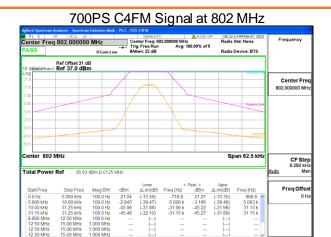
Date Issued: April 11 2022

Project No.: 20811

Client: Dali Wireless, Inc. Report No.: 20.01.20811 Revision No.: 1



## 700PS C4FM Signal at 799.0125 MHz



## 700PS C4FM Signal at 804.9875 MHz



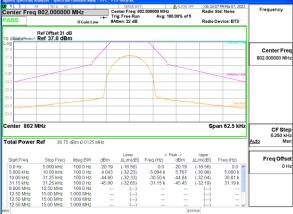
Page 43 of 88

Date Issued: April 11 2022

Project No.: 20811

Client: Dali Wireless, Inc. Report No.: 20.01.20811 Revision No.: 1





## 700PS HDQPSK Signal at 799.0125 MHz ALC



## 700PS HDQPSK Signal at 804.9875 MHz ALC



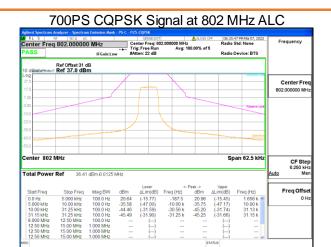
Page 44 of 88

Date Issued: April 11 2022

Project No.: 20811

Client: Dali Wireless, Inc. Report No.: 20.01.20811

Revision No.: 1



## 700PS CQPSK Signal at 799.0125 MHz ALC



## 700PS CQPSK Signal at 804.9875 MHz ALC



Page 45 of 88

Date Issued: April 11 2022

Project No.: 20811

Client: Dali Wireless, Inc. Report No.: 20.01.20811

Revision No.: 1



## 700PS C4FM Signal at 799.0125 MHz ALC



## 700PS C4FM Signal at 804.9875 MHz ALC



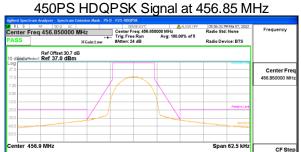
Page 46 of 88

Date Issued: April 11 2022

Project No.: 20811

Client: Dali Wireless, Inc. Report No.: 20.01.20811

Revision No.: 1





## 450PS HDQPSK Signal at 455.8125 MHz



## 450PS HDQPSK Signal at 457.8875 MHz



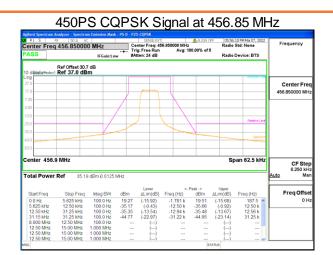
Page 47 of 88

Date Issued: April 11 2022

Project No.: 20811

Client: Dali Wireless, Inc. Report No.: 20.01.20811

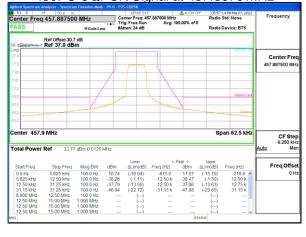
Revision No.: 1



## 450PS CQPSK Signal at 455.8125 MHz



## 450PS CQPSK Signal at 457.8875 MHz



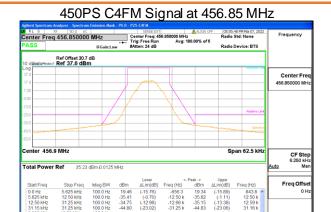
Page 48 of 88

Date Issued: April 11 2022

Project No.: 20811

Client: Dali Wireless, Inc. Report No.: 20.01.20811

Revision No.: 1



450PS C4FM Signal at 455.8125 MHz



## 450PS C4FM Signal at 457.8875 MHz



Page 49 of 88

Date Issued: April 11 2022

Project No.: 20811

Client: Dali Wireless, Inc. Report No.: 20.01.20811

Revision No.: 1

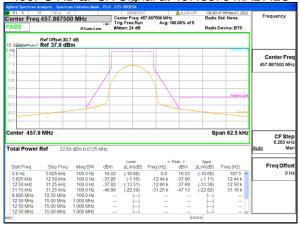




## 450PS HDQPSK Signal at 455.8125 MHz ALC



## 450PS HDQPSK Signal at 457.8875 MHz ALC



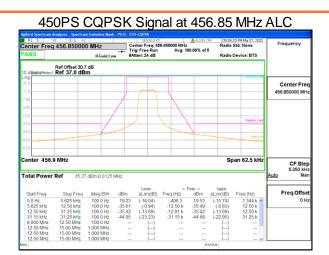
Page 50 of 88

Date Issued: April 11 2022

Project No.: 20811

Client: Dali Wireless, Inc. Report No.: 20.01.20811

Revision No.: 1



## 450PS CQPSK Signal at 455.8125 MHz ALC



## 450PS CQPSK Signal at 457.8875 MHz ALC

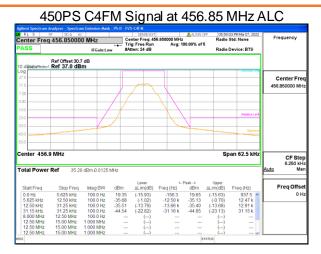


Page 51 of 88

Date Issued: April 11 2022

Project No.: 20811

Client: Dali Wireless, Inc. Report No.: 20.01.20811 Revision No.: 1



## 450PS C4FM Signal at 455.8125 MHz ALC



## 450PS C4FM Signal at 457.8875 MHz ALC



Page 52 of 88

Date Issued: April 11 2022

Report No.: 20.01.20811 Project No.: 20811 Revision No.: 1

Client: Dali Wireless, Inc.

## Input/output Power and Amplifier/Booster Gain

Governing Doc	FCC Part 90.219		Room Temperatu	re (°C)			
Test Procedure	ANSI/TIA-603- E; FCC KDB 935210 D05, v01r03		Relative Humidity	(%)			
Test Location	Richmond		Barometric Press	ure (kPa)			
Test Engineer			Date				
EUT Voltage							
Test Equipment Used	Manuf acturer	Model	Serial Number	Calibration date		Calibration due	
Signal Generator	Keysight	N5172B	MY53050270	Oct 9, 2021		Oct 9, 2023	
Spectrum Analyzer	Keysight	N9010A	MY50520285	Oct 11,	Oct 11, 2023		
Span:							
Detector:	⊠ Peak						
RBW/VBW:	⊠ 100k Hz/ 300 kHz						
Type of Facility:	⊠ Tabletop						
Distance:	□ Direct     □						
Maximum booster gain is 87.8 dB.							
Compliant ⊠	Compliant ⊠ Non-Compliant □ Not Applicable □						

## Test setup

## Description of test set-up:

The procedure used was ANSI/TIA-603-E-2016 and FCC KDB 935210 D05 Indus Booster Basic Meas v01r02:. A CW tone was input at the frequency where the system gain is the maximum in the pass band, with the nominal input power level. The spectrum analyzer was connected to the output RF port via a 50 Ohm 30 dB attenuator. The maximum hold trace and peak detector was used to capture the output power. The output power minus the input power equals to the booster gain in dB.

## The EUT was set to Operation Mode #1 with configuration Mode #1.



Date Issued: April 11 2022

Report No.: 20.01.20811 Project No.: 20811 Revision No.: 1

Client: Dali Wireless, Inc.

## **Results**

Test Band	Frequency (MHz)	Input Power (dBm)	Output Power (dBm)	Gain (dB)
800PS	811	-51.2	36.6	87.8
700PS	802	-50.1	36.7	86.8
UHF PS	456.85	-52.2	35.3	87.5

Date Issued: April 11 2022

Report No.: 20.01.20811 Project No.: 20811 Revision No.: 1

Client: Dali Wireless, Inc.

## Out-Of-Band / Out-Of-Block Intermodulation and Spurious Emissions

Governing Doc	FCC Part 90.219		Room Temperature (°C)					
Test Procedure	ANSI/TIA-603- E; FCC KDB 935210 D05, v01r03		Relative Humidity (%)					
Test Location	Richmond	Barometric Pressure (kPa)						
Test Engineer		Date			March 7, 2022			
EUT Voltage	⊠ +48VDC			☐ 120VAC @ 60Hz				
Test Equipment Used	Manuf acturer	Model	Se	rial Number	Calibration date		Calibration due	
Signal Generator	Keysight	N5172B	M`	753050270	Oct 9, 2021		Oct 9, 2023	
Spectrum Analyzer	Keysight	N9010A	M`	/50520285	Oct 11	I, 2021	Oct 11, 2023	
Frequency Range:	⊠ Max Gain Frequency ± 50kHz							
Detector:	⊠ Average							
RBW/VBW:	⊠ 100/910Hz							
Type of Facility:	☑ Tabletop							
Distance:	□ Direct     □							
On 700 band, 800 band and UHF band: The intermodulation product of 2 tone is below the -13dBm emission limit with input power  - 0.5 dB below AGC threshold  - 2 dB AGC threshold  - 3 dB above AGC threshold								
Compliant ⊠	Non-Compliant □ Not Applicable □							

Date Issued: April 11 2022

Report No.: 20.01.20811 Project No.: 20811 Revision No.: 1

Client: Dali Wireless, Inc.

## Test setup

### Description of test set-up:

The procedure used was ANSI/TIA-603-E-2016. Two tones (CW) method was used. The input power to the amplifier was set at maximum drive level by combining the two tones. The two tones were chosen in such a way (1) the third order intermodulation product frequencies are located within the pass band of the DUT and (2) they produce the worst-case emissions out of band.

Based on FCC KDB 935210 D05 Indus Booster Basic Meas v01r03: 2019, the two tone was located on either side of the maximum gain frequence in the passing band, and separated with the available spacing, which is 12.5kHz.

Measurements were performed with modulated -tone at identical input amplitude which produced integrated maximum rated output power.

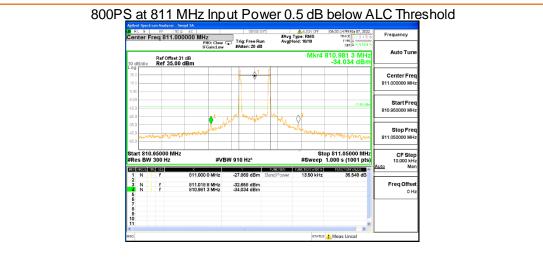
The EUT was set to Operation Mode #1 with configuration Mode #1.



Date Issued: April 11 2022

Project No.: 20811

## Results

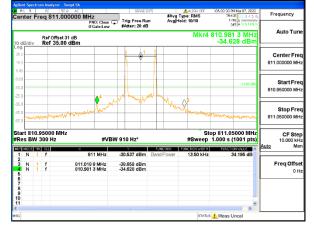


Client: Dali Wireless, Inc.

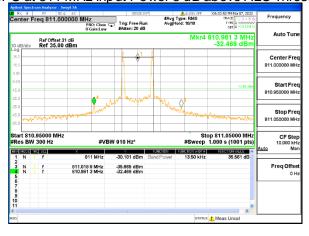
Report No.: 20.01.20811

Revision No.: 1

800PS at 811 MHz Input Power 2 dB below ALC Threshold



800PS at 811 MHz Input Power 3 dB above ALC Threshold



Page 57 of 88

Date Issued: April 11 2022

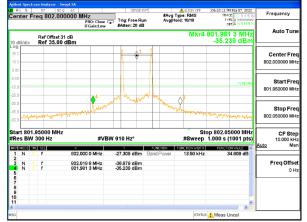
Project No.: 20811



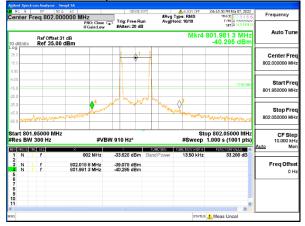
Client: Dali Wireless, Inc.

Report No.: 20.01.20811

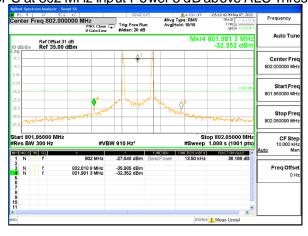
Revision No.: 1



## 700PS at 802 MHz Input Power 2 dB below ALC Threshold



## 700PS at 802 MHz Input Power 3 dB above ALC Threshold



Page 58 of 88

Date Issued: April 11 2022

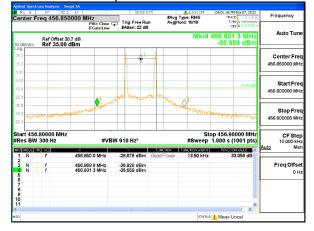
Project No.: 20811

## 450PS at 456.85 MHz Input Power 0.5 dB below ALC Threshold

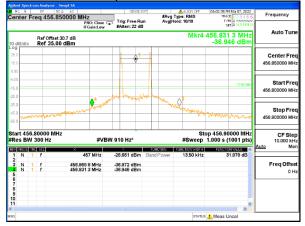
Client: Dali Wireless, Inc.

Report No.: 20.01.20811

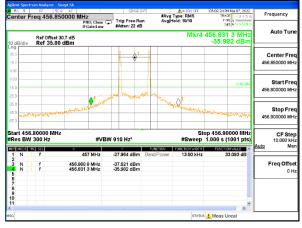
Revision No.: 1



## 450PS at 456.85 MHz Input Power 2 dB below ALC Threshold



## 450PS at 456.85 MHz and nput ower 3 dB above ALC Threshold



Page 59 of 88

Date Issued: April 11 2022

Project No.: 20811

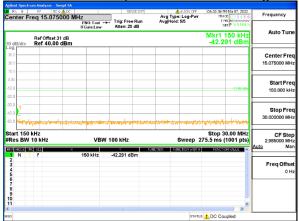
## 800PS 811 MHz Spurious Emissions Range 1 | Content Freq 79.500 kHz | PRIO Class as | Frequency | Freq

Client: Dali Wireless, Inc.

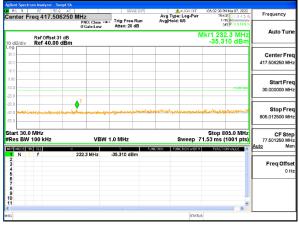
Report No.: 20.01.20811

Revision No.: 1

## 800PS 811 MHz Spurious Emissions Range 2



## 800PS 811 MHz Spurious Emissions Range 3



Page 60 of 88

Date Issued: April 11 2022

Project No.: 20811

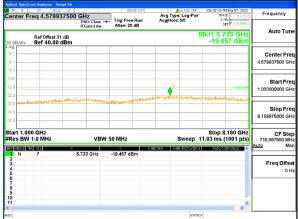
# PS 811 MHz Spurious Emissions Range 4 | Application | App

Client: Dali Wireless, Inc.

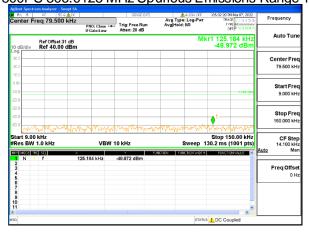
Report No.: 20.01.20811

Revision No.: 1

## 800PS 811 MHz Spurious Emissions Range 5



## 800PS 806.0125 MHz Spurious Emissions Range 1



Page 61 of 88

Date Issued: April 11 2022

Project No.: 20811

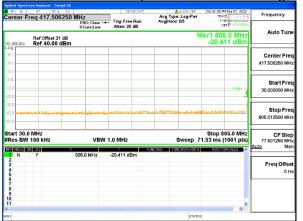
## 800PS 806.0125 MHz Spurious Emissions Range 2 | Applies Spurious Fundament | Applies Spurious Emissions | Applies Spurious Emission

Client: Dali Wireless, Inc.

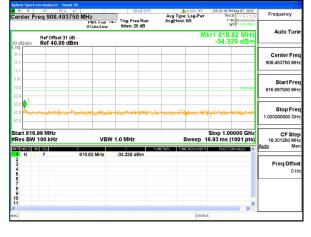
Report No.: 20.01.20811

Revision No.: 1

## 800PS 806.0125 MHz Spurious Emissions Range 3



## 800PS 806.0125 MHz Spurious Emissions Range 4



Page 62 of 88

Date Issued: April 11 2022

Project No.: 20811

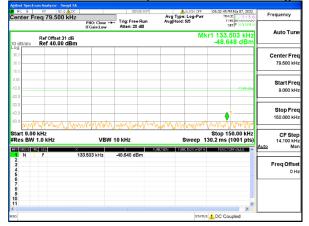
## 800PS 806.0125 MHz Spurious Emissions Range 5 | August | Specific | Specific

Client: Dali Wireless, Inc.

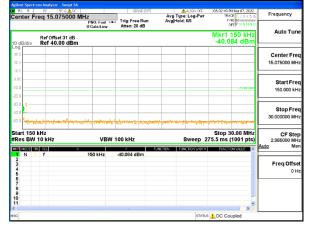
Report No.: 20.01.20811

Revision No.: 1

## 800PS 815.9875 MHz Spurious Emissions Range 1



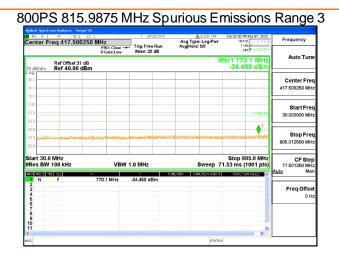
## 800PS 815.9875 MHz Spurious Emissions Range 2



Page 63 of 88

Date Issued: April 11 2022

Project No.: 20811

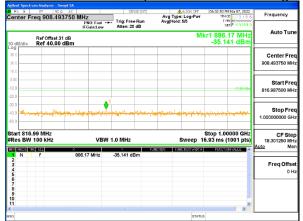


Client: Dali Wireless, Inc.

Report No.: 20.01.20811

Revision No.: 1

## 800PS 815.9875 MHz Spurious Emissions Range 4



## 800PS 815.9875 MHz Spurious Emissions Range 5

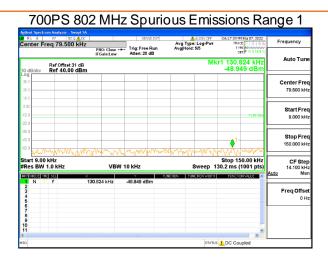


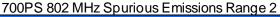
Page 64 of 88

Date Issued: April 11 2022

Project No.: 20811

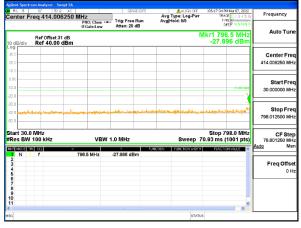
Client: Dali Wireless, Inc. Report No.: 20.01.20811 Revision No.: 1







## 700PS 802 MHz Spurious Emissions Range 3



Page 65 of 88

Date Issued: April 11 2022

Project No.: 20811

## 700PS 802 MHz Spurious Emissions Range 4 | Content | Septemble |

Client: Dali Wireless, Inc.

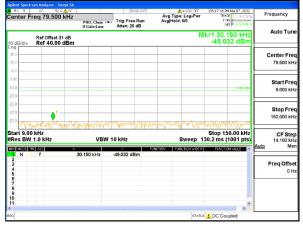
Report No.: 20.01.20811

Revision No.: 1

## 700PS 802 MHz Spurious Emissions Range 5



## 700PS 799.0125 MHz Spurious Emissions Range 1



Page 66 of 88

Date Issued: April 11 2022

Project No.: 20811

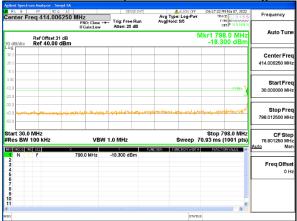
## 700PS 802 MHz Spurious Emissions Range 2 | Center Freq 15.075000 MHz | Frequency | Freque

Client: Dali Wireless, Inc.

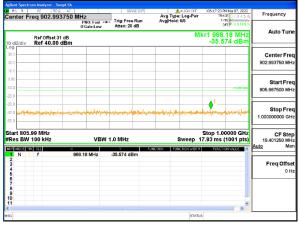
Report No.: 20.01.20811

Revision No.: 1

## 700PS 802 MHz Spurious Emissions Range 3



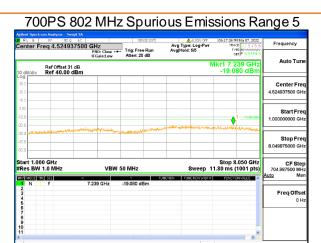
## 700PS 802 MHz Spurious Emissions Range 4



Page 67 of 88

Date Issued: April 11 2022

Project No.: 20811

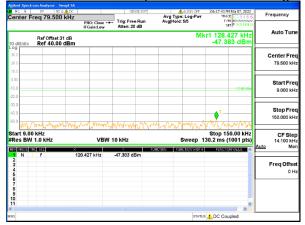


Client: Dali Wireless, Inc.

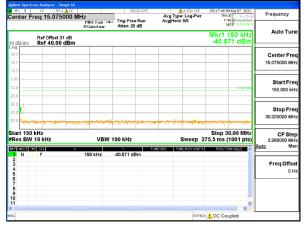
Report No.: 20.01.20811

Revision No.: 1





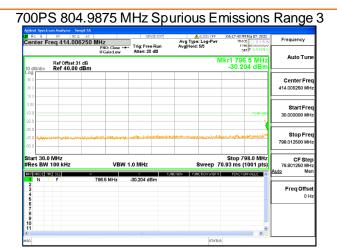
## 700PS 804.9875 MHz Spurious Emissions Range 2



Page 68 of 88

Date Issued: April 11 2022

Project No.: 20811

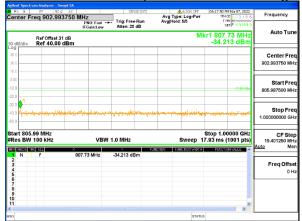


Client: Dali Wireless, Inc.

Report No.: 20.01.20811

Revision No.: 1

## 700PS 804.9875 MHz Spurious Emissions Range 4



## 700PS 804.9875 MHz Spurious Emissions Range 5



Page 69 of 88

Date Issued: April 11 2022

Project No.: 20811

450PS 456.85 MHz Spurious Emissions Range 1

| Content | Spurious | Spurious

Client: Dali Wireless, Inc.

Report No.: 20.01.20811

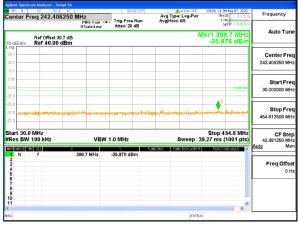
Revision No.: 1

450PS 456.85 MHz Spurious Emissions Range 2

Freq Offs



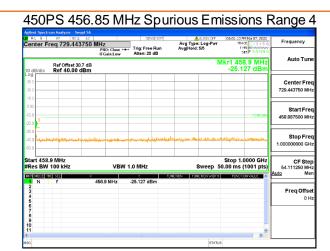
450PS 456.85 MHz Spurious Emissions Range 3



Page 70 of 88

Date Issued: April 11 2022

Project No.: 20811

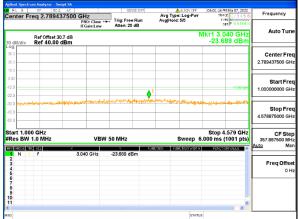


Client: Dali Wireless, Inc.

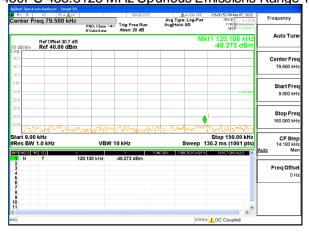
Report No.: 20.01.20811

Revision No.: 1

## 450PS 456.85 MHz Spurious Emissions Range 5



## 450PS 455.8125 MHz Spurious Emissions Range 1



Page 71 of 88

Date Issued: April 11 2022

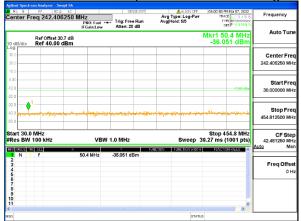
Project No.: 20811

Client: Dali Wireless, Inc.

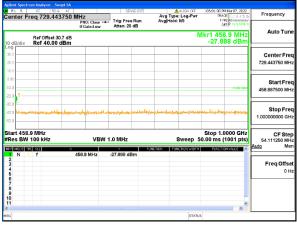
Report No.: 20.01.20811

Revision No.: 1

## 450PS 456.85 MHz Spurious Emissions Range 3



## 450PS 456.85 MHz Spurious Emissions Range 4



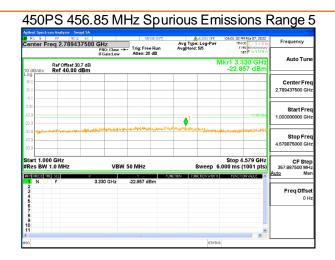
Page 72 of 88

Date Issued: April 11 2022

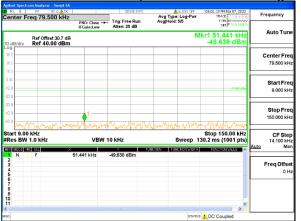
Project No.: 20811

Client: Dali Wireless, Inc. Report No.: 20.01.20811

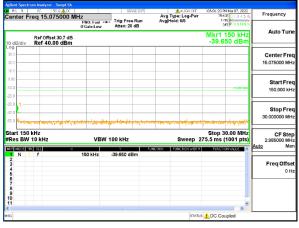
Revision No.: 1







## 450PS 456.85 MHz Spurious Emissions Range 2



Page 73 of 88