Dwell Time

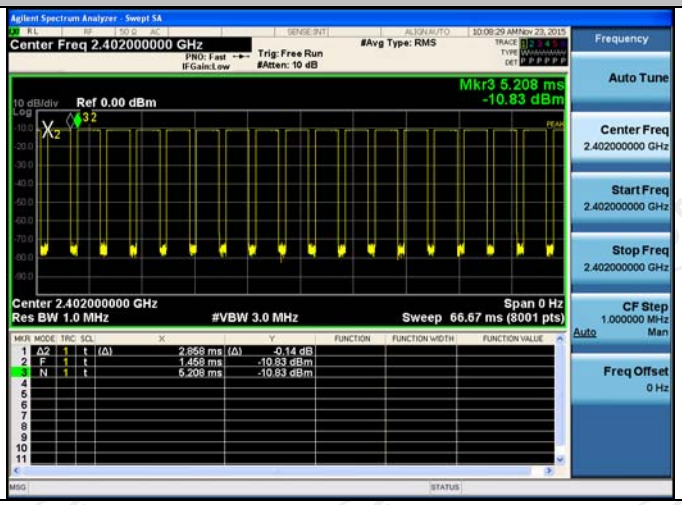
Result Table

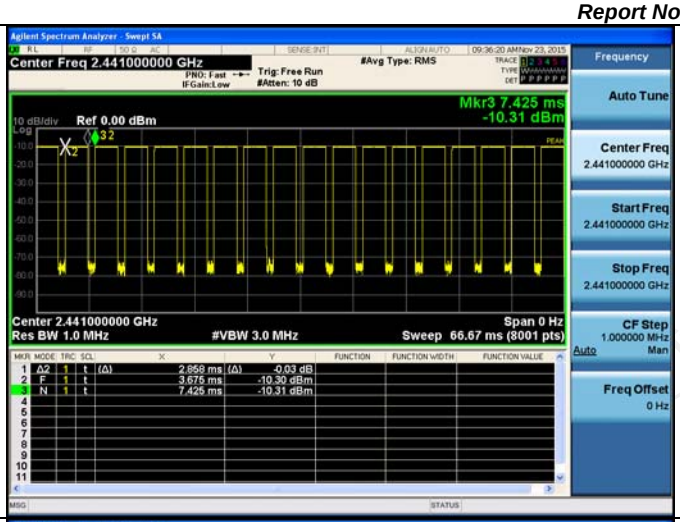
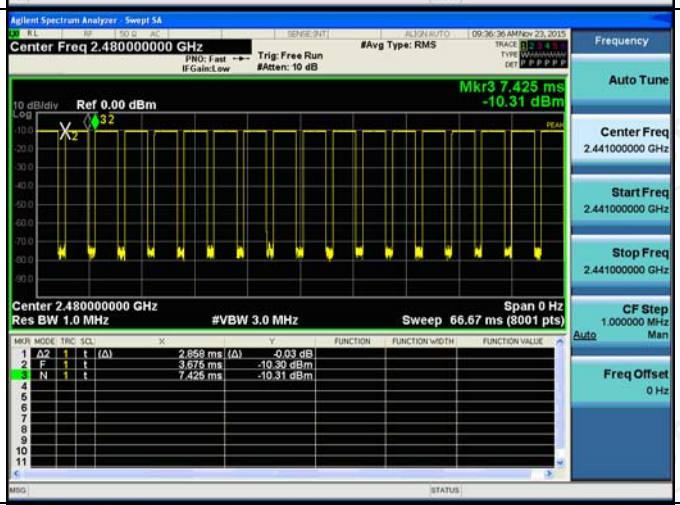
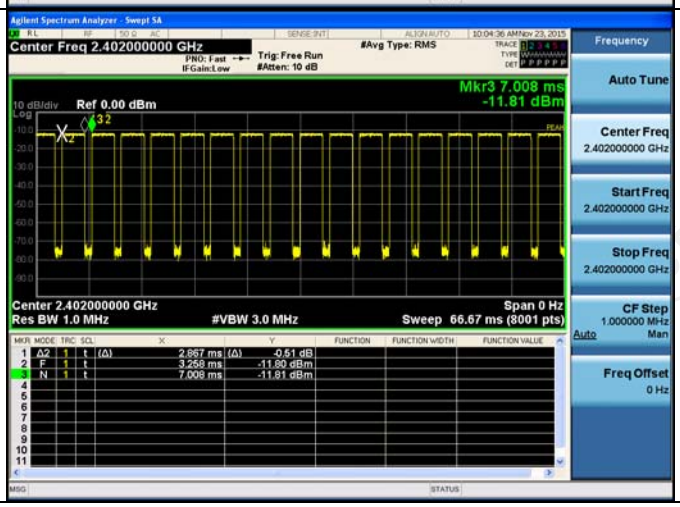
The Dwell Time=Burst Width*Total Hops. The detailed calculations are showed as follows:

- The duration for dwell time calculation:0.4[s]*hopping number=0.4[s]*79[ch]=31.6[s*ch];
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT Conf uses a slot type of 5-Tx&1-Rx and a hopping rate of 1600 [ch*hop/s] for all channels. So the final hopping rate for all channels is 1600/6=266.67 [ch*hop/s]
- The hops per second on one channel: 266.67 [ch*hops/s]/79 [ch]=3.38 [hop/s];
- The total hops for all channels within the dwell time calculation duration:3.38 [hop/s]*31.6[s*ch]=106.67 [hop*ch];
- The dwell time for all channels hopping: 106.67 [hop*ch]*Burst Width [ms/hop/ch].

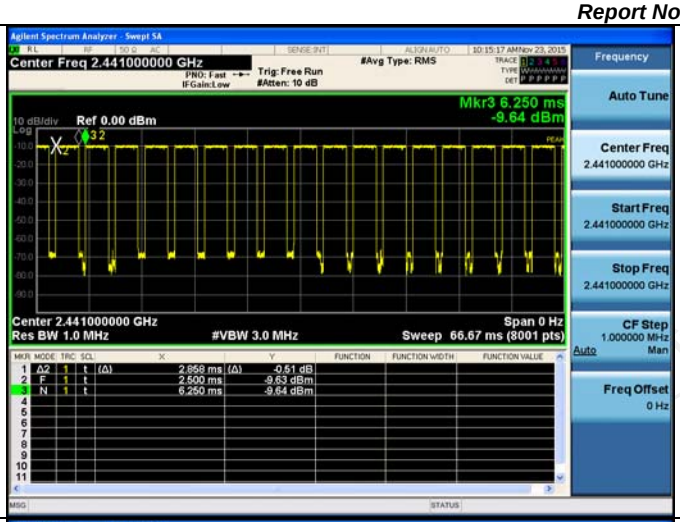
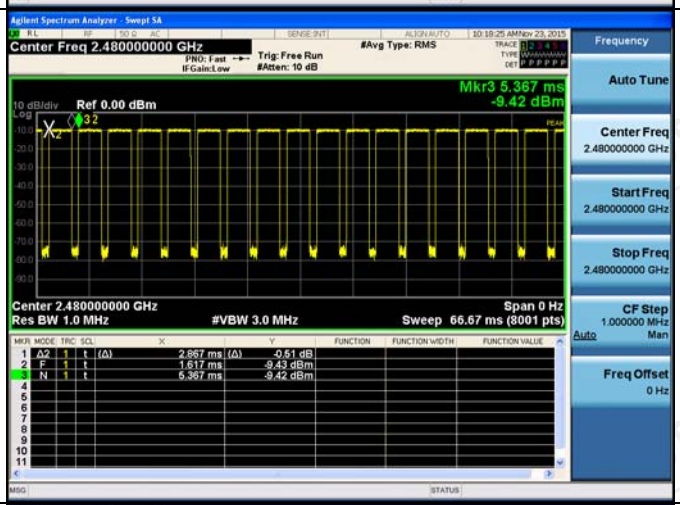
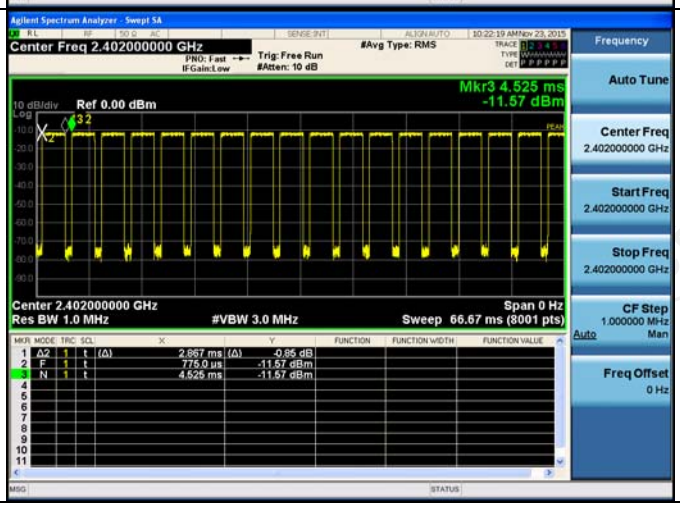
Mode	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Duty Cycle [%]	Verdict
GFSK	LCH	2.858	106.7	0.305	76.22	PASS
GFSK	MCH	2.858	106.7	0.305	76.22	PASS
GFSK	HCH	2.858	106.7	0.305	76.22	PASS
π/4DQPSK	LCH	2.867	106.7	0.306	76.44	PASS
π/4DQPSK	MCH	2.858	106.7	0.305	76.22	PASS
π/4DQPSK	HCH	2.867	106.7	0.306	76.44	PASS
8DPSK	LCH	2.867	106.7	0.306	76.44	PASS
8DPSK	MCH	2.867	106.7	0.306	76.44	PASS
8DPSK	HCH	2.867	106.7	0.306	76.44	PASS

Test Graph

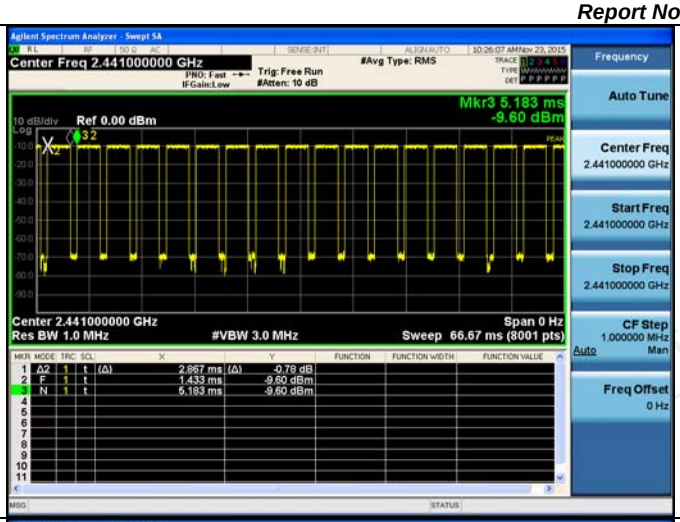
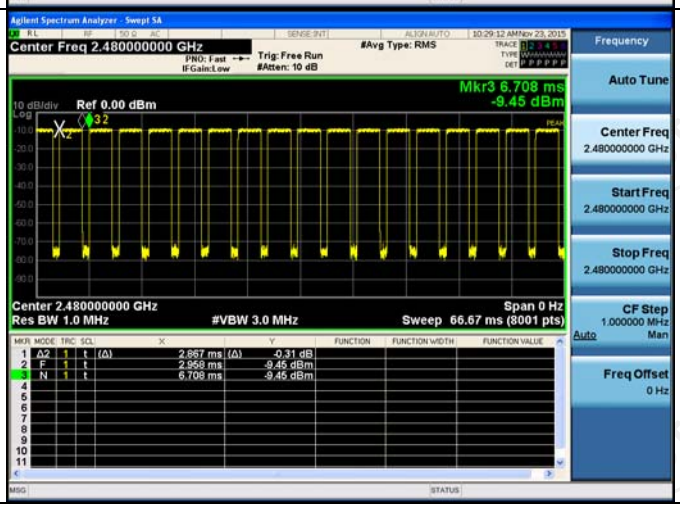
Graphs			
GFSK/LCH			

GFSK/MCH			
GFSK/HCH			
π/4DQPSK/LCH			

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

π/4DQPSK/MCH			
π/4DQPSK/HCH			
8DPSK/LCH			

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

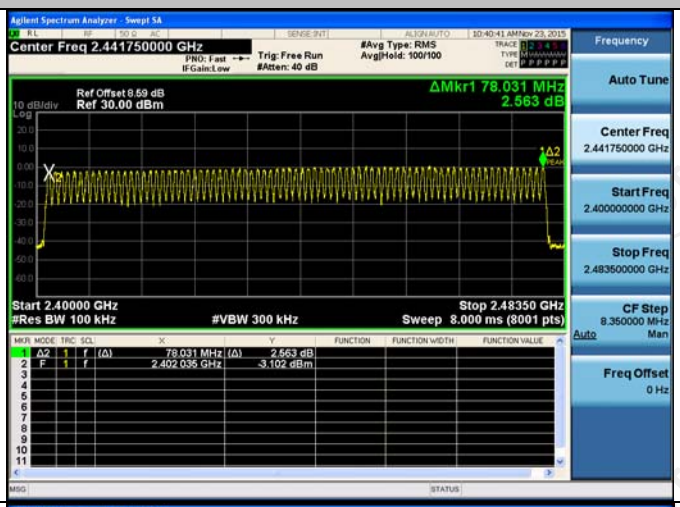
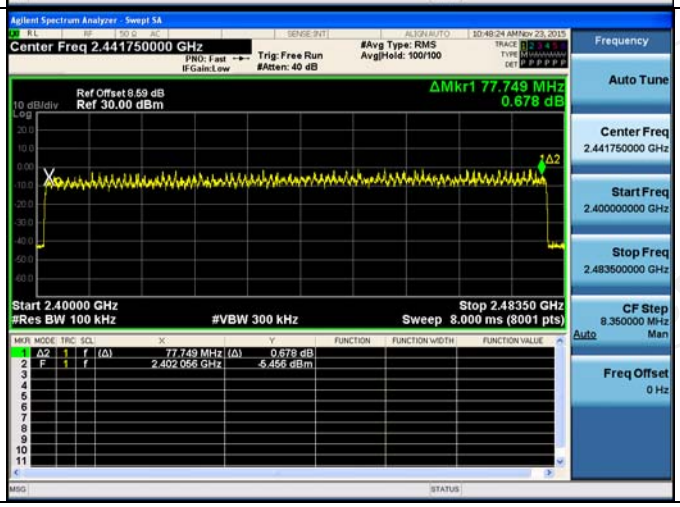
8DPSK/MCH			
8DPSK/HCH			

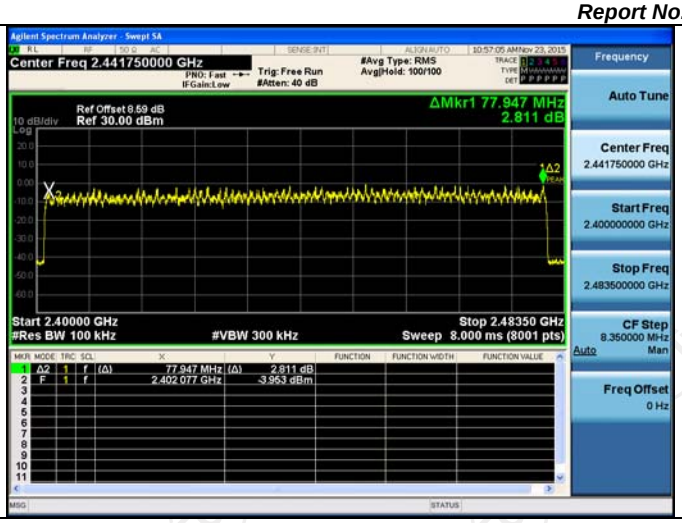
Hopping Channel Number

Result Table

Mode	Channel.	Number of Hopping Channel	Verdict
GFSK	Hop	79	PASS
π/4DQPSK	Hop	79	PASS
8DPSK	Hop	79	PASS

Test Graph

Graphs			
GFSK/Hop			
π/4DQPSK/Hop			

8DPSK/Hop		 Agilent Spectrum Analyzer - Swept SA Center Freq 2.441750000 GHz PNO: Fast IFGain:Low Trig: Free Run #Atten: 40 dB #Avg Type: RMS Avg|Hold: 100/100 10:57:05 AM Nov 23, 2015 Ref Offset 8.59 dB 10 dB/div Ref 30.00 dBm ΔMkr1 77.947 MHz 2.811 dB Start 2.40000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.48350 GHz Sweep 8.000 ms (8001 pts) 1 Δ2 1 f (Δ) 77.947 MHz (Δ) 2.811 dB 2 F 1 f 2.402 077 GHz -3.953 dBm Frequency Auto Tune Center Freq 2.441750000 GHz Start Freq 2.400000000 GHz Stop Freq 2.483500000 GHz CF Step 8.350000 MHz Auto Man Freq Offset 0 Hz	

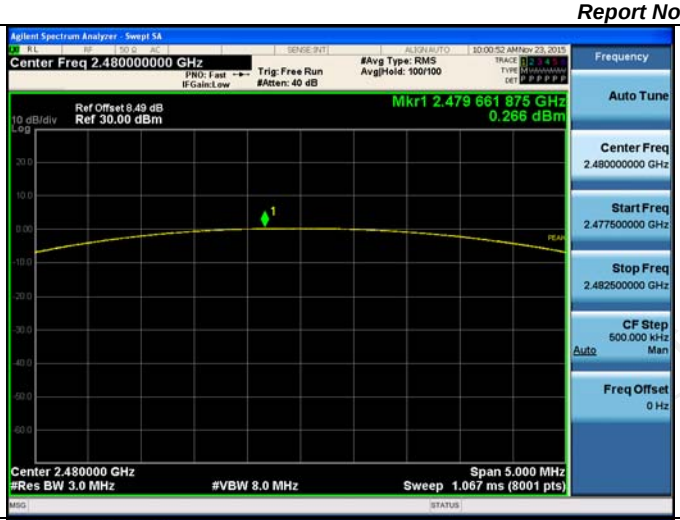
Conducted Peak Output Power

Result Table

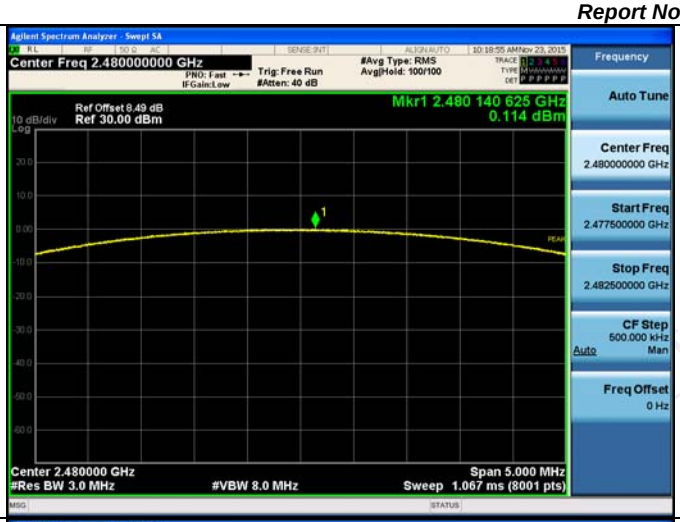
Mode	Channel.	Maximum Peak Output Power [dBm]	Verdict
GFSK	LCH	-1.829	PASS
GFSK	MCH	-1.510	PASS
GFSK	HCH	0.266	PASS
π/4DQPSK	LCH	-2.184	PASS
π/4DQPSK	MCH	-0.235	PASS
π/4DQPSK	HCH	0.114	PASS
8DPSK	LCH	-1.876	PASS
8DPSK	MCH	0.034	PASS
8DPSK	HCH	0.236	PASS

Test Graph

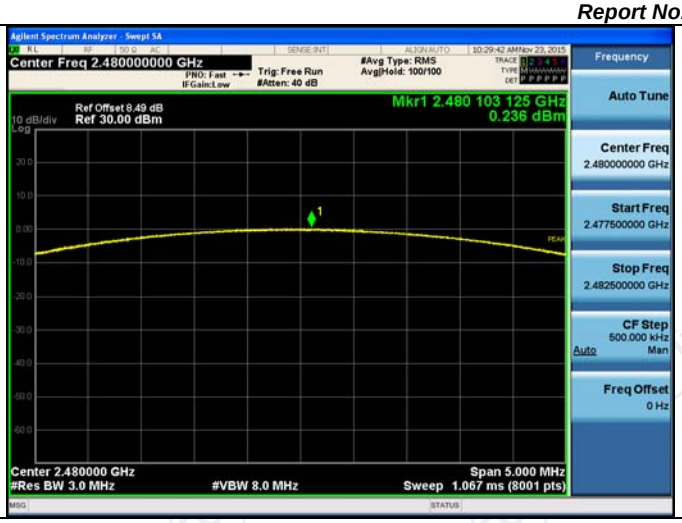
Graphs			
GFSK/LCH			
GFSK/MCH			

GFSK/HCH			
π/4DQPSK/LCH			
π/4DQPSK/MCH			

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

π/4DQPSK/HCH			
8DPSK/LCH			
8DPSK/MCH			

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

8DPSK/HCH			

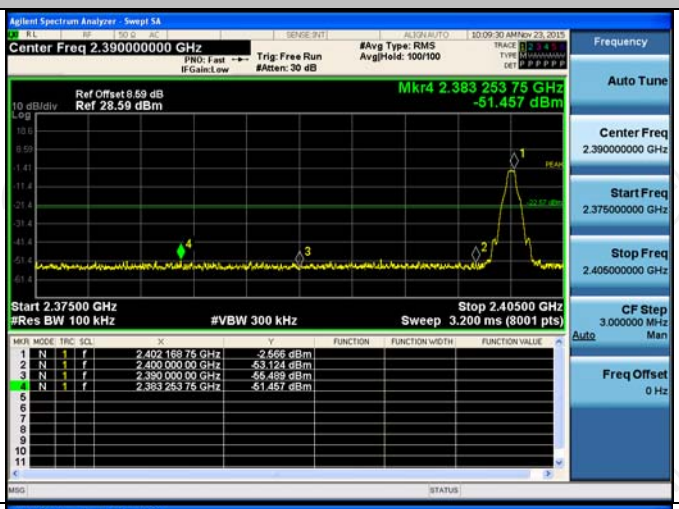
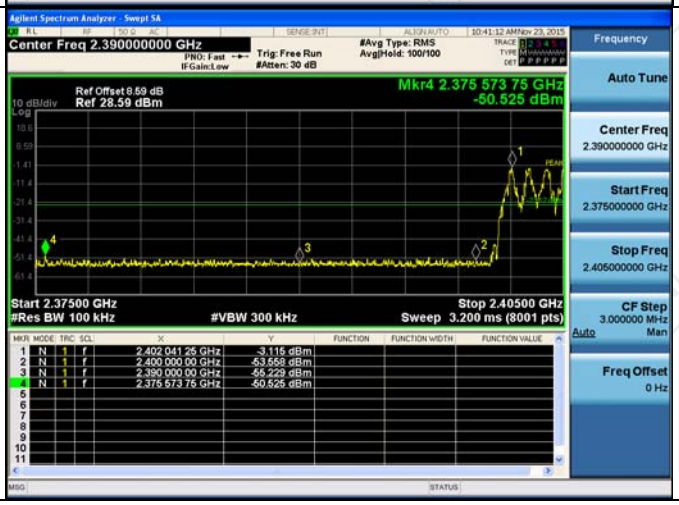
Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

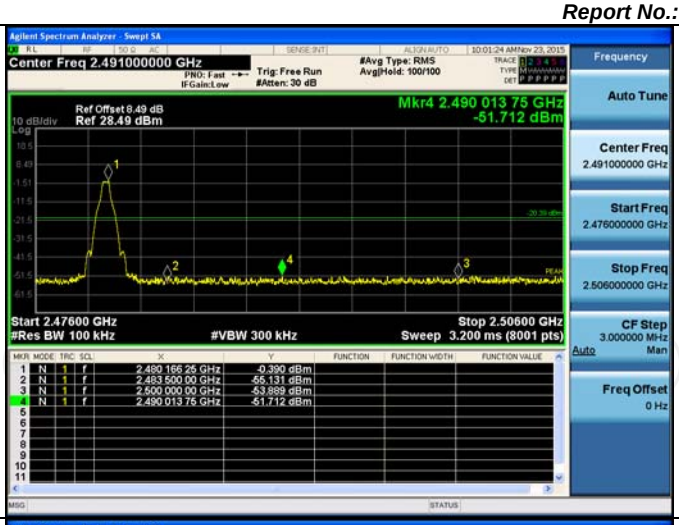
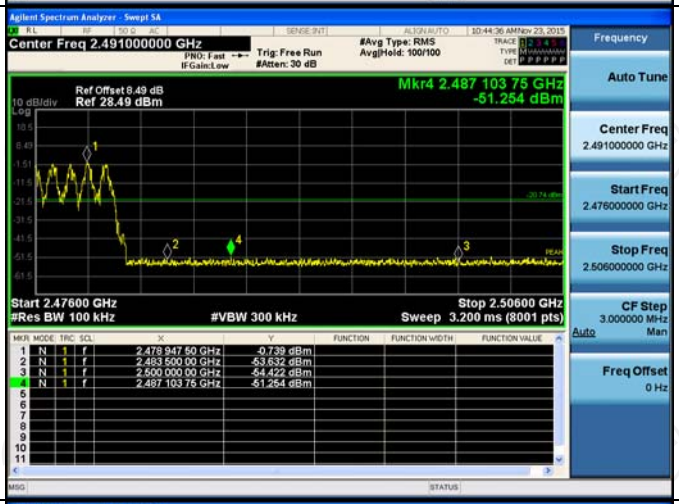
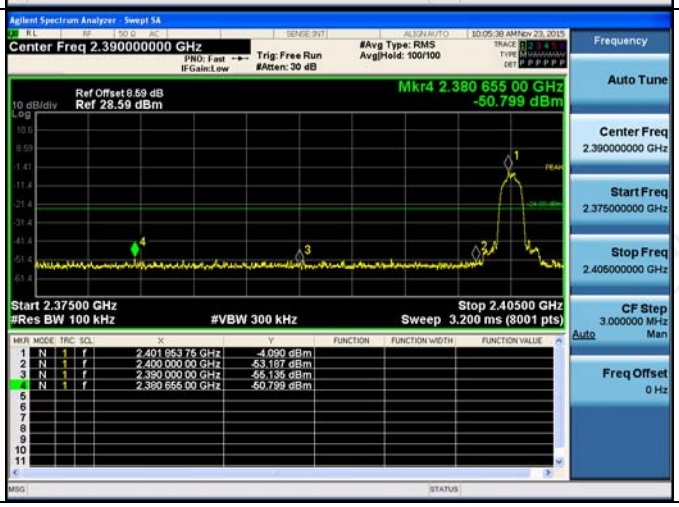
Band-edge for RF Conducted Emissions

Result Table

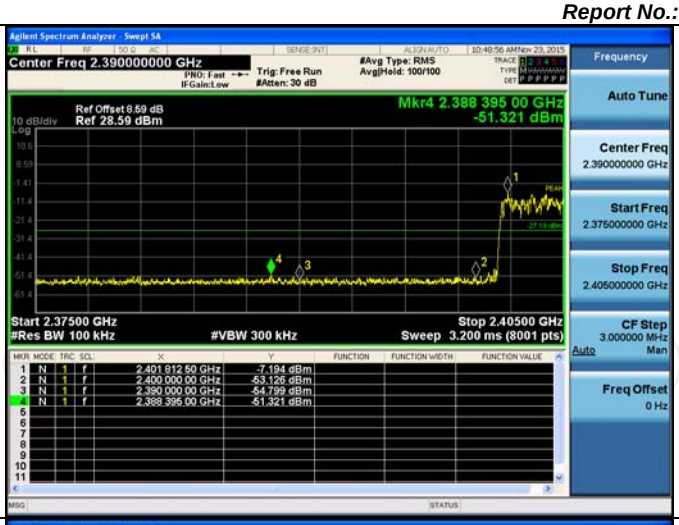
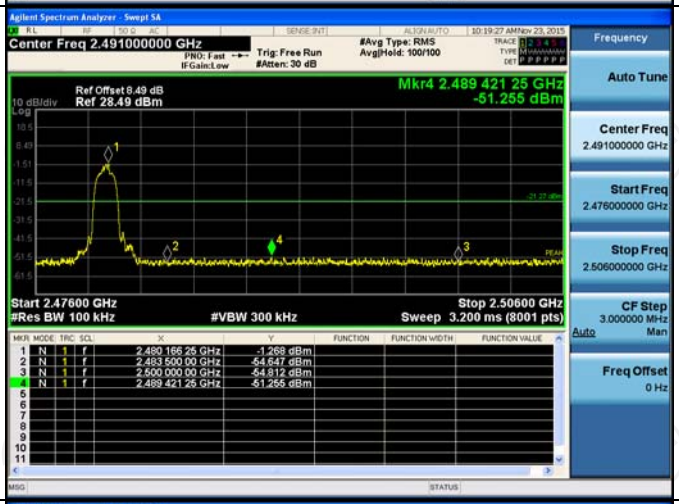
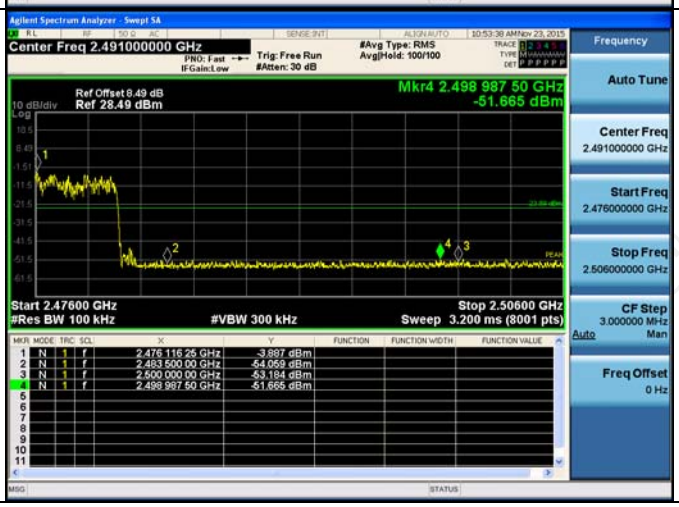
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-2.566	Off	-51.457	-22.57	PASS
			-3.115	On	-50.525	-23.12	PASS
GFSK	HCH	2480	-0.390	Off	-51.712	-20.39	PASS
			-0.739	On	-51.254	-20.74	PASS
π/4DQPSK	LCH	2402	-4.090	Off	-50.799	-24.09	PASS
			-7.194	On	-51.321	-27.19	PASS
π/4DQPSK	HCH	2480	-1.268	Off	-51.255	-21.27	PASS
			-3.887	On	-51.665	-23.89	PASS
8DPSK	LCH	2402	-3.409	Off	-51.610	-23.41	PASS
			-7.933	On	-51.271	-27.93	PASS
8DPSK	HCH	2480	-1.242	Off	-50.379	-21.24	PASS
			-5.264	On	-50.426	-25.26	PASS

Test Graph

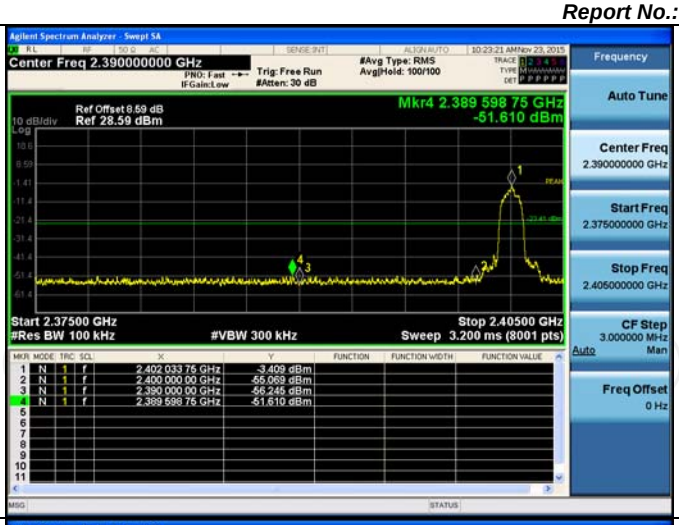
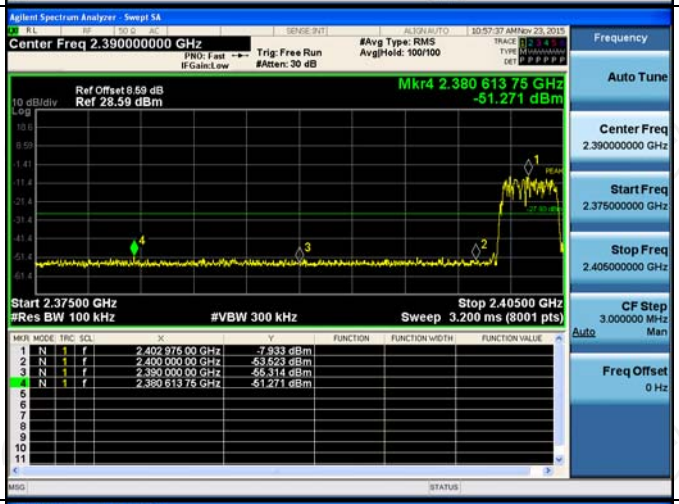
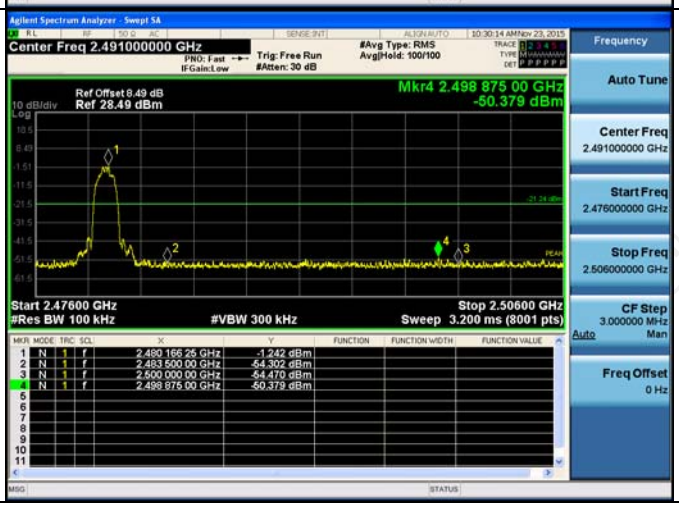
Graphs			
GFSK/LCH/No Hop			
GFSK/LCH/Hop			

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

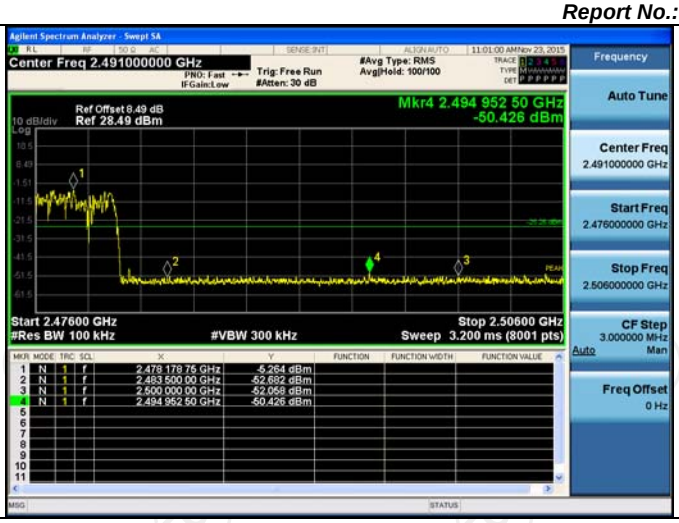
Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

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

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

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

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

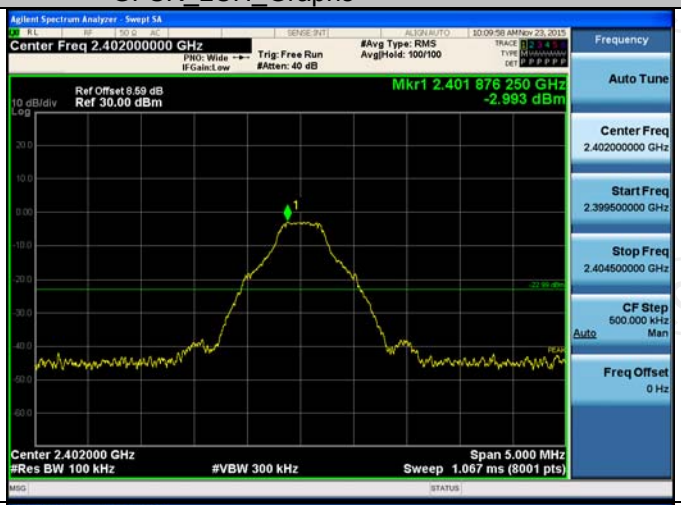
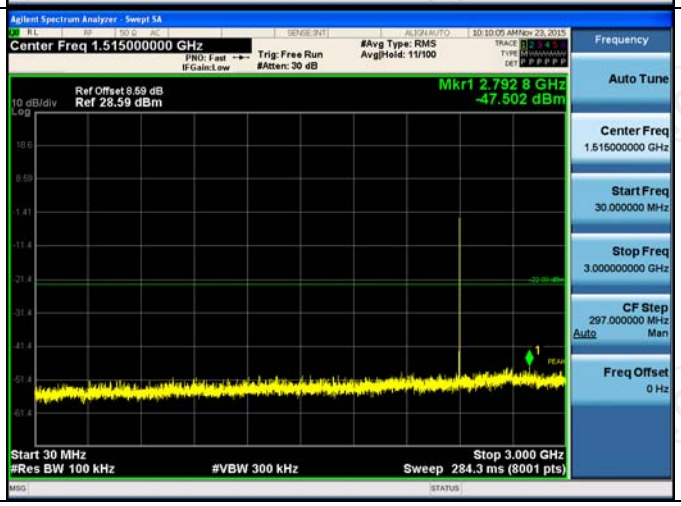
8DPSK/HCH/Hop			

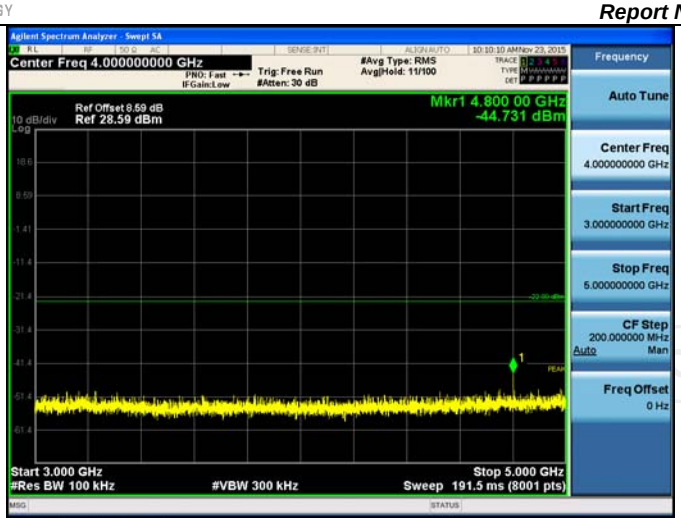
RF Conducted Spurious Emissions

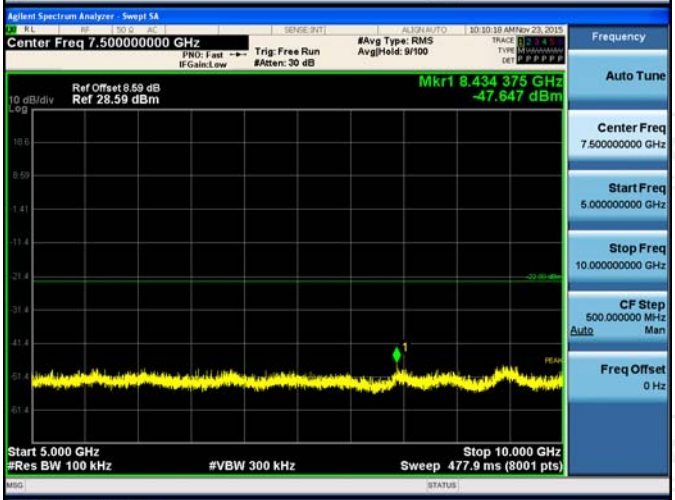
Result Table

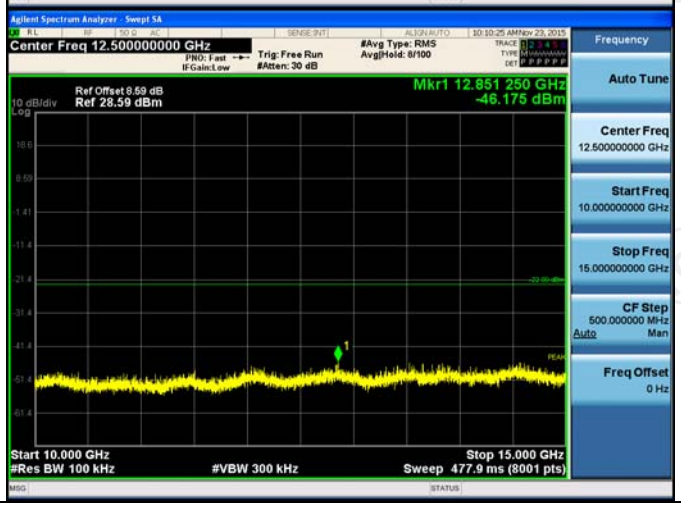
Mode	Channel	Pref [dBm]	Puw[dBm]	Verdict
GFSK	LCH	-2.993	<Limit	PASS
GFSK	MCH	-0.938	<Limit	PASS
GFSK	HCH	-0.677	<Limit	PASS
π/4DQPSK	LCH	-4.225	<Limit	PASS
π/4DQPSK	MCH	-1.76	<Limit	PASS
π/4DQPSK	HCH	-1.77	<Limit	PASS
8DPSK	LCH	-3.824	<Limit	PASS
8DPSK	MCH	-1.527	<Limit	PASS
8DPSK	HCH	-1.31	<Limit	PASS

Test Graph

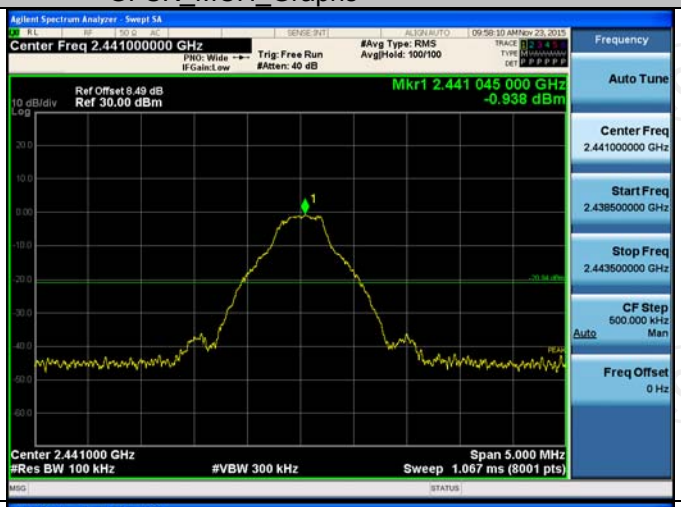
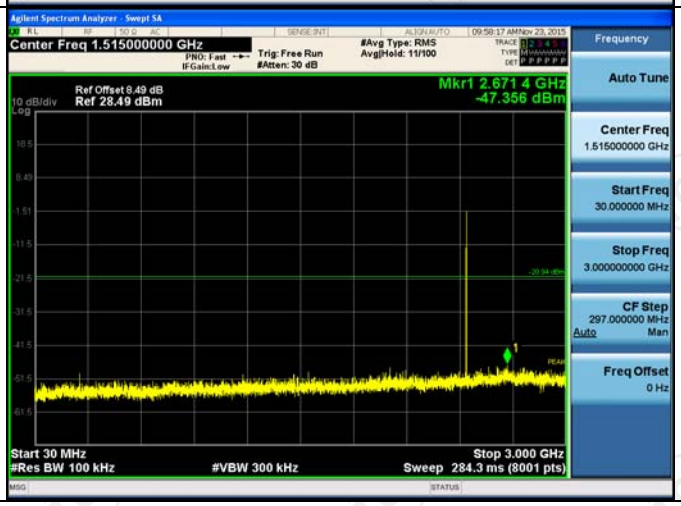
GFSK_LCH_Graphs			
Pref			
Puw			

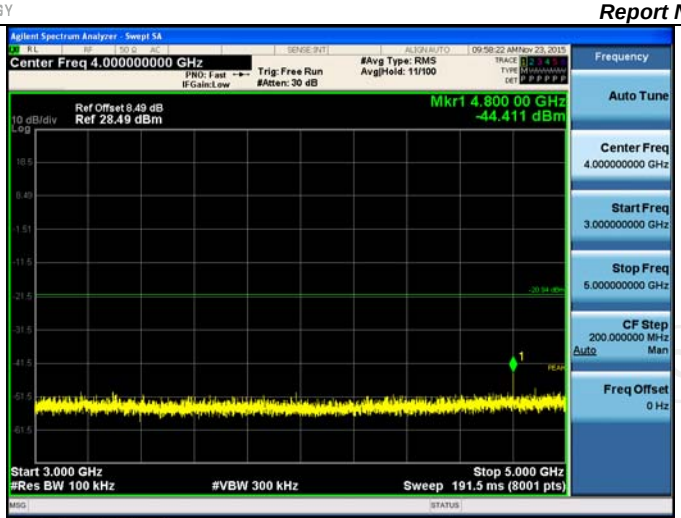


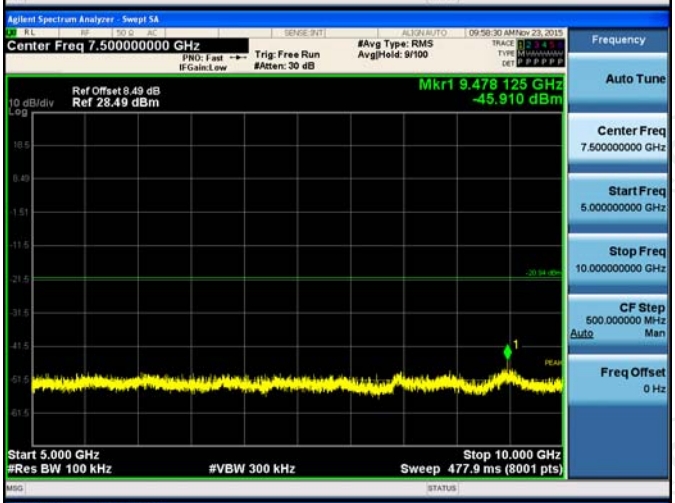


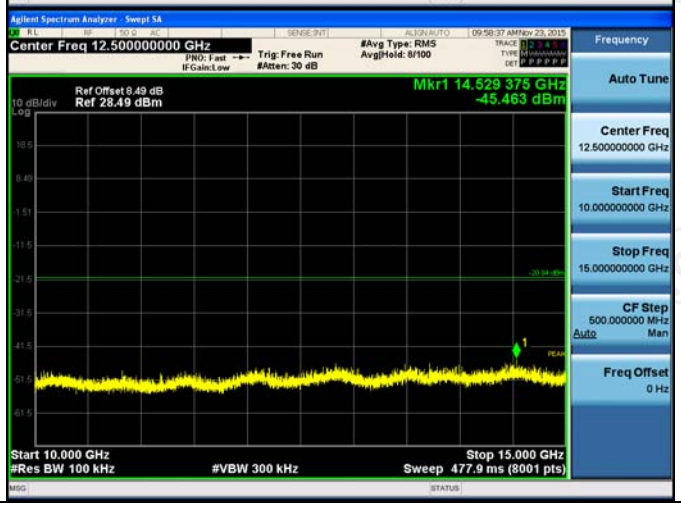


Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

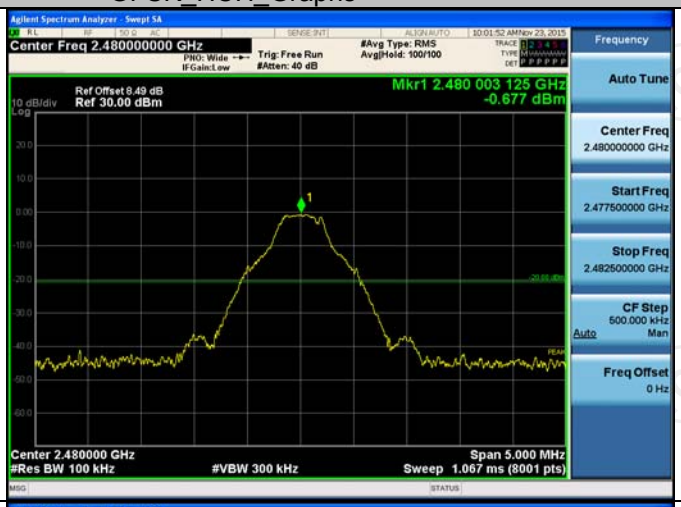
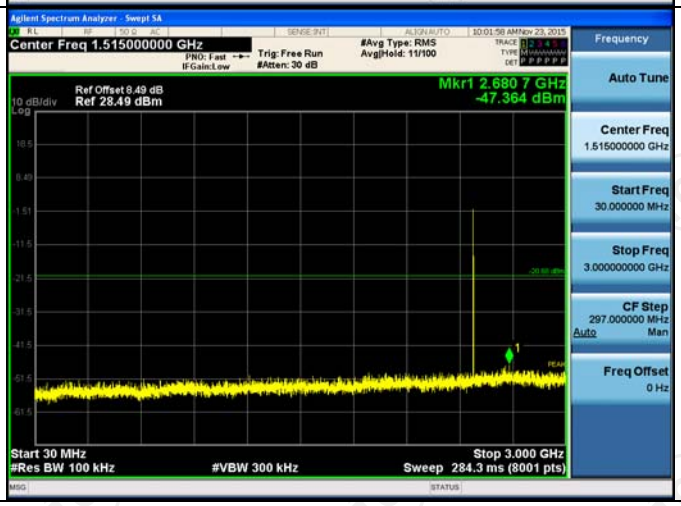
GFSK_MCH_Graphs		
Pref		
Puw		

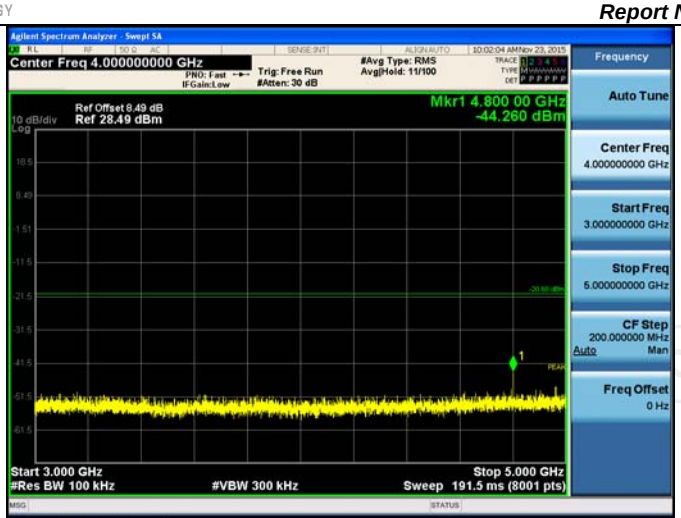


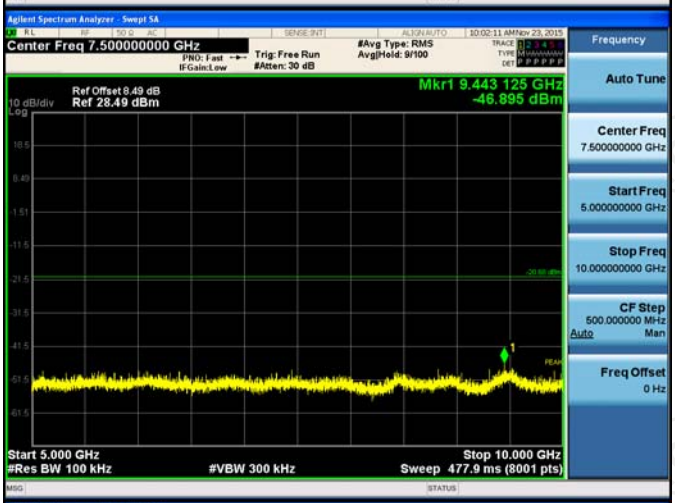


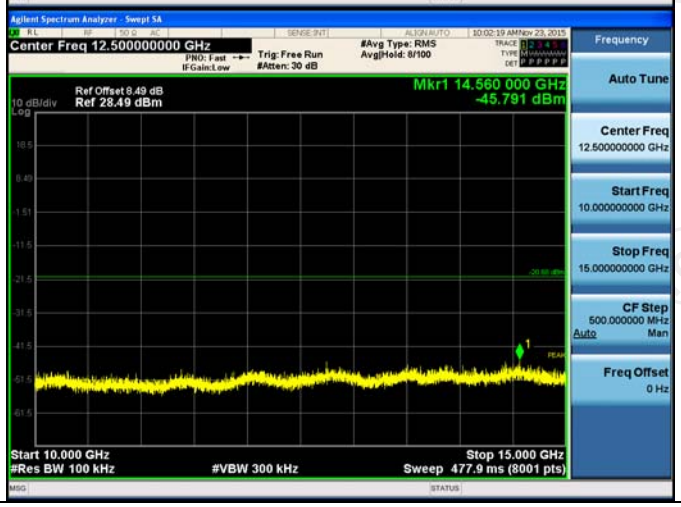


Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

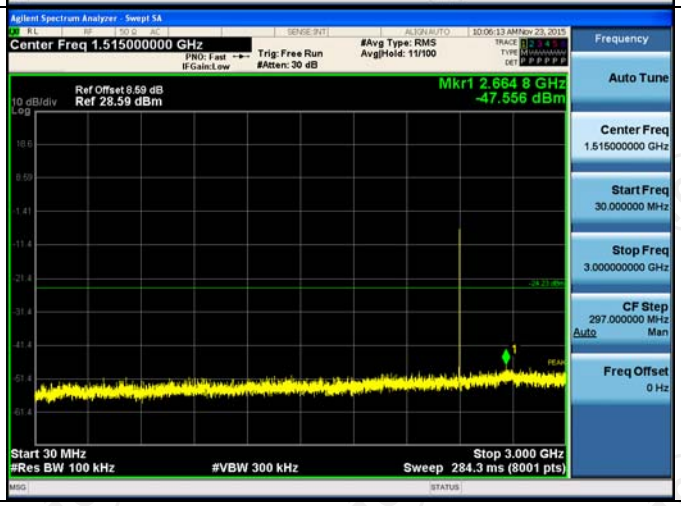
GFSK_HCH_Graphs		
Pref		
Puw		

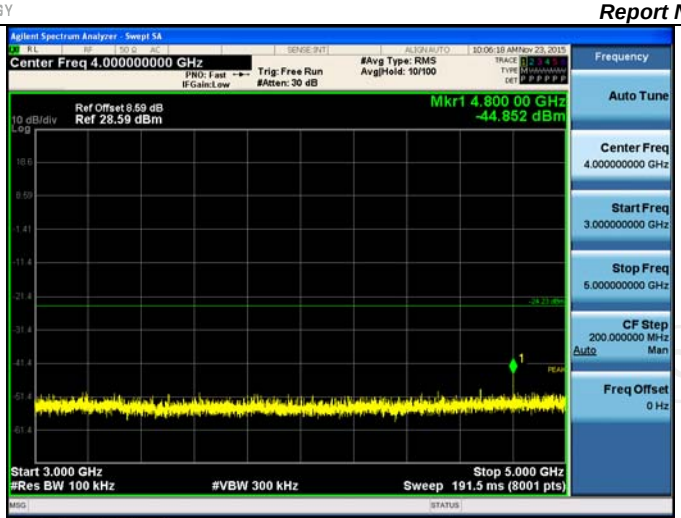


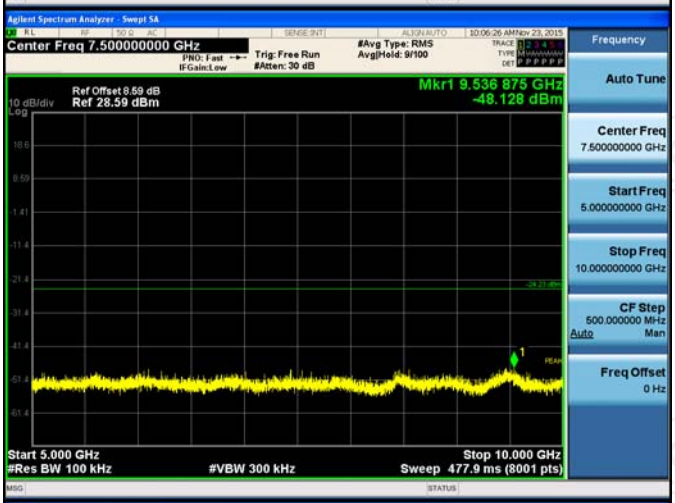


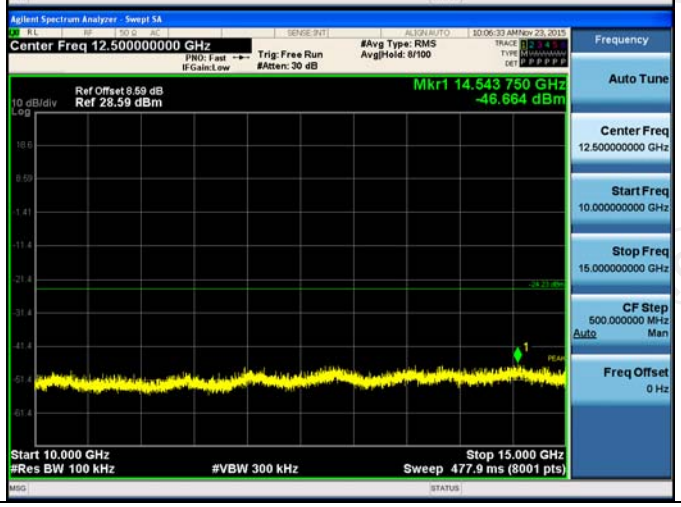


Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

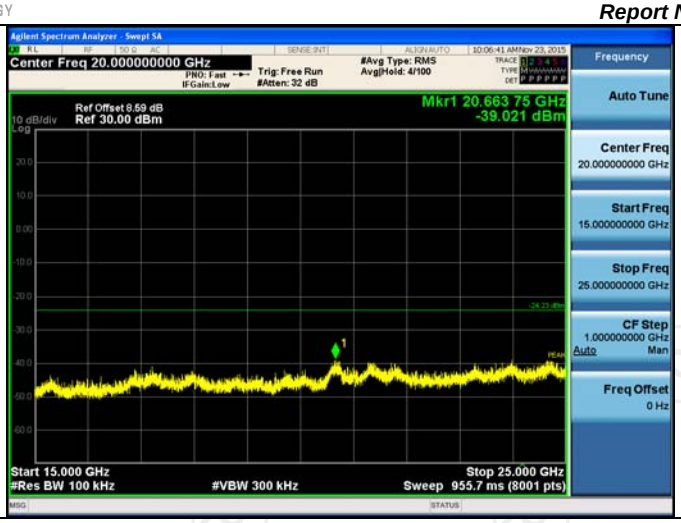
π/4DQPSK_LCH_Graphs		
Pref		
Puw		

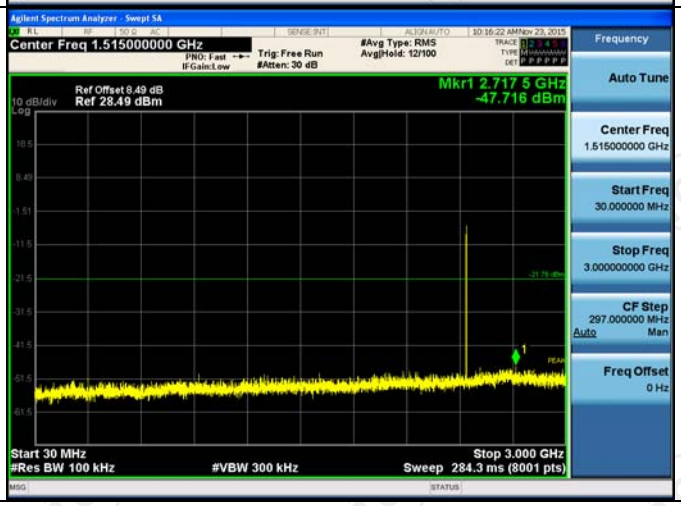


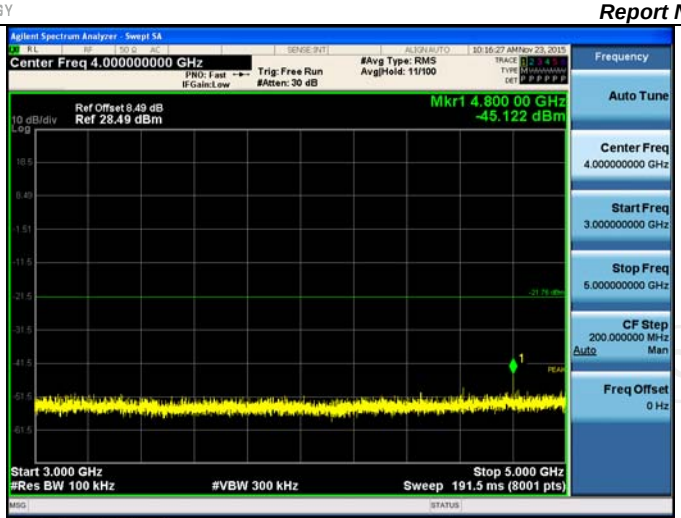


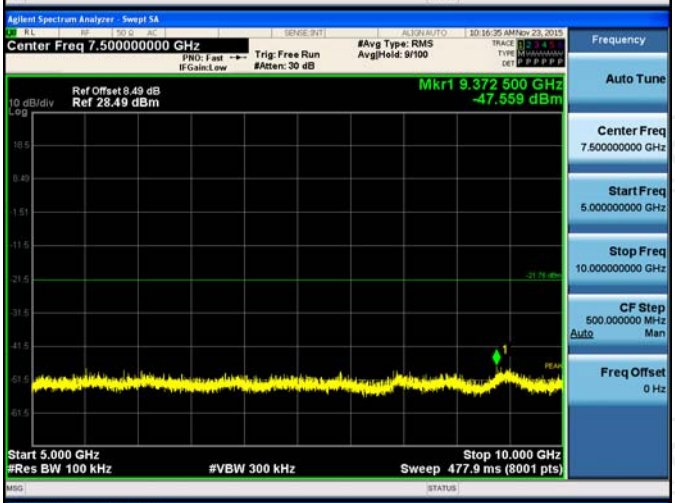


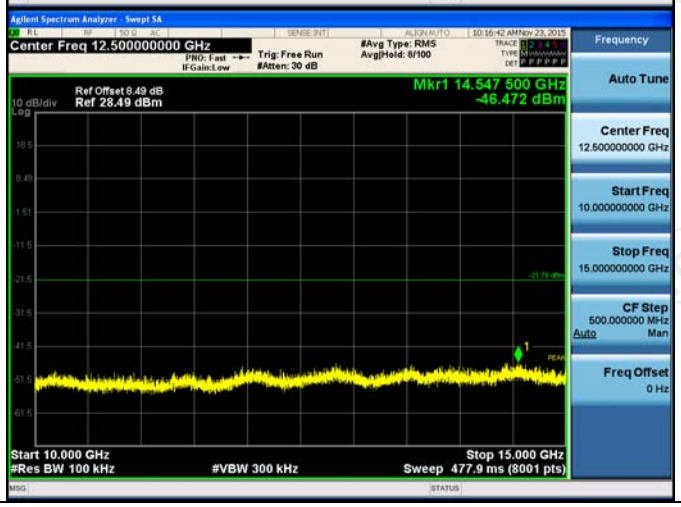
Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

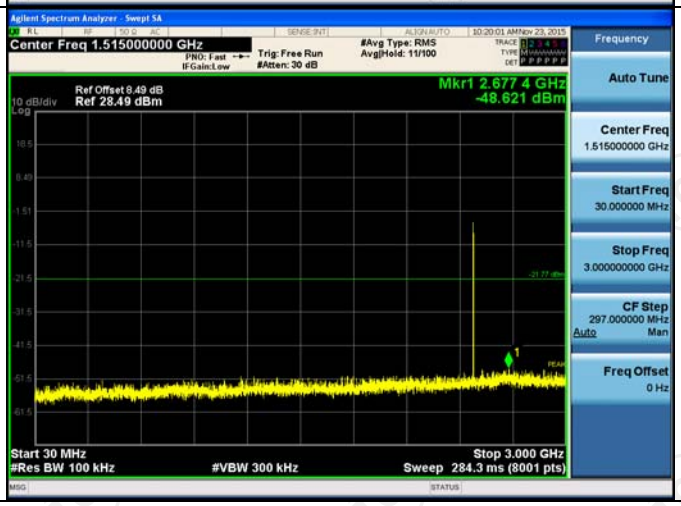
π/4DQPSK_MCH_Graphs		
Pref		
Puw		

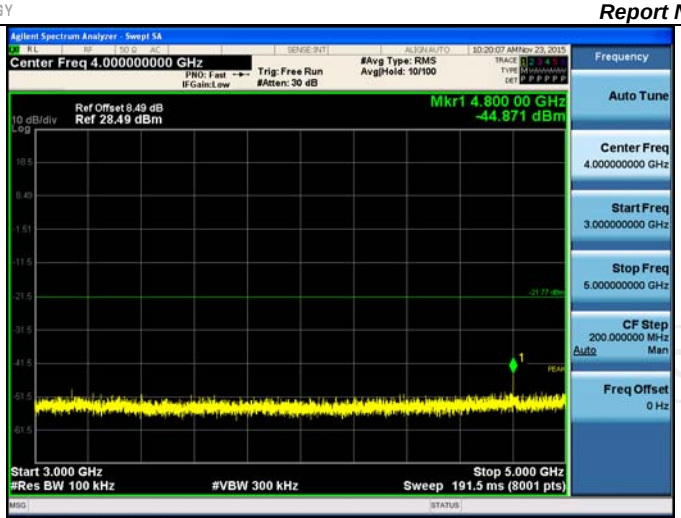


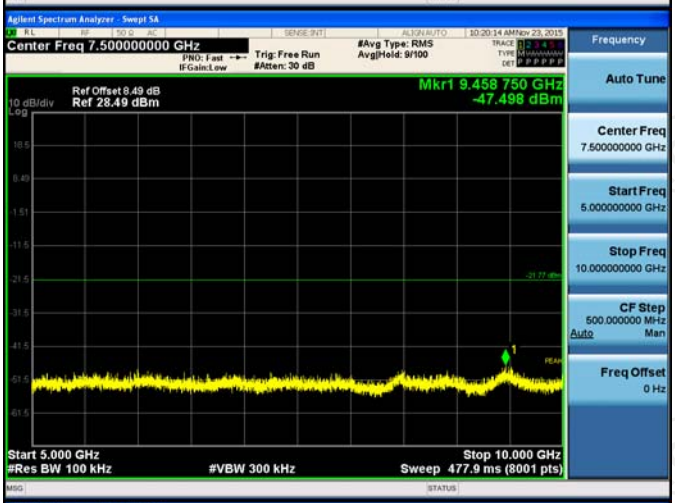


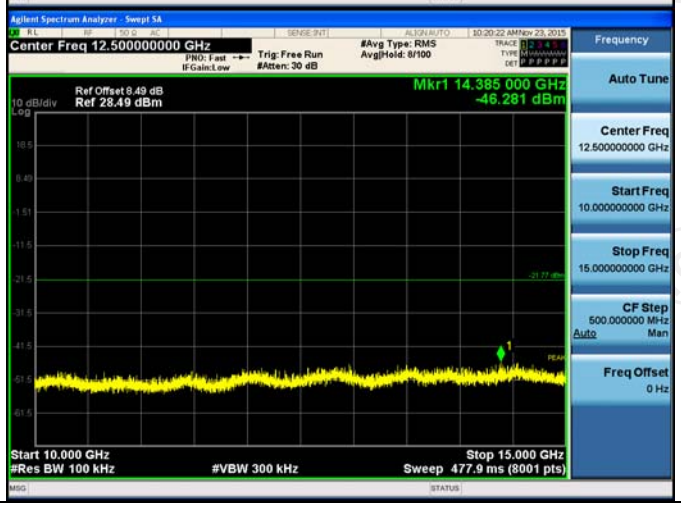


Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

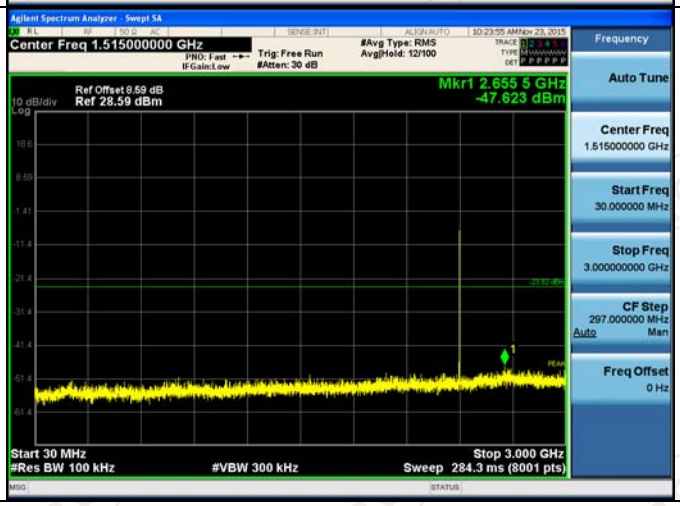
π/4DQPSK_HCH_Graphs		
Pref		
Puw		



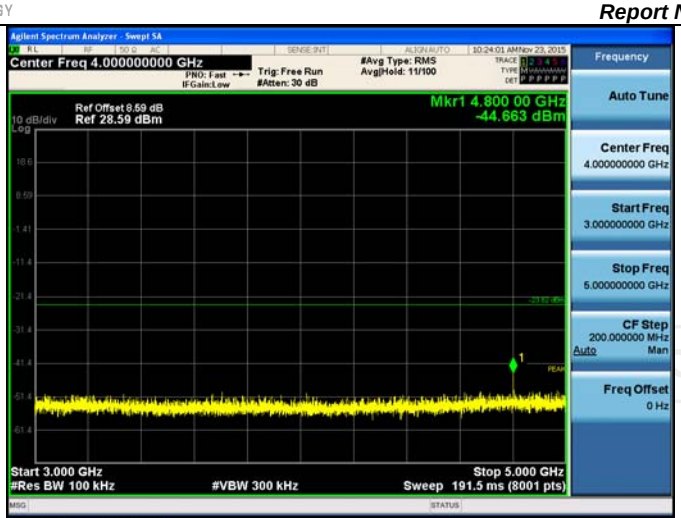


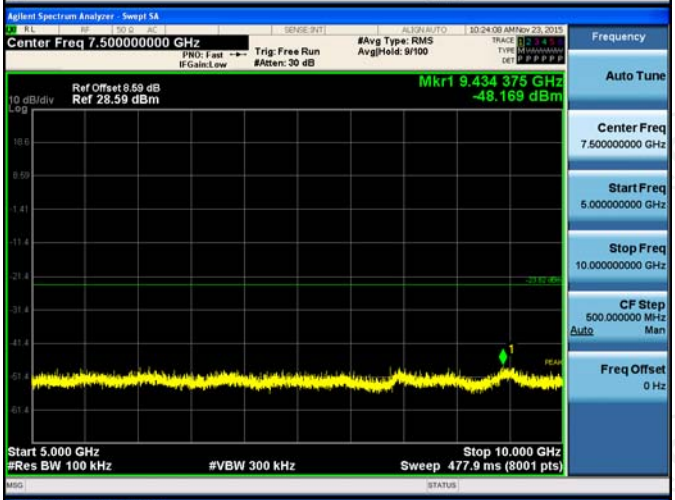


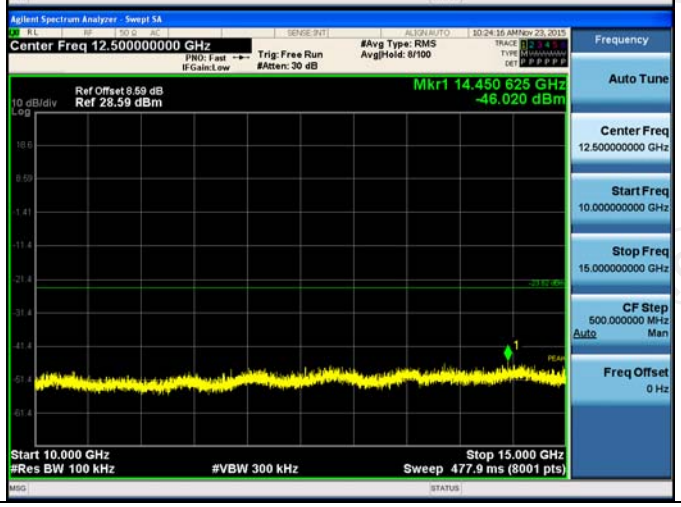
Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

8DPSK_LCH_Graphs		
Pref		
Puw		

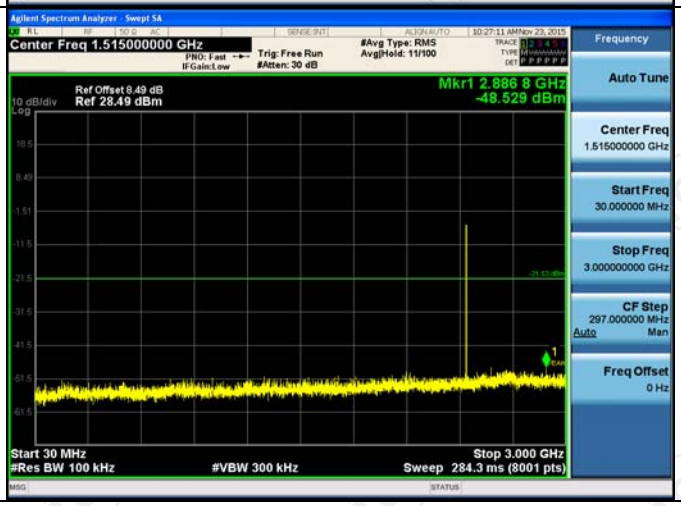
Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com



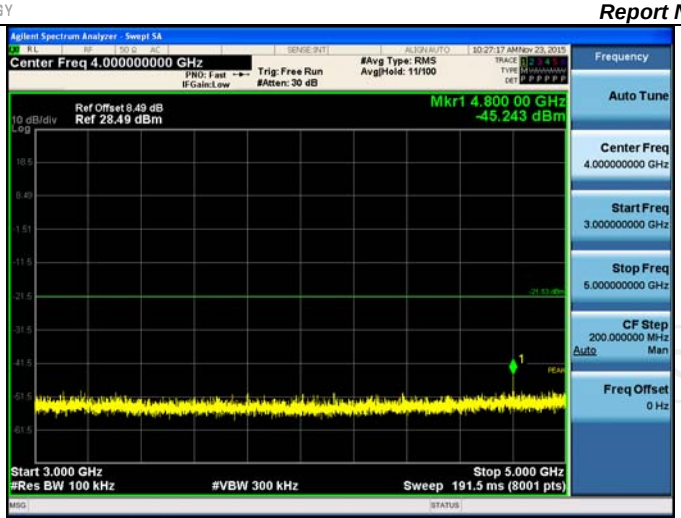


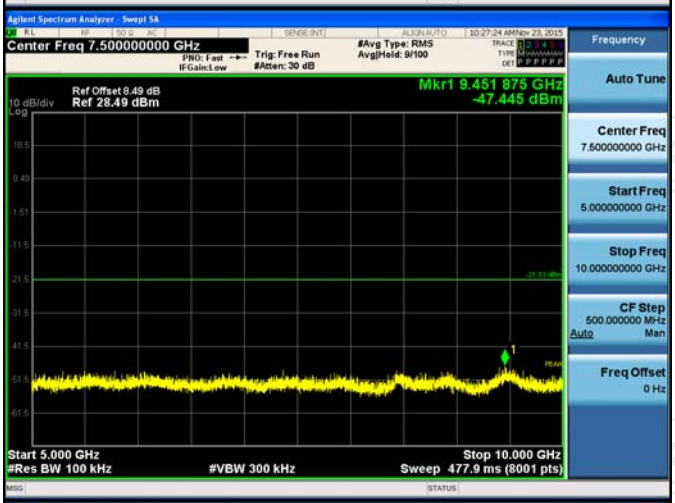


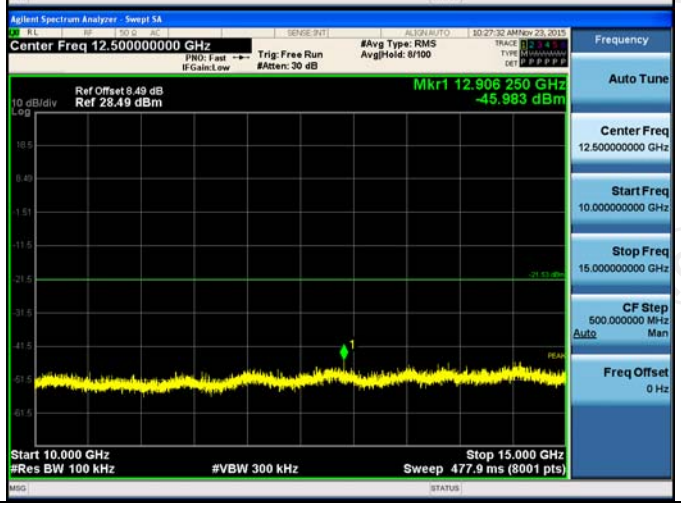
Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

8DPSK_MCH_Graphs		
Pref		
Puw		

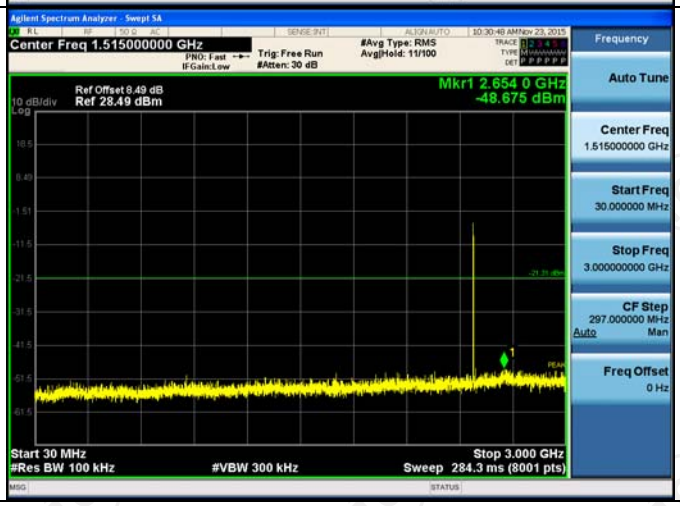
Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

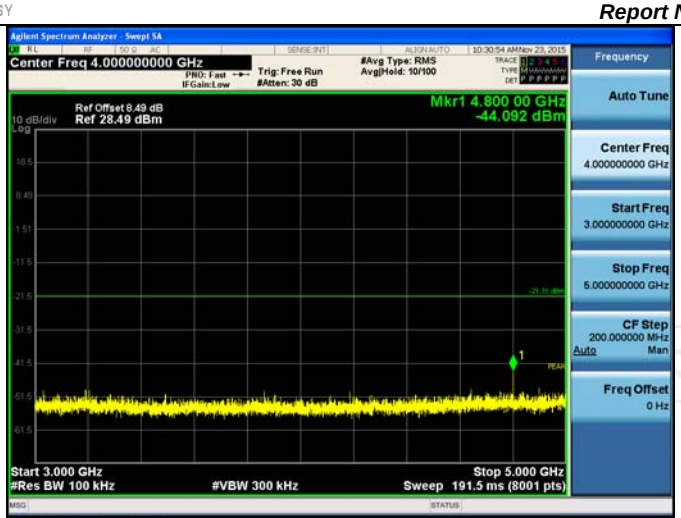


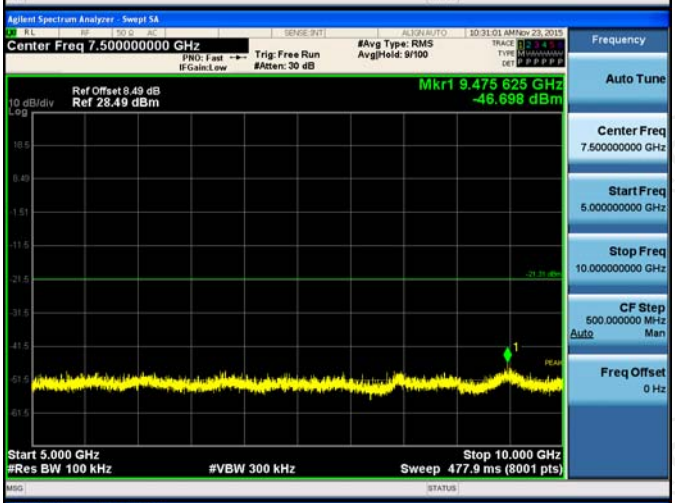


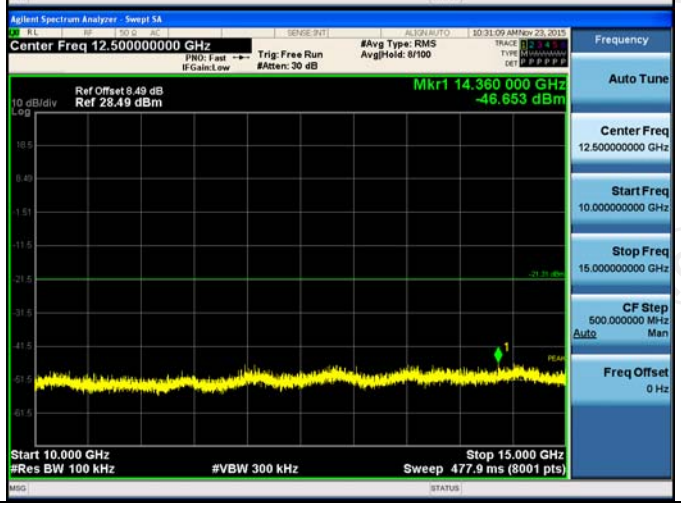


Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

8DPSK_HCH_Graphs		
Pref		
Puw		







Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

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

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

Appendix B: Photographs of Test Setup

Refer to test report TCT151117E022

Appendix C: Photographs of EUT

Refer to test report TCT151117E022