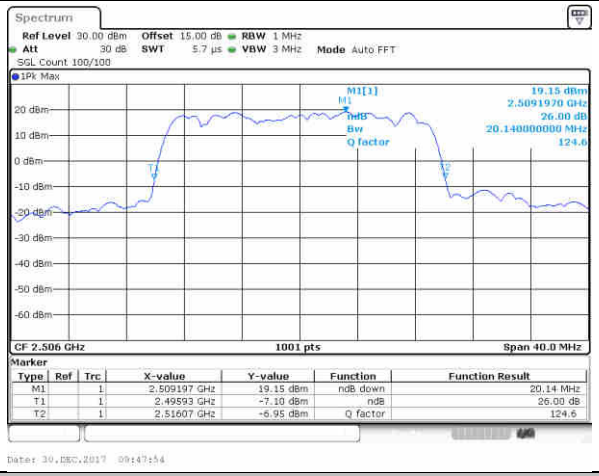
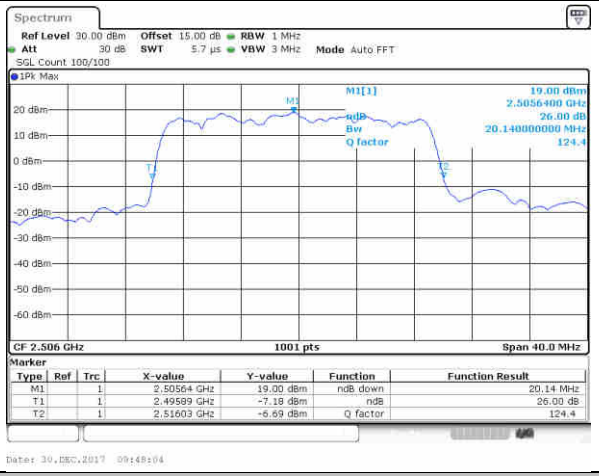
LTE Band 41

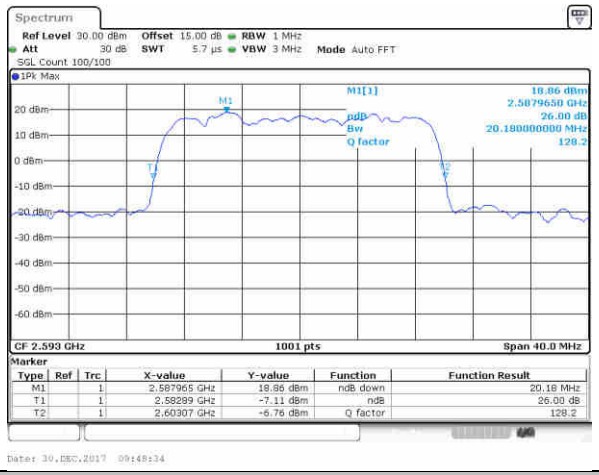
Lowest Channel / 20MHz / QPSK



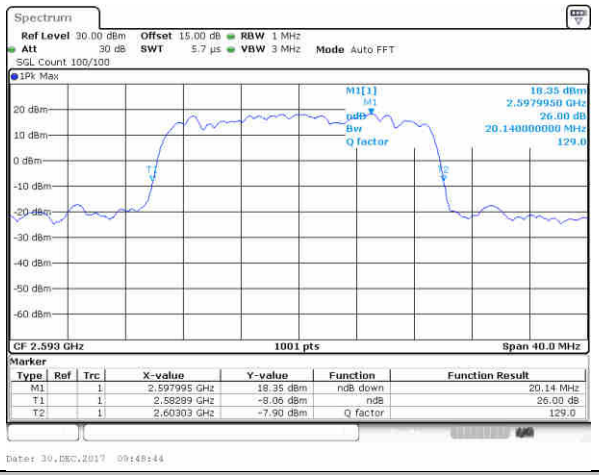
Lowest Channel / 20MHz / 16QAM



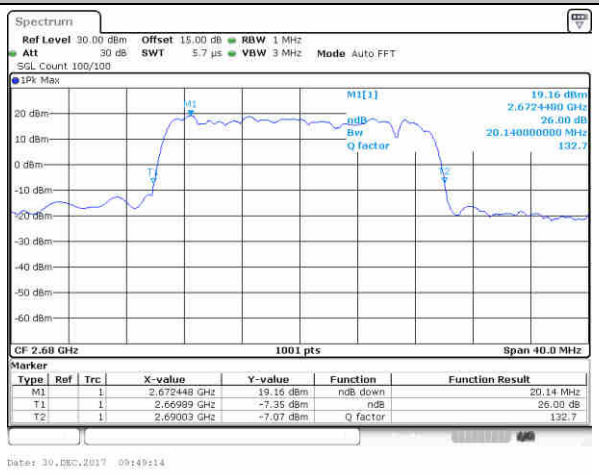
Middle Channel / 20MHz / QPSK



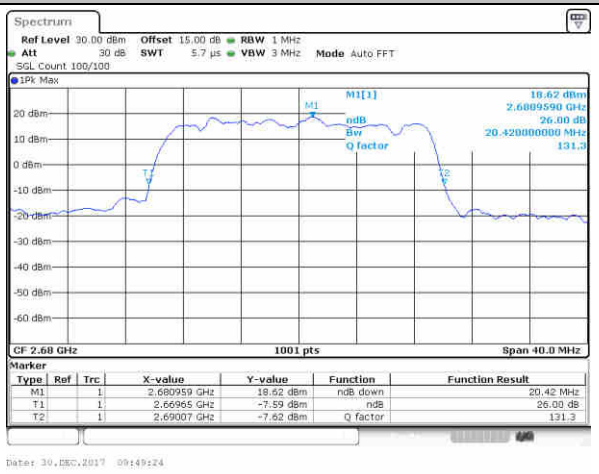
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

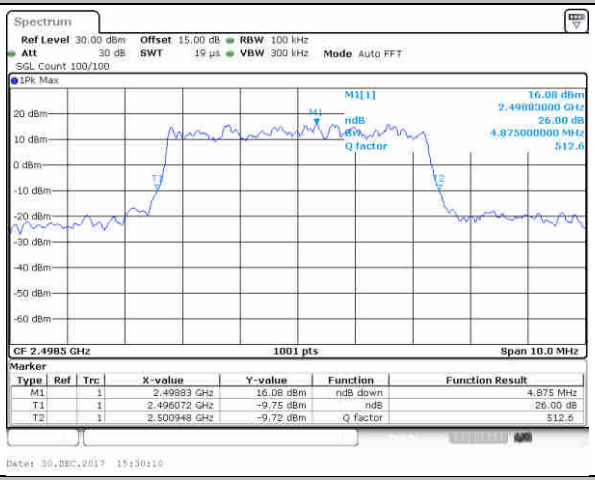


Highest Channel / 20MHz / 16QAM

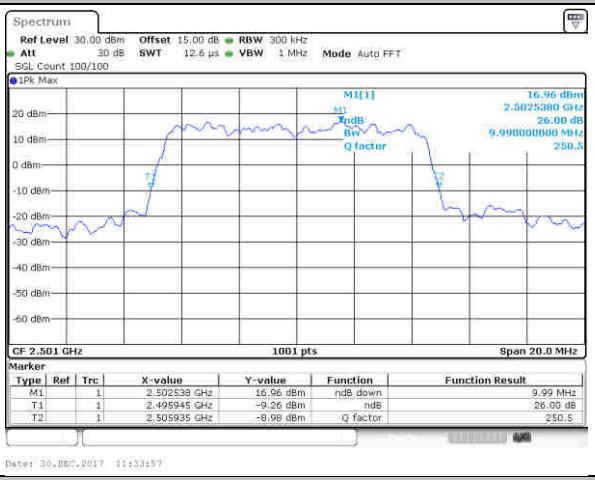


LTE Band 41

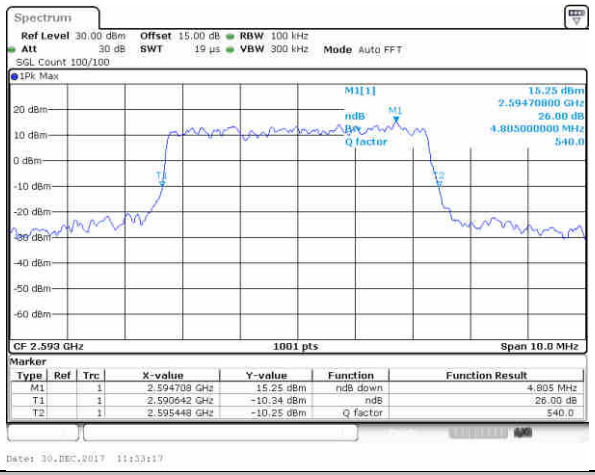
Lowest Channel / 5MHz / 64QAM



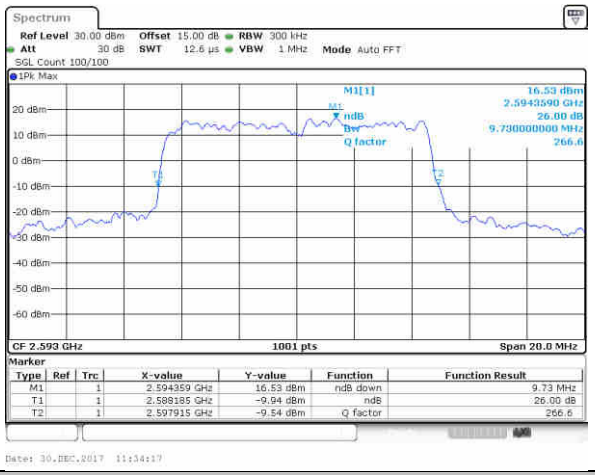
Lowest Channel / 10MHz / 64QAM



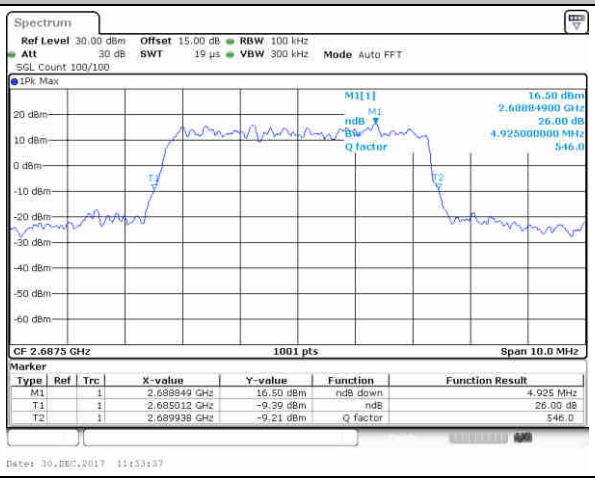
Middle Channel / 5MHz / 64QAM



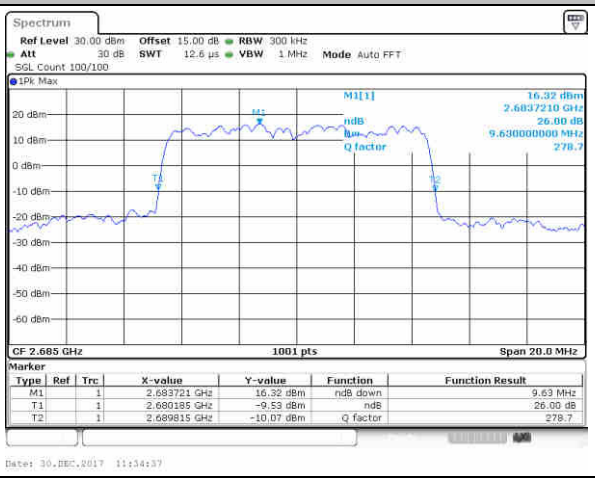
Middle Channel /10MHz / 64QAM



Highest Channel /5MHz / 64QAM

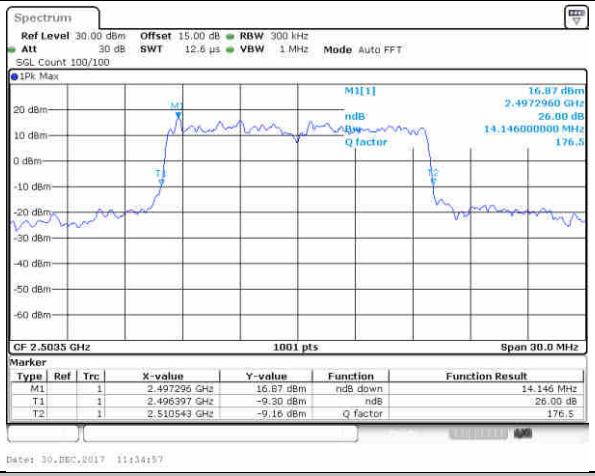


Highest Channel /10MHz / 64QAM

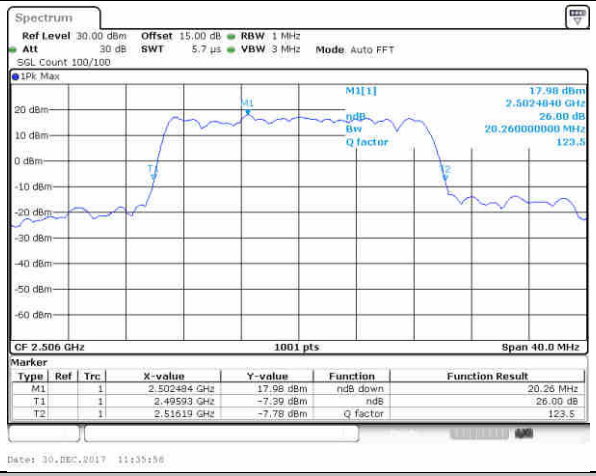


LTE Band 41

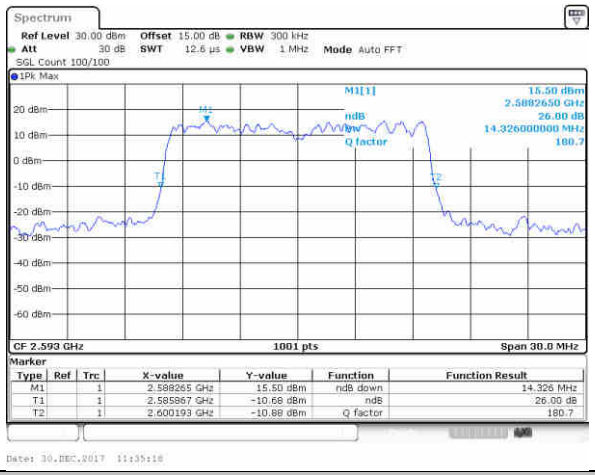
Lowest Channel / 15MHz / 64QAM



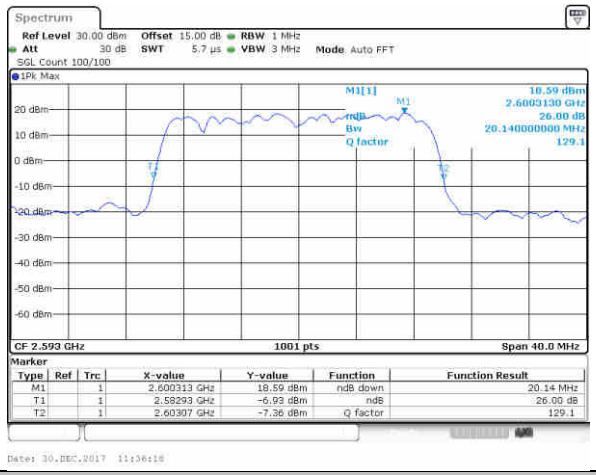
Lowest Channel / 20MHz / 64QAM



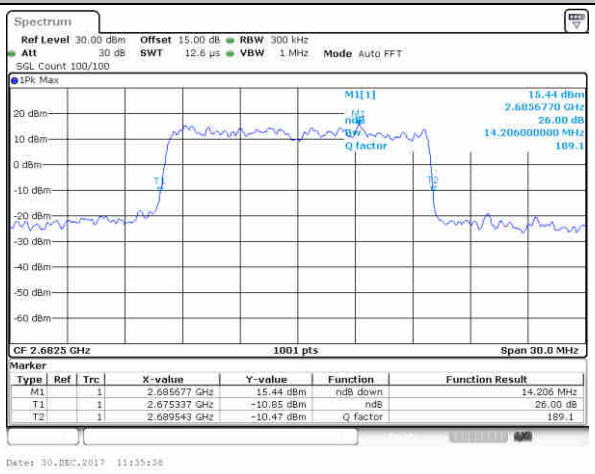
Middle Channel / 15MHz / 64QAM



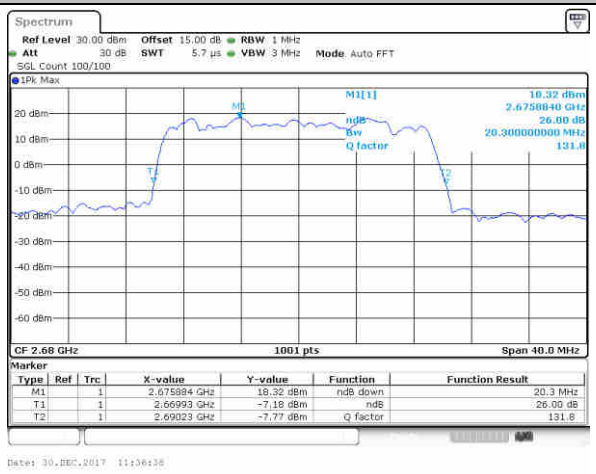
Middle Channel / 20MHz / 64QAM



Highest Channel / 15MHz / 64QAM

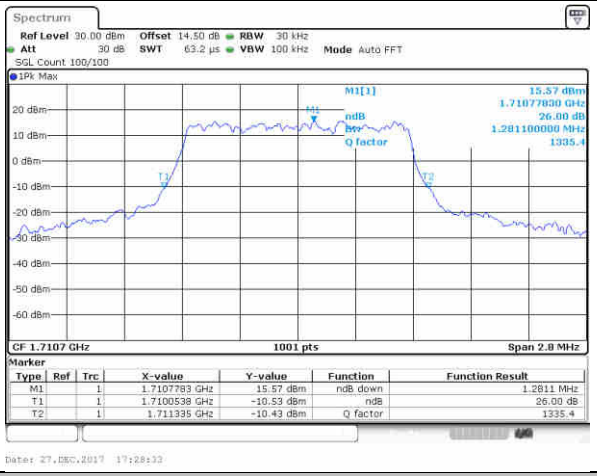


Highest Channel / 20MHz / 64QAM

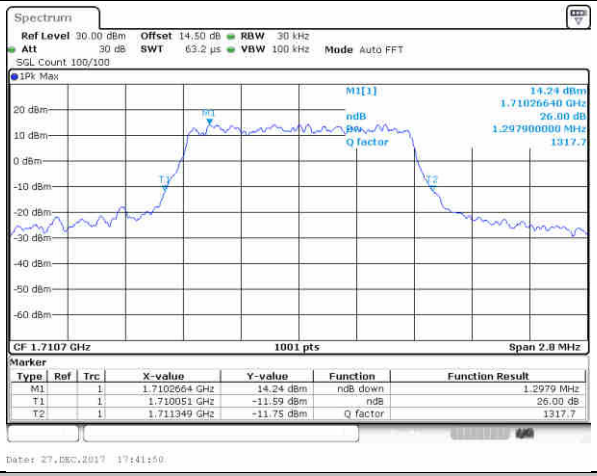


LTE Band 66

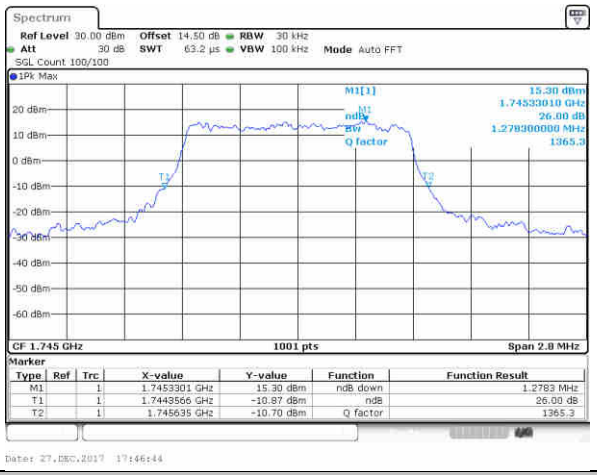
Lowest Channel / 1.4MHz / QPSK



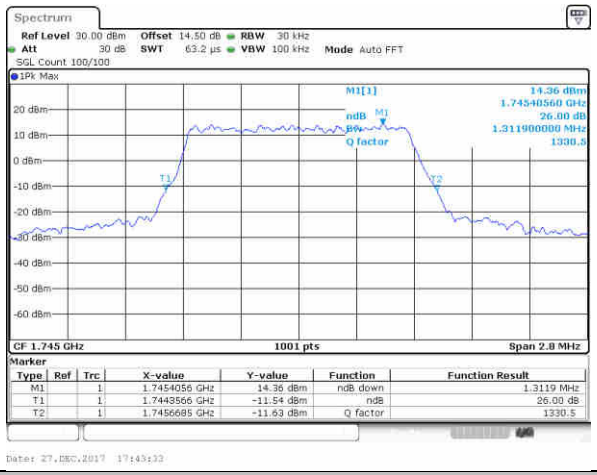
Lowest Channel / 1.4MHz / 16QAM



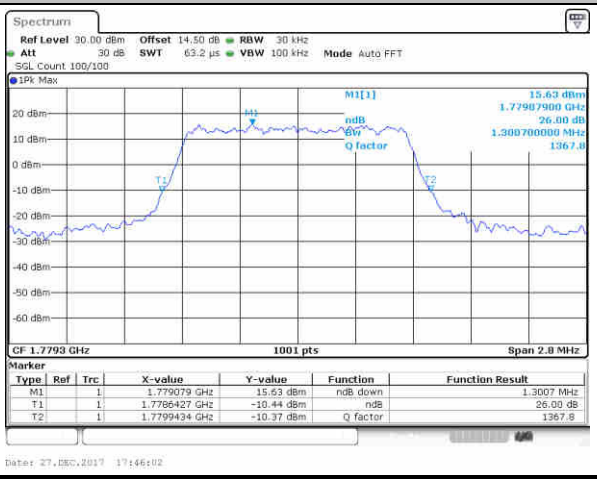
Middle Channel / 1.4MHz / QPSK



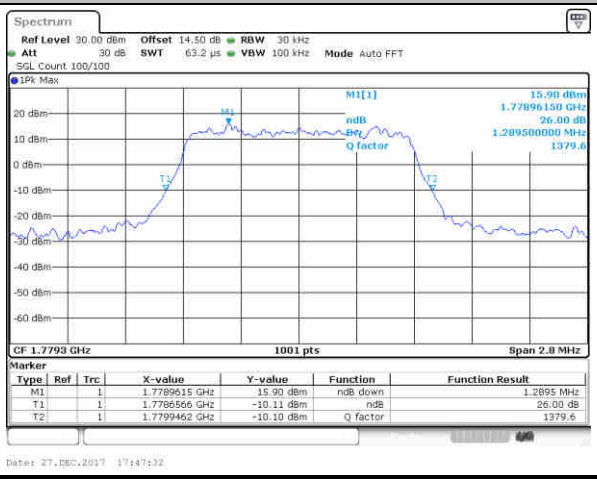
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

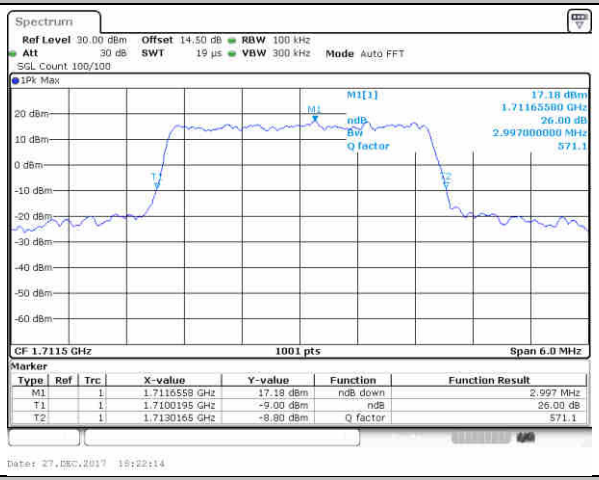


Highest Channel / 1.4MHz / 16QAM

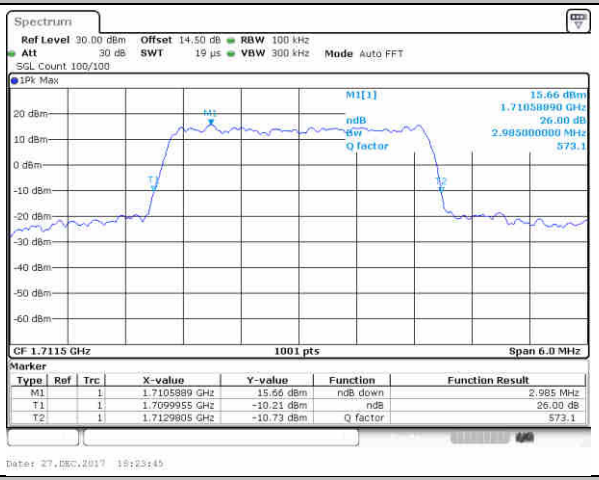


LTE Band 66

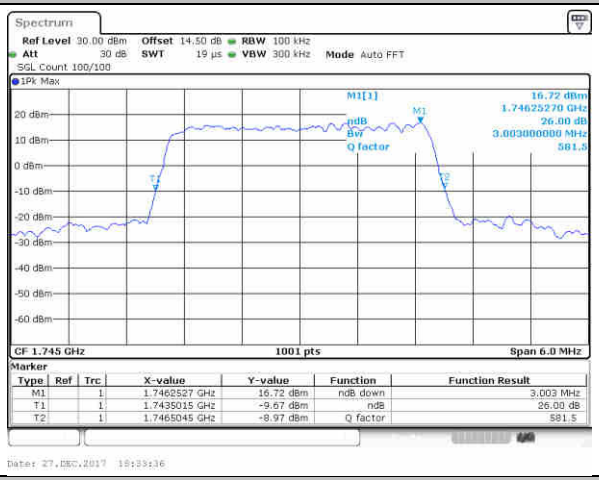
Lowest Channel / 3MHz / QPSK



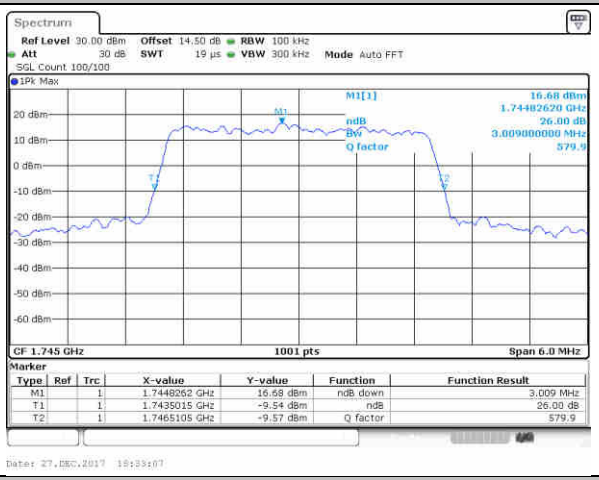
Lowest Channel / 3MHz / 16QAM



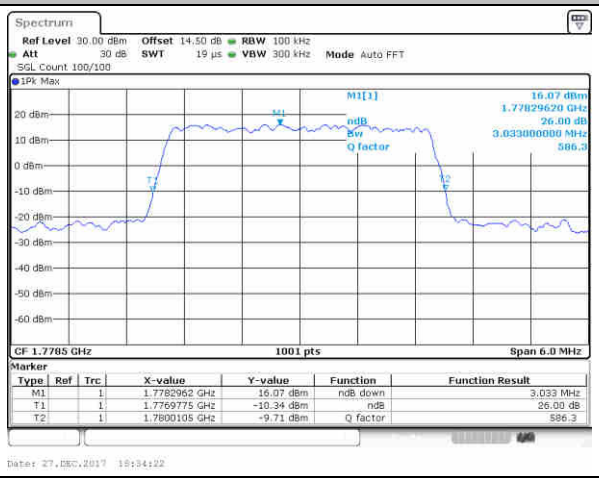
Middle Channel / 3MHz / QPSK



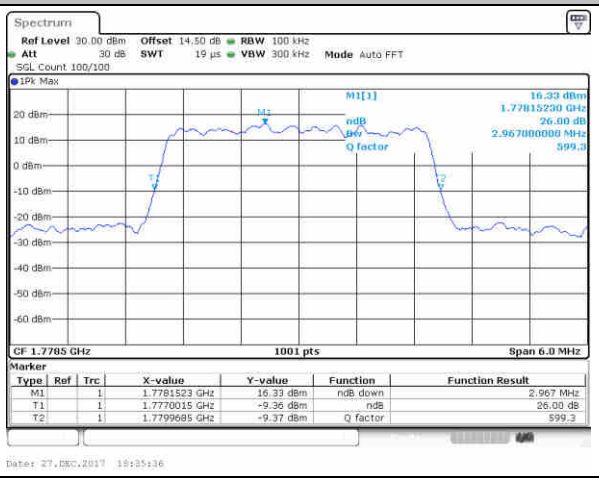
Middle Channel /3MHz / 16QAM



Highest Channel /3MHz / QPSK

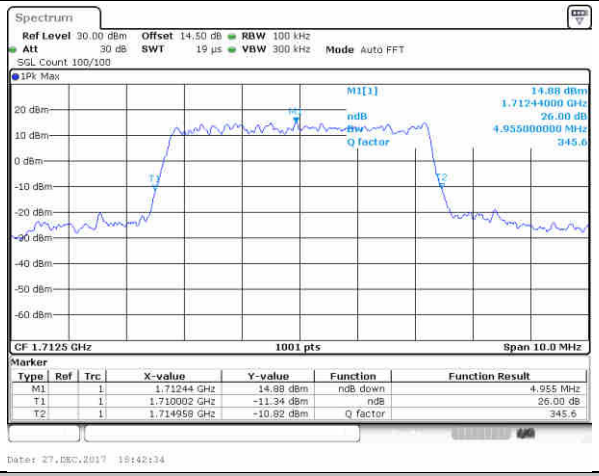


Highest Channel /3MHz / 16QAM

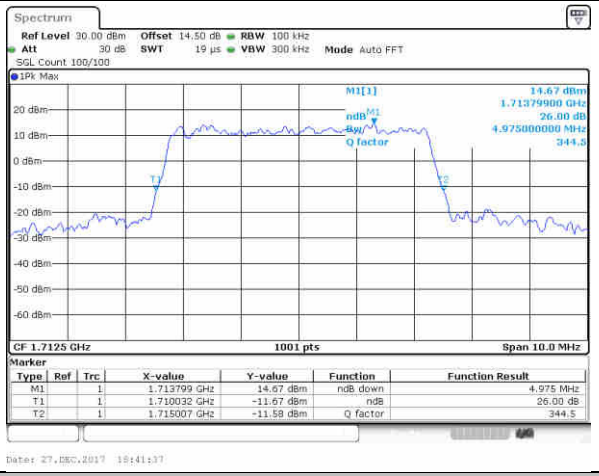


LTE Band 66

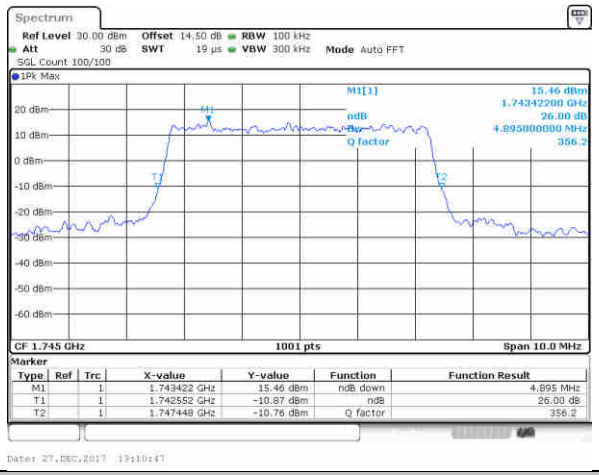
Lowest Channel / 5MHz / QPSK



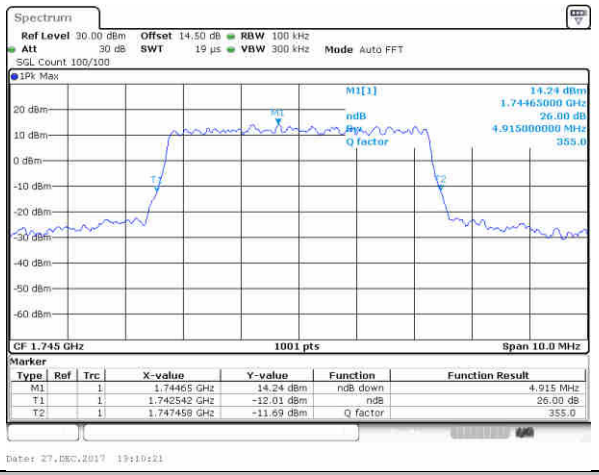
Lowest Channel / 5MHz / 16QAM



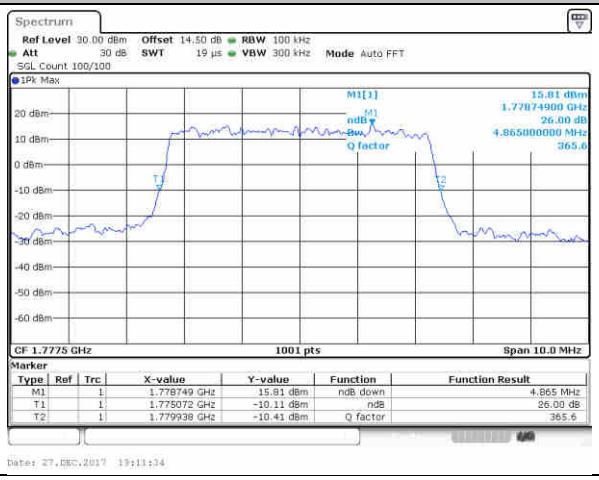
Middle Channel / 5MHz / QPSK



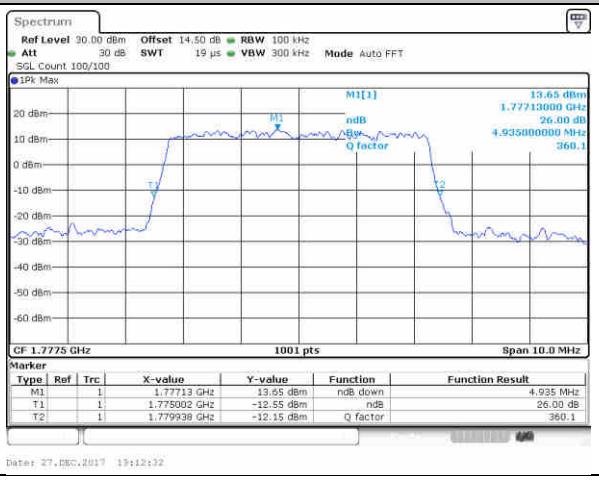
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

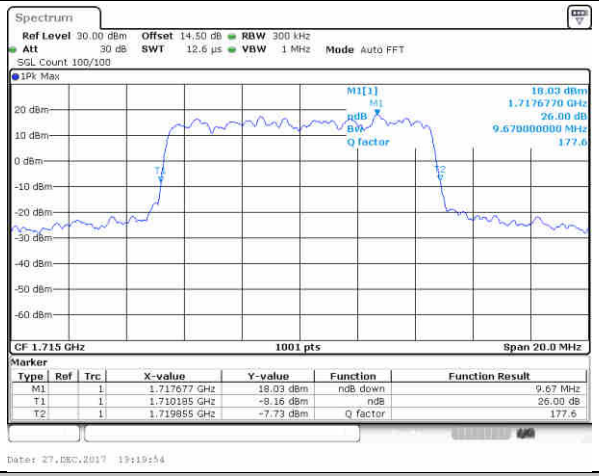


Highest Channel / 5MHz / 16QAM

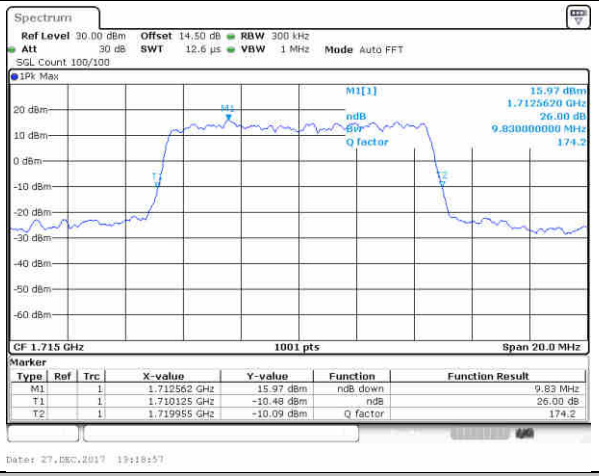


LTE Band 66

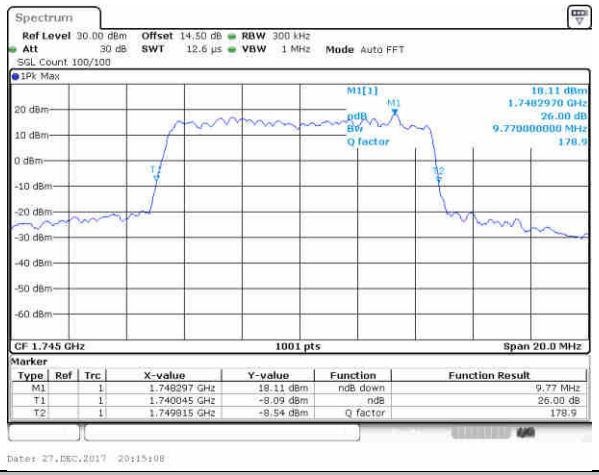
Lowest Channel / 10MHz / QPSK



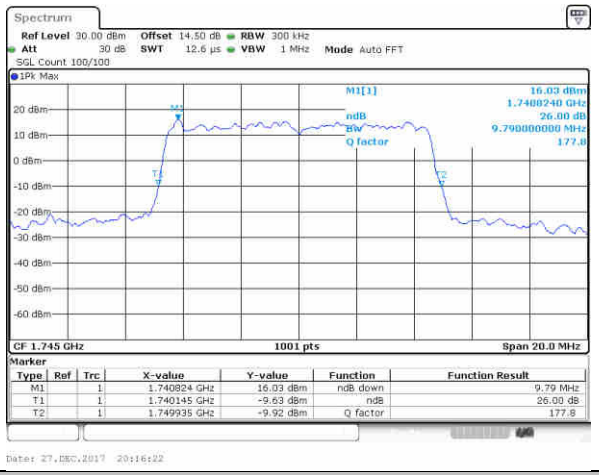
Lowest Channel / 10MHz / 16QAM



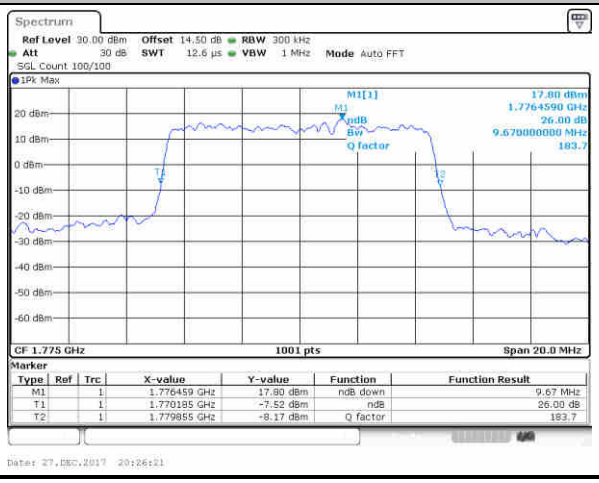
Middle Channel / 10MHz / QPSK



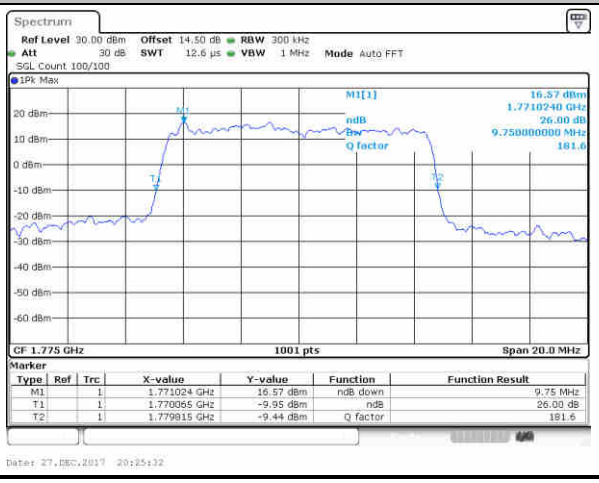
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

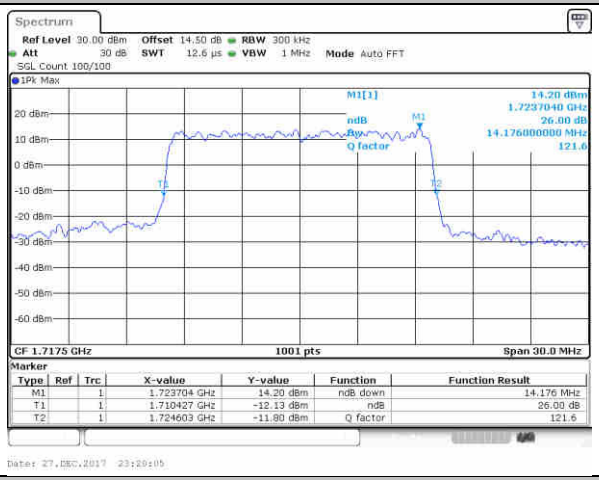


Highest Channel / 10MHz / 16QAM

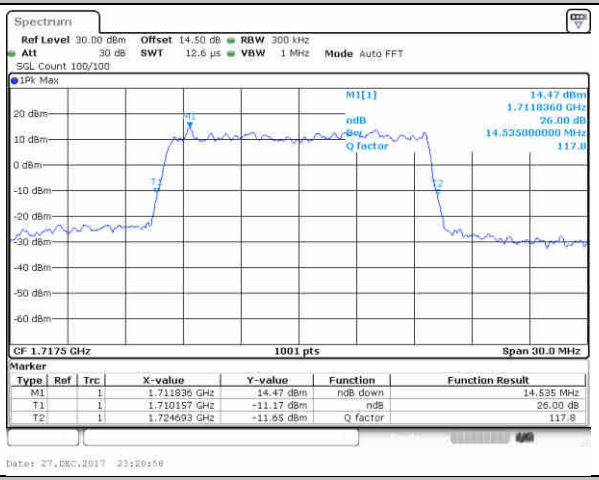


LTE Band 66

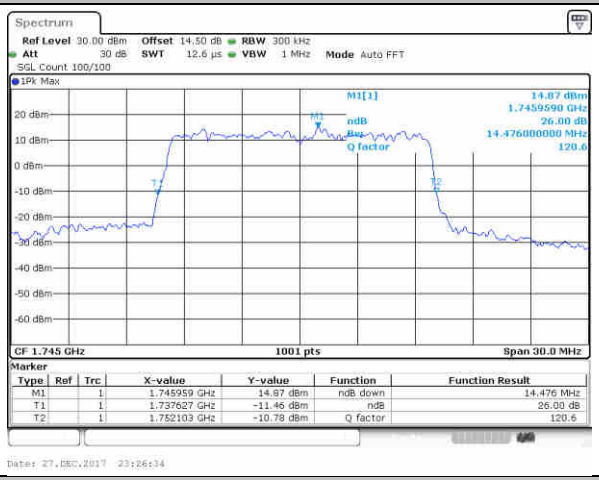
Lowest Channel / 15MHz / QPSK



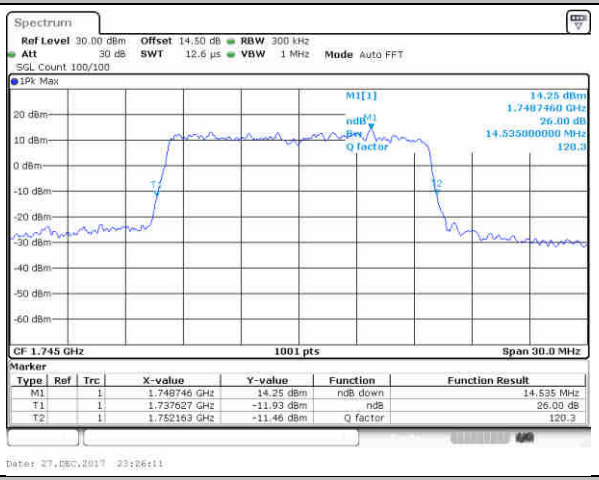
Lowest Channel / 15MHz / 16QAM



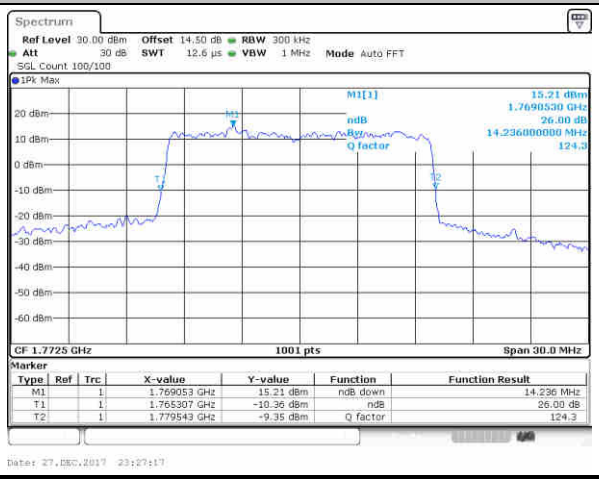
Middle Channel / 15MHz / QPSK



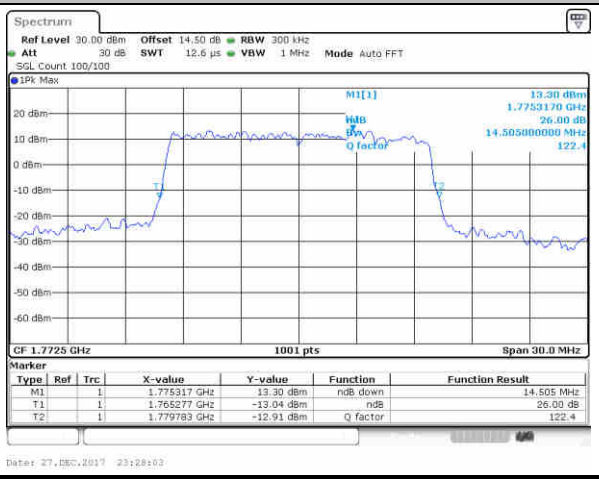
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

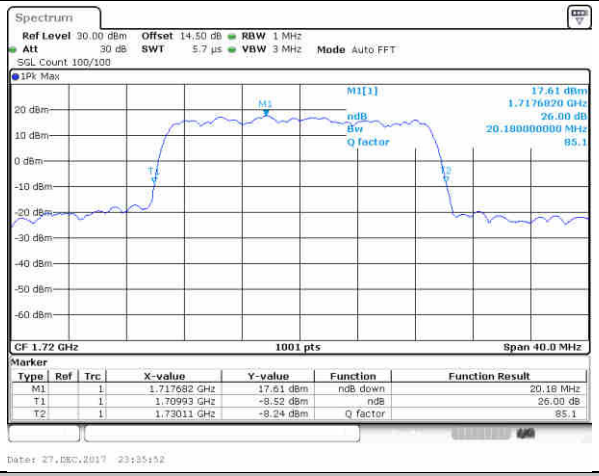


Highest Channel / 15MHz / 16QAM

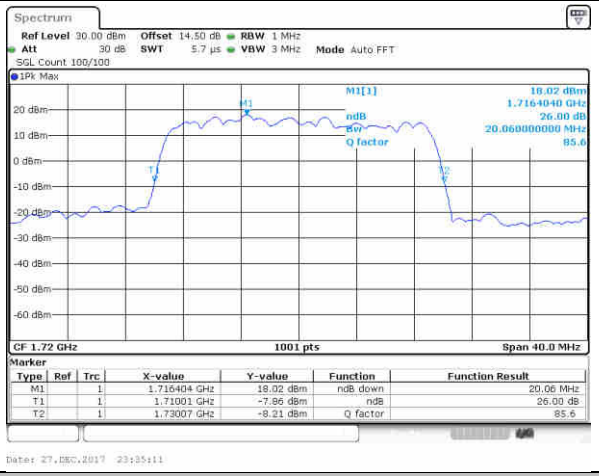


LTE Band 66

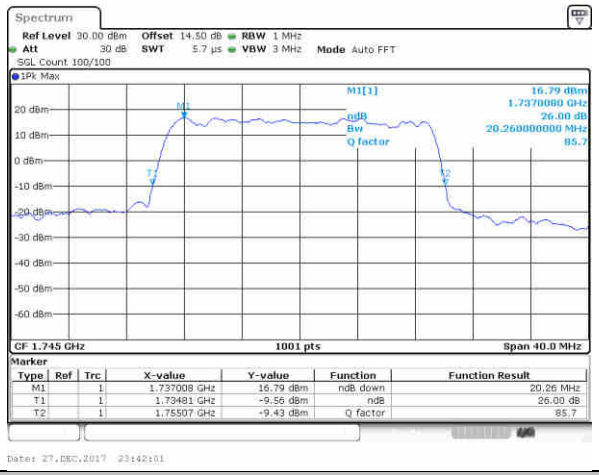
Lowest Channel / 20MHz / QPSK



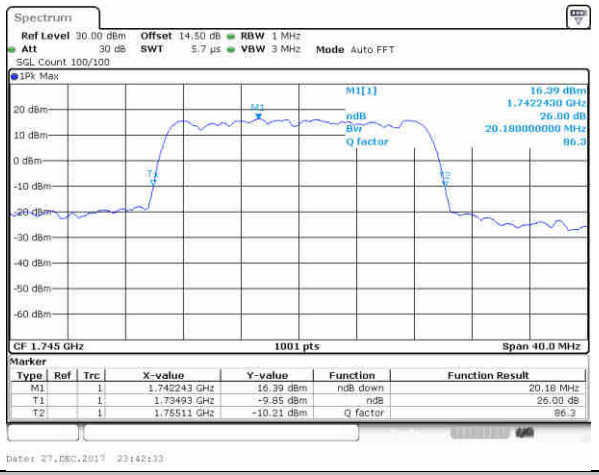
Lowest Channel / 20MHz / 16QAM



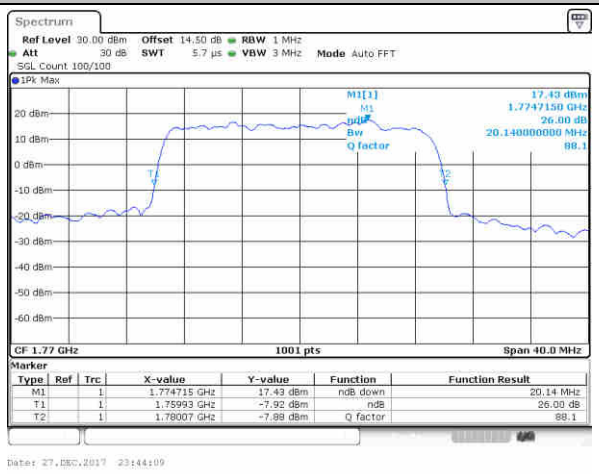
Middle Channel / 20MHz / QPSK



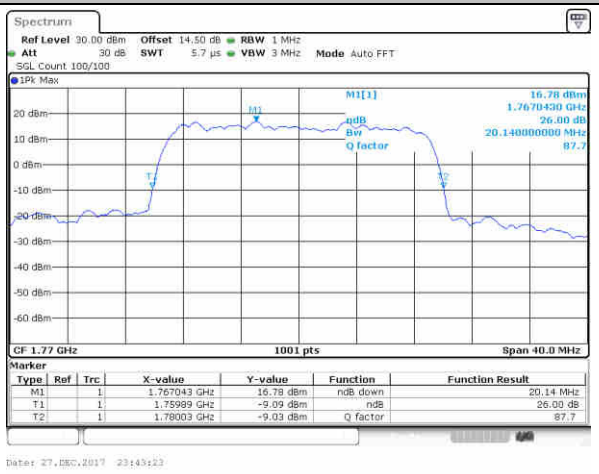
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

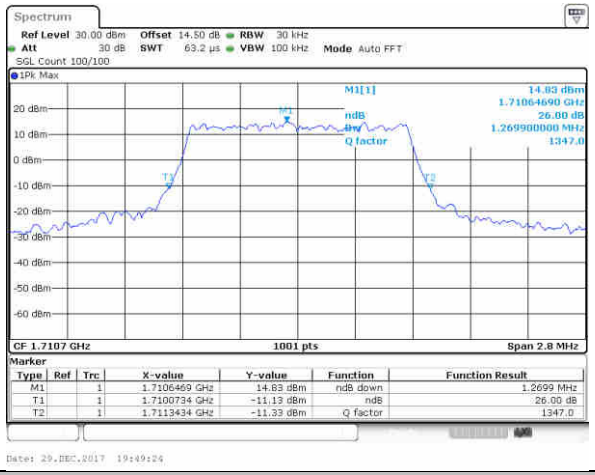


Highest Channel / 20MHz / 16QAM

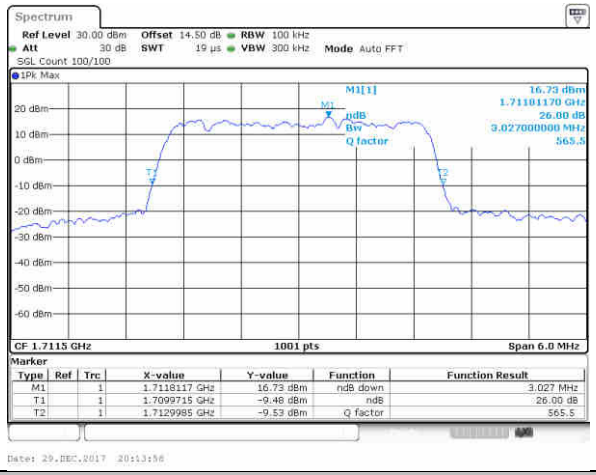


LTE Band 66

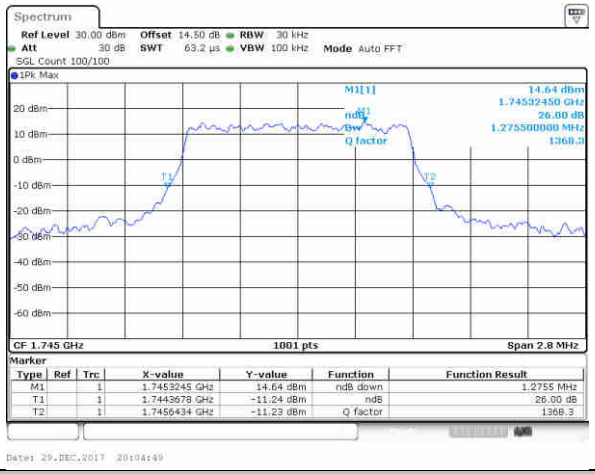
Lowest Channel / 1.4MHz / 64QAM



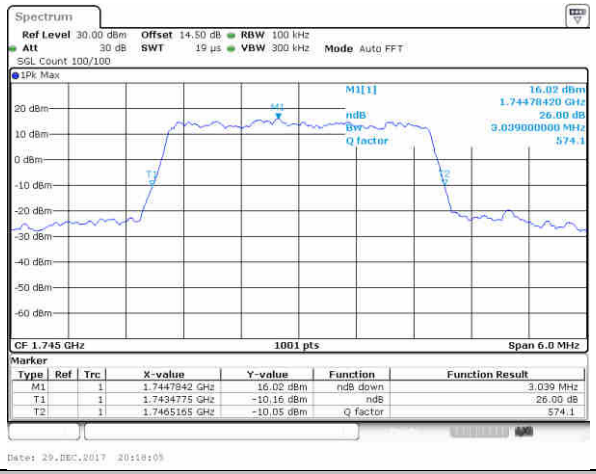
Lowest Channel / 3MHz / 64QAM



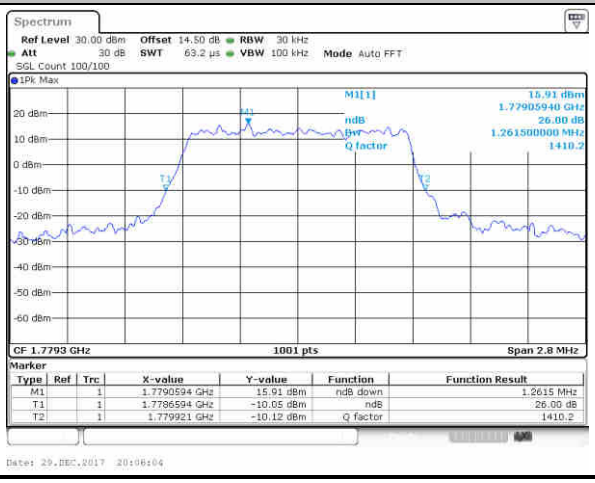
Middle Channel / 1.4MHz / 64QAM



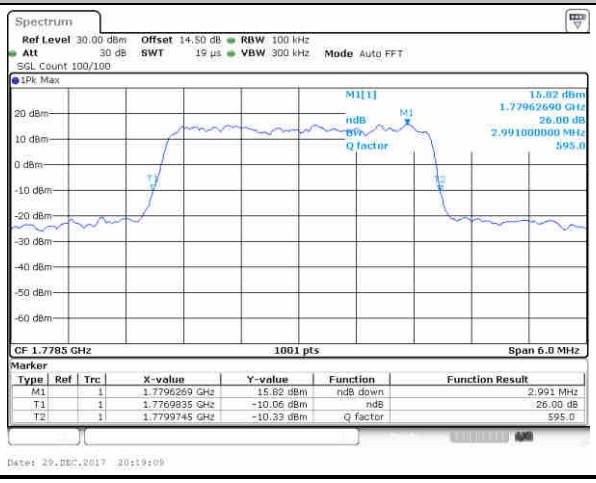
Middle Channel /3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM

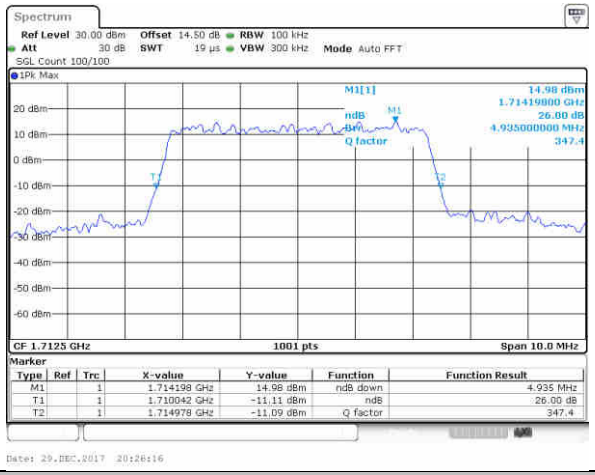


Highest Channel /3MHz / 64QAM

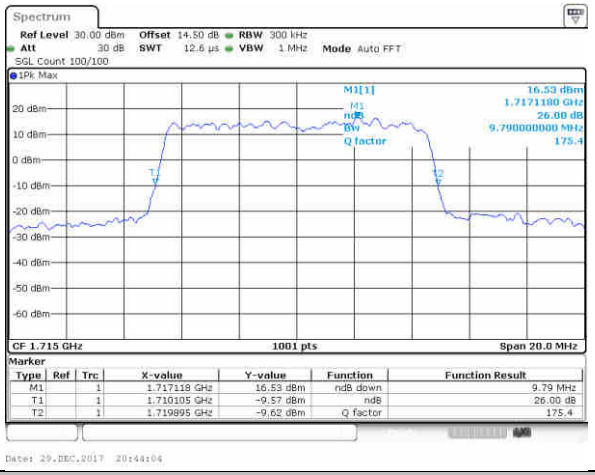


LTE Band 66

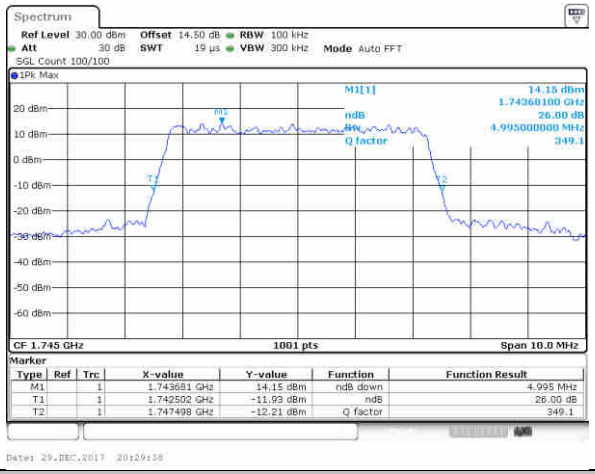
Lowest Channel / 5MHz / 64QAM



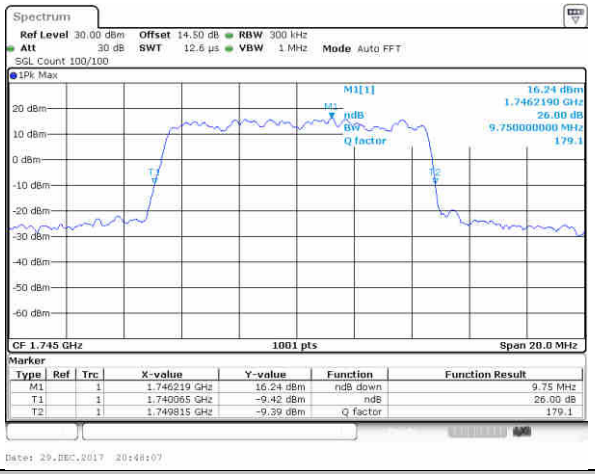
Lowest Channel / 10MHz / 64QAM



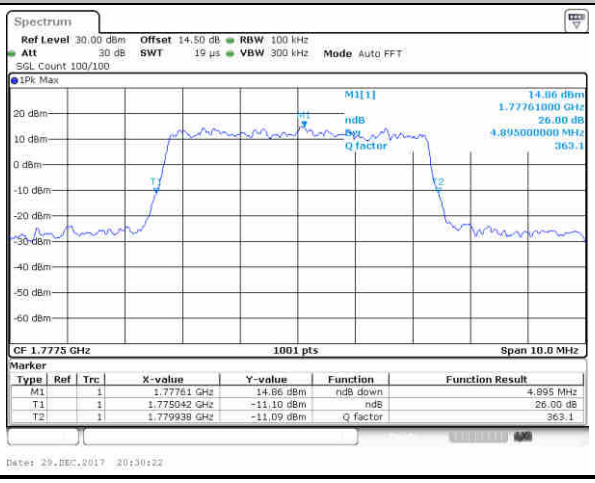
Middle Channel / 5MHz / 64QAM



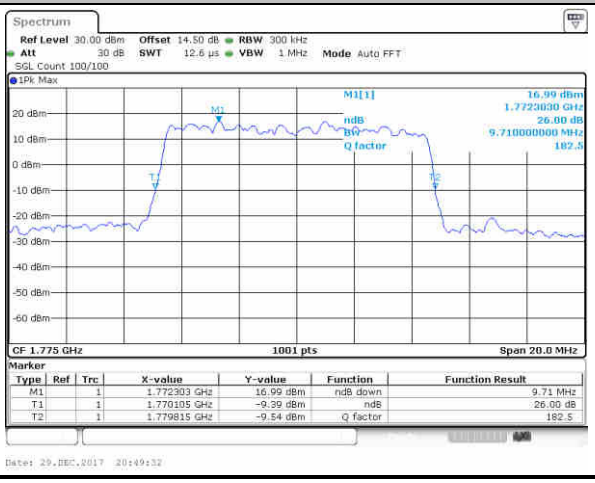
Middle Channel /10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

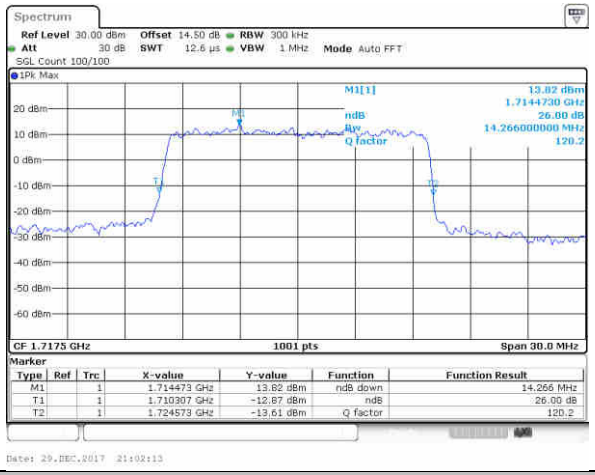


Highest Channel /10MHz / 64QAM

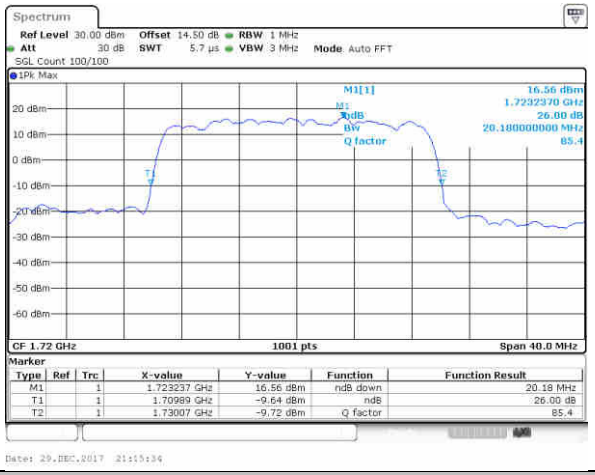


LTE Band 66

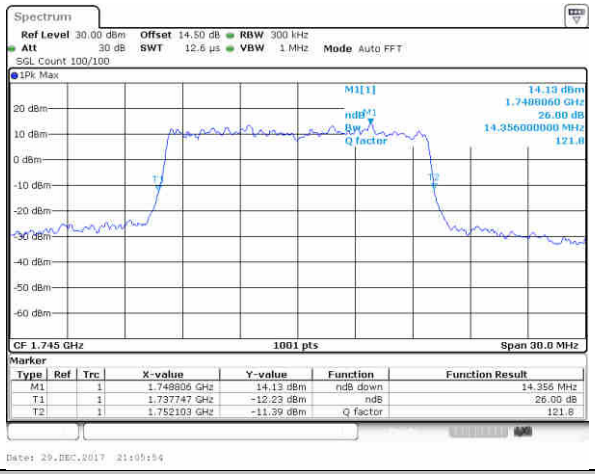
Lowest Channel / 15MHz / 64QAM



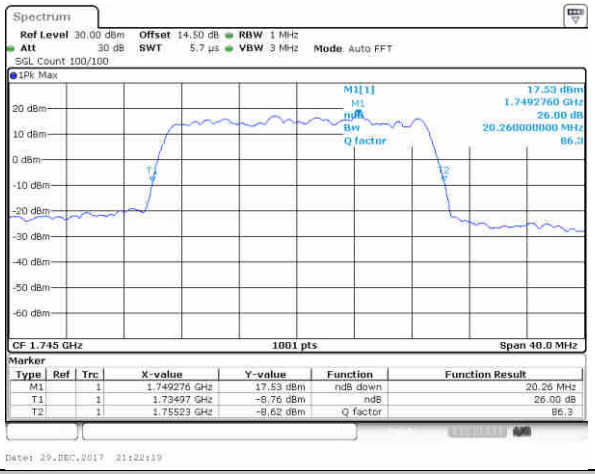
Lowest Channel / 20MHz / 64QAM



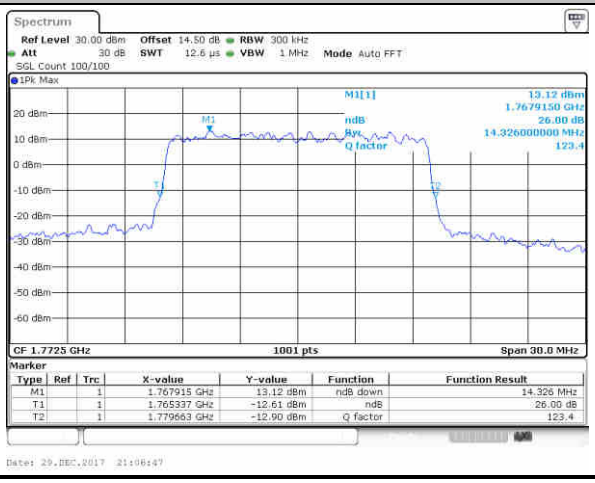
Middle Channel / 15MHz / 64QAM



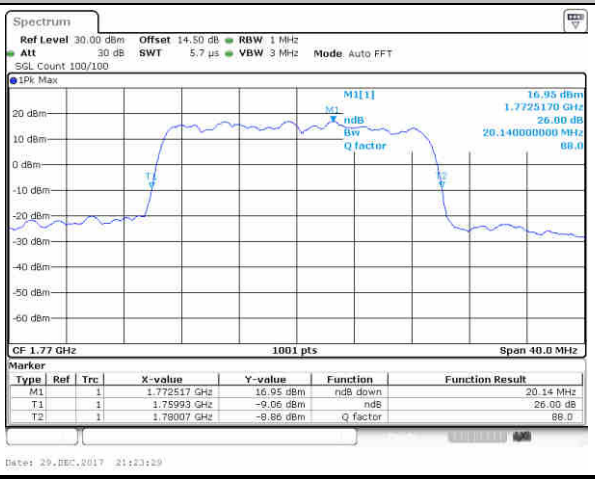
Middle Channel /20MHz / 64QAM



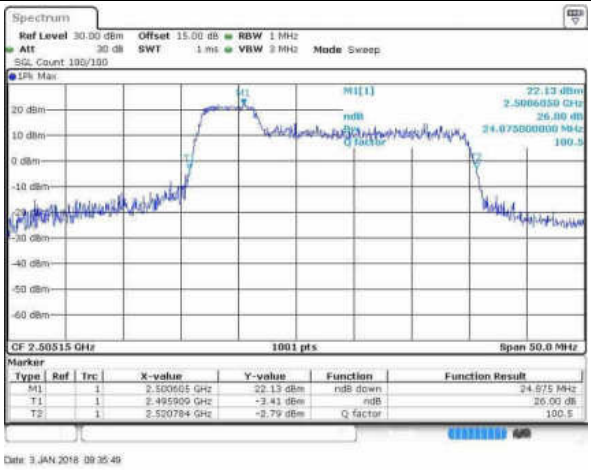
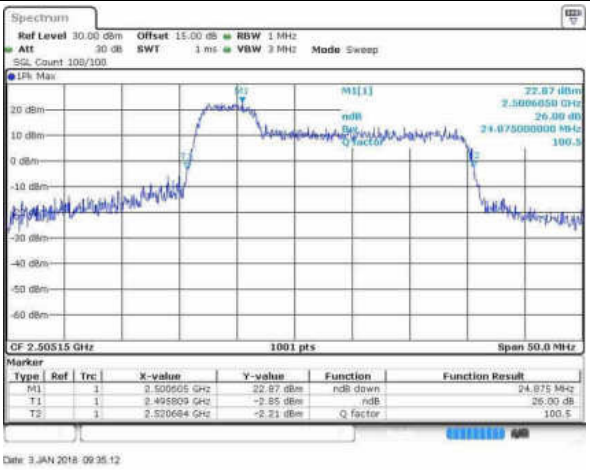
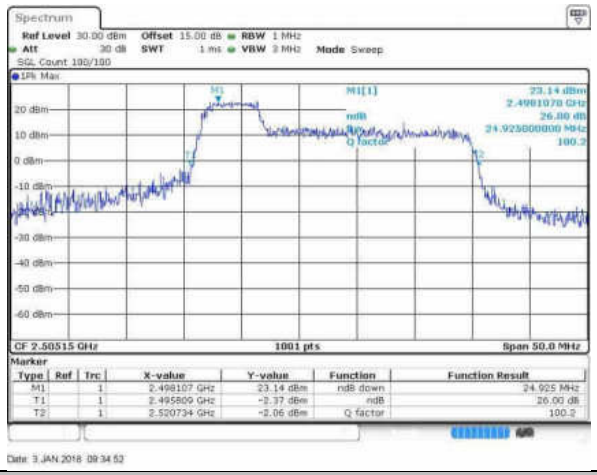
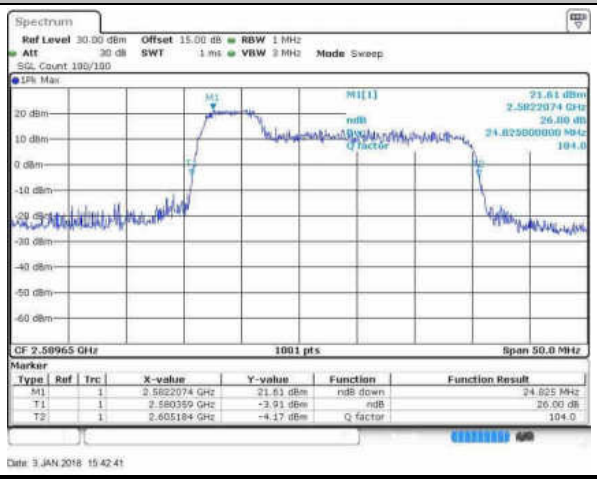
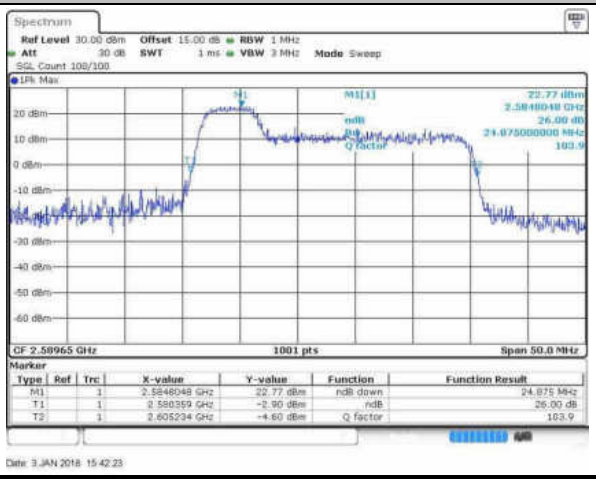
Highest Channel / 15MHz / 64QAM



Highest Channel /20MHz / 64QAM

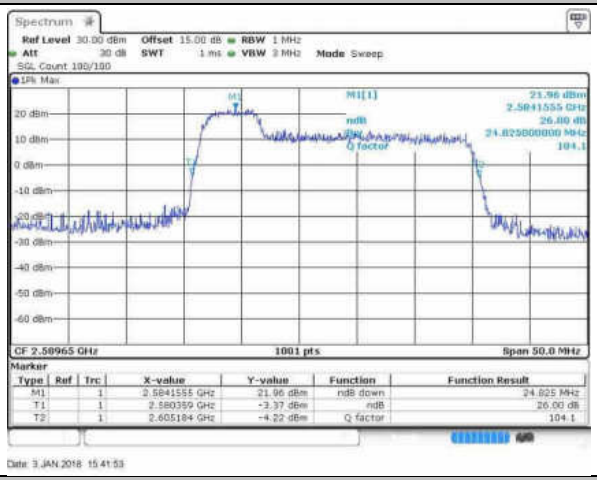


Band 41 CA

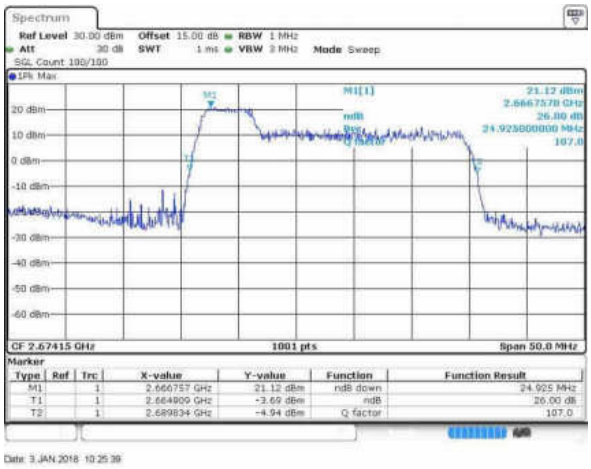
LTE Band 41	
Lowest Channel / 5MHz+20MHz/QPSK	**Lowest Channel / 5MHz+20MHz /16QAM**
	
Lowest Channel / 5MHz+20MHz/64QAM	
	
Middle Channel / 5MHz+20MHz/QPSK	**Middle Channel / 5MHz+20MHz/16QAM**
	

LTE Band 41

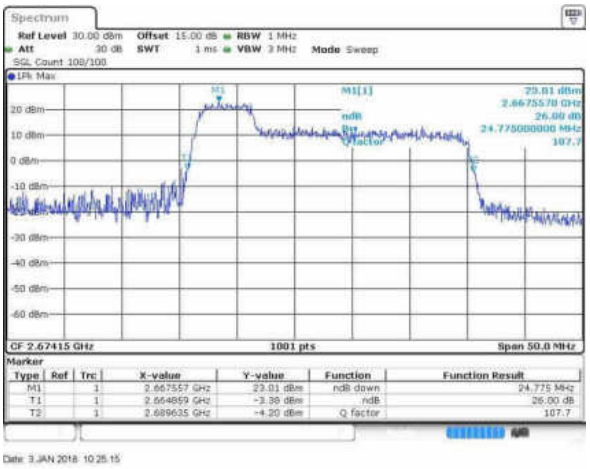
Middle Channel / 5MHz+20MHz/64QAM



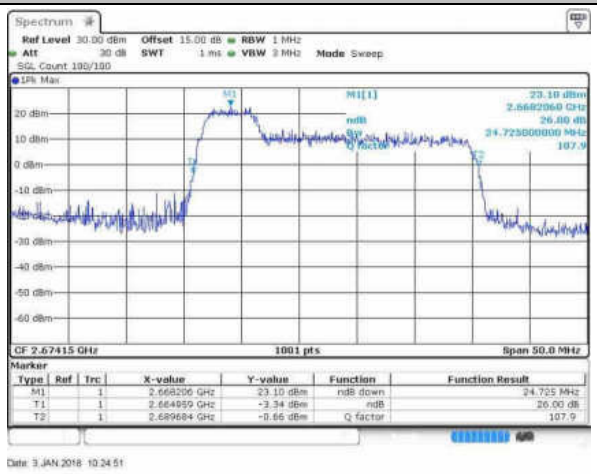
Highest Channel / 5MHz+20MHz/QPSK



Highest Channel / 5MHz+20MHz/16QAM

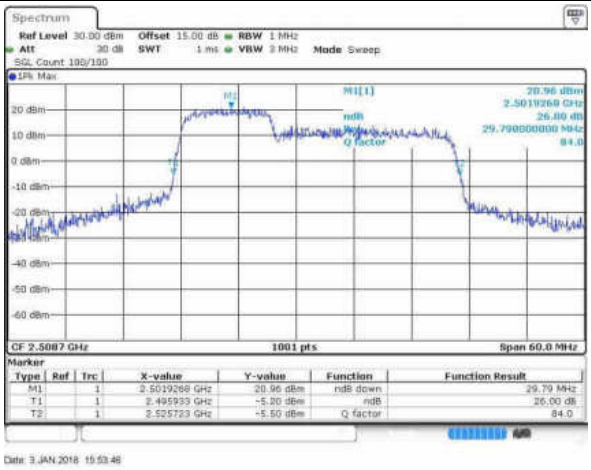


Highest Channel / 5MHz+20MHz/64QAM

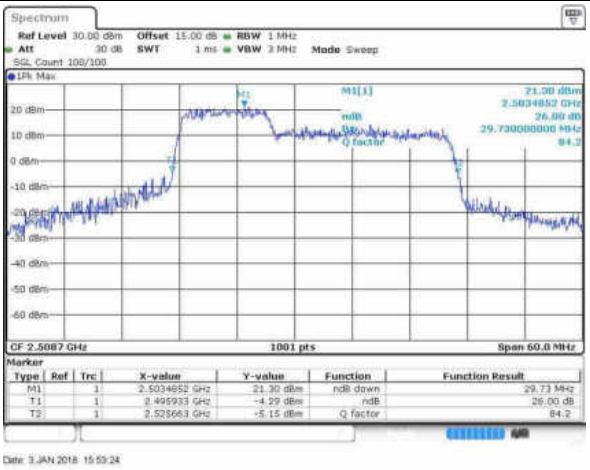


LTE Band 41

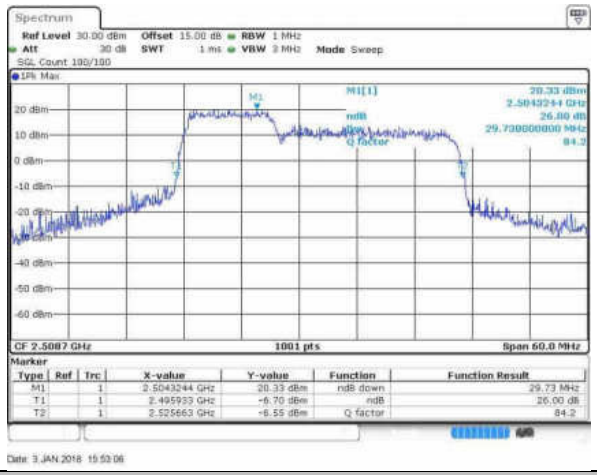
Lowest Channel / 10MHz+20MHz/QPSK



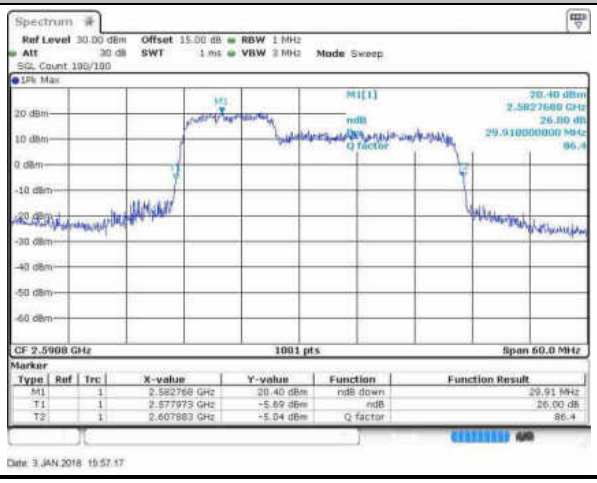
Lowest Channel / 10MHz+20MHz /16QAM



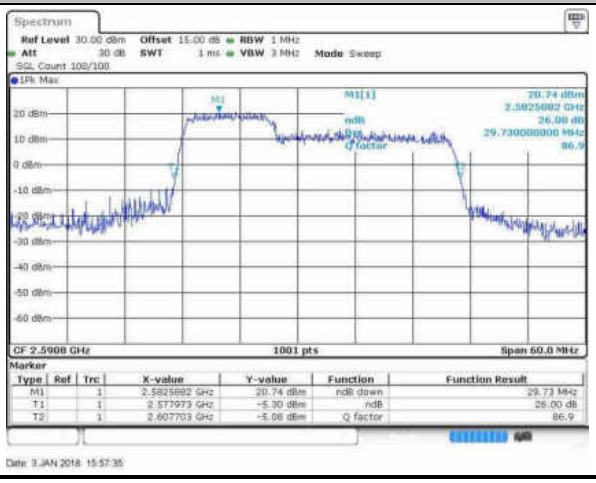
Lowest Channel / 10MHz+20MHz/64QAM



Middle Channel / 10MHz+20MHz/QPSK

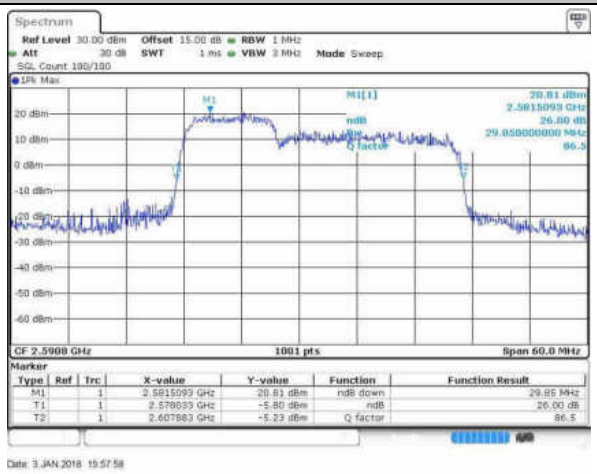


Middle Channel / 10MHz+20MHz/16QAM

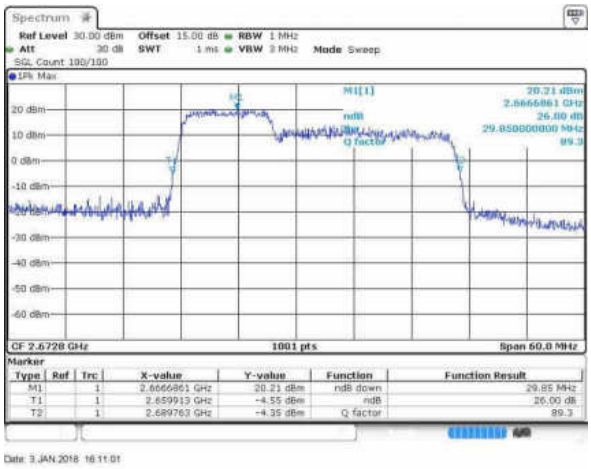


LTE Band 41

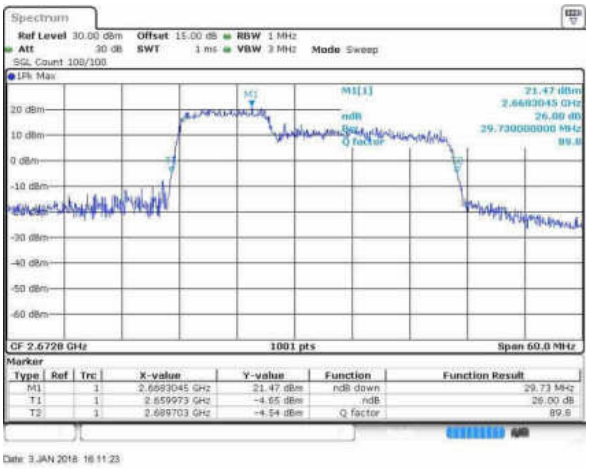
Middle Channel / 10MHz+20MHz/64QAM



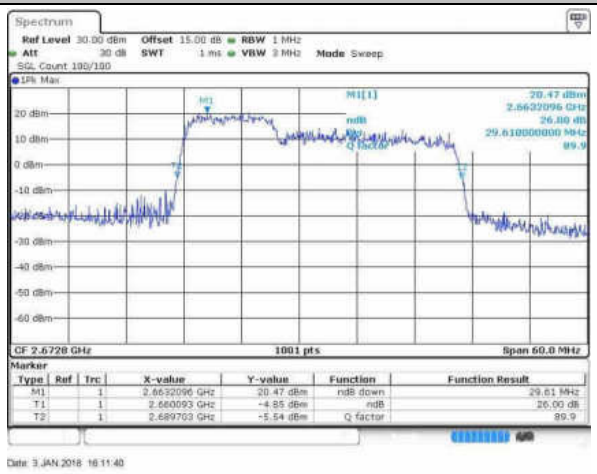
Highest Channel / 10MHz+20MHz/QPSK



Highest Channel / 10MHz+20MHz/16QAM

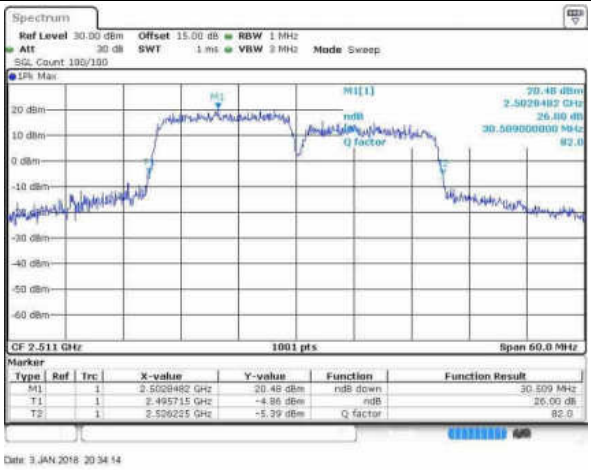


Highest Channel / 10MHz+20MHz/64QAM

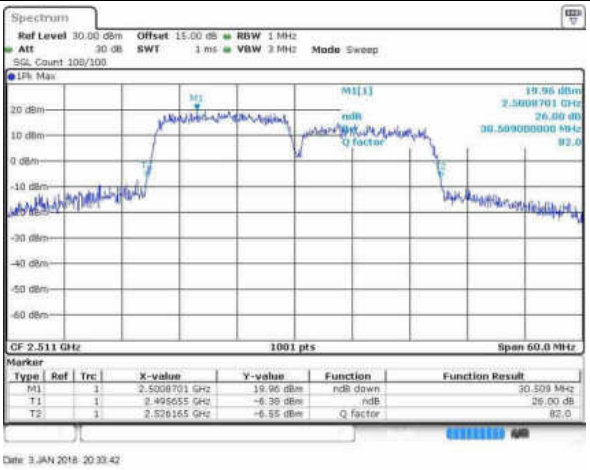


LTE Band 41

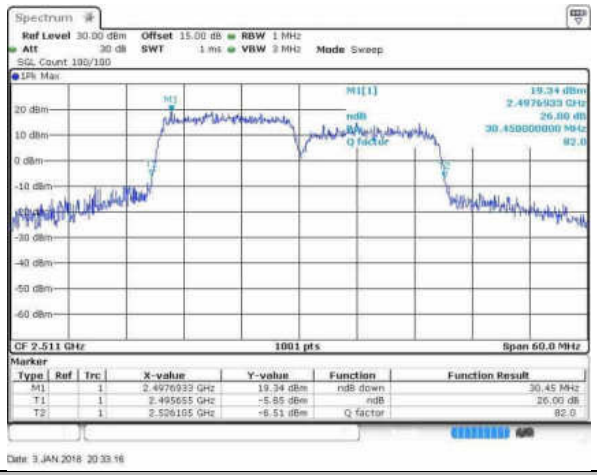
Lowest Channel / 15MHz+15MHz/QPSK



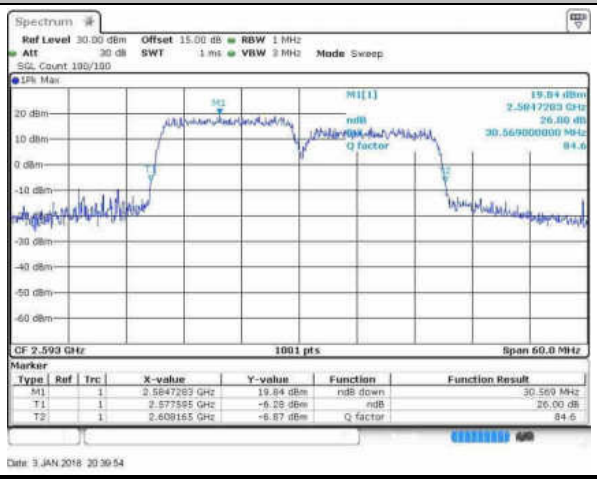
Lowest Channel / 15MHz+15MHz/16QAM



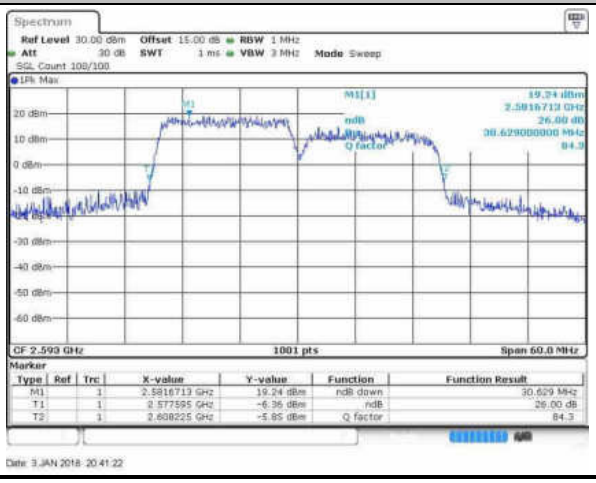
Lowest Channel / 15MHz+15MHz /64QAM



Middle Channel / 15MHz+15MHz /QPSK

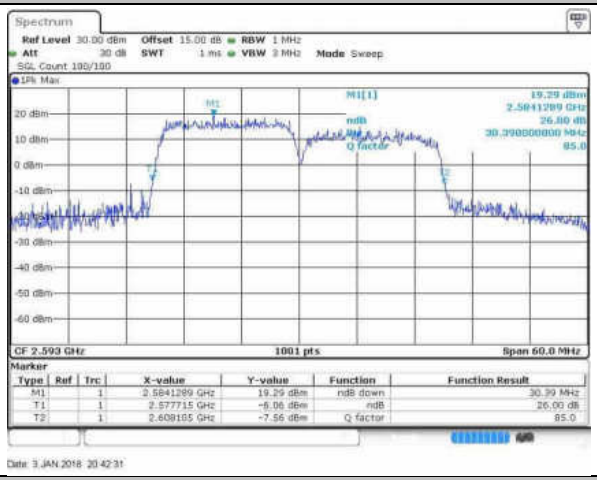


Middle Channel / 15MHz+15MHz /16QAM

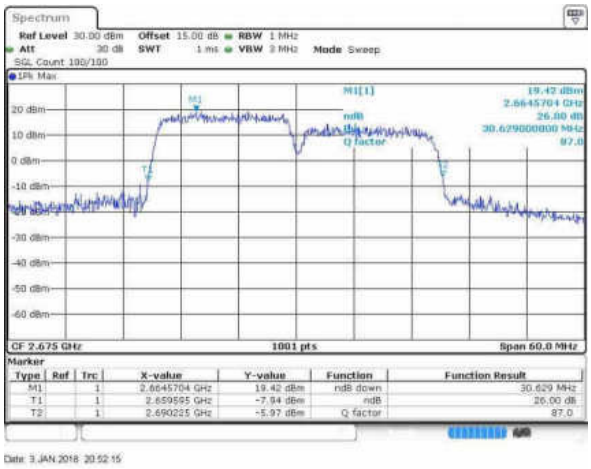


LTE Band 41

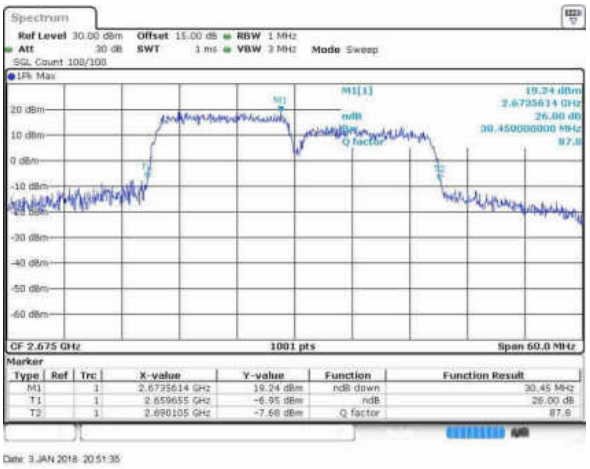
Middle Channel / 15MHz+15MHz /64QAM



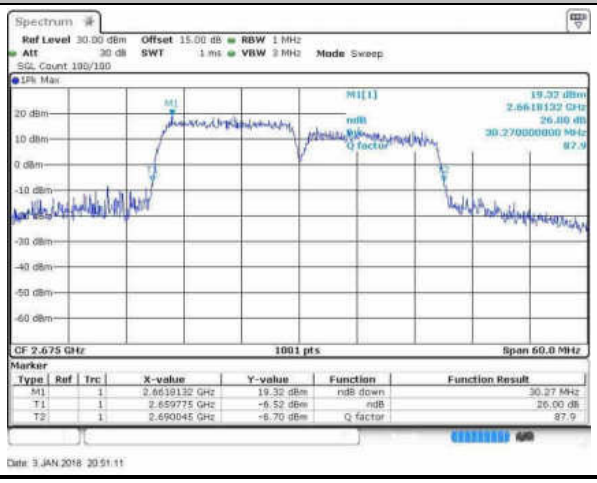
Highest Channel / 15MHz+15MHz /QPSK



Highest Channel / 15MHz+15MHz /16QAM

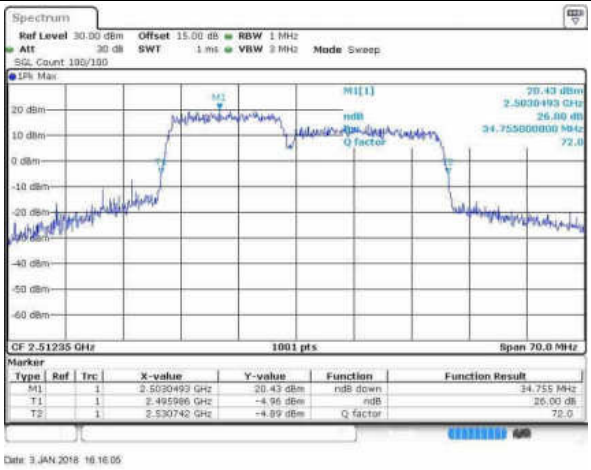


Highest Channel / 15MHz+15MHz /64QAM

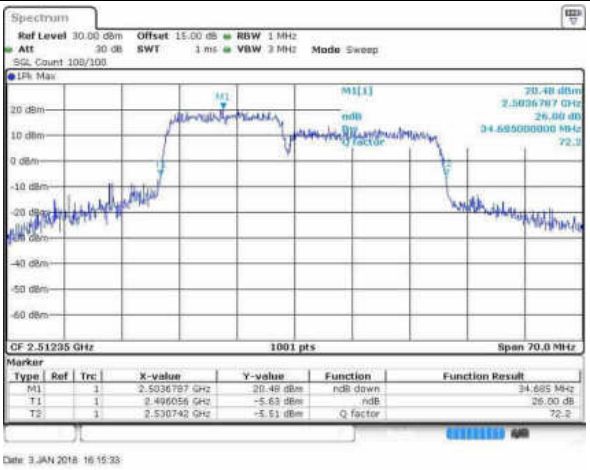


LTE Band 41

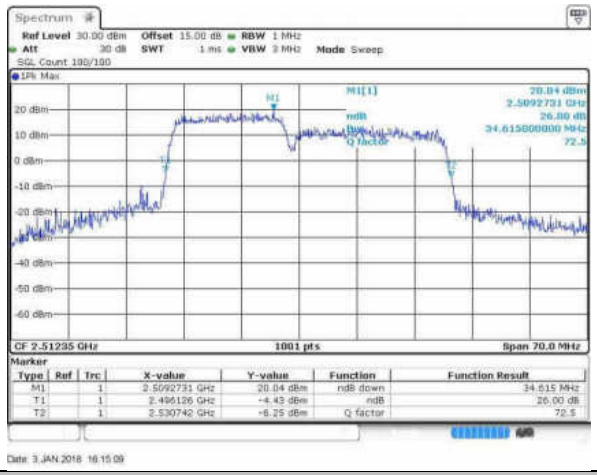
Lowest Channel / 15MHz+20MHz/QPSK



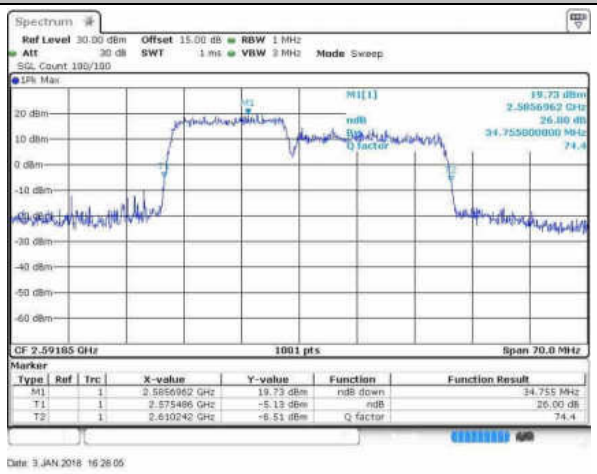
Lowest Channel / 15MHz+20MHz /16QAM



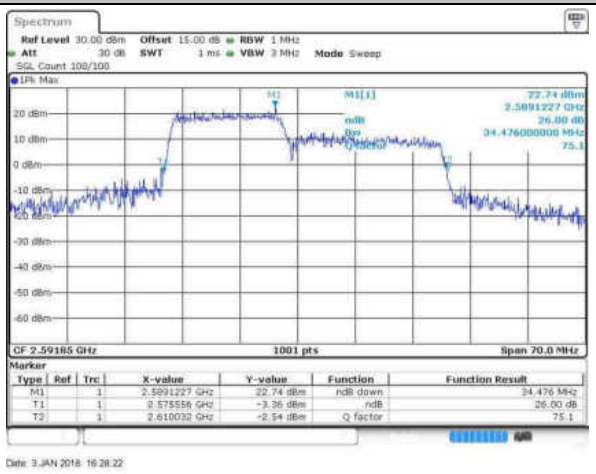
Lowest Channel / 15MHz+20MHz /64QAM



Middle Channel / 15MHz+20MHz /QPSK

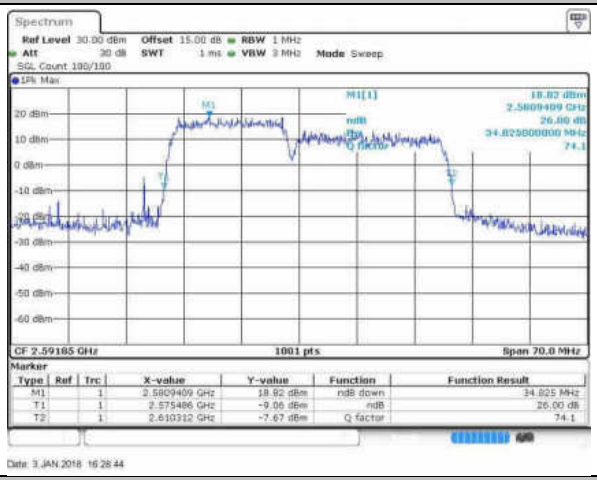


Middle Channel / 15MHz+20MHz /16QAM

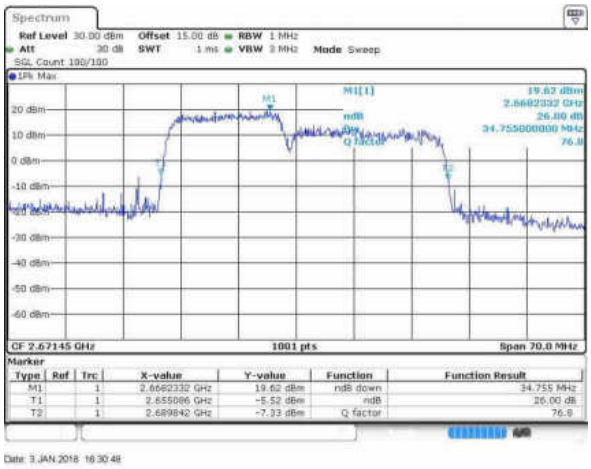


LTE Band 41

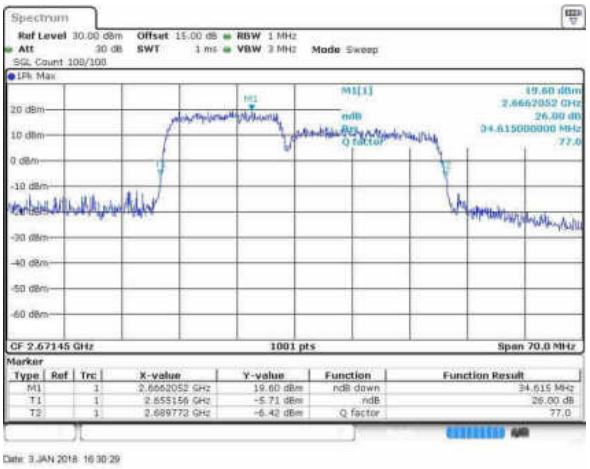
Middle Channel / 15MHz+20MHz /64QAM



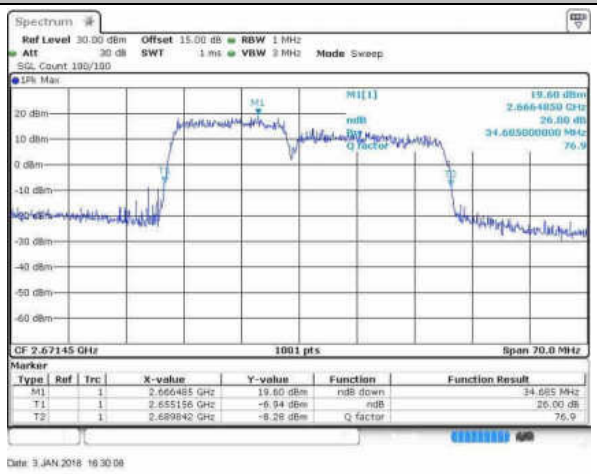
Highest Channel / 15MHz+20MHz /QPSK



Highest Channel / 15MHz+20MHz /16QAM

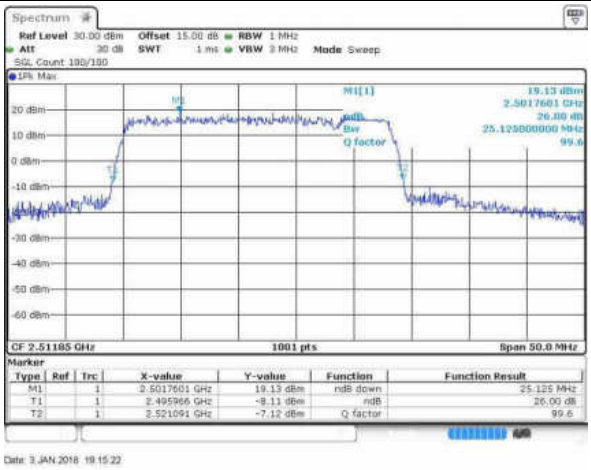


Highest Channel / 15MHz+20MHz /64QAM

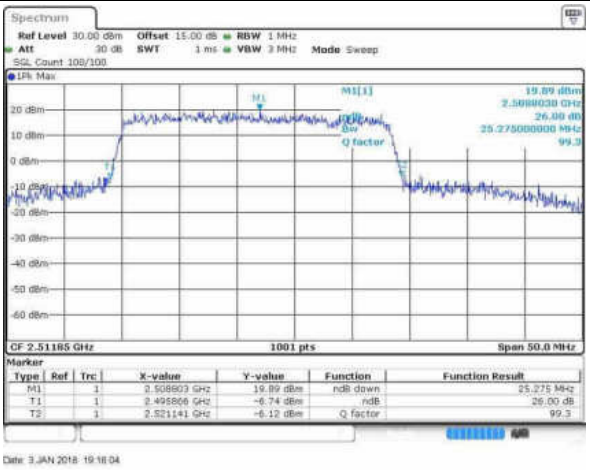


LTE Band 41

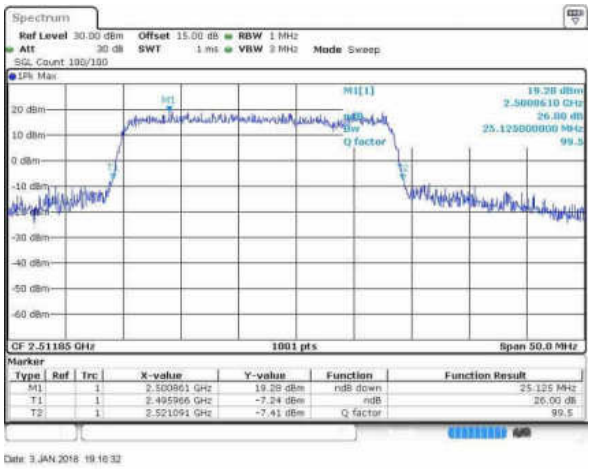
Lowest Channel / 20MHz+5MHz/QPSK



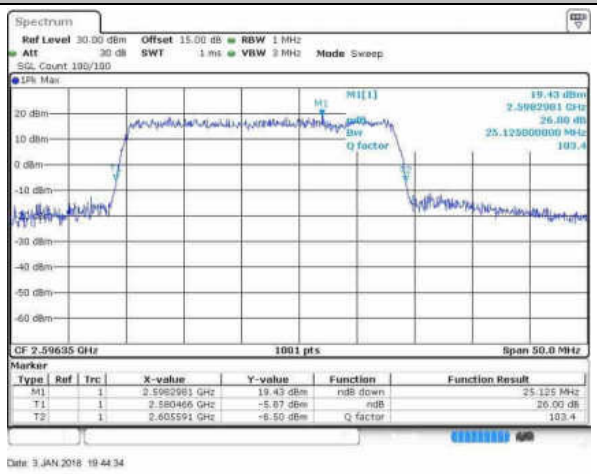
Lowest Channel / 20MHz+5MHz /16QAM



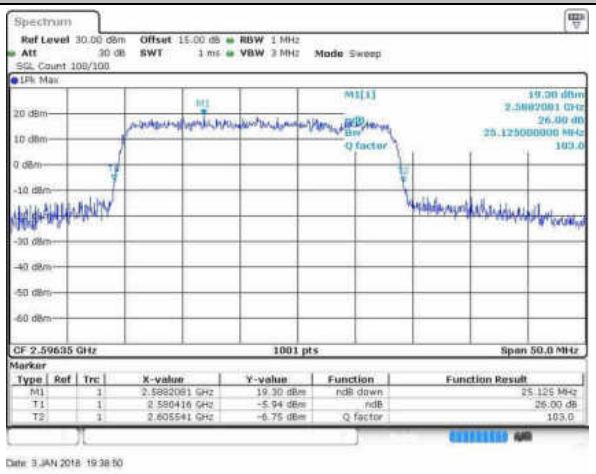
Lowest Channel / 20MHz+5MHz /64QAM



Middle Channel / 20MHz+5MHz /QPSK

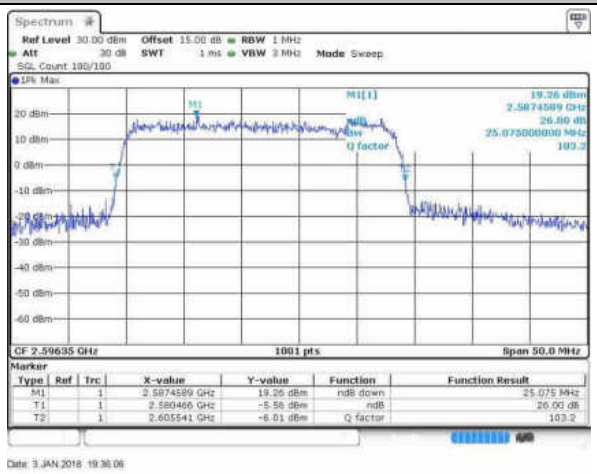


Middle Channel / 20MHz+5MHz /16QAM

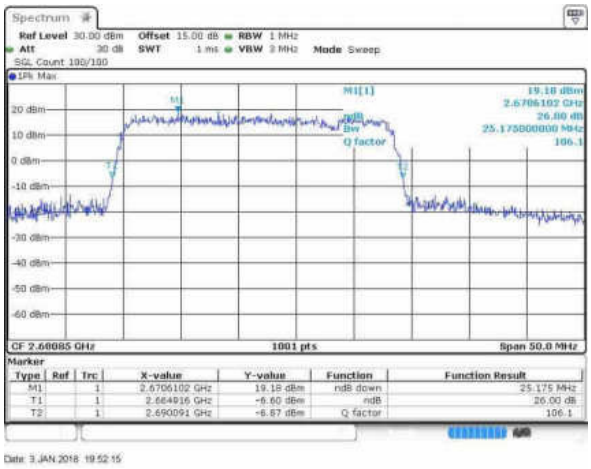


LTE Band 41

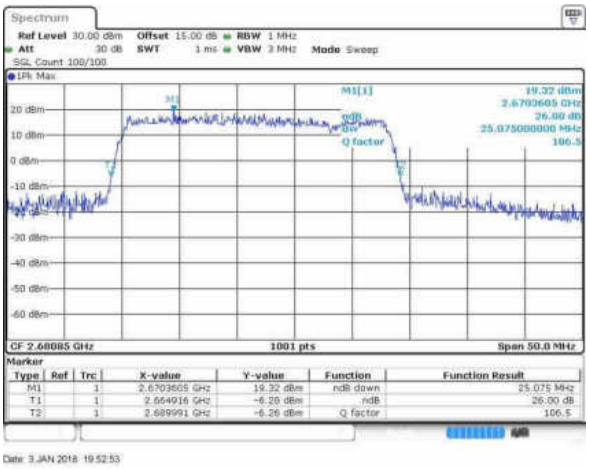
Middle Channel / 20MHz+5MHz /64QAM



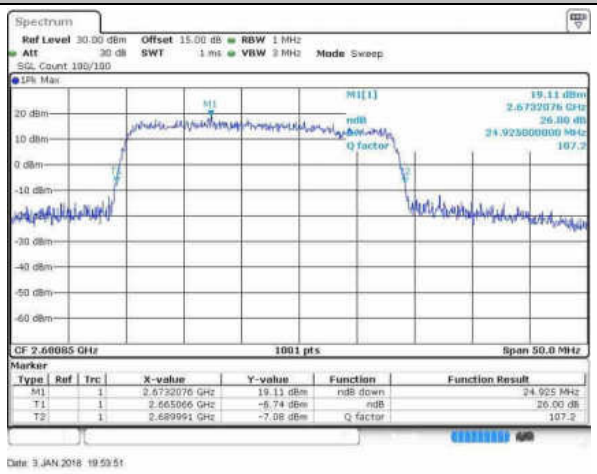
Highest Channel / 20MHz+5MHz /QPSK



Highest Channel / 20MHz+5MHz /16QAM

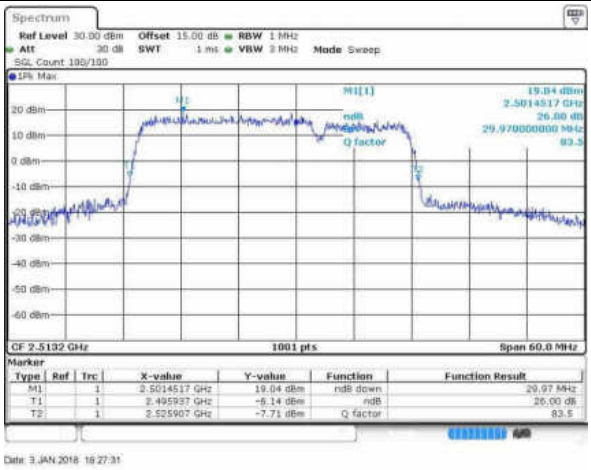


Highest Channel / 20MHz+5MHz /64QAM

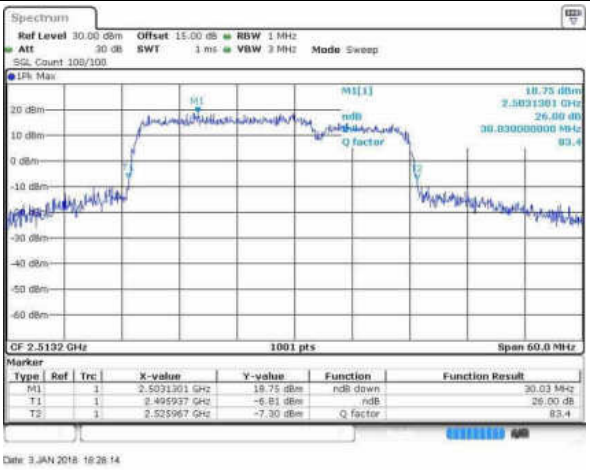


LTE Band 41

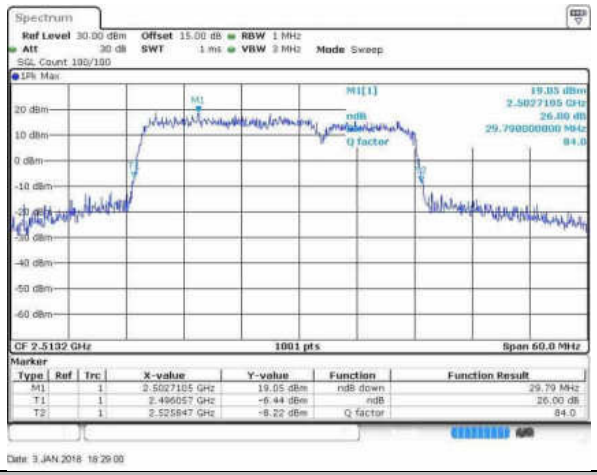
Lowest Channel / 20MHz+10MHz/QPSK



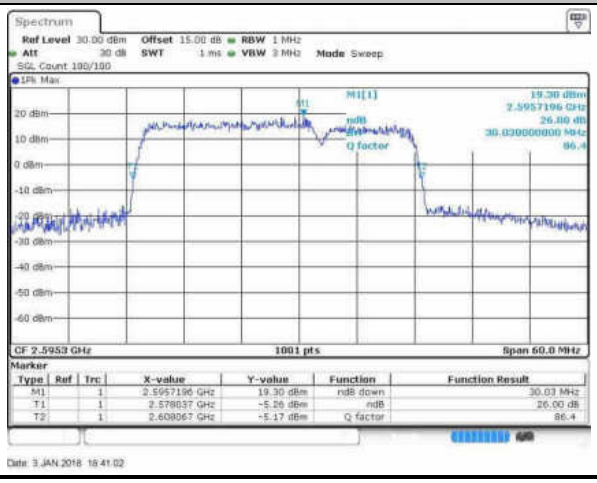
Lowest Channel / 20MHz+10MHz /16QAM



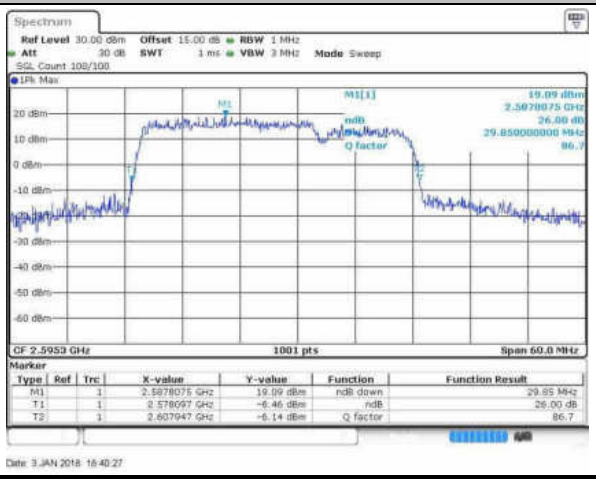
Lowest Channel / 20MHz+10MHz /64QAM



Middle Channel / 20MHz+10MHz /QPSK

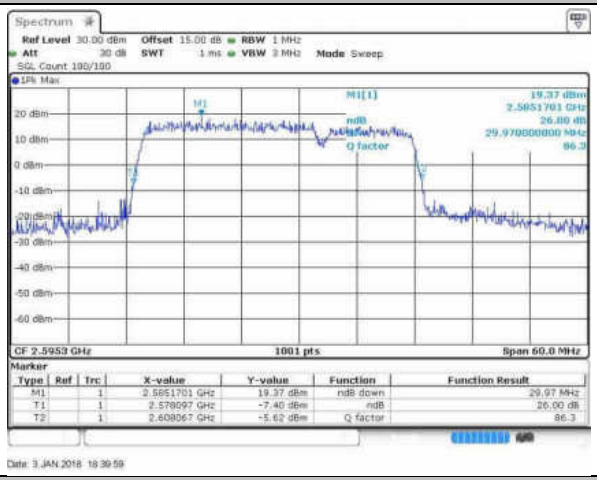


Middle Channel / 20MHz+10MHz /16QAM

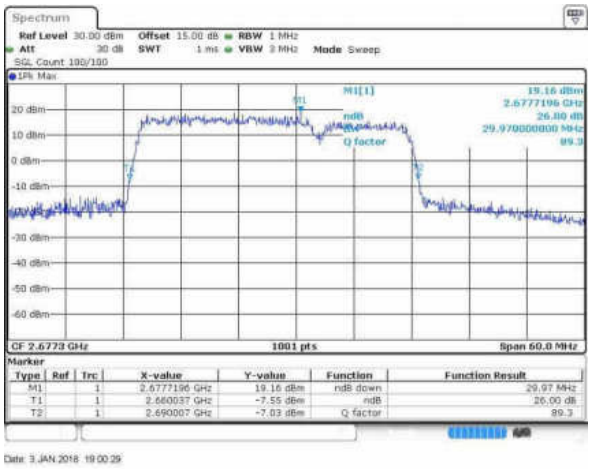


LTE Band 41

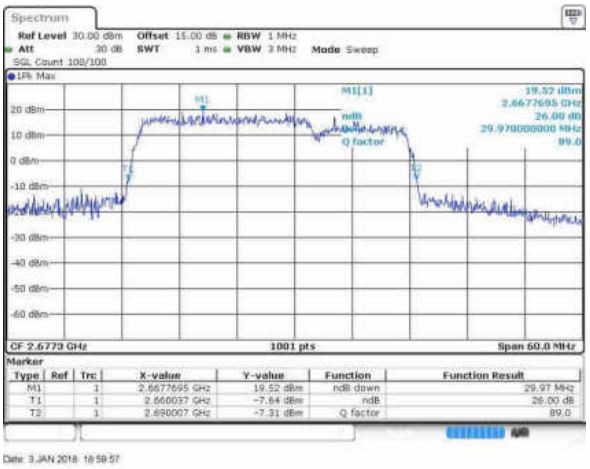
Middle Channel / 20MHz+10MHz /64QAM



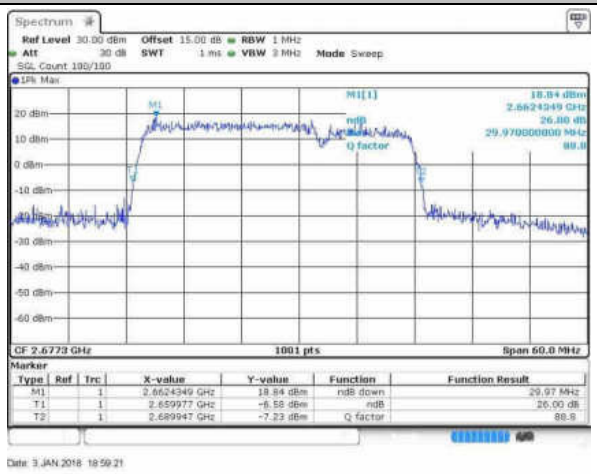
Highest Channel / 20MHz+10MHz /QPSK



Highest Channel / 20MHz+10MHz /16QAM

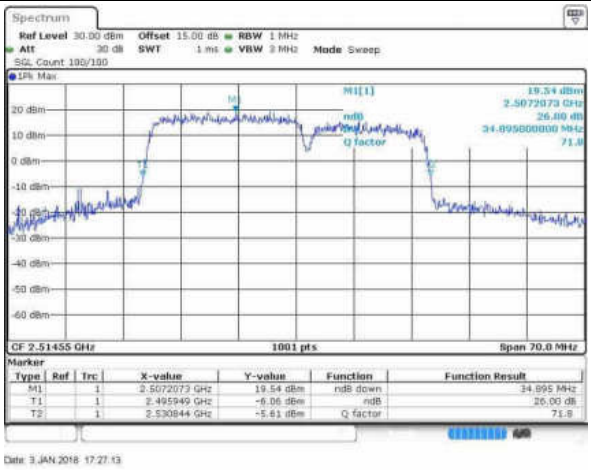


Highest Channel / 20MHz+10MHz /64QAM

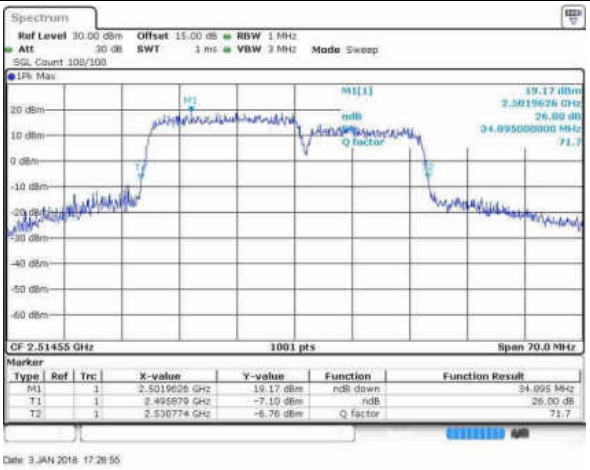


LTE Band 41

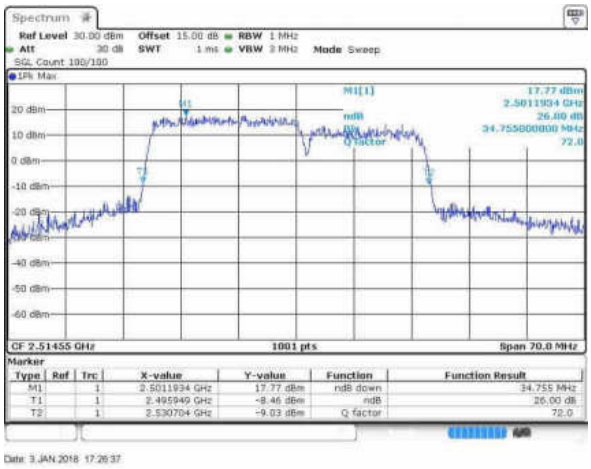
Lowest Channel / 20MHz+15MHz/QPSK



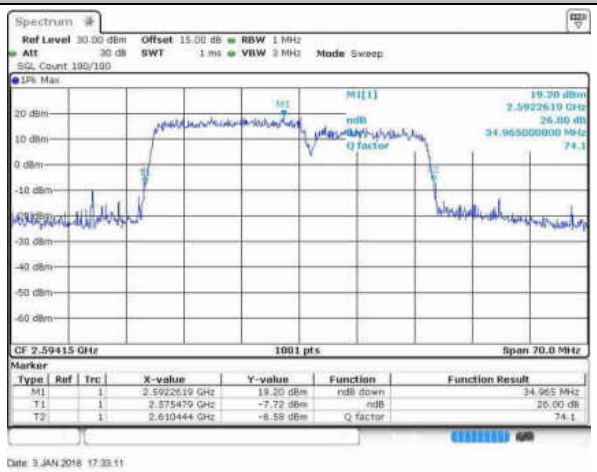
Lowest Channel / 20MHz+15MHz /16QAM



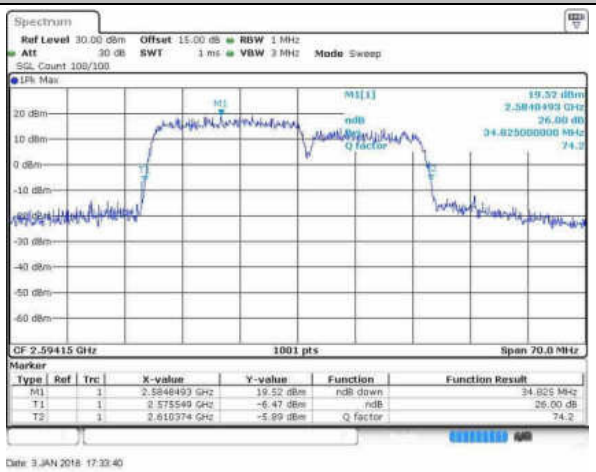
Lowest Channel / 20MHz+15MHz /64QAM



Middle Channel / 20MHz+15MHz /QPSK

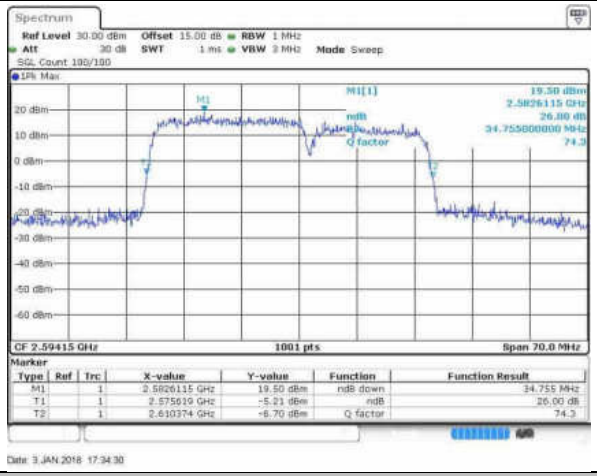


Middle Channel / 20MHz+15MHz /16QAM

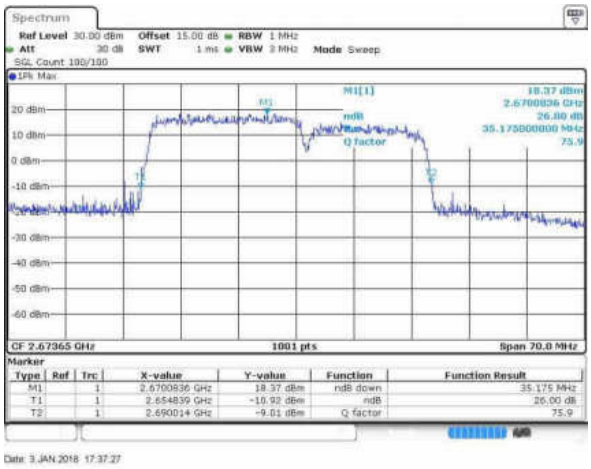


LTE Band 41

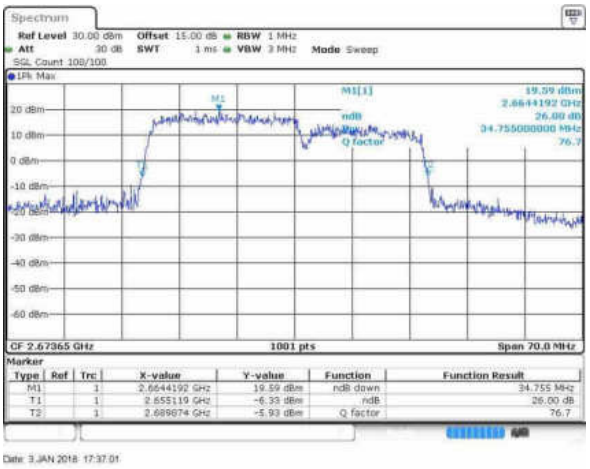
Middle Channel / 20MHz+15MHz /64QAM



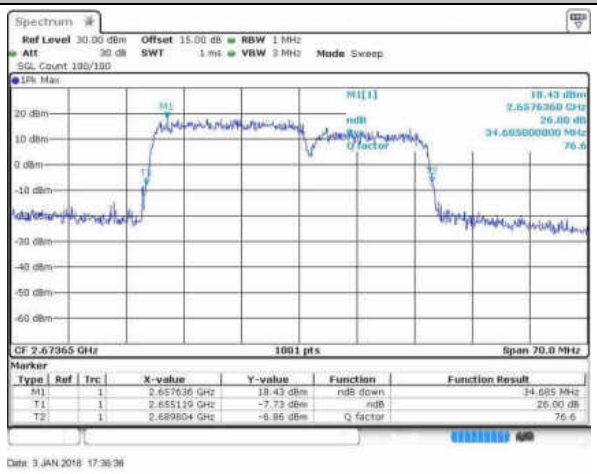
Highest Channel / 20MHz+15MHz /QPSK



Highest Channel / 20MHz+15MHz /16QAM

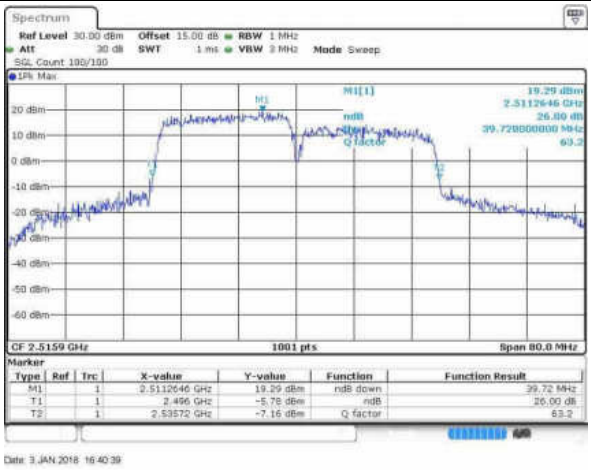


Highest Channel / 20MHz+15MHz /64QAM

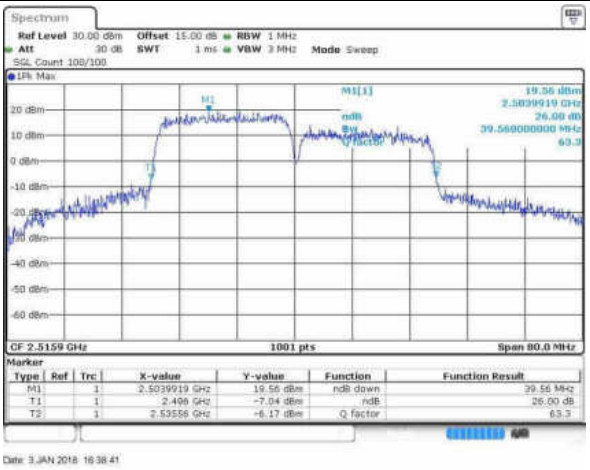


LTE Band 41

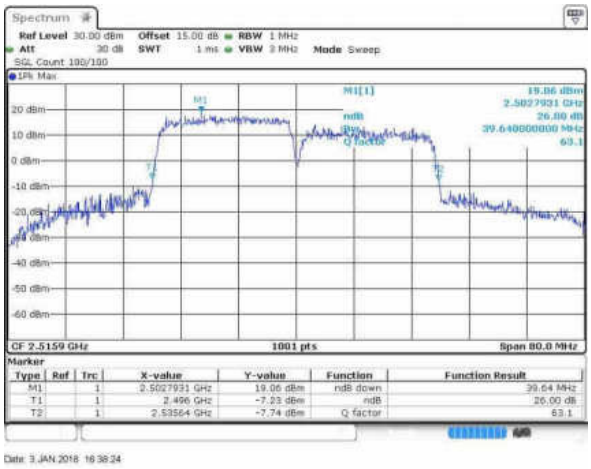
Lowest Channel / 20MHz+20MHz/QPSK



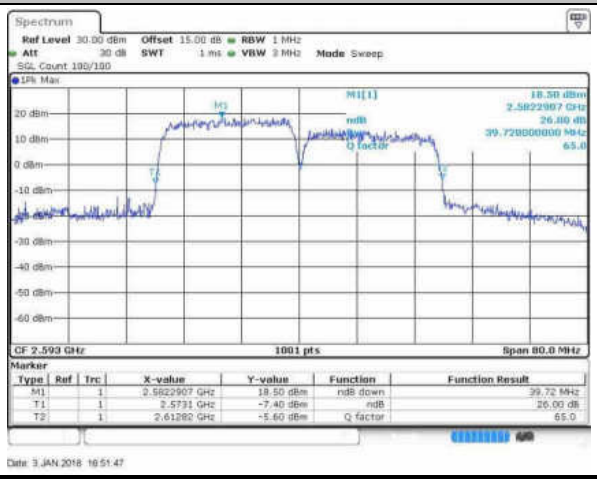
Lowest Channel / 20MHz+20MHz /16QAM



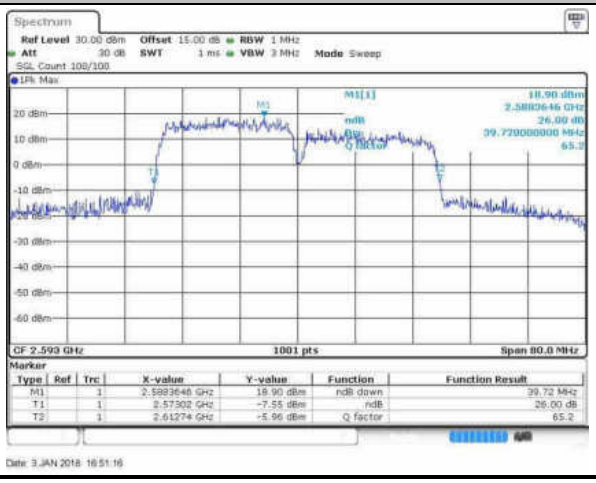
Lowest Channel / 20MHz+20MHz /64QAM



Middle Channel / 20MHz+20MHz /QPSK

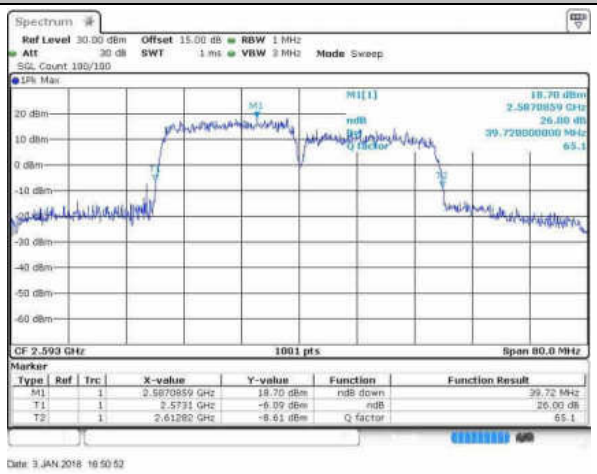


Middle Channel / 20MHz+20MHz /16QAM

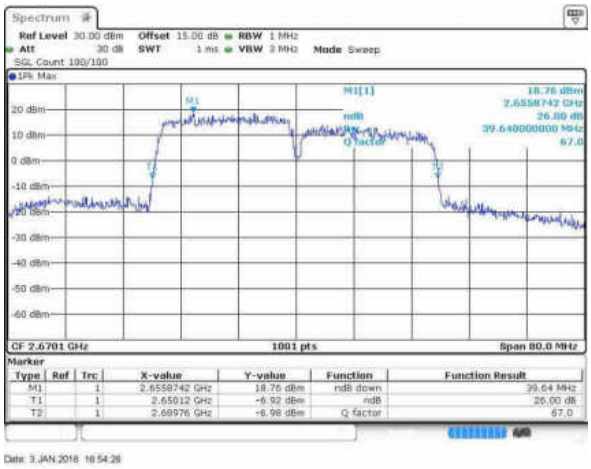


LTE Band 41

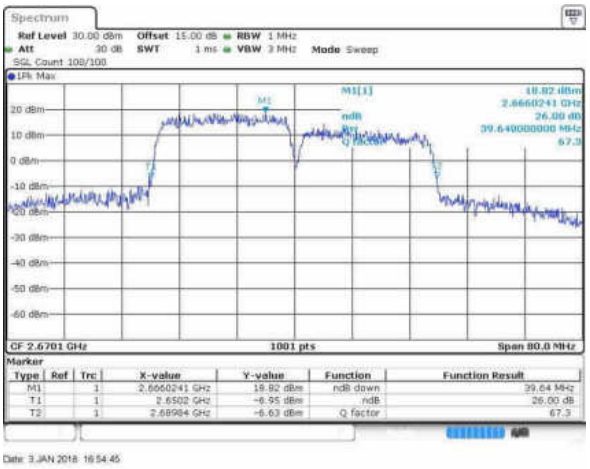
Middle Channel / 20MHz+20MHz /64QAM



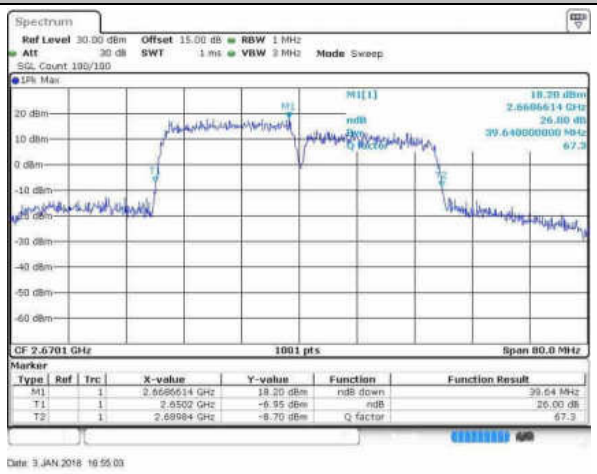
Highest Channel / 20MHz+20MHz /QPSK



Highest Channel / 20MHz+20MHz /16QAM



Highest Channel / 20MHz+20MHz /64QAM



Occupied Bandwidth

Mode	LTE Band 2 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.10	2.71	2.73	4.49	4.50	9.05	9.03	13.43	13.46	18.22	18.42
Middle CH	1.09	1.09	2.71	2.73	4.49	4.50	9.01	8.97	13.46	13.49	18.62	18.30
Highest CH	1.10	1.10	2.72	2.73	4.49	4.49	9.05	9.01	13.43	13.46	18.38	18.34
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz						
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM						
Lowest CH	1.09	2.73	4.50	9.05	13.43	18.42						
Middle CH	1.09	2.73	4.51	8.99	13.46	18.38						
Highest CH	1.09	2.73	4.49	9.01	13.43	18.34						

Mode	LTE Band 4 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.71	2.72	4.49	4.51	9.05	8.95	13.40	13.46	18.30	18.30
Middle CH	1.10	1.10	2.72	2.72	4.49	4.49	9.11	8.99	13.43	13.46	18.50	18.34
Highest CH	1.09	1.09	2.71	2.73	4.50	4.50	9.05	9.07	13.46	13.43	18.26	18.26
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz						
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM						
Lowest CH	1.10	2.73	4.48	9.05	13.34	18.26						
Middle CH	1.09	2.72	4.50	9.03	13.40	18.42						
Highest CH	1.09	2.73	4.50	9.07	13.43	18.34						

Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.72	2.72	4.50	4.49	9.03	8.99	-	-	-	-
Middle CH	1.09	1.09	2.72	2.70	4.51	4.48	9.07	9.01	-	-	-	-
Highest CH	1.09	1.09	2.72	2.75	4.49	4.49	9.03	8.99	-	-	-	-
BW	1.4MHz	3MHz	5MHz	10MHz								
Mod.	64QAM	64QAM	64QAM	64QAM								
Lowest CH	1.09	2.72	4.52	9.09								
Middle CH	1.10	2.72	4.51	9.07								
Highest CH	1.09	2.72	4.49	9.01								

Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.49	4.53	9.11	9.01	13.43	13.40	18.34	18.42
Middle CH	-	-	-	-	4.50	4.49	8.97	8.99	13.46	13.46	18.42	18.42
Highest CH	-	-	-	-	4.50	4.51	9.01	9.03	13.52	13.49	18.38	18.38

BW	5MHz	10MHz	15MHz	20MHz
Mod.	64QAM	64QAM	64QAM	64QAM
Lowest CH	4.52	9.07	13.43	18.30
Middle CH	4.50	9.09	13.43	18.42
Highest CH	4.48	9.05	13.40	18.34

Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.08	1.09	2.73	2.74	4.51	4.47	9.05	9.03	-	-	-	-
Middle CH	1.10	1.10	2.71	2.72	4.48	4.50	9.01	8.93	-	-	-	-
Highest CH	1.09	1.09	2.71	2.73	4.50	4.51	9.09	8.97	-	-	-	-

BW	1.4MHz	3MHz	5MHz	10MHz
Mod.	64QAM	64QAM	64QAM	64QAM
Lowest CH	1.10	2.76	4.48	9.01
Middle CH	1.09	2.72	4.48	8.97
Highest CH	1.09	2.73	4.50	9.03

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.47	4.48	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	4.50	9.03	8.95	-	-	-	-
Highest CH	-	-	-	-	4.50	4.49	-	-	-	-	-	-

BW	5MHz	10MHz
Mod.	64QAM	64QAM
Lowest CH	4.46	-
Middle CH	4.47	9.01
Highest CH	4.51	-

Mode	LTE Band 17 : 99%OBW(MHz)											
BW	5MHz		10MHz		5MHz	10MHz						
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM						
Lowest CH	4.48	4.48	9.01	8.99	4.47	9.03						
Middle CH	4.50	4.48	9.01	8.97	4.50	8.99						
Highest CH	4.50	4.50	9.03	8.97	4.49	9.01						

Mode	LTE Band 25 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.10	2.72	2.73	4.48	4.49	9.09	8.99	13.43	13.49	18.22	18.26
Middle CH	1.10	1.09	2.72	2.72	4.51	4.47	9.05	9.01	13.43	13.43	18.42	18.38
Highest CH	1.10	1.10	2.71	2.70	4.49	4.50	9.01	8.97	13.40	13.40	18.42	18.34
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz						
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM						
Lowest CH	1.09	2.72	4.50	9.05	13.40	18.50						
Middle CH	1.09	2.73	4.50	9.05	13.37	18.34						
Highest CH	1.10	2.72	4.50	9.05	13.46	18.34						

Mode	LTE Band 26 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.10	1.10	2.72	2.73	4.50	4.47	9.05	8.97	13.43	13.43	-	-
Middle CH	1.09	1.09	2.73	2.71	4.50	4.51	9.05	9.01	13.46	13.46	-	-
Highest CH	1.10	1.09	2.71	2.72	4.48	4.50	9.01	8.97	13.37	13.46	-	-
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz						
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM						
Lowest CH	1.09	2.72	4.50	9.09	13.49	-						
Middle CH	1.09	2.73	4.49	9.03	13.43	-						
Highest CH	1.09	2.73	4.46	8.97	13.52	-						

Mode	LTE Band 38 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.49	4.48	9.01	9.01	13.40	13.43	18.14	18.26
Middle CH	-	-	-	-	4.47	4.50	8.93	9.07	13.49	13.43	18.38	18.46
Highest CH	-	-	-	-	4.49	4.49	9.01	9.01	13.40	13.40	18.42	18.34

BW	5MHz	10MHz	15MHz	20MHz
Mod.	64QAM	64QAM	64QAM	64QAM
Lowest CH	4.49	8.97	13.43	18.26
Middle CH	4.49	8.99	13.46	18.34
Highest CH	4.47	8.97	13.43	18.30

Mode	LTE Band 41 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.49	4.50	9.01	9.03	13.40	13.43	18.30	18.22
Middle CH	-	-	-	-	4.50	4.52	9.01	8.97	13.46	13.43	18.30	18.38
Highest CH	-	-	-	-	4.47	4.51	9.01	9.03	13.46	13.46	18.22	18.38

BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM
Lowest CH			4.47	8.99	13.43	18.54
Middle CH			4.49	8.99	13.43	18.46
Highest CH			4.49	8.99	13.52	18.30

Mode	LTE Band 66 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.10	2.72	2.73	4.49	4.51	9.03	8.99	13.43	13.46	18.34	18.42
Middle CH	1.09	1.10	2.72	2.71	4.49	4.49	8.95	9.01	13.40	13.34	18.18	18.18
Highest CH	1.08	1.10	2.70	2.71	4.48	4.49	8.97	8.99	13.40	13.40	18.38	18.38

BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM
Lowest CH	1.10	2.72	4.49	9.01	13.49	18.22
Middle CH	1.10	2.71	4.50	8.95	13.46	18.42
Highest CH	1.10	2.75	4.51	8.99	13.43	18.34

Band 41 CA

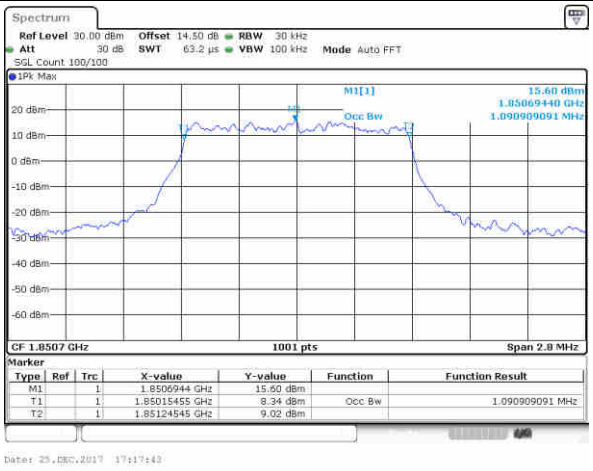
Mode	LTE Band 41 : 99%OBW(MHz)								
BW	5MHz+20MHz			10MHz+20MHz			15MHz+15MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	23.18	23.03	23.08	27.75	27.69	27.69	28.47	28.29	28.41
Middle CH	23.08	23.18	23.03	27.81	27.75	27.69	28.35	28.41	28.41
Highest CH	23.13	23.13	23.08	27.69	27.81	27.81	28.35	28.29	28.35

Mode	LTE Band 41 : 99%OBW(MHz)								
BW	15MHz+20MHz			20MHz+5MHz			20MHz+10MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	32.52	32.48	32.66	23.33	23.28	23.13	27.75	27.93	27.87
Middle CH	32.52	32.38	32.52	23.23	23.28	23.08	27.99	27.81	27.99
Highest CH	32.38	32.38	32.38	23.23	23.28	23.18	27.99	27.81	27.81

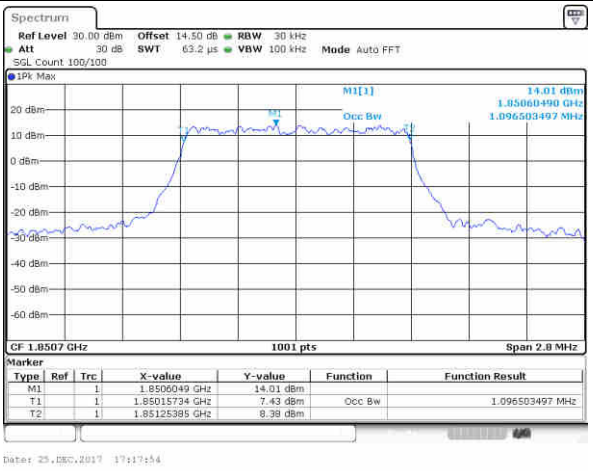
Mode	LTE Band 41 : 99%OBW(MHz)					
BW	20MHz+15MHz			20MHz+20MHz		
Mod.	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Lowest CH	32.59	32.59	32.59	37.32	37.40	37.40
Middle CH	32.59	32.52	32.52	37.24	37.32	37.40
Highest CH	32.55	32.49	32.49	37.08	37.24	37.16

LTE Band 2

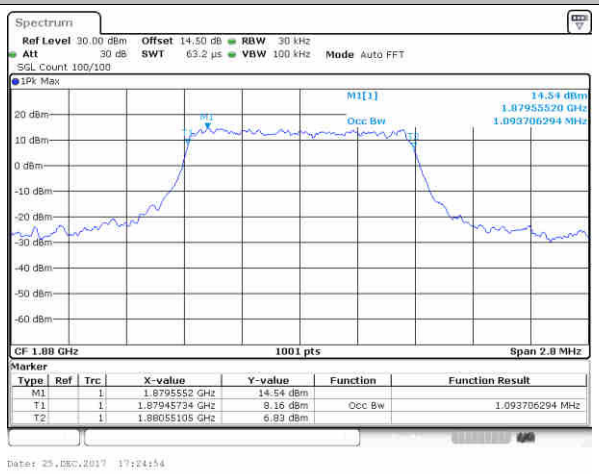
Lowest Channel / 1.4MHz / QPSK



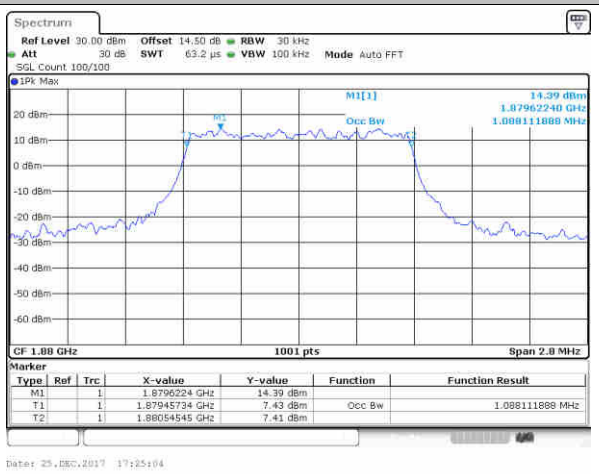
Lowest Channel / 1.4MHz / 16QAM



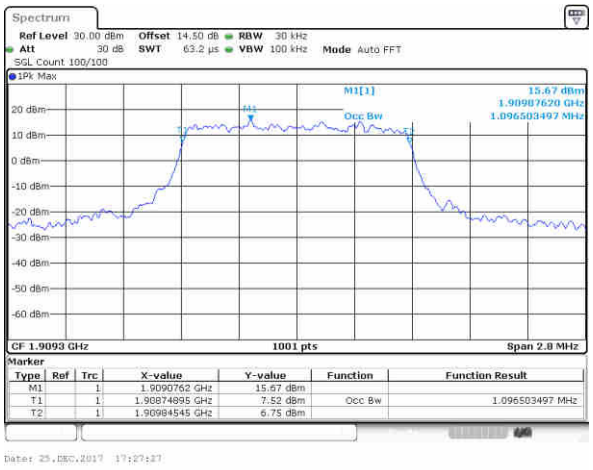
Middle Channel / 1.4MHz / QPSK



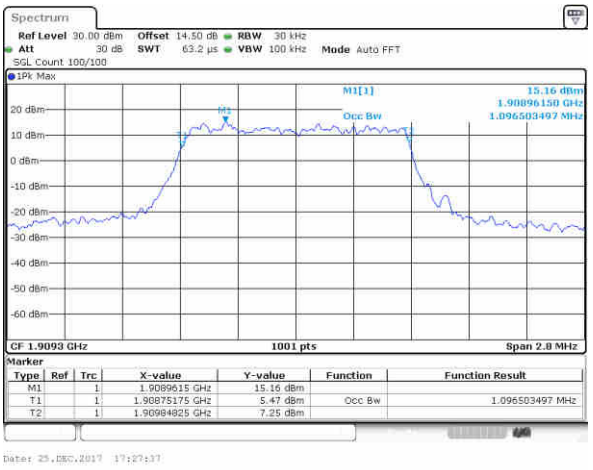
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

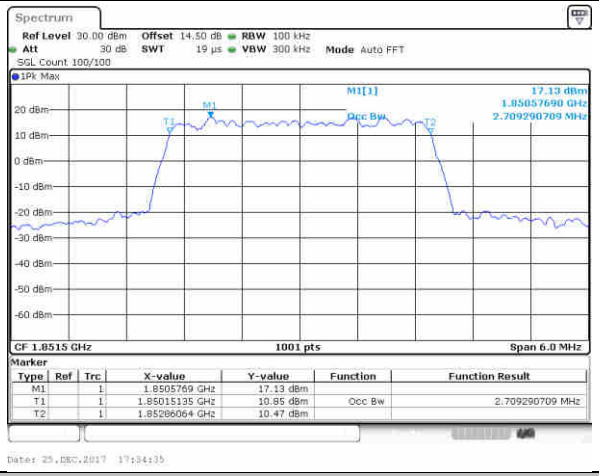


Highest Channel / 1.4MHz / 16QAM

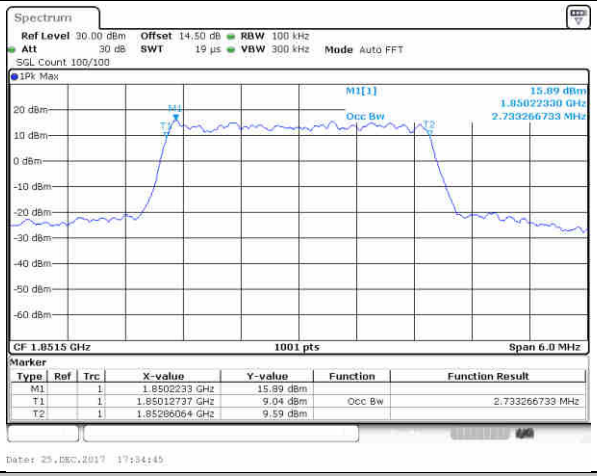


LTE Band 2

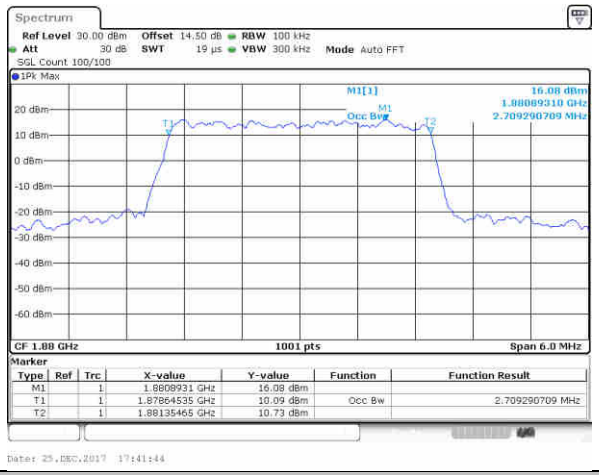
Lowest Channel / 3MHz / QPSK



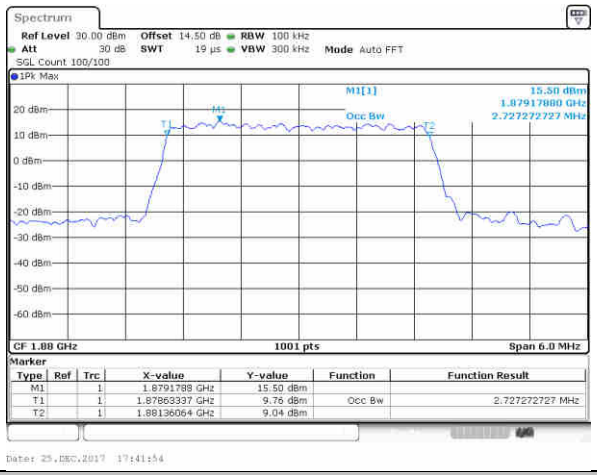
Lowest Channel / 3MHz / 16QAM



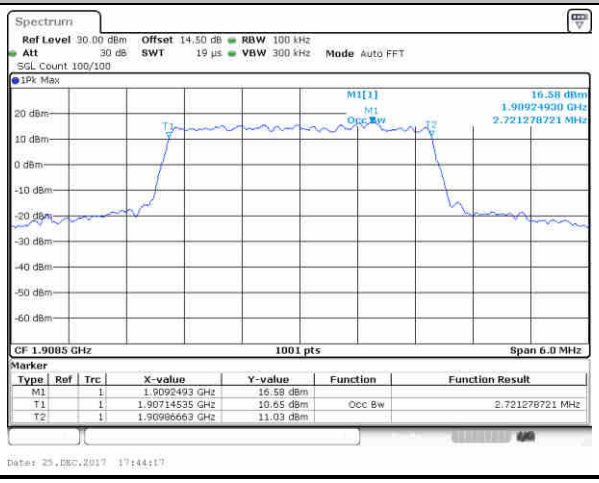
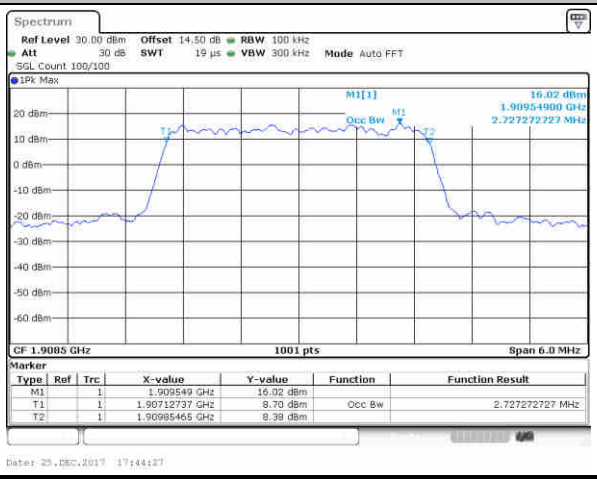
Middle Channel / 3MHz / QPSK



Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



Highest Channel / 3MHz / 16QAM