Annex 1: Diagramms to
P A R T I A L   T E S T   R E P O R T
No.: 2-20842790-15-7b

According to:
FCC Regulations
Part 15.407, Part 15.207

IC-Regulations
RSS-Gen, Issue 4
RSS-247, Issue 1

for

Datalogic ADC S.r.l.
JOYA TOUCH
Type: B00AN00HL0HT0W7-GR0

FCC-ID: U4GJNGW
IC: 3862E-JNGW
PMN: JOYA TOUCH
HVIN: JNG B HH

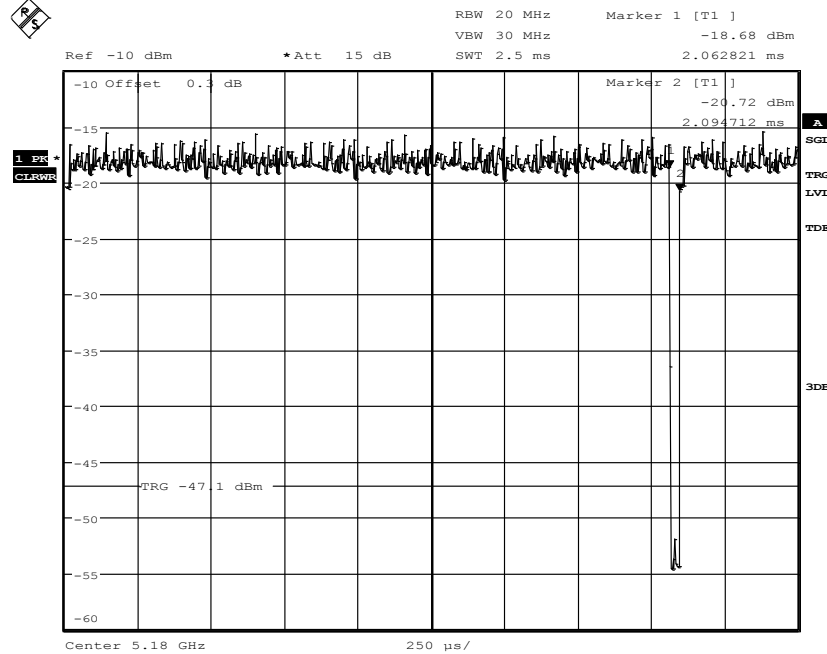| Laboratory Accreditation and Listings			
(((DAkkS Deutsche Akkreditierungsstelle D-PL-12047-01-01	**FC** MRA US-EU 0003	Industry Canada Reg. No.: 3462D-2 Reg. No.: 3462D-3	**VCI** Voluntary Controls for Electromagnetic Emissions Reg. No.: R-2666 C-2914, T-1967, G-301
WiFi AUTHORIZED RF LABORATORY ALLIANCE		**ctia** Authorized™ Test Lab Lab Code: 20011130-00	
accredited according to DIN EN ISO/IEC 17025			
CETECOM GmbH Laboratory Radio Communications & Electromagnetic Compatibility Im Teelbruch 116 • 45219 Essen • Germany Registered in Essen, Germany, Reg. No.: HRB Essen 8984 Tel.: + 49 (0) 20 54 / 95 19-954 • Fax: + 49 (0) 20 54 / 95 19-964 E-mail: info@cetecom.com • Internet: www.cetecom.com			

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1. Duty-Cycle of Transmitter

The characteristics of the implemented test mode was checked on middle channel no. 36 (a-Mode and n –Mode HT20) only.

Diagram a-Mode 6Mbit:

```
                                    RBW  20 MHz      Marker 1 [T1 ]
                                    VBW  30 MHz            -18.68 dBm
         Ref  -10 dBm      *Att   15 dB   SWT  2.5 ms      2.062821 ms

        -10 Offset   0.3 dB                   Marker 2 [T1 ]
                                                           -20.72 dBm
        -15                                                2.094712 ms    A
                                                                          SGL
    1 PK
    CLRWR                                                               2  TRG
        -20                                                                LVL

                                                                           TDF
        -25

        -30

        -35
                                                                           3DB
        -40

        -45

            TRG -47.1 dBm
        -50

        -55

        -60
         Center 5.18 GHz                       250 µs/
```

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Diagram a-Mode 9Mbit:

```
                                    RBW  20 MHz      Marker 1 [T1 ]
                                    VBW  30 MHz            -17.74 dBm
         Ref  -10 dBm      *Att   15 dB   SWT  2.5 ms      1.381731 ms

        -10 Offset   0.3 dB                   Marker 2 [T1 ]
                                                           -20.37 dBm
        -15                                                1.413622 ms    A
                                                                          SGL
    1 PK                                        1
    CLRWR                                                                  TRG
        -20                                                                LVL

                                                                           TDF
        -25

        -30

        -35
                                                                           3DB
        -40

        -45

            TRG -47.1 dBm
        -50

        -55

        -60
         Center 5.18 GHz                       250 µs/
```
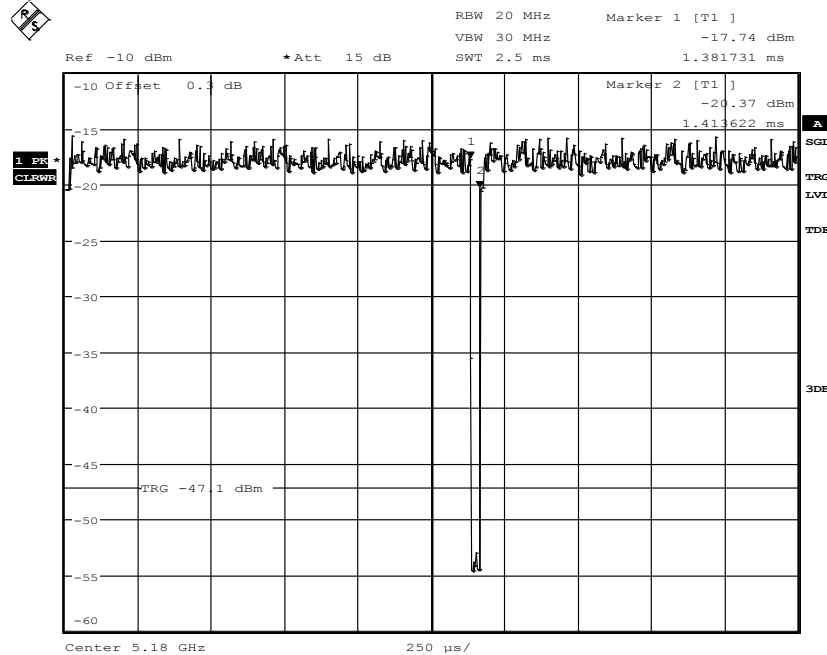
Date: 8.JUN.2016 11:01:44

Diagram a-Mode 12Mbit:

	RBW 20 MHz	Marker 1 [T1]	
	VBW 30 MHz		-17.46 dBm
Ref -10 dBm	*Att 15 dB SWT 2.5 ms		1.041186 ms

Marker 2 [T1]
-20.22 dBm
1.073077 ms

Center 5.18 GHz 250 µs/
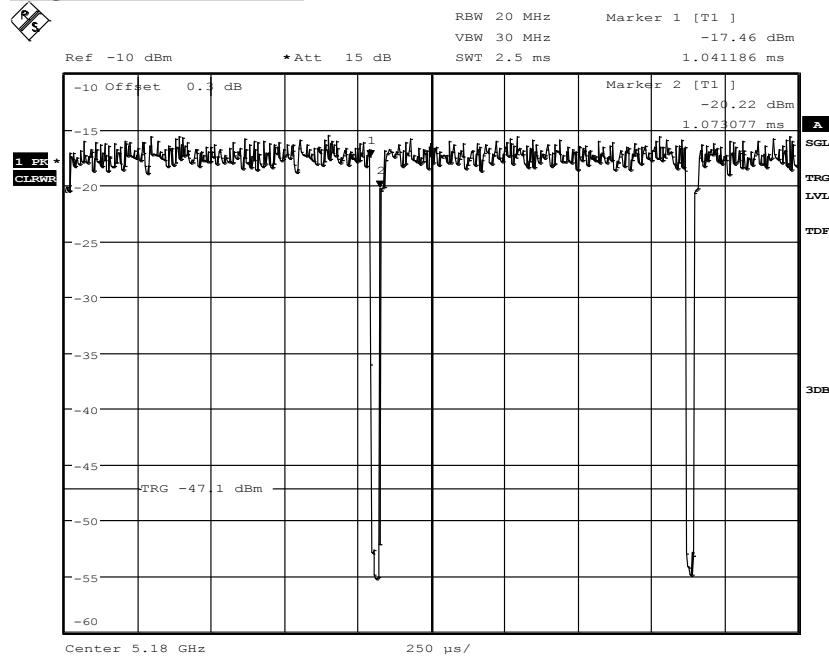
Date: 8.JUN.2016 11:02:52

Diagram a-Mode 18Mbit:

	RBW 20 MHz	Marker 1 [T1]	
	VBW 30 MHz		-17.75 dBm
Ref -10 dBm	*Att 15 dB SWT 1 ms		706.730769 µs

Marker 2 [T1]
-20.15 dBm
735.576923 µs

Center 5.18 GHz 100 µs/
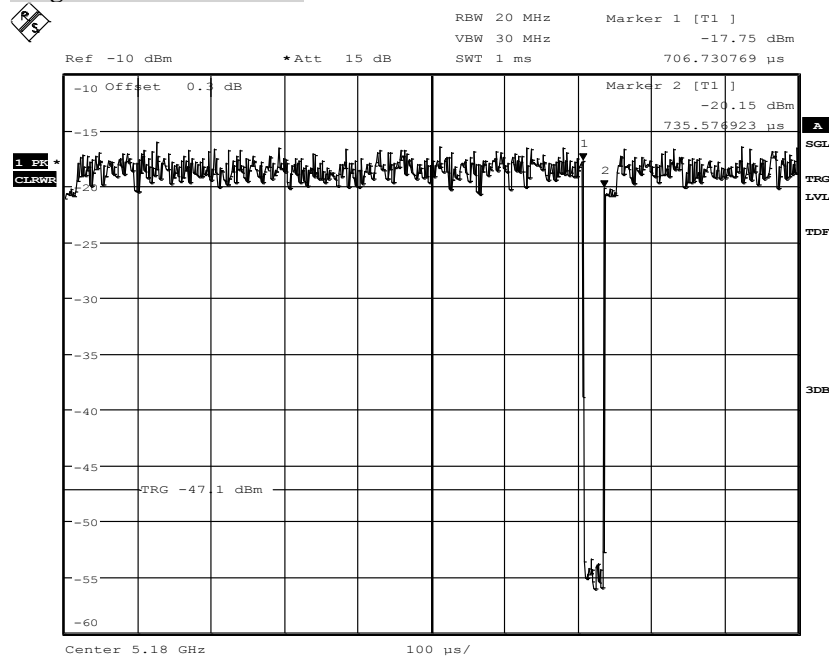
Date: 8.JUN.2016 11:03:52

Diagram a-Mode 24Mbit:

```
R                    RBW 20 MHz      Marker 1 [T1 ]
S                    VBW 30 MHz              -17.34 dBm
Ref -10 dBm    *Att  15 dB     SWT 1 ms      533.653846 µs
-10 Offset   0.3 dB                  Marker 2 [T1 ]
                                            -20.34 dBm
-15                                   562.500000 µs    A
                                                       SGL
1 PK                                                   TRG
CLRWR                                                  LVL

-25                                                    TDF

-30

-35

-40                                                    3DB

-45
      TRG -47.1 dBm
-50

-55

-60
Center 5.18 GHz                  100 µs/
```
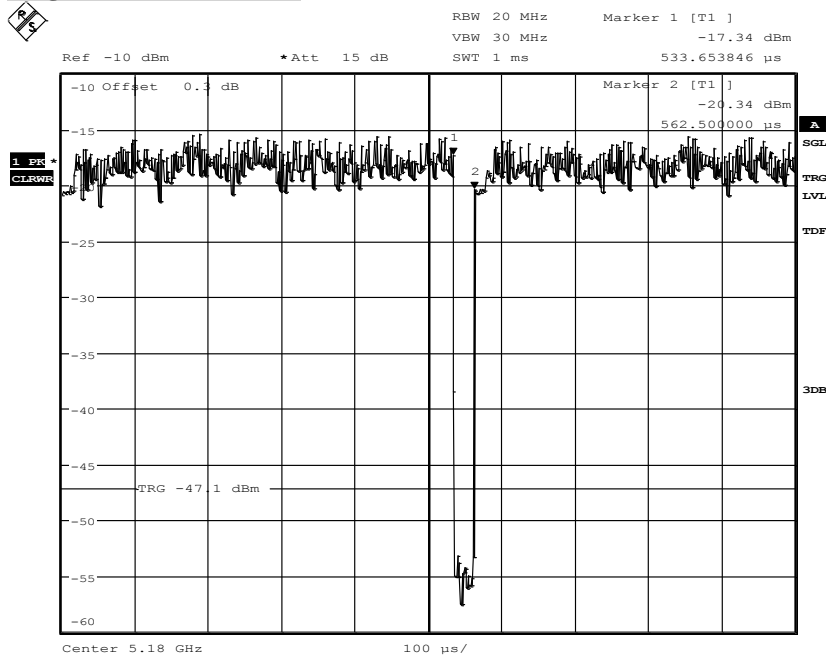
Date: 8.JUN.2016 11:04:48

Diagram a-Mode 36Mbit:

```
R                    RBW 20 MHz      Marker 1 [T1 ]
S                    VBW 30 MHz              -19.03 dBm
Ref -10 dBm    *Att  15 dB     SWT 1 ms      365.384615 µs
-10 Offset   0.3 dB                  Marker 2 [T1 ]
                                            -20.68 dBm
-15                                   394.230769 µs    A
                                                       SGL
1 PK                                                   TRG
CLRWR                                                  LVL

-25                                                    TDF

-30

-35

-40                                                    3DB

-45
      TRG -47.1 dBm
-50

-55

-60
Center 5.18 GHz                  100 µs/
```

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Diagram a-Mode 48Mbit:

	RBW 20 MHz	Marker 1 [T1]
	VBW 30 MHz	-20.89 dBm
Ref -10 dBm	*Att 15 dB SWT 600 µs	275.961538 µs

```
-10 Offset  0.3 dB                    Marker 2 [T1 ]
                                            -22.86 dBm
-15                                      303.846154 µs
```

Marker 2 [T1] -22.86 dBm 303.846154 µs

Center 5.18 GHz   60 µs/

```
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```

Diagram a-Mode 54Mbit:

	RBW 20 MHz	Marker 1 [T1]
	VBW 30 MHz	-18.89 dBm
Ref -10 dBm	*Att 15 dB SWT 600 µs	247.115385 µs

```
-10 Offset  0.3 dB                    Marker 2 [T1 ]
                                            -22.31 dBm
-15                                      276.923077 µs
```

Center 5.18 GHz   60 µs/

```
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```

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Diagram n-Mode(HT20) MCS0:


```
                        RBW 20 MHz      Marker 1 [T1 ]
                        VBW 30 MHz              -18.40 dBm
Ref -10 dBm    *Att  15 dB    SWT 2 ms         1.741026 ms

-10 Offset   0.3 dB                     Marker 2 [T1 ]
                                                -19.74 dBm
-15                                             1.769231 ms
...
Center 5.18 GHz              200 µs/
```
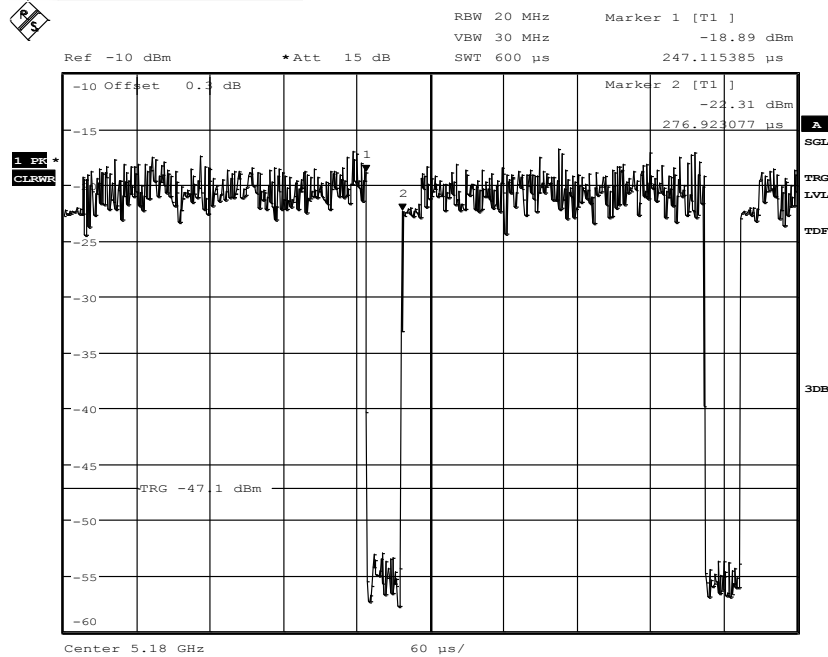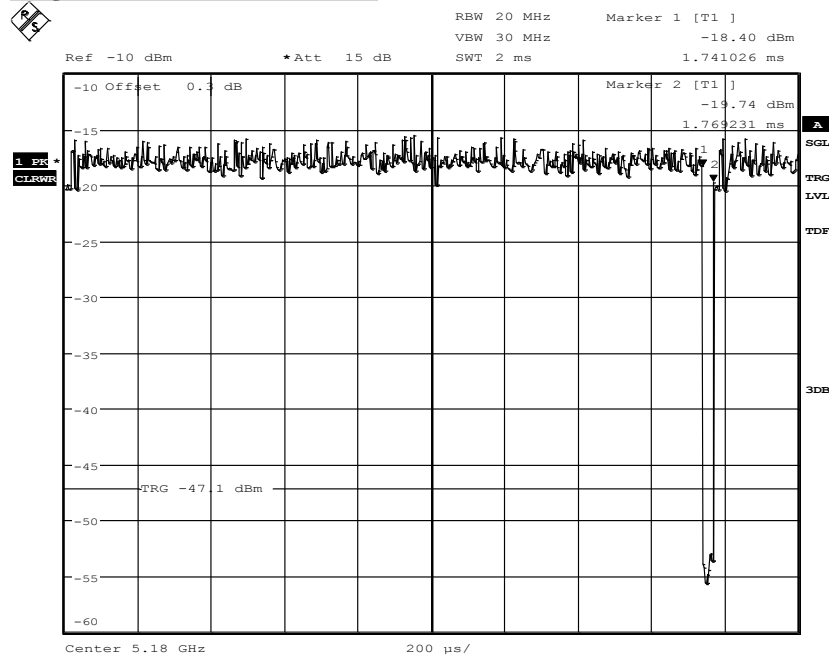
Date: 8.JUN.2016 11:07:42

Diagram n-Mode(HT20) MCS2:


```
                        RBW 20 MHz      Marker 1 [T1 ]
                        VBW 30 MHz              -22.67 dBm
Ref -10 dBm    *Att  15 dB    SWT 1 ms         604.166667 µs

-10 Offset   0.3 dB                     Marker 2 [T1 ]
                                                -21.28 dBm
-15                                             633.012821 µs
...
Center 5.18 GHz              100 µs/
```
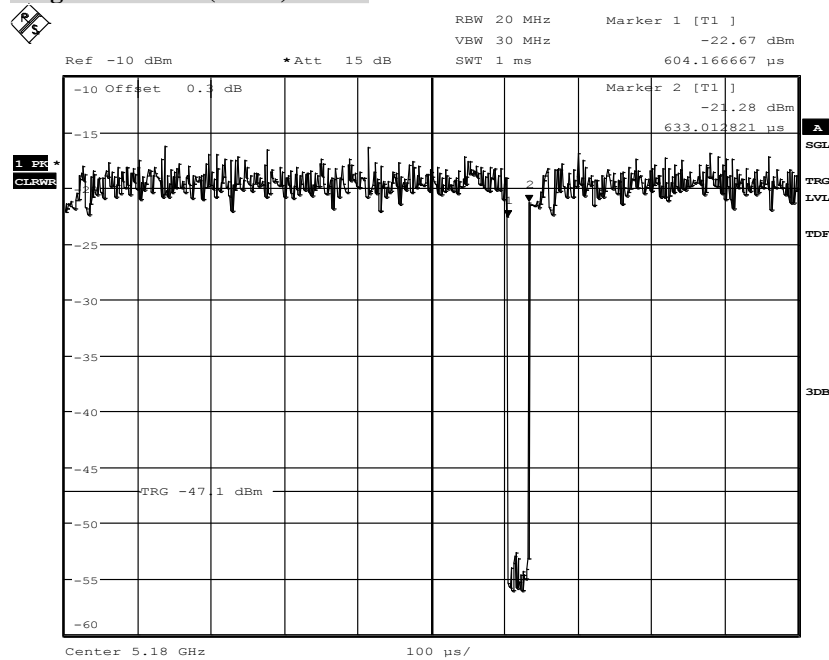
Date: 8.JUN.2016 11:25:25

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Diagram n-Mode(HT20) MCS3:
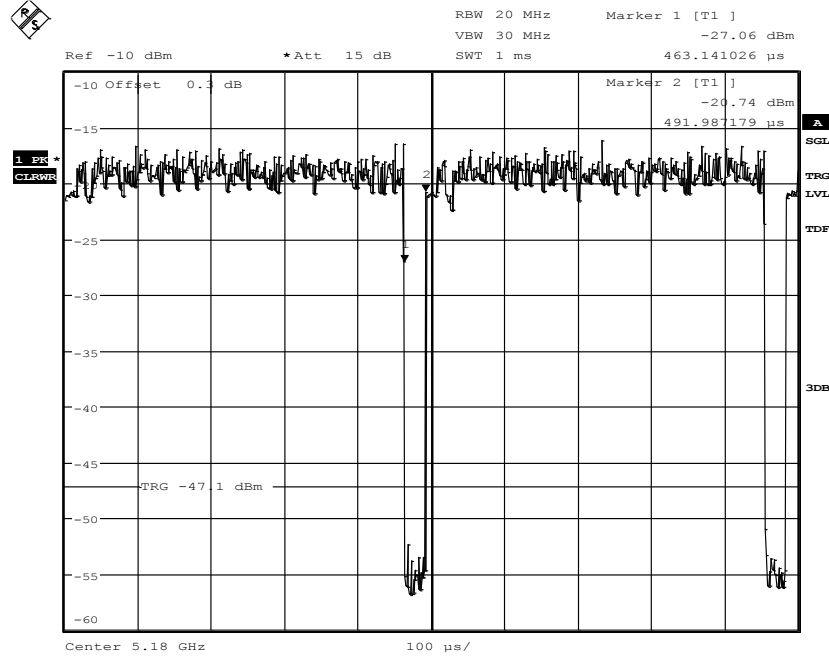

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Date: 8.JUN.2016  11:29:38
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Diagram n-Mode(HT20) MCS4:
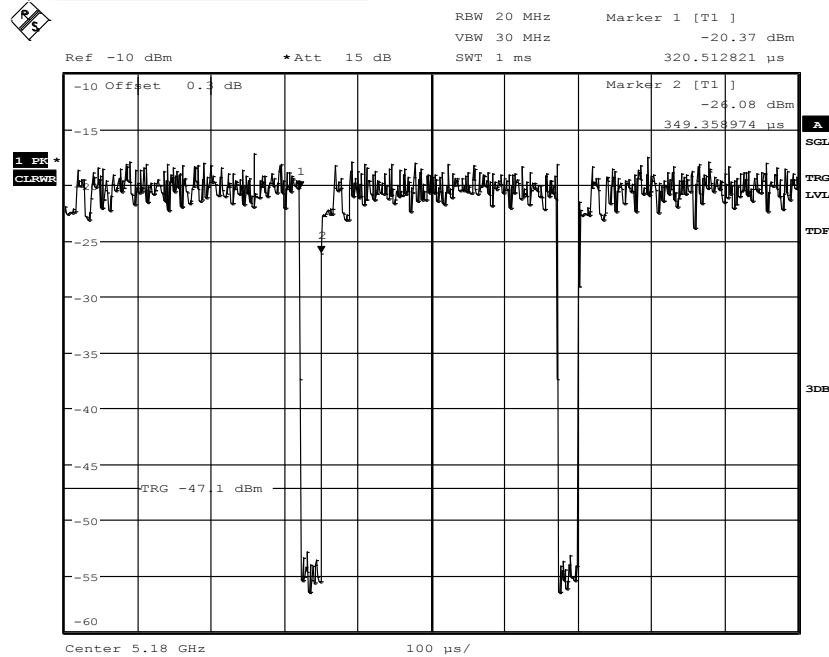

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Date: 8.JUN.2016  11:26:41
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Diagram n-Mode(HT20) MCS5:
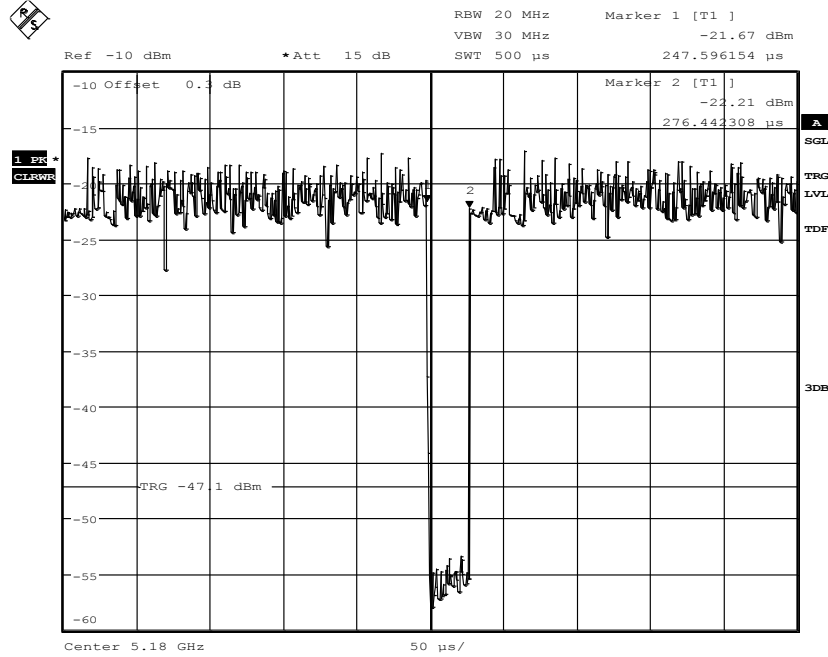
Date: 8.JUN.2016 11:35:21

Diagram n-Mode(HT20) MCS6:
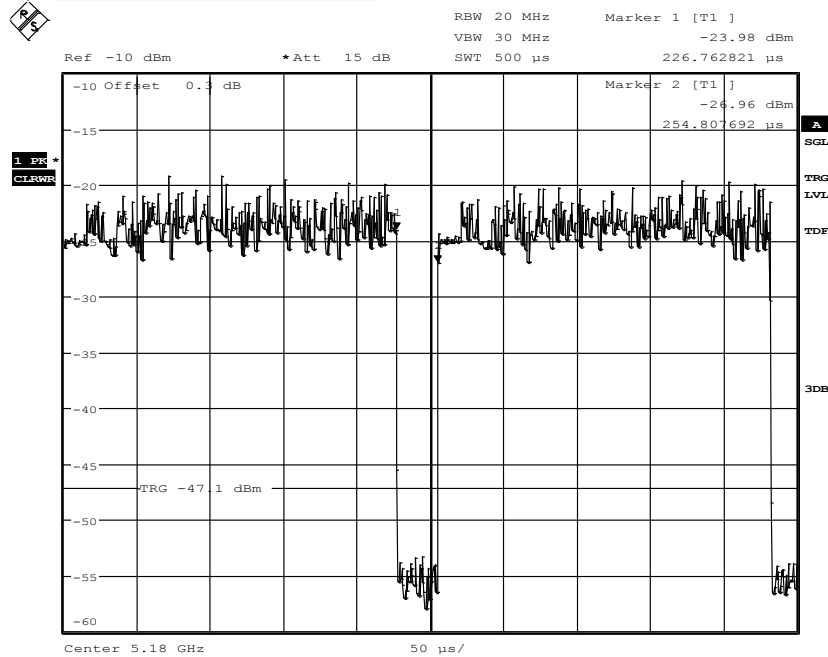
Date: 8.JUN.2016 11:33:35

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Diagram n-Mode(HT20) MCS7:
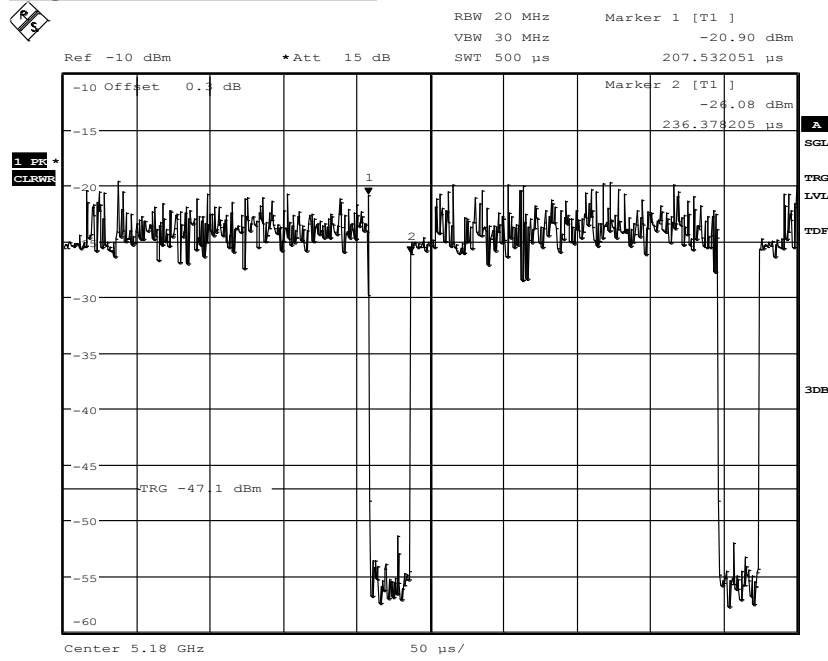
Date: 8.JUN.2016 11:32:15

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2. Maximum Peak Conducted Output Power

2.1. 20MHz signal BW

Operational bands:	U-NII 1			U-NII-2A			U-NII 2C			U-NII-3		
Channel no.:	Channel 36 (5180MHz)	Channel 40 (5200MHz)	Channel 48 (5240MHz)	Channel 52 5260MHz	Channel 56 (5280MHz)	Channel 64 (5320MHz)	Channel 100 (5500MHz)	Channel 116 (5580MHz)	Channel 140 (5700MHz)	Channel 149 (5745MHz)	Channel 157 (5785MHz)	Channel 165 (5825MHz)
a-Mode/(90% Power level)												
6Mbit	14,33	14,32	14,32	13,83	13,74	12,32	12,05	11,95	11,13	11,76	12,50	12,73
9Mbit	14,32	14,35	14,31	13,81	13,76	12,25	12,03	11,93	11,13	11,78	12,49	12,75
12Mbit	14,35	14,39	14,30	13,82	13,80	12,17	12,06	11,96	11,18	11,84	12,53	12,79
18Mbit	14,29	14,34	14,24	13,75	13,73	12,16	11,98	12,00	11,11	11,77	12,47	12,74
24Mbit	14,39	14,46	14,35	13,88	13,85	12,13	12,13	12,00	11,24	11,91	12,60	12,82
36Mbit	14,25	14,32	14,18	13,69	13,68	11,96	11,99	11,94	11,05	11,85	12,42	12,69
48Mbit	14,40	14,32	14,15	13,65	12,64	11,97	12,01	11,86	11,07	11,83	12,44	12,71
54MBit	12,89	12,80	12,68	11,52	11,48	10,95	10,92	11,17	10,38	10,63	11,21	11,72
n(HT20)-Mode/(90% Power level)												
MCS0 -6.5Mbps	14,20	14,32	14,26	13,70	13,74	11,95	12,06	11,85	11,13	11,78	12,53	12,69
MCS1 - 13Mbps	13,47	13,829	13,84	13,26	13,59	11,82	12,02	11,74	11,09	11,65	12,40	12,62
MCS2 - 19.5Mbps	14,13	14,34	14,12	13,58	13,67	11,79	12,04	11,70	11,07	11,65	12,37	12,67
MCS3 - 26Mbps	13,83	14,46	14,16	13,25	12,63	11,83	12,15	11,73	11,18	11,72	12,40	12,77
MCS4 -39Mbps	12,37	12,44	13,04	11,35	11,49	10,80	10,56	10,93	9,82	10,53	11,06	11,02
MCS5 - 52MBps	12,10	12,36	12,53	11,35	11,48	10,79	10,58	10,94	9,82	10,52	11,12	11,01
MCS6 - 58.5MBps	9,22	9,45	9,67	9,24	9,30	8,82	8,32	9,27	8,17	8,19	8,74	9,23
MCS7 - 65MBps	9,15	9,38	9,67	9,20	9,32	8,84	8,33	8,81	8,09	8,22	8,75	9,19

Operational bands:	U-NII 1 (Outdoor use: EIRP-Limit of 21dBm)			U-NII-2A			U-NII 2C			U-NII 3		
FCC-Limits [dBm]	24,00			23,98			23,98			30,00		

Limit Check:	Limit Check:											
Highest conducted power value over channels and modulations:	14,46			13,9			12,2			12,8		
Margin to Limit:	9,54			10,10			11,83			17,18		
Declared antenna Gain:	5,88			5,88			5,88			5,88		
Verdict:	pass			pass			pass			pass		

Remarks:
1.) The values in above table are conducted output power without declared antenna gain .
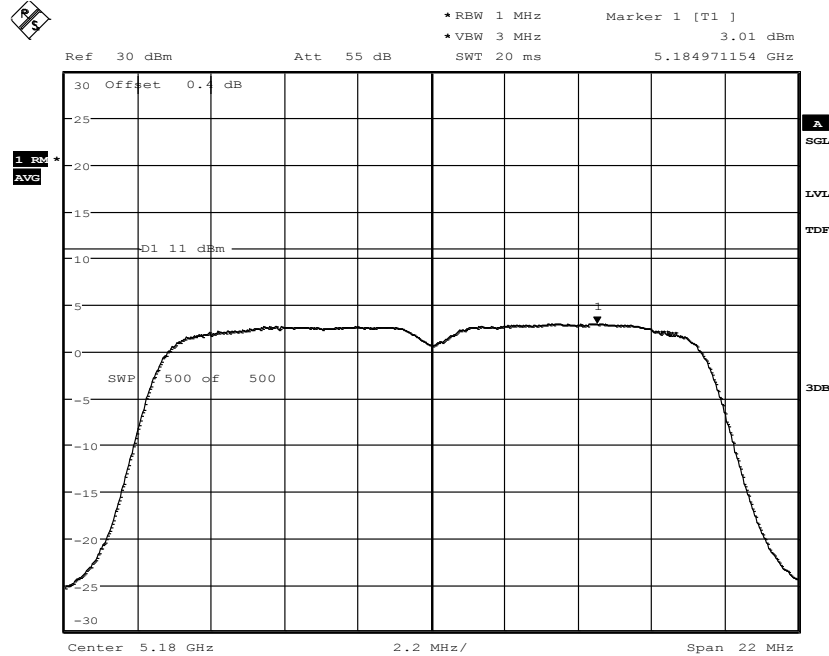2.) The maximum measured conducted power values among each mode for each channel are highlighted.

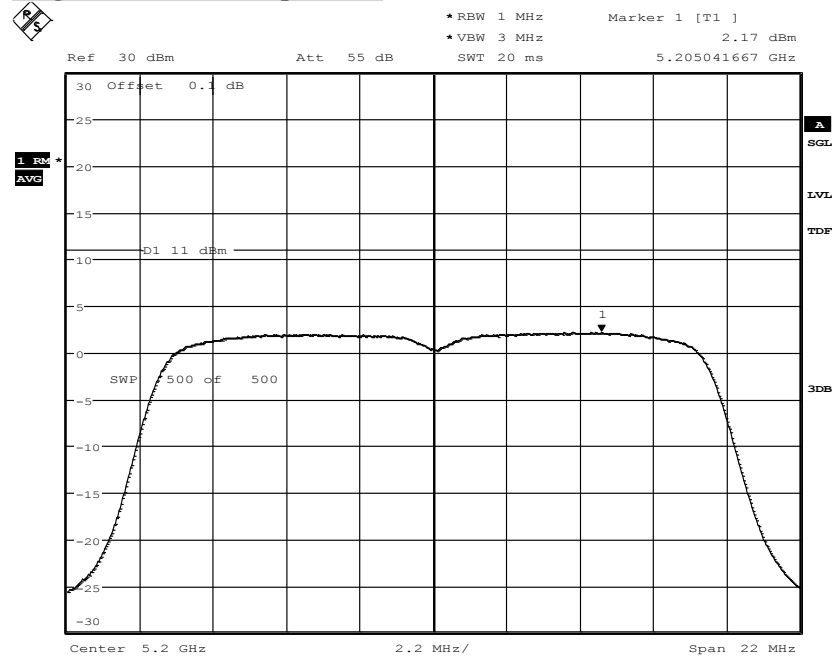# 3. Conducted Power Spectral Density

Diagram a-Mode 6Mbps Ch36:
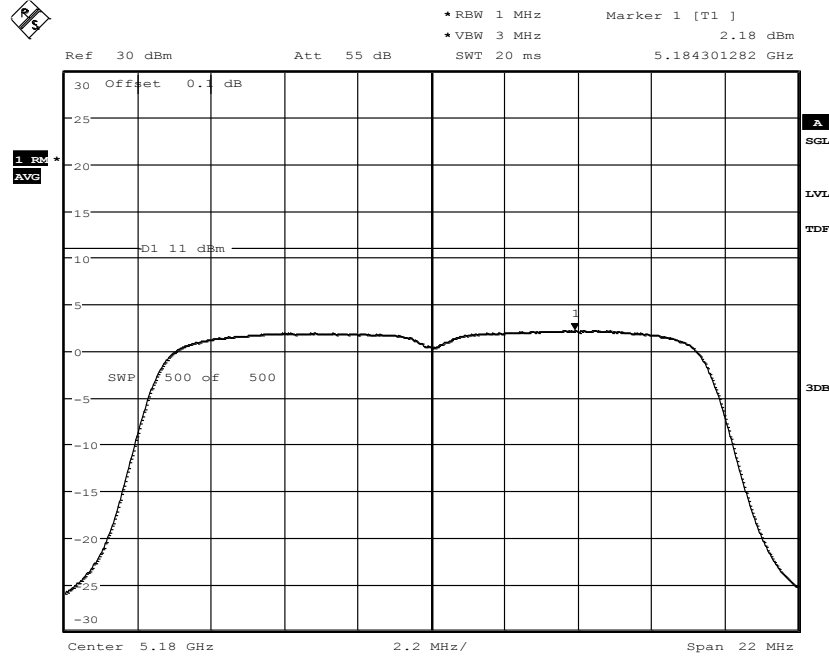
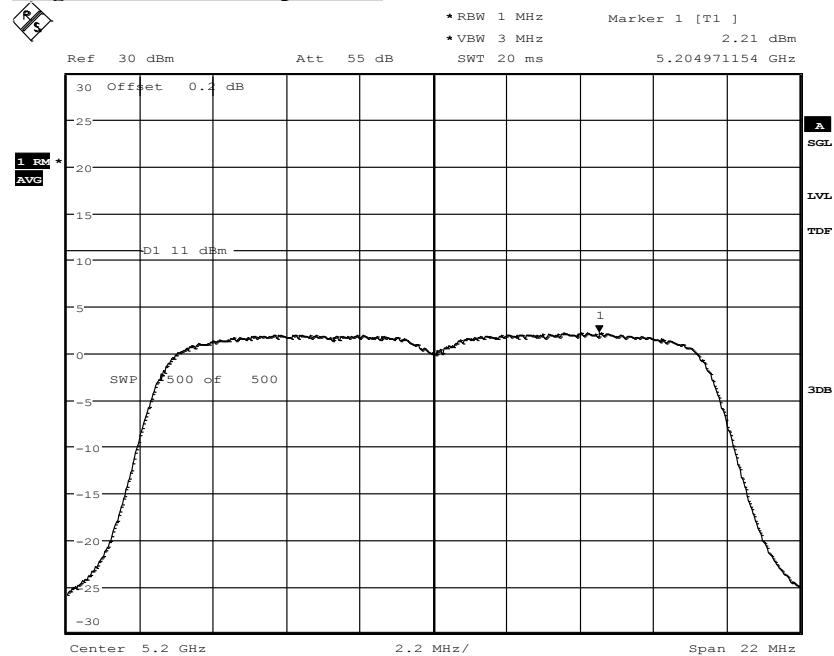Date: 9.JUN.2016 10:43:39

Diagram a-Mode 48Mbps Ch36:

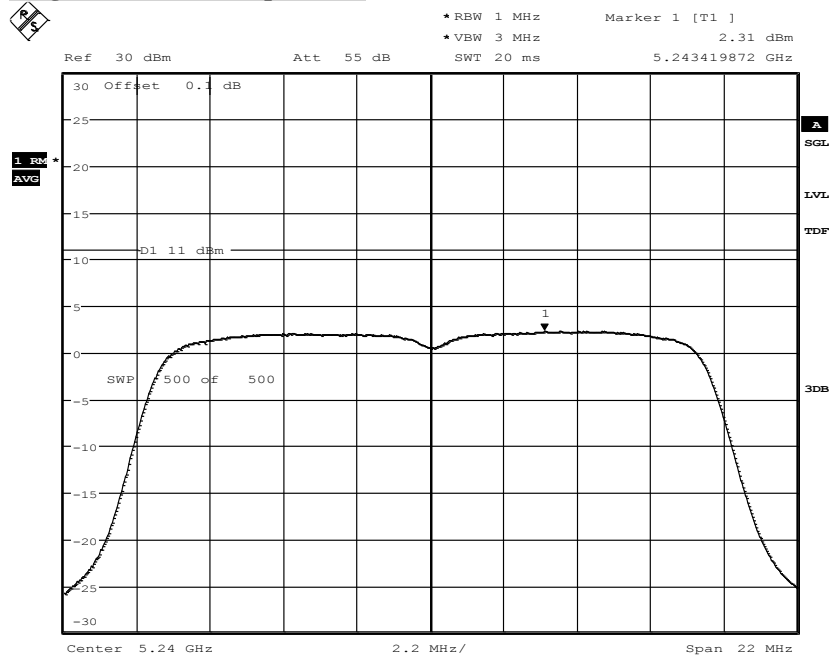

Date: 9.JUN.2016 10:46:54

Diagram a-Mode 12Mbps Ch40:

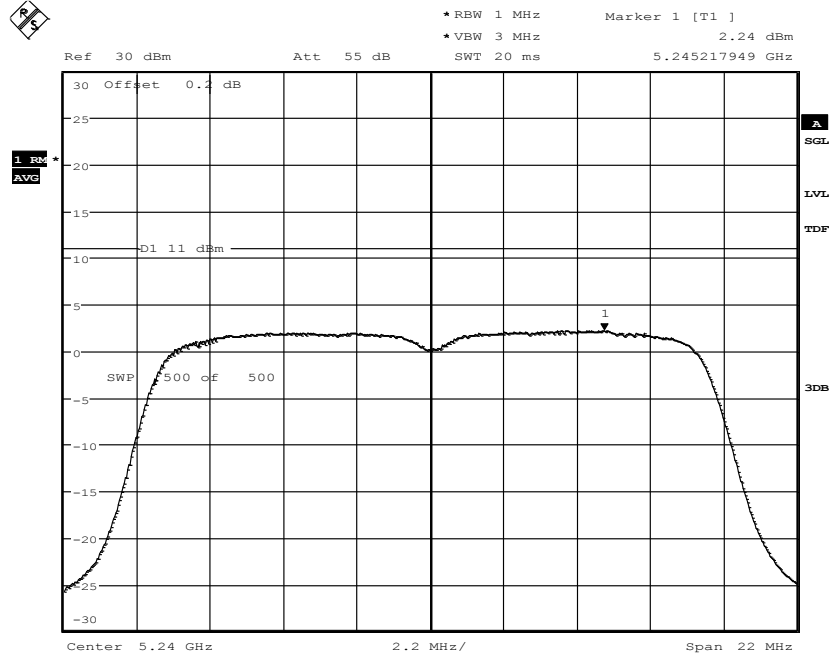

Date: 9.JUN.2016 10:51:21

Diagram a-Mode 24Mbps Ch40:

Date: 9.JUN.2016 10:54:13

Diagram a-Mode 6Mbps Ch48:
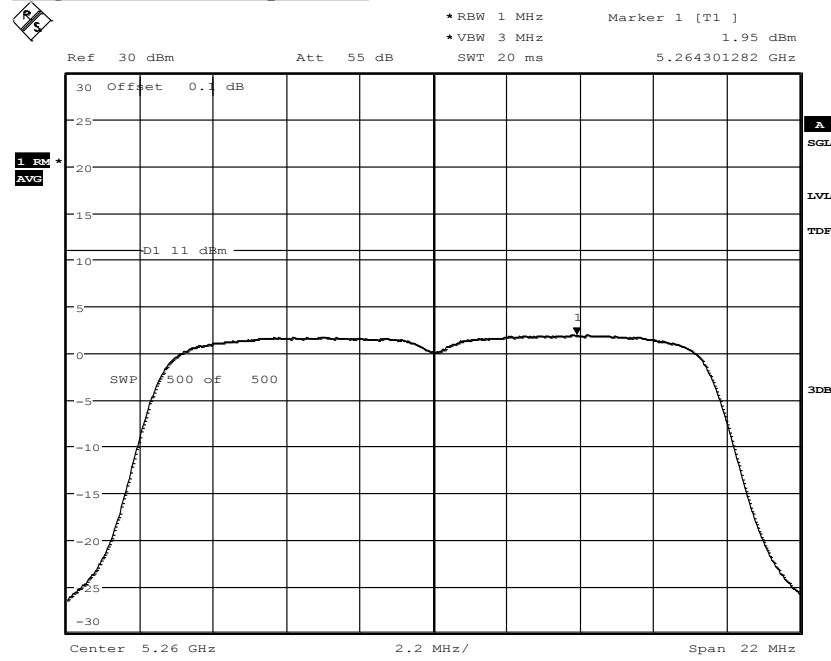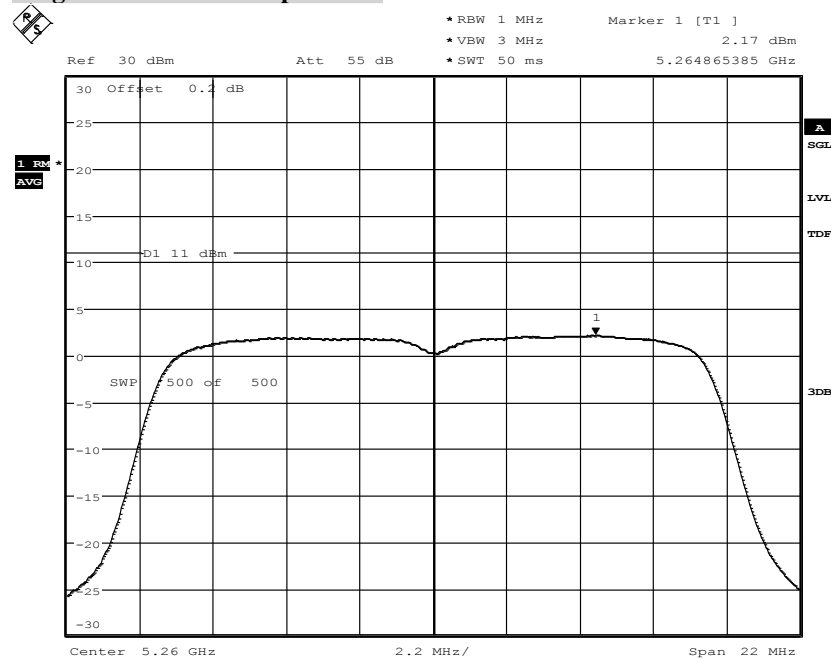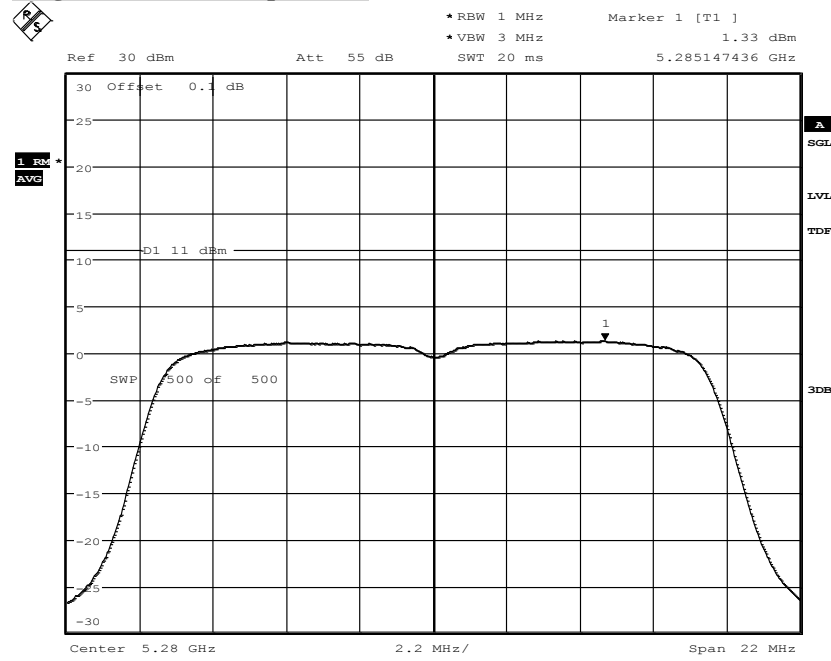


```
                                    *RBW  1 MHz     Marker 1 [T1 ]
                                    *VBW  3 MHz                  2.31 dBm
    Ref   30 dBm        Att  55 dB   SWT  20 ms      5.243419872 GHz

      30  Offset   0.1 dB                                              A
      25                                                             SGL
      20
      15                                                             LVL
      10  D1 11 dBm                                                  TDF
       5                              1
       0
      -5  SWP  500 of   500                                         3DB
     -10
     -15
     -20
     -25
     -30
    Center  5.24 GHz          2.2 MHz/           Span  22 MHz
```

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Diagram a-Mode 24Mbps Ch48:


```
                                    *RBW  1 MHz     Marker 1 [T1 ]
                                    *VBW  3 MHz                  2.24 dBm
    Ref   30 dBm        Att  55 dB   SWT  20 ms      5.245217949 GHz

      30  Offset   0.2 dB                                              A
      25                                                             SGL
      20
      15                                                             LVL
      10  D1 11 dBm                                                  TDF
       5                              1
       0
      -5  SWP  500 of   500                                         3DB
     -10
     -15
     -20
     -25
     -30
    Center  5.24 GHz          2.2 MHz/           Span  22 MHz
```

Date: 9.JUN.2016 10:56:14

Diagram a-Mode 6Mbps Ch52:


```
                              * RBW  1 MHz     Marker 1 [T1 ]
                              * VBW  3 MHz                  1.95 dBm
    Ref  30 dBm        Att  55 dB    SWT 20 ms      5.264301282 GHz

  30 Offset   0.1 dB
A
SGL
LVL
TDF

D1 11 dBm

                                              1

SWP  500 of   500
                                                            3DB

  Center  5.26 GHz         2.2 MHz/          Span  22 MHz
```

Date: 9.JUN.2016 11:03:10

Diagram a-Mode 24Mbps Ch52:


```
                              * RBW  1 MHz     Marker 1 [T1 ]
                              * VBW  3 MHz                  2.17 dBm
    Ref  30 dBm        Att  55 dB  * SWT 50 ms      5.264865385 GHz

  30 Offset   0.2 dB
A
SGL
LVL
TDF

D1 11 dBm

                                              1

SWP  500 of   500
                                                            3DB

  Center  5.26 GHz         2.2 MHz/          Span  22 MHz
```

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Diagram a-Mode 6Mbps Ch56:

Date: 9.JUN.2016 11:07:01

Diagram a-Mode 24Mbps Ch56:
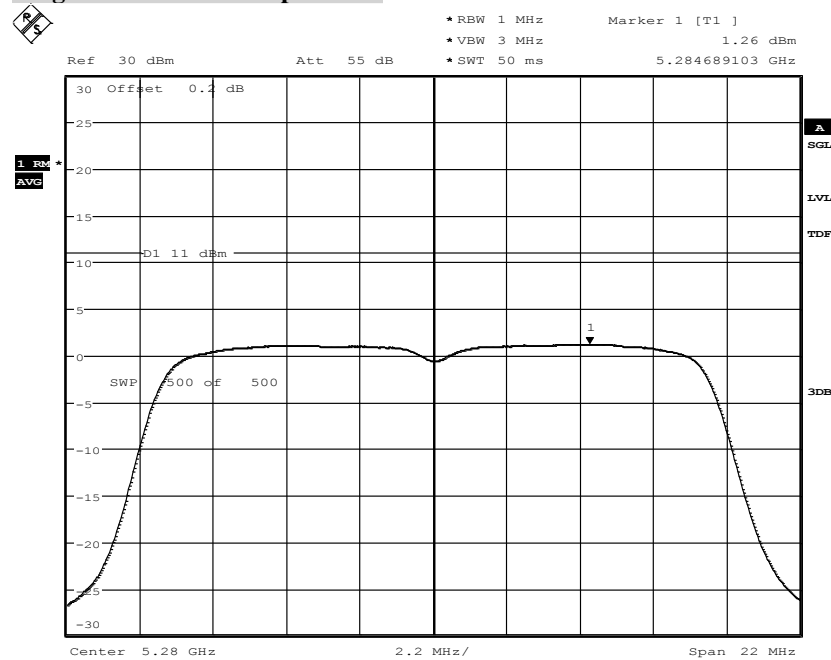
Date: 9.JUN.2016 11:35:25

Diagram a-Mode 6Mbps Ch64:
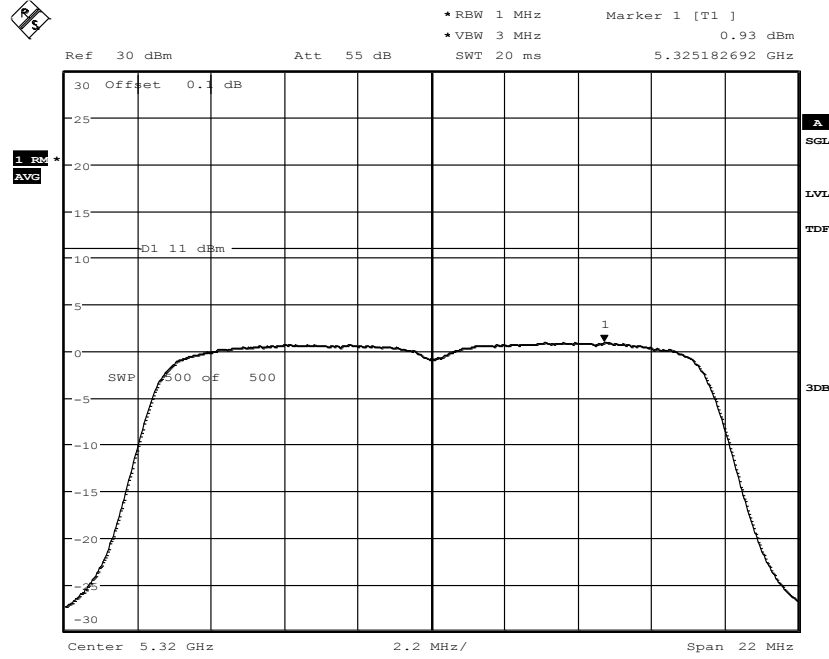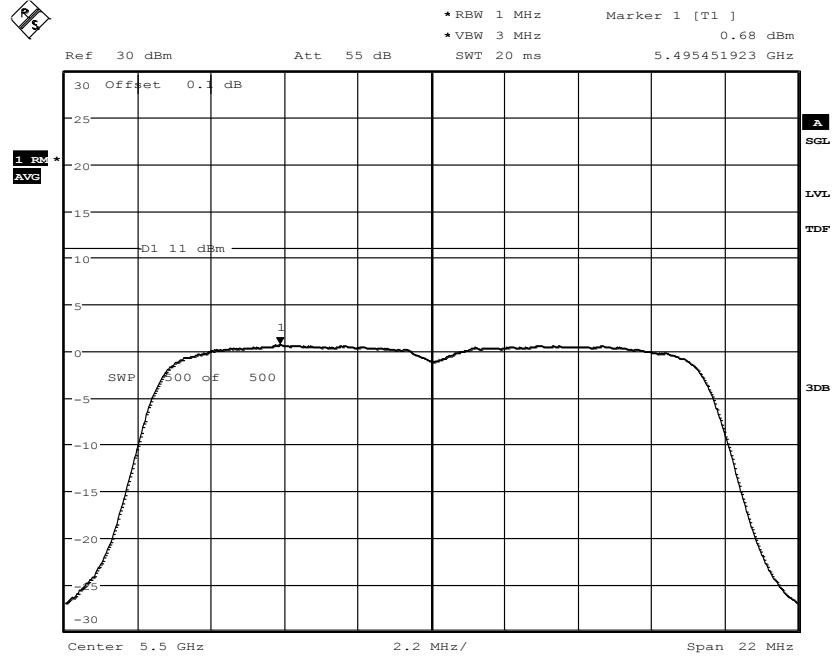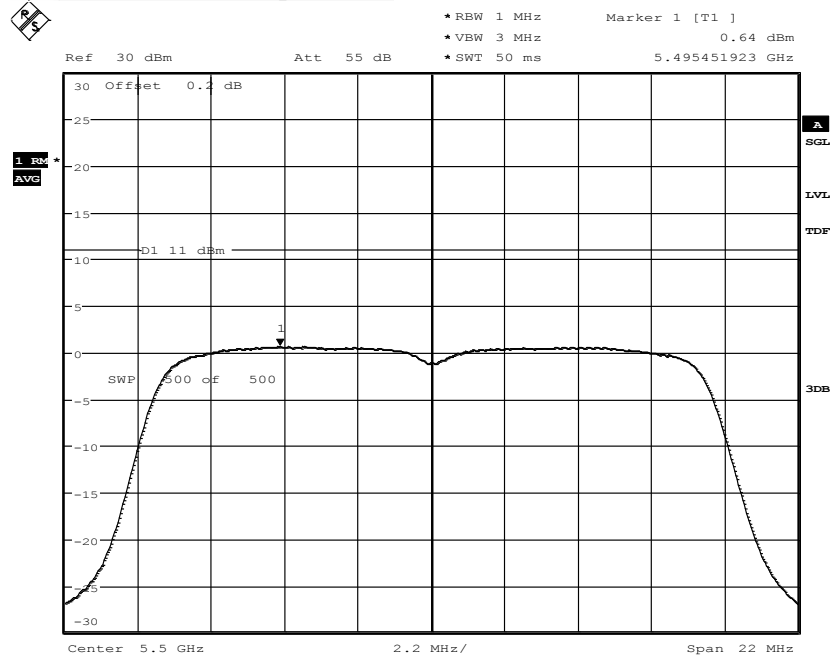

Date: 9.JUN.2016 11:08:58

Diagram a-Mode 9Mbps Ch64:
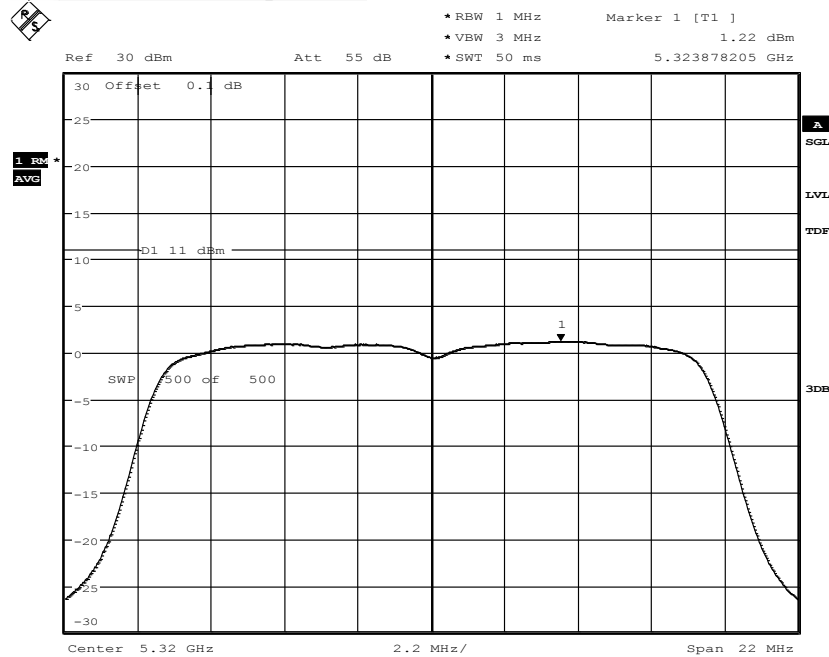
Date: 9.JUN.2016 11:47:36

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Diagram a-Mode 6Mbps Ch100:

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Diagram a-Mode 24Mbps Ch100:

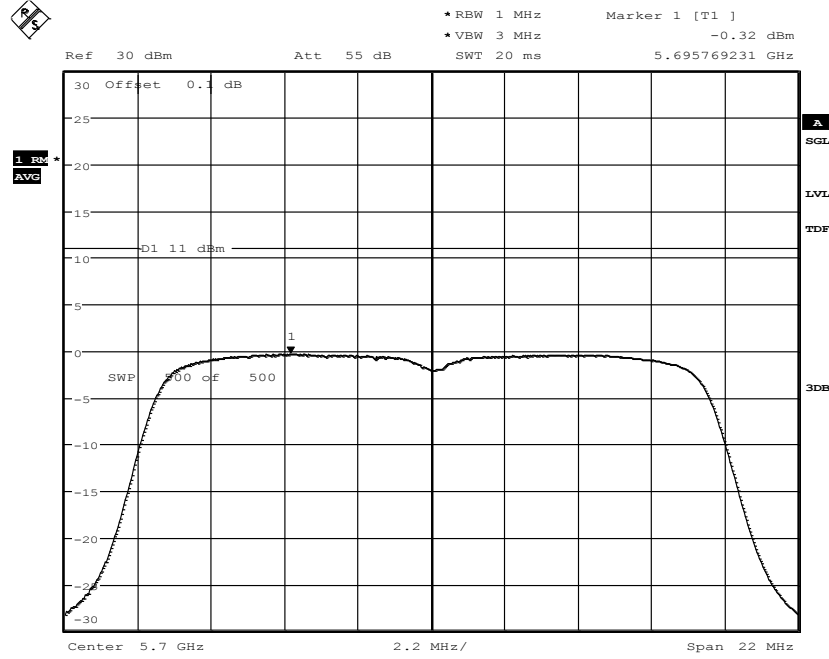

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Diagram a-Mode 6Mbps Ch116:
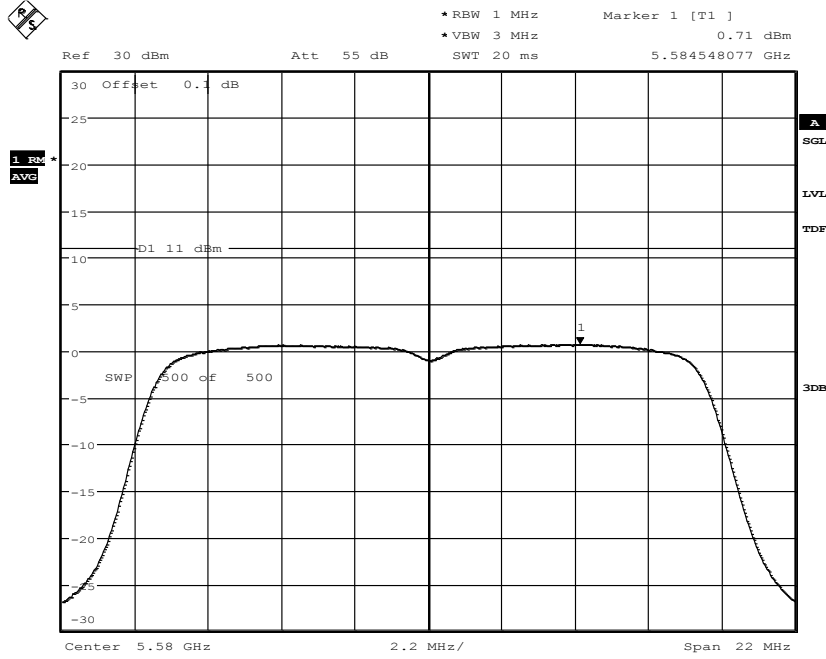
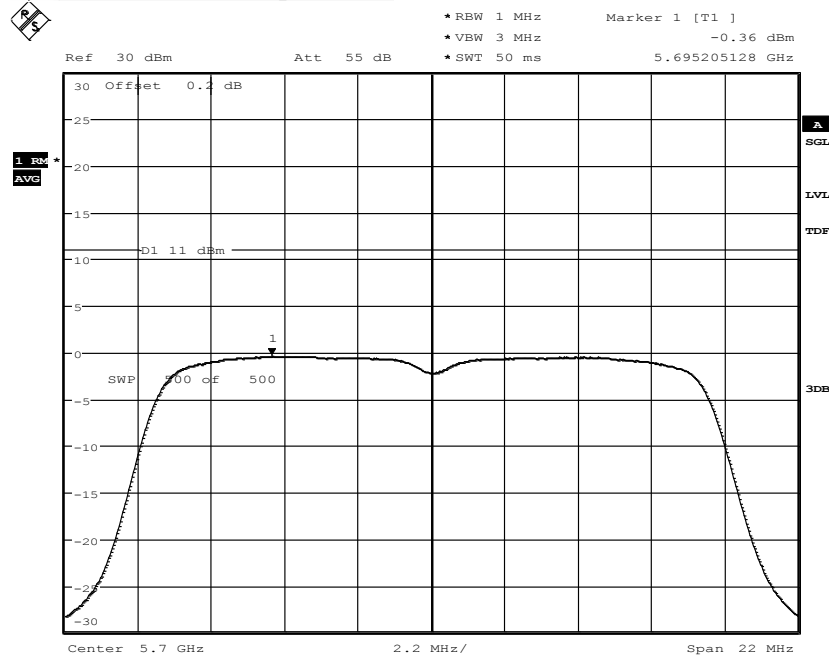
Date: 9.JUN.2016 11:15:38

Diagram a-Mode 18Mbps Ch116:

Date: 9.JUN.2016 11:44:06

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Diagram a-Mode 6Mbps Ch140:

	*RBW 1 MHz	Marker 1 [T1]	
	*VBW 3 MHz		-0.32 dBm
Ref 30 dBm	Att 55 dB	SWT 20 ms	5.695769231 GHz
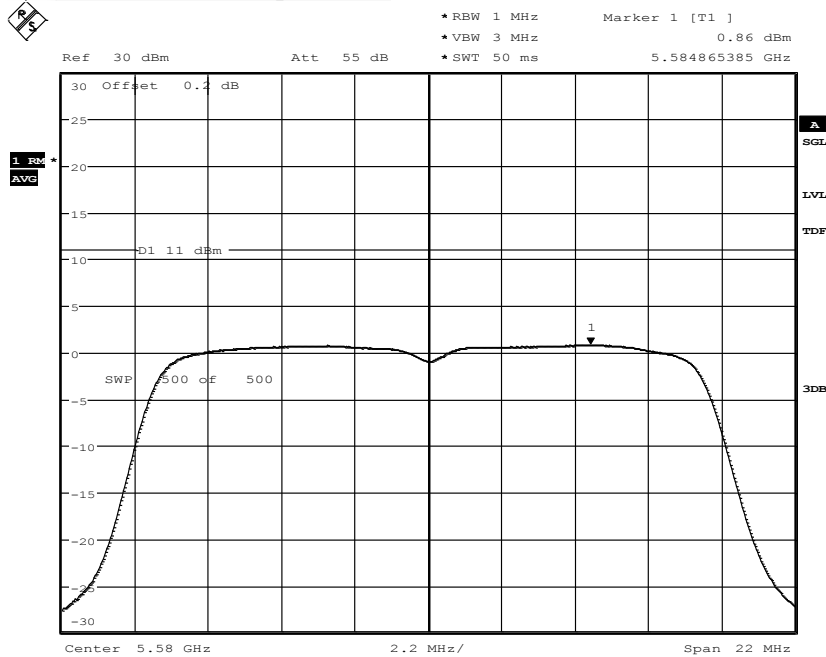
Date: 9.JUN.2016 11:20:02

Diagram a-Mode 24Mbps Ch140:

	*RBW 1 MHz	Marker 1 [T1]	
	*VBW 3 MHz		-0.36 dBm
Ref 30 dBm	Att 55 dB	*SWT 50 ms	5.695205128 GHz

Date: 9.JUN.2016 11:27:37

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Diagram a-Mode 6Mbps Ch149:
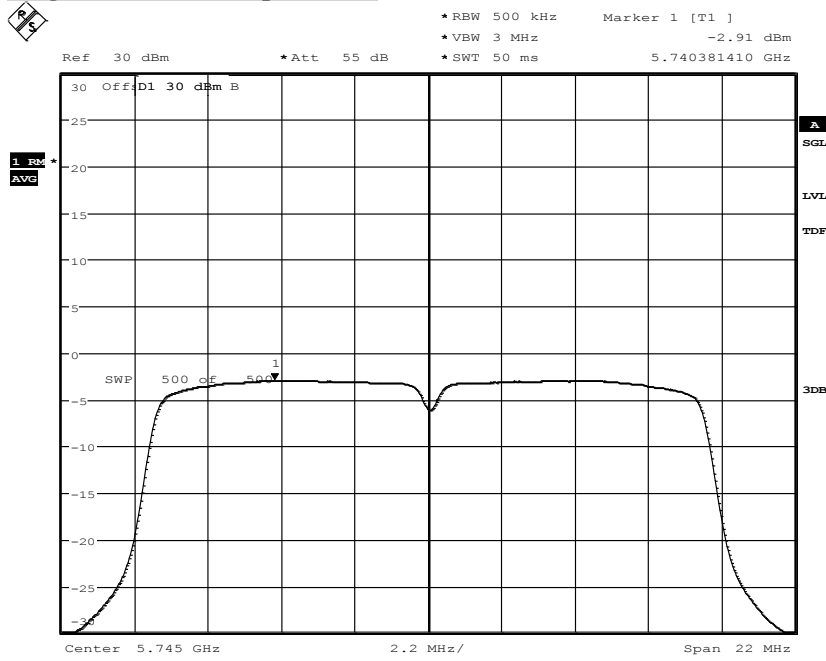
Date: 9.JUN.2016 13:57:05

Diagram a-Mode 12Mbps Ch149:
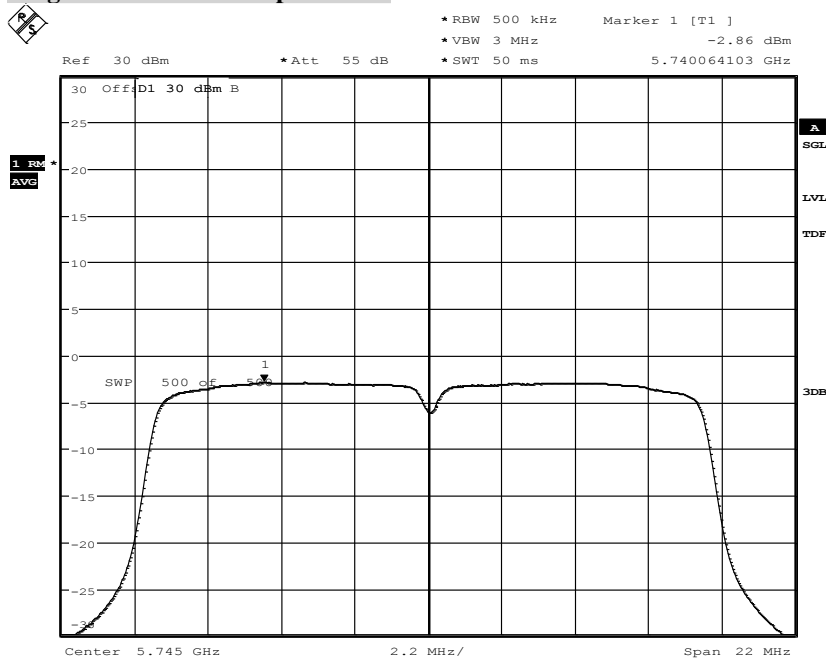
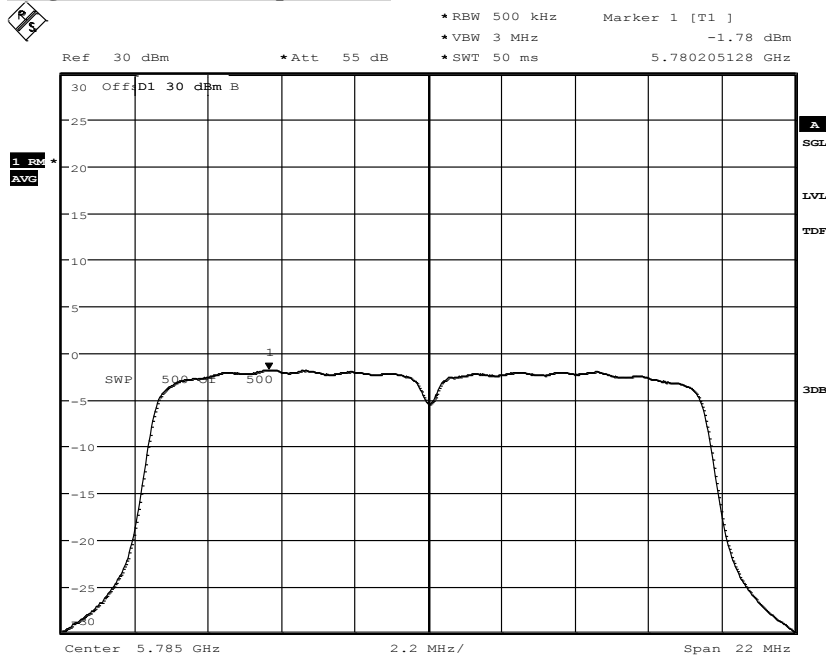
Date: 9.JUN.2016 13:41:26

Diagram a-Mode 24Mbps Ch149:


```
                          *RBW  500 kHz      Marker 1 [T1 ]
                          *VBW  3 MHz                    -2.78 dBm
Ref   30 dBm       *Att  55 dB    *SWT  50 ms           5.740205128 GHz
```
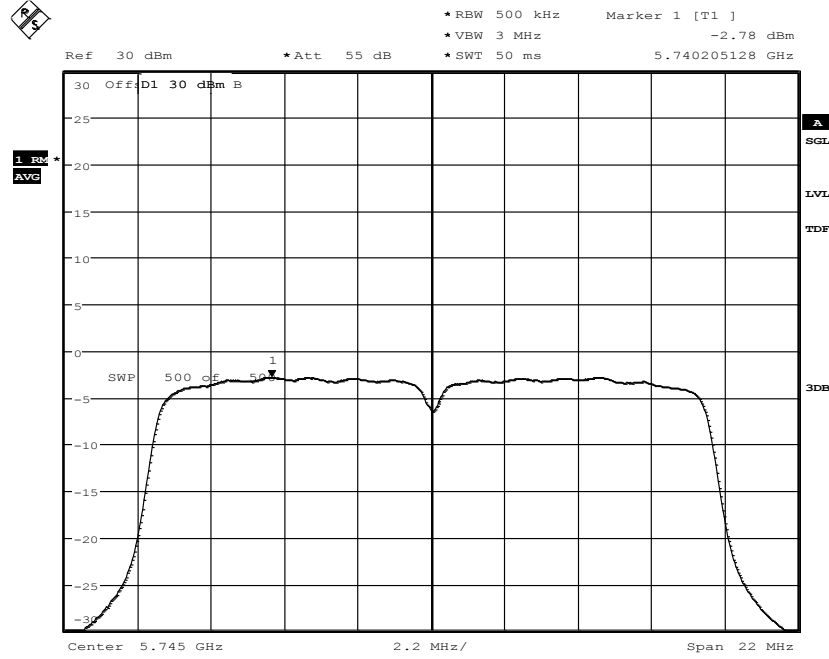
Date: 9.JUN.2016 13:54:18

Diagram a-Mode 6Mbps Ch157:


```
                          *RBW  500 kHz      Marker 1 [T1 ]
                          *VBW  3 MHz                    -2.13 dBm
Ref   30 dBm       *Att  55 dB    *SWT  50 ms           5.780064103 GHz
```

Date: 9.JUN.2016 13:38:54

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Diagram a-Mode 24Mbps Ch157:


```
            * RBW  500 kHz      Marker 1 [T1 ]
            * VBW  3 MHz                  -1.78 dBm
Ref  30 dBm        * Att  55 dB   * SWT  50 ms      5.780205128 GHz
```
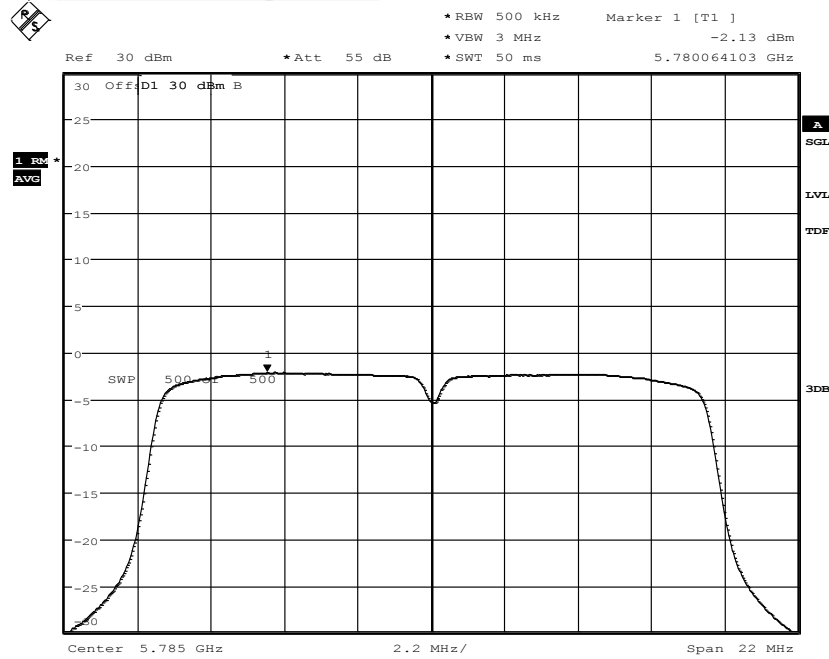
Date: 9.JUN.2016 13:51:35

Diagram a-Mode 6Mbps Ch165:


```
            * RBW  500 kHz      Marker 1 [T1 ]
            * VBW  3 MHz                  -2.30 dBm
Ref  30 dBm        * Att  55 dB   * SWT  50 ms      5.820698718 GHz
```
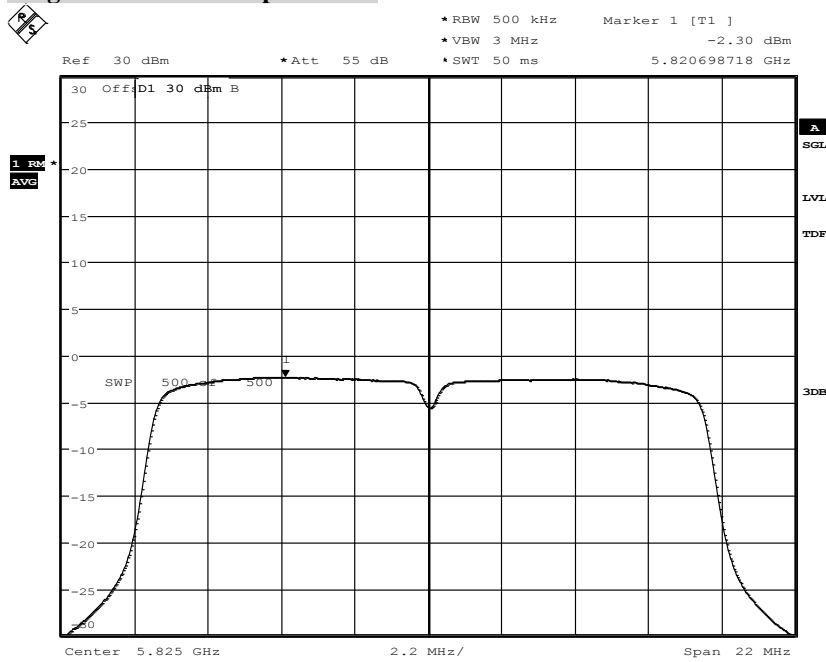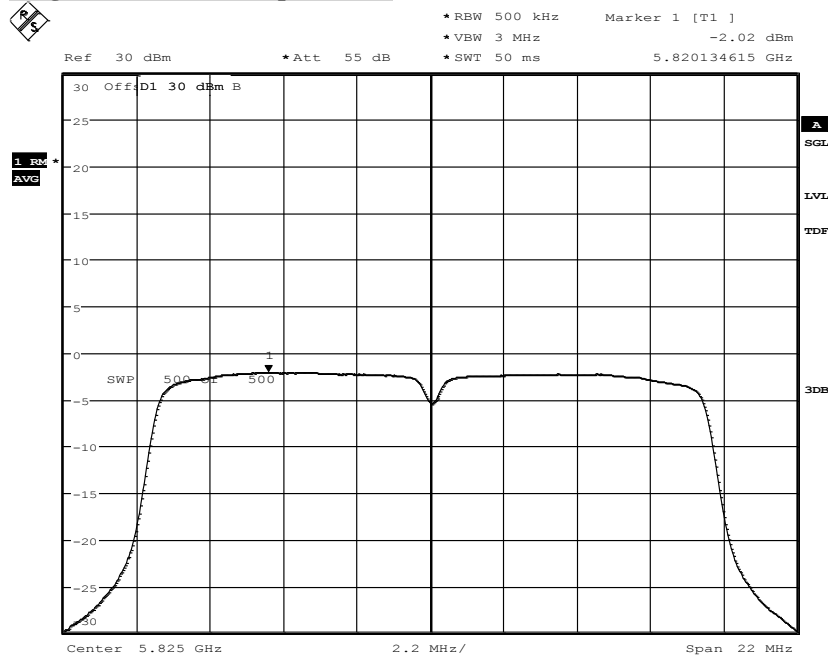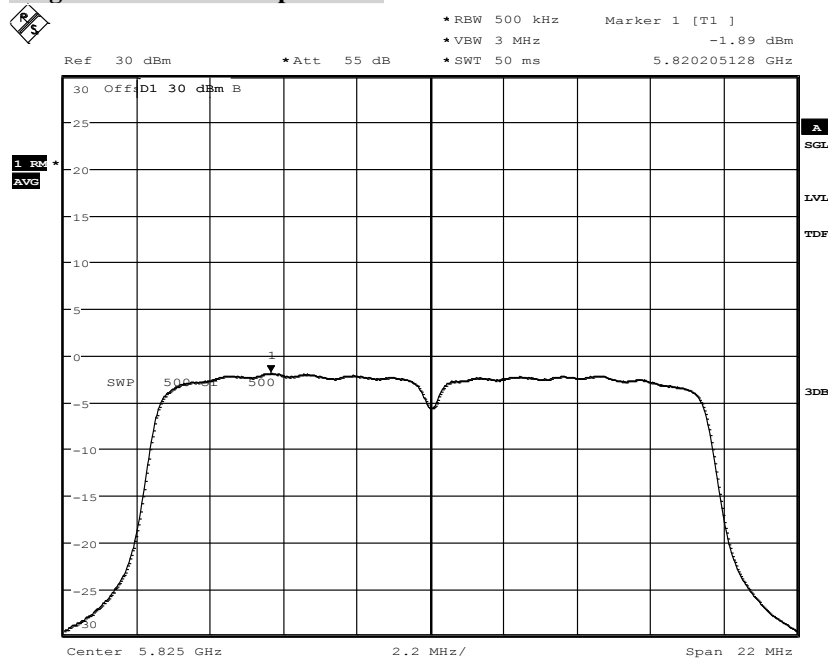
Date: 9.JUN.2016 13:34:55

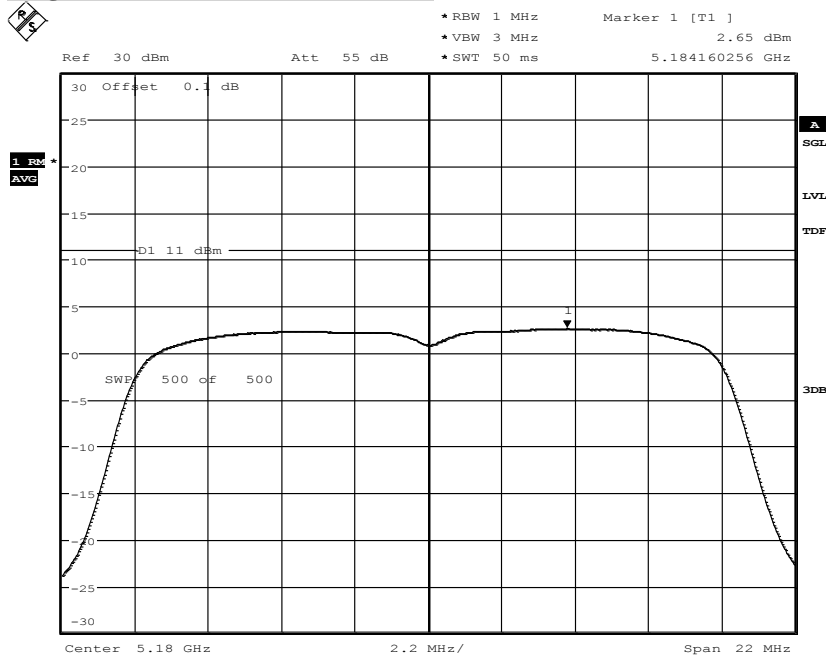**Diagram a-Mode 12Mbps Ch165:**

Date: 9.JUN.2016 13:43:05

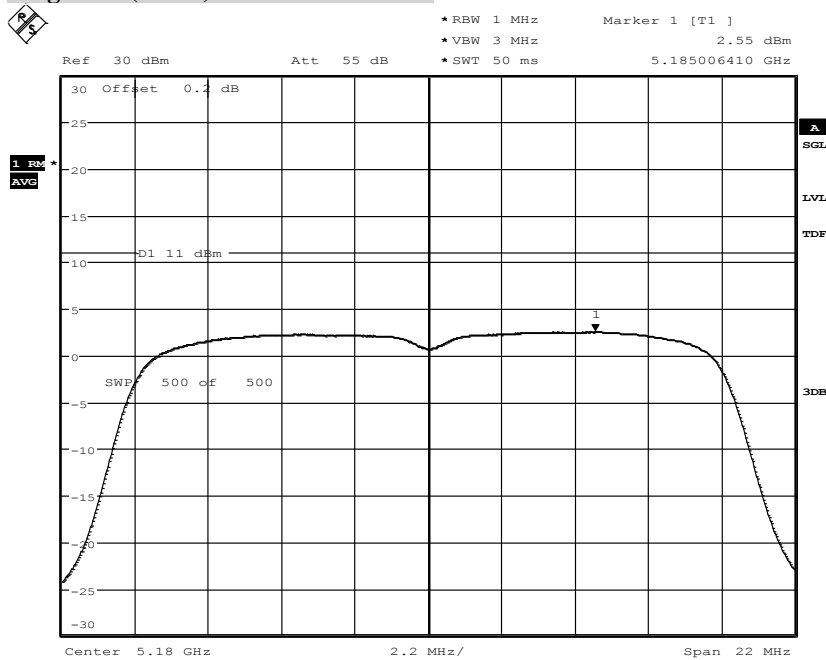**Diagram a-Mode 24Mbps Ch165:**

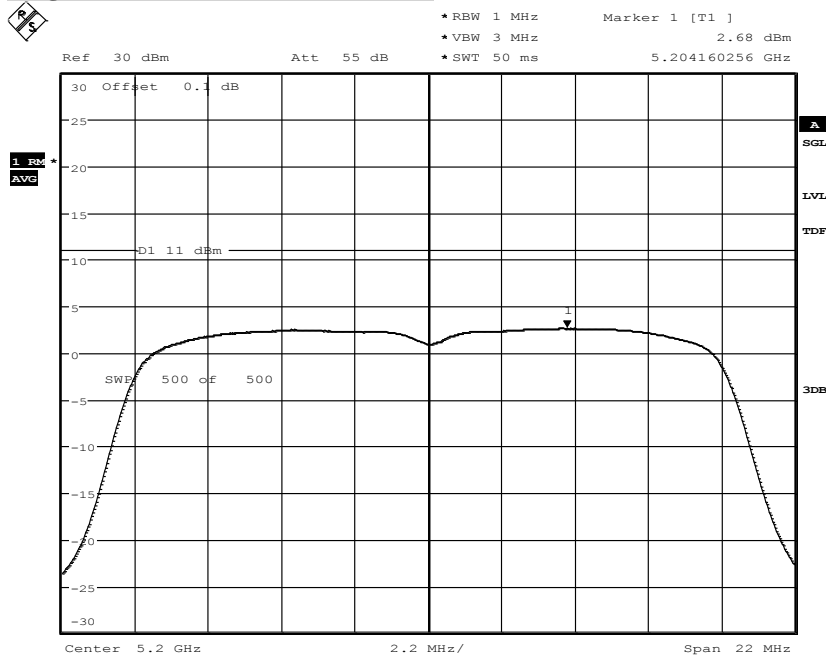Date: 9.JUN.2016 13:47:20

Diagram n(HT20)-Mode MCS0 Ch36:

Date: 9.JUN.2016 11:50:20
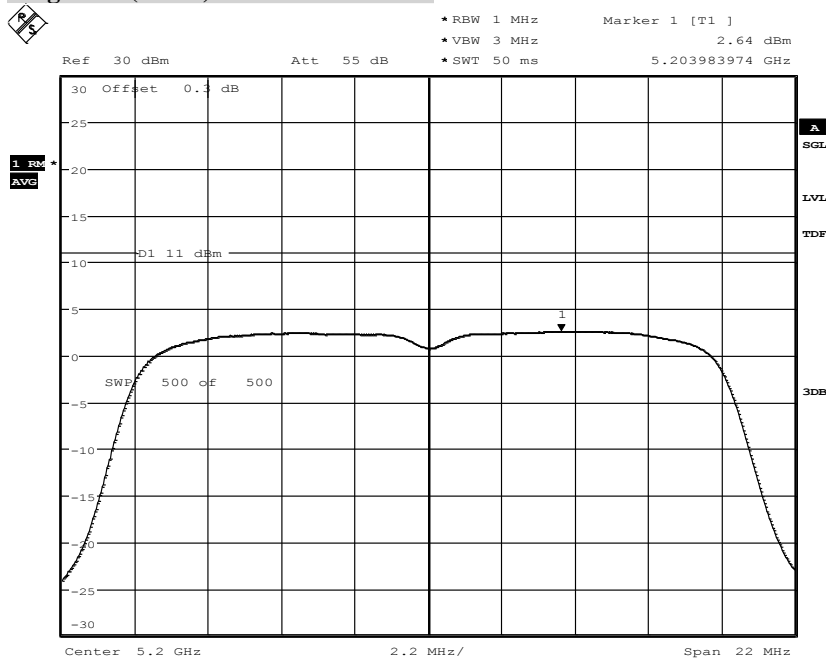
Diagram n(HT20)-Mode MCS2 Ch36:

Date: 9.JUN.2016 12:23:39
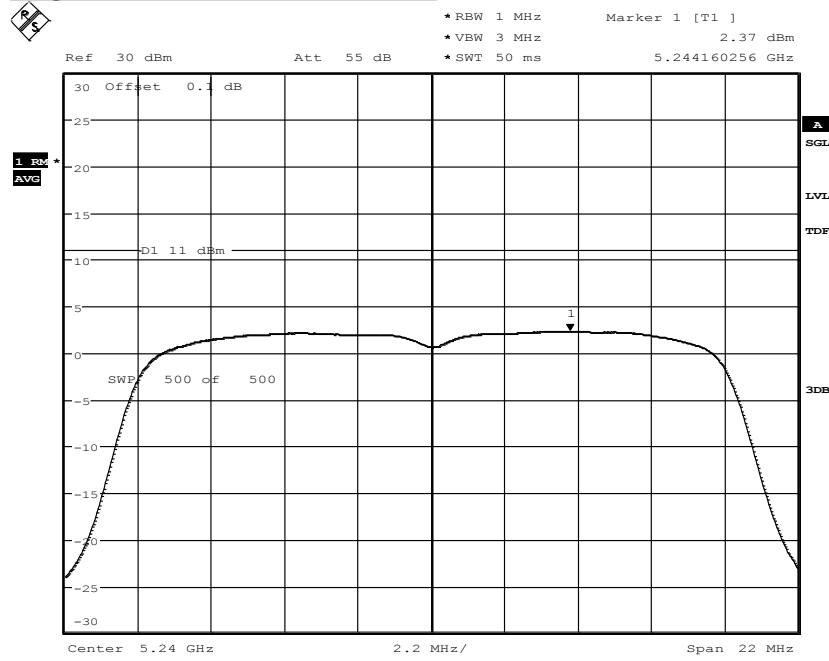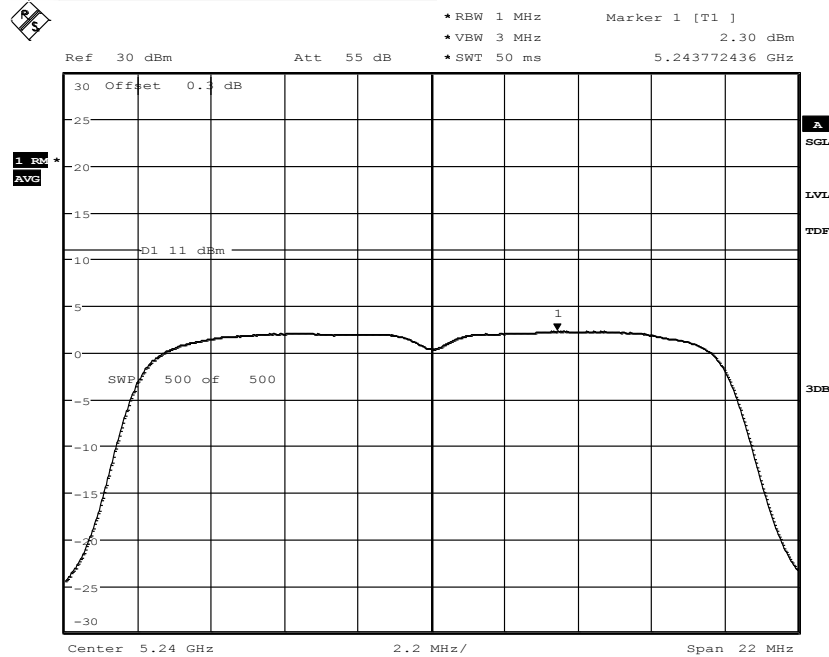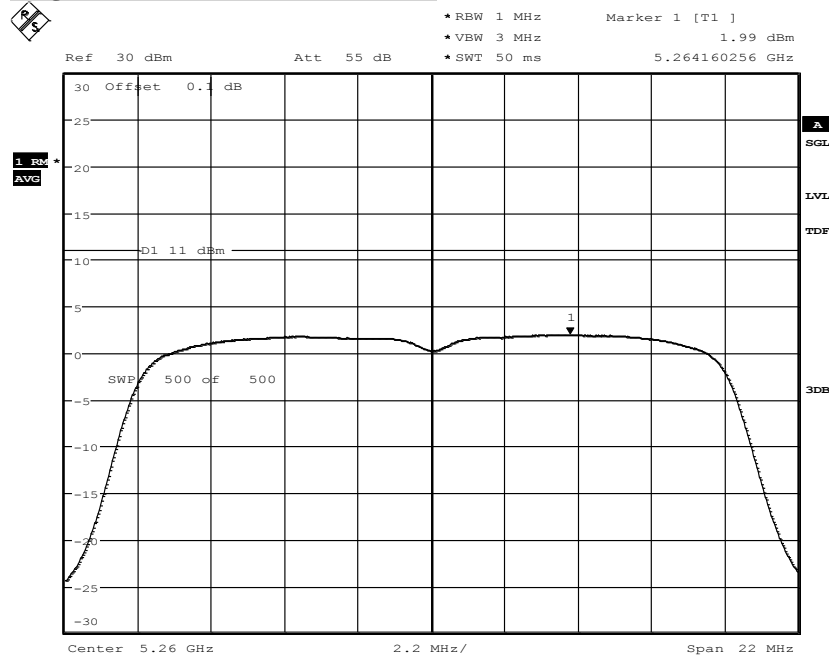
Diagram n(HT20)-Mode MCS0 Ch40:

```
          R                              * RBW  1 MHz      Marker 1 [T1 ]
          S                              * VBW  3 MHz                 2.68 dBm
       Ref  30 dBm          Att  55 dB   * SWT  50 ms      5.204160256 GHz

    30  Offset  0.1 dB                                                      A
   -25                                                                     SGL
 1 RM *
 AVG-20                                                                     LVL

   -15                                                                      TDF

   -10   D1 11 dBm

    -5                                         1

     0
        SWP  500 of  500                                                    3DB
    -5

   -10

   -15

   -20

   -25

   -30
       Center  5.2 GHz            2.2 MHz/            Span  22 MHz
```

Date: 9.JUN.2016 11:51:53

Diagram n(HT20)-Mode MCS3 Ch40:

```
          R                              * RBW  1 MHz      Marker 1 [T1 ]
          S                              * VBW  3 MHz                 2.64 dBm
       Ref  30 dBm          Att  55 dB   * SWT  50 ms      5.203983974 GHz

    30  Offset  0.3 dB                                                      A
   -25                                                                     SGL
 1 RM *
 AVG-20                                                                     LVL

   -15                                                                      TDF

   -10   D1 11 dBm

    -5                                         1

     0
        SWP  500 of  500                                                    3DB
    -5

   -10

   -15

   -20

   -25

   -30
       Center  5.2 GHz            2.2 MHz/            Span  22 MHz
```

Date: 9.JUN.2016 12:20:16

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Diagram n(HT20)-Mode MCS0 Ch48:

	⋆ RBW 1 MHz	Marker 1 [T1]
	⋆ VBW 3 MHz	2.37 dBm
Ref 30 dBm	Att 55 dB	⋆ SWT 50 ms	5.244160256 GHz

Center 5.24 GHz   2.2 MHz/   Span 22 MHz

Date: 9.JUN.2016 11:53:16

Diagram n(HT20)-Mode MCS3 Ch48:

	⋆ RBW 1 MHz	Marker 1 [T1]
	⋆ VBW 3 MHz	2.30 dBm
Ref 30 dBm	Att 55 dB	⋆ SWT 50 ms	5.243772436 GHz

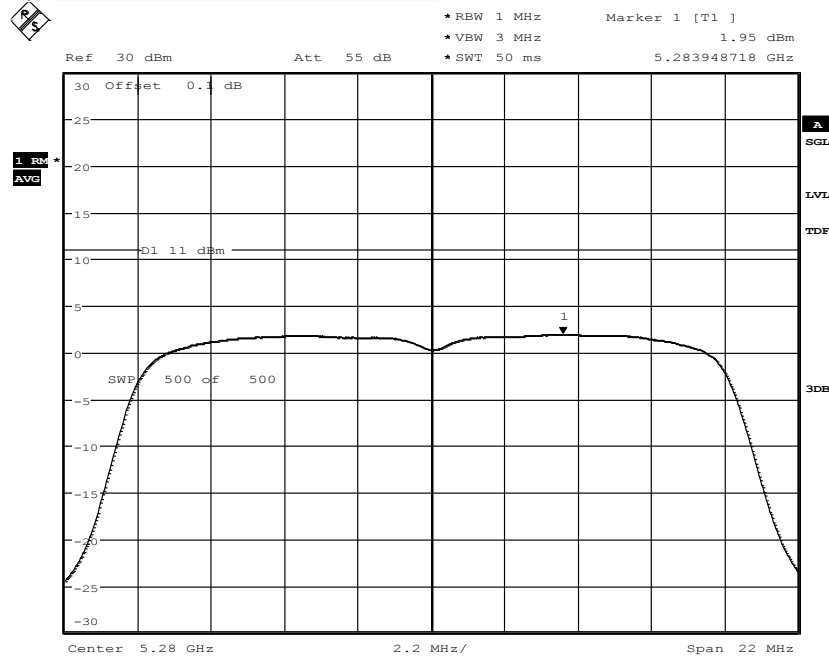Center 5.24 GHz   2.2 MHz/   Span 22 MHz

Date: 9.JUN.2016 12:18:35

Diagram n(HT20)-Mode MCS0 Ch52:
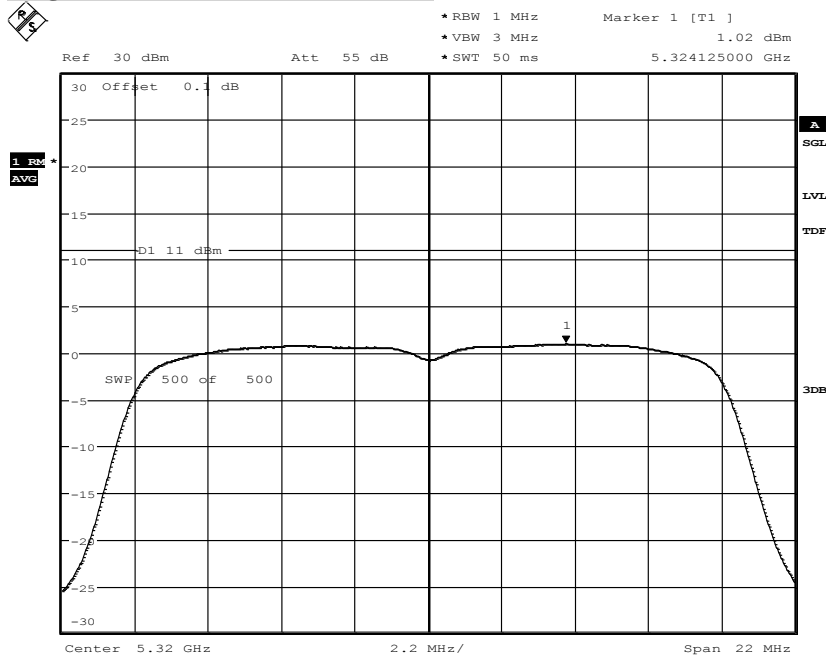

Date: 9.JUN.2016 11:55:41
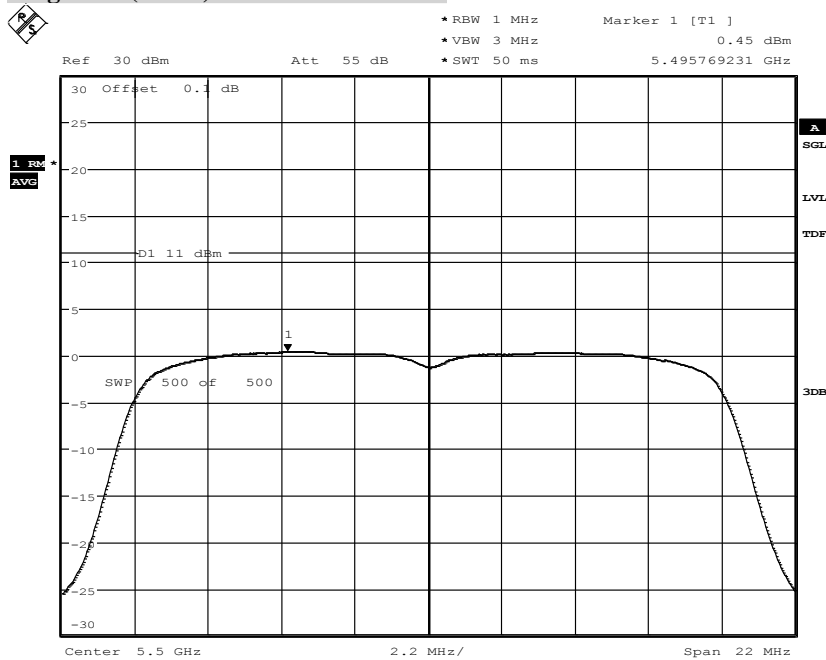
Diagram n(HT20)-Mode MCS0 Ch56:

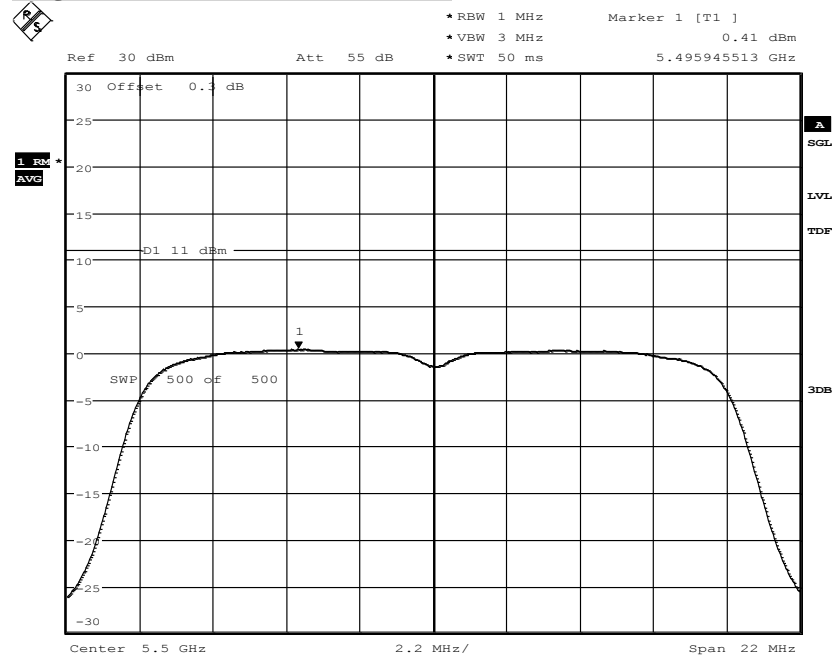Date: 9.JUN.2016 11:57:17

Diagram n(HT20)-Mode MCS0 Ch64:

Date: 9.JUN.2016 11:59:04
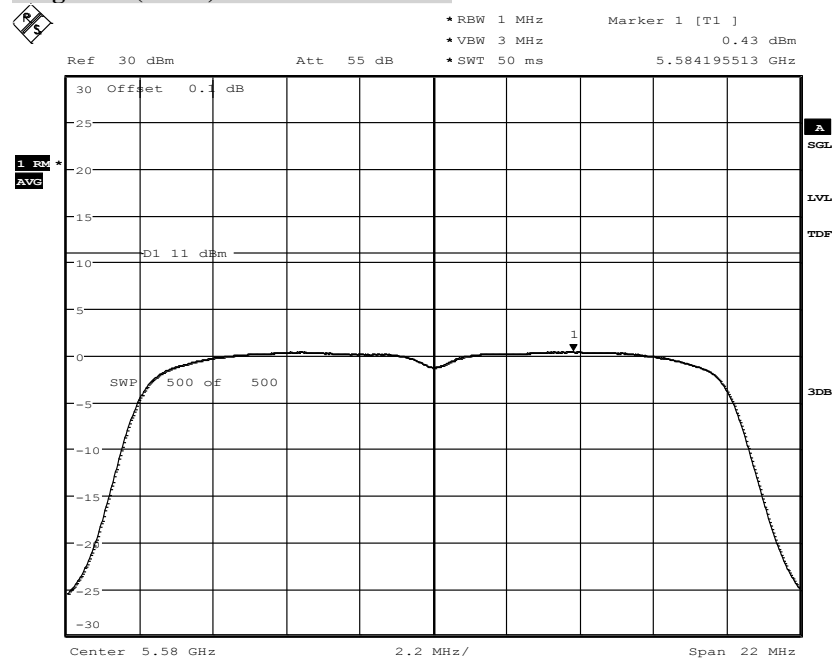
Diagram n(HT20)-Mode MCS0 Ch100:

Date: 9.JUN.2016 12:01:02
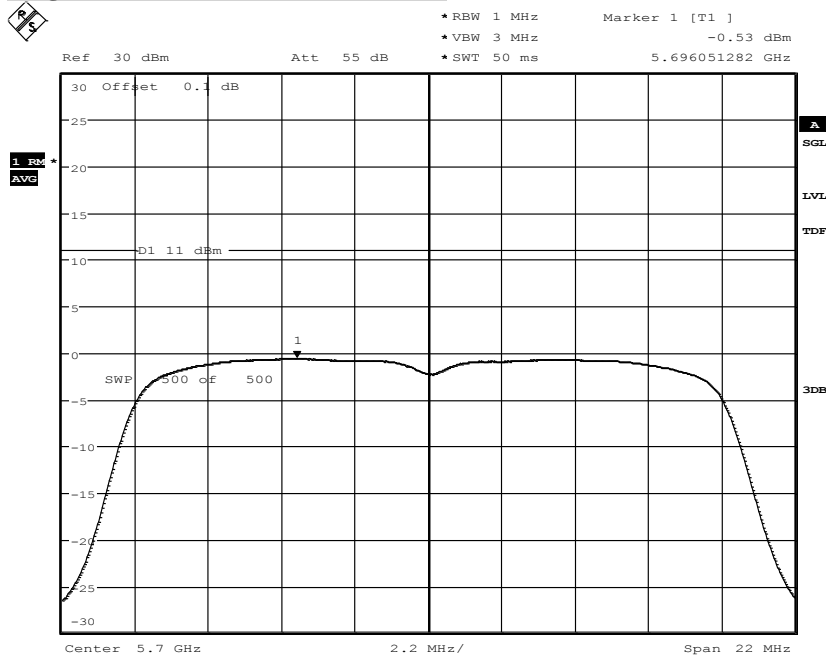
Diagram n(HT20)-Mode MCS3 Ch100:

```
                              * RBW  1 MHz        Marker 1 [T1 ]
                              * VBW  3 MHz                      0.41 dBm
      Ref   30 dBm      Att   55 dB  * SWT  50 ms       5.495945513 GHz

   30  Offset  0.1 dB                                                    A
  -25                                                                    SGL
1 RM *
AVG  -20                                                                 LVL

  -15                                                                    TDF

  -10  D1 11 dBm

   -5

    1

    0
      SWP  500 of  500                                                   3DB
   -5

  -10

  -15

  -2

  -25

  -30
      Center  5.5 GHz          2.2 MHz/            Span  22 MHz
```

Date: 9.JUN.2016 12:14:28

Diagram n(HT20)-Mode MCS0 Ch116:

```
                              * RBW  1 MHz        Marker 1 [T1 ]
                              * VBW  3 MHz                      0.43 dBm
      Ref   30 dBm      Att   55 dB  * SWT  50 ms       5.584195513 GHz

   30  Offset  0.1 dB                                                    A
  -25                                                                    SGL
1 RM *
AVG  -20                                                                 LVL

  -15                                                                    TDF

  -10  D1 11 dBm

   -5

                                            1
    0
      SWP  500 of  500                                                   3DB
   -5

  -10

  -15

  -2

  -25

  -30
      Center  5.58 GHz         2.2 MHz/            Span  22 MHz
```
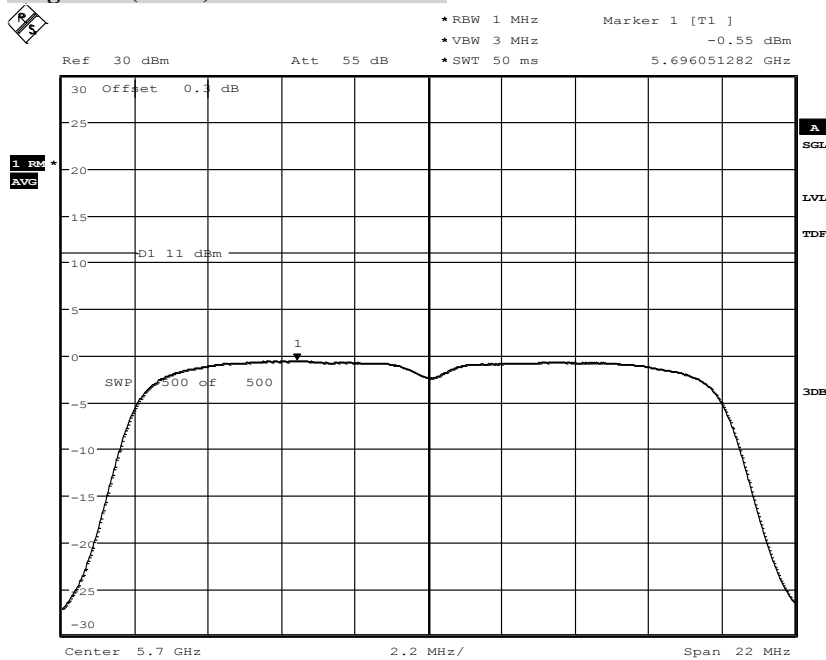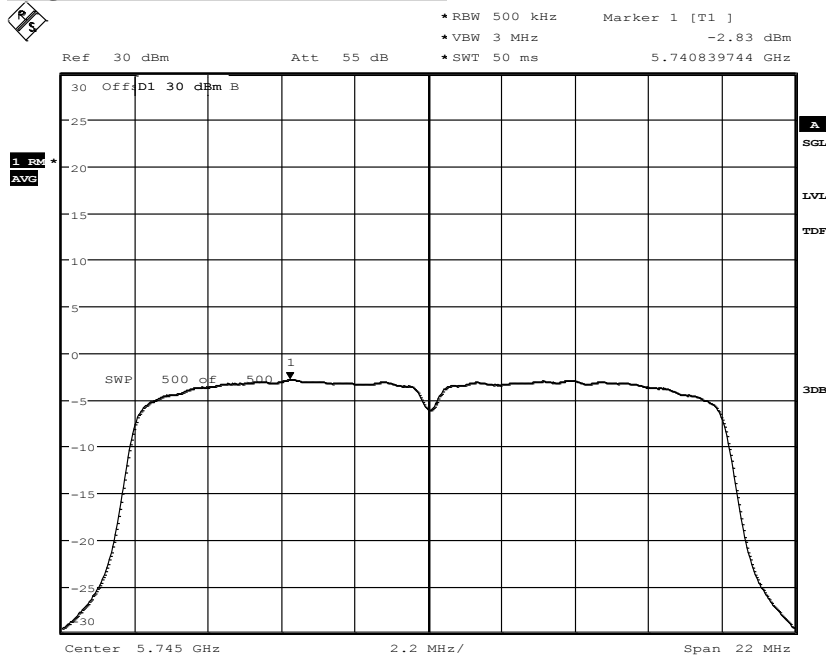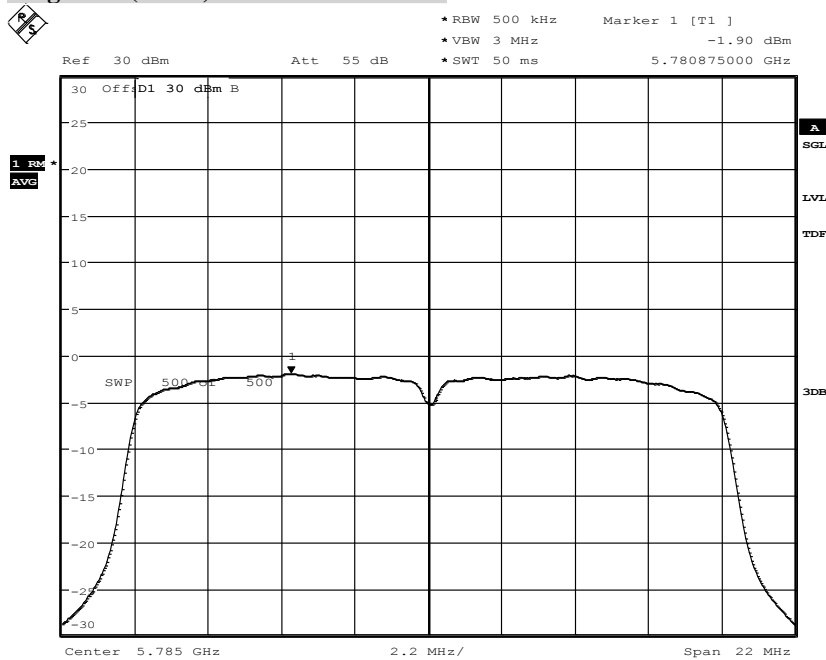
Date: 9.JUN.2016 12:03:37

Diagram n(HT20)-Mode MCS0 Ch140:

Date: 9.JUN.2016 12:05:34

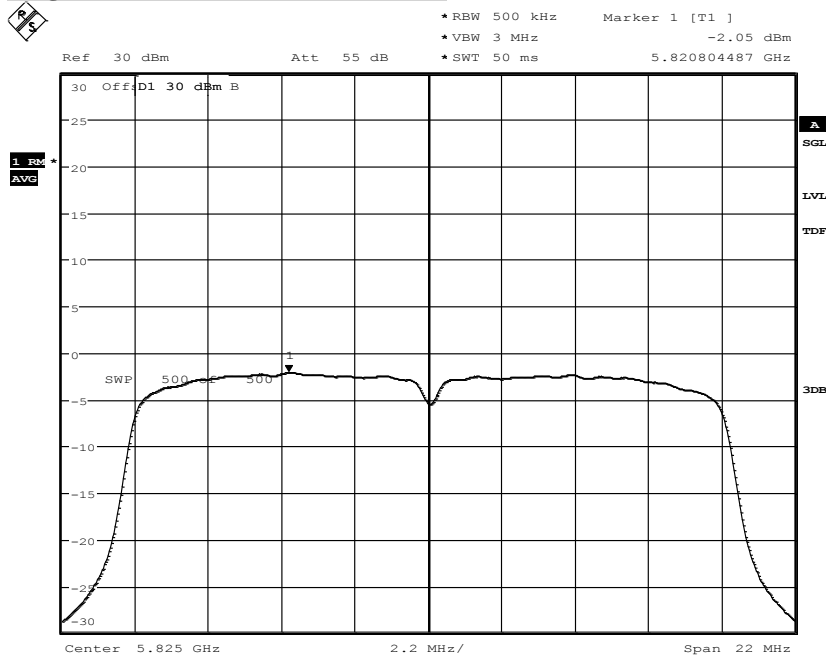**Diagram n(HT20)-Mode MCS3 Ch140:**

Date: 9.JUN.2016 12:11:29

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Diagram n(HT20)-Mode MCS0 Ch149:

Date: 9.JUN.2016 12:27:04

Diagram n(HT20)-Mode MCS0 Ch157:

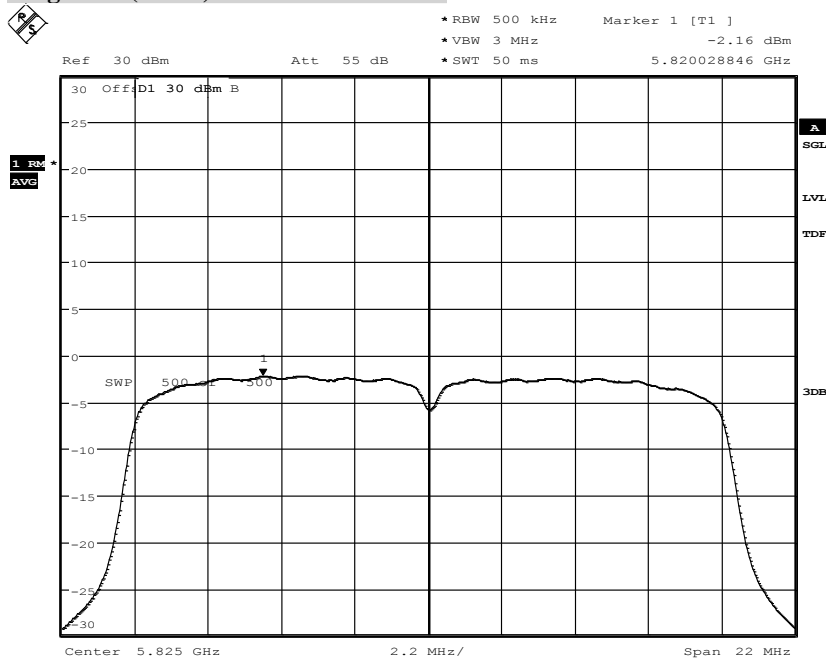Date: 9.JUN.2016 12:29:22

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Diagram n(HT20)-Mode MCS0 Ch165:

Date: 9.JUN.2016 12:31:12

Diagram n(HT20)-Mode MCS3 Ch165:

Date: 9.JUN.2016 12:33:11

4. Radiated magnetic field strengths measurements (9kHz to 30MHz)

Diagram No: 2.11_WLAN_n(HT20) mode_MCS0_Ch100_9kHz - 30 MHz

### Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of Testsoftware:	EMC32 V9.25.0
Distance correction:	used accord. table, pls. see test report
Used filter:	bypass
Technical Data:	please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Test specification.:	FCC 15.209/15.205; RSS-Gen., Issue 4
Operator:	MFr
Operating conditions:	TX-on WLAN 802.11 n-mode, BW 20 MHz channel 100; MCS0;
Power during tests:	full chraged battery

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum
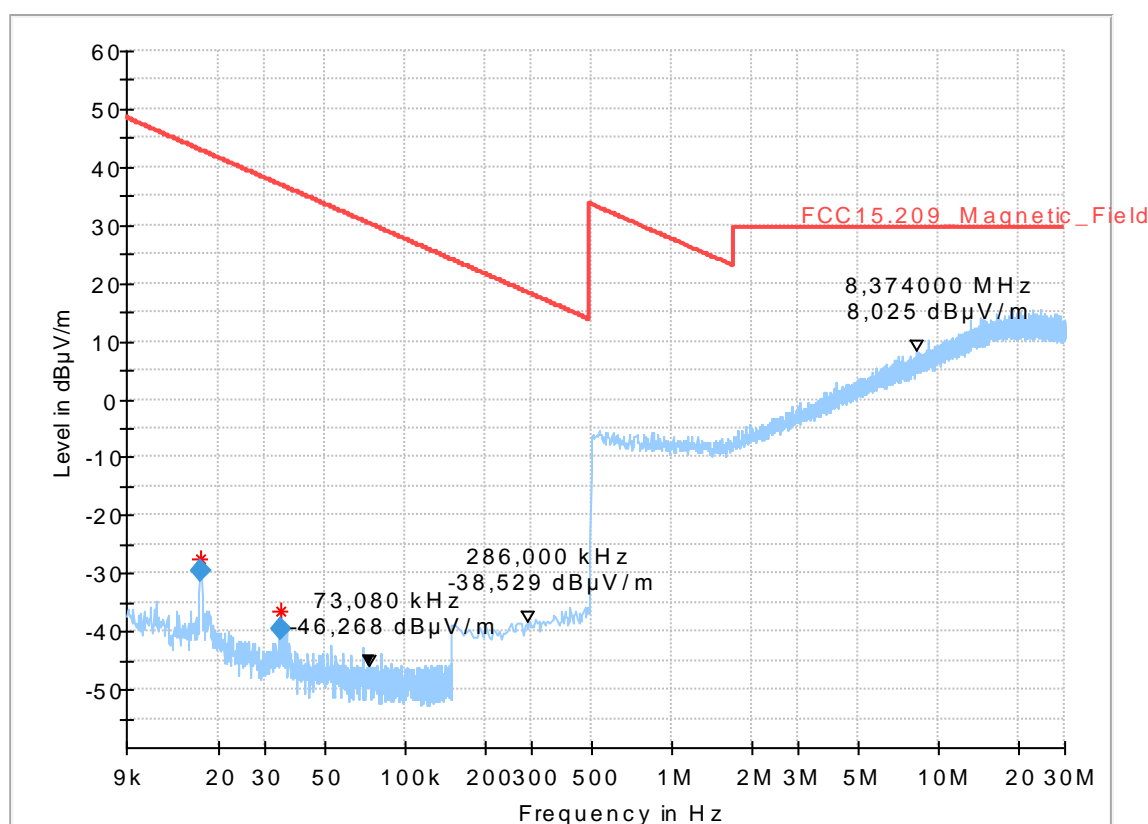
Final_Result

Frequency (MHz)	RMS (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
0.017160	-29.71	42.91	72.61	1000.0	0.200	100.0	H	25.0	-58.7
0.034200	-39.56	36.92	76.48	1000.0	0.200	100.0	H	141.0	-59.5

5. Radiated field strengths measurements (30MHz to 1GHz)

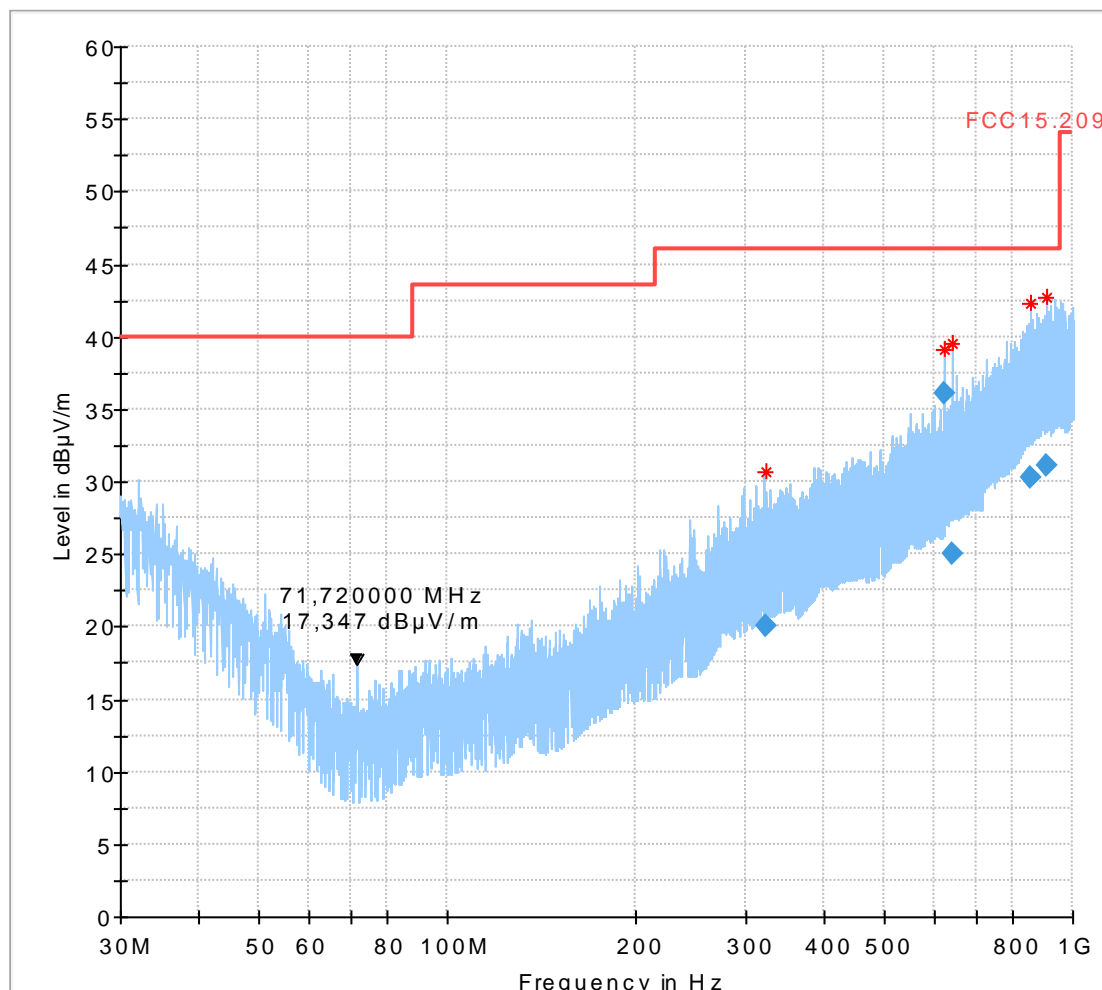## Diagram No: 3.11_WLAN_n(HT20) mode_MCS0_Ch100_30 MHz - 1 GHz_

Common Information

Test description:	Electric Field Strength Measurement
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of Testsoftware:	EMC32 V9.25.0
Distance correction:	not used
Technical Data:	Please see page 2 for detailed data of measurement setup
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	TP NLP-1200
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	RIs
Operating conditions:	TX-on Continuous
Operating Mode:	TX-on WLAN 802.11 n(HT20)mode, BW 20 MHz channel 100; MCS0

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
322.620000	20.00	46.00	26.00	1000.0	120.000	251.0	H	265.0	0.0	16.0
623.980000	36.02	46.00	9.98	1000.0	120.000	109.0	H	96.0	0.0	22.3
640.890000	24.97	46.00	21.03	1000.0	120.000	199.0	H	173.0	90.0	23.2
857.610000	30.28	46.00	15.72	1000.0	120.000	150.0	H	146.0	90.0	25.8
910.870000	31.06	46.00	14.94	1000.0	120.000	129.0	V	359.0	0.0	26.6

6. Radiated field strength measurements (1GHz to 40 GHz)
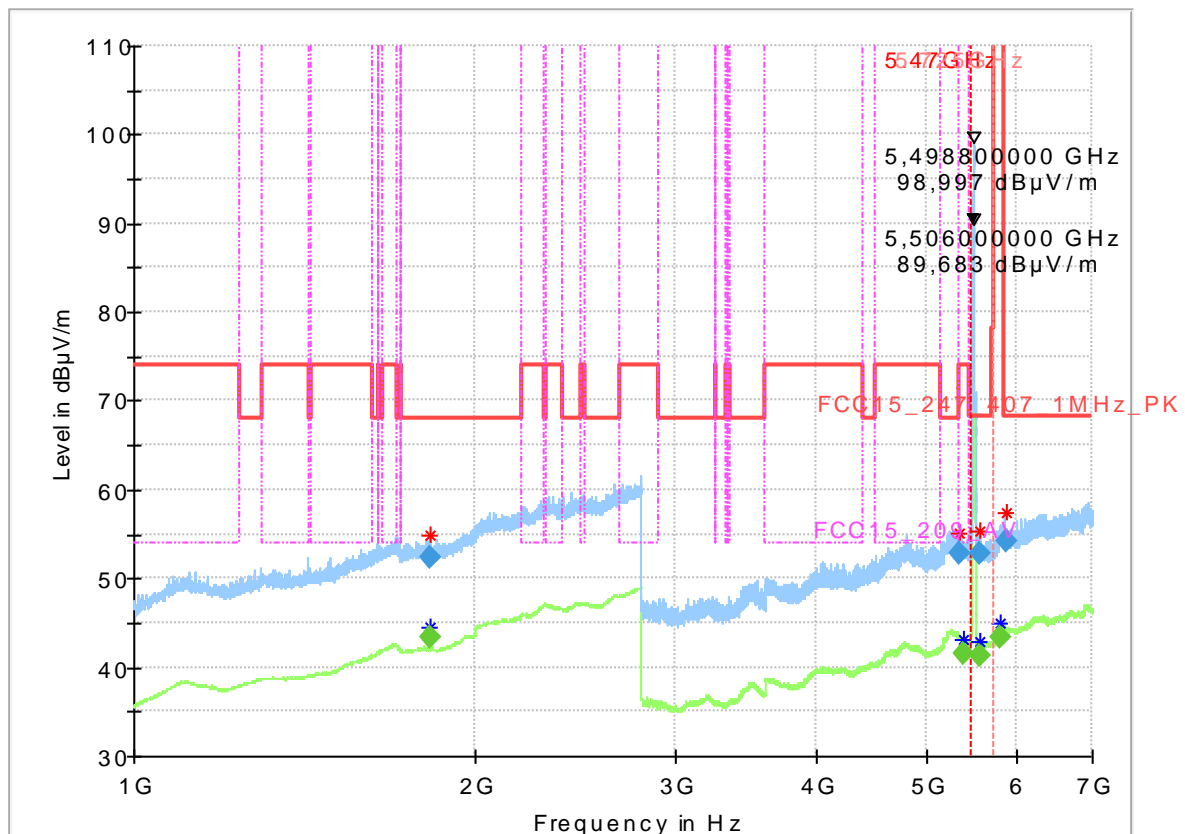
Diagram No: 4.11_WLAN 802.11_n(HT20)_MCS0_CH100

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.407&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX-on WLAN 802.11 n(HT20), channel 100; Data rate MCS0
Operator Name:	KMo

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum

Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	RMS (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)
1823.600000	52.35	---	68.00	15.65	100.0	1000.000	155.0	H	348.0	90.0
1825.600000	---	43.30	150.00	106.70	100.0	1000.000	155.0	V	202.0	0.0
5344.250000	52.80	---	68.00	15.20	100.0	1000.000	155.0	V	248.0	90.0
5395.050000	---	41.47	54.00	12.53	100.0	1000.000	155.0	H	65.0	0.0
5576.800000	---	41.37	150.00	108.63	100.0	1000.000	155.0	V	304.0	90.0
5582.950000	52.92	---	68.20	15.28	100.0	1000.000	155.0	V	208.0	90.0
5807.600000	---	43.42	150.00	106.58	100.0	1000.000	155.0	H	359.0	0.0
5878.150000	54.30	---	68.20	13.90	100.0	1000.000	155.0	V	157.0	0.0

(continuation of the "Final_Result" table from column 16 ...)

Frequency (MHz)	Corr.	Comment
1823.600000	38.1	01:34:14 - 26.04.2016
1825.600000	38.1	01:42:10 - 26.04.2016
5344.250000	12.2	01:35:54 - 26.04.2016
5395.050000	11.7	01:39:06 - 26.04.2016
5576.800000	11.5	01:43:43 - 26.04.2016
5582.950000	11.6	01:37:22 - 26.04.2016
5807.600000	13.5	01:40:32 - 26.04.2016
5878.150000	13.2	01:32:29 - 26.04.2016

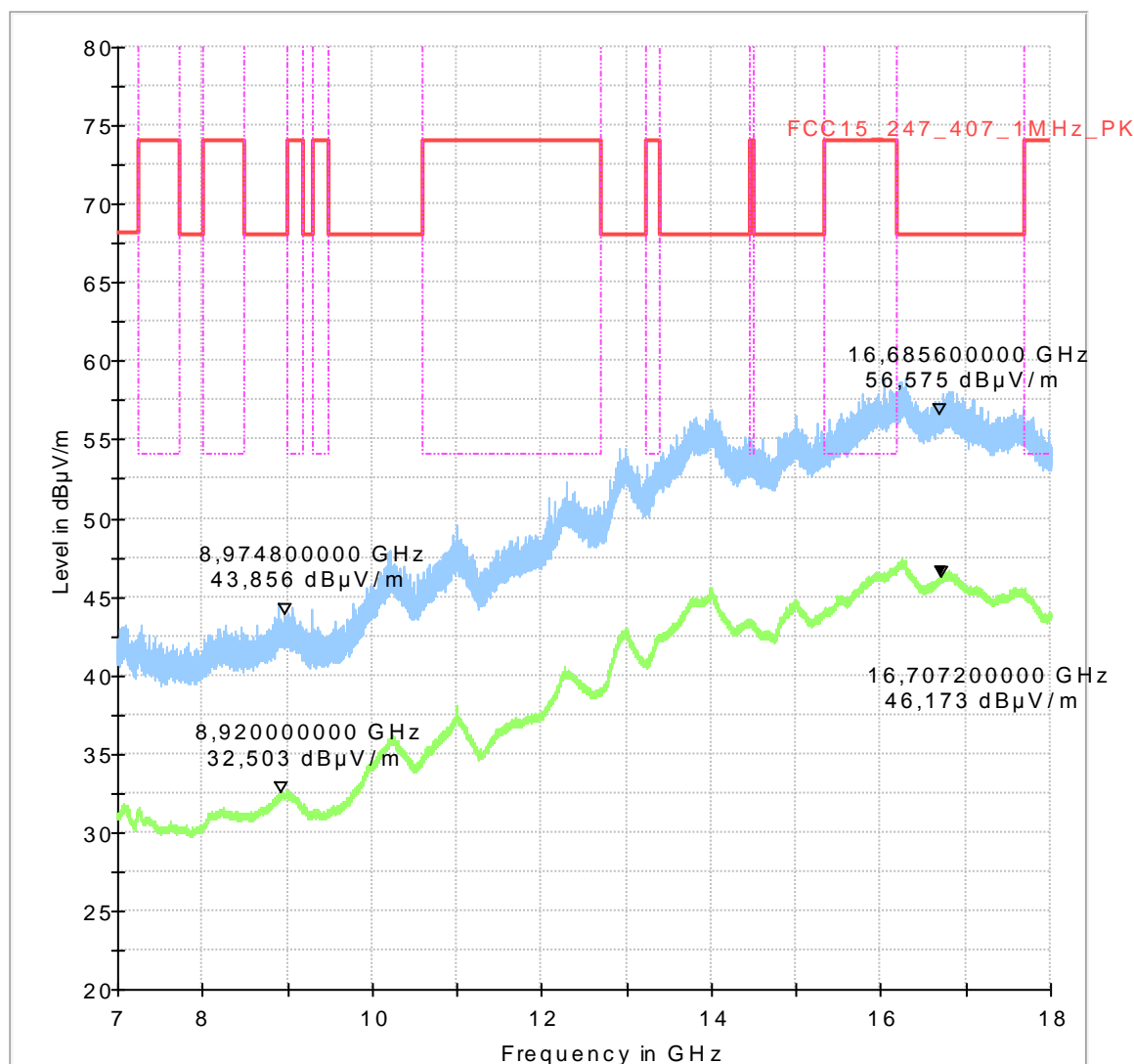# Diagram No: 4.11a_WLAN 802.11_n(HT20)_MCS0_CH100_7GHz_18GHz

Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.407&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Environmental Conditions:	Humidity:33 %rH; Temperature: 21°C
Operation mode:	TX, continuous WLAN 5GHz a-mode, BW 20 MHz channel 100; MCS0;

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum

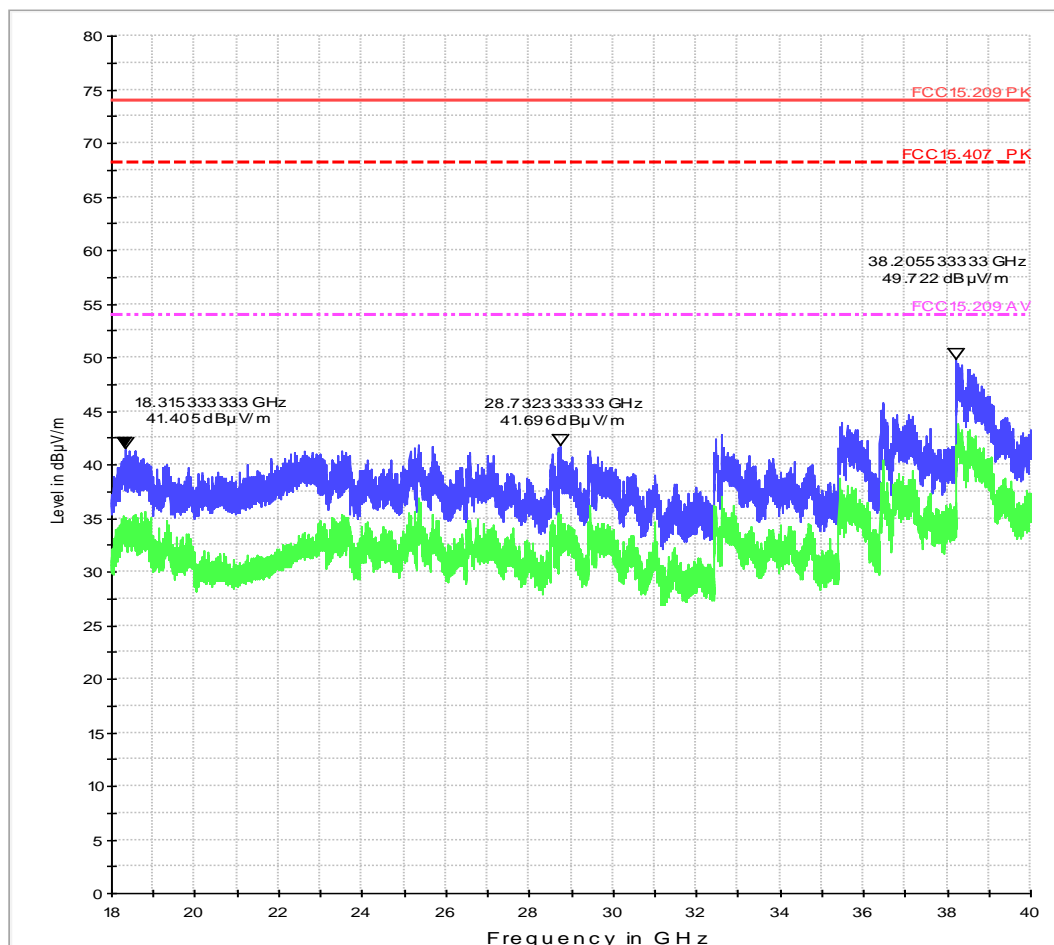# Diagram No: 4.11b_WLAN 802.11_n(HT20)_MCS0_CH100_18GHz_40GHz

Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247, 15.205&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Distance correction factor	3 to 1m: -10.5 dB applying to measurement results
SW-Version:	EMC32 V8.53.0
Operation mode:	TX mode continuous CH100-nMode-MCS0
Operator Name:	TFr

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

FCC_Sweep_15.407_18_40GHz_Pre

7. Radiated Band-Edge Measurements accord. §15.209 & §15.205
7.1. Channel 36 a-Mode (left band edge)
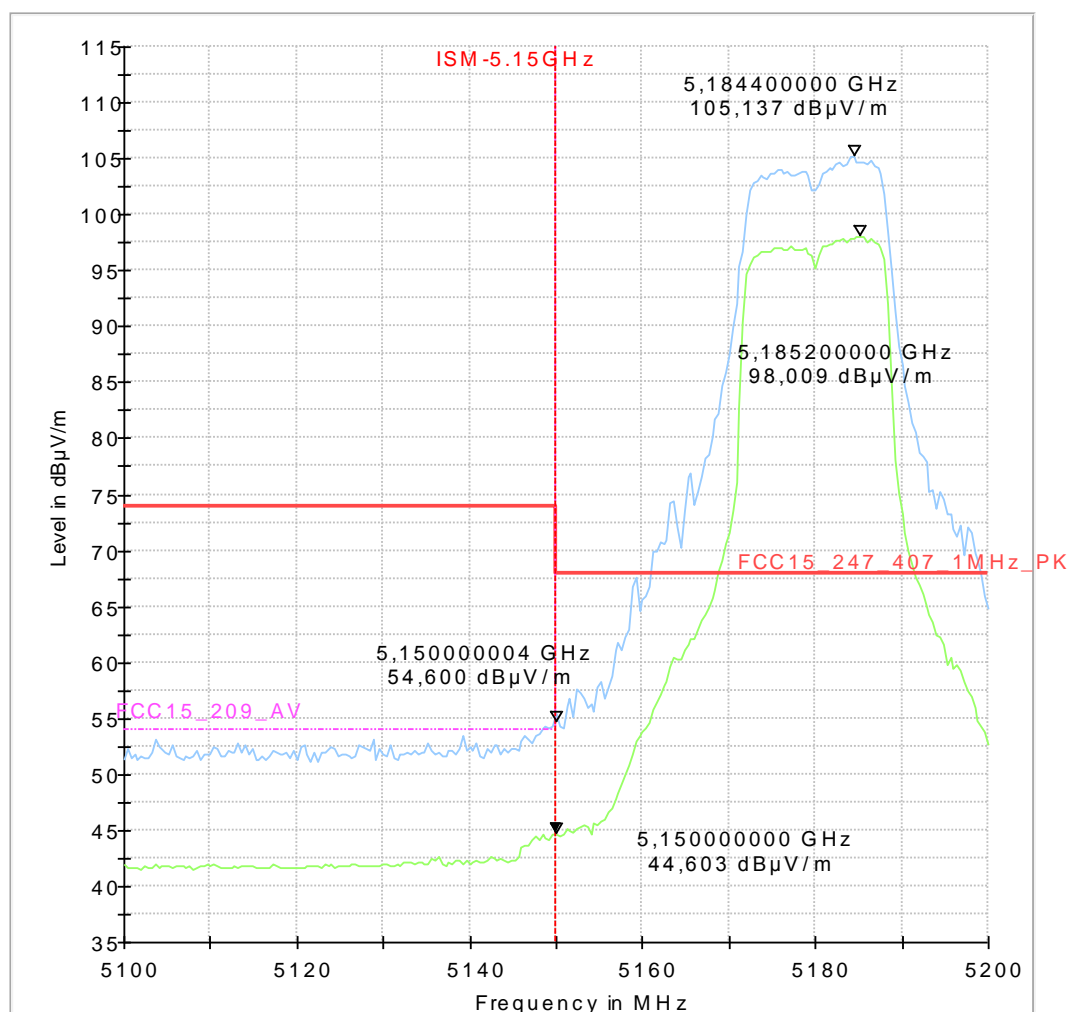
Diagram No: 9.13_BE_Low_WLAN_TX_6 Mbps_CH36

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.407&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous WLAN 5GHz a-mode, channel 36; 6Mbps;
Enviromental Conditions:	Humidity:33 %rH; Temperature: 21°C
Operator Name:	PSa/APh

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum

7.2. Channel 64 a-Mode (right band edge)

Diagram No: 9.14_BE_High_a-mode_6Mbps_CH64

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.407&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous WLAN 5GHza-mode), channel 64; 6 Mbps;
Environmental Conditions	Humidity:33 %rH; Temperature: 21°C
Operator Name:	PSa/APh

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum

7.3. Channel 100 a-Mode (left band edge)
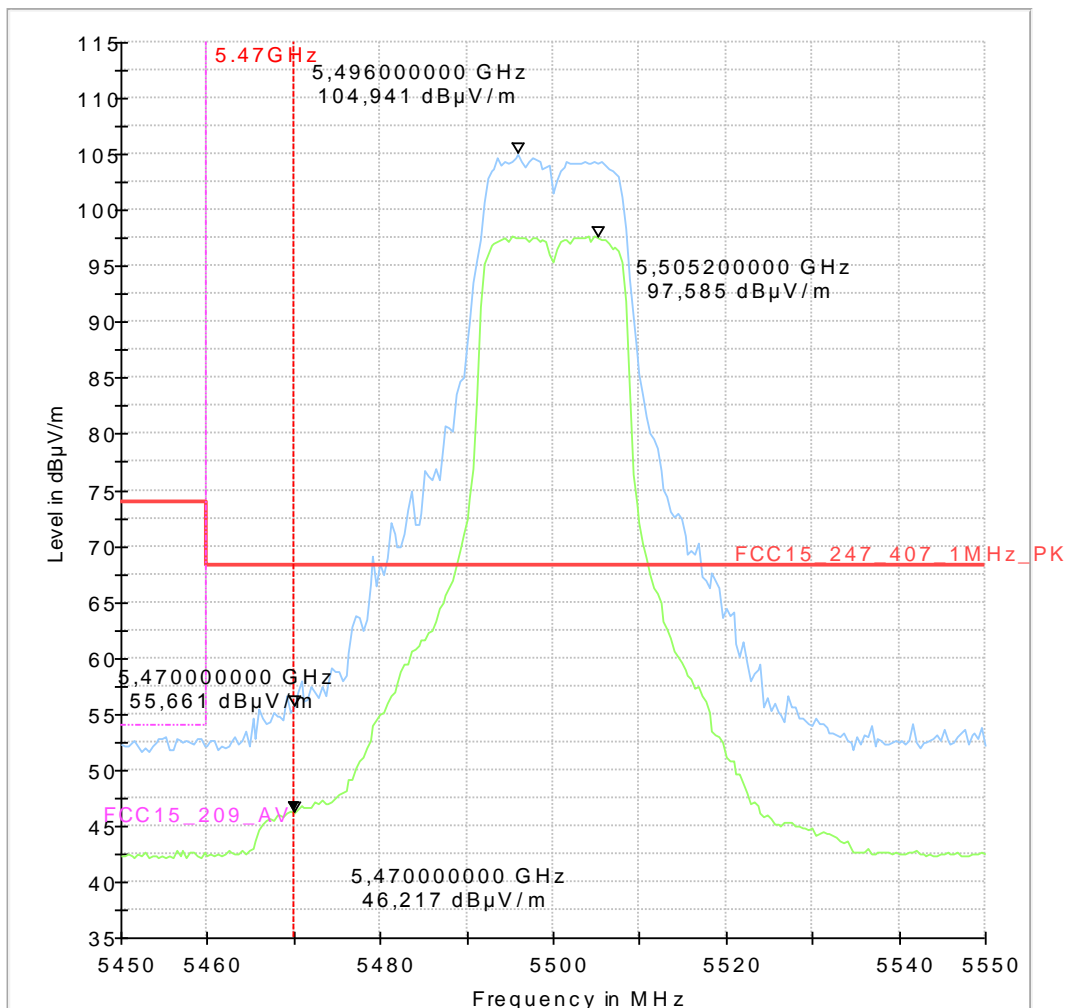
Diagram No: 9.15_BE_Low_a mode_6 Mbps_CH100

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.407&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous WLAN 5GHz a-mode, channel 100; 6Mbps;
Environmental Conditions:	TX, continuous
Operator Name:	PSa/APh

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum

7.4. Channel 140 a-Mode (right band edge)

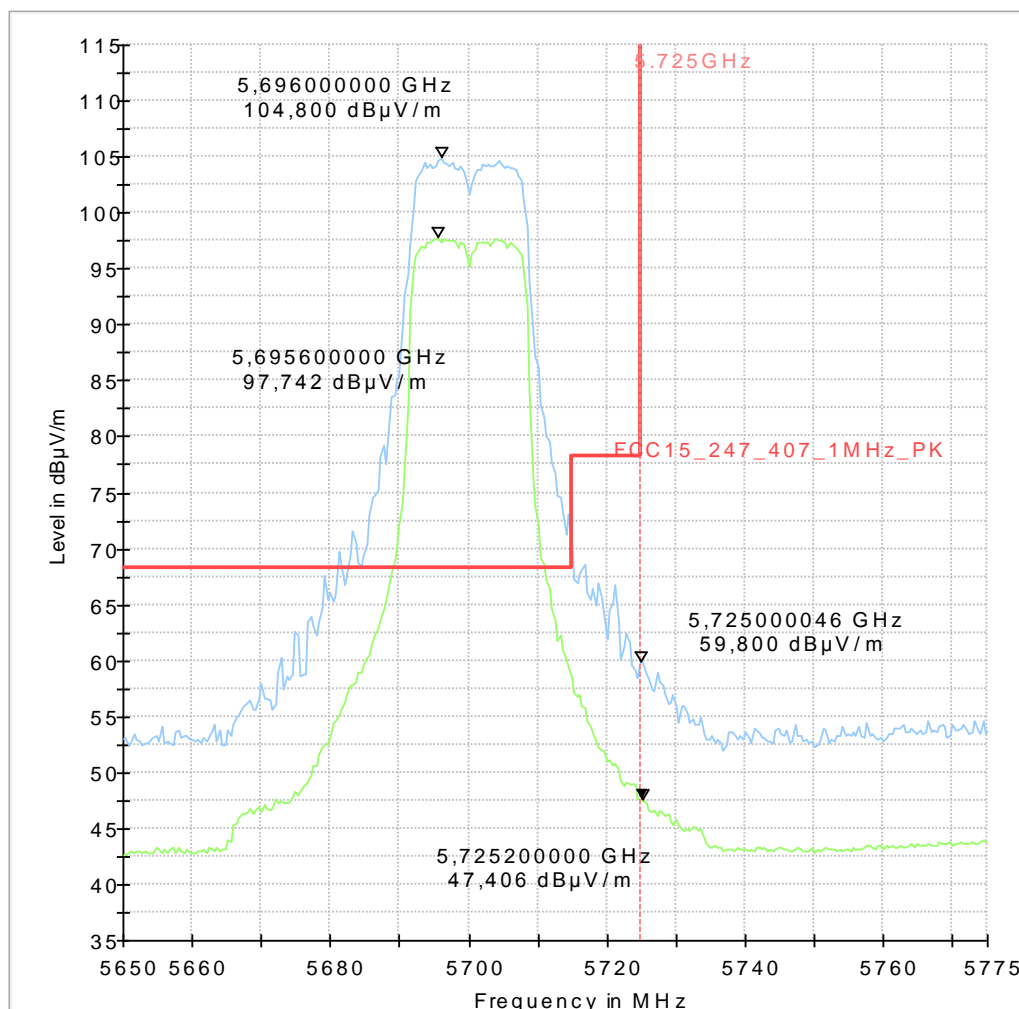## Diagram No: 9.16-BE_High_WLAN_TX_6 Mbps_ CH 140

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.407&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous WLAN 5GHz a-mode, channel 140; 6 Mbps;
Environmental Conditions:	Humidity: 31%rH; Temperature: 23°C
Operator Name:	PSa/APh

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum

7.5. Channel 36 n-Mode(HT20) (left band edge)

Diagram No: 9.17-BE_Low_ n(HT20) _MCS0_ CH36
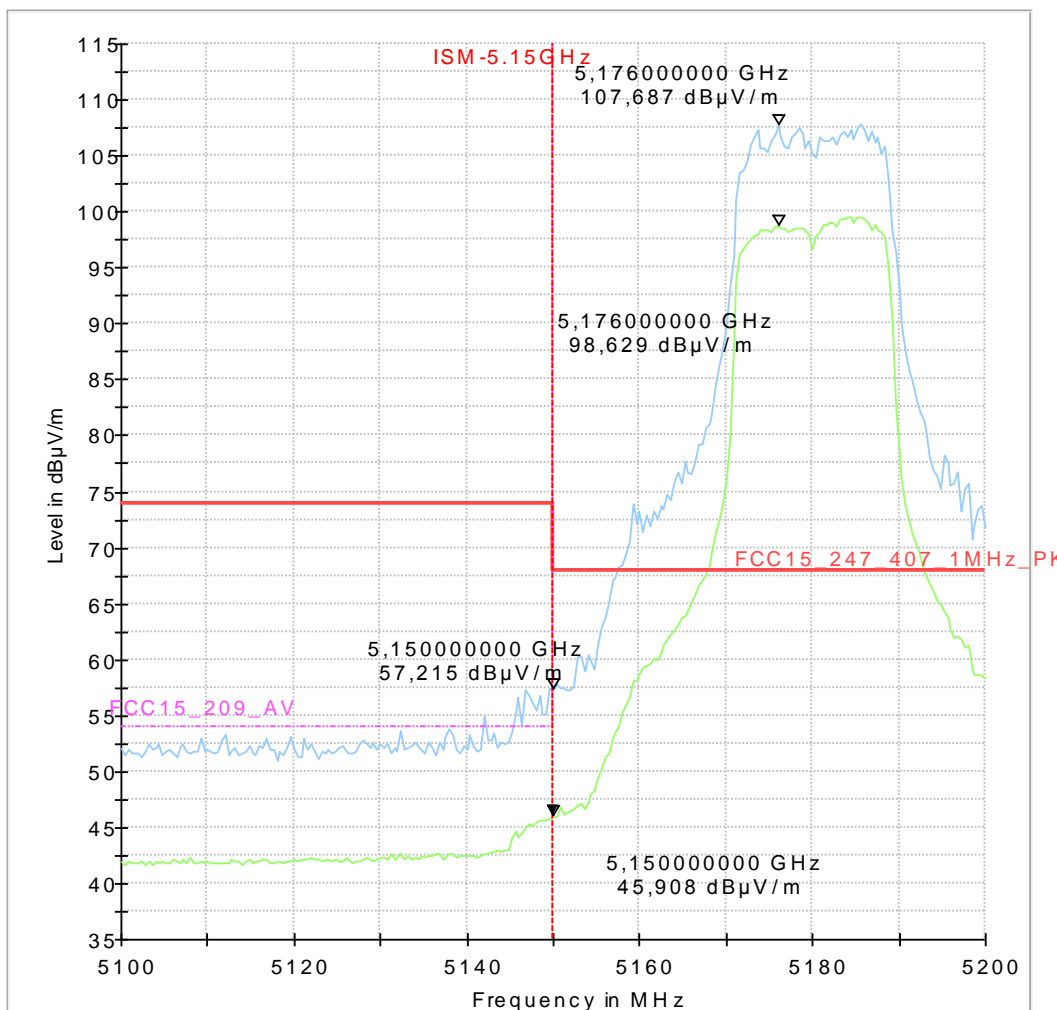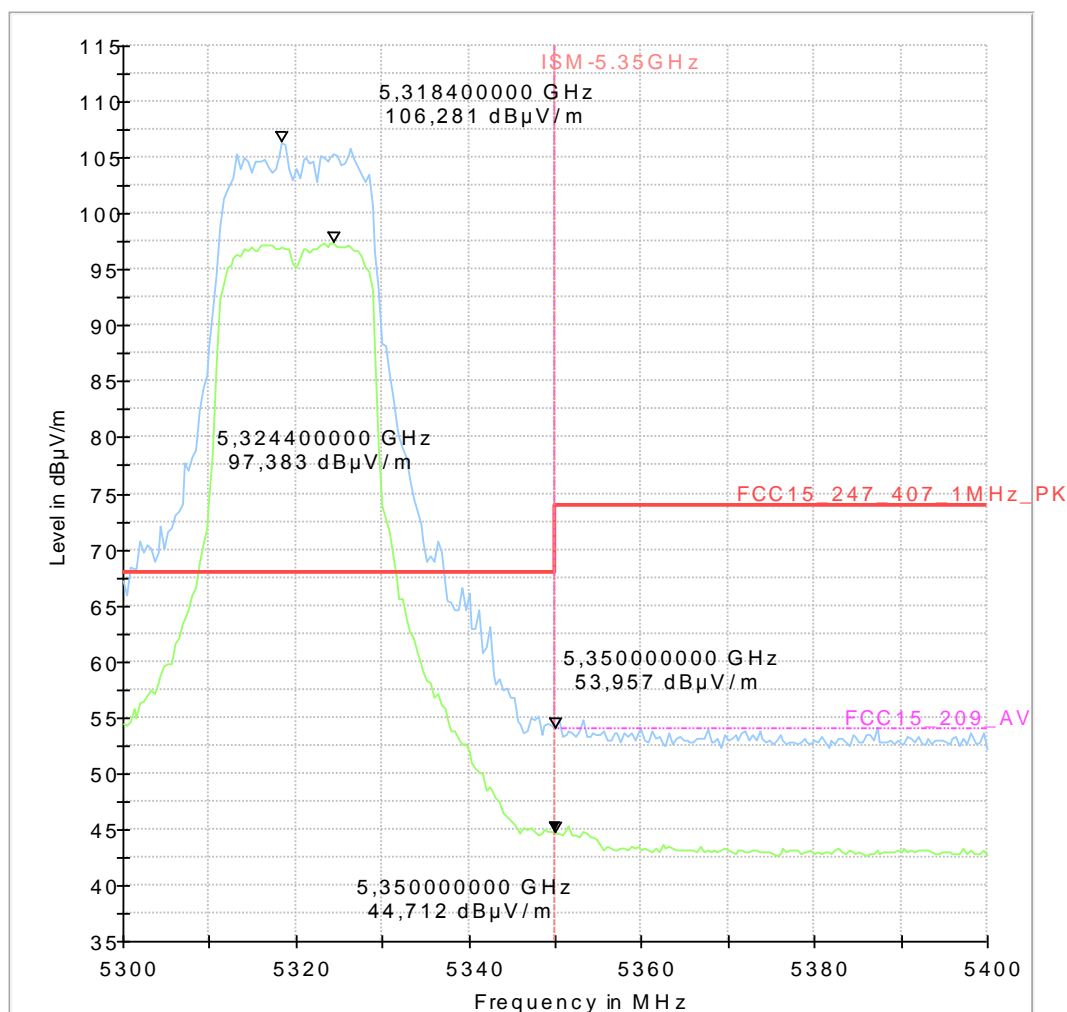
Common Information

Test Description: Radiated field strength emission in 3m distance
Test Site: CETECOM GmbH Essen
Test Standard: FCC 15.407&15.209 Intentional Radiator
Antenna polarisation: horizontal/vertical
Operation mode: TX, continuous WLAN 5GHz n(HT20), channel 36; MCS0
Environmental Conditions: Humidity:33 %rH; Temperature: 21°C
Operator Name: PSa/APh

EUT Information

Manufacturer: Datalogic ADCL S.r.l.
MODEL: JOYA TOUCH
EuT Type: B00AN00HL0HT0W7-GR0
P/N: 911350023
S/N: Z16P00138
HW Version: Beta HW Version
SW Version: WEC7
Firmware Version: 2.16
Input: Fully Charged Internal Battery

Full Spectrum

7.6. Channel 64 n-Mode(HT20) (right band edge)

Diagram No: 9.18_BE_High_n(HT20) _MCS0_ CH64

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.407&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous WLAN 5GHz n-mode, channel 64; MCS0
Environmental Conditions:	Humidity:33 %rH; Temperature: 21°C
Operator Name:	PSa/APh

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum

7.7. Channel 100 n-Mode(HT20) (left band edge)
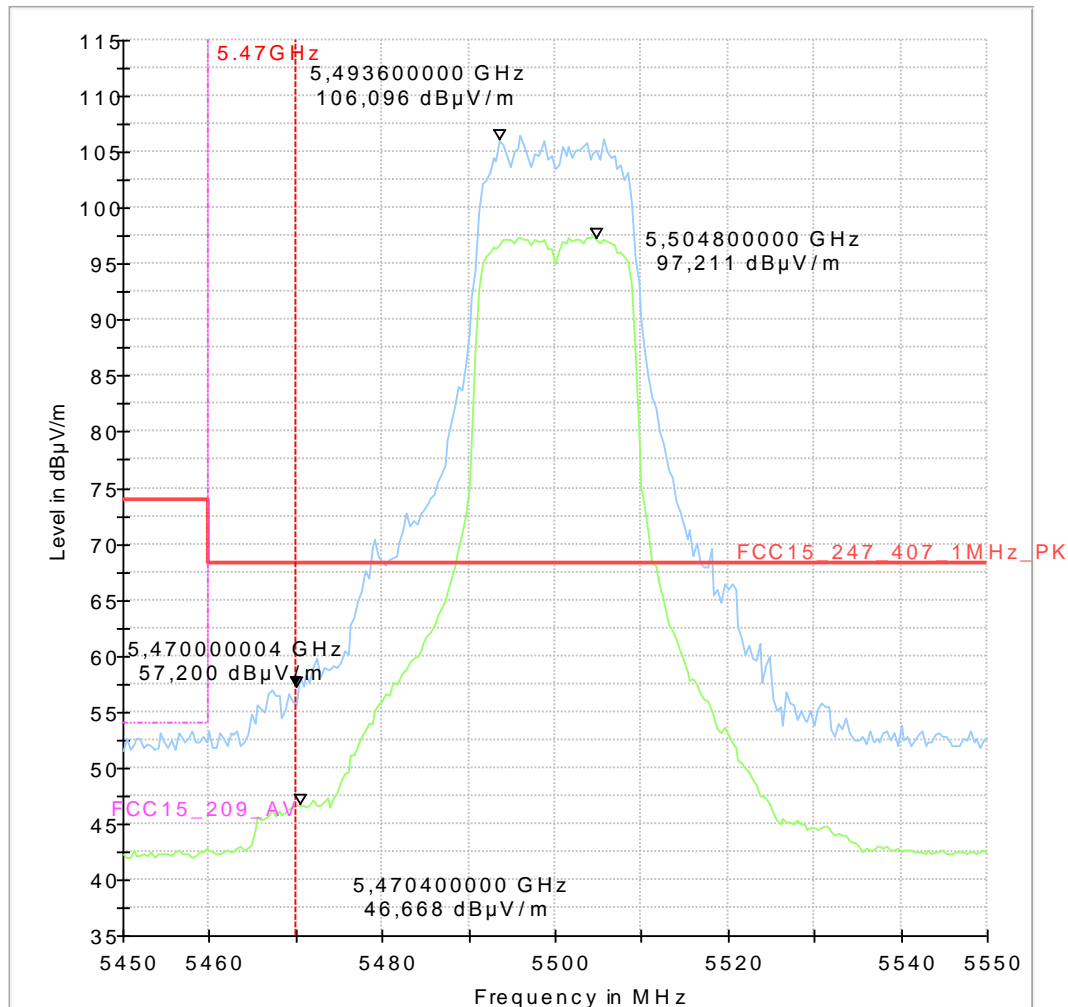
Diagram No: 9.19_BE_Low_n(HT20) _MCS0_ CH100

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.407&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous WLAN 5GHz n-mode, channel 100; MCS0;
Environmental Conditions:	Humidity:33 %rH; Temperature: 21°C
Operator Name:	PSa/APh

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum

7.8. Channel 140 n-Mode(HT20) (right band edge)

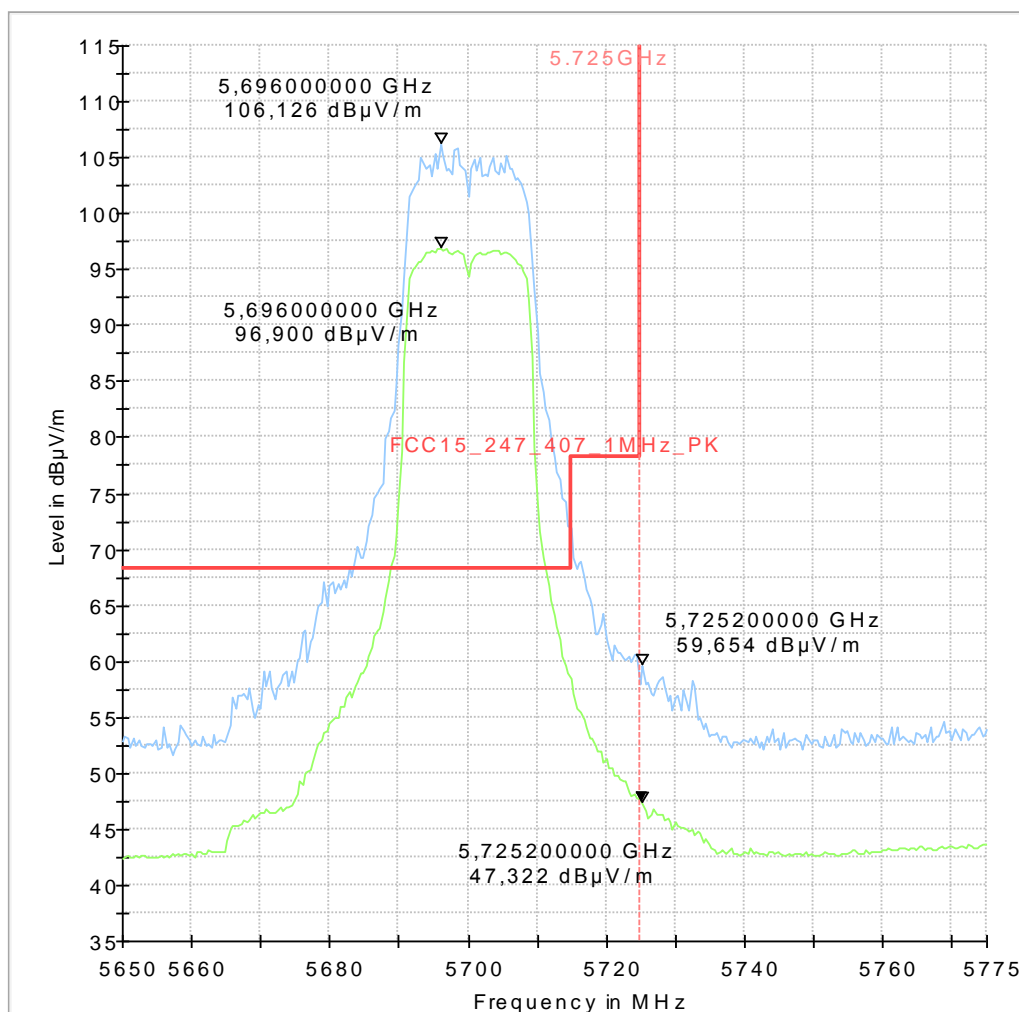## Diagram No: 9.20_BE_High_n(HT20)_MCS0_CH140

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.407&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous WLAN 5GHz n-mode, channel 140; MCS0;
Environmental Conditions:	Humidity:33 %rH; Temperature: 21°C
Operator Name:	PSa/APh

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

7.9. Channel 149 n-Mode(HT20) (left band edge)

Diagram No: 9.21_BE_Low_n(HT20) _MCS0_ CH149

Common Information
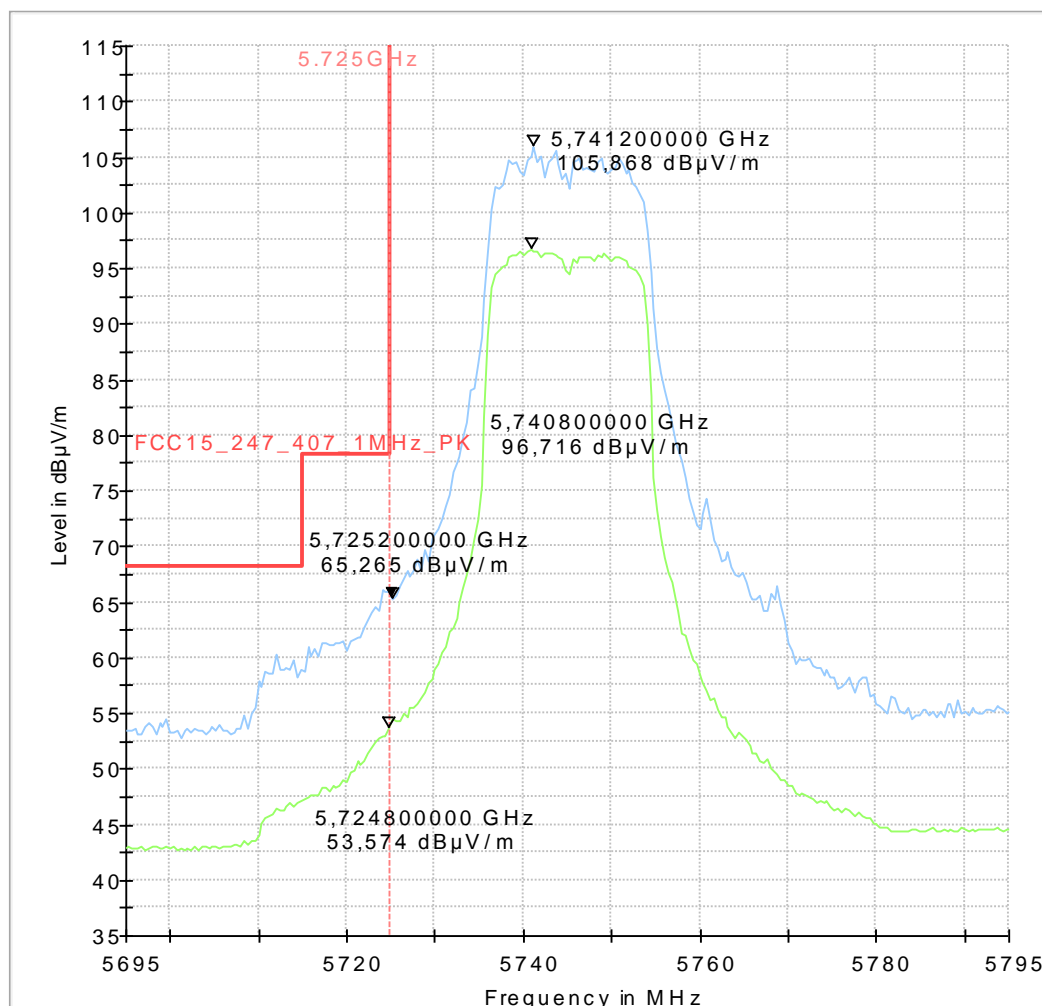
Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.407&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous WLAN 5GHz n-mode, channel 149; MCS0;
Operator Name:	APh
Comment:	Channel no. low = 149

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum

7.10. Channel 165 n-Mode(HT20) (right band edge)

Diagram No: 9.22_BE_High_n(HT20) _MCS0_ CH165

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.407&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous WLAN 5GHz n-mode, channel 165; MCS0;
Operator Name:	APh
Comment:	Channel no. high = 165

EUT Information

Manufacturer:	Datalogic ADCL S.r.l.
MODEL:	JOYA TOUCH
EuT Type:	B00AN00HL0HT0W7-GR0
P/N:	911350023
S/N:	Z16P00138
HW Version:	Beta HW Version
SW Version:	WEC7
Firmware Version:	2.16
Input:	Fully Charged Internal Battery

Full Spectrum