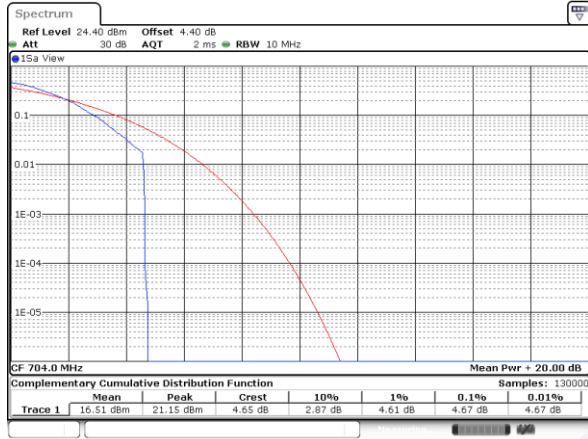
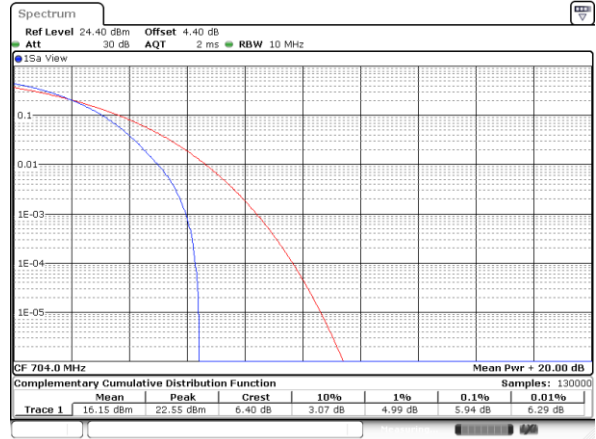
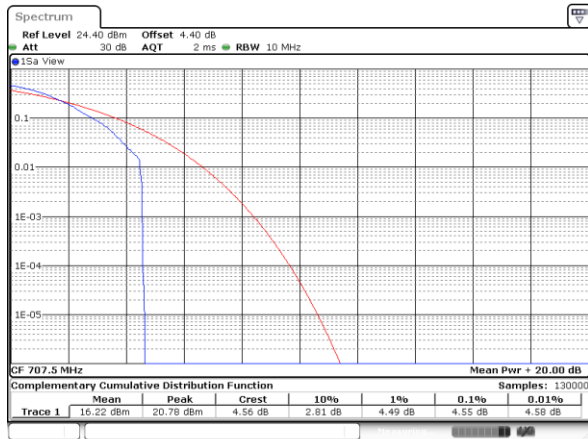


LTE Band 12 / 10MHz / 64QAM
Lowest Channel / 1RB


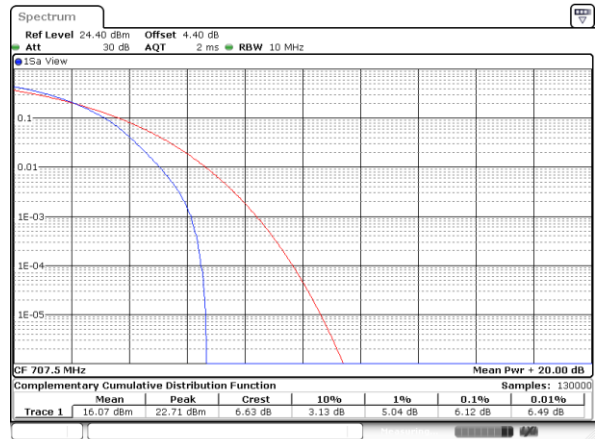
Date: 11 DEC 2018 18:23:50

Lowest Channel / Full RB


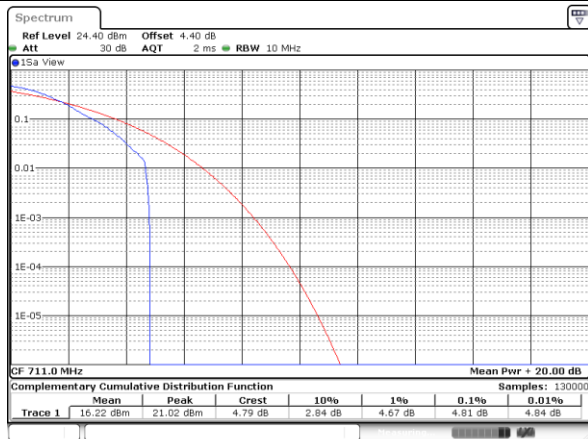
Date: 11 DEC 2018 18:23:58

Middle Channel / 1RB


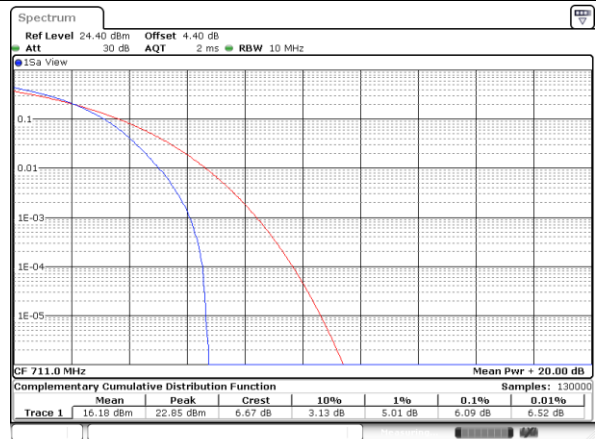
Date: 11 DEC 2018 18:24:16

Middle Channel / Full RB


Date: 11 DEC 2018 18:24:07

Highest Channel / 1RB


Date: 11 DEC 2018 18:24:25

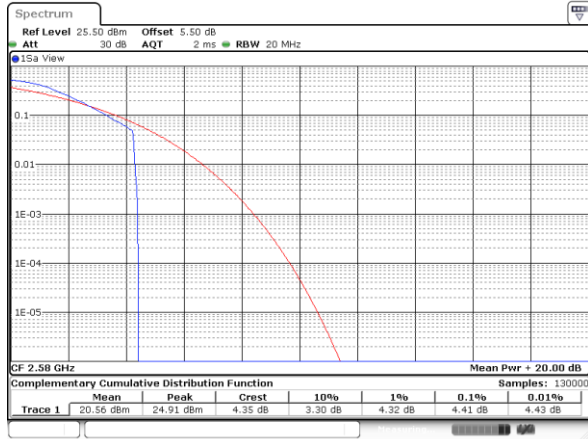
Highest Channel / Full RB


Date: 11 DEC 2018 18:24:33

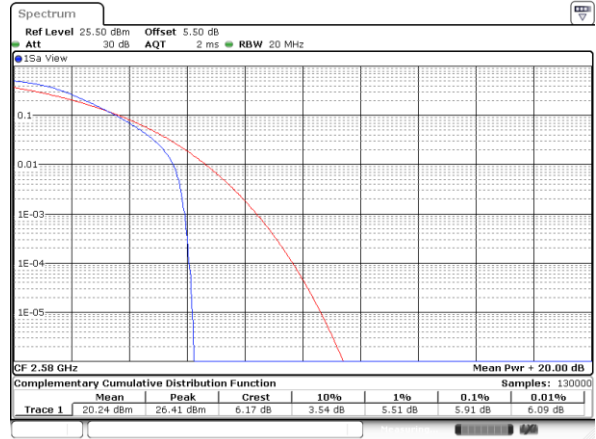


LTE Band 38 / 20MHz / QPSK

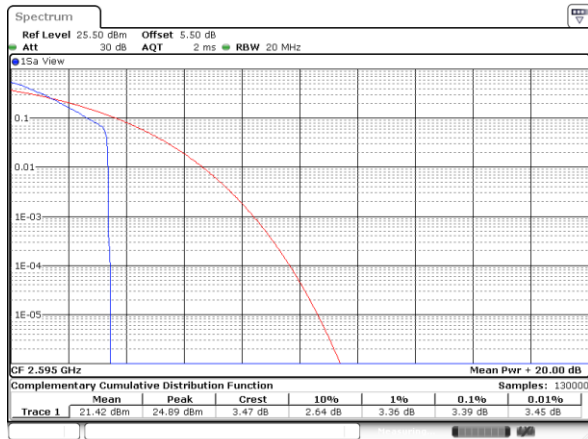
Lowest Channel / 1RB



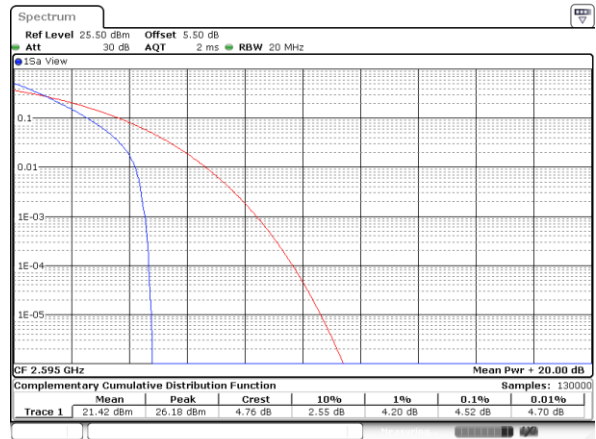
Lowest Channel / Full RB



Middle Channel / 1RB



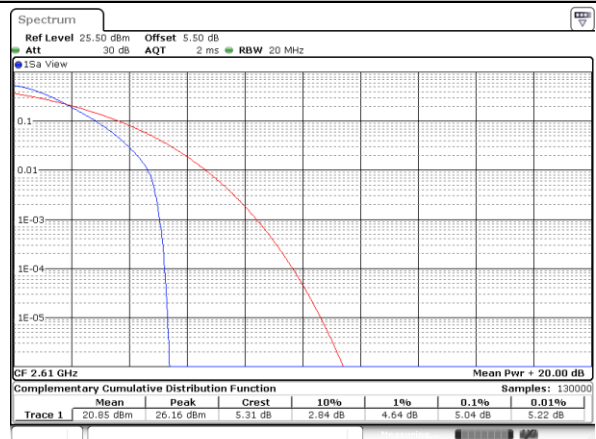
Middle Channel / Full RB



Highest Channel / 1RB



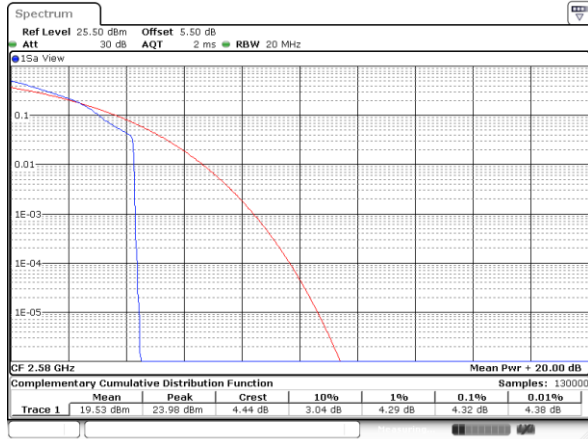
Highest Channel / Full RB



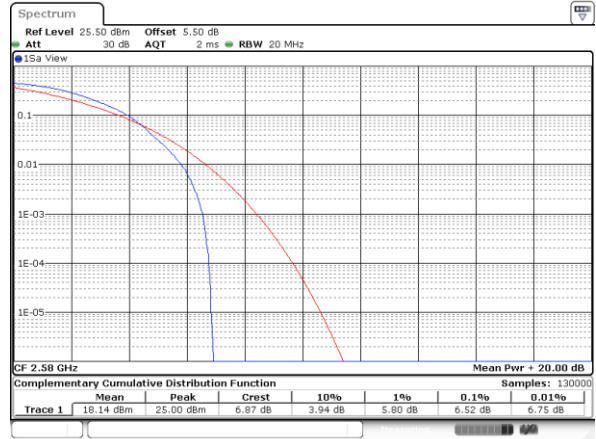


LTE Band 38 / 20MHz / 16QAM

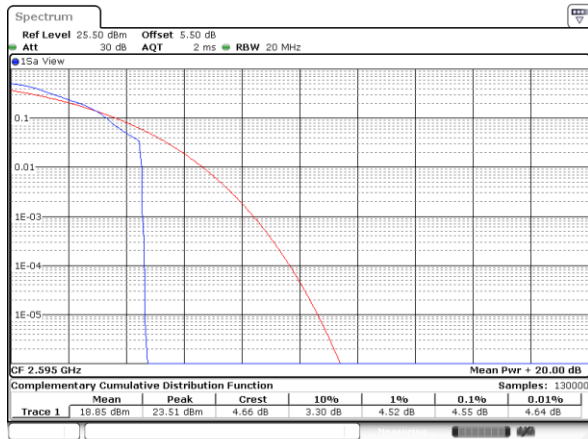
Lowest Channel / 1RB



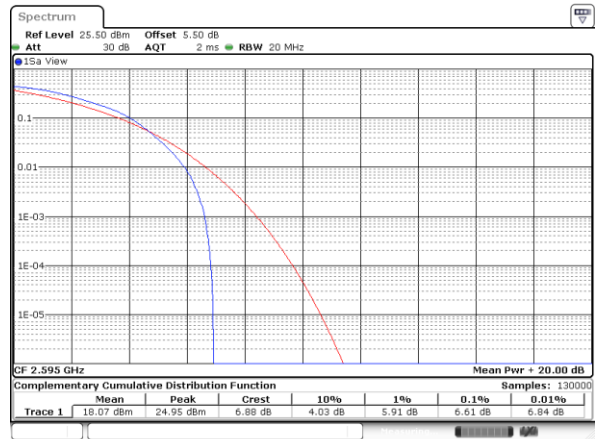
Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



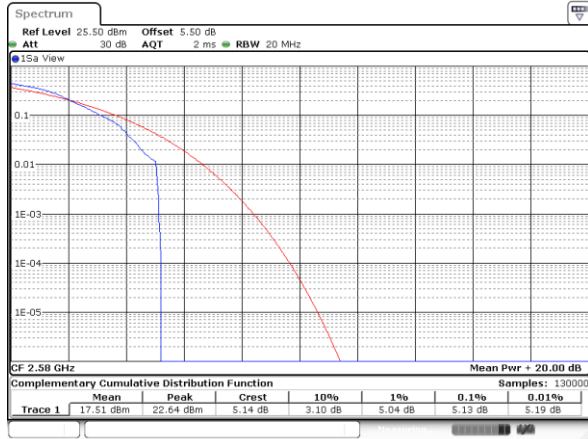
Highest Channel / Full RB



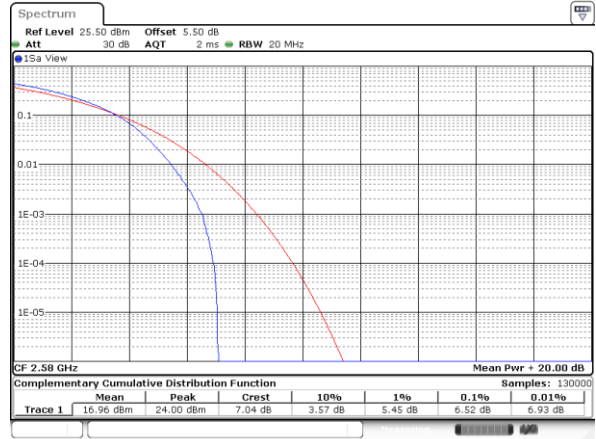


LTE Band 38 / 20MHz / 64QAM

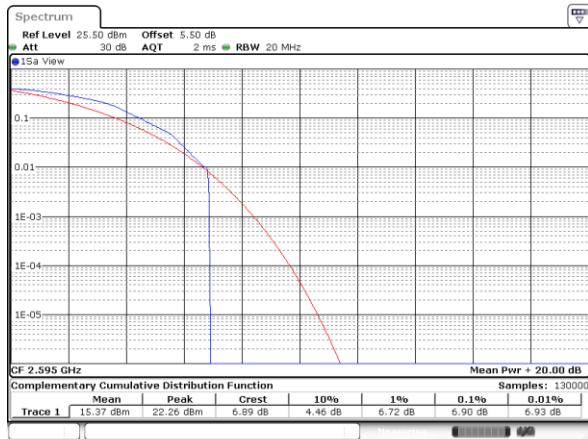
Lowest Channel / 1RB



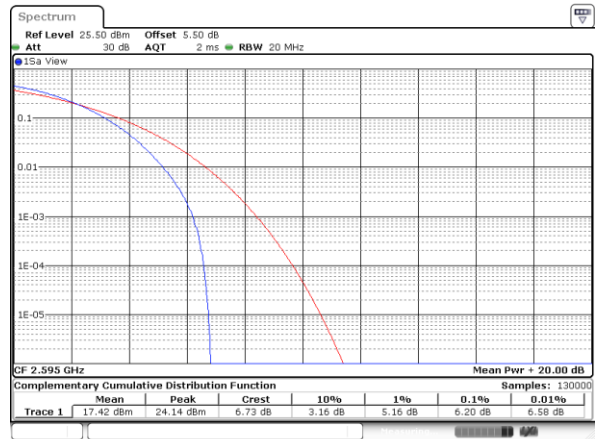
Lowest Channel / Full RB



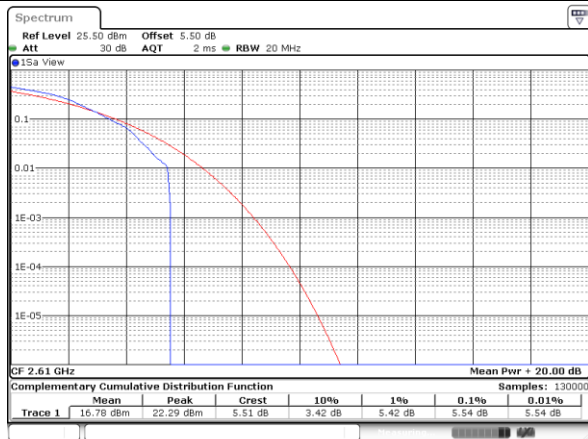
Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



**26dB Bandwidth**

Mode	LTE Band 2 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.2252	1.2168	3.027	2.991	4.865	4.825	9.75	9.75	14.386	14.446	20.18	20.18
Middle CH	1.228	1.2168	3.033	3.003	4.875	4.925	9.77	9.69	14.535	14.505	20.1	20.1
Highest CH	1.2308	1.2112	3.009	3.021	4.855	4.895	9.73	9.73	14.535	14.326	20.1	20.22
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.214		3.027		4.925		9.69		14.356		20.14	
Middle CH	1.2196		3.0569		4.895		9.89		14.625		20.06	
Highest CH	1.228		3.021		4.865		9.91		14.356		20.14	

Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.2336	1.228	3.021	2.991	4.905	4.935	9.83	9.71	14.416	14.296	20.14	20.22
Middle CH	1.2727	1.2336	3.1828	3.015	4.935	4.885	9.87	9.91	14.416	14.565	20.30	20.3
Highest CH	1.2224	1.2364	3.021	3.0629	4.855	4.855	9.71	9.77	14.505	14.416	20.22	20.22
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.2252		3.021		4.895		9.75		14.386		20.26	
Middle CH	1.2252		3.027		4.905		9.61		14.326		20.22	
Highest CH	1.2336		2.997		4.965		9.71		14.476		20.14	

Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.2224	1.2224	3.015	2.985	4.865	4.865	9.77	9.85	-	-	-	-
Middle CH	1.2336	1.2308	3.021	3.0569	4.915	4.885	9.71	9.93	-	-	-	-
Highest CH	1.2252	1.2196	3.0509	3.0509	4.965	4.885	9.81	9.75	-	-	-	-
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.2168		2.973		4.875		9.91		-		-	
Middle CH	1.228		2.997		4.765		9.77		-		-	
Highest CH	1.242		2.997		4.915		9.89		-		-	



Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.875	4.825	9.73	9.75	14.206	14.715	20.14	20.30
Middle CH	-	-	-	-	4.895	4.935	9.91	9.75	14.535	14.386	20.34	20.06
Highest CH	-	-	-	-	4.885	4.885	9.63	9.71	14.146	14.176	20.22	20.18
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-		-		4.895		9.71		14.476		20.22	
Middle CH	-		-		4.875		9.81		14.296		20.26	
Highest CH	-		-		4.815		9.77		14.236		20.10	

Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.2168	1.2168	3.021	3.0569	4.845	4.855	9.85	9.81	-	-	-	-
Middle CH	1.2364	1.214	3.015	3.015	4.935	4.875	9.75	9.79	-	-	-	-
Highest CH	1.2336	1.2336	3.027	2.973	4.865	4.935	9.71	9.81	-	-	-	-
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.2196		3.015		4.855		9.77		-		-	
Middle CH	1.2196		3.0509		4.885		9.75		-		-	
Highest CH	1.2252		3.003		4.945		9.73		-		-	

Mode	LTE Band 38 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.885	4.915	9.85	9.67	14.685	14.386	20.14	20.10
Middle CH	-	-	-	-	4.905	4.805	9.69	9.75	14.266	14.116	20.06	20.34
Highest CH	-	-	-	-	4.735	4.975	9.75	9.67	14.296	14.505	20.18	20.26
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-		-		4.815		9.67		14.416		20.18	
Middle CH	-		-		4.895		9.65		14.266		20.14	
Highest CH	-		-		4.875		9.63		14.116		20.14	



For CA

Mode	LTE Band 7 : 26dB BW(MHz)			
QPSK				
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	29.91	-	25.375	30.689
Middle CH	30.03	-	25.375	30.45
Highest CH	29.97	-	25.475	30.689
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	35.035	30.21	35.105	39.88
Middle CH	34.895	30.21	35.105	40.04
Highest CH	35.035	30.09	34.895	39.96

Mode	LTE Band 7 : 26dB BW(MHz)			
16QAM				
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	29.91	-	25.275	30.689
Middle CH	29.85	-	25.325	30.569
Highest CH	29.85	-	25.375	30.629
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	34.895	29.97	35.105	40.04
Middle CH	34.965	30.03	35.035	39.80
Highest CH	34.965	30.21	35.035	39.88

Mode	LTE Band 7 : 26dB BW(MHz)			
64QAM				
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	29.85	-	25.475	30.689
Middle CH	29.85	-	25.425	30.629
Highest CH	29.79	-	25.475	30.749
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	34.825	30.03	35.035	39.88
Middle CH	34.825	30.03	34.965	39.88
Highest CH	34.965	30.09	35.035	39.88



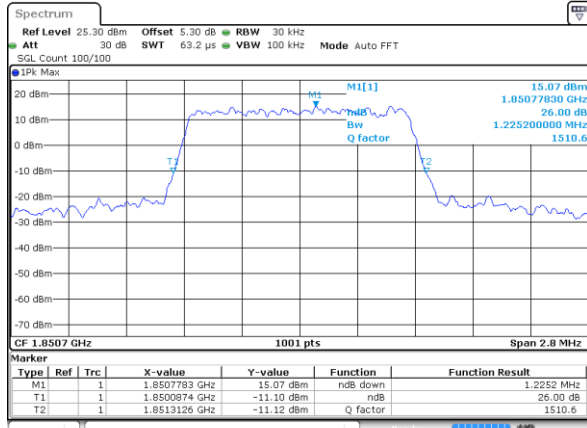
Mode	LTE Band 38 : 26dB BW(MHz)			
Mod.	QPSK		16QAM	
BW	15MHz+15MHz	20MHz+20MHz	15MHz+15MHz	20MHz+20MHz
Lowest CH	30.629	39.96	30.509	39.96
Middle CH	30.569	39.88	30.629	39.96
Highest CH	30.629	39.80	30.629	39.88

Mode	LTE Band 38 : 26dB BW(MHz)			
Mod.	64QAM		-	
BW	15MHz+15MHz	20MHz+20MHz	-	-
Lowest CH	30.569	39.96	-	-
Middle CH	30.629	39.72	-	-
Highest CH	30.749	39.80	-	-

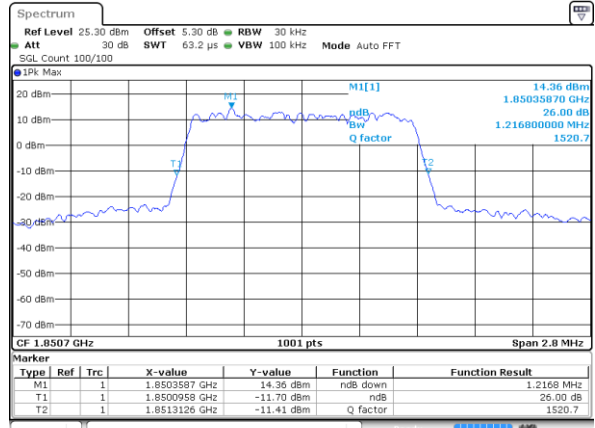


LTE Band 2

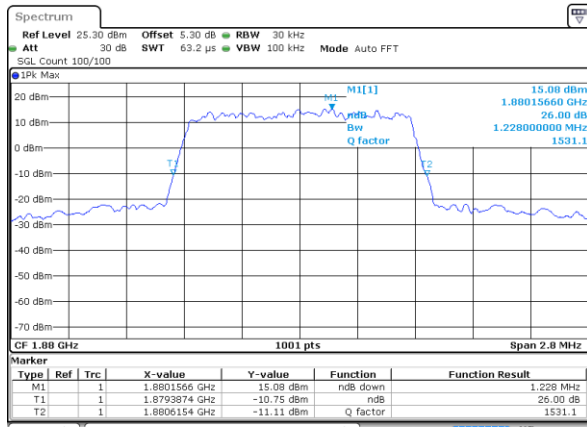
Lowest Channel / 1.4MHz / QPSK



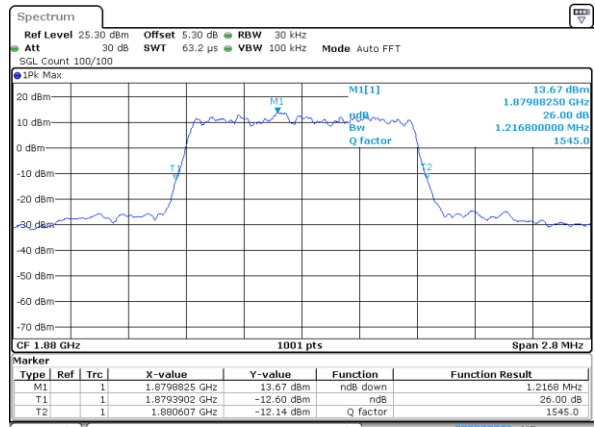
Lowest Channel / 1.4MHz / 16QAM



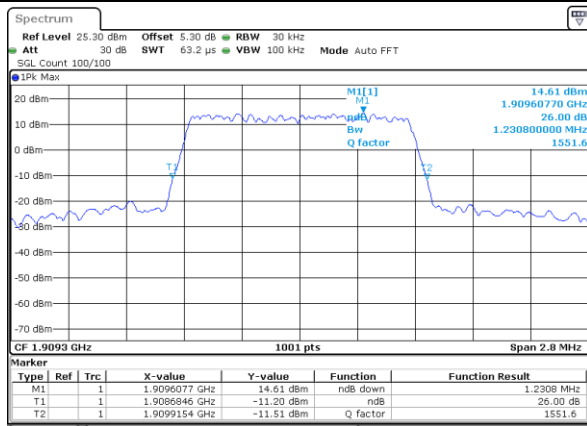
Middle Channel / 1.4MHz / QPSK



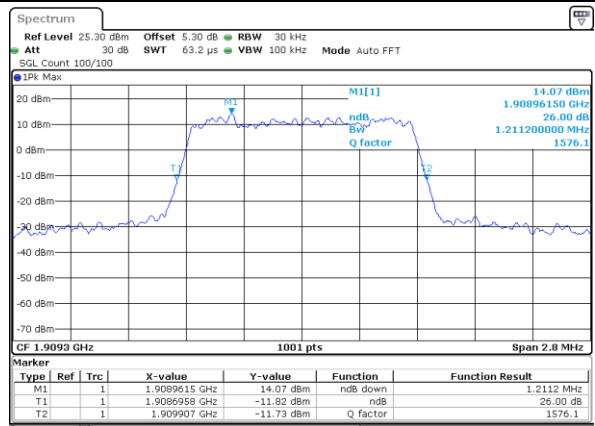
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



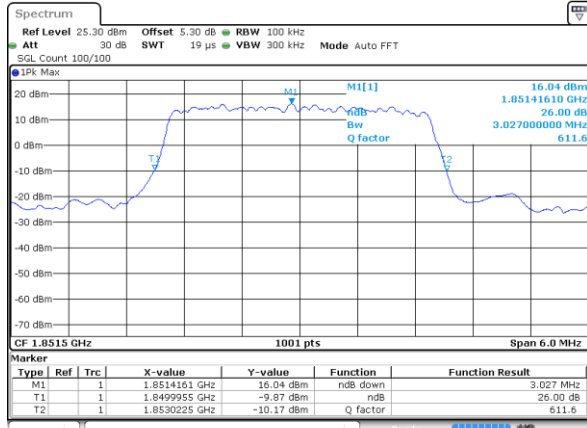
Highest Channel / 1.4MHz / 16QAM





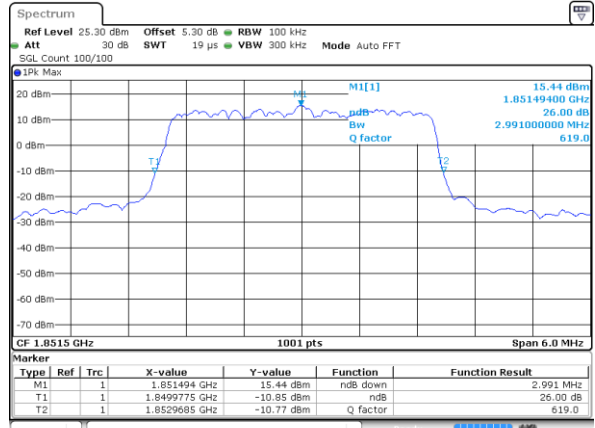
LTE Band 2

Lowest Channel / 3MHz / QPSK



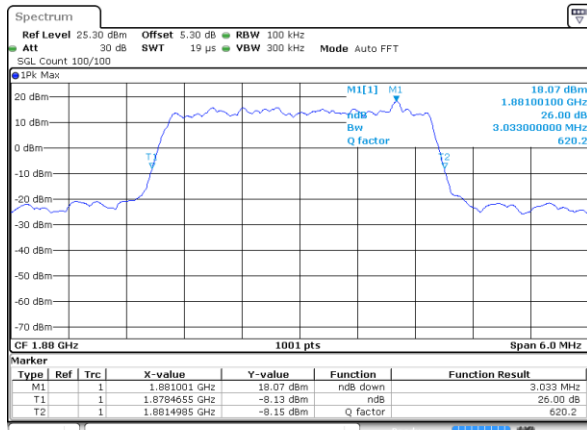
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Lowest Channel / 3MHz / 16QAM



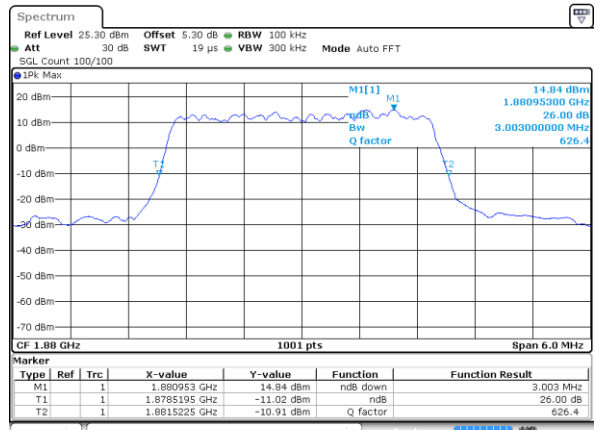
Date: 4 DEC 2018 09:53:56

Middle Channel / 3MHz / QPSK



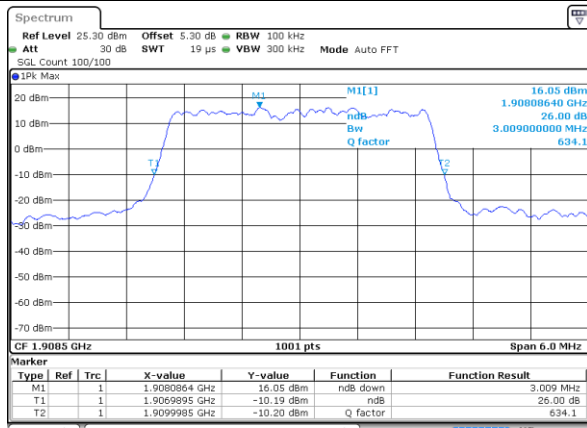
Date: 4 DEC 2018 10:00:50

Middle Channel / 3MHz / 16QAM



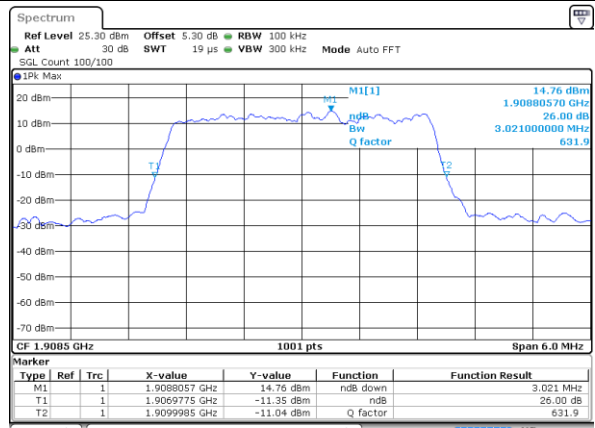
Date: 4 DEC 2018 10:01:01

Highest Channel / 3MHz / QPSK



Date: 4 DEC 2018 10:03:23

Highest Channel / 3MHz / 16QAM

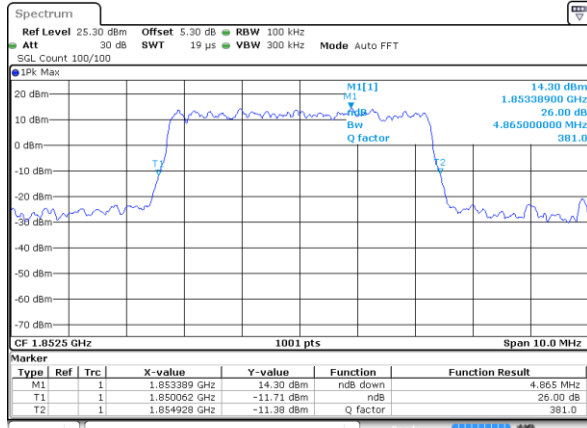


Date: 4 DEC 2018 10:03:34



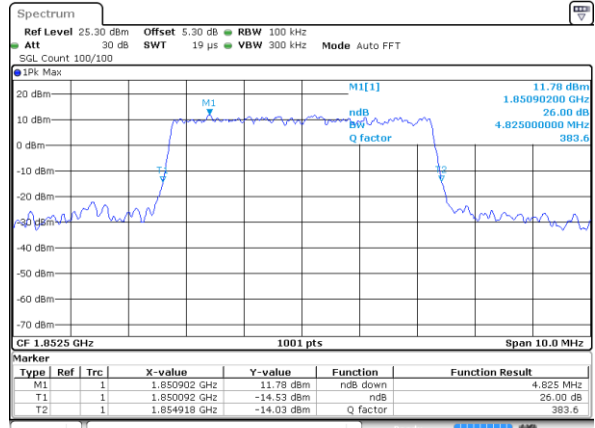
LTE Band 2

Lowest Channel / 5MHz / QPSK



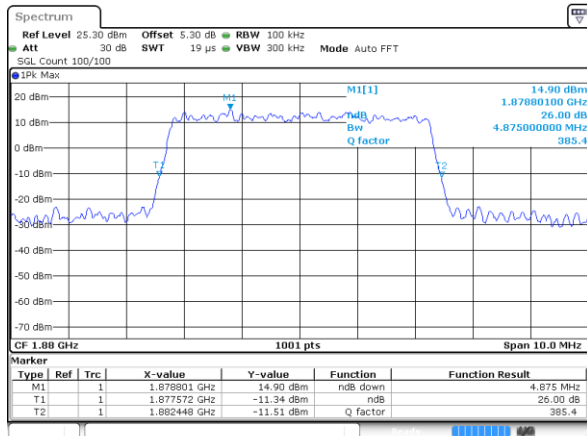
Date: 4 DEC 2018 10:10:28

Lowest Channel / 5MHz / 16QAM



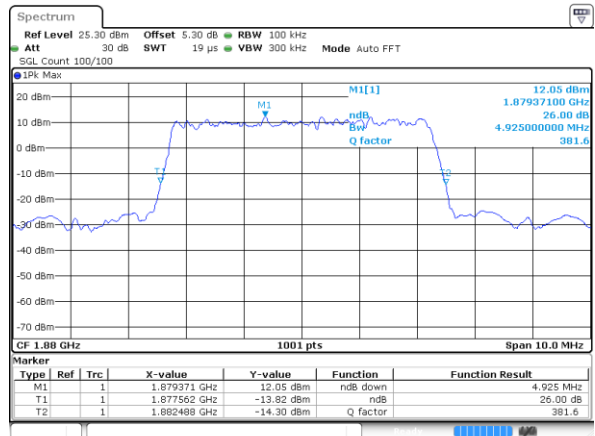
Date: 4 DEC 2018 10:10:39

Middle Channel / 5MHz / QPSK



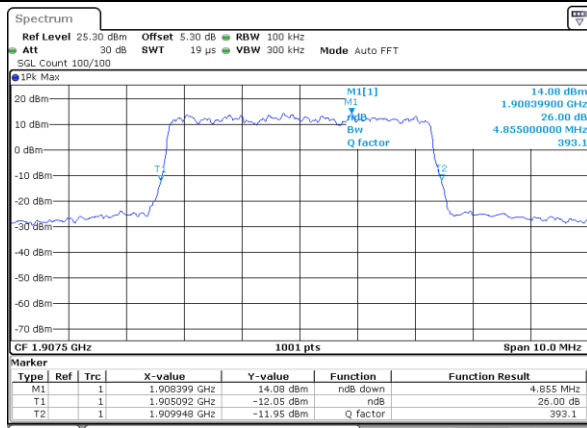
Date: 4 DEC 2018 10:17:33

Middle Channel / 5MHz / 16QAM



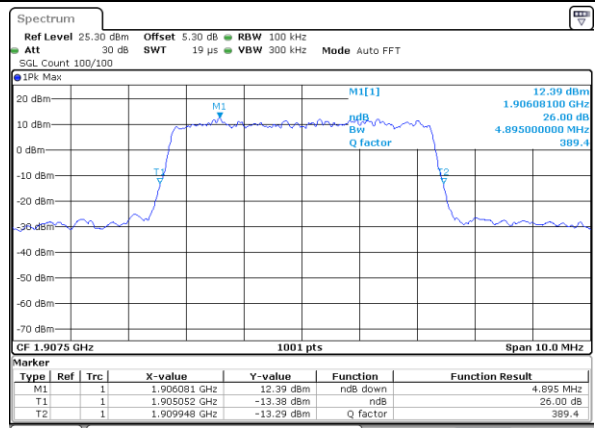
Date: 4 DEC 2018 13:26:57

Highest Channel / 5MHz / QPSK



Date: 4 DEC 2018 10:20:07

Highest Channel / 5MHz / 16QAM

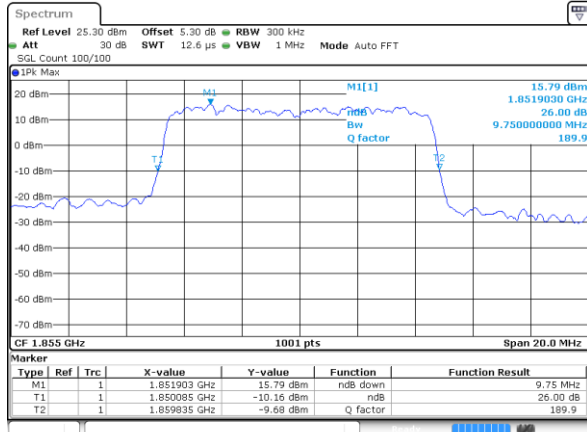


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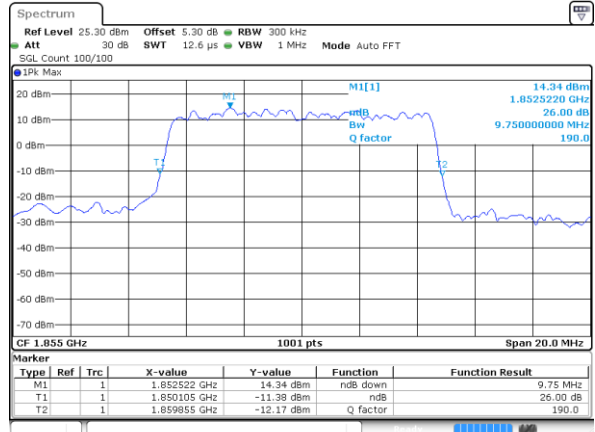
LTE Band 2

Lowest Channel / 10MHz / QPSK



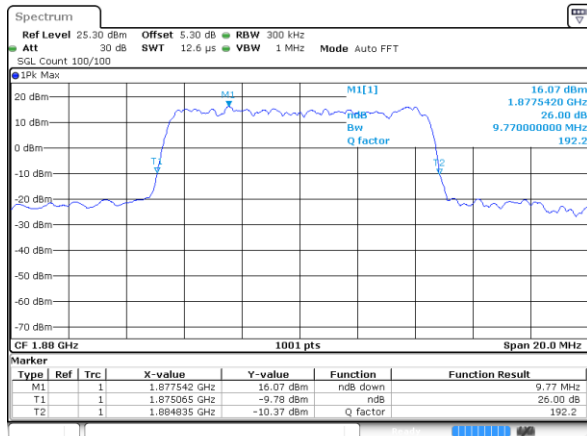
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Lowest Channel / 10MHz / 16QAM



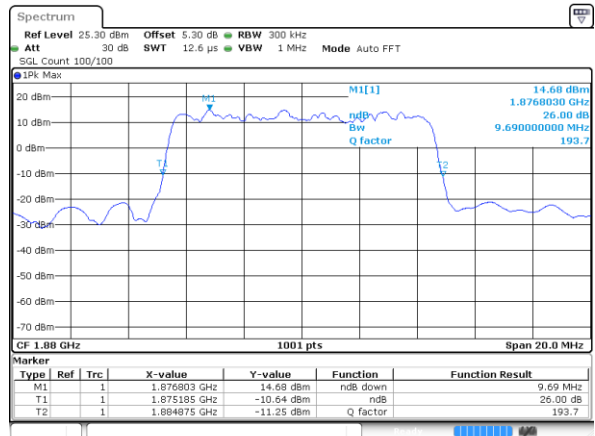
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Middle Channel / 10MHz / QPSK



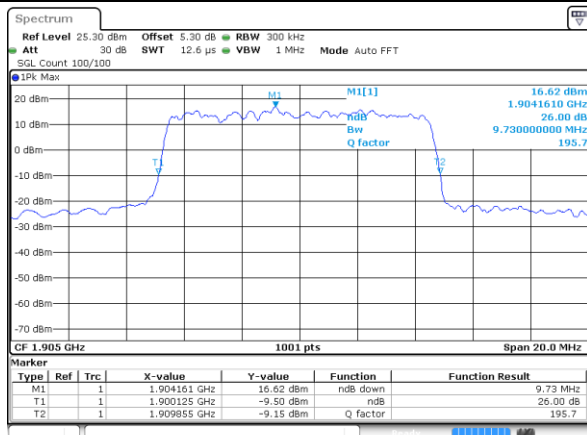
Date: 4 DEC 2018 10:34:18

Middle Channel / 10MHz / 16QAM



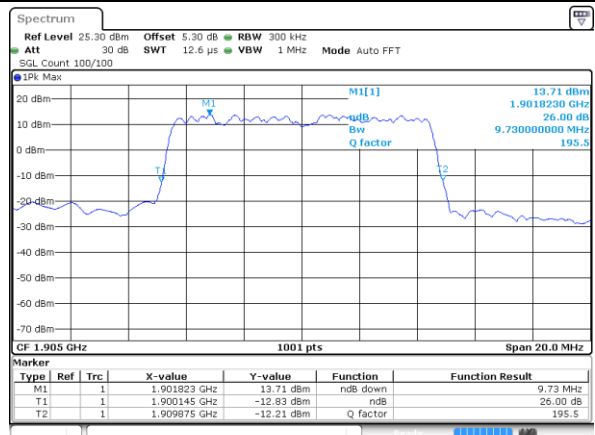
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Highest Channel / 10MHz / QPSK



Date: 4 DEC 2018 10:36:52

Highest Channel / 10MHz / 16QAM

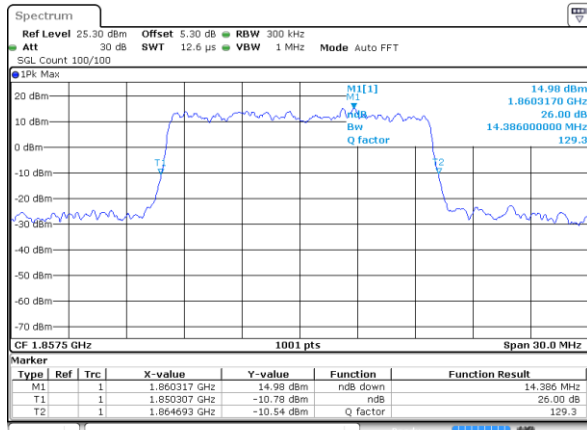


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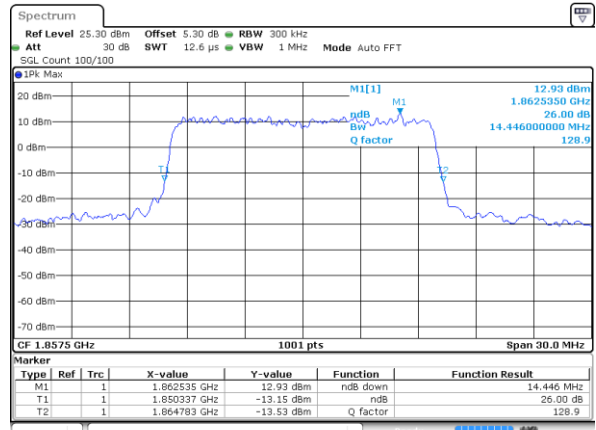


LTE Band 2

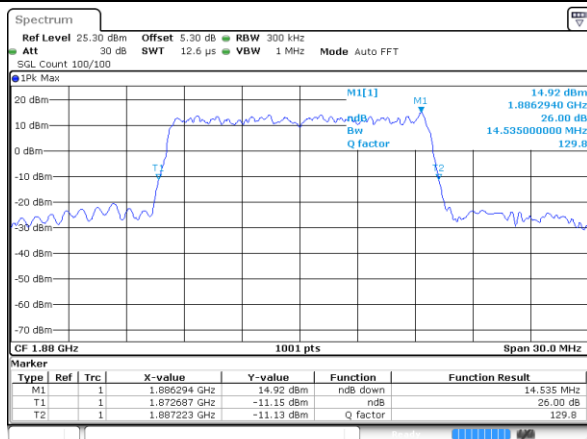
Lowest Channel / 15MHz / QPSK



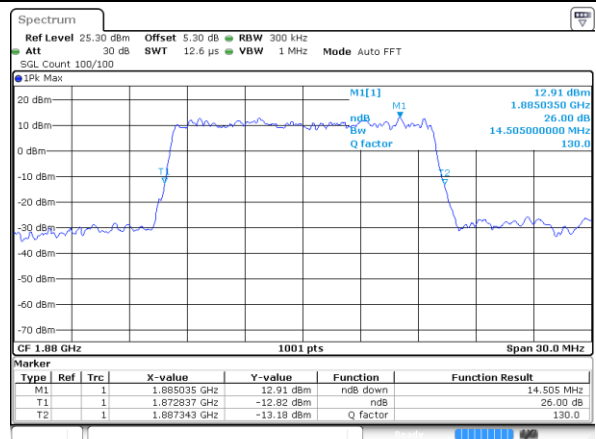
Lowest Channel / 15MHz / 16QAM



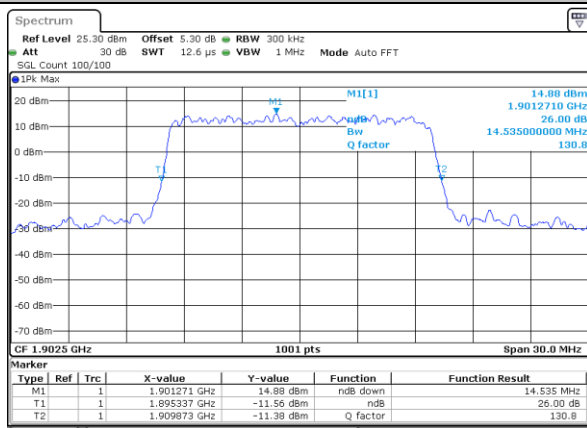
Middle Channel / 15MHz / QPSK



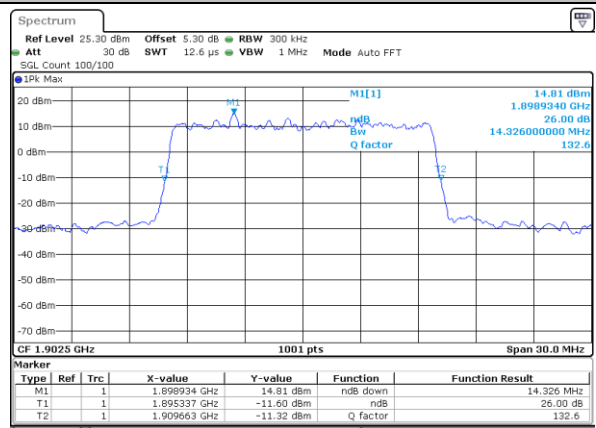
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



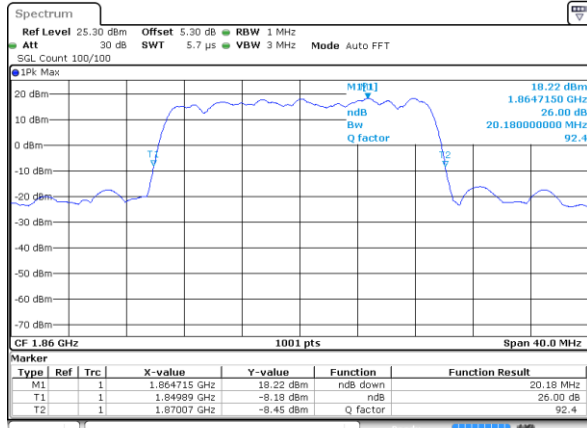
Highest Channel / 15MHz / 16QAM



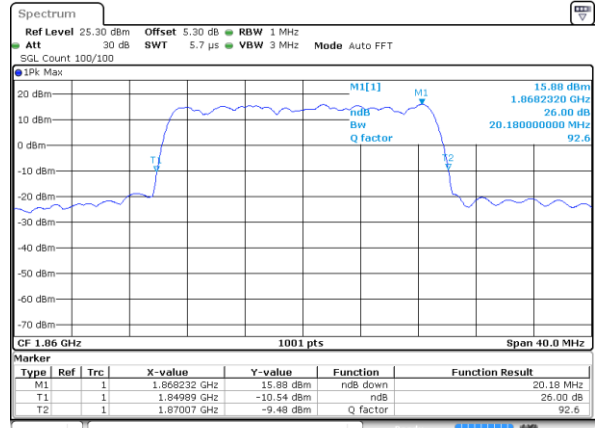


LTE Band 2

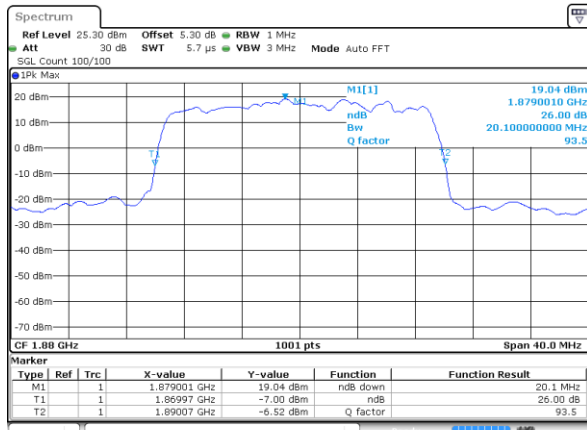
Lowest Channel / 20MHz / QPSK



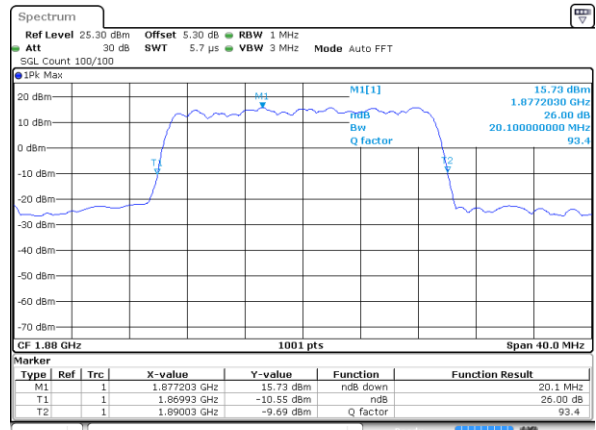
Lowest Channel / 20MHz / 16QAM



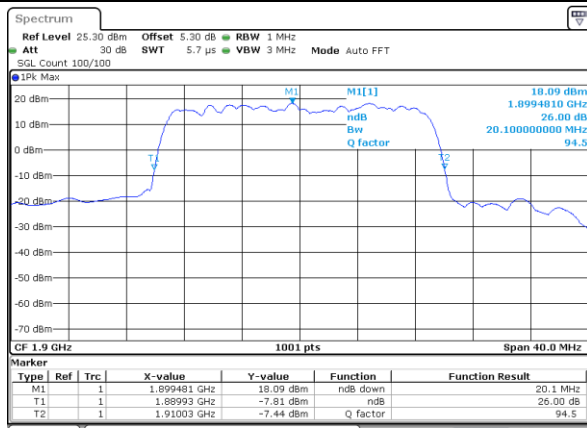
Middle Channel / 20MHz / QPSK



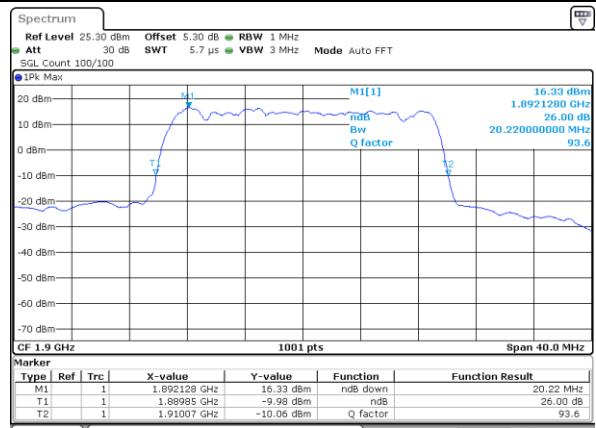
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



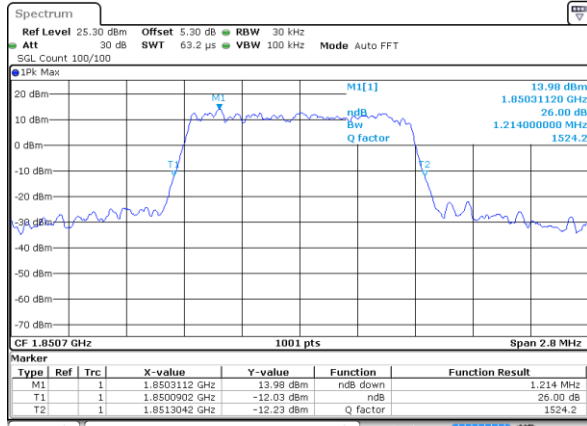
Highest Channel / 20MHz / 16QAM





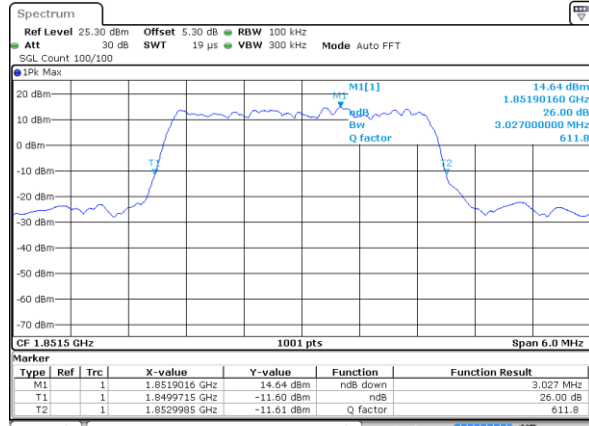
LTE Band 2

Lowest Channel / 1.4MHz / 64QAM



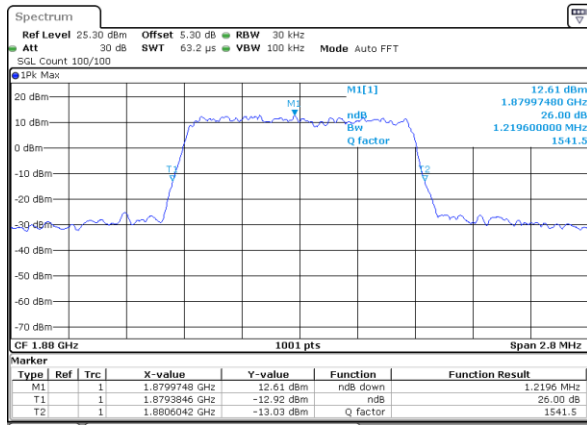
Date: 4 DEC 2018 11:21:22

Lowest Channel / 3MHz / 64QAM



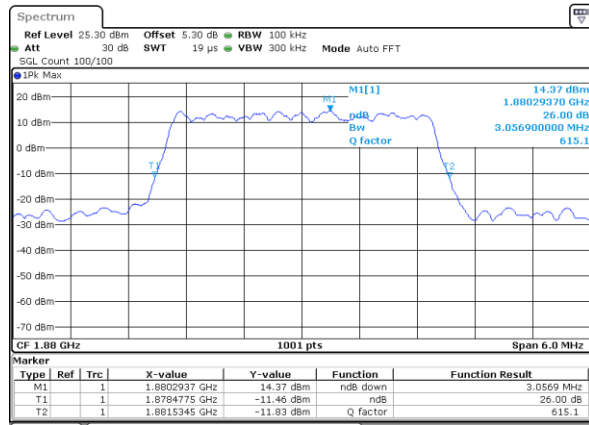
Date: 4 DEC 2018 11:21:54

Middle Channel / 1.4MHz / 64QAM



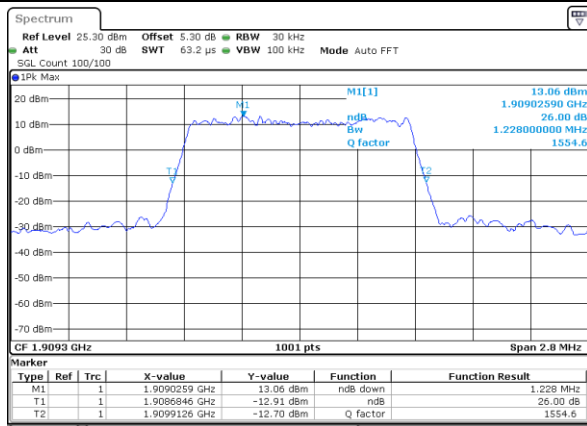
Date: 4 DEC 2018 11:21:33

Middle Channel / 3MHz / 64QAM



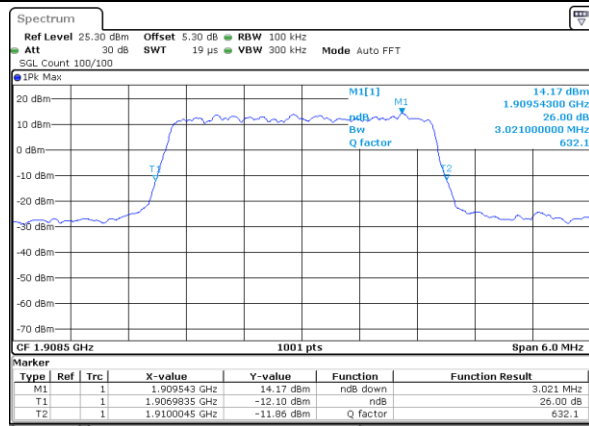
Date: 4 DEC 2018 11:22:05

Highest Channel / 1.4MHz / 64QAM



Date: 4 DEC 2018 11:21:44

Highest Channel / 3MHz / 64QAM

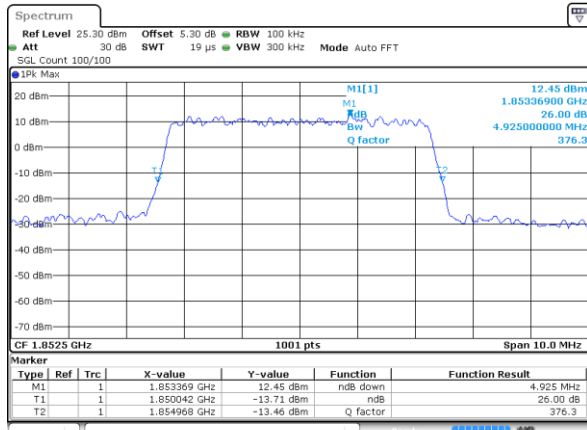


Date: 4 DEC 2018 11:22:15

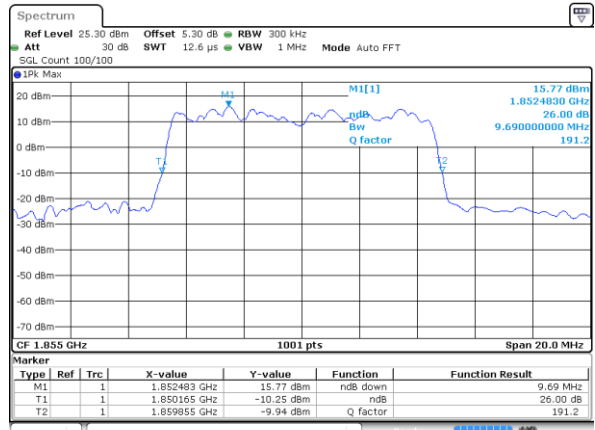


LTE Band 2

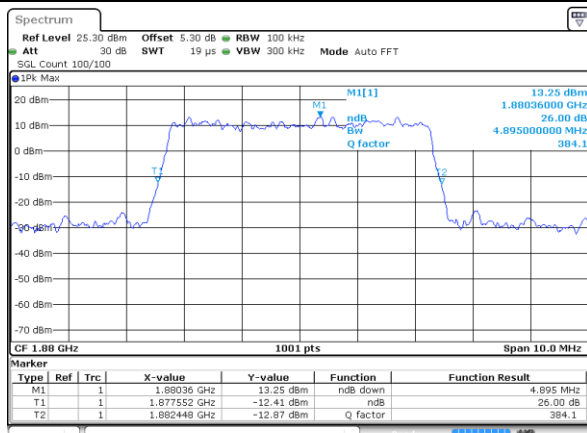
Lowest Channel / 5MHz / 64QAM



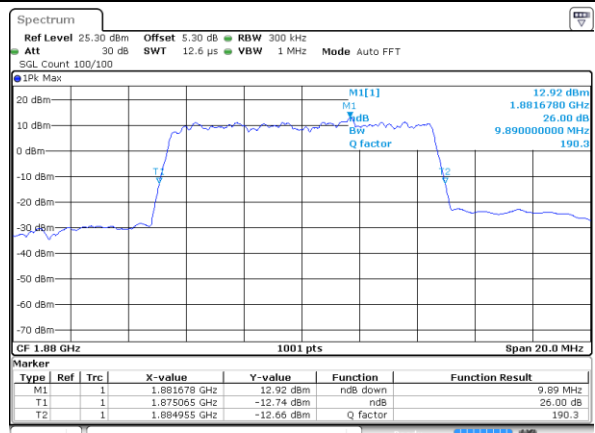
Lowest Channel / 10MHz / 64QAM



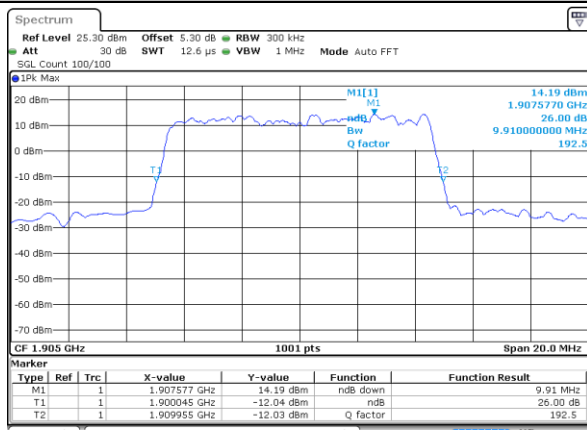
Middle Channel / 5MHz / 64QAM



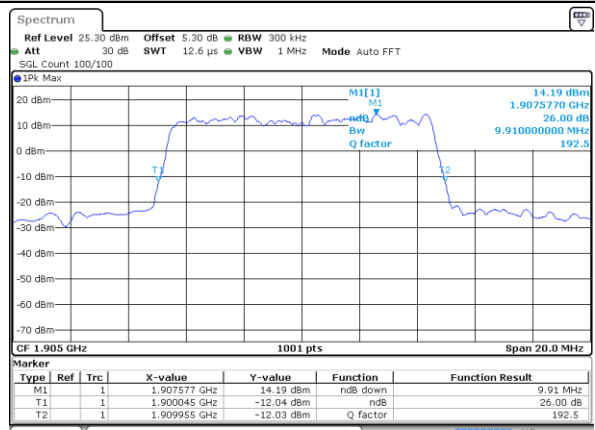
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



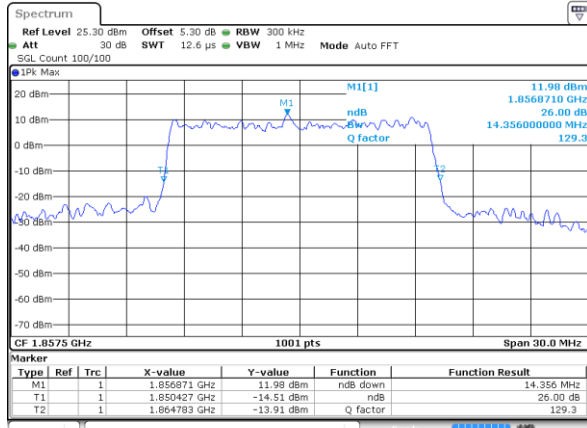
Highest Channel / 10MHz / 64QAM





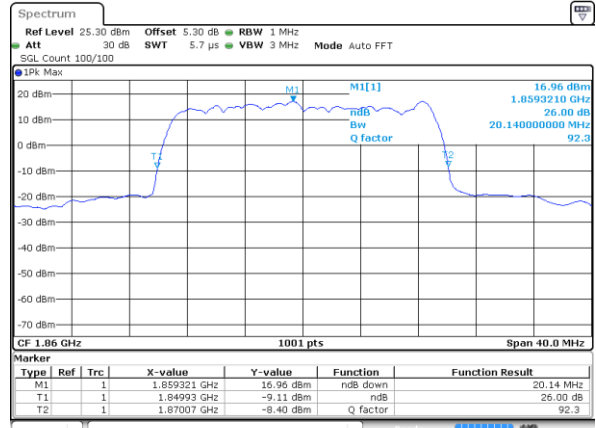
LTE Band 2

Lowest Channel / 15MHz / 64QAM



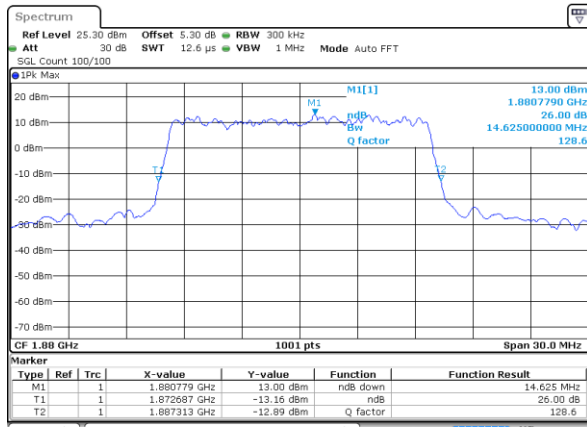
Date: 4 DEC 2018 13:23:40

Lowest Channel / 20MHz / 64QAM



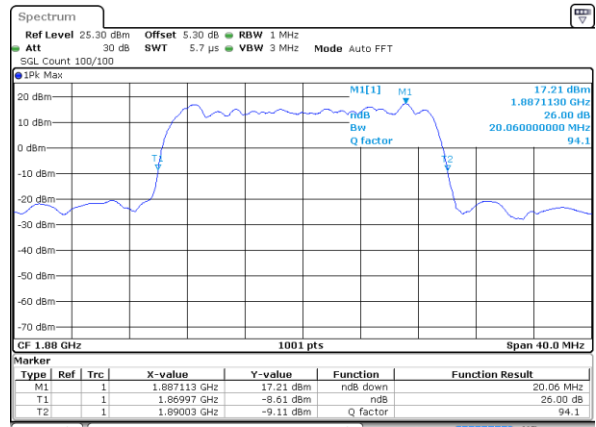
Date: 4 DEC 2018 11:24:01

Middle Channel / 15MHz / 64QAM



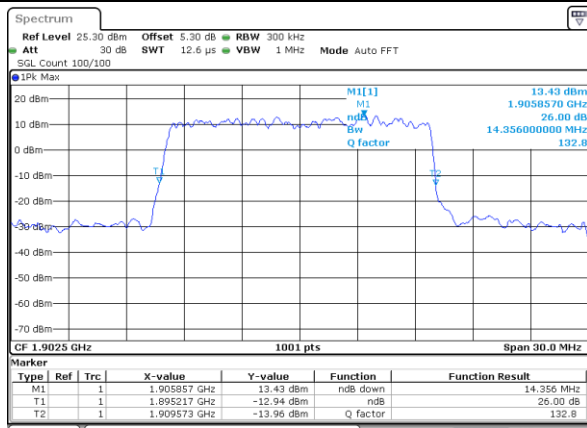
Date: 4 DEC 2018 11:23:40

Middle Channel / 20MHz / 64QAM



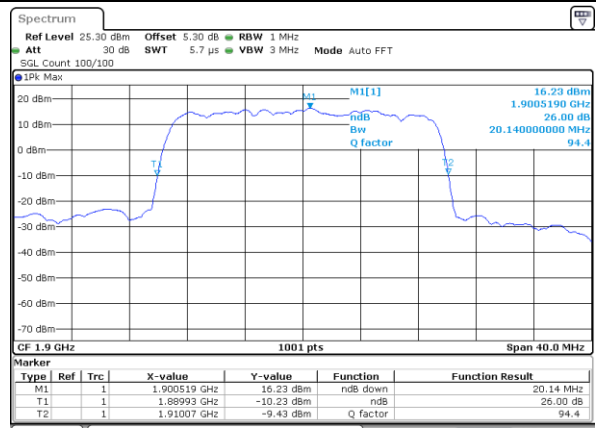
Date: 4 DEC 2018 11:24:11

Highest Channel / 15MHz / 64QAM



Date: 4 DEC 2018 11:23:50

Highest Channel / 20MHz / 64QAM

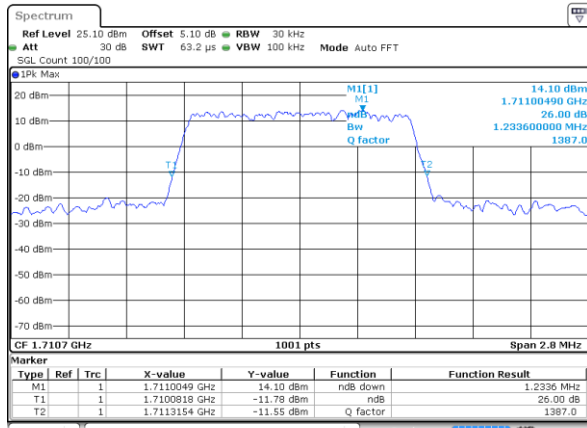


Date: 4 DEC 2018 11:24:22



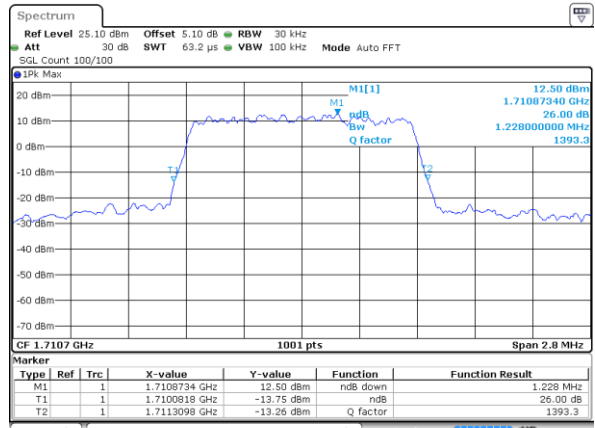
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



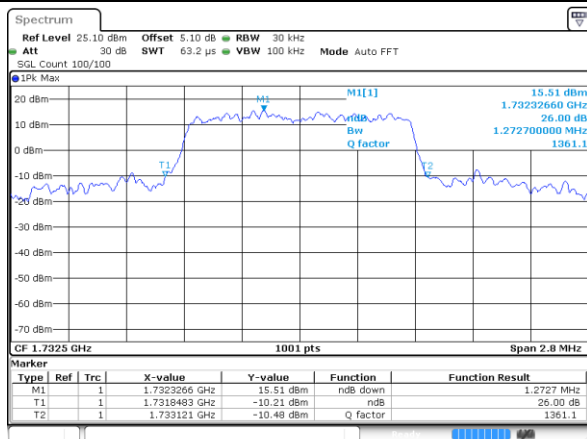
Date: 7 DEC 2018 09:11:51

Lowest Channel / 1.4MHz / 16QAM



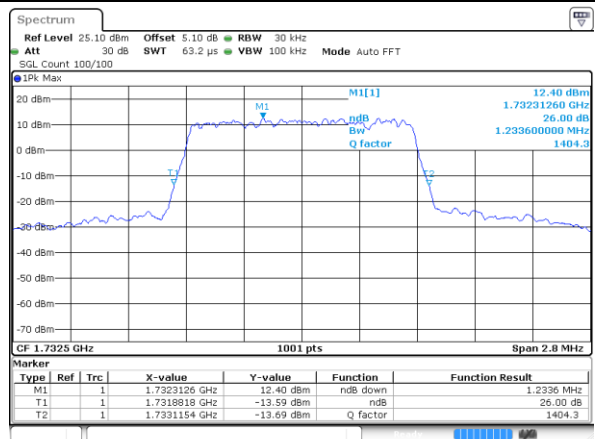
Date: 7 DEC 2018 09:12:02

Middle Channel / 1.4MHz / QPSK



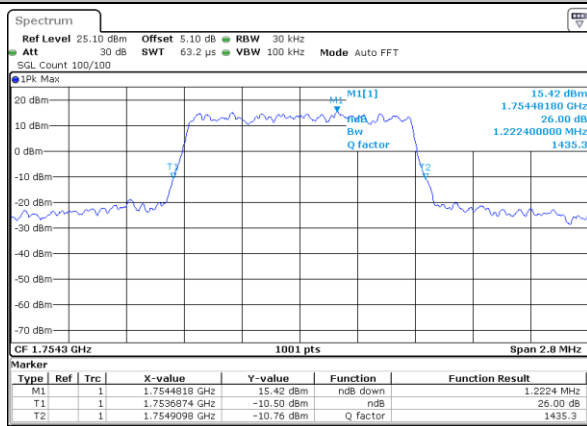
Date: 7 DEC 2018 13:28:03

Middle Channel / 1.4MHz / 16QAM



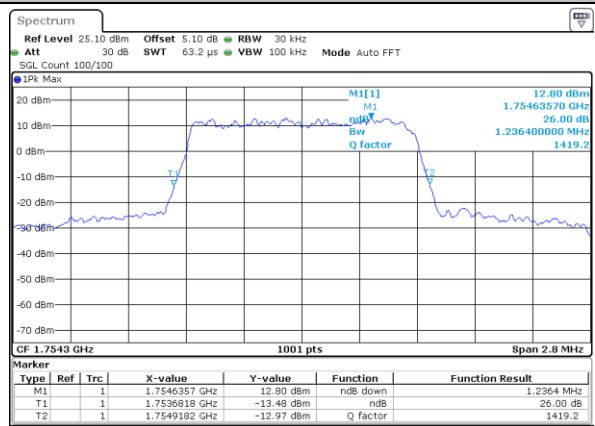
Date: 7 DEC 2018 09:19:07

Highest Channel / 1.4MHz / QPSK



Date: 7 DEC 2018 09:21:29

Highest Channel / 1.4MHz / 16QAM

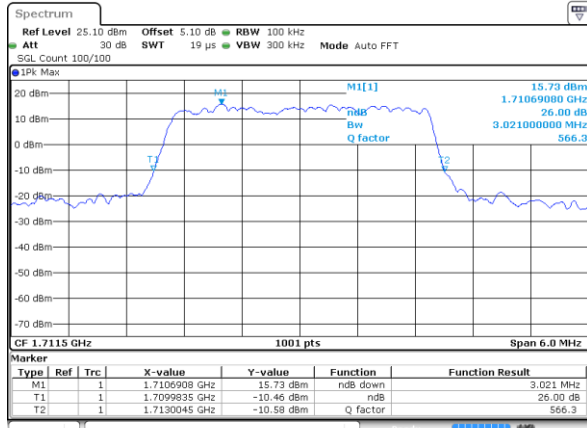


Date: 7 DEC 2018 09:21:40

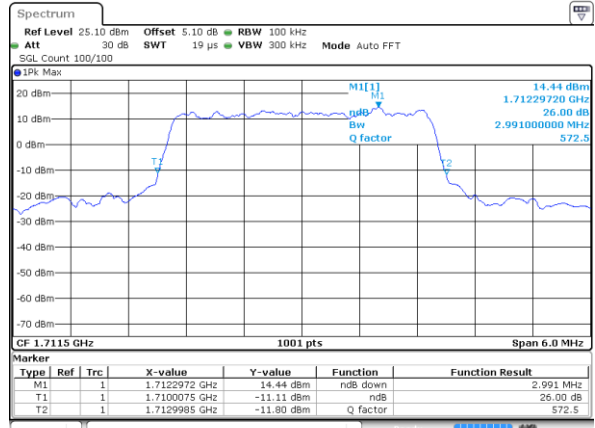


LTE Band 4

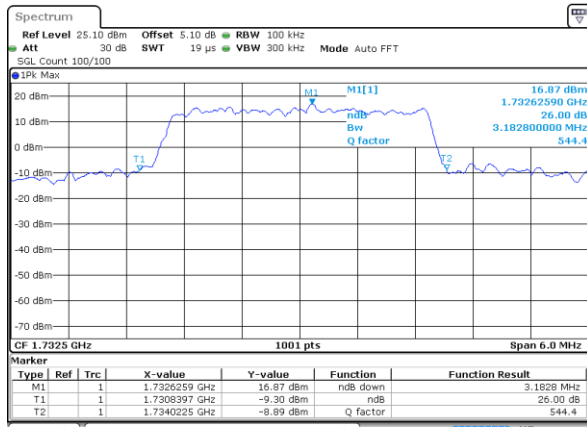
Lowest Channel / 3MHz / QPSK



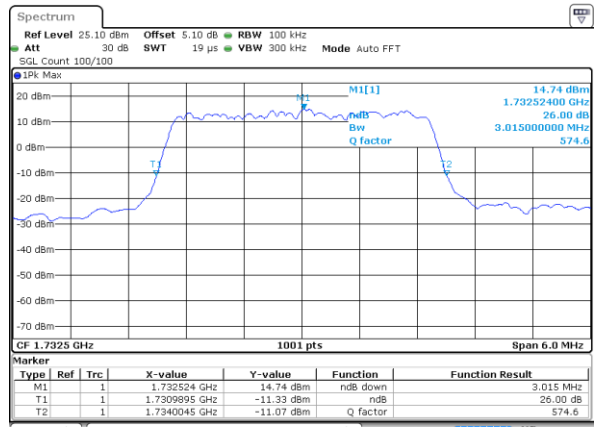
Lowest Channel / 3MHz / 16QAM



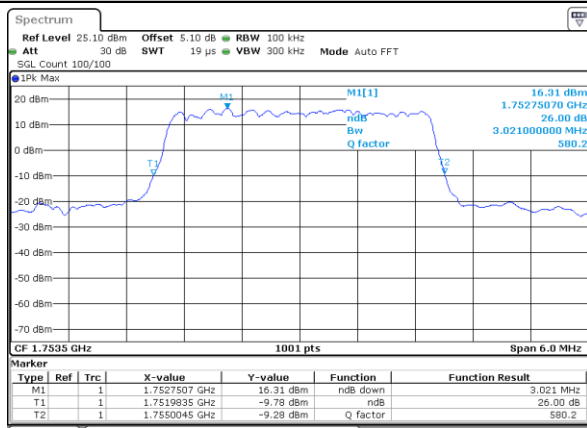
Middle Channel / 3MHz / QPSK



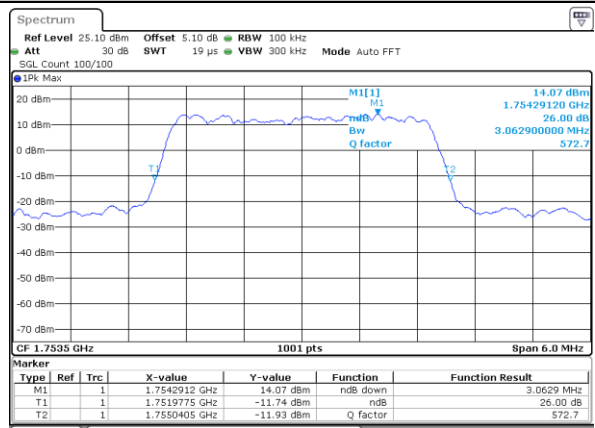
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



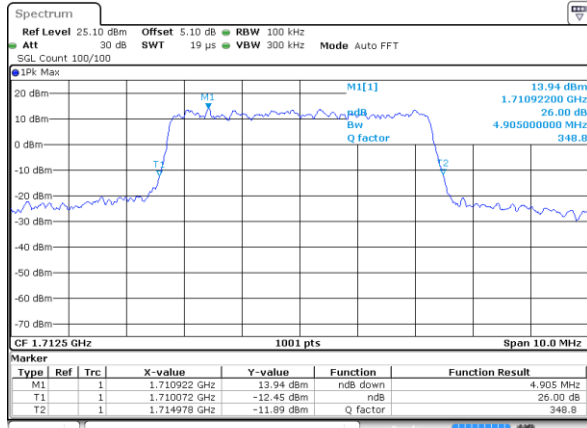
Highest Channel / 3MHz / 16QAM





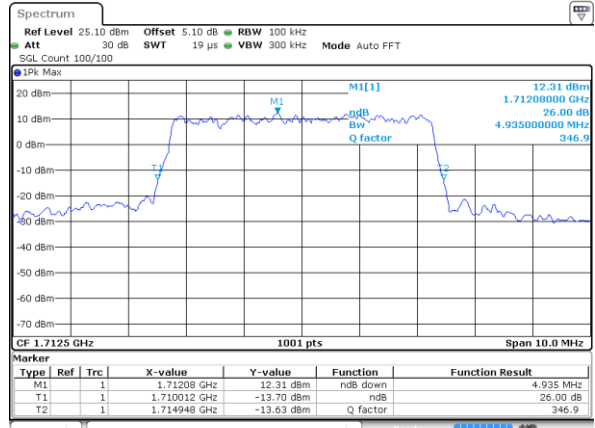
LTE Band 4

Lowest Channel / 5MHz / QPSK



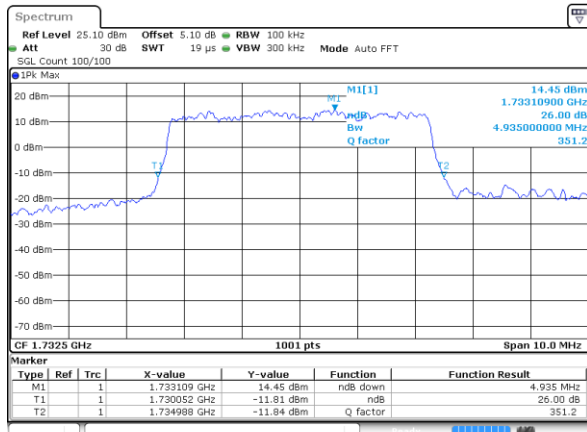
Date: 7 DEC 2018 09:45:18

Lowest Channel / 5MHz / 16QAM



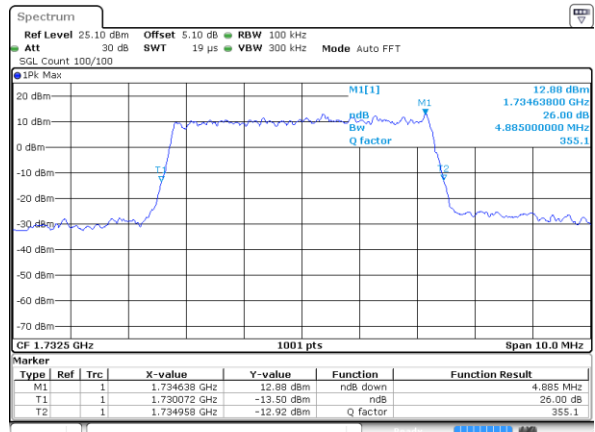
Date: 7 DEC 2018 09:45:28

Middle Channel / 5MHz / QPSK



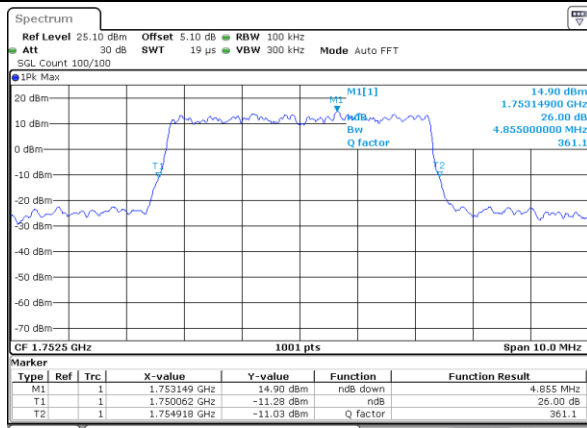
Date: 7 DEC 2018 13:30:24

Middle Channel / 5MHz / 16QAM



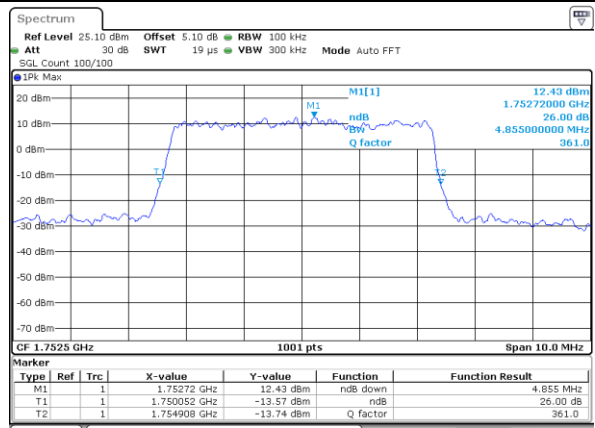
Date: 7 DEC 2018 09:52:33

Highest Channel / 5MHz / QPSK



Date: 7 DEC 2018 09:54:56

Highest Channel / 5MHz / 16QAM

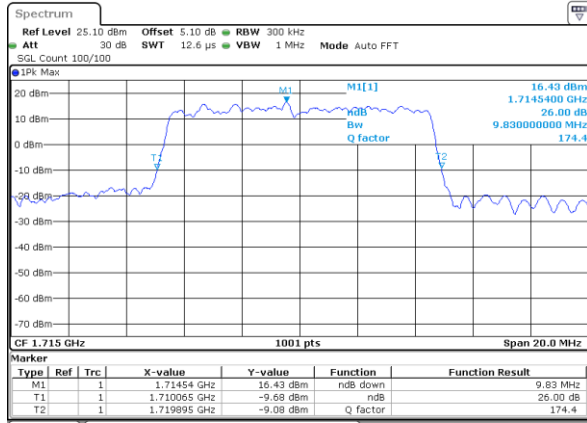


Date: 7 DEC 2018 09:55:06



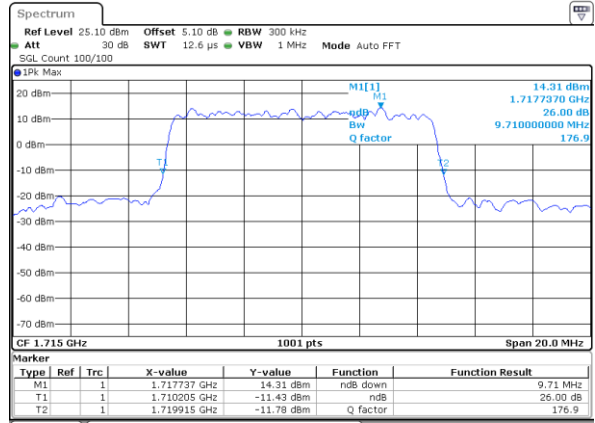
LTE Band 4

Lowest Channel / 10MHz / QPSK



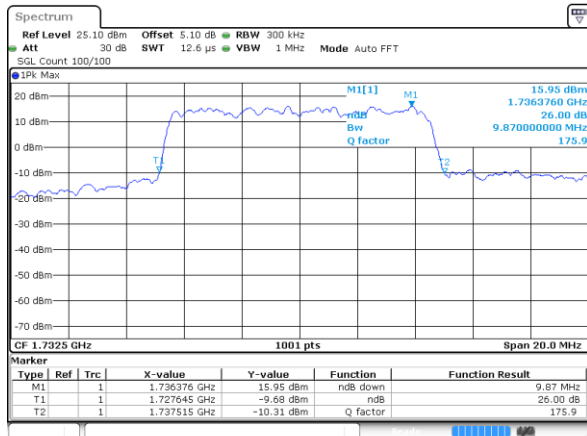
Date: 7 DEC 2018 10:02:01

Lowest Channel / 10MHz / 16QAM



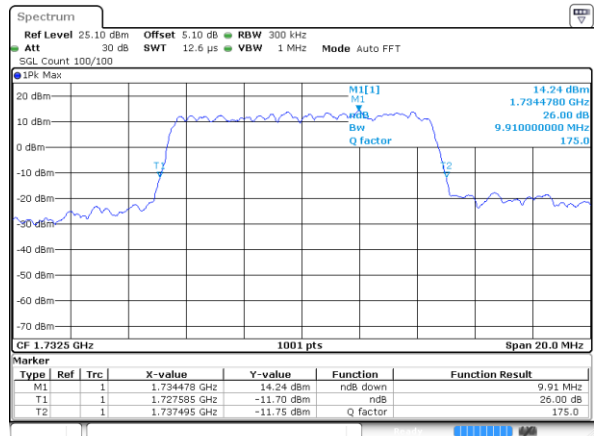
Date: 7 DEC 2018 10:02:12

Middle Channel / 10MHz / QPSK



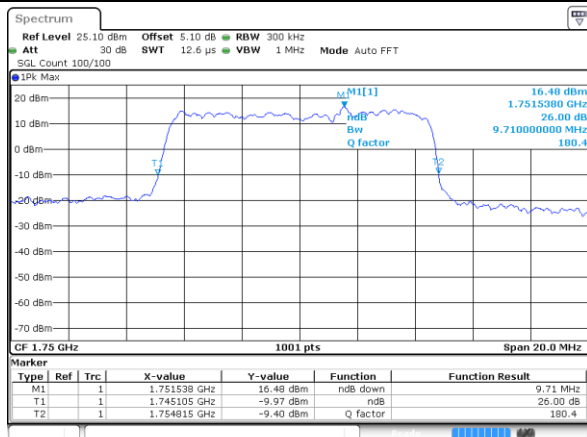
Date: 7 DEC 2018 13:31:01

Middle Channel / 10MHz / 16QAM



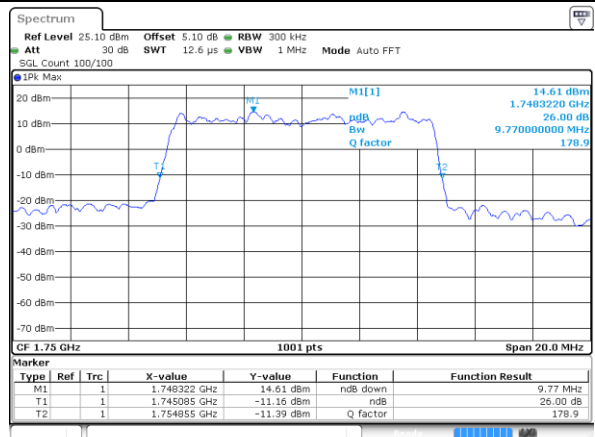
Date: 7 DEC 2018 10:09:17

Highest Channel / 10MHz / QPSK



Date: 7 DEC 2018 10:11:39

Highest Channel / 10MHz / 16QAM

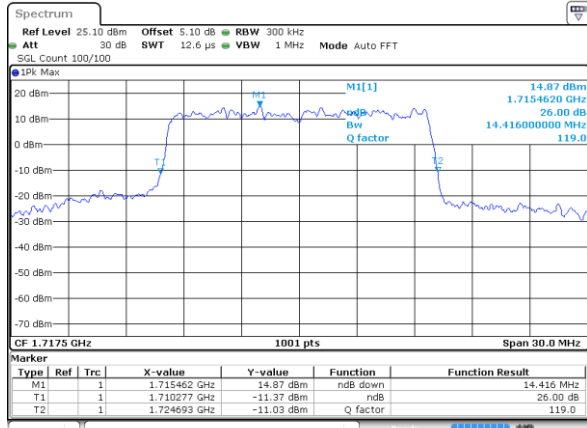


Date: 7 DEC 2018 10:11:50



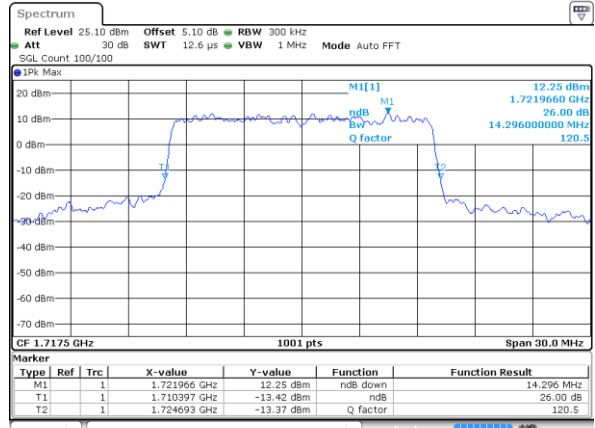
LTE Band 4

Lowest Channel / 15MHz / QPSK



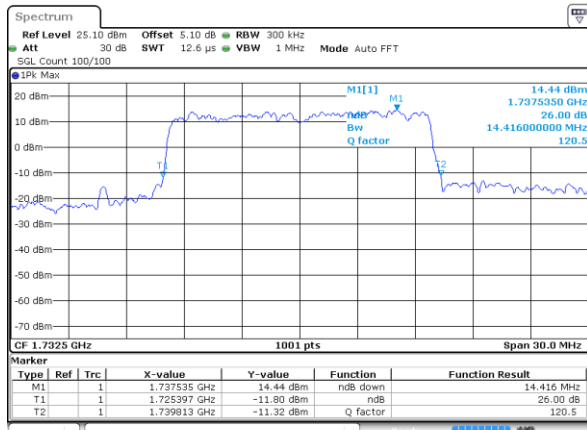
Date: 7 DEC 2018 10:18:44

Lowest Channel / 15MHz / 16QAM



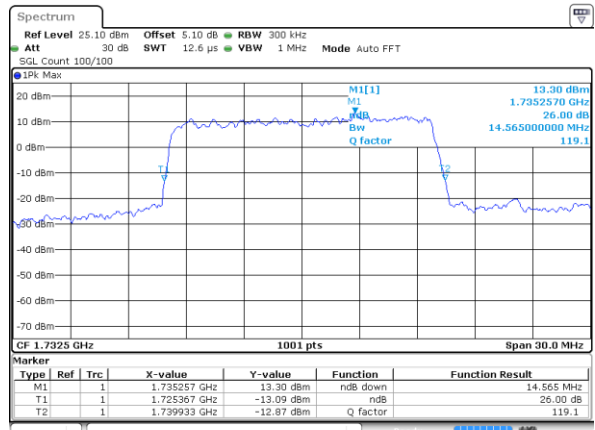
Date: 7 DEC 2018 10:16:55

Middle Channel / 15MHz / QPSK



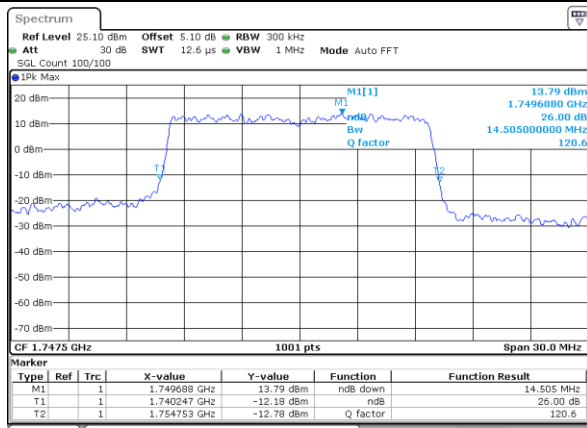
Date: 7 DEC 2018 10:25:50

Middle Channel / 15MHz / 16QAM



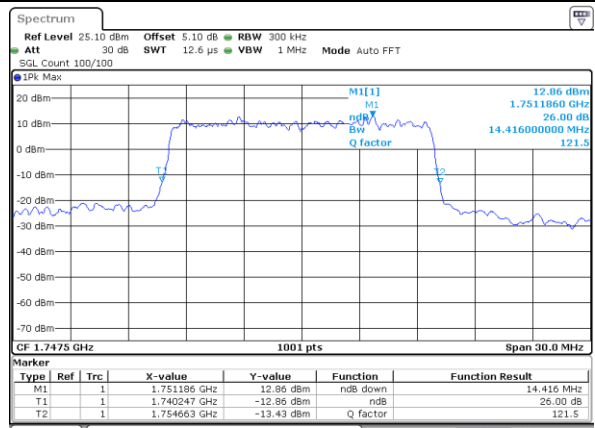
Date: 7 DEC 2018 10:26:00

Highest Channel / 15MHz / QPSK



Date: 7 DEC 2018 10:28:23

Highest Channel / 15MHz / 16QAM

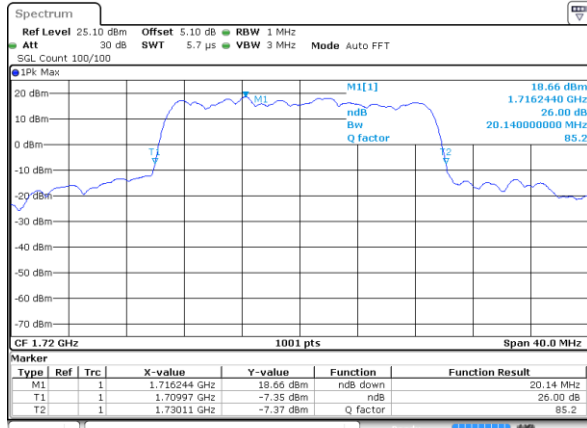


Date: 7 DEC 2018 10:28:34



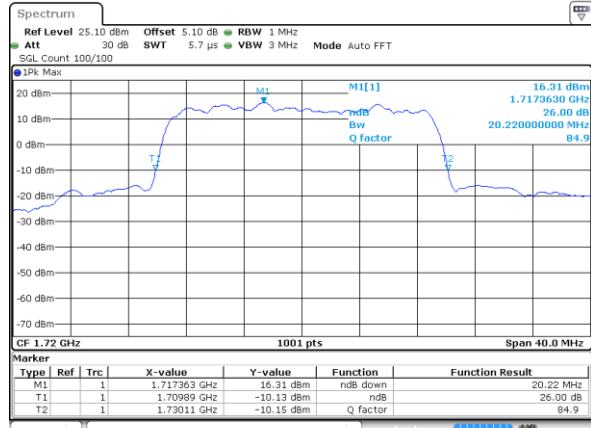
LTE Band 4

Lowest Channel / 20MHz / QPSK



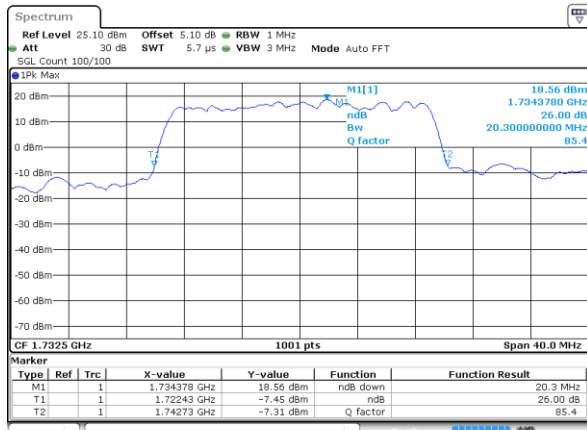
Date: 7 DEC 2018 10:35:29

Lowest Channel / 20MHz / 16QAM



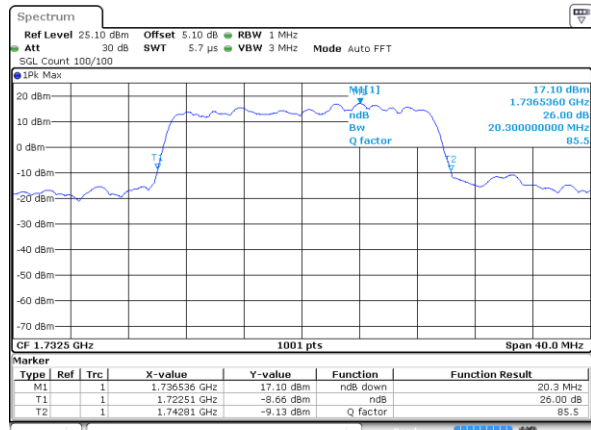
Date: 7 DEC 2018 10:35:39

Middle Channel / 20MHz / QPSK



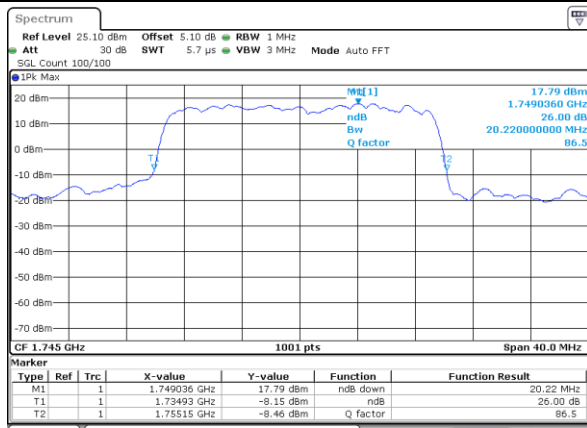
Date: 7 DEC 2018 10:42:34

Middle Channel / 20MHz / 16QAM



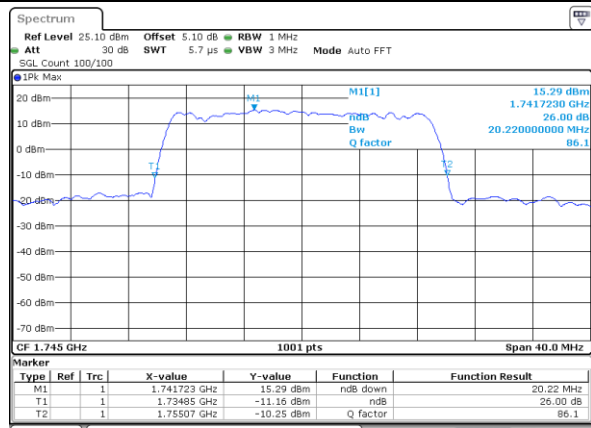
Date: 7 DEC 2018 10:42:45

Highest Channel / 20MHz / QPSK



Date: 7 DEC 2018 10:45:08

Highest Channel / 20MHz / 16QAM

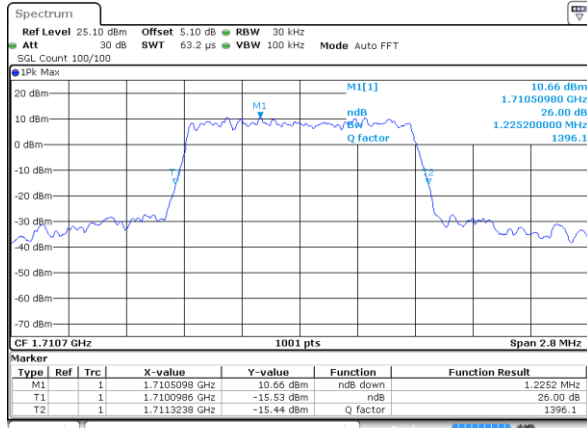


Date: 7 DEC 2018 10:45:19



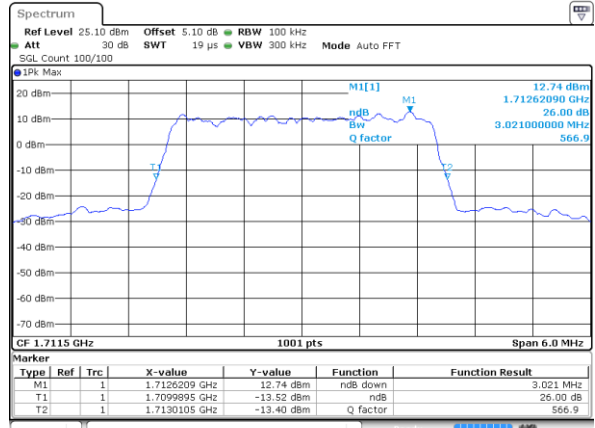
LTE Band 4

Lowest Channel / 1.4MHz / 64QAM



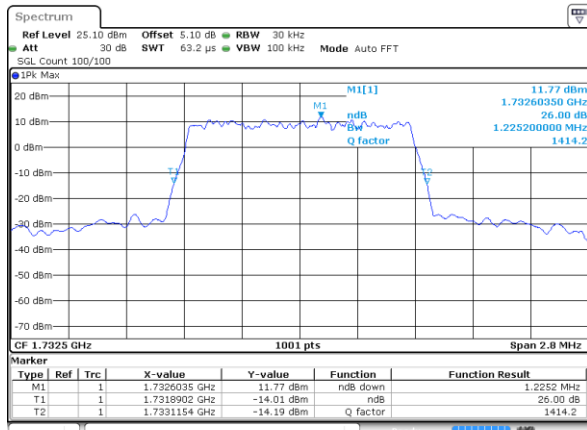
Date: 7 DEC 2018 11:10:48

Lowest Channel / 3MHz / 64QAM



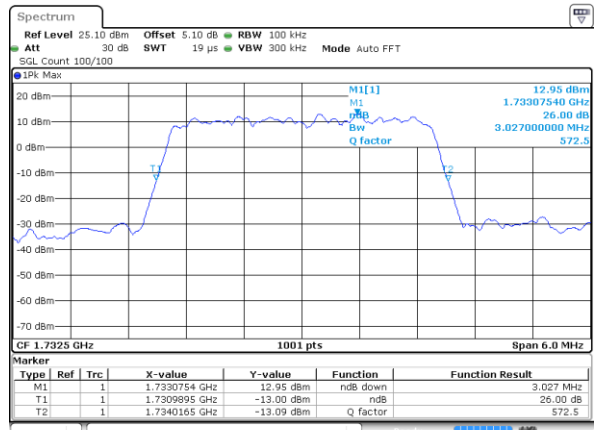
Date: 7 DEC 2018 11:11:53

Middle Channel / 1.4MHz / 64QAM



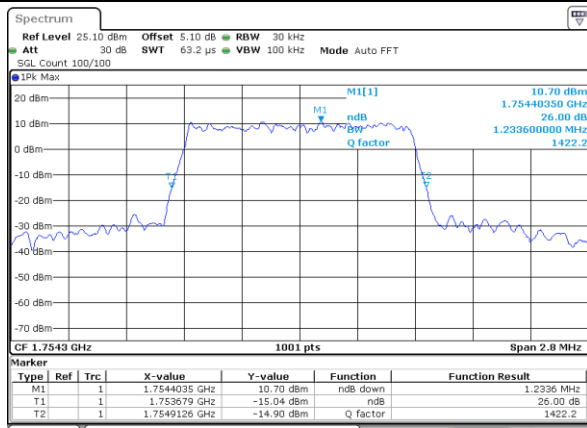
Date: 7 DEC 2018 11:11:10

Middle Channel / 3MHz / 64QAM



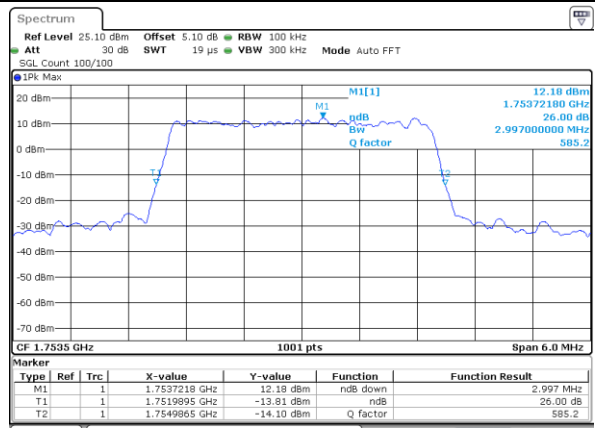
Date: 7 DEC 2018 11:12:14

Highest Channel / 1.4MHz / 64QAM



Date: 7 DEC 2018 11:11:31

Highest Channel / 3MHz / 64QAM

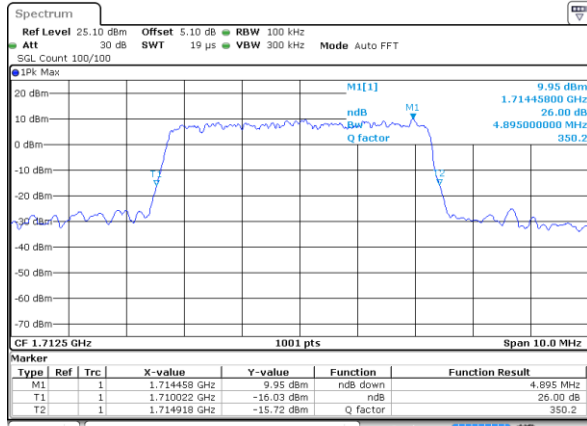


Date: 7 DEC 2018 11:12:35

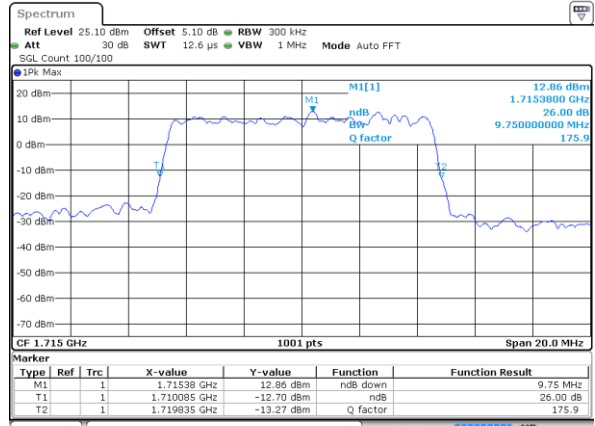


LTE Band 4

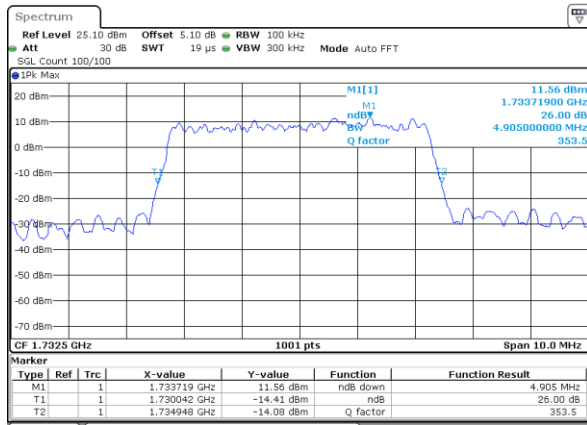
Lowest Channel / 5MHz / 64QAM



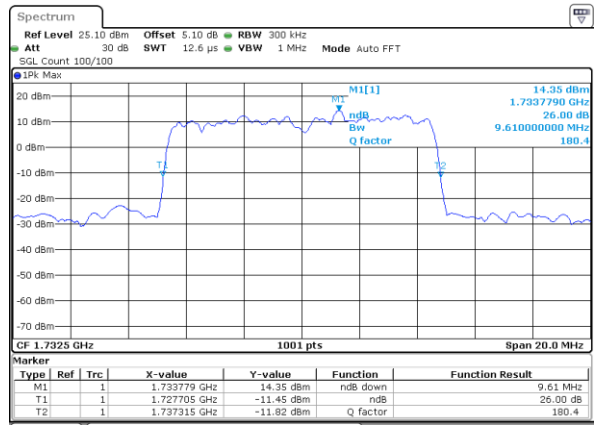
Lowest Channel / 10MHz / 64QAM



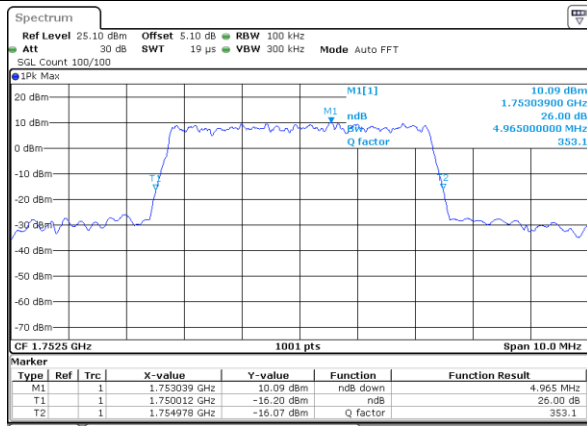
Middle Channel / 5MHz / 64QAM



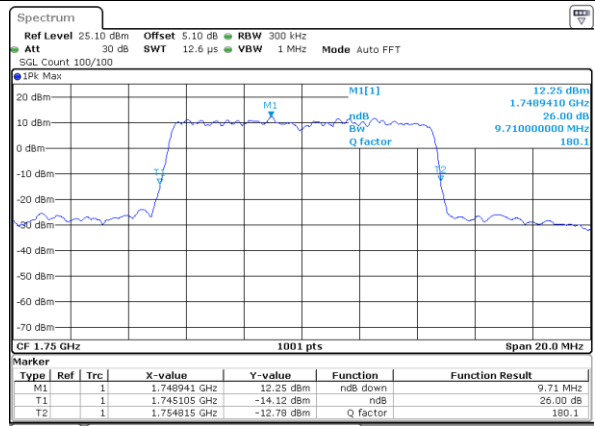
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



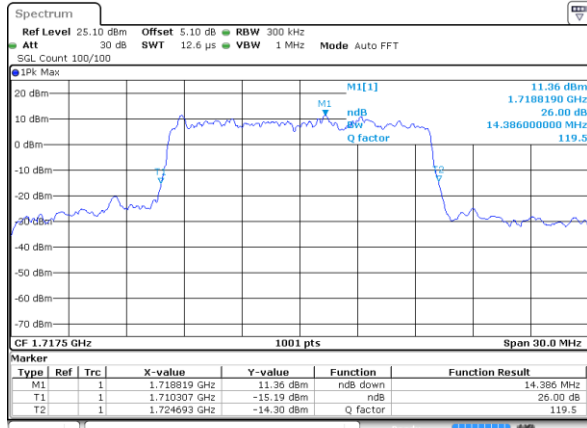
Highest Channel / 10MHz / 64QAM





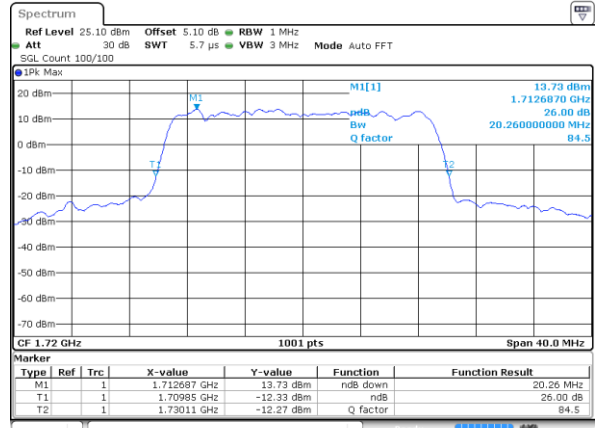
LTE Band 4

Lowest Channel / 15MHz / 64QAM



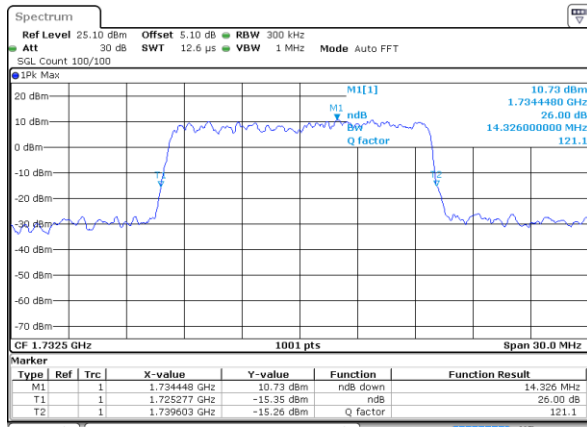
Date: 7 DEC 2018 11:15:04

Lowest Channel / 20MHz / 64QAM



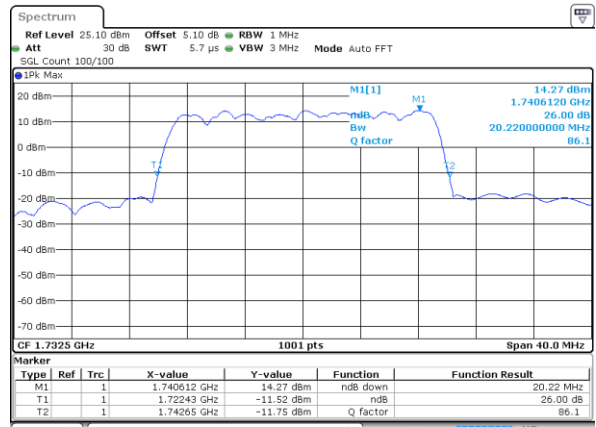
Date: 7 DEC 2018 11:16:07

Middle Channel / 15MHz / 64QAM



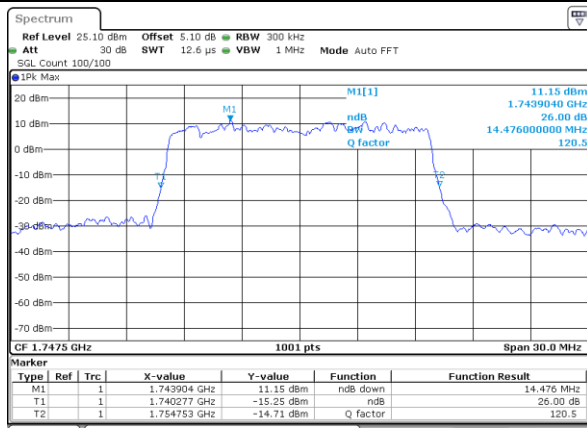
Date: 7 DEC 2018 11:15:25

Middle Channel / 20MHz / 64QAM



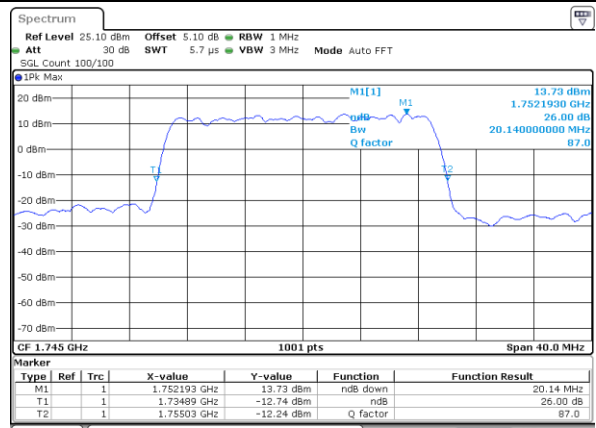
Date: 7 DEC 2018 11:16:29

Highest Channel / 15MHz / 64QAM



Date: 7 DEC 2018 11:15:46

Highest Channel / 20MHz / 64QAM



Date: 7 DEC 2018 11:16:50