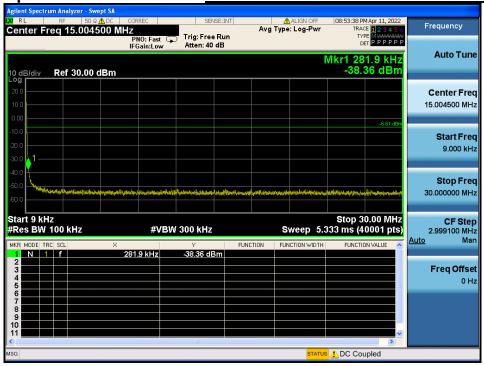
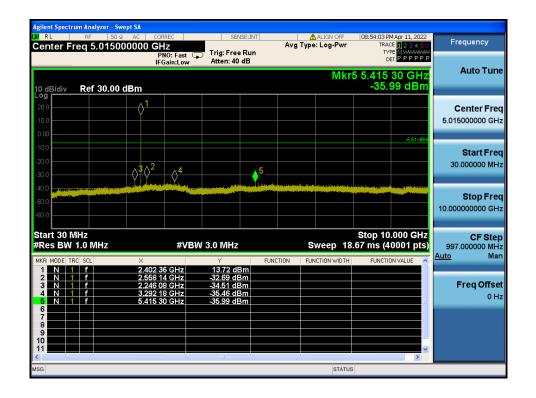




Conducted Spurious Emissions <u>Lowest Channel & Modulation : GFSK</u>







IC: 8154A-SP115



Conducted Spurious Emissions <u>Lowest Channel & Modulation : GFSK</u>





IC: 8154A-SP115

Report No.: DRTFCC2205-0110

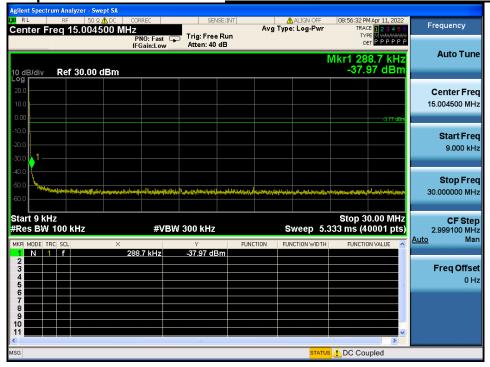


Reference for limit

## Middle Channel & Modulation: GFSK



## Conducted Spurious Emissions <u>Middle Channel & Modulation : GFSK</u>



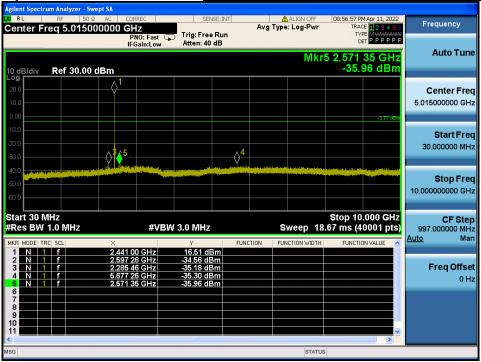


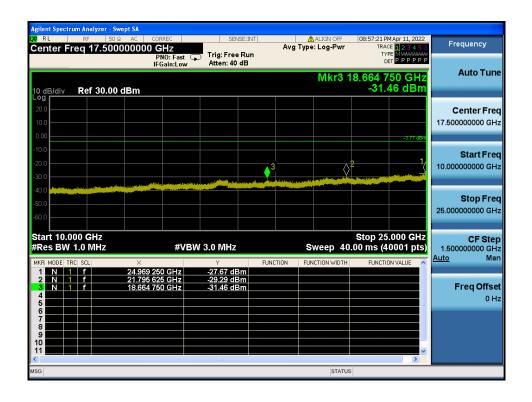




Report No.: DRTFCC2205-0110

# Conducted Spurious Emissions <u>Middle Channel & Modulation : GFSK</u>









**High Band-edge** 

## Highest Channel & Modulation : GFSK



## **High Band-edge**

## Hopping mode & Modulation : GFSK



TRF-RF-237(07)210316 Pages: 53 / 78

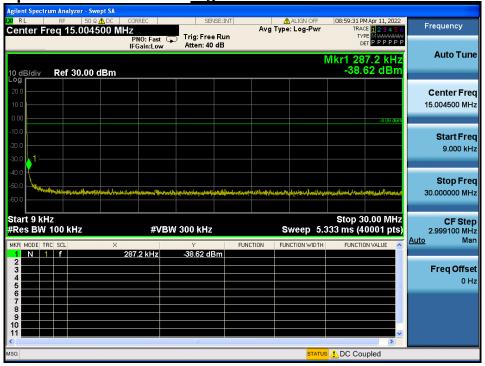


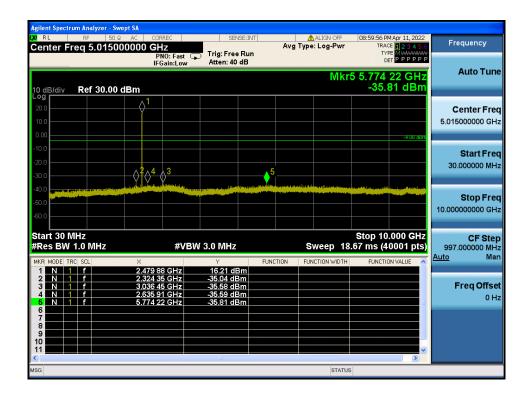
IC: 8154A-SP115



Conducted Spurious Emissions Highest Channel & Modulation : GFSK

Report No.: DRTFCC2205-0110



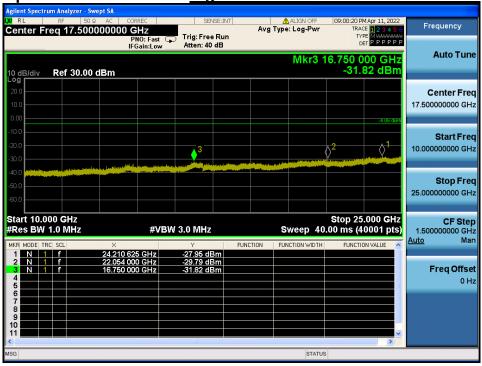




IC: 8154A-SP115

TDt&C

Conducted Spurious Emissions <u>Highest Channel & Modulation : GFSK</u>







## Low Band-edge

## Lowest Channel & Modulation : π/4DQPSK



## Low Band-edge

## Hopping mode & Modulation : π/4DQPSK



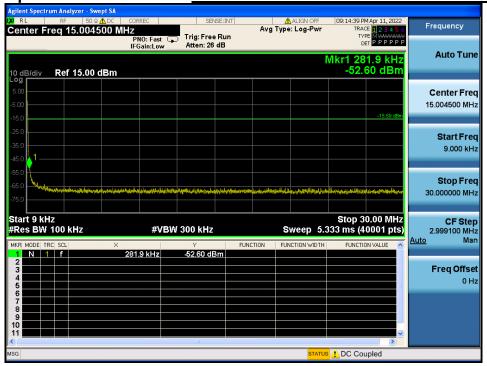
TRF-RF-237(07)210316 Pages: 56 / 78

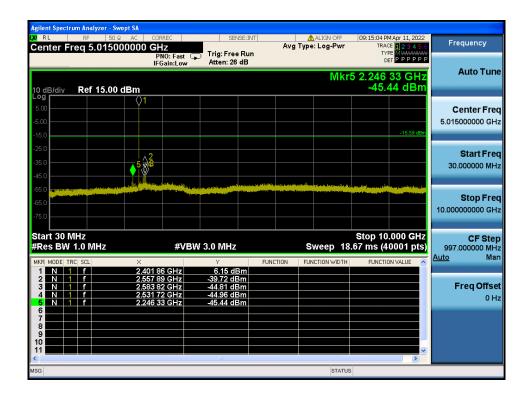


Report No.: DRTFCC2205-0110 IC: 8154A-SP115



#### Lowest Channel & Modulation : π/4DQPSK **Conducted Spurious Emissions**







IC: 8154A-SP115



Conducted Spurious Emissions <u>Lowest Channel & Modulation : π/4DQPSK</u>





IC: 8154A-SP115

Report No.: DRTFCC2205-0110



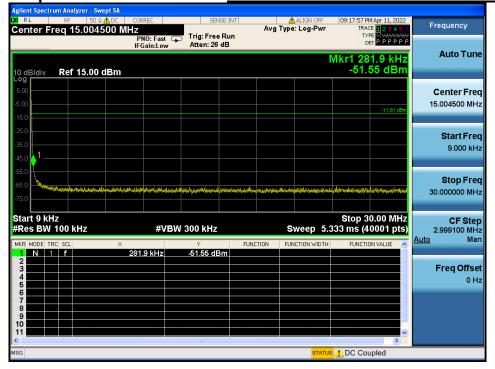
## Reference for limit

## Middle Channel & Modulation : π/4DQPSK



## **Conducted Spurious Emissions**

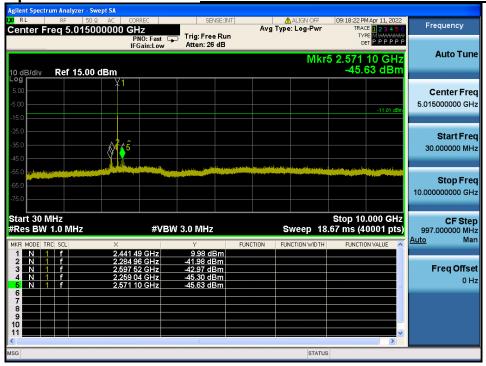
## Middle Channel & Modulation : π/4DQPSK







Conducted Spurious Emissions <u>Middle Channel & Modulation : π/4DQPSK</u>











Report No.: DRTFCC2205-0110

High Band-edge <u>Highest Channel & Modulation : π/4DQPSK</u>



## **High Band-edge**

## Hopping mode & Modulation : π/4DQPSK



TRF-RF-237(07)210316

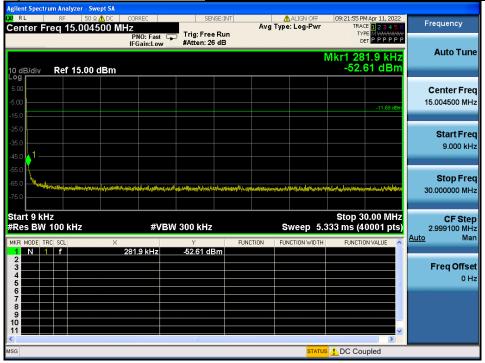


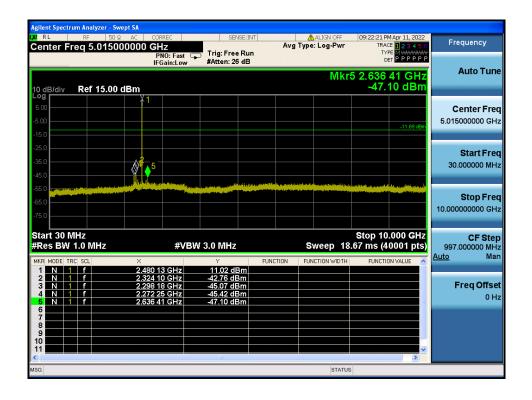
IC: 8154A-SP115



TDt&C

Conducted Spurious Emissions <u>Highest Channel & Modulation : π/4DQPSK</u>







CC2205-0110 IC: 8154A-SP115



Conducted Spurious Emissions <u>Highest Channel & Modulation : π/4DQPSK</u>









Report No.: DRTFCC2205-0110

Low Band-edge

## Lowest Channel & Modulation: 8DPSK



## Low Band-edge

## Hopping mode & Modulation: 8DPSK



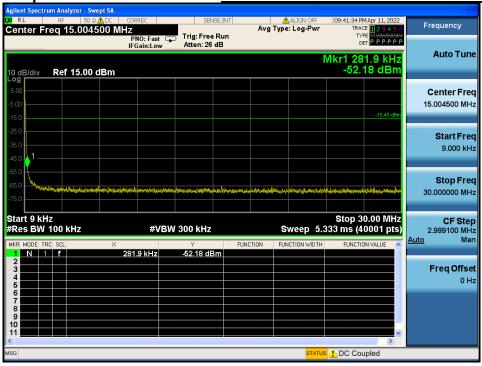


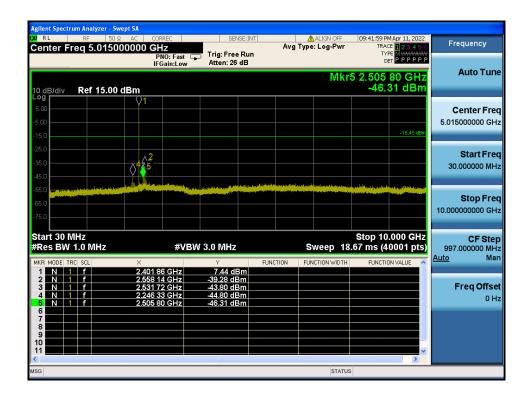




Report No.: DRTFCC2205-0110

Conducted Spurious Emissions <u>Lowest Channel & Modulation : 8DPSK</u>







IC: 8154A-SP115



Conducted Spurious Emissions <u>Lowest Channel & Modulation : 8DPSK</u>





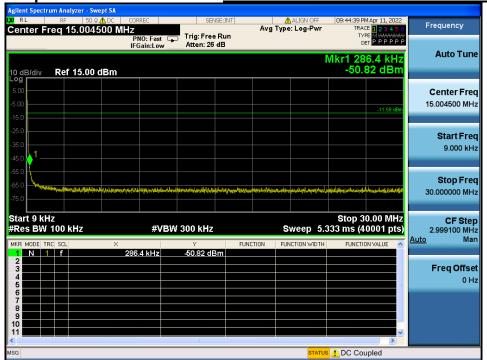


## Reference for limit

## Middle Channel & Modulation: 8DPSK



## Conducted Spurious Emissions <u>Middle Channel & Modulation : 8DPSK</u>

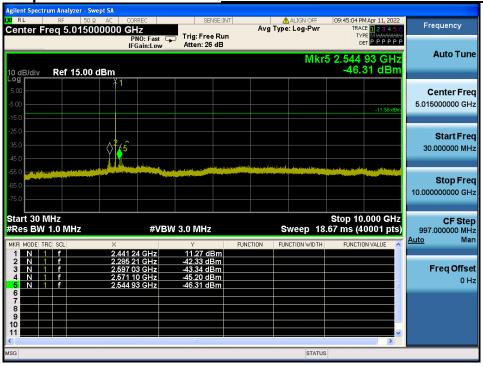


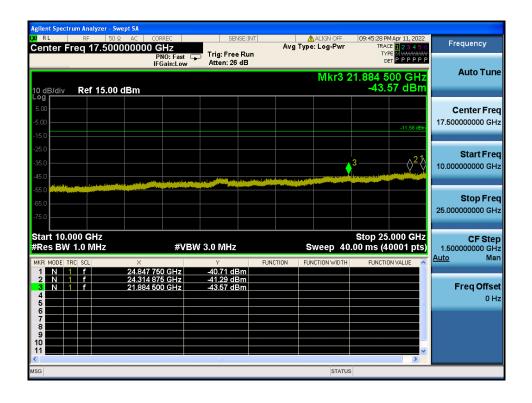






Conducted Spurious Emissions <u>Middle Channel & Modulation : 8DPSK</u>











Report No.: **DRTFCC2205-0110** IC: **8154** 

## High Band-edge <u>Highest Channel & Modulation : 8DPSK</u>



## **High Band-edge**

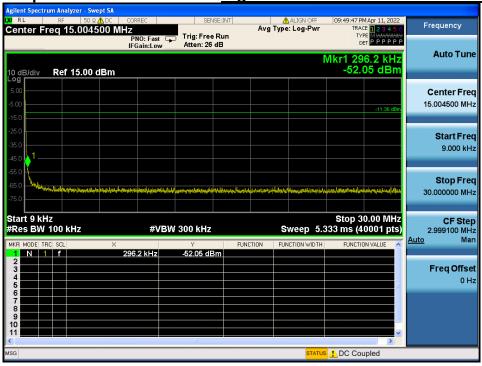
## Hopping mode & Modulation : 8DPSK

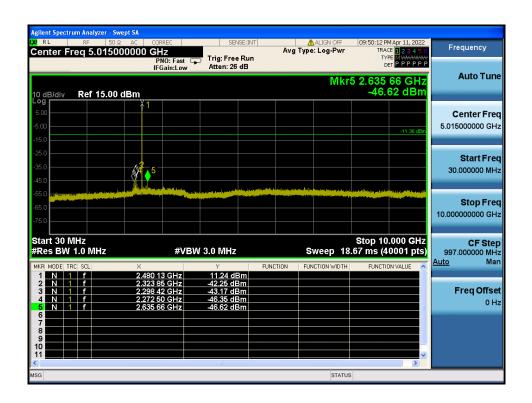




Report No.: DRTFCC2205-0110

Conducted Spurious Emissions <u>Highest Channel & Modulation : 8DPSK</u>







0110 IC: 8154A-SP115



Conducted Spurious Emissions <u>Highest Channel & Modulation : 8DPSK</u>



Report No.: DRTFCC2205-0110

FCC ID: **S7A-SP115** 

IC: 8154A-SP115

## 10. AC Power-Line Conducted Emissions

## 10.1. Test Setup

- NA

### 10.2. Limit

According to §15.207(a) for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 uH/50 ohm line impedance stabilization network (LISN).

Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Conducted Limit (dBuV)		
	Quasi-Peak	Average	
0.15 ~ 0.50	66 to 56 *	56 to 46 *	
0.5 ~ 5.0	56	46	
5 ~ 30	60	50	

<sup>\*</sup> Decreases with the logarithm of the frequency

#### 10.3. Test Procedure

Conducted emissions from the EUT were measured according to the ANSI C63.10.

- 1. The test procedure is performed in a 6.5 m × 3.5 m × 3.5 m (L × W × H) shielded room. The EUT along with its peripherals were placed on a 1.0 m (W) × 1.5 m (L) and 0.8 m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.
- 2. The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room.
- 3. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.
- 4. The excess power cable between the EUT and the LISN was bundled. The power cables of peripherals were unbundled. All connecting cables of EUT and peripherals were moved to find the maximum emission.

### 10.4. Test Results

- NA

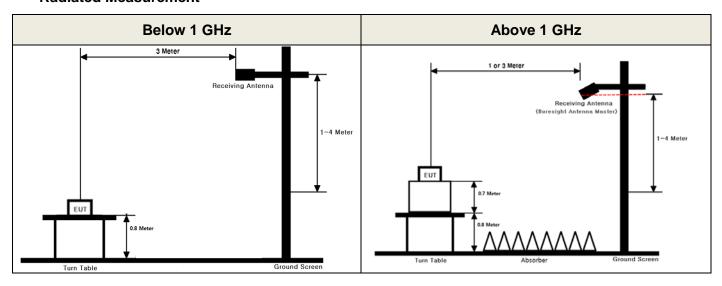




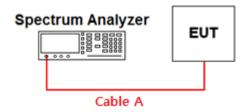
## **APPENDIX I**

## Test set up diagrams

## Radiated Measurement



## Conducted Measurement



### Path loss information

Frequency (GHz)	Path Loss (dB)	Frequency (GHz)	Path Loss (dB)
0.03	0.58	15	1.29
1	0.85	20	1.59
2.402 & 2.440 & 2.480	0.96	25	1.82
5	1.20	-	-
10	1.26	-	-

Note 1: The path loss from EUT to Spectrum analyzer was measured and used for test. Path loss (S/A's correction factor) = Cable A + Power Splitter

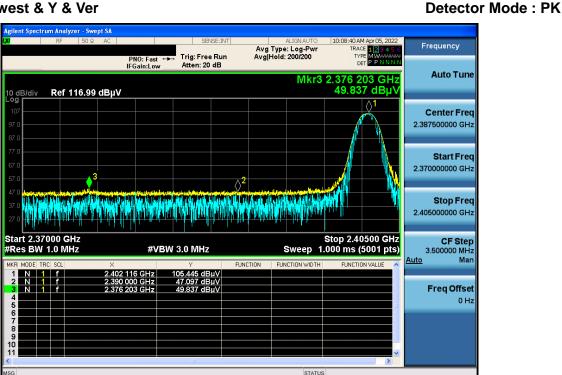
**Detector Mode: PK** 



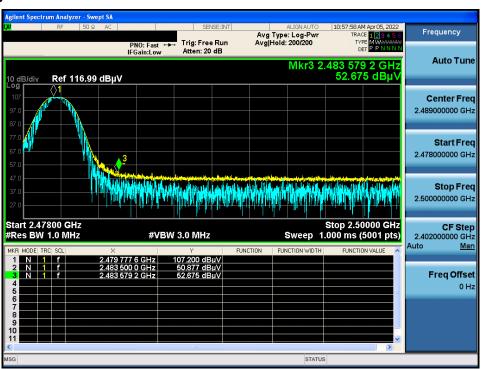
## **APPENDIX II**

## **Unwanted Emissions (Radiated) Test Plot**

#### GFSK & Lowest & Y & Ver



## GFSK & Highest & Y & Ver





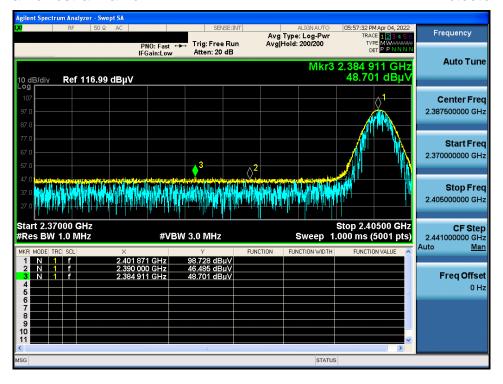






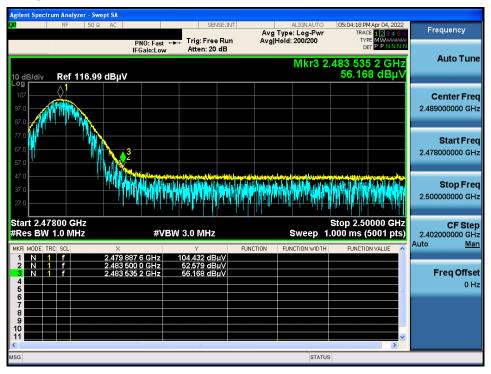
### π/4DQPSK & Lowest & Y & Ver

### **Detector Mode: PK**



## $\pi/4DQPSK$ & Highest & Y & Ver

## **Detector Mode: PK**

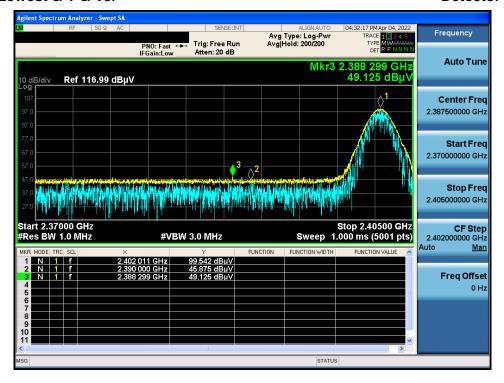






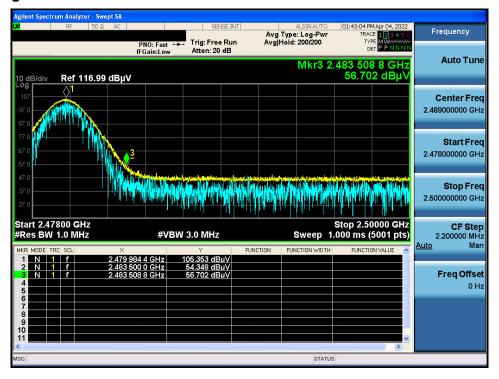
### 8DPSK & Lowest & Y & Ver

### **Detector Mode: PK**



## 8DPSK & Highest & Y & Ver

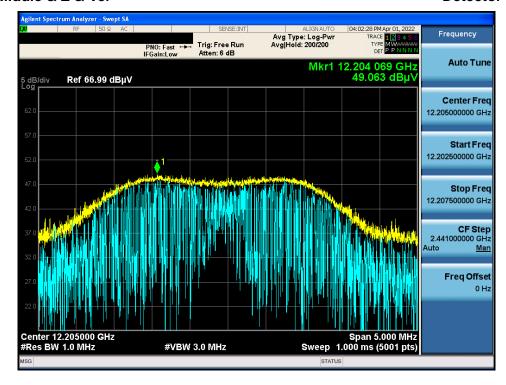
## **Detector Mode: PK**





## GFSK & Middle & Z & Ver

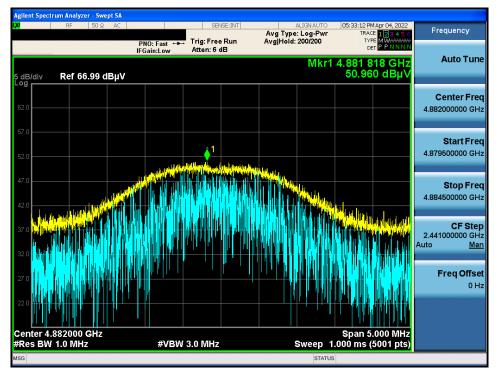
### **Detector Mode: PK**



Report No.: DRTFCC2205-0110

## $\pi/4DQPSK$ & Middle & Y & Ver

## **Detector Mode: PK**



Pages: 77 / 78



## 8DPSK & Middle & Y & Ver

## **Detector Mode: PK**

