

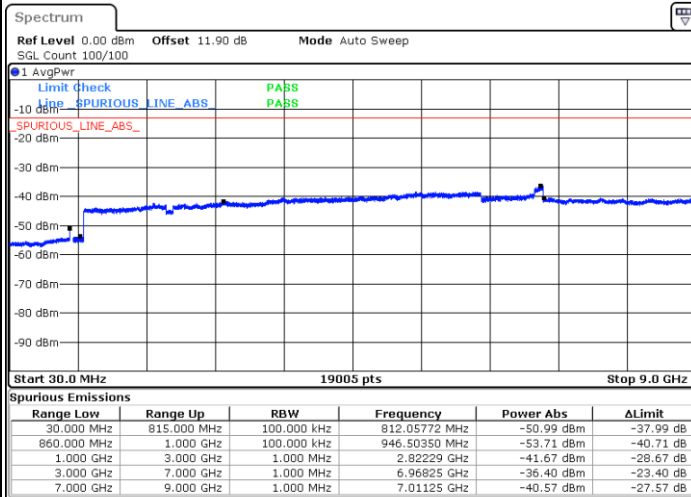


Conducted Spurious Emission

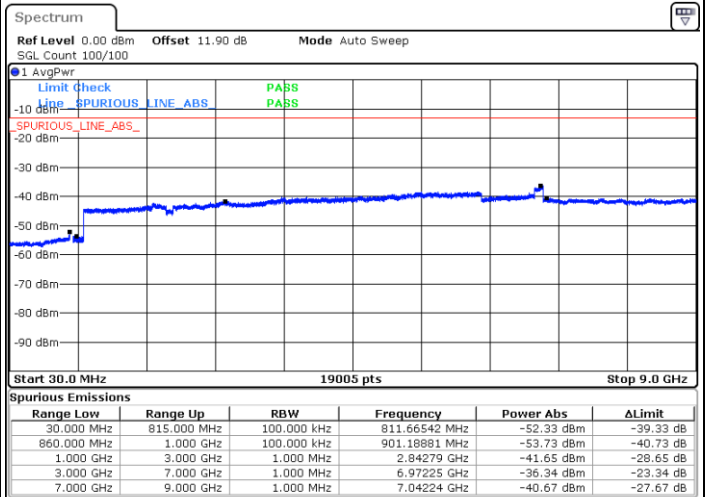
FR1 n5 / 5MHz / PI/2 BPSK / DFT-S OFDM

Lowest Channel / 1RB1

Middle Channel / 1RB1

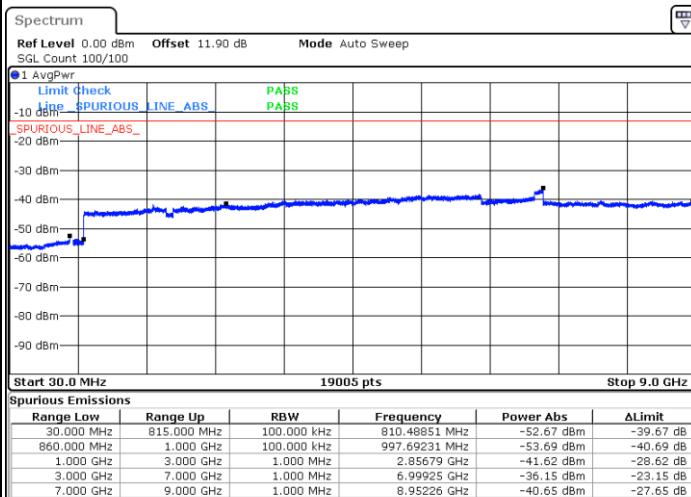


Date: 27.FEB.2020 06:14:08



Date: 27.FEB.2020 06:29:17

Highest Channel / 1RB1

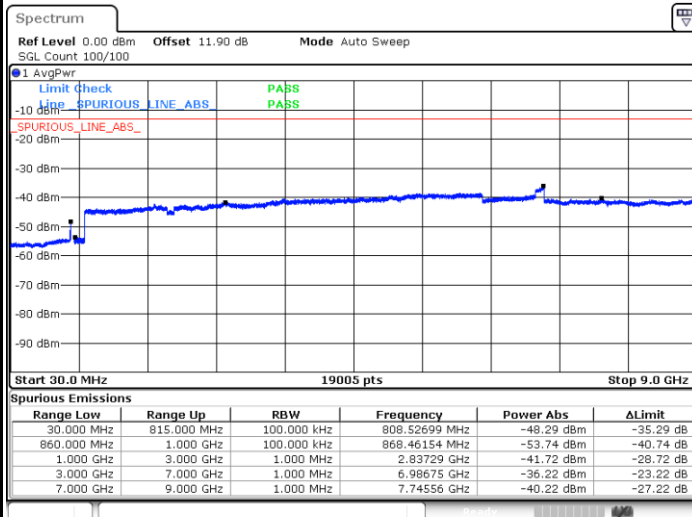


Date: 27.FEB.2020 06:30:41



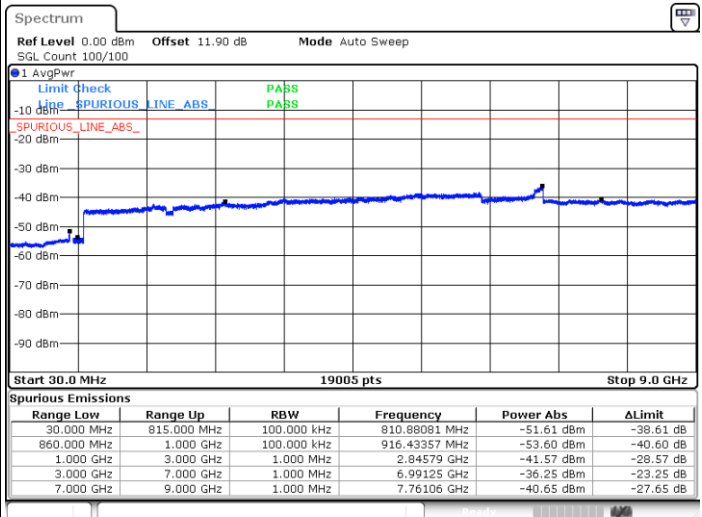
FR1 n5 / 5MHz / QPSK / DFT-S OFDM

Lowest Channel / 1RB1



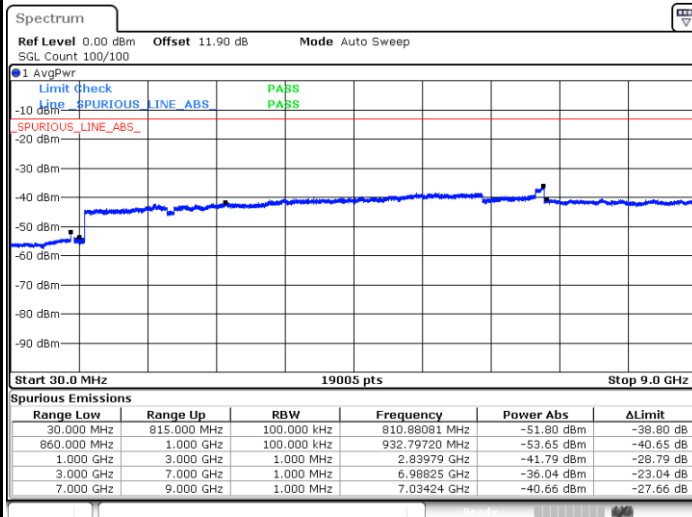
Date: 27.FEB.2020 06:15:05

Middle Channel / 1RB1



Date: 27.FEB.2020 06:28:21

Highest Channel / 1RB1

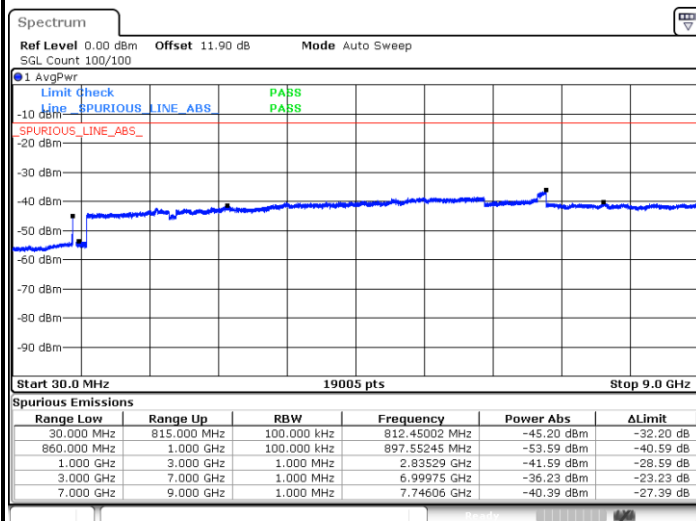


Date: 27.FEB.2020 06:31:36



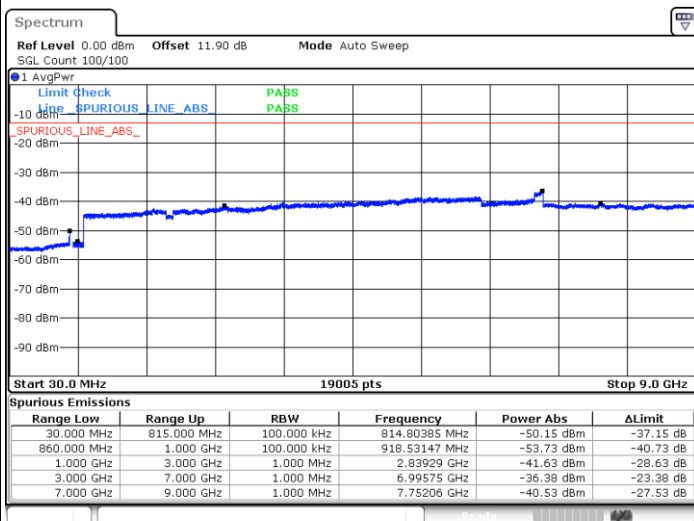
FR1 n5 / 5MHz / 16QAM / DFT-S OFDM

Lowest Channel / 1RB1



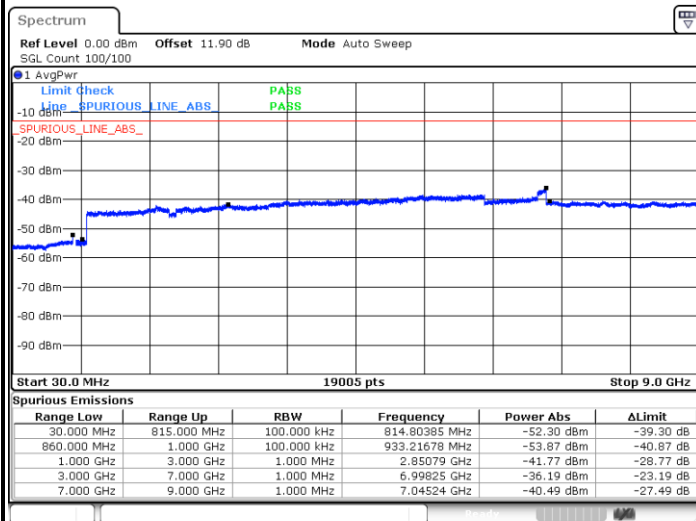
Date: 27.FEB.2020 06:16:02

Middle Channel / 1RB1



Date: 27.FEB.2020 06:27:29

Highest Channel / 1RB1

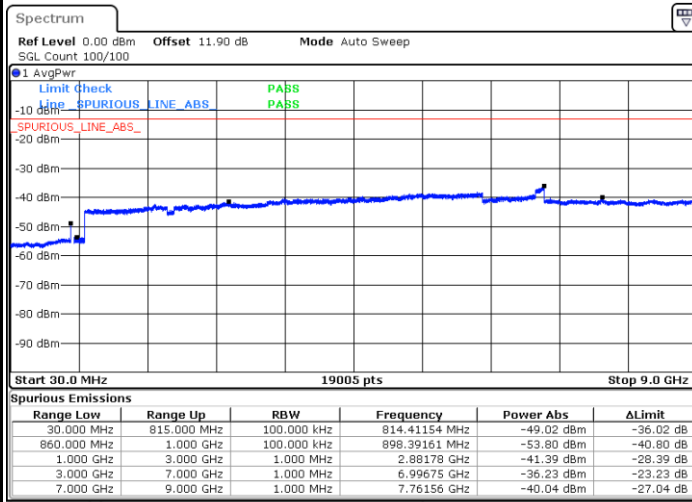


Date: 27.FEB.2020 06:32:31



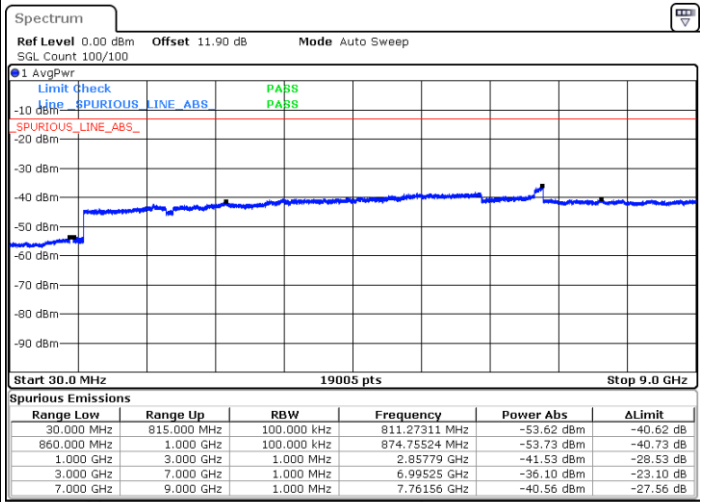
FR1 n5 / 5MHz / 64QAM / DFT-S OFDM

Lowest Channel / 1RB1



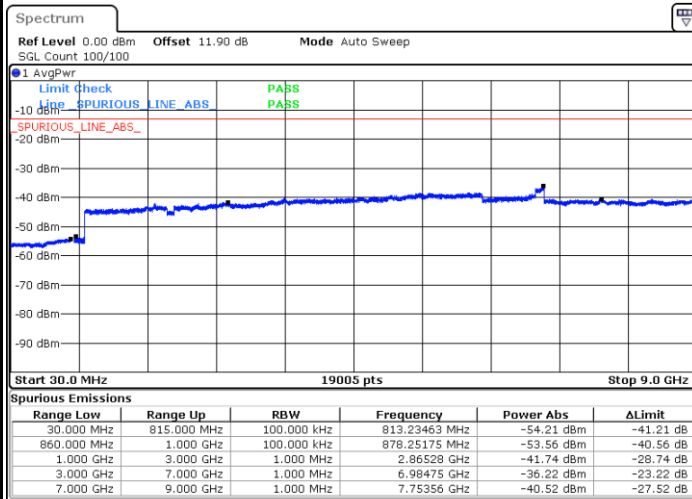
Date: 27.FEB.2020 06:16:48

Middle Channel / 1RB1



Date: 27.FEB.2020 06:26:36

Highest Channel / 1RB1

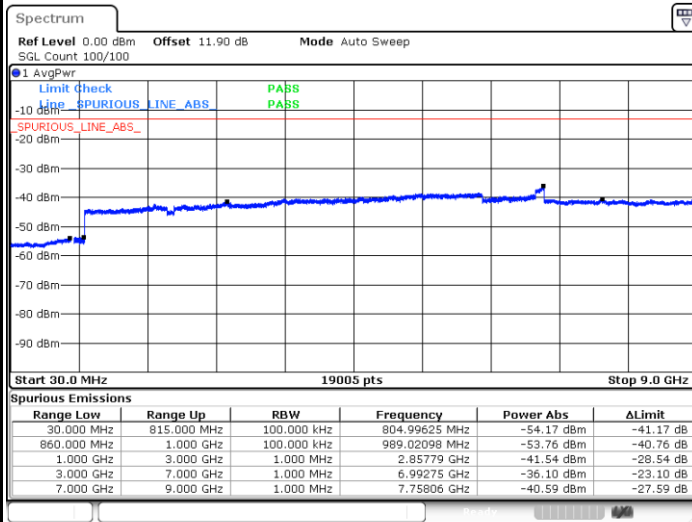


Date: 27.FEB.2020 06:34:12



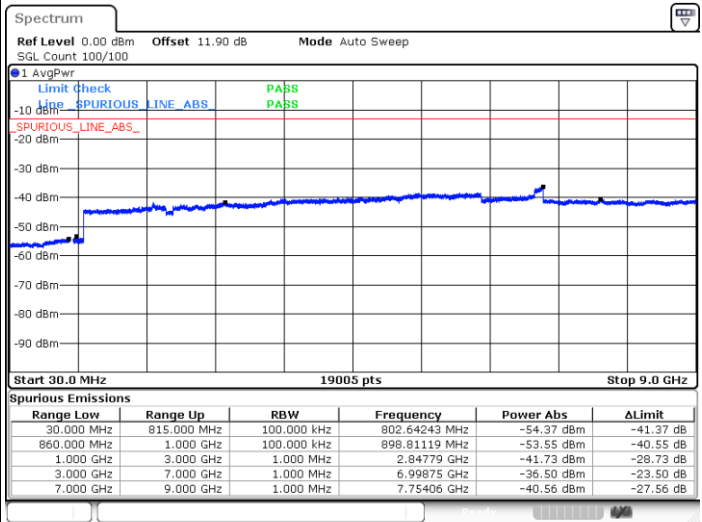
FR1 n5 / 5MHz / 256QAM / DFT-S OFDM

Lowest Channel / 1RB1



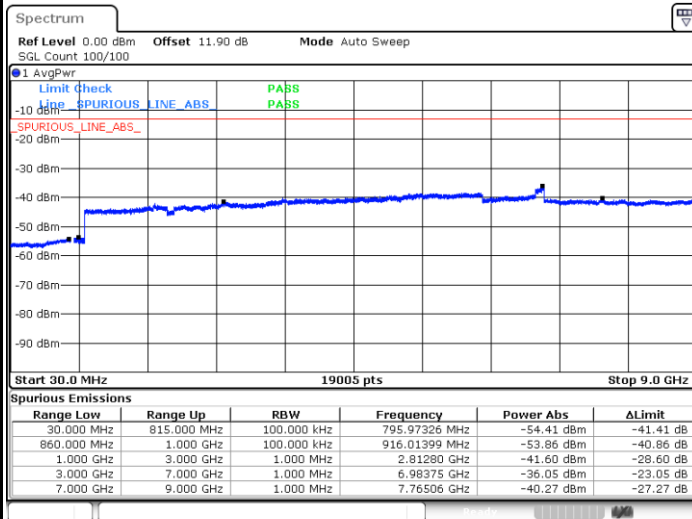
Date: 27.FEB.2020 06:17:45

Middle Channel / 1RB1



Date: 27.FEB.2020 06:25:48

Highest Channel / 1RB1

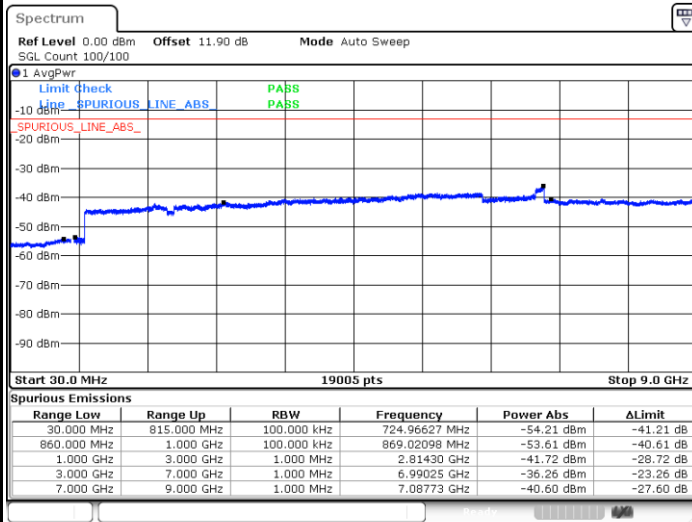


Date: 27.FEB.2020 06:35:04

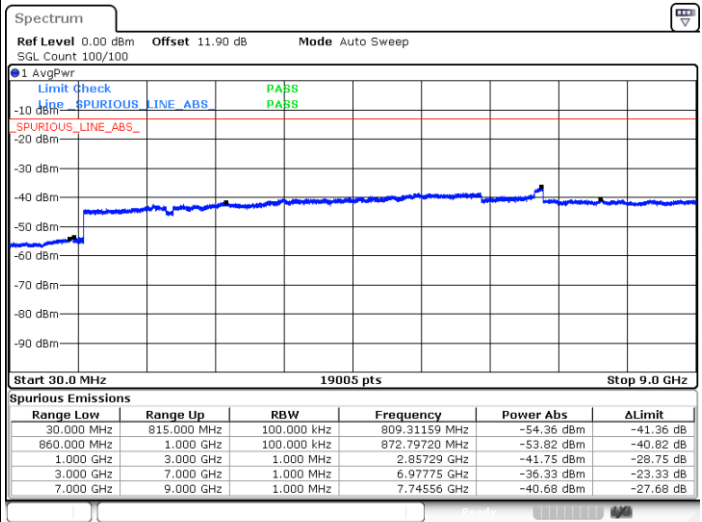


FR1 n5 / 10MHz / PI/2 BPSK / DFT-S OFDM

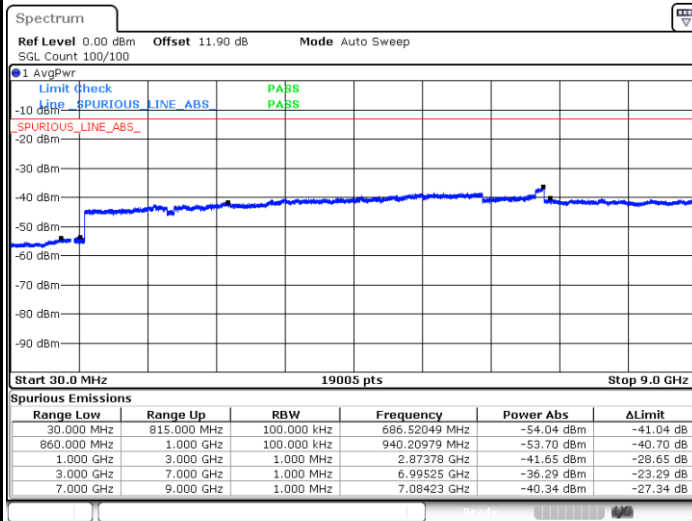
Lowest Channel / 1RB1



Middle Channel / 1RB1



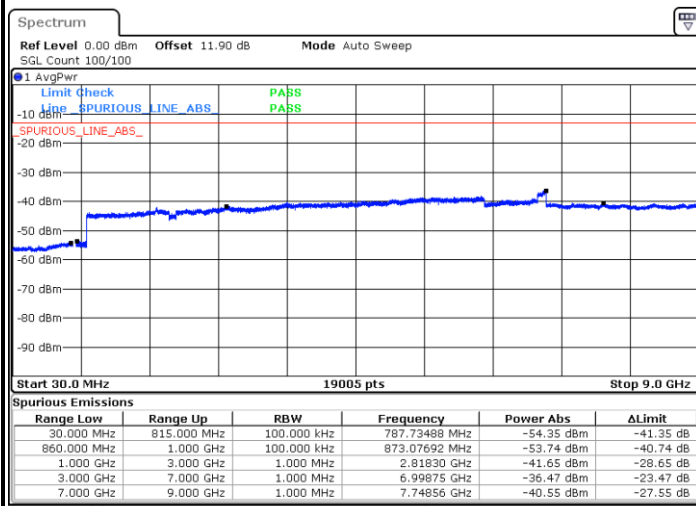
Highest Channel / 1RB1





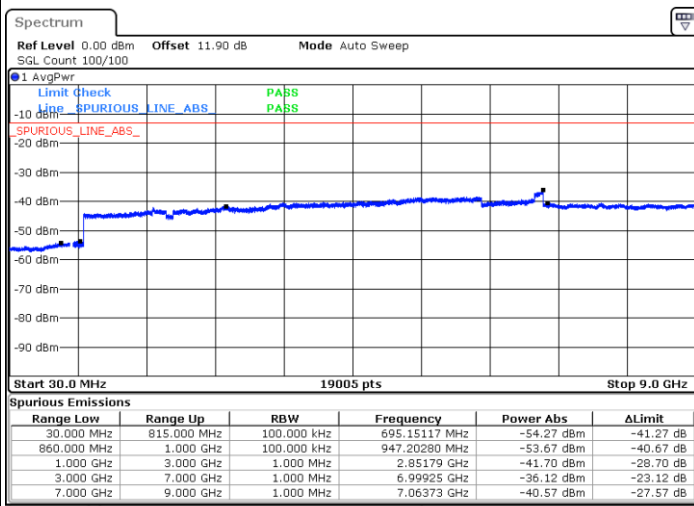
FR1 n5 / 10MHz / QPSK / DFT-S OFDM

Lowest Channel / 1RB1



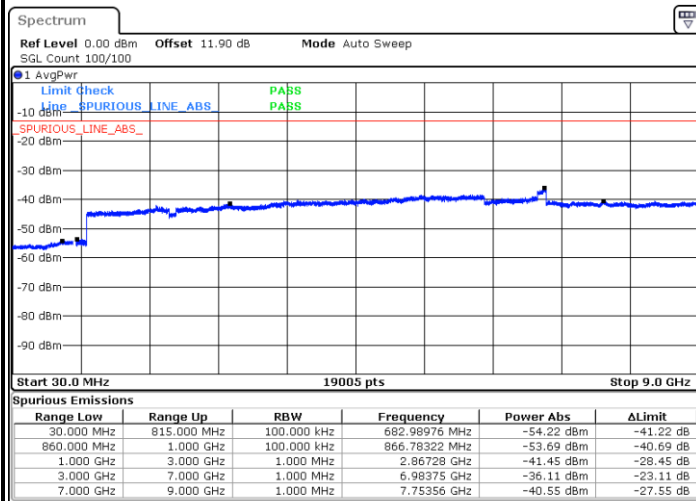
Date: 27.FEB.2020 06:53:59

Middle Channel / 1RB1



Date: 27.FEB.2020 06:57:21

Highest Channel / 1RB1

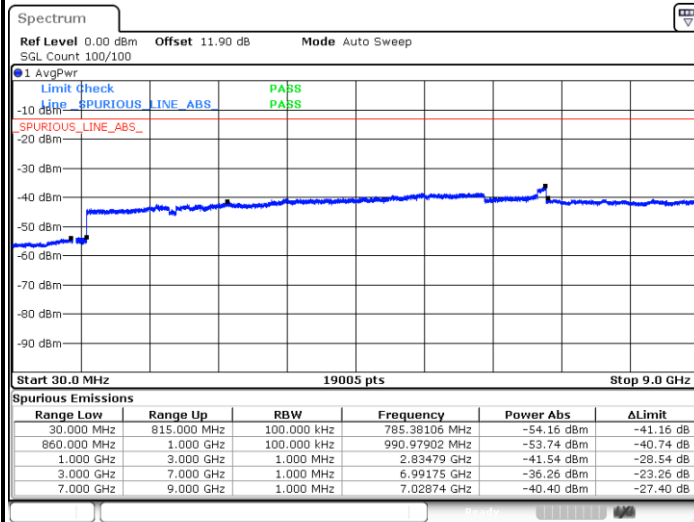


Date: 27.FEB.2020 07:02:06

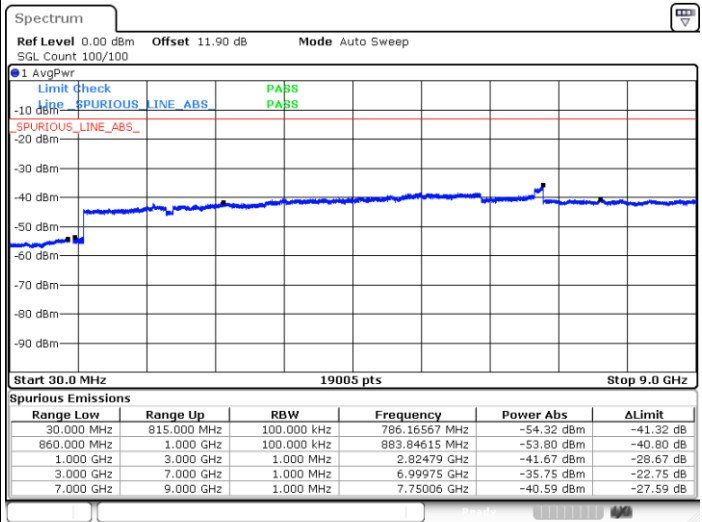


FR1 n5 / 10MHz / 16QAM / DFT-S OFDM

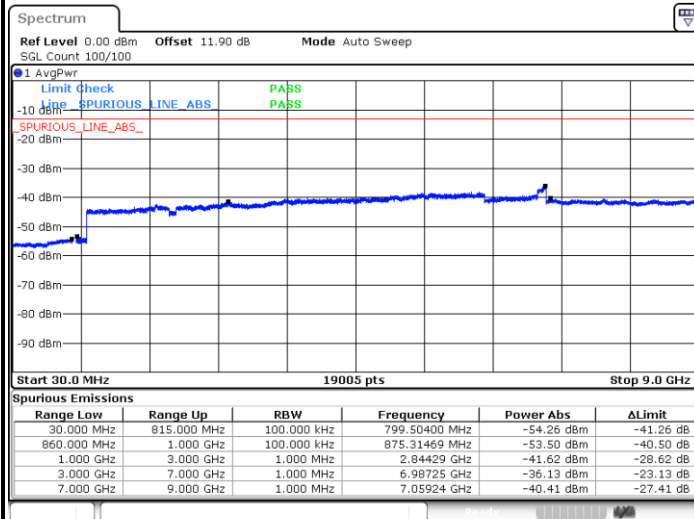
Lowest Channel / 1RB1



Middle Channel / 1RB1



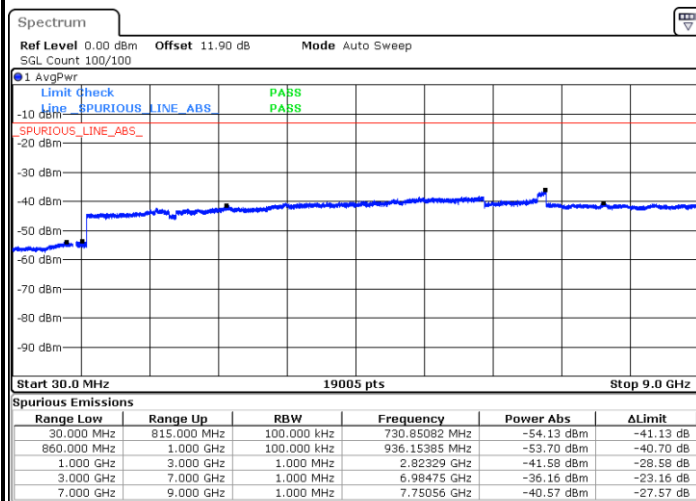
Highest Channel / 1RB1





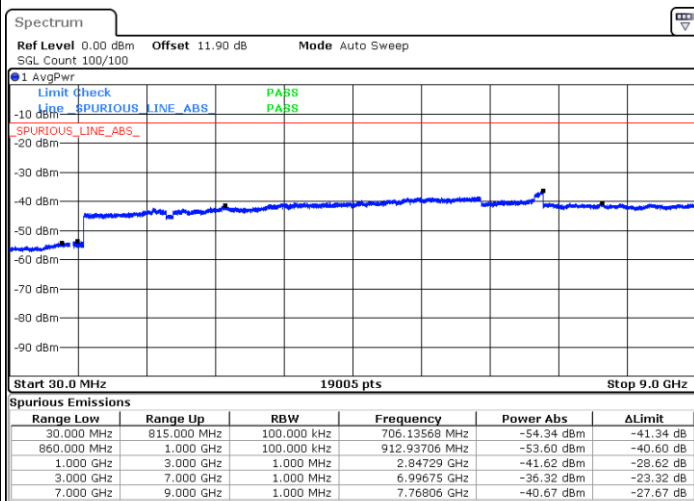
FR1 n5 / 10MHz / 64QAM / DFT-S OFDM

Lowest Channel / 1RB1



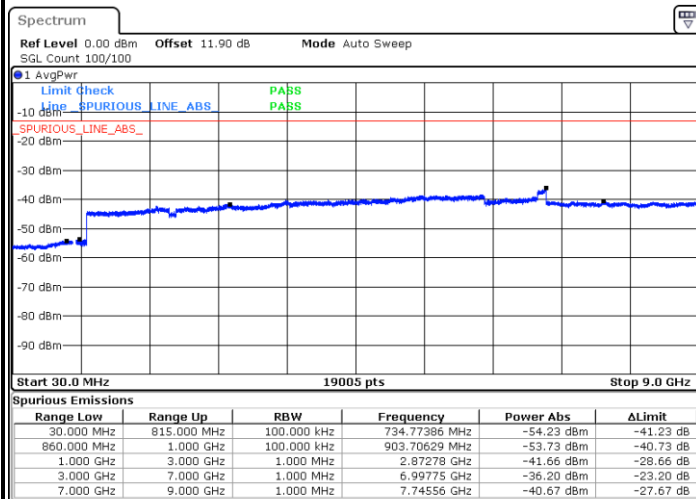
Date: 27.FEB.2020 06:55:19

Middle Channel / 1RB1



Date: 27.FEB.2020 06:58:43

Highest Channel / 1RB1

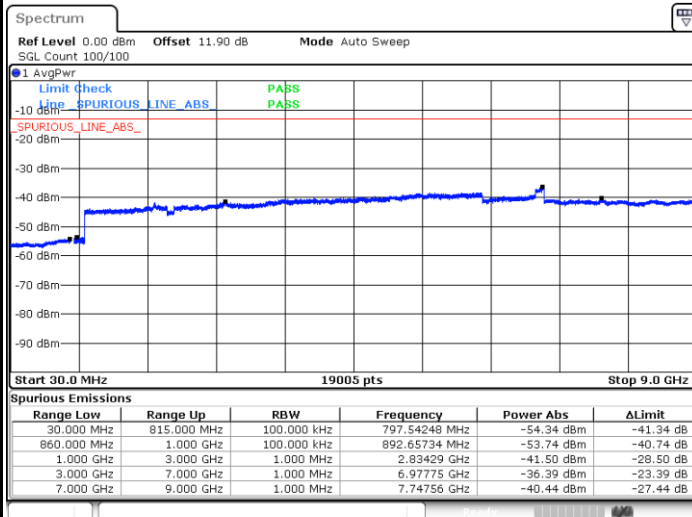


Date: 27.FEB.2020 07:00:44



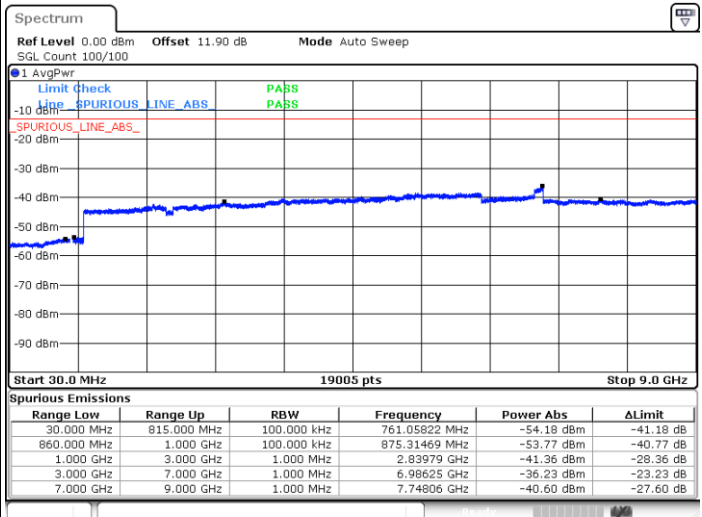
FR1 n5 / 10MHz / 256QAM / DFT-S OFDM

Lowest Channel / 1RB1



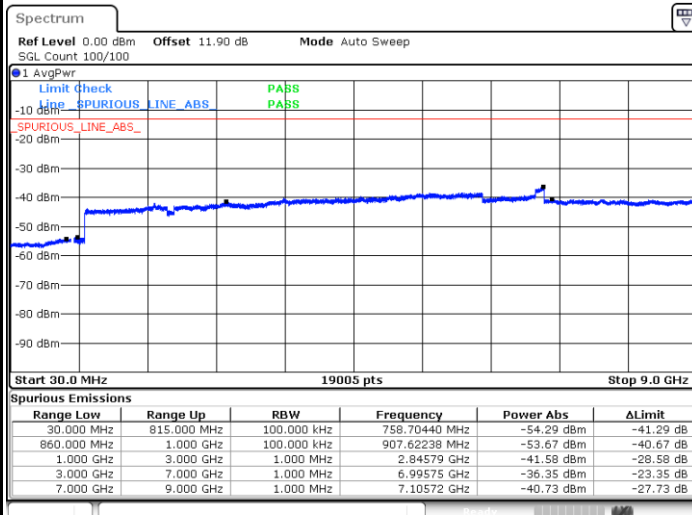
Date: 27.FEB.2020 06:56:00

Middle Channel / 1RB1



Date: 27.FEB.2020 06:59:23

Highest Channel / 1RB1

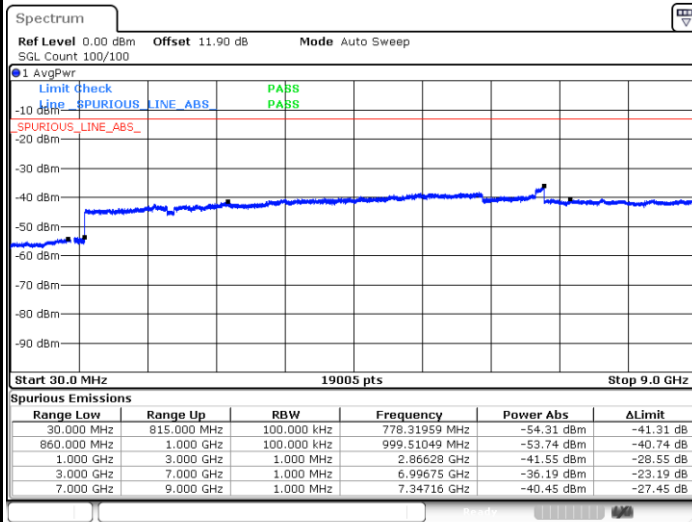


Date: 27.FEB.2020 07:00:03

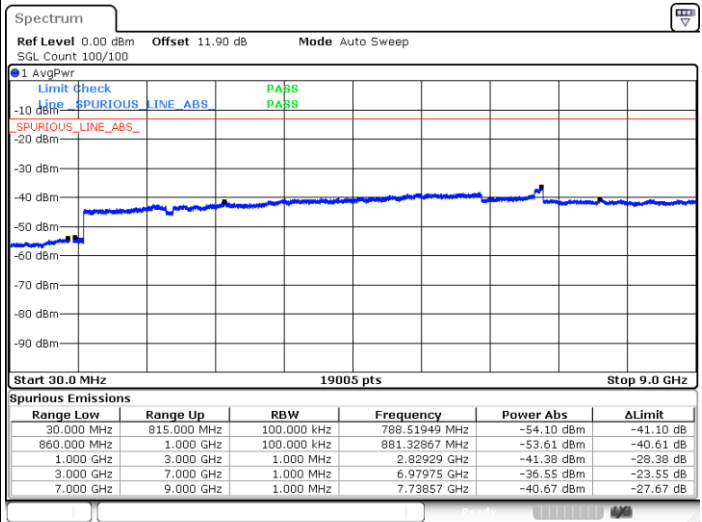


FR1 n5 / 15MHz / PI/2 BPSK / DFT-S OFDM

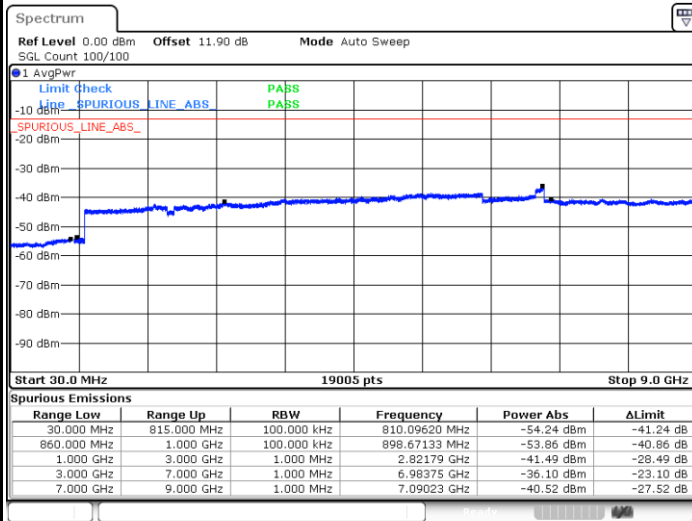
Lowest Channel / 1RB1



Middle Channel / 1RB1



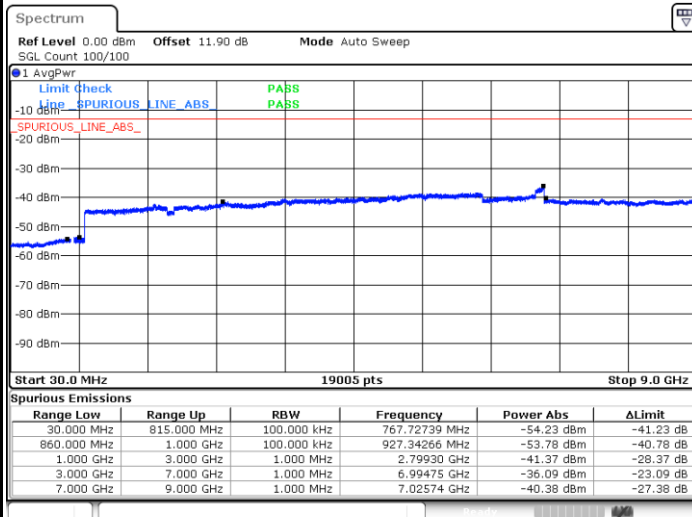
Highest Channel / 1RB1



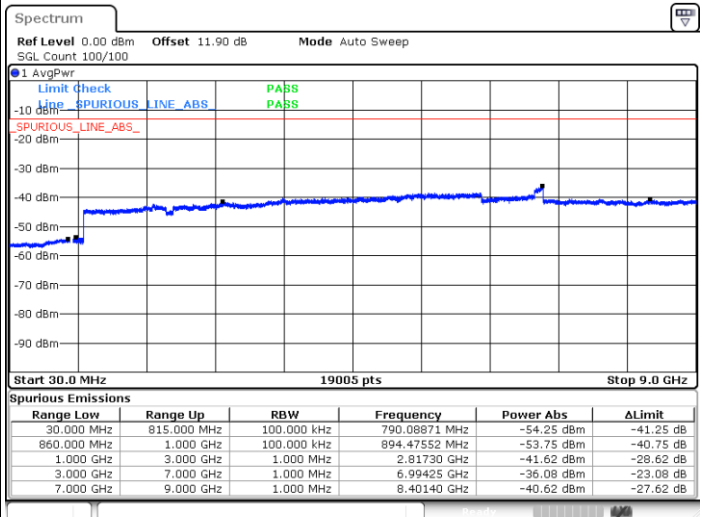


FR1 n5 / 15MHz / QPSK / DFT-S OFDM

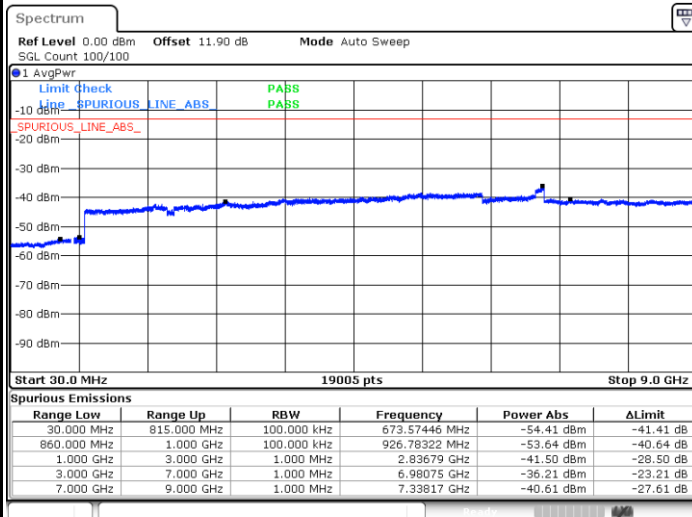
Lowest Channel / 1RB1



Middle Channel / 1RB1



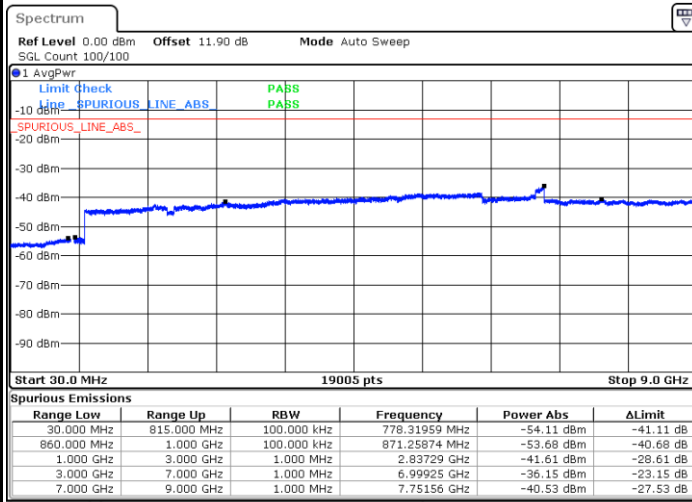
Highest Channel / 1RB1





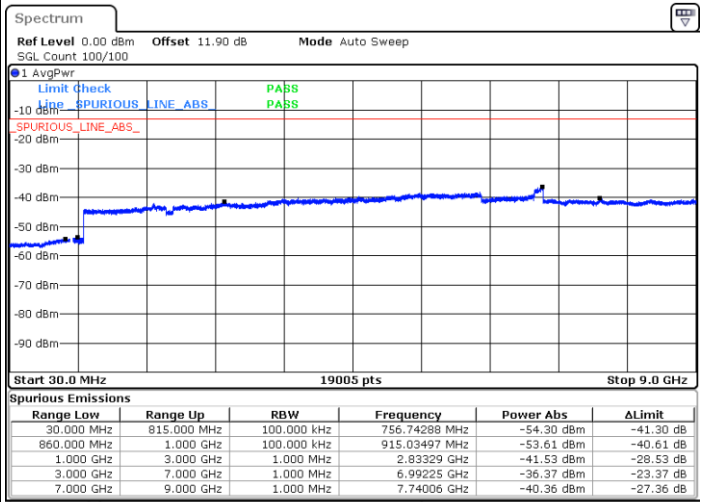
FR1 n5 / 15MHz / 16QAM / DFT-S OFDM

Lowest Channel / 1RB1



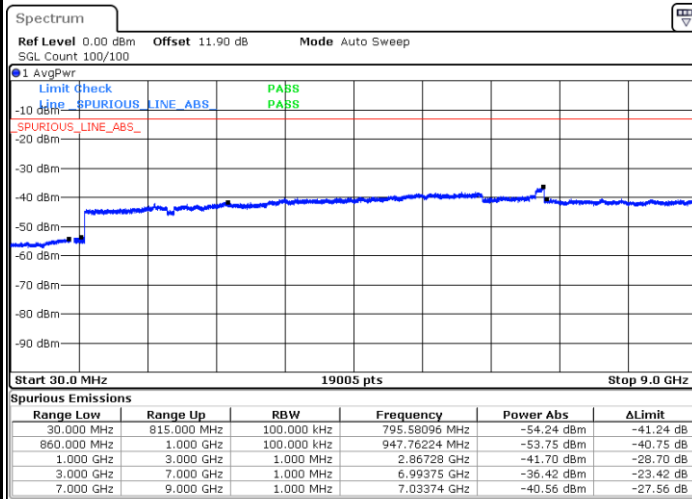
Date: 27.FEB.2020 07:04:48

Middle Channel / 1RB1



Date: 27.FEB.2020 07:08:12

Highest Channel / 1RB1

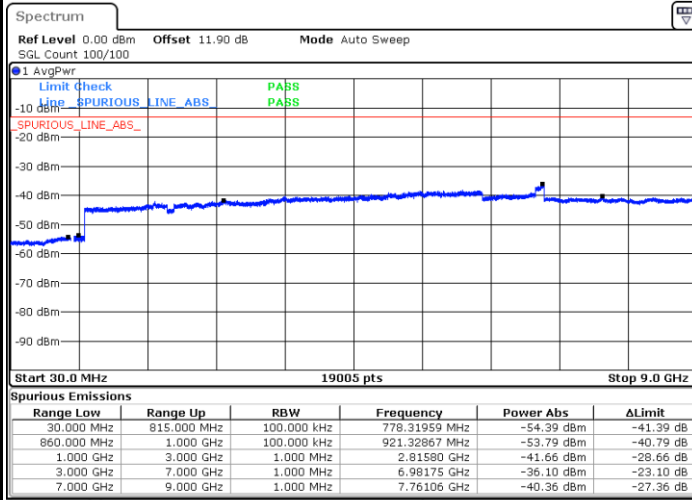


Date: 27.FEB.2020 07:11:37



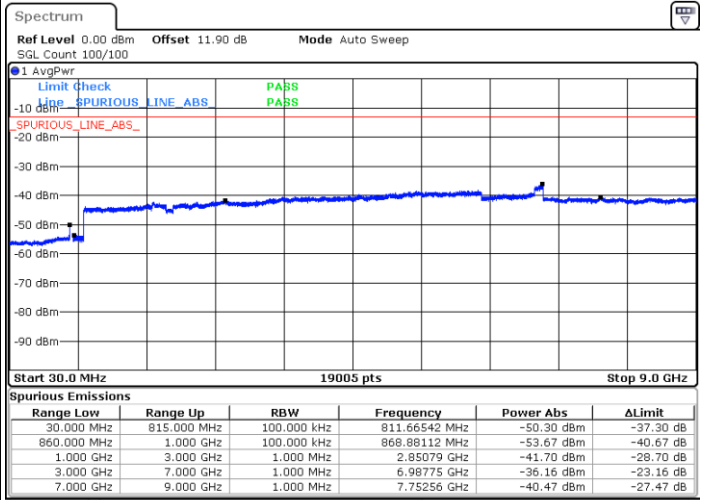
FR1 n5 / 15MHz / 64QAM / DFT-S OFDM

Lowest Channel / 1RB1



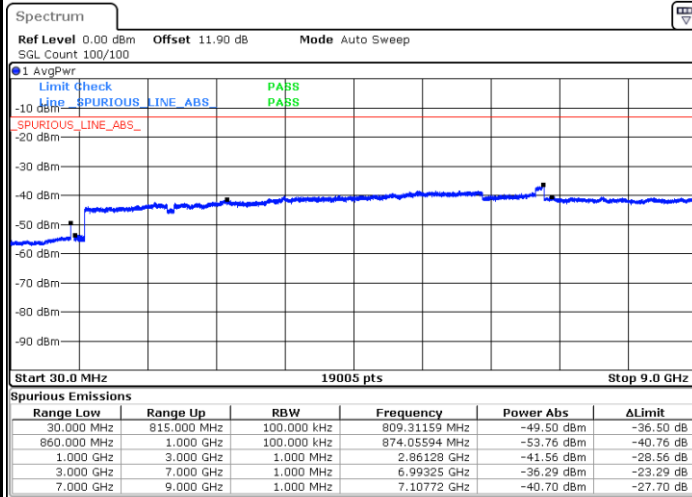
Date: 27.FEB.2020 07:05:28

Middle Channel / 1RB1



Date: 27.FEB.2020 07:17:15

Highest Channel / 1RB1

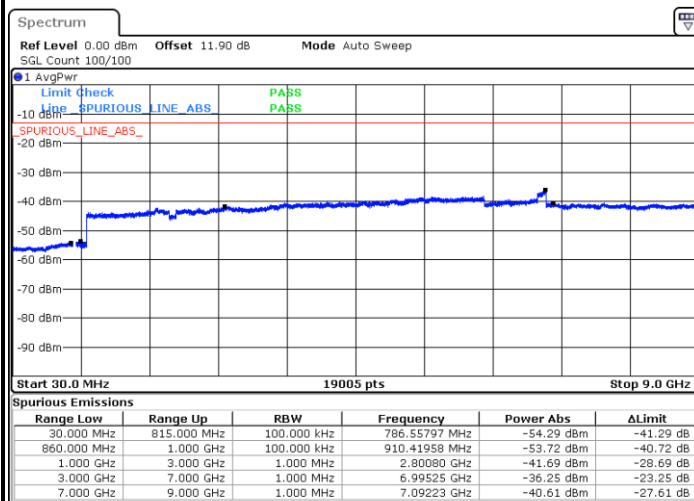


Date: 27.FEB.2020 07:15:30



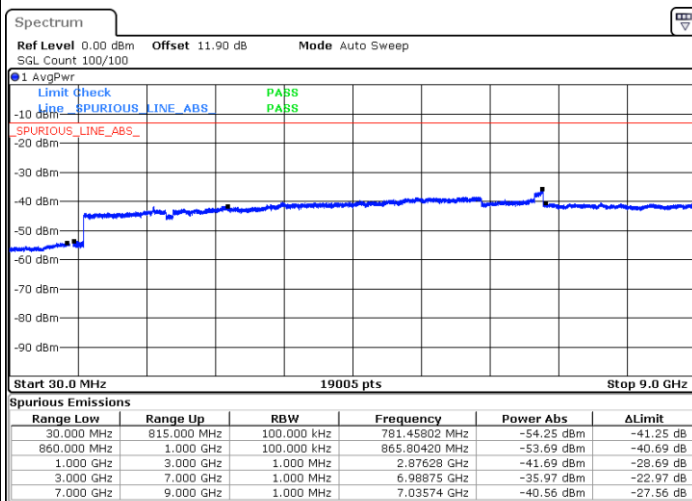
FR1 n5 / 15MHz / 256QAM / DFT-S OFDM

Lowest Channel / 1RB1



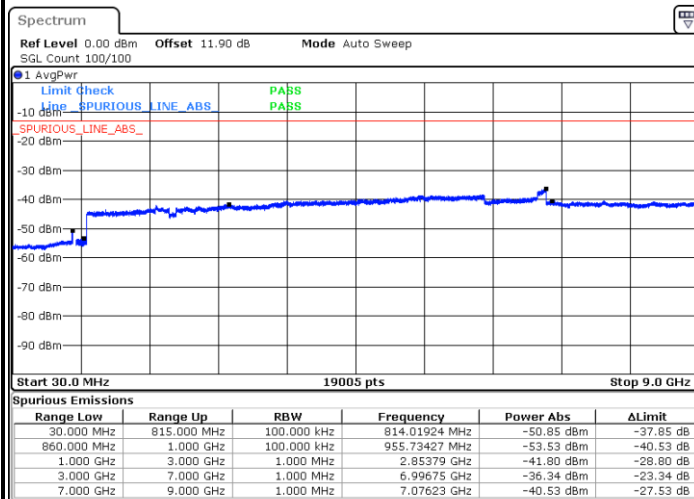
Date: 27.FEB.2020 07:06:08

Middle Channel / 1RB1



Date: 27.FEB.2020 07:06:49

Highest Channel / 1RB1

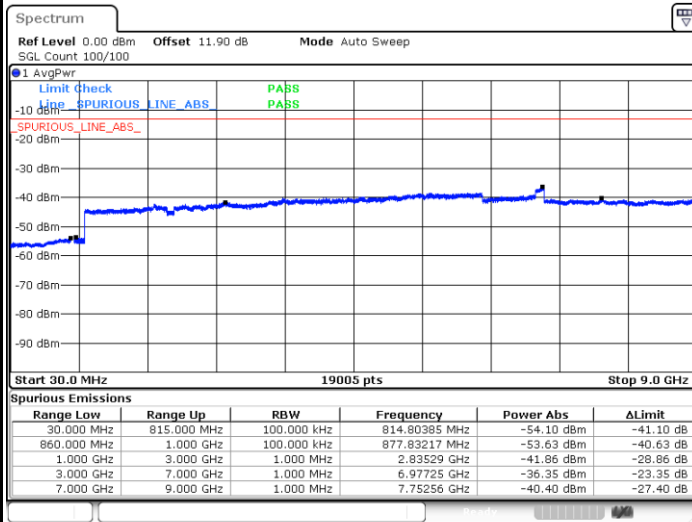


Date: 27.FEB.2020 07:16:11



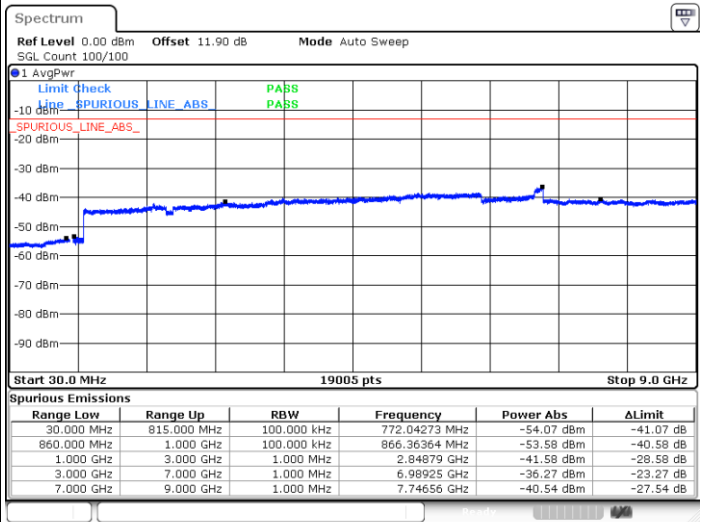
FR1 n5 / 20MHz / PI/2 BPSK / DFT-S OFDM

Lowest Channel / 1RB1



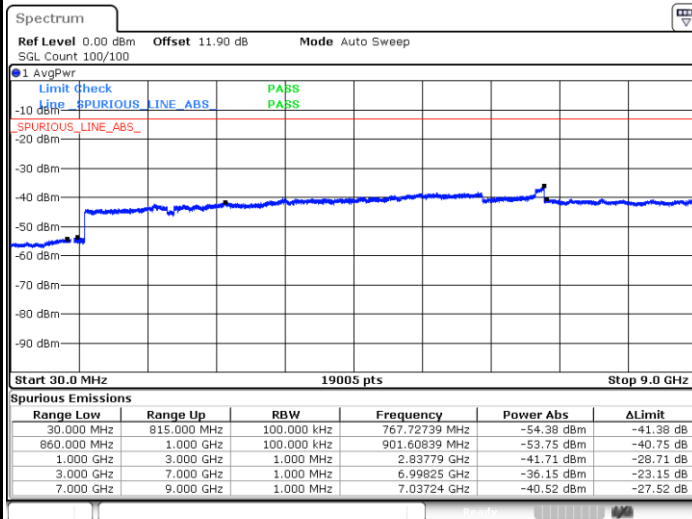
Date: 27.FEB.2020 05:29:55

Middle Channel / 1RB1



Date: 27.FEB.2020 08:05:37

Highest Channel / 1RB1

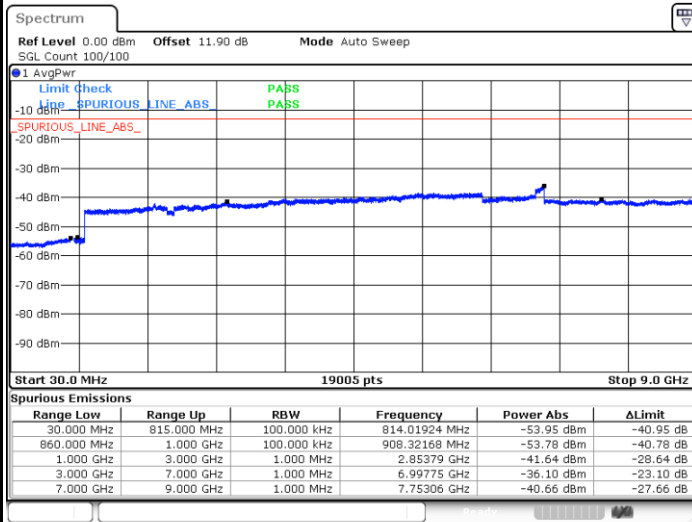


Date: 27.FEB.2020 08:03:50



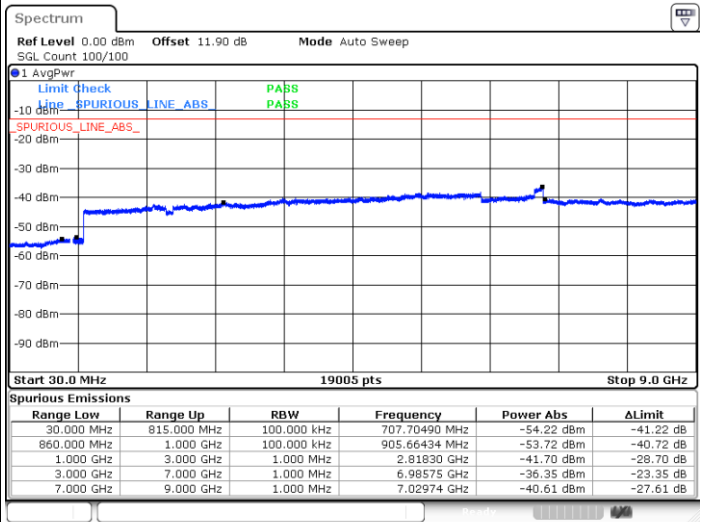
FR1 n5 / 20MHz / QPSK / DFT-S OFDM

Lowest Channel / 1RB1



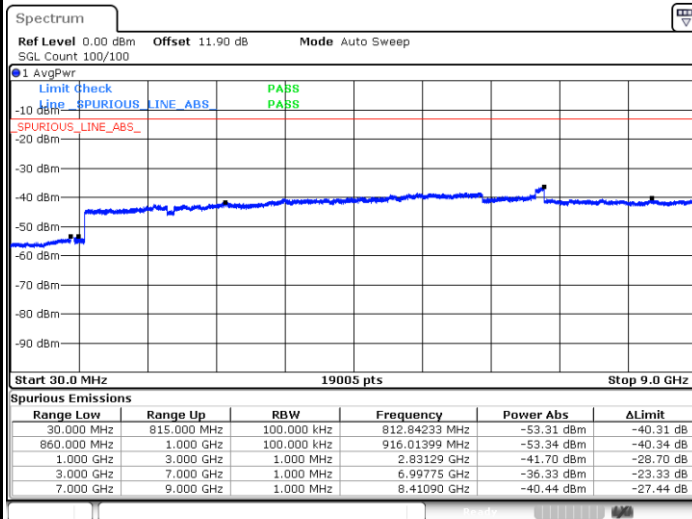
Date: 27.FEB.2020 05:30:45

Middle Channel / 1RB1



Date: 27.FEB.2020 08:06:30

Highest Channel / 1RB1

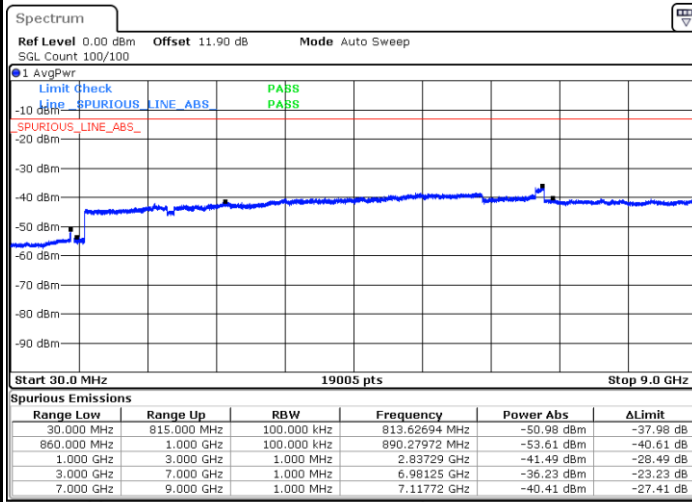


Date: 27.FEB.2020 06:01:16



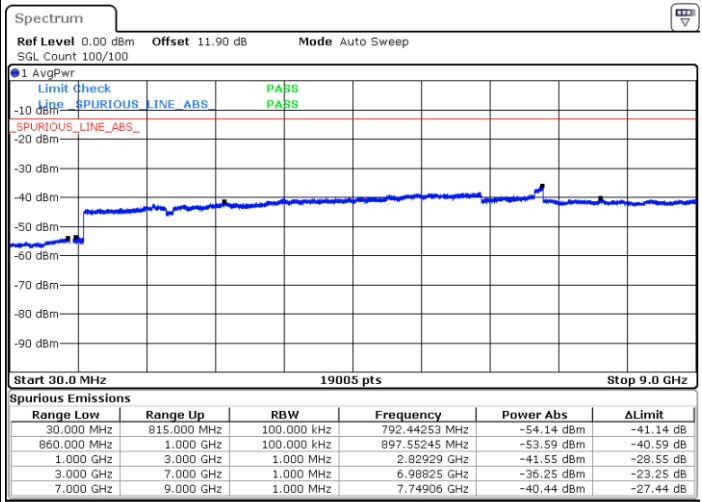
FR1 n5 / 20MHz / 16QAM / DFT-S OFDM

Lowest Channel / 1RB1



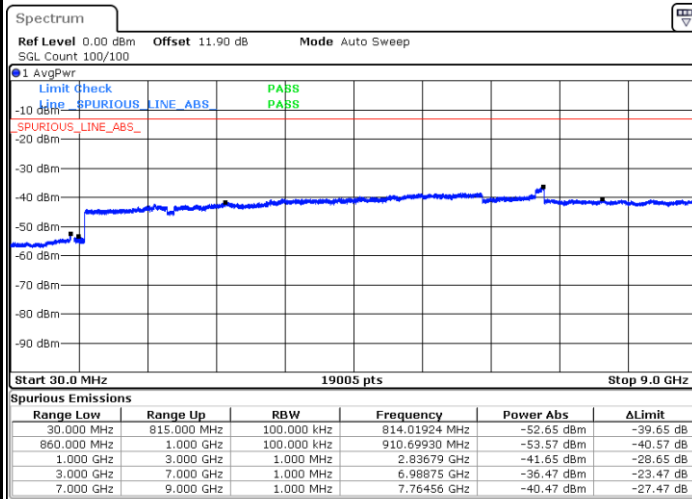
Date: 27.FEB.2020 05:35:47

Middle Channel / 1RB1



Date: 27.FEB.2020 08:07:22

Highest Channel / 1RB1

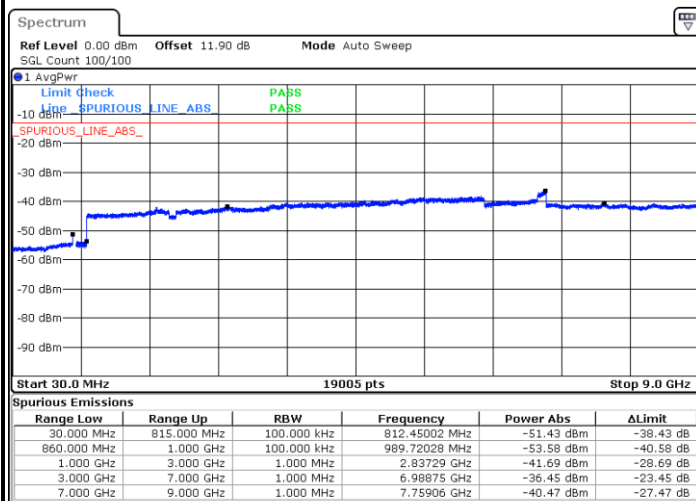


Date: 27.FEB.2020 06:00:13



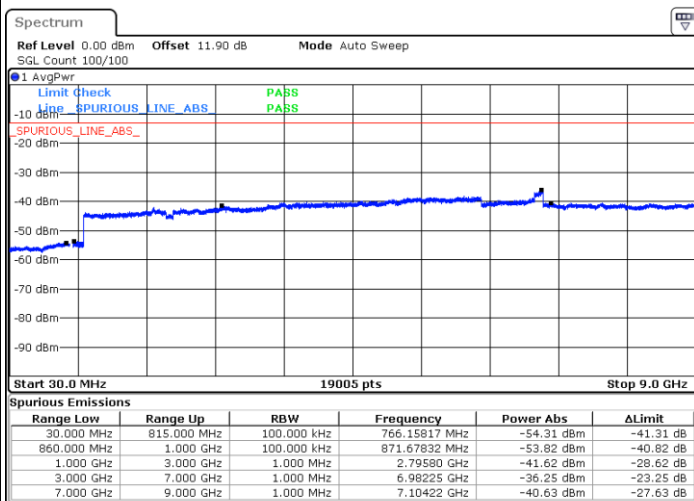
FR1 n5 / 20MHz / 64QAM / DFT-S OFDM

Lowest Channel / 1RB1



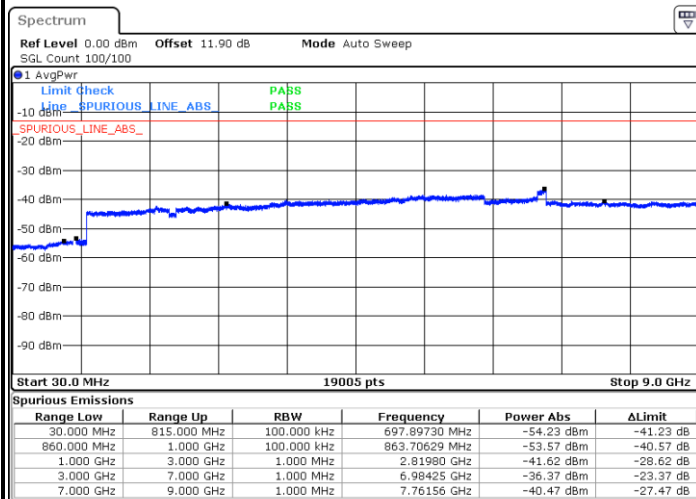
Date: 27.FEB.2020 05:36:38

Middle Channel / 1RB1



Date: 27.FEB.2020 08:08:08

Highest Channel / 1RB1

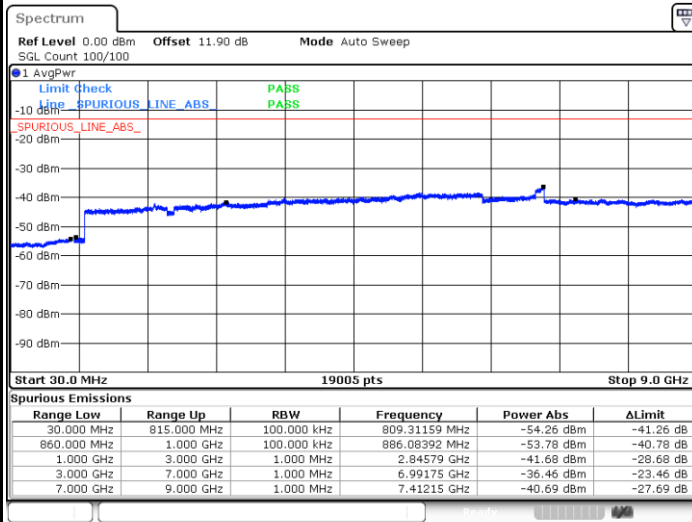


Date: 27.FEB.2020 08:04:41



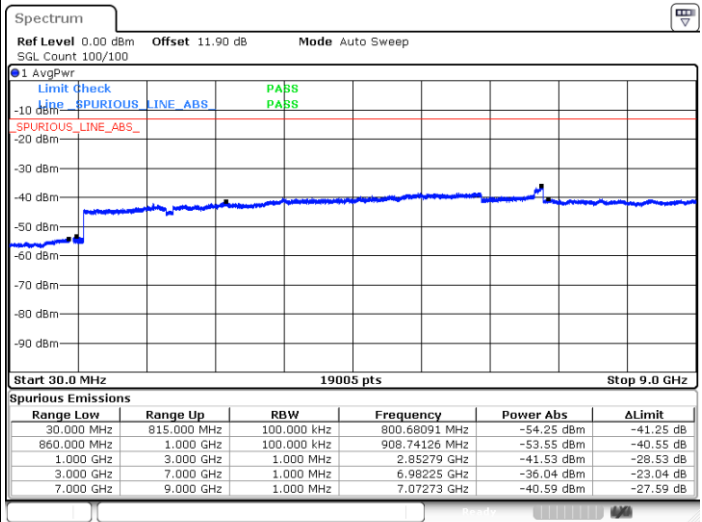
FR1 n5 / 20MHz / 256QAM / DFT-S OFDM

Lowest Channel / 1RB1



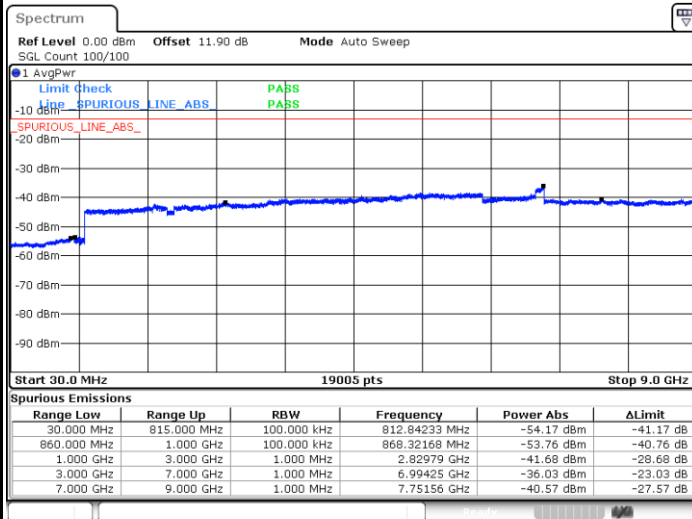
Date: 27.FEB.2020 05:44:01

Middle Channel / 1RB1



Date: 27.FEB.2020 08:12:12

Highest Channel / 1RB1



Date: 27.FEB.2020 05:46:42

Frequency Stability

Test Conditions		FR1 n5 (PI/2 BPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 20MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0013	PASS
40	Normal Voltage	0.0019	
30	Normal Voltage	0.0063	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0074	
0	Normal Voltage	0.0023	
-10	Normal Voltage	0.0039	
-20	Normal Voltage	0.0019	
-30	Normal Voltage	0.0088	
20	Maximum Voltage	0.0051	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0027	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.60 V. ; Maximum Voltage =4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



<For Upper Antenna>

FR1 n66_Ant. 3

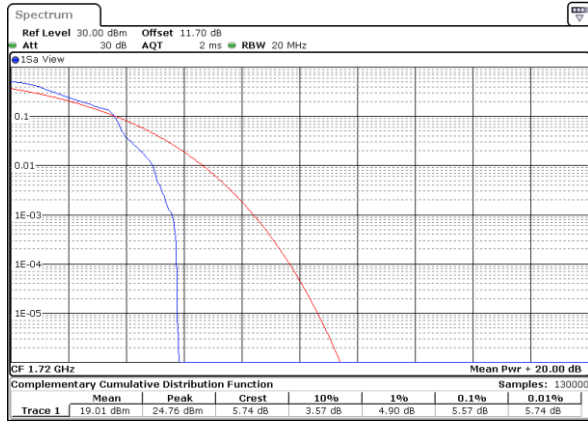
Peak-to-Average Ratio

Mode	FR1 n66 / 20MHz / DFT-S OFDM				
Mod.	PI/2 BPSK		QPSK		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.57	4.70	6.06	6.03	PASS
Middle CH	5.54	4.64	6.06	6.00	
Highest CH	5.33	4.84	6.14	6.12	
Mode	FR1 n66 / 20MHz / DFT-S OFDM				
Mod.	16QAM		64QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	7.59	7.07	8.12	7.25	PASS
Middle CH	7.57	7.01	8.17	7.19	
Highest CH	7.74	7.07	8.09	7.30	
Mode	FR1 n66 / 20MHz / DFT-S OFDM				
Mod.	256QAM		-		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	7.91	7.36	-	-	PASS
Middle CH	7.45	7.30	-	-	
Highest CH	7.68	7.36	-	-	



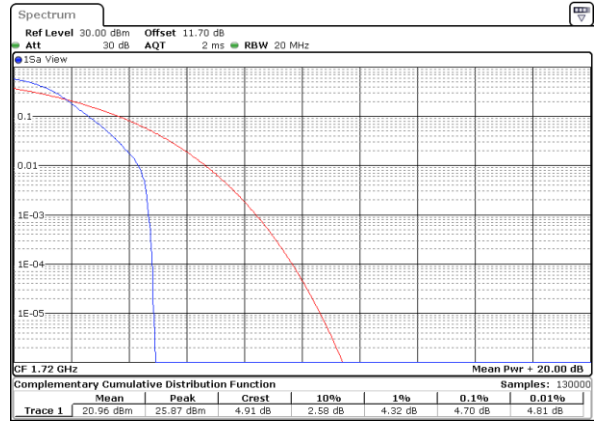
FR1 n66 / 20MHz / PI/2 BPSK / DFT-S OFDM

Lowest Channel / 1RB



Date: 25 FEB 2020 06:42:42

Lowest Channel / Full RB



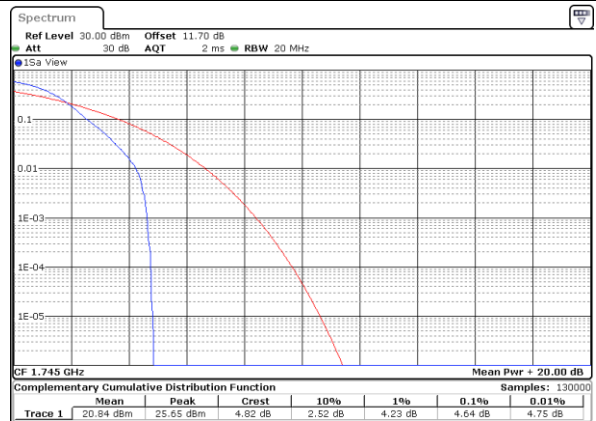
Date: 25 FEB 2020 06:42:59

Middle Channel / 1RB



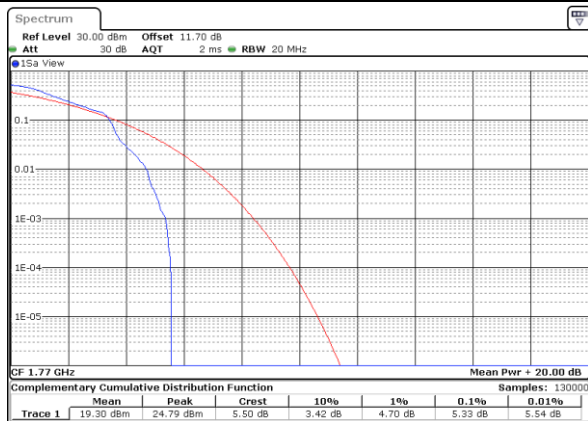
Date: 25 FEB 2020 06:57:10

Middle Channel / Full RB



Date: 25 FEB 2020 06:57:51

Highest Channel / 1RB



Date: 25 FEB 2020 07:16:03

Highest Channel / Full RB

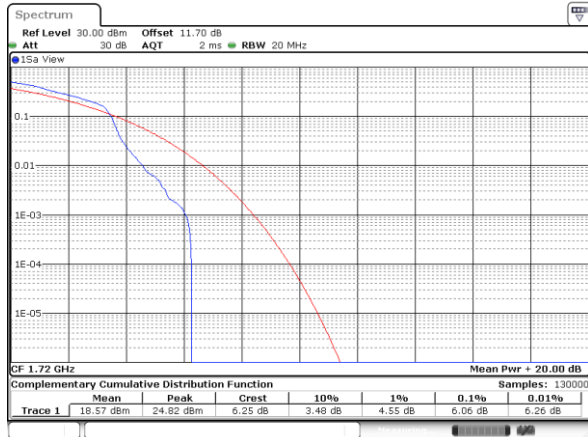


Date: 25 FEB 2020 07:15:49

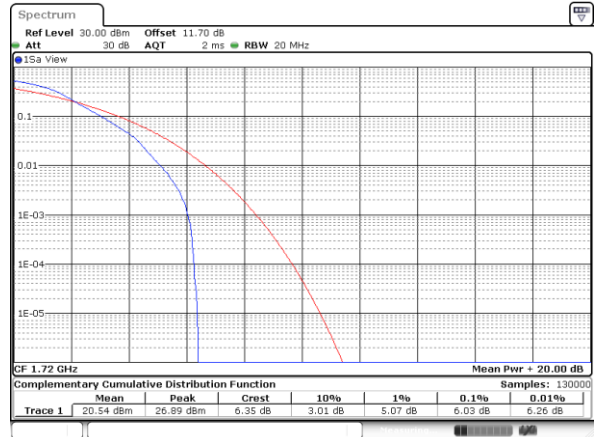


FR1 n66 / 20MHz / QPSK / DFT-S OFDM

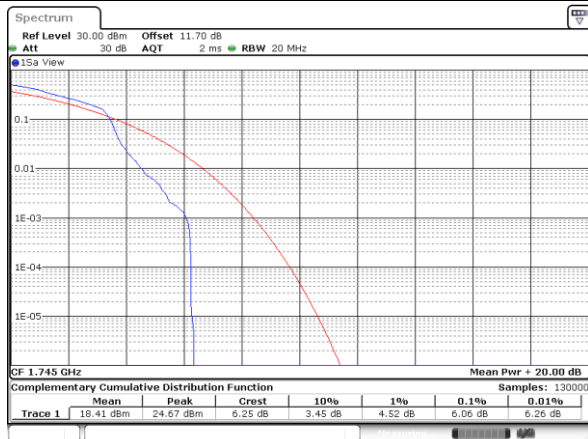
Lowest Channel / 1RB



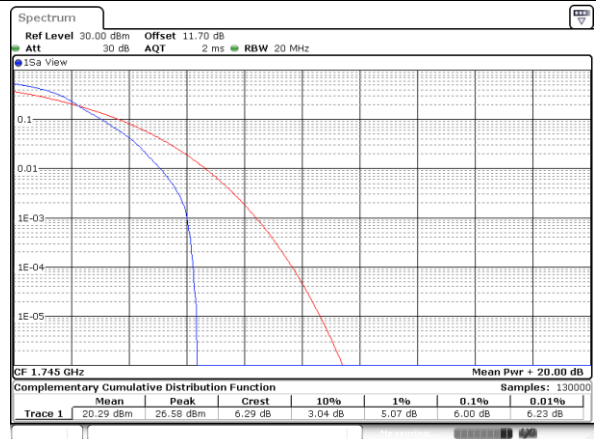
Lowest Channel / Full RB



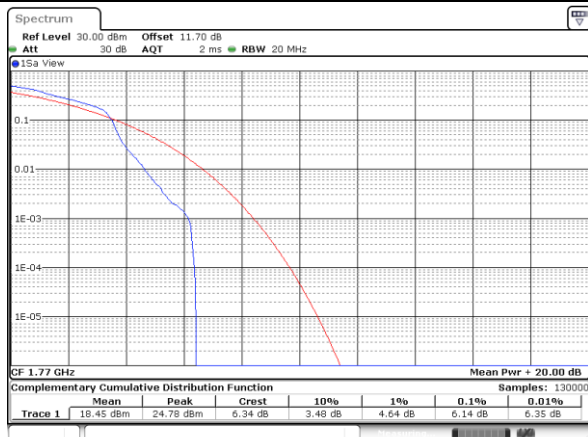
Middle Channel / 1RB



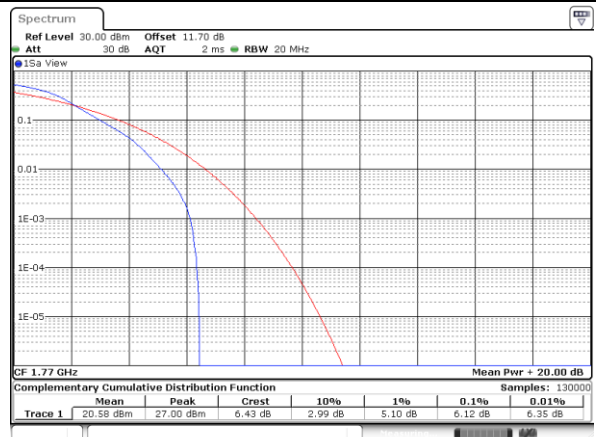
Middle Channel / Full RB



Highest Channel / 1RB



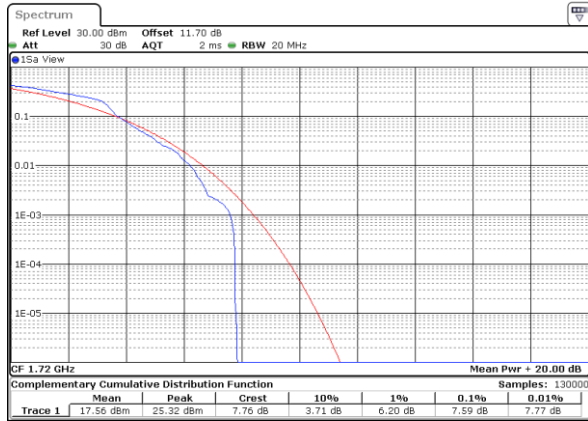
Highest Channel / Full RB





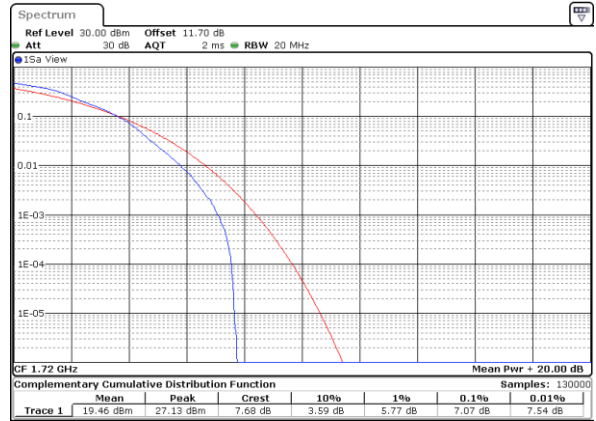
FR1 n66 / 20MHz / 16QAM / DFT-S OFDM

Lowest Channel / 1RB



Date: 25 FEB 2020 06:47:15

Lowest Channel / Full RB



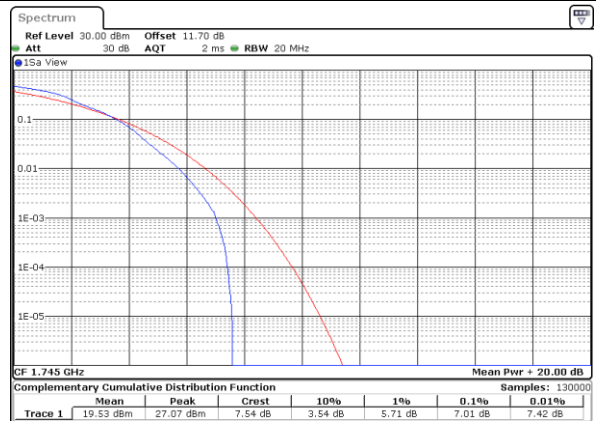
Date: 25 FEB 2020 06:45:22

Middle Channel / 1RB



Date: 25 FEB 2020 07:05:52

Middle Channel / Full RB



Date: 25 FEB 2020 07:04:19

Highest Channel / 1RB



Date: 25 FEB 2020 07:16:43

Highest Channel / Full RB

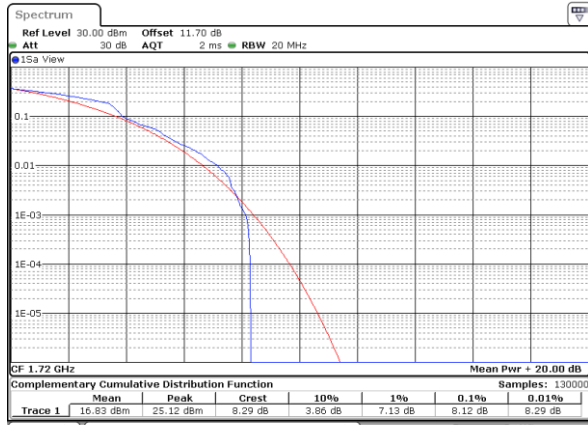


Date: 25 FEB 2020 07:18:24



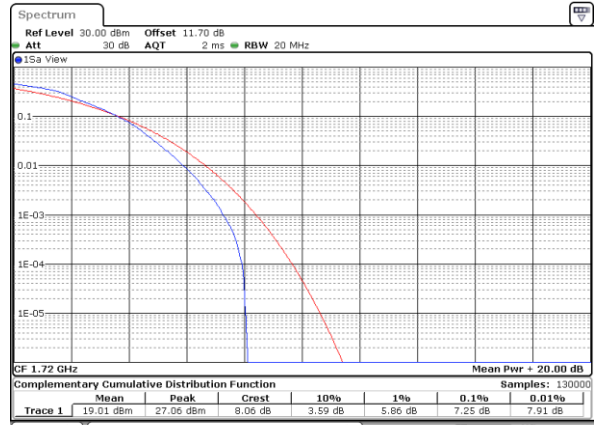
FR1 n66 / 20MHz / 64QAM / DFT-S OFDM

Lowest Channel / 1RB



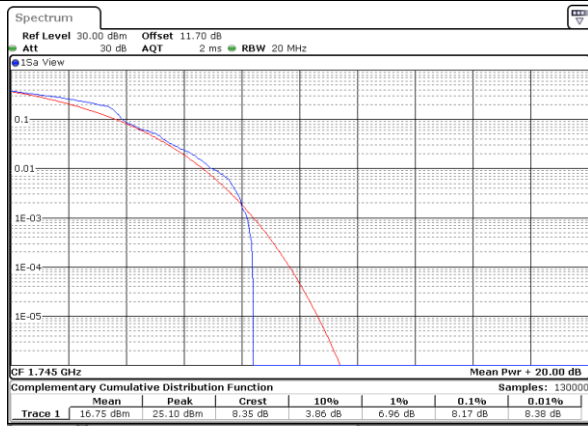
Date: 25 FEB 2020 06:47:34

Lowest Channel / Full RB



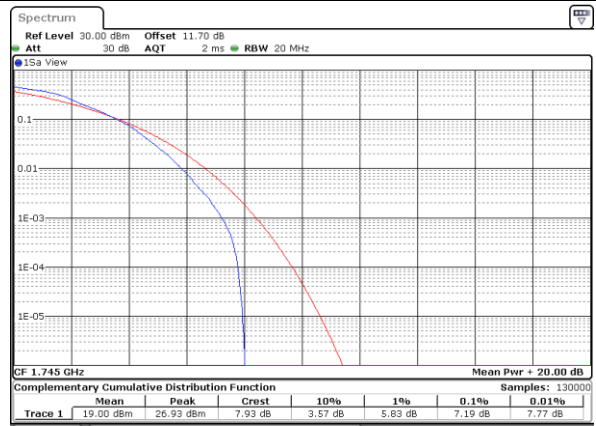
Date: 25 FEB 2020 06:45:47

Middle Channel / 1RB



Date: 25 FEB 2020 07:06:03

Middle Channel / Full RB



Date: 25 FEB 2020 07:04:44

Highest Channel / 1RB



Date: 25 FEB 2020 07:17:30

Highest Channel / Full RB

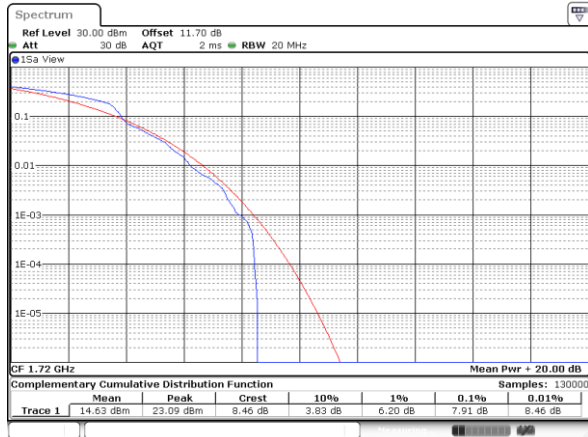


Date: 25 FEB 2020 07:18:48

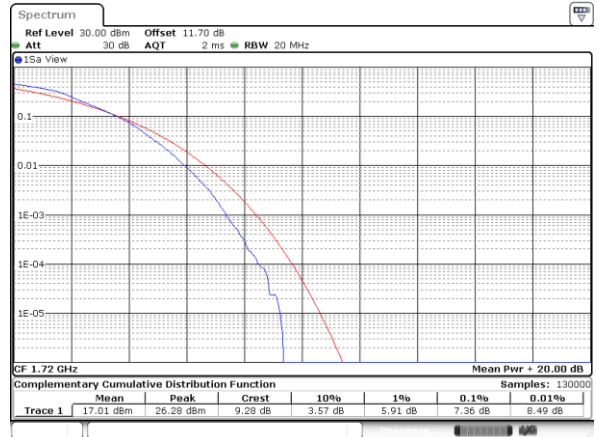


FR1 n66 / 20MHz / 256QAM / DFT-S OFDM

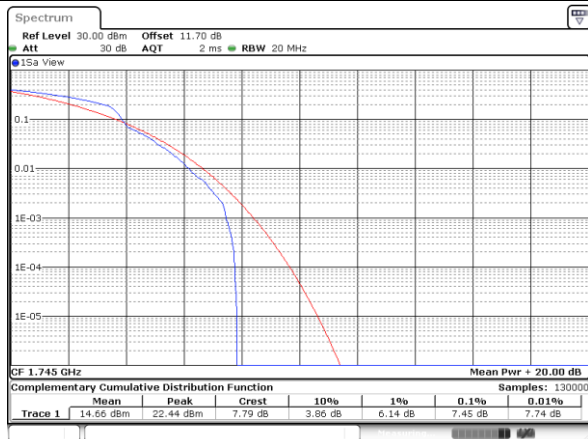
Lowest Channel / 1RB



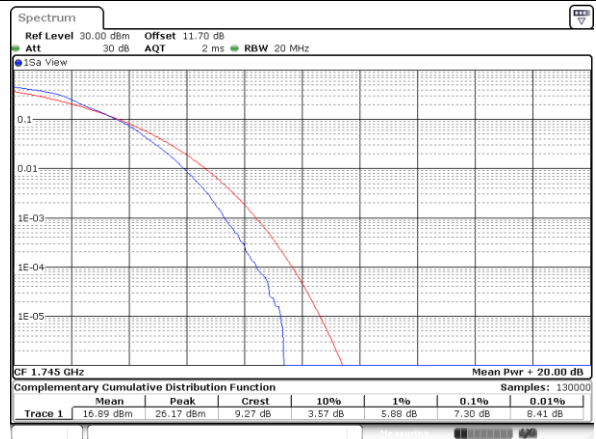
Lowest Channel / Full RB



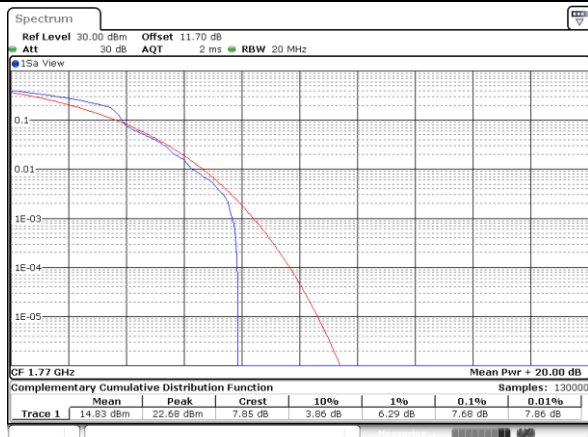
Middle Channel / 1RB



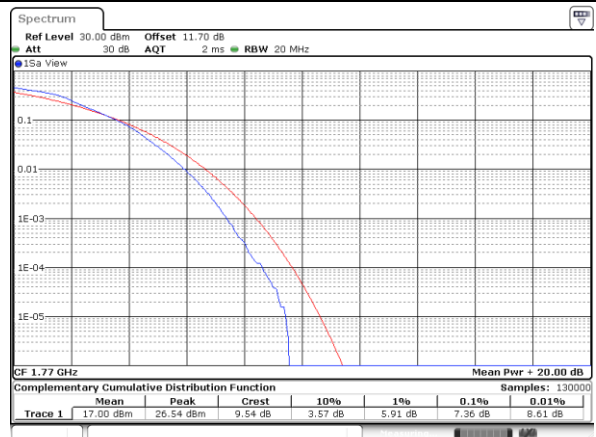
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



**26dB Bandwidth**

Mode	FR1 n66 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK	PI/2 BPSK	QPSK
Lowest CH	5.38	5.20	9.75	9.65	14.30	14.39	18.86	18.70
Middle CH	5.21	5.29	9.75	9.63	14.15	14.18	18.90	18.74
Highest CH	5.18	5.31	9.71	9.65	14.24	14.30	18.70	18.70
Mode	FR1 n66 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	16QAM	64QAM	16QAM	64QAM	16QAM	64QAM	16QAM	64QAM
Lowest CH	5.32	5.21	10.13	9.87	14.18	14.24	18.78	18.78
Middle CH	5.28	5.38	9.83	9.79	14.42	14.27	18.98	18.74
Highest CH	5.27	5.33	9.67	9.75	14.39	14.18	18.86	18.86
Mode	FR1 n66 : 26dB BW(MHz) / DFT-S OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	256QAM	-	256QAM	-	256QAM	-	256QAM	-
Lowest CH	5.39	-	9.65	-	14.30	-	18.66	-
Middle CH	5.31	-	9.71	-	14.24	-	18.86	-
Highest CH	5.32	-	9.69	-	14.36	-	18.70	-

Mode	FR1 n66 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	5.20	5.16	10.25	10.17	15.23	14.93	19.90	19.86
Middle CH	5.22	5.41	10.15	10.05	14.99	15.02	19.78	19.74
Highest CH	5.28	5.32	10.09	10.17	14.08	14.87	19.86	19.74
Mode	FR1 n66 : 26dB BW(MHz) / CP OFDM							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	5.39	5.25	10.09	10.03	14.96	14.99	19.82	19.74
Middle CH	5.41	5.17	9.97	10.07	14.90	14.81	19.82	19.82
Highest CH	5.14	5.20	10.13	10.03	14.93	14.87	19.90	19.82