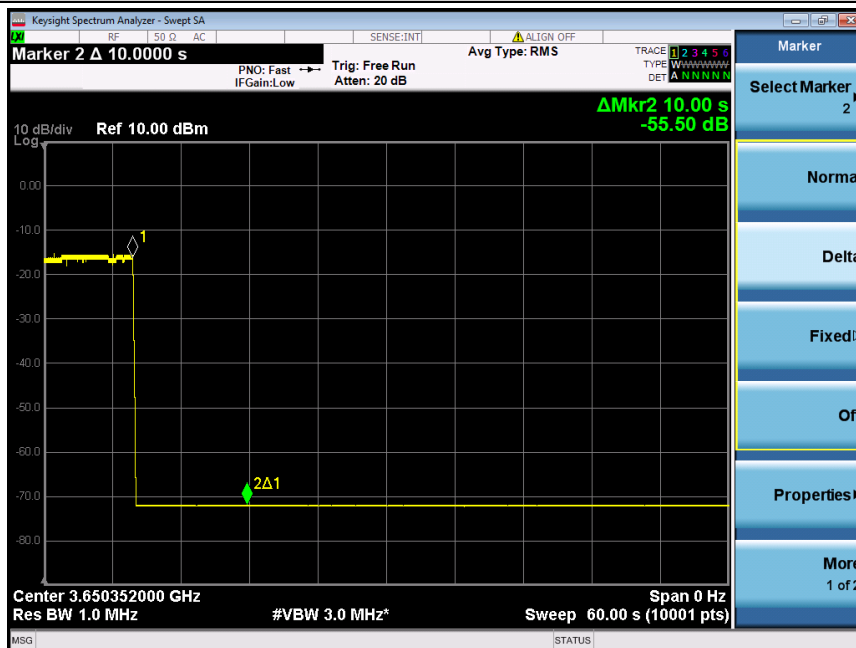
[Step 6] Setup with frequency 3600-3700MHz and power level 8dBm/MHz

[Step 8] Check EUD Tx Frequency and power



$EIRP\ PSD = -3.003 - 0.63 + 4.5 = 0.867\text{ dBm/MHz}$ , Antenna gain is  $-0.63\text{ dBi}$ , the path loss is  $4.5\text{ dB}$ ,

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





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## **7 Test Setup Photographs**

Refer to Appendix - Test Setup Photo for KSCR2401000043AT.

- End of the Report -