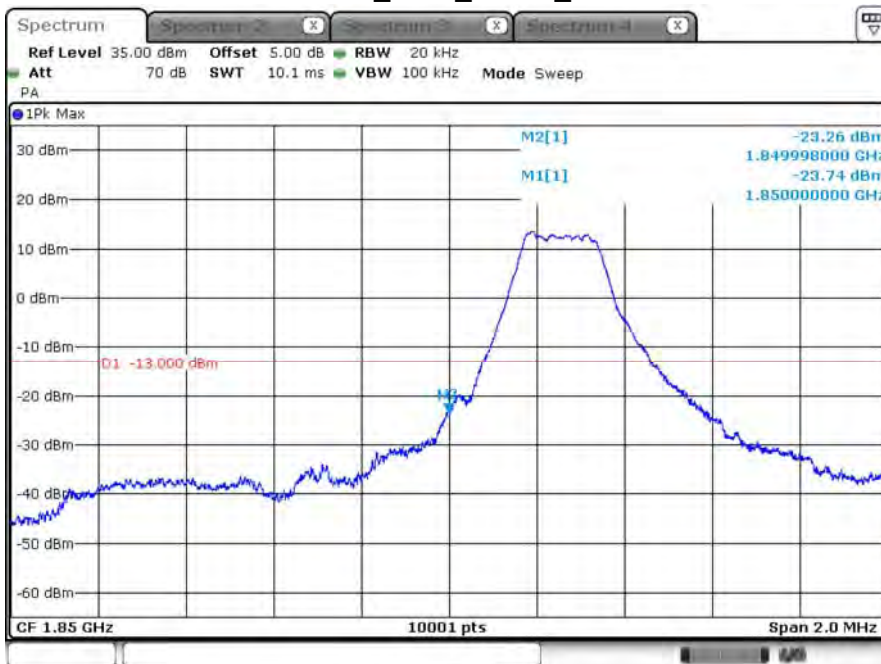


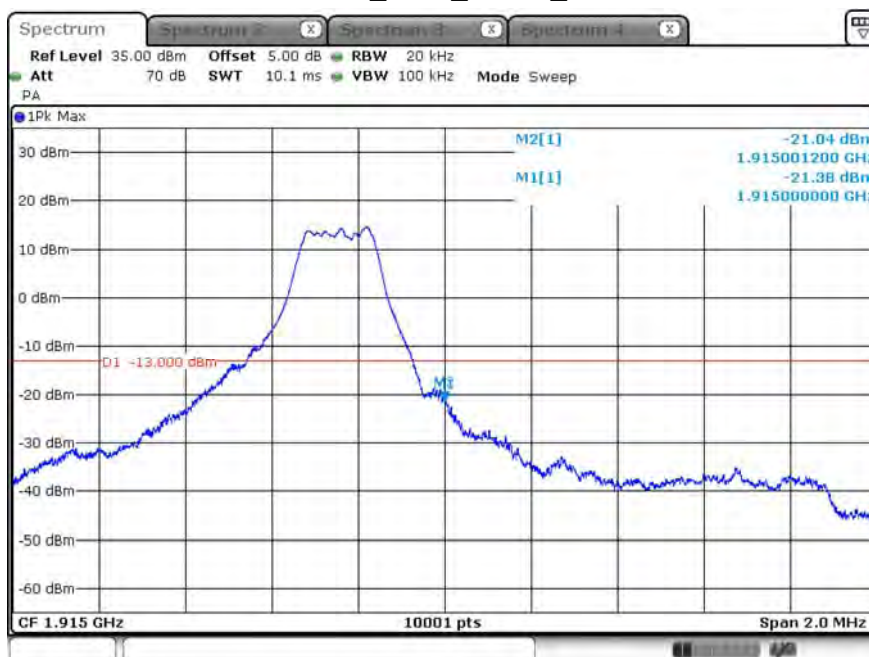
Product	LM960		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 11: LTE Band 25		
Date of Test	2018/05/17	Test Site	SR10-H

### CH26047\_1.4M\_QPSK\_1RB0



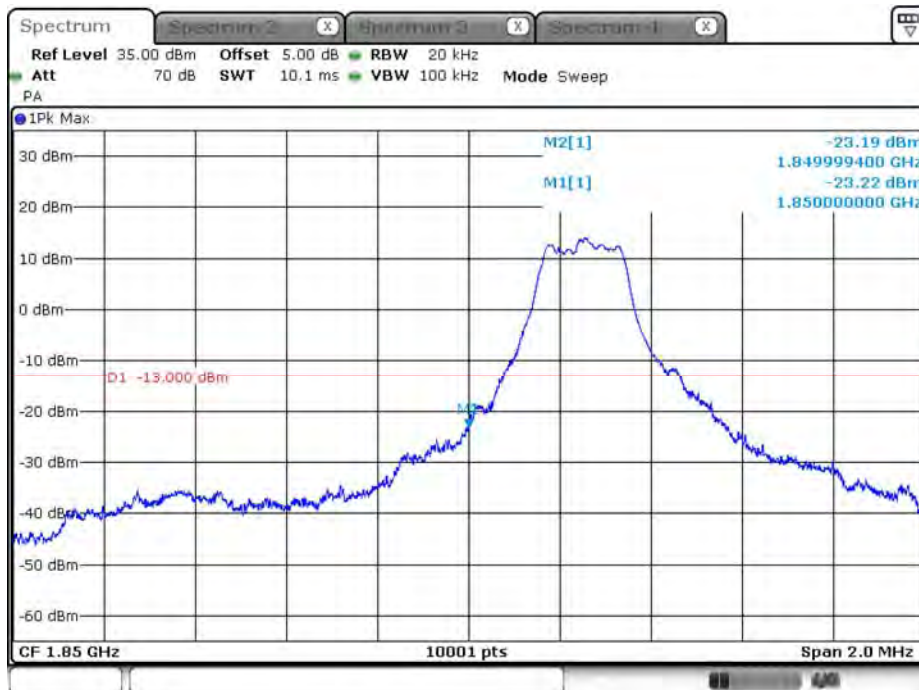
Date: 17.MAY.2018 15:53:16

### CH26683\_1.4M\_QPSK\_1RB5



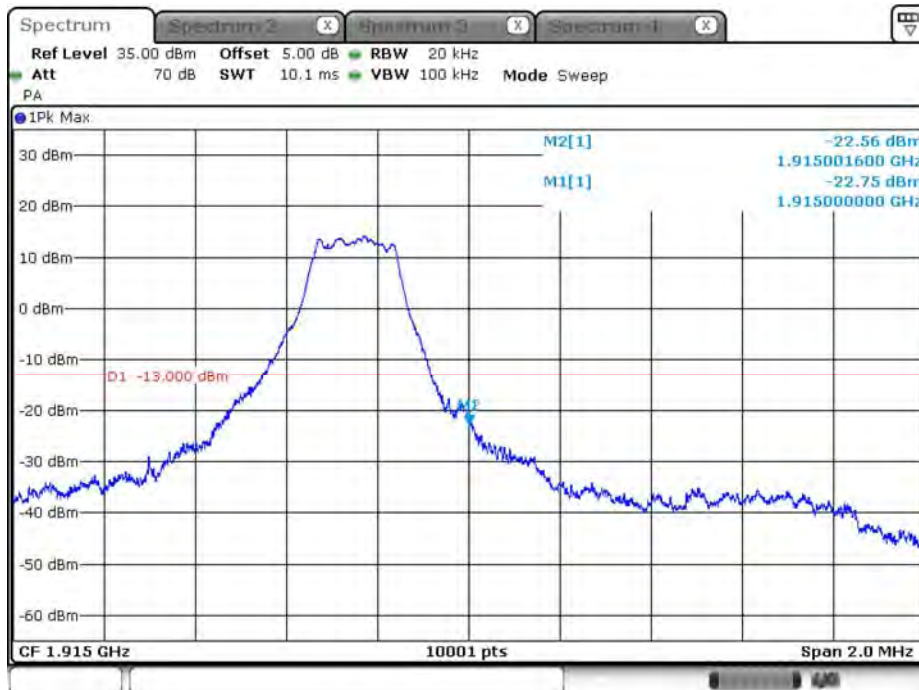
Date: 17.MAY.2018 15:59:44

### CH26047\_1.4M\_16-QAM\_1RB0



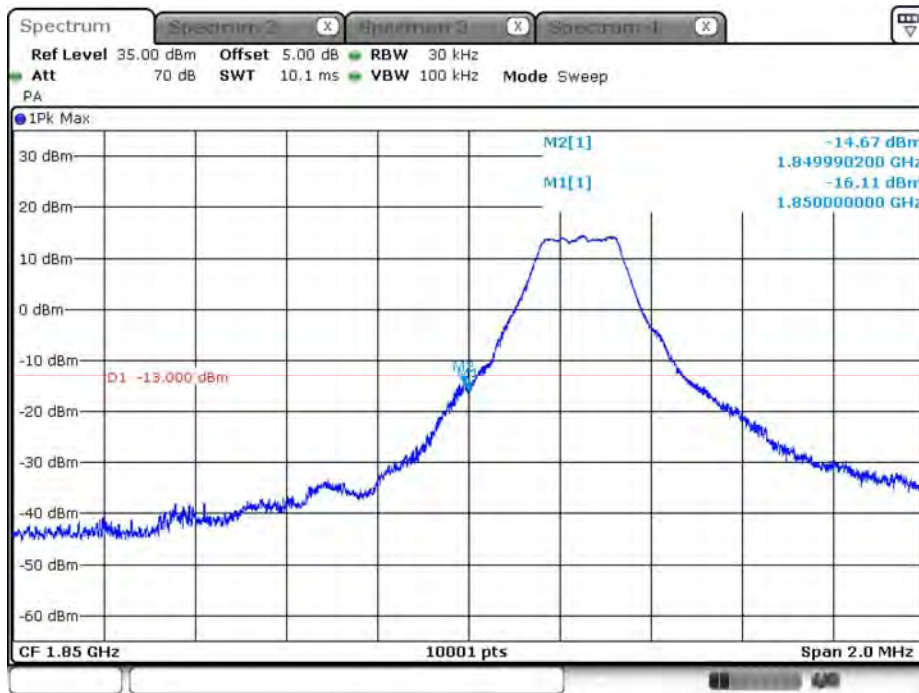
Date: 17.MAY.2018 15:56:23

### CH26683\_1.4M\_16-QAM\_1RB5



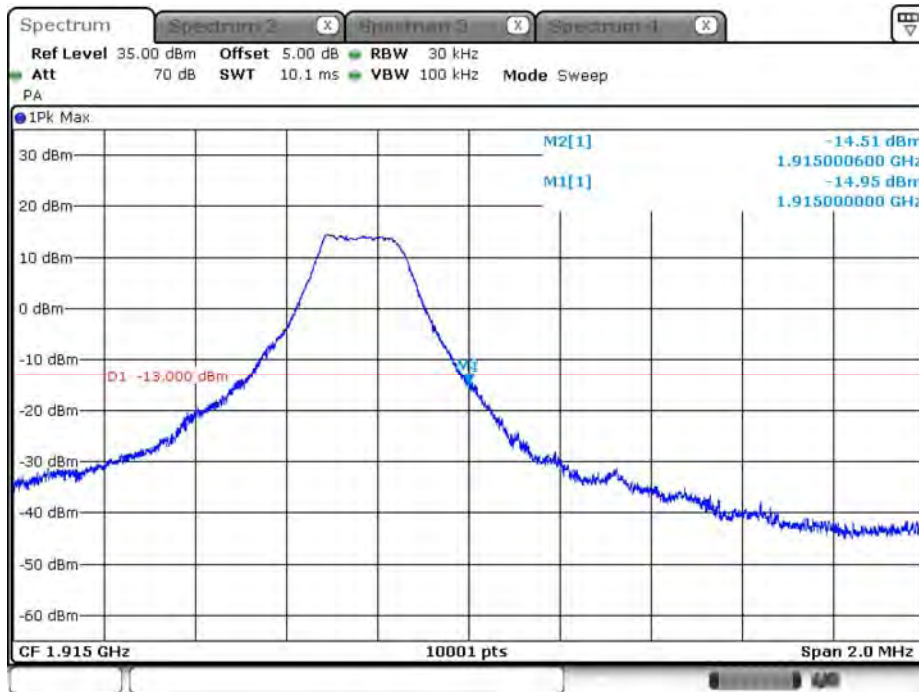
Date: 17.MAY.2018 16:01:36

### CH26055\_3M\_QPSK\_1RB0



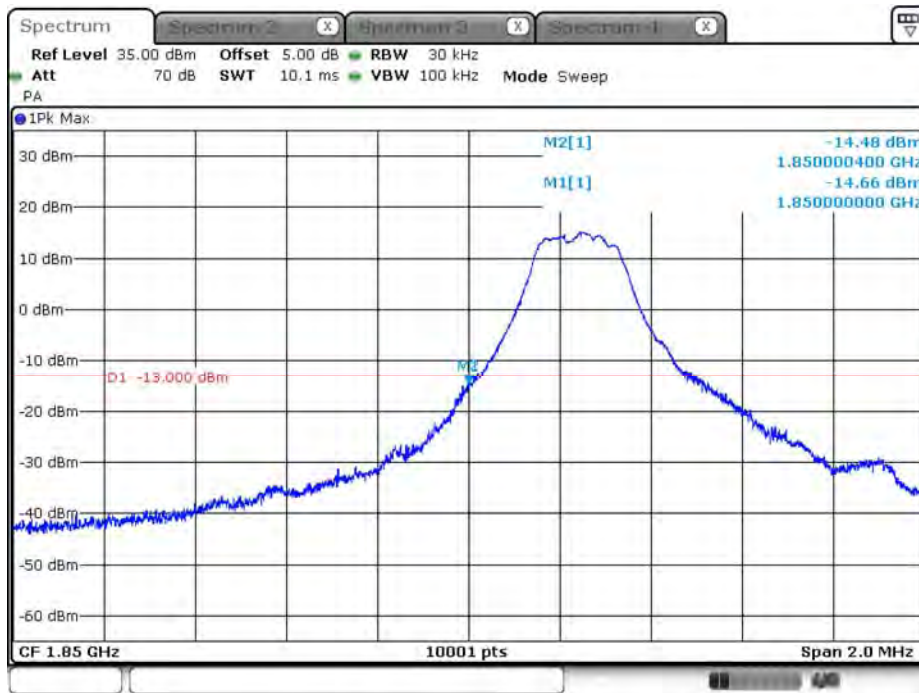
Date: 17.MAY.2018 16:04:07

### CH26675\_3M\_QPSK\_1RB14

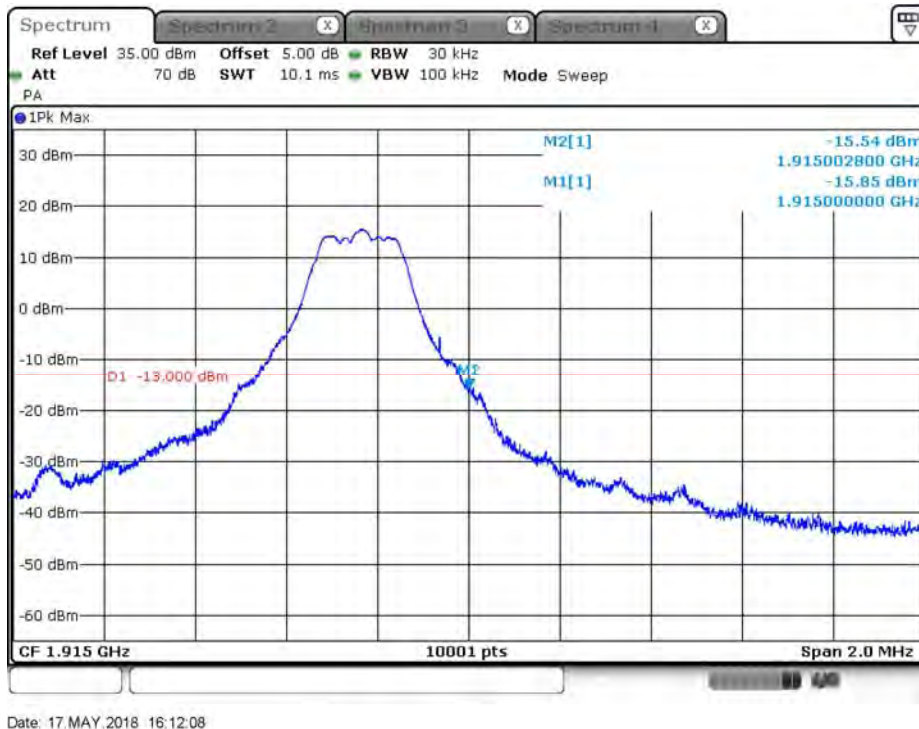


Date: 17.MAY.2018 16:09:27

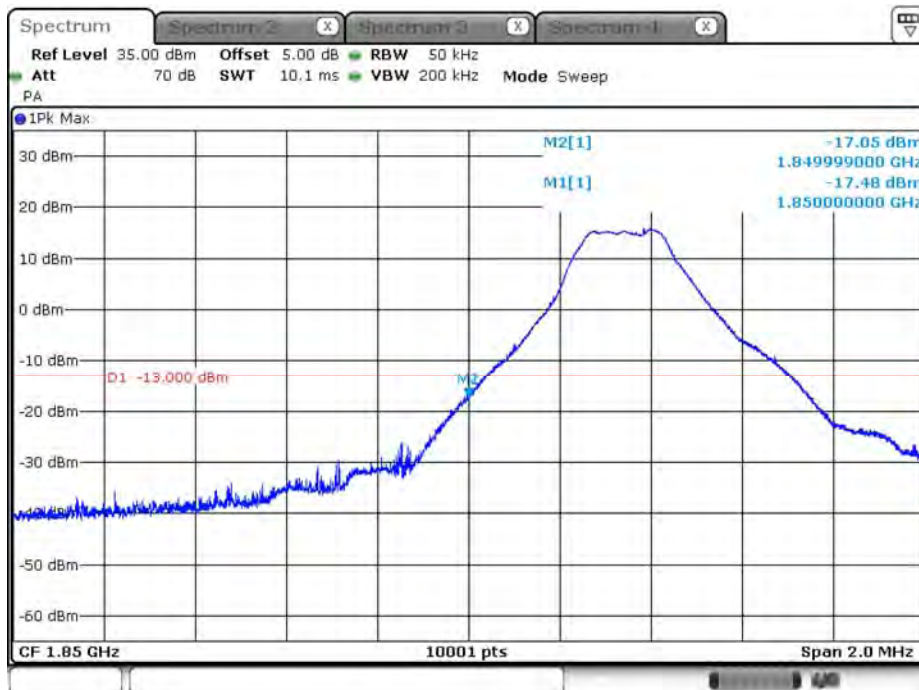
### CH26055\_3M\_16-QAM\_1RB0



### CH26675\_3M\_16-QAM\_1RB14

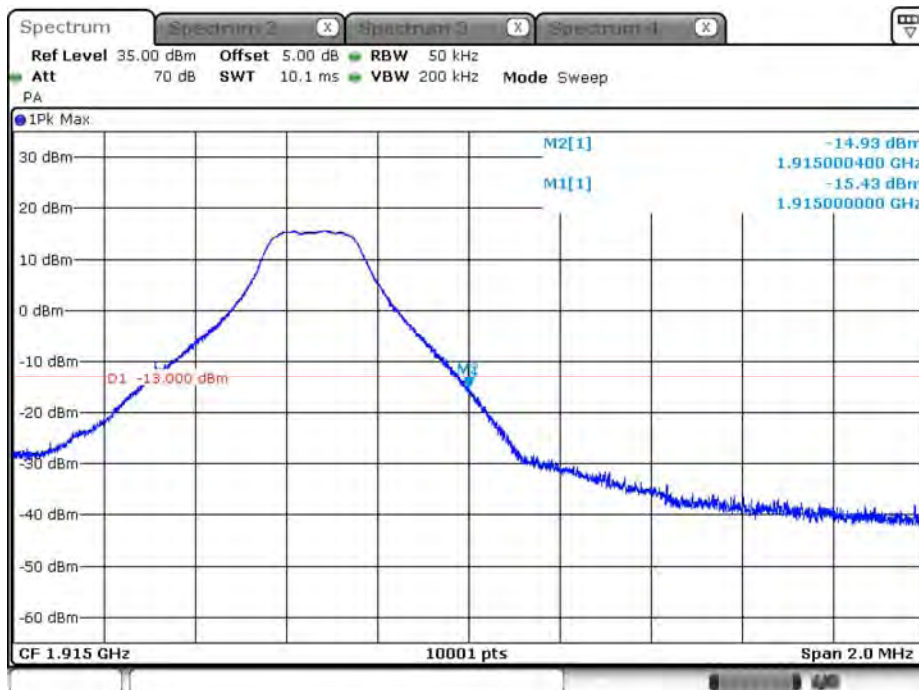


### CH26065\_5M\_QPSK\_1RB0



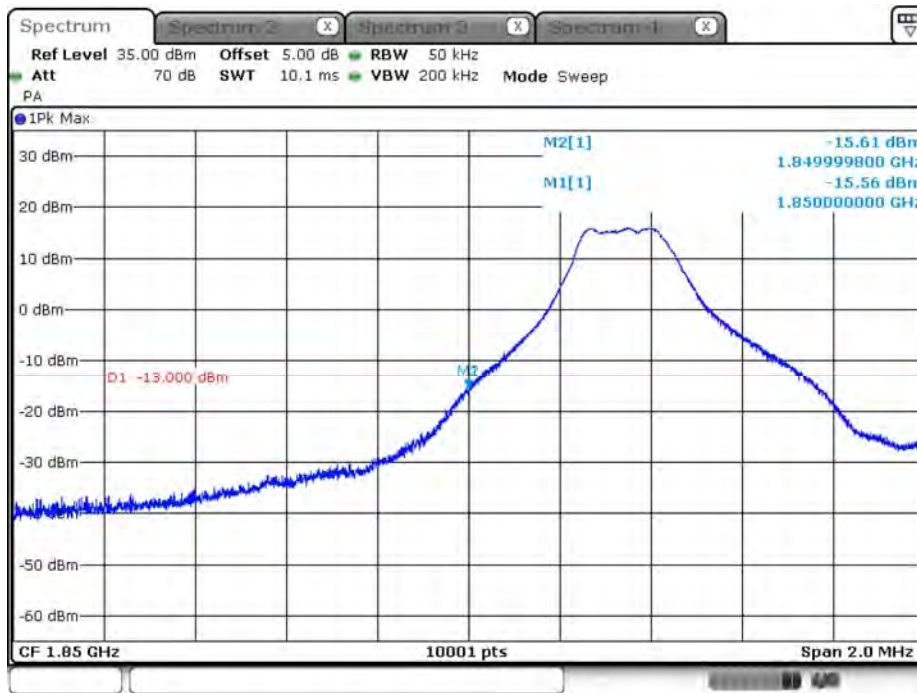
Date: 17.MAY.2018 16:23:37

### CH26665\_5M\_QPSK\_1RB24



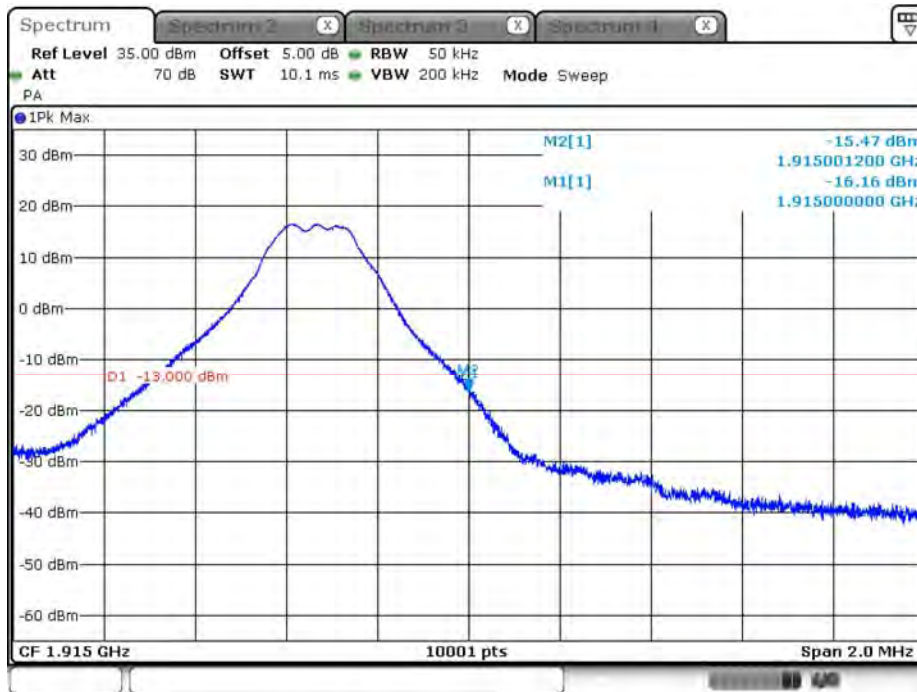
Date: 17.MAY.2018 16:30:46

### CH26065\_5M\_16-QAM\_1RB0



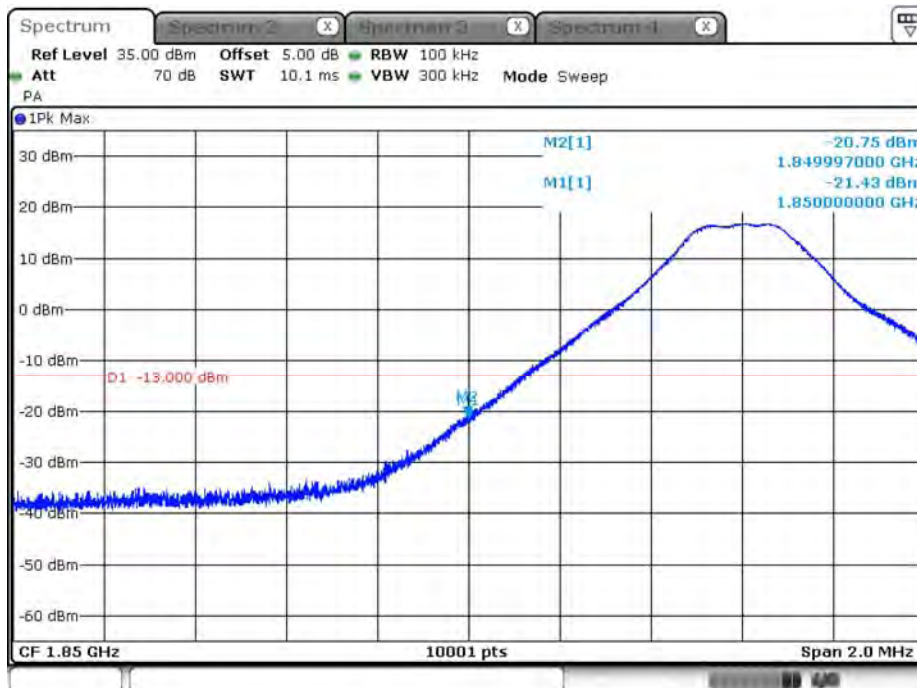
Date: 17.MAY.2018 16:26:49

### CH26665\_5M\_16-QAM\_1RB24



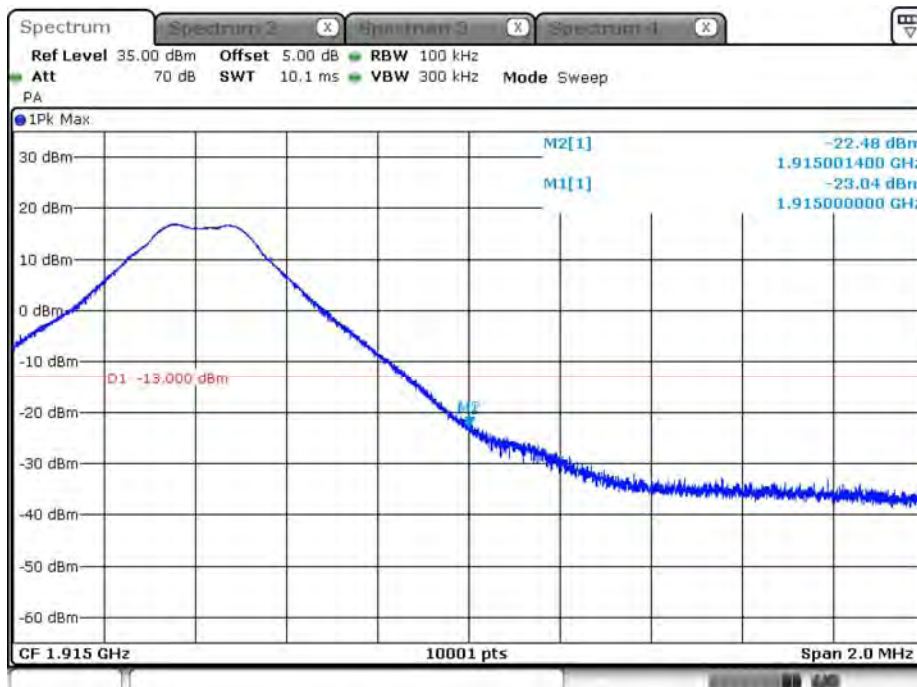
Date: 17.MAY.2018 16:33:12

### CH26090\_10M\_QPSK\_1RB0



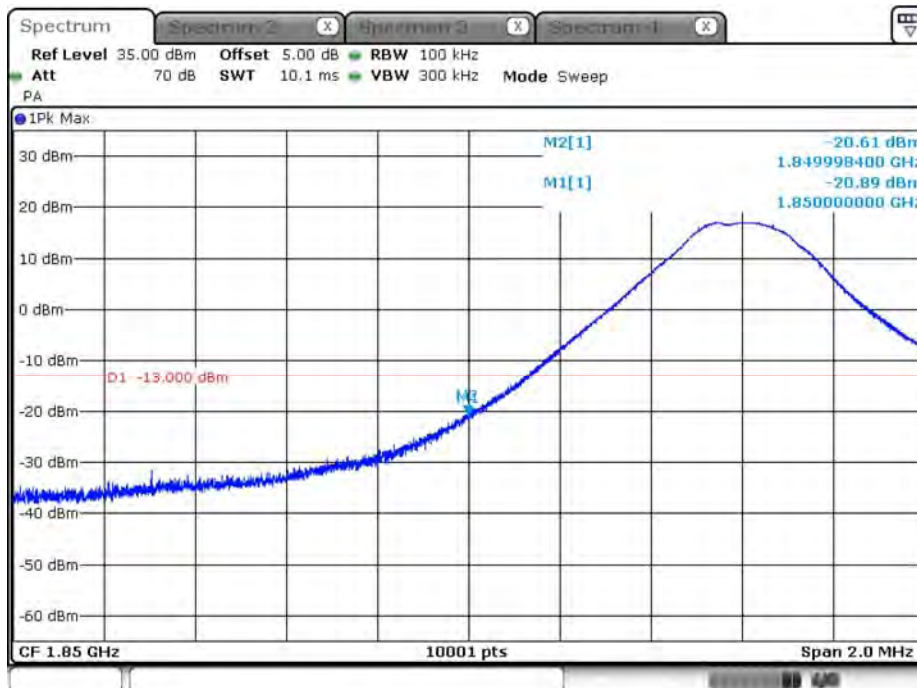
Date: 17 MAY 2018 16:36:22

### CH26640\_10M\_QPSK\_1RB49



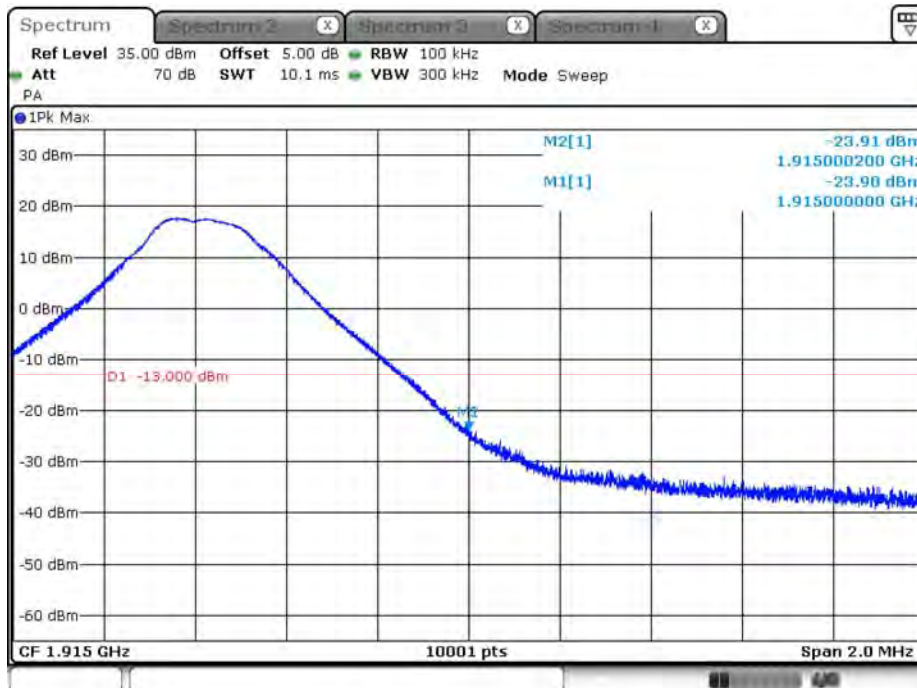
Date: 17 MAY 2018 16:44:26

### CH26090\_10M\_16-QAM\_1RB0



Date: 17.MAY.2018 16:40:34

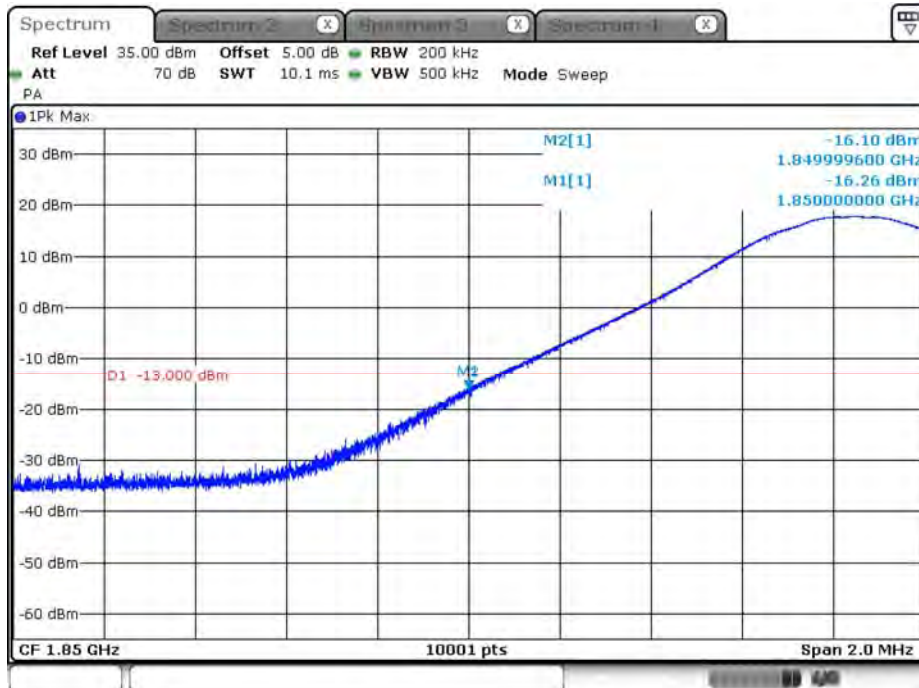
### CH26640\_10M\_16-QAM\_1RB49



Date: 17.MAY.2018 16:46:43

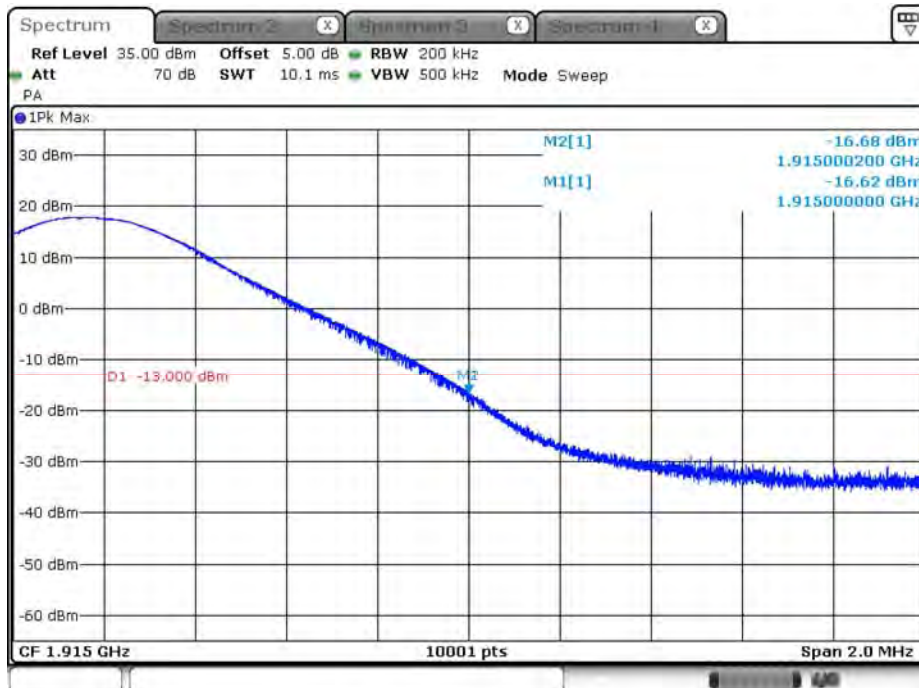


### CH26115\_15M\_QPSK\_1RB0



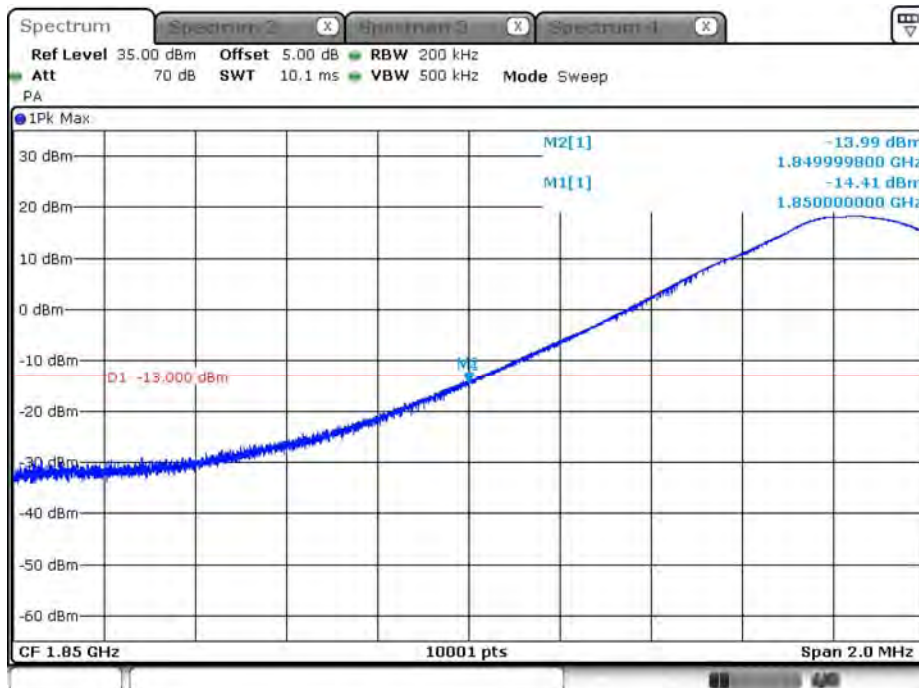
Date: 17.MAY.2018 16:57:40

### CH26615\_15M\_QPSK\_1RB74



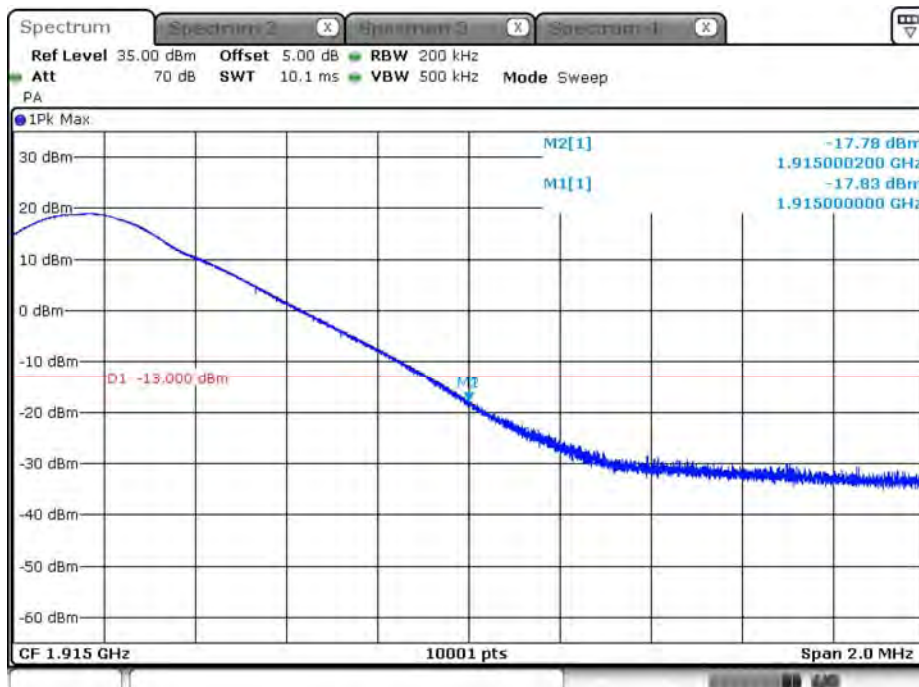
Date: 17.MAY.2018 17:10:47

### CH26115\_15M\_16-QAM\_1RB0



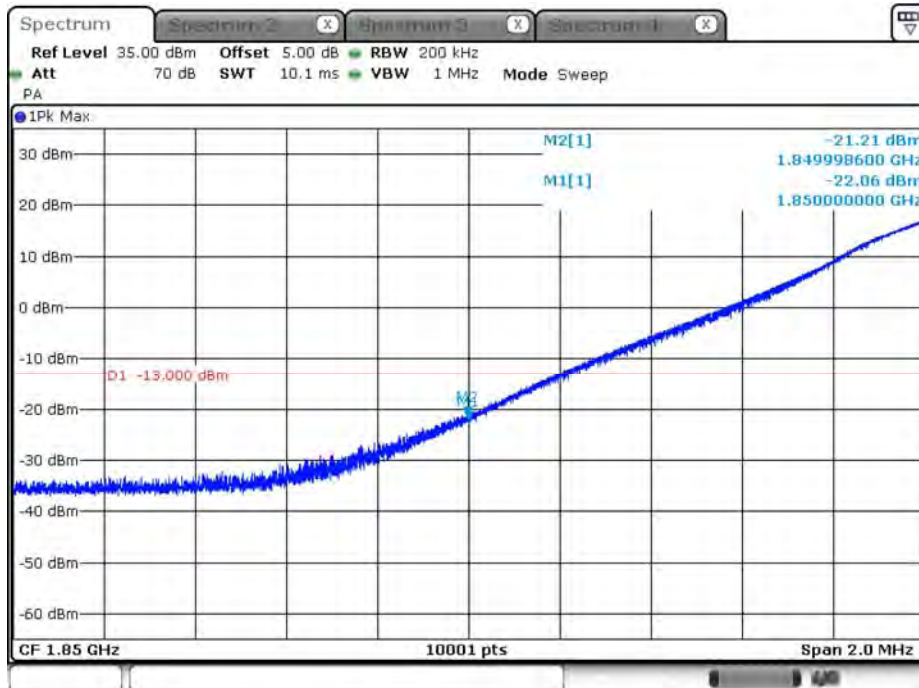
Date: 17.MAY.2018 17:03:25

### CH26615\_15M\_16-QAM\_1RB74



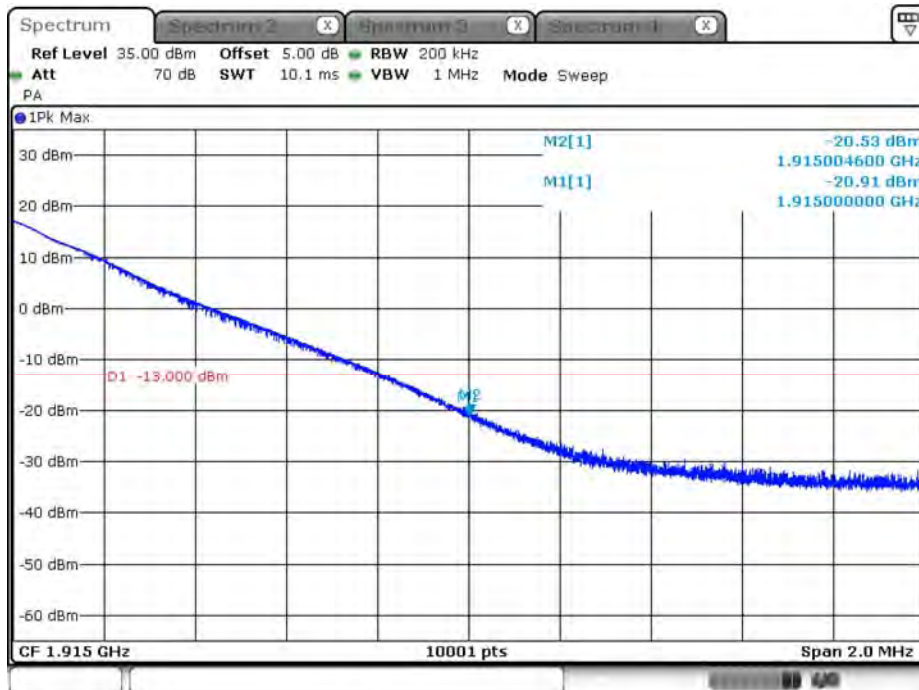
Date: 17.MAY.2018 17:16:24

### CH26140\_20M\_QPSK\_1RB0



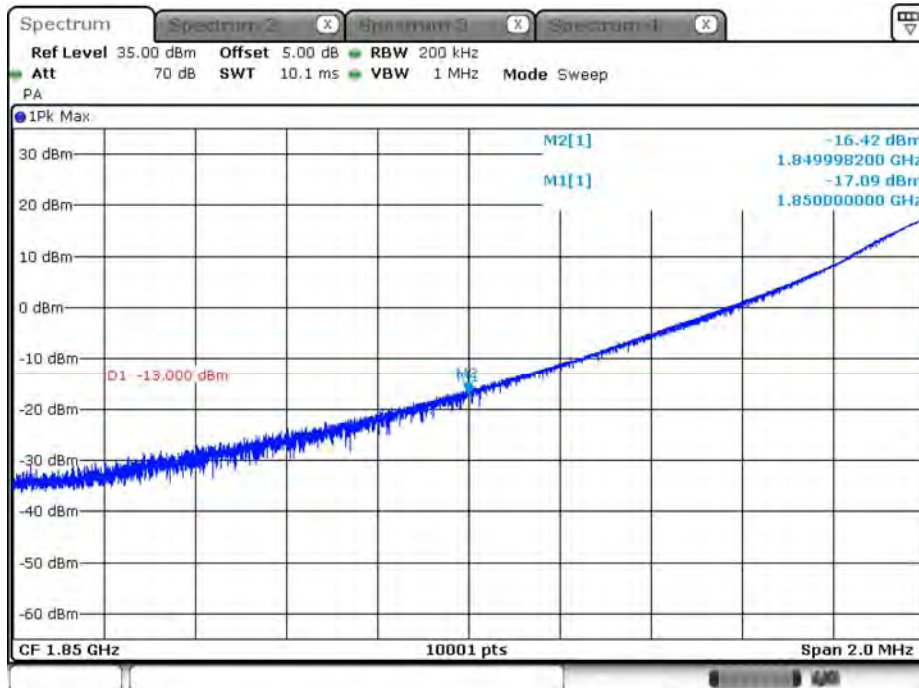
Date: 17.MAY.2018 17:21:39

### CH26590\_20M\_QPSK\_1RB99



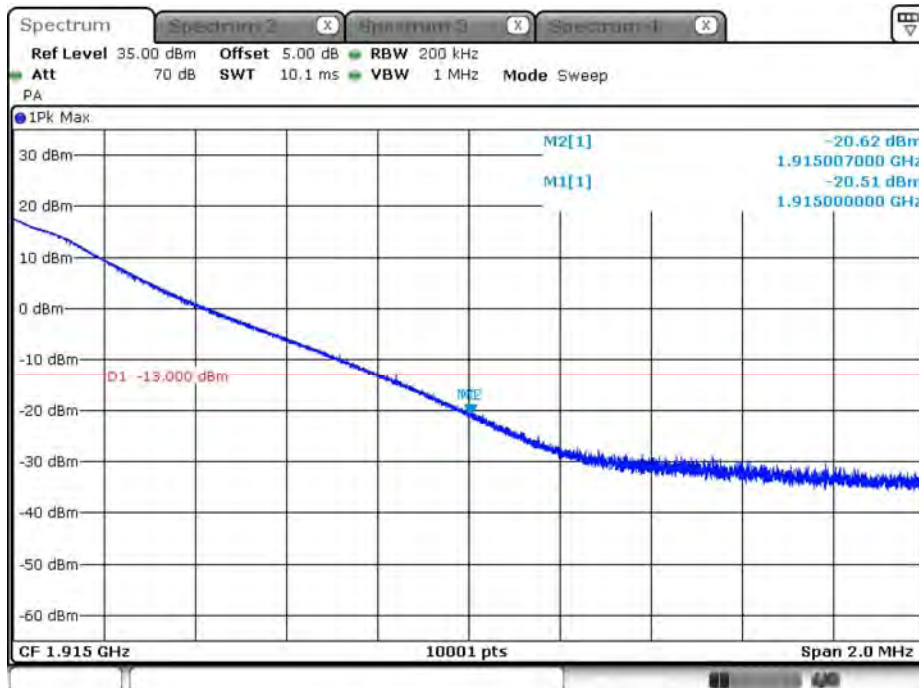
Date: 17.MAY.2018 17:29:20

### CH26140\_20M\_16-QAM\_1RB0



Date: 17.MAY.2018 17:24:20

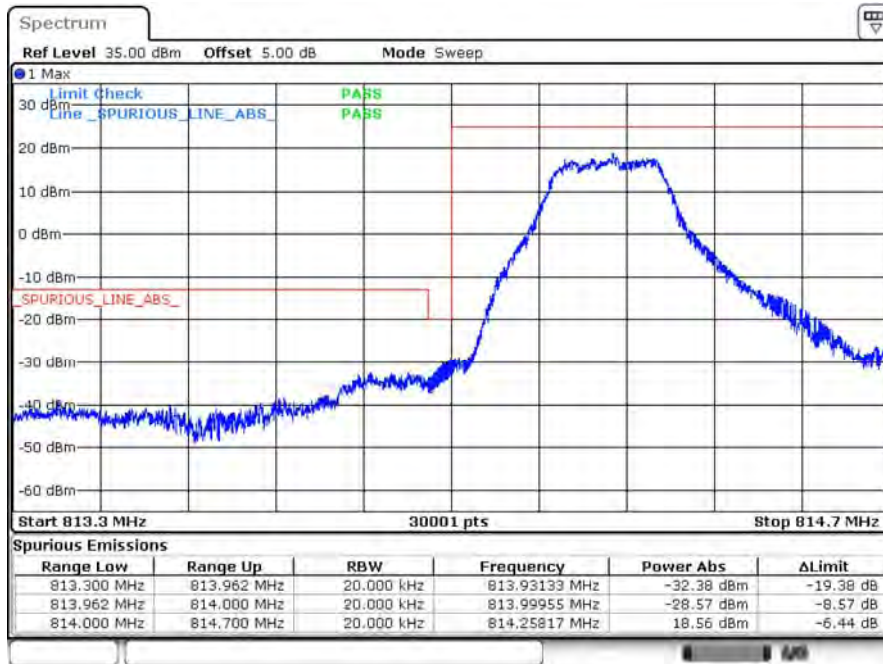
### CH26590\_20M\_16-QAM\_1RB99



Date: 17.MAY.2018 17:34:52

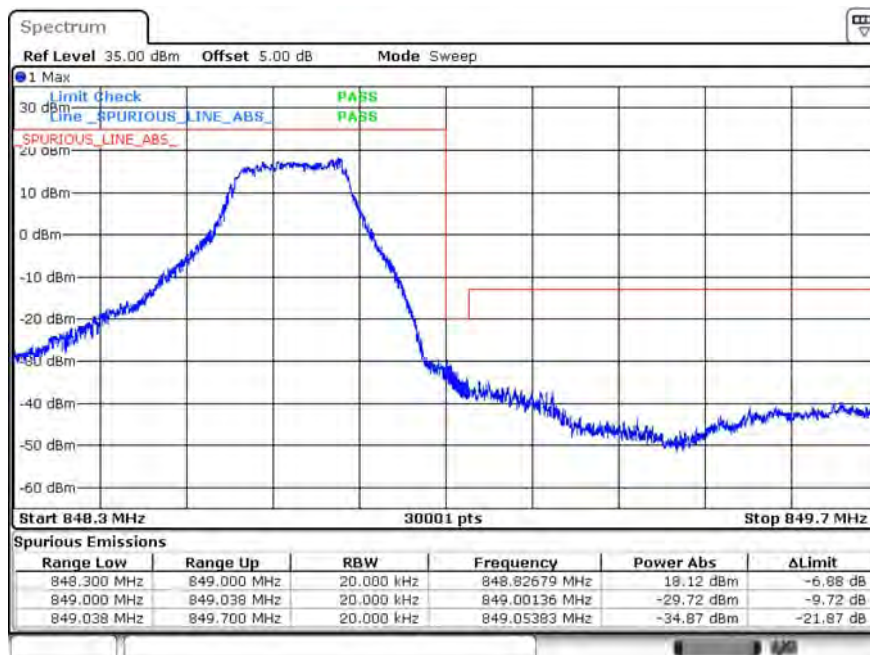
Product	LM960		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 12: LTE Band 26		
Date of Test	2018/08/21	Test Site	SR10-H

### CH26697\_1.4M\_QPSK\_1RB0



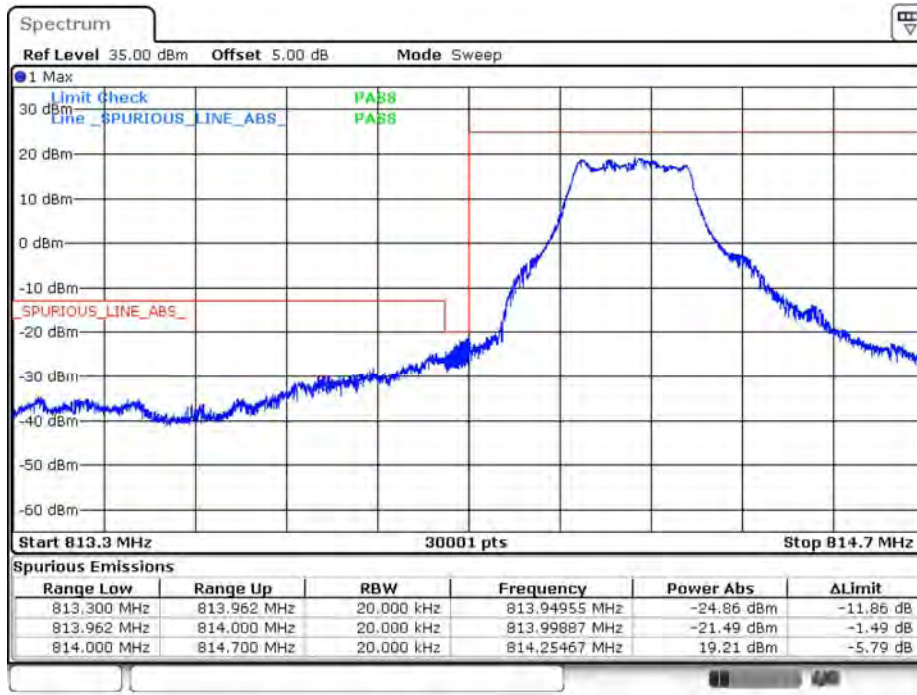
Date: 21 AUG 2018 17:27:54

### CH27033\_1.4M\_QPSK\_1RB5



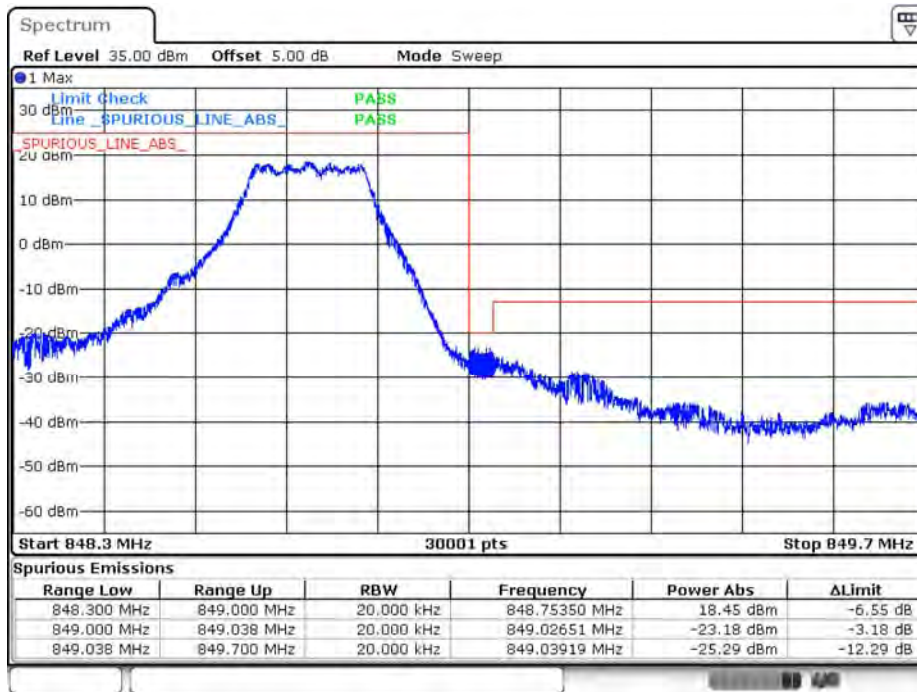
Date: 21 AUG 2018 17:31:39

### CH26697\_1.4M\_16-QAM\_1RB0



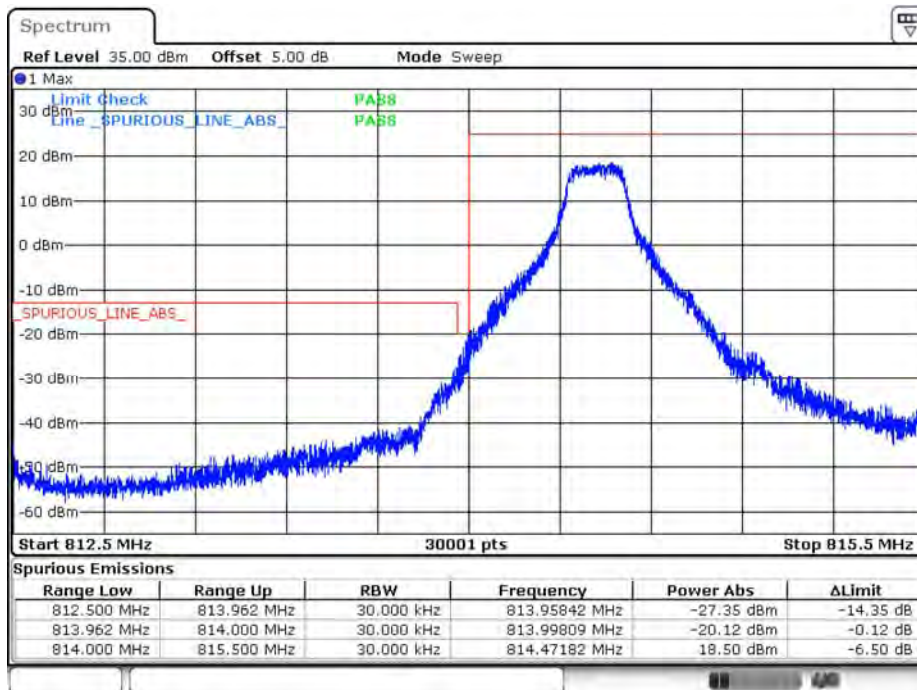
Date: 21 AUG 2018 17:29:13

### CH27033\_1.4M\_16-QAM\_1RB5



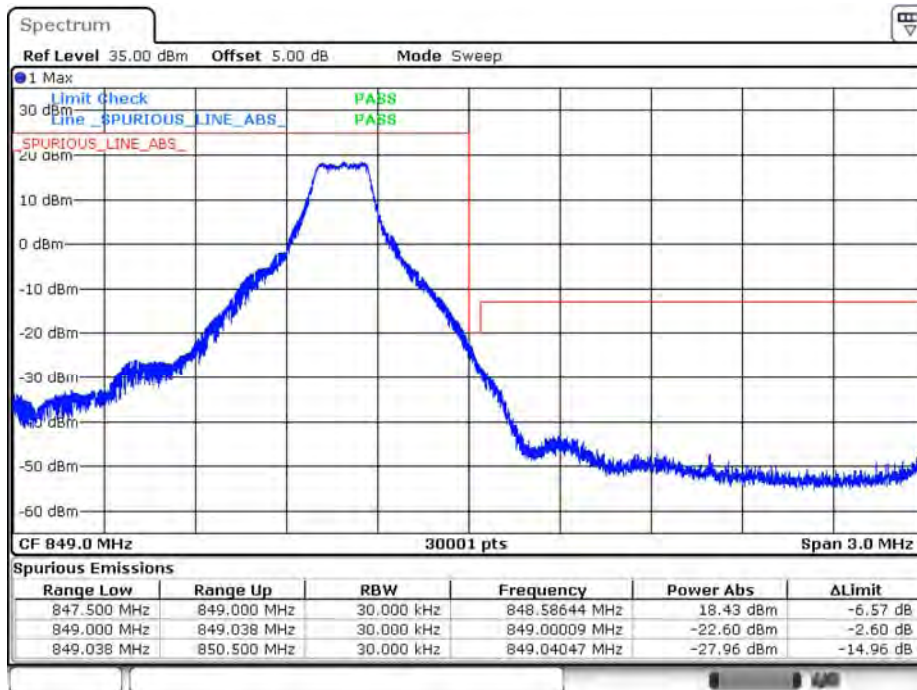
Date: 21 AUG 2018 17:30:42

### CH26705\_3M\_QPSK\_1RB0



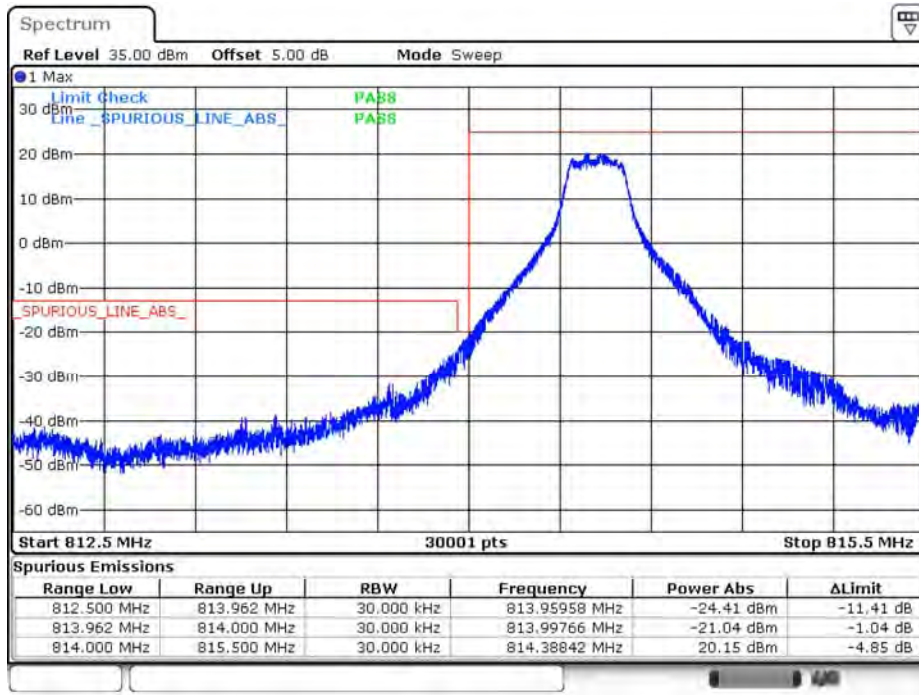
Date: 21.AUG.2018 17:37:59

### CH27025\_3M\_QPSK\_1RB14



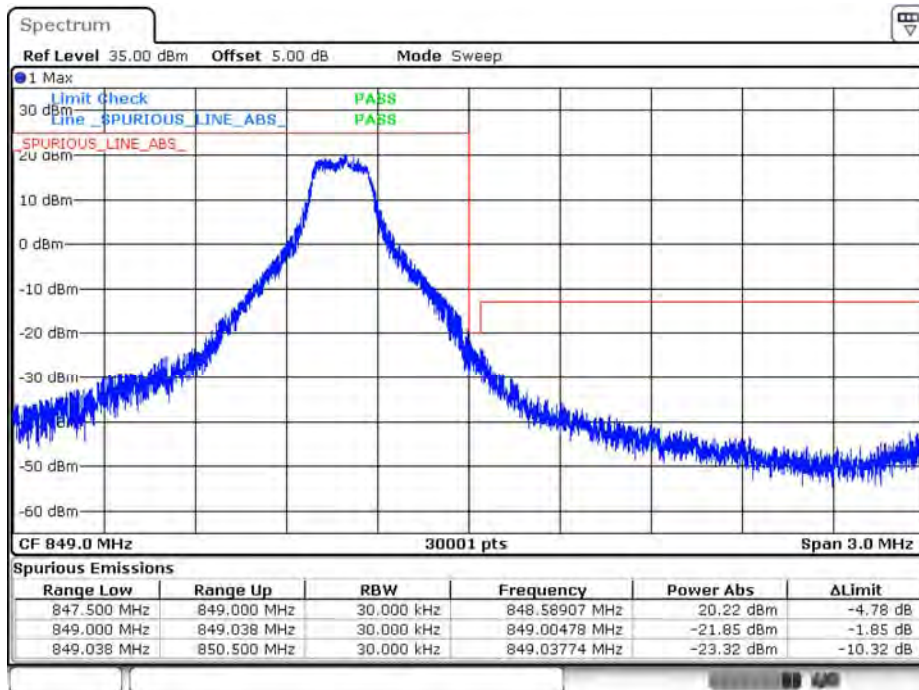
Date: 21.AUG.2018 17:45:16

### CH26705\_3M\_16-QAM\_1RB0



Date: 21.AUG.2018 17:41:12

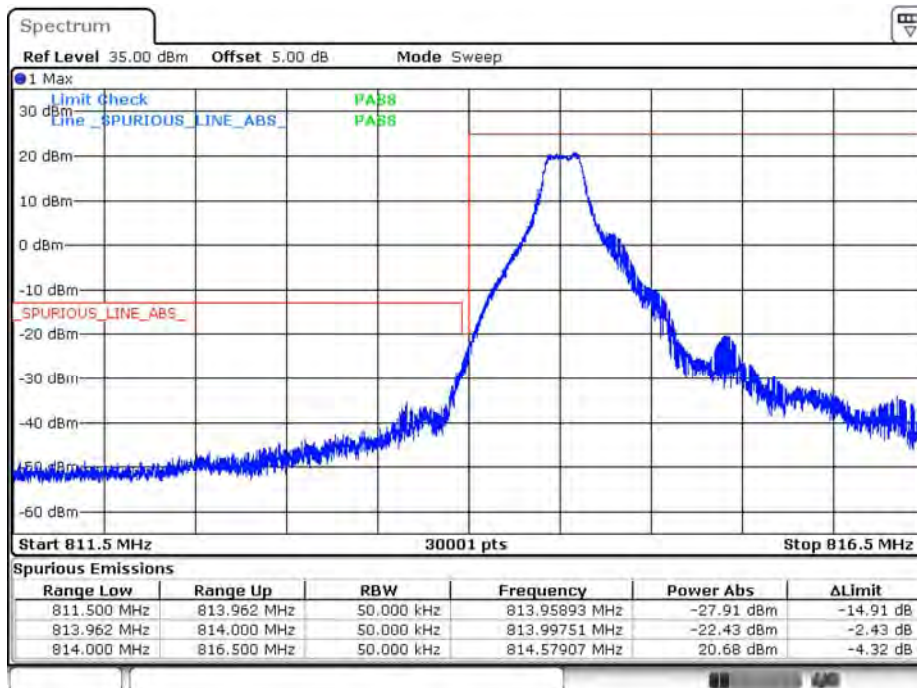
### CH27025\_3M\_16-QAM\_1RB14



Date: 21.AUG.2018 17:44:04

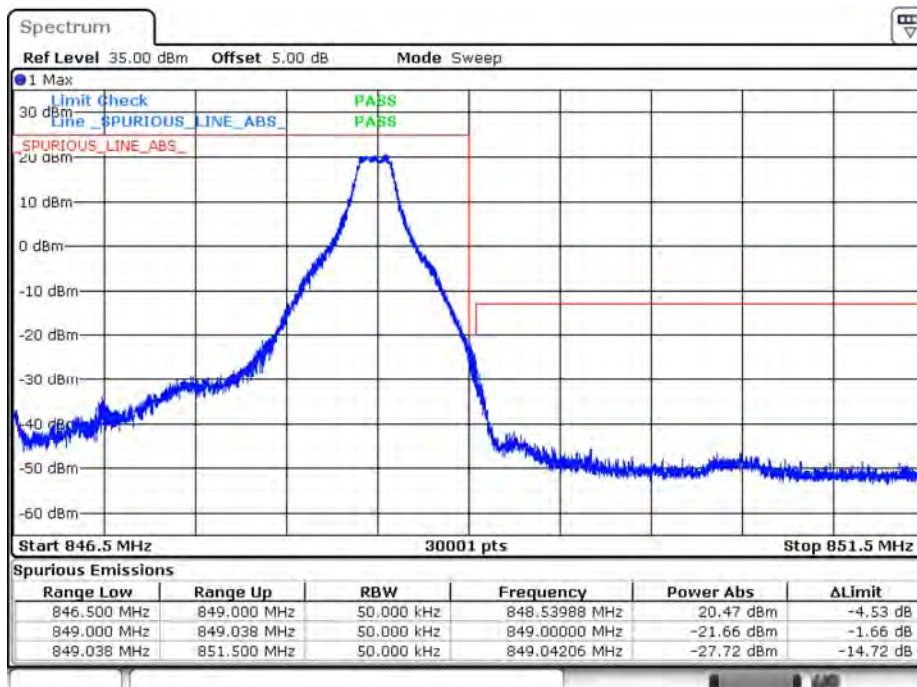


### CH26715\_5M\_QPSK\_1RB0



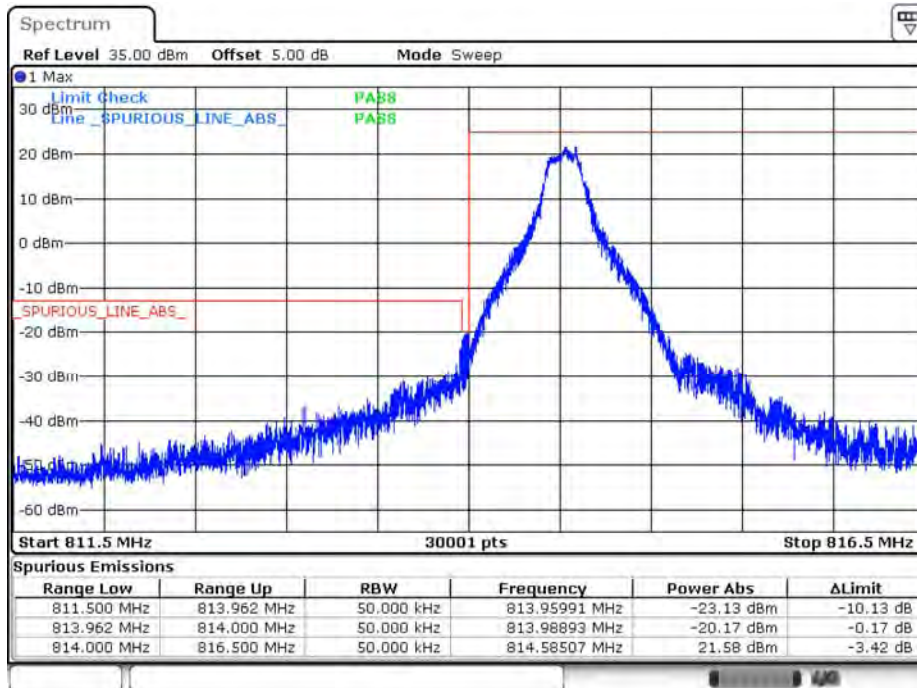
Date: 21.AUG.2018 17:50:41

### CH27015\_5M\_QPSK\_1RB24



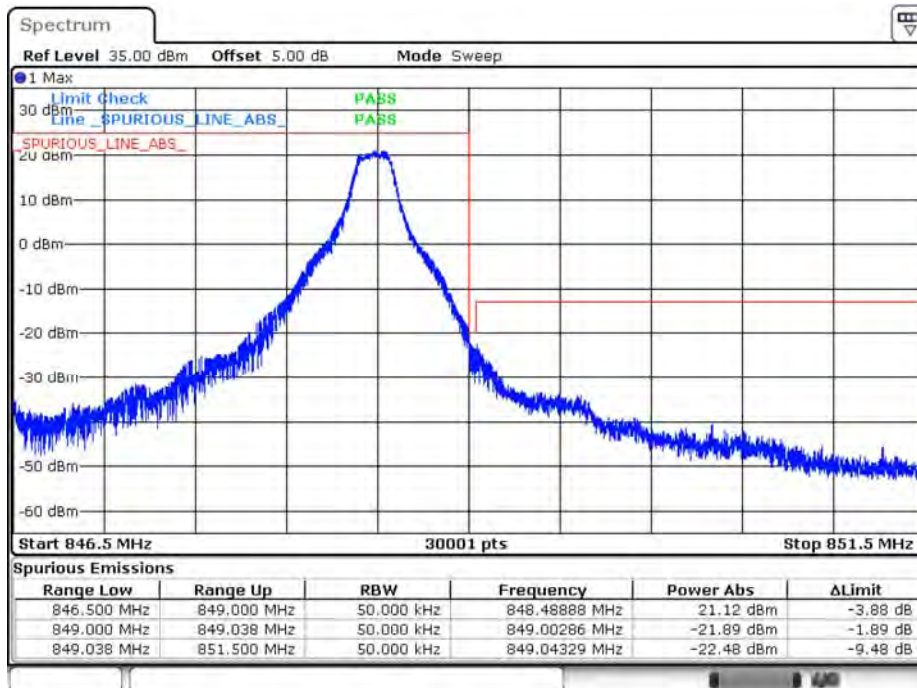
Date: 21.AUG.2018 17:54:24

### CH26715\_5M\_16-QAM\_1RB0



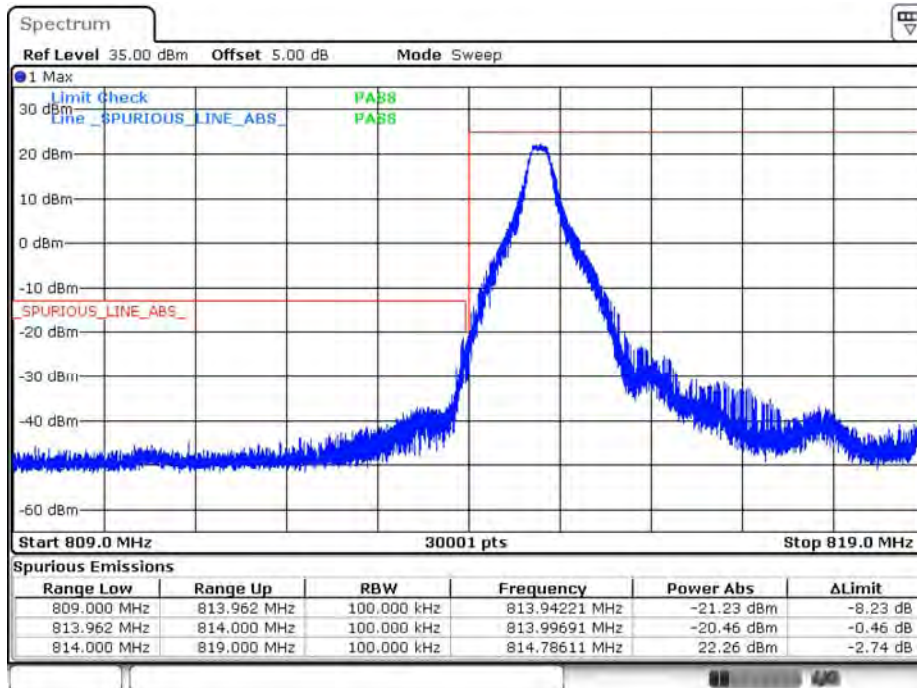
Date: 21.AUG.2018 17:51:51

### CH27015\_5M\_16-QAM\_1RB24



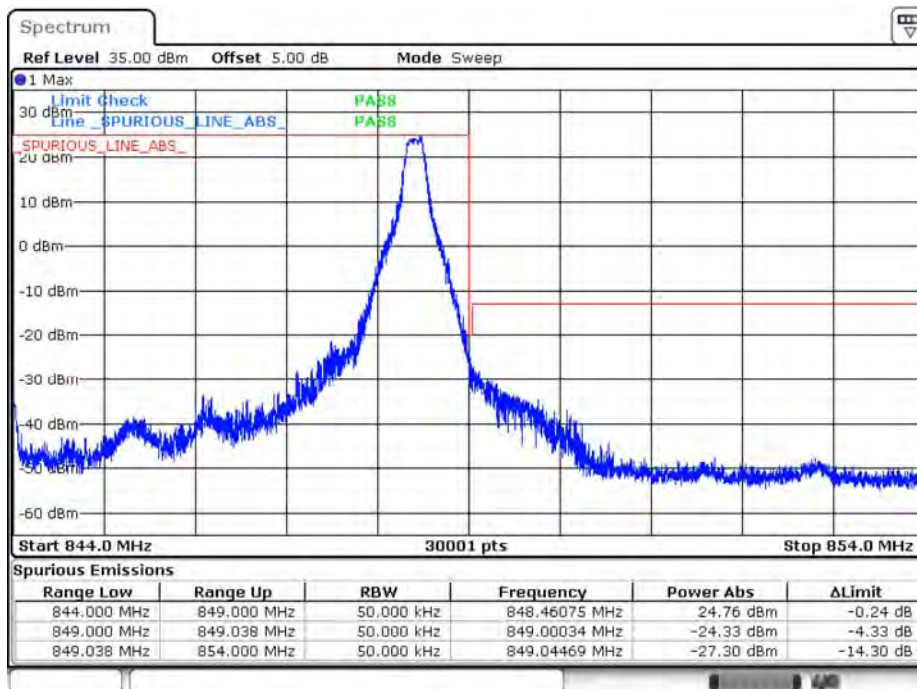
Date: 21.AUG.2018 17:53:30

### CH26740\_10M\_QPSK\_1RB0



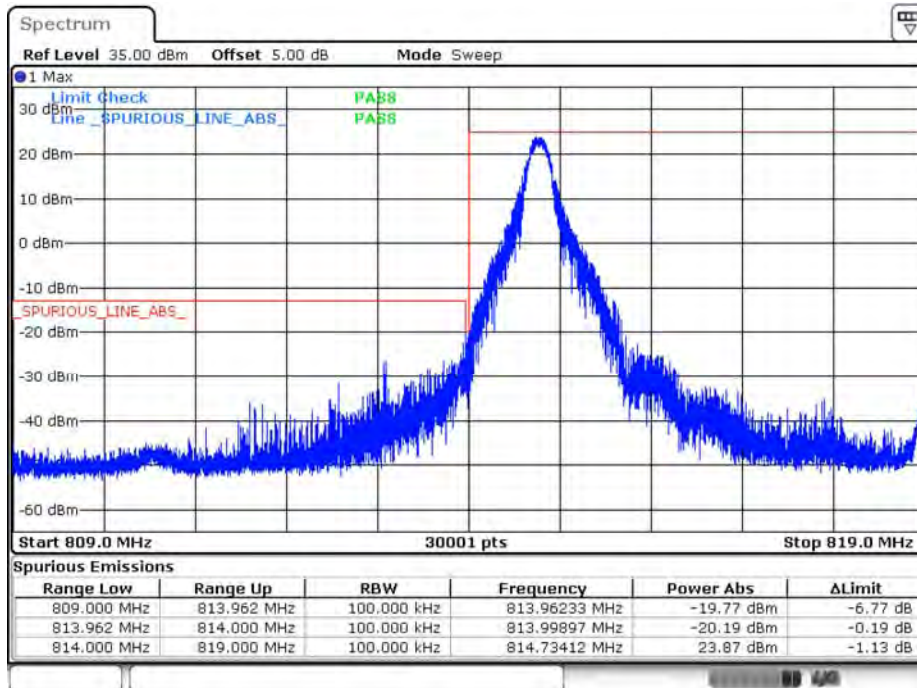
Date: 21 AUG 2018 18:44:34

### CH26990\_10M\_QPSK\_1RB49



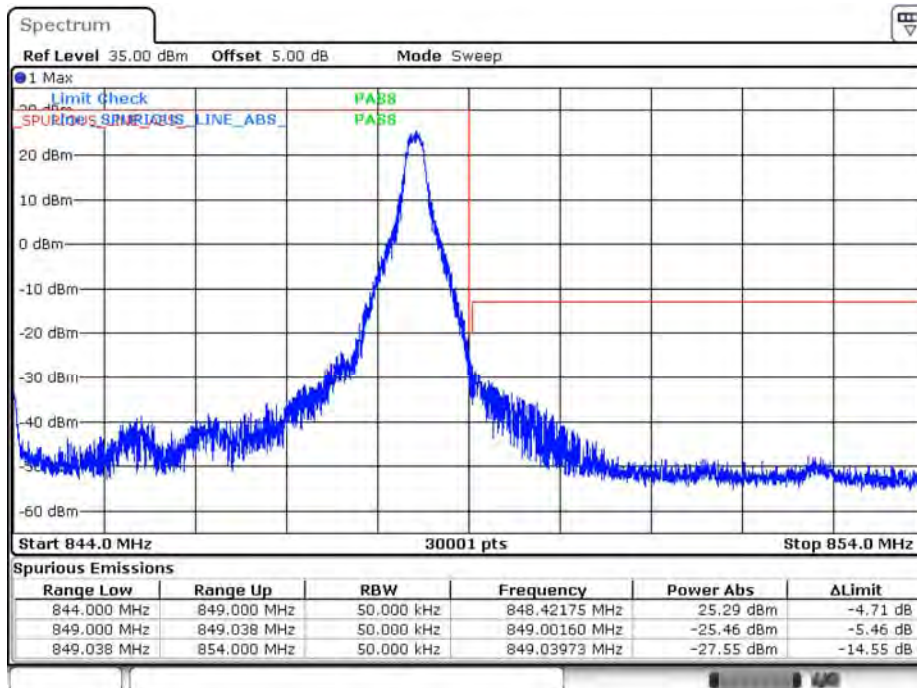
Date: 21 AUG 2018 18:36:57

### CH26740\_10M\_16-QAM\_1RB0



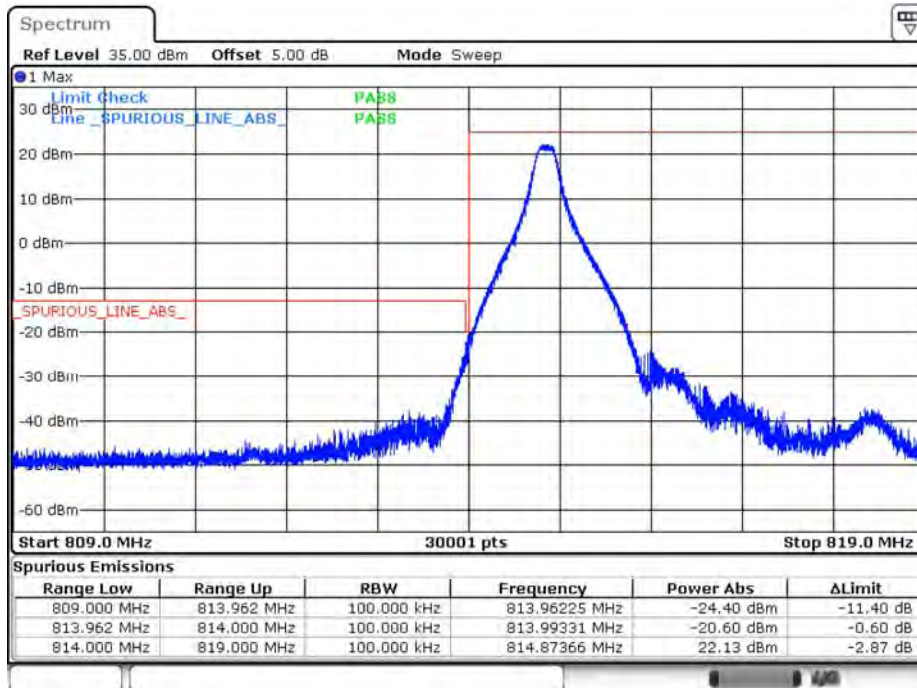
Date: 21 AUG 2018 18:43:48

### CH26990\_10M\_16-QAM\_1RB49



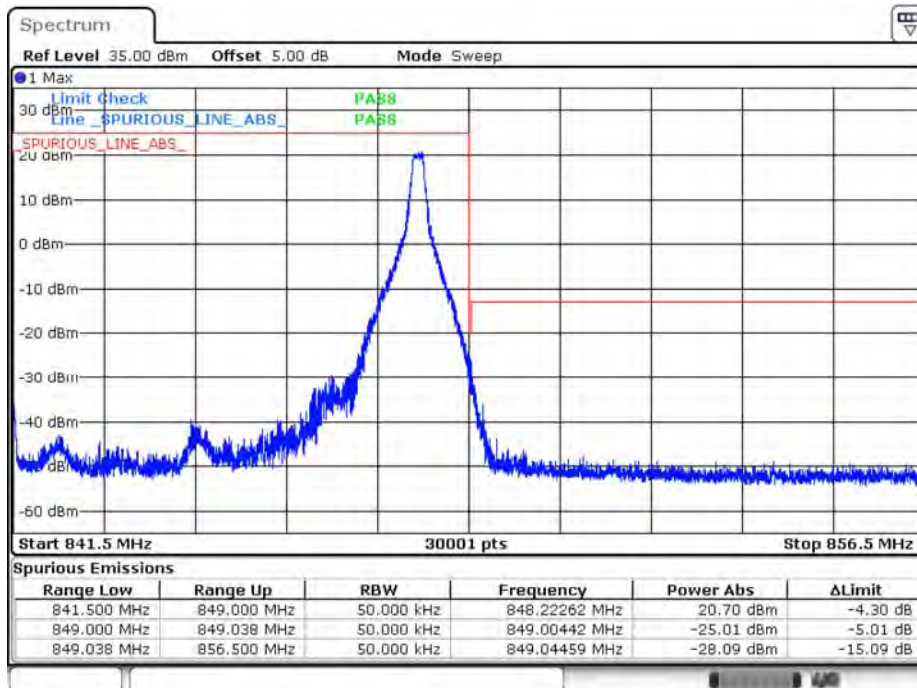
Date: 21 AUG 2018 18:39:56

### CH26765\_15M\_QPSK\_1RB0



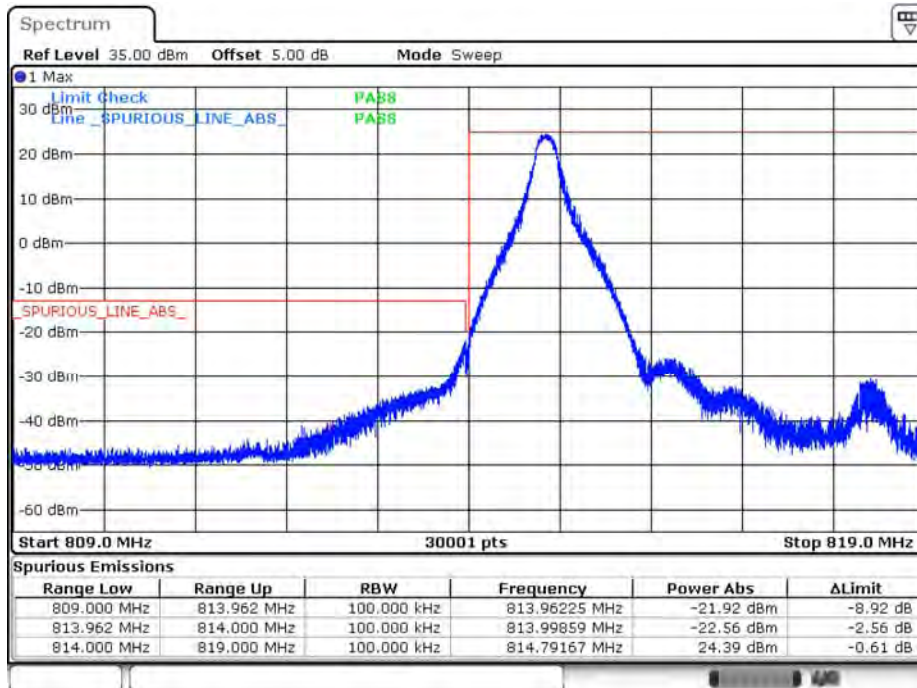
Date: 21 AUG 2018 18:02:34

### CH26965\_15M\_QPSK\_1RB74



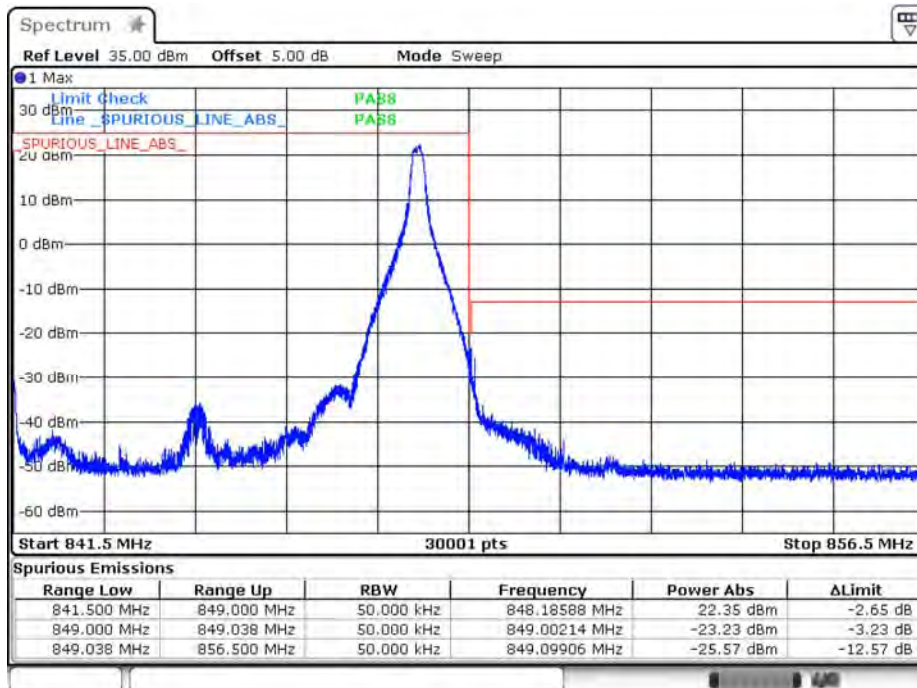
Date: 21 AUG 2018 18:06:54

### CH26765\_15M\_16-QAM\_1RB0



Date: 21.AUG.2018 18:03:54

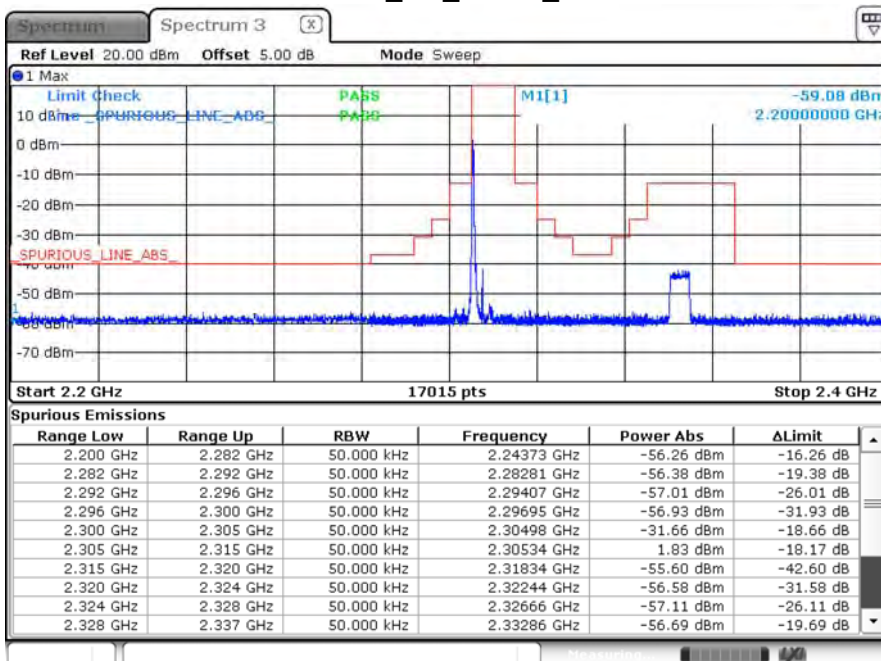
### CH26965\_15M\_16-QAM\_1RB74



Date: 21.AUG.2018 18:05:37

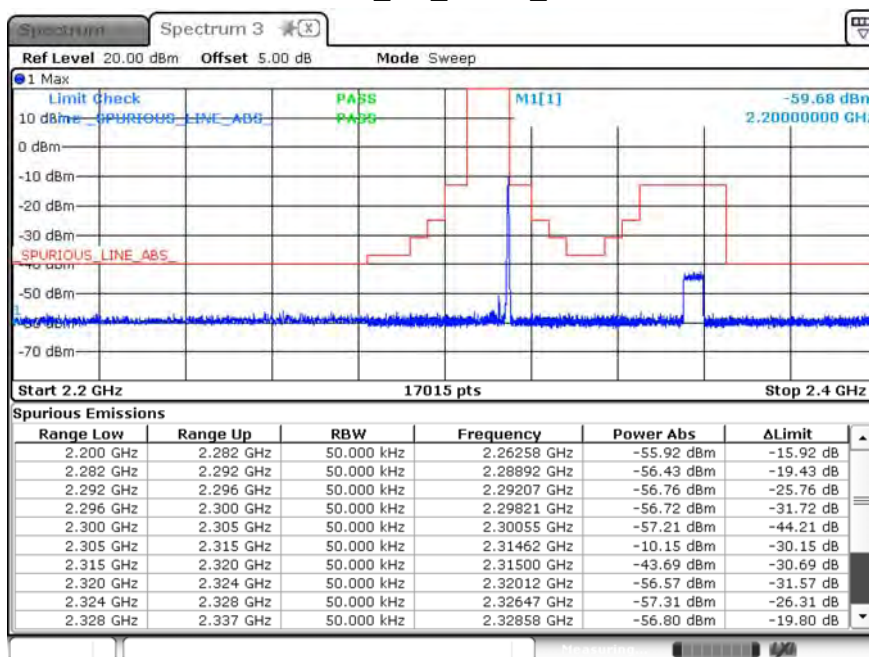
Product	LM960		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 13: LTE Band 30		
Date of Test	2018/05/24	Test Site	SR10-H

### CH27685\_5M\_QPSK\_1RB0



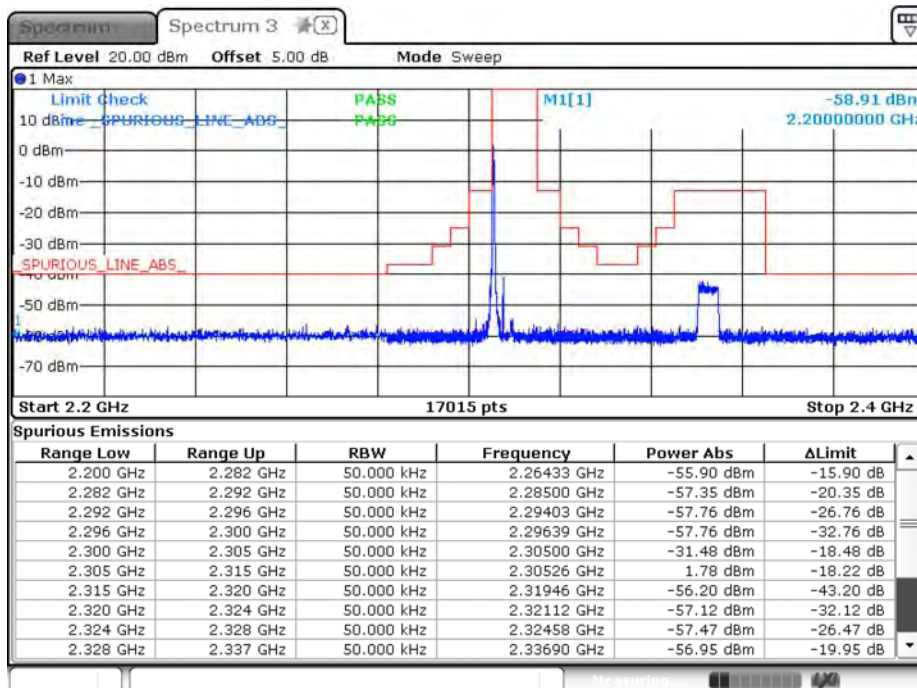
Date: 17.AUG.2018 21:33:55

### CH27735\_5M\_QPSK\_1RB24



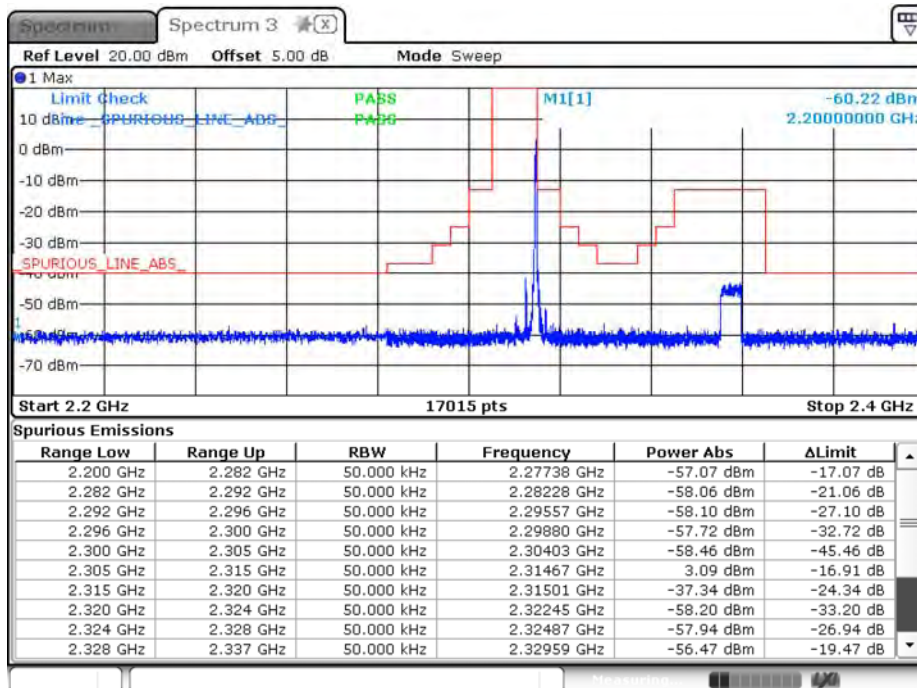
Date: 17.AUG.2018 21:36:51

### CH27685\_5M\_16-QAM\_1RB0



Date: 17.AUG.2018 21:38:31

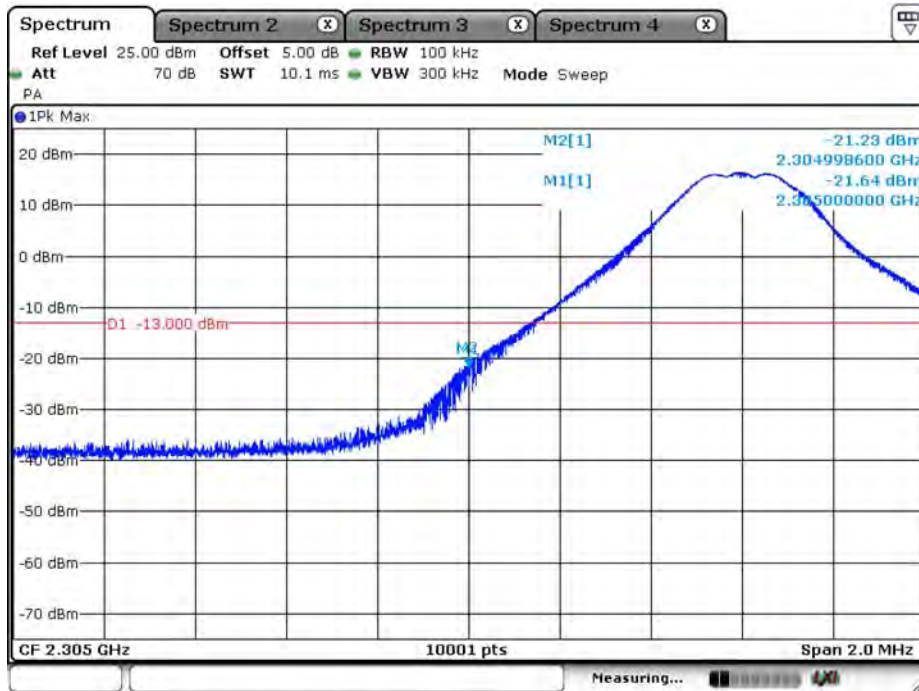
### CH27735\_5M\_16-QAM\_1RB24



Date: 17.AUG.2018 21:37:28

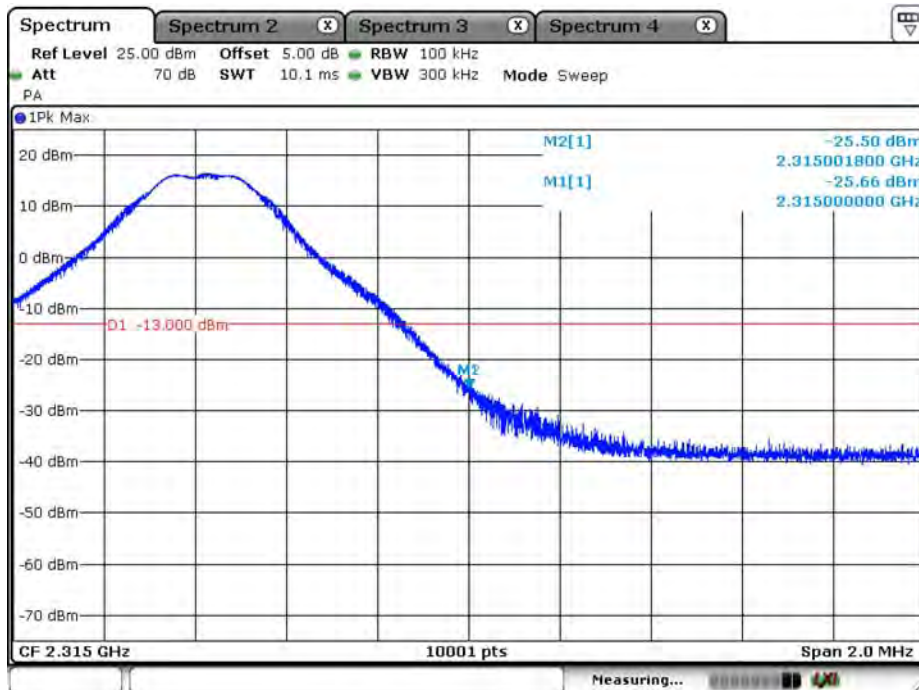


### CH27710\_10M\_QPSK\_1RB0



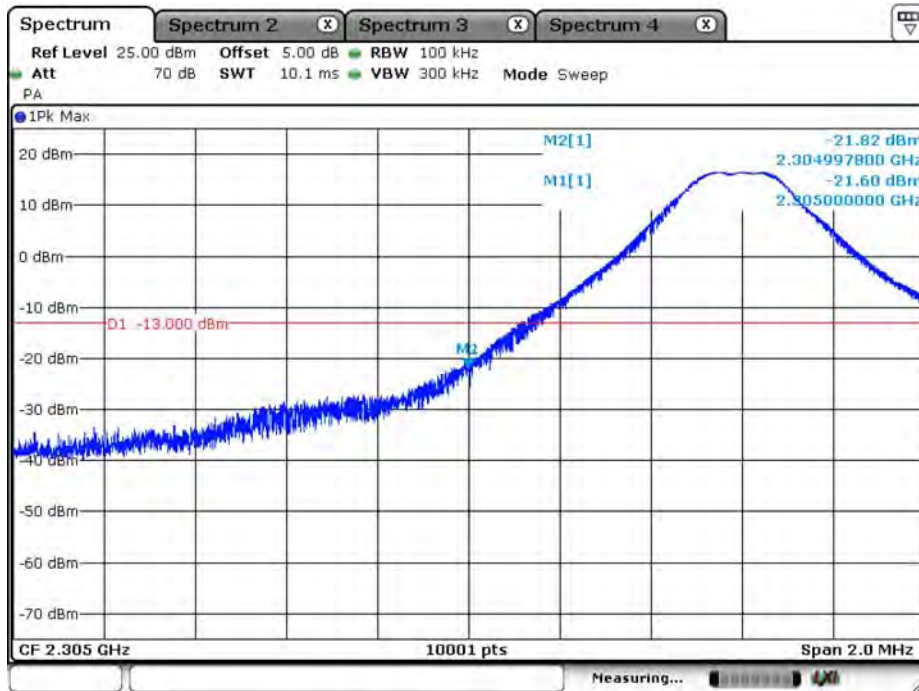
Date: 24.MAY.2018 17:38:26

### CH27710\_10M\_QPSK\_1RB49



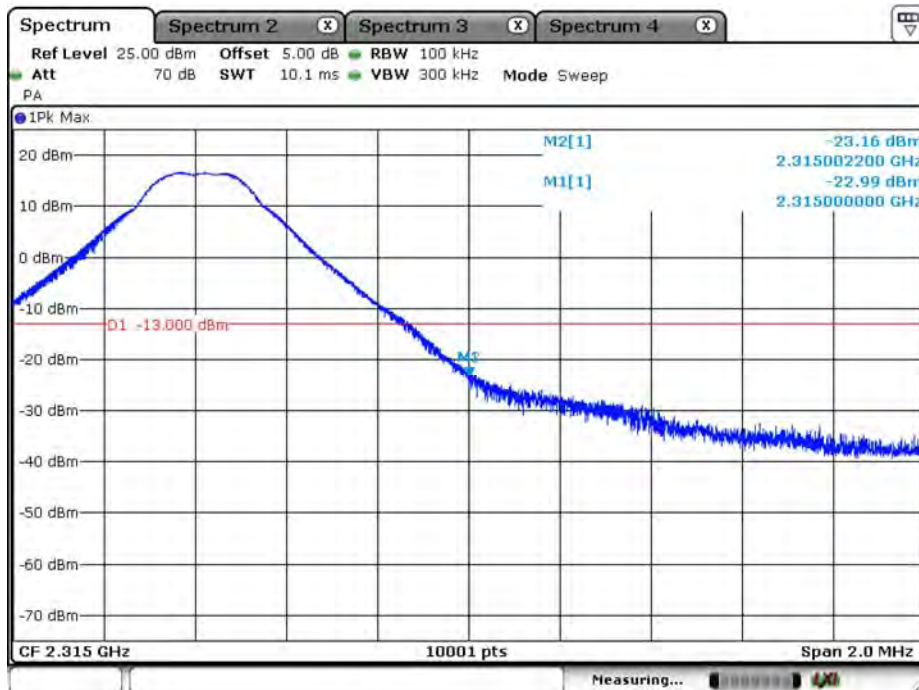
Date: 24.MAY.2018 17:41:21

### CH27710\_10M\_16-QAM\_1RB0



Date: 24.MAY.2018 17:39:22

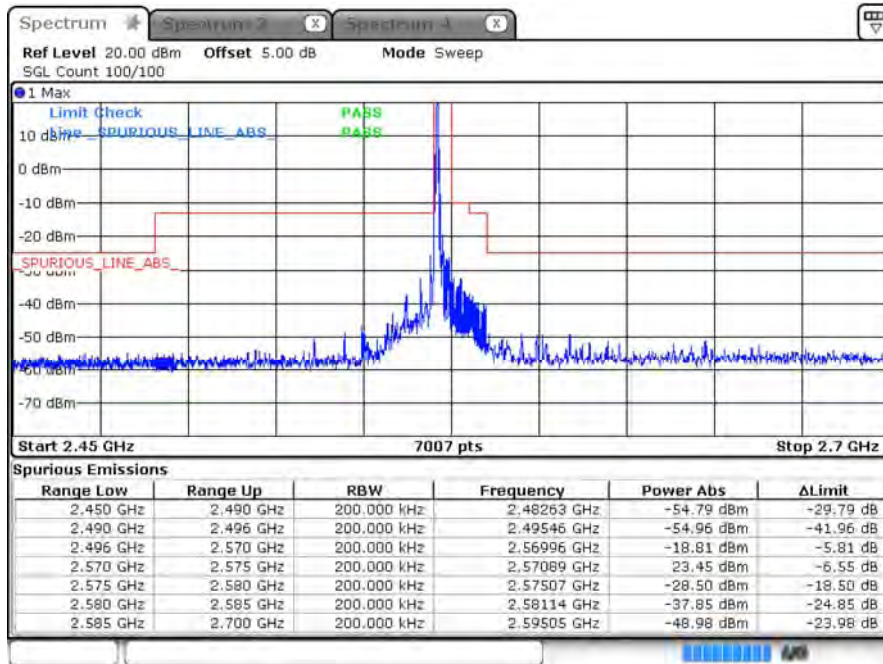
### CH27710\_10M\_16-QAM\_1RB49



Date: 24.MAY.2018 17:43:41

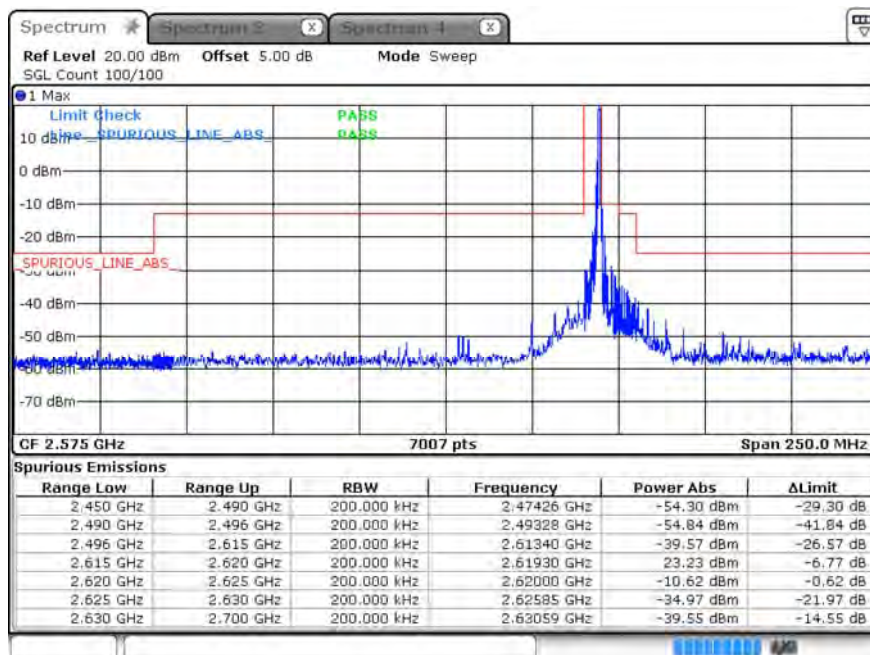
Product	LM960		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 14: LTE Band 38		
Date of Test	2018/08/18	Test Site	SR10-H

### CH37775\_5M\_QPSK\_1RB0



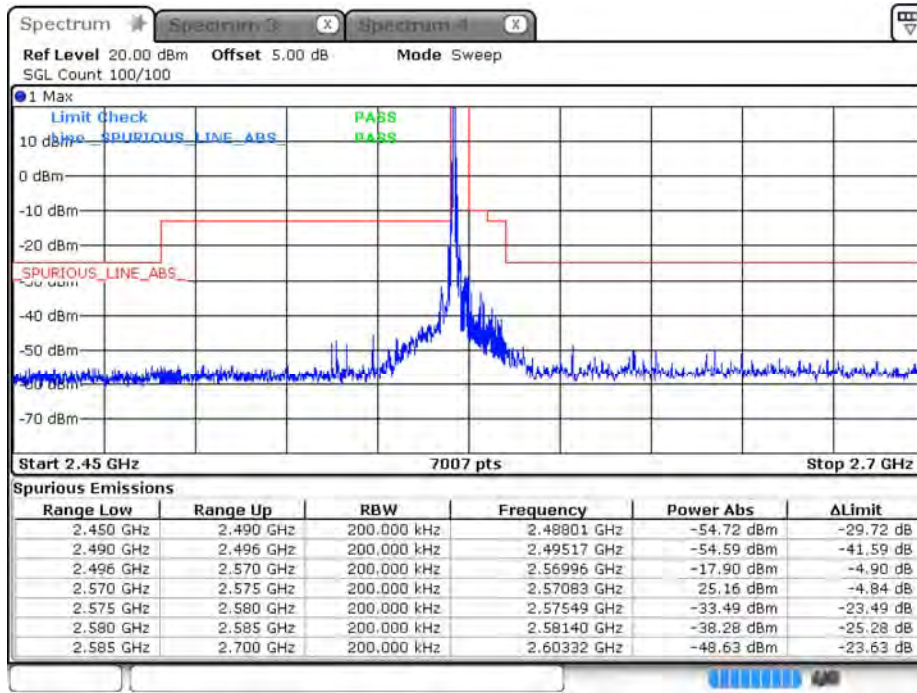
Date: 18.AUG.2018 04:57:57

### CH38225\_5M\_QPSK\_1RB24



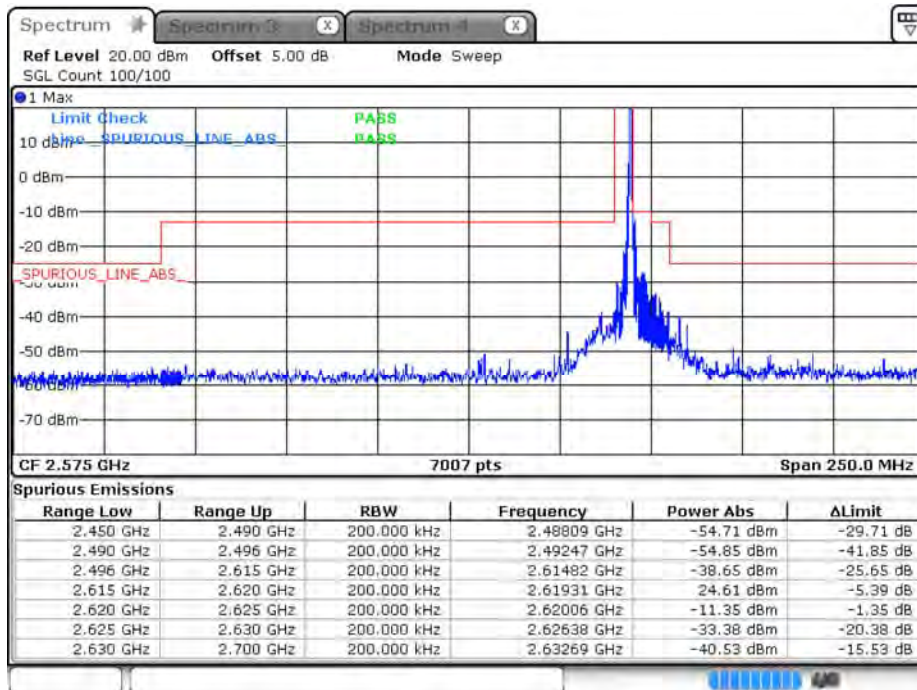
Date: 18.AUG.2018 05:07:35

### CH37775\_5M\_16-QAM\_1RB0



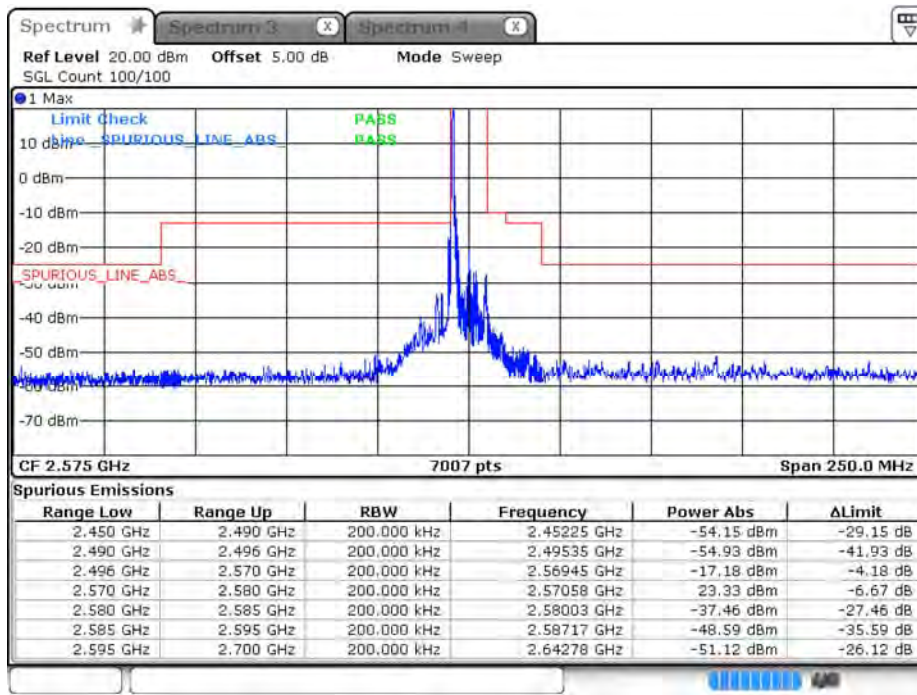
Date: 18 AUG 2018 04:58:27

### CH38225\_5M\_16-QAM\_1RB24



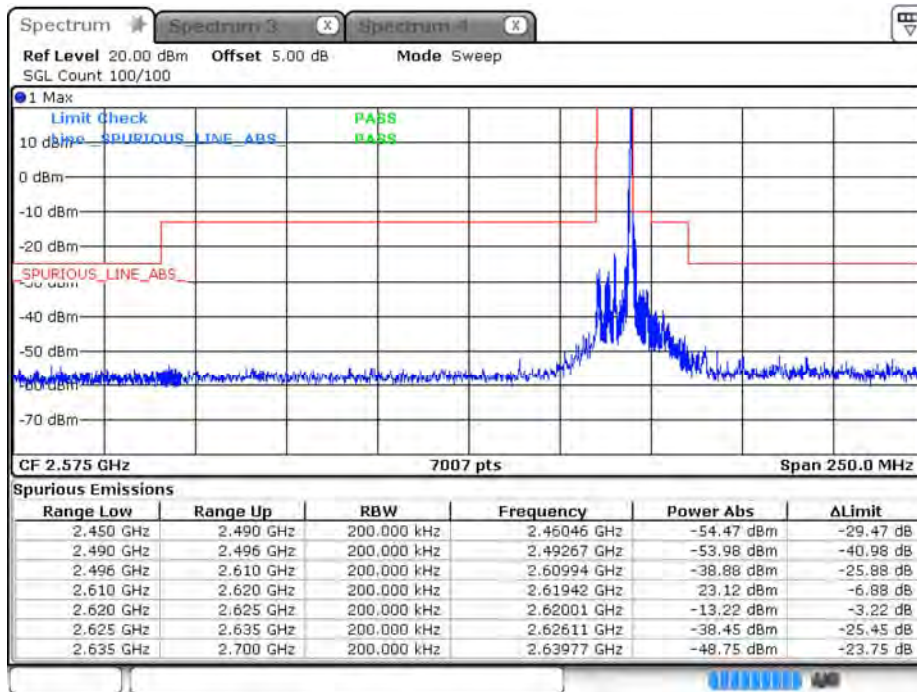
Date: 18 AUG 2018 05:08:12

### CH37800\_10M\_QPSK\_1RB0



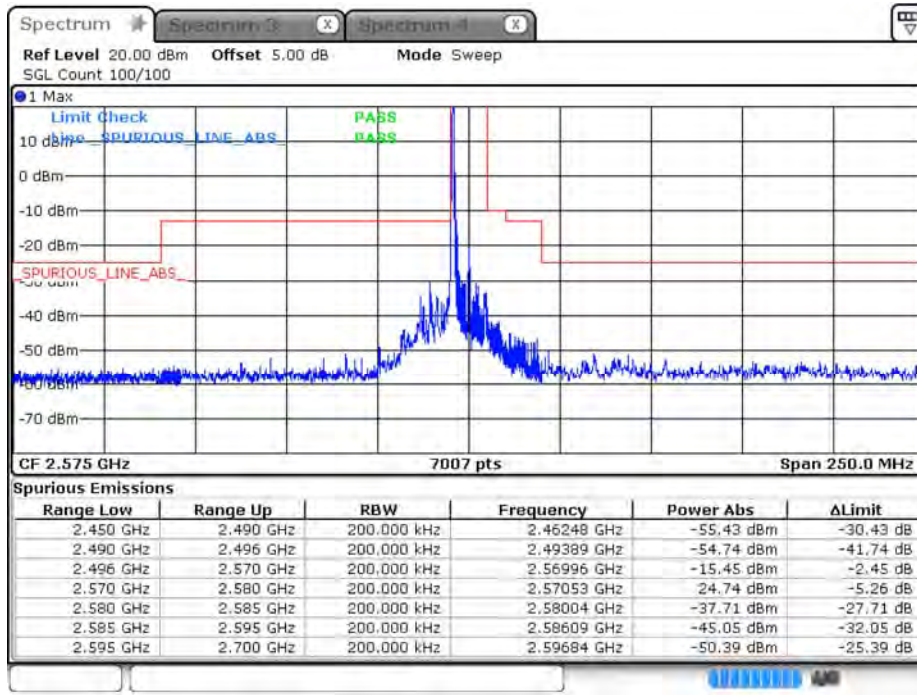
Date: 18 AUG 2018 05:00:40

### CH37800\_10M\_QPSK\_1RB49



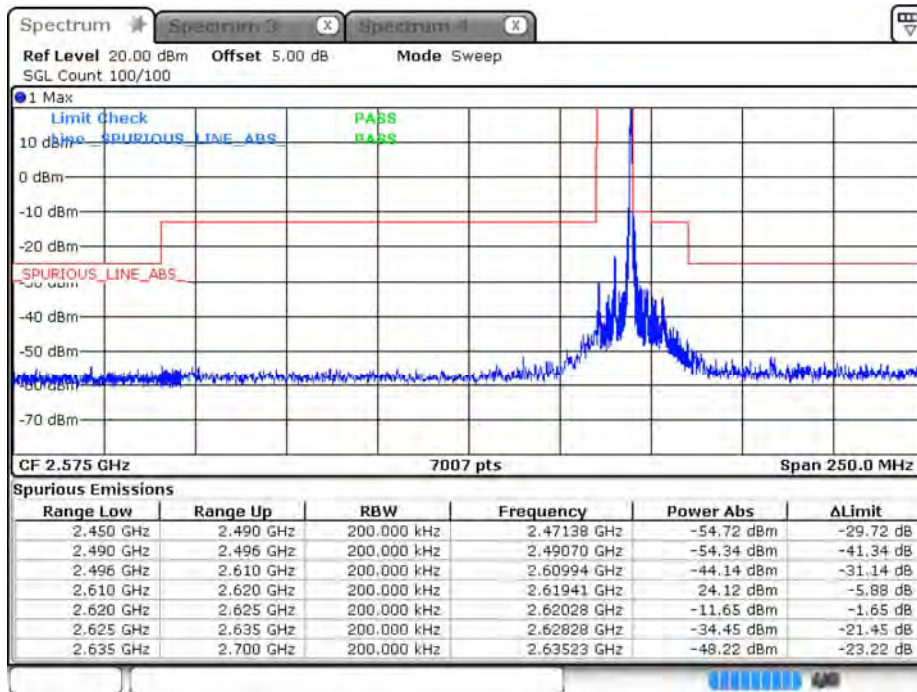
Date: 18 AUG 2018 05:09:54

### CH37800\_10M\_16-QAM\_1RB0



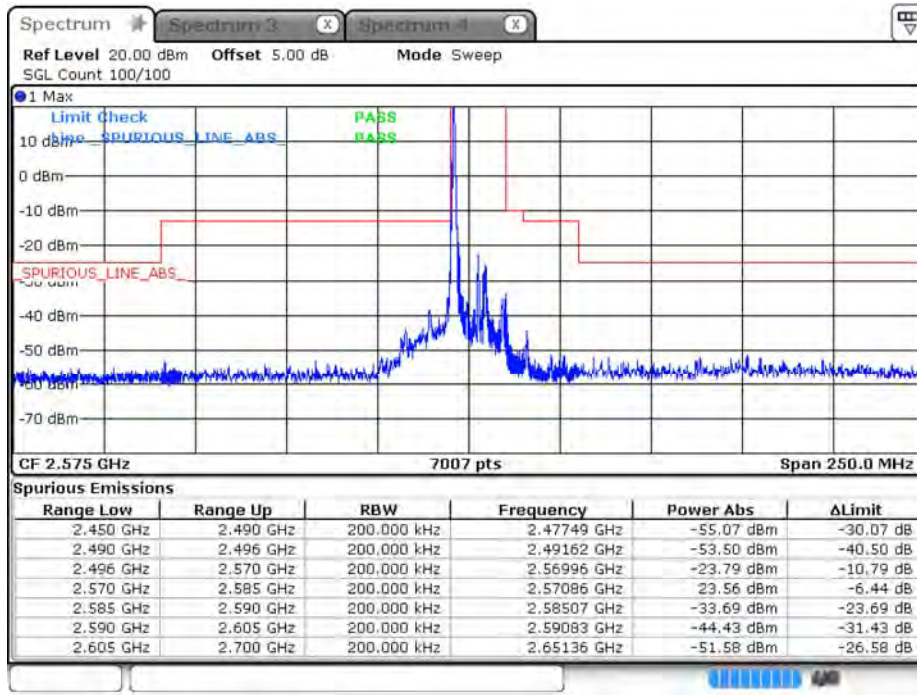
Date: 18 AUG 2018 05:01:02

### CH37800\_10M\_16-QAM\_1RB49



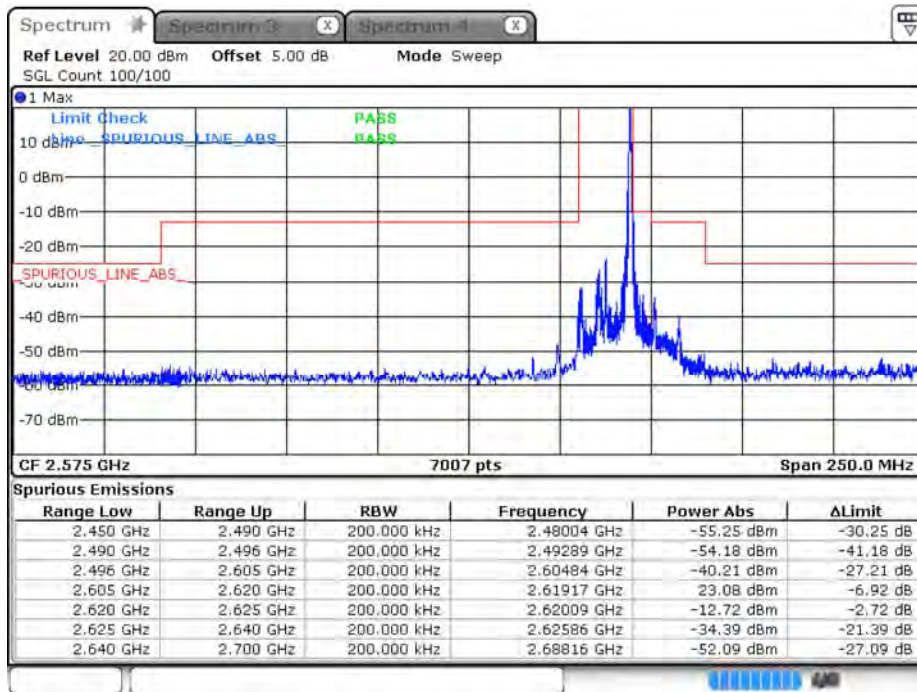
Date: 18 AUG 2018 05:10:17

### CH37825\_15M\_QPSK\_1RB0



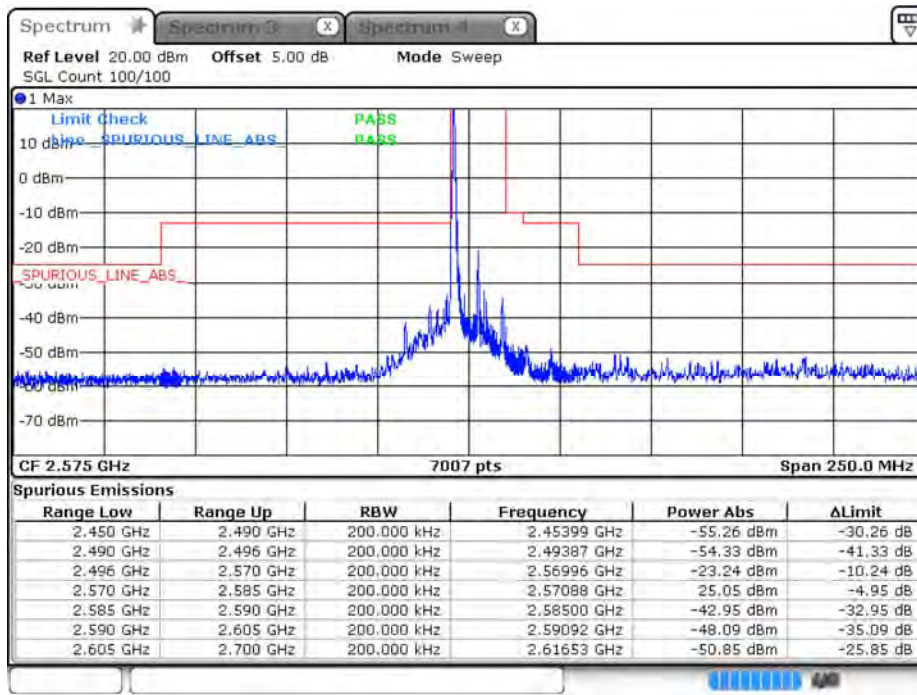
Date: 18 AUG 2018 05:02:49

### CH38175\_15M\_QPSK\_1RB0



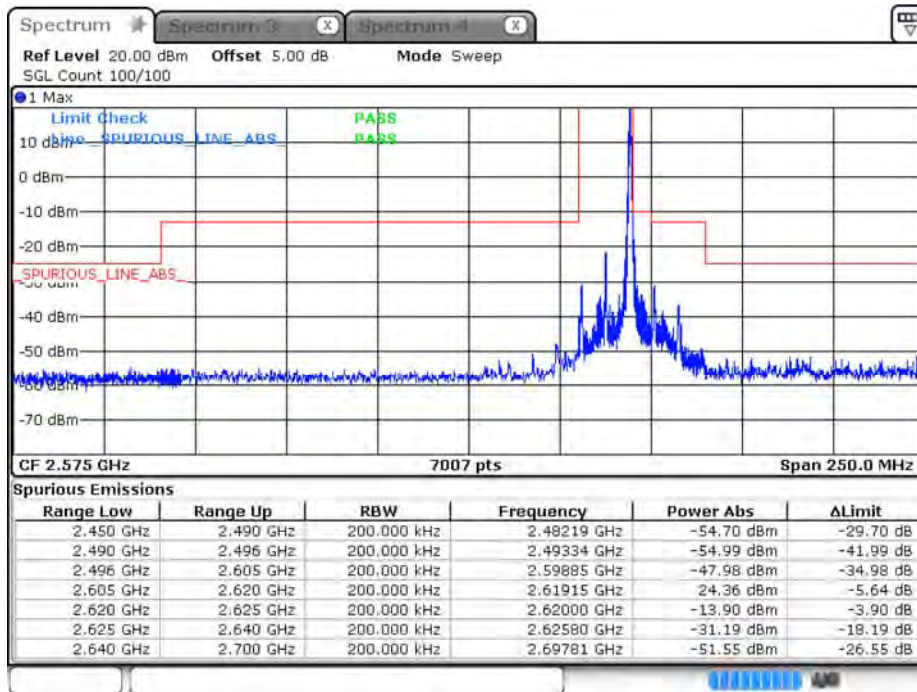
Date: 18 AUG 2018 05:12:40

### CH37825\_15M\_16-QAM\_1RB74



Date: 18 AUG 2018 05:03:13

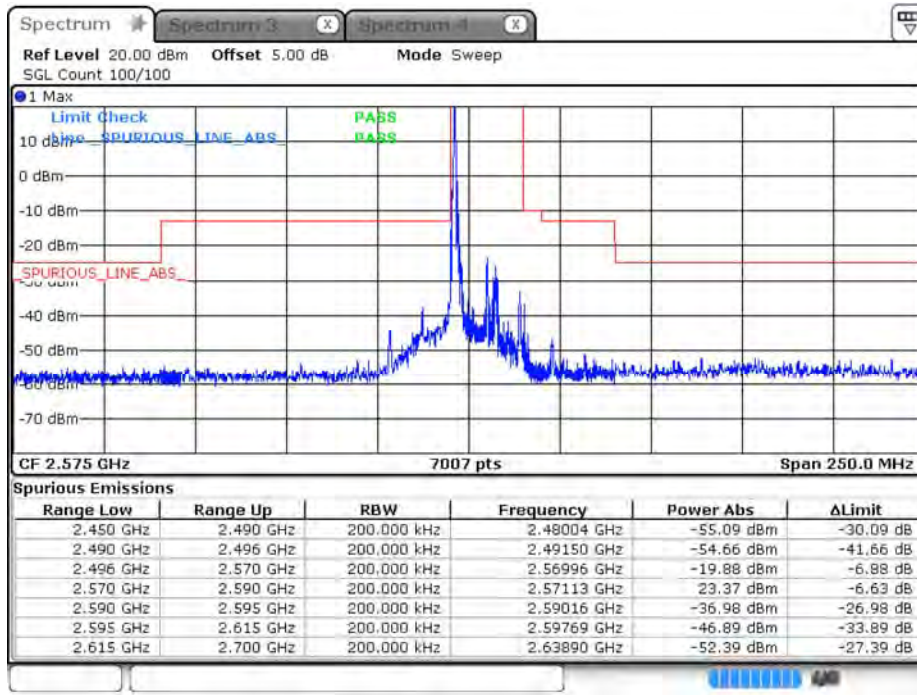
### CH38175\_15M\_16-QAM\_1RB74



Date: 18 AUG 2018 05:13:23

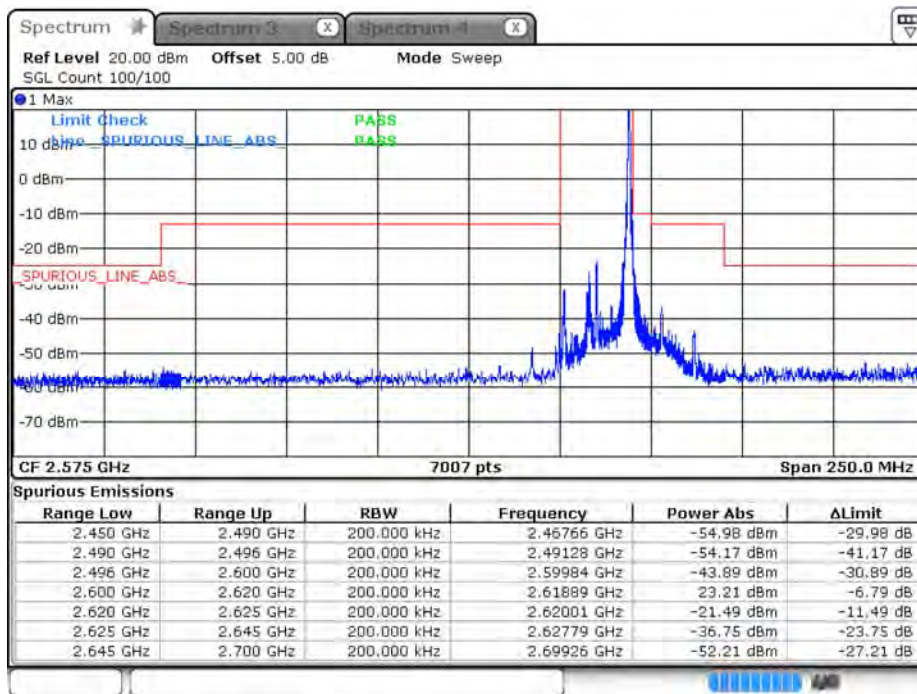


### CH38150\_20M\_QPSK\_1RB0



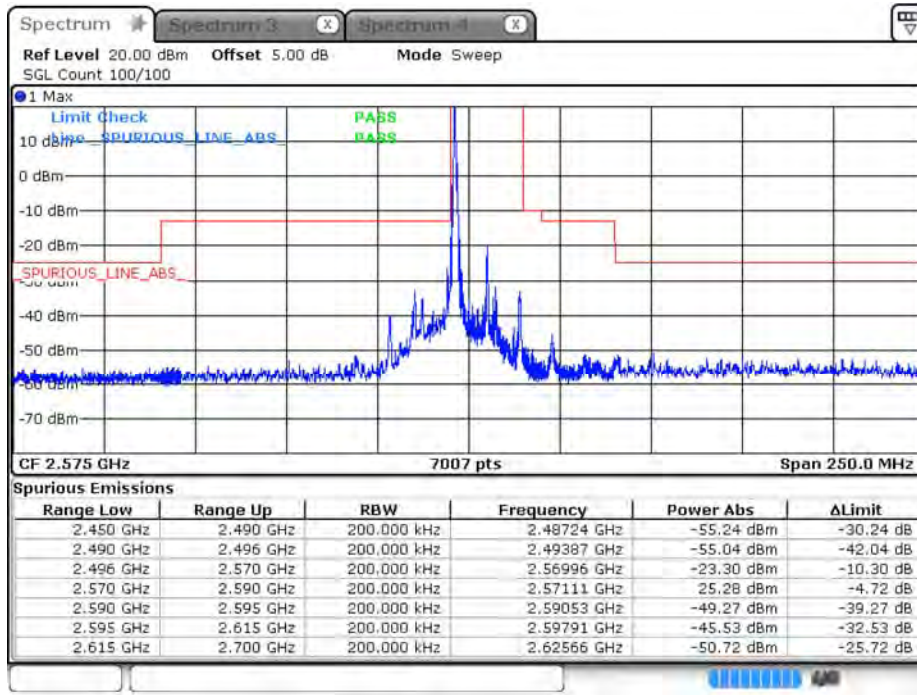
Date: 18 AUG 2018 05:05:08

### CH38150\_20M\_QPSK\_1RB99



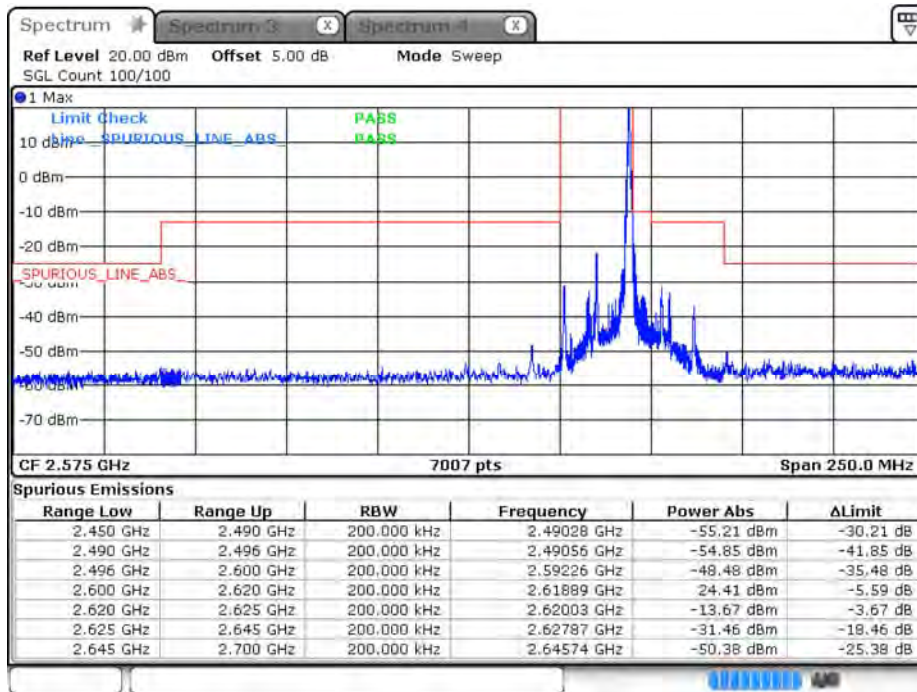
Date: 18 AUG 2018 05:14:49

### CH38150\_20M\_16-QAM\_1RB0



Date: 18 AUG 2018 05:05:52

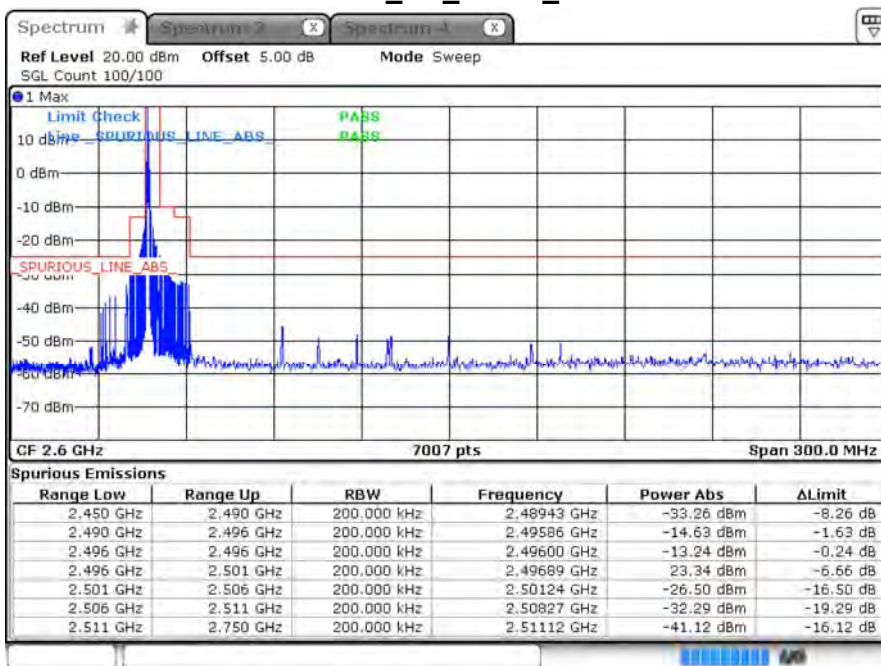
### CH38150\_20M\_16-QAM\_1RB99



Date: 18 AUG 2018 05:15:19

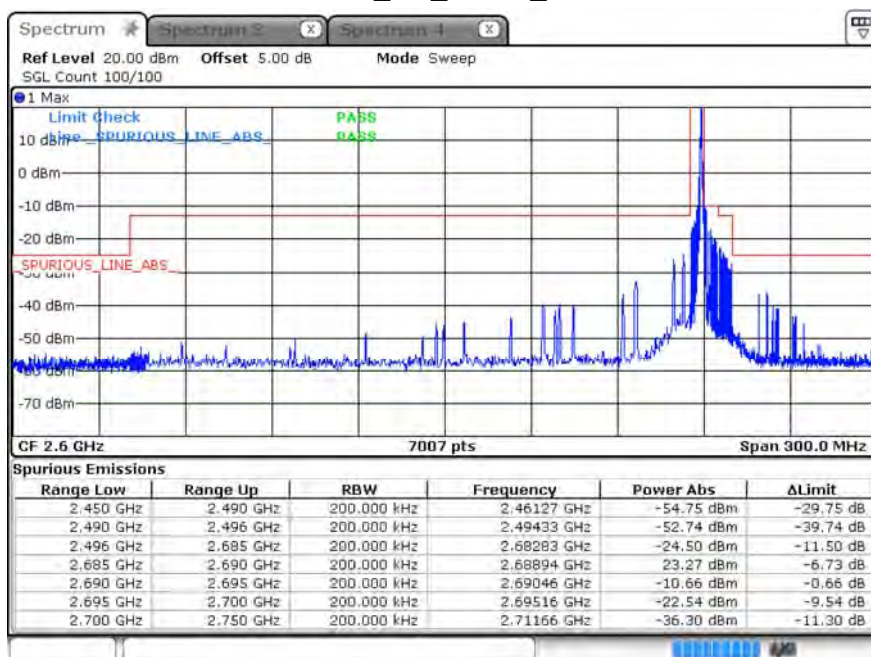
Product	LM960		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 15: LTE Band 41		
Date of Test	2018/08/18	Test Site	SR10-H

CH39675\_5M\_QPSK\_1RB0



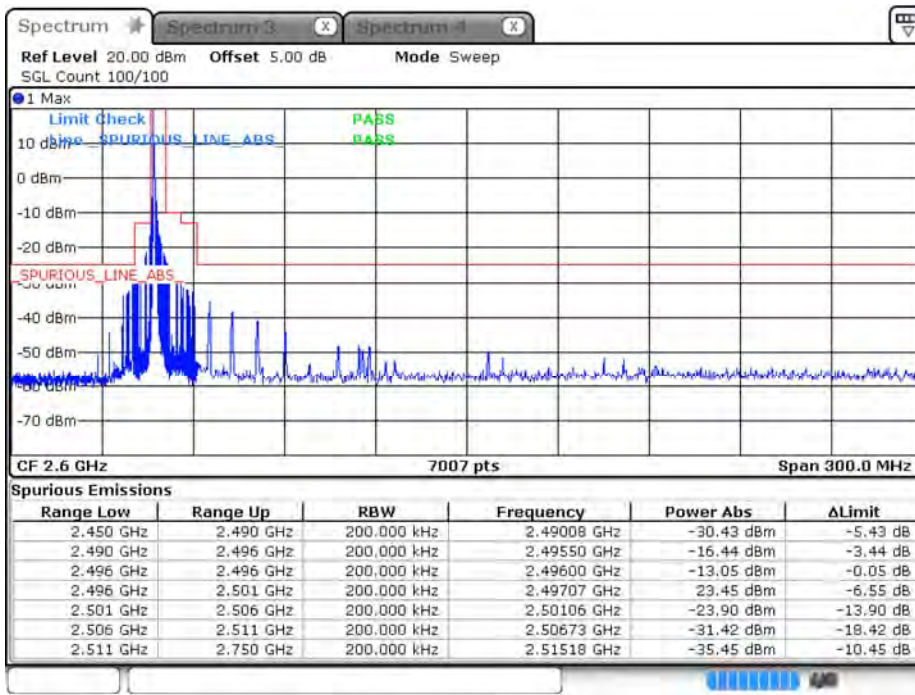
Date: 18.AUG.2018 06:18:09

CH41565\_5M\_QPSK\_1RB24



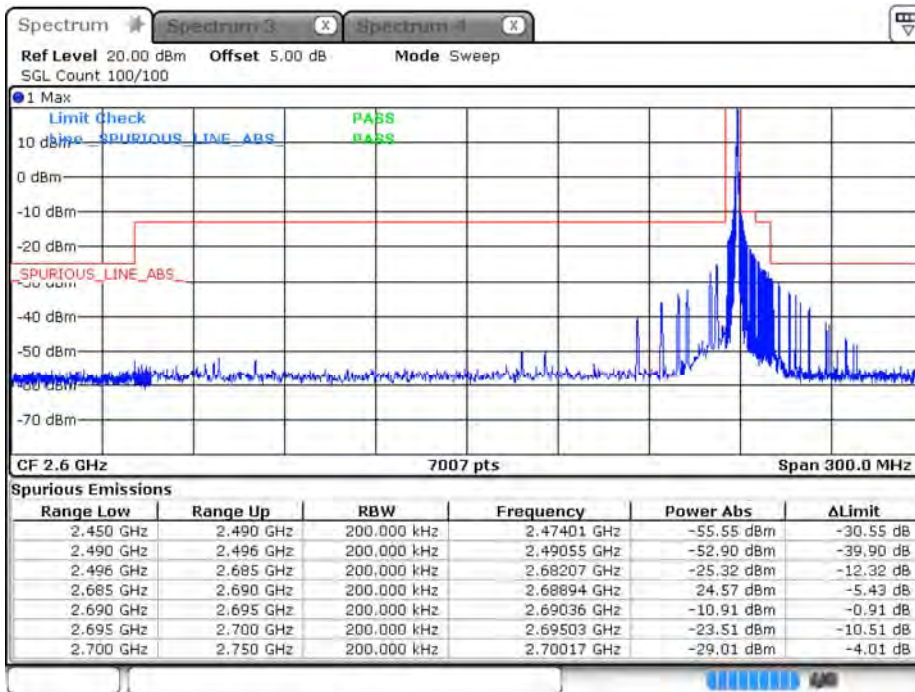
Date: 18.AUG.2018 05:52:00

### CH39675\_5M\_16-QAM\_1RB0



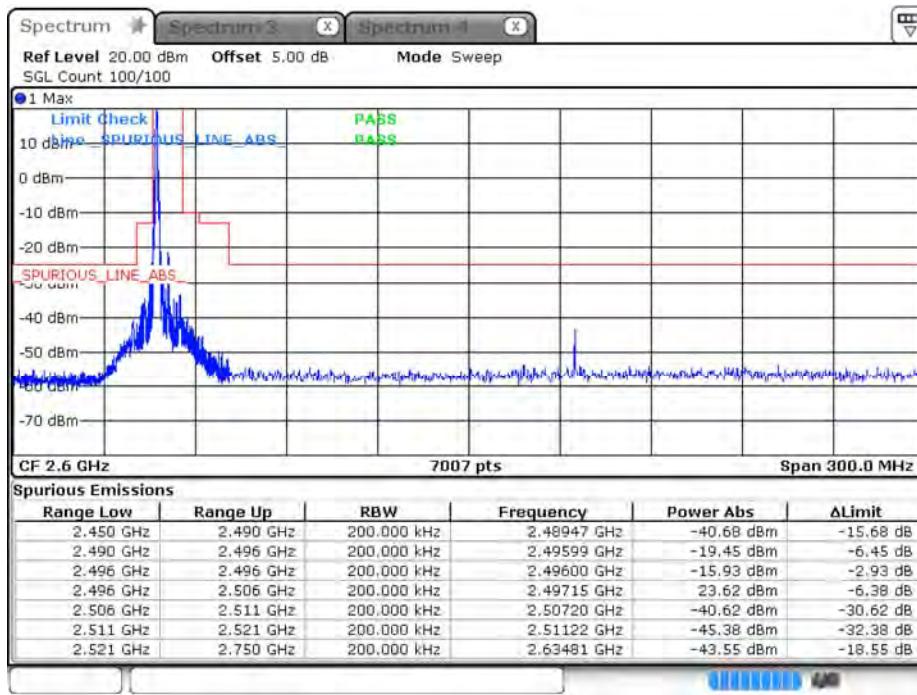
Date: 18 AUG 2018 06:19:15

### CH41565\_5M\_16-QAM\_1RB24



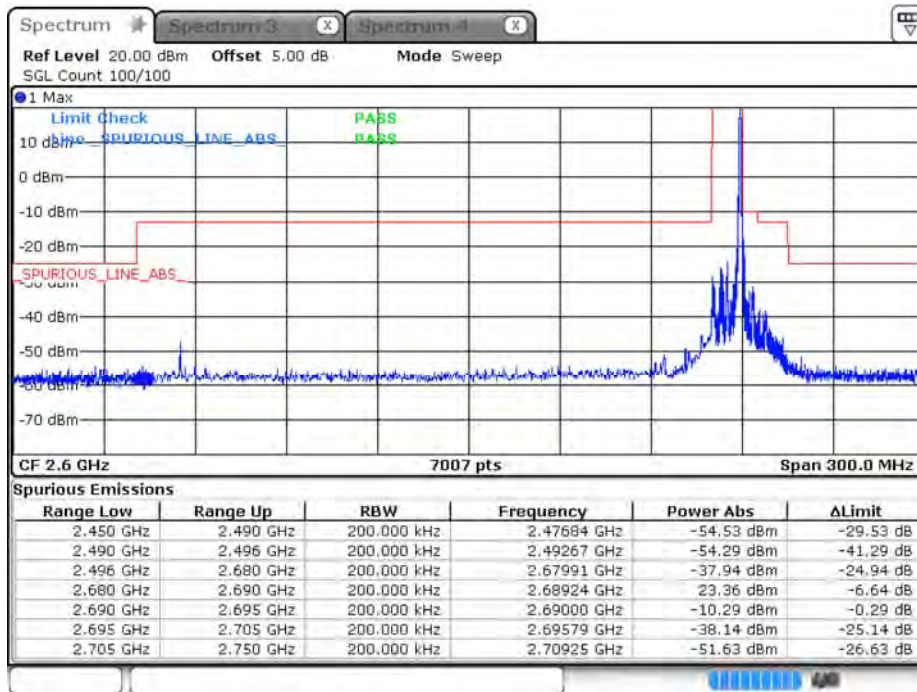
Date: 18 AUG 2018 05:54:22

### CH39700\_10M\_QPSK\_1RB0



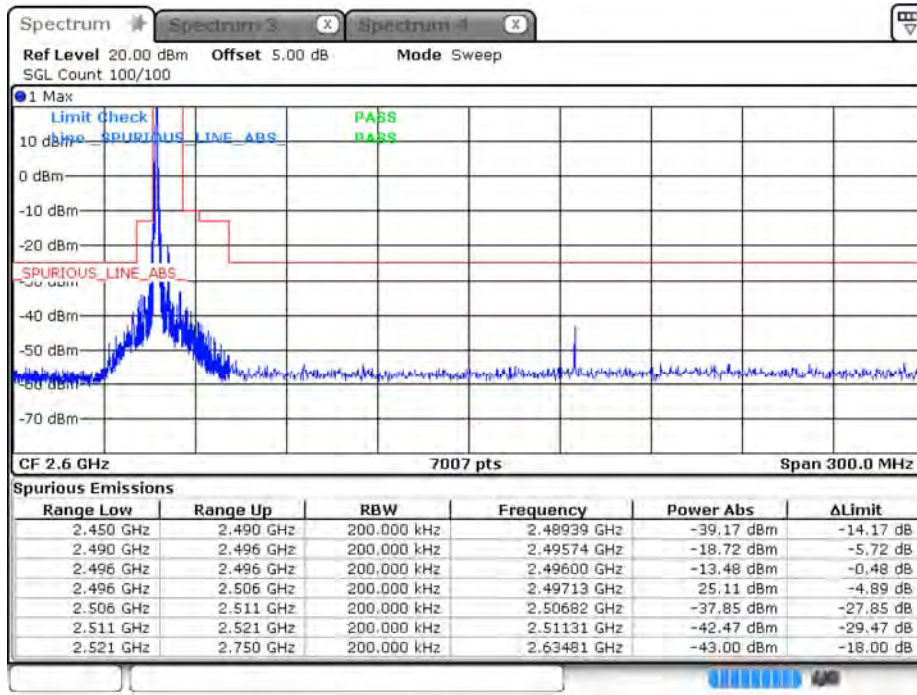
Date: 18 AUG 2018 06:07:24

### CH41540\_10M\_QPSK\_1RB49



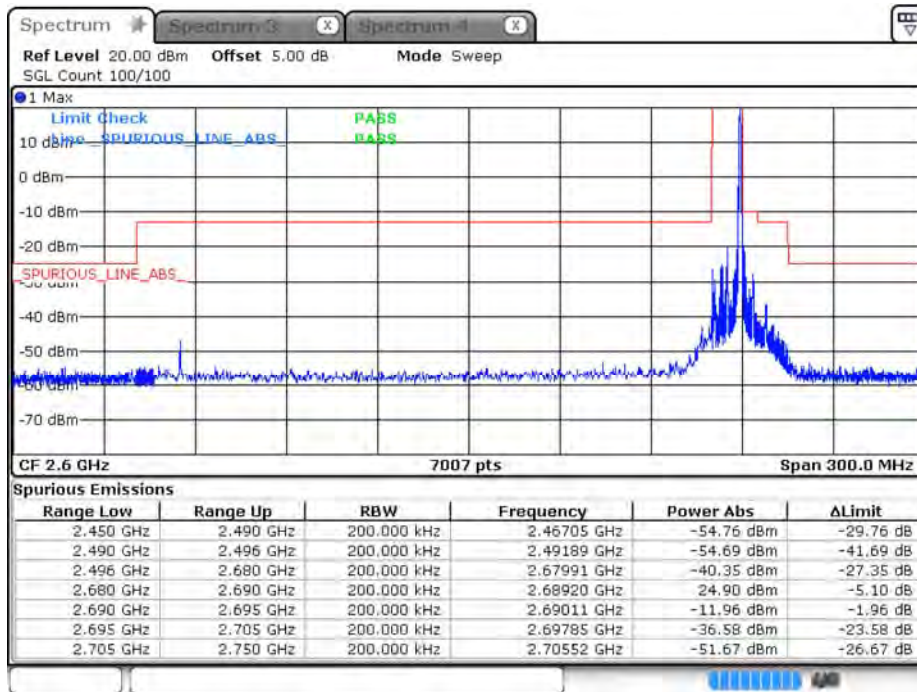
Date: 18 AUG 2018 05:34:39

### CH39700\_10M\_16-QAM\_1RB0



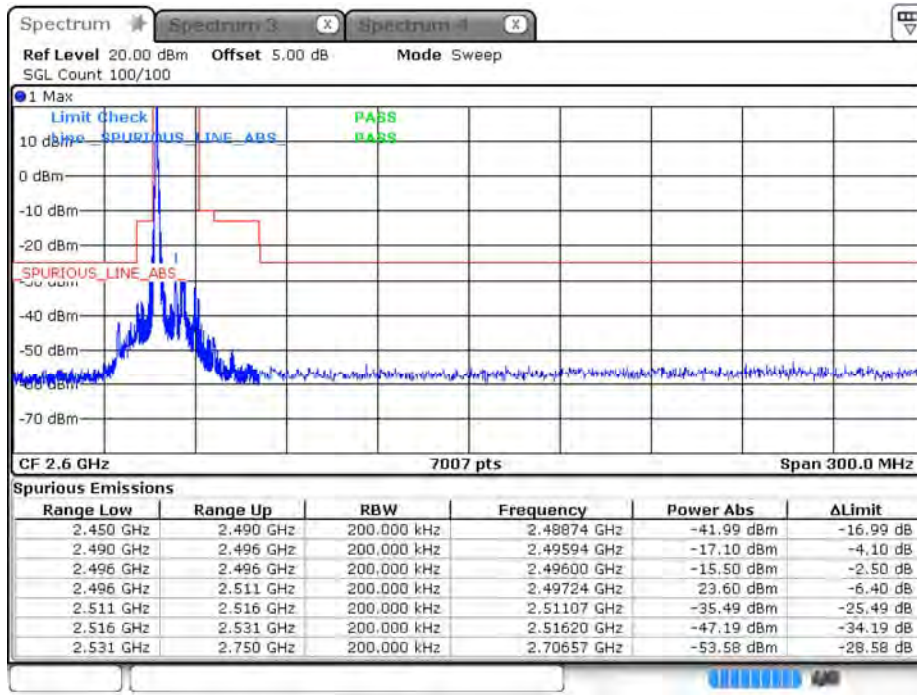
Date: 18 AUG 2018 06:08:54

### CH41540\_10M\_16-QAM\_1RB49



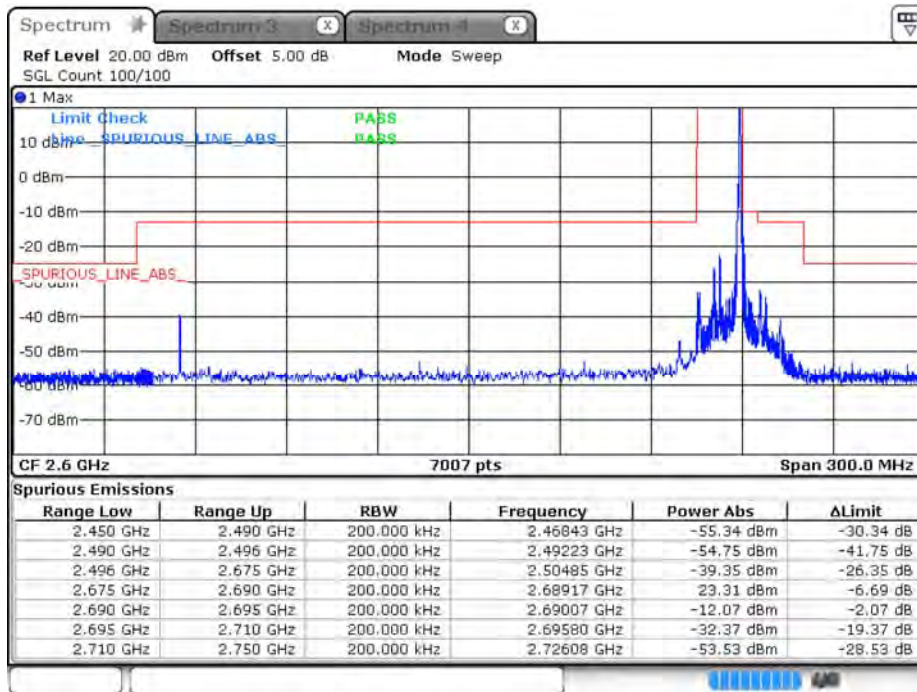
Date: 18 AUG 2018 05:35:40

### CH39725\_15M\_QPSK\_1RB0



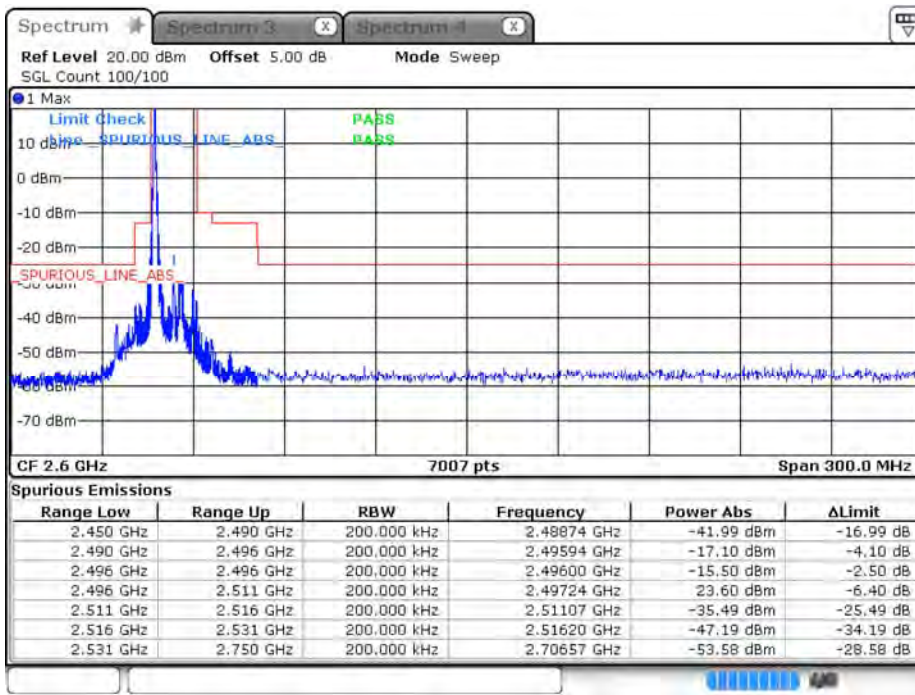
Date: 18 AUG 2018 06:03:30

### CH41515\_15M\_QPSK\_1RB0



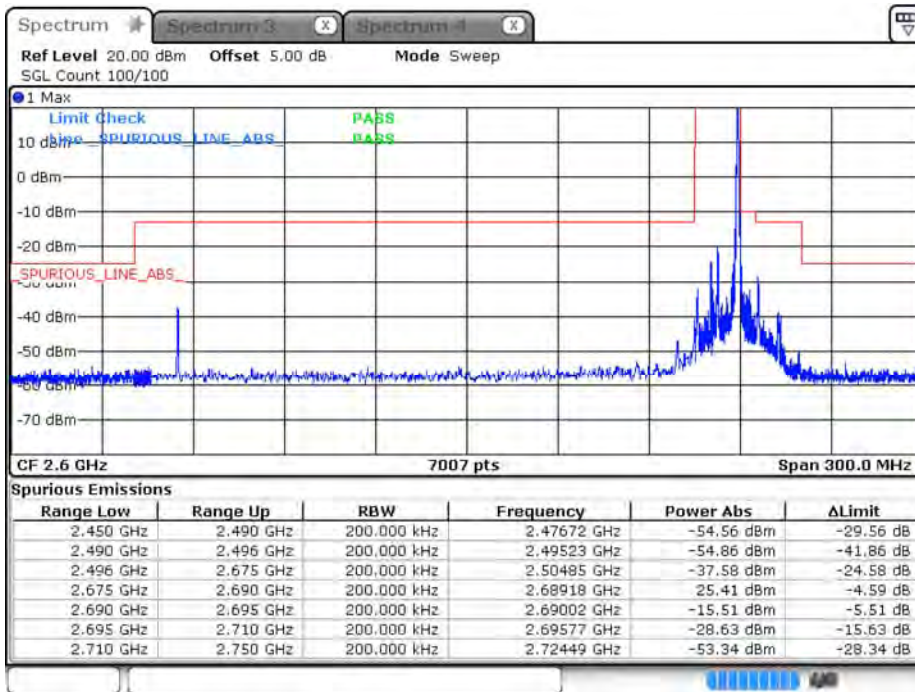
Date: 18 AUG 2018 05:42:49

### CH39725\_15M\_16-QAM\_1RB0



Date: 18 AUG 2018 06:03:30

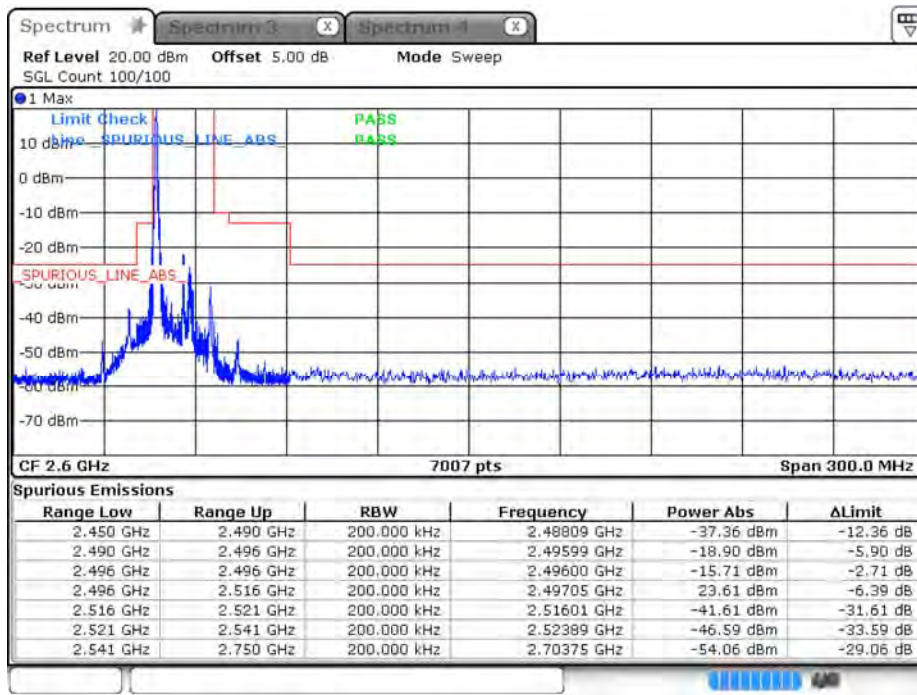
### CH41515\_15M\_16-QAM\_1RB49



Date: 18 AUG 2018 05:43:34

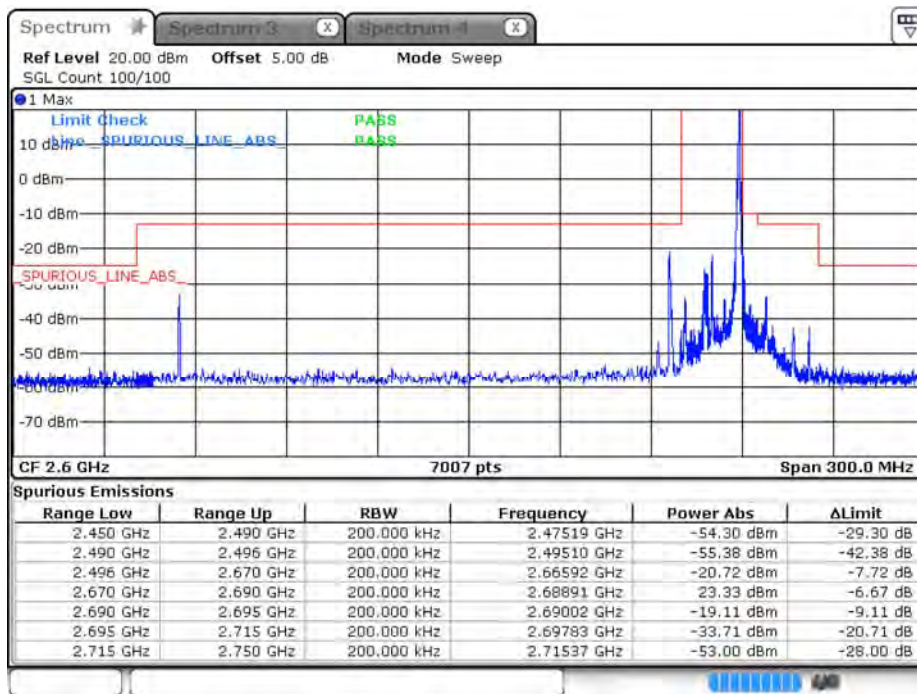


### CH39750\_20M\_QPSK\_1RB0



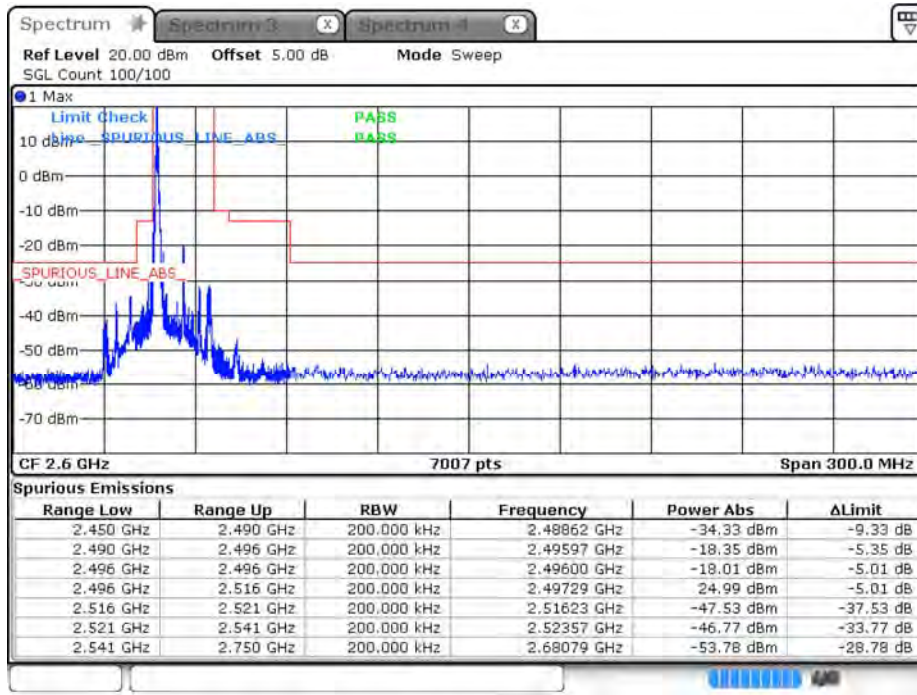
Date: 18 AUG 2018 05:59:50

### CH41490\_20M\_QPSK\_1RB99



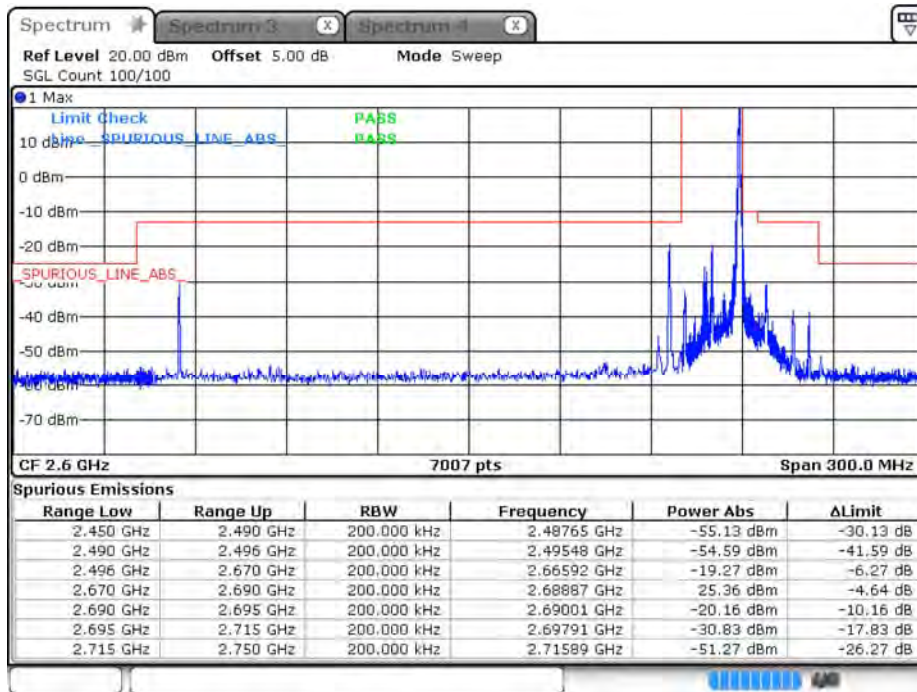
Date: 18 AUG 2018 05:45:59

### CH39750\_20M\_16-QAM\_1RB0



Date: 18 AUG 2018 06:00:43

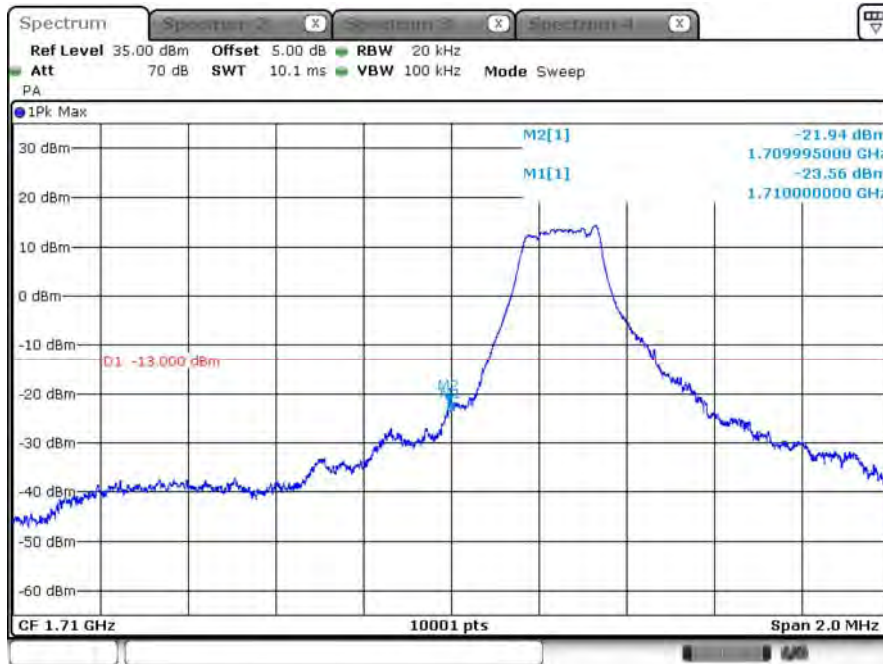
### CH41490\_20M\_16-QAM\_1RB99



Date: 18 AUG 2018 05:46:42

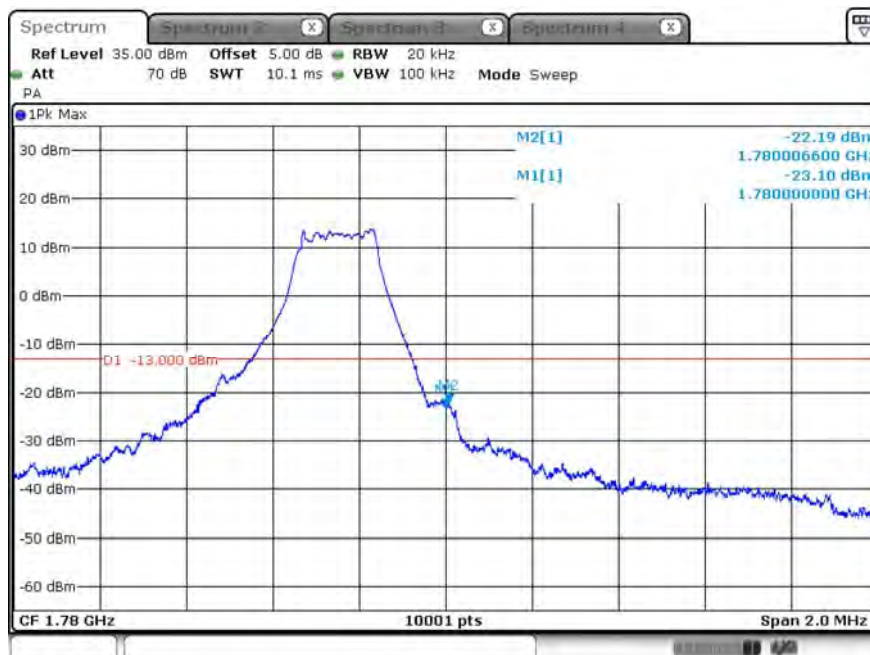
Product	LM960		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 16: LTE Band 66		
Date of Test	2018/05/17	Test Site	SR10-H

### CH131979\_1.4M\_QPSK\_1RB0



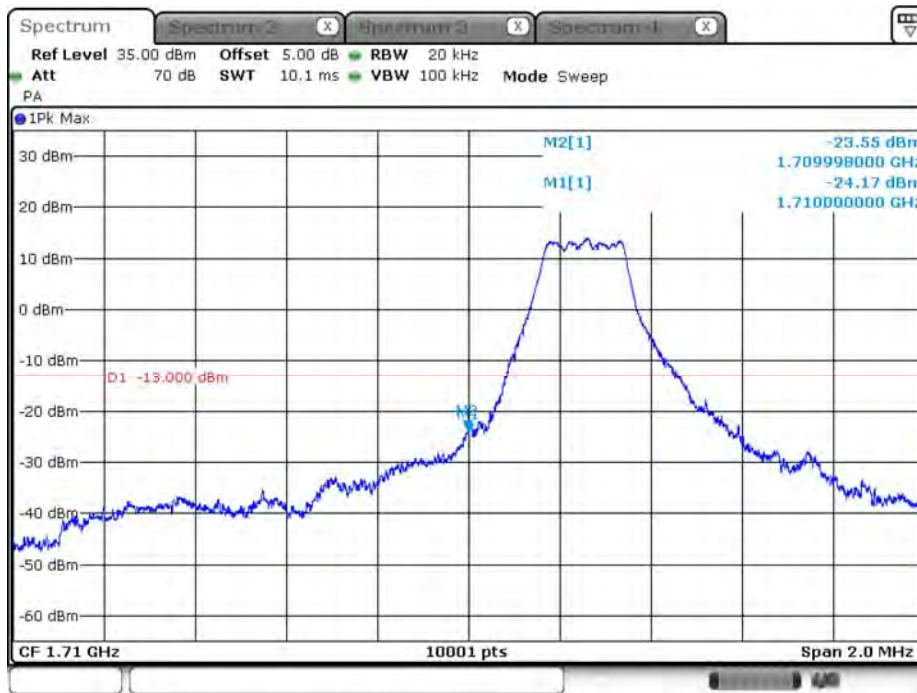
Date: 17.MAY.2018 17:40:30

### CH132665\_1.4M\_QPSK\_1RB5



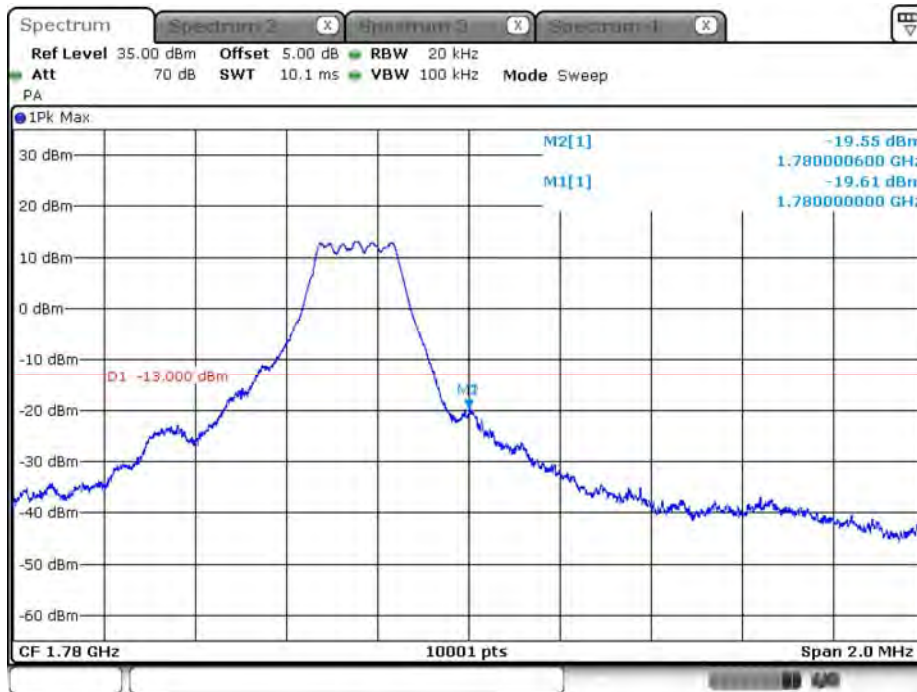
Date: 17.MAY.2018 17:54:05

### CH131979\_1.4M\_16-QAM\_1RB0



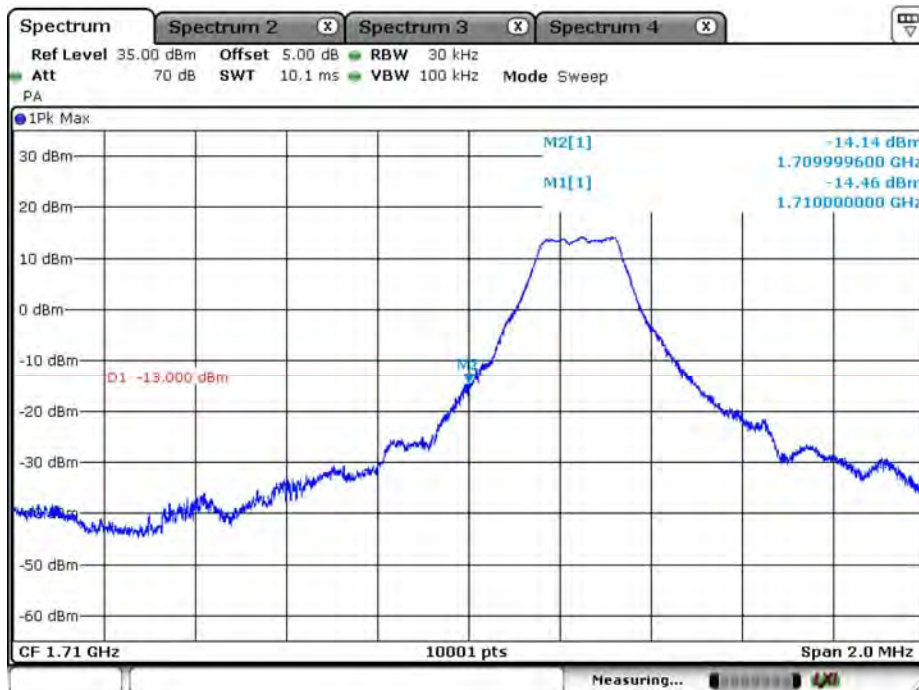
Date: 17.MAY.2018 17:43:15

### CH132665\_1.4M\_16-QAM\_1RB5



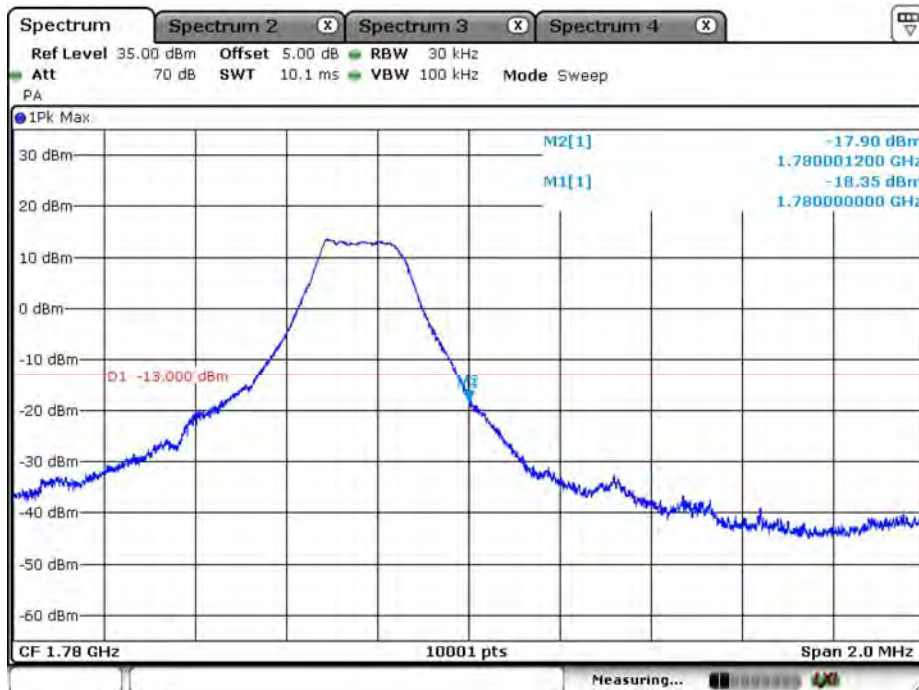
Date: 17.MAY.2018 17:57:28

### CH131987\_3M\_QPSK\_1RB0



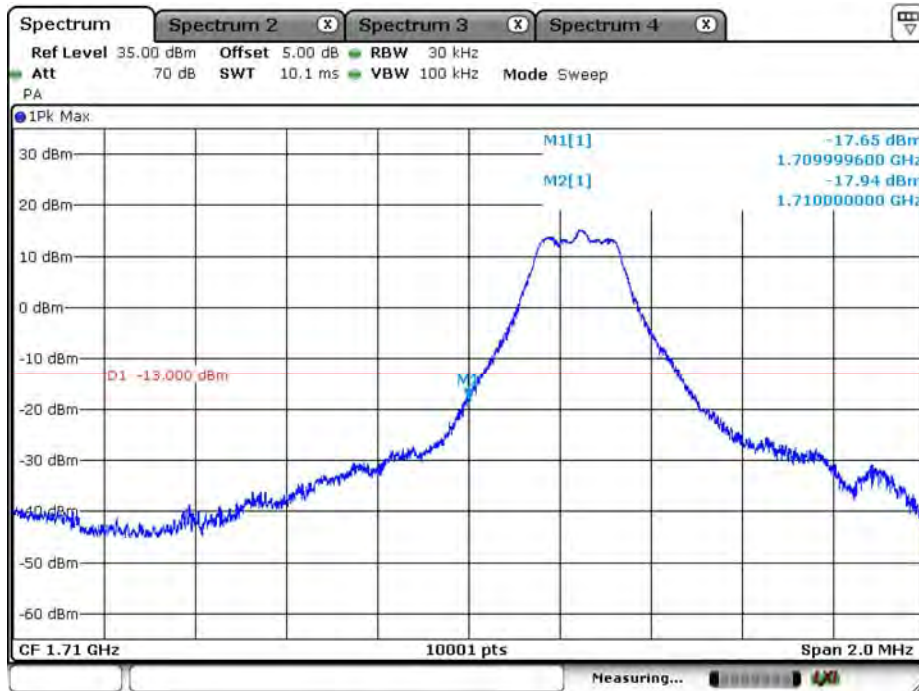
Date: 22.MAY.2018 09:44:47

### CH132657\_3M\_QPSK\_1RB14



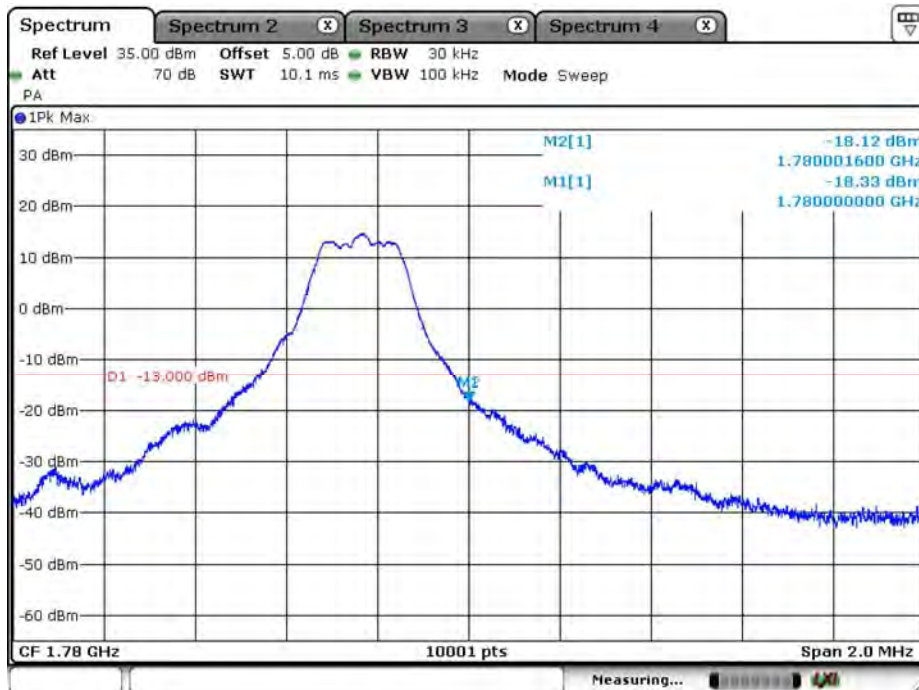
Date: 22.MAY.2018 10:43:39

### CH131987\_3M\_16-QAM\_1RB0



Date: 22.MAY.2018 09:51:50

### CH132657\_3M\_16-QAM\_1RB14



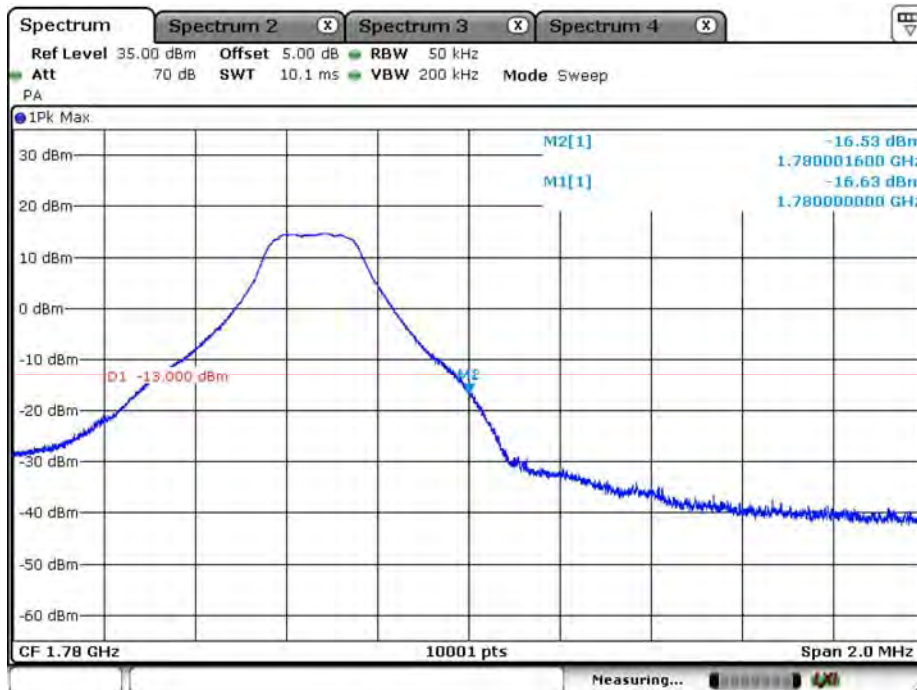
Date: 22.MAY.2018 10:41:58

### CH131997\_5M\_QPSK\_1RB0



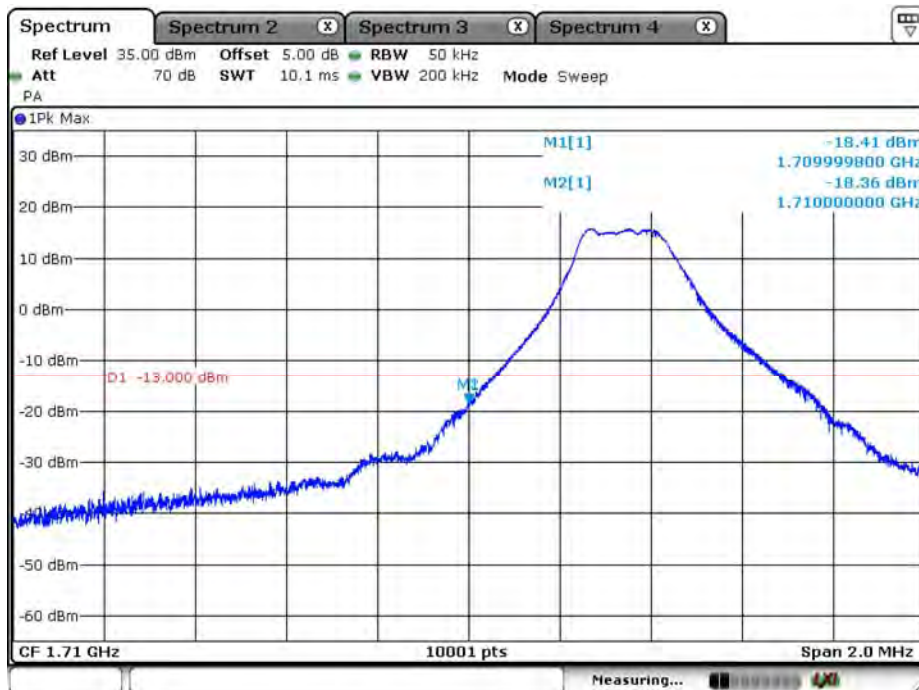
Date: 22.MAY.2018 09:48:48

### CH132647\_5M\_QPSK\_1RB24



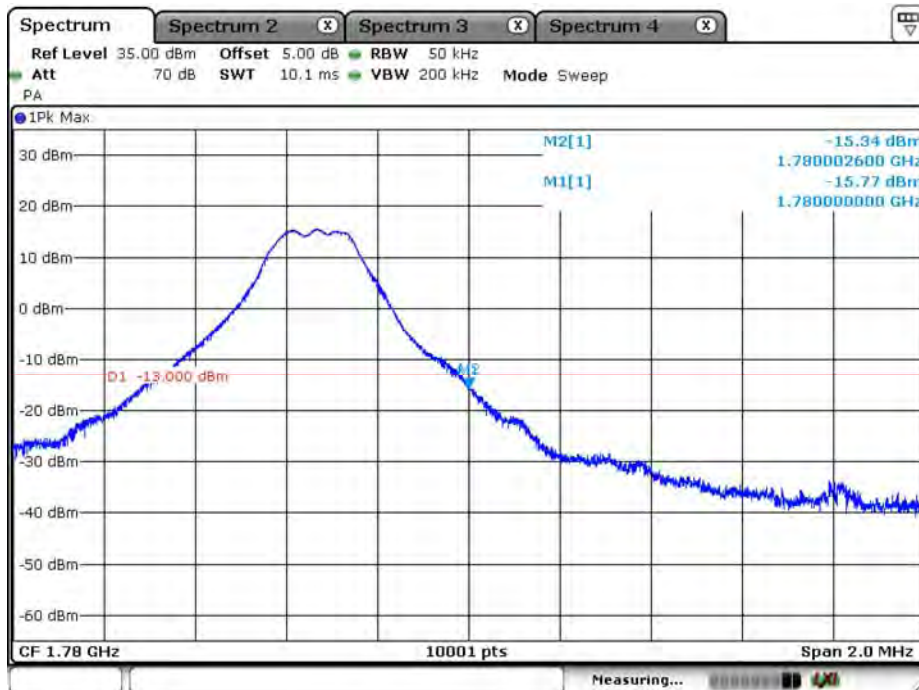
Date: 22.MAY.2018 10:39:36

### CH131997\_5M\_16-QAM\_1RB0



Date: 22.MAY.2018 09:50:13

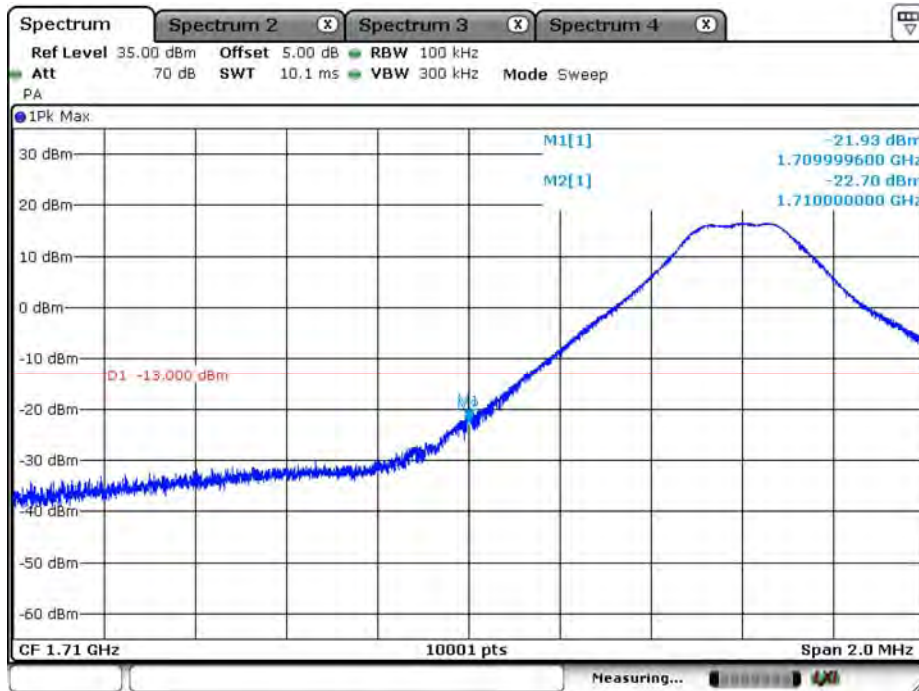
### CH132647\_5M\_16-QAM\_1RB24



Date: 22.MAY.2018 10:34:38

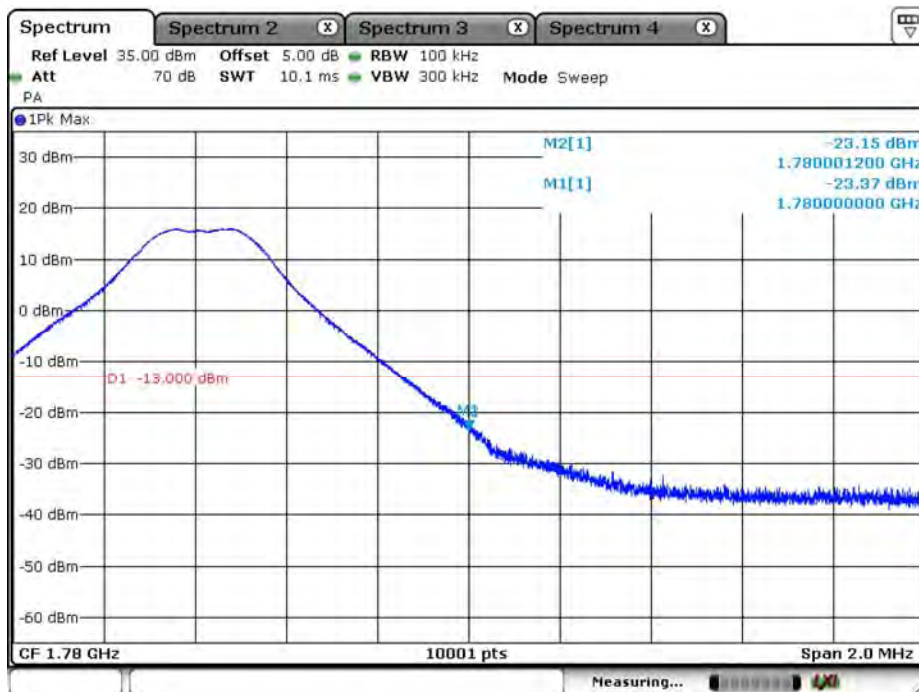


### CH132022\_10M\_QPSK\_1RB0



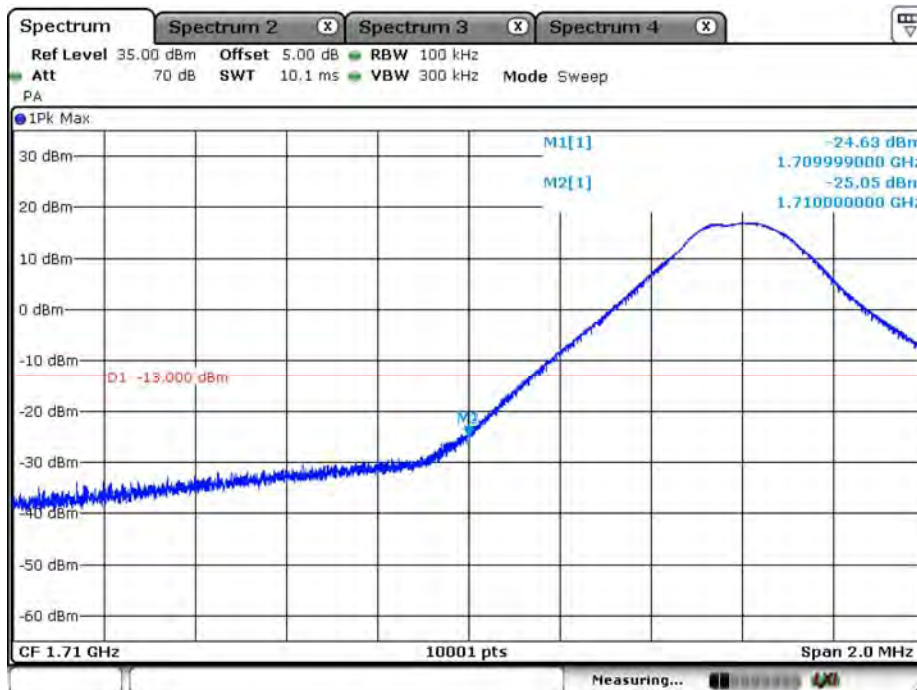
Date: 22.MAY.2018 09:54:07

### CH132622\_10M\_QPSK\_1RB49



Date: 22.MAY.2018 10:29:53

### CH132022\_10M\_16-QAM\_1RB0



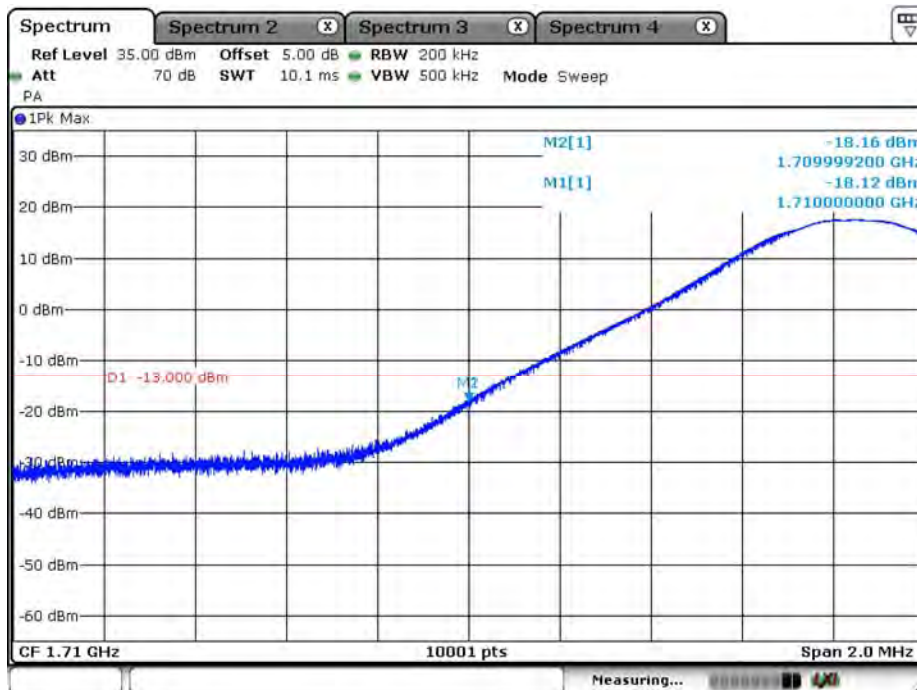
Date: 22.MAY.2018 09:56:11

### CH132622\_10M\_16-QAM\_1RB49



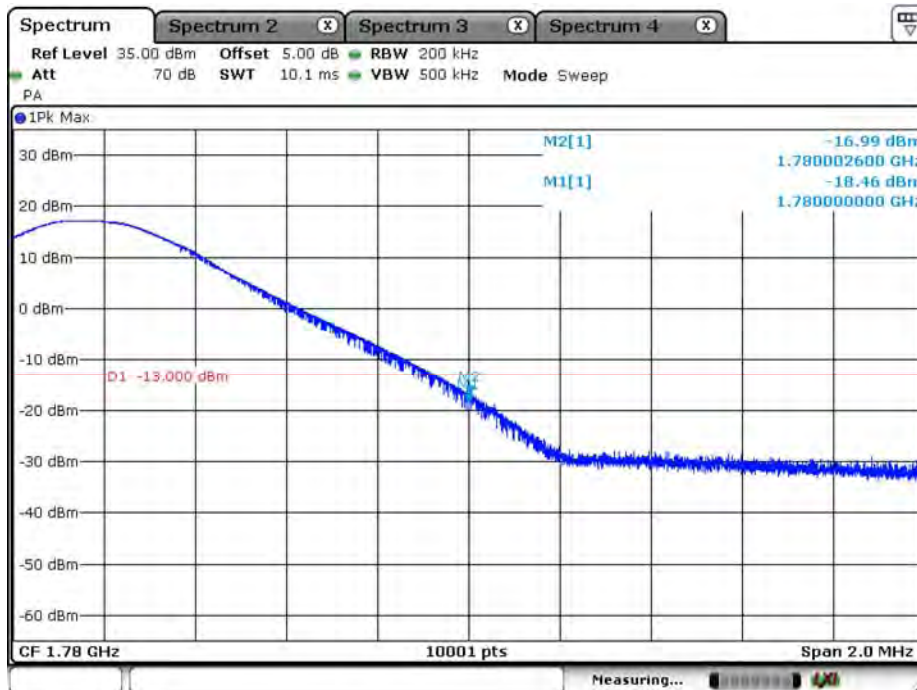
Date: 22.MAY.2018 10:25:41

### CH132047\_15M\_QPSK\_1RB0



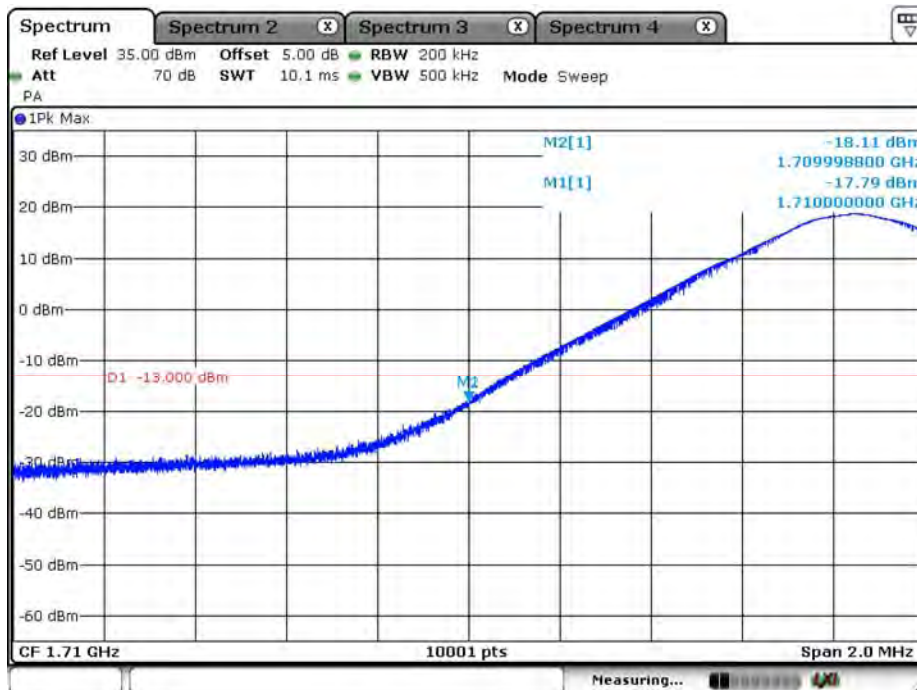
Date: 22.MAY.2018 09:58:21

### CH132597\_15M\_QPSK\_1RB74



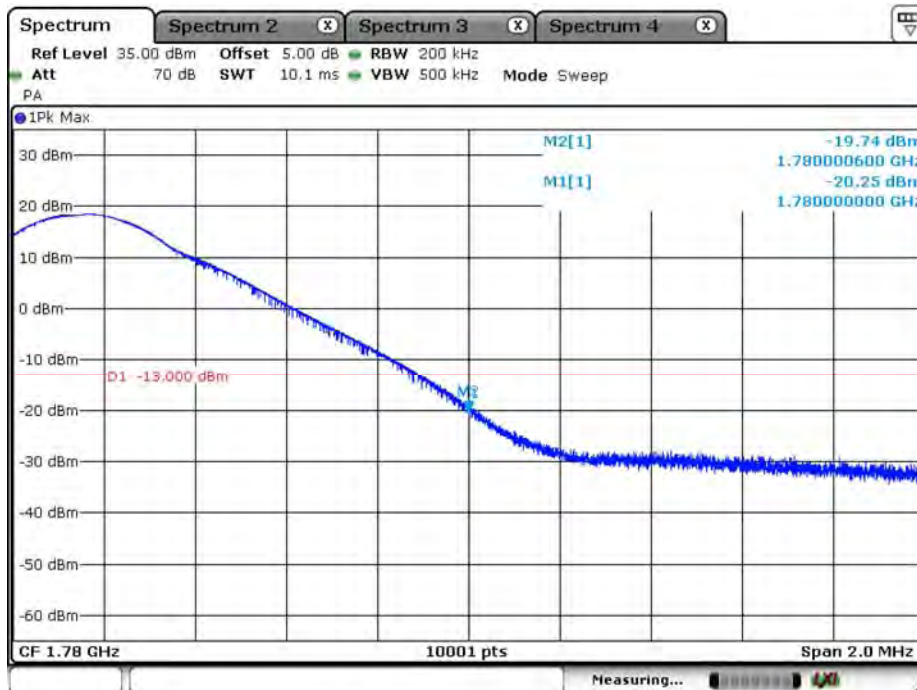
Date: 22.MAY.2018 10:21:48

### CH132047\_15M\_16-QAM\_1RB0



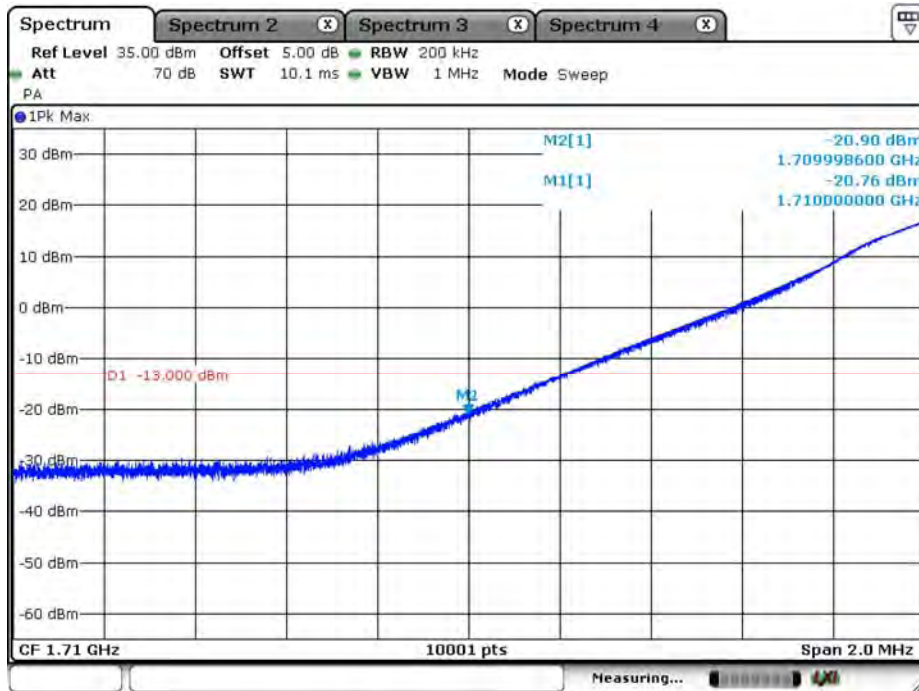
Date: 22.MAY.2018 10:01:24

### CH132597\_15M\_16-QAM\_1RB74



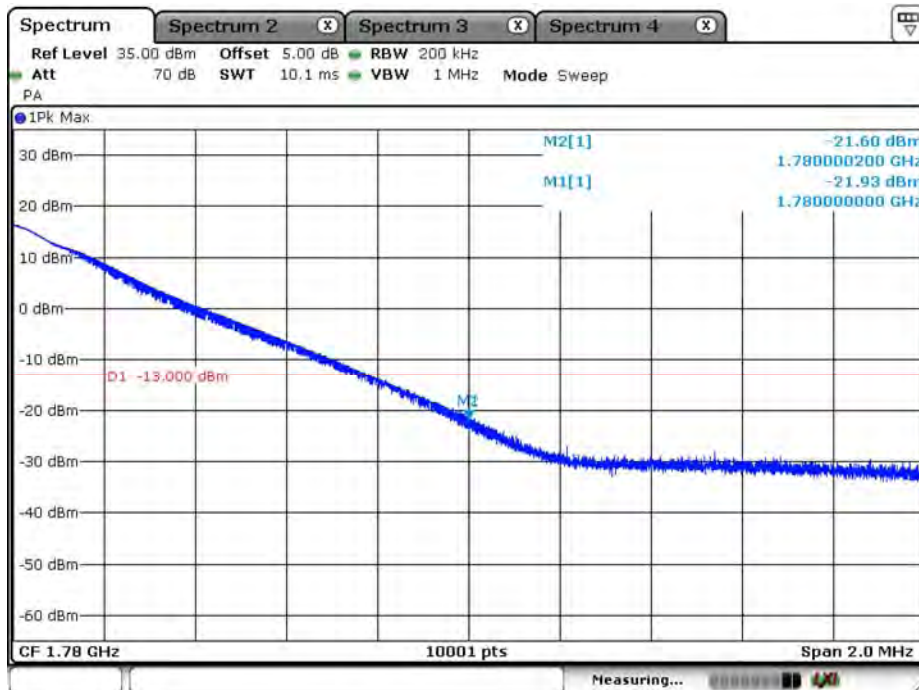
Date: 22.MAY.2018 10:18:15

### CH132072\_20M\_QPSK\_1RB0



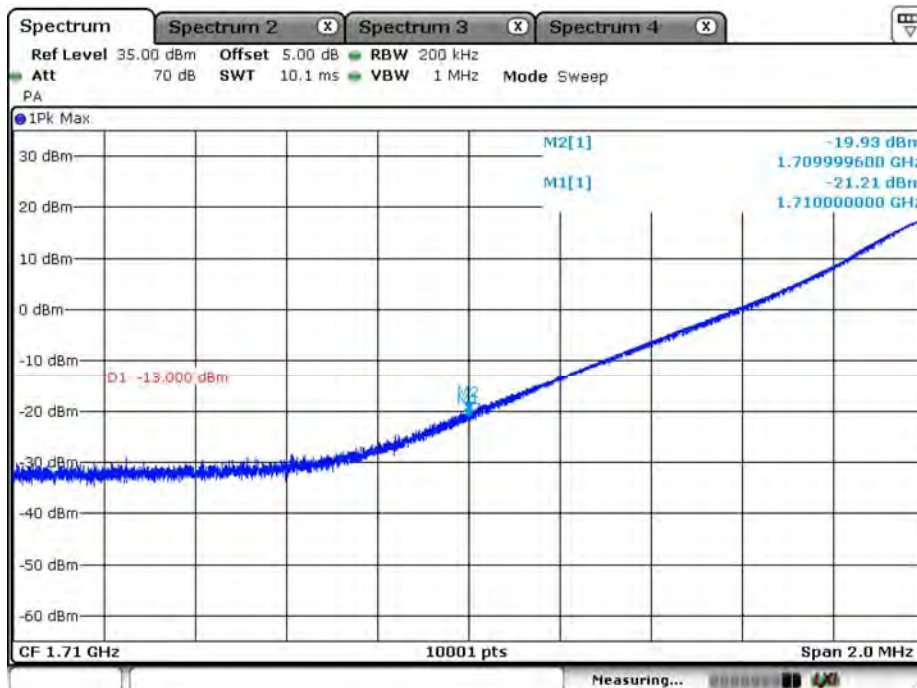
Date: 22.MAY.2018 10:04:24

### CH132572\_20M\_QPSK\_1RB99



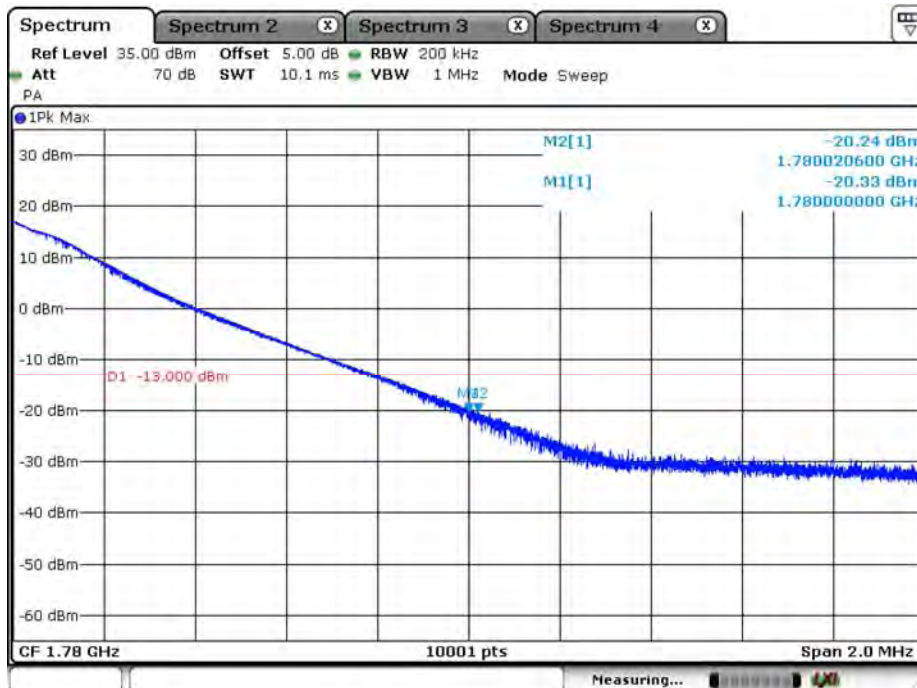
Date: 22.MAY.2018 10:09:34

### CH132072\_20M\_16-QAM\_1RB0



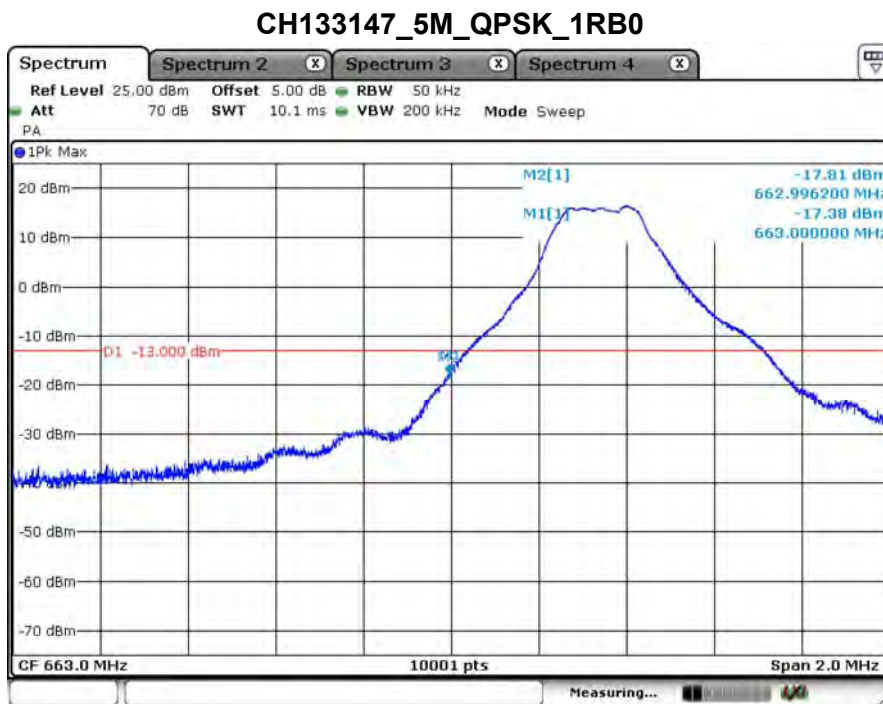
Date: 22.MAY.2018 10:06:25

### CH132572\_20M\_16-QAM\_1RB99

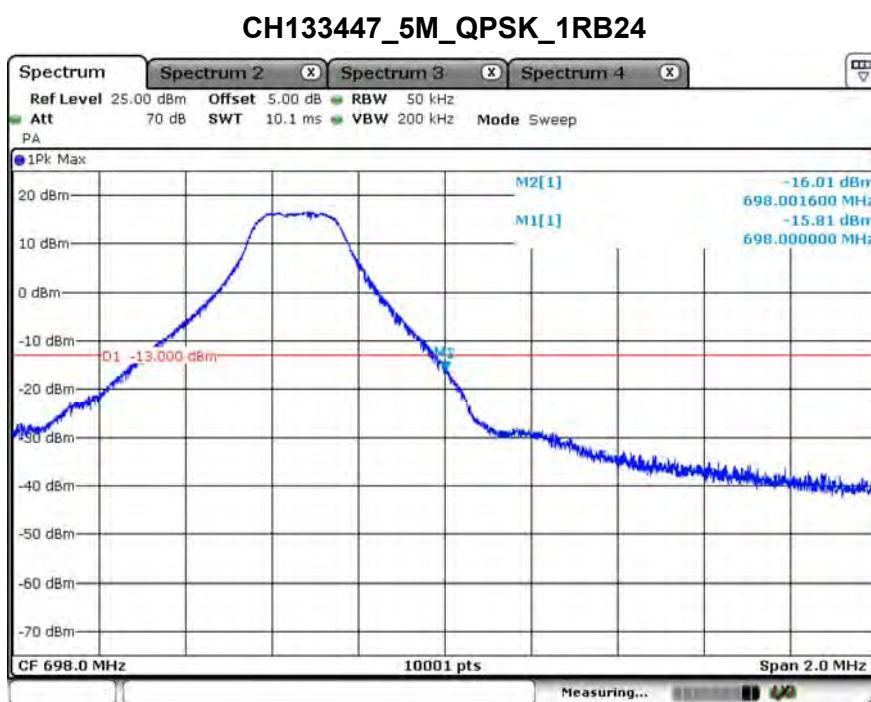


Date: 22.MAY.2018 10:12:47

Product	LM960		
Test Item	Spurious Emissions at Antenna Terminals		
Test Mode	Mode 17: LTE Band 71		
Date of Test	2018/05/24	Test Site	SR10-H

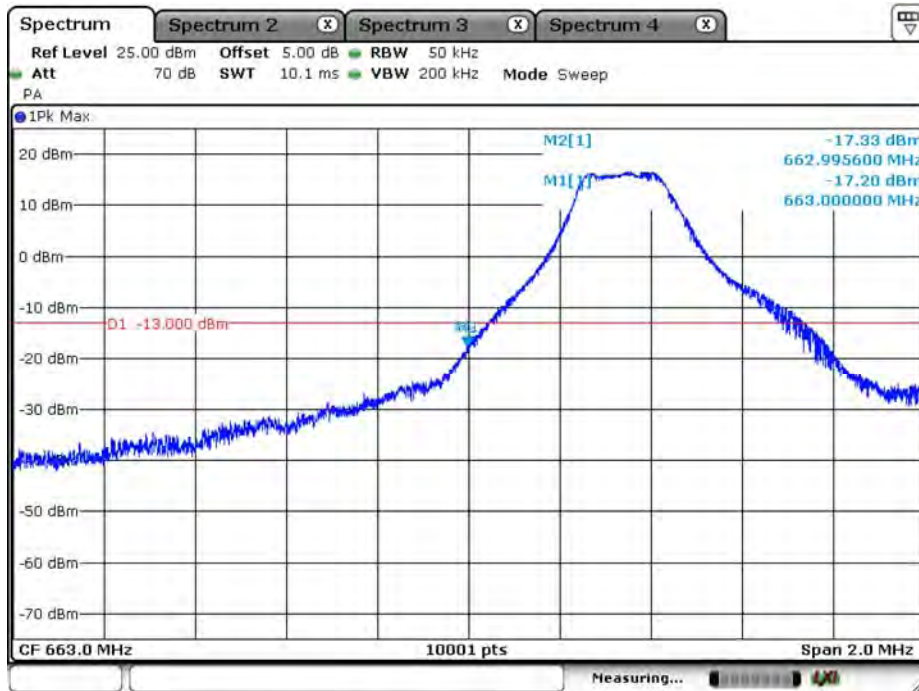


Date: 24 MAY 2018 17:30:48



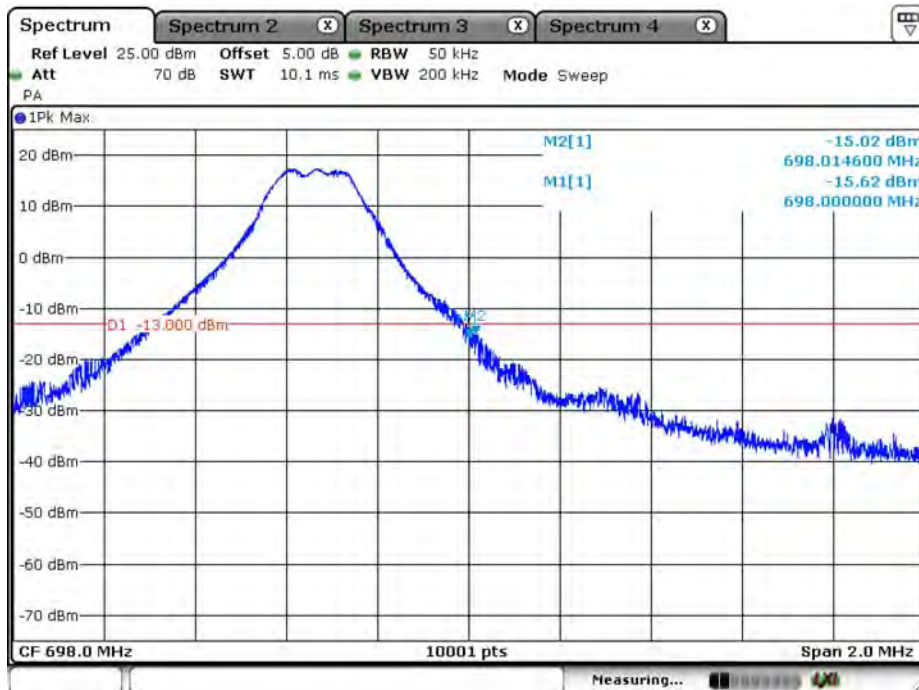
Date: 24 MAY 2018 17:33:58

### CH133147\_5M\_16-QAM\_1RB0



Date: 24.MAY.2018 17:31:41

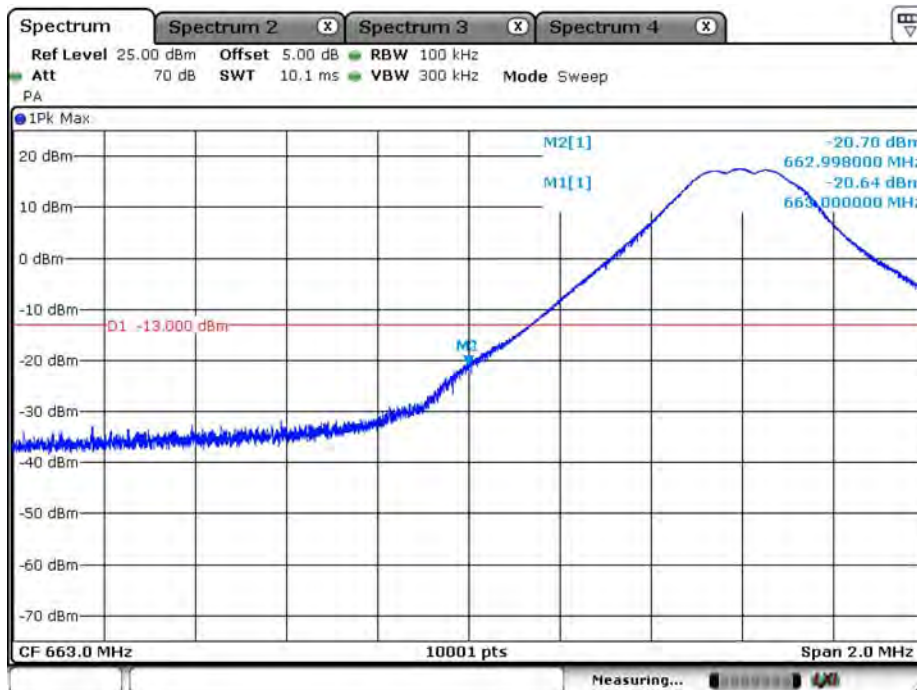
### CH133447\_5M\_16-QAM\_1RB24



Date: 24.MAY.2018 17:35:22

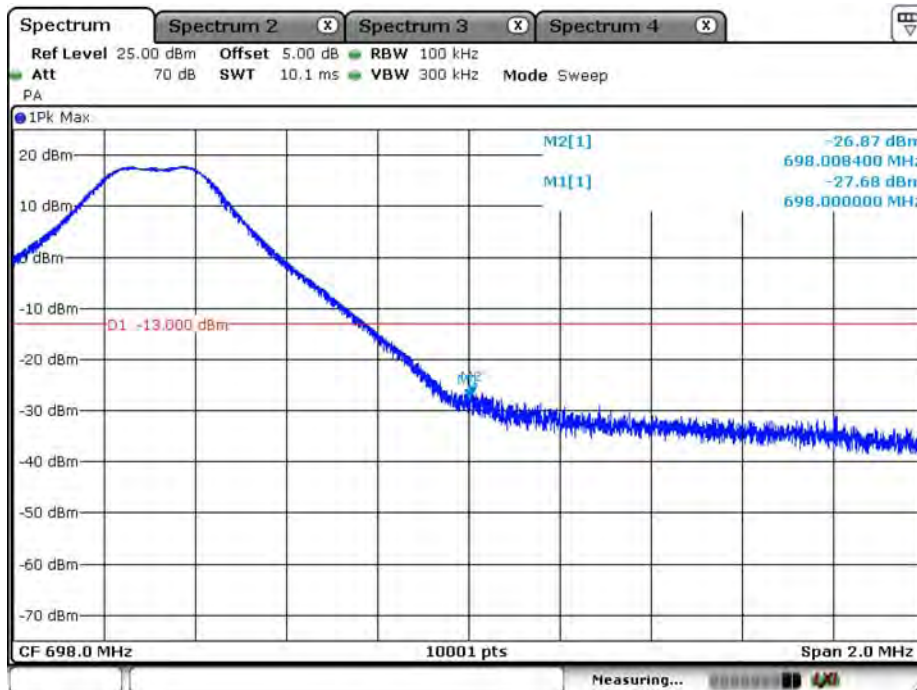


### CH133172\_10M\_QPSK\_1RB0



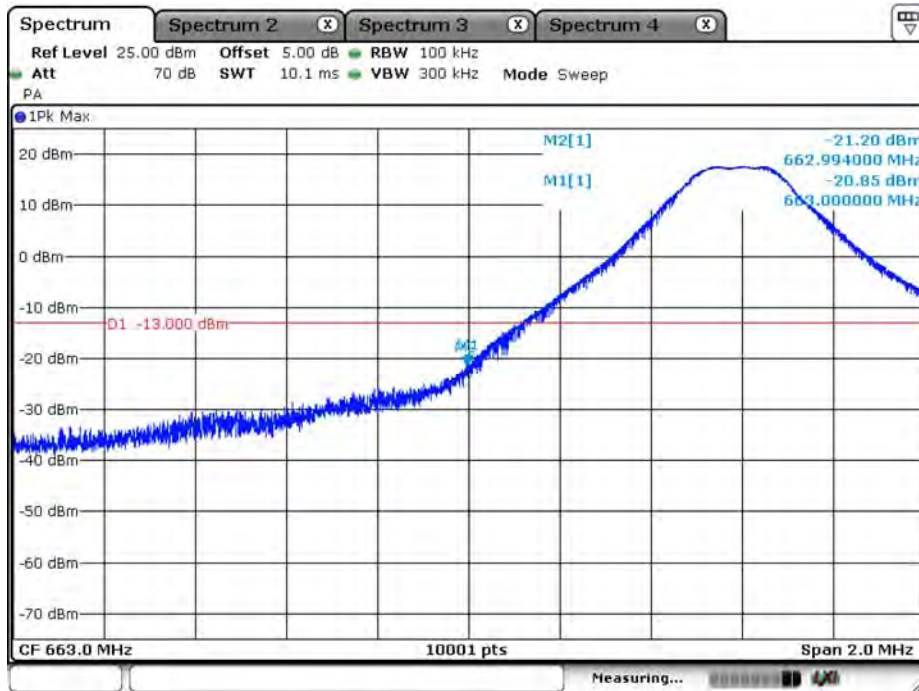
Date: 24.MAY.2018 17:47:42

### CH133421\_10M\_QPSK\_1RB49



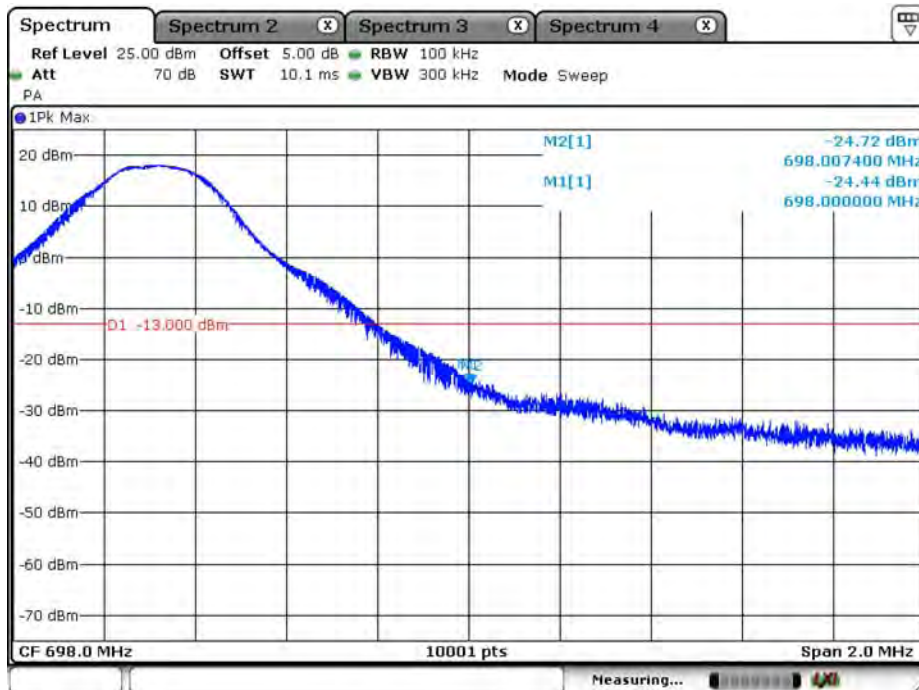
Date: 24.MAY.2018 17:50:21

### CH133172\_10M\_16-QAM\_1RB0



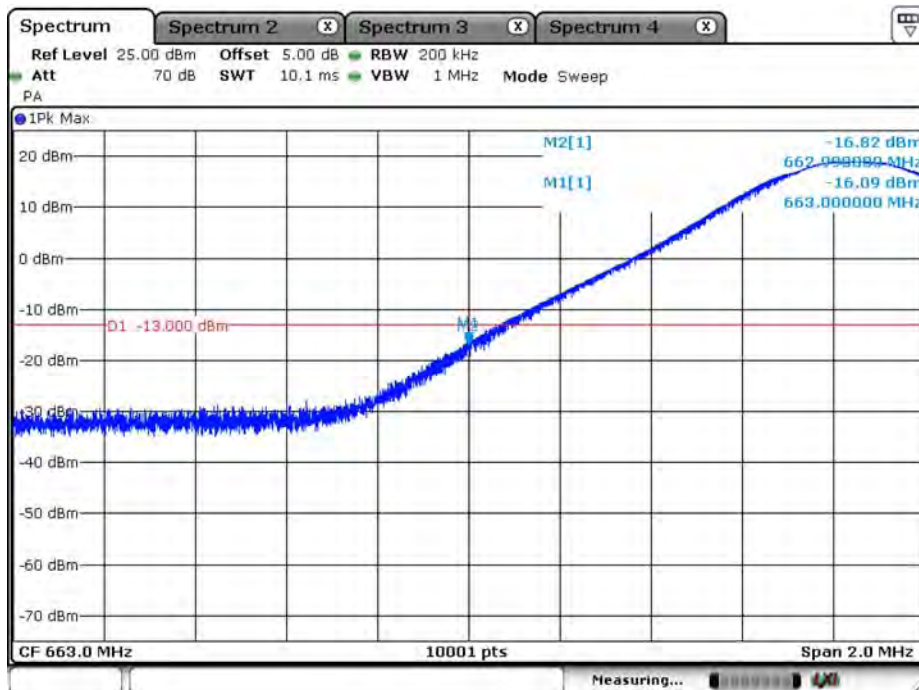
Date: 24.MAY.2018 17:48:41

### CH133421\_10M\_16-QAM\_1RB49



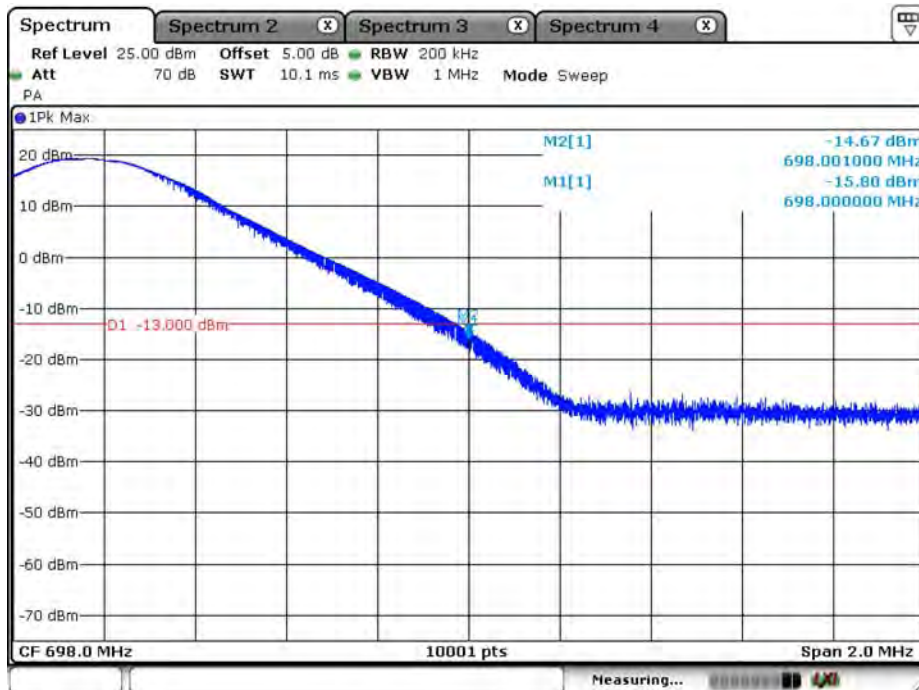
Date: 24.MAY.2018 17:51:49

### CH133197\_15M\_QPSK\_1RB0



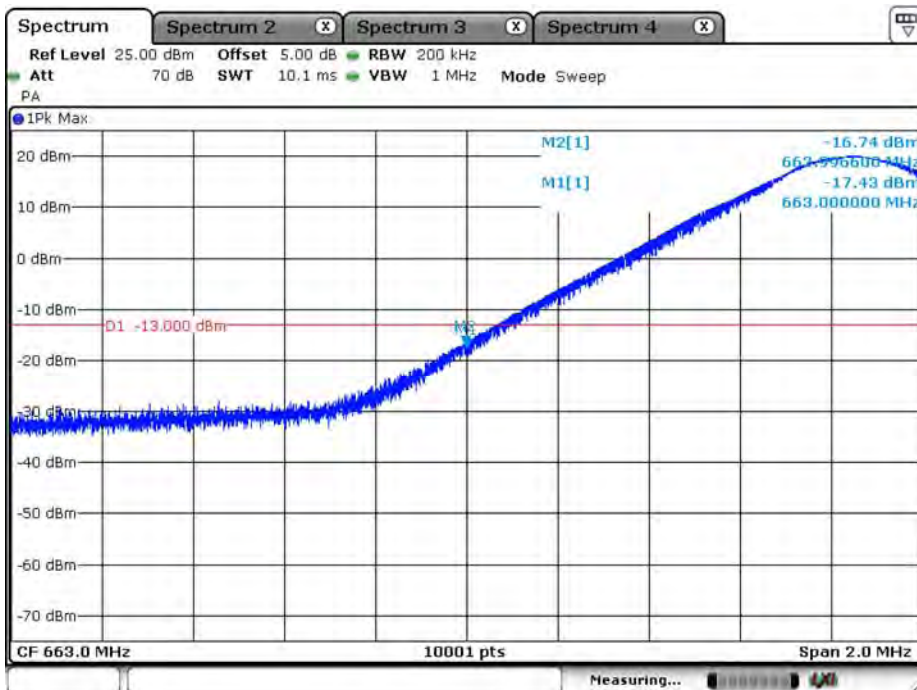
Date: 24.MAY.2018 17:56:33

### CH133397\_15M\_QPSK\_1RB74



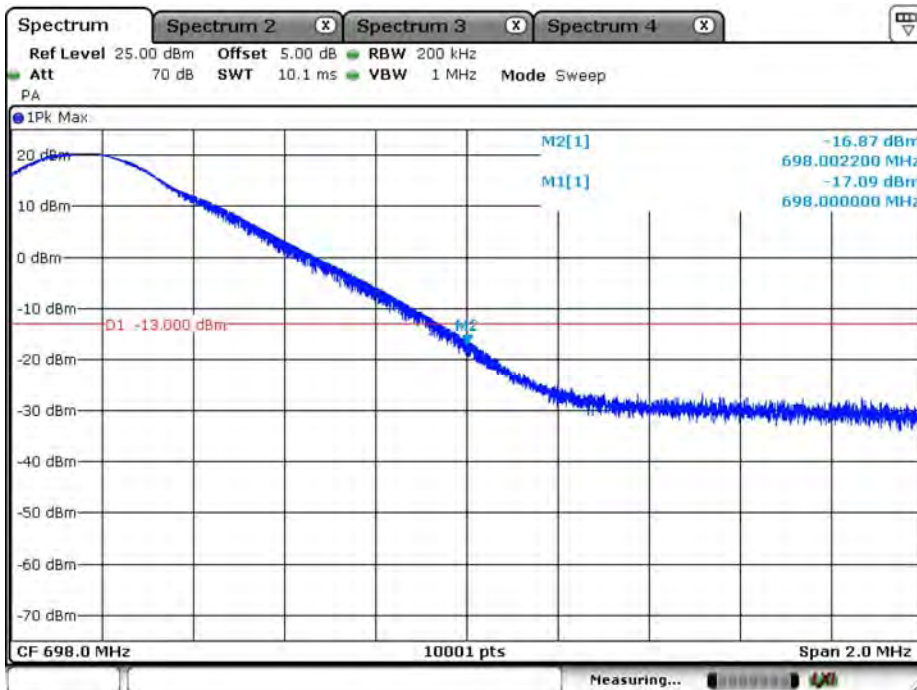
Date: 24.MAY.2018 18:00:49

### CH133197\_15M\_16-QAM\_1RB0



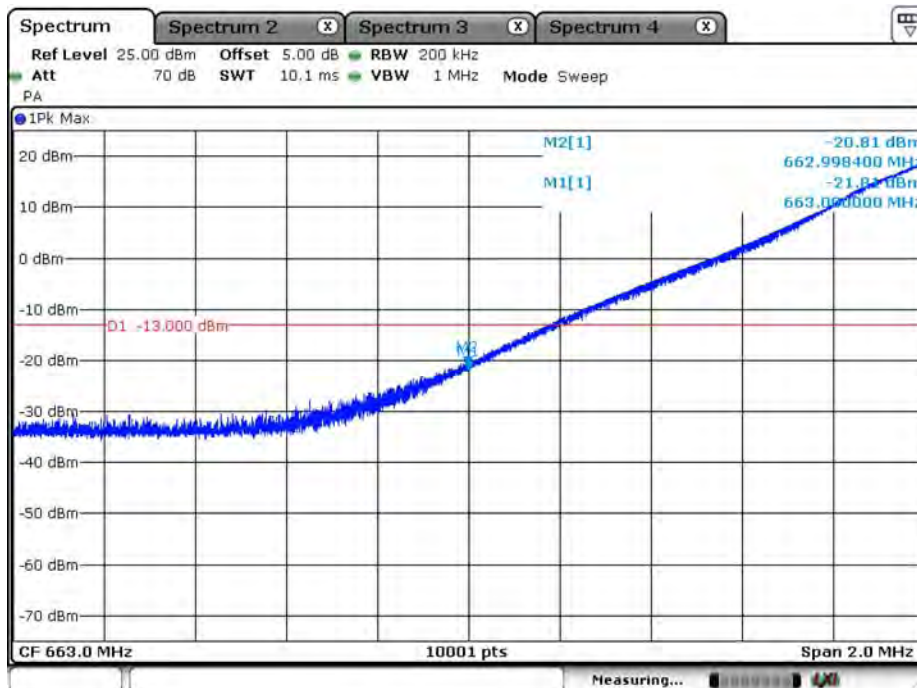
Date: 24.MAY.2018 17:58:27

### CH133397\_15M\_16-QAM\_1RB74



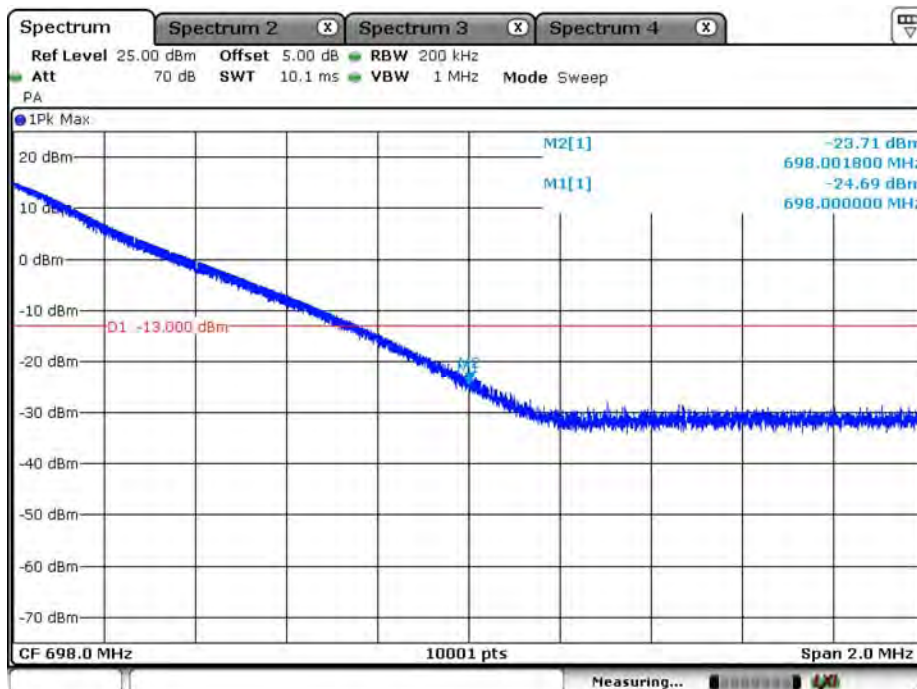
Date: 24.MAY.2018 18:02:14

### CH133222\_20M\_QPSK\_1RB0



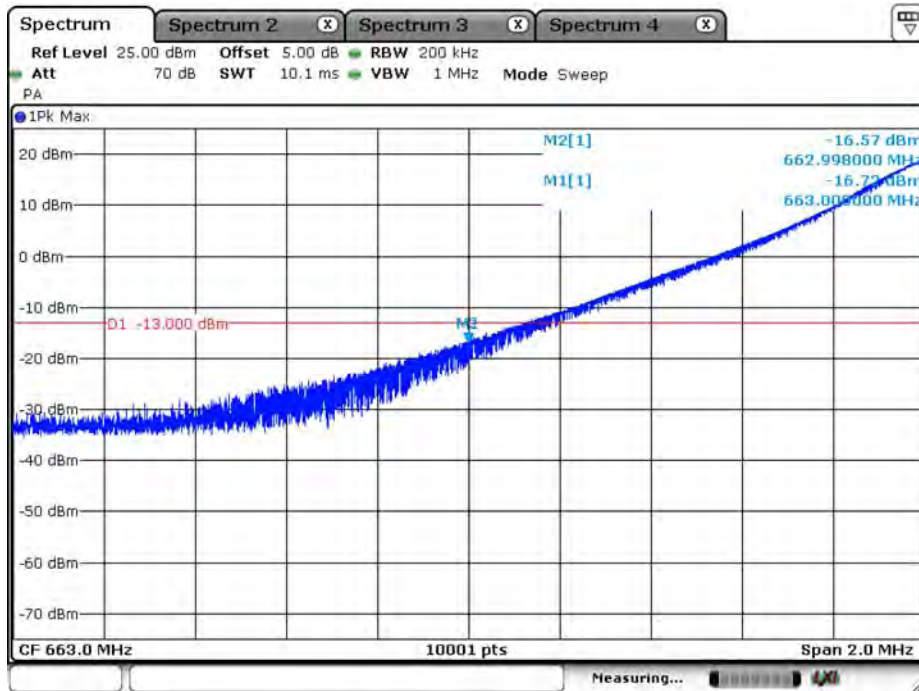
Date: 24.MAY.2018 18:05:23

### CH133371\_20M\_QPSK\_1RB99



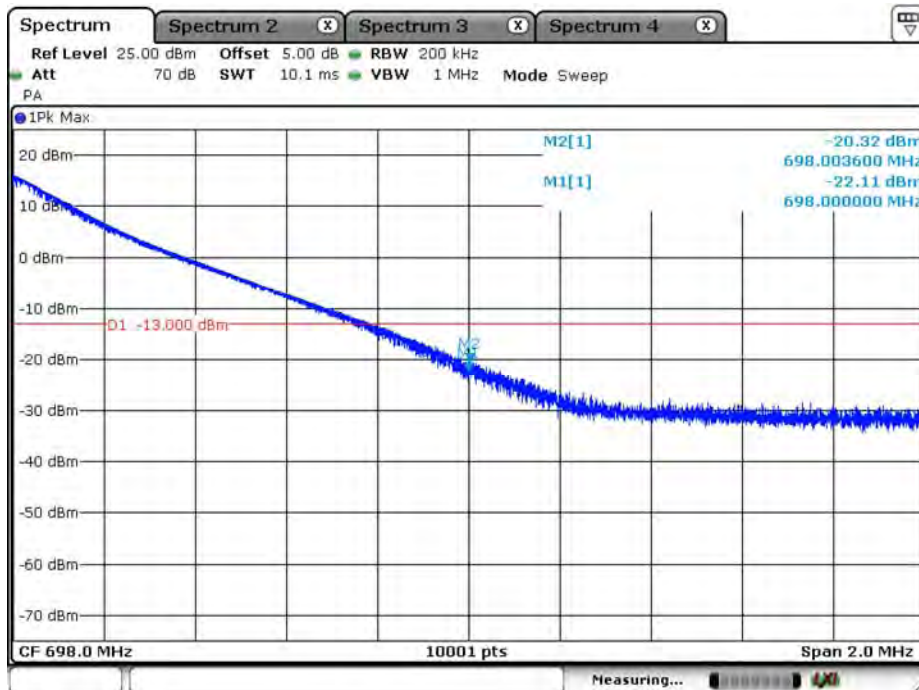
Date: 24.MAY.2018 18:08:11

### CH133222\_20M\_16-QAM\_1RB0



Date: 24.MAY.2018 18:06:38

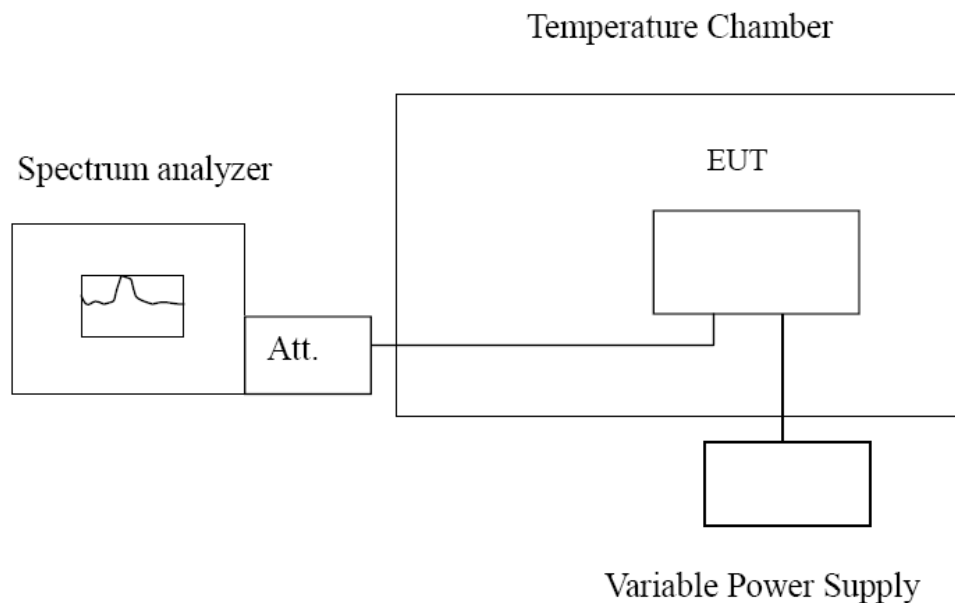
### CH133371\_20M\_16-QAM\_1RB99



Date: 24.MAY.2018 18:10:03

## 8. Frequency Stability

### 8.1. Test Setup



### 8.2. Test Procedure

#### **Frequency Stability Under Temperature Variations:**

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

#### **Frequency Stability Under Voltage Variations:**

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. Reduce the input voltage to specify extreme voltage variation ( $\pm 15\%$ ) and endpoint, record the maximum frequency change.

### 8.3. Test Method

KDB 971168 D01 Power Meas License Digital Systems v03 sub-clause 9  
ANSI C63.26: 2015 Sub-clause 5.6

**8.4. Test Result**

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band 2		
Date of Test	2018/05/16	Test Site	SR10-H

1860MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	9	-0.0050
3.3	-12	0.0067
3.1	8	-0.0044

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-12	0.0066
-20	-10	0.0055
-10	-10	0.0052
0	9	-0.0047
+10	7	-0.0036
+20	-12	0.0067
+30	-8	0.0044
+40	-10	0.0054
+50	7	-0.0040



Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band 2		
Date of Test	2018/05/16	Test Site	SR10-H

1880MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	13	-0.0070
3.3	-9	0.0049
3.1	11	-0.0061

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	17	-0.0089
-20	16	-0.0085
-10	14	-0.0075
0	13	-0.0067
+10	-10	0.0052
+20	-9	0.0049
+30	11	-0.0059
+40	9	-0.0047
+50	13	-0.0069

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 1: LTE Band 2		
Date of Test	2018/05/16	Test Site	SR10-H

## 1900MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	13	-0.0067
3.3	9	-0.0047
3.1	14	-0.0075

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	10	-0.0050
-20	10	-0.0051
-10	10	-0.0051
0	11	-0.0057
+10	-8	0.0043
+20	9	-0.0047
+30	-9	0.0046
+40	-8	0.0042
+50	14	-0.0071

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 2: LTE Band 4		
Date of Test	2018/05/16	Test Site	SR10-H

1720MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-11	0.0060
3.3	-8	0.0041
3.1	-8	0.0044

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-10	0.0055
-20	-10	0.0052
-10	-10	0.0056
0	-10	0.0052
+10	-7	0.0037
+20	-8	0.0043
+30	7	-0.0037
+40	6	-0.0032
+50	9	-0.0049

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 2: LTE Band 4		
Date of Test	2018/05/16	Test Site	SR10-H

1732.5MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	5	-0.0029
3.3	4	-0.0023
3.1	6	-0.0030

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-5	0.0029
-20	-4	0.0024
-10	-7	0.0038
0	-5	0.0028
+10	-4	0.0024
+20	4	-0.0021
+30	-4	0.0023
+40	-6	0.0030
+50	-7	0.0037

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 2: LTE Band 4		
Date of Test	2018/05/16	Test Site	SR10-H

1745MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-6	0.0033
3.3	6	-0.0033
3.1	-4	0.0023

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	12	-0.0064
-20	11	-0.0056
-10	10	-0.0053
0	10	-0.0050
+10	7	-0.0037
+20	6	-0.0031
+30	-7	0.0035
+40	-8	0.0040
+50	-9	0.0046

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 3: LTE Band 5		
Date of Test	2018/05/16	Test Site	SR10-H

829MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-6	0.0068
3.3	-5	0.0064
3.1	-4	0.0053

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-6	0.0077
-20	-9	0.0106
-10	-8	0.0095
0	-10	0.0118
+10	-5	0.0055
+20	-6	0.0077
+30	-6	0.0071
+40	-4	0.0051
+50	-6	0.0076

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 3: LTE Band 5		
Date of Test	2018/05/16	Test Site	SR10-H

## 836.5MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-7	0.0079
3.3	-8	0.0091
3.1	-6	0.0068

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-9	0.0103
-20	-10	0.0117
-10	-4	0.0045
0	-4	0.0044
+10	-5	0.0064
+20	6	-0.0071
+30	-5	0.0065
+40	-9	0.0105
+50	6	-0.0071

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 3: LTE Band 5		
Date of Test	2018/05/16	Test Site	SR10-H

## 844MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	6	-0.0069
3.3	8	-0.0092
3.1	-11	0.0127

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	8	-0.0090
-20	-3	0.0034
-10	-9	0.0104
0	3	-0.0037
+10	-5	0.0057
+20	5	-0.0058
+30	-4	0.0050
+40	-3	0.0034
+50	3	-0.0040



Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 4: LTE Band 7		
Date of Test	2018/05/16	Test Site	SR10-H

## 2510MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	5	-0.0063
3.3	9	-0.0111
3.1	-9	0.0101

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-3	0.0040
-20	6	-0.0070
-10	-4	0.0042
0	-9	0.0101
+10	5	-0.0060
+20	8	-0.0097
+30	5	-0.0054
+40	-9	0.0104
+50	-3	0.0040

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 4: LTE Band 7		
Date of Test	2018/05/16	Test Site	SR10-H

2535MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	9	-0.0102
3.3	3	-0.0035
3.1	-7	0.0088

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-3	0.0040
-20	2	-0.0027
-10	-4	0.0042
0	4	-0.0042
+10	6	-0.0067
+20	7	-0.0084
+30	5	-0.0054
+40	-4	0.0045
+50	-3	0.0040

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 4: LTE Band 7		
Date of Test	2018/05/16	Test Site	SR10-H

2560MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	6	-0.0067
3.3	8	-0.0093
3.1	-5	0.0057

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	5	-0.0061
-20	-7	0.0081
-10	-6	0.0073
0	6	-0.0067
+10	7	-0.0081
+20	7	-0.0084
+30	-8	0.0095
+40	-7	0.0085
+50	-10	0.0114

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 5: LTE Band 12		
Date of Test	2018/05/16	Test Site	SR10-H

704MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	6	-0.0071
3.3	8	-0.0089
3.1	-5	0.0058

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	5	-0.0062
-20	-7	0.0079
-10	-6	0.0073
0	5	-0.0065
+10	7	-0.0085
+20	7	-0.0083
+30	-8	0.0096
+40	-7	0.0085
+50	-9	0.0111

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 5: LTE Band 12		
Date of Test	2018/05/16	Test Site	SR10-H

## 707.5MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	5	-0.0060
3.3	7	-0.0089
3.1	-10	0.0119

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	5	-0.0055
-20	-9	0.0105
-10	5	-0.0063
0	-7	0.0080
+10	-6	0.0074
+20	-7	0.0089
+30	-7	0.0082
+40	-4	0.0050
+50	-3	0.0034

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 5: LTE Band 12		
Date of Test	2018/05/16	Test Site	SR10-H

## 711MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-9	0.0106
3.3	7	-0.0084
3.1	-4	0.0053

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	7	-0.0089
-20	-4	0.0042
-10	-9	0.0106
0	4	-0.0044
+10	-5	0.0063
+20	4	-0.0053
+30	-5	0.0056
+40	-3	0.0036
+50	3	-0.0038

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 6: LTE Band 13		
Date of Test	2018/05/16	Test Site	SR10-H

782MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-8	0.0097
3.3	-5	0.0064
3.1	-5	0.0064

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-8	0.0091
-20	-9	0.0112
-10	-3	0.0041
0	-5	0.0055
+10	-5	0.0059
+20	6	-0.0068
+30	-5	0.0063
+40	-8	0.0100
+50	6	-0.0067

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 7: LTE Band 14		
Date of Test	2018/05/14	Test Site	SR10-H

790.5MHz\_5M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	56	-0.0708
3.3	-39	0.0493
3.1	-16	0.0202

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	47	-0.0595
-20	-37	0.0468
-10	28	-0.0354
0	23	-0.0291
10	29	-0.0367
20	45	-0.0569
30	40	-0.0506
40	51	-0.0645
50	-28	0.0354



Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 7: LTE Band 14		
Date of Test	2018/05/14	Test Site	SR10-H

## 790.5MHz\_5M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	37	-0.0468
3.3	-9	0.0114
3.1	14	-0.0177

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	52	-0.0658
-20	43	-0.0544
-10	33	-0.0417
0	44	-0.0557
10	-13	0.0164
20	15	-0.0190
30	-11	0.0139
40	-56	0.0708
50	19	-0.0240

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 7: LTE Band 14		
Date of Test	2018/05/14	Test Site	SR10-H

793MHz\_10M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	33	-0.0416
3.3	-17	0.0214
3.1	11	-0.0139

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	54	-0.0681
-20	15	-0.0189
-10	56	-0.0706
0	-43	0.0542
10	-48	0.0605
20	63	-0.0794
30	46	-0.0580
40	51	-0.0643
50	38	-0.0479

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 7: LTE Band 14		
Date of Test	2018/05/14	Test Site	SR10-H

793MHz\_10M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	25	-0.0315
3.3	-23	0.0290
3.1	28	-0.0353

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	67	-0.0845
-20	36	-0.0454
-10	-17	0.0214
0	-27	0.0340
10	21	-0.0265
20	34	-0.0429
30	-24	0.0303
40	-51	0.0643
50	-14	0.0177

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 8: LTE Band 17		
Date of Test	2018/05/16	Test Site	SR10-H

## 709MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	8	-0.0046
3.3	8	-0.0048
3.1	8	-0.0045

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-25	0.0146
-20	-25	0.0144
-10	-26	0.0154
0	-19	0.0112
+10	-14	0.0083
+20	8	-0.0047
+30	7	-0.0043
+40	15	-0.0090
+50	17	-0.0101

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 8: LTE Band 17		
Date of Test	2018/05/16	Test Site	SR10-H

710MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-4	0.0022
3.3	4	-0.0025
3.1	-3	0.0020

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	6	-0.0032
-20	4	-0.0024
-10	5	-0.0027
0	-18	0.0104
+10	13	-0.0076
+20	4	-0.0023
+30	7	-0.0042
+40	-12	0.0069
+50	15	-0.0085

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 8: LTE Band 17		
Date of Test	2018/05/16	Test Site	SR10-H

711MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-6	0.0036
3.3	-5	0.0031
3.1	-5	0.0030

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	27	-0.0152
-20	27	-0.0154
-10	27	-0.0152
0	20	-0.0116
+10	18	-0.0100
+20	-5	0.0029
+30	-9	0.0053
+40	-12	0.0070
+50	-15	0.0087

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 9: LTE Band 18		
Date of Test	2018/05/14	Test Site	SR10-H

822.5MHz\_5M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-23	0.0280
3.3	-29	0.0353
3.1	-39	0.0474

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	25	-0.0304
-20	-33	0.0401
-10	-15	0.0182
0	-62	0.0754
10	53	-0.0644
20	11	-0.0134
30	28	-0.0340
40	-84	0.1021
50	-14	0.0170

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 9: LTE Band 18		
Date of Test	2018/05/14	Test Site	SR10-H

822.5MHz\_5M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	44	-0.0535
3.3	35	-0.0426
3.1	-27	0.0328

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	14	-0.0170
-20	31	-0.0377
-10	33	-0.0401
0	-41	0.0498
10	67	-0.0815
20	39	-0.0474
30	31	-0.0377
40	11	-0.0134
50	-61	0.0742



Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 9: LTE Band 18		
Date of Test	2018/05/14	Test Site	SR10-H

825MHz\_10M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-62	0.0752
3.3	29	-0.0352
3.1	-32	0.0388

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	14	-0.0170
-20	-37	0.0448
-10	-69	0.0836
0	47	-0.0570
10	-25	0.0303
20	14	-0.0170
30	-16	0.0194
40	-29	0.0352
50	58	-0.0703

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 9: LTE Band 18		
Date of Test	2018/05/14	Test Site	SR10-H

## 825MHz\_10M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	28	-0.0339
3.3	58	-0.0703
3.1	-15	0.0182

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-22	0.0267
-20	32	-0.0388
-10	-49	0.0594
0	55	-0.0667
10	34	-0.0412
20	-25	0.0303
30	16	-0.0194
40	-61	0.0739
50	-13	0.0158

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 9: LTE Band 18		
Date of Test	2018/05/14	Test Site	SR10-H

822.5MHz\_15M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	17	-0.0206
3.3	51	-0.0618
3.1	46	-0.0558

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	62	-0.0752
-20	22	-0.0267
-10	29	-0.0352
0	33	-0.0400
10	-19	0.0230
20	24	-0.0291
30	-39	0.0473
40	13	-0.0158
50	-37	0.0448

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 9: LTE Band 18		
Date of Test	2018/05/14	Test Site	SR10-H

822.5MHz\_15M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-29	0.0352
3.3	-37	0.0448
3.1	-19	0.0230

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-17	0.0206
-20	14	-0.0170
-10	-31	0.0376
0	-28	0.0339
10	25	-0.0303
20	-12	0.0145
30	-26	0.0315
40	47	-0.0570
50	41	-0.0497

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 10: LTE Band 19		
Date of Test	2018/05/14	Test Site	SR10-H

5M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	56	-0.0708
3.3	-39	0.0493
3.1	-16	0.0202

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	47	-0.0595
-20	-37	0.0468
-10	28	-0.0354
0	23	-0.0291
10	29	-0.0367
20	45	-0.0569
30	40	-0.0506
40	51	-0.0645
50	-28	0.0354

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 10: LTE Band 19		
Date of Test	2018/05/14	Test Site	SR10-H

## 5M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	37	-0.0468
3.3	-9	0.0114
3.1	14	-0.0177

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	52	-0.0658
-20	43	-0.0544
-10	33	-0.0417
0	44	-0.0557
10	-13	0.0164
20	15	-0.0190
30	-11	0.0139
40	-56	0.0708
50	19	-0.0240

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 10: LTE Band 19		
Date of Test	2018/05/14	Test Site	SR10-H

## 10M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	33	-0.0416
3.3	-17	0.0214
3.1	11	-0.0139

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	54	-0.0681
-20	15	-0.0189
-10	56	-0.0706
0	-43	0.0542
10	-48	0.0605
20	63	-0.0794
30	46	-0.0580
40	51	-0.0643
50	38	-0.0479

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 10: LTE Band 19		
Date of Test	2018/05/14	Test Site	SR10-H

## 5M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	25	-0.0315
3.3	-23	0.0290
3.1	28	-0.0353

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	67	-0.0845
-20	36	-0.0454
-10	-17	0.0214
0	-27	0.0340
10	21	-0.0265
20	34	-0.0429
30	-24	0.0303
40	-51	0.0643
50	-14	0.0177



Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 11: LTE Band 25		
Date of Test	2018/05/16	Test Site	SR10-H

## 1860MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	22	-0.0263
3.3	17	-0.0203
3.1	21	-0.0254

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-17	0.0210
-20	16	-0.0195
-10	17	-0.0203
0	18	-0.0215
+10	17	-0.0209
+20	17	-0.0203
+30	16	-0.0197
+40	19	-0.0230
+50	19	-0.0236

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 11: LTE Band 25		
Date of Test	2018/05/16	Test Site	SR10-H

1882.5MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	22	-0.0258
3.3	20	-0.0233
3.1	22	-0.0263

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	19	-0.0230
-20	19	-0.0223
-10	18	-0.0210
0	21	-0.0254
+10	19	-0.0224
+20	20	-0.0233
+30	18	-0.0215
+40	16	-0.0192
+50	18	-0.0217

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 11: LTE Band 25		
Date of Test	2018/05/16	Test Site	SR10-H

## 1905MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	24	-0.0281
3.3	19	-0.0218
3.1	21	-0.0249

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	19	-0.0220
-20	16	-0.0193
-10	16	-0.0189
0	14	-0.0168
+10	16	-0.0186
+20	19	-0.0218
+30	17	-0.0205
+40	22	-0.0254
+50	18	-0.0207

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 12: LTE Band 26		
Date of Test	2018/05/14	Test Site	SR10-H

## 5M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	56	-0.0708
3.3	-39	0.0493
3.1	-16	0.0202

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	47	-0.0595
-20	-37	0.0468
-10	28	-0.0354
0	23	-0.0291
10	29	-0.0367
20	45	-0.0569
30	40	-0.0506
40	51	-0.0645
50	-28	0.0354

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 12: LTE Band 26		
Date of Test	2018/05/14	Test Site	SR10-H

5M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	37	-0.0468
3.3	-9	0.0114
3.1	14	-0.0177

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	52	-0.0658
-20	43	-0.0544
-10	33	-0.0417
0	44	-0.0557
10	-13	0.0164
20	15	-0.0190
30	-11	0.0139
40	-56	0.0708
50	19	-0.0240

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 12: LTE Band 26		
Date of Test	2018/05/14	Test Site	SR10-H

## 10M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	33	-0.0416
3.3	-17	0.0214
3.1	11	-0.0139

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	54	-0.0681
-20	15	-0.0189
-10	56	-0.0706
0	-43	0.0542
10	-48	0.0605
20	63	-0.0794
30	46	-0.0580
40	51	-0.0643
50	38	-0.0479

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 12: LTE Band 26		
Date of Test	2018/05/14	Test Site	SR10-H

## 5M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	25	-0.0315
3.3	-23	0.0290
3.1	28	-0.0353

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	67	-0.0845
-20	36	-0.0454
-10	-17	0.0214
0	-27	0.0340
10	21	-0.0265
20	34	-0.0429
30	-24	0.0303
40	-51	0.0643
50	-14	0.0177

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 13: LTE Band 30		
Date of Test	2018/05/14	Test Site	SR10-H

## 5M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	56	-0.0708
3.3	-39	0.0493
3.1	-16	0.0202

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	47	-0.0595
-20	-37	0.0468
-10	28	-0.0354
0	23	-0.0291
10	29	-0.0367
20	45	-0.0569
30	40	-0.0506
40	51	-0.0645
50	-28	0.0354



Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 13: LTE Band 30		
Date of Test	2018/05/14	Test Site	SR10-H

## 5M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	37	-0.0468
3.3	-9	0.0114
3.1	14	-0.0177

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	52	-0.0658
-20	43	-0.0544
-10	33	-0.0417
0	44	-0.0557
10	-13	0.0164
20	15	-0.0190
30	-11	0.0139
40	-56	0.0708
50	19	-0.0240

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 13: LTE Band 30		
Date of Test	2018/05/14	Test Site	SR10-H

## 10M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	33	-0.0416
3.3	-17	0.0214
3.1	11	-0.0139

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	54	-0.0681
-20	15	-0.0189
-10	56	-0.0706
0	-43	0.0542
10	-48	0.0605
20	63	-0.0794
30	46	-0.0580
40	51	-0.0643
50	38	-0.0479

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 13: LTE Band 30		
Date of Test	2018/05/14	Test Site	SR10-H

5M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	25	-0.0315
3.3	-23	0.0290
3.1	28	-0.0353

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	67	-0.0845
-20	36	-0.0454
-10	-17	0.0214
0	-27	0.0340
10	21	-0.0265
20	34	-0.0429
30	-24	0.0303
40	-51	0.0643
50	-14	0.0177

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 14: LTE Band 38		
Date of Test	2018/05/16	Test Site	SR10-H

## 2580MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	6	-0.0071
3.3	9	-0.0111
3.1	-5	0.0058

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	5	-0.0062
-20	-7	0.0079
-10	5	-0.0054
0	-9	0.0104
+10	5	-0.0062
+20	6	-0.0070
+30	-4	0.0042
+40	-9	0.0101
+50	-9	0.0111

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 14: LTE Band 38		
Date of Test	2018/05/16	Test Site	SR10-H

## 2595MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-8	0.0094
3.3	7	-0.0089
3.1	-5	0.0063

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-7	0.0082
-20	-4	0.0050
-10	5	-0.0063
0	6	-0.0071
+10	-4	0.0042
+20	-9	0.0105
+30	5	-0.0063
+40	-7	0.0080
+50	6	-0.0071

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 14: LTE Band 38		
Date of Test	2018/05/16	Test Site	SR10-H

## 2610MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	7	-0.0080
3.3	6	-0.0071
3.1	-9	0.0110

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	5	-0.0055
-20	-8	0.0098
-10	5	-0.0060
0	-7	0.0082
+10	-6	0.0067
+20	-7	0.0082
+30	-7	0.0084
+40	-4	0.0048
+50	-3	0.0034

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 15: LTE Band 41		
Date of Test	2018/05/16	Test Site	SR10-H

2506MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-7	0.0085
3.3	-5	0.0061
3.1	-5	0.0064

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-7	0.0085
-20	-9	0.0113
-10	-3	0.0036
0	-5	0.0057
+10	-5	0.0057
+20	5	-0.0066
+30	-5	0.0056
+40	-8	0.0094
+50	-6	0.0073

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 15: LTE Band 41		
Date of Test	2018/05/16	Test Site	SR10-H

2593MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-7	0.0079
3.3	7	-0.0080
3.1	-5	0.0058

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-8	0.0098
-20	-6	0.0070
-10	5	-0.0063
0	5	-0.0066
+10	-5	0.0055
+20	-8	0.0093
+30	5	-0.0063
+40	-7	0.0084
+50	-4	0.0048



Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 15: LTE Band 41		
Date of Test	2018/05/16	Test Site	SR10-H

## 2680MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	7	-0.0080
3.3	6	-0.0074
3.1	-9	0.0106

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	4	-0.0051
-20	-7	0.0084
-10	5	-0.0063
0	-6	0.0066
+10	-6	0.0072
+20	-6	0.0072
+30	-5	0.0063
+40	-5	0.0058
+50	-2	0.0027

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 16: LTE Band 66		
Date of Test	2018/05/16	Test Site	SR10-H

## 1720MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	2	-0.0025
3.3	2	-0.0030
3.1	3	-0.0032

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-5	0.0066
-20	-6	0.0070
-10	-5	0.0062
0	-4	0.0050
+10	-3	0.0042
+20	2	-0.0024
+30	-3	0.0032
+40	4	-0.0054
+50	3	-0.0035

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 16: LTE Band 66		
Date of Test	2018/05/16	Test Site	SR10-H

1745MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	2	-0.0023
3.3	3	-0.0033
3.1	-3	0.0032

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	-2	0.0028
-20	3	-0.0030
-10	4	-0.0049
0	-2	0.0029
+10	3	-0.0037
+20	3	-0.0036
+30	2	-0.0025
+40	-2	0.0026
+50	-3	0.0041

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 16: LTE Band 66		
Date of Test	2018/05/16	Test Site	SR10-H

1770MHz

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	-3	0.0034
3.3	-2	0.0028
3.1	-3	0.0031

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	5	-0.0065
-20	5	-0.0059
-10	5	-0.0057
0	5	-0.0055
+10	3	-0.0035
+20	-2	0.0024
+30	-2	0.0028
+40	4	-0.0044
+50	-4	0.0047

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 17: LTE Band 71		
Date of Test	2018/05/14	Test Site	SR10-H

5M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	56	-0.0708
3.3	-39	0.0493
3.1	-16	0.0202

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	47	-0.0595
-20	-37	0.0468
-10	28	-0.0354
0	23	-0.0291
10	29	-0.0367
20	45	-0.0569
30	40	-0.0506
40	51	-0.0645
50	-28	0.0354

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 17: LTE Band 71		
Date of Test	2018/05/14	Test Site	SR10-H

## 5M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	37	-0.0468
3.3	-9	0.0114
3.1	14	-0.0177

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	52	-0.0658
-20	43	-0.0544
-10	33	-0.0417
0	44	-0.0557
10	-13	0.0164
20	15	-0.0190
30	-11	0.0139
40	-56	0.0708
50	19	-0.0240

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 17: LTE Band 71		
Date of Test	2018/05/14	Test Site	SR10-H

10M\_QPSK

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	33	-0.0416
3.3	-17	0.0214
3.1	11	-0.0139

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	54	-0.0681
-20	15	-0.0189
-10	56	-0.0706
0	-43	0.0542
10	-48	0.0605
20	63	-0.0794
30	46	-0.0580
40	51	-0.0643
50	38	-0.0479

Product	LM960		
Test Item	Frequency Stability Under Temperature & Voltage Variations		
Test Mode	Mode 17: LTE Band 71		
Date of Test	2018/05/14	Test Site	SR10-H

10M\_16-QAM

Voltage (VDC)	Frequency Error (Hz)	Frequency Error (ppm)
3.6	25	-0.0315
3.3	-23	0.0290
3.1	28	-0.0353

Temperature	Frequency Error (Hz)	Frequency Error (ppm)
-30	67	-0.0845
-20	36	-0.0454
-10	-17	0.0214
0	-27	0.0340
10	21	-0.0265
20	34	-0.0429
30	-24	0.0303
40	-51	0.0643
50	-14	0.0177