

Dwell Time

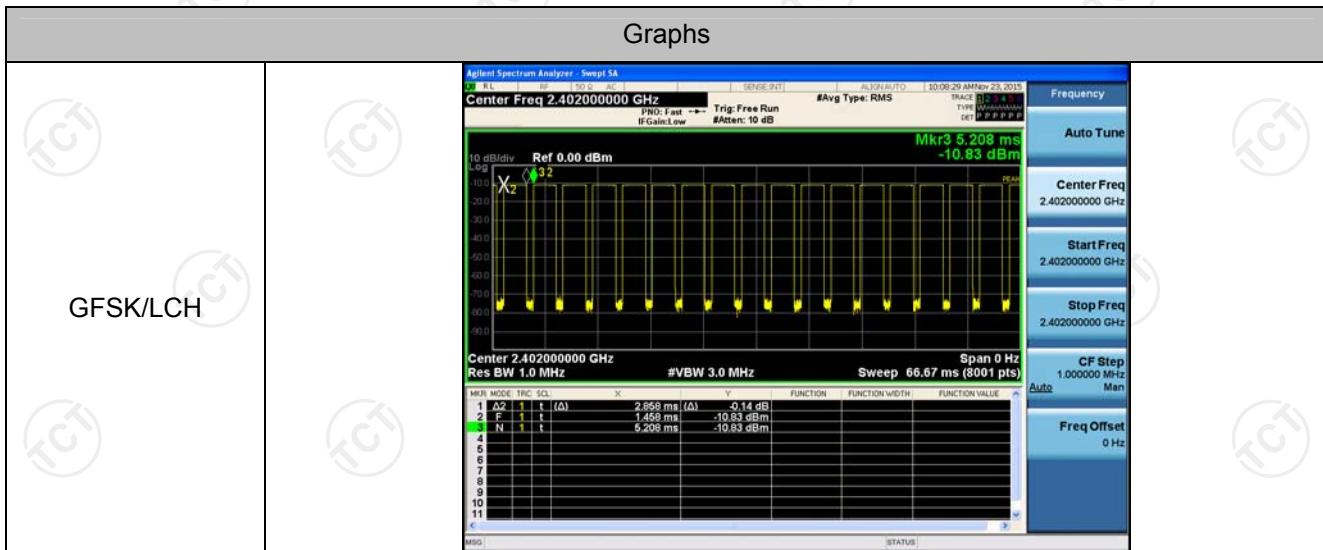
Result Table

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

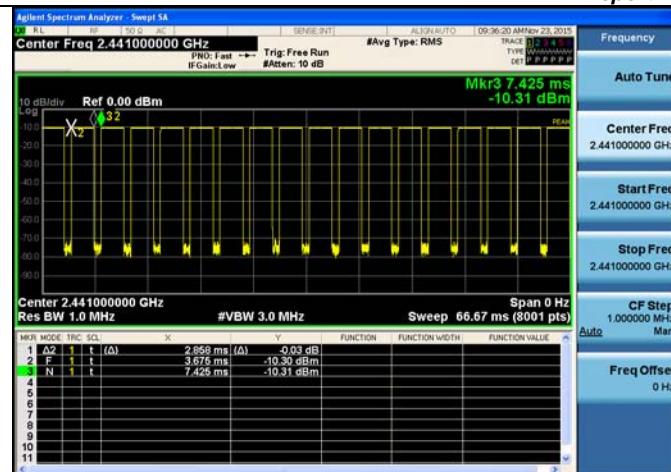
- The duration for dwell time calculation: $0.4[\text{s}]*\text{hopping number}=0.4[\text{s}]*79[\text{ch}]=31.6[\text{s}*\text{ch}]$;
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT Conf uses 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 $1600/6=266.67 [\text{ch}*\text{hop}/\text{s}]$
- The hops per second on one channel: $266.67 [\text{ch}*\text{hop}/\text{s}]/79 [\text{ch}]=3.38 [\text{hop}/\text{s}]$;
- The total hops for all channels within the dwell time calculation duration: $3.38 [\text{hop}/\text{s}]*31.6[\text{s}*\text{ch}]=106.67 [\text{hop}*\text{ch}]$;
- The dwell time for all channels hopping: $106.67 [\text{hop}*\text{ch}]*\text{Burst Width} [\text{ms}/\text{hop}/\text{ch}]$.

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

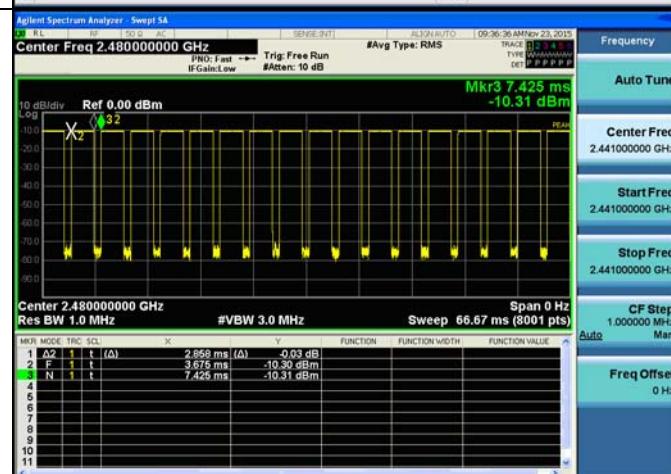
Test Graph



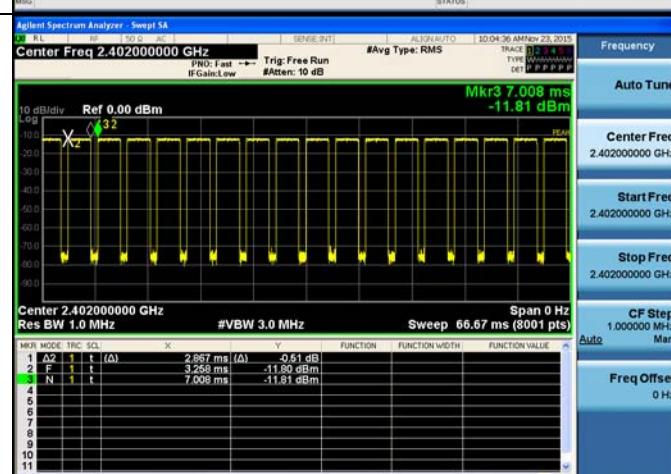
GFSK/MCH



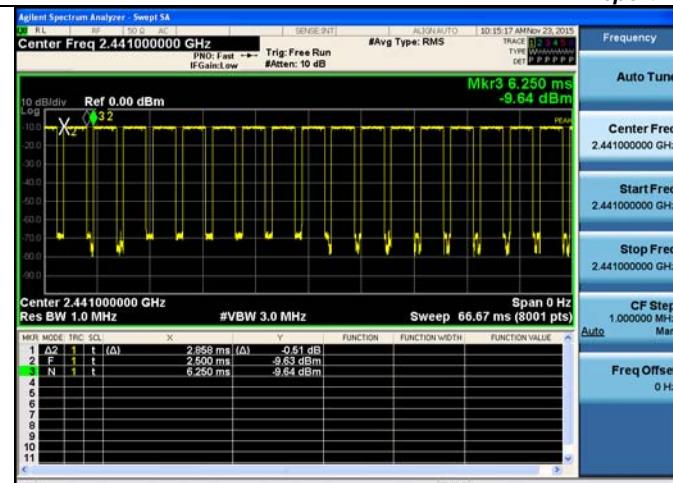
GFSK/HCH



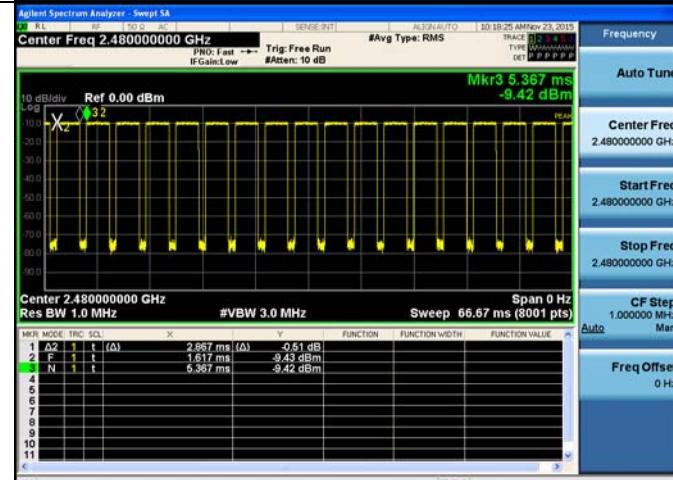
π/4DQPSK/LCH



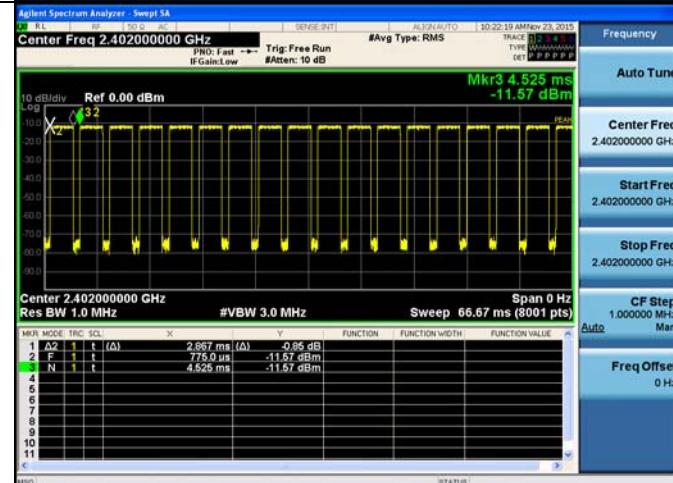
π/4DQPSK/MCH



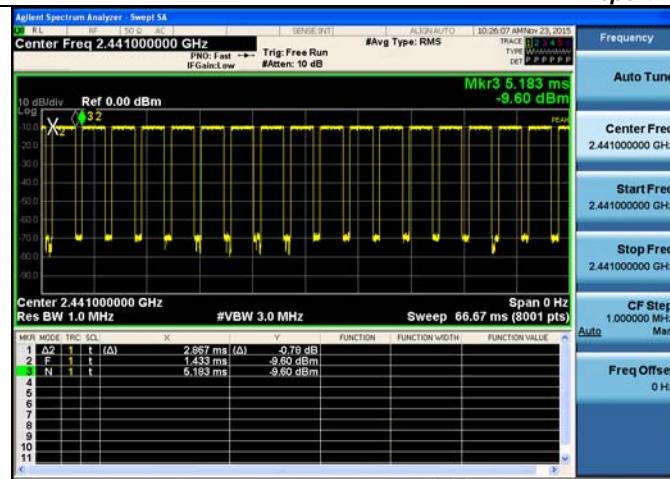
π/4DQPSK/HCH



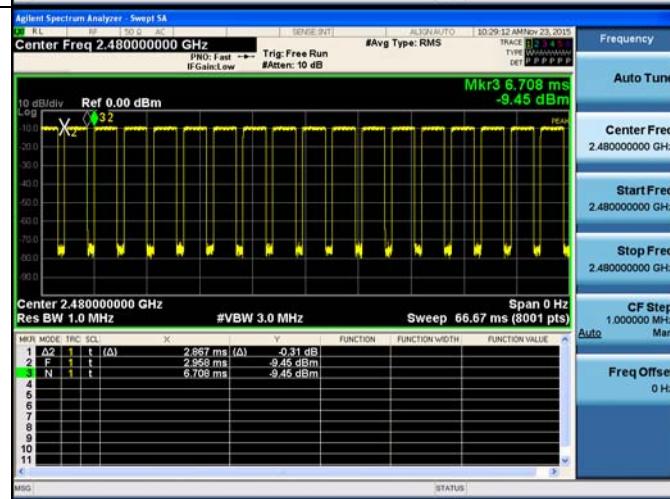
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

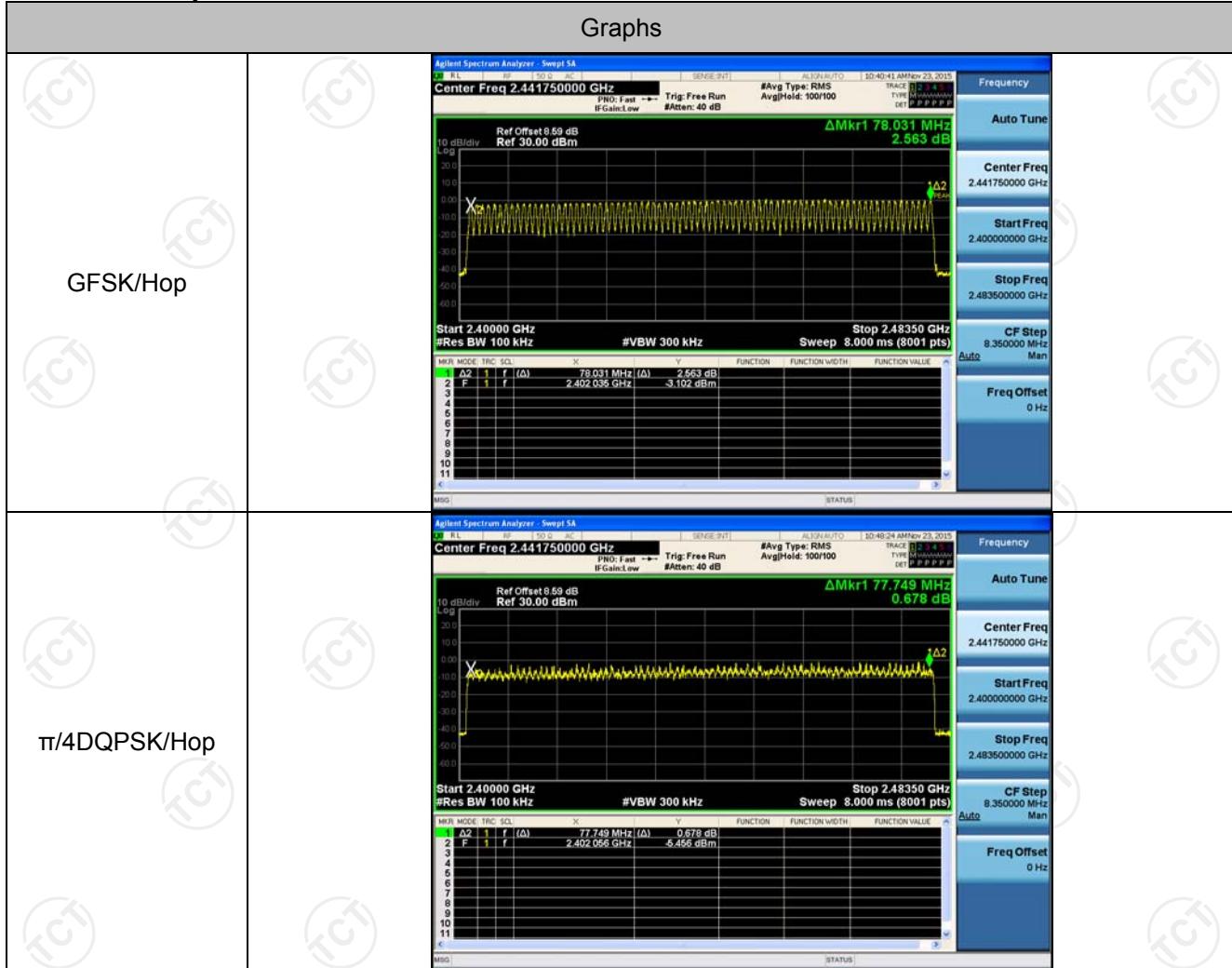


Hopping Channel Number

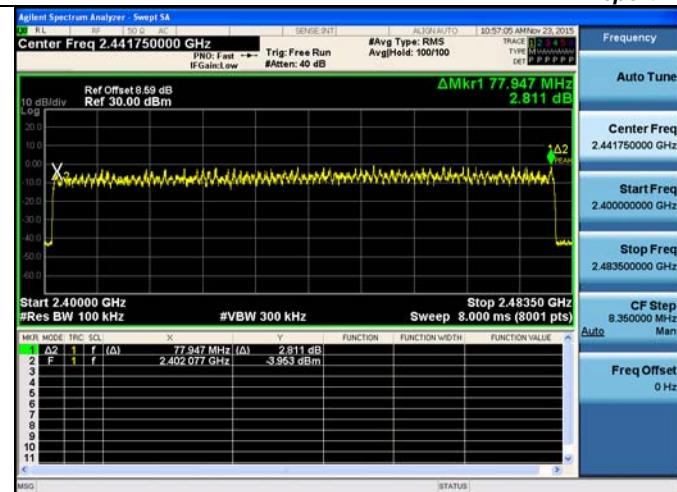
Result Table

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

Test Graph



8DPSK/Hop



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
$\pi/4$ DQPSK	LCH	-2.184	PASS
$\pi/4$ DQPSK	MCH	-0.235	PASS
$\pi/4$ DQPSK	HCH	0.114	PASS
8DPSK	LCH	-1.876	PASS
8DPSK	MCH	0.034	PASS
8DPSK	HCH	0.236	PASS

Test Graph



GFSK/HCH



π/4DQPSK/LCH



π/4DQPSK/MCH





8DPSK/HCH

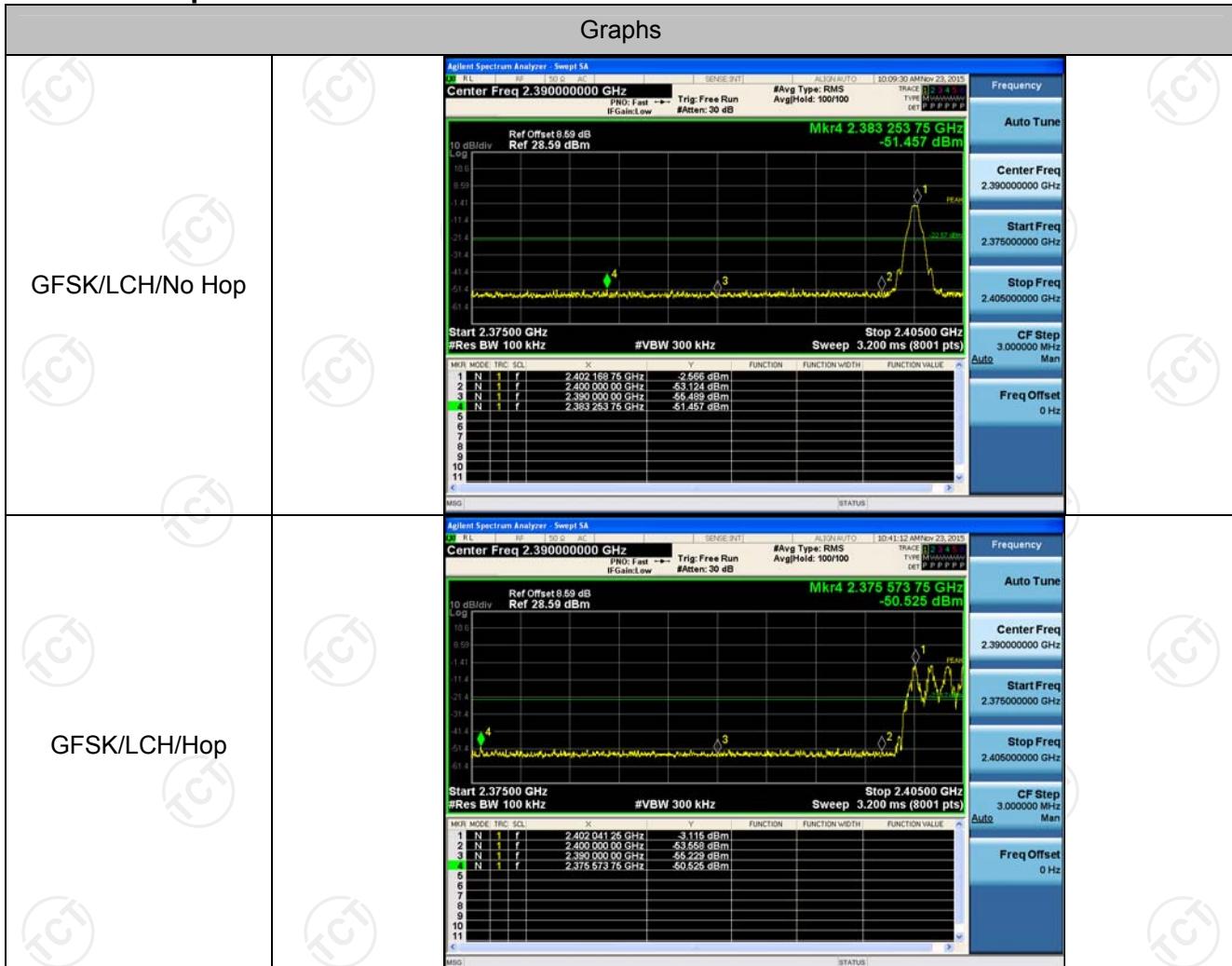


Band-edge for RF Conducted Emissions

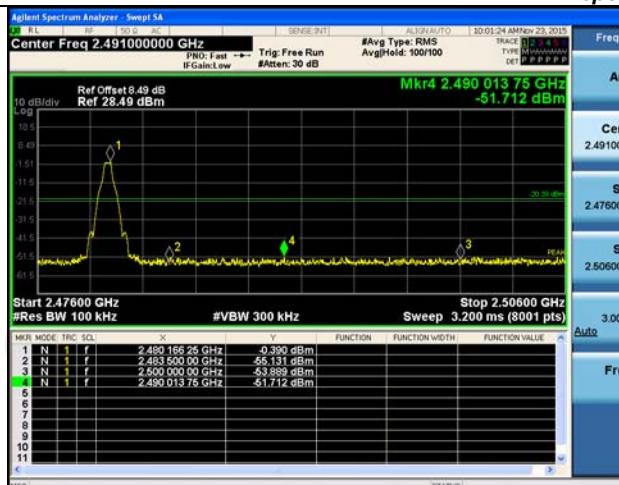
Result Table

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
$\pi/4$ DQPSK	LCH	2402	-4.090	Off	-50.799	-24.09	PASS
			-7.194	On	-51.321	-27.19	PASS
$\pi/4$ DQPSK	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

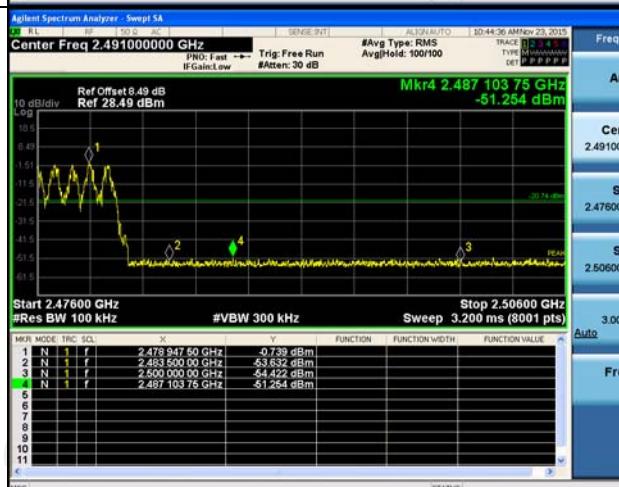


GFSK/HCH/No Hop



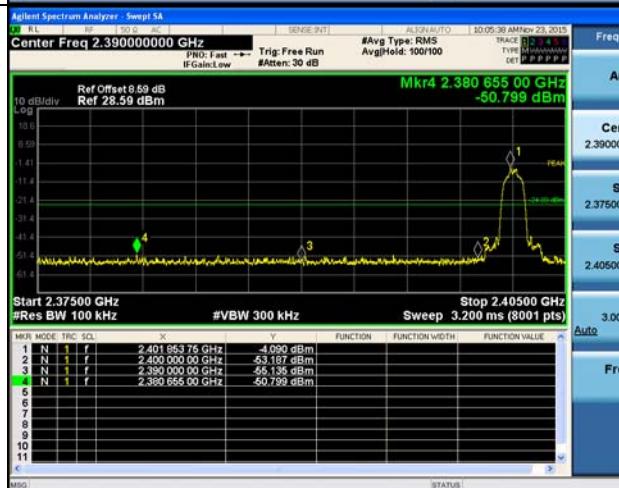
Frequency
Auto Tune
Center Freq
2.491000000 GHz
Start Freq
2.476000000 GHz
Stop Freq
2.506000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

GFSK/HCH/Hop



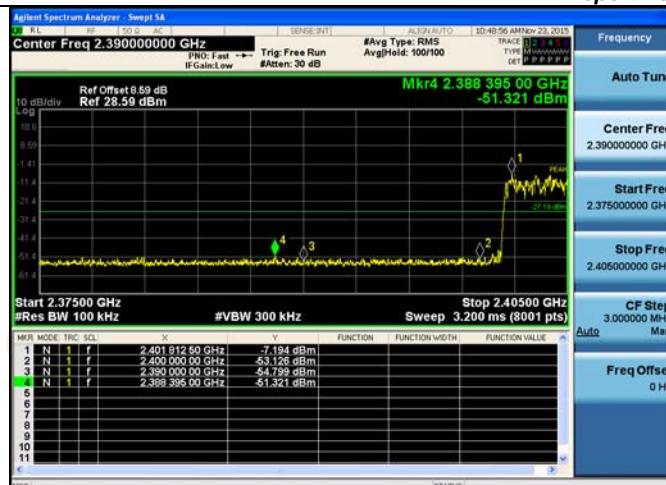
Frequency
Auto Tune
Center Freq
2.491000000 GHz
Start Freq
2.476000000 GHz
Stop Freq
2.506000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

π/4DQPSK/LCH/No Hop

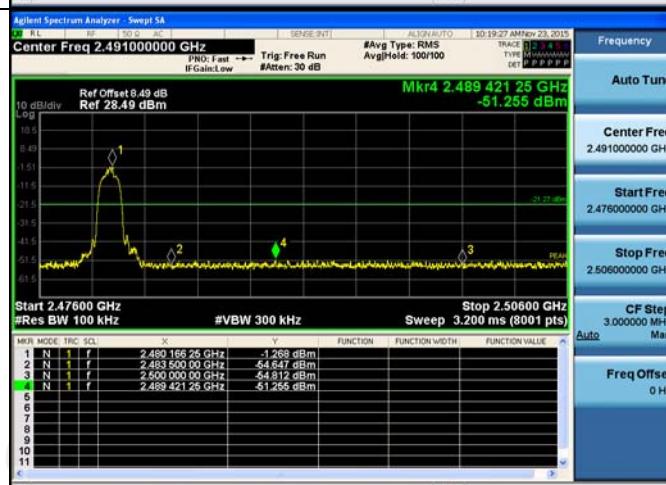


Frequency
Auto Tune
Center Freq
2.390000000 GHz
Start Freq
2.375000000 GHz
Stop Freq
2.405000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

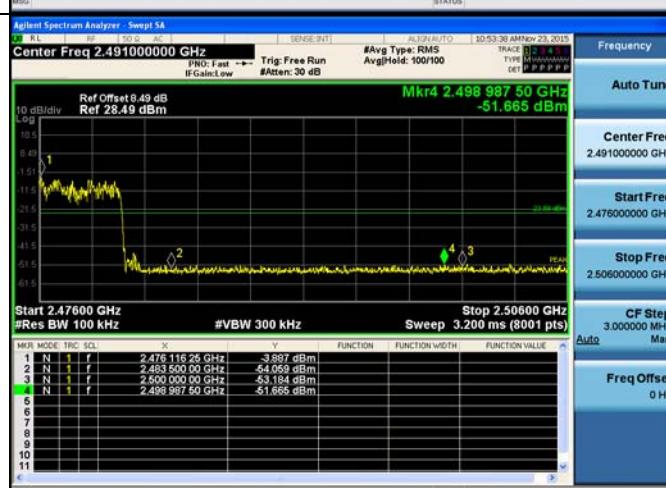
π/4DQPSK/LCH/Hop



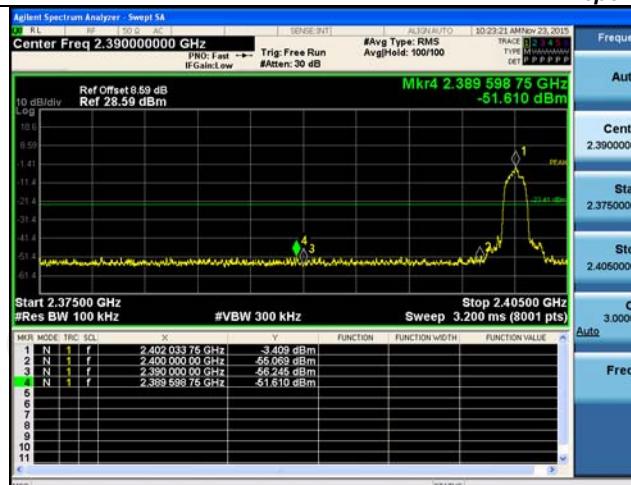
π/4DQPSK/HCH/No Hop



π/4DQPSK/HCH/Hop

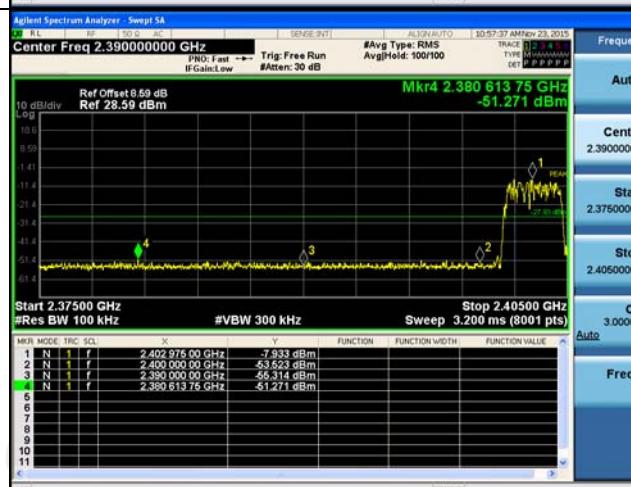


8DPSK/LCH/No Hop



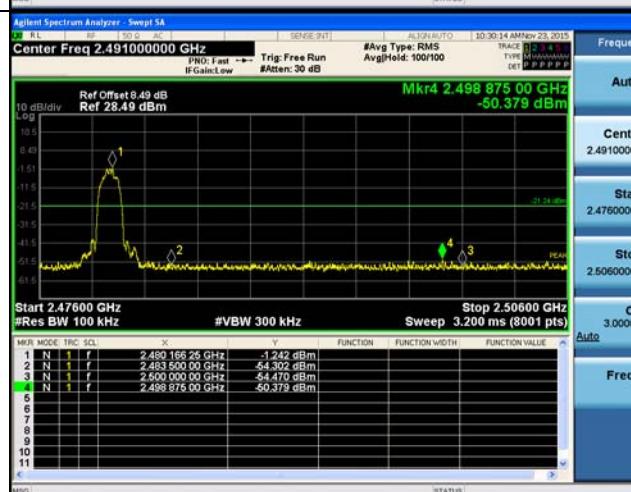
Frequency
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Center Freq
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Start Freq
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Stop Freq
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CF Step
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Auto Man
Freq Offset
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8DPSK/LCH/Hop



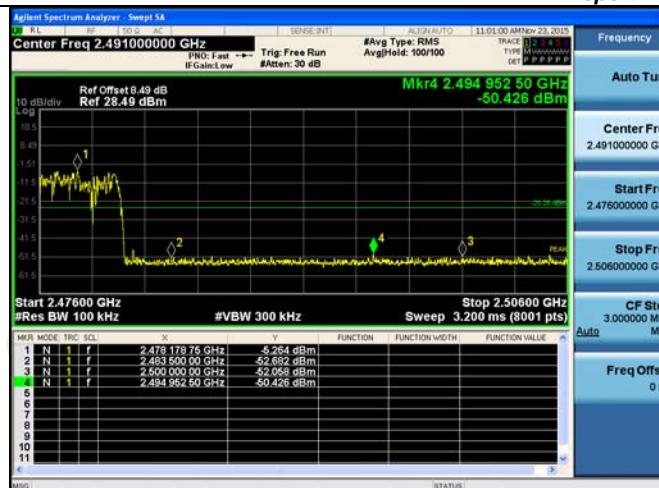
Frequency
Auto Tune
Center Freq
2.390000000 GHz
Start Freq
2.375000000 GHz
Stop Freq
2.405000000 GHz
CF Step
3.000000 MHz
Auto Man
Freq Offset
0 Hz

8DPSK/HCH/No Hop



Frequency
Auto Tune
Center Freq
2.491000000 GHz
Start Freq
2.476000000 GHz
Stop Freq
2.506000000 GHz
CF Step
3.000000 MHz
Auto Man
Freq Offset
0 Hz

8DPSK/HCH/Hop

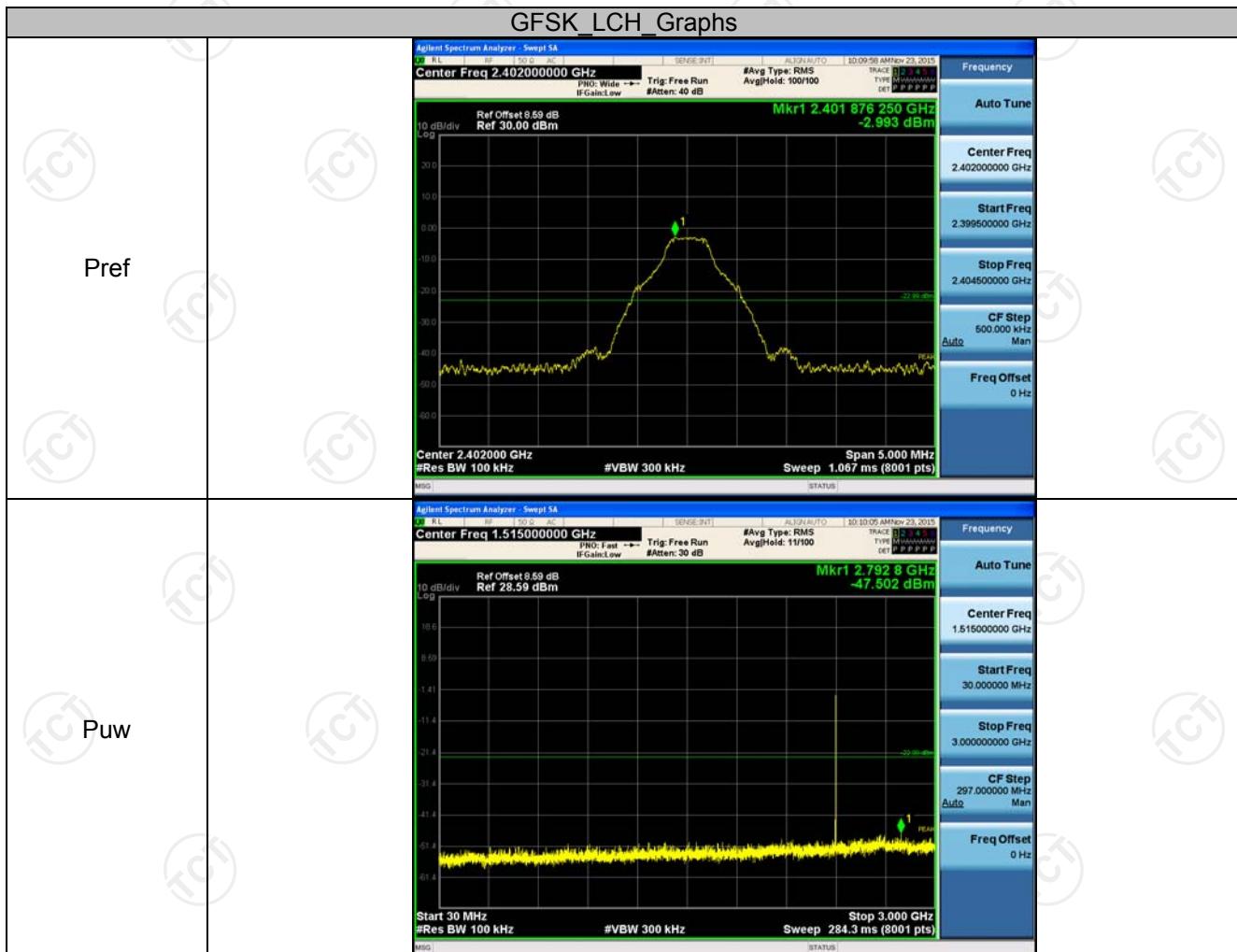


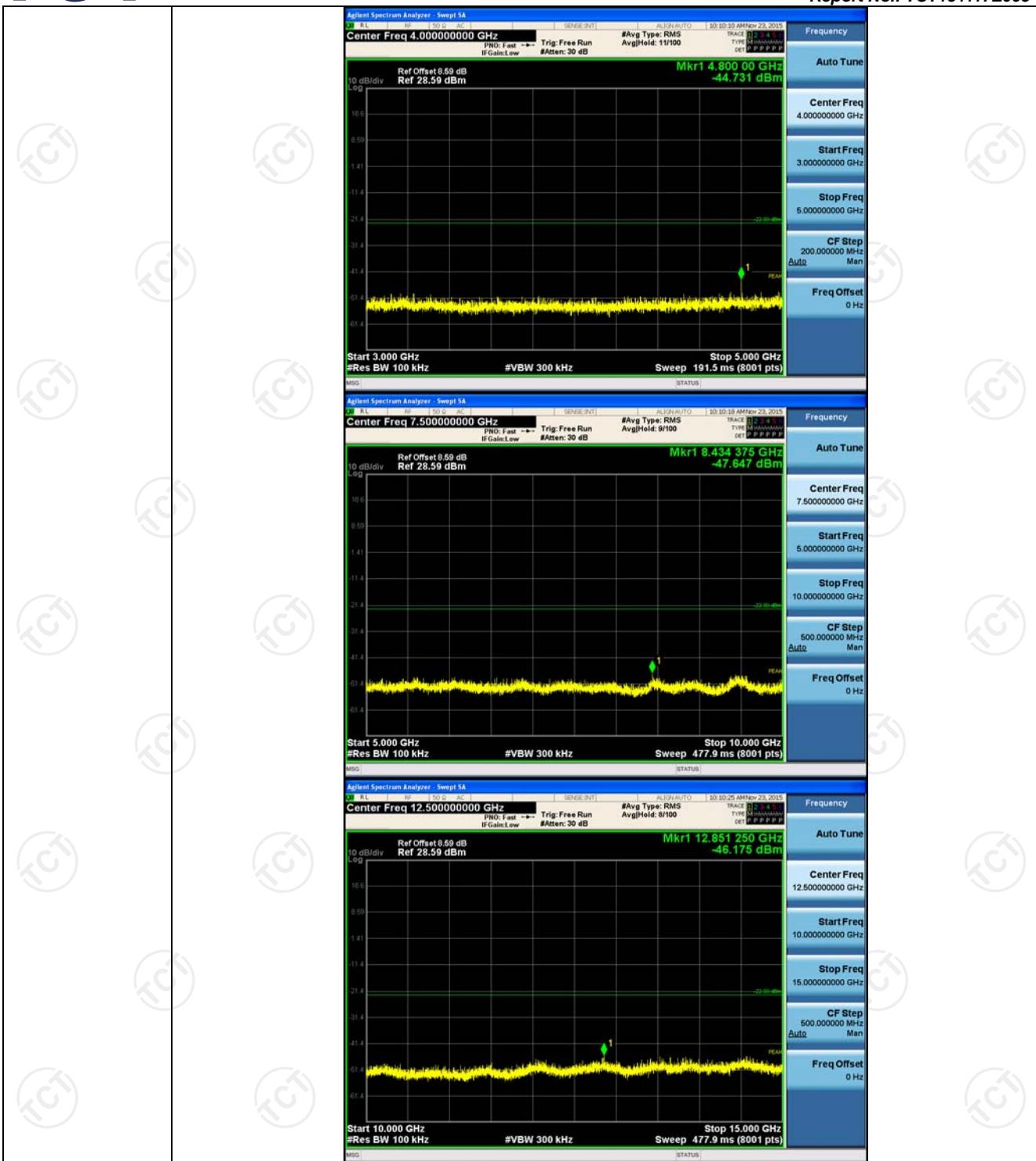
RF Conducted Spurious Emissions

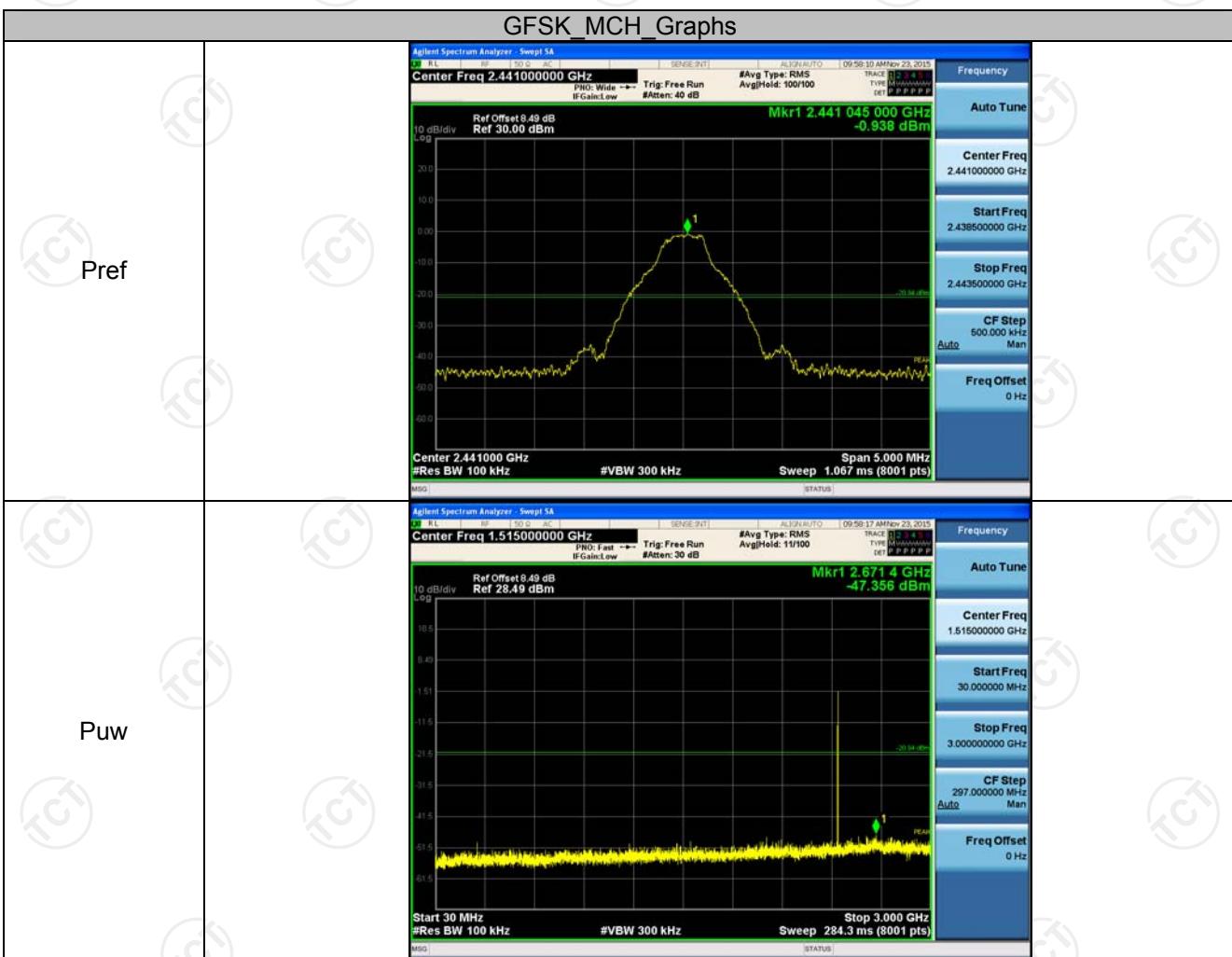
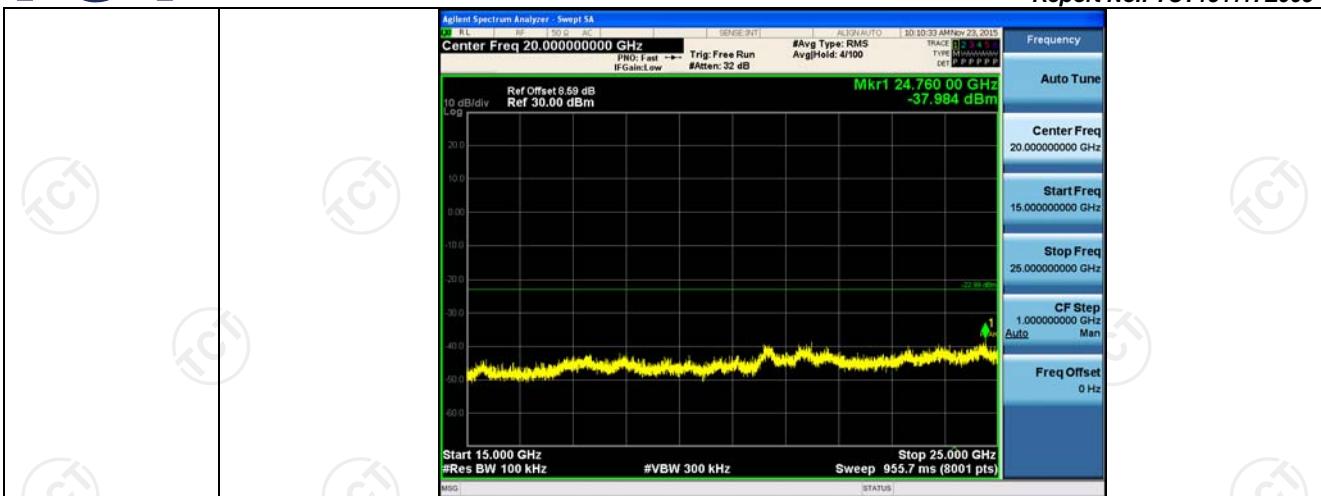
Result Table

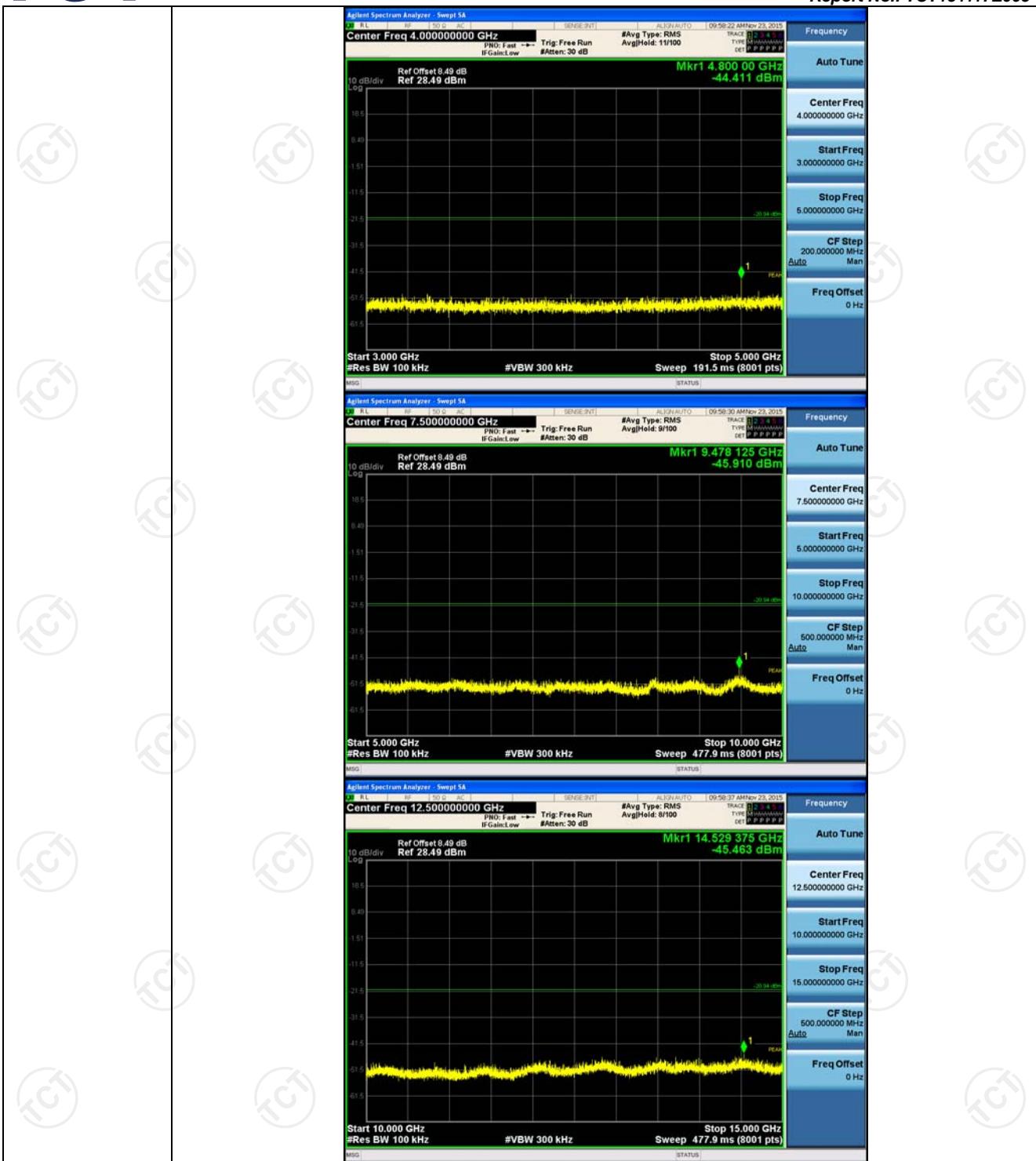
Mode	Channel	Pref [dBm]	Puw[dBm]	Verdict
GFSK	LCH	-2.993	<Limit	PASS
GFSK	MCH	-0.938	<Limit	PASS
GFSK	HCH	-0.677	<Limit	PASS
$\pi/4$ DQPSK	LCH	-4.225	<Limit	PASS
$\pi/4$ DQPSK	MCH	-1.76	<Limit	PASS
$\pi/4$ DQPSK	HCH	-1.77	<Limit	PASS
8DPSK	LCH	-3.824	<Limit	PASS
8DPSK	MCH	-1.527	<Limit	PASS
8DPSK	HCH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

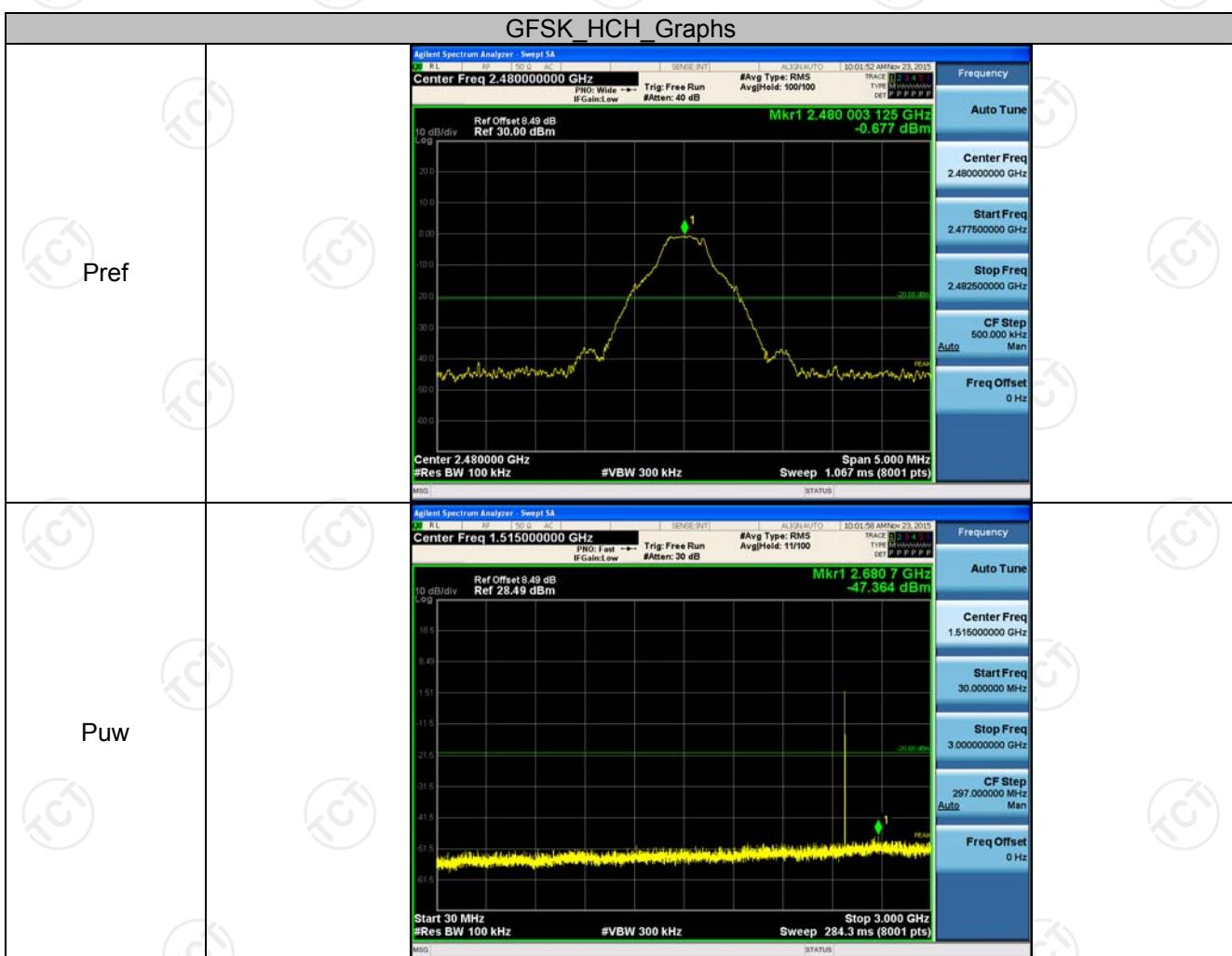
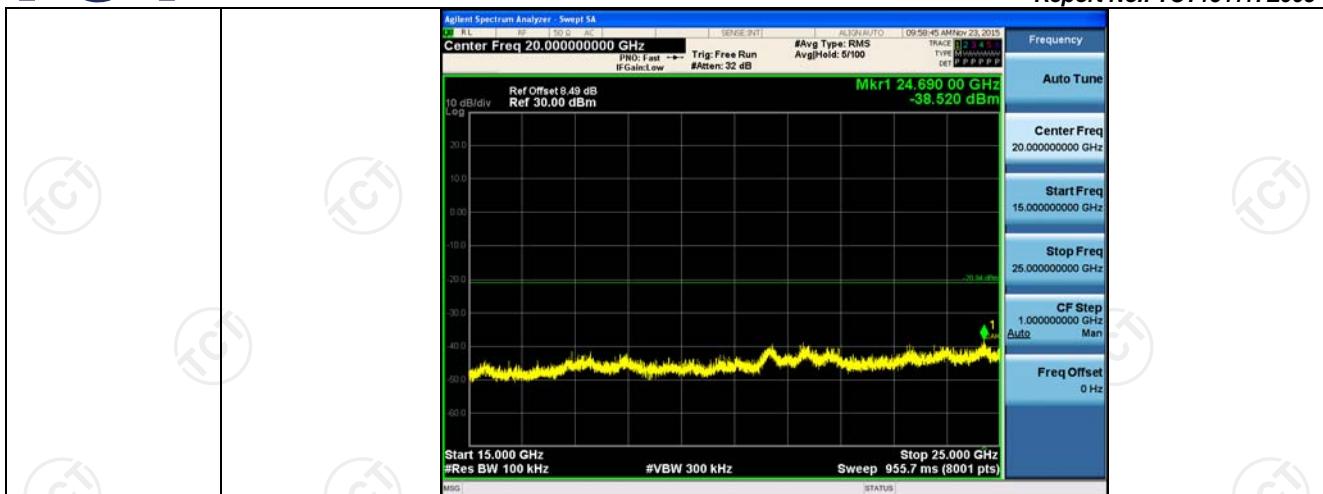
Test Graph

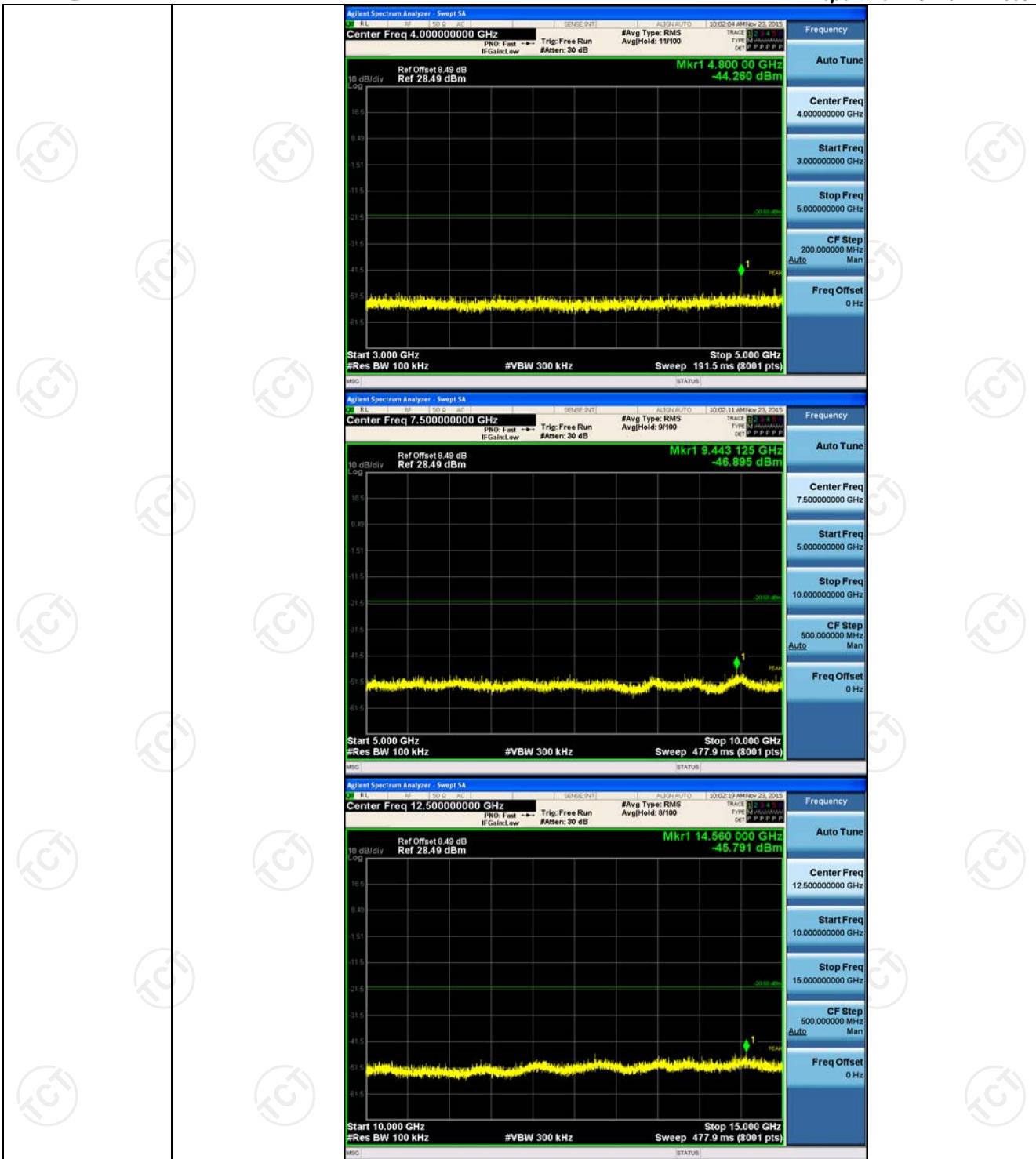


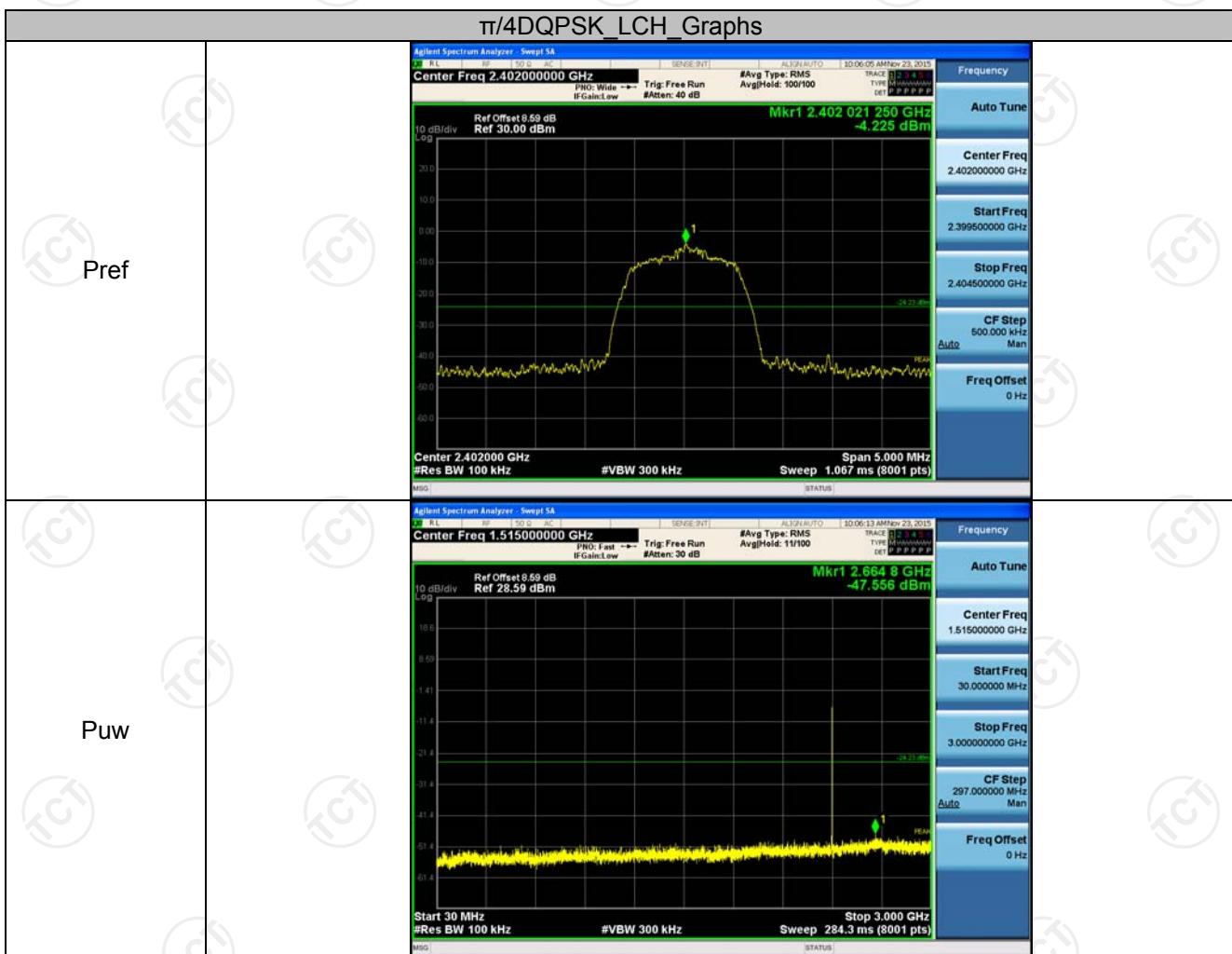
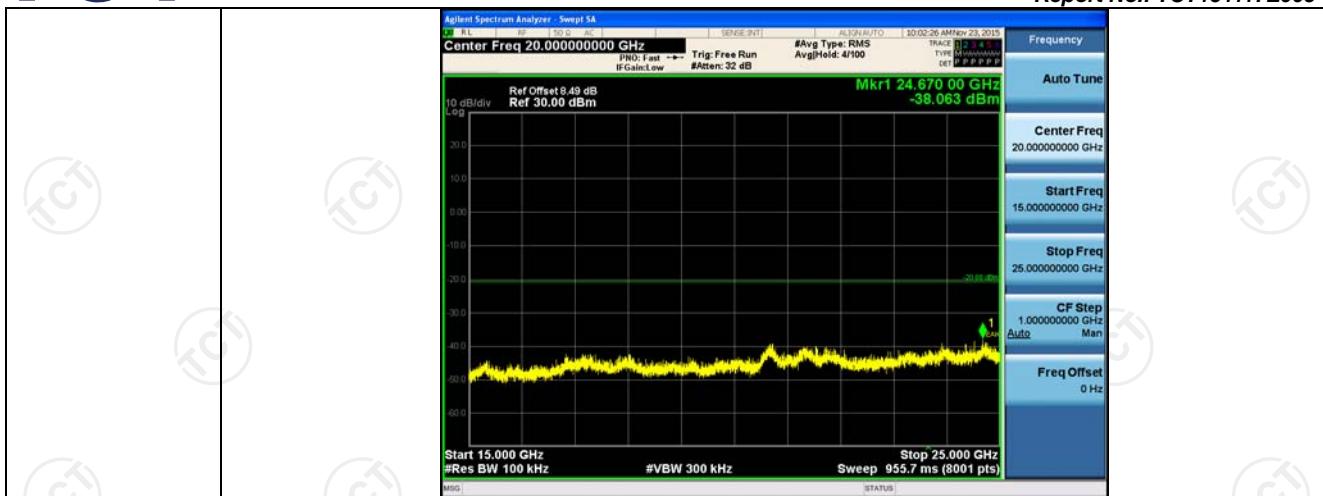


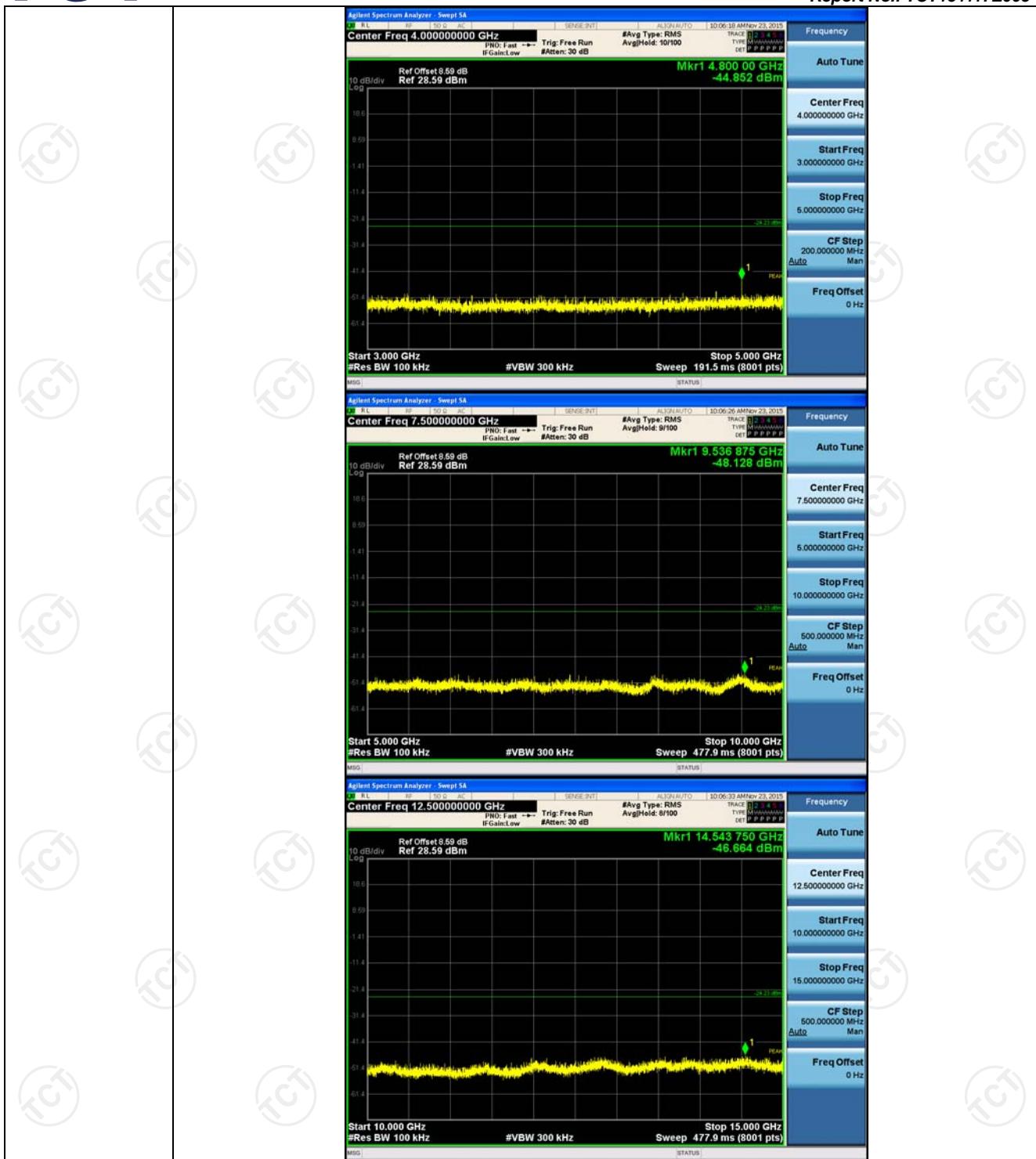


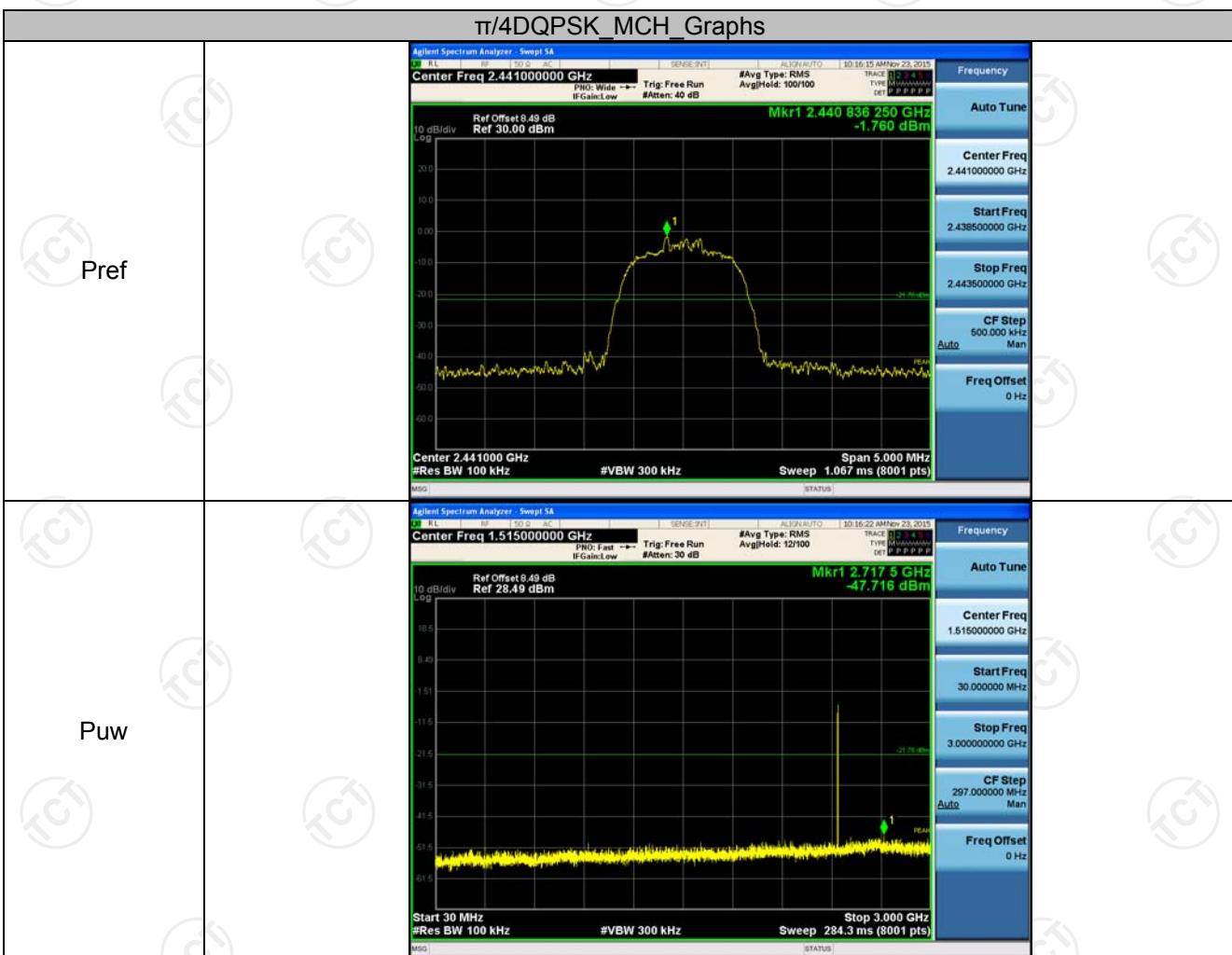
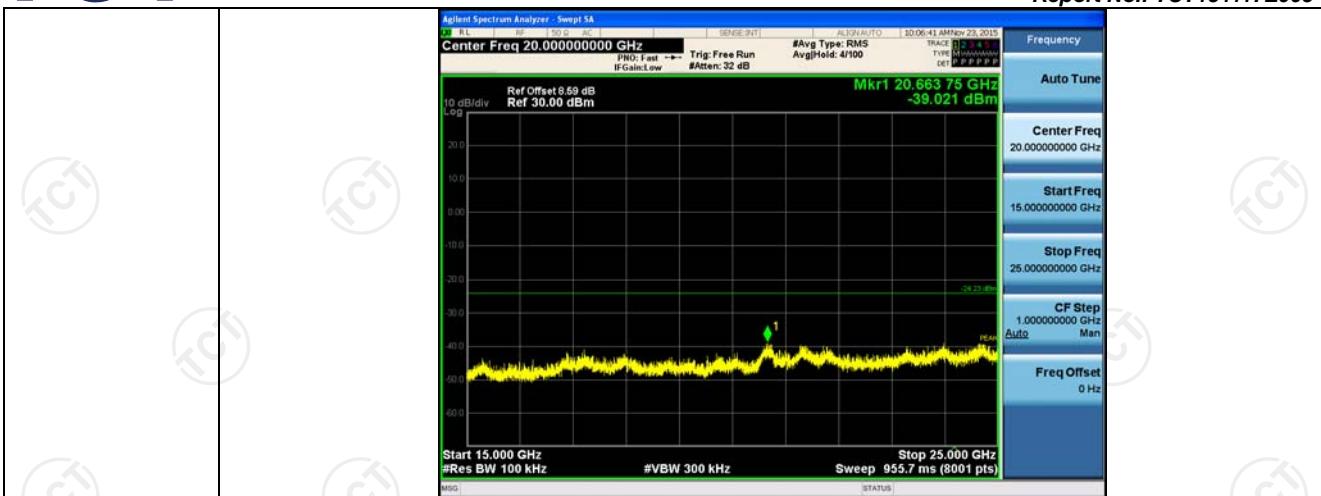


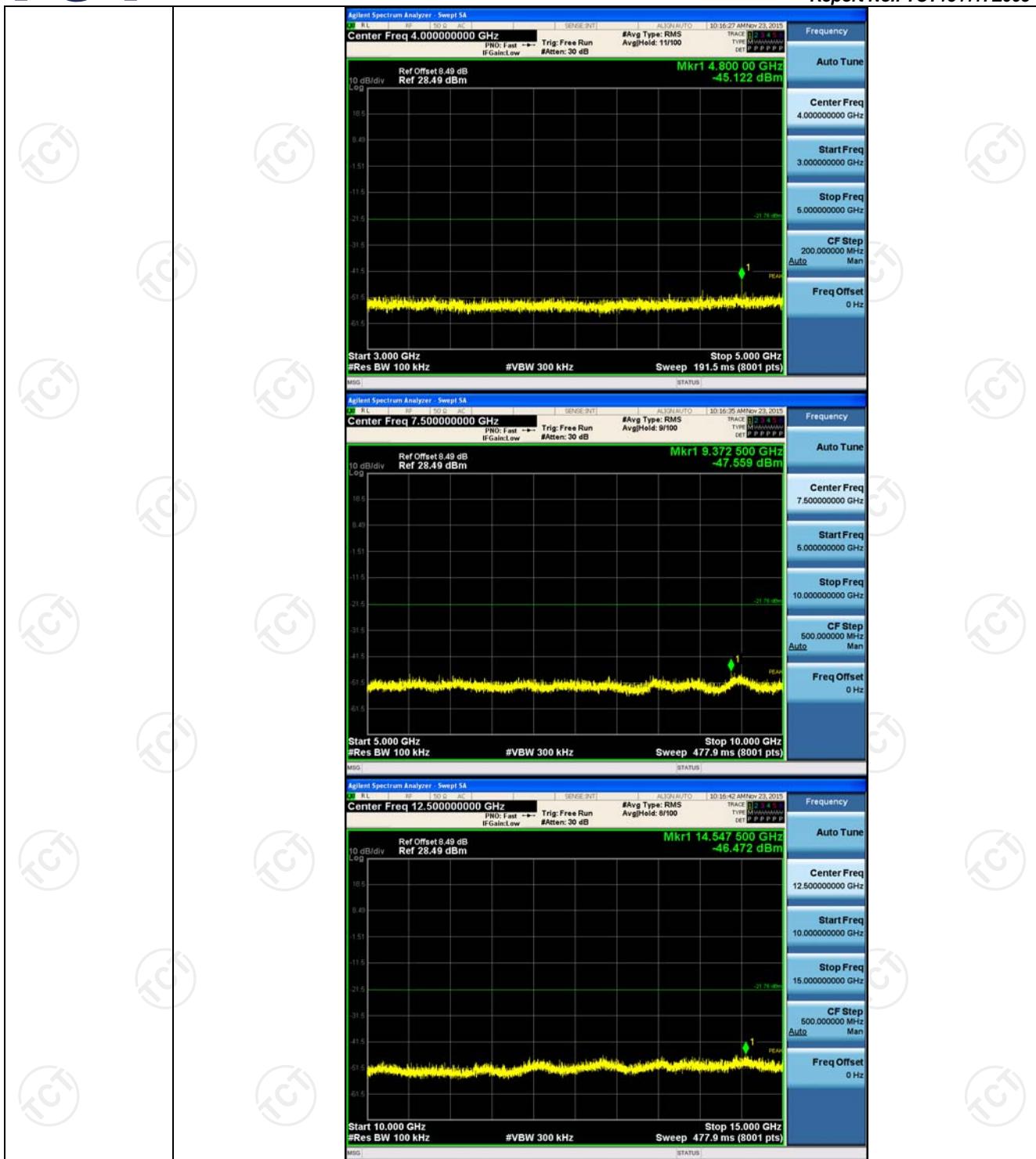


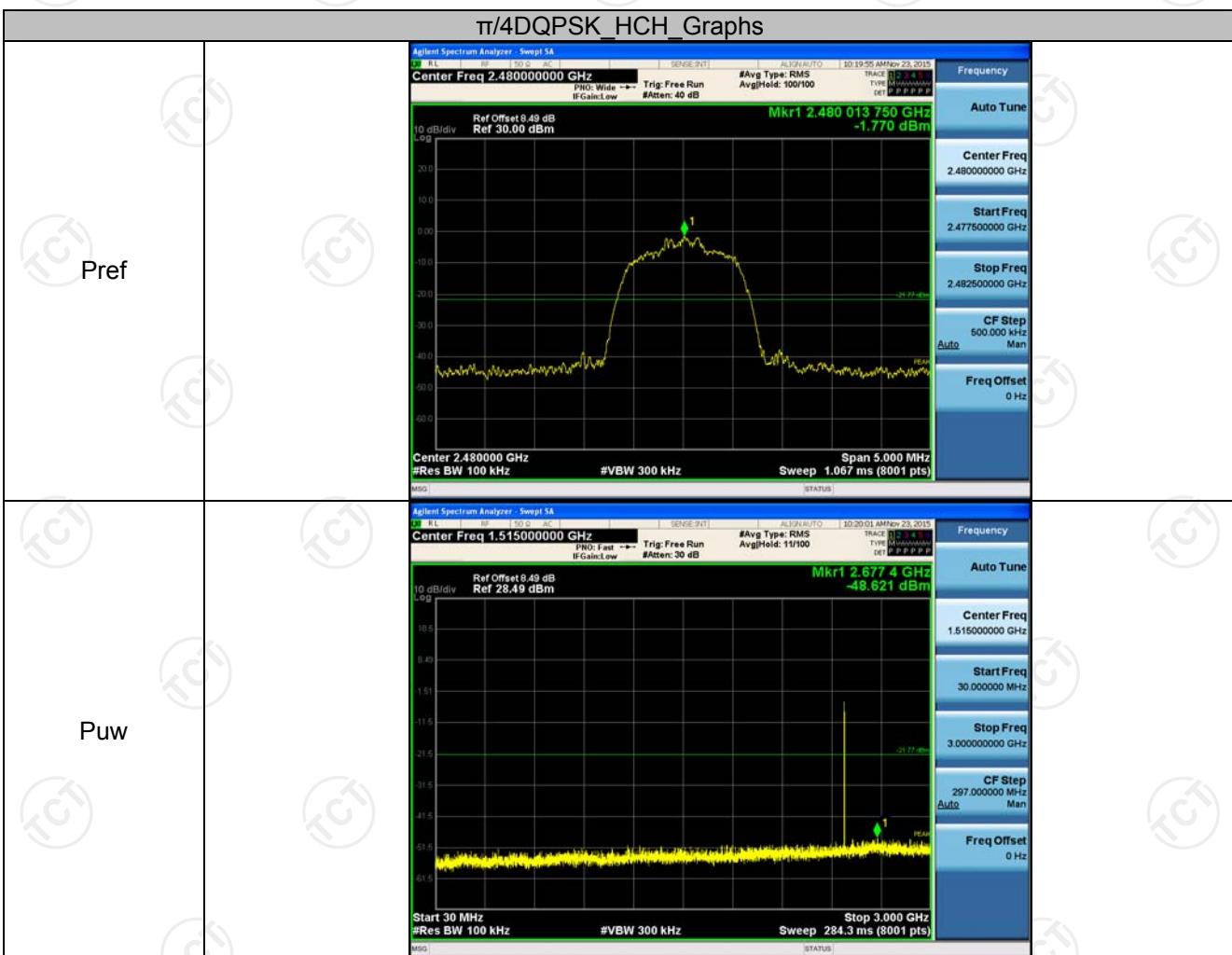


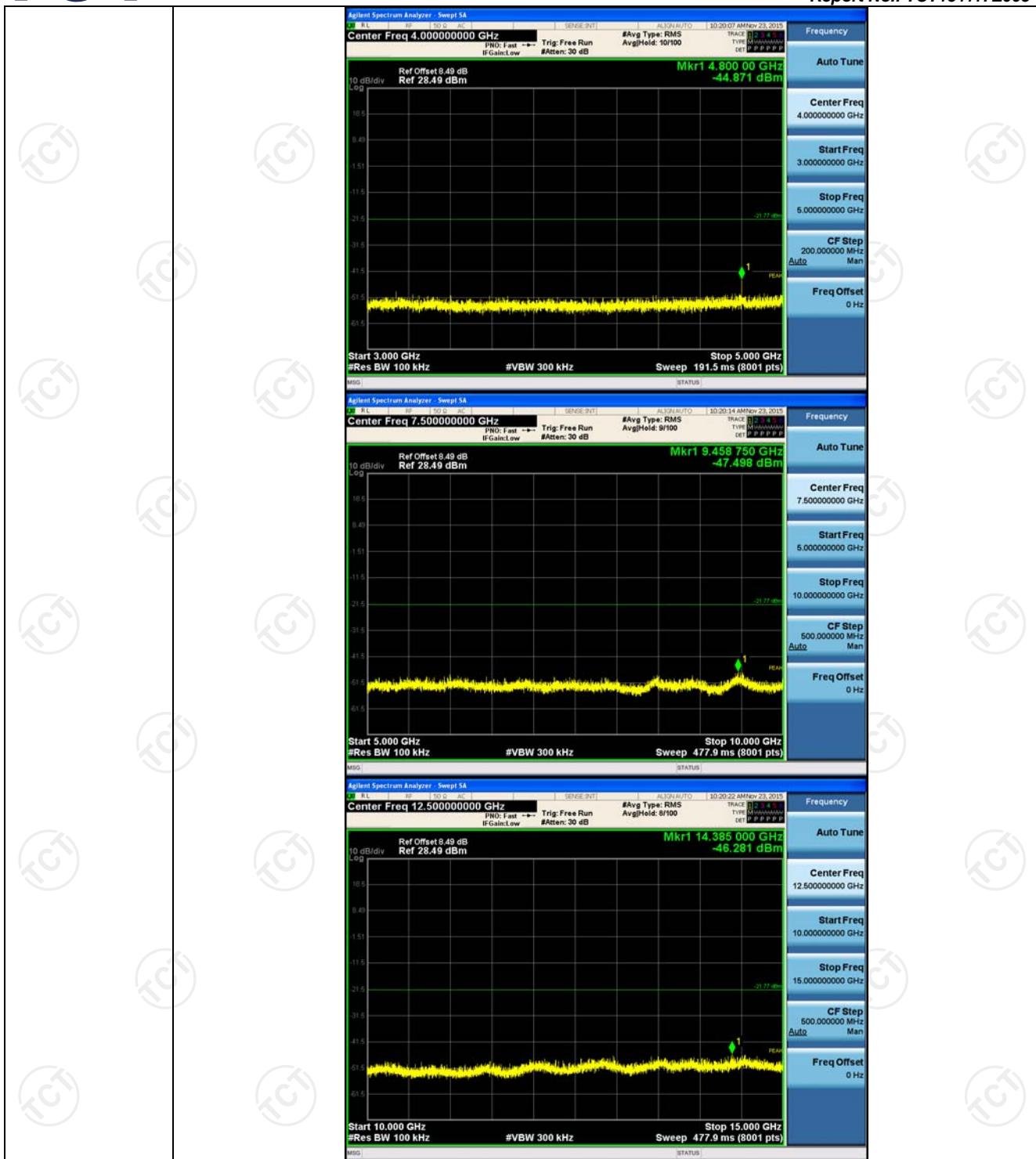


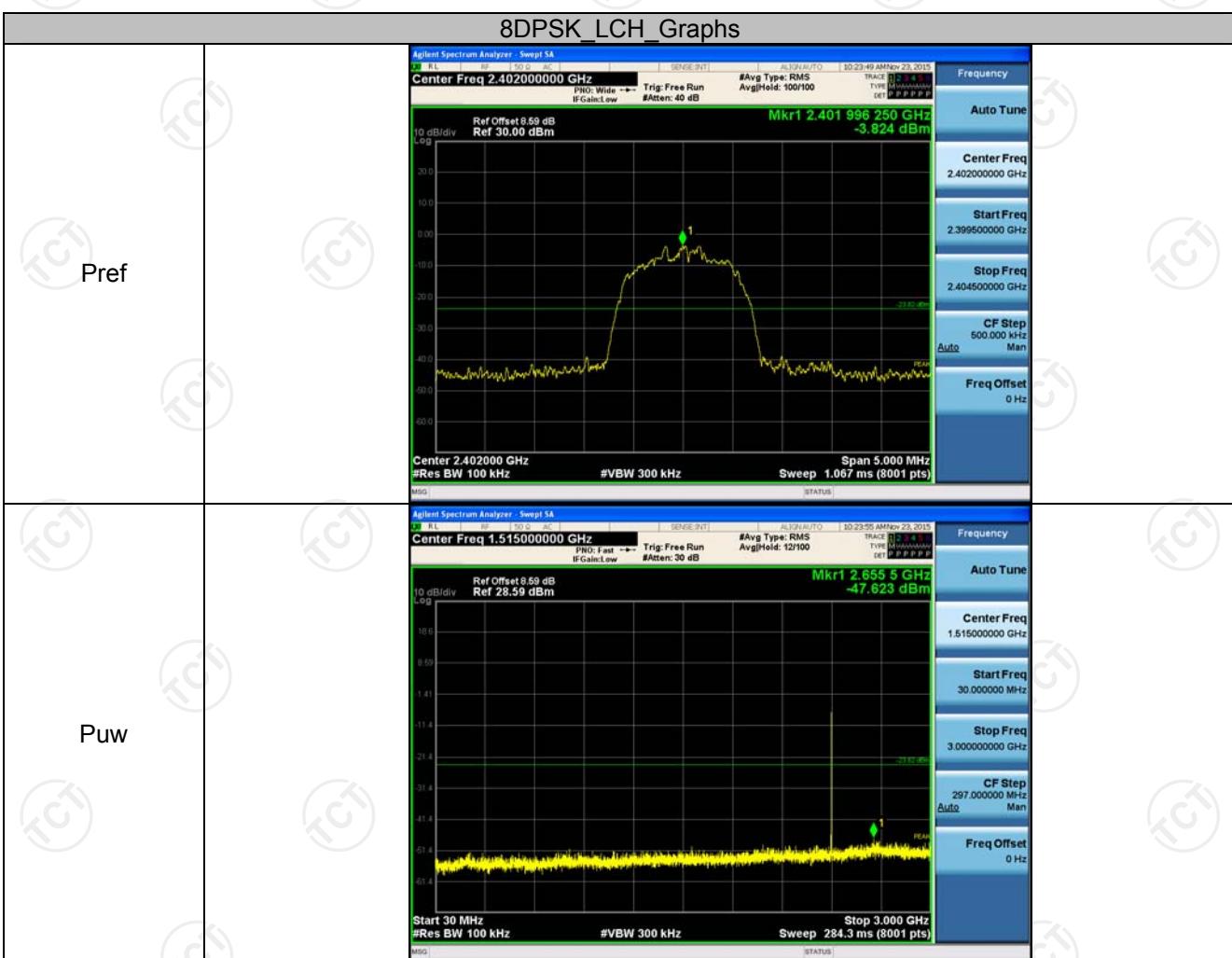
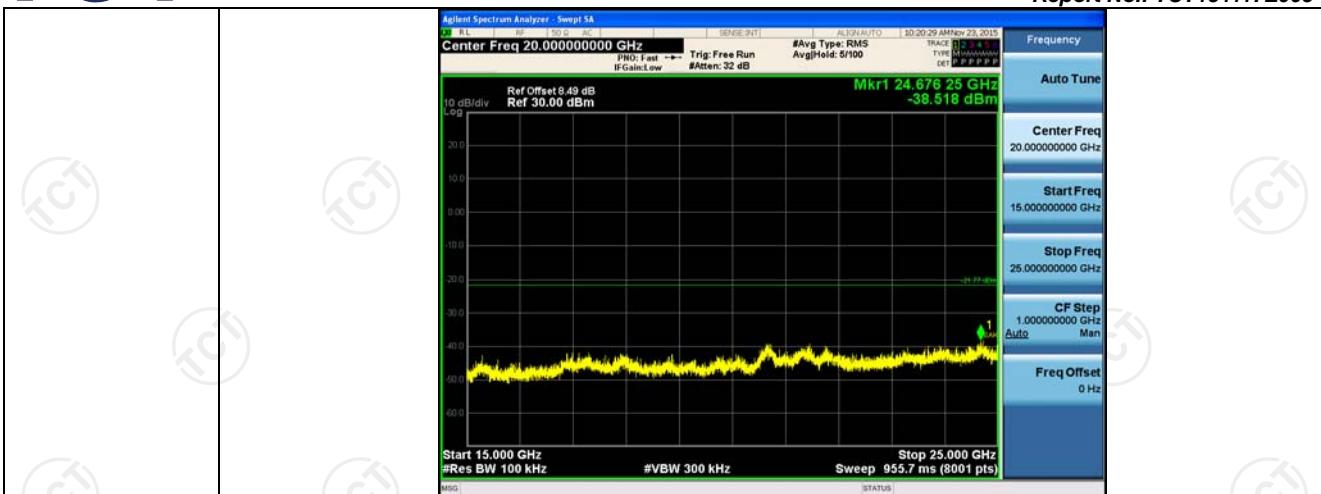


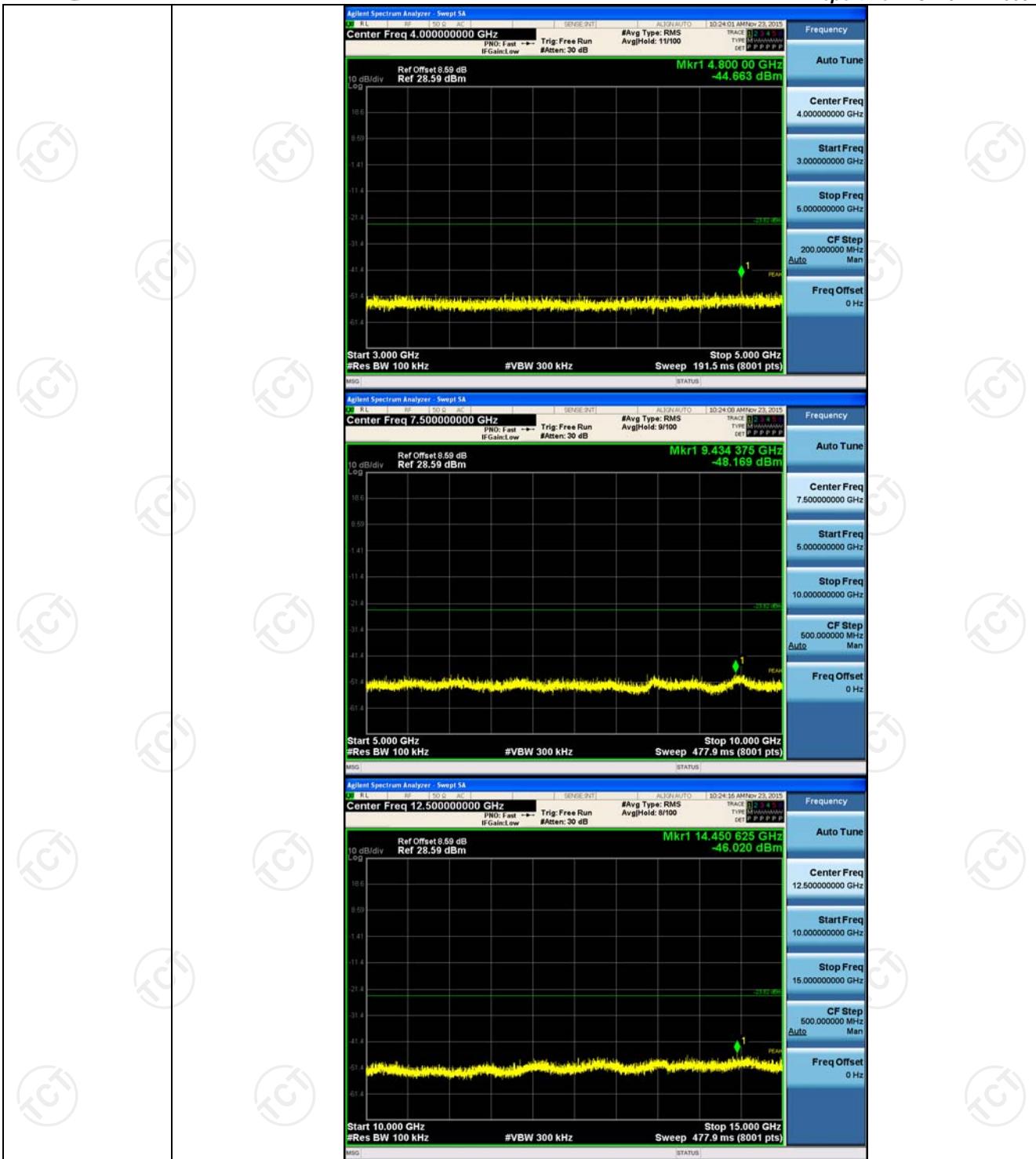


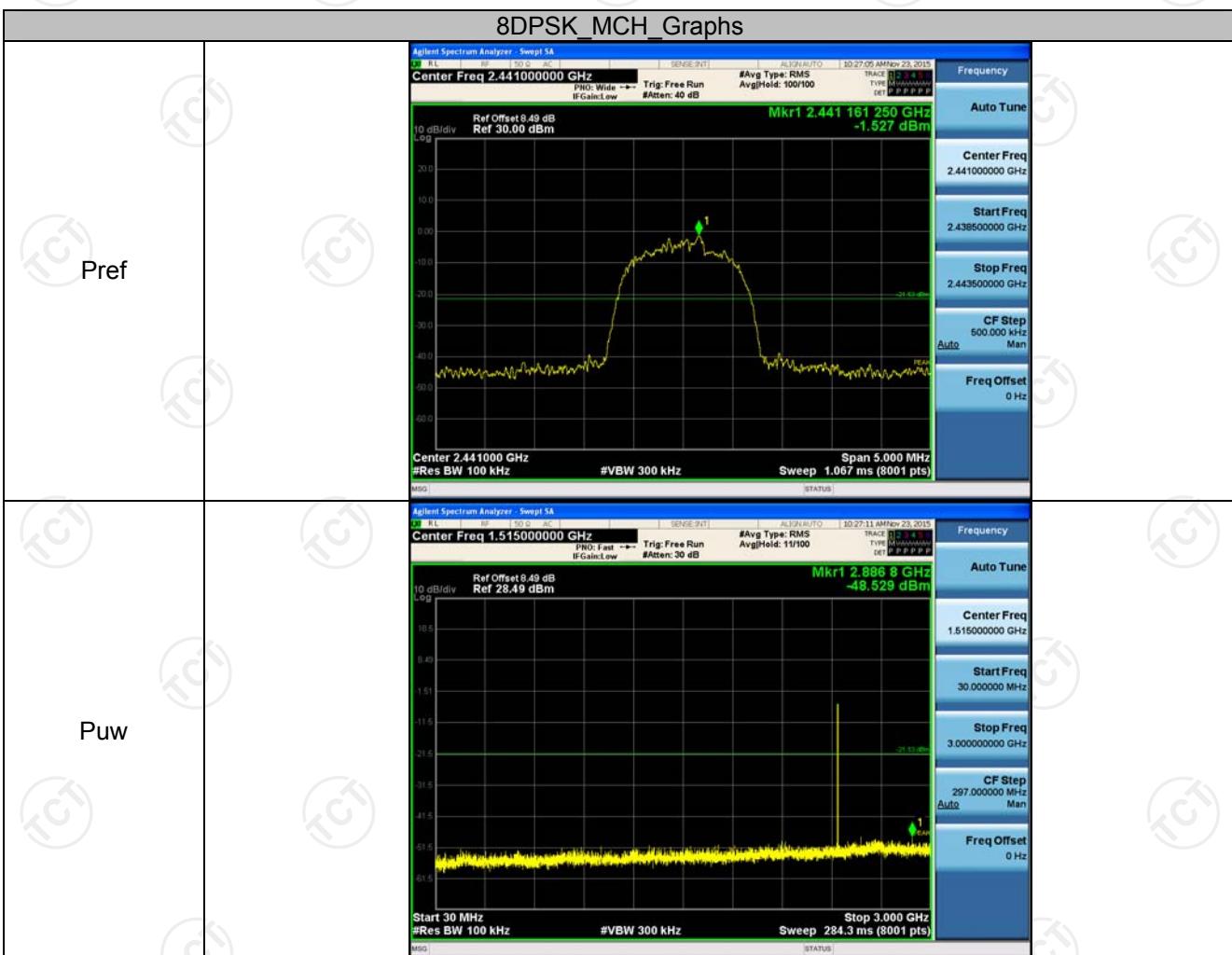
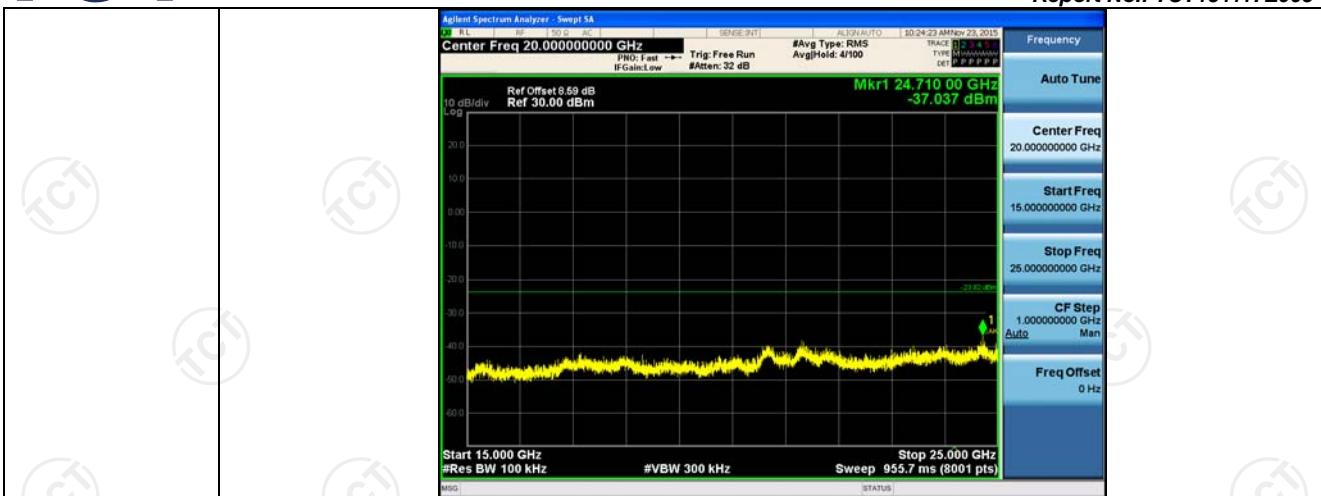


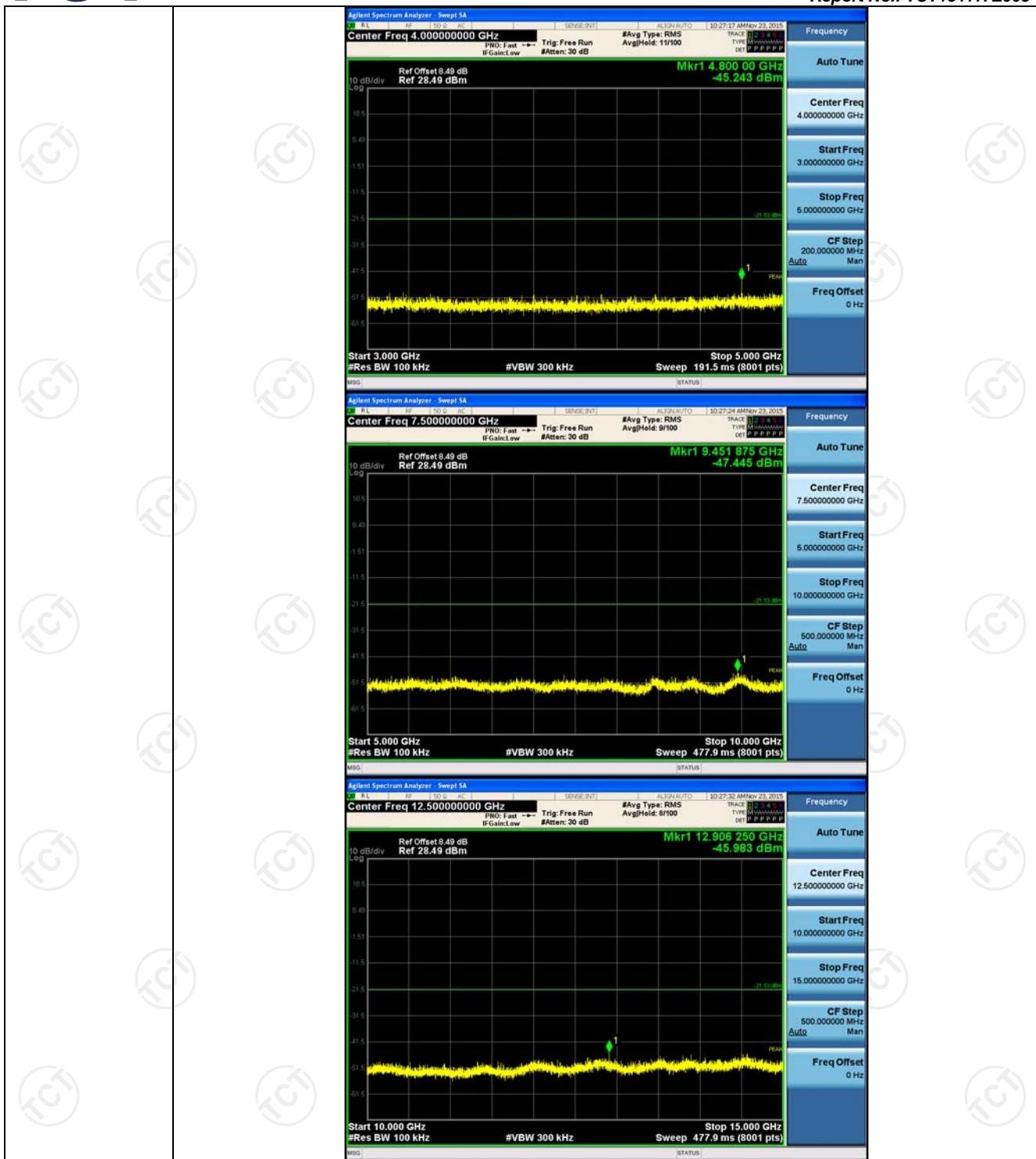


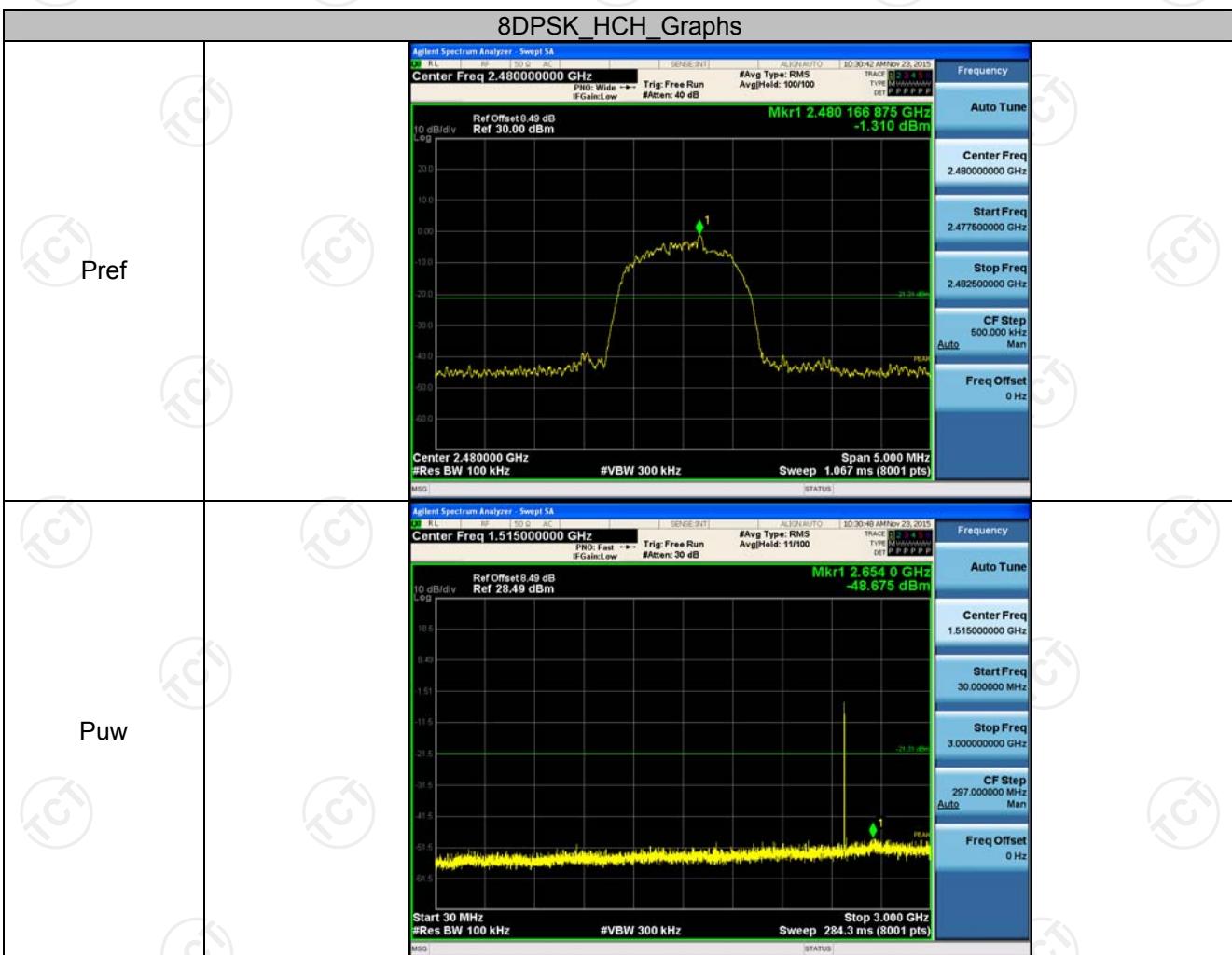
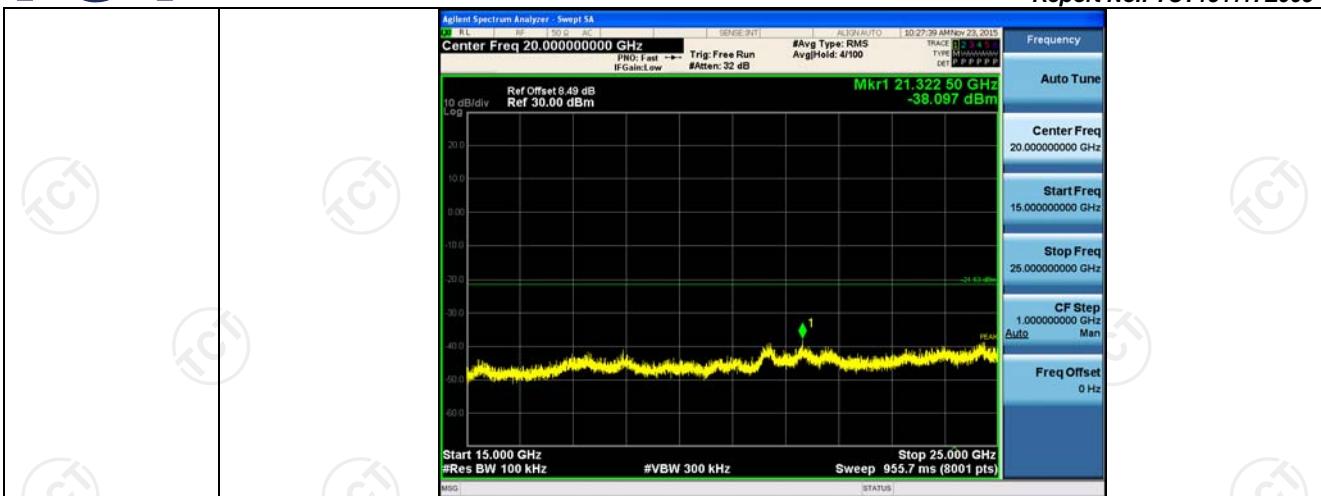


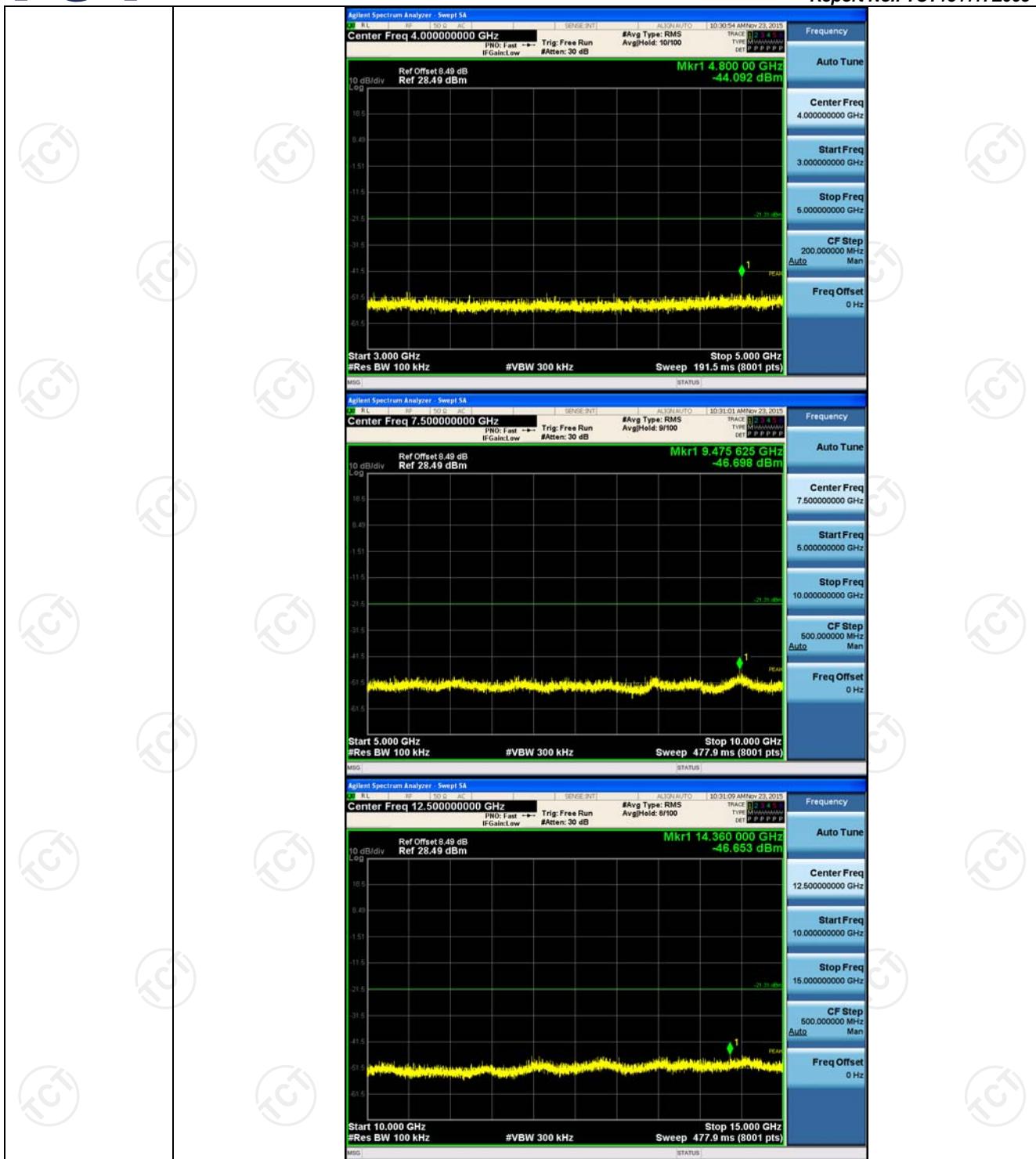


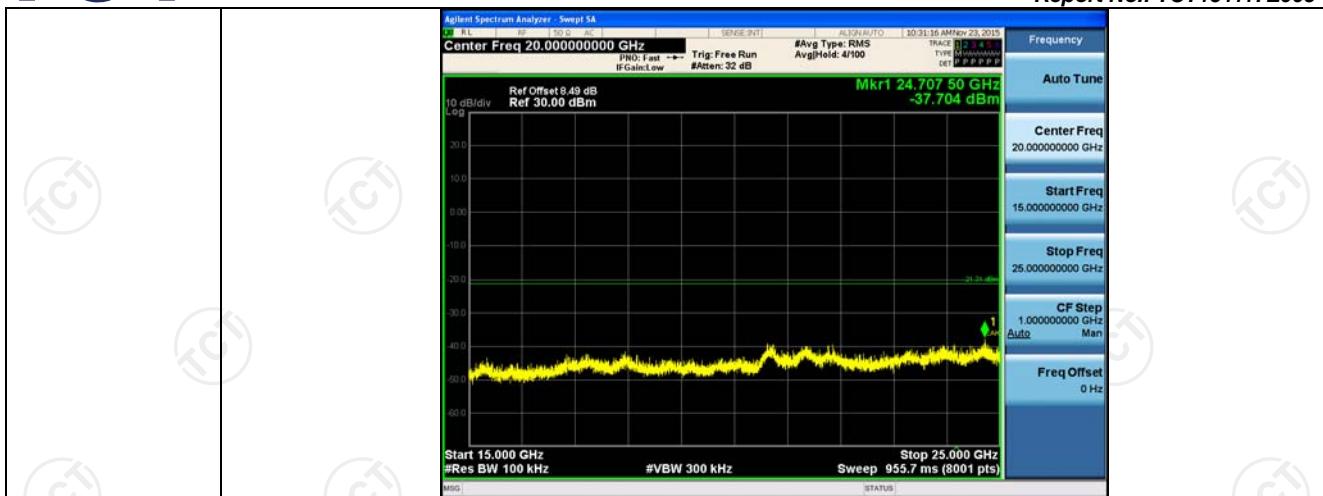












Appendix B: Photographs of Test Setup

Refer to test report TCT151117E022

Appendix C: Photographs of EUT

Refer to test report TCT151117E022