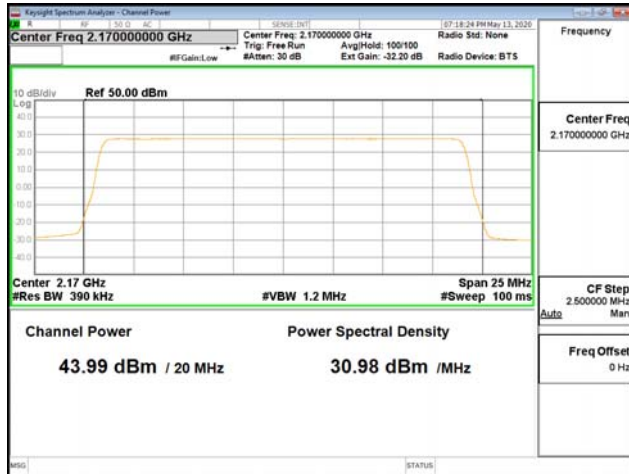
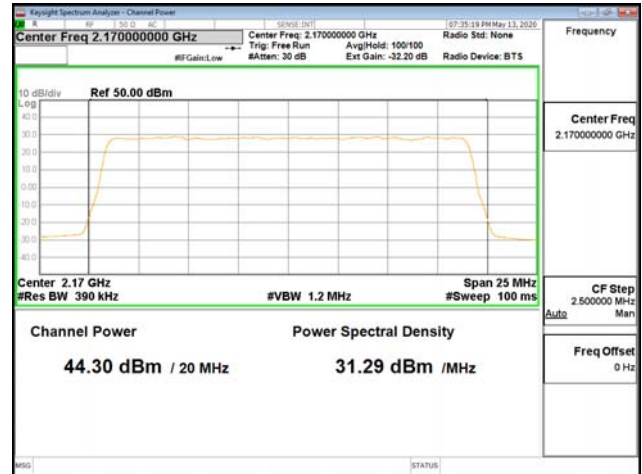


**Band 66, BW 20MHz, Single carrier, Top
ANT 0**

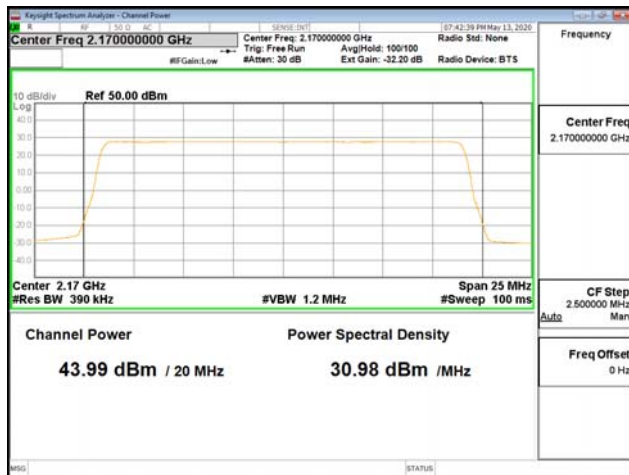
QPSK



16QAM



64QAM

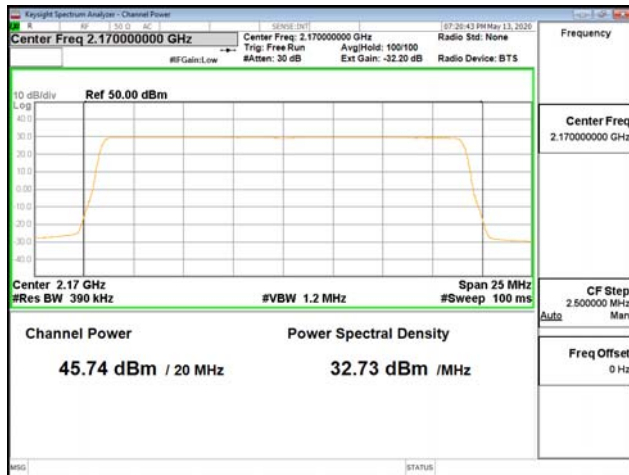


256QAM

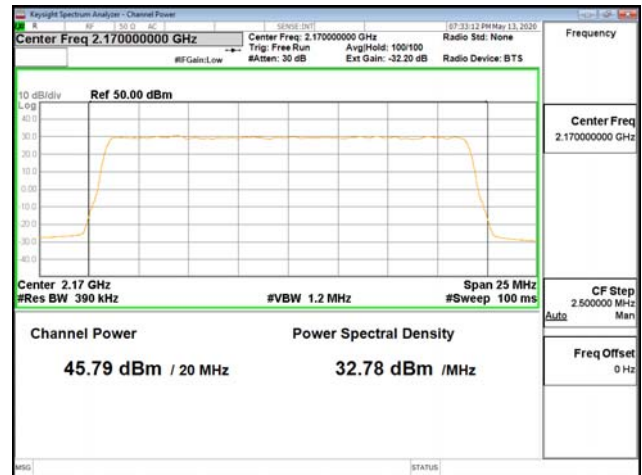


ANT 1

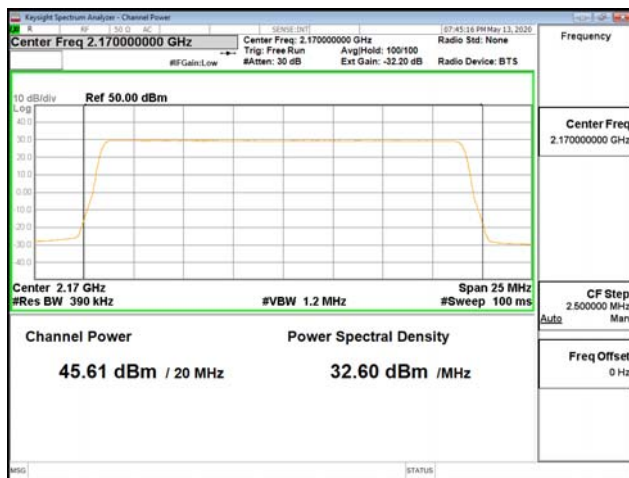
QPSK



16QAM



64QAM

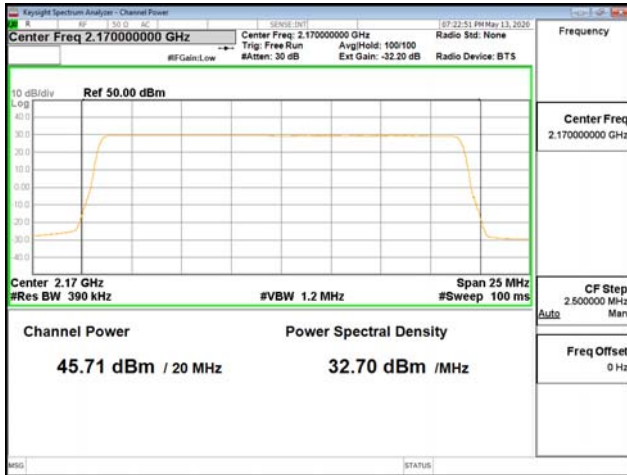


256QAM

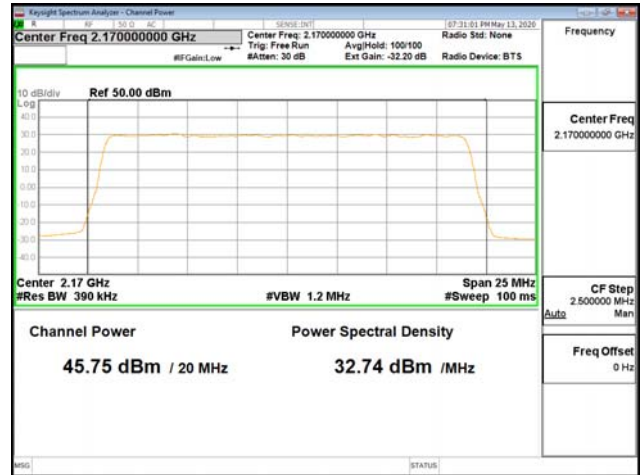


ANT 2

QPSK



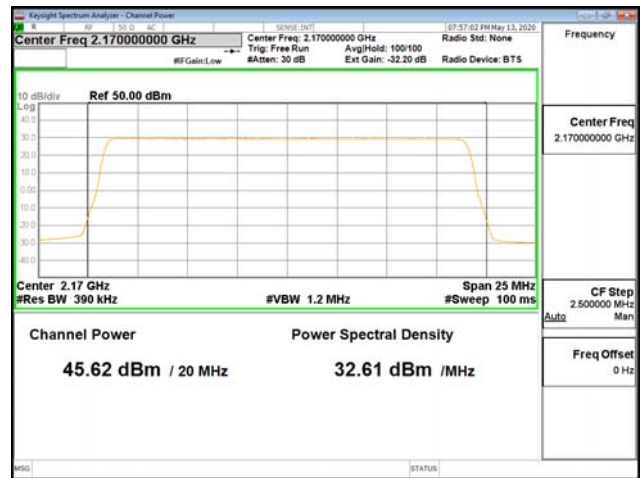
16QAM



64QAM

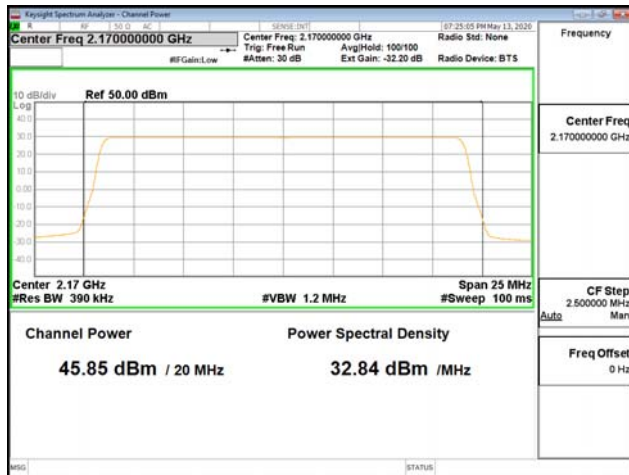


256QAM

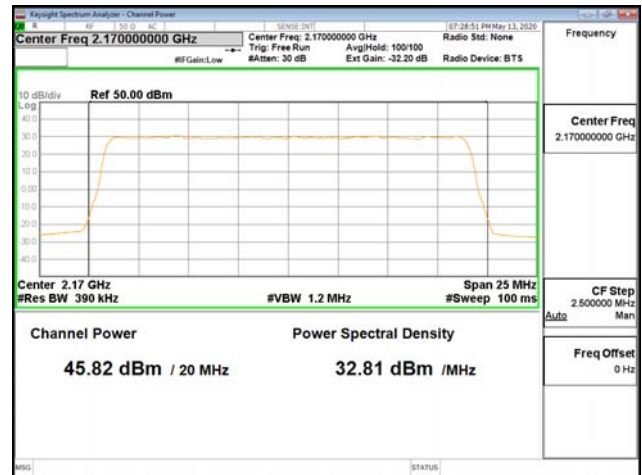


ANT 3

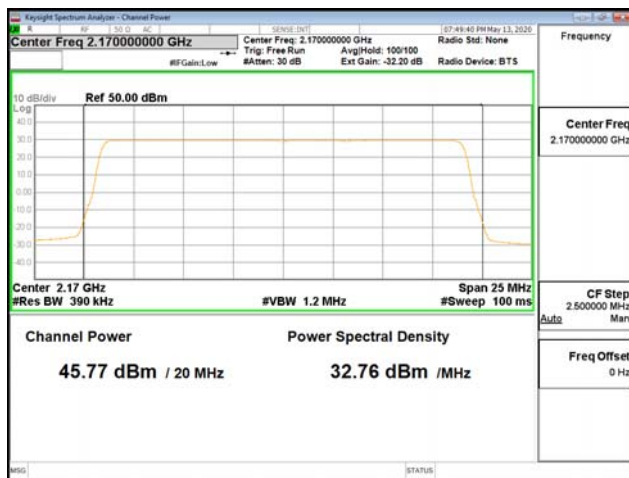
QPSK



16QAM



64QAM



256QAM



**Band 66, BW 10MHz+10MHz, Multi 2 carrier, Bottom
ANT 0**

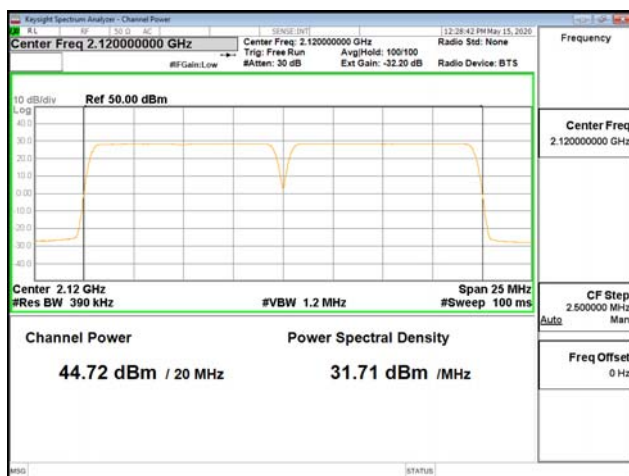
QPSK



16QAM



64QAM



256QAM

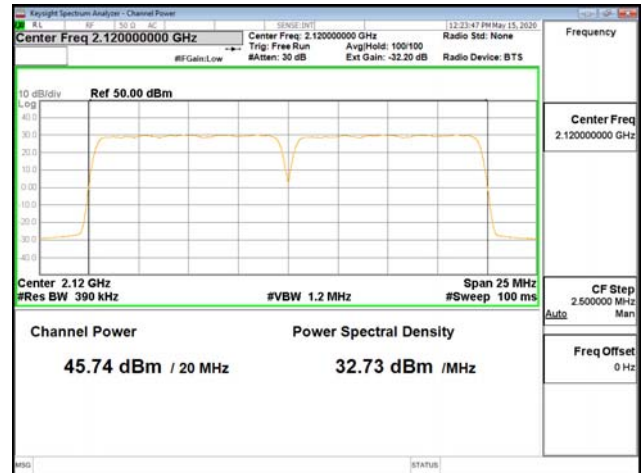


ANT 1

QPSK



16QAM



64QAM



256QAM



ANT 2

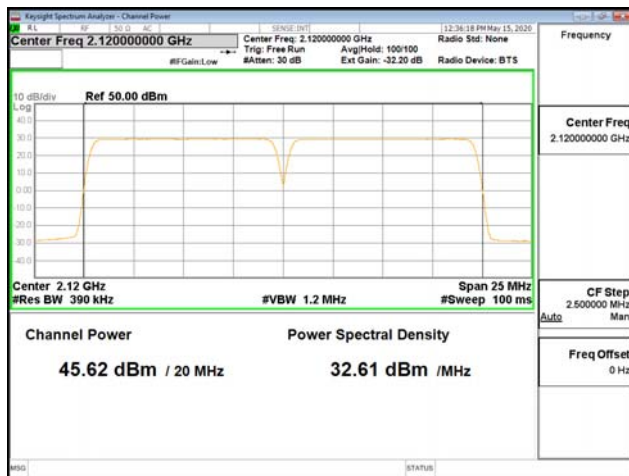
QPSK



16QAM



64QAM



256QAM



ANT 3

QPSK



16QAM



64QAM



256QAM



**Band 66, BW 10MHz+10MHz, Multi 2 carrier, Middle
ANT 0**

QPSK



16QAM



64QAM



256QAM



ANT 1

QPSK



16QAM



64QAM



256QAM



ANT 2

QPSK



16QAM



64QAM



256QAM



ANT 3

QPSK



16QAM



64QAM



256QAM



**Band 66, BW 10MHz+10MHz, Multi 2 carrier, Top
ANT 0**

QPSK



16QAM



64QAM



256QAM



ANT 1

QPSK



16QAM



64QAM



256QAM



ANT 2

QPSK



16QAM



64QAM



256QAM



ANT 3

QPSK



16QAM



64QAM



256QAM



**Band 66, BW 5MHz+10MHz+10MHz, Multi 3 carrier, Bottom
ANT 0**

QPSK



16QAM



64QAM



256QAM



ANT 1

QPSK



16QAM



64QAM



256QAM



ANT 2

QPSK



16QAM



64QAM



256QAM



ANT 3

QPSK



16QAM



64QAM



256QAM



**Band 66, BW 5MHz+10MHz+10MHz, Multi 3 carrier, Middle
ANT 0**

QPSK



16QAM



64QAM



256QAM



ANT 1

QPSK



16QAM



64QAM



256QAM



ANT 2

QPSK



16QAM



64QAM



256QAM



ANT 3

QPSK



16QAM



64QAM



256QAM



**Band 66, BW 5MHz+10MHz+10MHz, Multi 3 carrier, Top
ANT 0**

QPSK



16QAM



64QAM



256QAM



ANT 1

QPSK



16QAM



64QAM



256QAM



ANT 2

QPSK



16QAM



64QAM



256QAM



ANT 3

QPSK



16QAM



64QAM



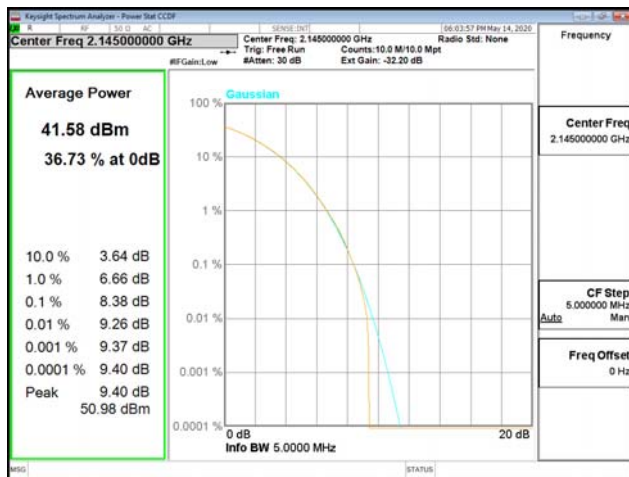
256QAM



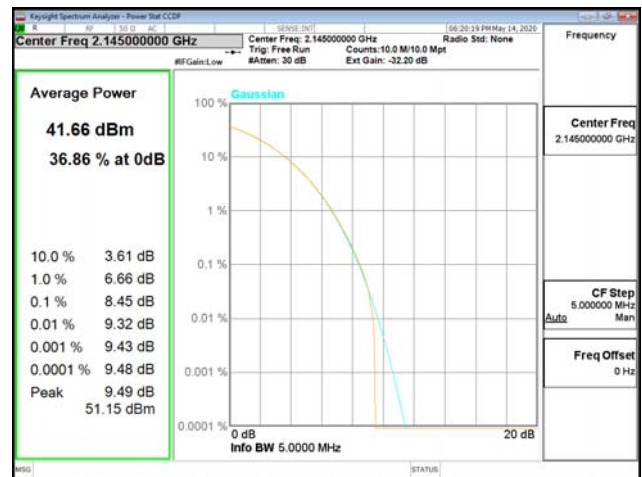
Test Plot at Peak-to-Average Ratio

Band 66, BW 5MHz, Single carrier, Middle
ANT0

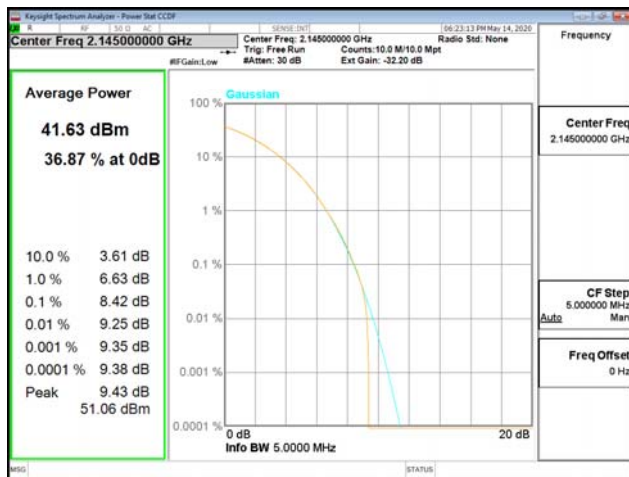
QPSK



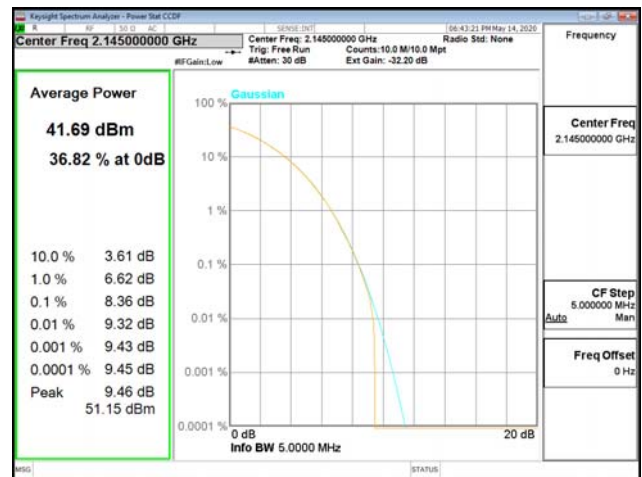
16QAM



64QAM



256QAM

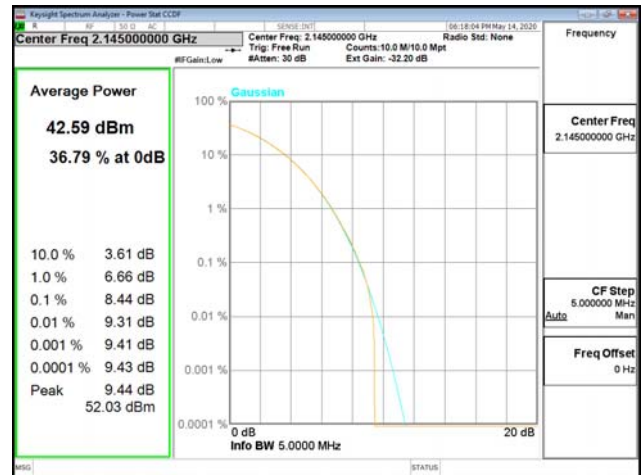


ANT1

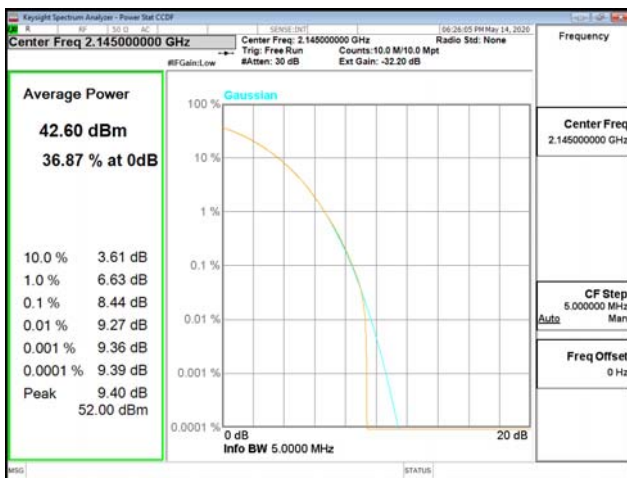
QPSK



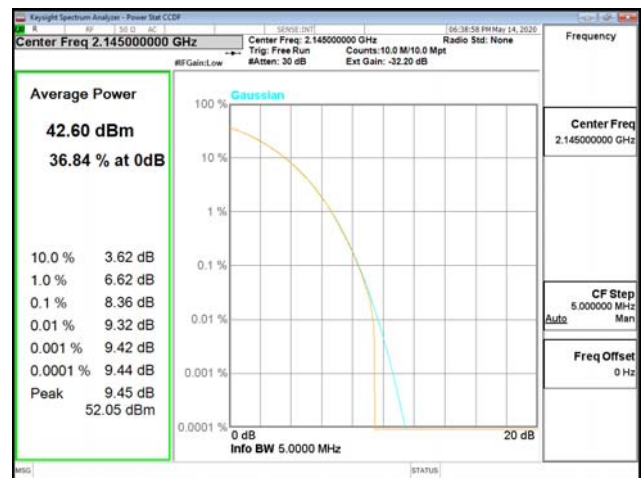
16QAM



64QAM

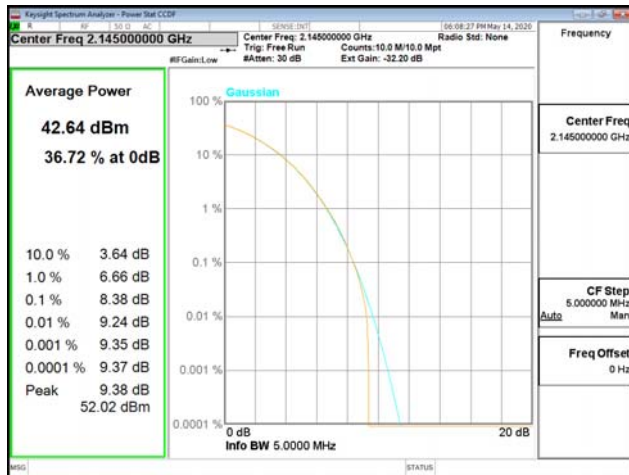


256QAM



ANT2

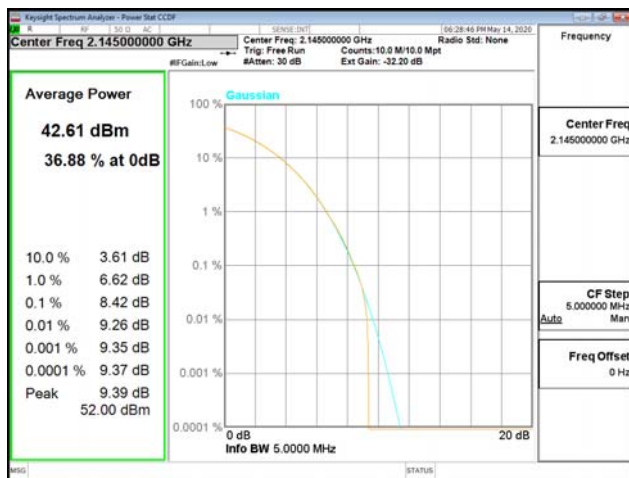
QPSK



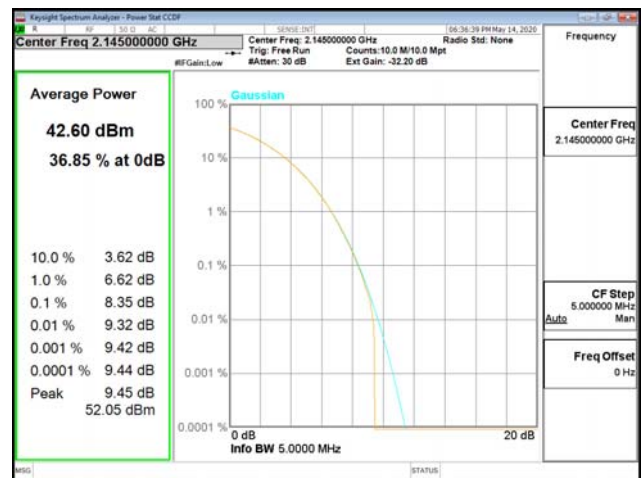
16QAM



64QAM



256QAM

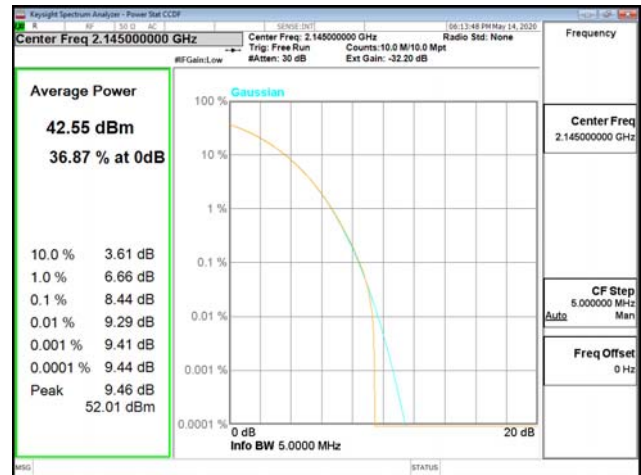


ANT3

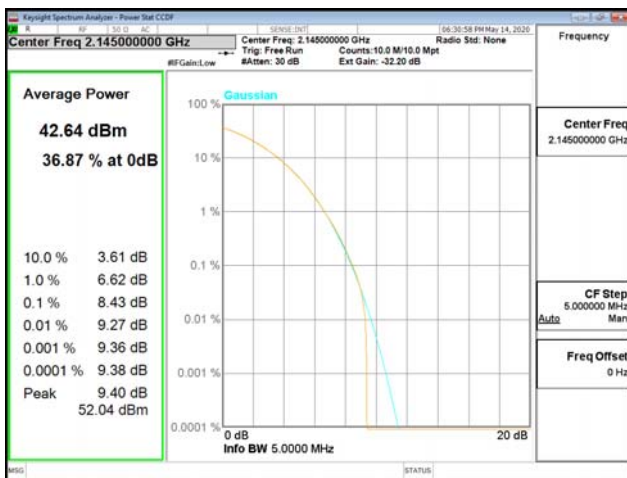
QPSK



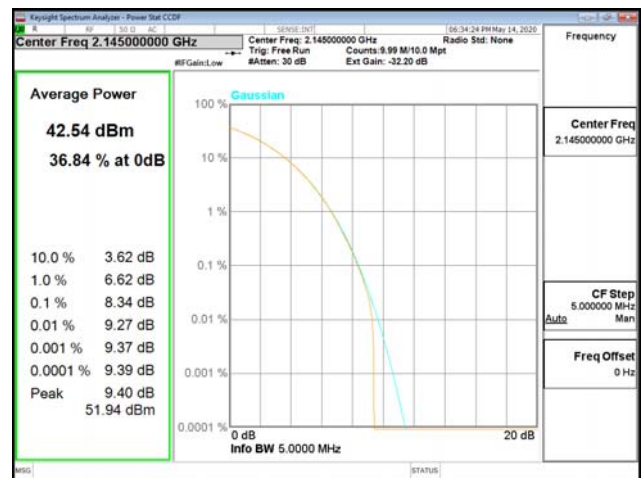
16QAM



64QAM

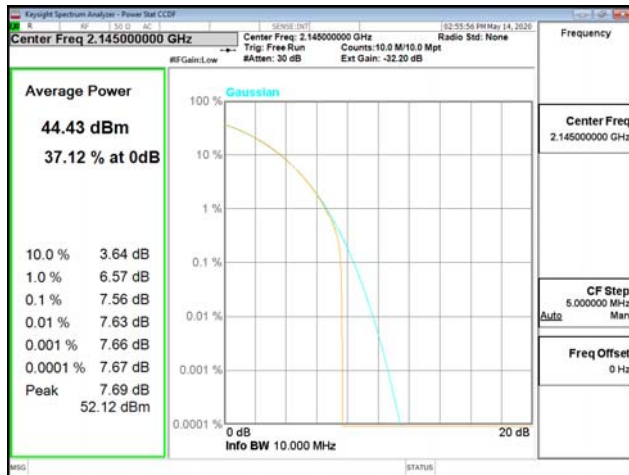


256QAM

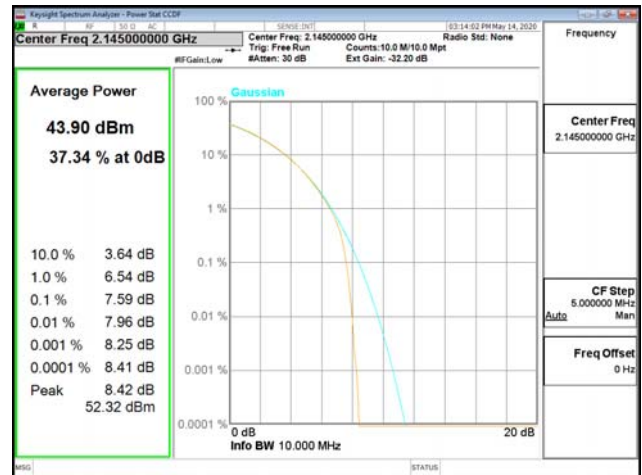


**Band 66, BW 10MHz, Single carrier, Middle
ANT0**

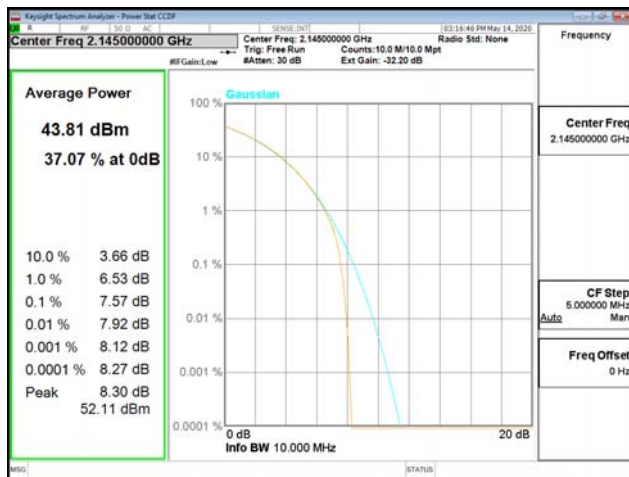
QPSK



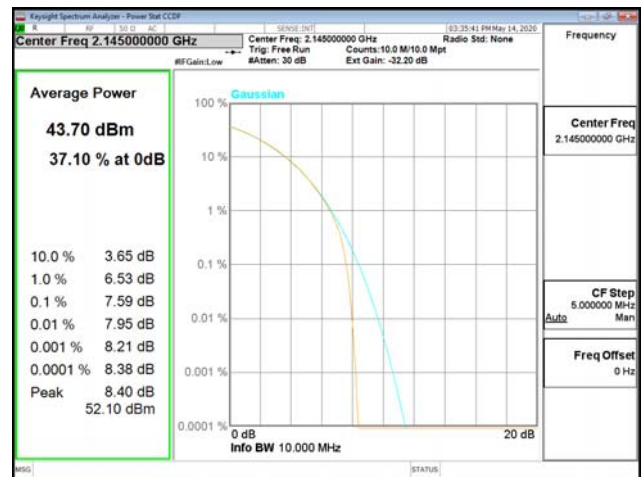
16QAM



64QAM



256QAM

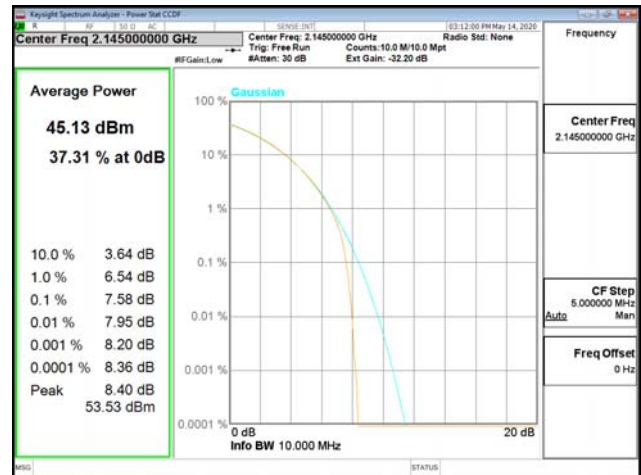


ANT1

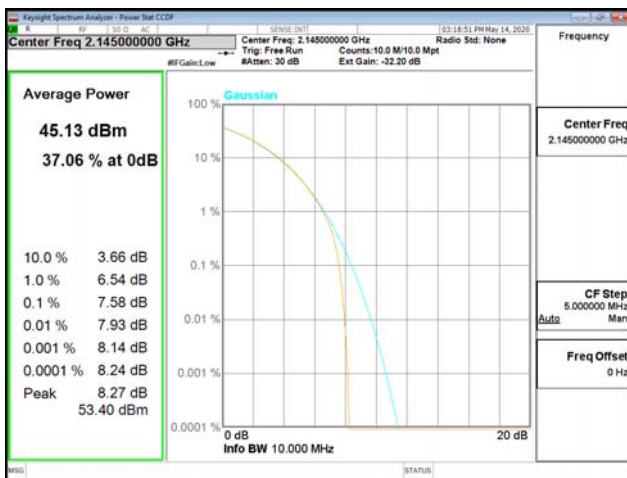
QPSK



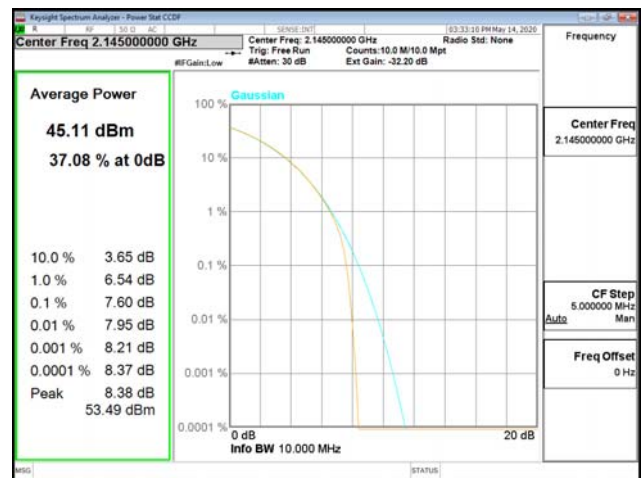
16QAM



64QAM

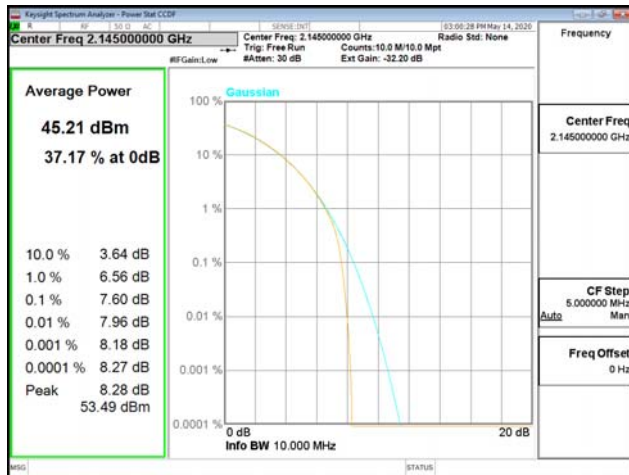


256QAM

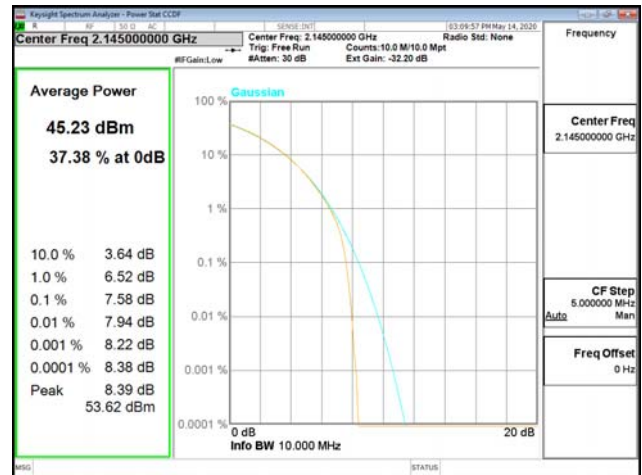


ANT2

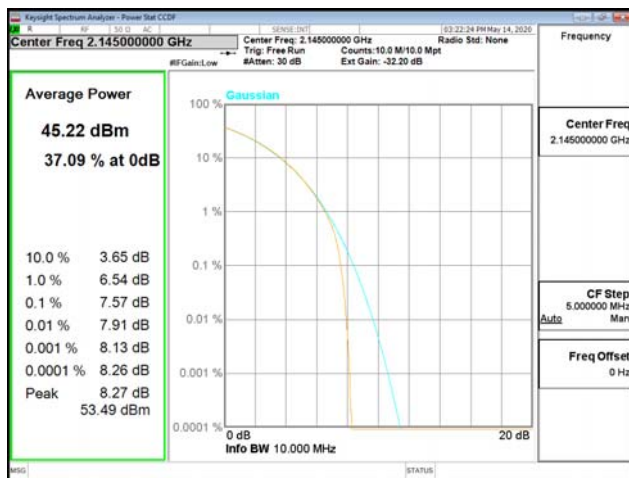
QPSK



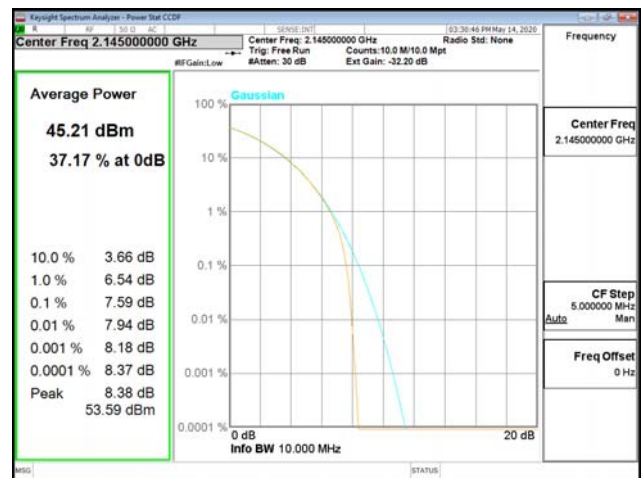
16QAM



64QAM

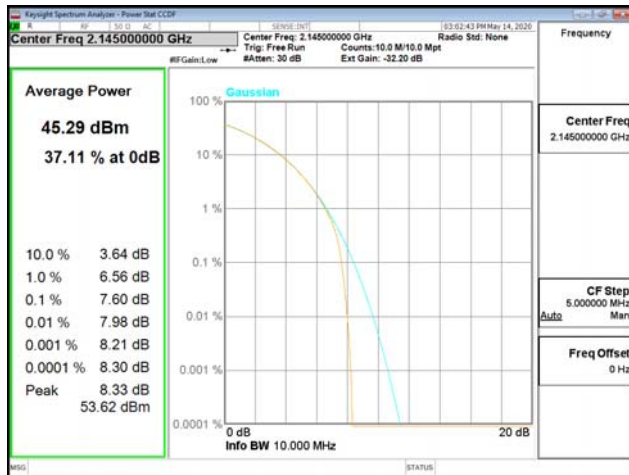


256QAM



ANT3

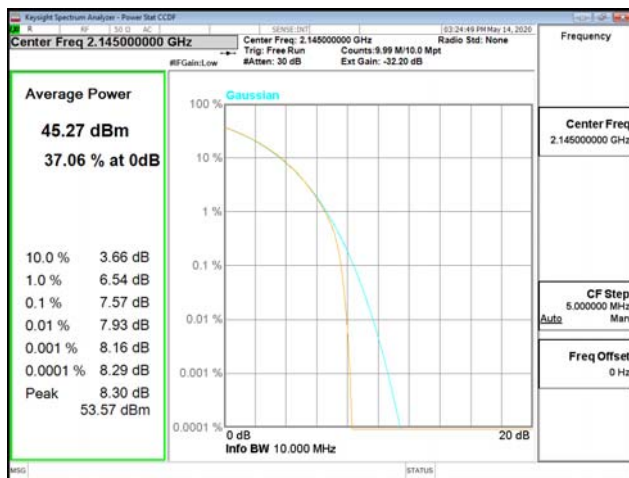
QPSK



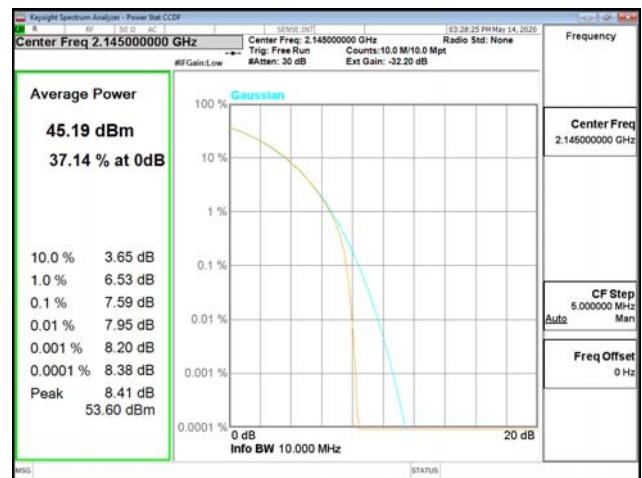
16QAM



64QAM

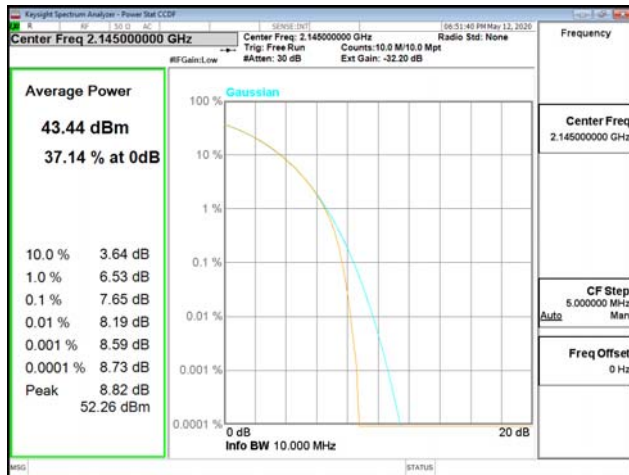


256QAM



**Band 66, BW 15MHz, Single carrier, Middle
ANT0**

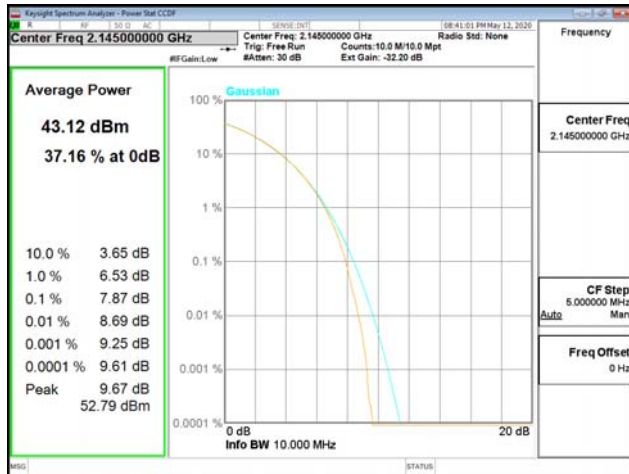
QPSK



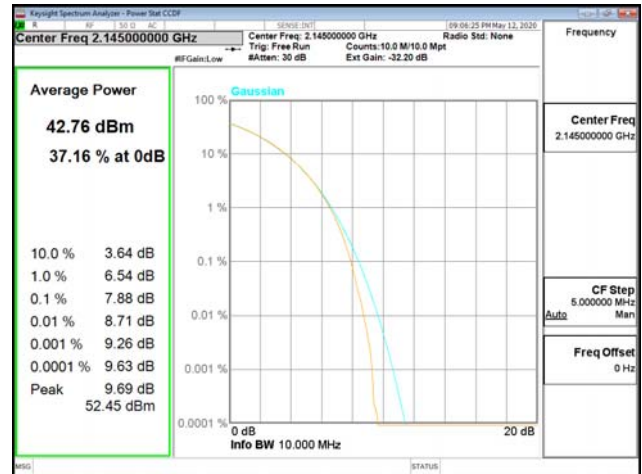
16QAM



64QAM



256QAM



ANT1

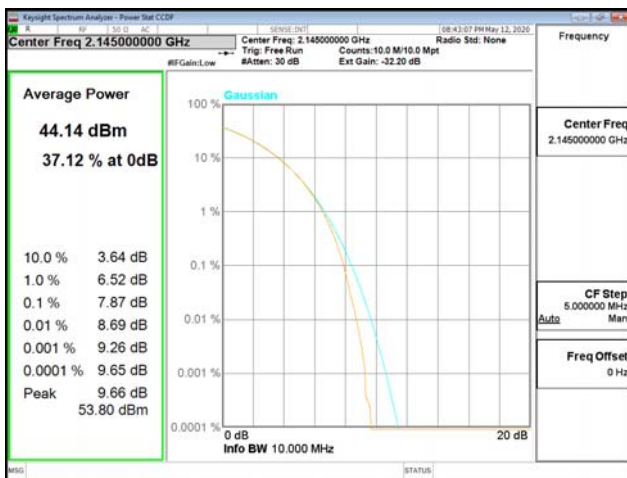
QPSK



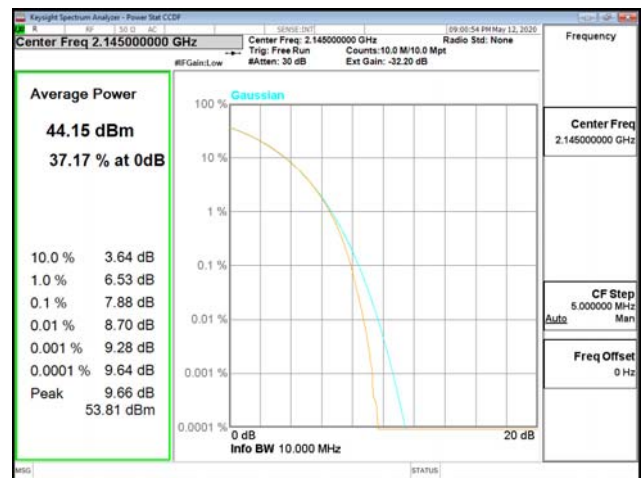
16QAM



64QAM

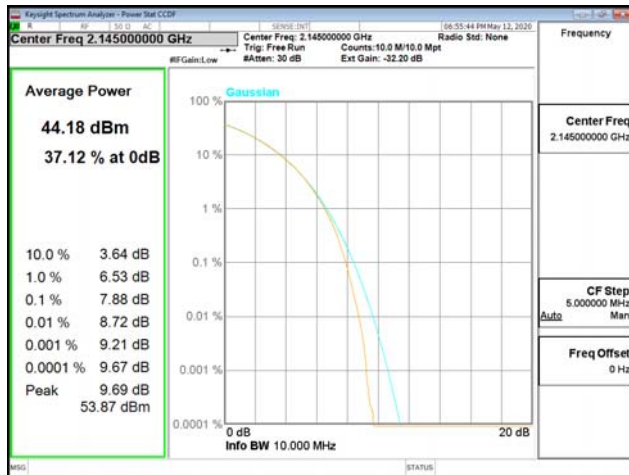


256QAM



ANT2

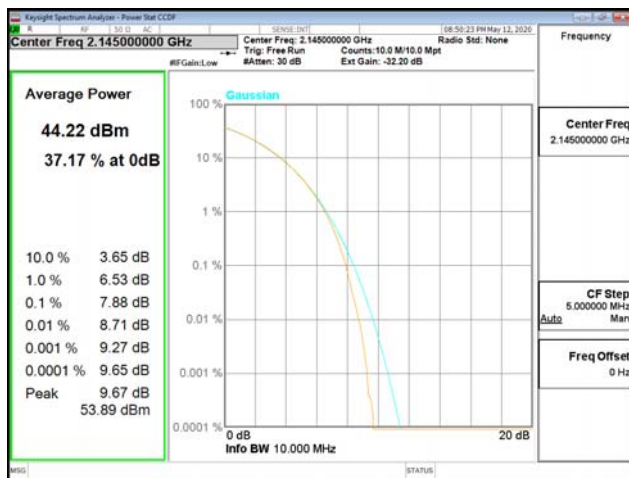
QPSK



16QAM



64QAM

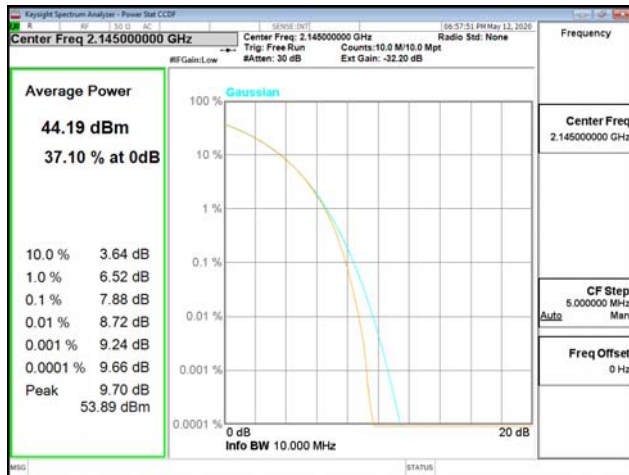


256QAM



ANT3

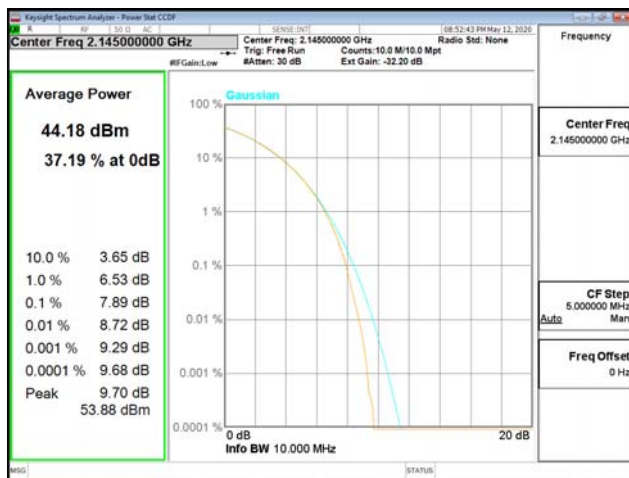
QPSK



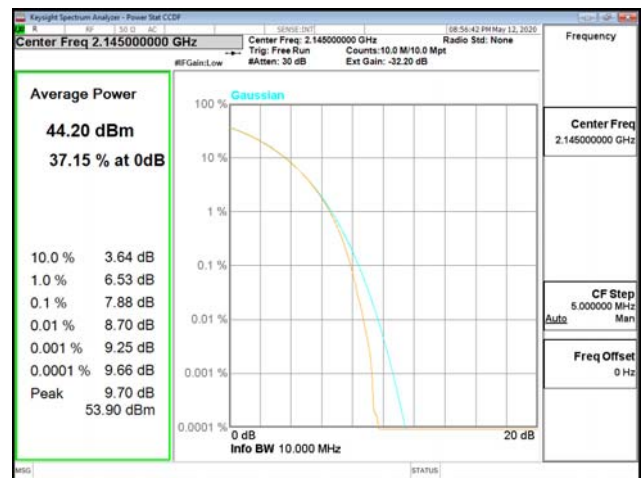
16QAM



64QAM

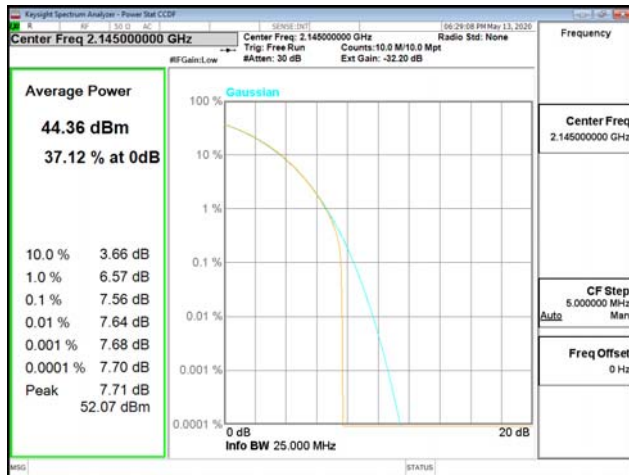


256QAM



**Band 66, BW 20MHz, Single carrier, Middle
ANT0**

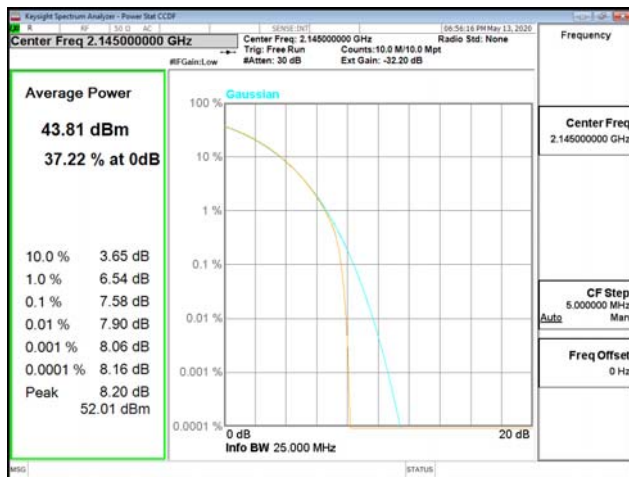
QPSK



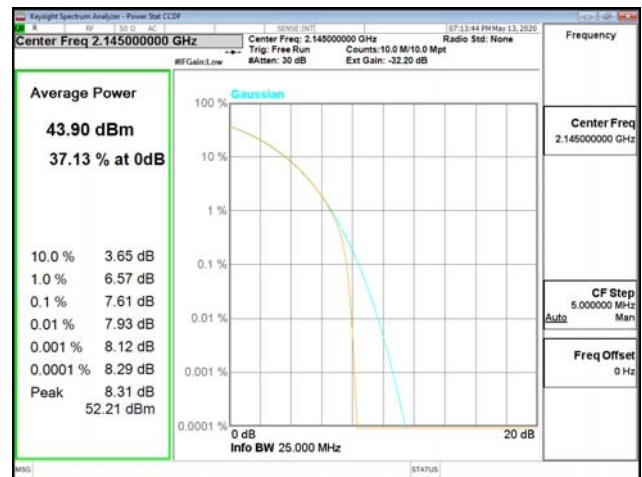
16QAM



64QAM

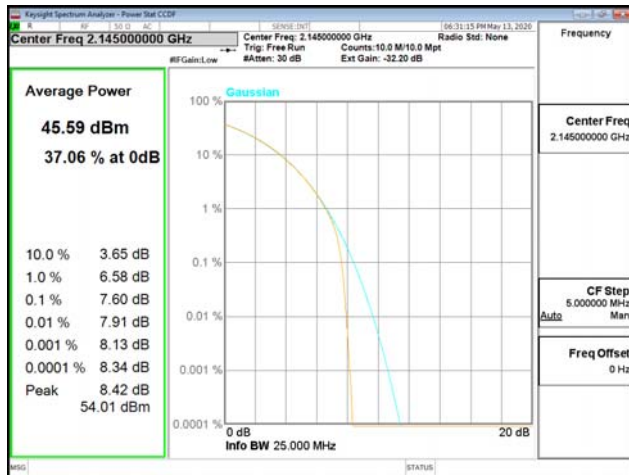


256QAM



ANT1

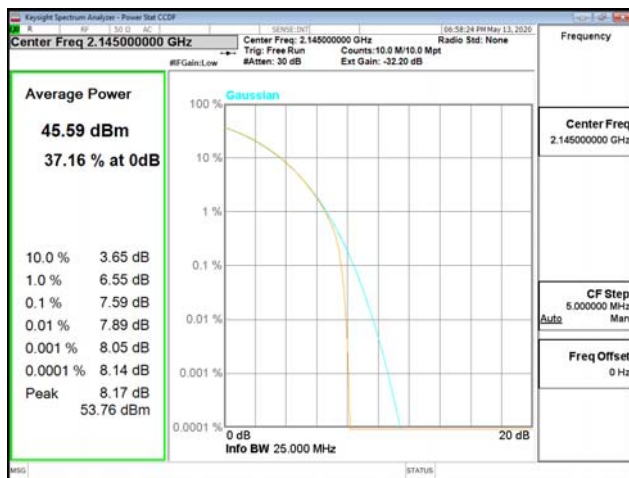
QPSK



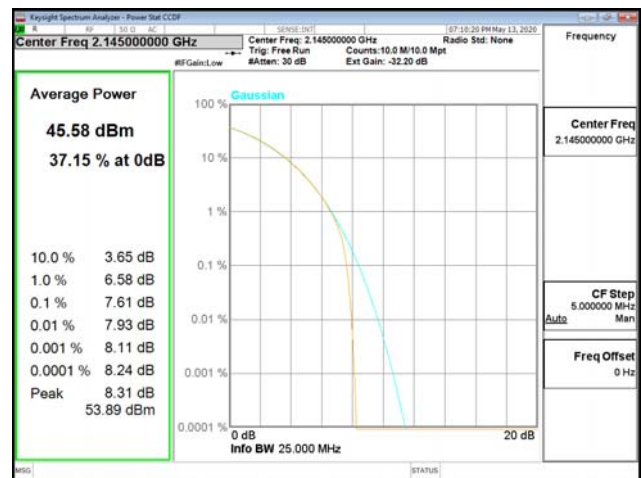
16QAM



64QAM



256QAM

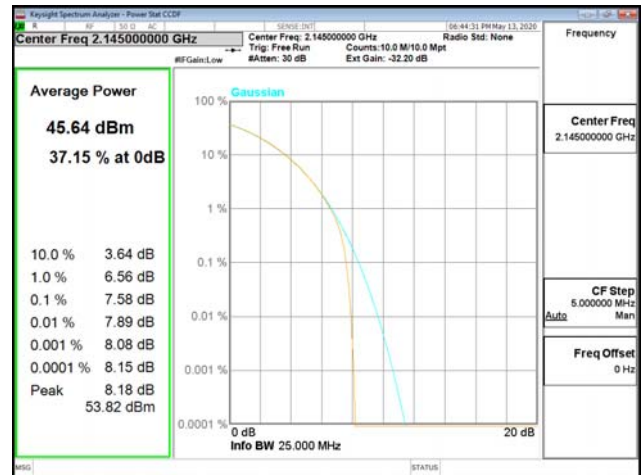


ANT2

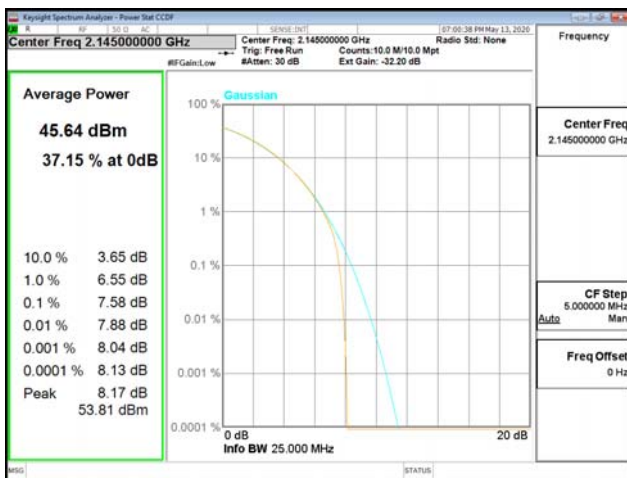
QPSK



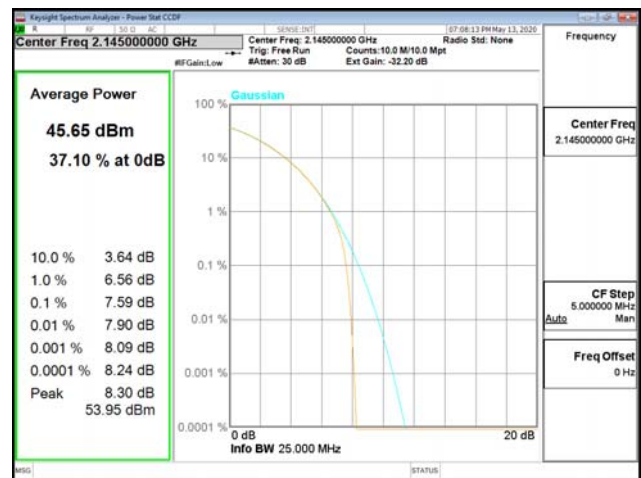
16QAM



64QAM

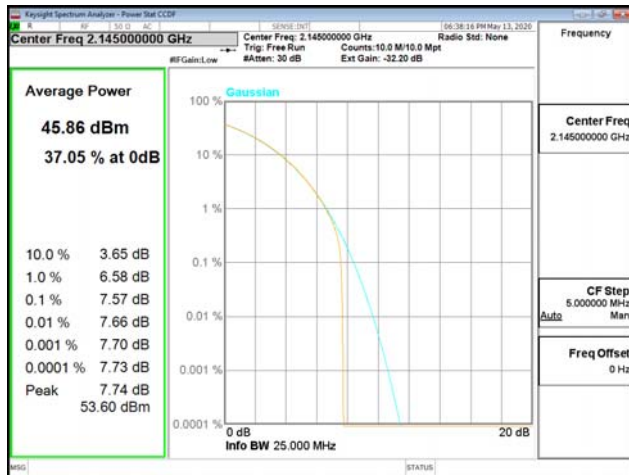


256QAM



ANT3

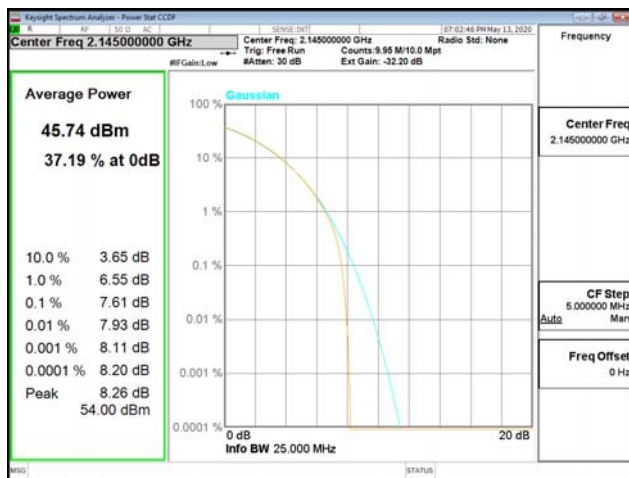
QPSK



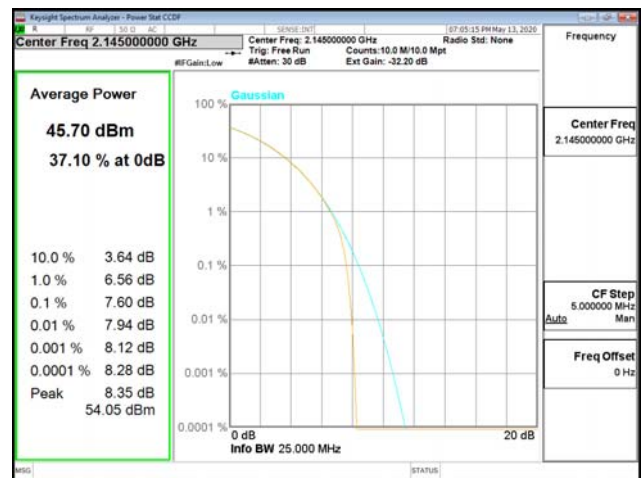
16QAM



64QAM



256QAM



 CTK Co., Ltd. The Prime Leader of Global Regulatory Certification	CTK Co., Ltd. (Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea Tel: +82-31-339-9970 Fax: +82-31-624-9501	Report No.: CTK-2020-01893 Page (102) / (497) Pages	
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5. Occupied Bandwidth

Test Requirements :

§ 2.1049 Measurements required : Occupied bandwidth

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the specified conditions of § 2.1049(a) through (i) as applicable.

Test Procedures :

The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation. The EUT was connected to a spectrum analyzer enabled with an occupied bandwidth in accordance with FCC Part 2.1049. The occupied bandwidth was measured from the fundamental emission at the bottom, middle and top channels. The occupied bandwidth was measured using the built in occupied bandwidth function of the spectrum analyzer. It was set to measure the bandwidth where 99% of the signal power was contained. The analyzer automatically configures the measurement bandwidths to make an accurate measurement based on the channel bandwidth and channel spacing of the EUT.

Test Results :

Test Data : Band 66, BW 5MHz, Single carrier

Type	Channel	Modulation	Occupied Bandwidth(MHz)			
			Test antenna port			
			0	1	2	3
Band 66 BW 5MHz	Bottom	QPSK	4.50	4.50	4.50	4.50
		16QAM	4.48	4.48	4.48	4.48
		64QAM	4.50	4.50	4.50	4.50
		256QAM	4.50	4.50	4.50	4.50
	Middle	QPSK	4.50	4.50	4.50	4.50
		16QAM	4.47	4.48	4.48	4.48
		64QAM	4.50	4.50	4.50	4.50
		256QAM	4.50	4.50	4.50	4.50
	Top	QPSK	4.50	4.50	4.50	4.50
		16QAM	4.48	4.48	4.47	4.48
		64QAM	4.50	4.50	4.50	4.50
		256QAM	4.50	4.50	4.50	4.50

Test Data : Band 66, BW 10MHz, Single carrier

Type	Channel	Modulation	Occupied Bandwidth(MHz)			
			Test antenna port			
			0	1	2	3
Band 66 BW 10MHz	Bottom	QPSK	8.98	8.98	8.97	8.97
		16QAM	8.97	8.97	8.96	8.97
		64QAM	8.97	8.98	8.97	8.97
		256QAM	8.98	8.98	8.98	8.98
	Middle	QPSK	8.98	8.98	8.98	8.98
		16QAM	8.97	8.96	8.97	8.96
		64QAM	8.97	8.97	8.98	8.98
		256QAM	8.98	8.98	8.98	8.98
	Top	QPSK	8.98	8.97	8.97	8.98
		16QAM	8.97	8.97	8.96	8.97
		64QAM	8.97	8.97	8.97	8.98
		256QAM	8.98	8.98	8.98	8.98

Test Data : Band 66, BW 15MHz, Single carrier

Type	Channel	Modulation	Occupied Bandwidth(MHz)			
			Test antenna port			
			0	1	2	3
Band 66 BW 15MHz	Bottom	QPSK	13.46	13.46	13.45	13.46
		16QAM	13.46	13.46	13.45	13.45
		64QAM	13.45	13.45	13.45	13.45
		256QAM	13.46	13.46	13.46	13.46
	Middle	QPSK	13.46	13.46	13.46	13.46
		16QAM	13.45	13.46	13.46	13.46
		64QAM	13.45	13.46	13.45	13.45
		256QAM	13.45	13.46	13.45	13.46
	Top	QPSK	13.46	13.45	13.46	13.46
		16QAM	13.46	13.46	13.45	13.45
		64QAM	13.45	13.45	13.45	13.46
		256QAM	13.46	13.46	13.46	13.46

Test Data : Band 66, BW 20MHz, Single carrier

Type	Channel	Modulation	Occupied Bandwidth(MHz)			
			Test antenna port			
			0	1	2	3
Band 66 BW 20MHz	Bottom	QPSK	17.92	17.93	17.93	17.93
		16QAM	17.89	17.91	17.91	17.92
		64QAM	17.93	17.93	17.93	17.93
		256QAM	17.93	17.94	17.94	17.93
	Middle	QPSK	17.93	17.93	17.93	17.94
		16QAM	17.91	17.91	17.90	17.90
		64QAM	17.94	17.93	17.93	17.94
		256QAM	17.94	17.94	17.94	17.94
	Top	QPSK	17.93	17.93	17.93	17.93
		16QAM	17.89	17.87	17.91	17.91
		64QAM	17.93	17.93	17.93	17.93
		256QAM	17.93	17.93	17.94	17.93

Test Data : Band 66, BW 10+10MHz, Multi 2carrier

Type	Channel	Modulation	Occupied Bandwidth(MHz)			
			Test antenna port			
			0	1	2	3
Band 66 BW 10+10MHz	Bottom	QPSK	18.93	18.93	18.93	18.93
		16QAM	18.91	18.92	18.90	18.90
		64QAM	18.93	18.93	18.93	18.93
		256QAM	18.93	18.93	18.93	18.94
	Middle	QPSK	18.94	18.93	18.93	18.94
		16QAM	18.91	18.90	18.91	18.92
		64QAM	18.94	18.93	18.93	18.93
		256QAM	18.94	18.94	18.93	18.94
	Top	QPSK	18.93	18.93	18.93	18.93
		16QAM	18.91	18.91	18.92	18.91
		64QAM	18.93	18.93	18.93	18.93
		256QAM	18.93	18.93	18.93	18.93

Test Data : Band 66, BW 5+10+10MHz, Multi 3carrier

Type	Channel	Modulation	Occupied Bandwidth(MHz)			
			Test antenna port			
			0	1	2	3
Band 66 BW 5+10+10MHz	Bottom	QPSK	24.17	24.17	24.17	24.17
		16QAM	24.12	24.12	24.12	24.13
		64QAM	24.17	24.17	24.17	24.17
		256QAM	24.18	24.17	24.17	24.17
	Middle	QPSK	24.17	24.17	24.17	24.17
		16QAM	24.13	24.12	24.11	24.12
		64QAM	24.17	24.16	24.17	24.17
		256QAM	24.17	24.17	24.17	24.17
	Top	QPSK	24.17	24.16	24.16	24.17
		16QAM	24.12	24.11	24.12	24.13
		64QAM	24.17	24.16	24.14	24.17
		256QAM	24.17	24.16	24.15	24.18