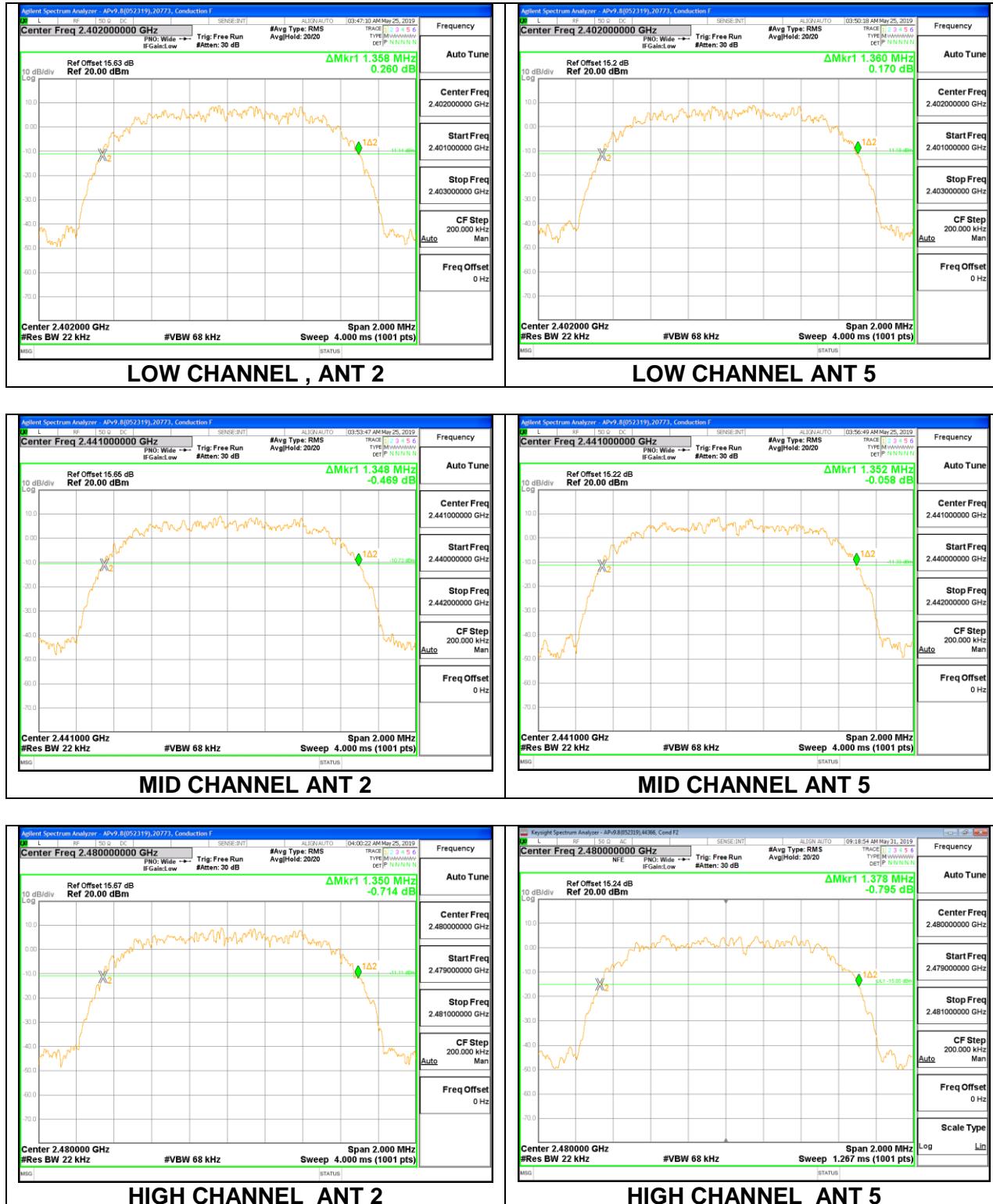


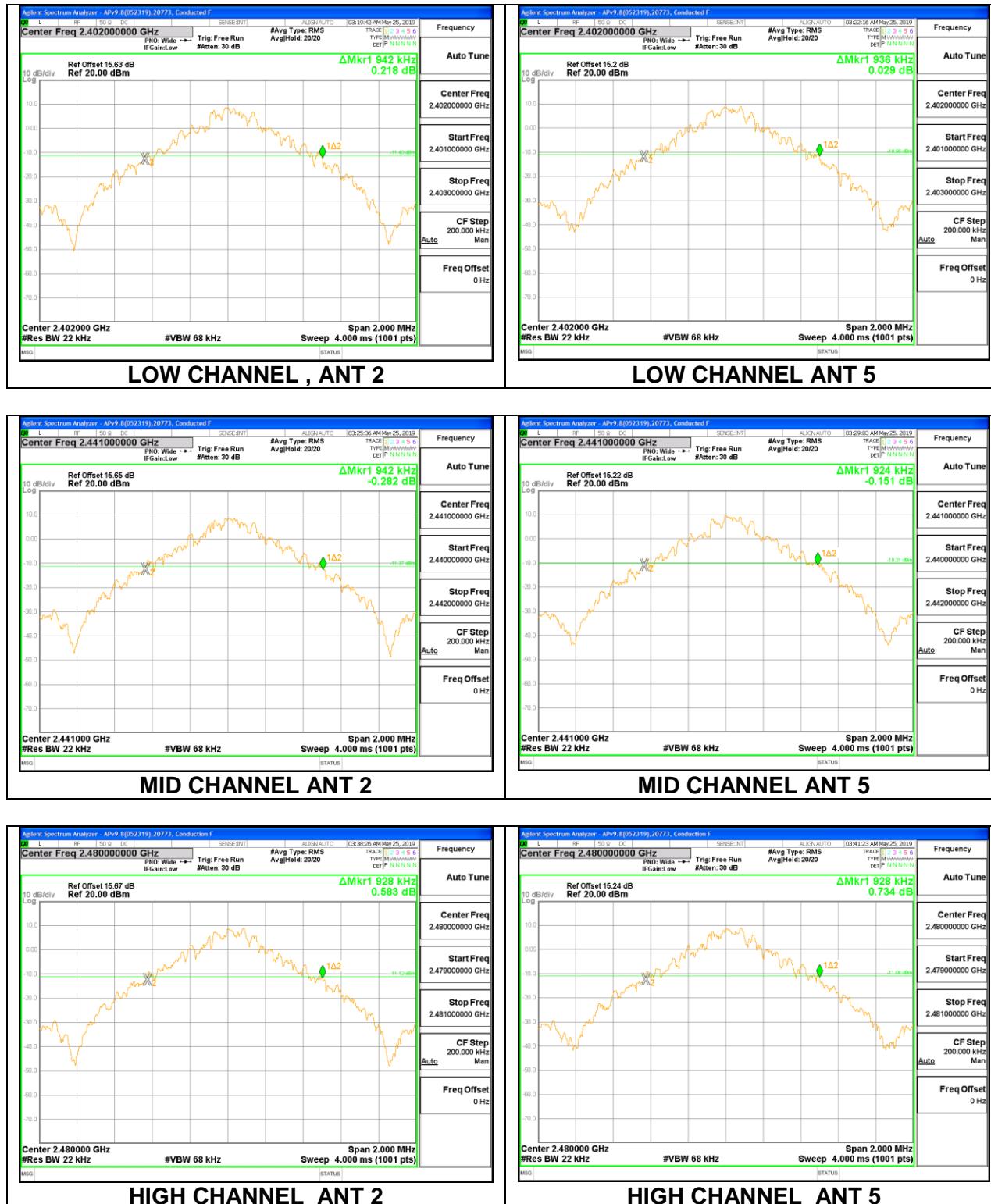
8.10.2. HIGH POWER ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	20dB Bandwidth ANT 2 (MHz)	20dB Bandwidth ANT 5 (MHz)
Low	2402	1.3580	1.3600
Mid	2441	1.3480	1.3520
High	2480	1.3500	1.3780



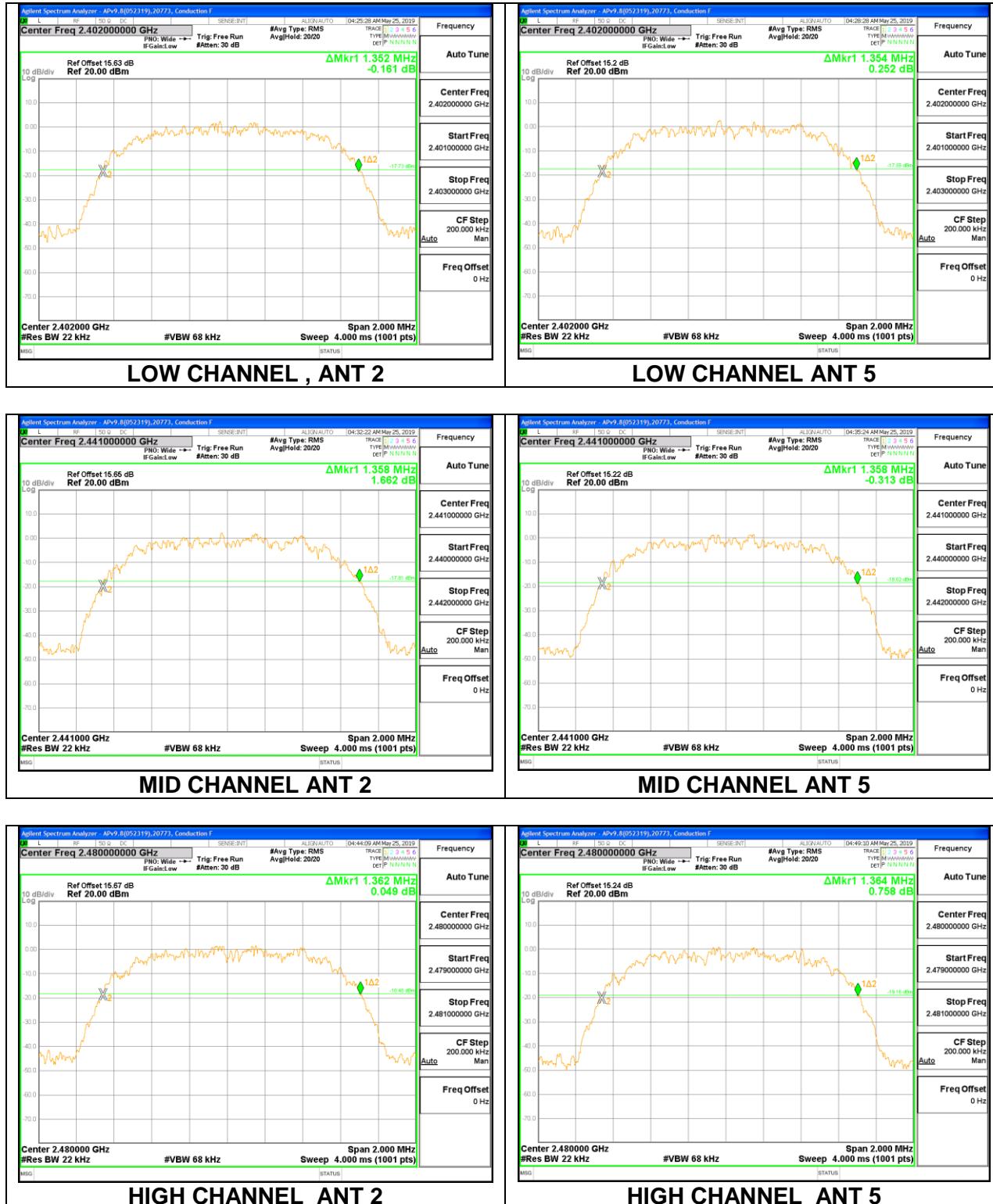
8.10.3. LOW POWER BASIC DATA RATE GFSK MODULATION

Channel	Frequency (MHz)	20dB Bandwidth ANT 2 (MHz)	20dB Bandwidth ANT 5 (MHz)
Low	2402	0.9420	0.9360
Mid	2441	0.9420	0.9240
High	2480	0.9280	0.9280



8.10.4. LOW POWER ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	20dB Bandwidth ANT 2 (MHz)	20dB Bandwidth ANT 5 (MHz)
Low	2402	1.3520	1.3540
Mid	2441	1.3580	1.3580
High	2480	1.3620	1.3640



8.11. BEAMFORMING, HOPPING FREQUENCY SEPARATION

LIMITS

FCC §15.247 (a) (1)

RSS-247 (5.1) (b)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hoping channel, whichever is greater.

Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

TEST PROCEDURE

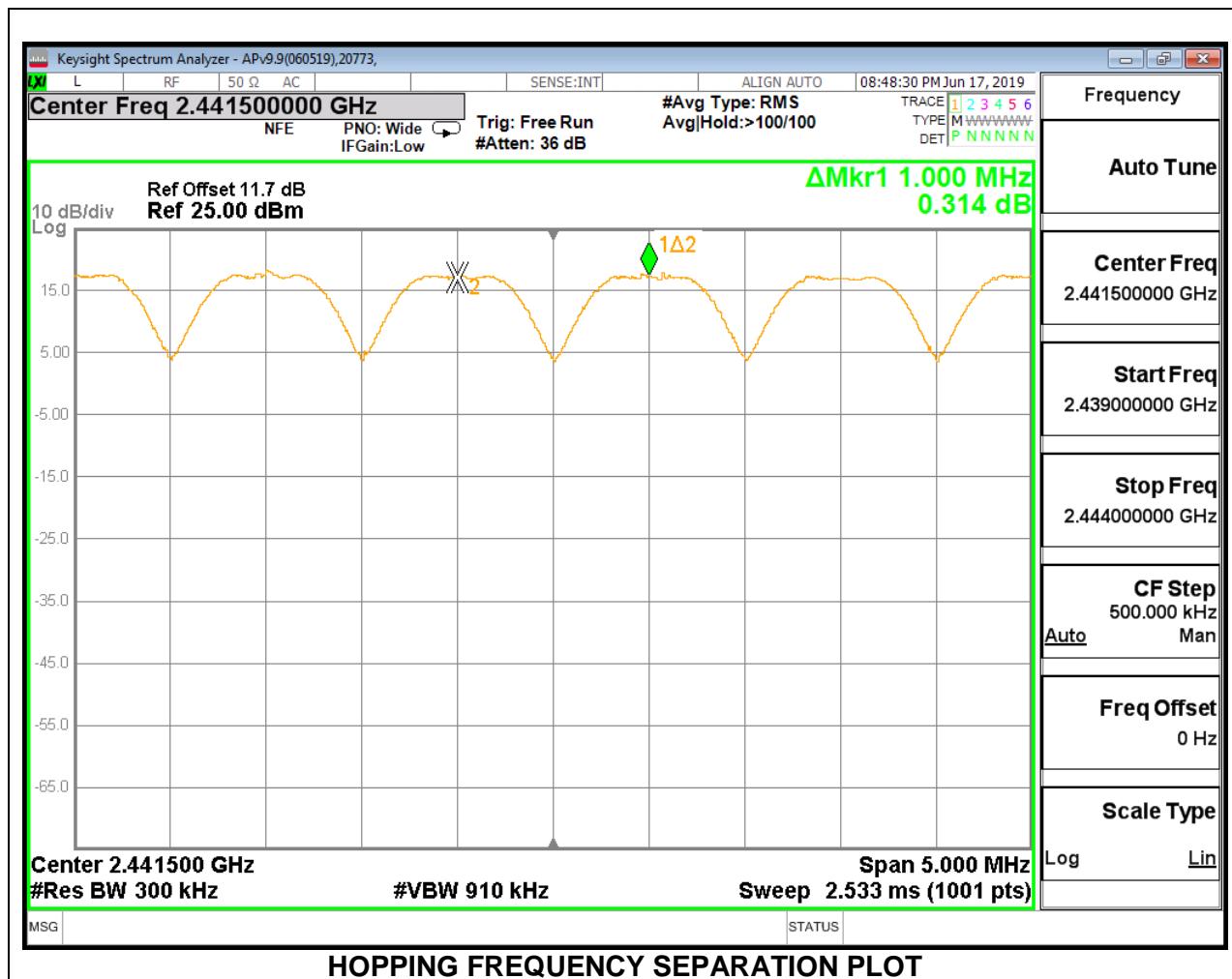
The transmitter output is connected to a spectrum analyzer. The RBW is set to 300 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

Note: Test procedures and setting on beamforming mode are same as BT basic and EDR mode

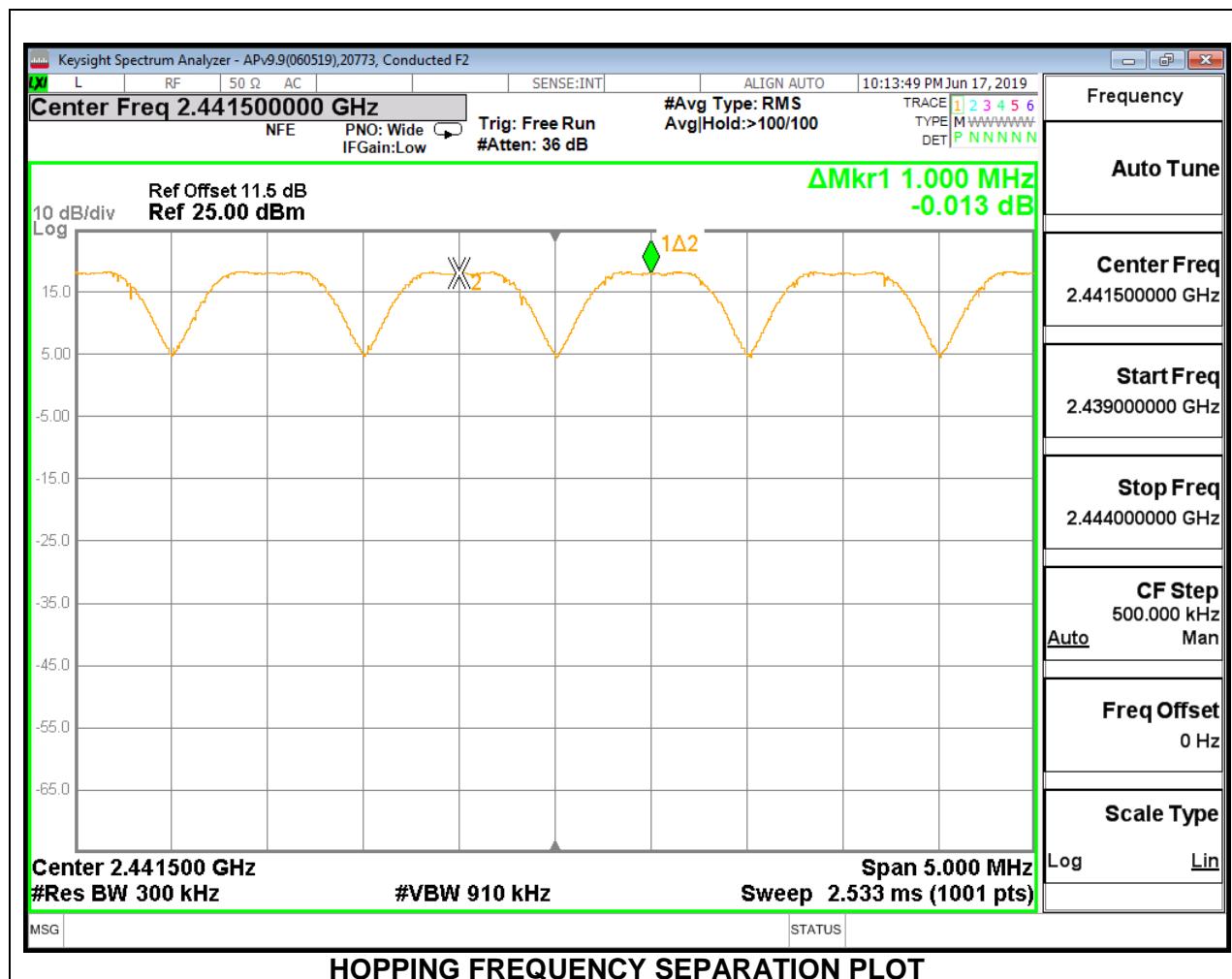
RESULTS

8.11.1. HIGH POWER BASIC DATA RATE GFSK MODULATION

Antenna 2

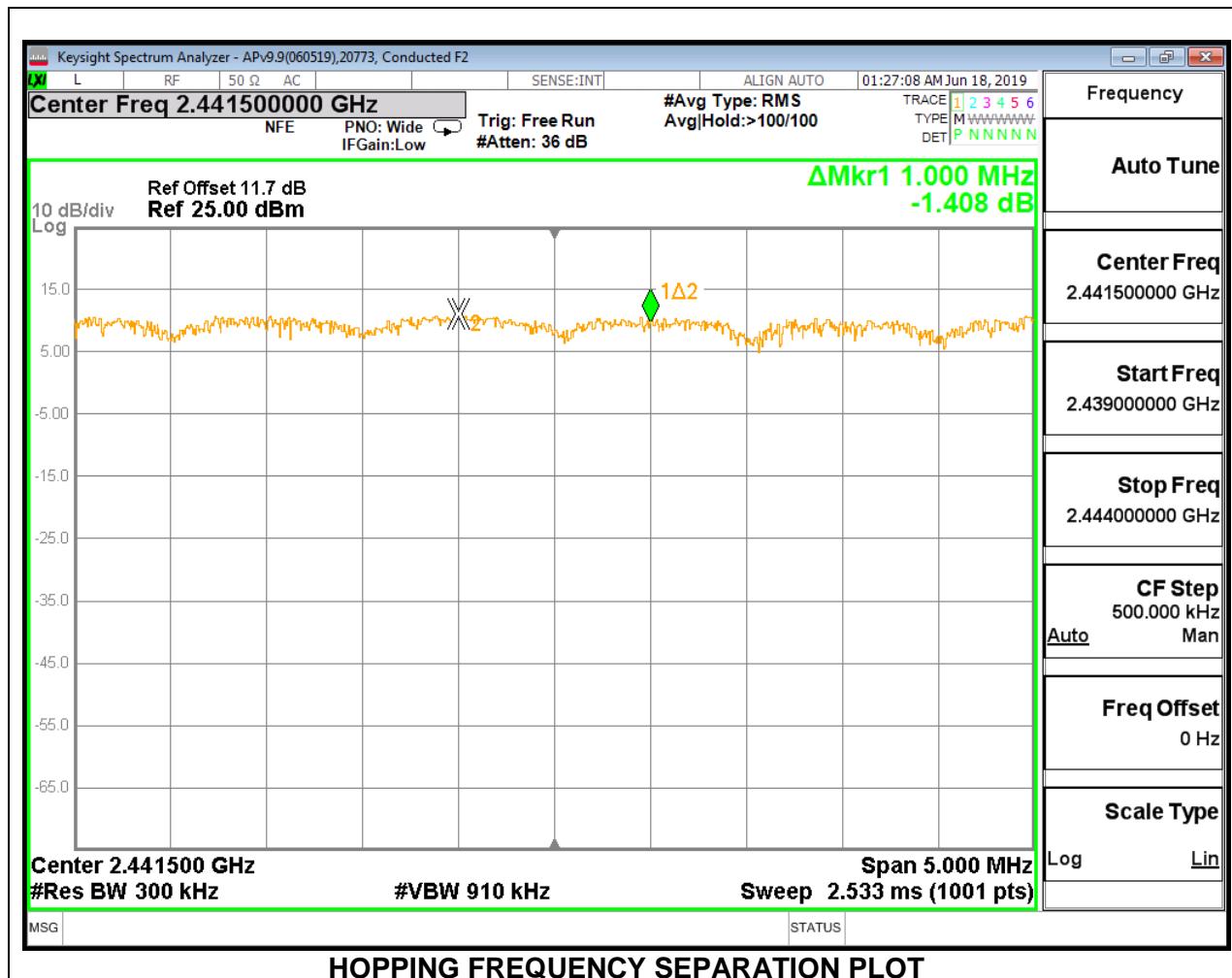


Antenna 5

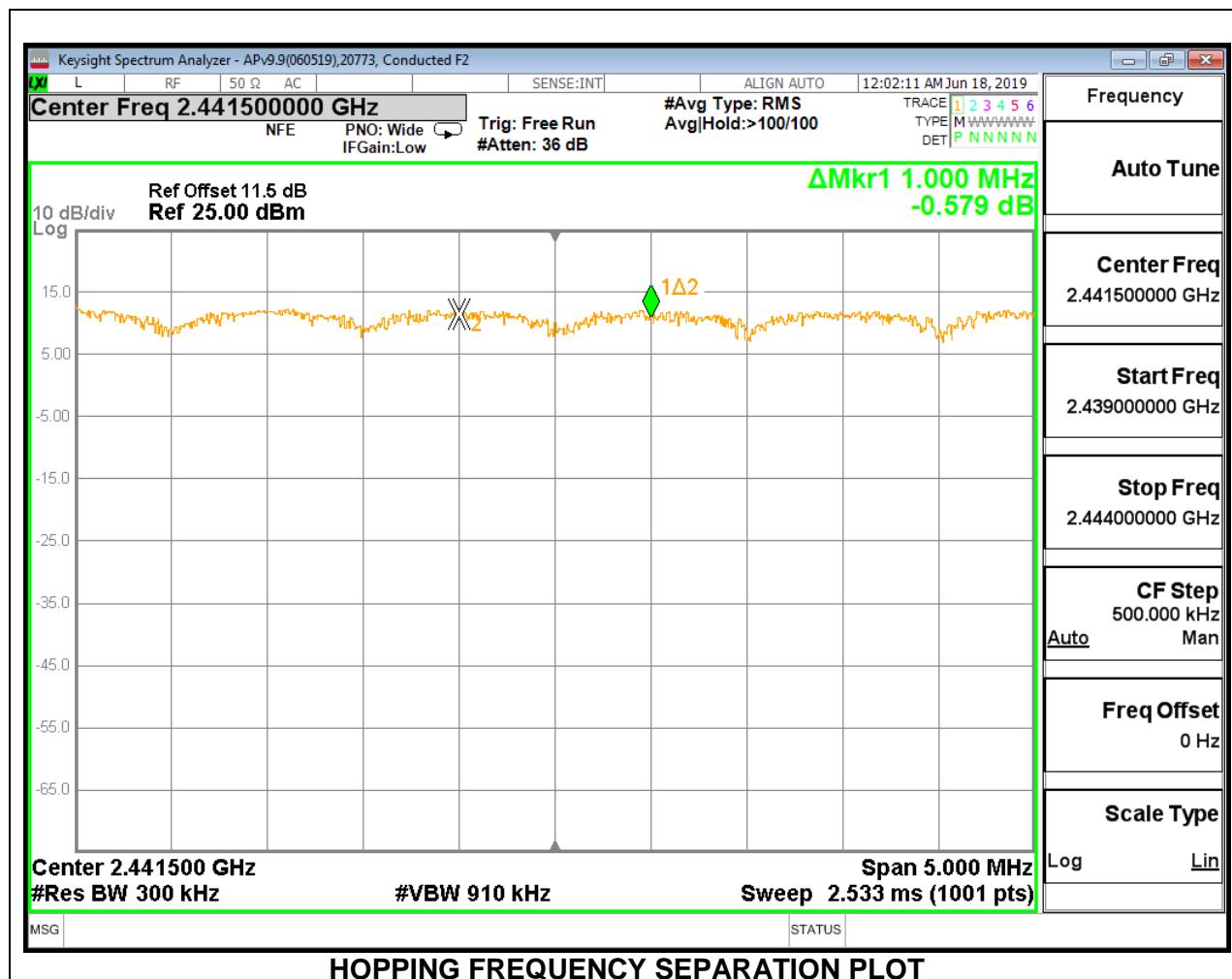


8.11.2. HIGH POWER ENHANCED DATA RATE 8PSK MODULATION

Antenna 2

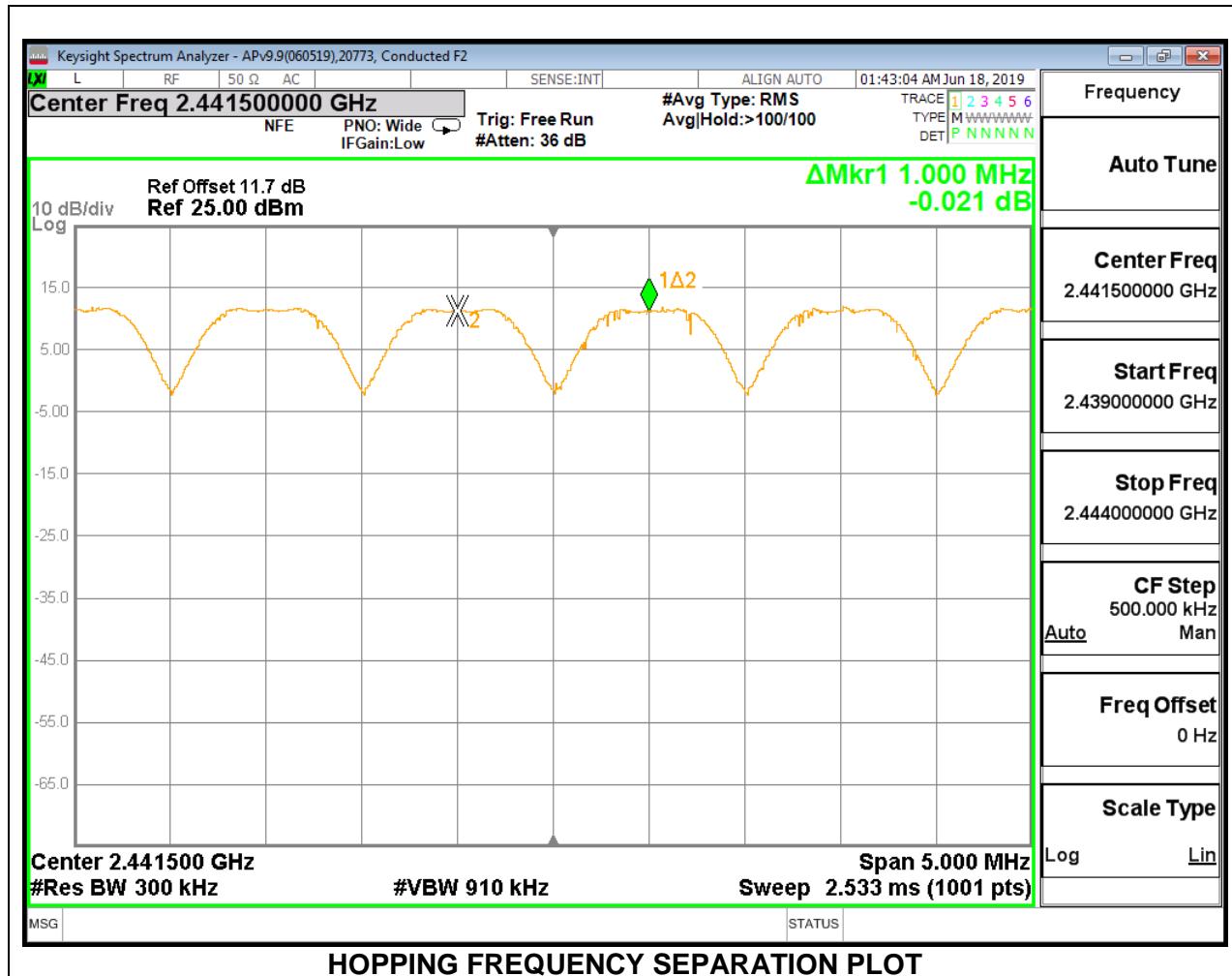


Antenna 5

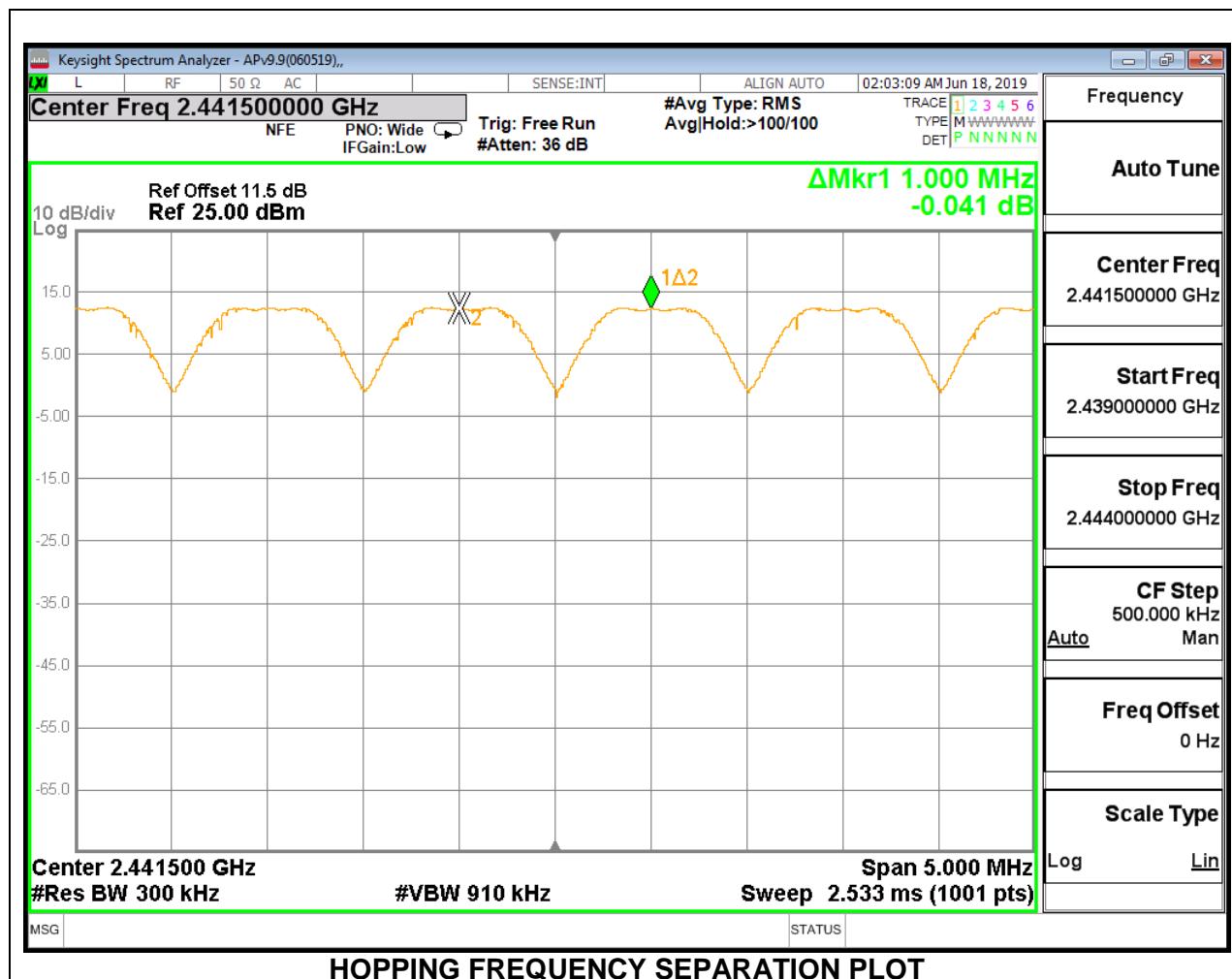


8.11.3. LOW POWER BASIC DATA RATE GFSK MODULATION

Antenna 2

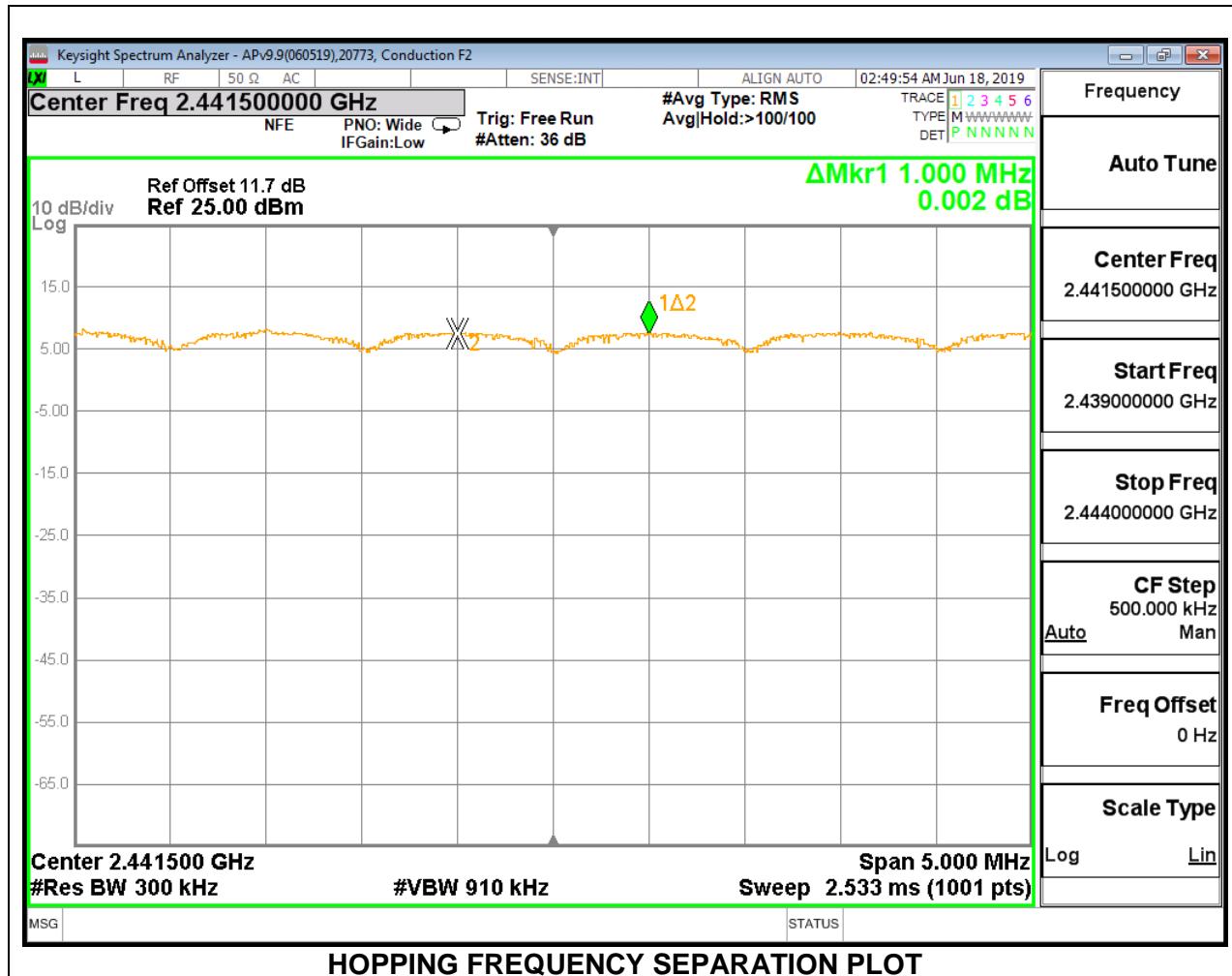


Antenna 5

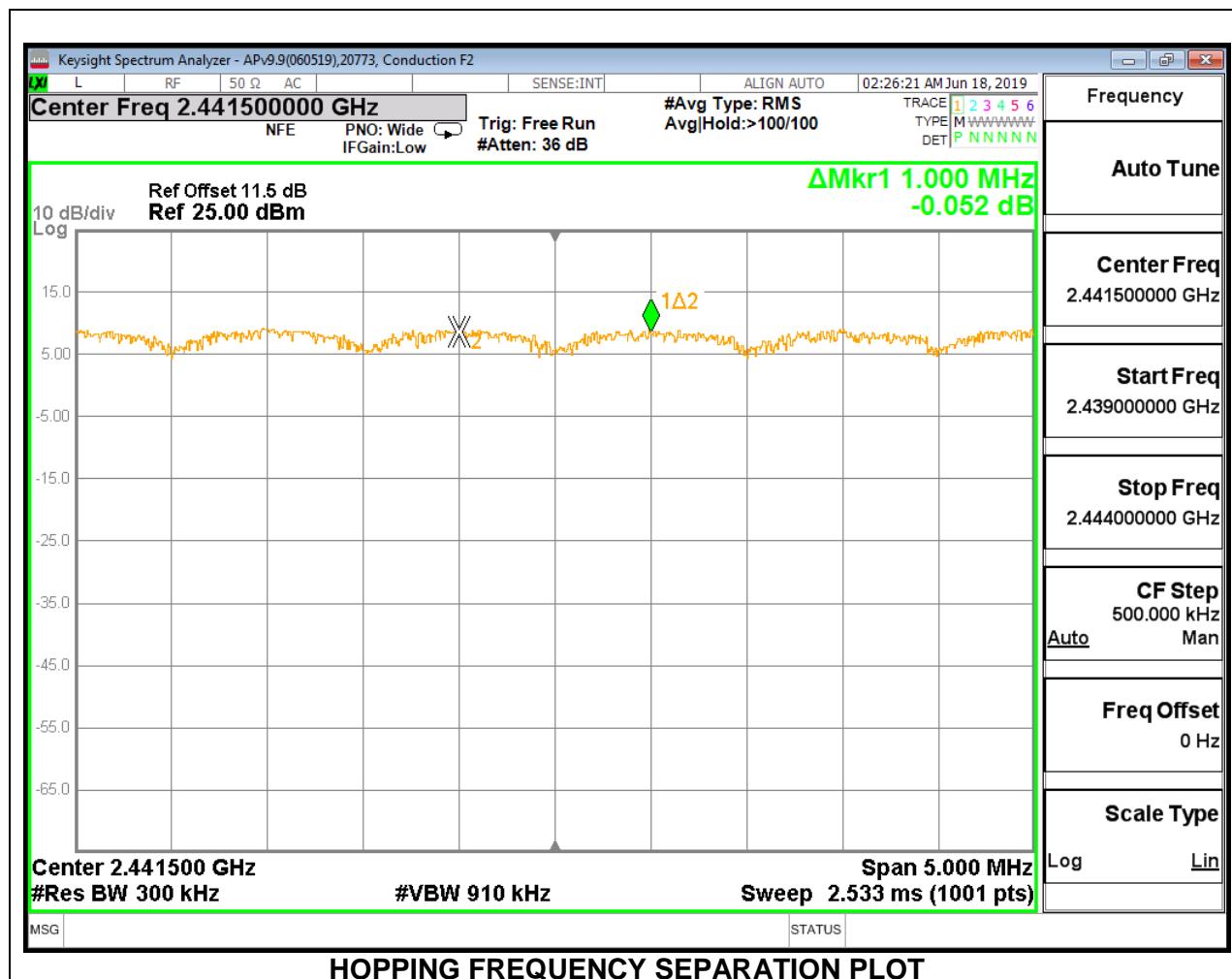


8.11.4. LOW POWER ENHANCED DATA RATE 8PSK MODULATION

Antenna 2



Antenna 5



8.12. BEAMFORMING, NUMBER OF HOPPING CHANNELS

LIMITS

FCC §15.247 (a) (1) (iii)

RSS-247 (5.1) (d)

Frequency hopping systems in the 2400 – 2483.5 MHz band shall use at least 15 non-overlapping channels.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The span is set to cover the entire authorized band, in either a single sweep or in multiple contiguous sweeps. The RBW is set to a maximum of 1 % of the span. The analyzer is set to Max Hold.

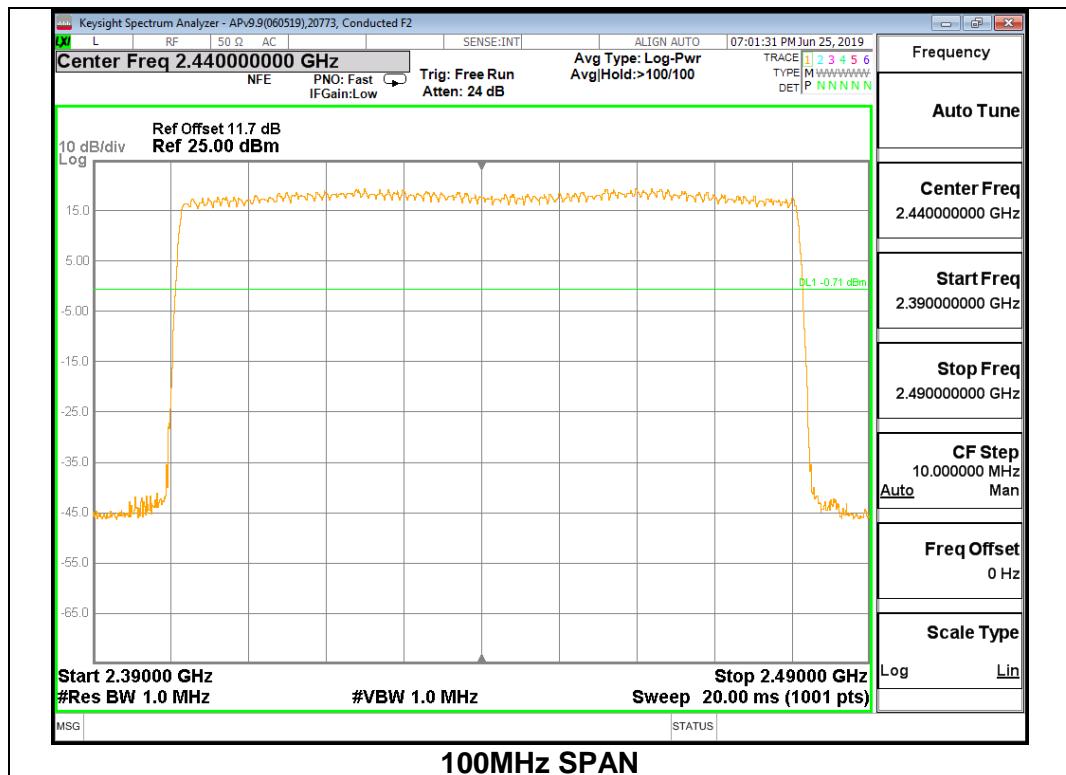
Note: Test procedures and setting on beamforming mode are same as BT basic and EDR mode

RESULTS

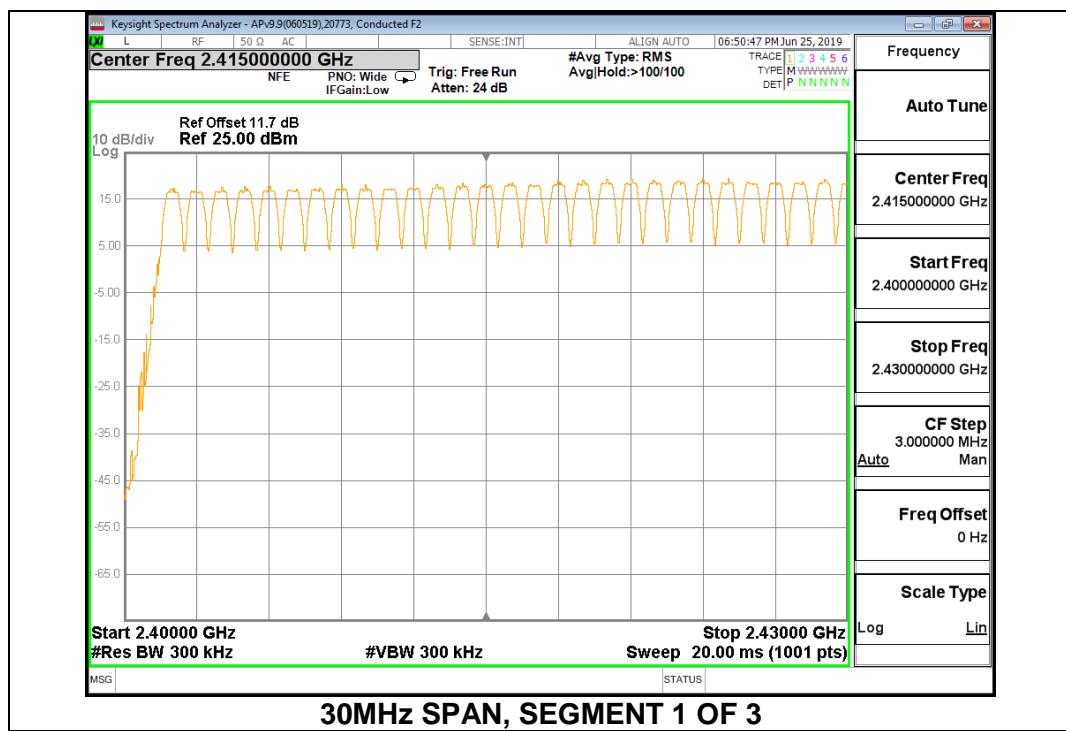
Normal Mode: 79 Channels Observed

8.12.1. HIGH POWER BASIC DATA RATE GFSK MODULATION

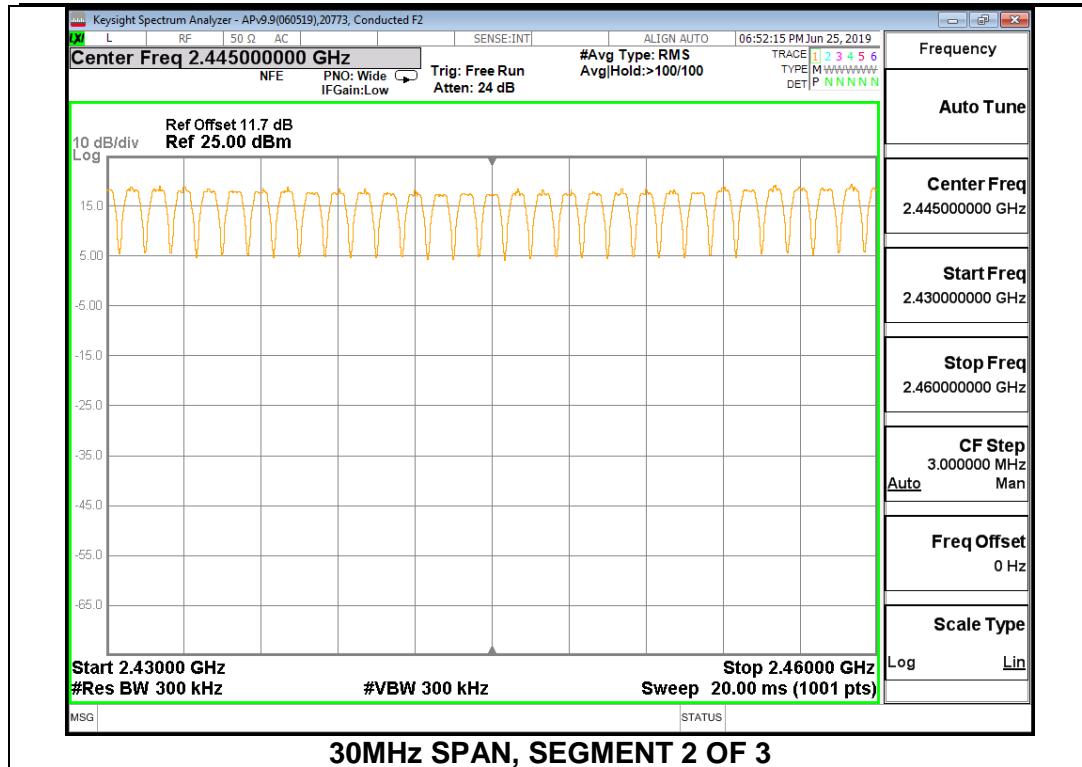
Antenna 2



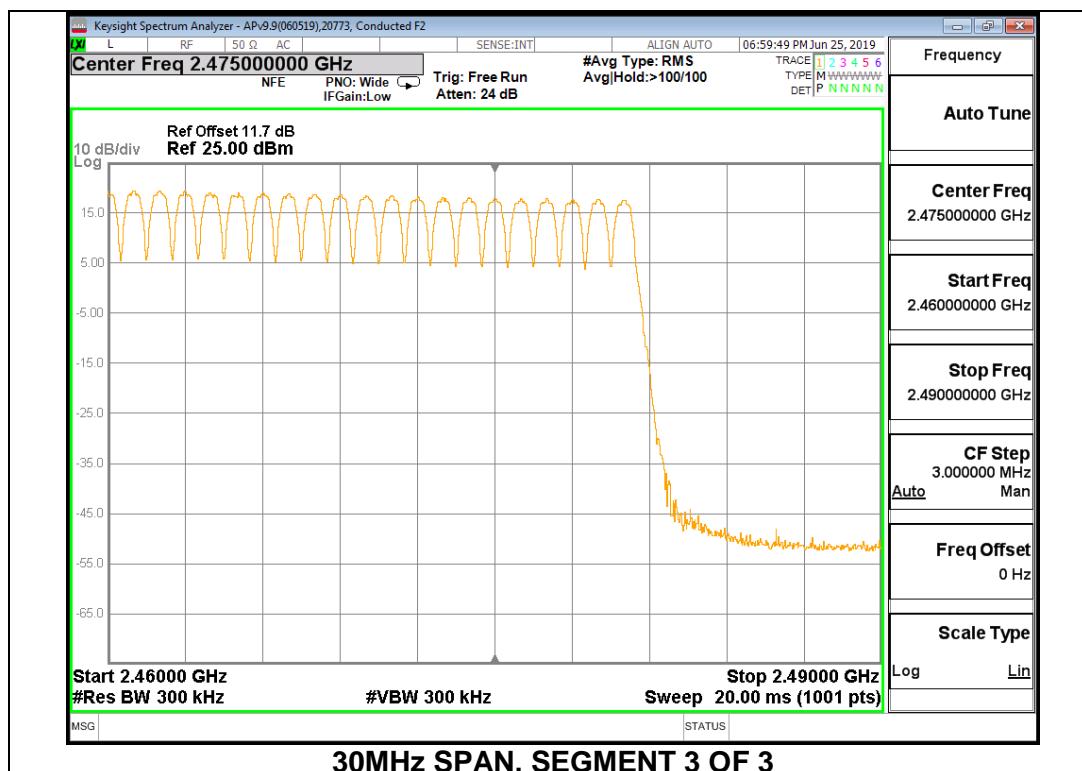
100MHz SPAN



30MHz SPAN, SEGMENT 1 OF 3

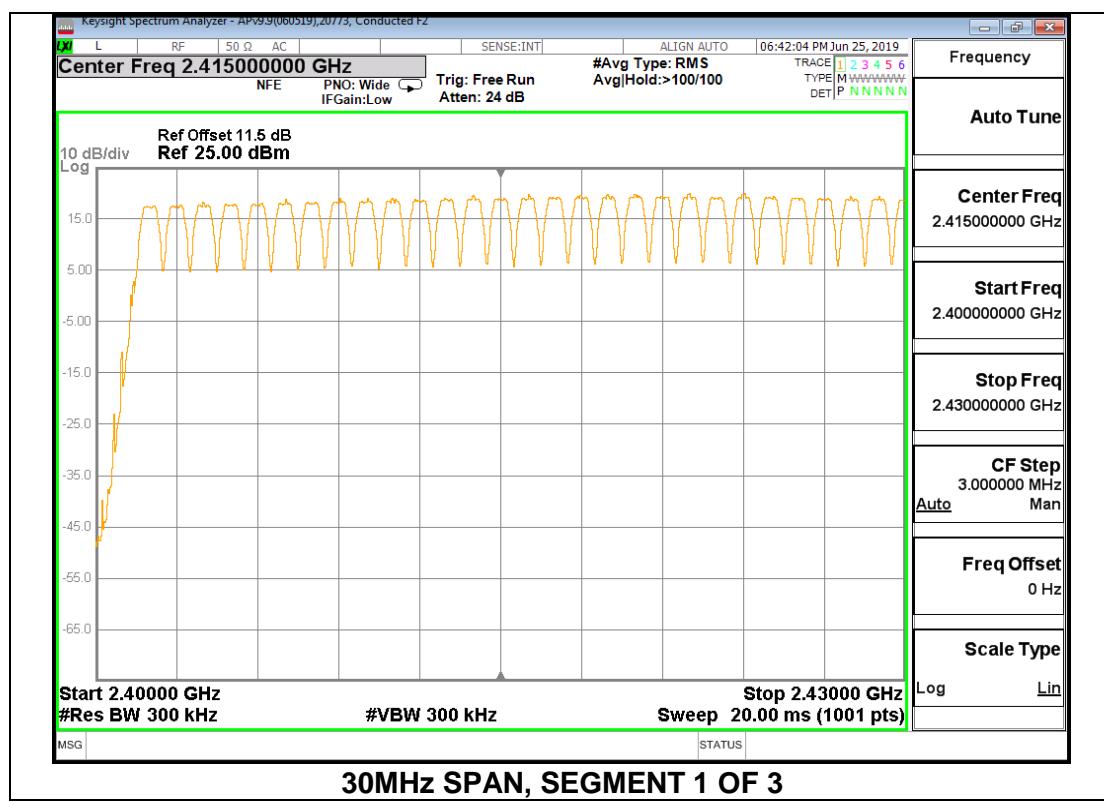
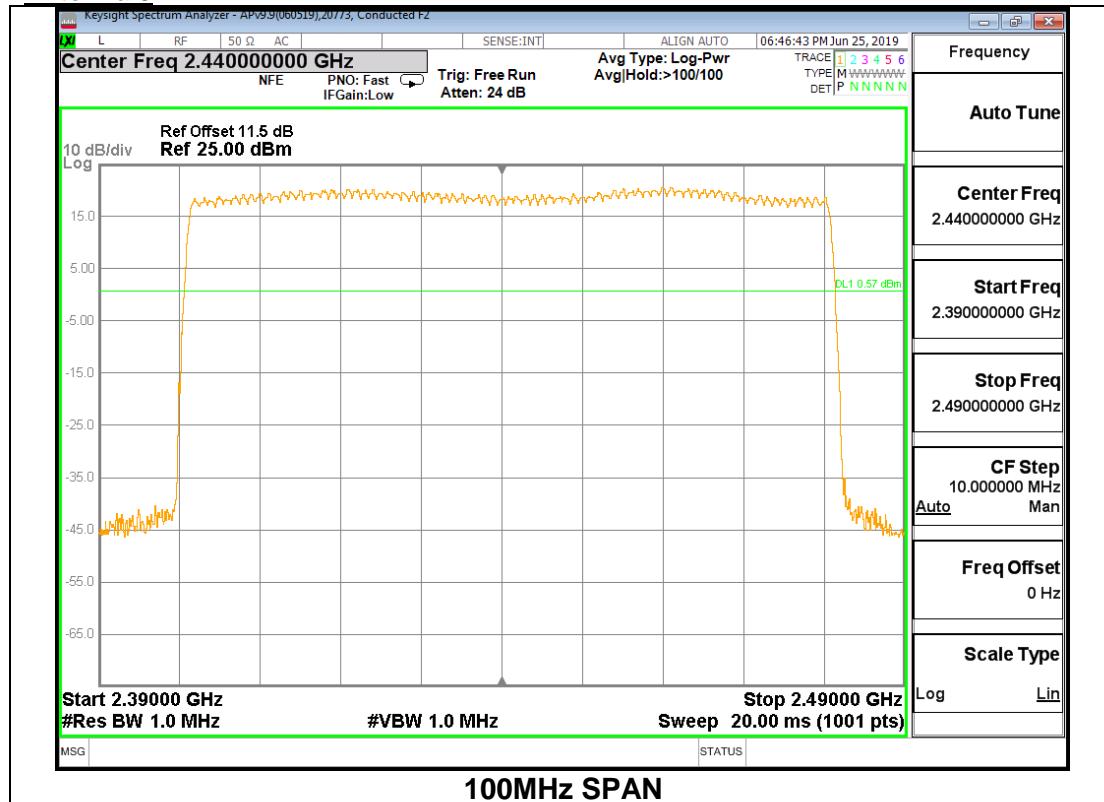


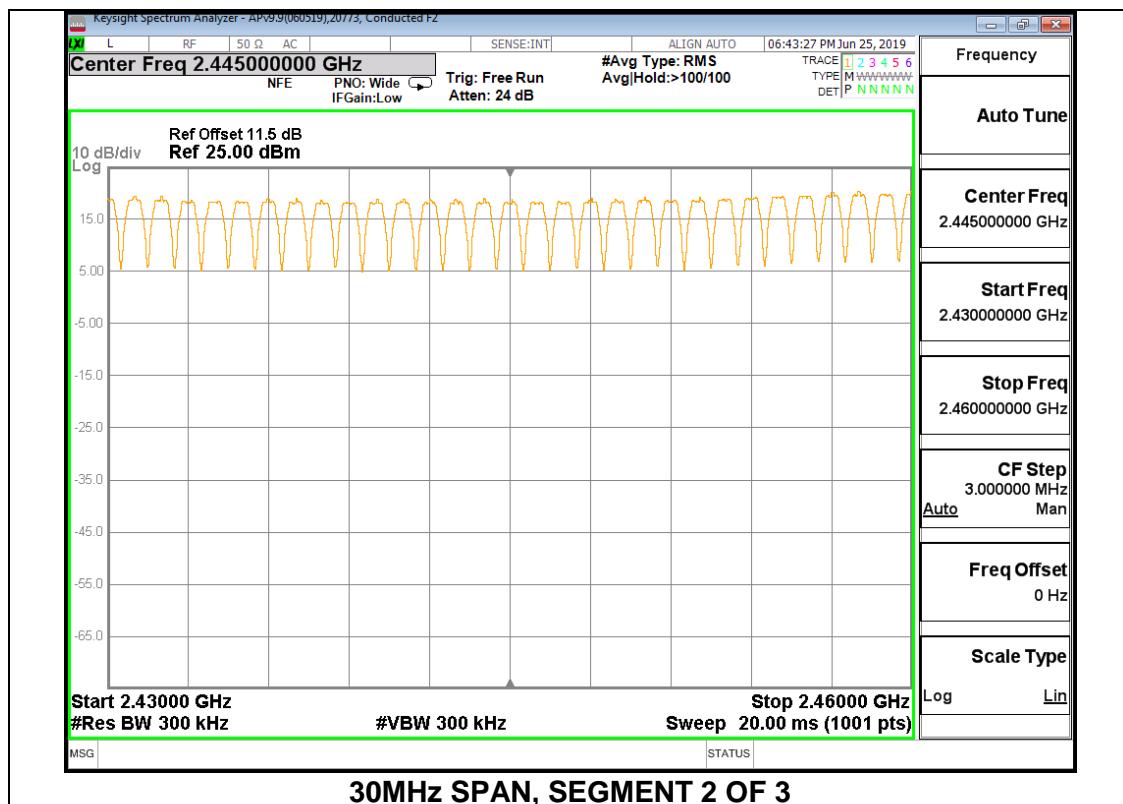
30MHz SPAN, SEGMENT 2 OF 3



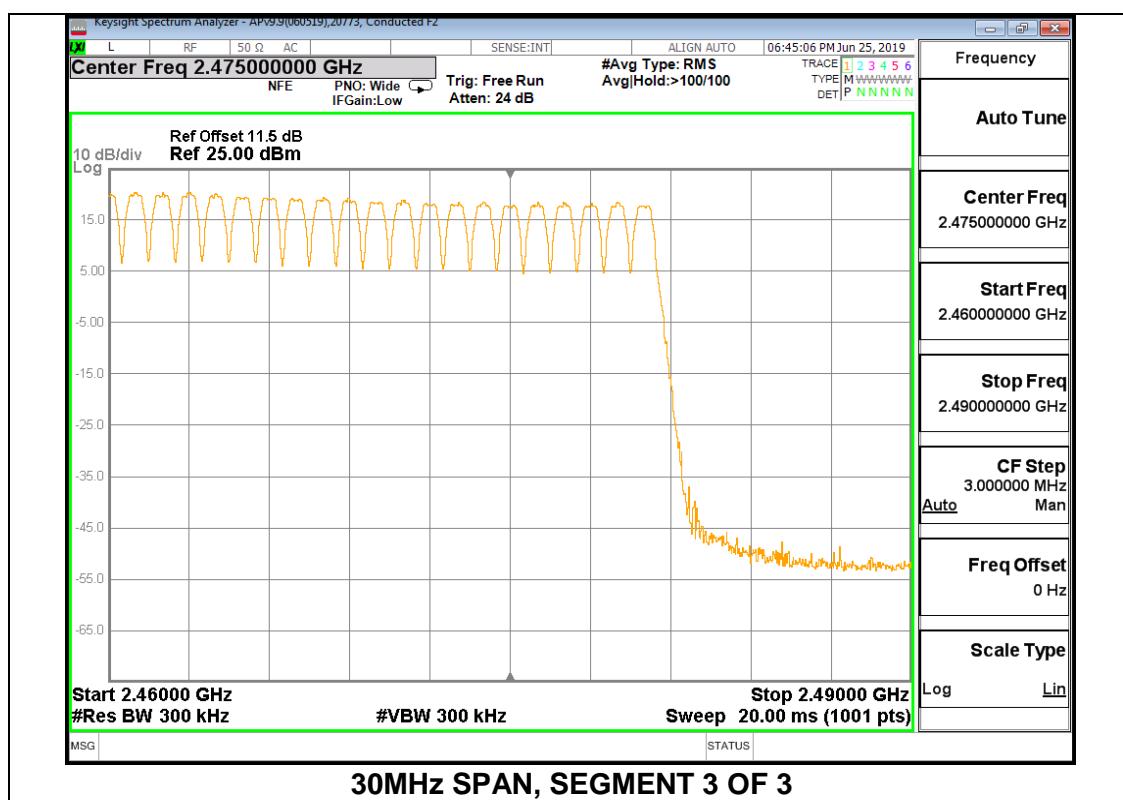
30MHz SPAN, SEGMENT 3 OF 3

Antenna 5





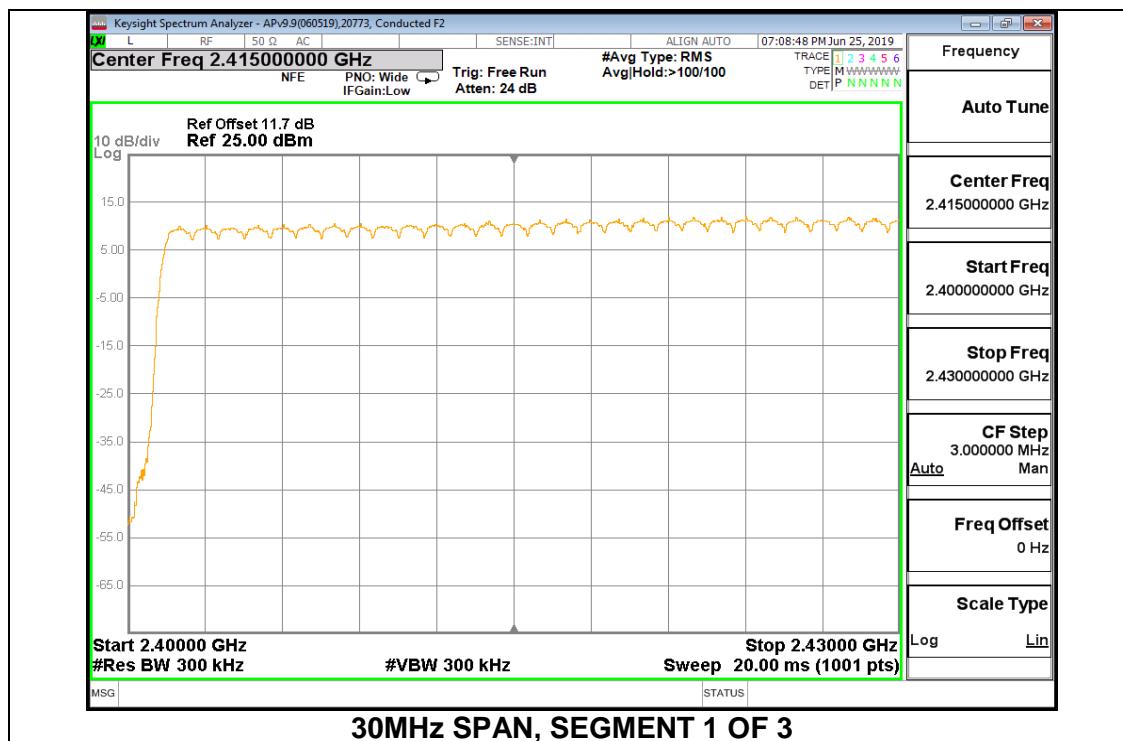
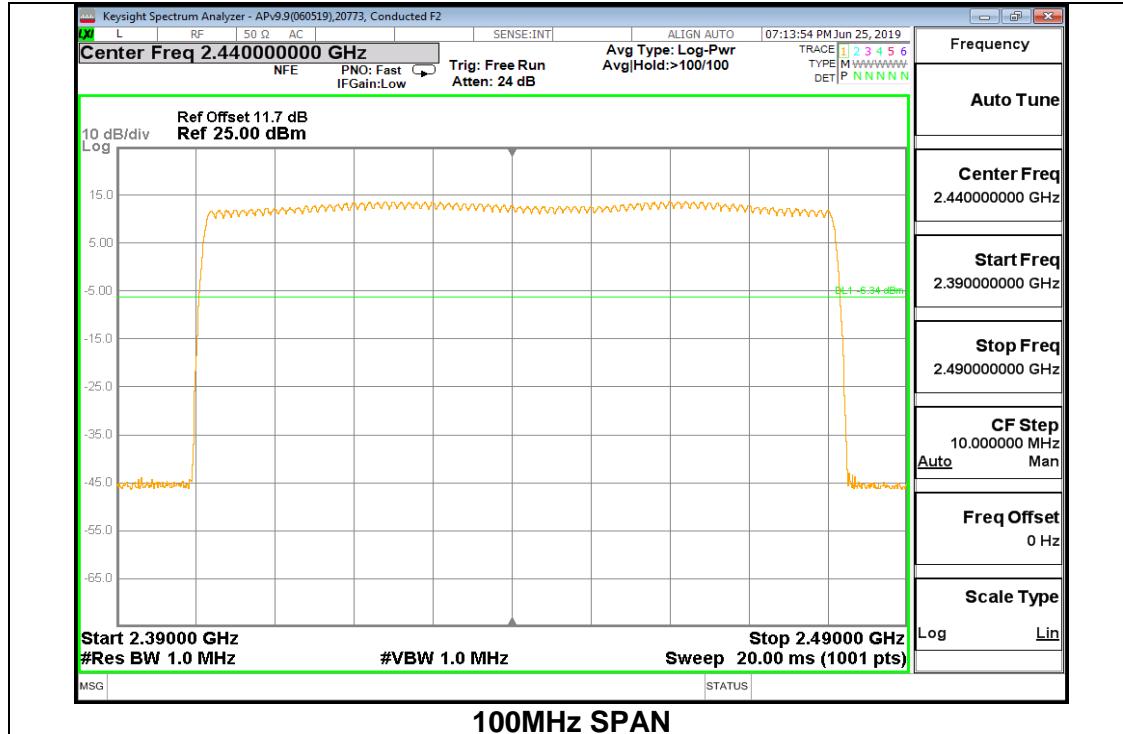
30MHz SPAN, SEGMENT 2 OF 3

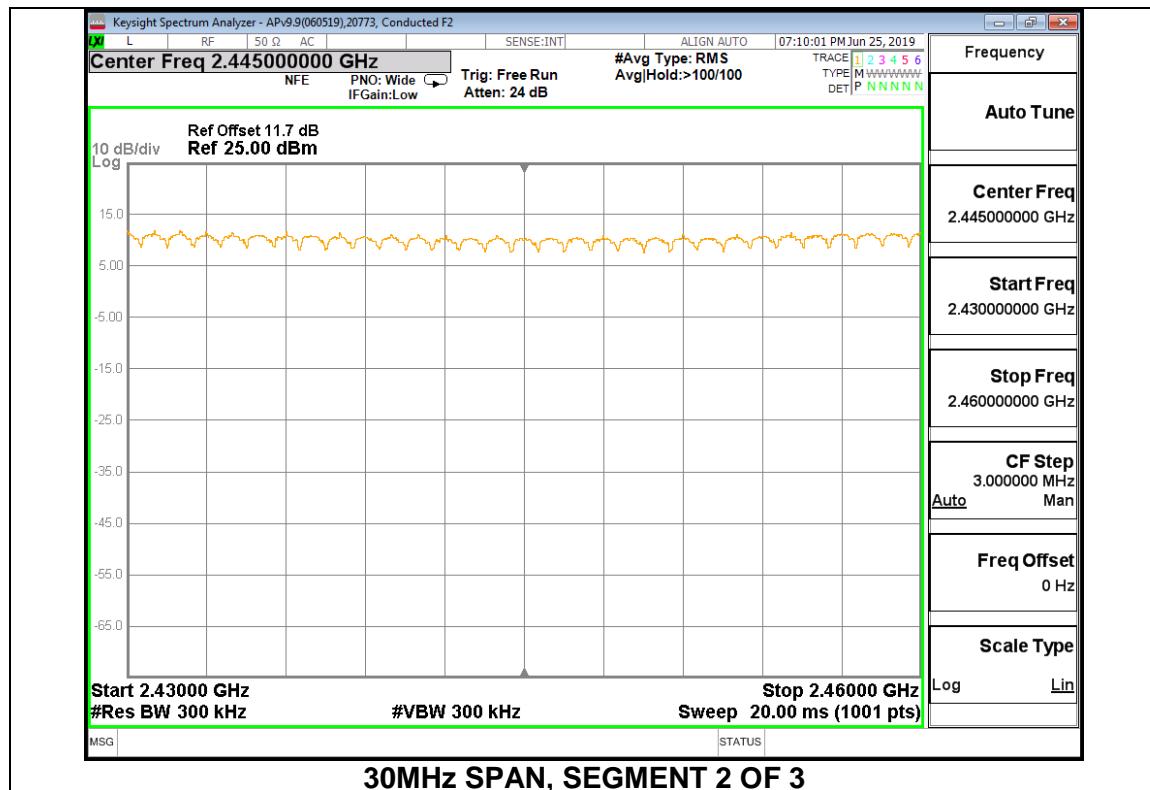


30MHz SPAN, SEGMENT 3 OF 3

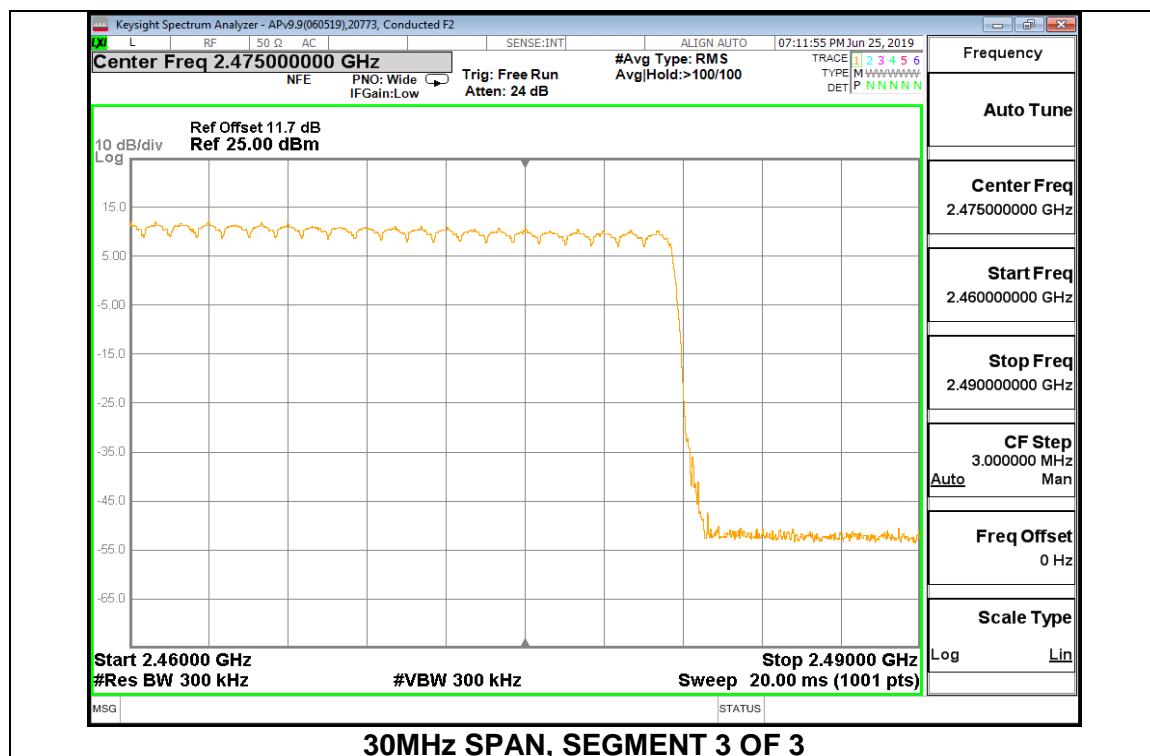
8.12.2. HIGH POWER ENHANCED DATA RATE 8PSK MODULATION

Antenna 2



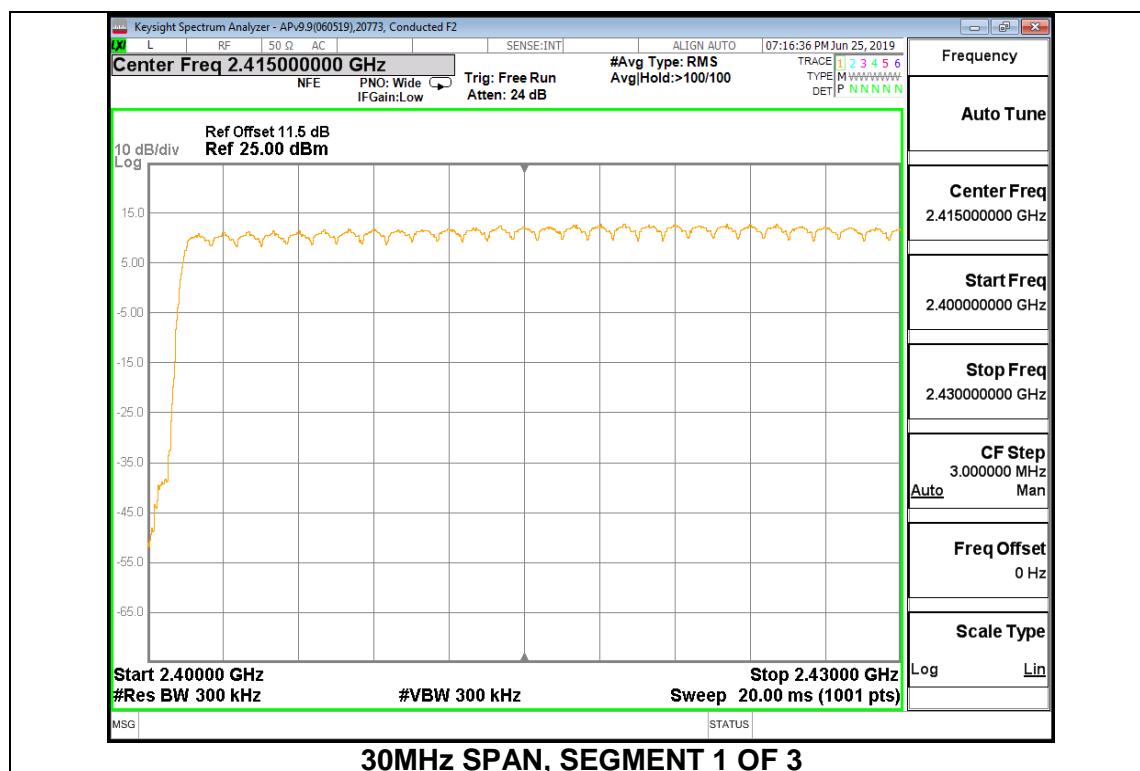
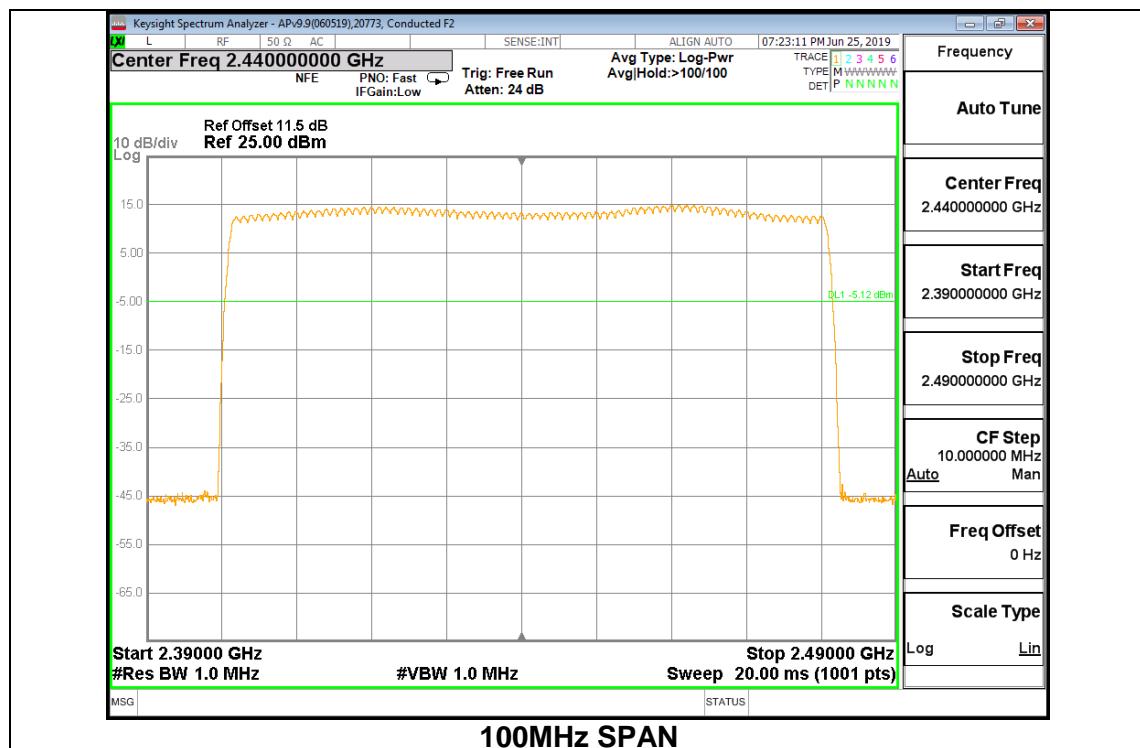


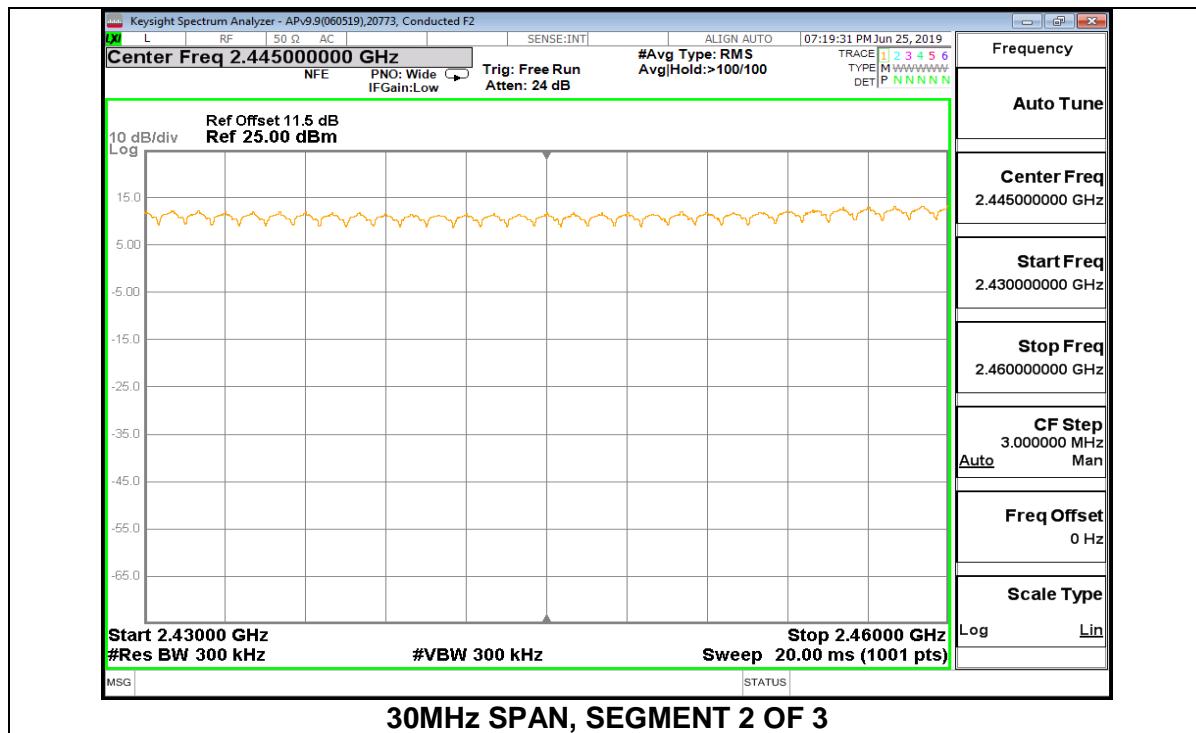
30MHz SPAN, SEGMENT 2 OF 3



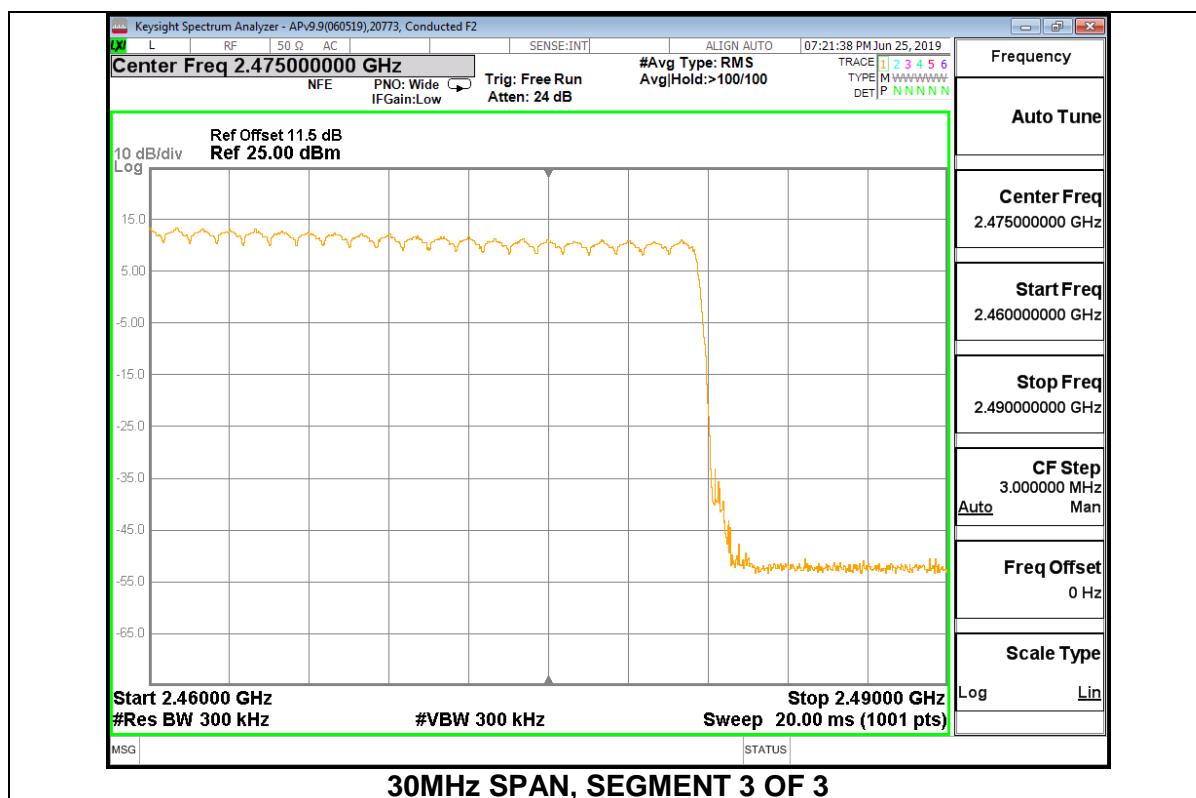
30MHz SPAN, SEGMENT 3 OF 3

Antenna 5





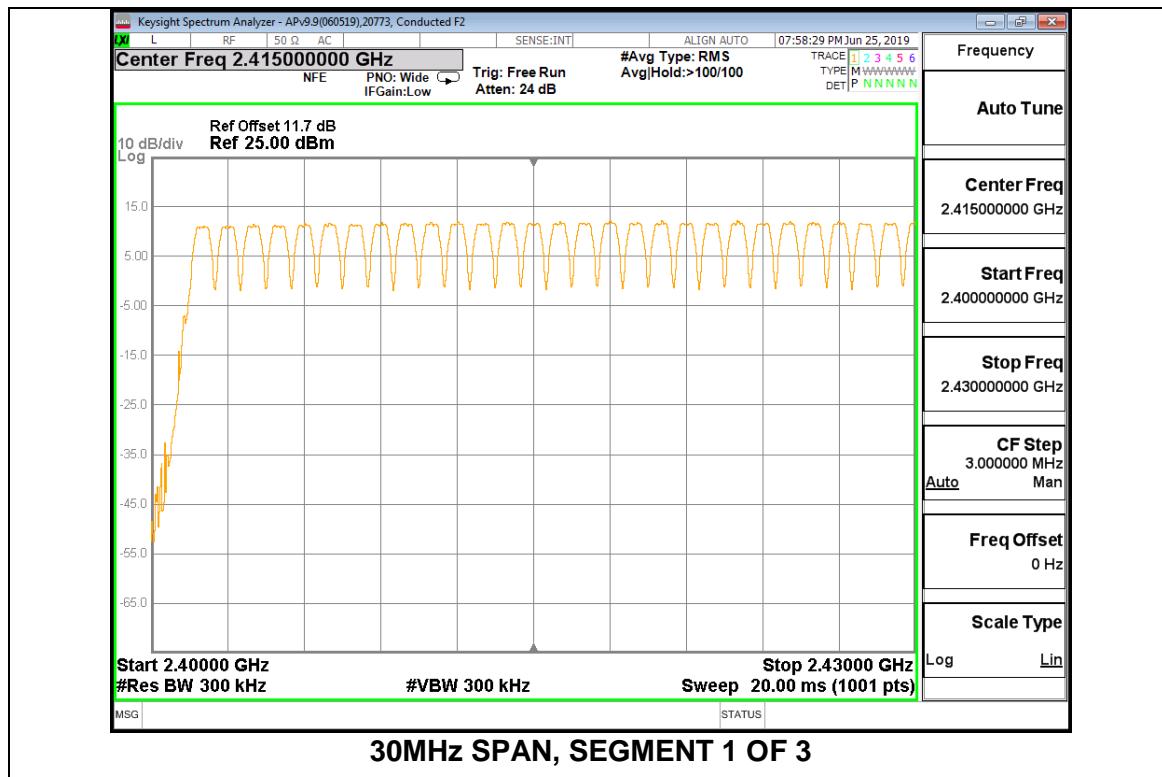
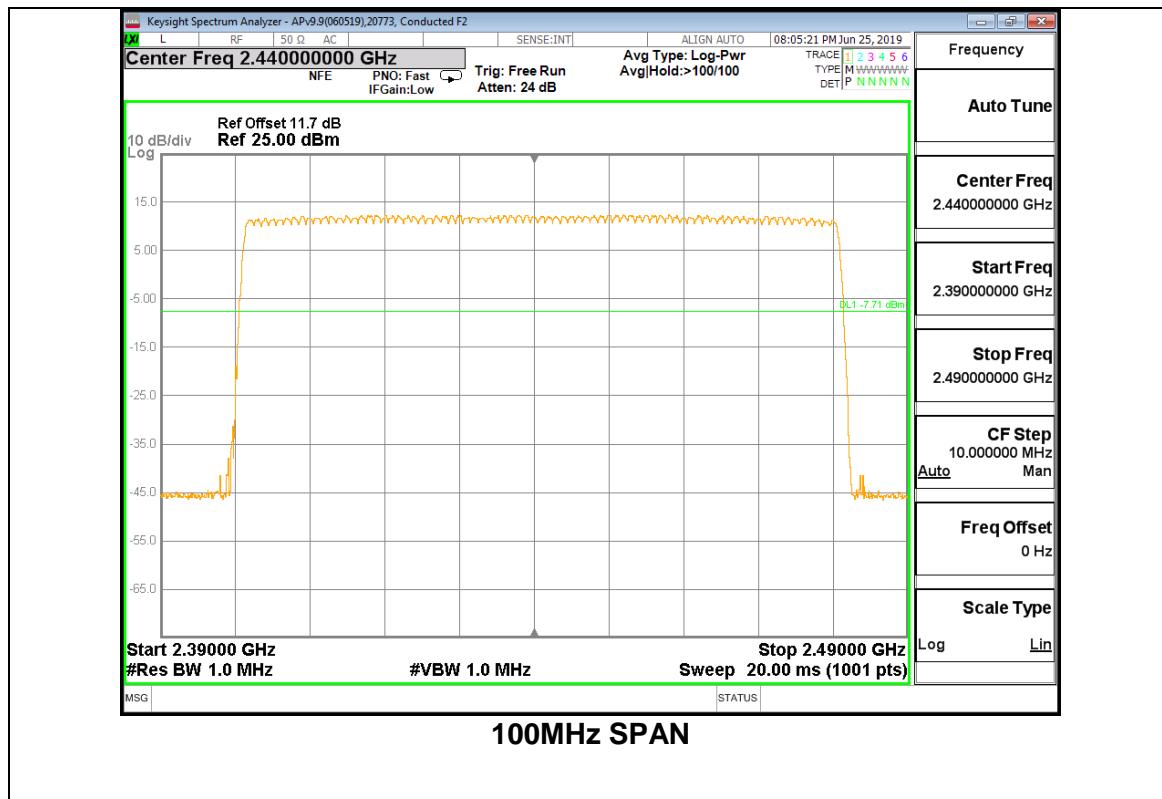
30MHz SPAN, SEGMENT 2 OF 3

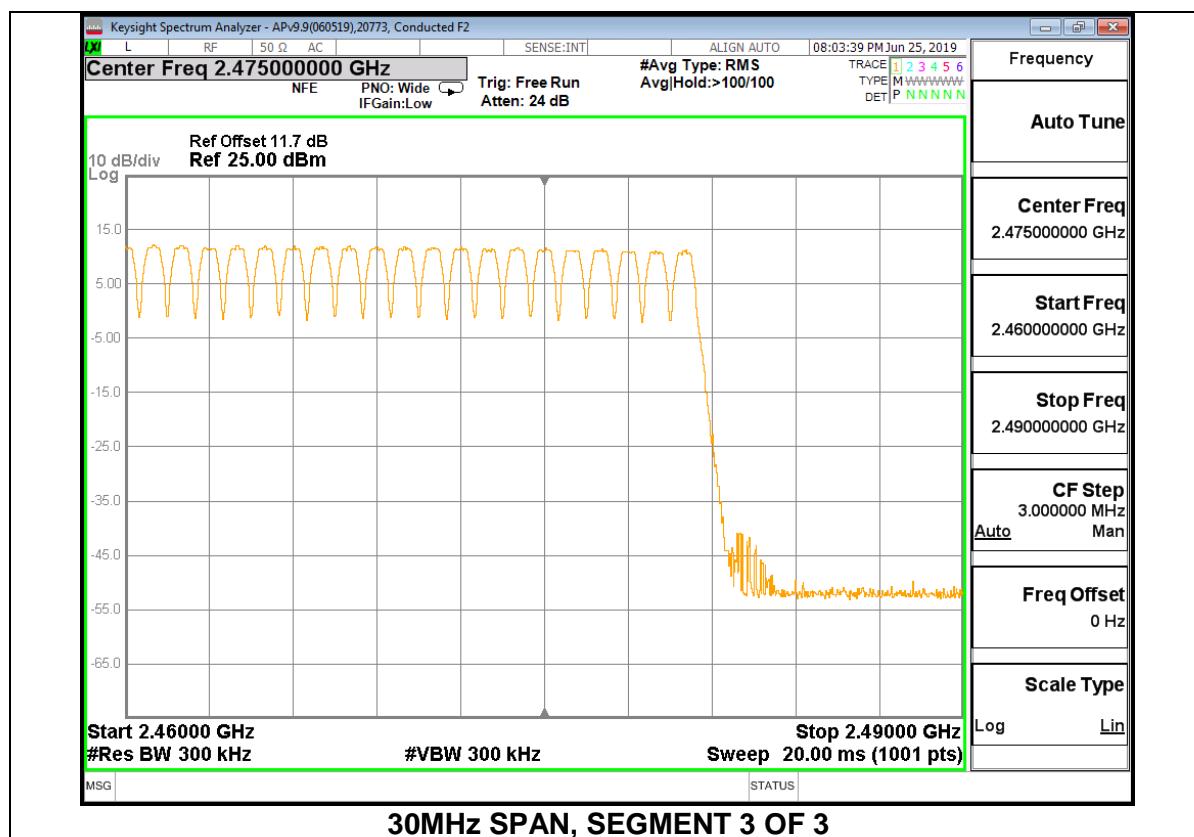
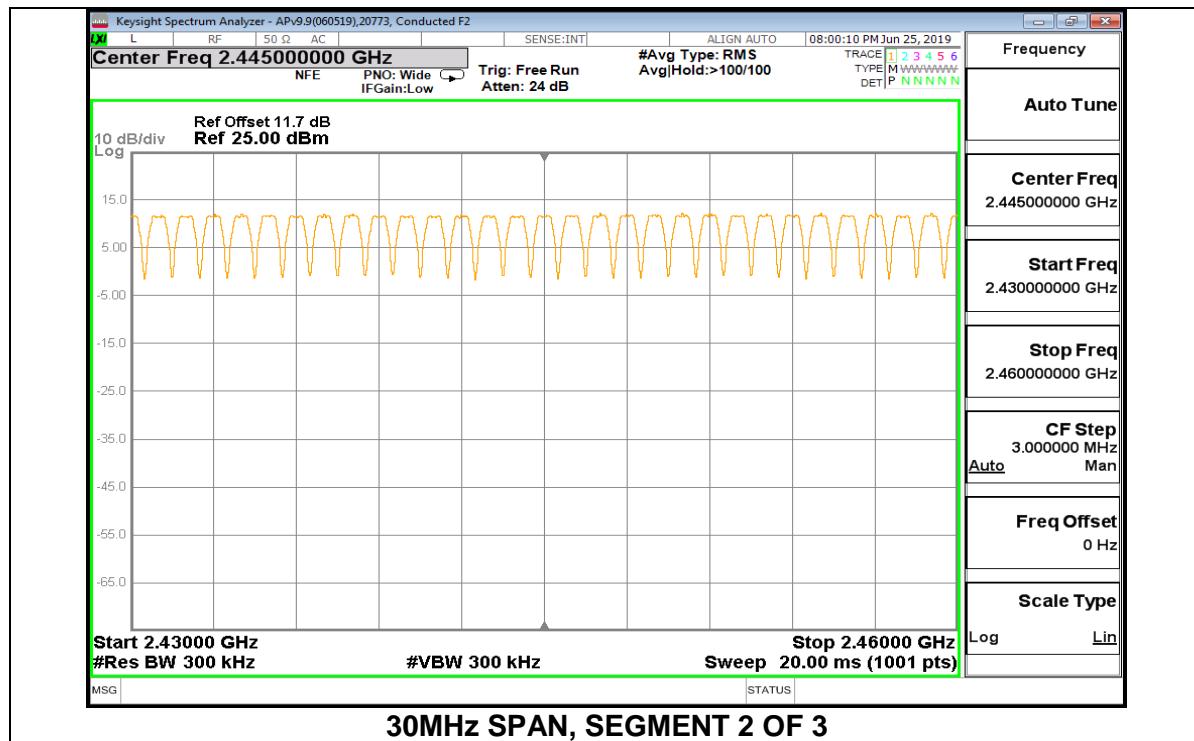


30MHz SPAN, SEGMENT 3 OF 3

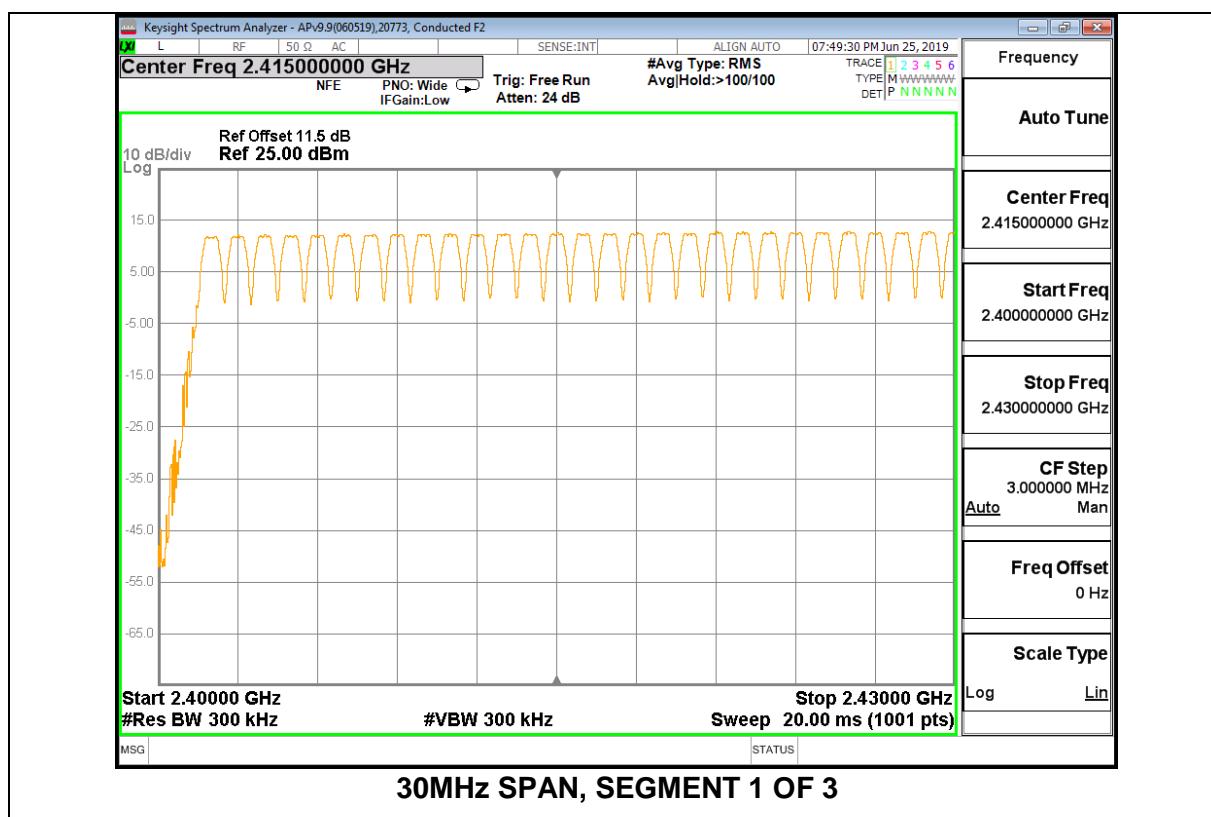
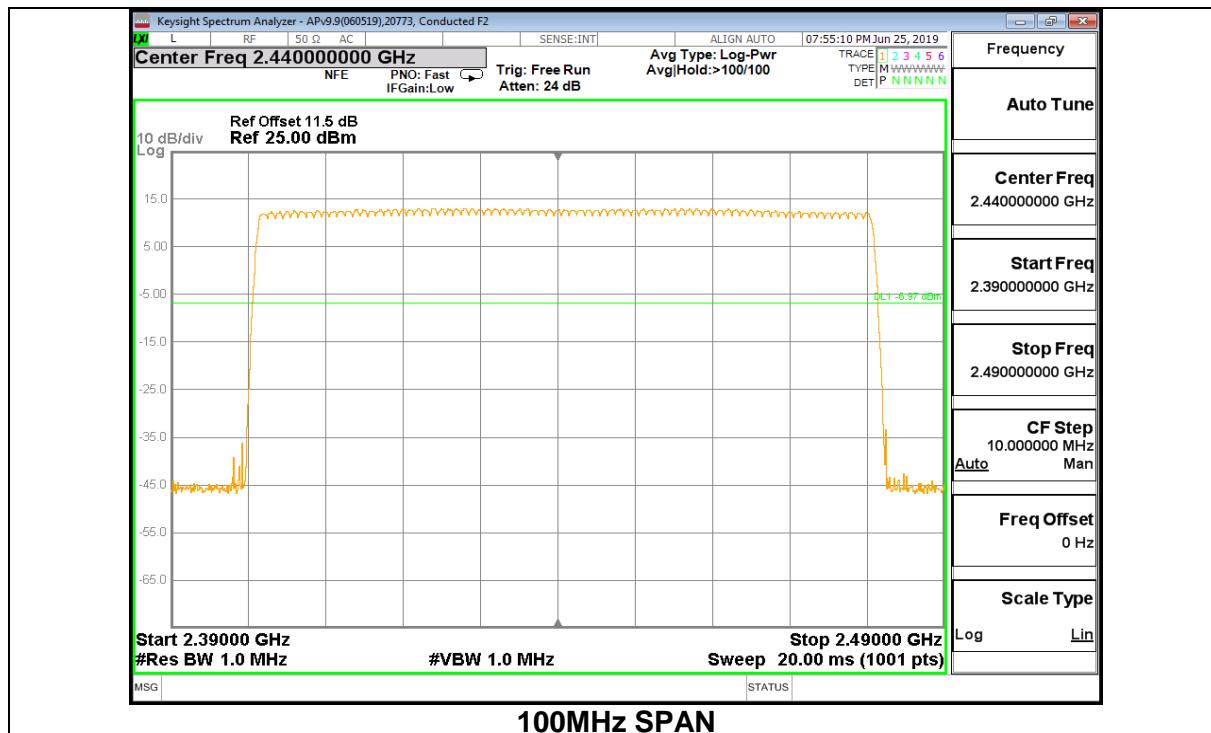
8.12.3. LOW POWER BASIC DATA RATE GFSK MODULATION

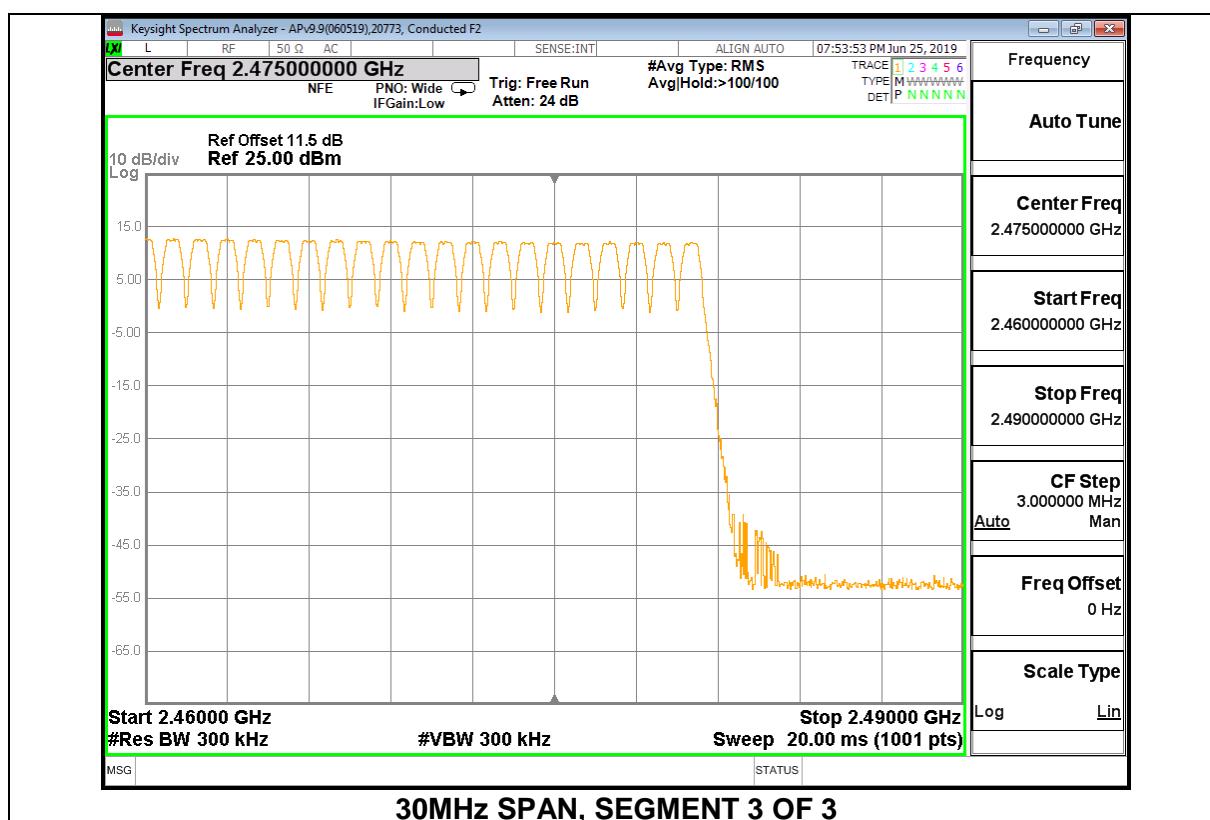
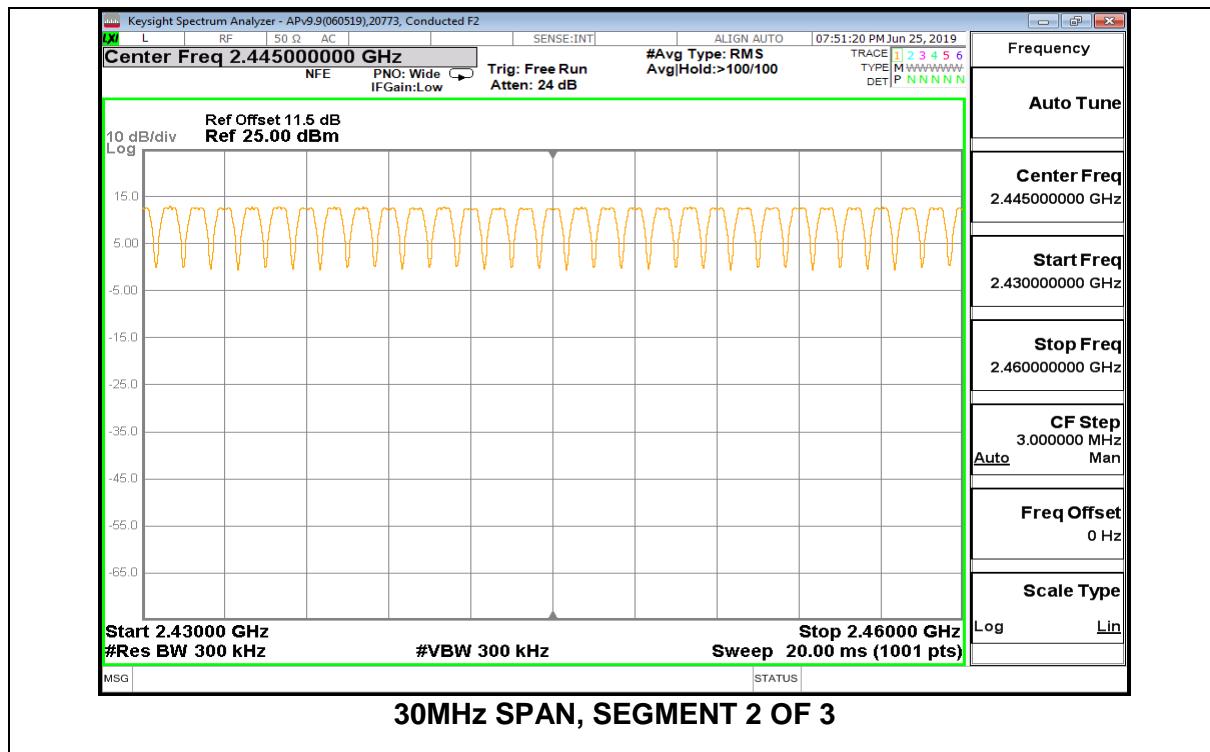
Antenna 2





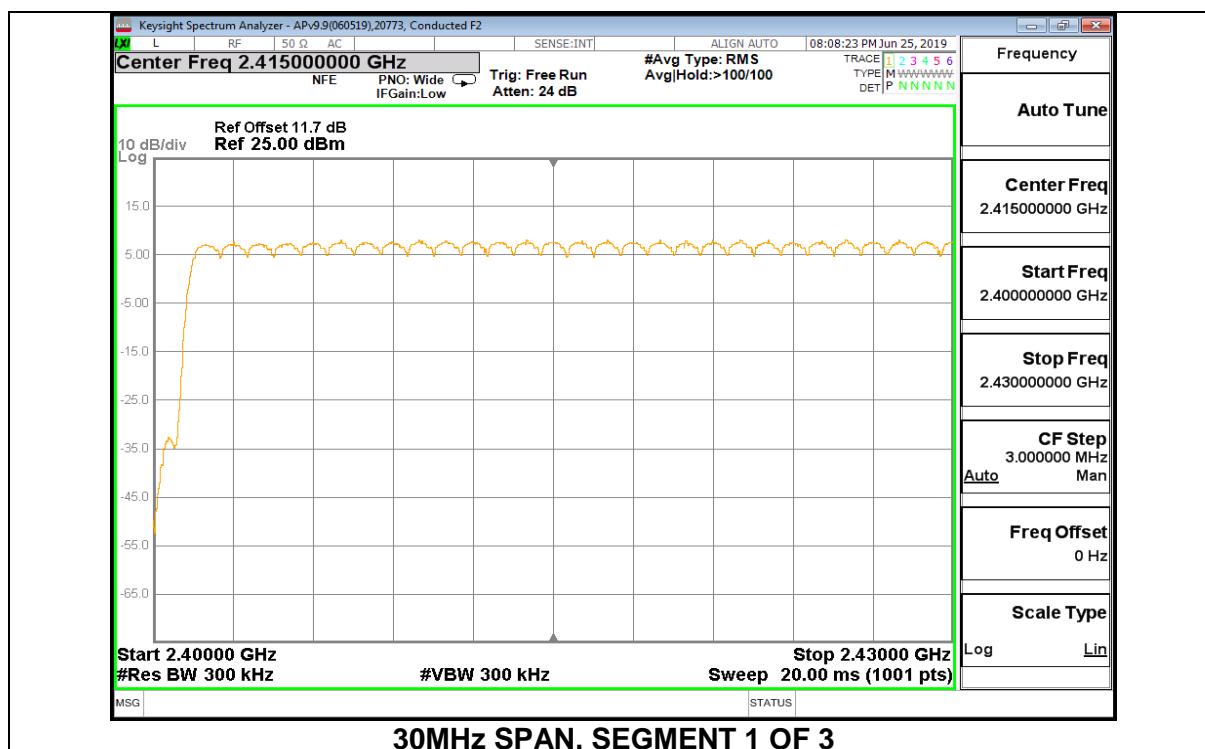
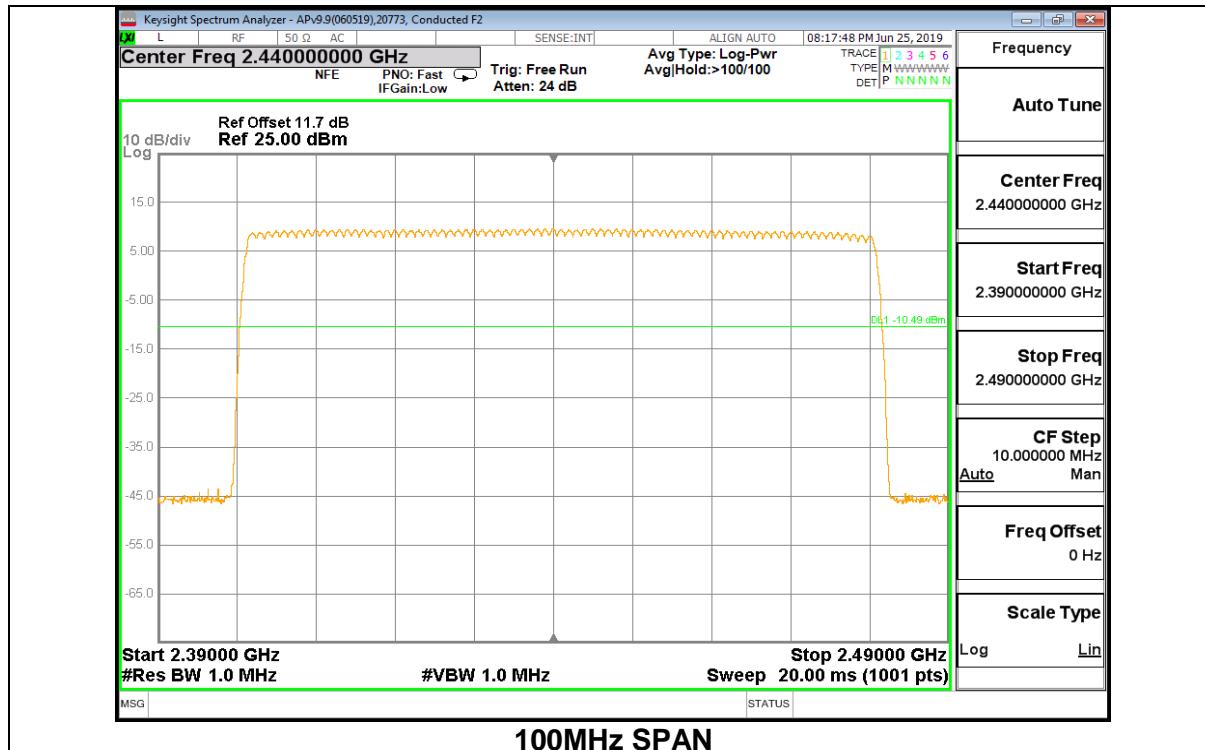
Antenna 5

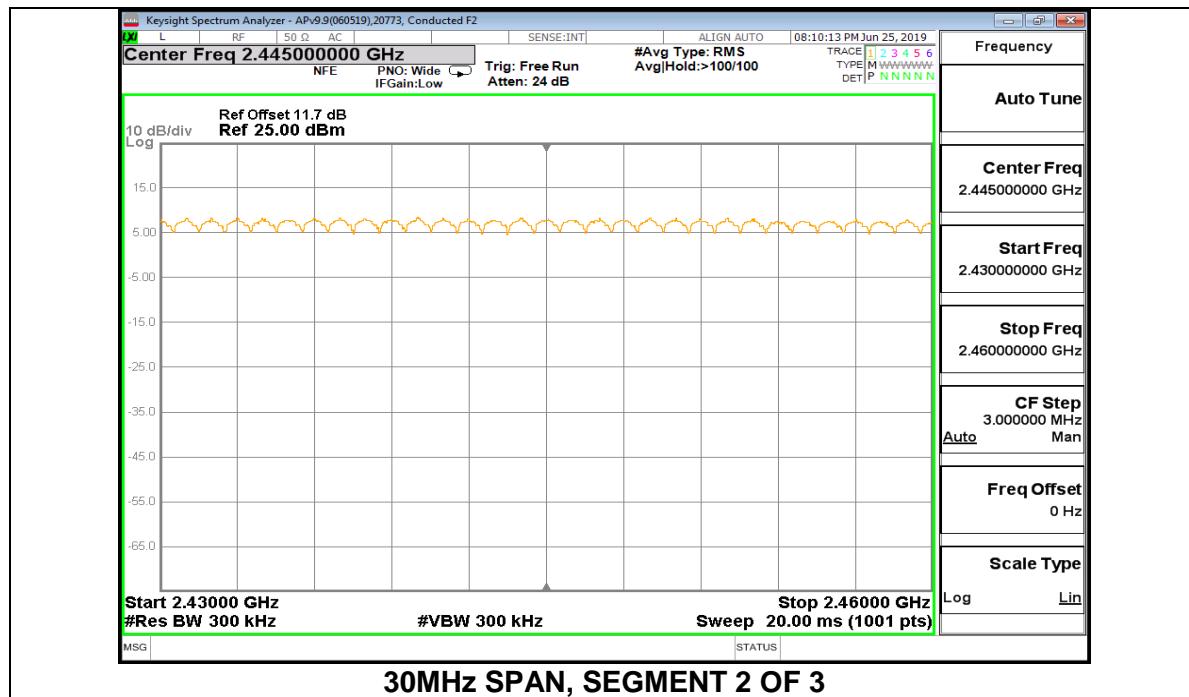




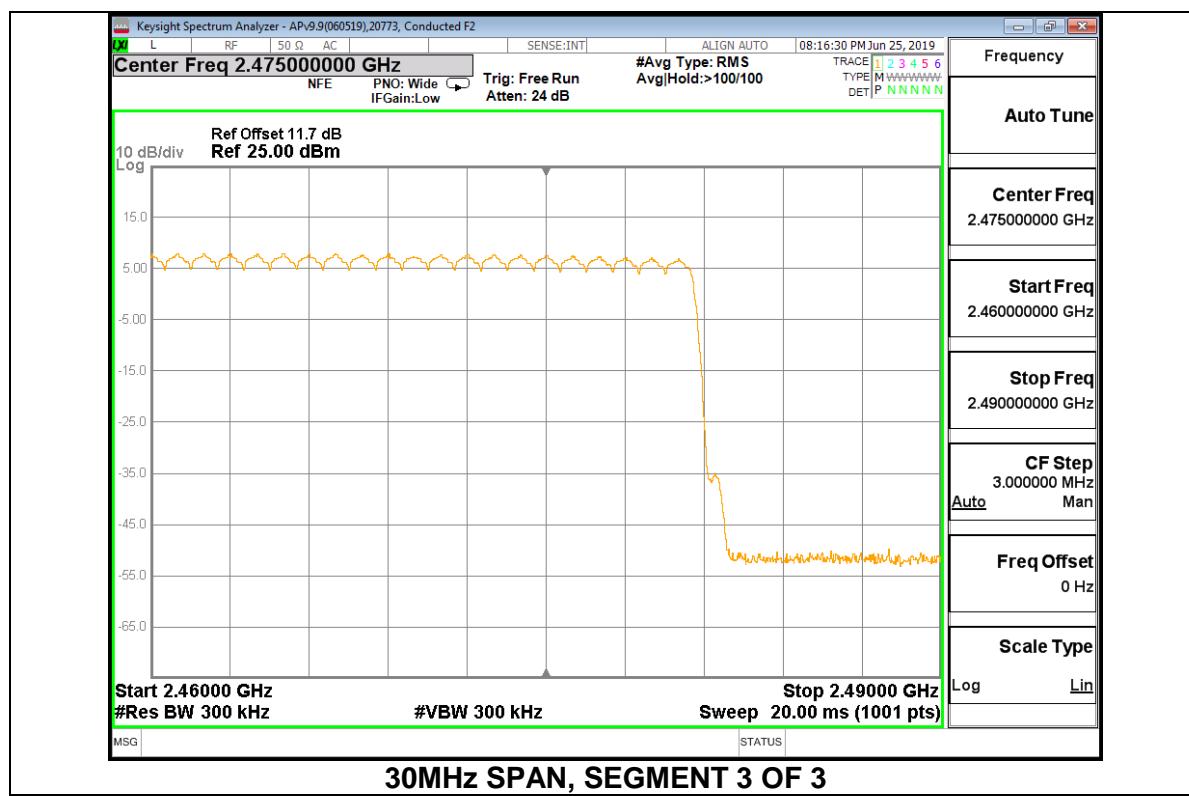
8.12.4. LOW POWER ENHANCED DATA RATE 8PSK MODULATION

Antenna 2



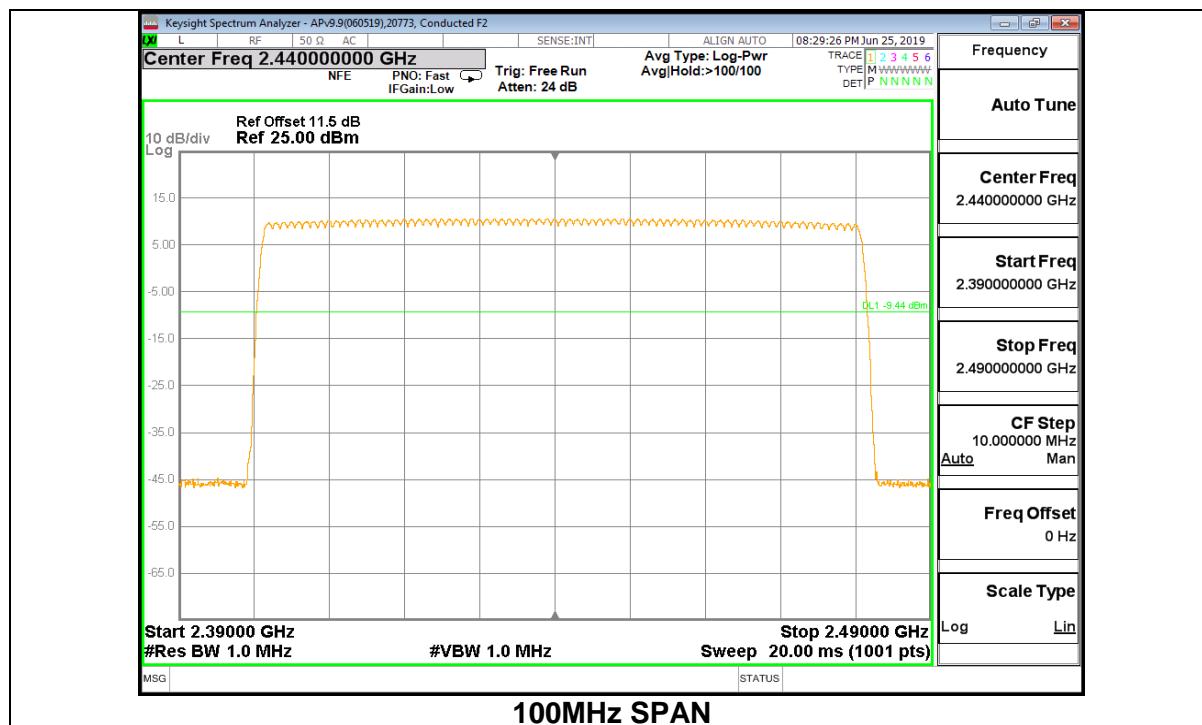


30MHz SPAN, SEGMENT 2 OF 3

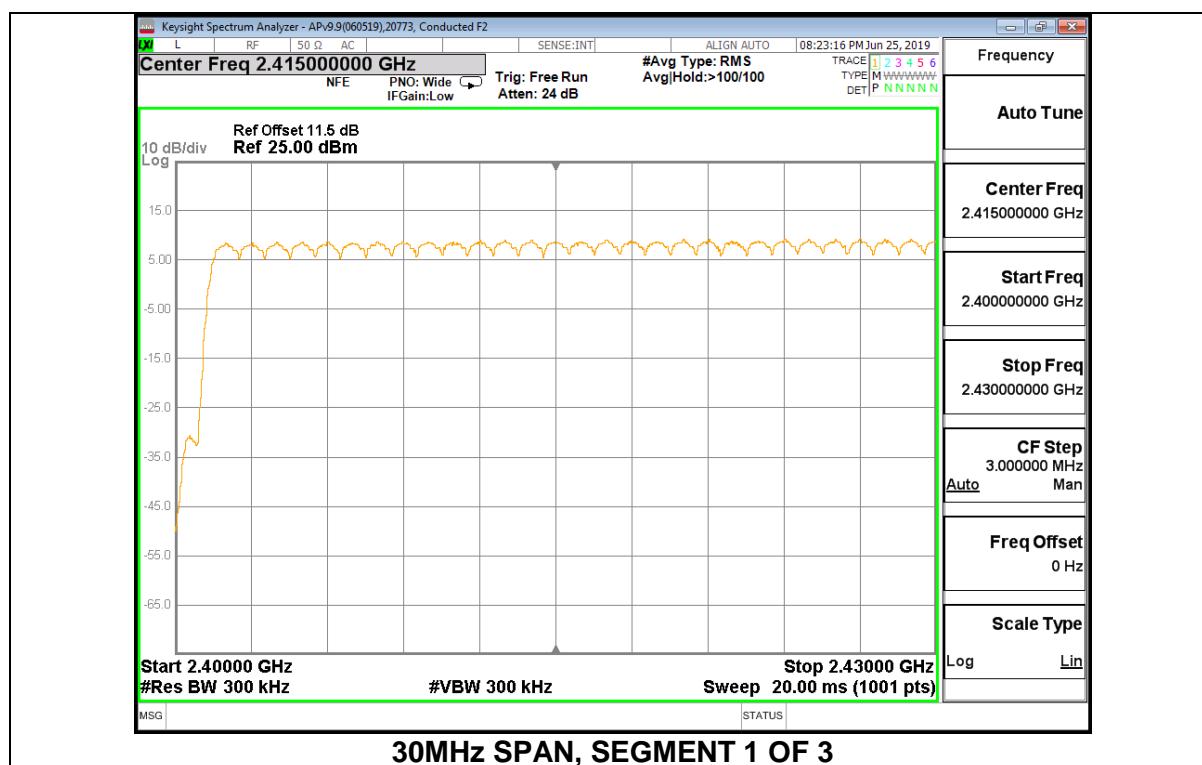


30MHz SPAN, SEGMENT 3 OF 3

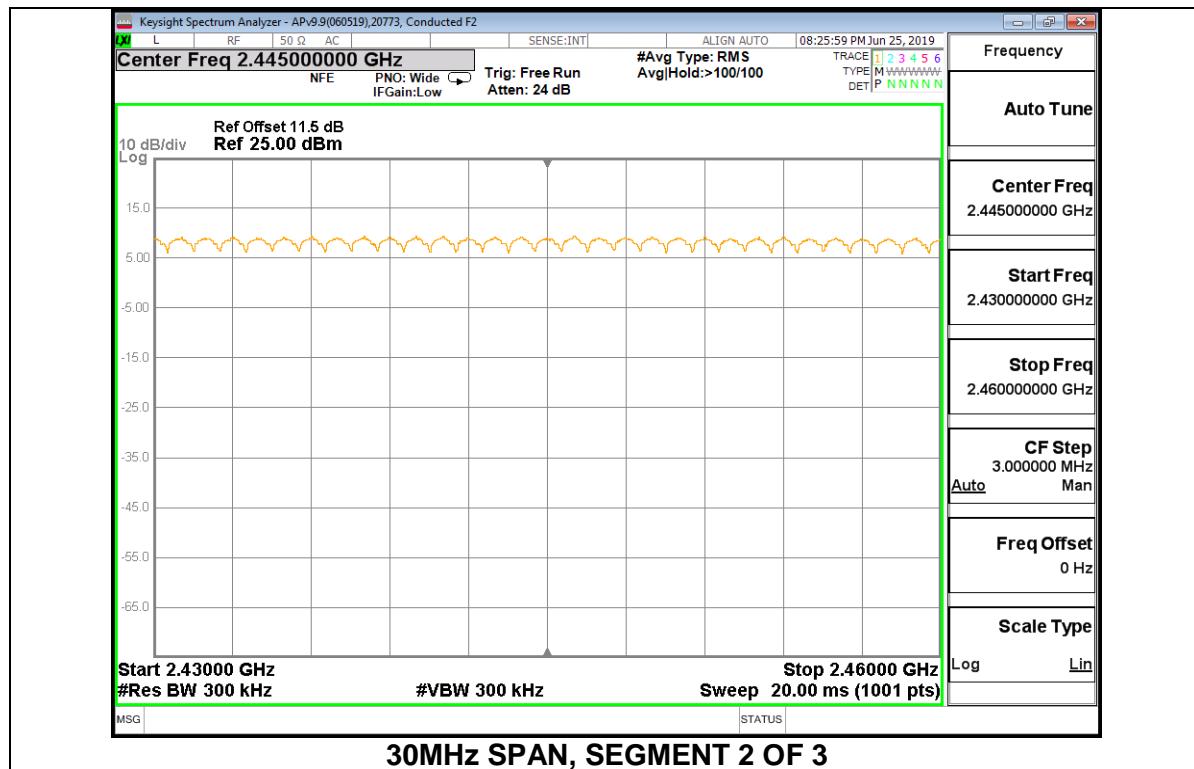
Antenna 5



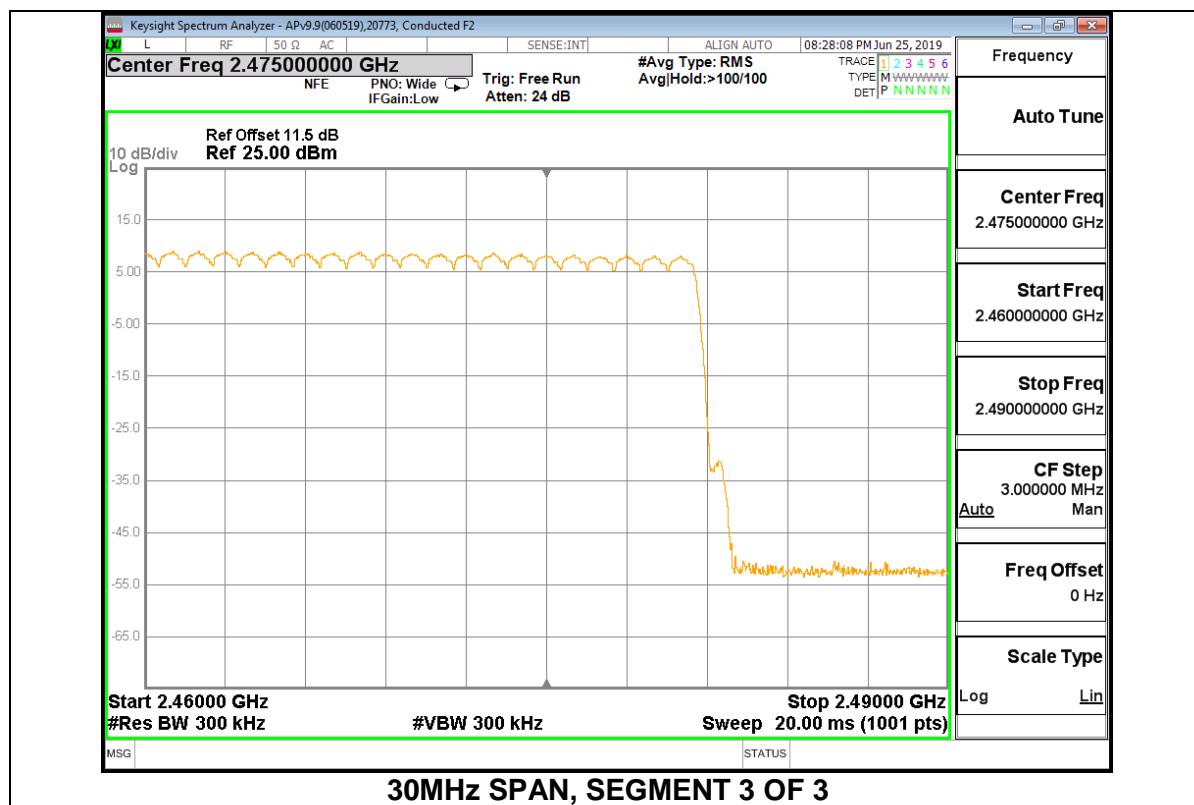
100MHz SPAN



30MHz SPAN, SEGMENT 1 OF 3



30MHz SPAN, SEGMENT 2 OF 3



30MHz SPAN, SEGMENT 3 OF 3

8.13. BEAMFORMING, AVERAGE TIME OF OCCUPANCY

LIMITS

FCC §15.247 (a) (1) (iii)

RSS-247 (5.1) (d)

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The span is set to 0 Hz, centered on a single, selected hopping channel. The width of a single pulse is measured in a fast scan. The number of pulses is measured in a 3.16 second scan, to enable resolution of each occurrence.

The average time of occupancy in the specified 3.16 second period (79 channels * 0.4 s) is equal to $10 * (\# \text{ of pulses in } 3.16 \text{ s}) * \text{pulse width}$.

For AFH mode, the average time of occupancy in the specified 8 second period (20 channels * 0.4 seconds) is equal to $10 * (\# \text{ of pulses in } 0.8 \text{ s}) * \text{pulse width}$.

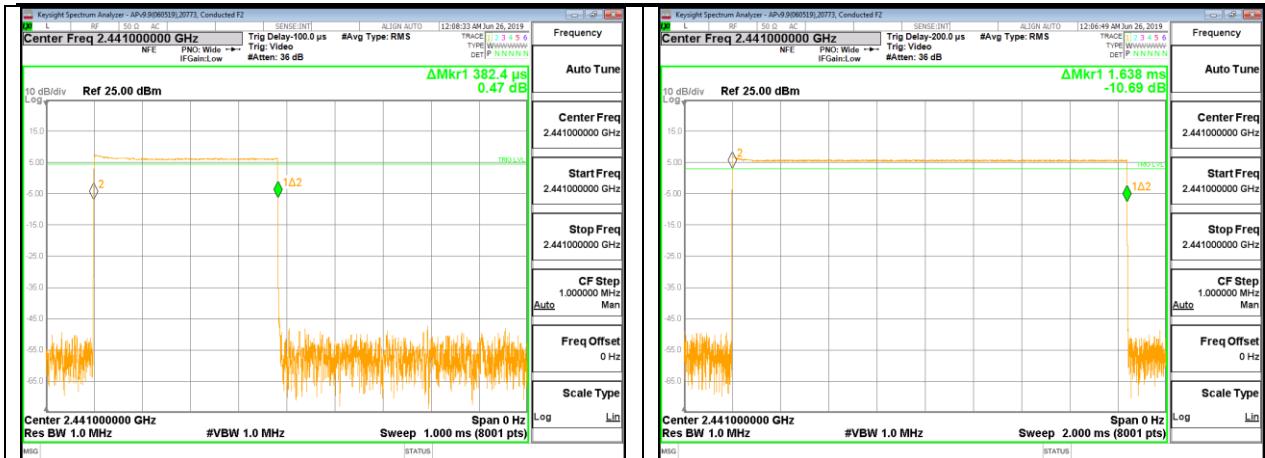
Note: Test procedures and setting on beamforming mode are same as BT basic and EDR mode

RESULTS

8.13.1. HIGH POWER BASIC DATA RATE GFSK MODULATION

Antenna 2

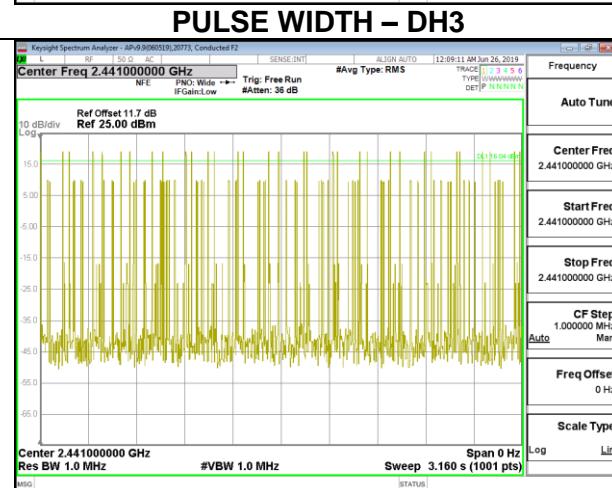
DH Packet	Pulse Width (msec)	Number of Pulses in 3.16 seconds	Average Time of Occupancy (sec)	Limit (sec)	Margin (sec)
GFSK Normal Mode					
DH1	0.3824	33	0.1262	0.4	-0.2738
DH3	1.638	14	0.2293	0.4	-0.1707
DH5	2.886	6	0.1732	0.4	-0.2268
DH Packet	Pulse Width (sec)	Number of Pulses in 0.8 seconds	Average Time of Occupancy (sec)	Limit (sec)	Margin (sec)
GFSK AFH Mode					
DH1	0.3824	8.25	0.03155	0.4	-0.3685
DH3	1.638	3.5	0.05733	0.4	-0.3427
DH5	2.886	1.5	0.04329	0.4	-0.3567



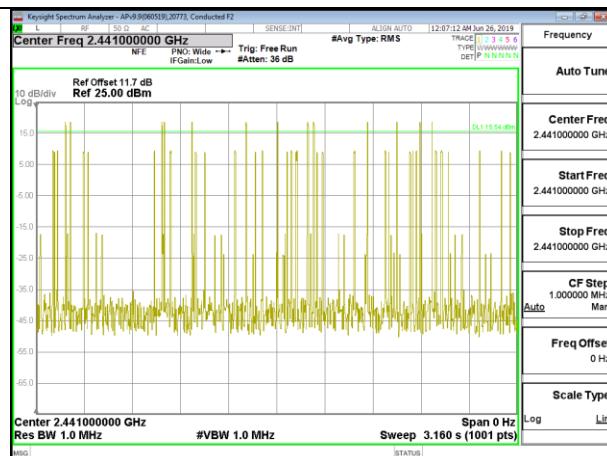
PULSE WIDTH - DH1



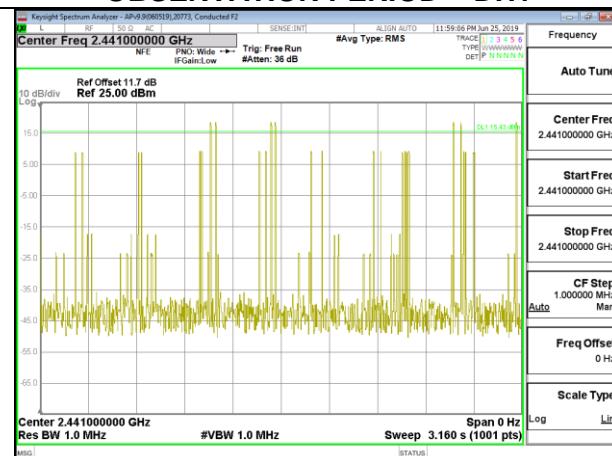
PULSE WIDTH - DH5



NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH1



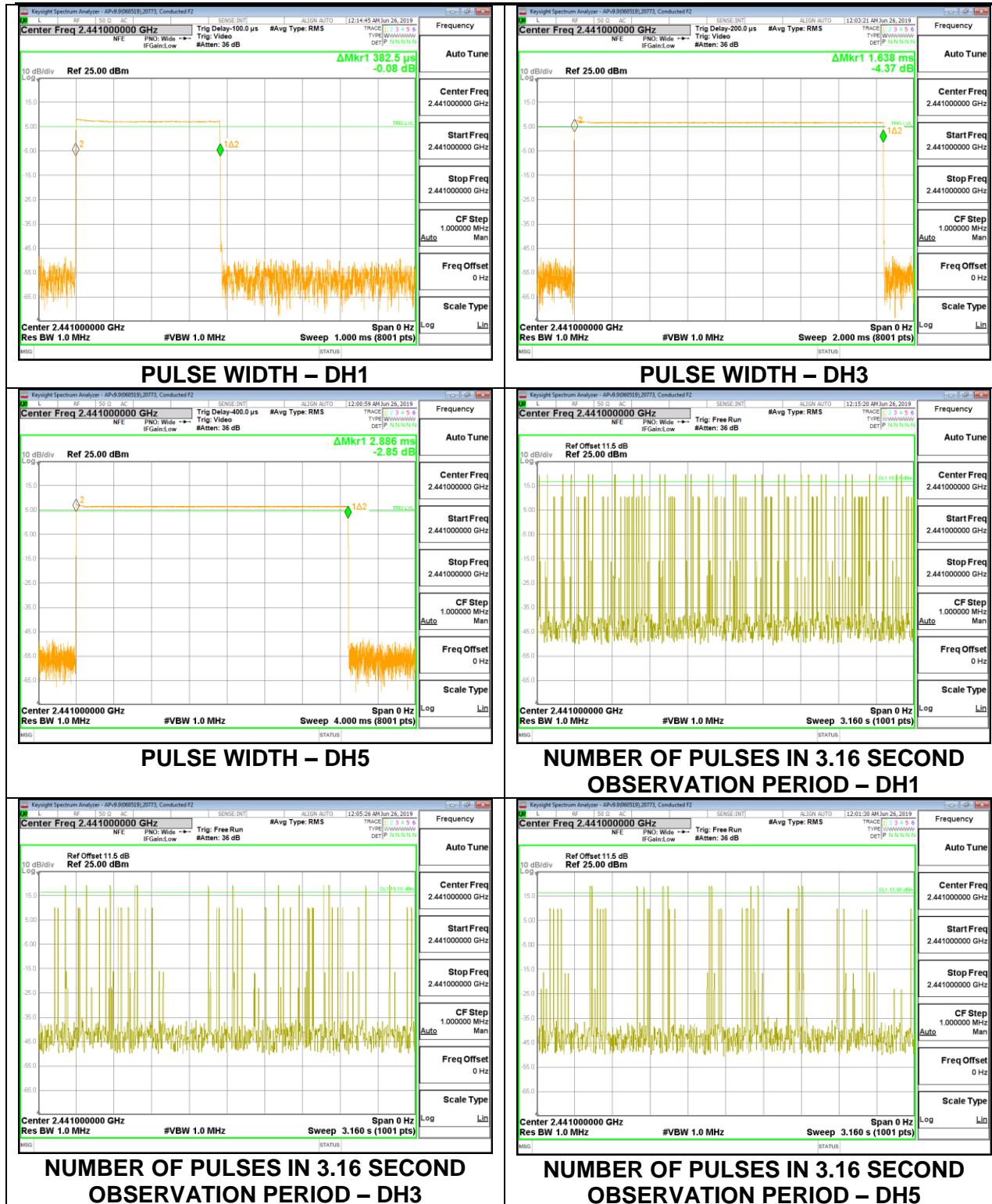
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD -DH3



NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD -DH5

Antenna 5

DH Packet	Pulse Width (msec)	Number of Pulses in 3.16 seconds	Average Time of Occupancy (sec)	Limit (sec)	Margin (sec)
GFSK Normal Mode					
DH1	0.3825	31	0.1186	0.4	-0.2814
DH3	1.638	12	0.1966	0.4	-0.2034
DH5	2.886	9	0.2597	0.4	-0.1403
DH Packet	Pulse Width (sec)	Number of Pulses in 0.8 seconds	Average Time of Occupancy (sec)	Limit (sec)	Margin (sec)
GFSK AFH Mode					
DH1	0.3825	7.75	0.02964	0.4	-0.3704
DH3	1.638	3	0.04914	0.4	-0.3509
DH5	2.886	2.25	0.06494	0.4	-0.3351

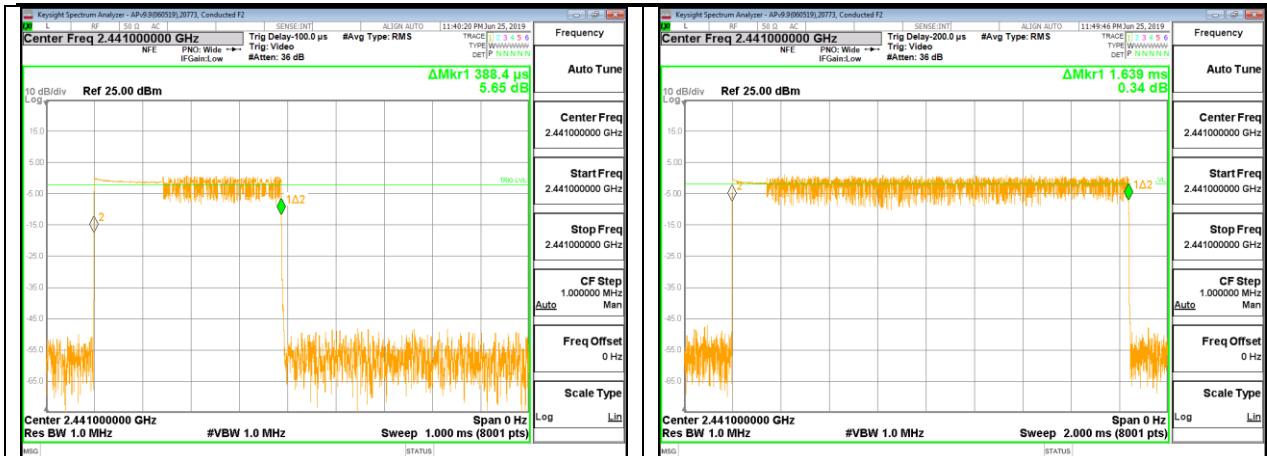


8.13.2. HIGH POWER ENHANCED DATA RATE 8PSK MODULATION

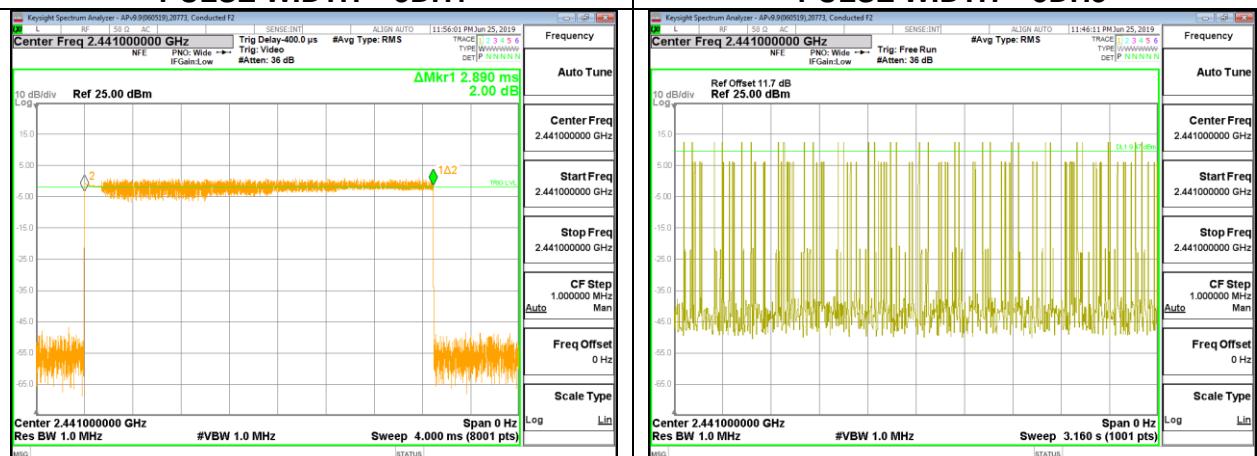
Antenna 2

DH Packet	Pulse Width (msec)	Number of Pulses in 3.16 seconds	Average Time of Occupancy (sec)	Limit (sec)	Margin (sec)
8PSK Normal	Mode				
3DH1	0.3884	32	0.124288	0.4	-0.2757
3DH3	1.639	16	0.262224	0.4	-0.1378
3DH5	2.89	4	0.1156	0.4	-0.2844

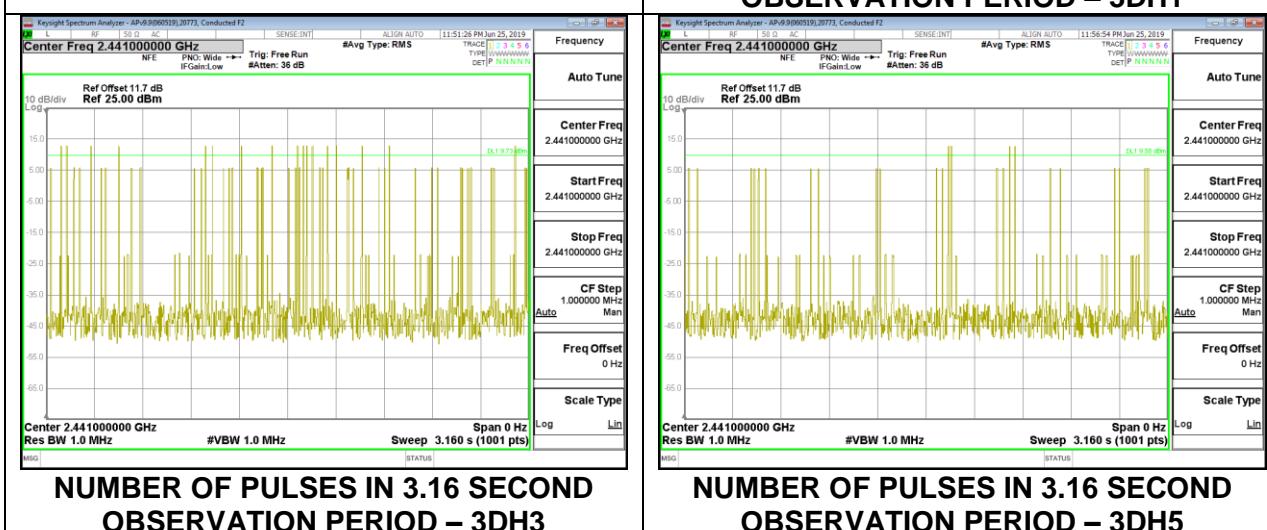
Note: for AFH(8PSK) mode, please refer to the results of AFH(GFSK) mode; the channel selection and hopping rate are the same for both EDR and Basic Rate operation, data for Basic Rate demonstrates compliance with channel occupancy when AFH is employed.



PULSE WIDTH – 3DH1



PULSE WIDTH – 3DH5



NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD – 3DH3

NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD – 3DH1

Antenna 5

DH Packet	Pulse Width (msec)	Number of Pulses in 3.16 seconds	Average Time of Occupancy (sec)	Limit (sec)	Margin (sec)
8PSK Normal Mode					
3DH1	0.3881	32	0.124192	0.4	-0.2758
3DH3	1.639	16	0.26224	0.4	-0.1378
3DH5	2.89	8	0.2312	0.4	-0.1688

Note: for AFH(8PSK) mode, please refer to the results of AFH(GFSK) mode; the channel selection and hopping rate are the same for both EDR and Basic Rate operation, data for Basic Rate demonstrates compliance with channel occupancy when AFH is employed.