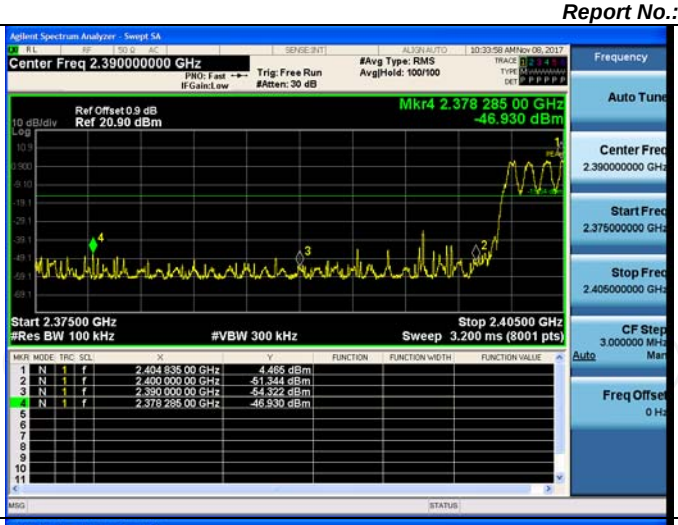
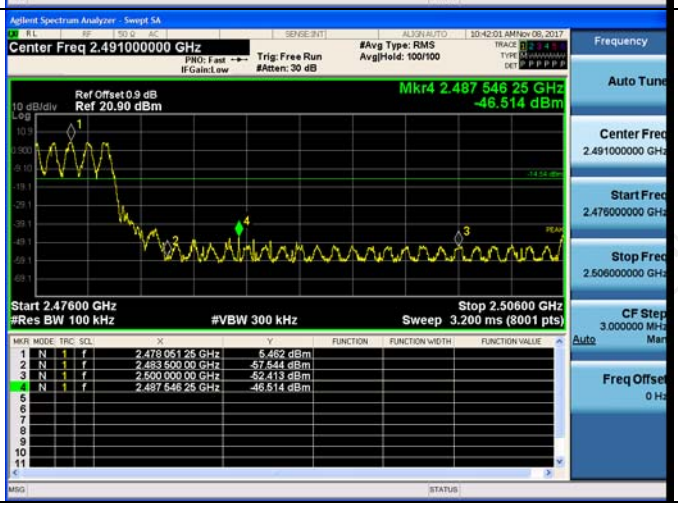
Band-edge for RF Conducted Emissions

Result Table

Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	3.721	Off	-53.371	-16.28	PASS
			4.465	On	-46.930	-15.54	PASS
GFSK	HCH	2480	5.776	Off	-48.794	-14.22	PASS
			5.462	On	-46.514	-14.54	PASS
π/4DQPSK	LCH	2402	1.150	Off	-54.982	-18.85	PASS
			2.628	On	-55.897	-17.37	PASS
π/4DQPSK	HCH	2480	5.654	Off	-39.824	-14.35	PASS
			4.548	On	-45.166	-15.45	PASS
8DPSK	LCH	2402	3.674	Off	-52.713	-16.33	PASS
			2.268	On	-53.324	-17.73	PASS
8DPSK	HCH	2480	5.697	Off	-38.523	-14.3	PASS
			3.476	On	-43.585	-16.52	PASS

Test Graph

Graphs			
GFSK/LCH/No Hop			

GFSK/LCH/Hop			
GFSK/HCH/No Hop			
GFSK/HCH/Hop			

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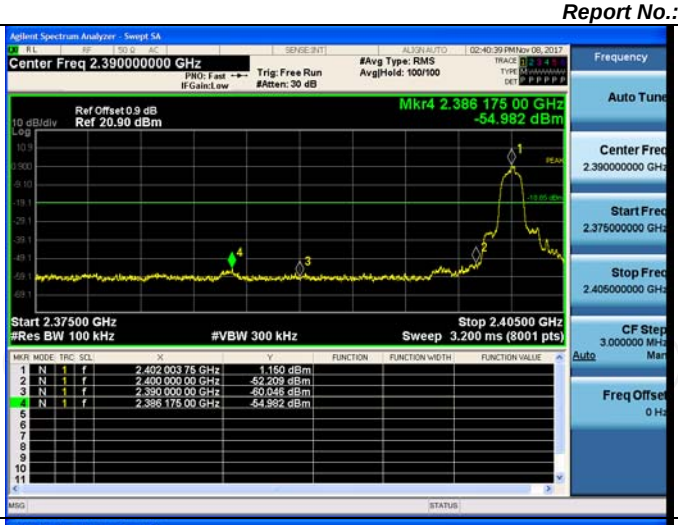
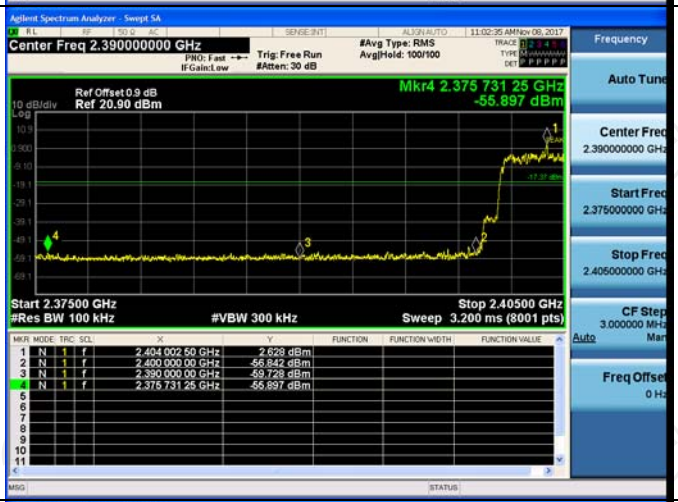
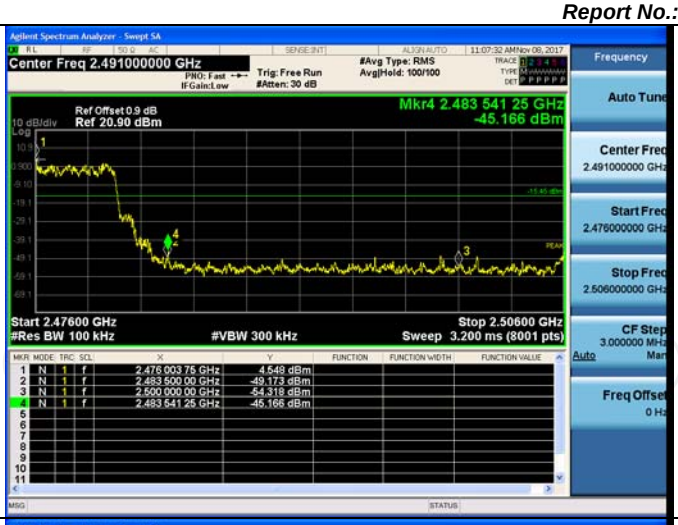
π/4DQPSK/LCH/No Hop			
π/4DQPSK/LCH/Hop			
π/4DQPSK/HCH/No Hop			

π/4DQPSK/HCH/Hop			
8DPSK/LCH/No Hop			
8DPSK/LCH/Hop			

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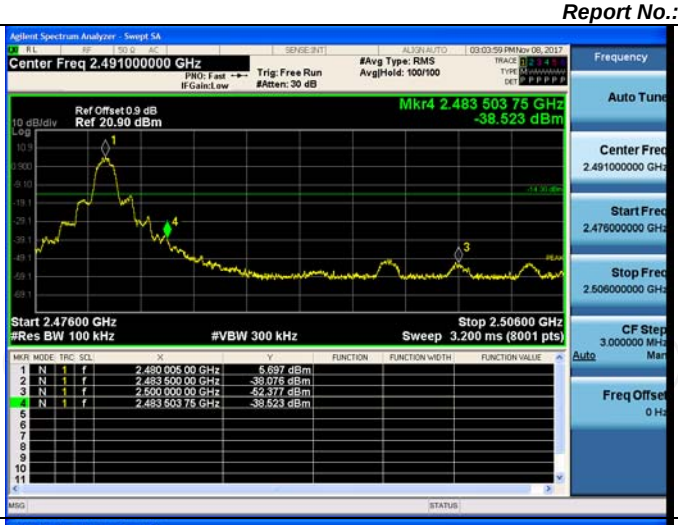
8DPSK/HCH/No Hop			
8DPSK/HCH/Hop			

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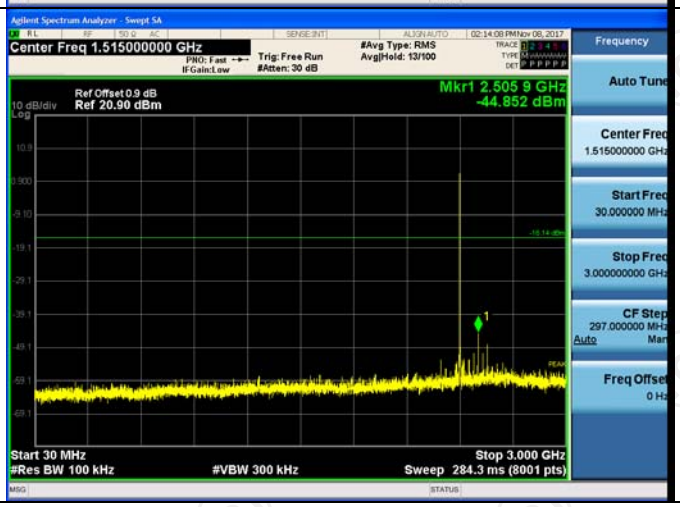
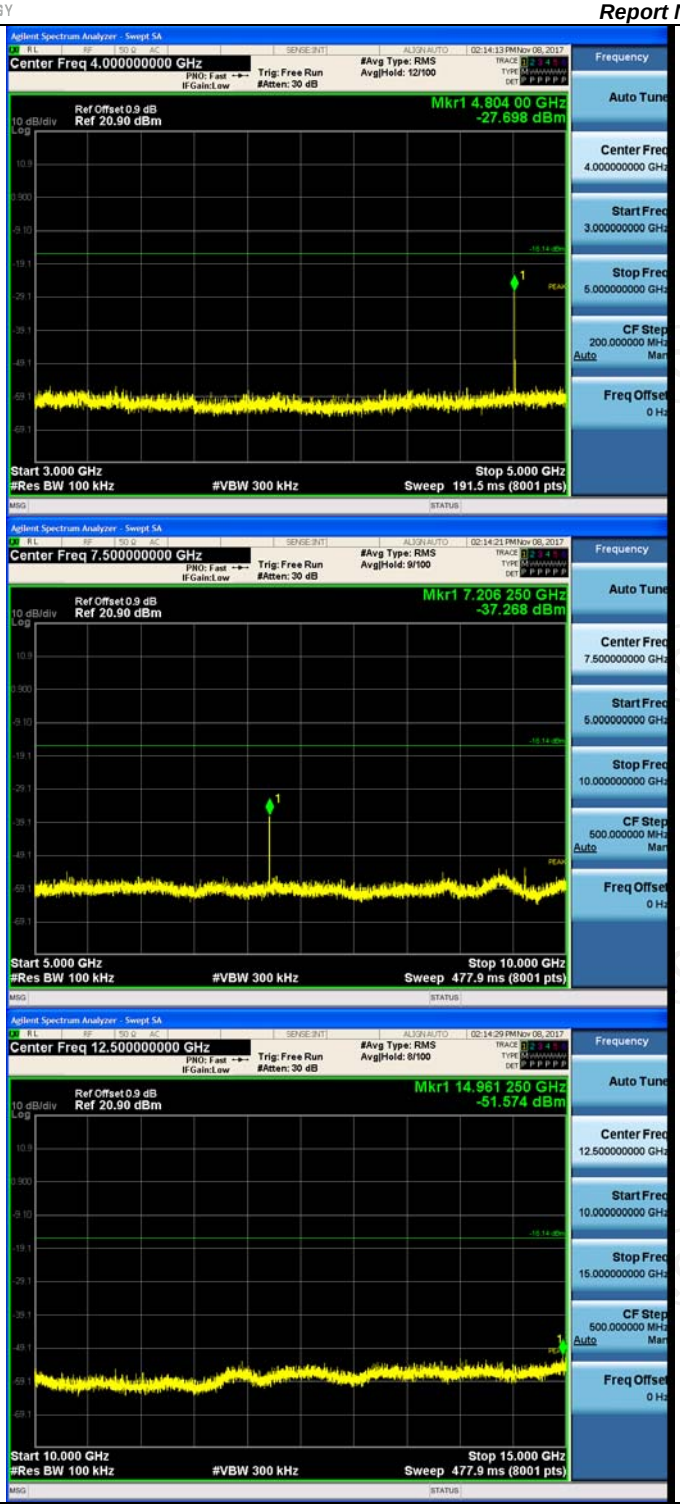
RF Conducted Spurious Emissions

Result Table

Mode	Channel	Pref [dBm]	Puw [dBm]	Verdict
GFSK	LCH	3.863	<Limit	PASS
GFSK	MCH	5.286	<Limit	PASS
GFSK	HCH	5.71	<Limit	PASS
π/4DQPSK	LCH	1.231	<Limit	PASS
π/4DQPSK	MCH	4.109	<Limit	PASS
π/4DQPSK	HCH	5.613	<Limit	PASS
8DPSK	LCH	3.646	<Limit	PASS
8DPSK	MCH	5.245	<Limit	PASS
8DPSK	HCH	5.603	<Limit	PASS

Test Graph

GFSK_LCH_Graphs			
Pref			
Puw			



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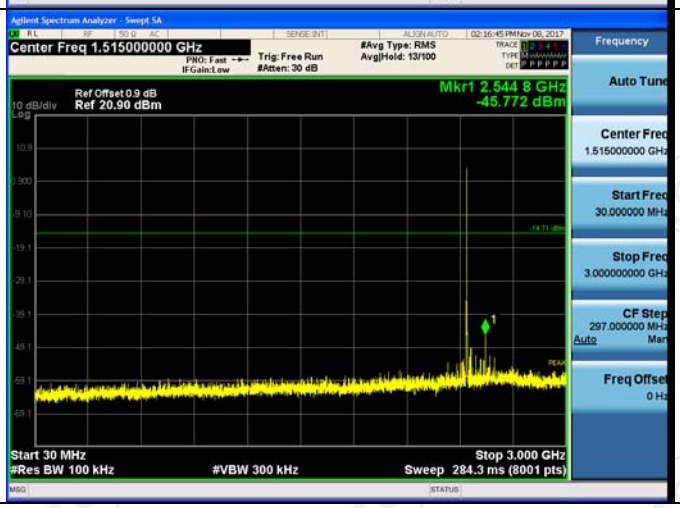
GFSK_MCH_Graphs		
Pref		
Puw		

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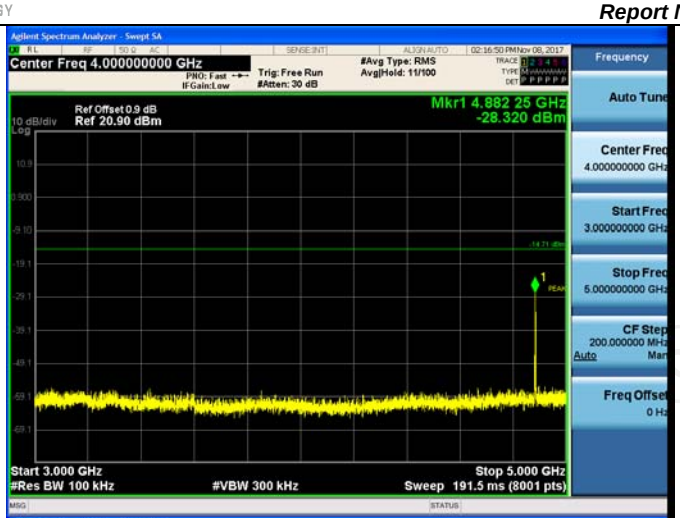

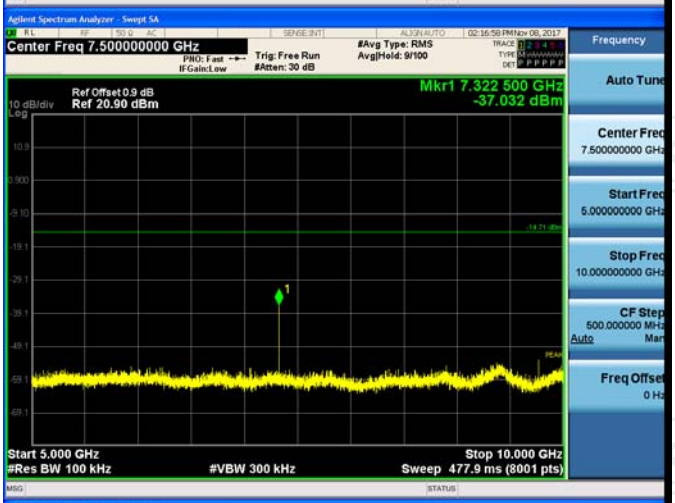

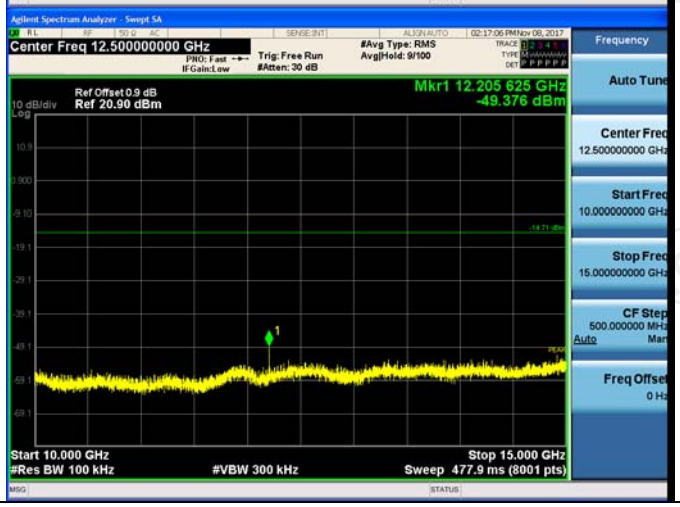

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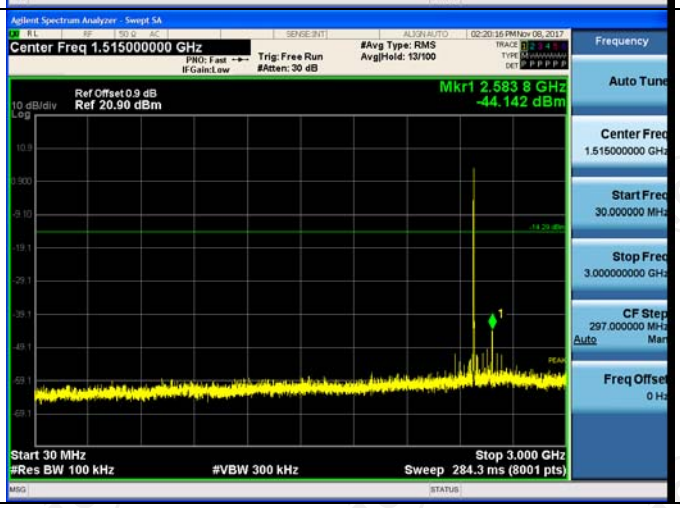
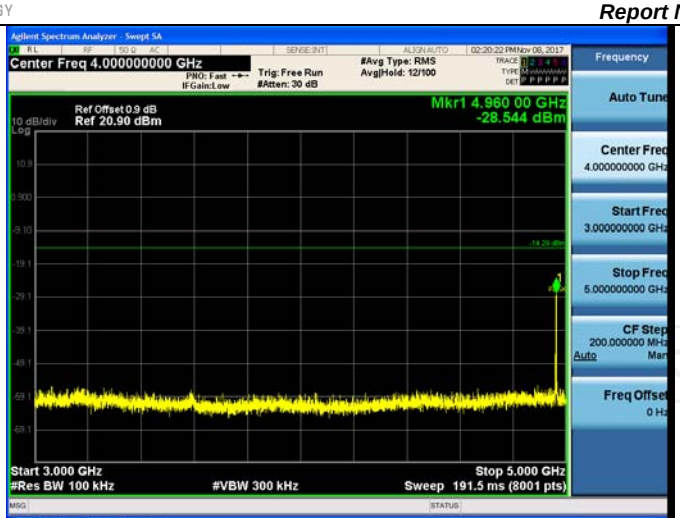
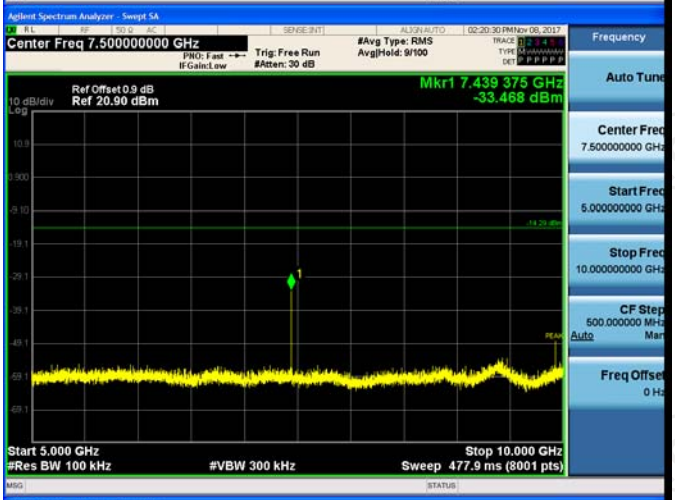
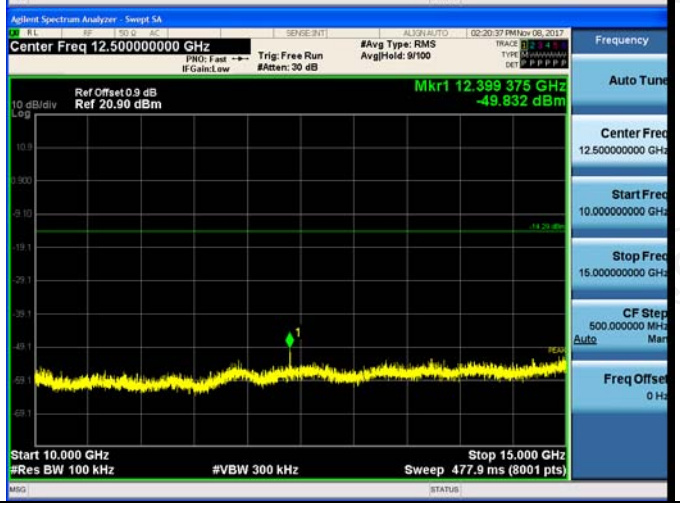
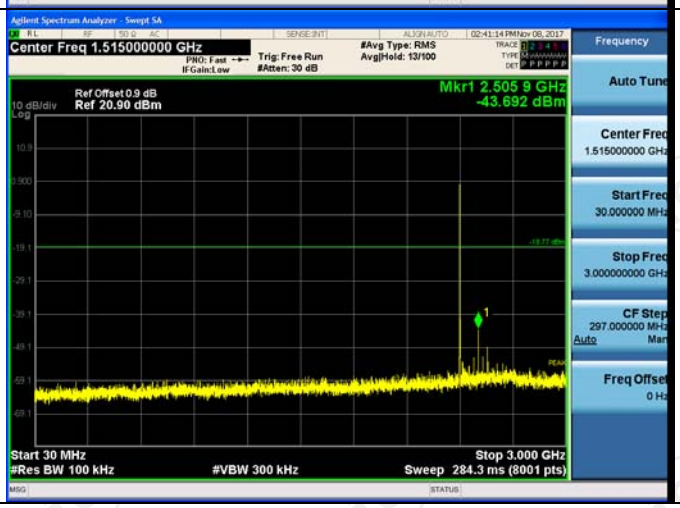
GFSK_HCH_Graphs		
Pref		
Puw		


Agilent Spectrum Analyzer - Swept SA
Center Freq 4.000000000 GHz
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 12/100
Ref Offset 0.9 dB
10 dB/div Ref 20.90 dBm
Mkr1 4.960 00 GHz
-28.544 dBm
Start 3.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 5.000 GHz
Sweep 191.5 ms (8001 pts)
Frequency
Auto Tune
Center Freq
Start Freq
Stop Freq
CF Step
Freq Offset


Agilent Spectrum Analyzer - Swept SA
Center Freq 7.500000000 GHz
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 9/100
Ref Offset 0.9 dB
10 dB/div Ref 20.90 dBm
Mkr1 7.439 375 GHz
-33.468 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 10.000 GHz
Sweep 477.9 ms (8001 pts)
Frequency
Auto Tune
Center Freq
Start Freq
Stop Freq
CF Step
Freq Offset


Agilent Spectrum Analyzer - Swept SA
Center Freq 12.500000000 GHz
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 9/100
Ref Offset 0.9 dB
10 dB/div Ref 20.90 dBm
Mkr1 12.399 375 GHz
-49.832 dBm
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 477.9 ms (8001 pts)
Frequency
Auto Tune
Center Freq
Start Freq
Stop Freq
CF Step
Freq Offset

π/4DQPSK_LCH_Graphs		
Pref		
Puw		

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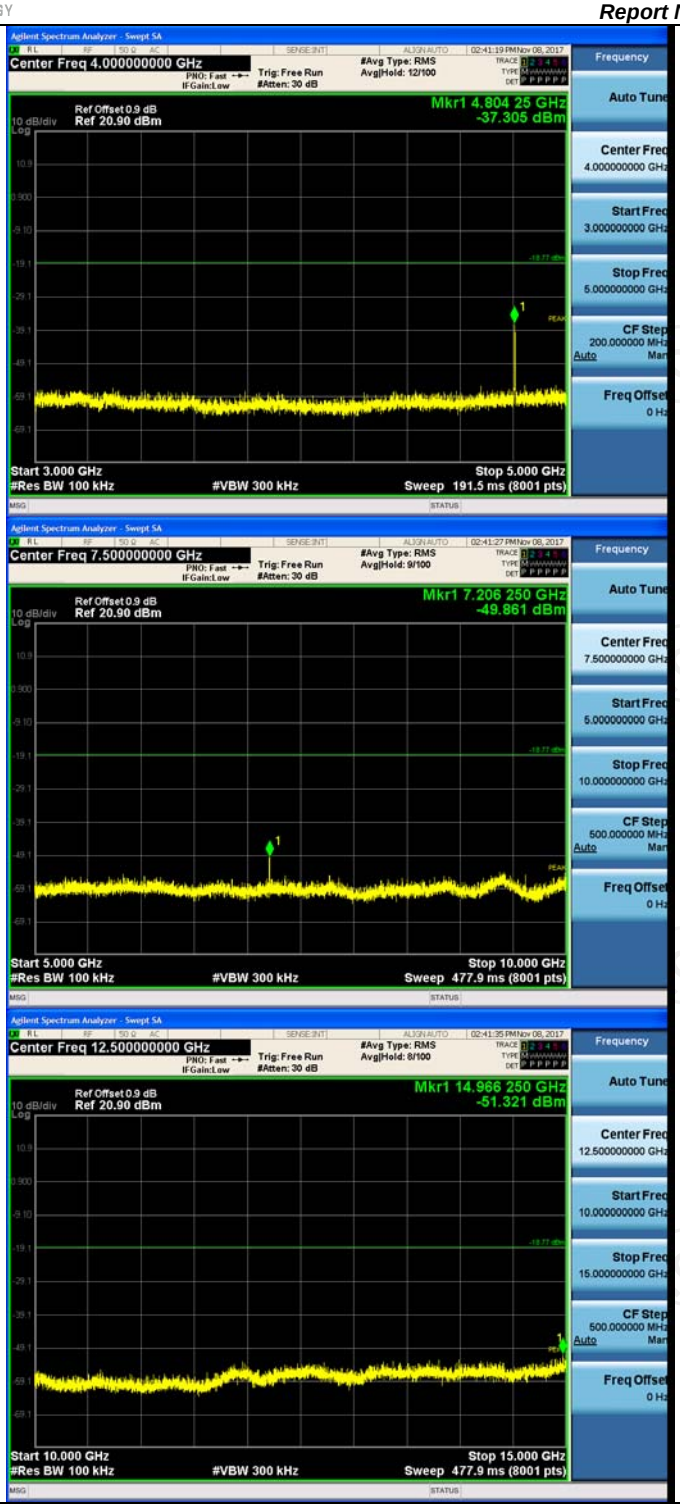

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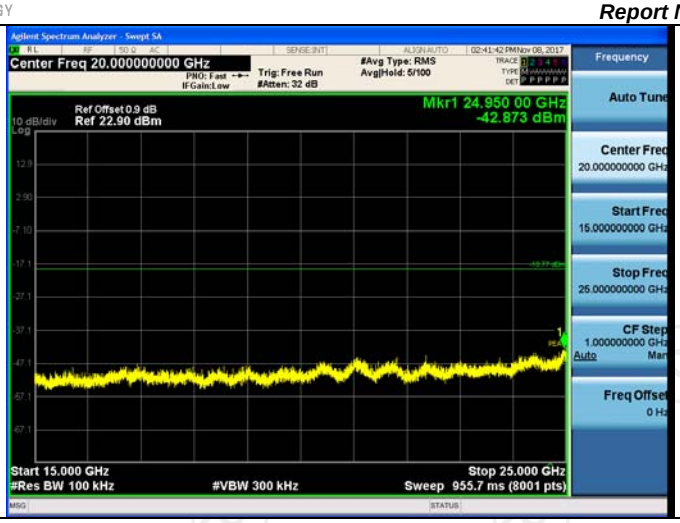
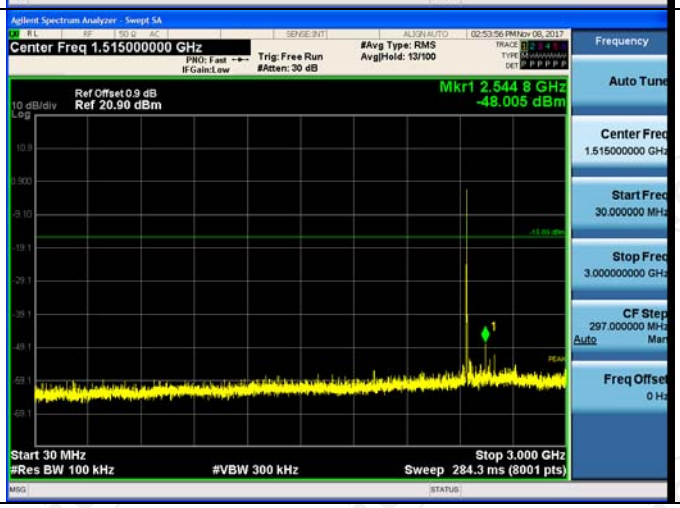
		

π/4DQPSK_MCH_Graphs		
Pref		
Puw		

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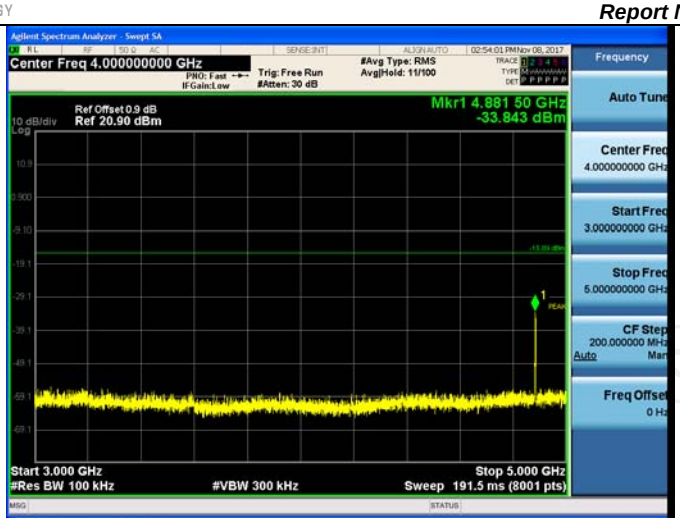

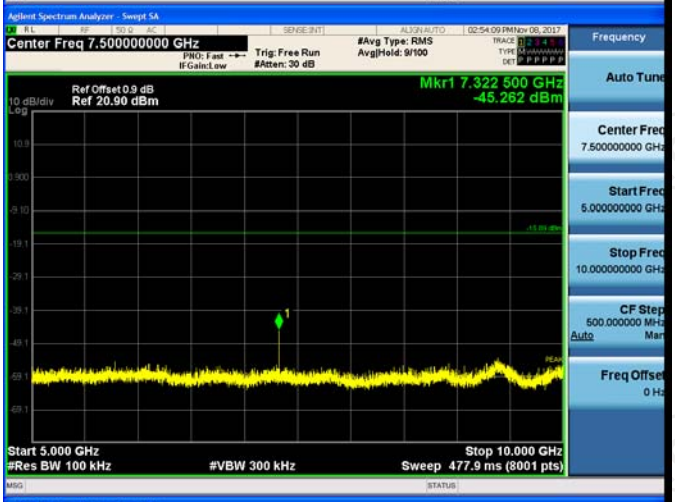

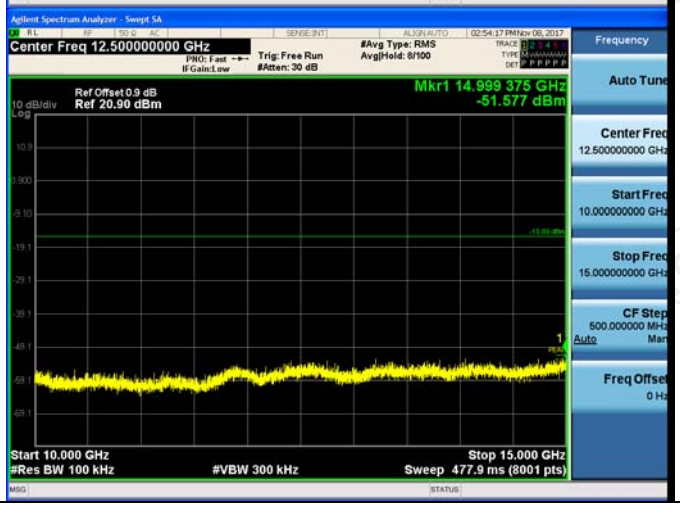

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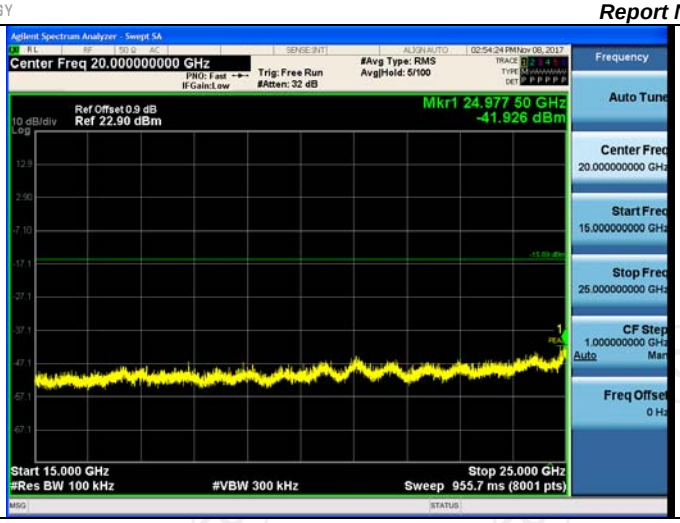
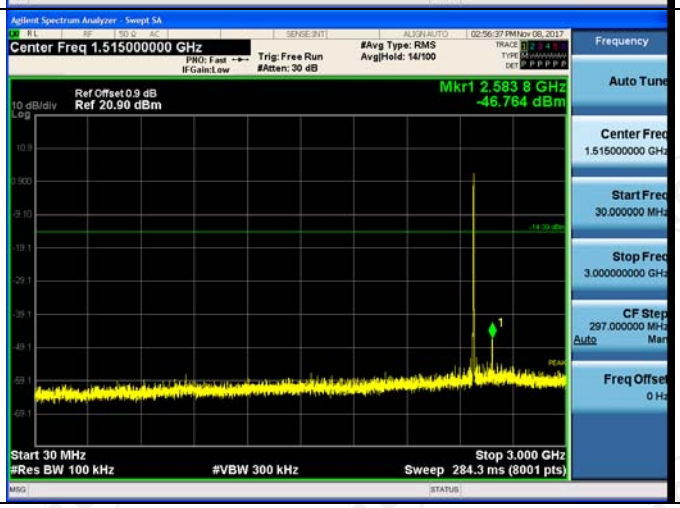
		

π/4DQPSK_HCH_Graphs		
Pref		
Puw		

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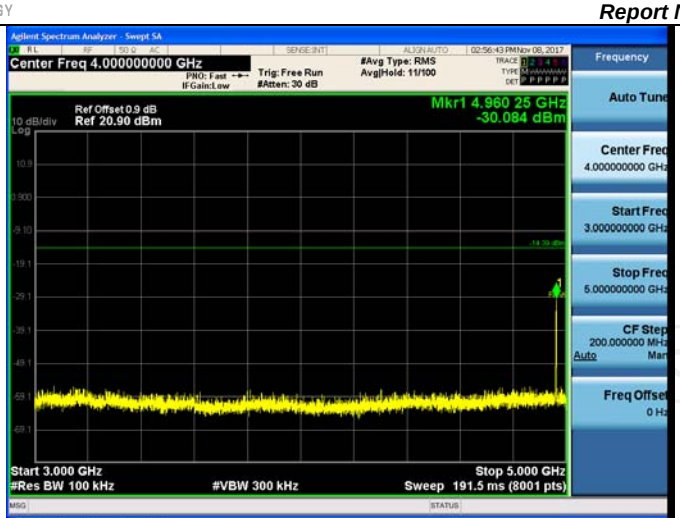
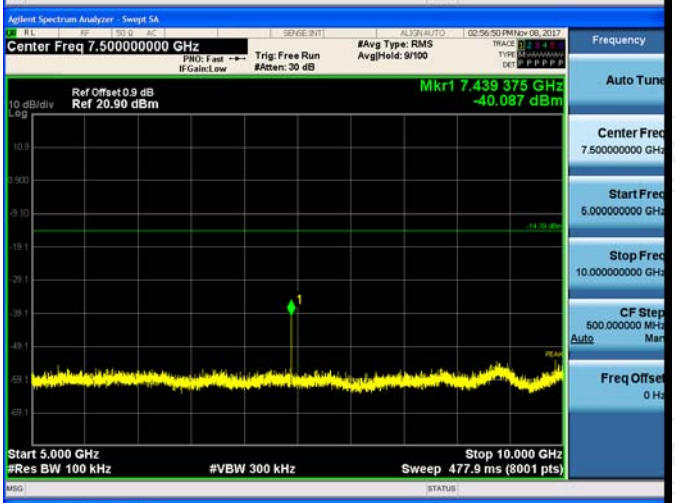
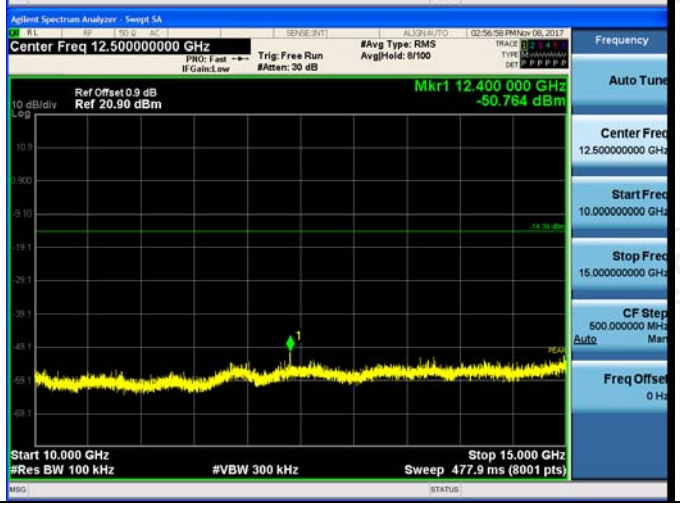

Agilent Spectrum Analyzer - Swept SA
Center Freq 4.000000000 GHz
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 0.9 dB
10 dB/div Ref 20.90 dBm
Mkr1 4.960 25 GHz
-30.084 dBm
Start 3.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 5.000 GHz
Sweep 191.5 ms (8001 pts)
Frequency
Auto Tune
Center Freq
Start Freq
Stop Freq
CF Step
Freq Offset


Agilent Spectrum Analyzer - Swept SA
Center Freq 7.500000000 GHz
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 9/100
Ref Offset 0.9 dB
10 dB/div Ref 20.90 dBm
Mkr1 7.439 375 GHz
-40.087 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 10.000 GHz
Sweep 477.9 ms (8001 pts)
Frequency
Auto Tune
Center Freq
Start Freq
Stop Freq
CF Step
Freq Offset


Agilent Spectrum Analyzer - Swept SA
Center Freq 12.500000000 GHz
Trig: Free Run
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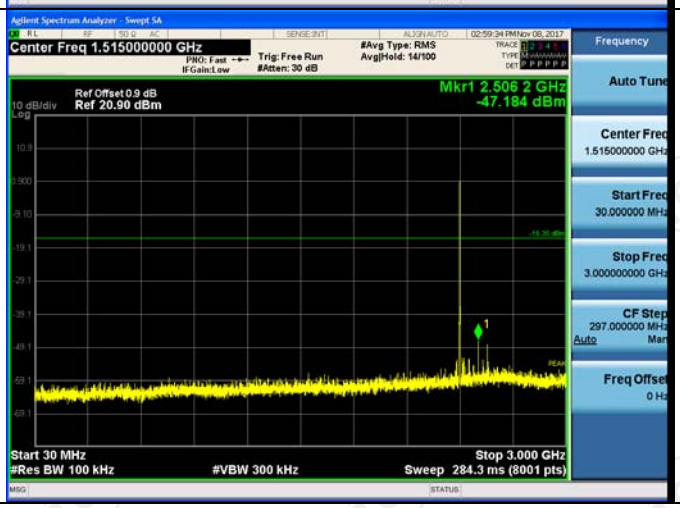
#Avg Type: RMS
Avg|Hold: 8/100
Ref Offset 0.9 dB
10 dB/div Ref 20.90 dBm
Mkr1 12.400 000 GHz
-50.764 dBm
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 477.9 ms (8001 pts)
Frequency
Auto Tune
Center Freq
Start Freq
Stop Freq
CF Step
Freq Offset

8DPSK_LCH_Graphs		
Pref		
Puw		

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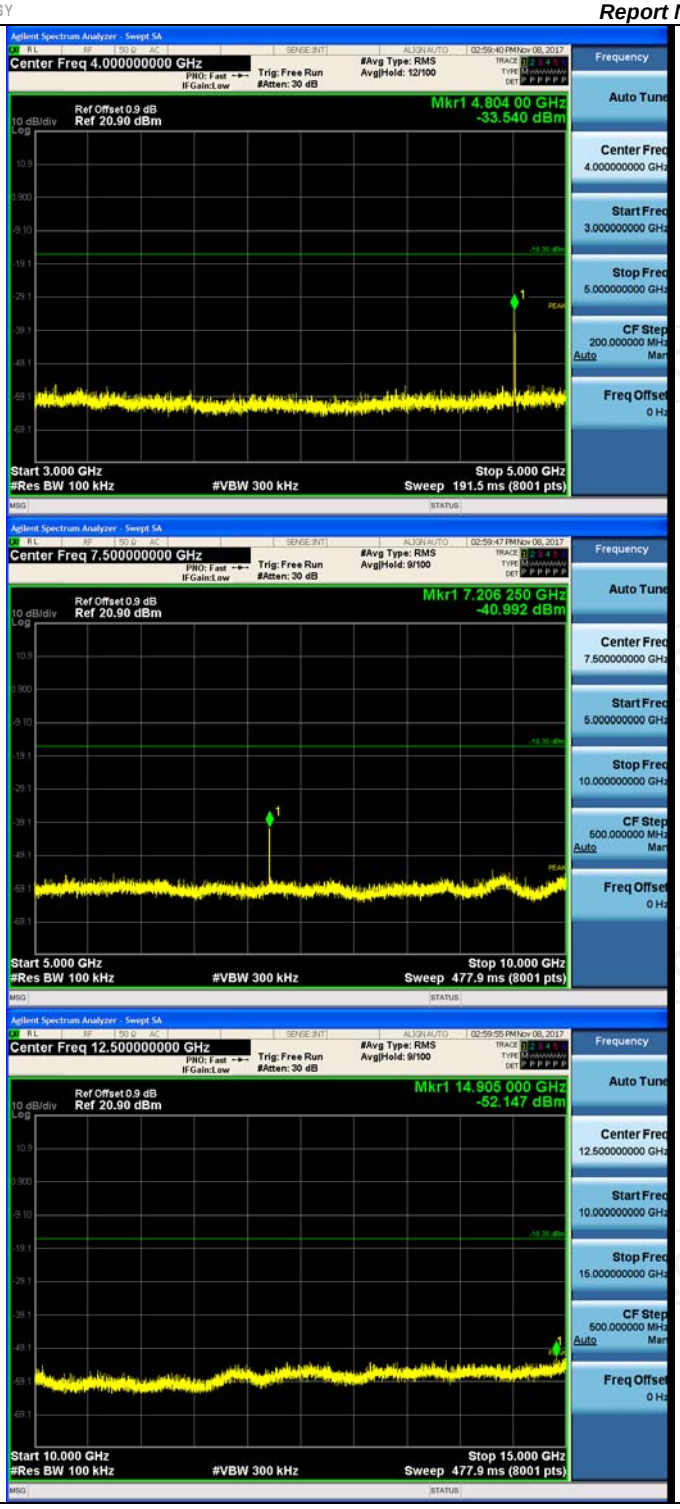

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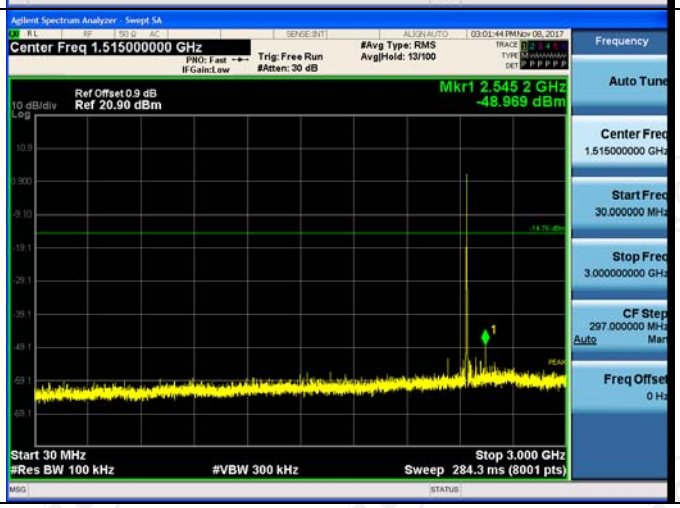
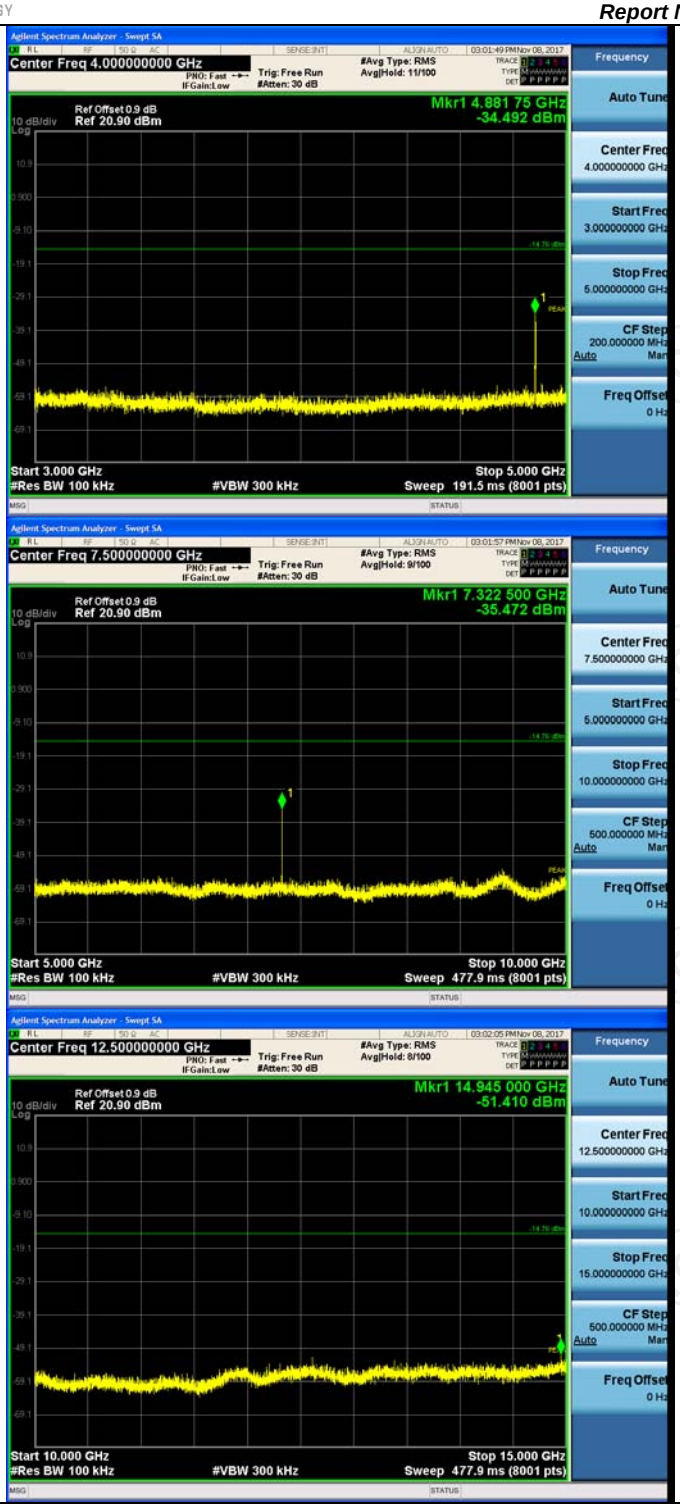
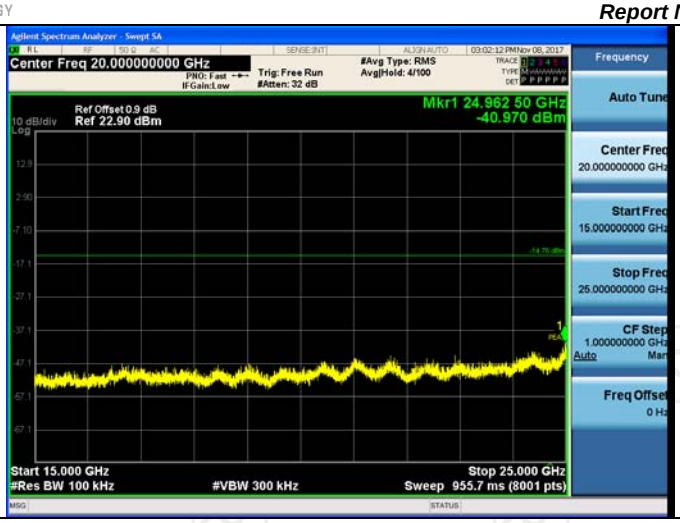
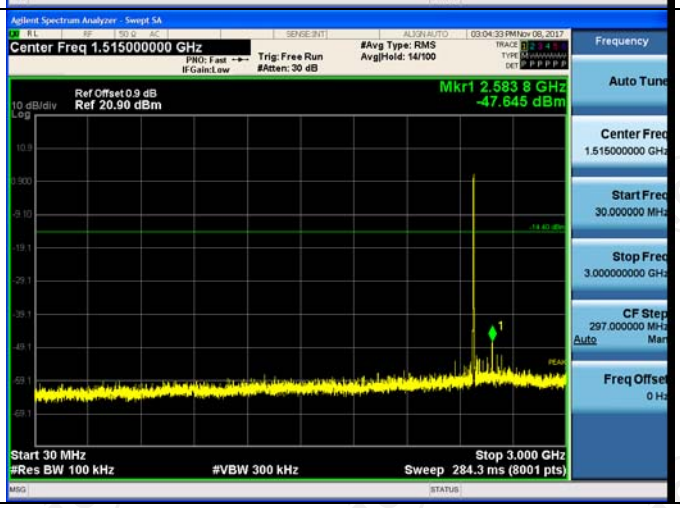
8DPSK_MCH_Graphs		
Pref		
Puw		


Agilent Spectrum Analyzer - Swept SA
Center Freq 4.000000000 GHz
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 11/100
Ref Offset 0.9 dB
10 dB/div Ref 20.90 dBm
Mkr1 4.881 75 GHz
-34.492 dBm
Start 3.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 5.000 GHz
Sweep 191.5 ms (8001 pts)
Agilent Spectrum Analyzer - Swept SA
Center Freq 7.500000000 GHz
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 9/100
Ref Offset 0.9 dB
10 dB/div Ref 20.90 dBm
Mkr1 7.322 500 GHz
-35.472 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 10.000 GHz
Sweep 477.9 ms (8001 pts)
Agilent Spectrum Analyzer - Swept SA
Center Freq 12.500000000 GHz
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 8/100
Ref Offset 0.9 dB
10 dB/div Ref 20.90 dBm
Mkr1 14.945 000 GHz
-51.410 dBm
Start 10.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 15.000 GHz
Sweep 477.9 ms (8001 pts)

8DPSK_HCH_Graphs		
Pref		
Puw		

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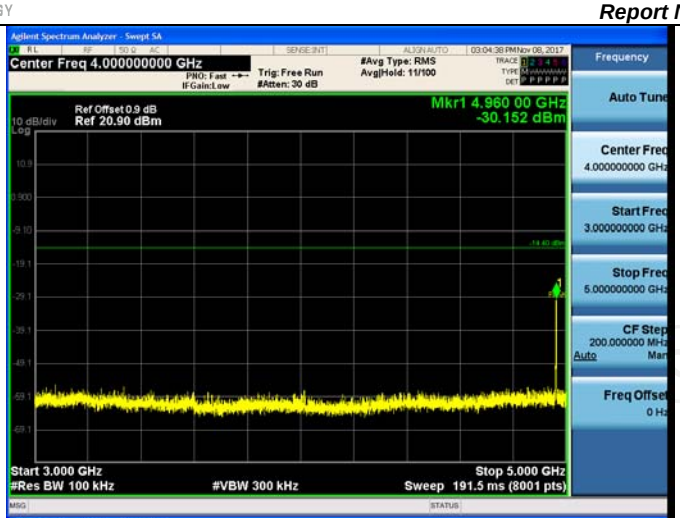

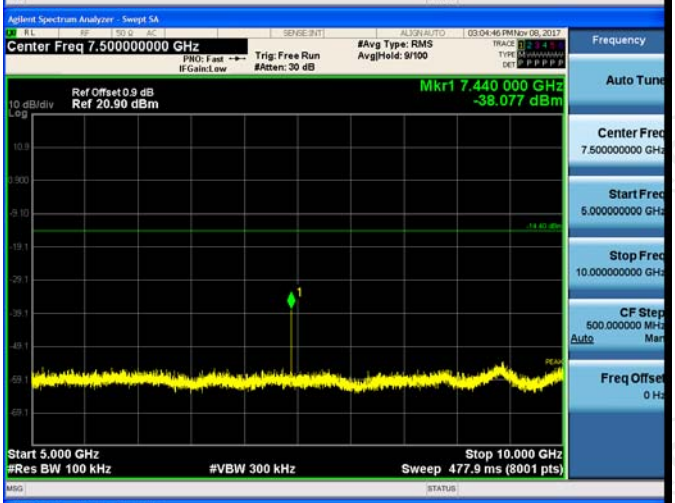

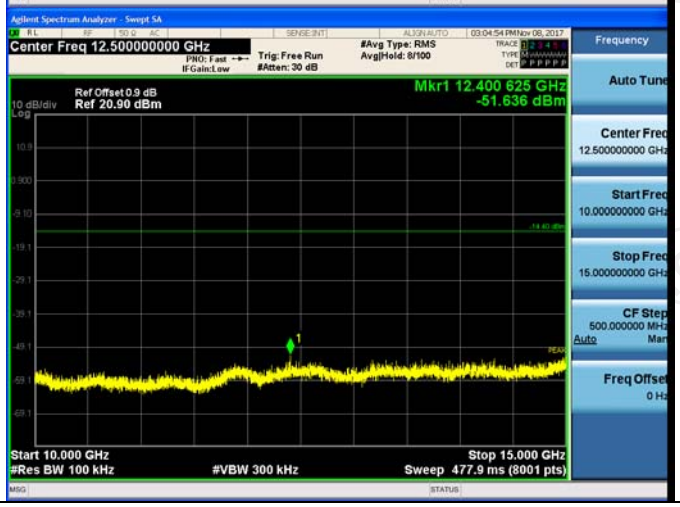

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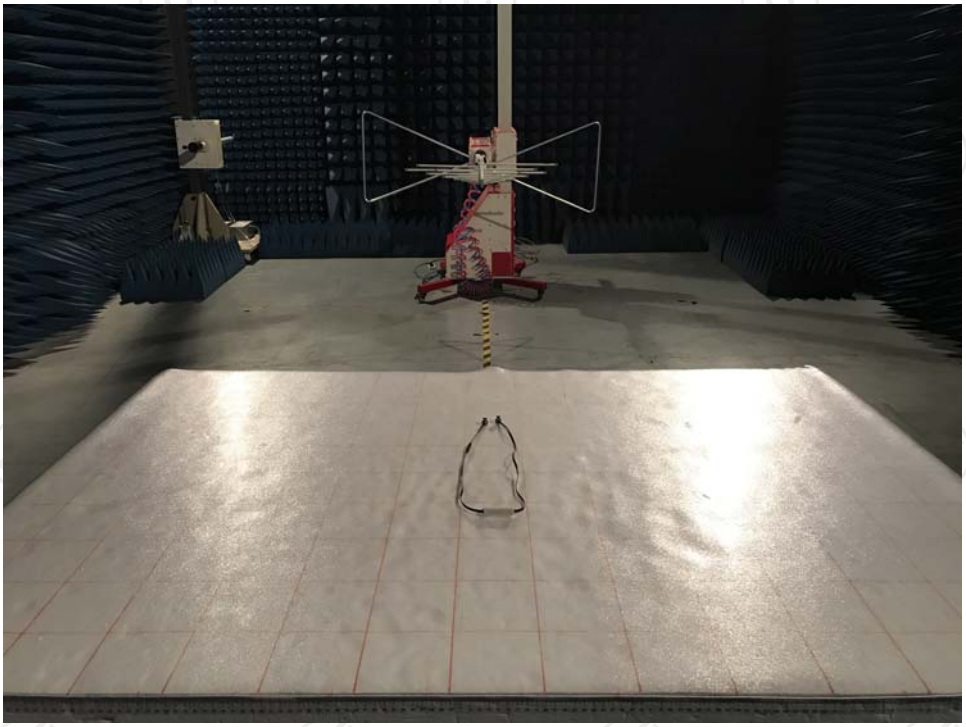
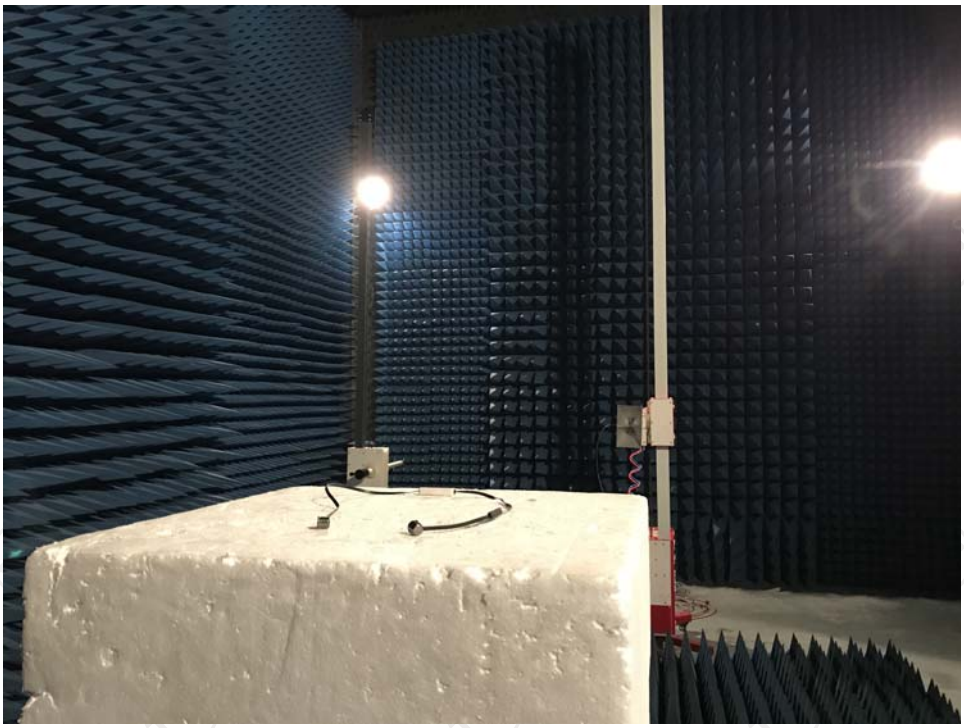
Agilent Spectrum Analyzer - Swept SA
Center Freq 20.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 32 dB
#Avg Type: RMS
Avg|Hold: 4/100
Ref Offset 0.9 dB
10 dB/div
Ref 22.90 dBm
Mkr1 24.985 00 GHz
-40.754 dBm
Start 15.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 955.7 ms (8001 pts)
Frequency
Auto Tune
Center Freq
20.000000000 GHz
Start Freq
15.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.000000000 GHz
Auto
Man
Freq Offset
0 Hz

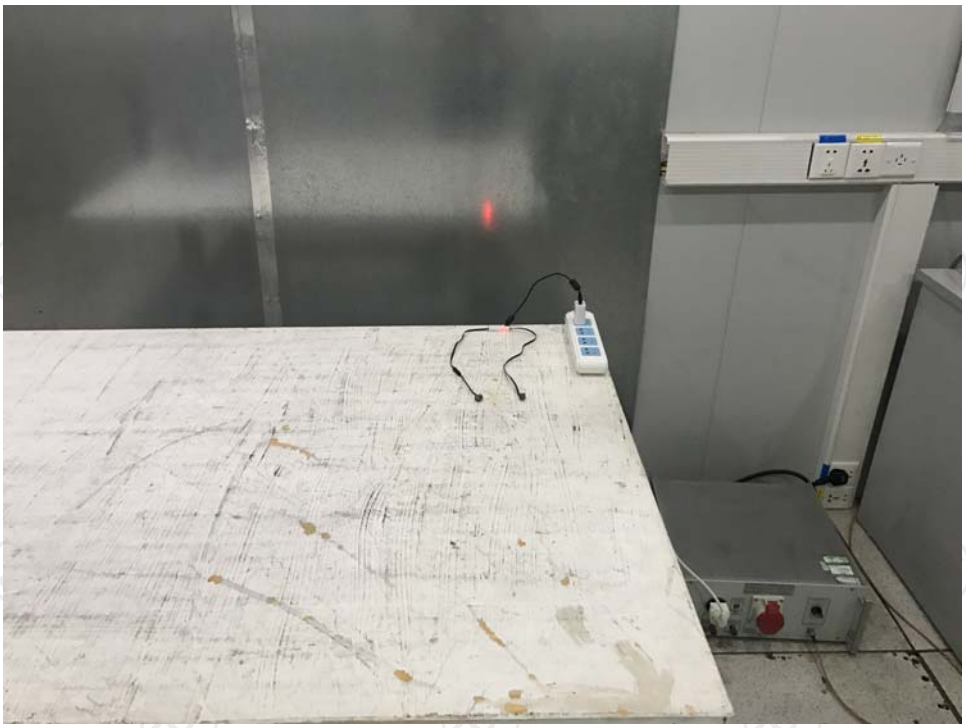
Appendix B: Photographs of Test Setup

Product: Bluetooth Earphones
Model: You Tune Earphones
Radiated Emission



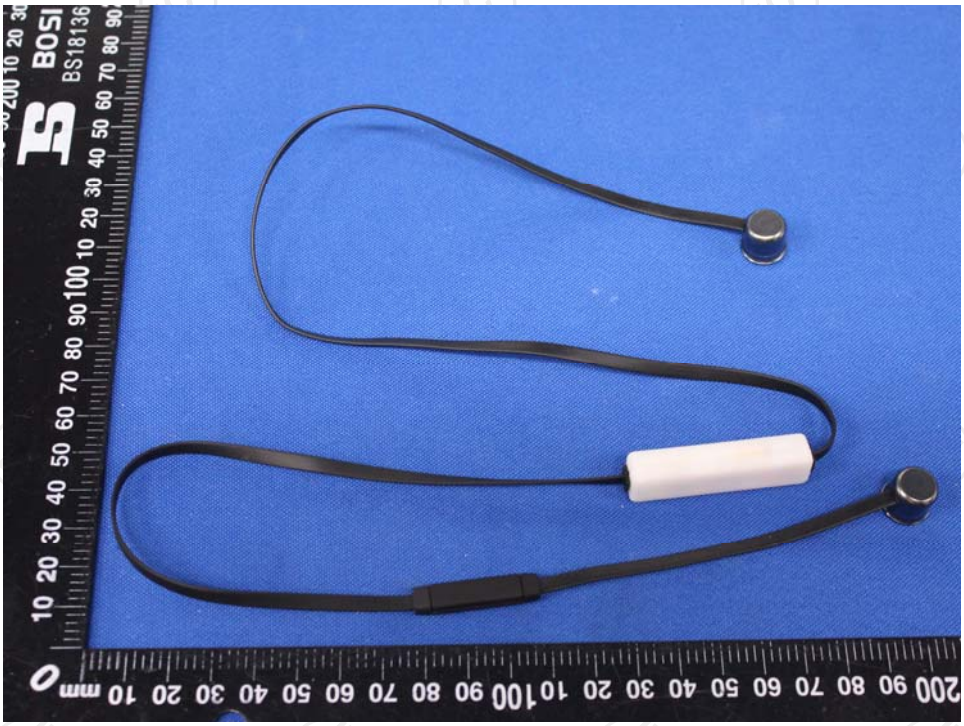


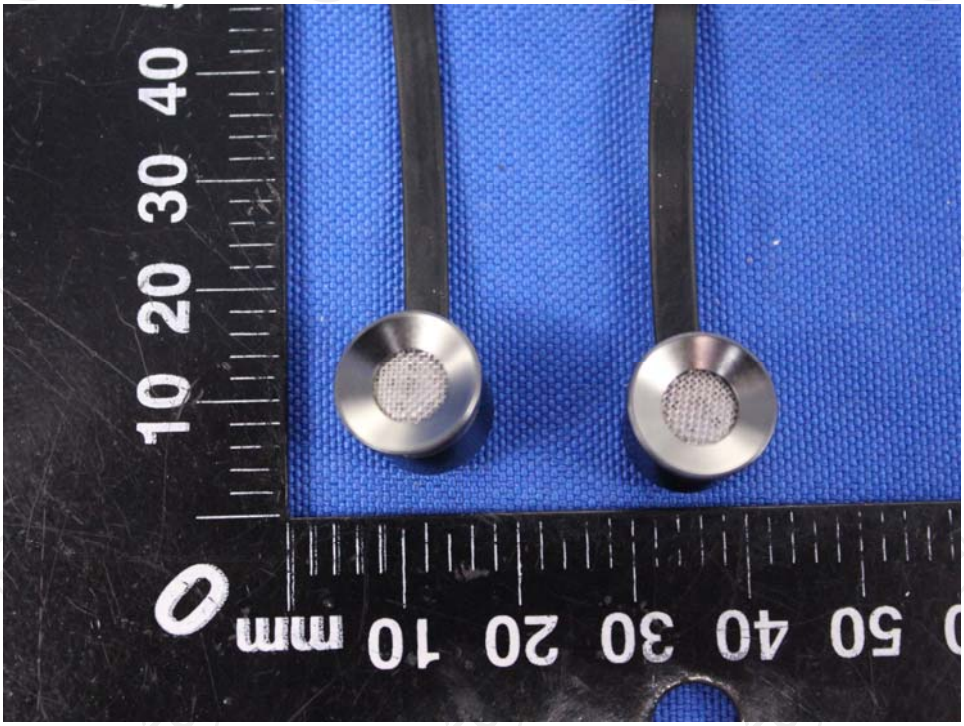
CE

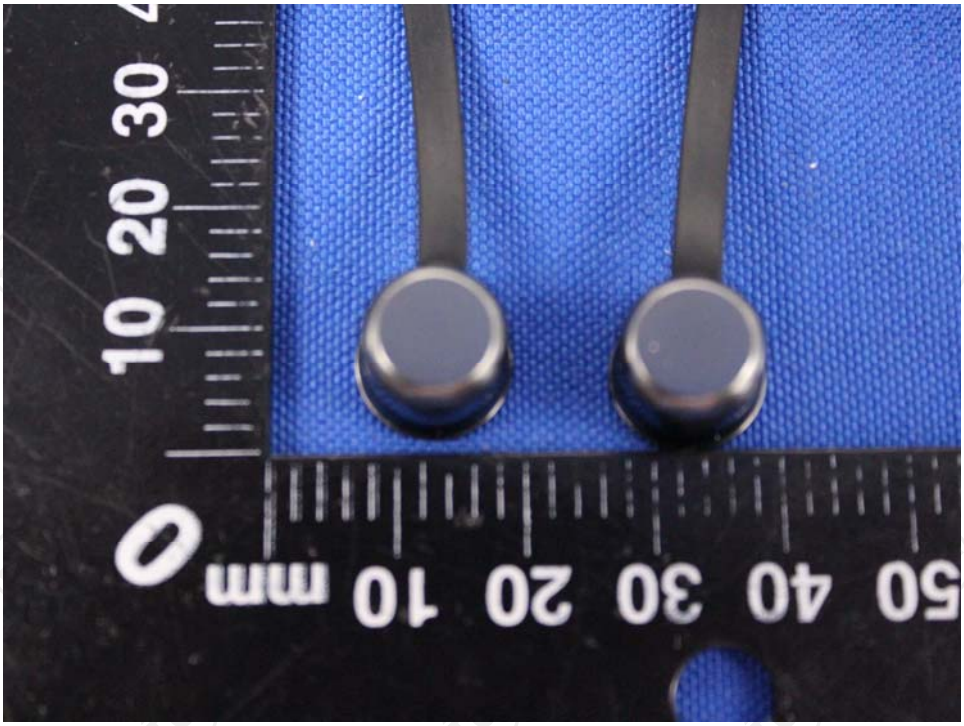


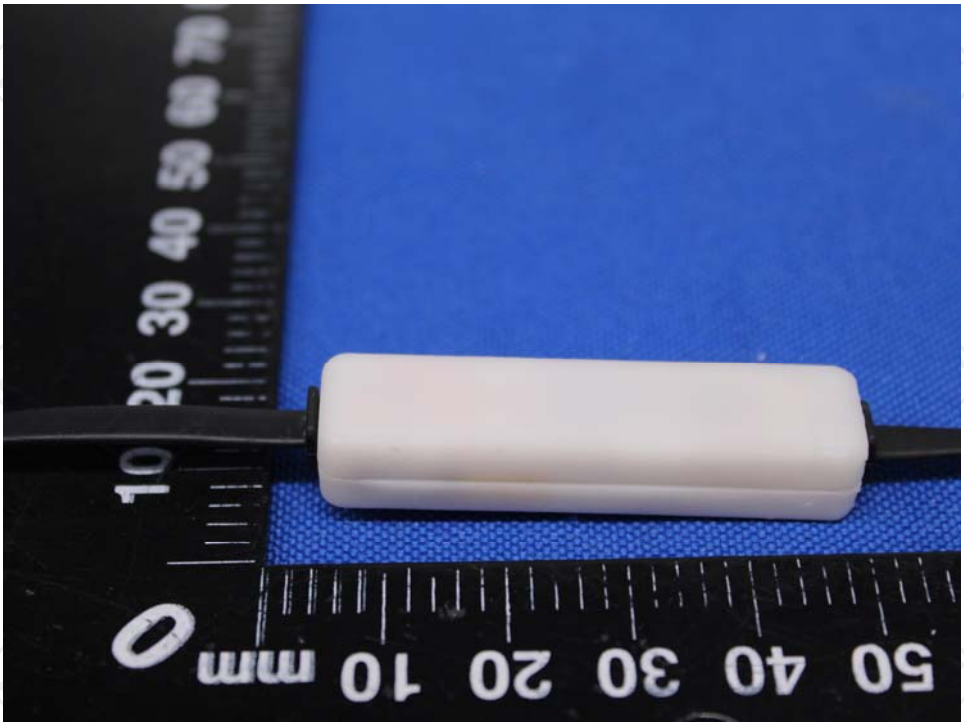
Appendix C: Photographs of EUT

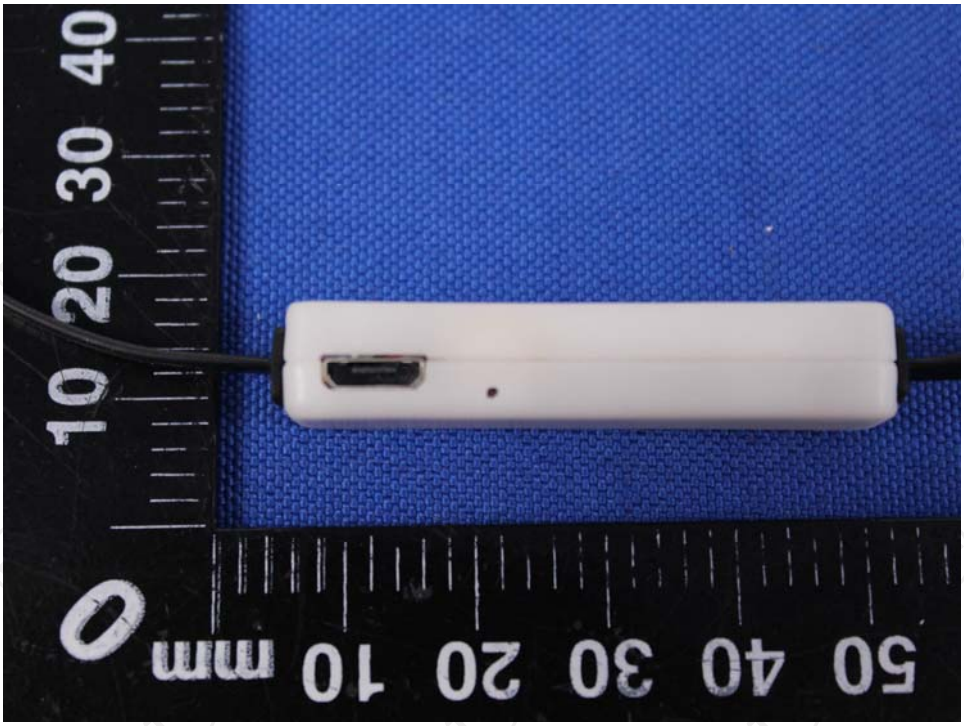
Product: Bluetooth Earphones
Model: You Tune Earphones
External Photos



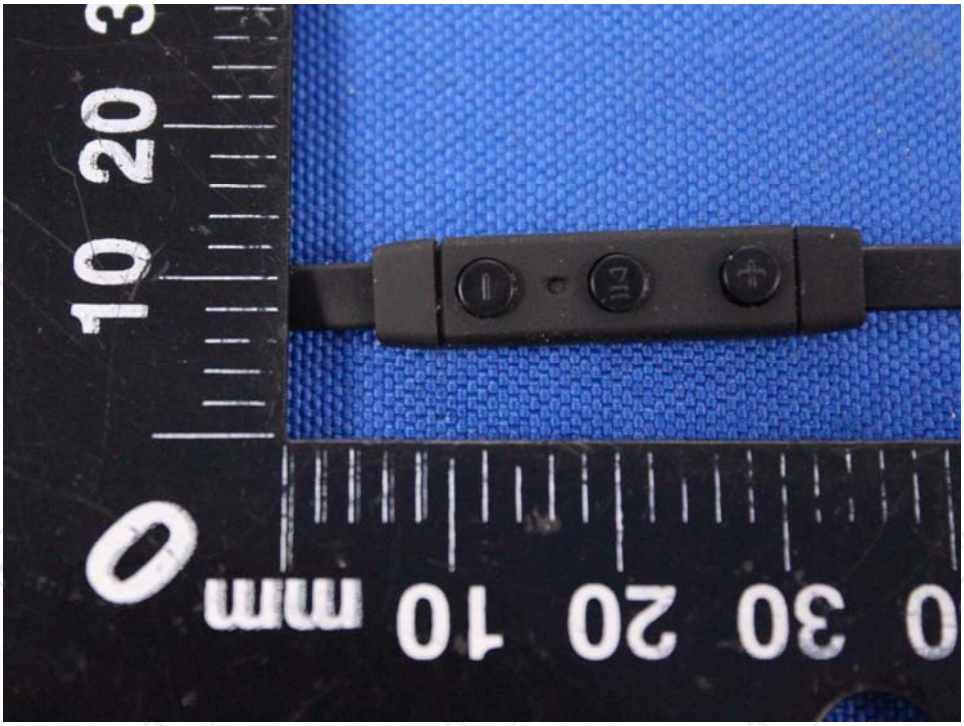



50 40 30 20 10 mm 0
10 20 30


50 40 30 20 10 mm 0
10 20 30 40 50 60 70

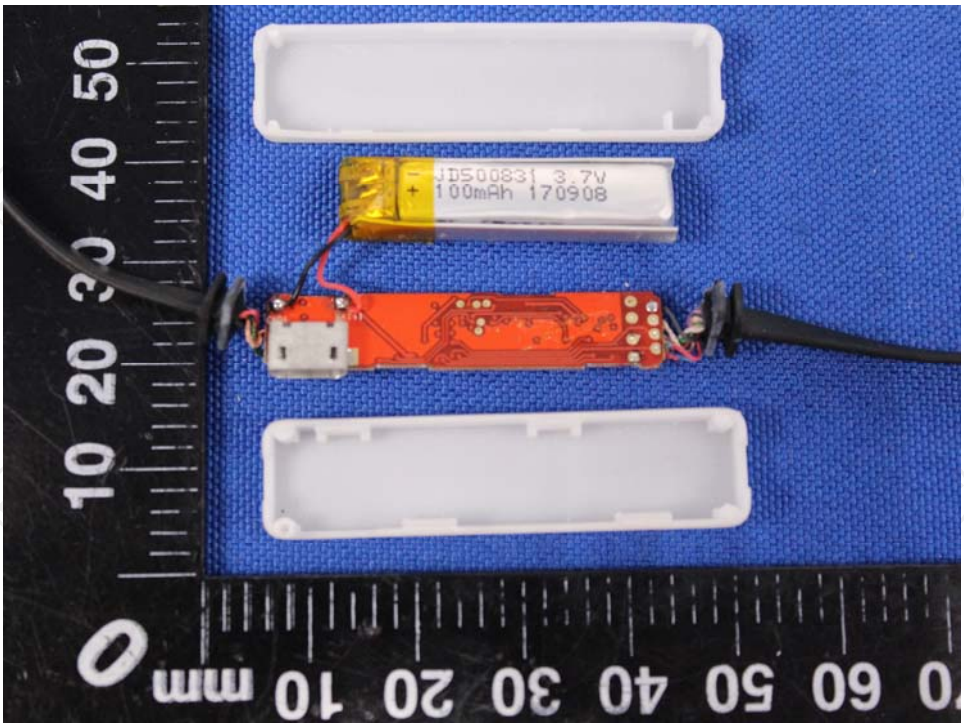

0 mm 10 20 30 40 50

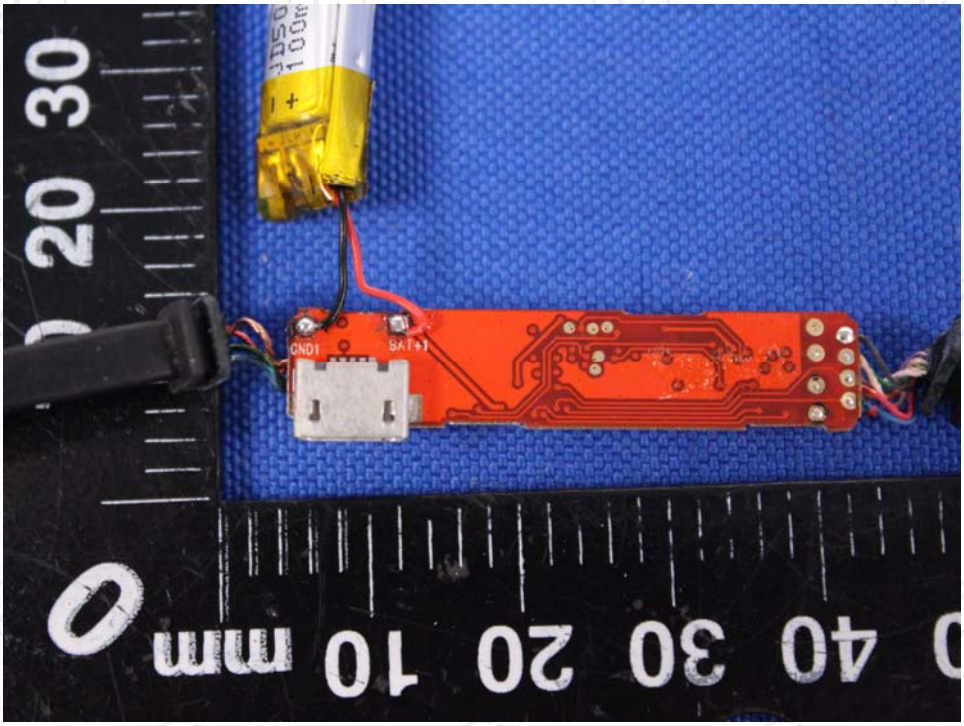
0 mm 10 20 30 40 50

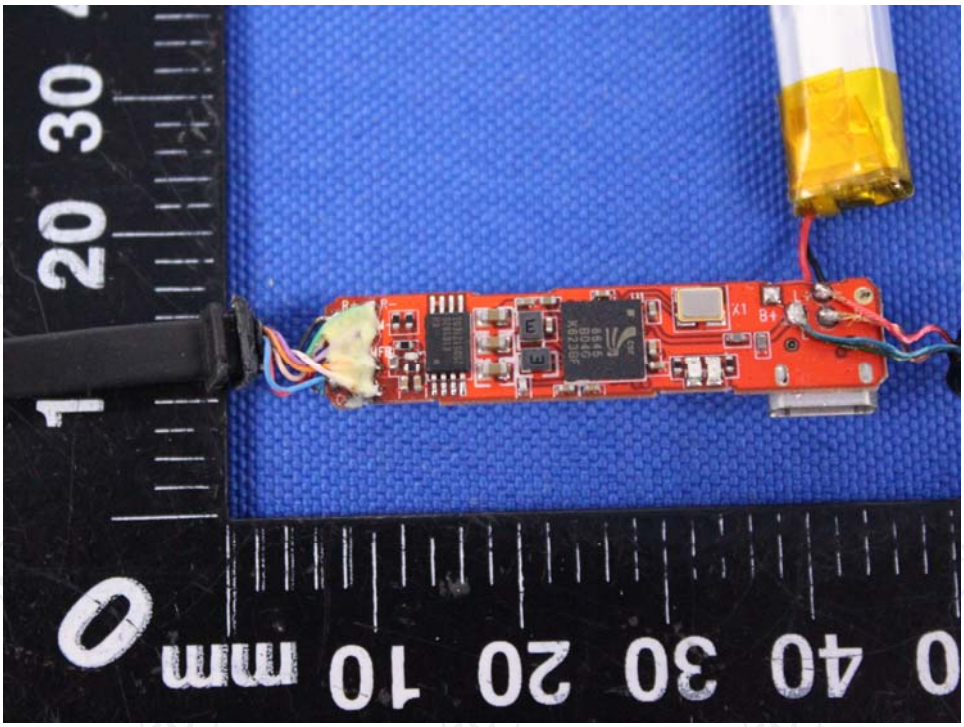

10 20
0
mm 10 20 30

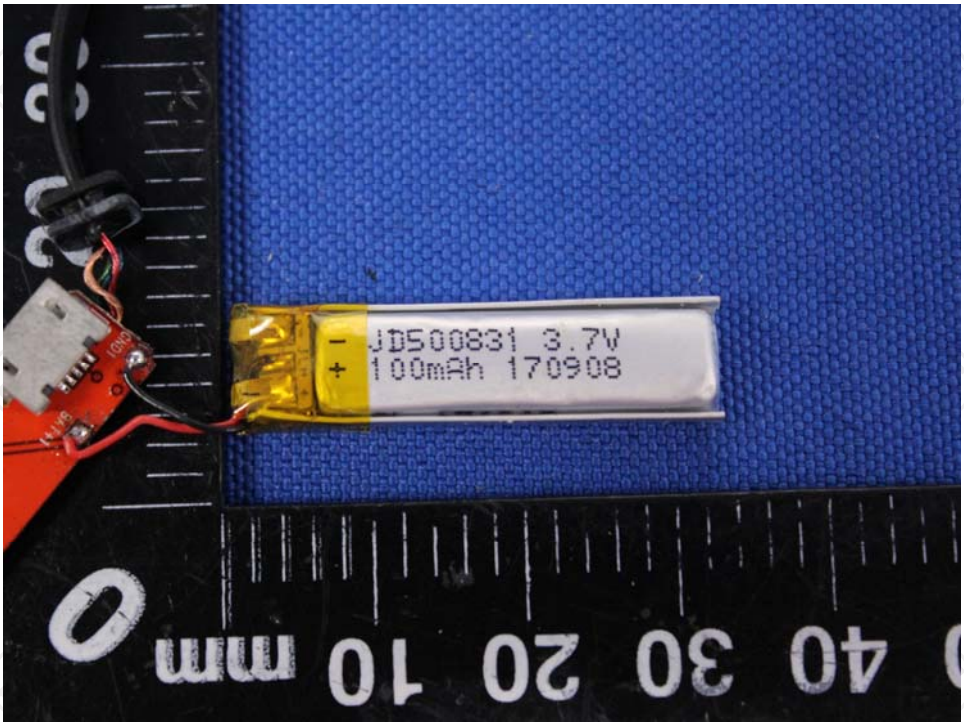
10 20 30
0
mm 10 20 30 40

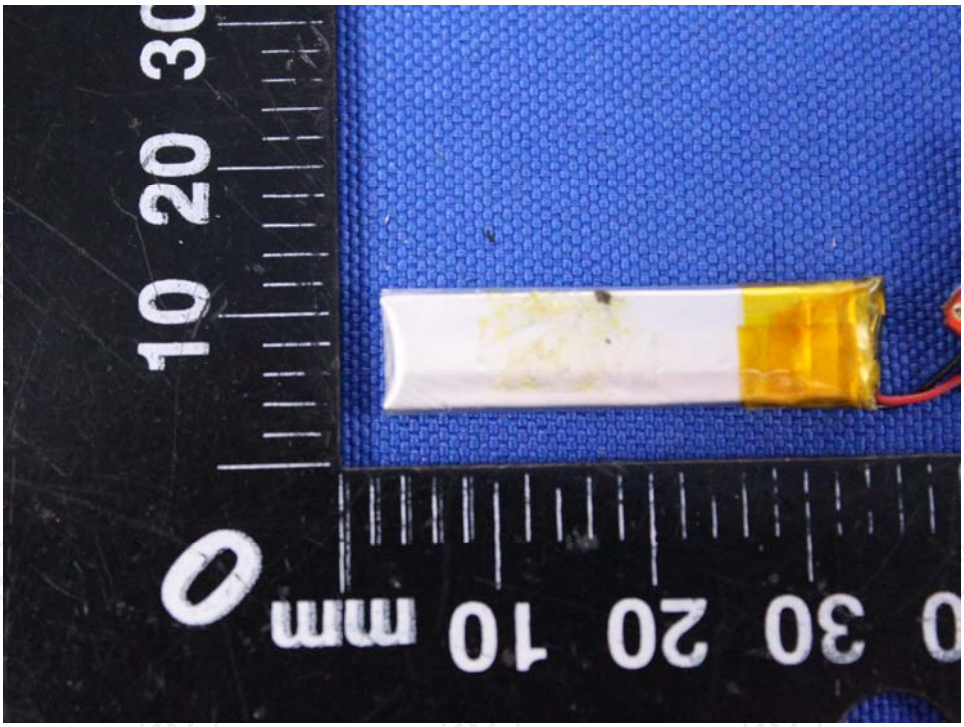
Product: Bluetooth Earphones
Model: You Tune Earphones
Internal Photos



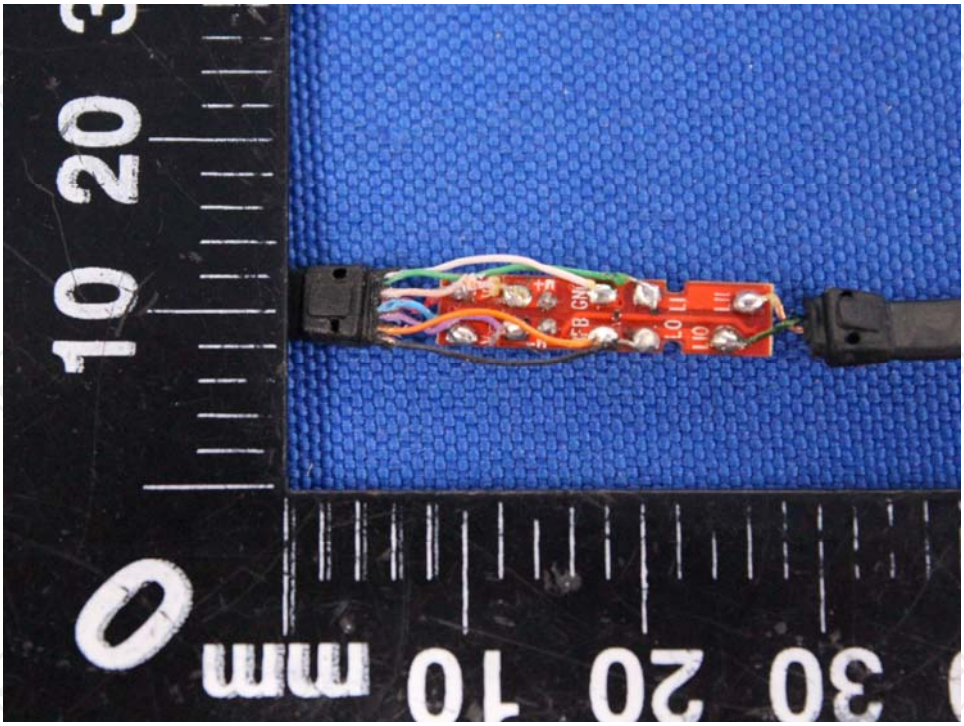





JD500831 3.7V
100mAh 170908


0
10
20
30
mm
0
10
20
30

0
10
20
30
mm
10
20
30
40
50



*****END OF REPORT*****