



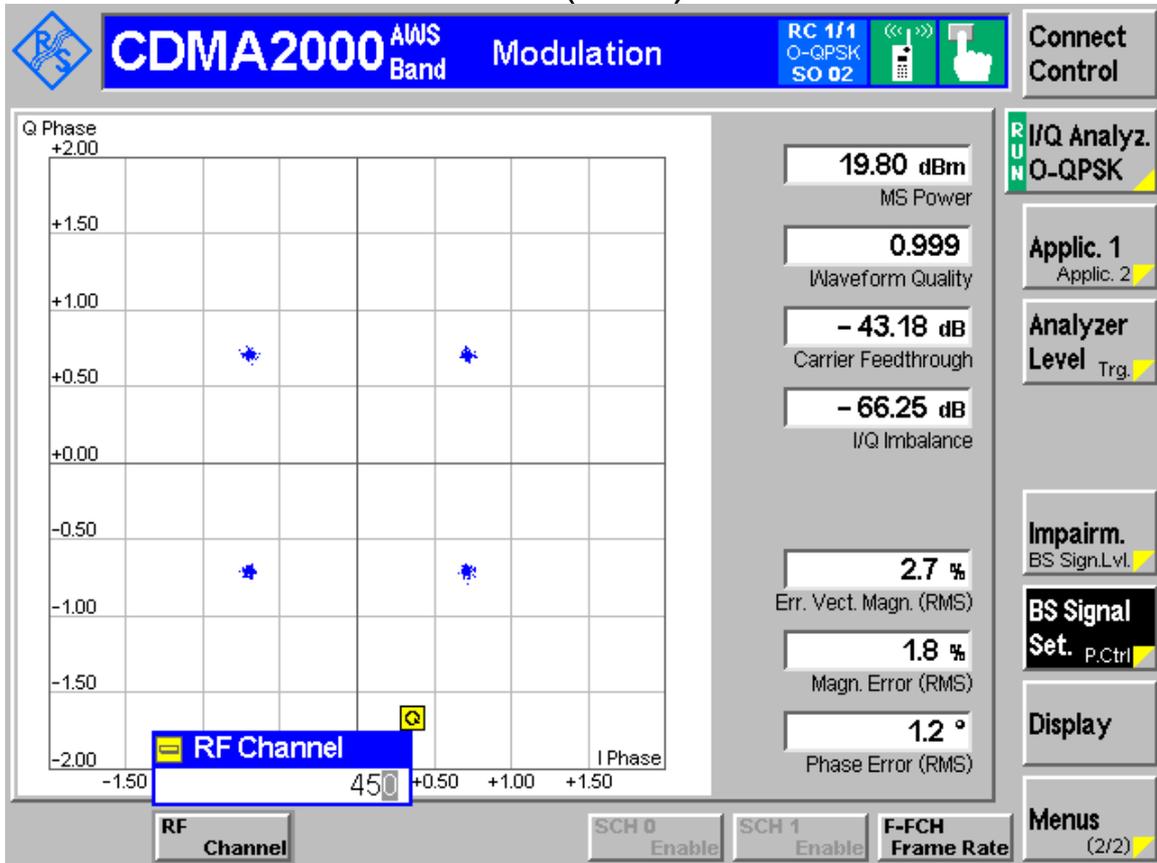
Appendix A

Modulation Characteristics

According to FCC Part 2.1047 & Part27 Subpart C&L

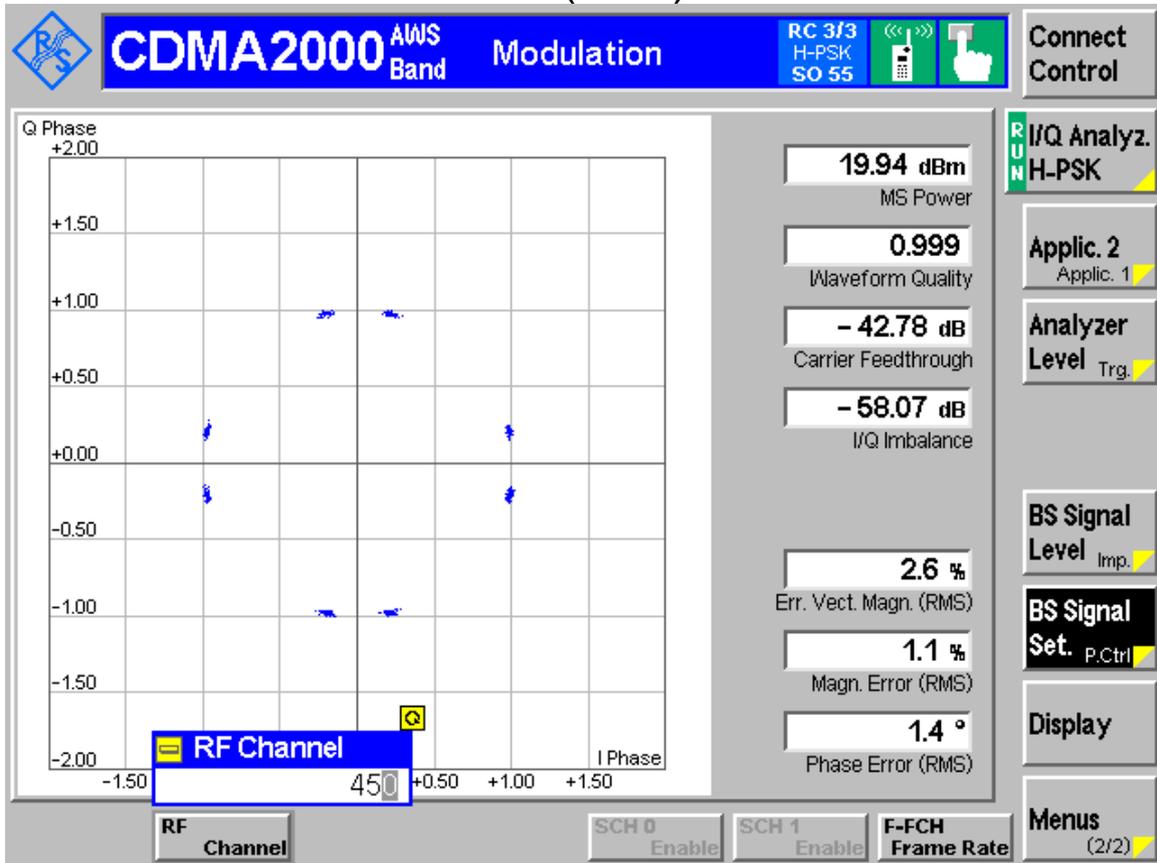


Channel 450(TM1)



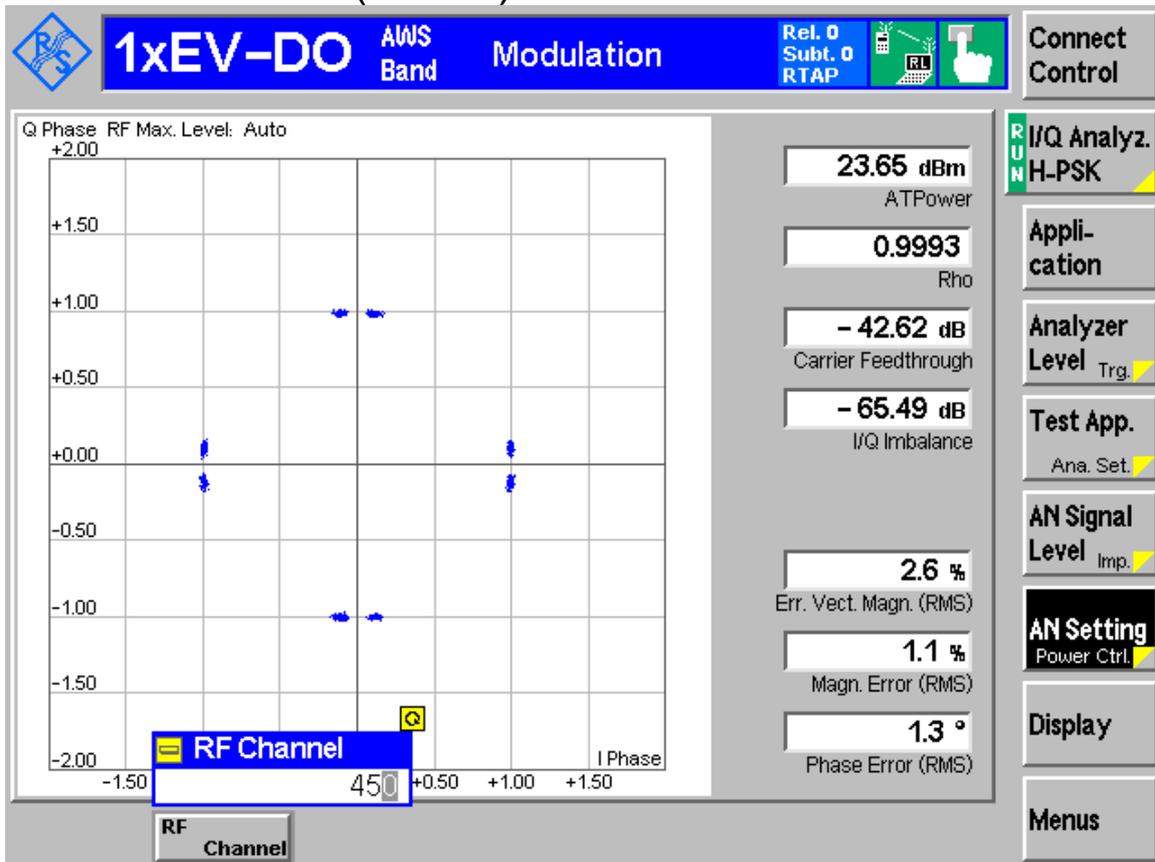


Channel 450(TM3)





Channel 450(Subtype 0) (HPSK)

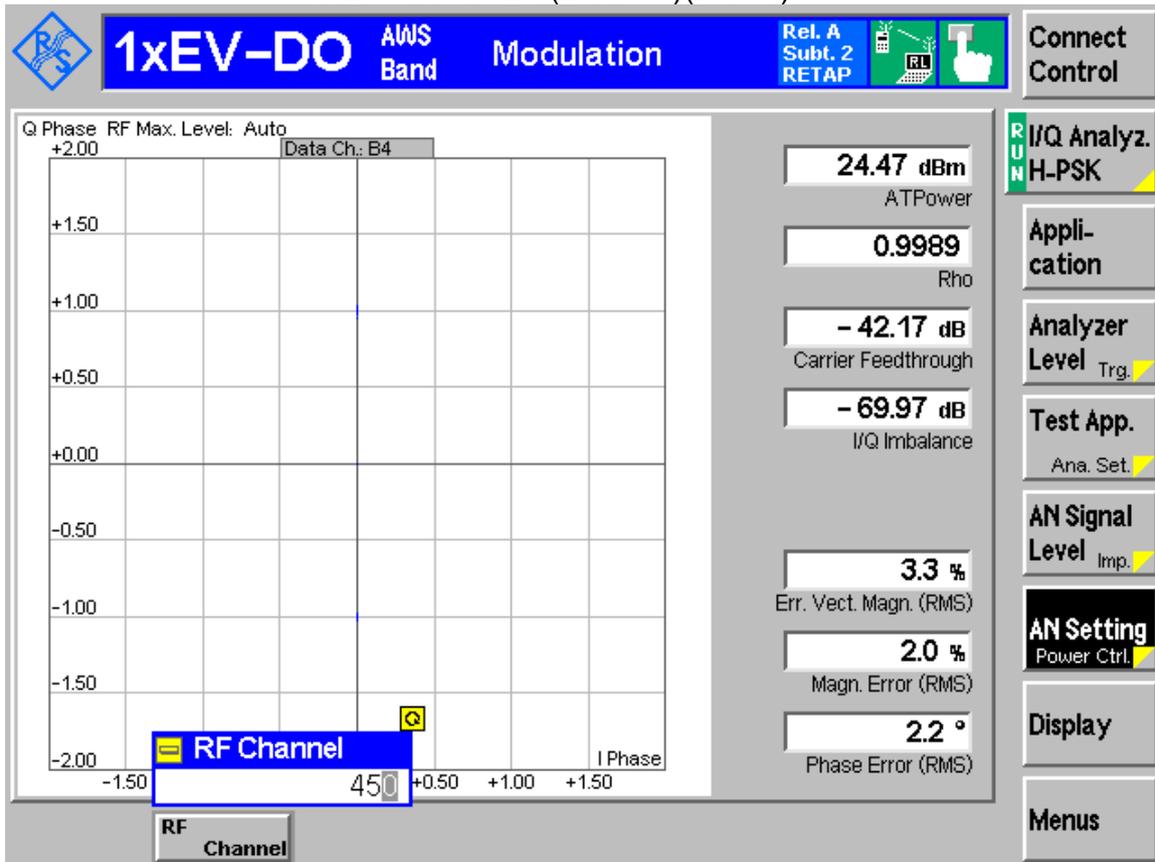




Channel 450(Subtype 2)

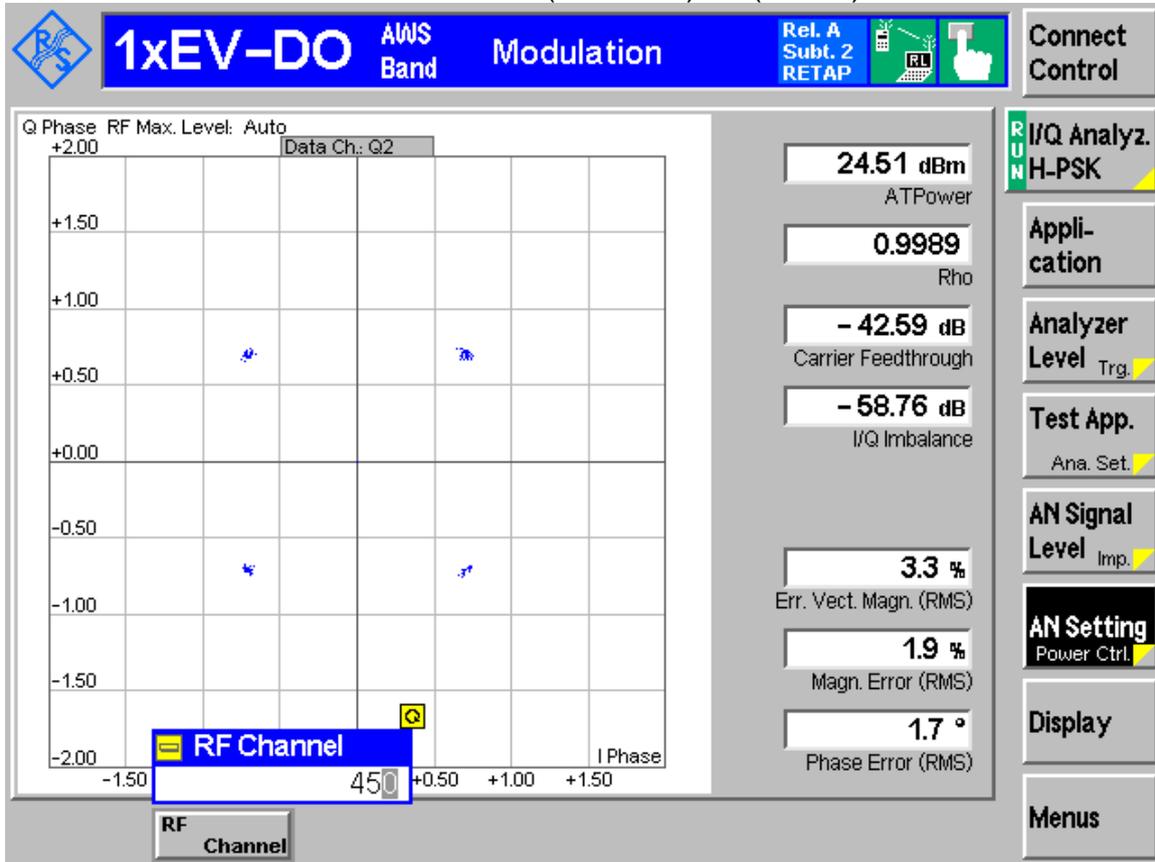
The R-Data packet size determines the modulation format:

R-Data Pkt Size (256 bits)(BPSK)



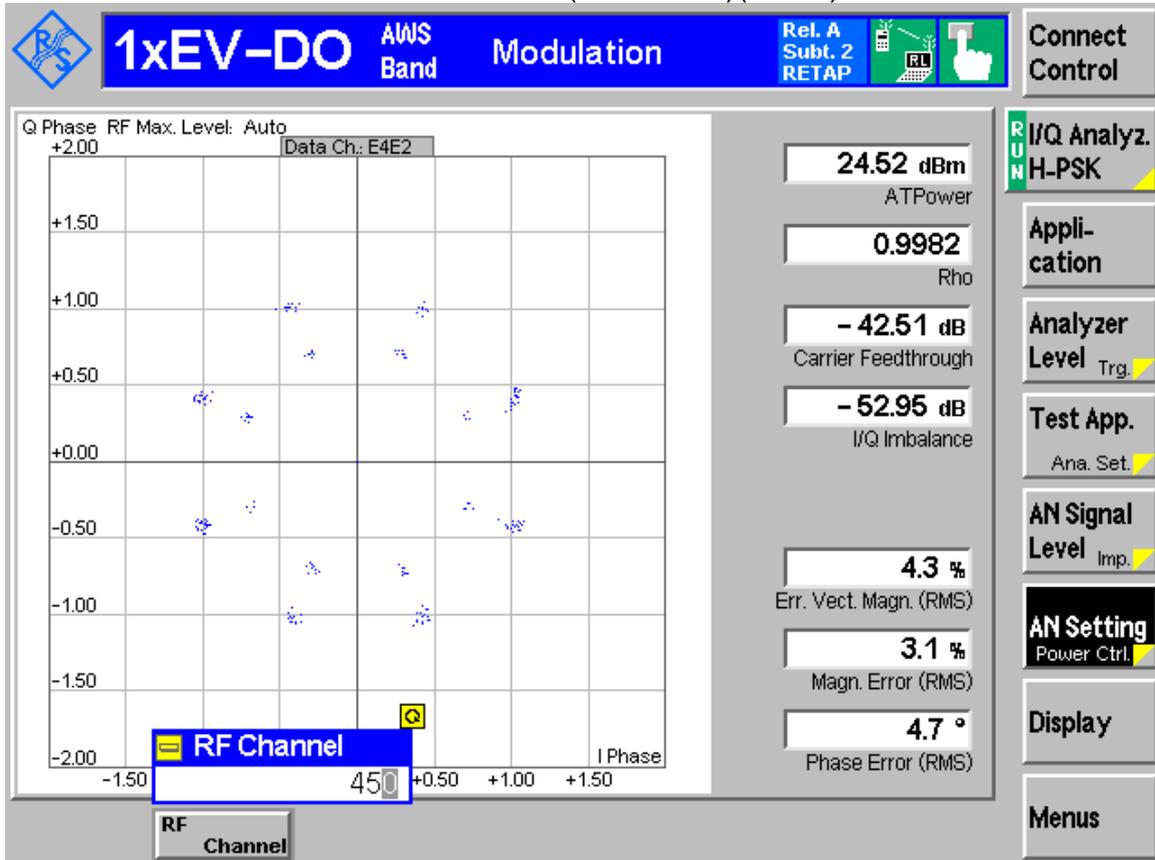


R-Data Pkt Size (4096 bits) (QPSK)



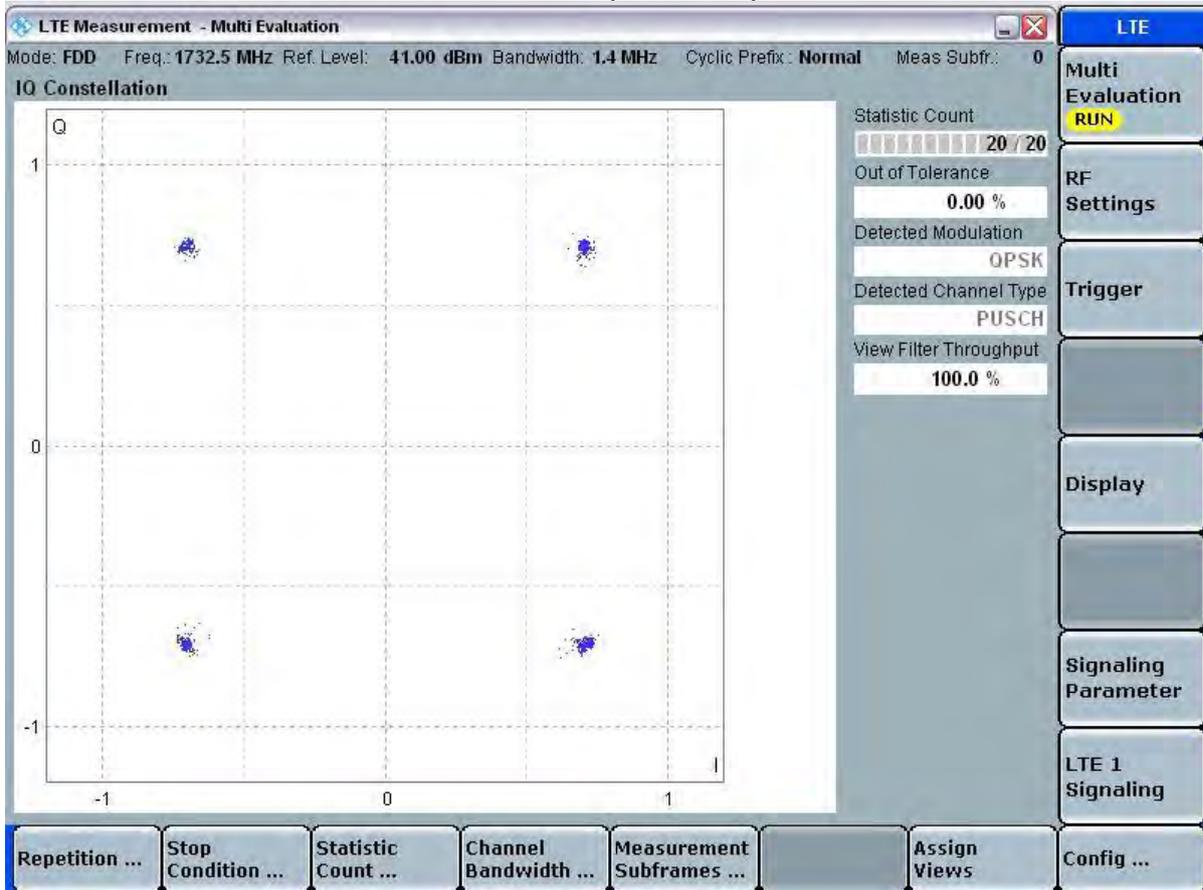


R-Data Pkt Size (12288 bits)(8PSK)



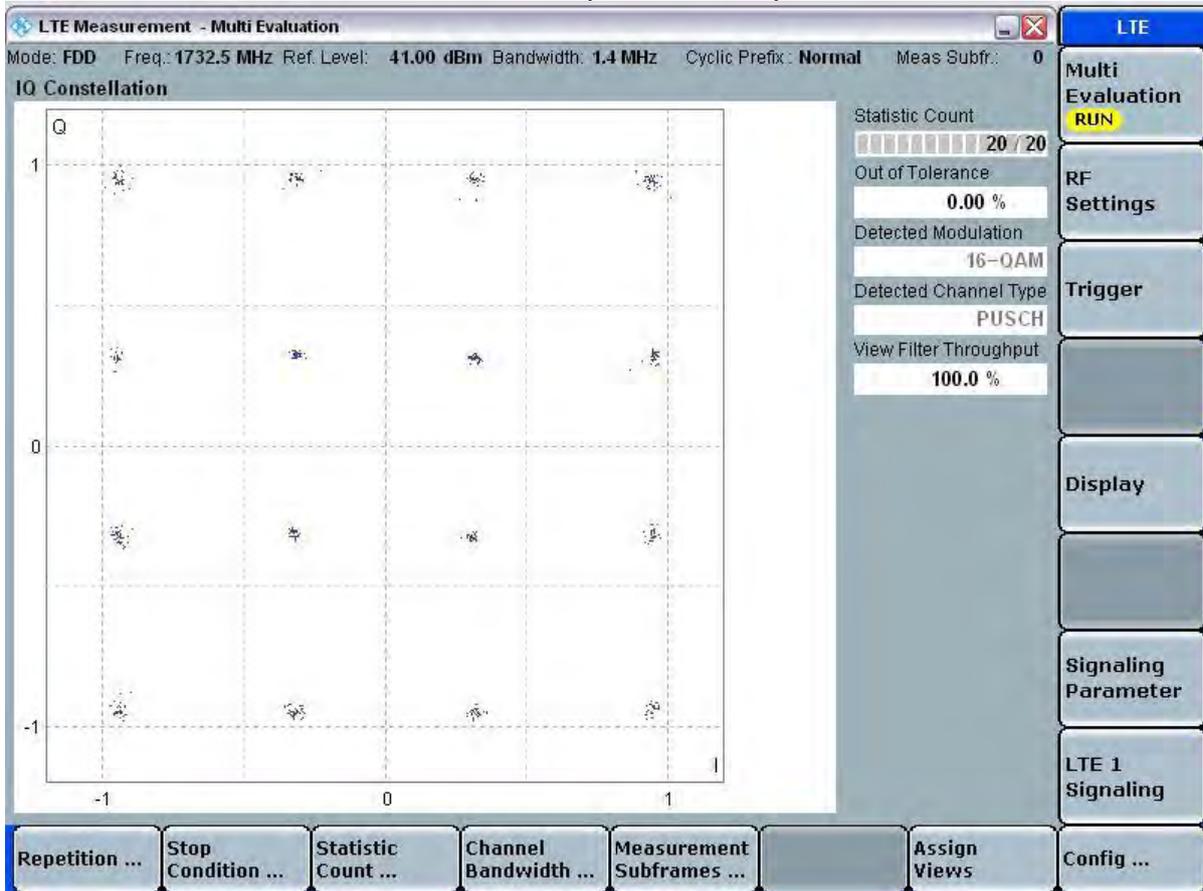


Channel 20175(TM4) 1.4MHz(QPSK)



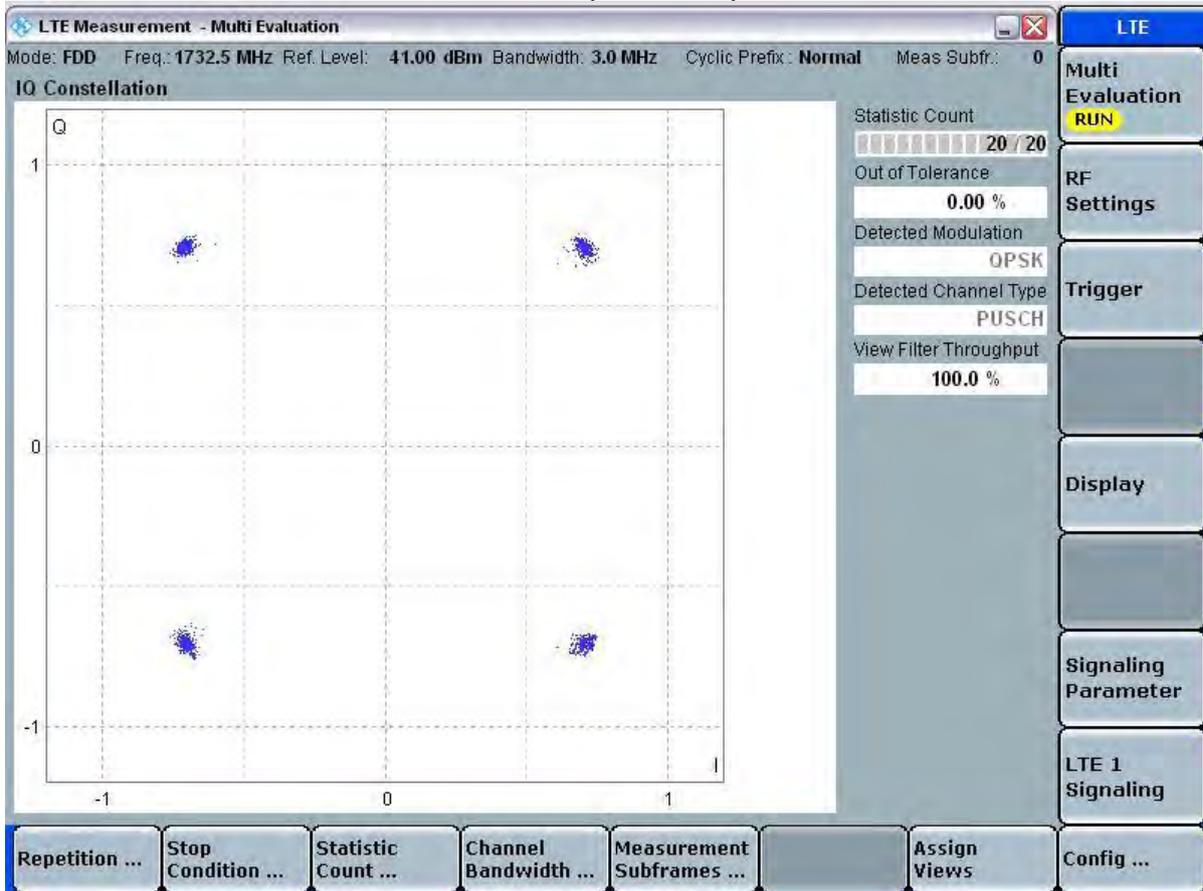


Channel 20175(TM5) 1.4MHz(16-QAM)



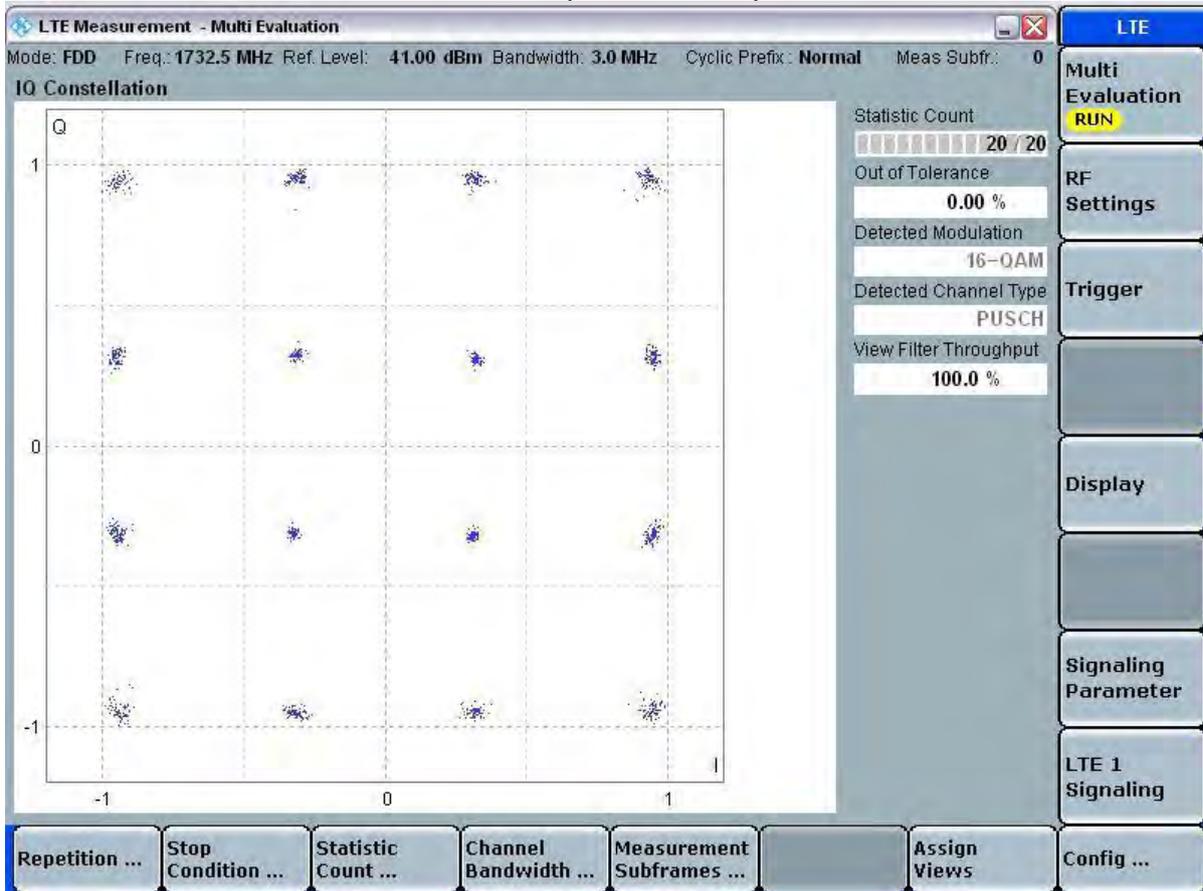


Channel 20175(TM4) 3MHz(QPSK)



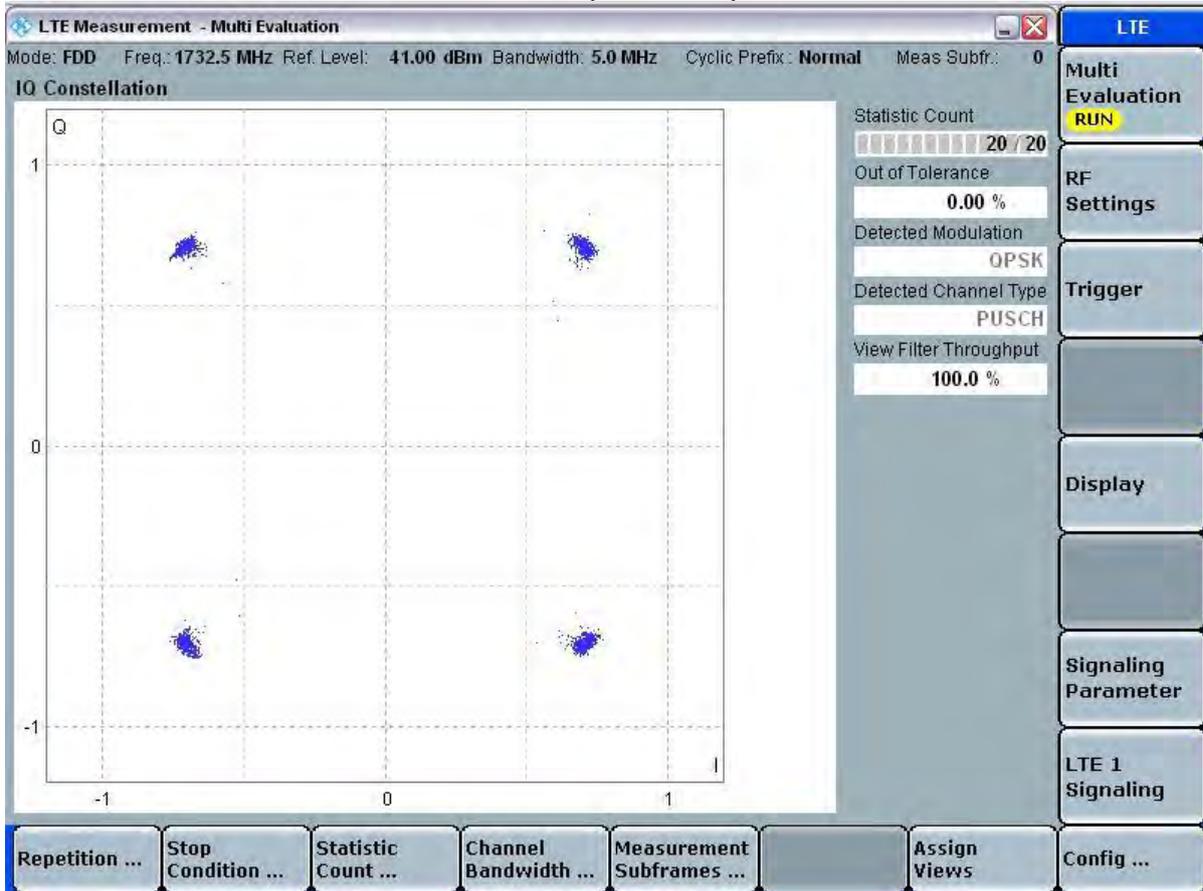


Channel 20175(TM5) 3MHz(16-QAM)



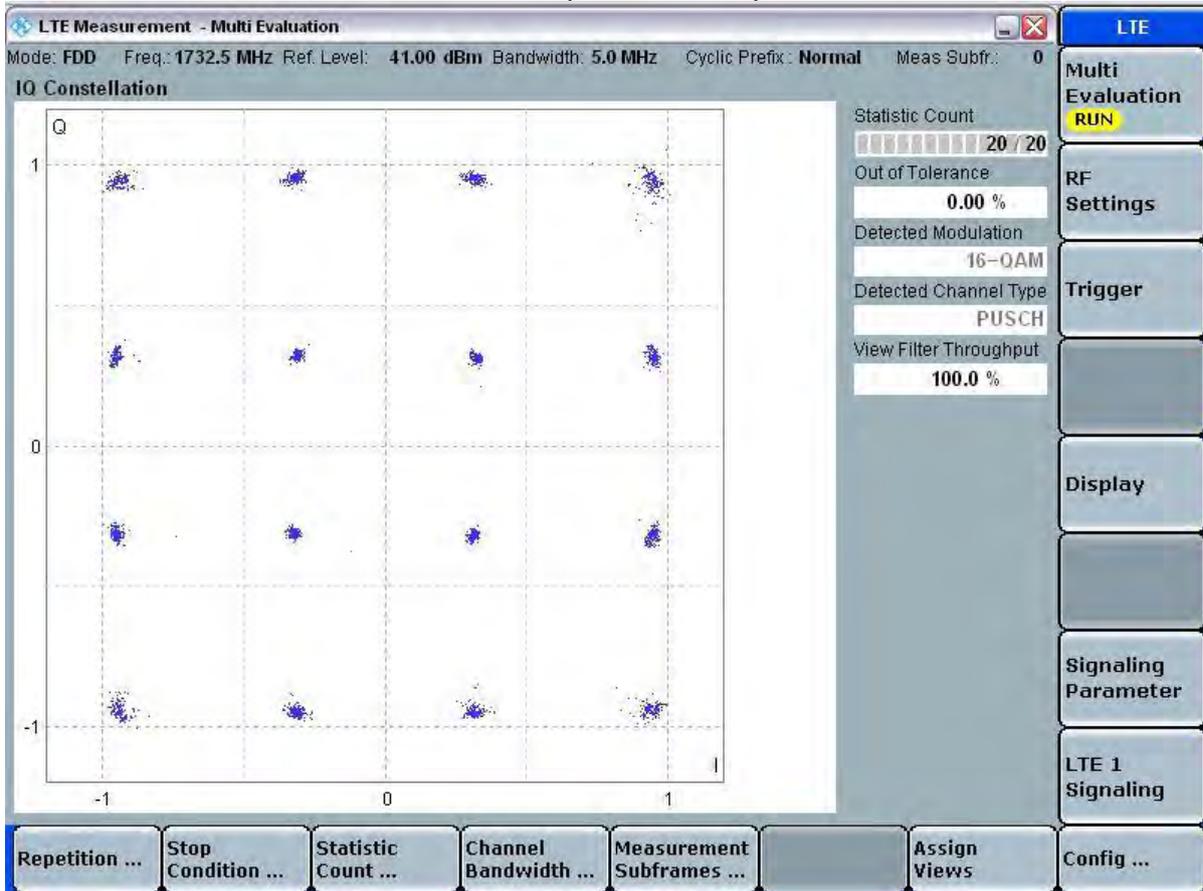


Channel 20175(TM4) 5MHz(QPSK)



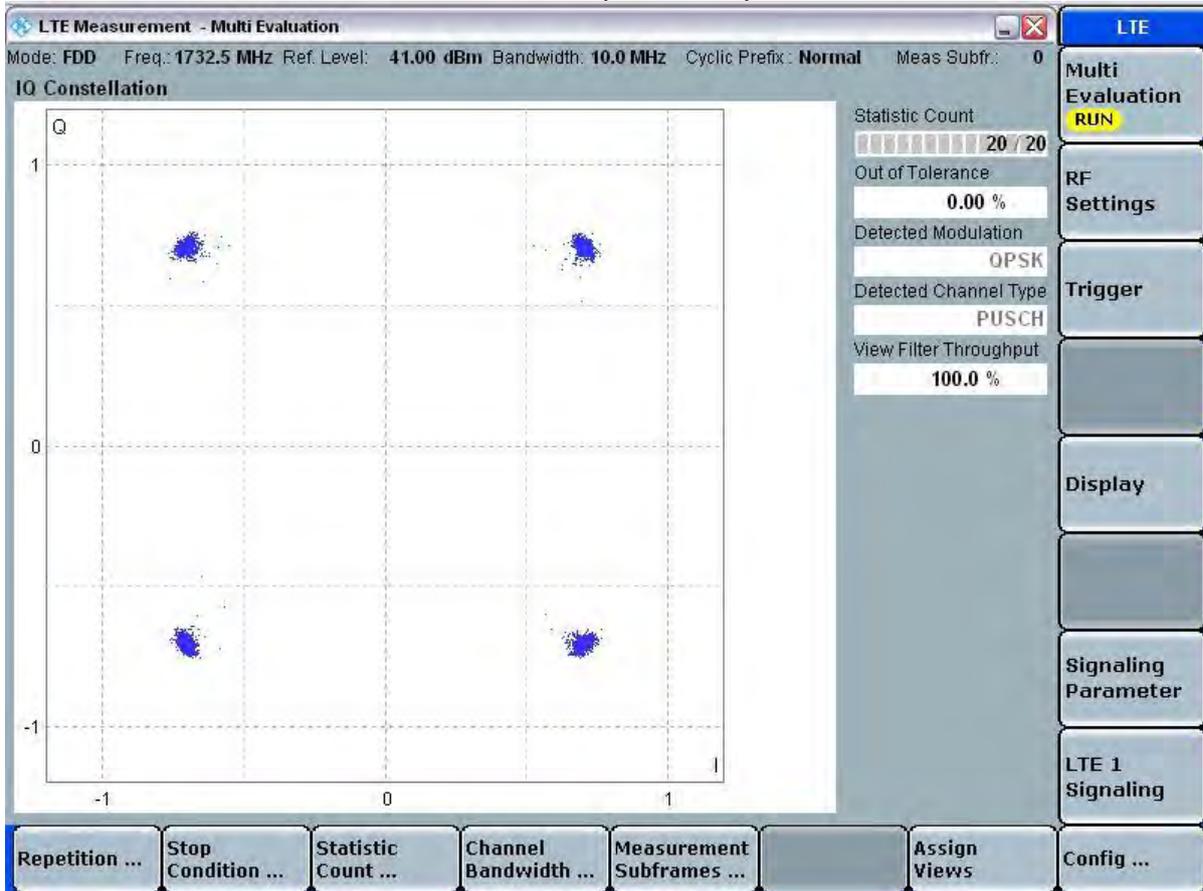


Channel 20175(TM5) 5MHz(16-QAM)



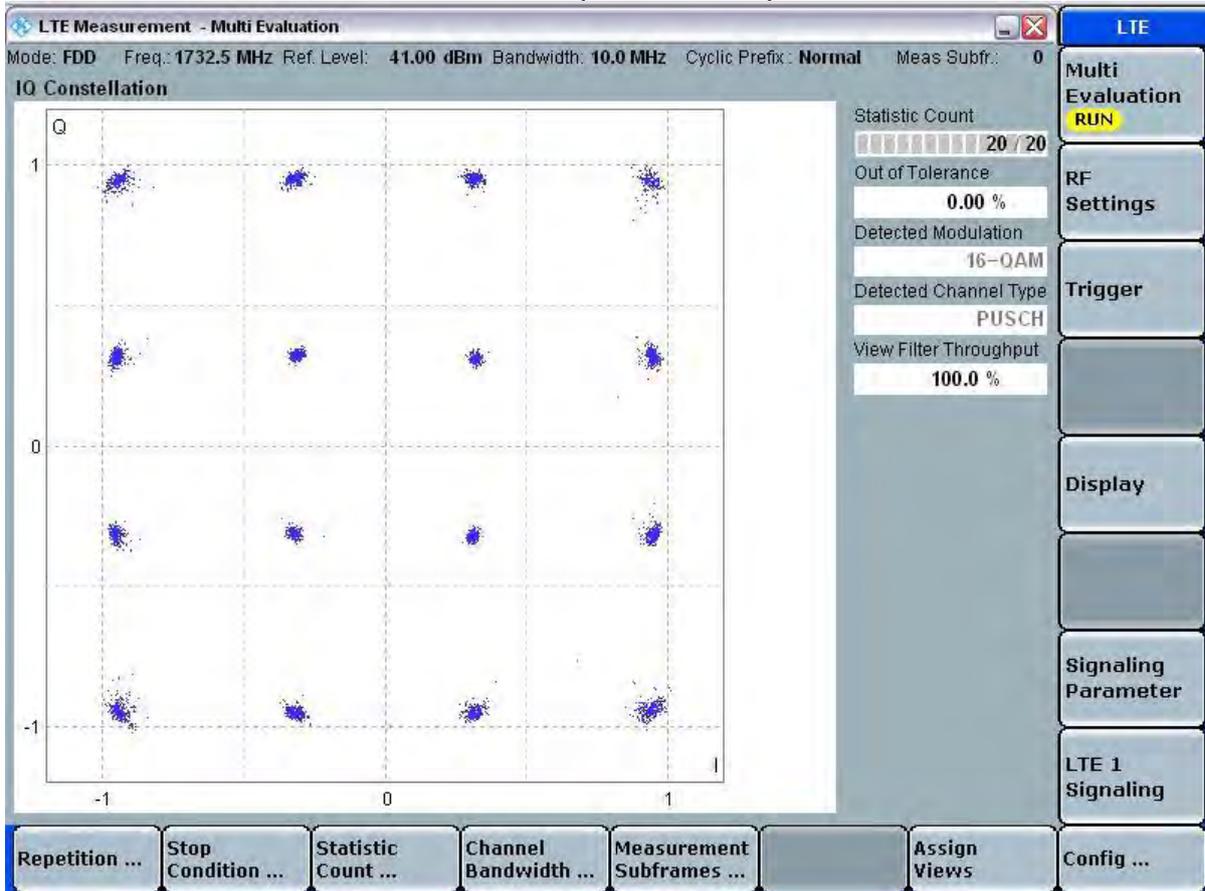


Channel 20175(TM4) 10MHz(QPSK)





Channel 20175(TM5) 10MHz(16-QAM)





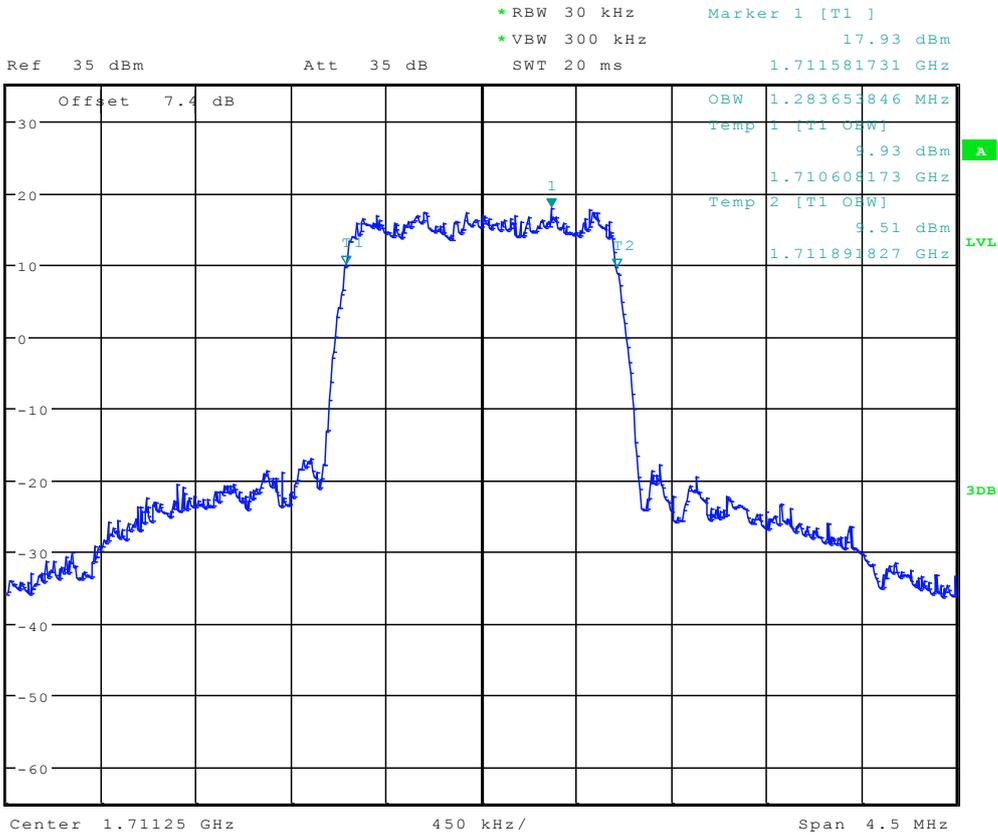
Appendix B

Occupied Bandwidth

According to FCC Part 2.1047 & Part27 Subpart C&L



Channel 25 (TM1)



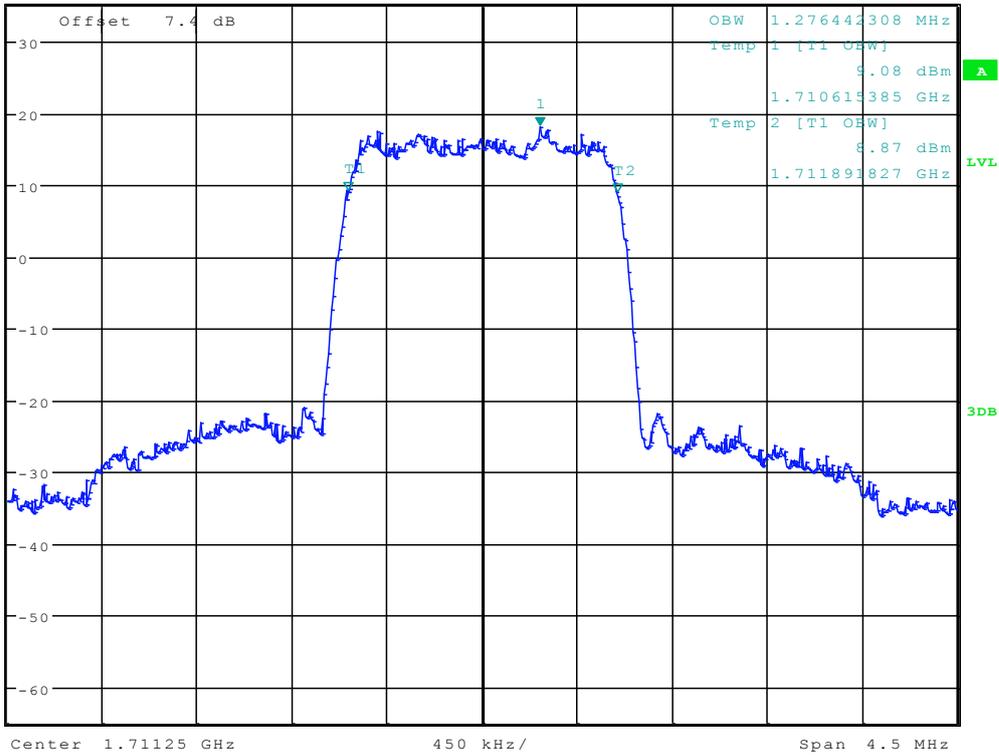


Channel 25 (TM3)



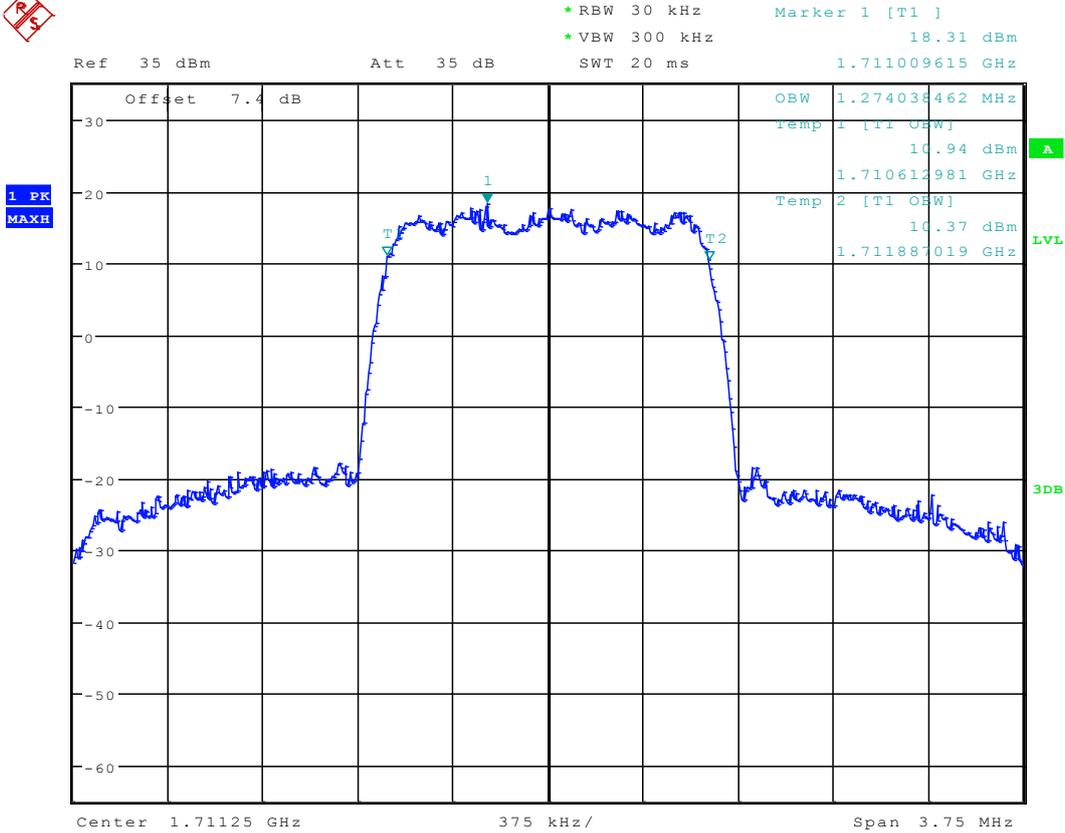
*RBW 30 kHz Marker 1 [T1]
 *VBW 300 kHz 18.15 dBm
 Ref 35 dBm Att 35 dB SWT 20 ms 1.711524038 GHz

1 PK
 MAXH





Channel 25 (EVDO subtype 0)





Channel 25 (EVDO subtype 2)



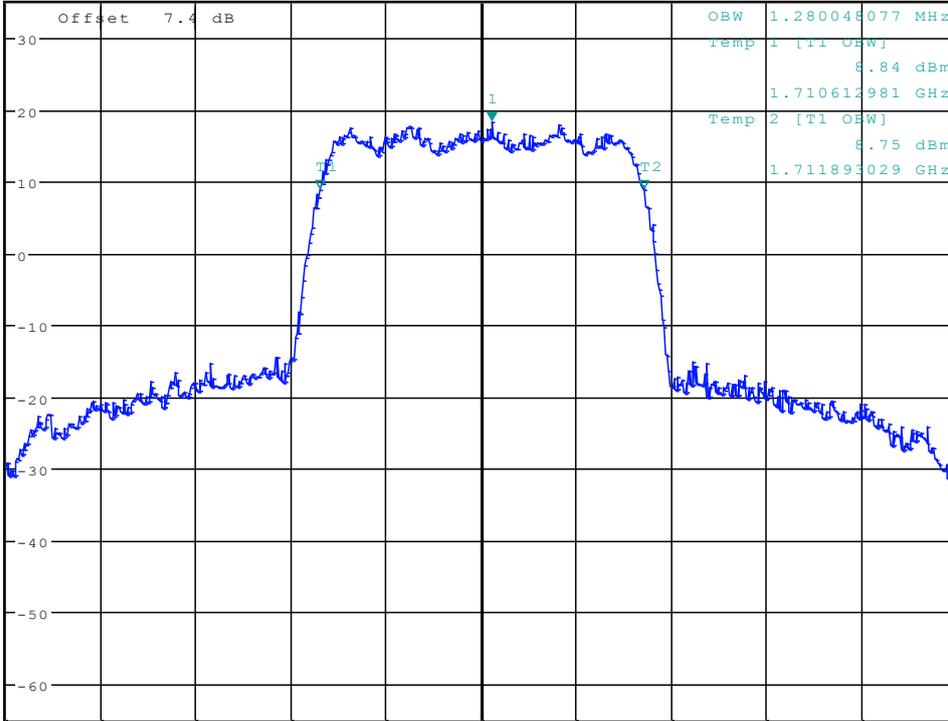
*RBW 30 kHz Marker 1 [T1]
*VBW 300 kHz 18.24 dBm
SWT 20 ms 1.711292067 GHz

Ref 35 dBm

Att 35 dB

Offset 7.4 dB

1 PK
MAXH



Center 1.71125 GHz

375 kHz/

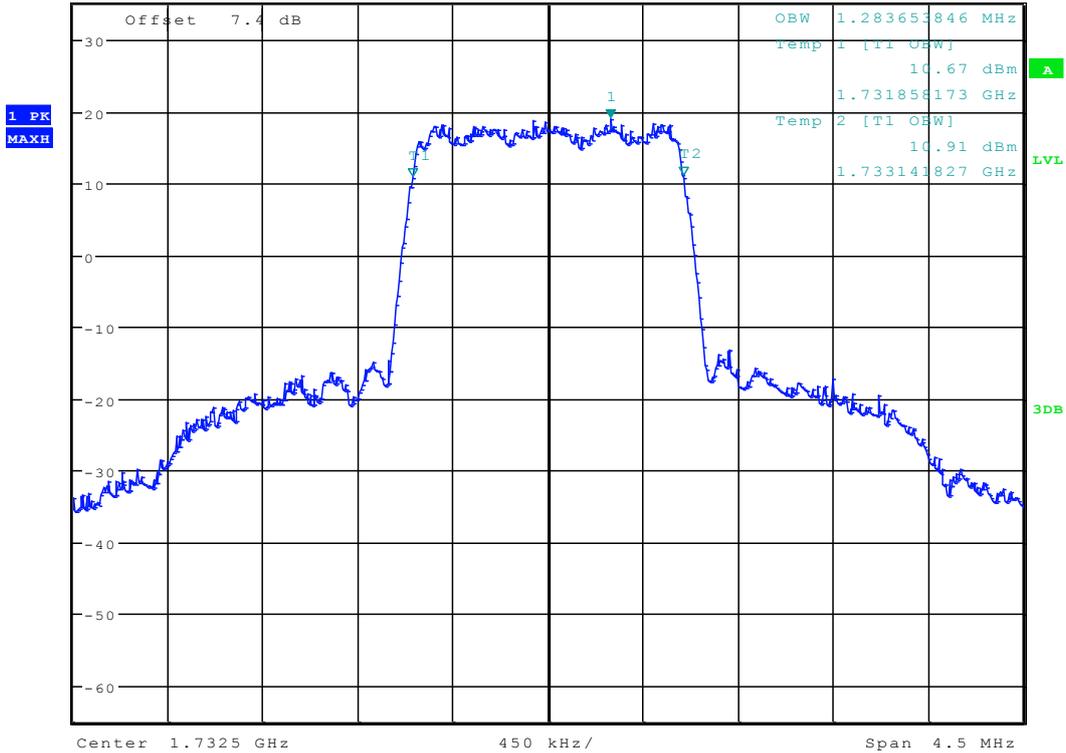
Span 3.75 MHz



Channel 450 (TM1)



*RBW 30 kHz Marker 1 [T1]
 *VBW 300 kHz 18.88 dBm
 Ref 35 dBm Att 35 dB SWT 20 ms 1.732795673 GHz



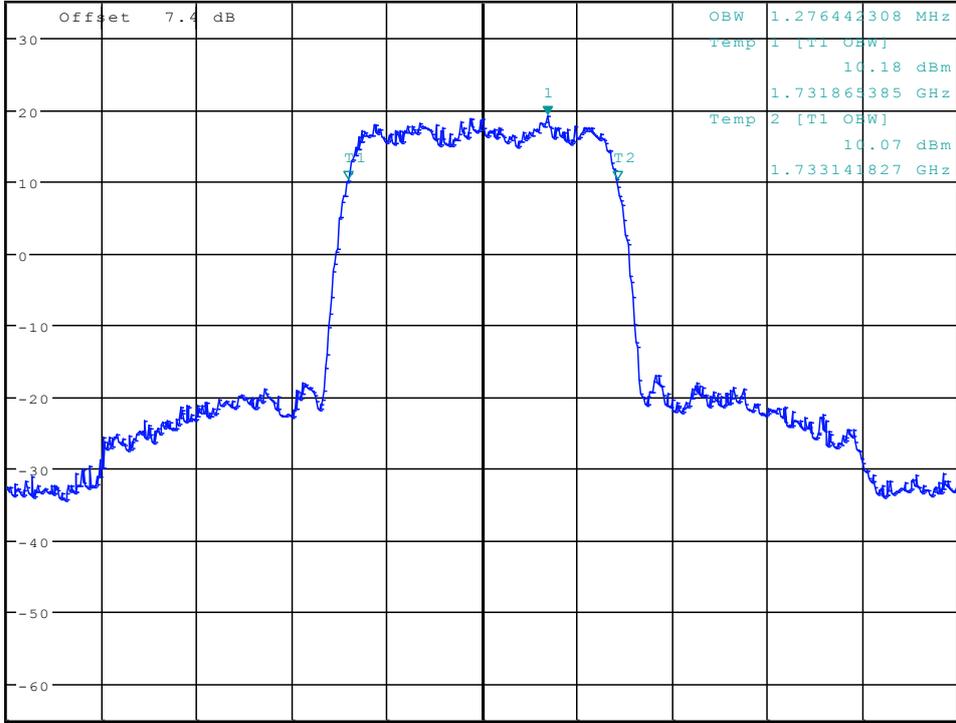


Channel 450 (TM3)



*RBW 30 kHz Marker 1 [T1]
 *VBW 300 kHz 19.14 dBm
 Ref 35 dBm Att 35 dB SWT 20 ms 1.732810096 GHz

1 PK
 MAXH



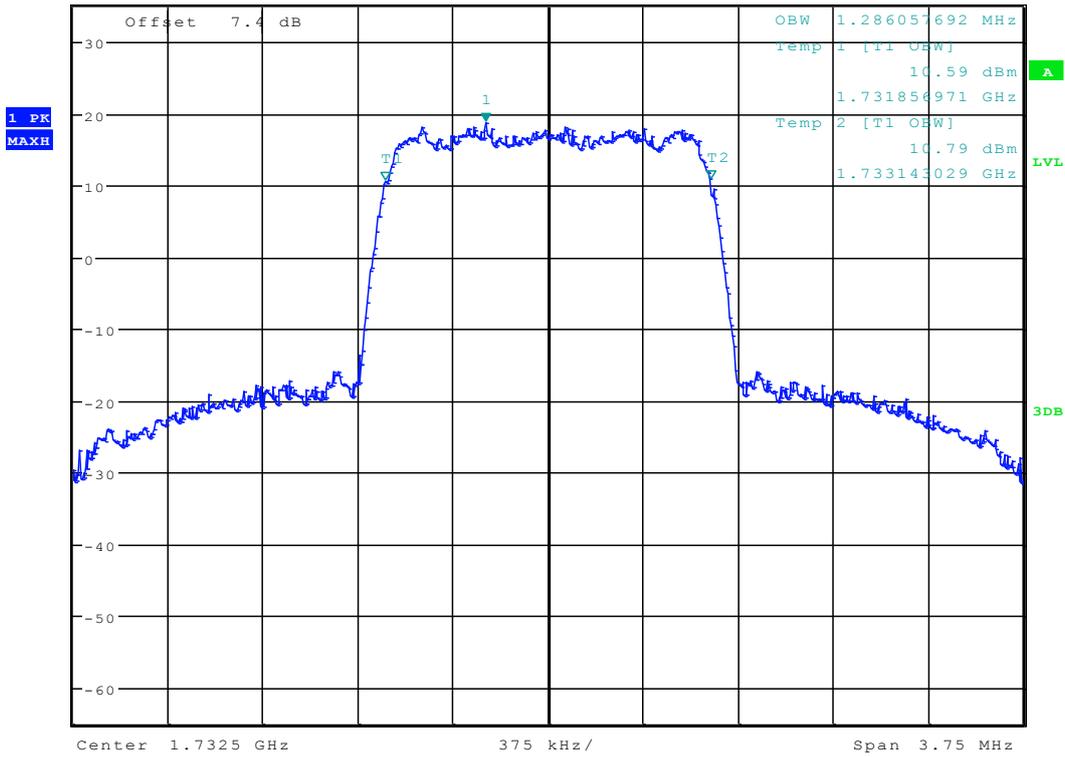
Center 1.7325 GHz 450 kHz/ Span 4.5 MHz



Channel 450 (EVDO release 0)



*RBW 30 kHz Marker 1 [T1]
 *VBW 300 kHz 18.77 dBm
 Ref 35 dBm Att 35 dB SWT 20 ms 1.732253606 GHz

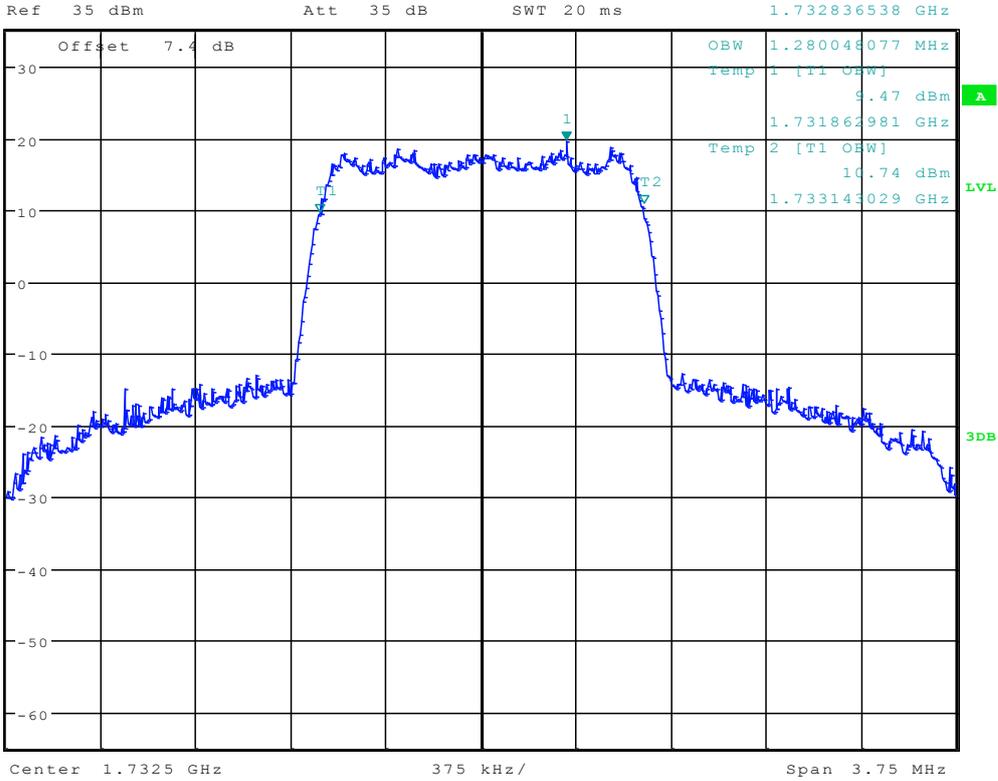




Channel 450 (EVDO subtype 2)

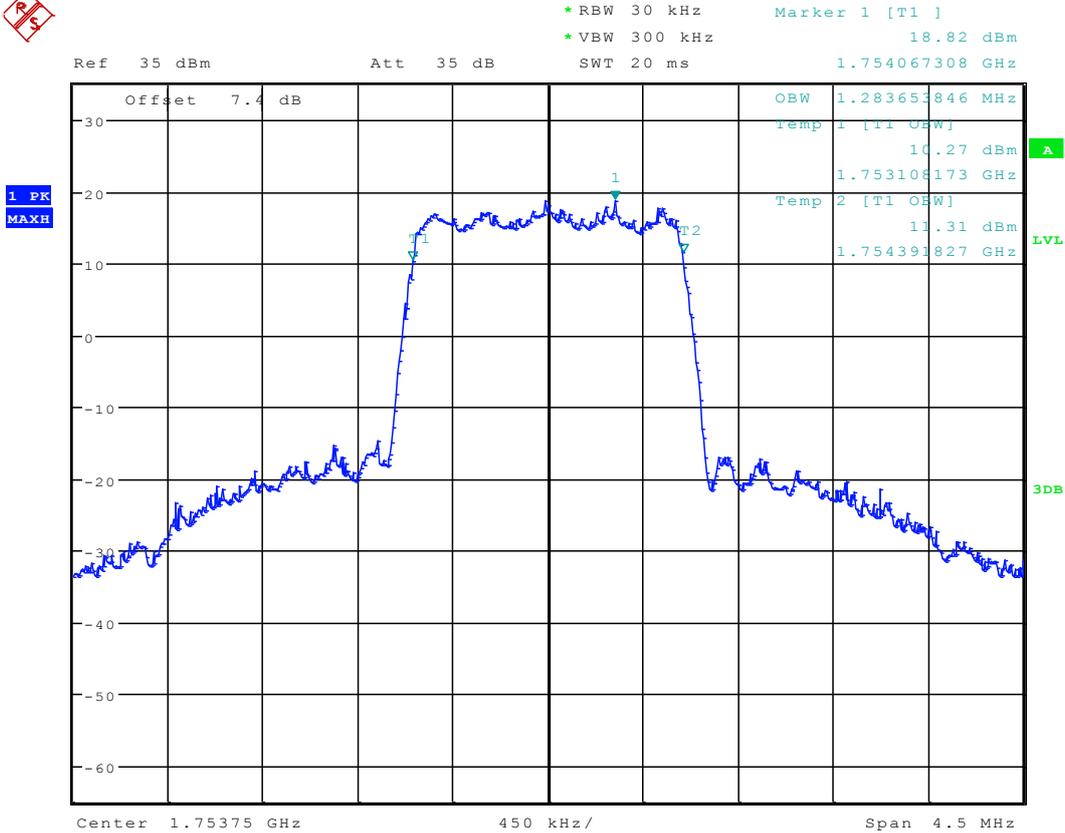


*RBW 30 kHz Marker 1 [T1]
*VBW 300 kHz 19.60 dBm
SWT 20 ms 1.732836538 GHz



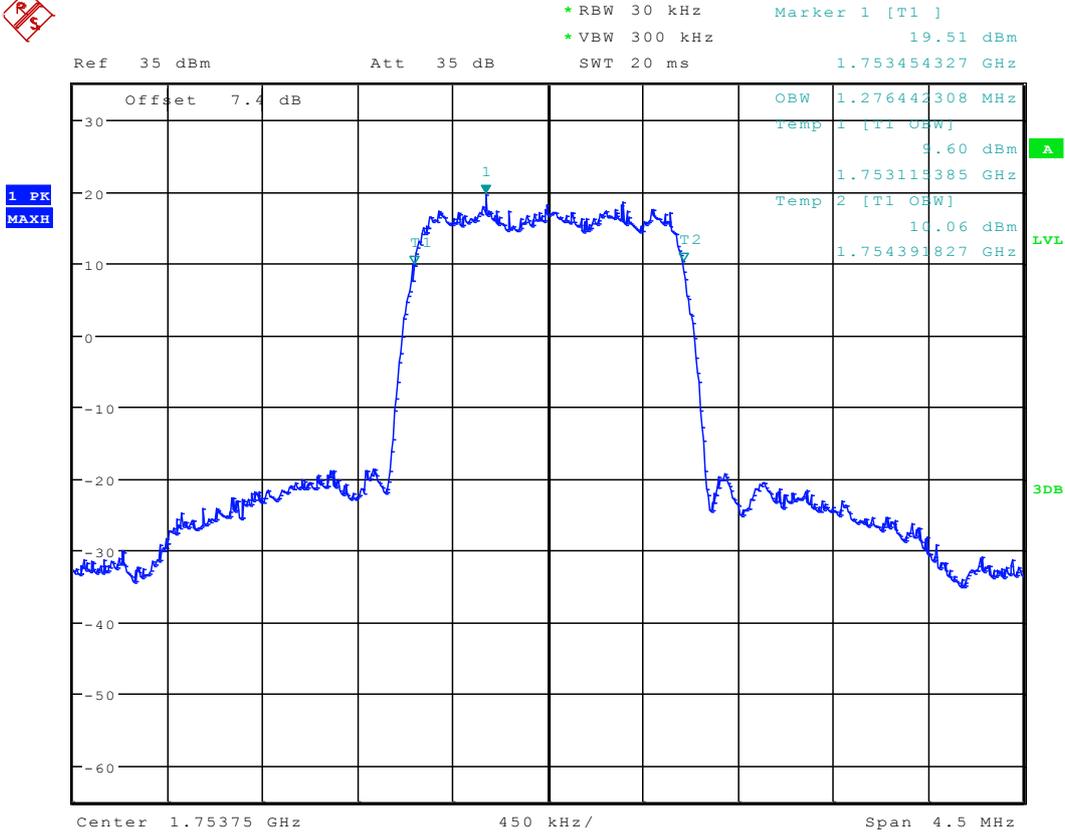


Channel 875 (TM1)





Channel 875 (TM3)



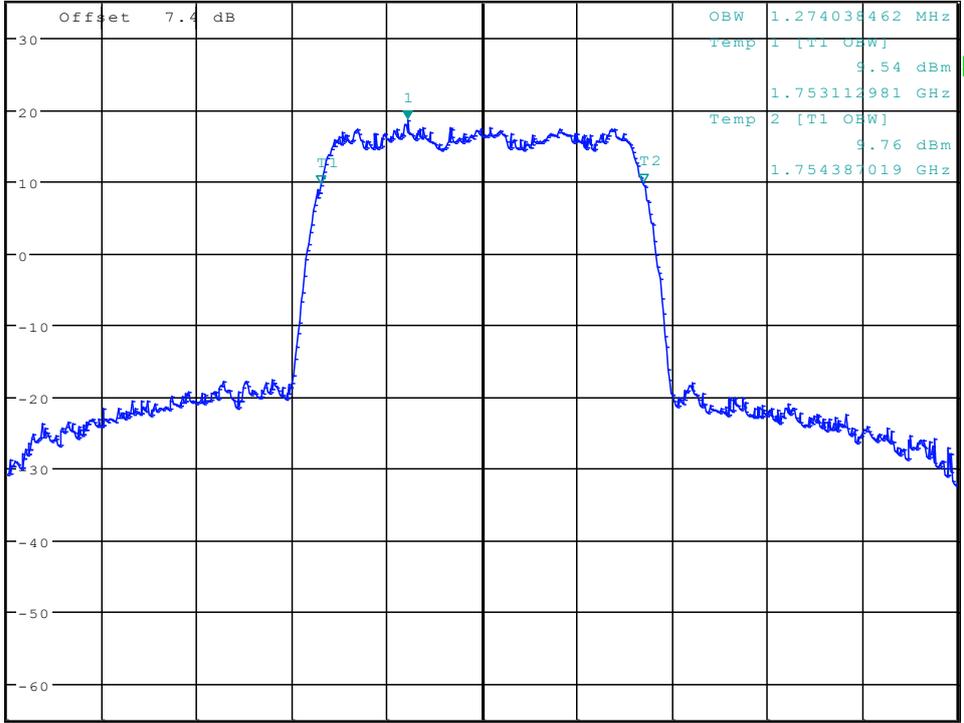


Channel 875 (EVDO subtype 0)



*RBW 30 kHz Marker 1 [T1] 18.58 dBm
 *VBW 300 kHz
 Ref 35 dBm Att 35 dB SWT 20 ms 1.753455529 GHz

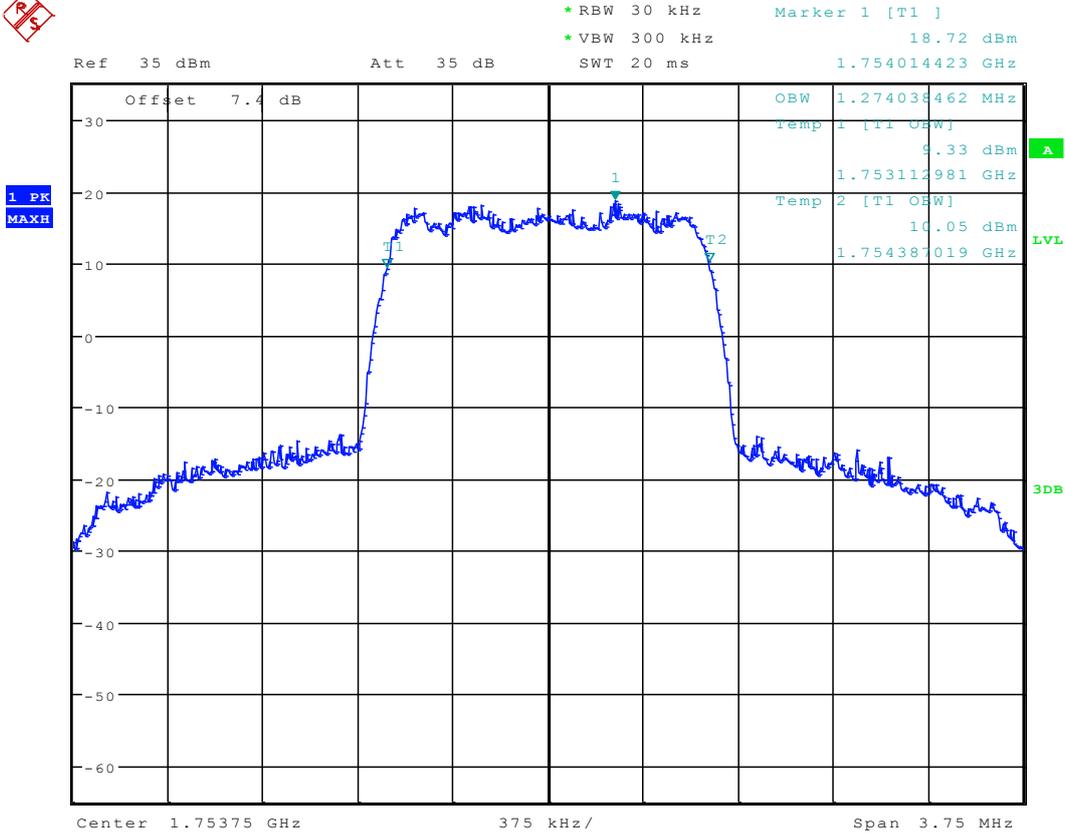
1 PK
 MAXH



Center 1.75375 GHz 375 kHz/ Span 3.75 MHz

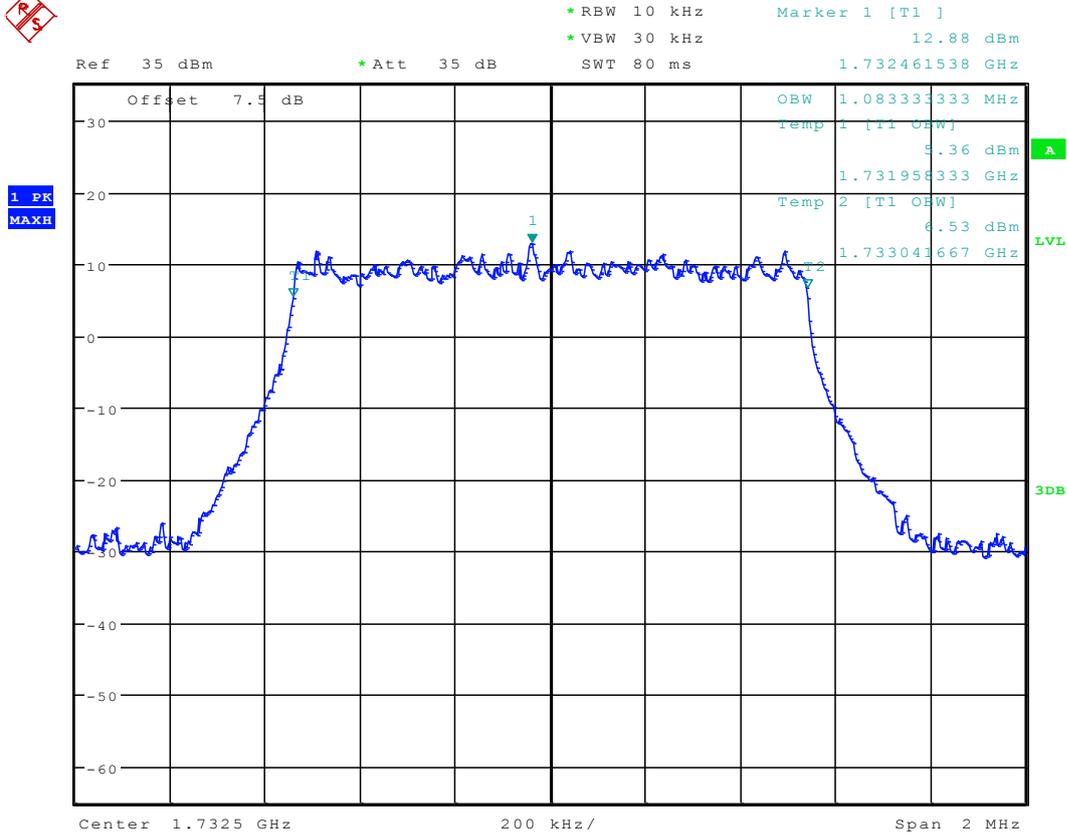


Channel 875 (EVDO subtype 2)



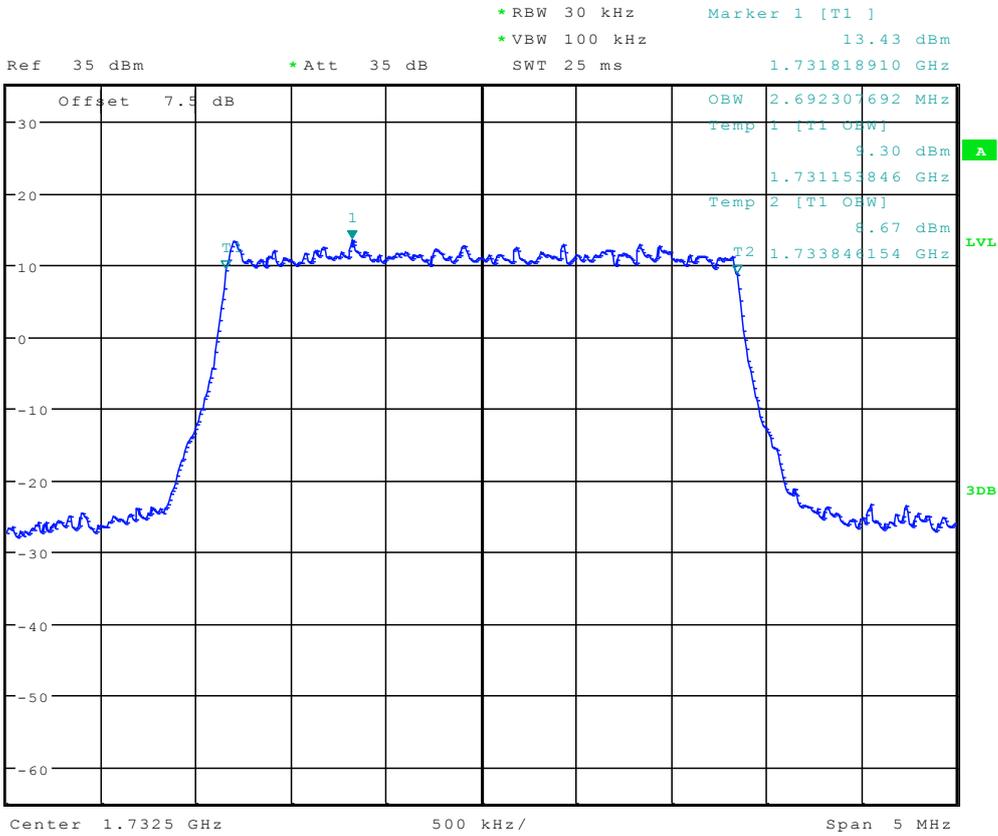


Channel 20175(TM4) 1.4MHz(BW)



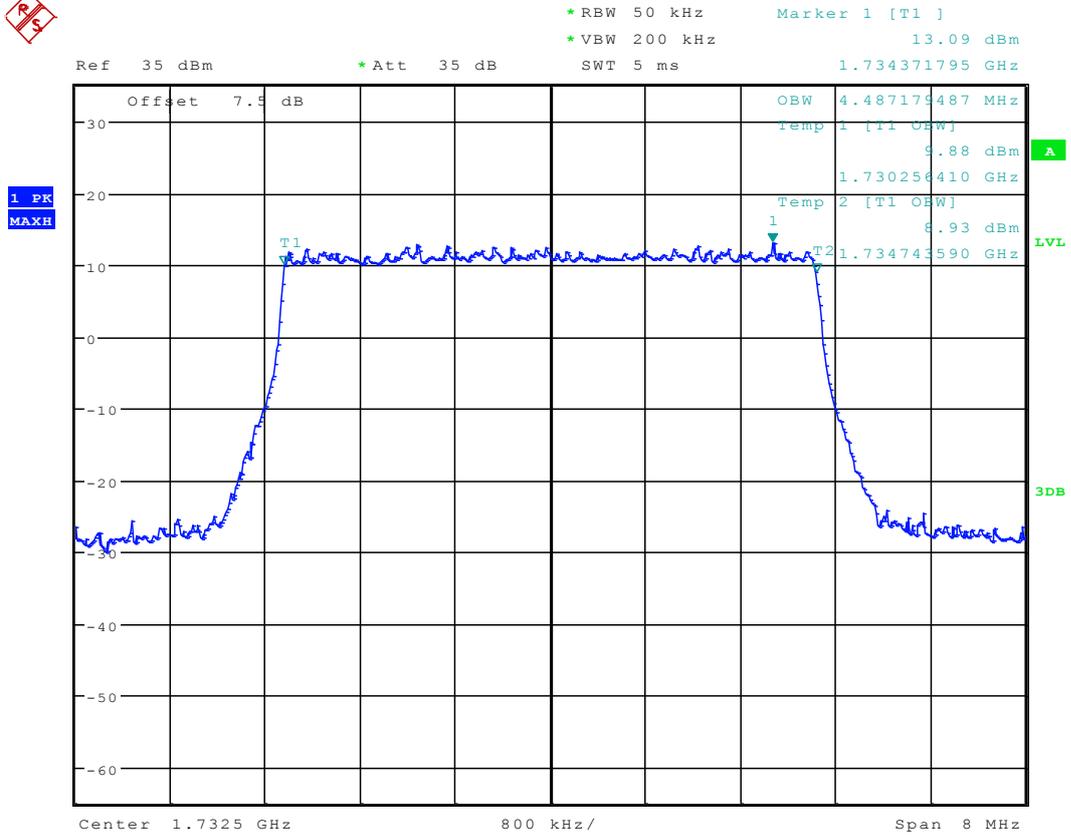


Channel 20175(TM4) 3MHz(BW)





Channel 20175(TM4) 5MHz(BW)

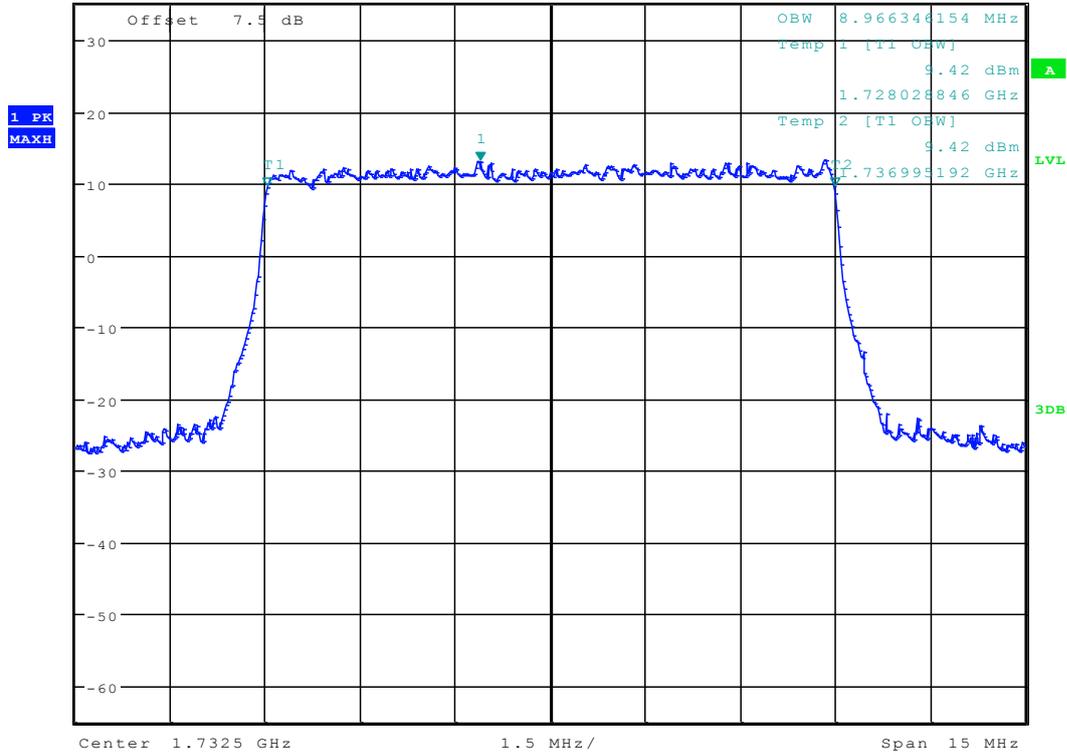




Channel 20175(TM4) 10MHz(BW)



*RBW 100 kHz Marker 1 [T1]
 *VBW 300 kHz 13.12 dBm
 Ref 35 dBm *Att 35 dB SWT 10 ms 1.731394231 GHz





Appendix C

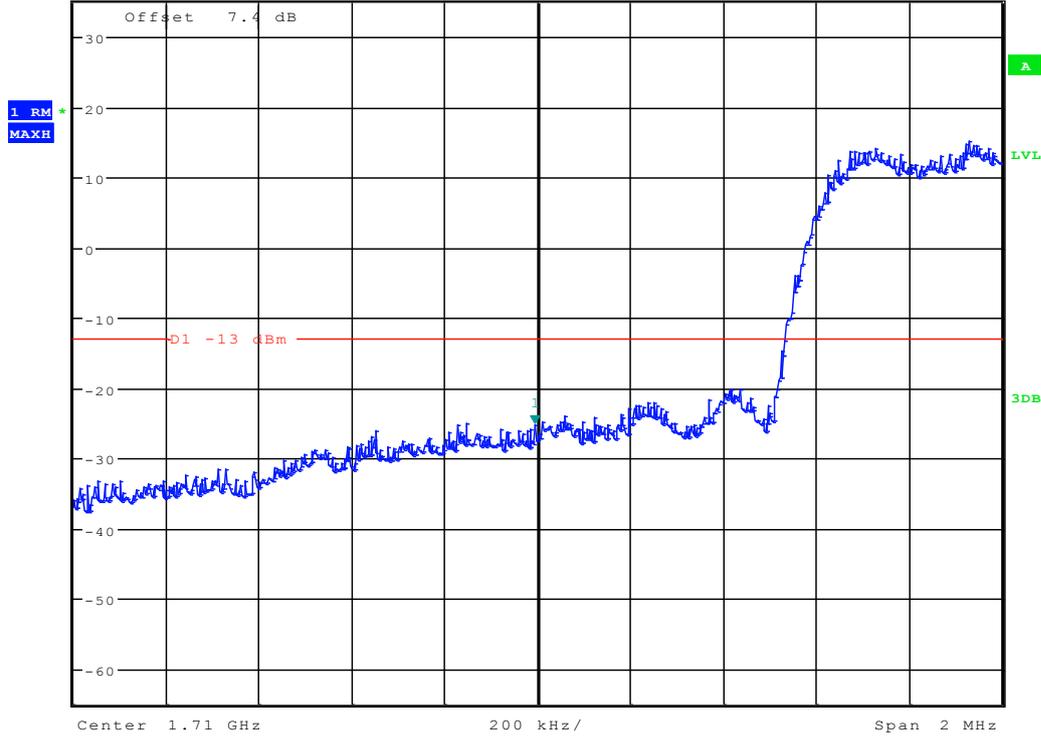
Band Edges Compliance According to FCC Part 2.1051 & 27.53(g)



TM1 Left Edge Channel 25



Ref 35 dBm Att 55 dB RBW 20 kHz Marker 1 [T1]
*VBW 200 kHz -25.24 dBm
SWT 20 ms 1.709995000 GHz

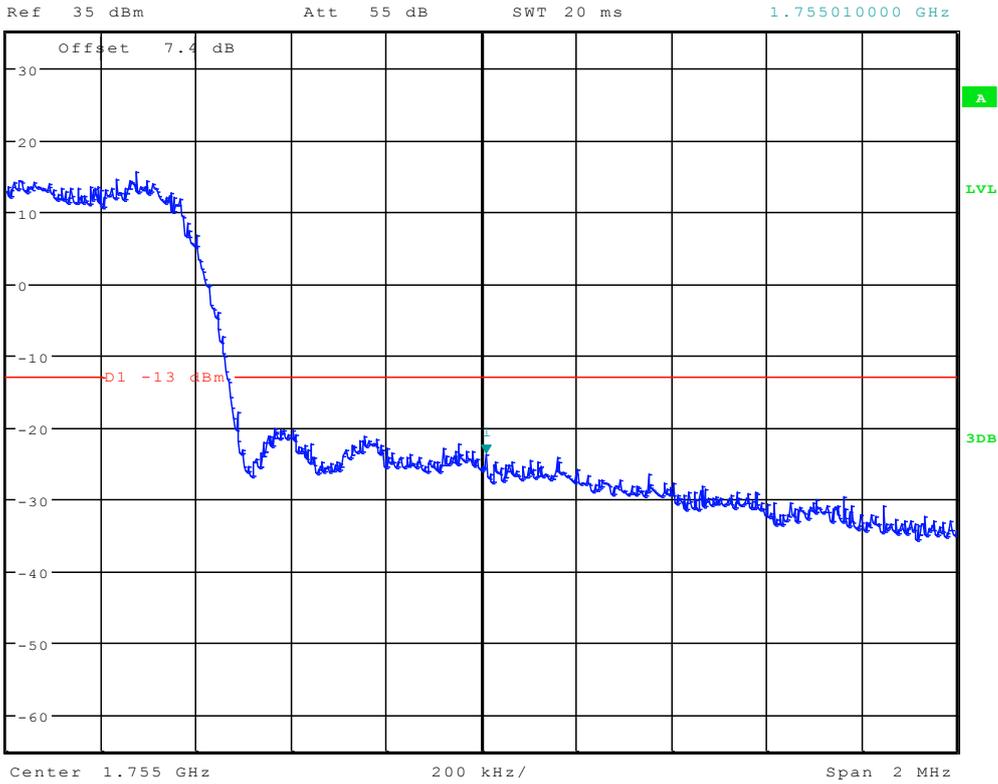




Right Edge Channel 875

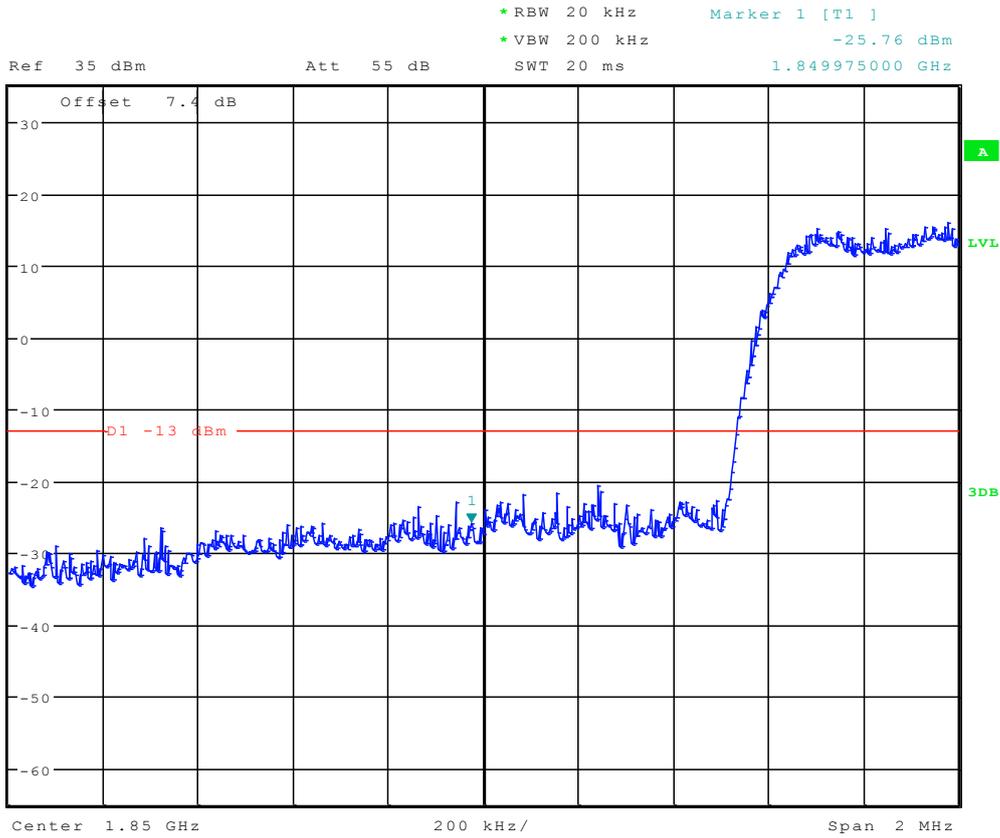


*RBW 20 kHz Marker 1 [T1]
*VBW 200 kHz -23.76 dBm
SWT 20 ms 1.755010000 GHz



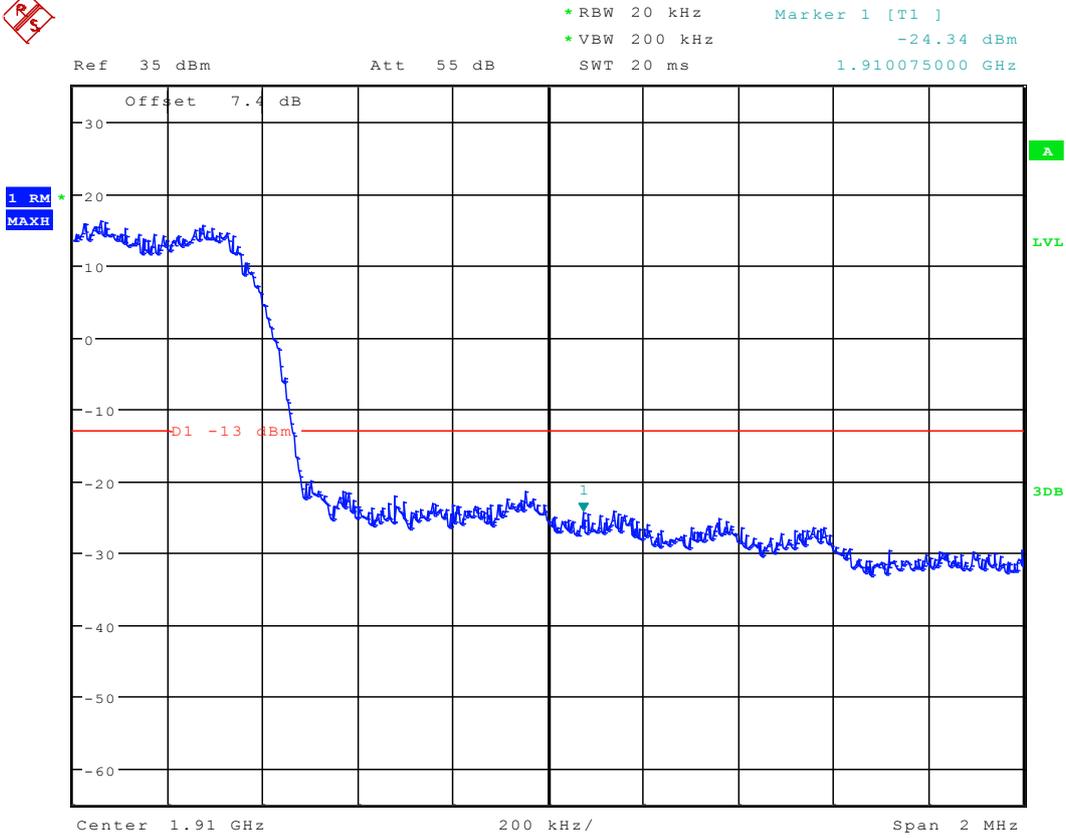


TM3 Left Edge Channel 25





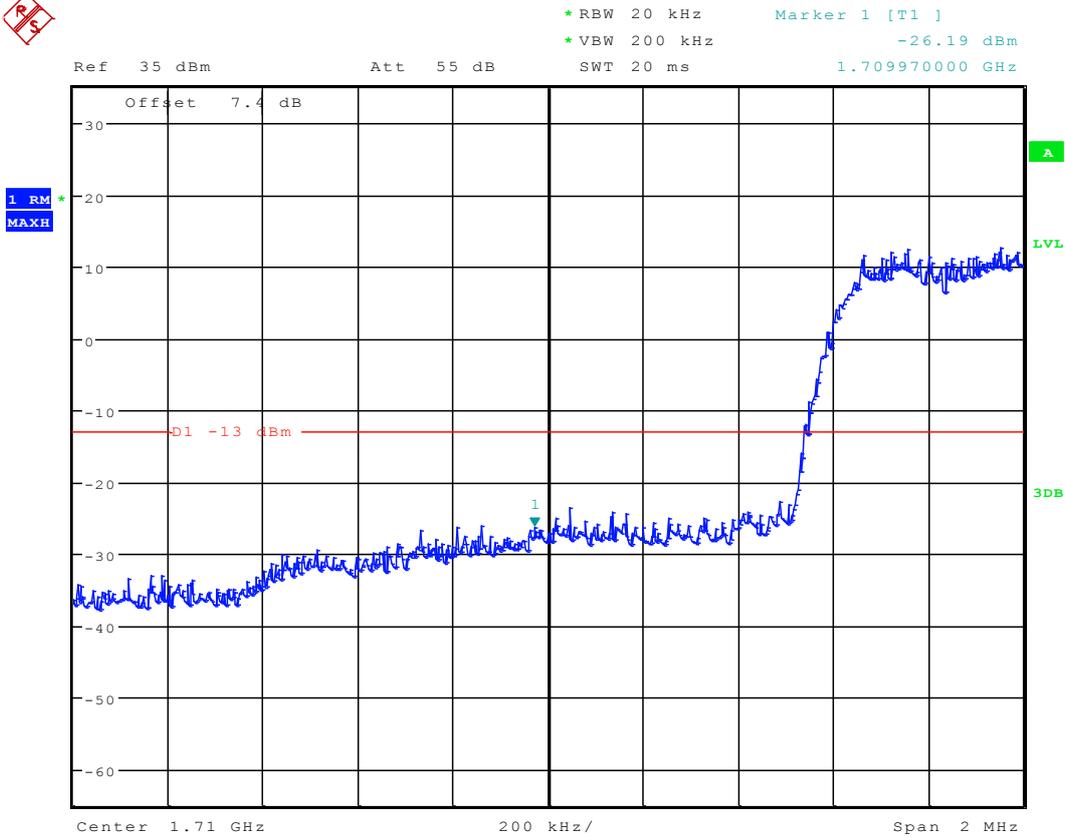
Right Edge Channel 875





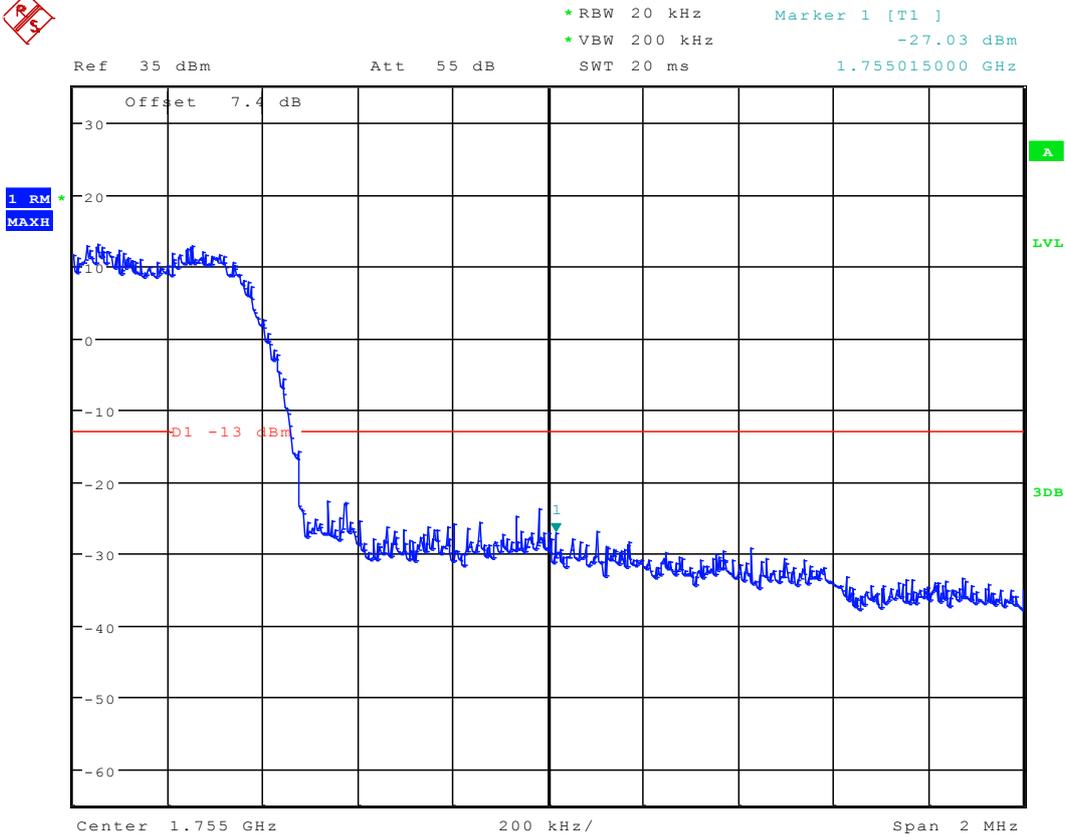
EVDO Subtype 0

Left Edge Channel 25





Right Edge Channel 875



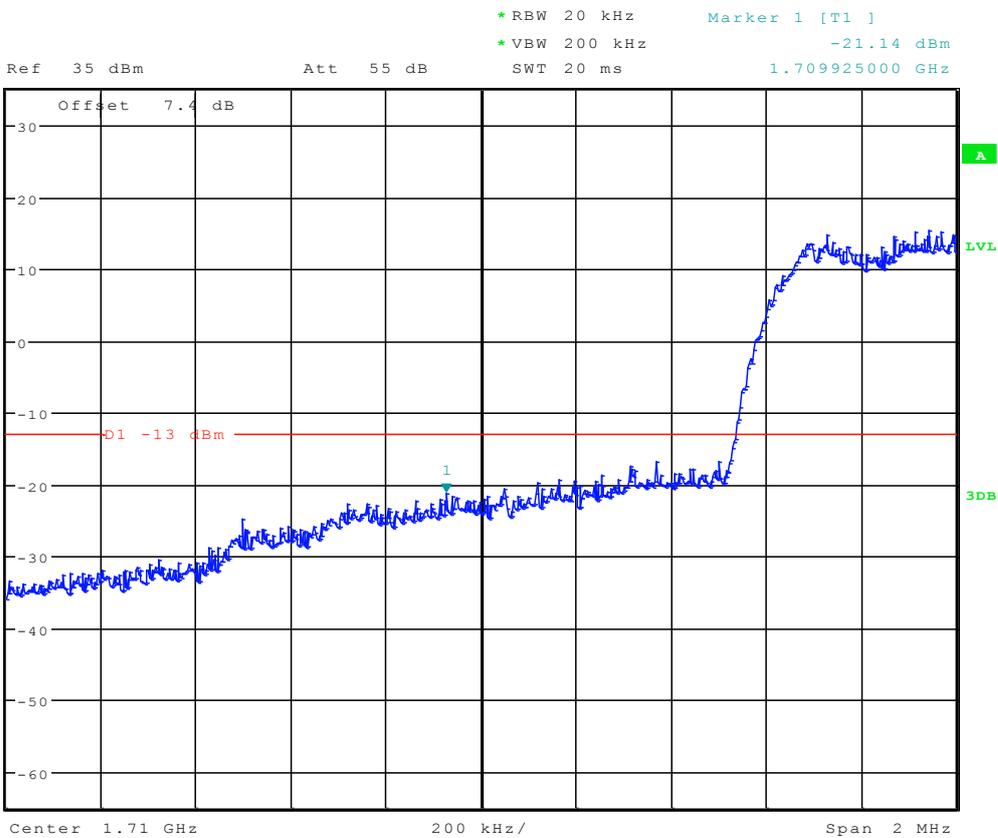


EVDO Subtype 2

Modulation: BPSK

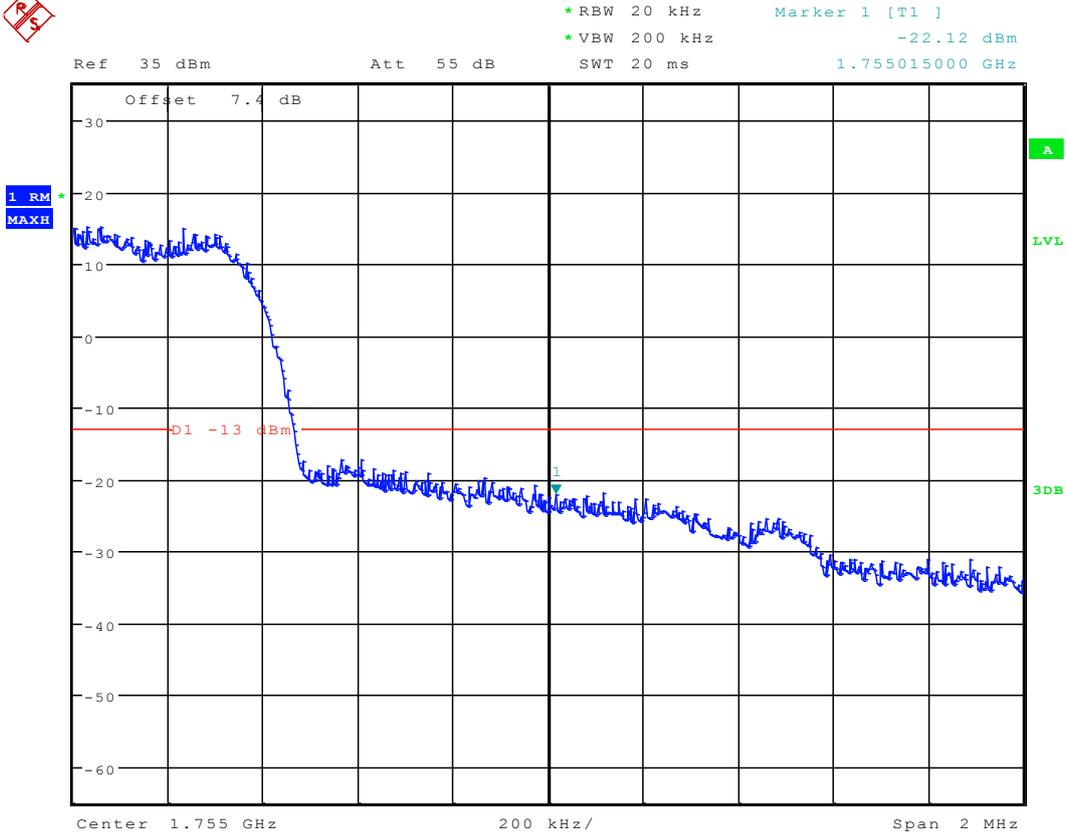
Left Edge

Channel 25





Right Edge Channel 875

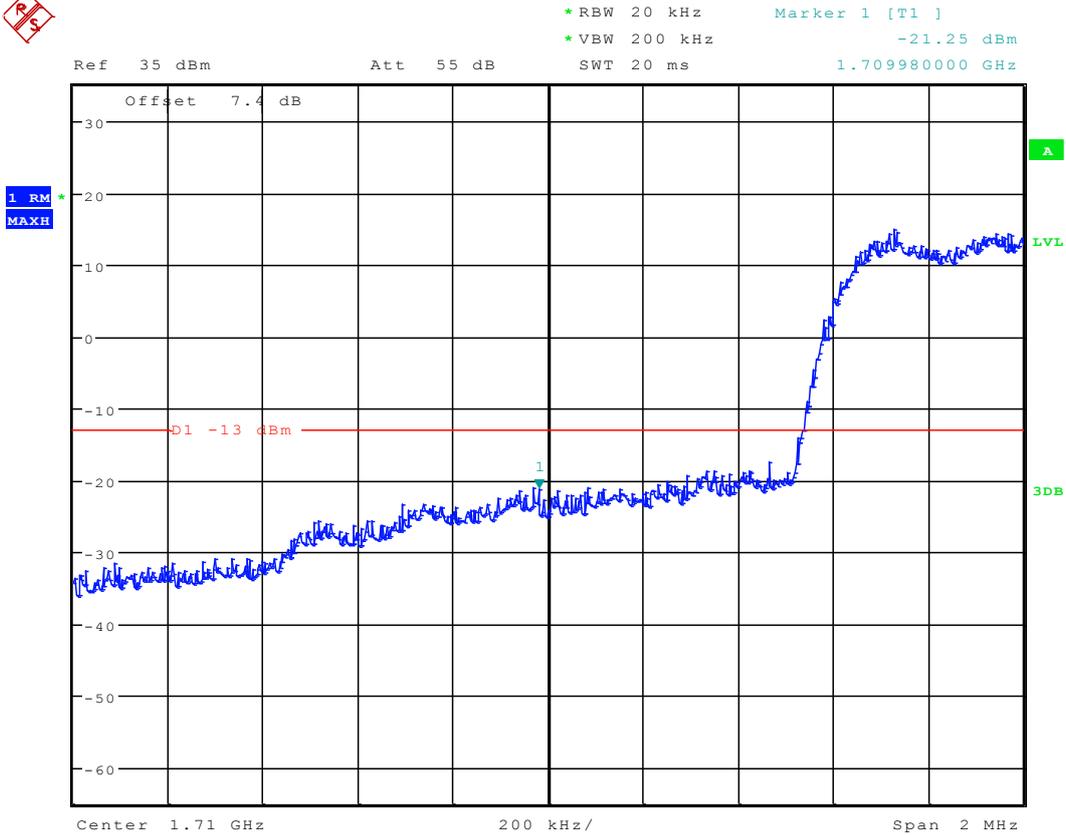




Modulation: QPSK

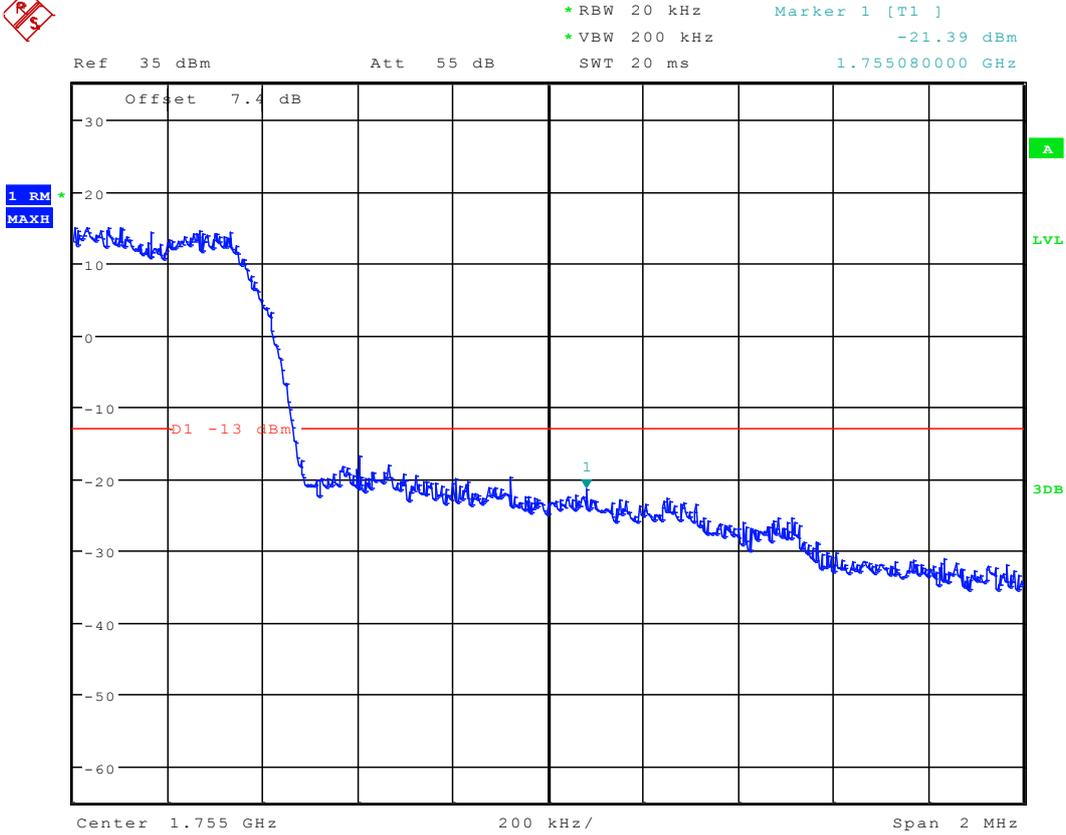
Left Edge

Channel 25





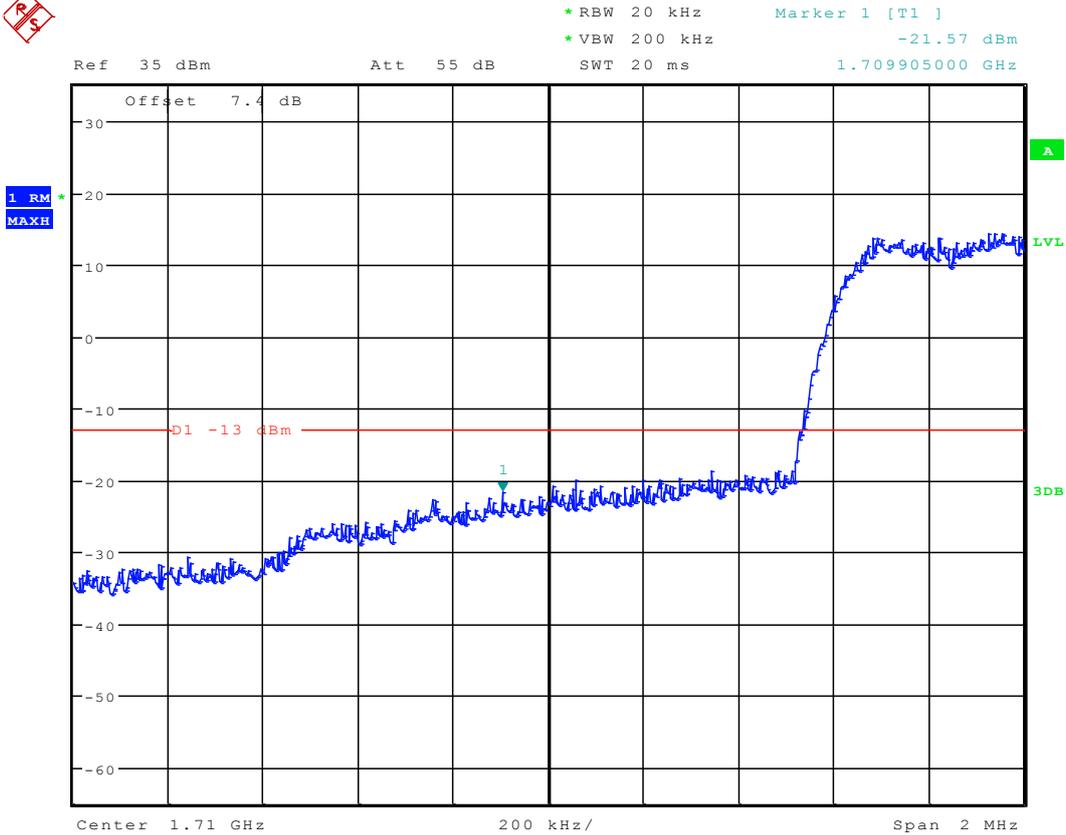
Right Edge Channel 875





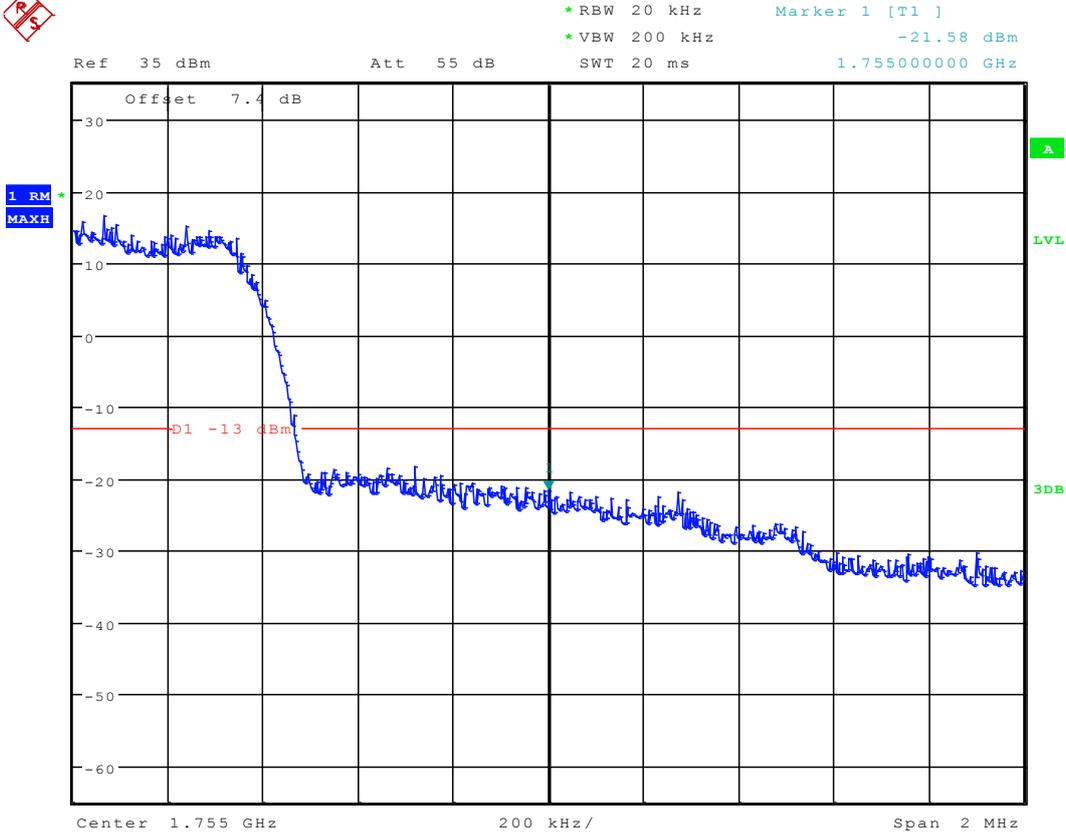
Modulation: 8PSK

Left Edge Channel 25



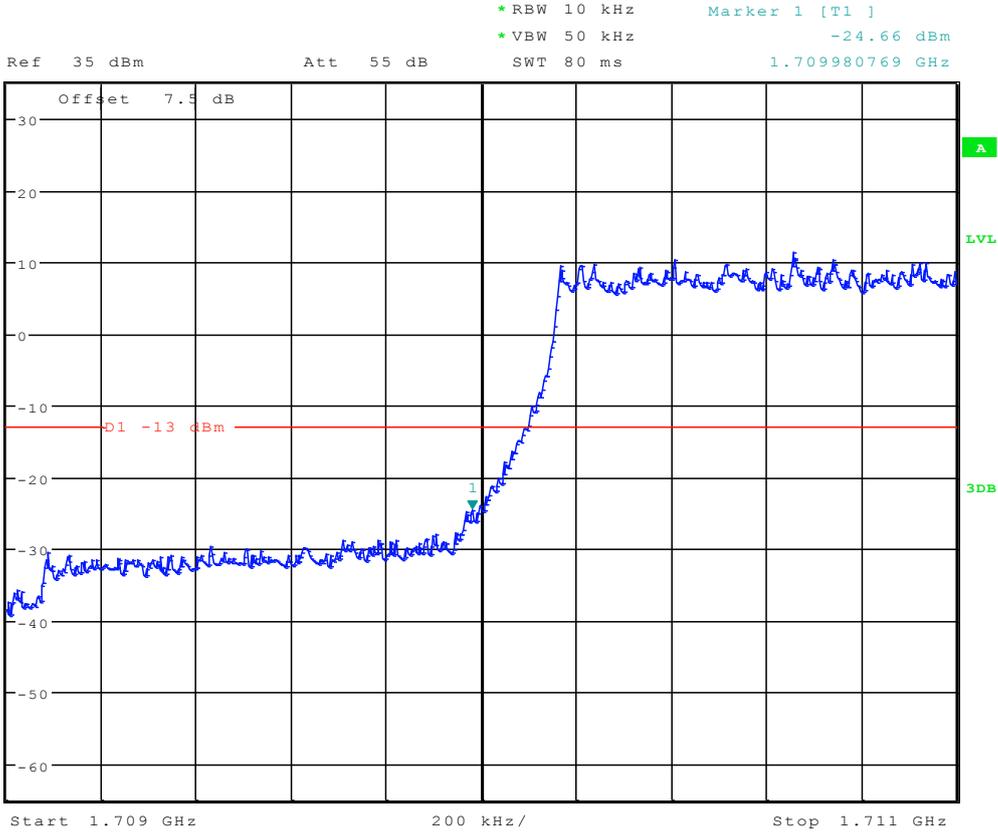


Right Edge Channel 875





TM4 Left Edge 1.4MHz(BW) Channel 19957

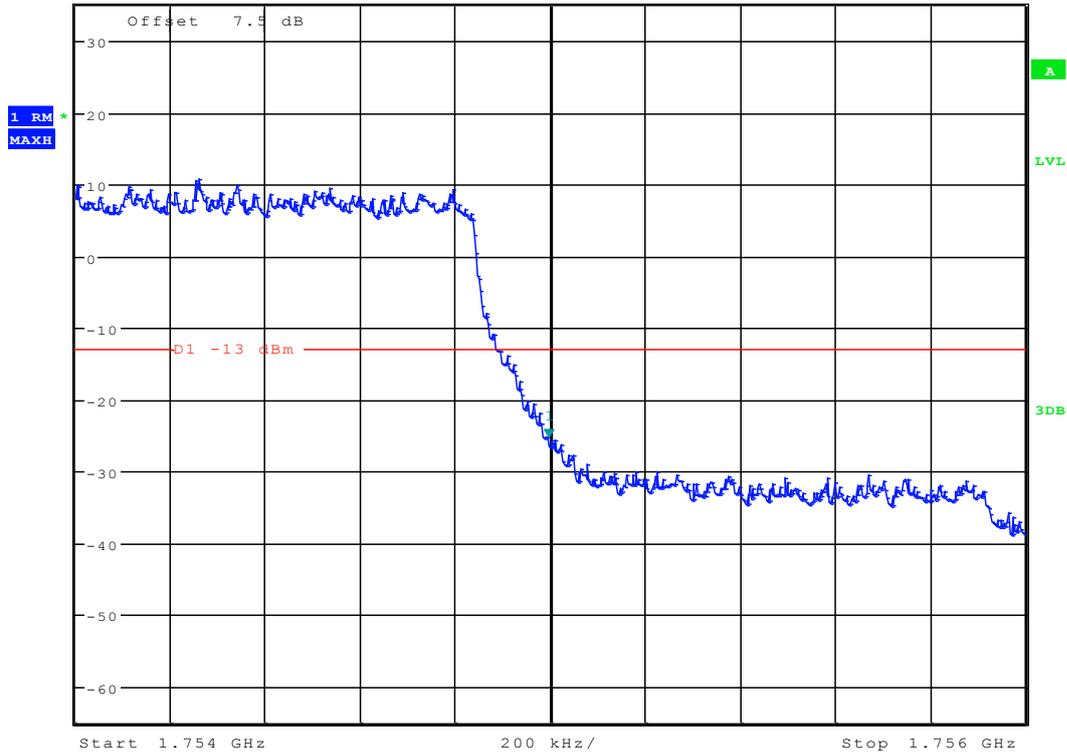




Right Edge 1.4MHz(BW) Channel 20393



Ref 35 dBm Att 55 dB SWT 80 ms Marker 1 [T1] 1.754996795 GHz
*RBW 10 kHz *VBW 50 kHz -25.30 dBm

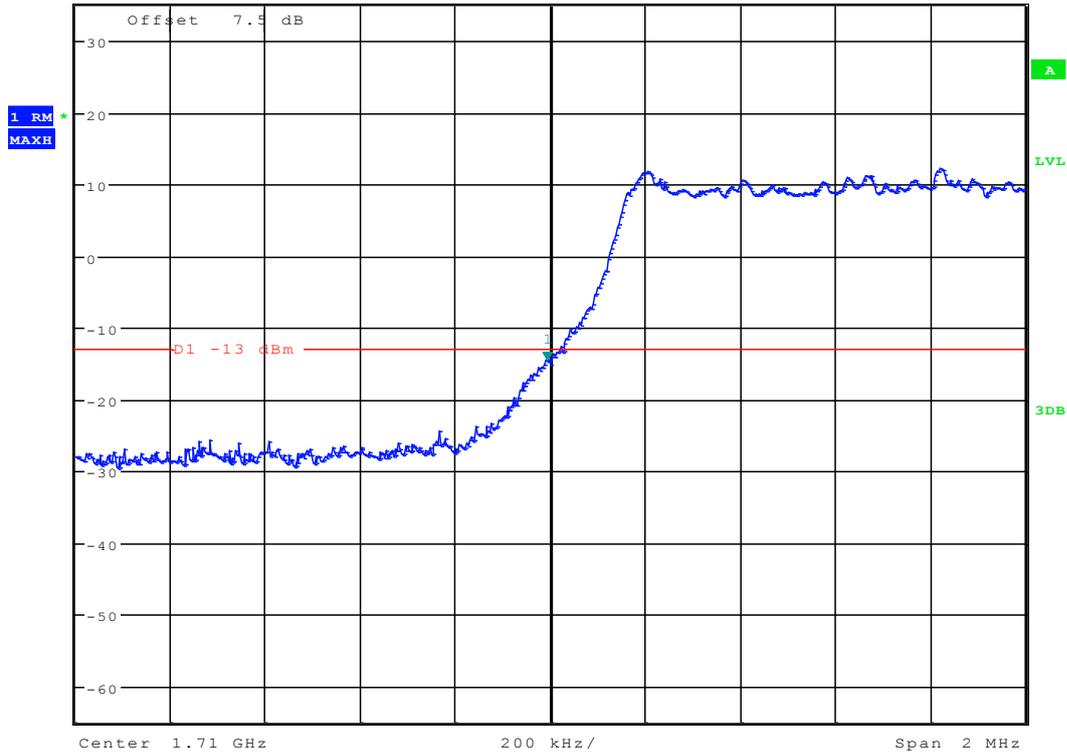




Left Edge 3MHz(BW) Channel 19965



*RBW 30 kHz Marker 1 [T1]
*VBW 100 kHz -14.61 dBm
Ref 35 dBm *Att 55 dB SWT 10 ms 1.709993590 GHz

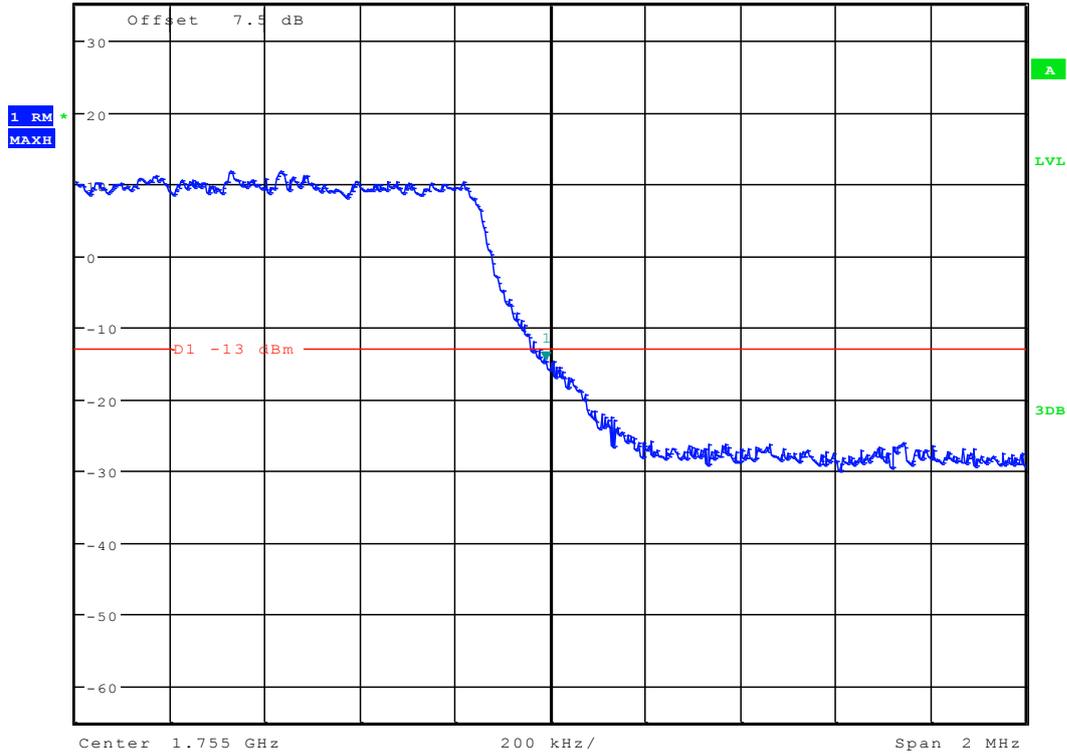




Right Edge 3MHz(BW) Channel 20385

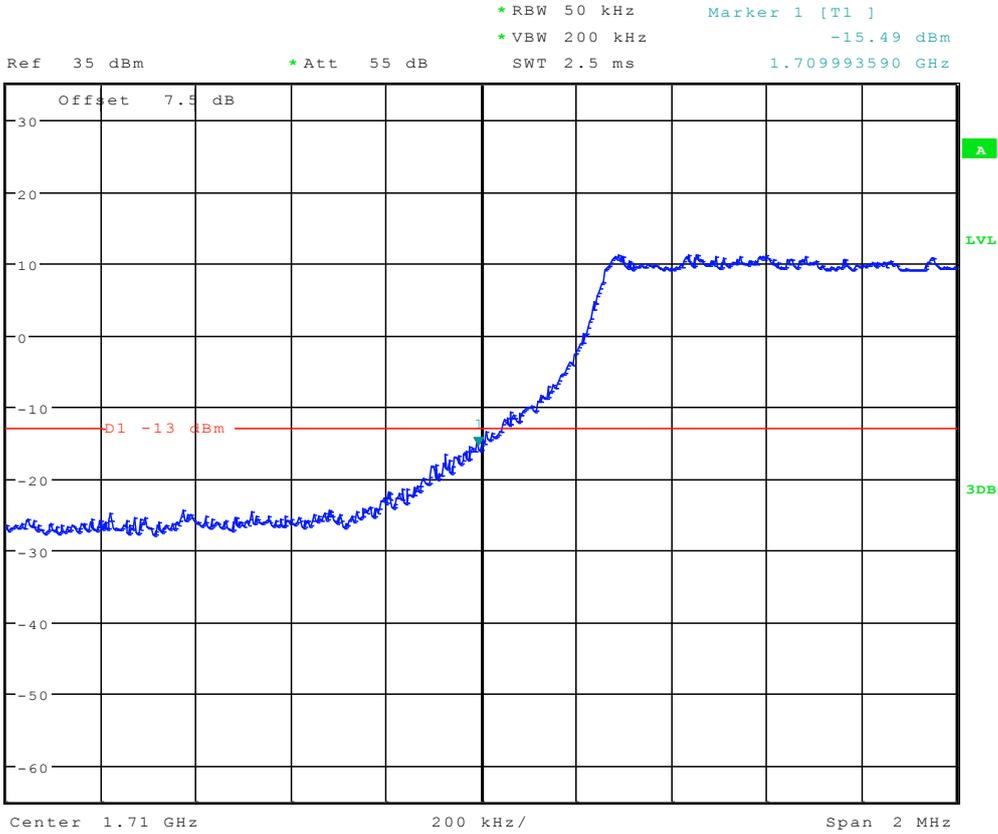


*RBW 30 kHz Marker 1 [T1]
*VBW 100 kHz -14.63 dBm
Ref 35 dBm *Att 55 dB SWT 10 ms 1.754990385 GHz





Left Edge 5MHz(BW) Channel 19975

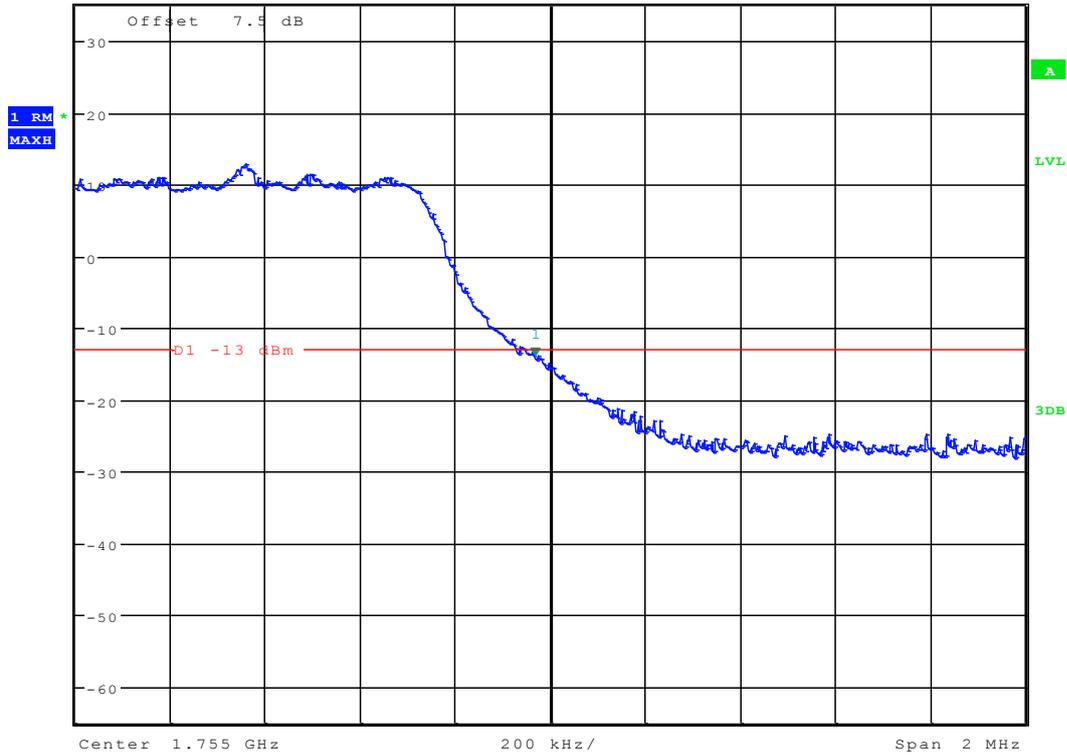




Right Edge 5MHz(BW) Channel 20375



*RBW 50 kHz Marker 1 [T1]
*VBW 200 kHz -14.12 dBm
Ref 35 dBm *Att 55 dB SWT 2.5 ms 1.754967949 GHz

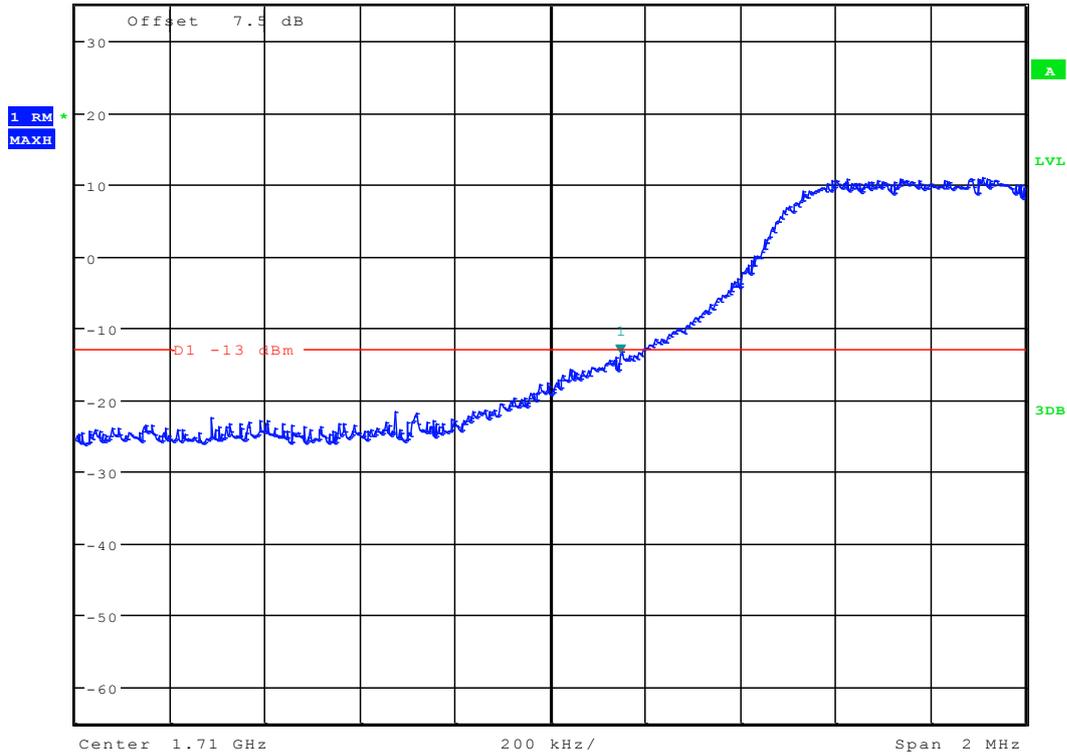




Left Edge 10MHz(BW) Channel 20000



*RBW 100 kHz Marker 1 [T1]
*VBW 300 kHz -13.67 dBm
Ref 35 dBm *Att 55 dB SWT 2.5 ms 1.710147436 GHz

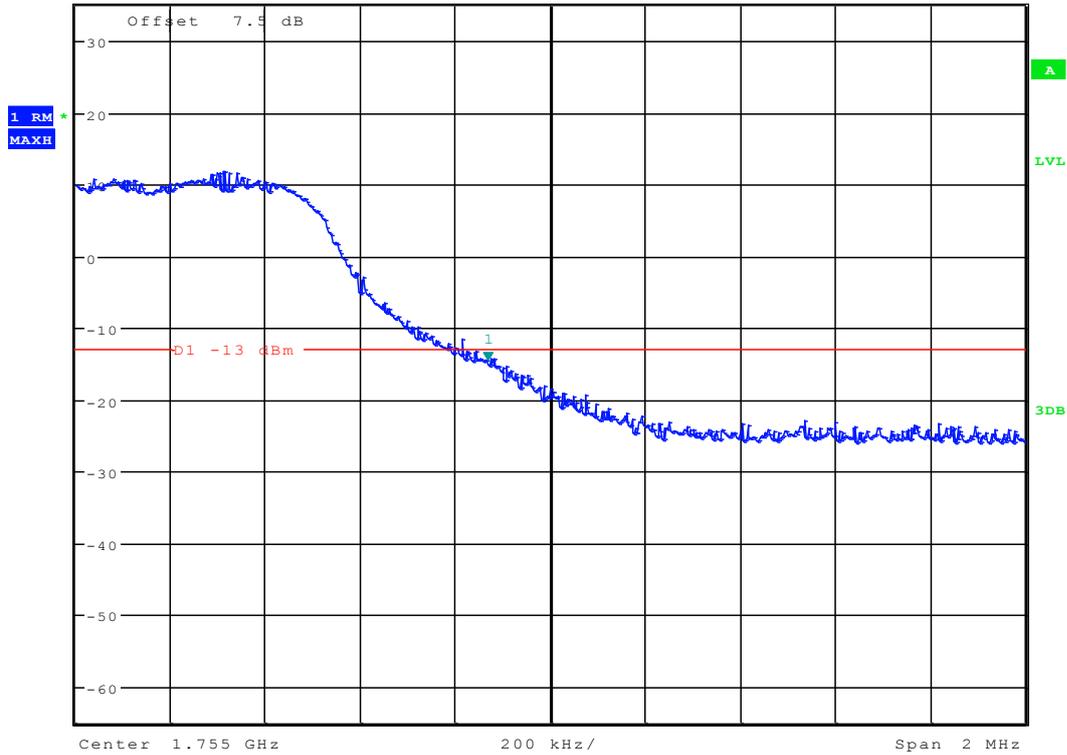




Right Edge 10MHz(BW) Channel 20350

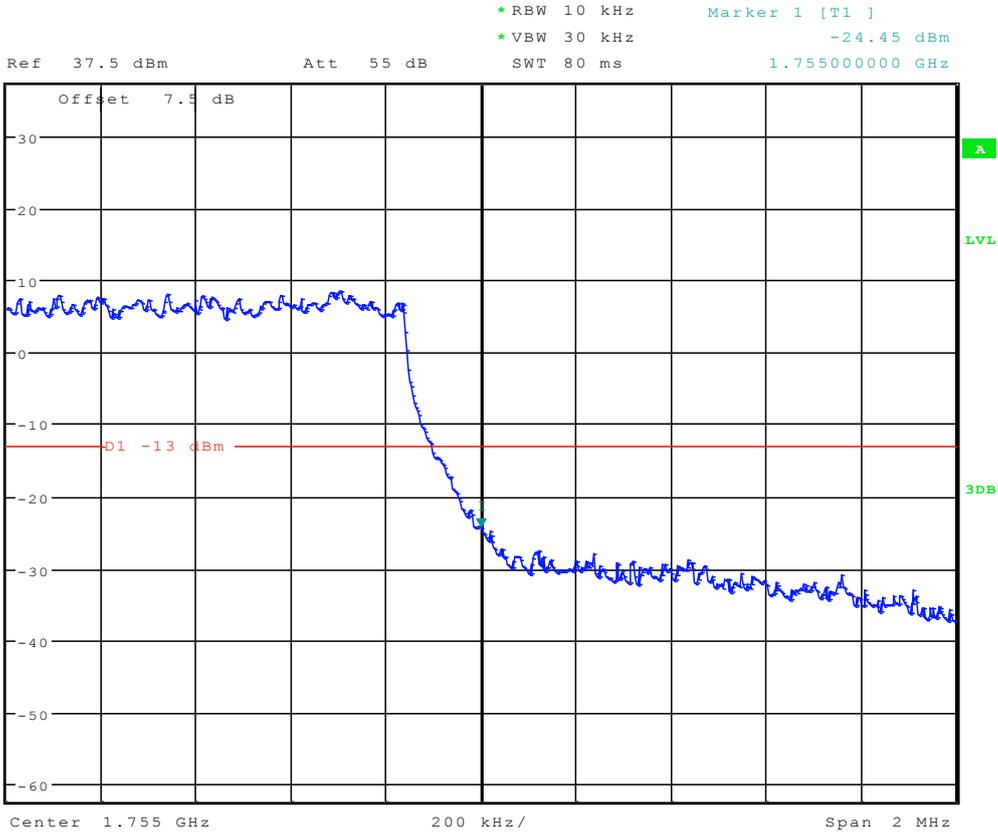


*RBW 100 kHz Marker 1 [T1]
*VBW 300 kHz -14.77 dBm
Ref 35 dBm *Att 55 dB SWT 2.5 ms 1.754868590 GHz



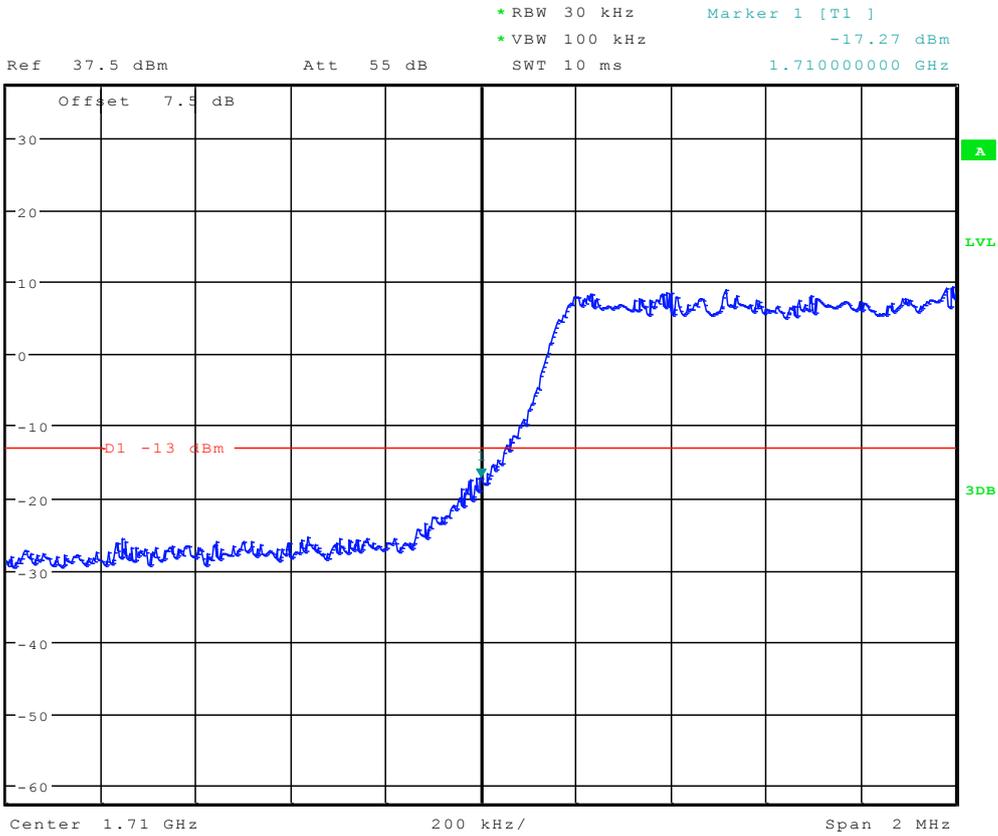


Right Edge 1.4MHz(BW) Channel 20393





Left Edge 3MHz(BW) Channel 19965

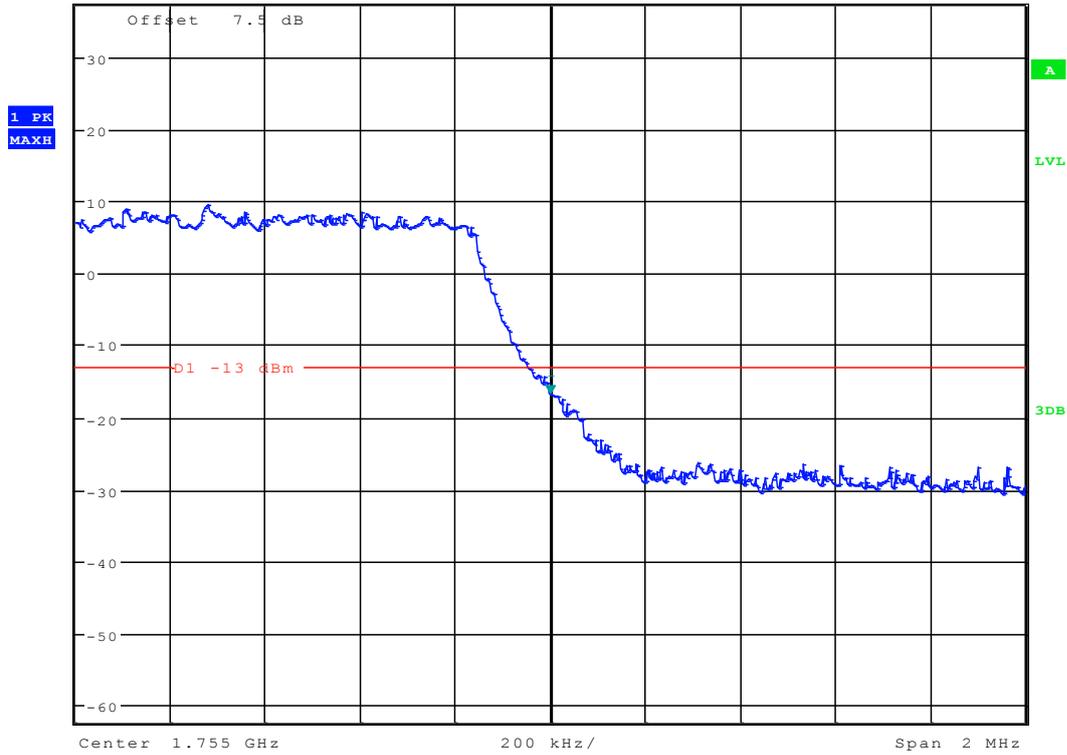




Right Edge 3MHz(BW) Channel 20385



*RBW 30 kHz Marker 1 [T1]
*VBW 100 kHz -16.86 dBm
Ref 37.5 dBm Att 55 dB SWT 10 ms 1.755000000 GHz

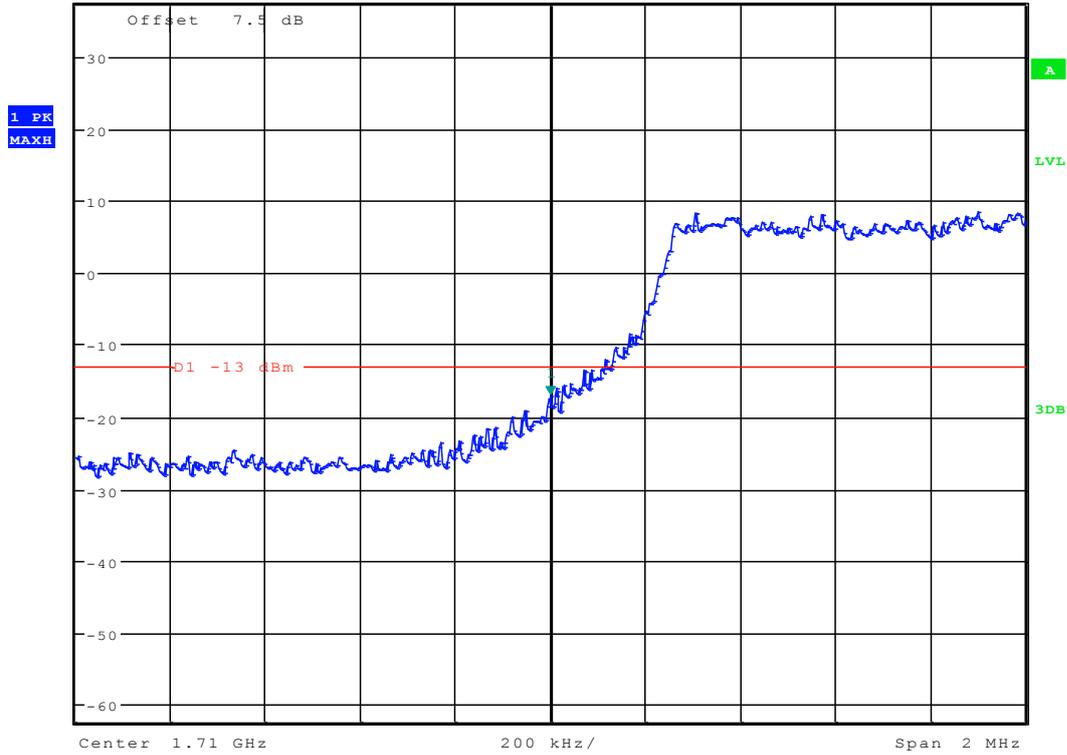




Left Edge 5MHz(BW) Channel 19975



*RBW 50 kHz Marker 1 [T1]
*VBW 200 kHz -17.07 dBm
Ref 37.5 dBm Att 55 dB SWT 2.5 ms 1.710000000 GHz

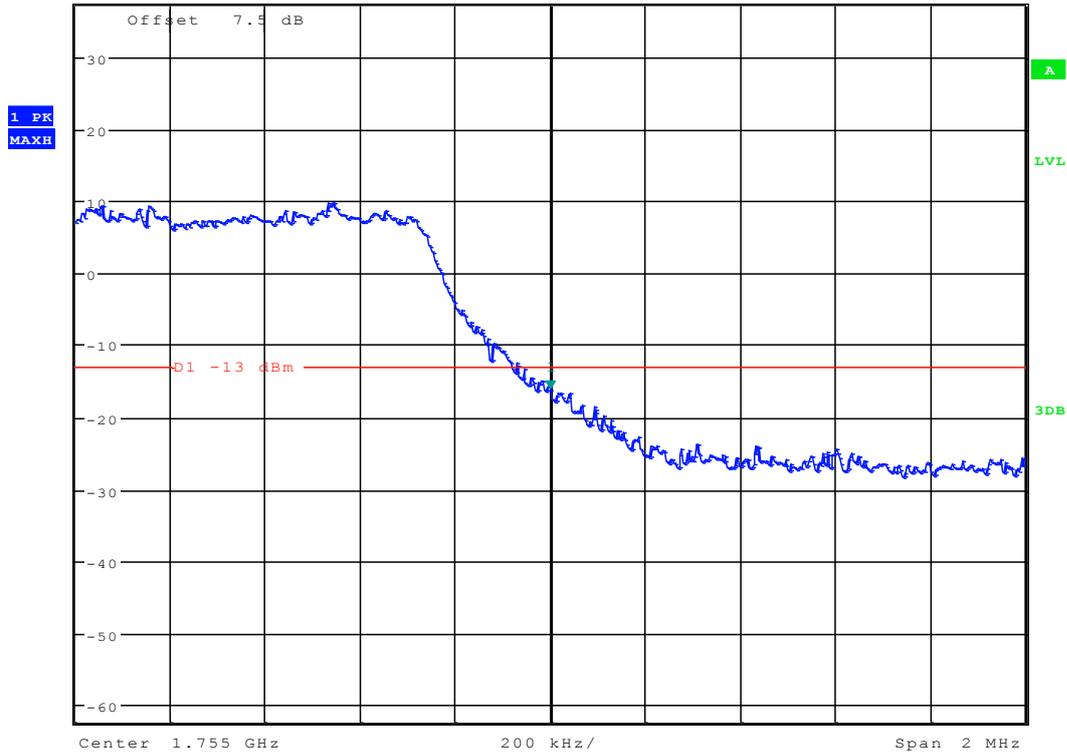




Right Edge 5MHz(BW) Channel 20375

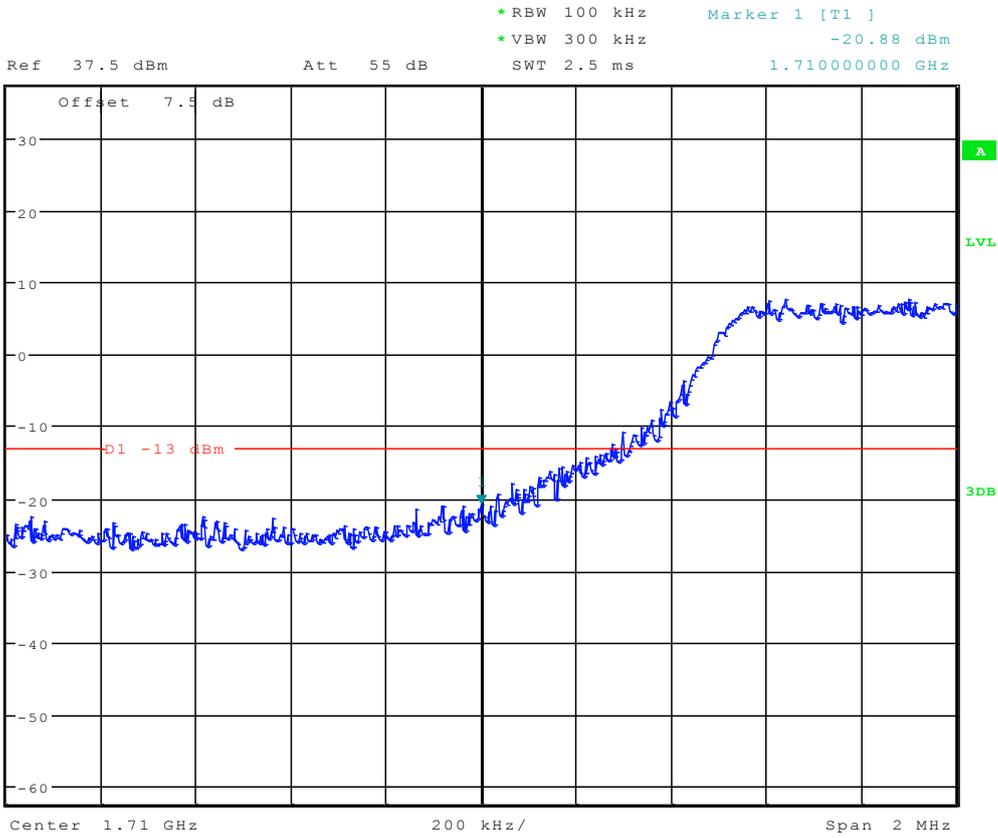


Ref 37.5 dBm Att 55 dB SWT 2.5 ms
*RBW 50 kHz *VBW 200 kHz
Marker 1 [T1] -16.18 dBm
1.755000000 GHz





Left Edge 10MHz(BW) Channel 20000

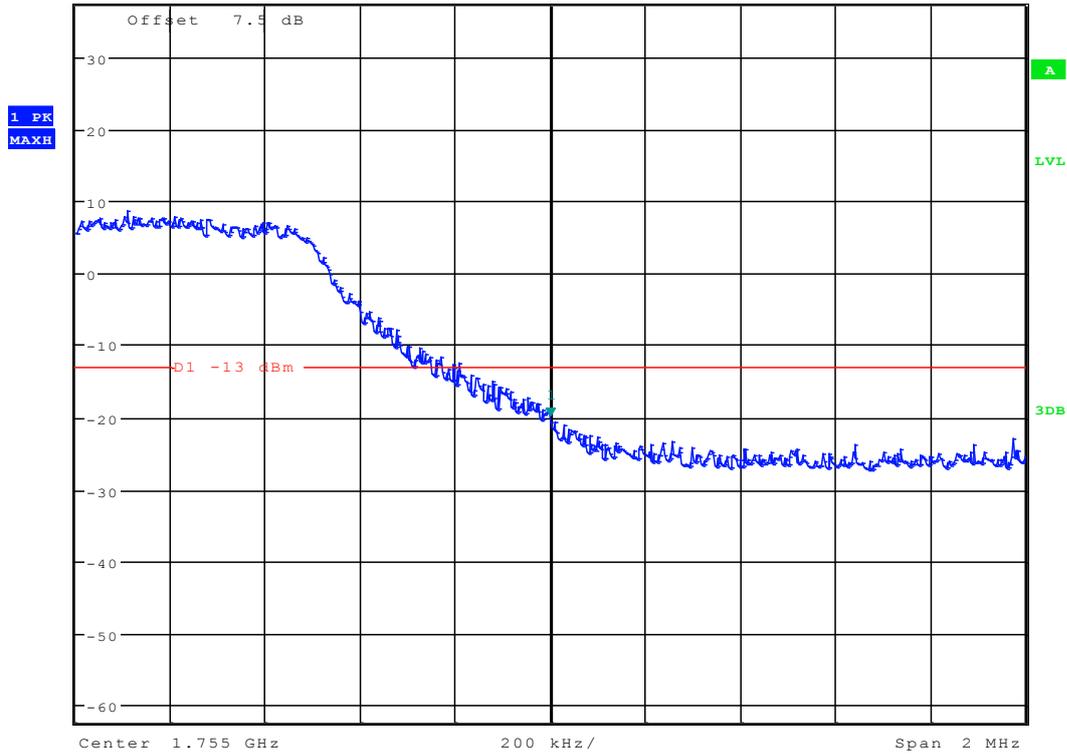




Right Edge 10MHz(BW) Channel 20350



*RBW 100 kHz Marker 1 [T1]
*VBW 300 kHz -19.99 dBm
Ref 37.5 dBm Att 55 dB SWT 2.5 ms 1.755000000 GHz





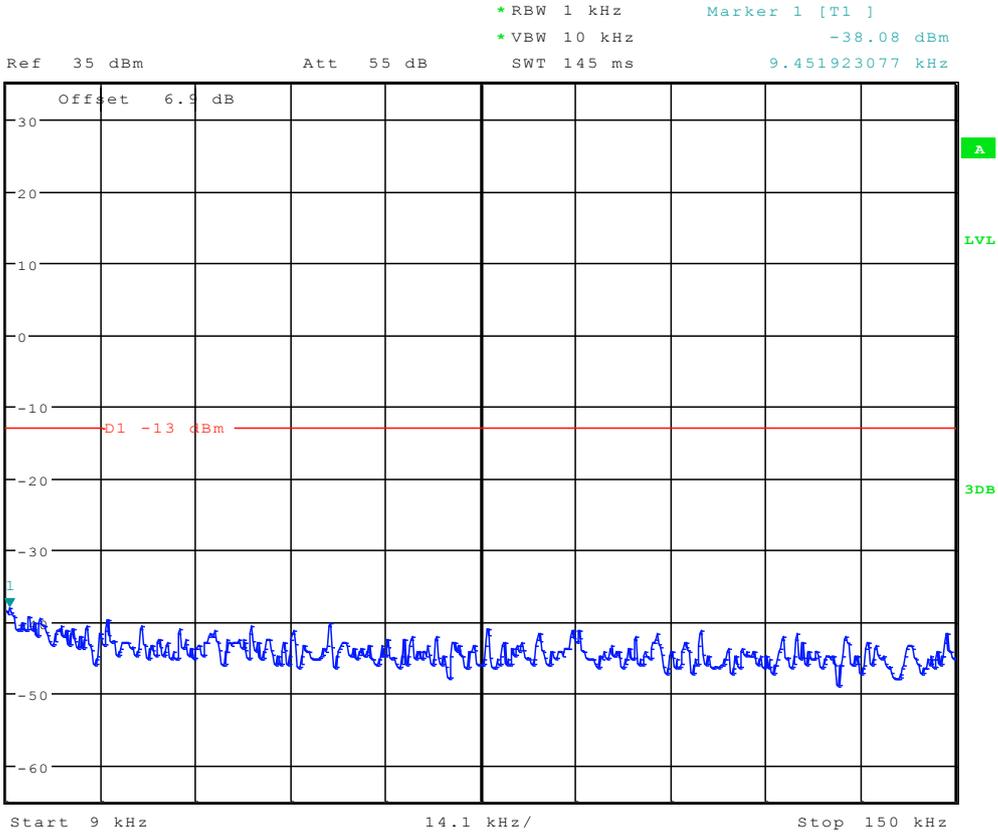
Appendix D

Spurious Emission at Antenna Terminal

According to FCC Part 2.1051 & 27.53(g)

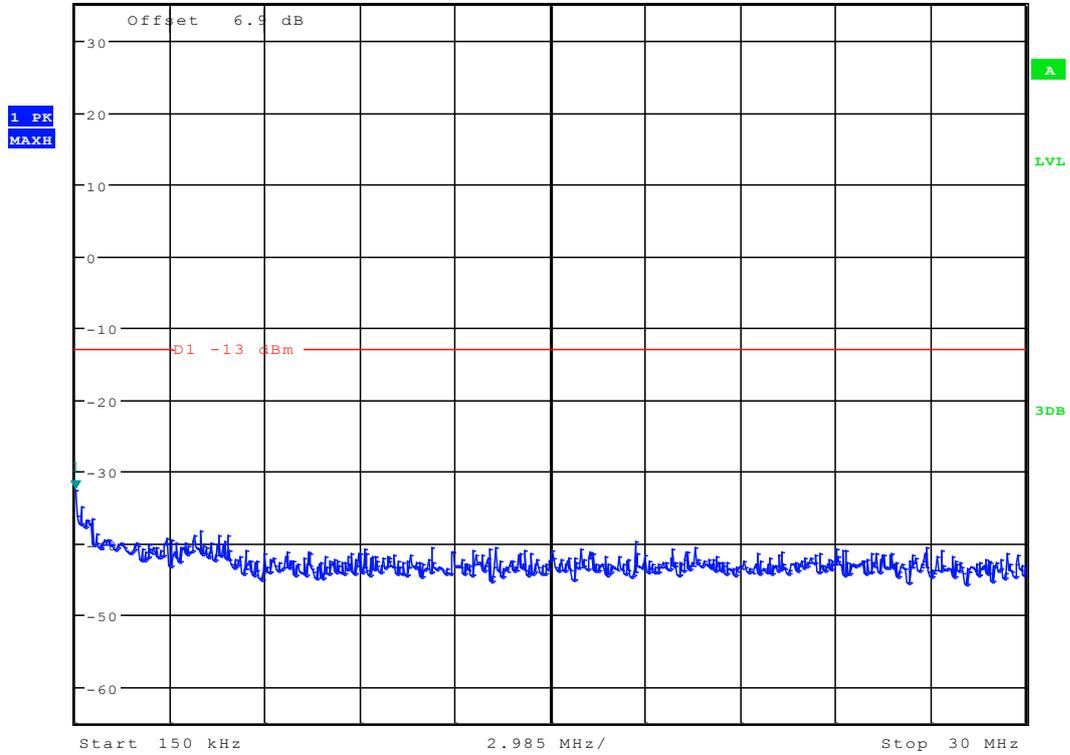


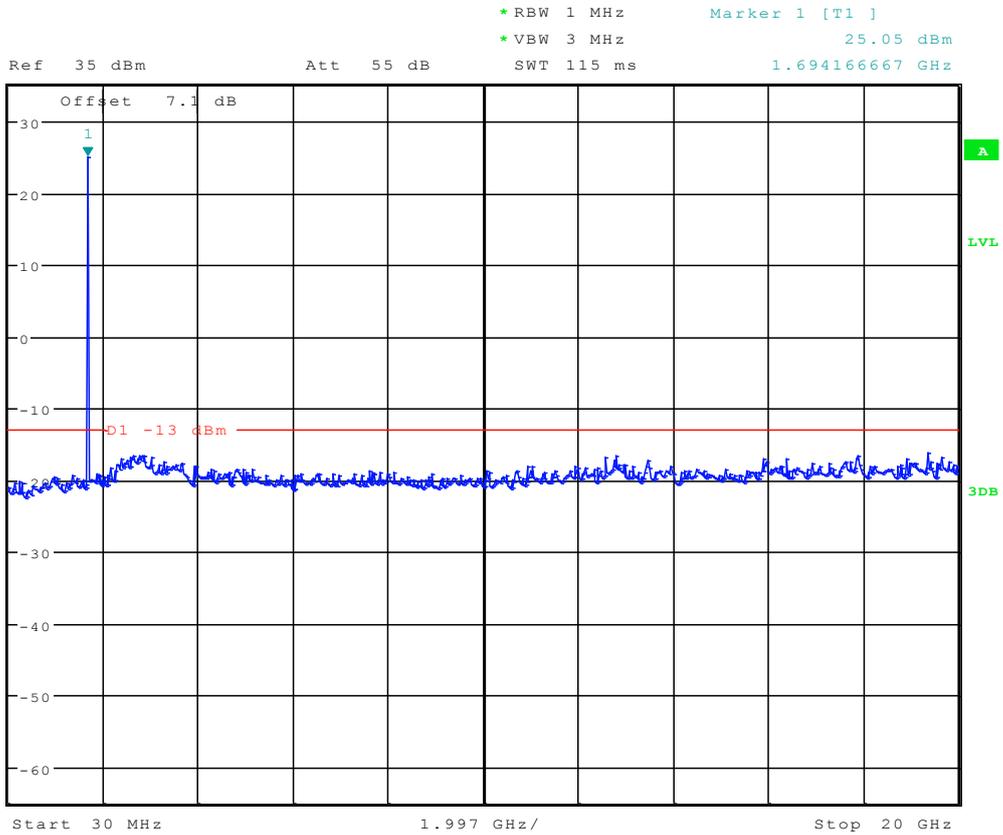
Channel 25 (TM1)





*RBW 10 kHz Marker 1 [T1]
*VBW 30 kHz -32.59 dBm
Ref 35 dBm Att 55 dB SWT 300 ms 150.000000000 kHz



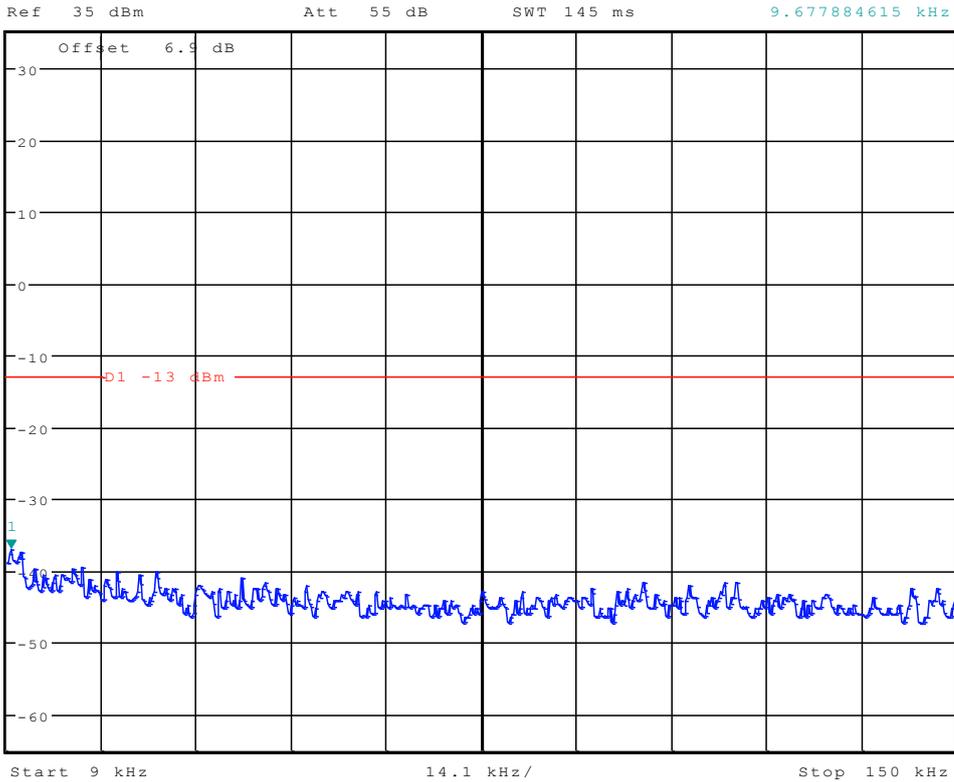




Channel 450 (TM1)



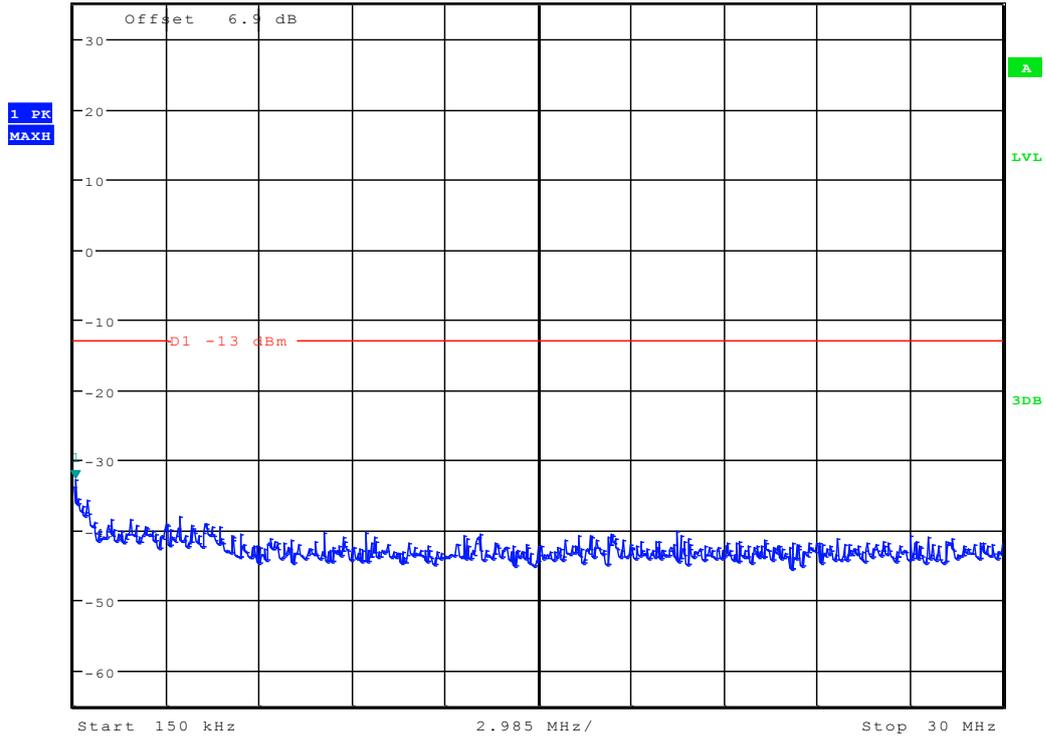
*RBW 1 kHz Marker 1 [T1]
*VBW 10 kHz -36.92 dBm
SWT 145 ms 9.677884615 kHz





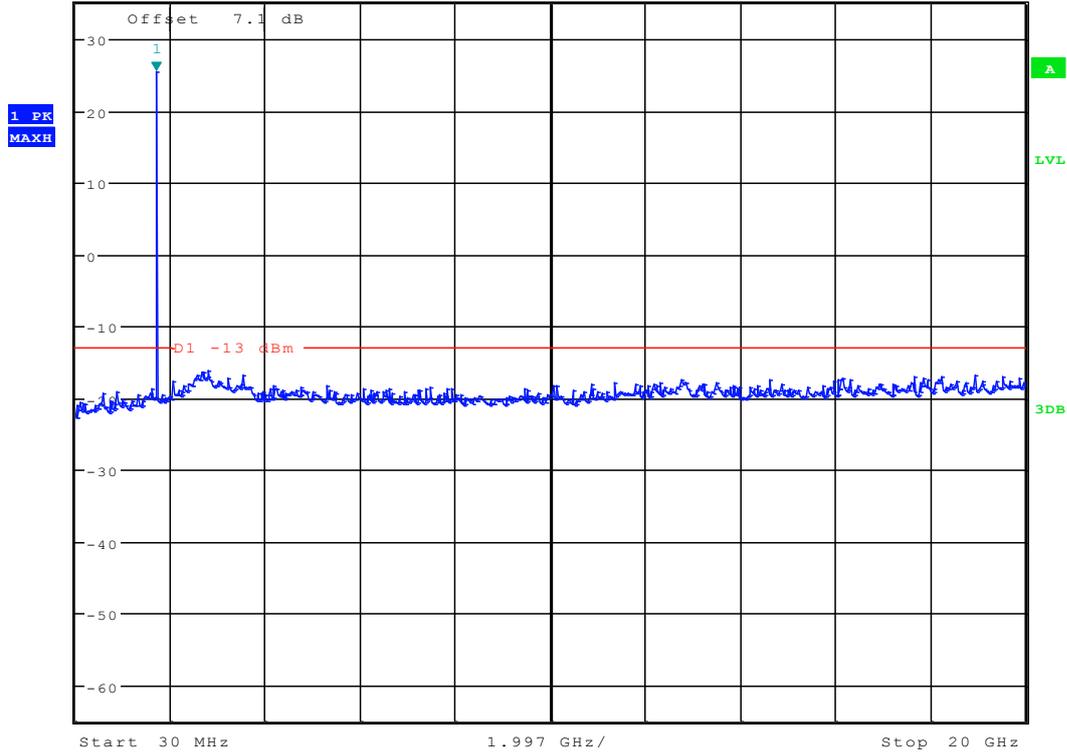
Ref 35 dBm Att 55 dB * RBW 10 kHz * VBW 30 kHz SWT 300 ms

Marker 1 [T1]
-32.76 dBm
197.836538462 kHz



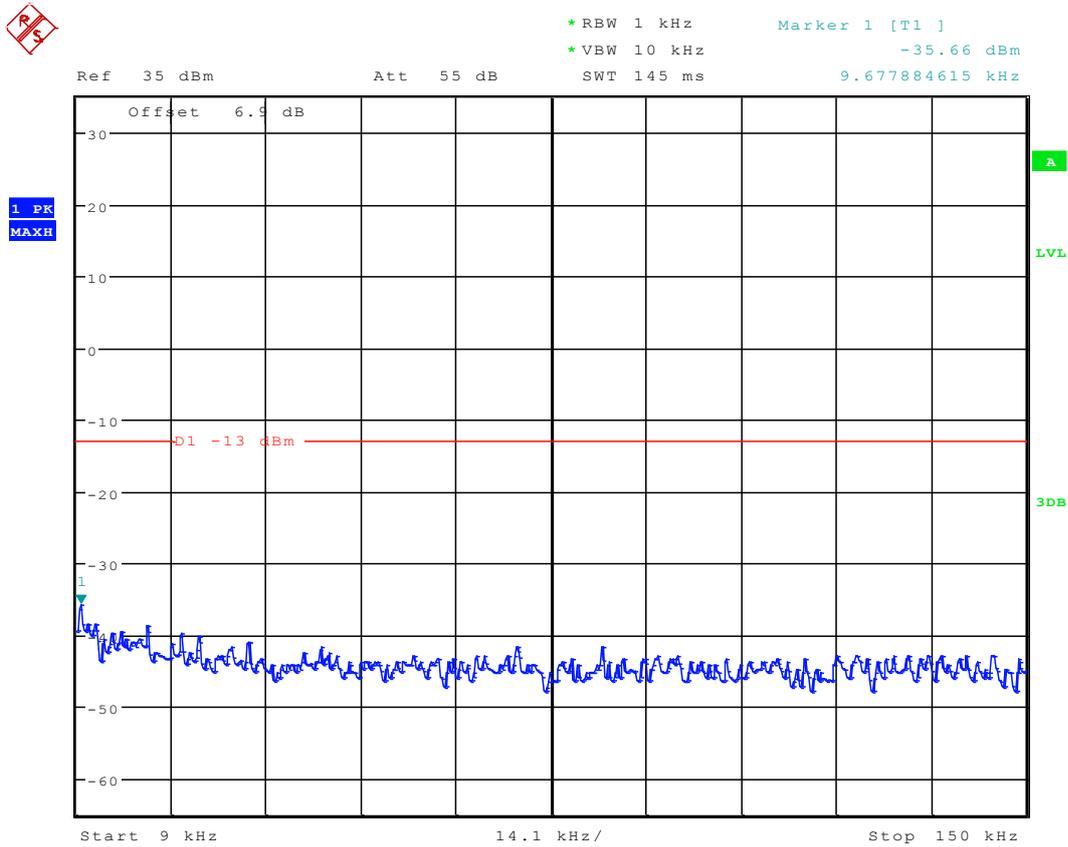


*RBW 1 MHz Marker 1 [T1]
*VBW 3 MHz 25.47 dBm
Ref 35 dBm Att 55 dB SWT 115 ms 1.726169872 GHz



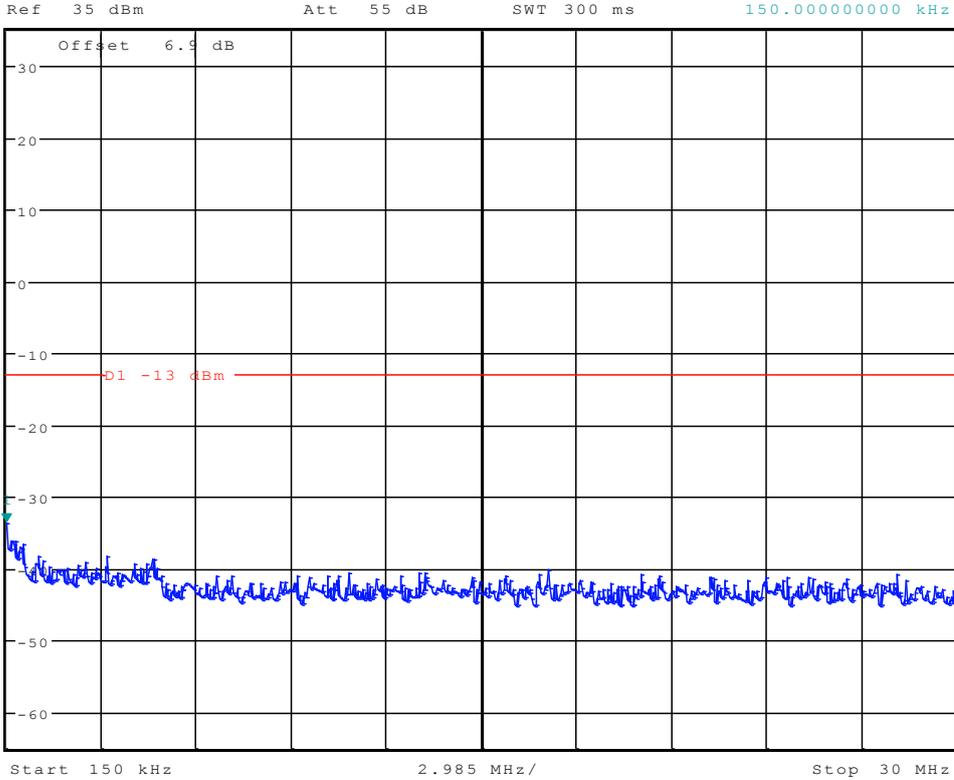


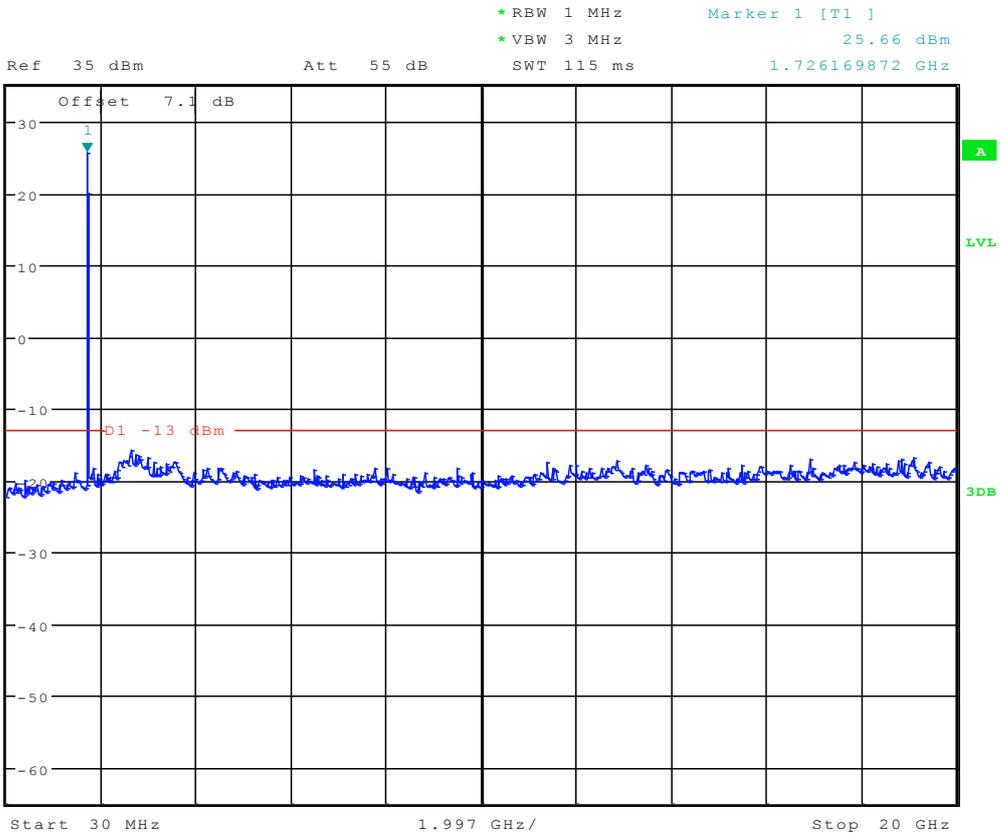
Channel 875 (TM1)





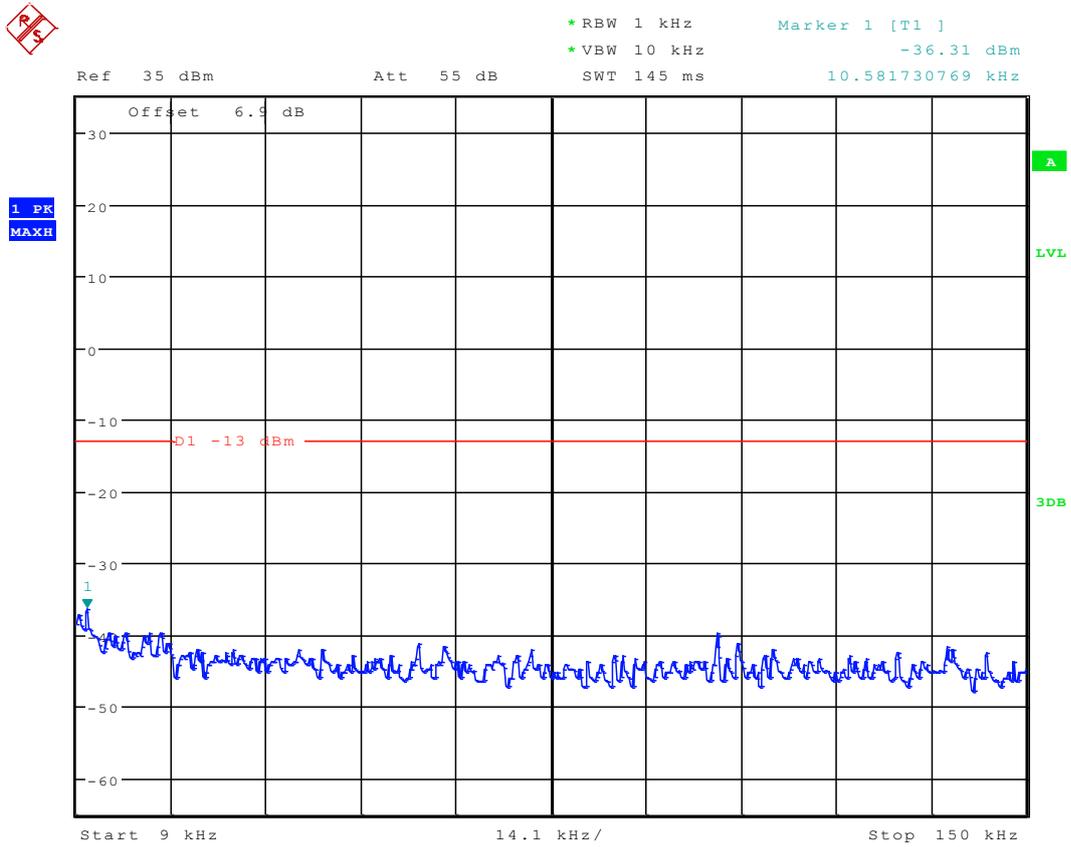
*RBW 10 kHz Marker 1 [T1]
*VBW 30 kHz -33.64 dBm
SWT 300 ms 150.000000000 kHz





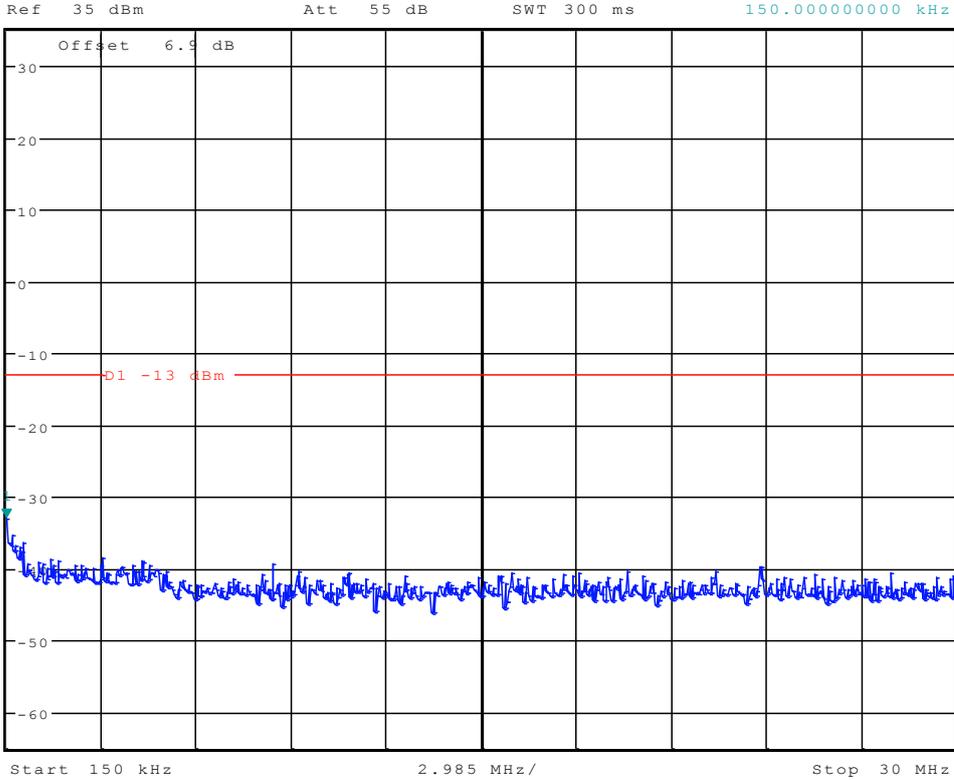


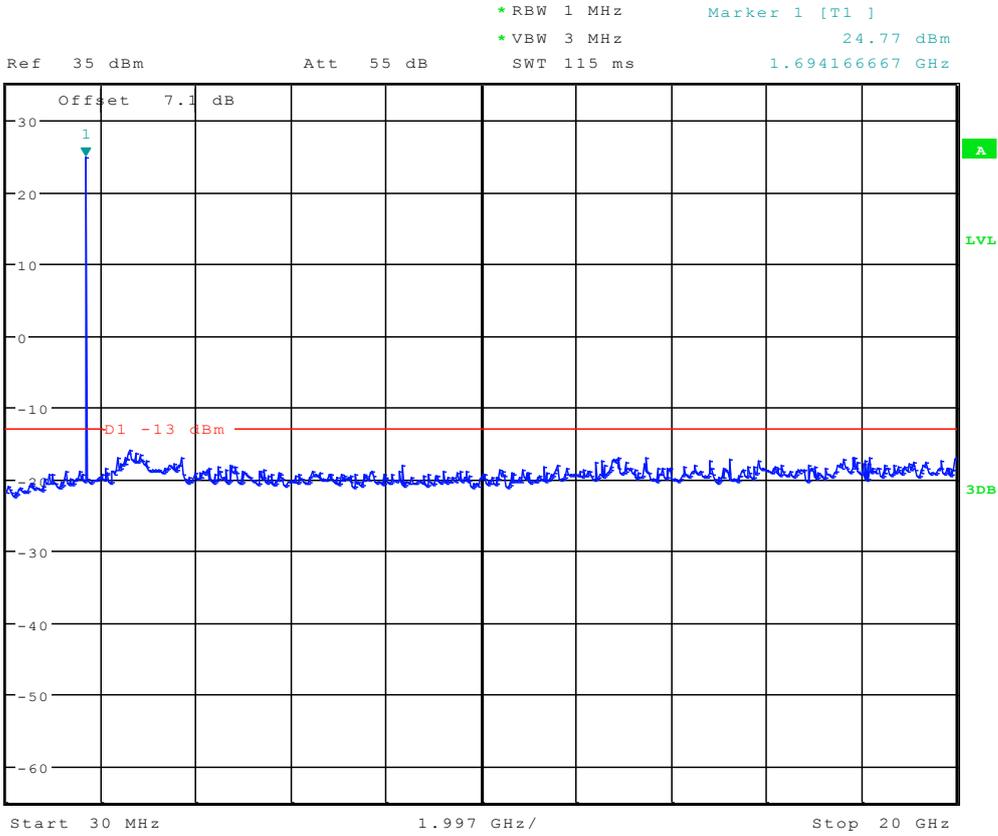
Channel 25 (TM3)





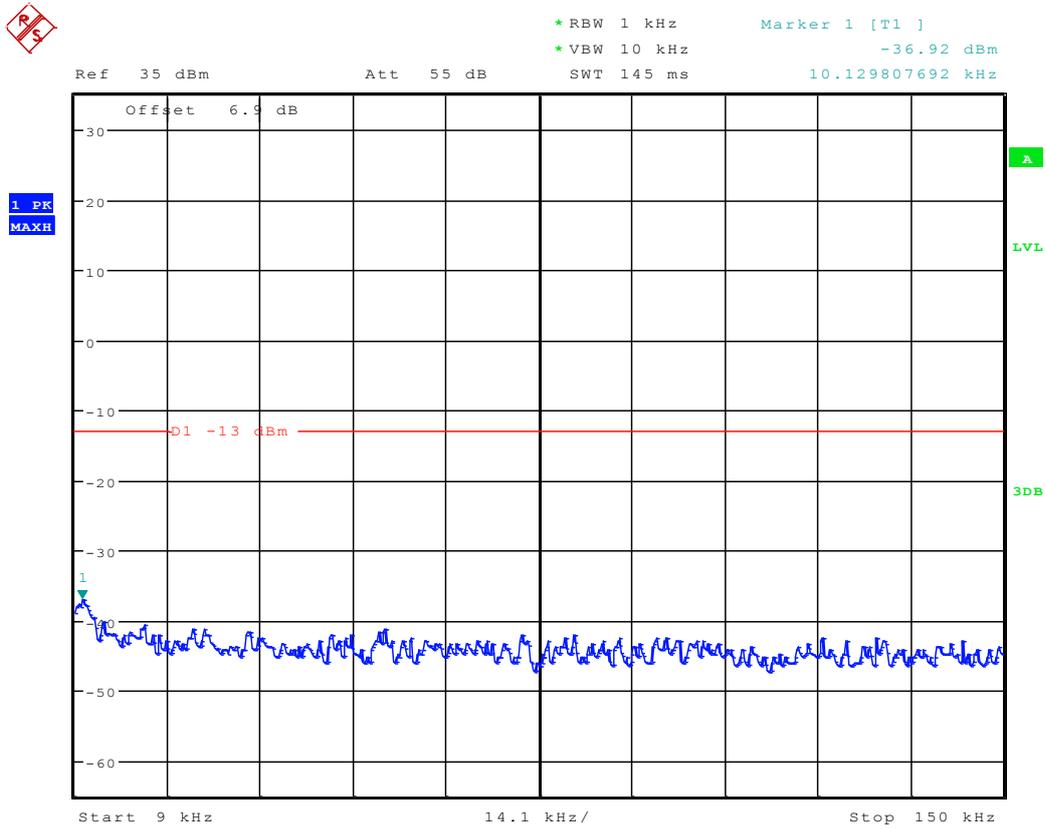
*RBW 10 kHz Marker 1 [T1]
*VBW 30 kHz -32.93 dBm
SWT 300 ms 150.000000000 kHz





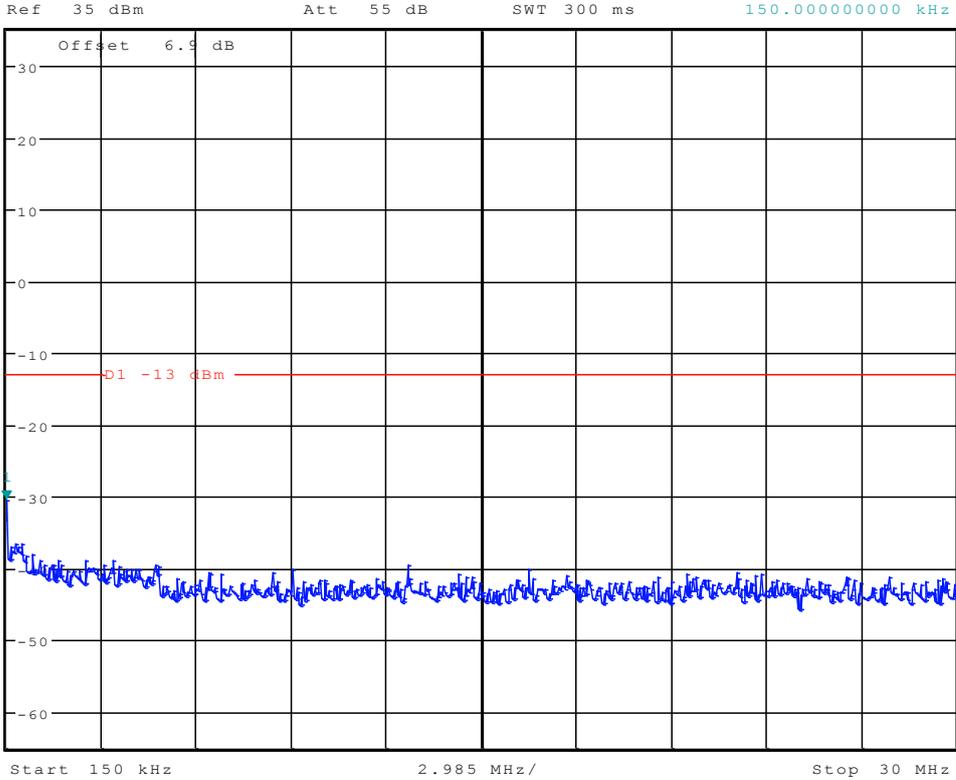


Channel 450 (TM3)



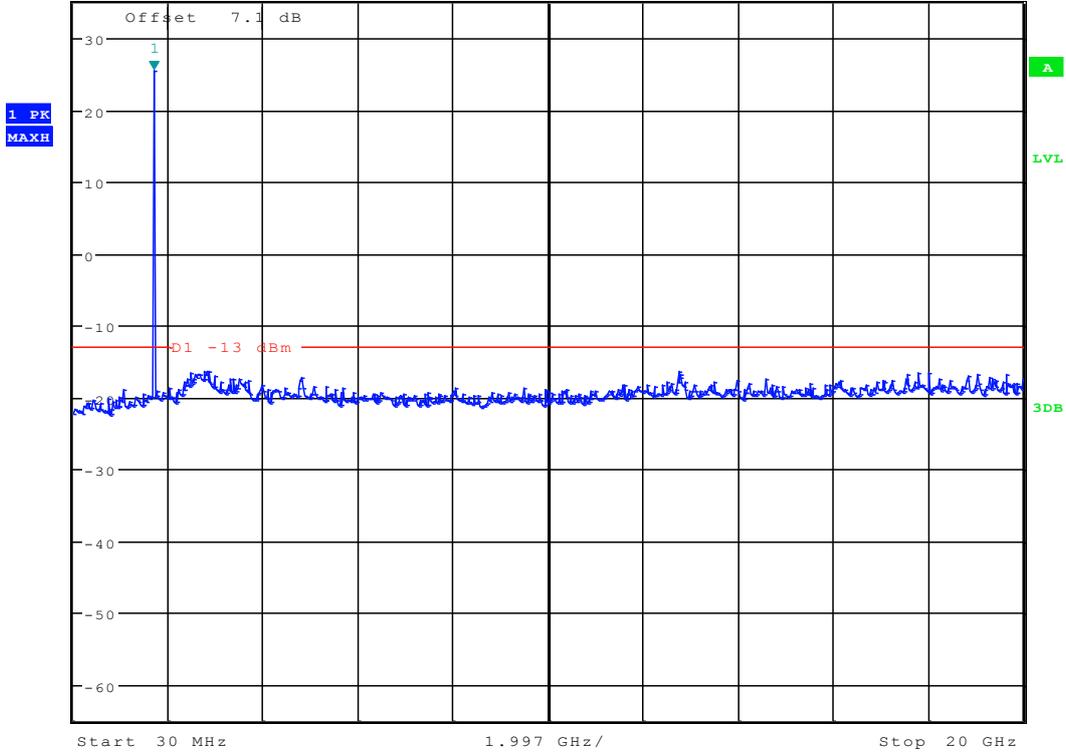


*RBW 10 kHz Marker 1 [T1]
*VBW 30 kHz -30.50 dBm
SWT 300 ms 150.000000000 kHz





Ref 35 dBm Att 55 dB SWT 115 ms
*RBW 1 MHz *VBW 3 MHz
Marker 1 [T1] 25.39 dBm
1.726169872 GHz

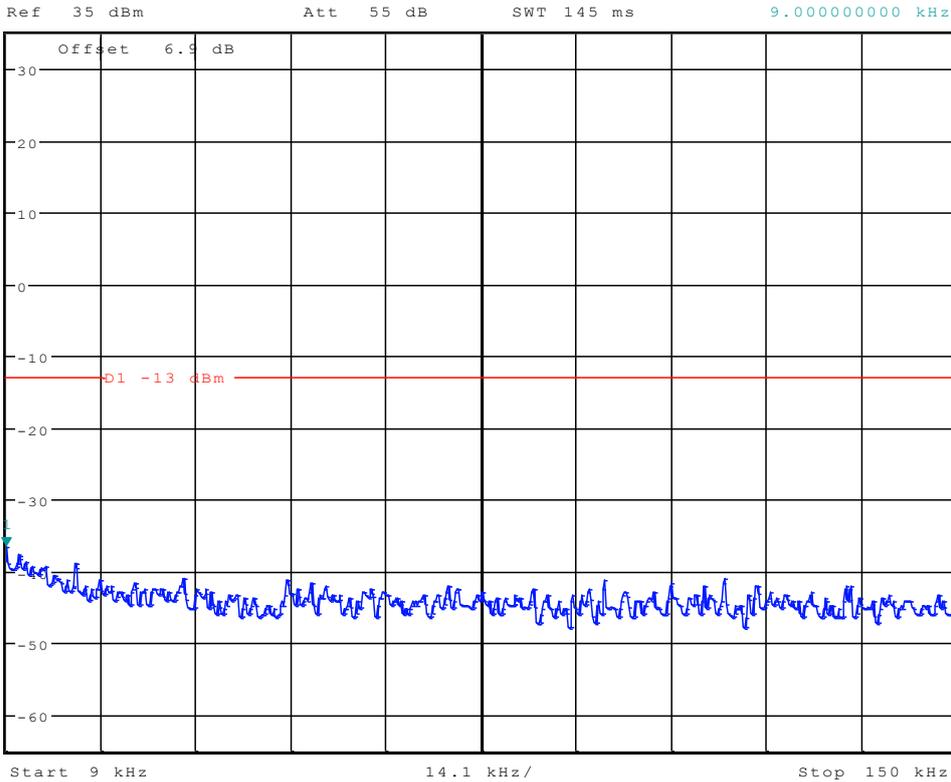




Channel 875 (TM3)

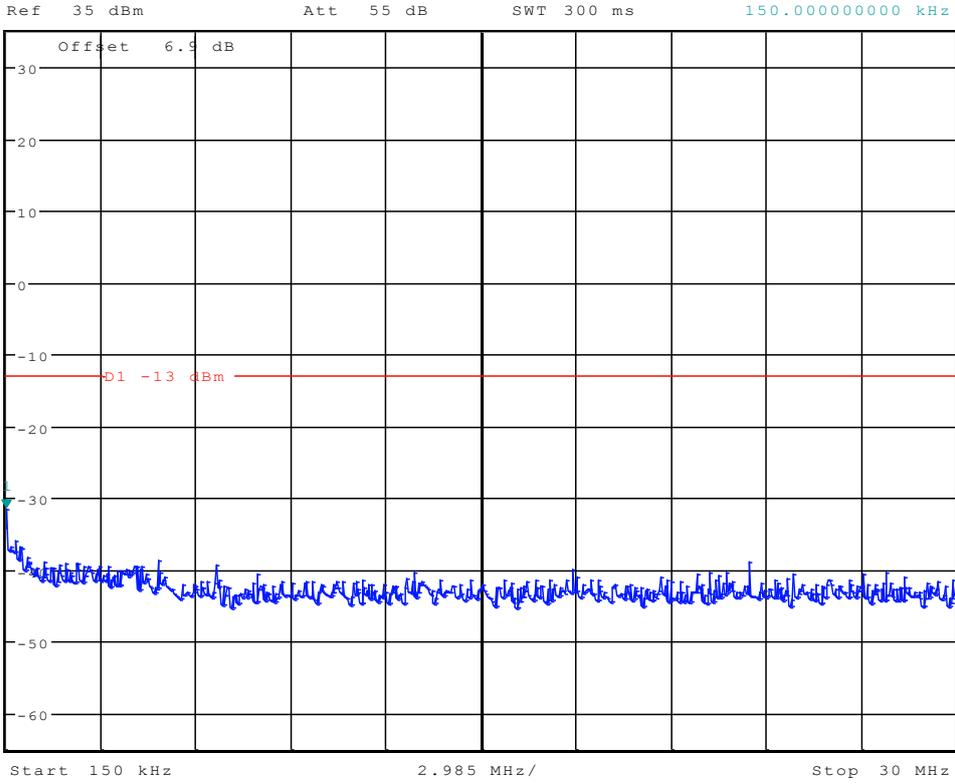


* RBW 1 kHz
* VBW 10 kHz
Marker 1 [T1]
-36.48 dBm
9.000000000 kHz



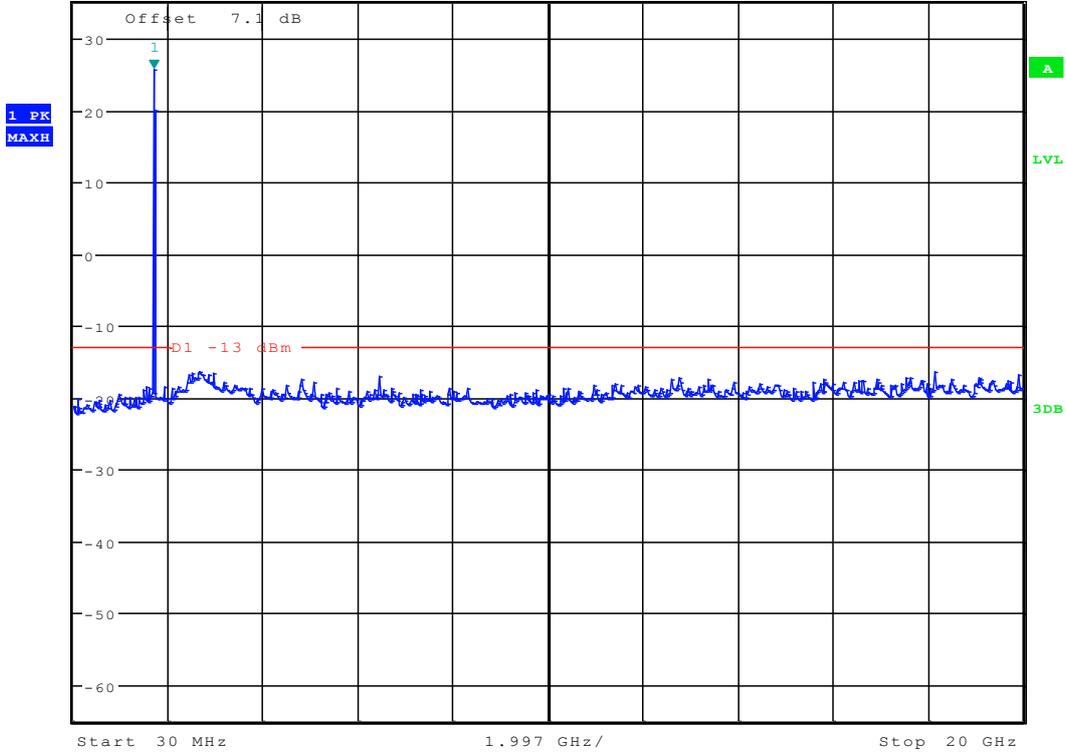


* RBW 10 kHz Marker 1 [T1]
* VBW 30 kHz -31.51 dBm
SWT 300 ms 150.000000000 kHz



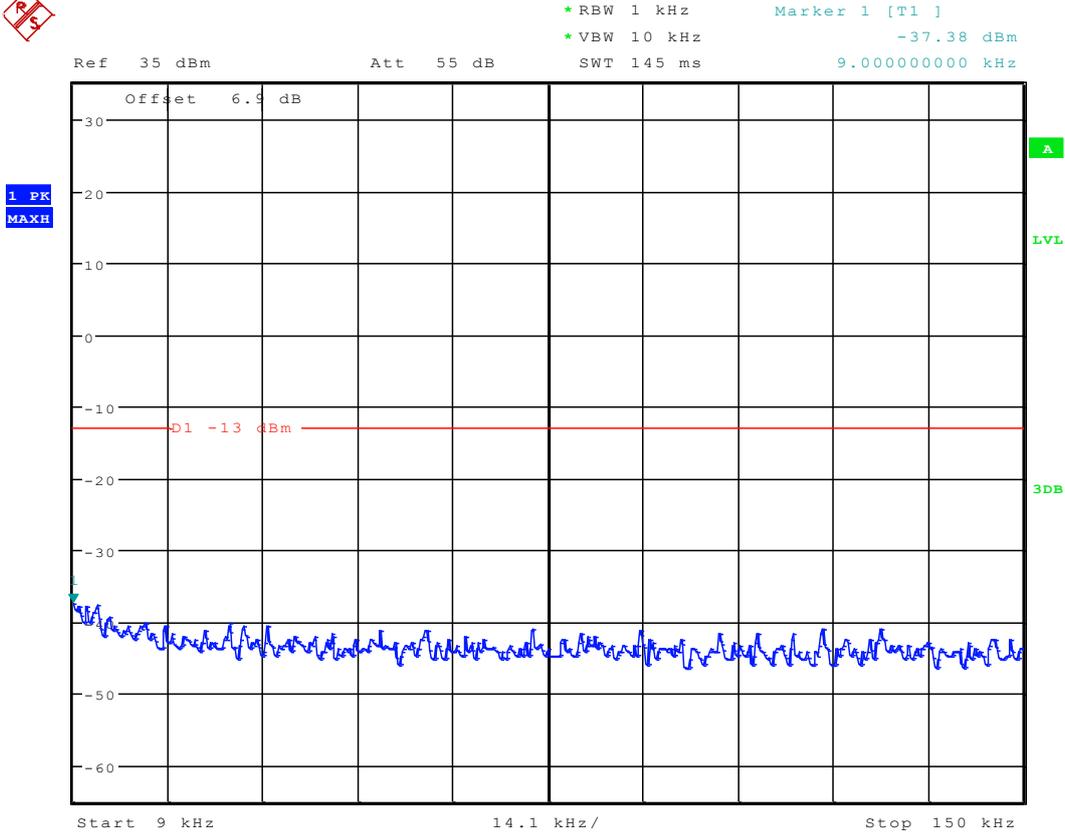


Ref 35 dBm Att 55 dB *RBW 1 MHz *VBW 3 MHz SWT 115 ms
Marker 1 [T1] 25.55 dBm
1.726169872 GHz



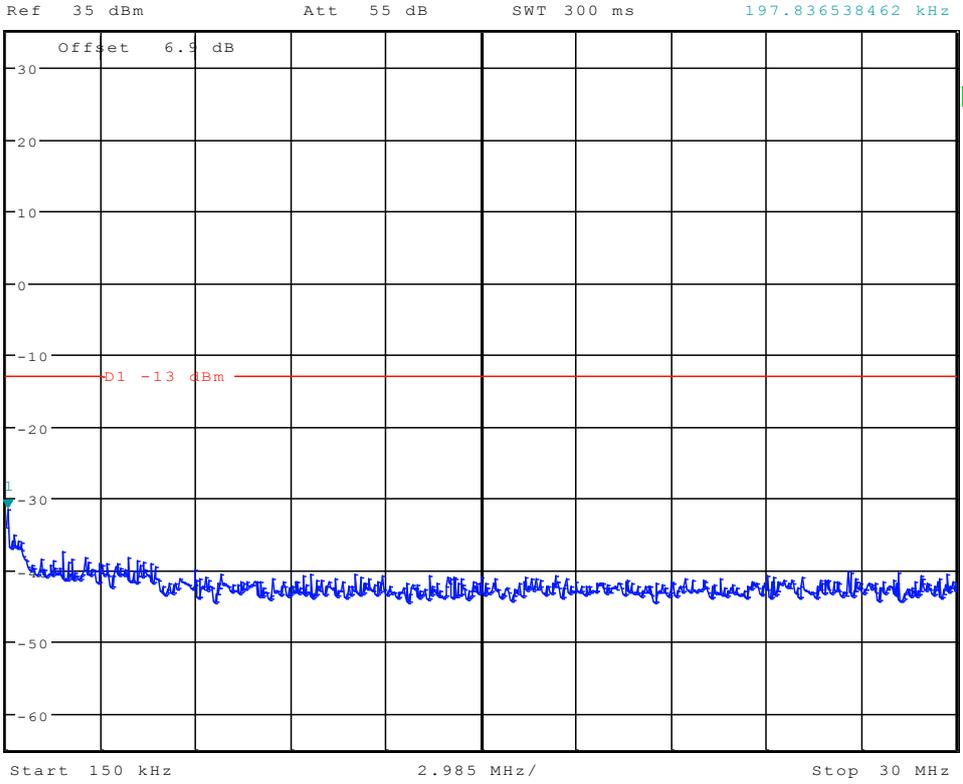


EVDO subtype 0 Channel 25





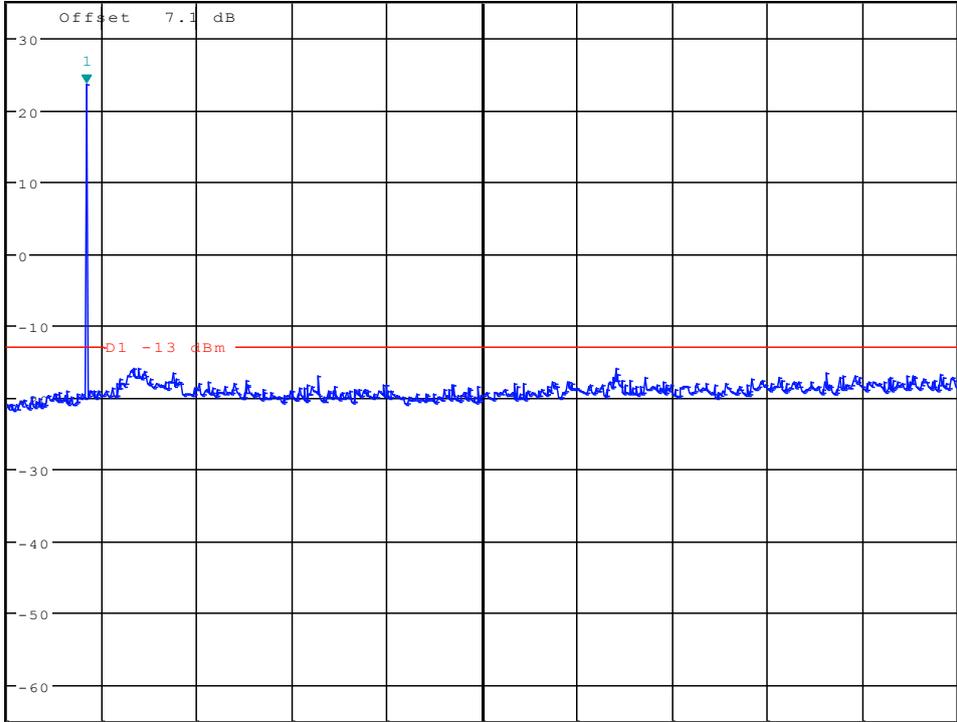
* RBW 10 kHz Marker 1 [T1]
* VBW 30 kHz -31.51 dBm
SWT 300 ms 197.836538462 kHz





Ref 35 dBm Att 55 dB Offset 7.1 dB
*RBW 1 MHz *VBW 3 MHz Marker 1 [T1]
SWT 115 ms 23.64 dBm
1.694166667 GHz

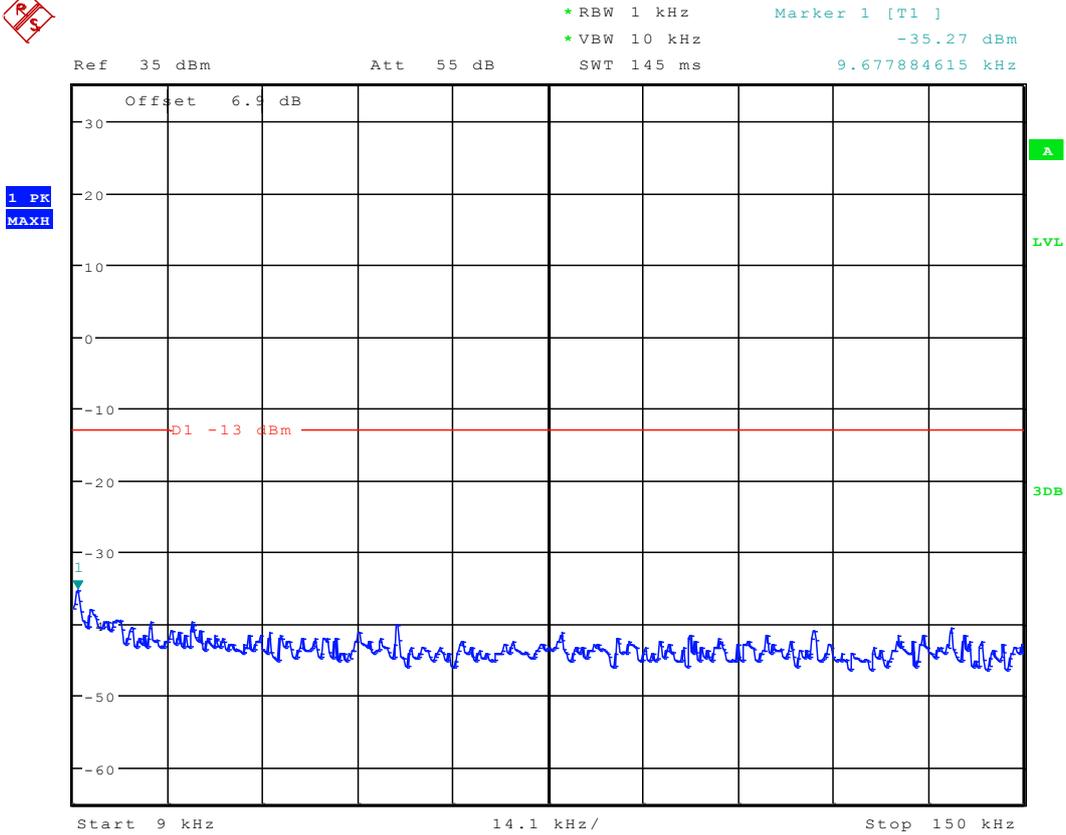
1 PK
MAXH



Start 30 MHz 1.997 GHz/ Stop 20 GHz



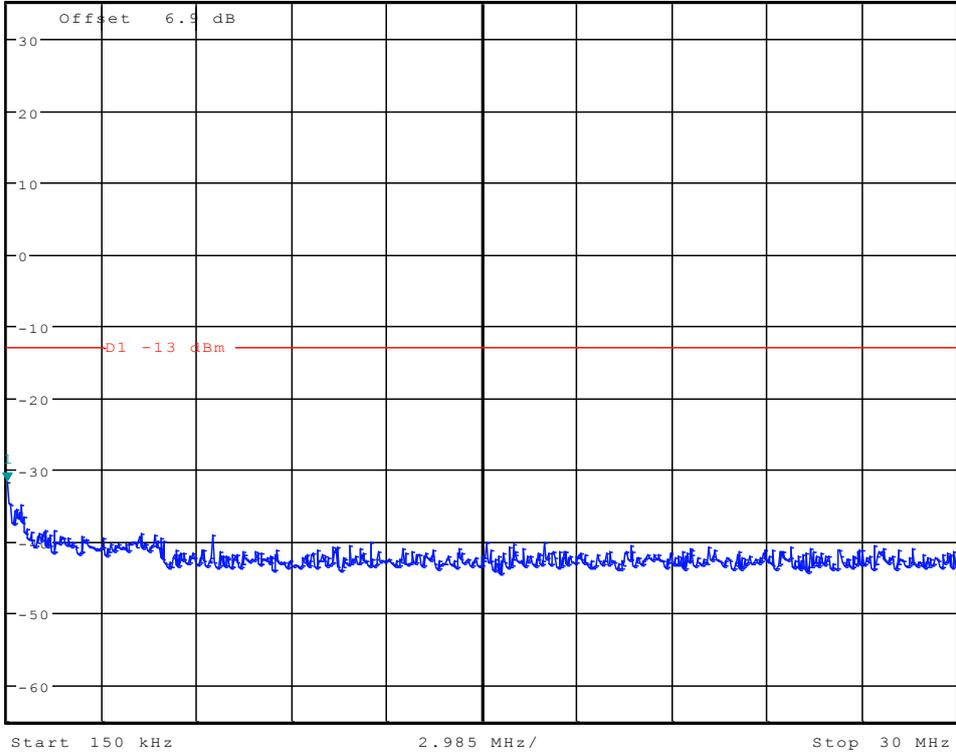
Channel 450





*RBW 10 kHz Marker 1 [T1]
*VBW 30 kHz -31.80 dBm
Ref 35 dBm Att 55 dB SWT 300 ms 150.000000000 kHz

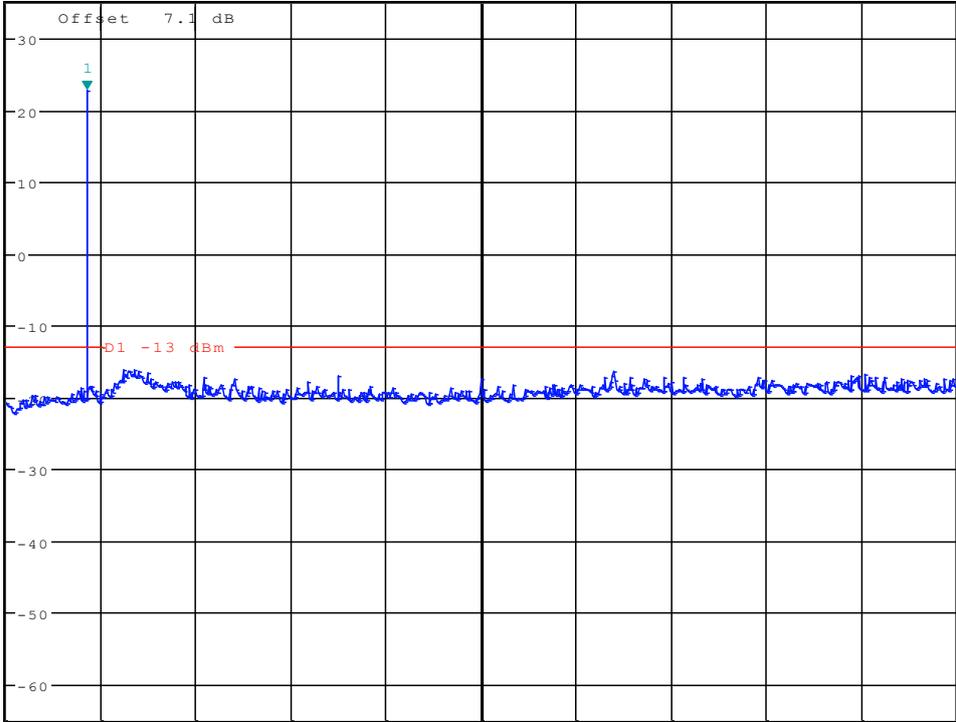
1 PK
MAXH





Ref 35 dBm Att 55 dB * RBW 1 MHz * VBW 3 MHz SWT 115 ms
Marker 1 [T1] 22.63 dBm
1.726169872 GHz

1 PK
MAXH



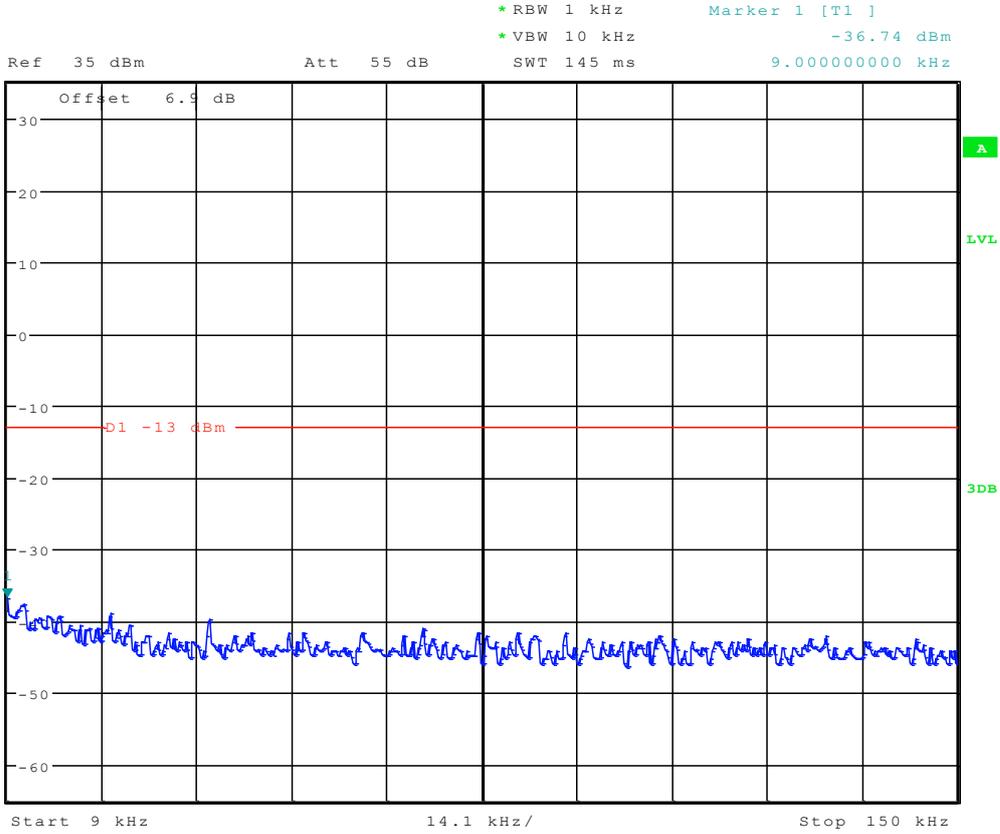
Start 30 MHz 1.997 GHz/ Stop 20 GHz



Channel 875

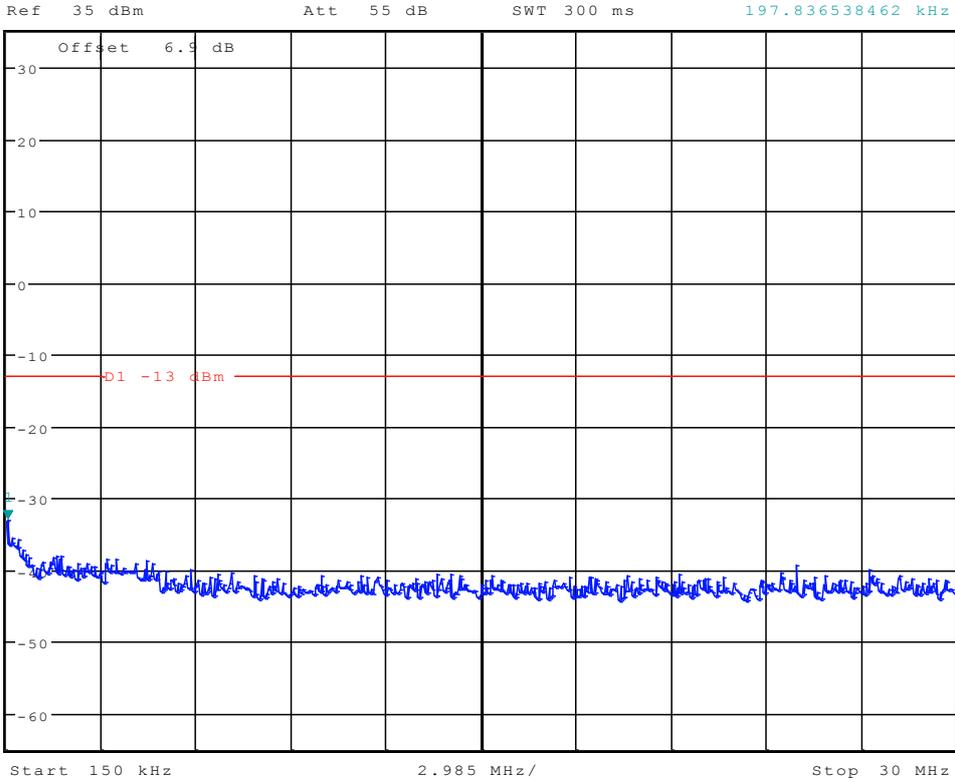


1 PK
MAXH



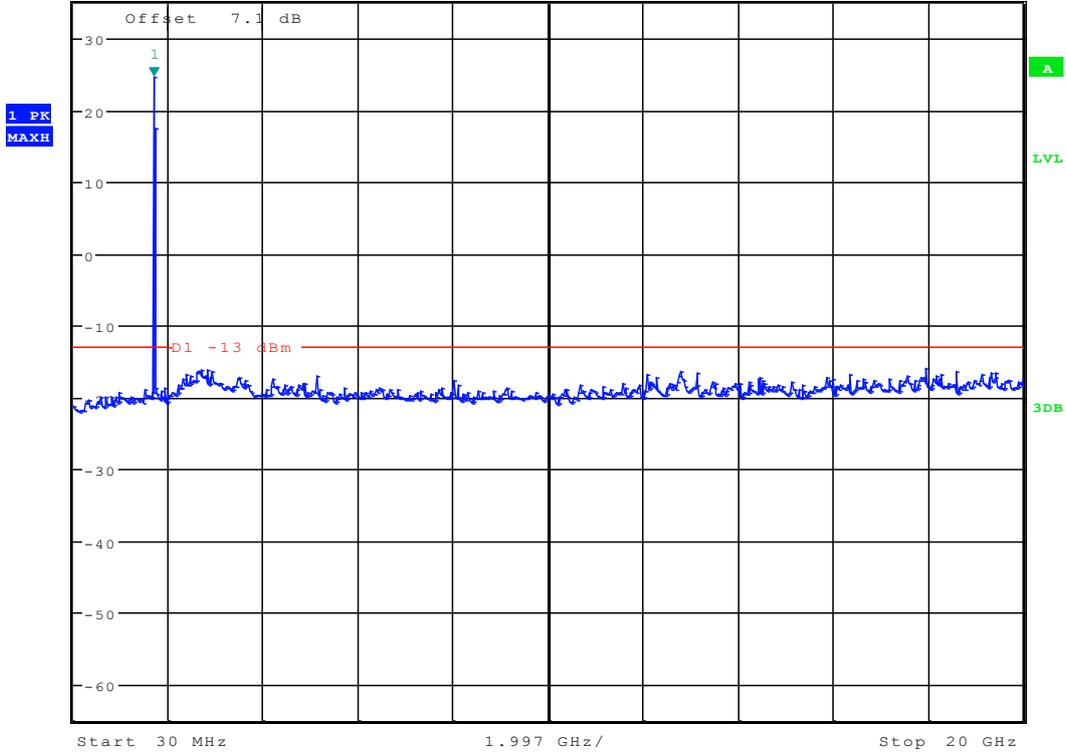


* RBW 10 kHz Marker 1 [T1]
* VBW 30 kHz -33.04 dBm
SWT 300 ms 197.836538462 kHz





Ref 35 dBm Att 55 dB * RBW 1 MHz * VBW 3 MHz SWT 115 ms
Marker 1 [T1] 24.56 dBm
1.726169872 GHz

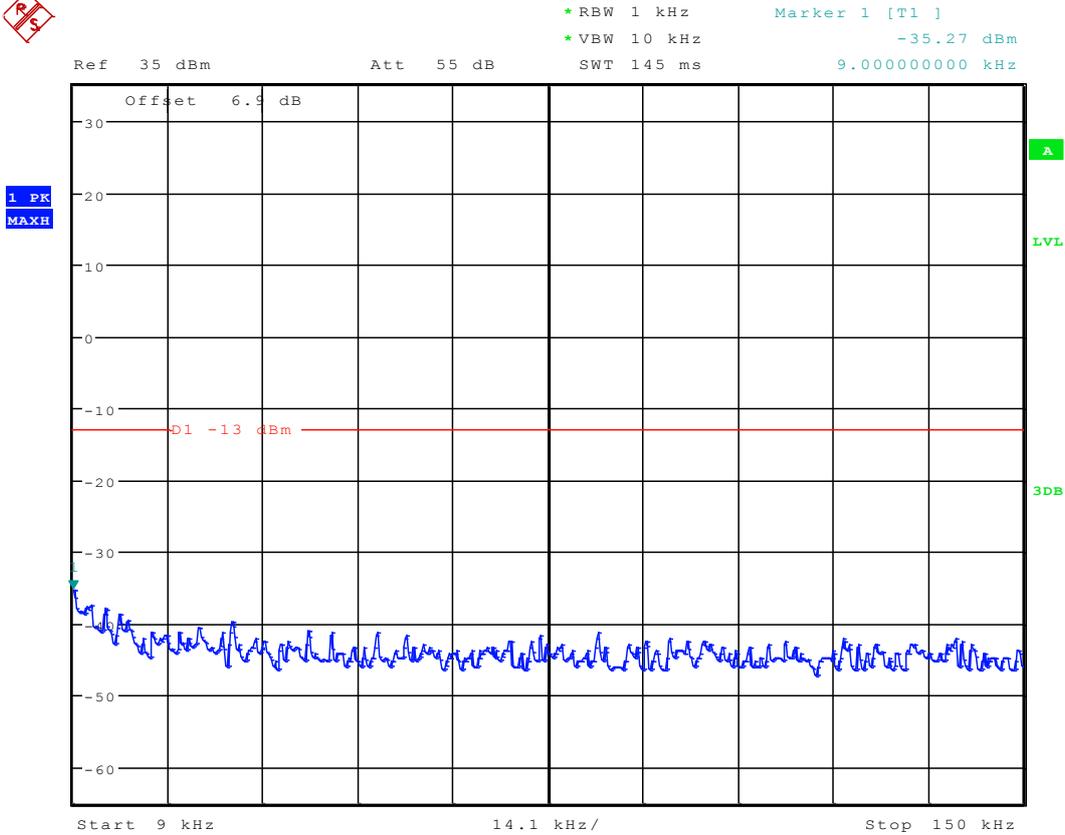




EVDO subtype 2

Modulation: BPSK

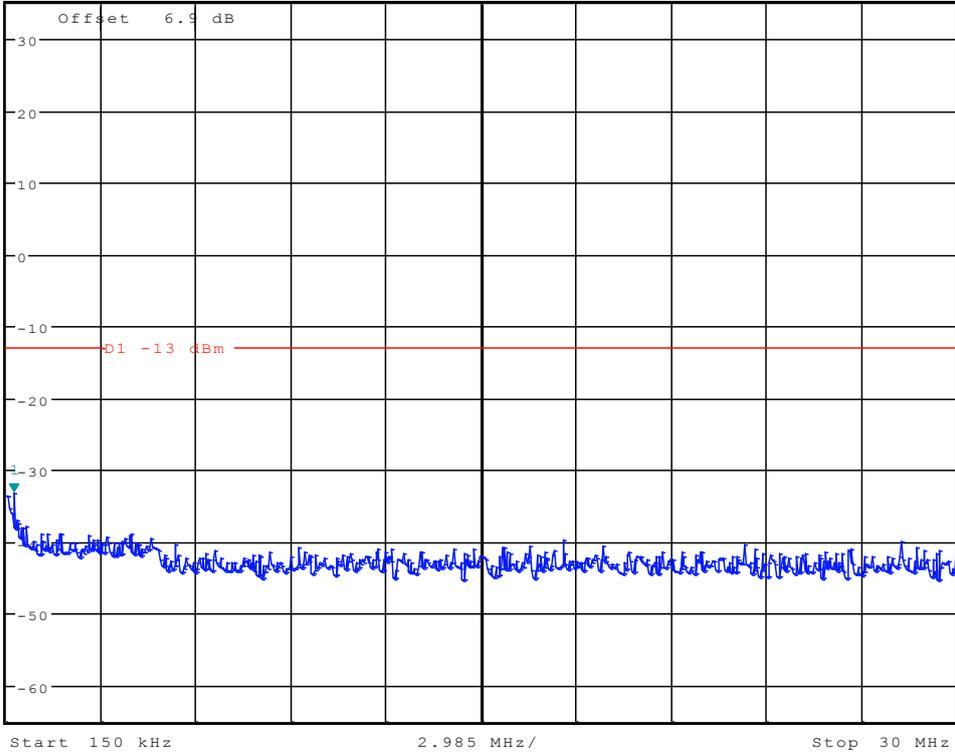
Channel 25

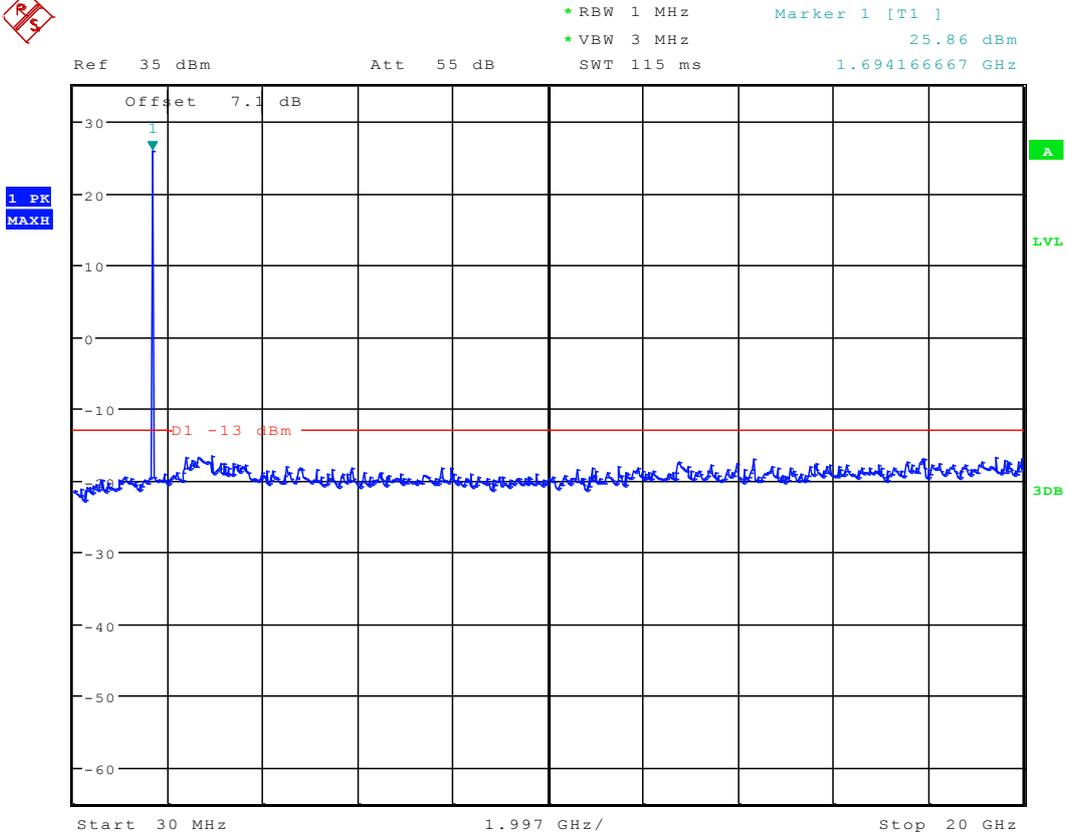




*RBW 10 kHz Marker 1 [T1]
*VBW 30 kHz -33.26 dBm
Ref 35 dBm Att 55 dB SWT 300 ms 389.182692308 kHz

1 PK
MAXH



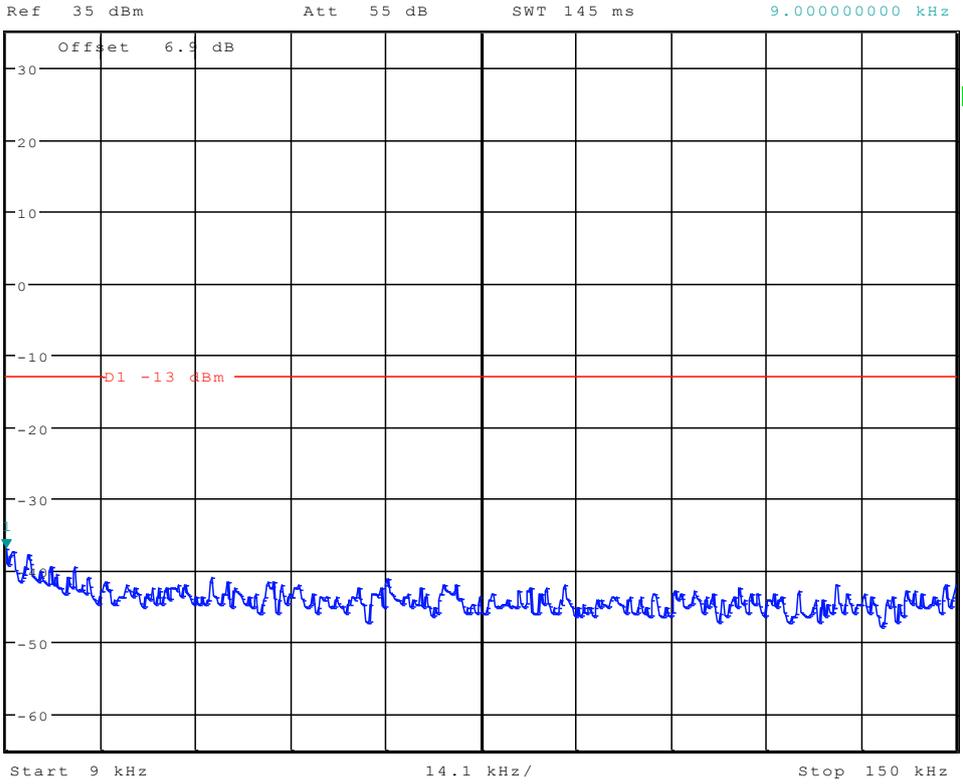




Channel 450



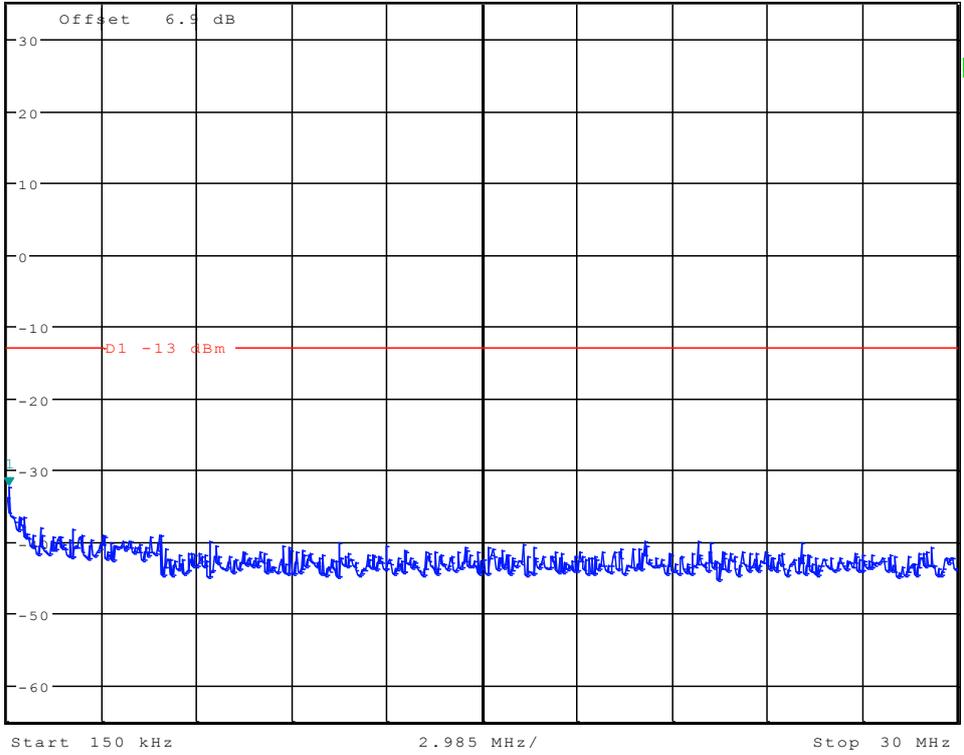
*RBW 1 kHz Marker 1 [T1]
*VBW 10 kHz -36.92 dBm
SWT 145 ms 9.000000000 kHz





* RBW 10 kHz Marker 1 [T1]
* VBW 30 kHz -32.43 dBm
Ref 35 dBm Att 55 dB SWT 300 ms 197.836538462 kHz

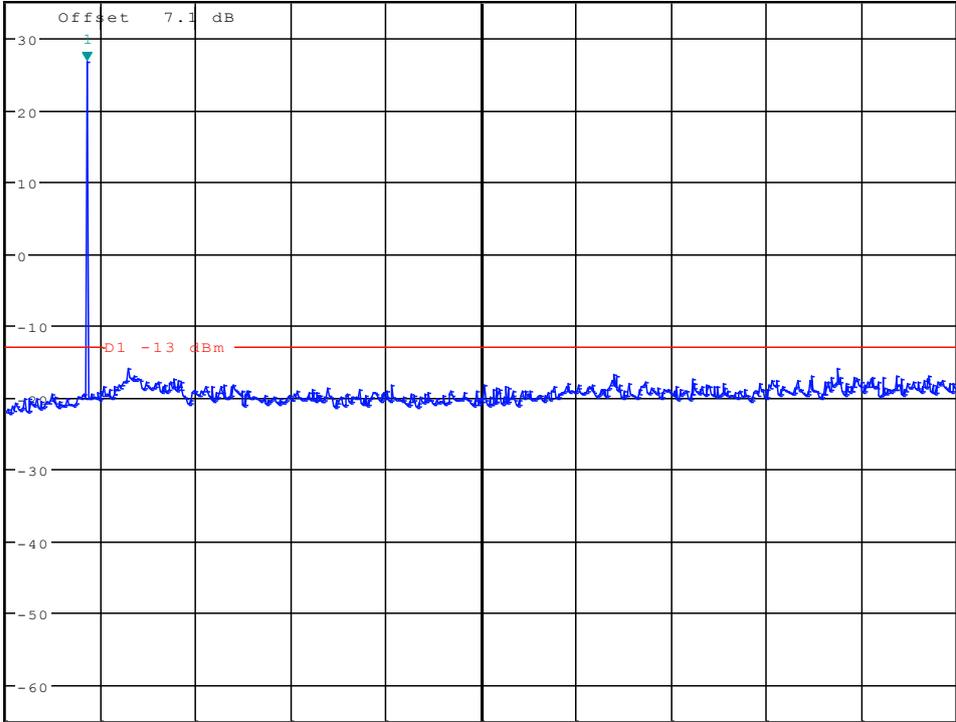
1 PK
MAXH





Ref 35 dBm Att 55 dB *RBW 1 MHz *VBW 3 MHz SWT 115 ms Marker 1 [T1]
26.73 dBm
1.726169872 GHz

1 PK
MAXH



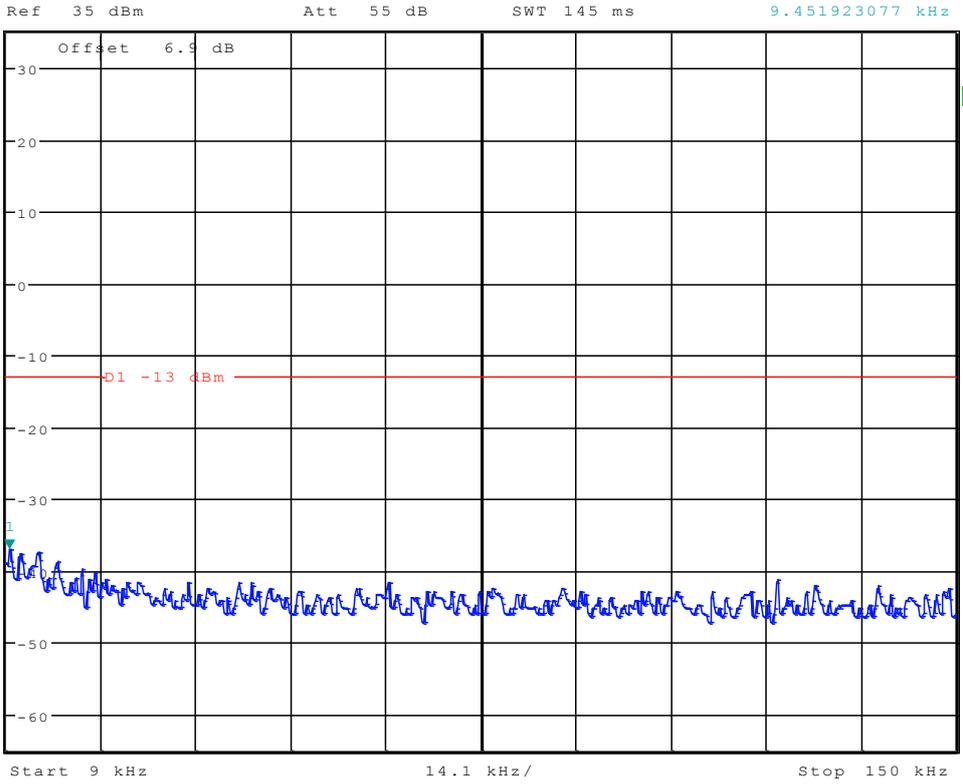
Start 30 MHz 1.997 GHz/ Stop 20 GHz



Channel 875

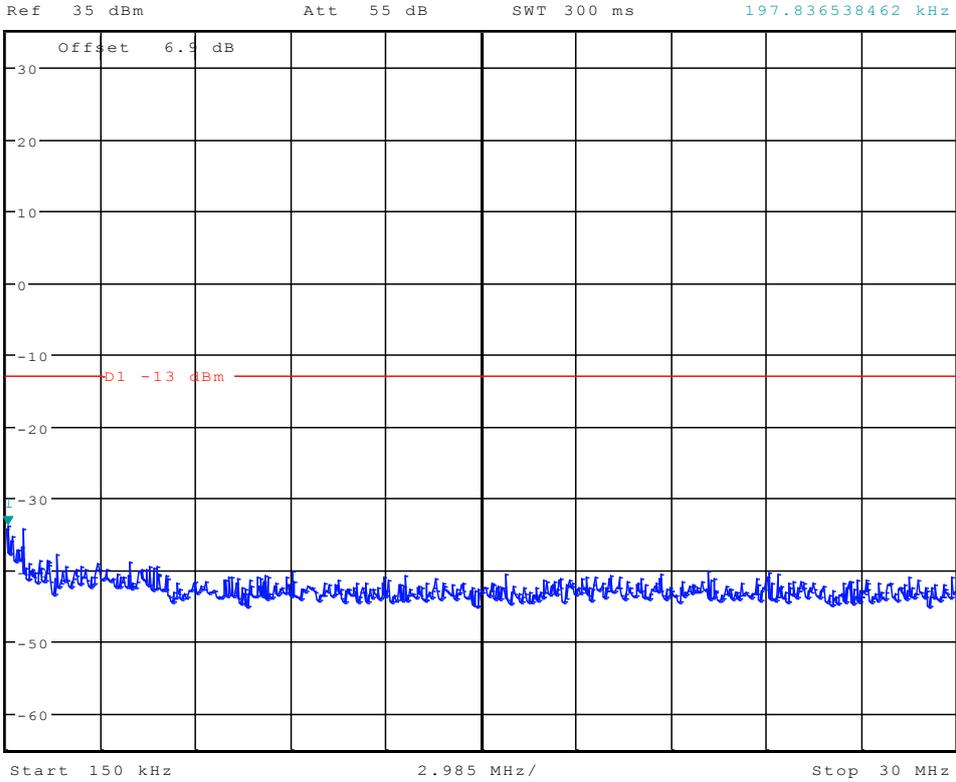


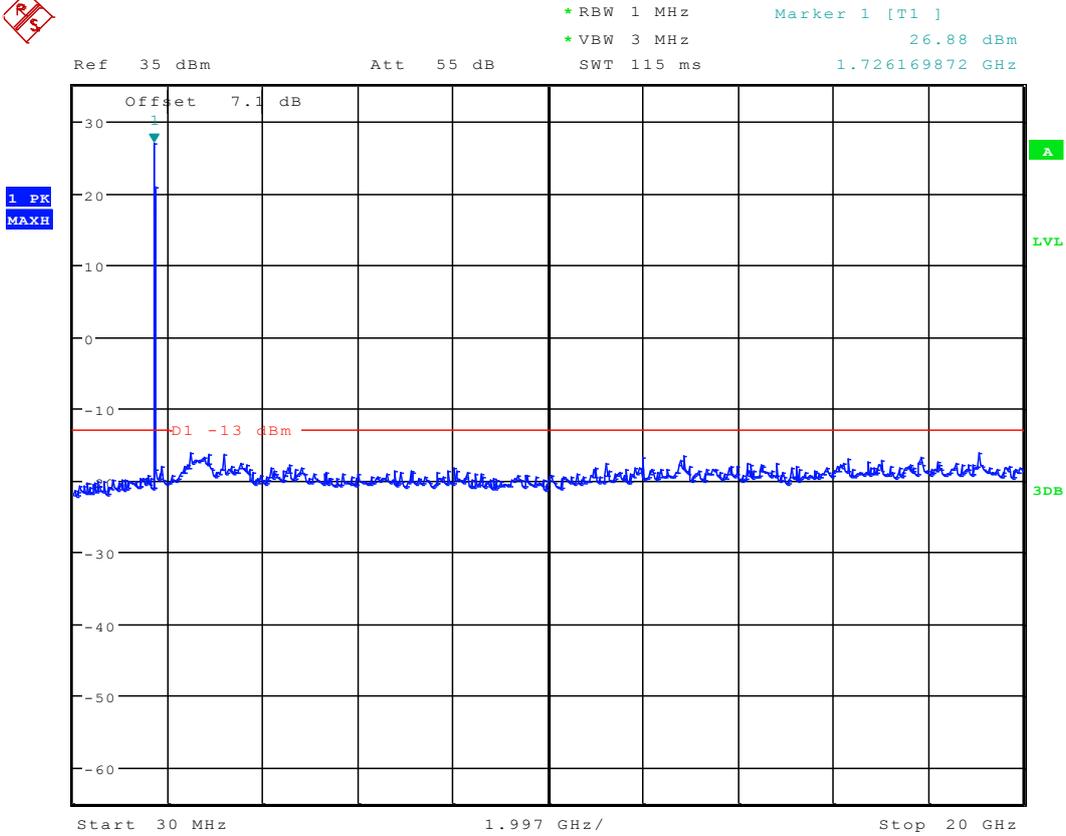
*RBW 1 kHz Marker 1 [T1]
*VBW 10 kHz -36.92 dBm
SWT 145 ms 9.451923077 kHz





* RBW 10 kHz Marker 1 [T1]
* VBW 30 kHz -33.70 dBm
SWT 300 ms 197.836538462 kHz



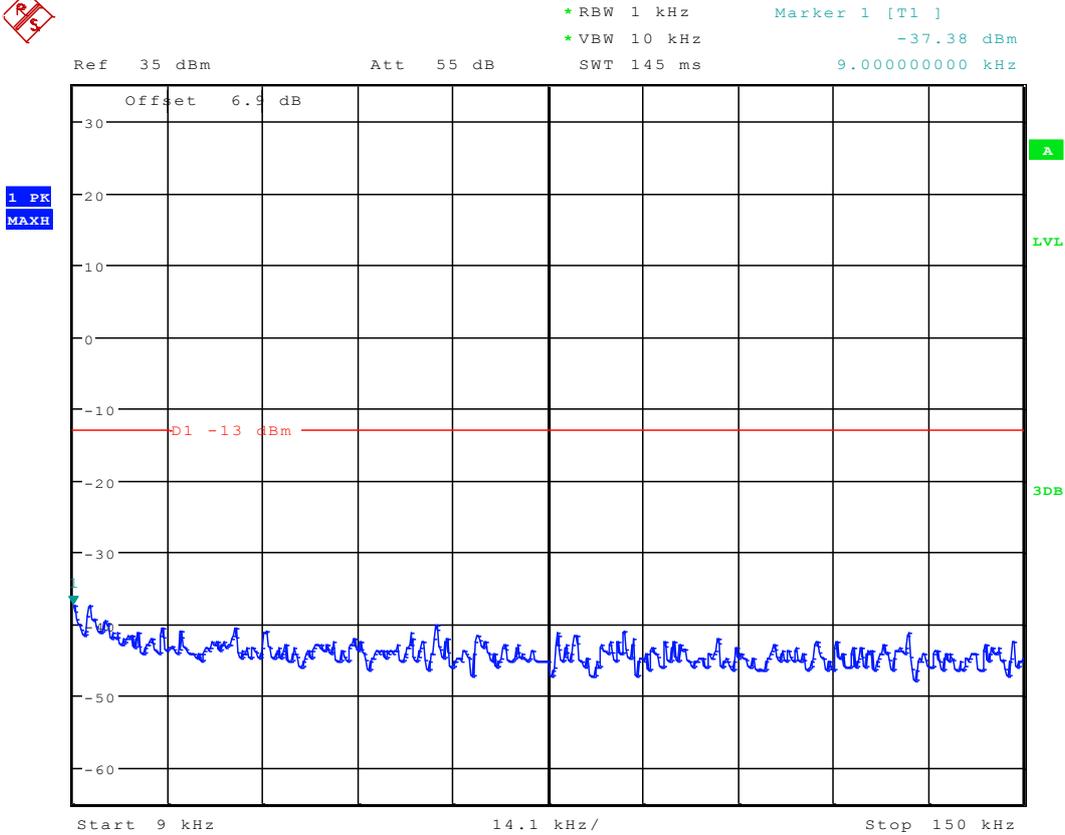




EVDO subtype 2

Modulation:QPSK

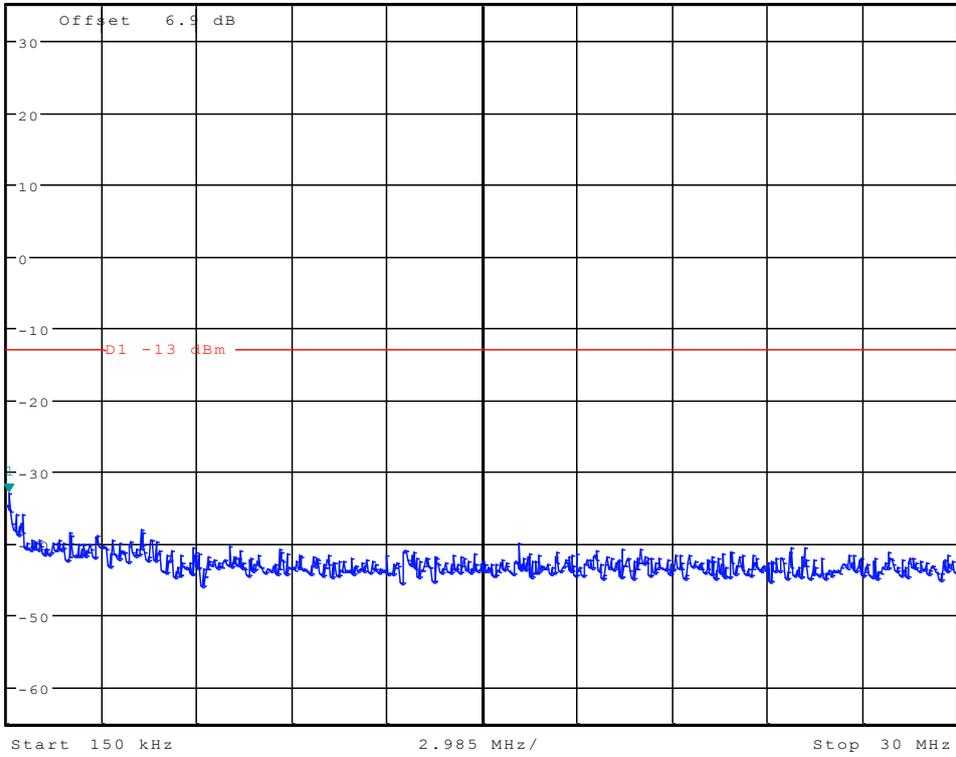
Channel 25





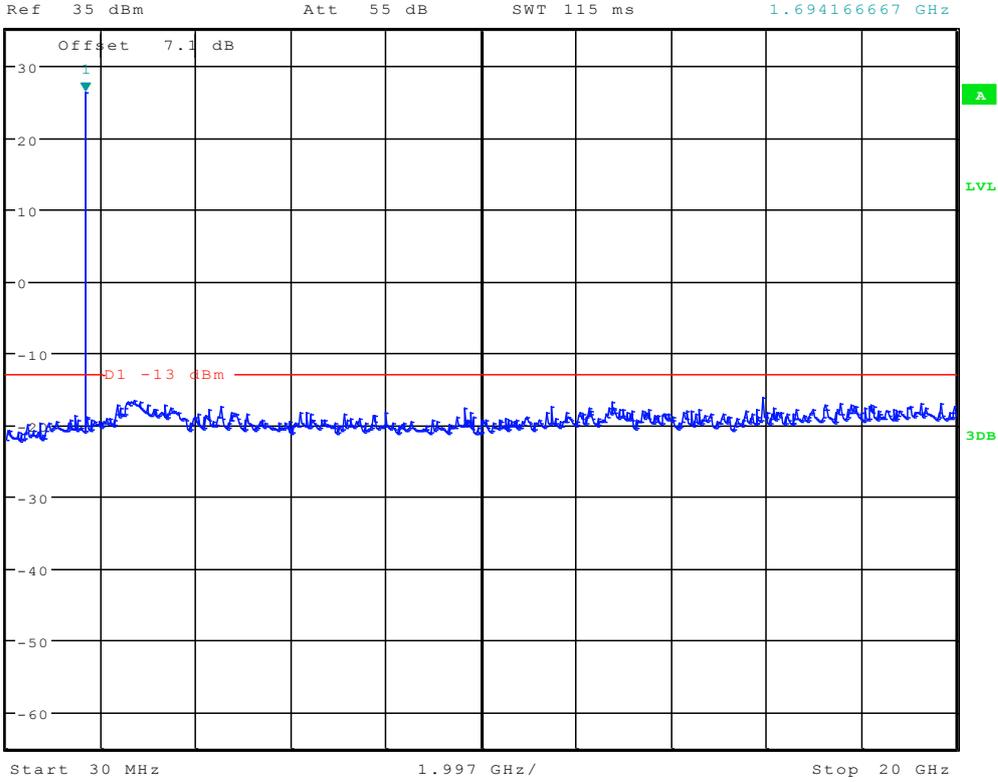
*RBW 10 kHz Marker 1 [T1]
*VBW 30 kHz -32.87 dBm
Ref 35 dBm Att 55 dB SWT 300 ms 197.836538462 kHz

1 PK
MAXH





*RBW 1 MHz Marker 1 [T1]
*VBW 3 MHz 26.25 dBm
SWT 115 ms 1.694166667 GHz

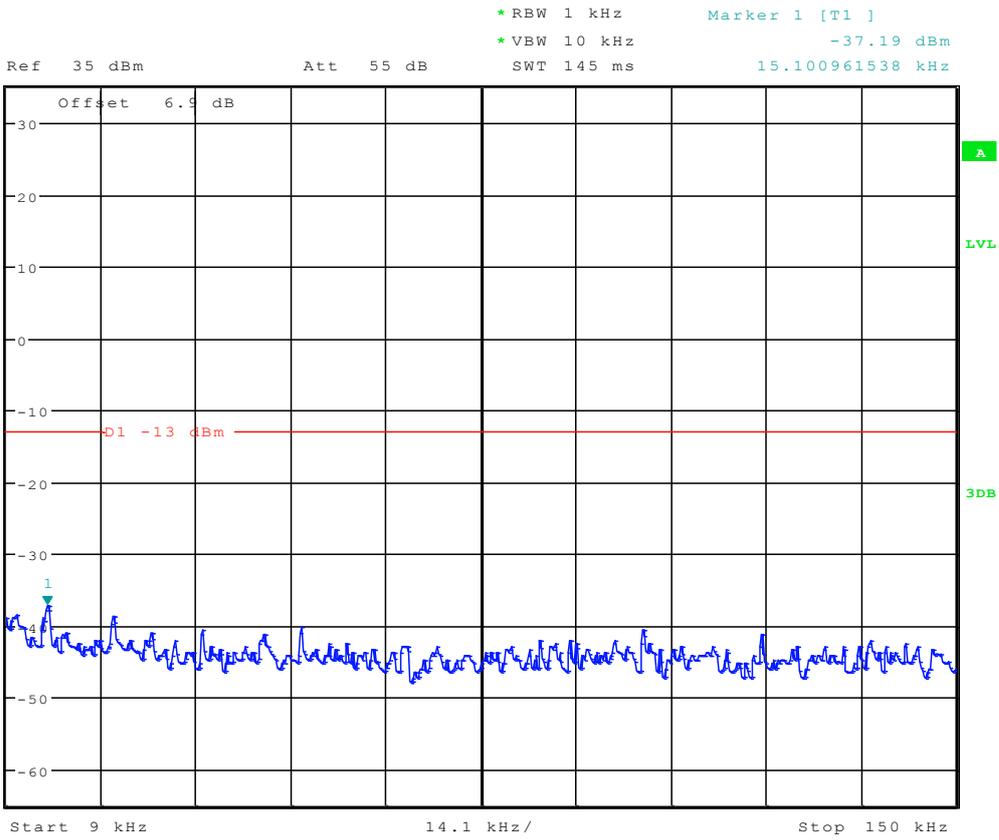




Channel 450



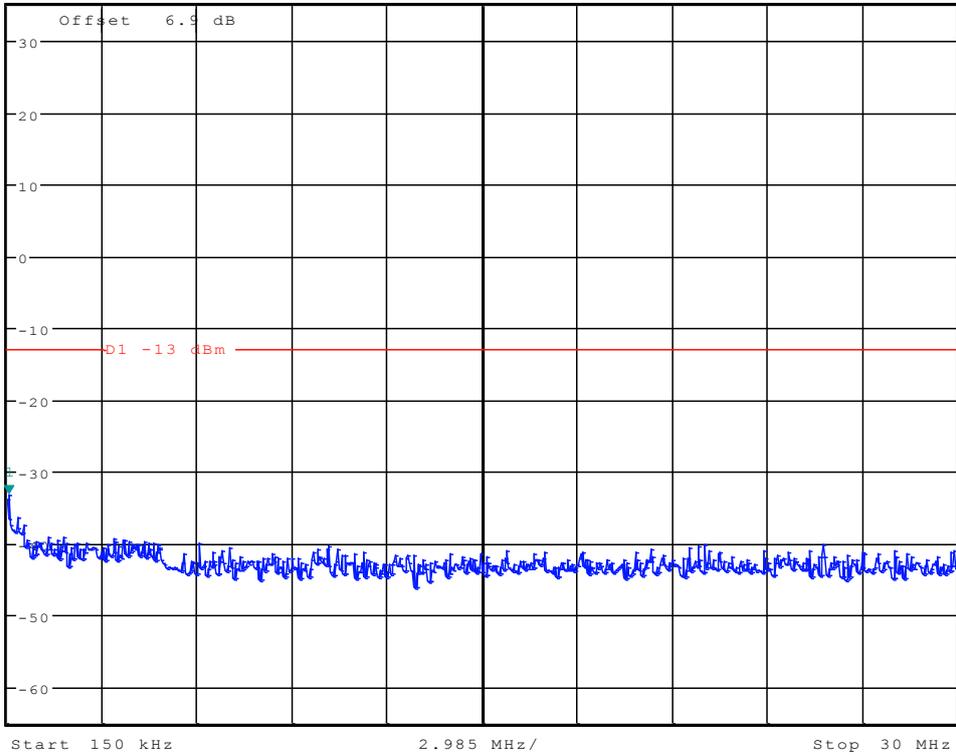
1 PK
MAXH





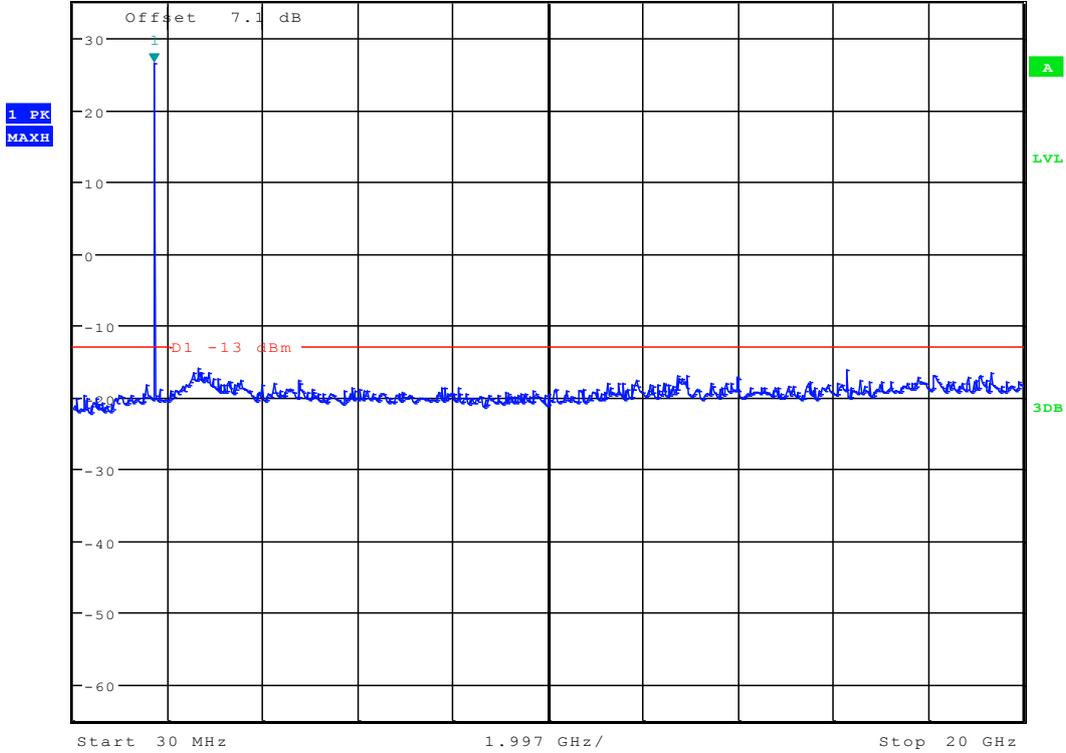
*RBW 10 kHz Marker 1 [T1]
*VBW 30 kHz -33.22 dBm
Ref 35 dBm Att 55 dB SWT 300 ms 197.836538462 kHz

1 PK
MAXH



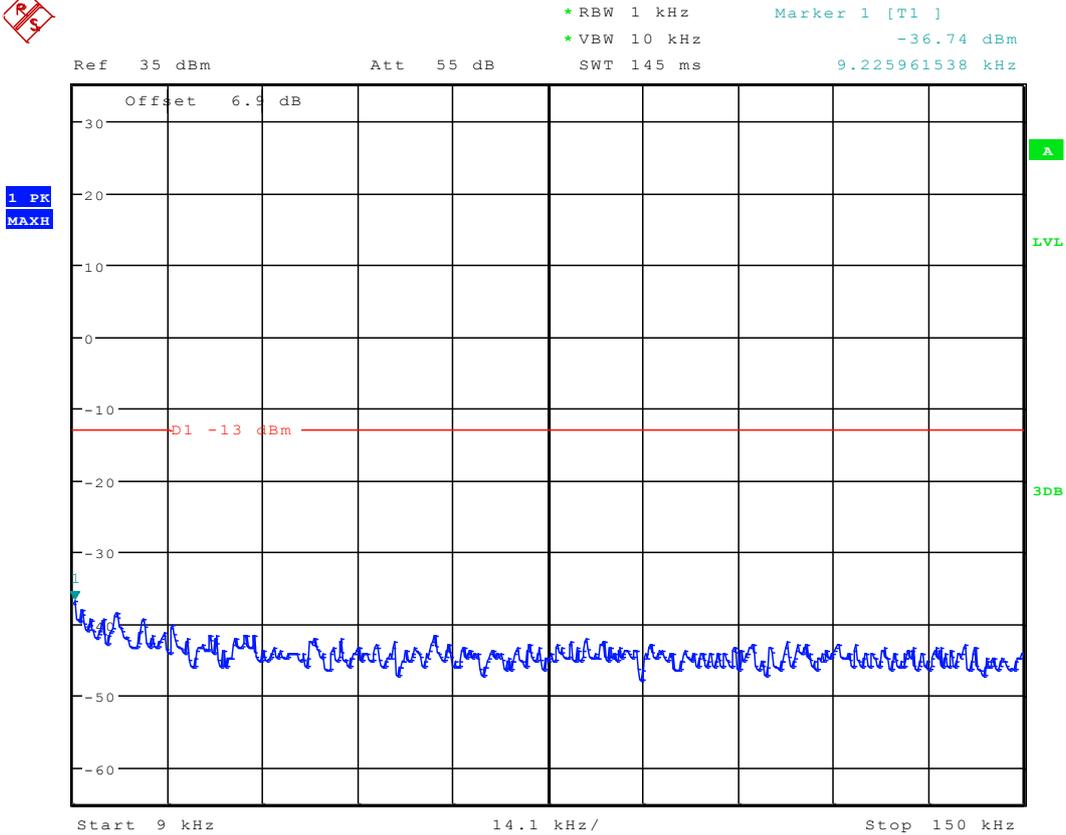


Ref 35 dBm Att 55 dB *RBW 1 MHz *VBW 3 MHz SWT 115 ms Marker 1 [T1]
26.57 dBm
1.726169872 GHz





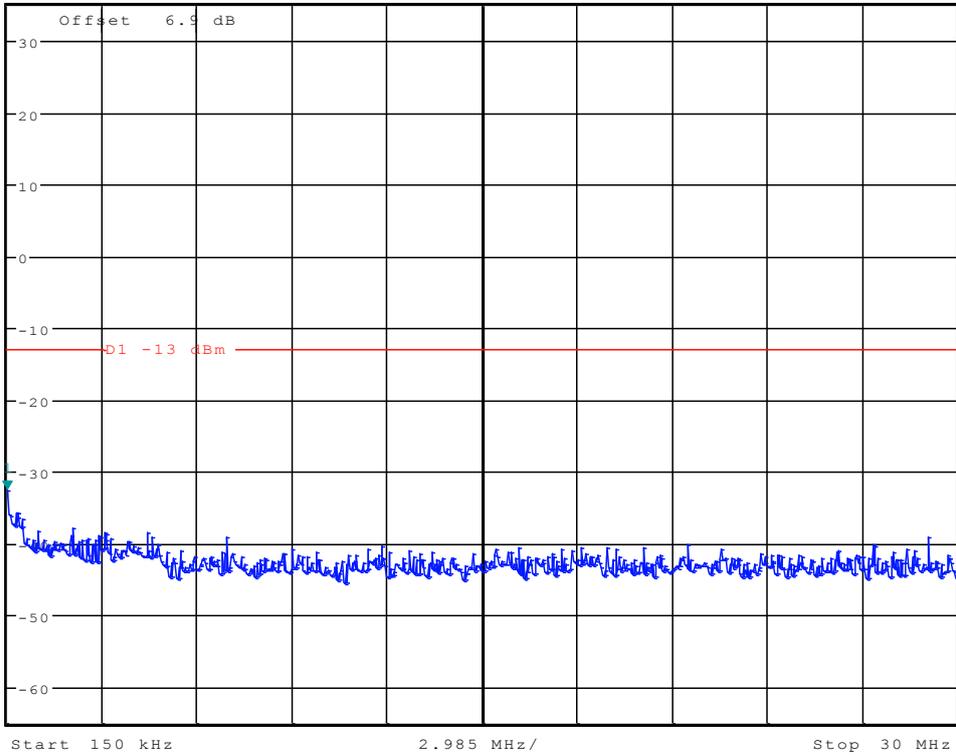
Channel 875





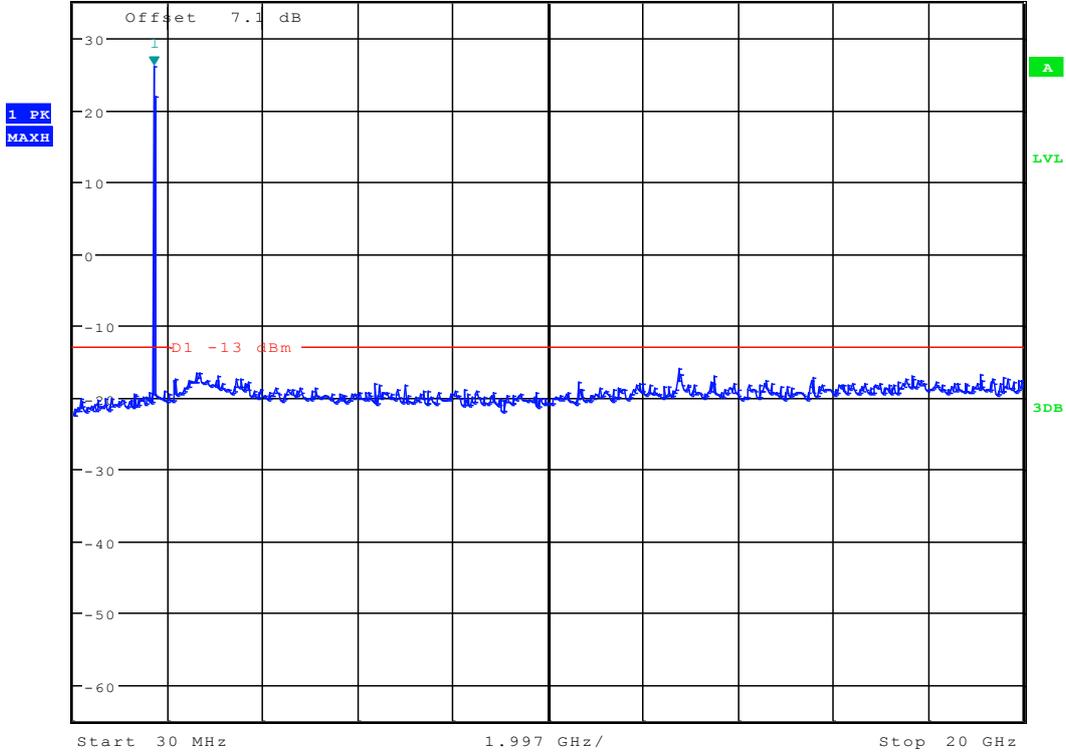
*RBW 10 kHz Marker 1 [T1]
*VBW 30 kHz -32.59 dBm
Ref 35 dBm Att 55 dB SWT 300 ms 150.000000000 kHz

1 PK
MAXH





Ref 35 dBm Att 55 dB * RBW 1 MHz * VBW 3 MHz SWT 115 ms Marker 1 [T1] 25.98 dBm
1.726169872 GHz





EVDO subtype 2

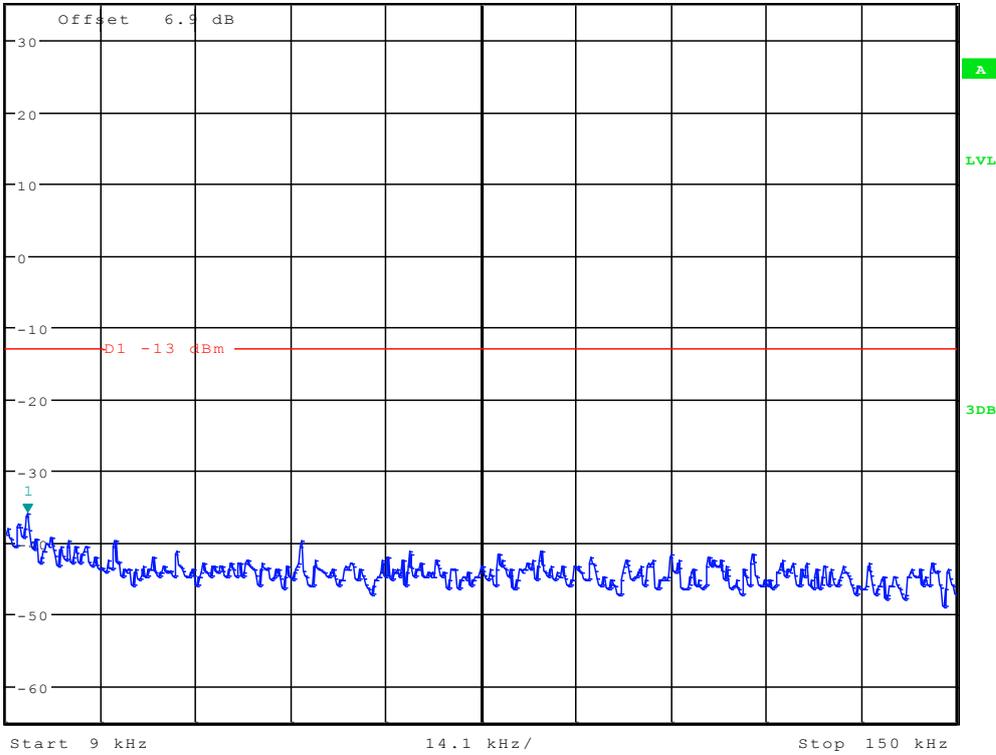
Modulation:8PSK

Channel 25



Ref 35 dBm Att 55 dB *RBW 1 kHz *VBW 10 kHz Marker 1 [T1] -35.89 dBm
SWT 145 ms 12.163461538 kHz

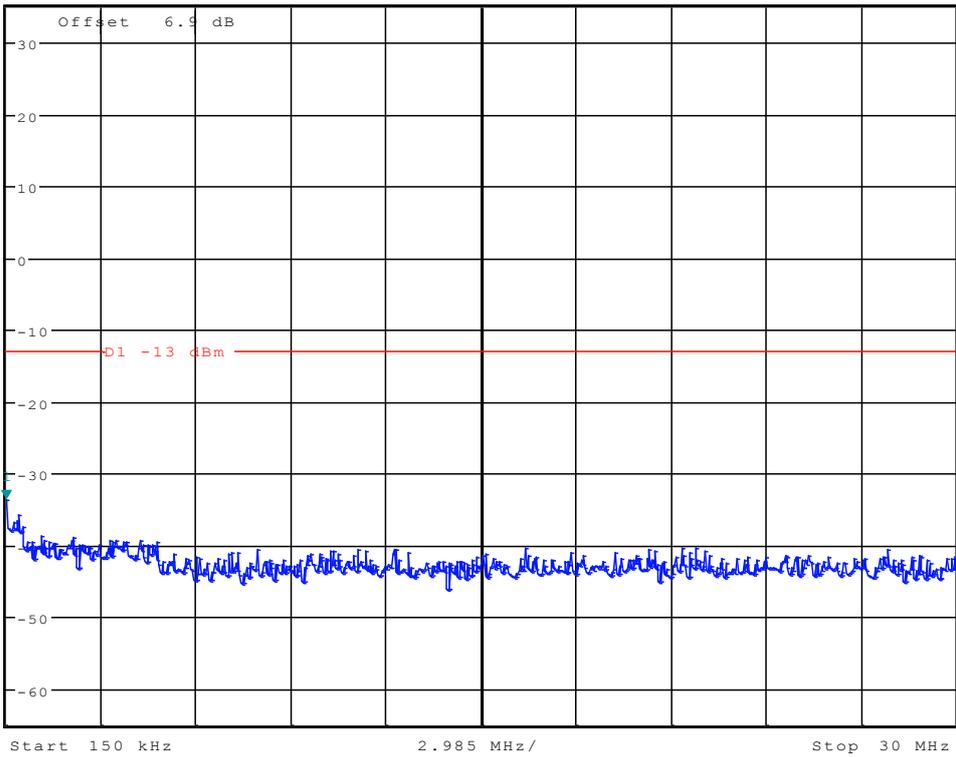
1 PK
MAXH

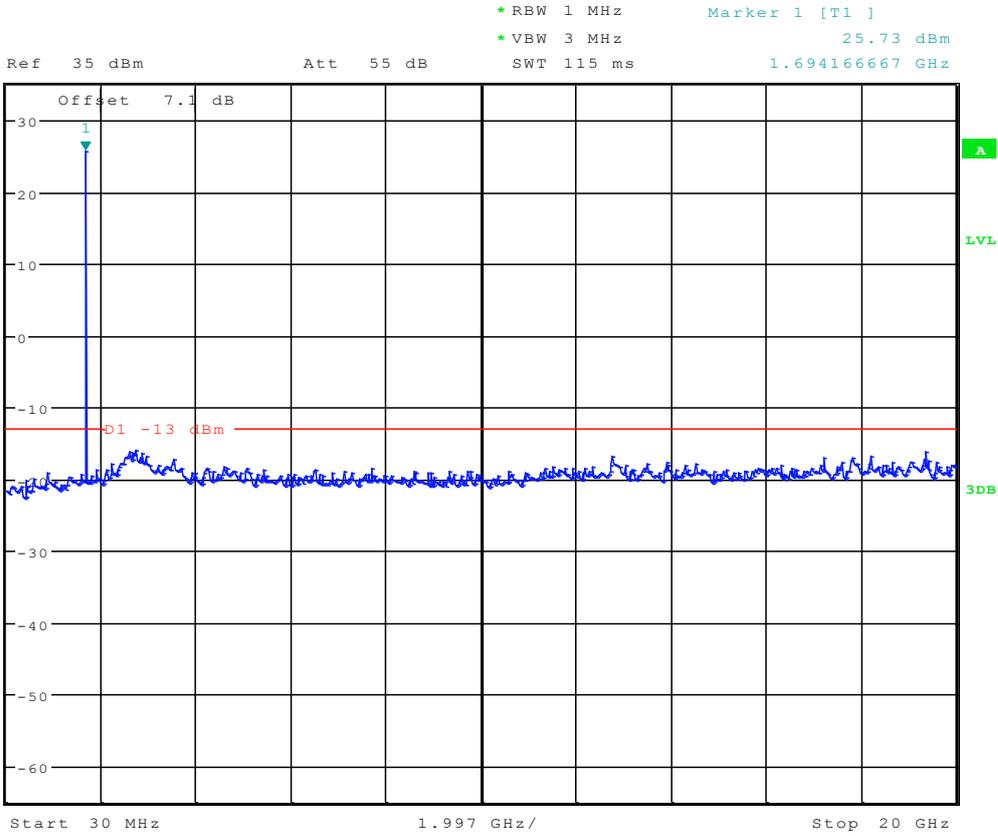




Ref 35 dBm Att 55 dB SWT 300 ms
*RBW 10 kHz *VBW 30 kHz
Marker 1 [T1] -33.64 dBm
150.000000000 kHz

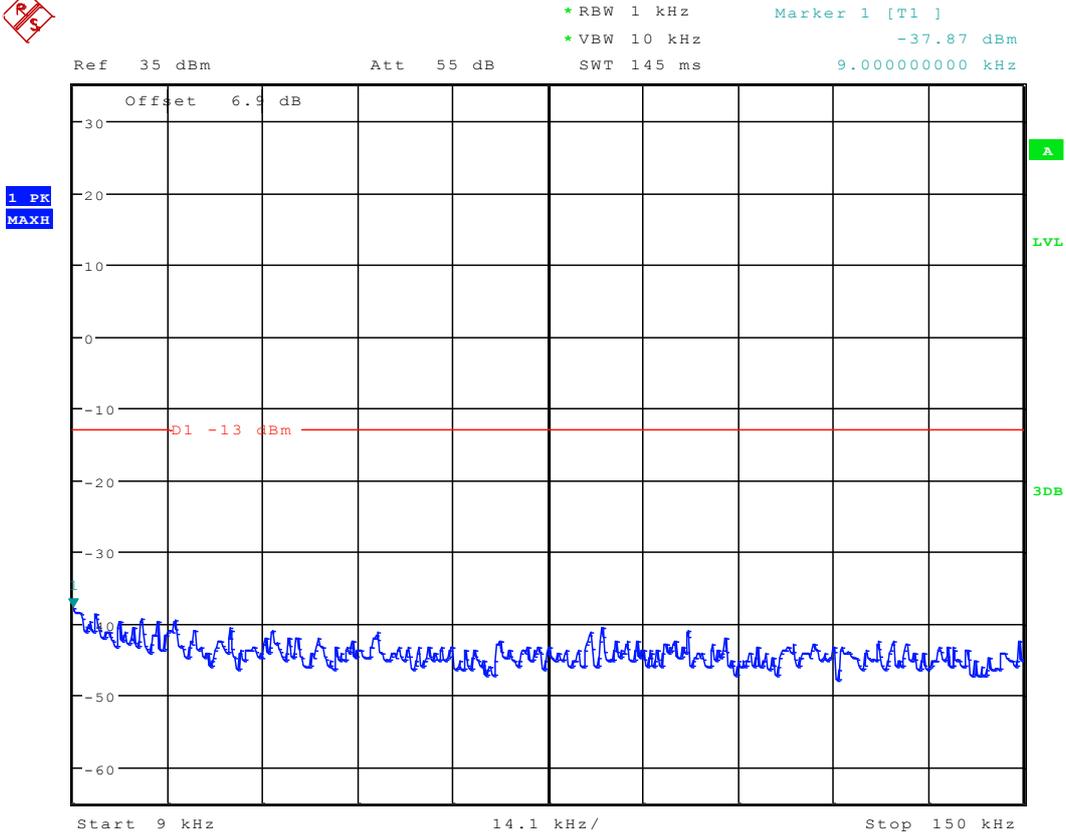
1 PK
MAXH







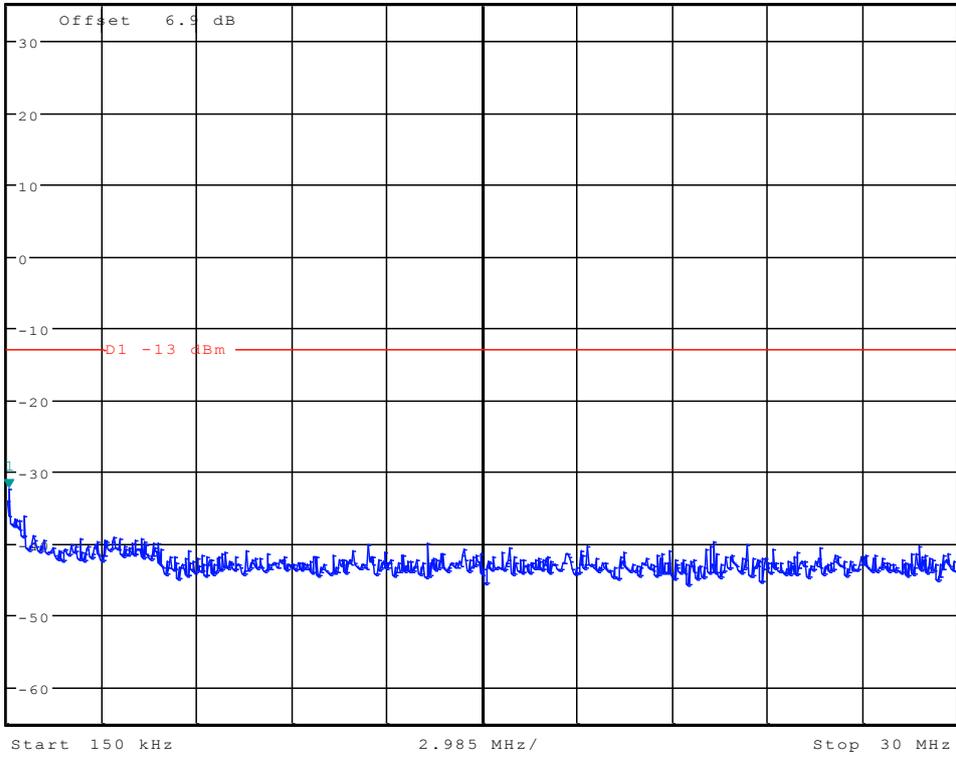
Channel 450





*RBW 10 kHz Marker 1 [T1]
*VBW 30 kHz -32.32 dBm
Ref 35 dBm Att 55 dB SWT 300 ms 197.836538462 kHz

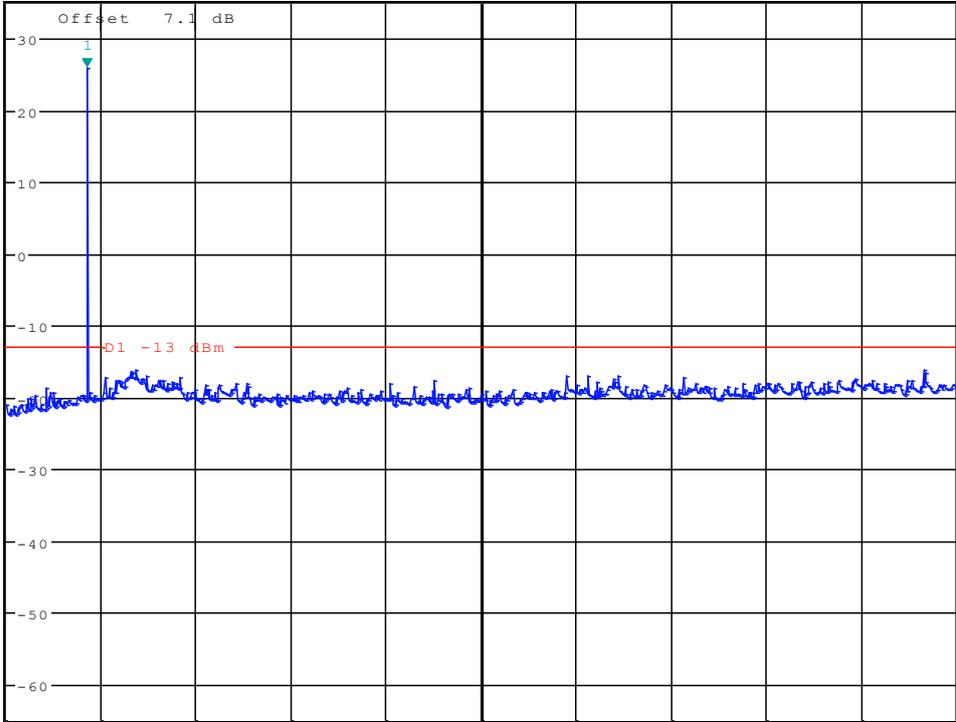
1 PK
MAXH





Ref 35 dBm Att 55 dB * RBW 1 MHz * VBW 3 MHz SWT 115 ms
Marker 1 [T1] 25.95 dBm
1.726169872 GHz

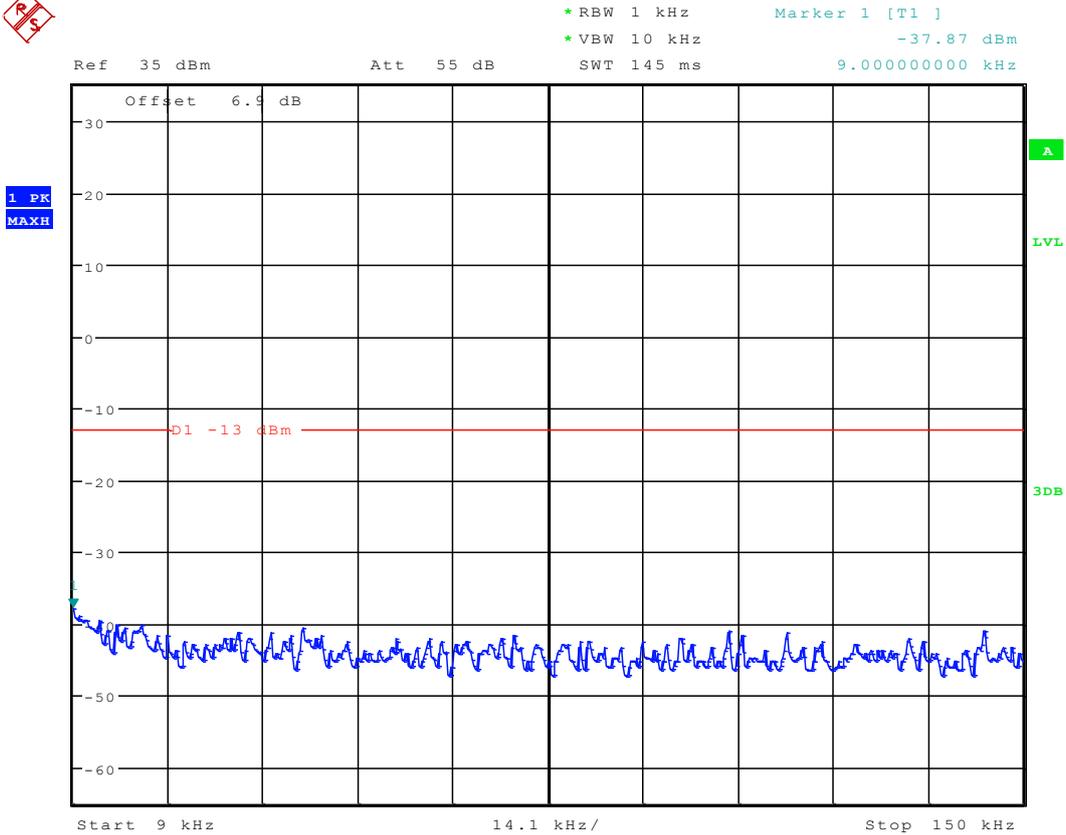
1 PK
MAXH



Start 30 MHz 1.997 GHz/ Stop 20 GHz

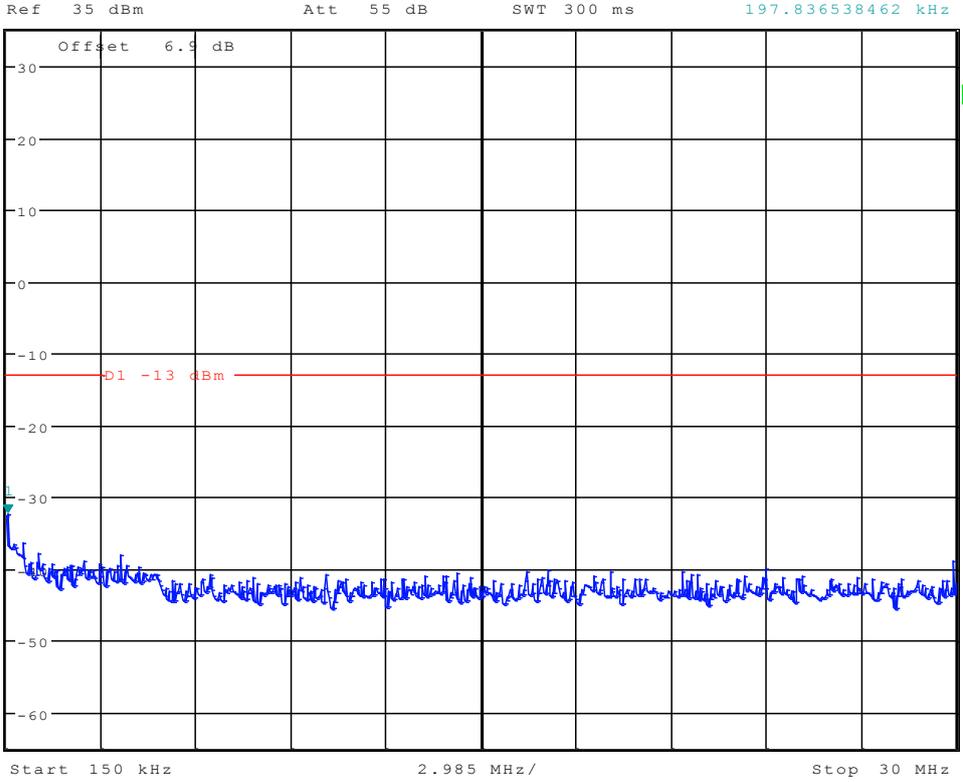


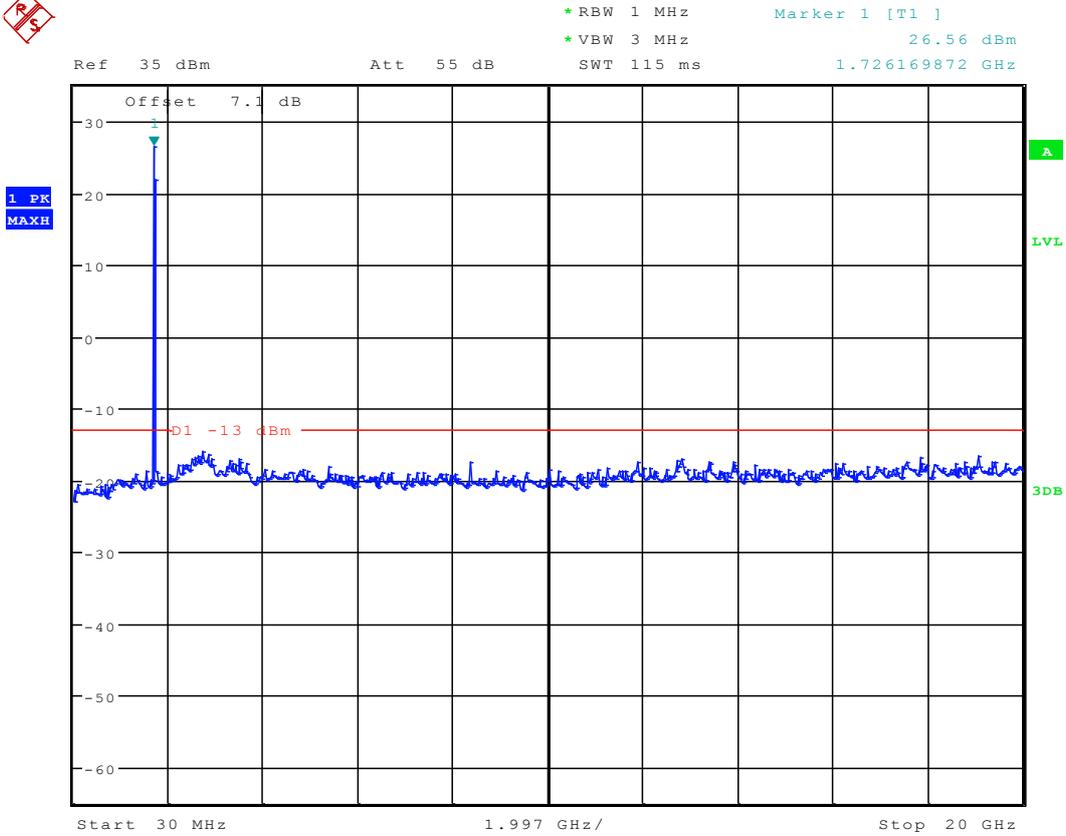
Channel 875





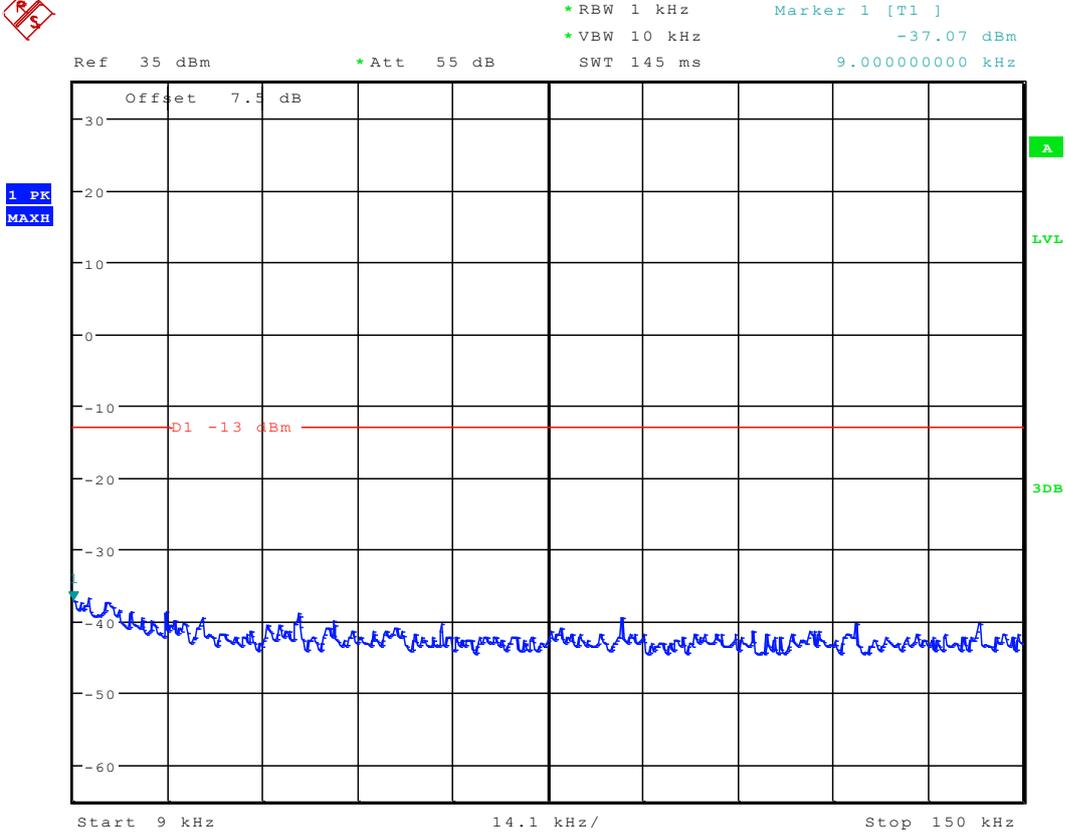
* RBW 10 kHz Marker 1 [T1]
* VBW 30 kHz -32.43 dBm
SWT 300 ms 197.836538462 kHz

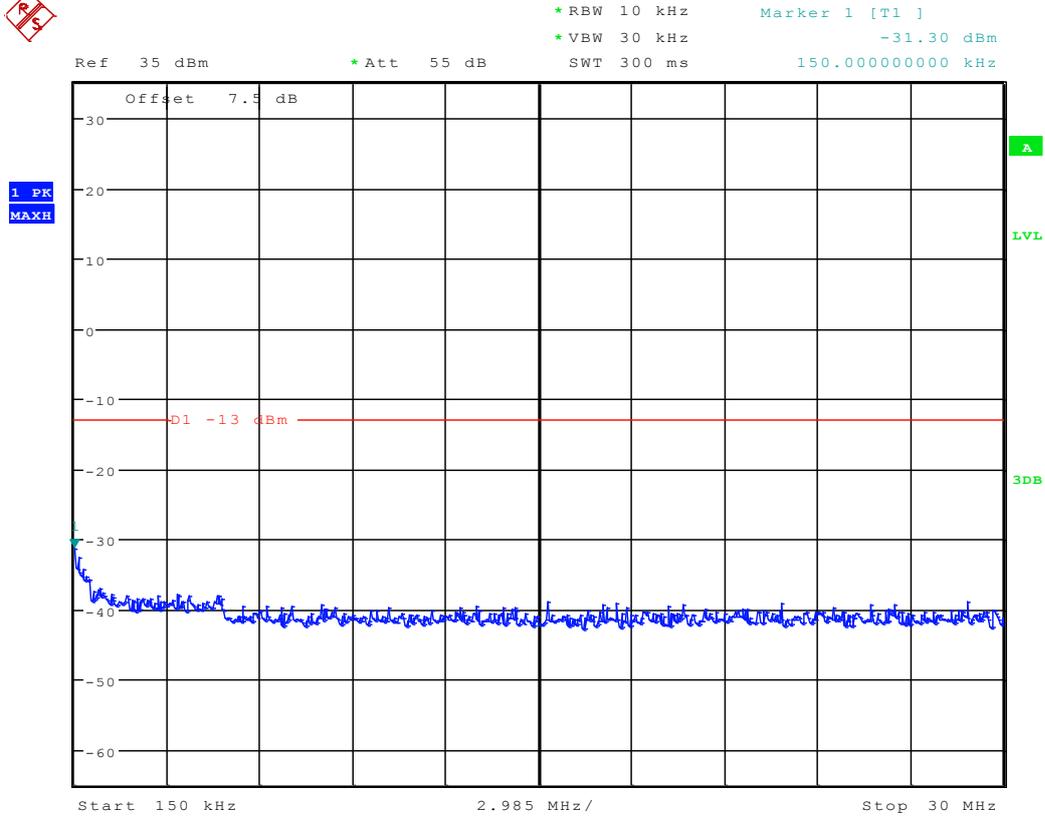


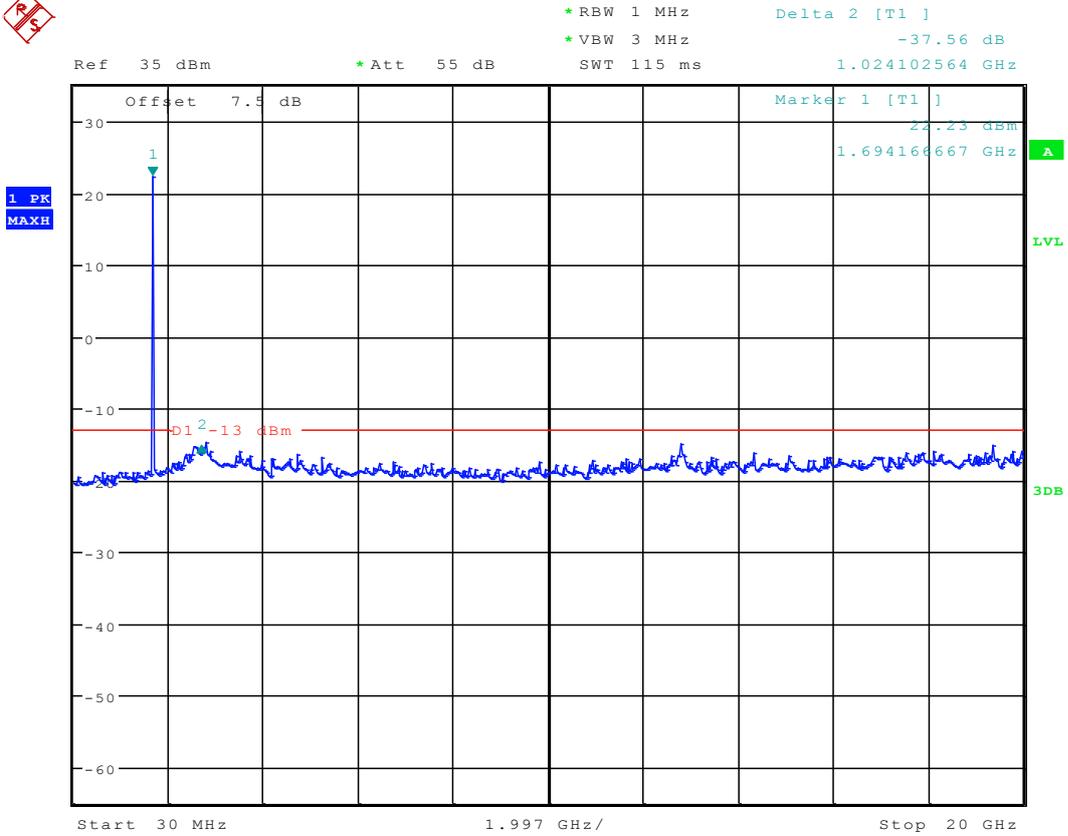




TM4 1.4MHz(BW) Channel 19957

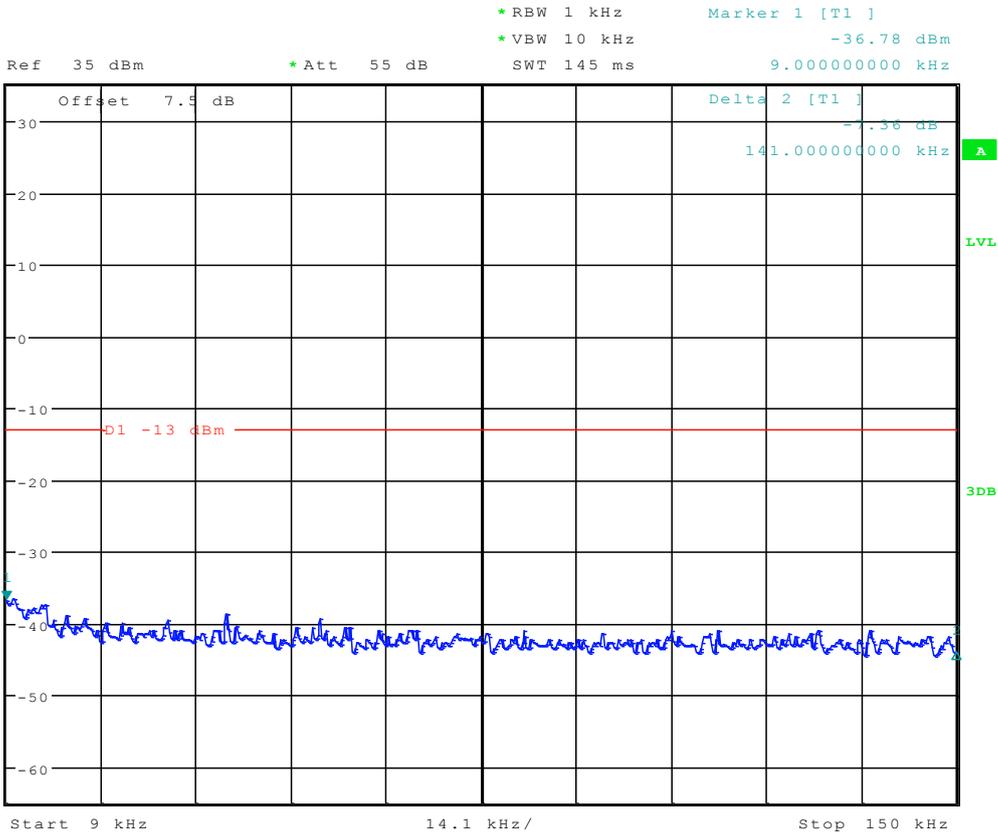








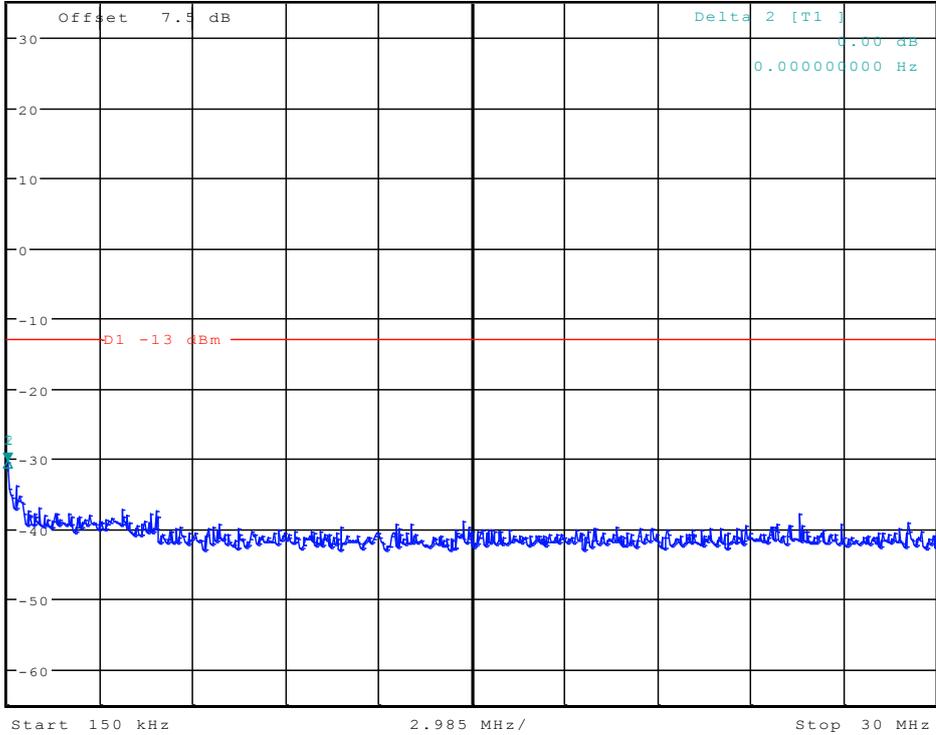
1.4MHz(BW) Channel 20175





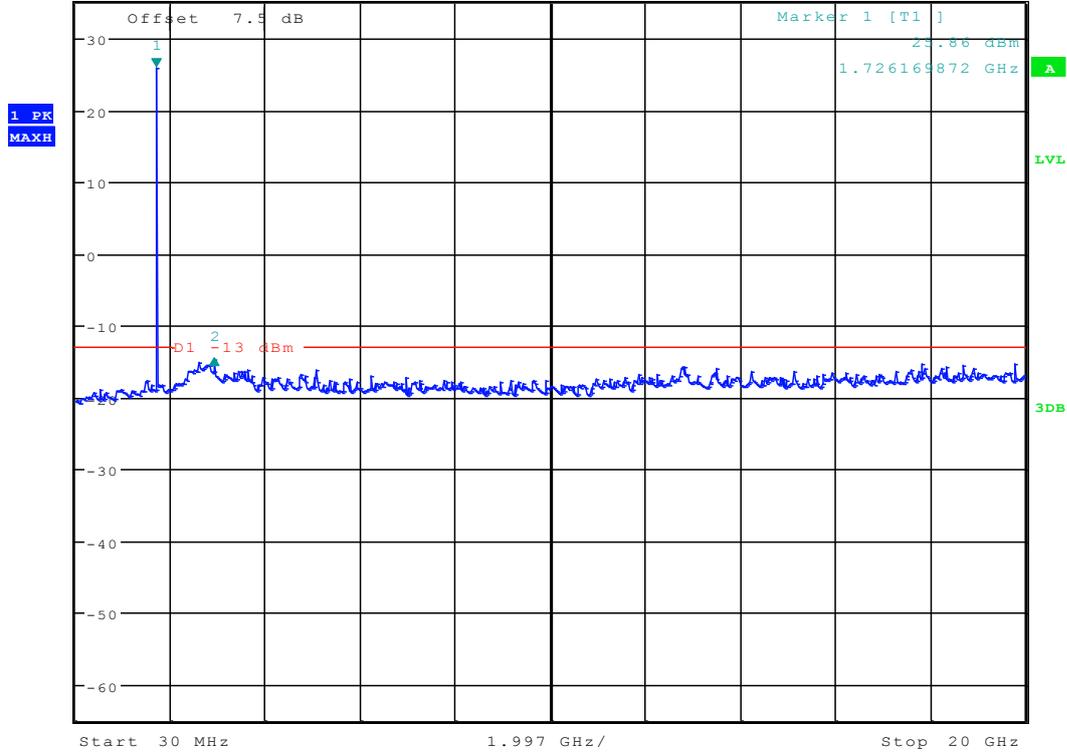
Ref 35 dBm * Att 55 dB * RBW 10 kHz * VBW 30 kHz * SWT 300 ms
 Marker 1 [T1] -30.53 dBm
 150.000000000 kHz

1 PK
 MAXH



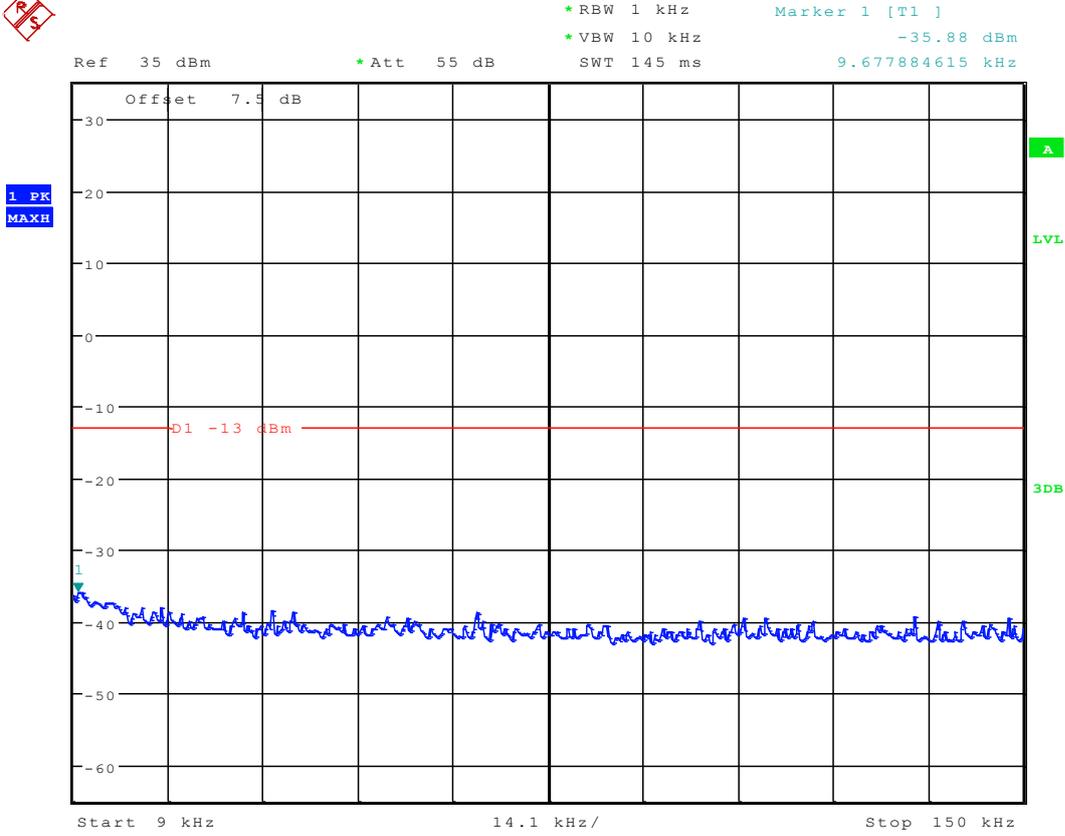


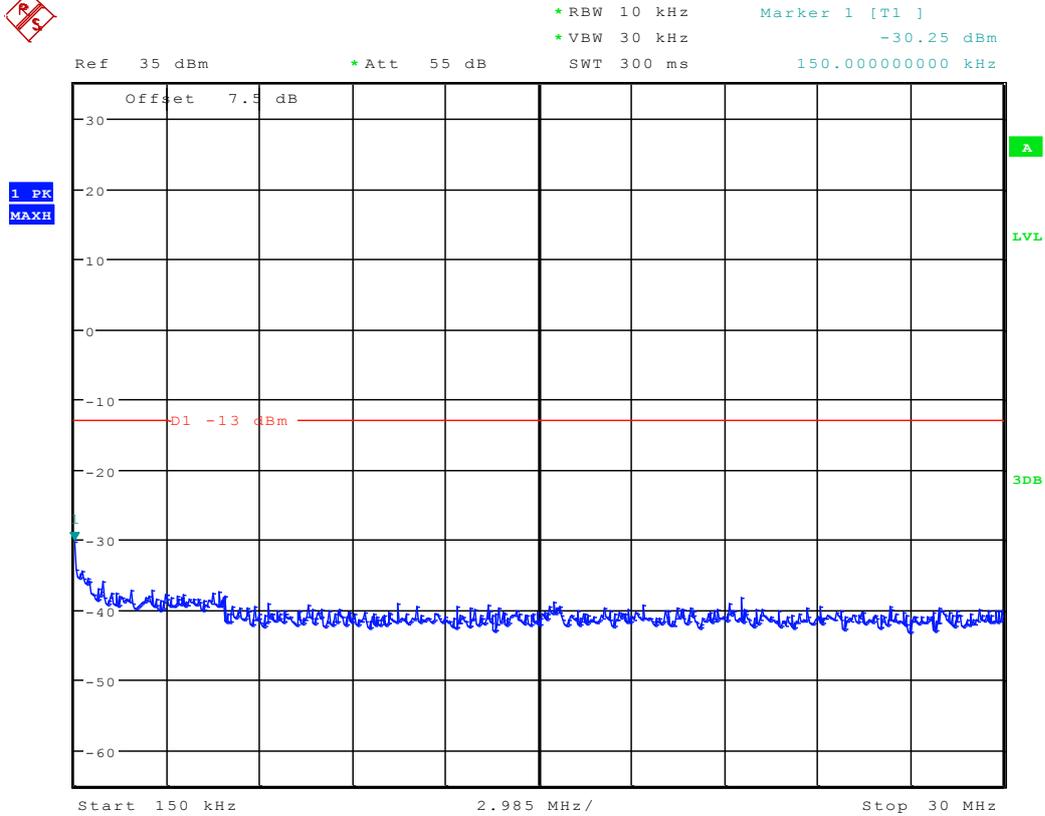
Ref 35 dBm *Att 55 dB *RBW 1 MHz Delta 2 [T1] -40.55 dB
*VBW 3 MHz SWT 115 ms 1.216121795 GHz

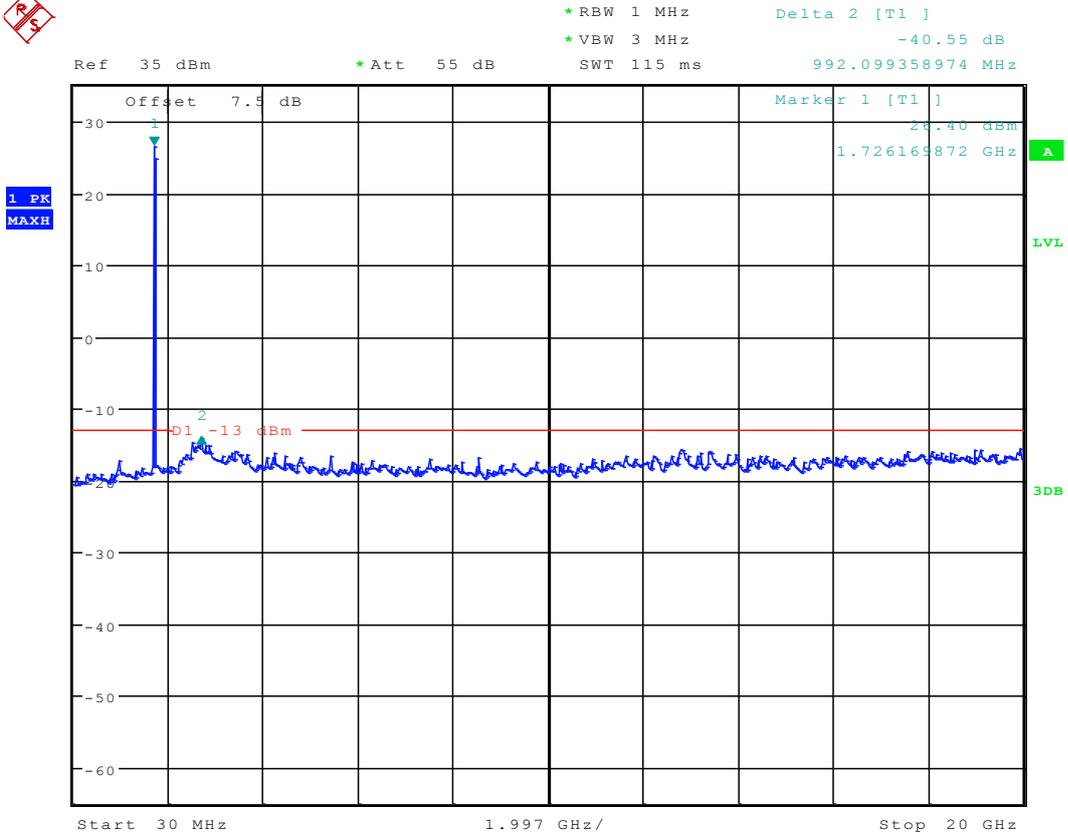




1.4MHz(BW) Channel 20393





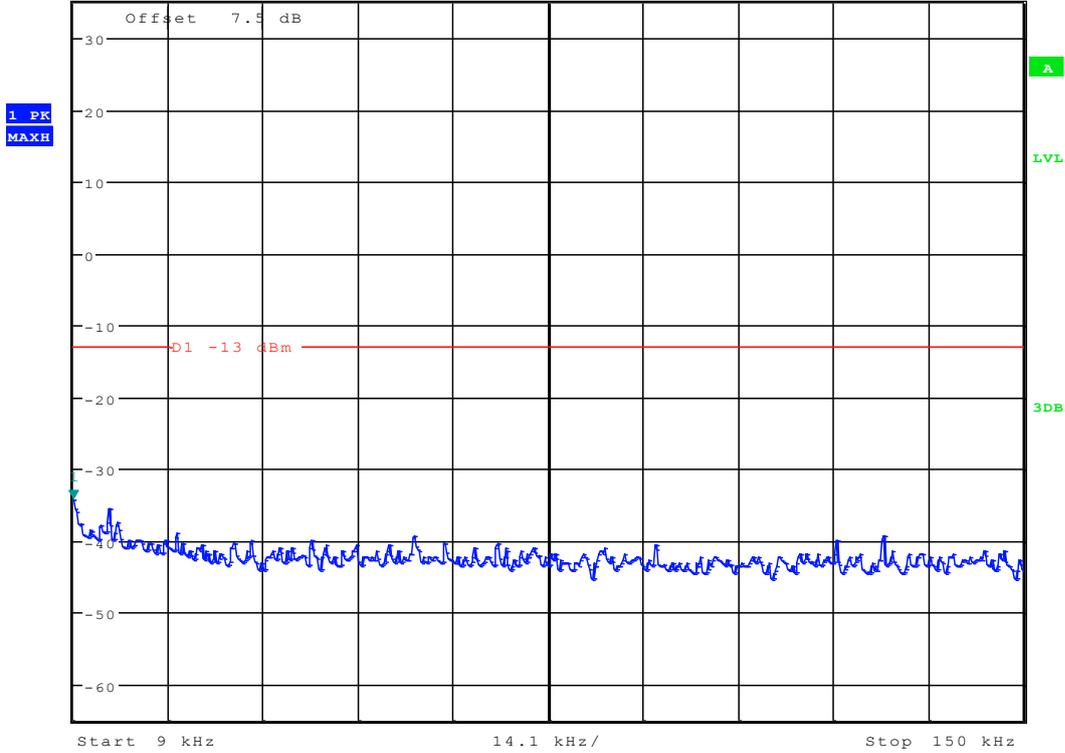


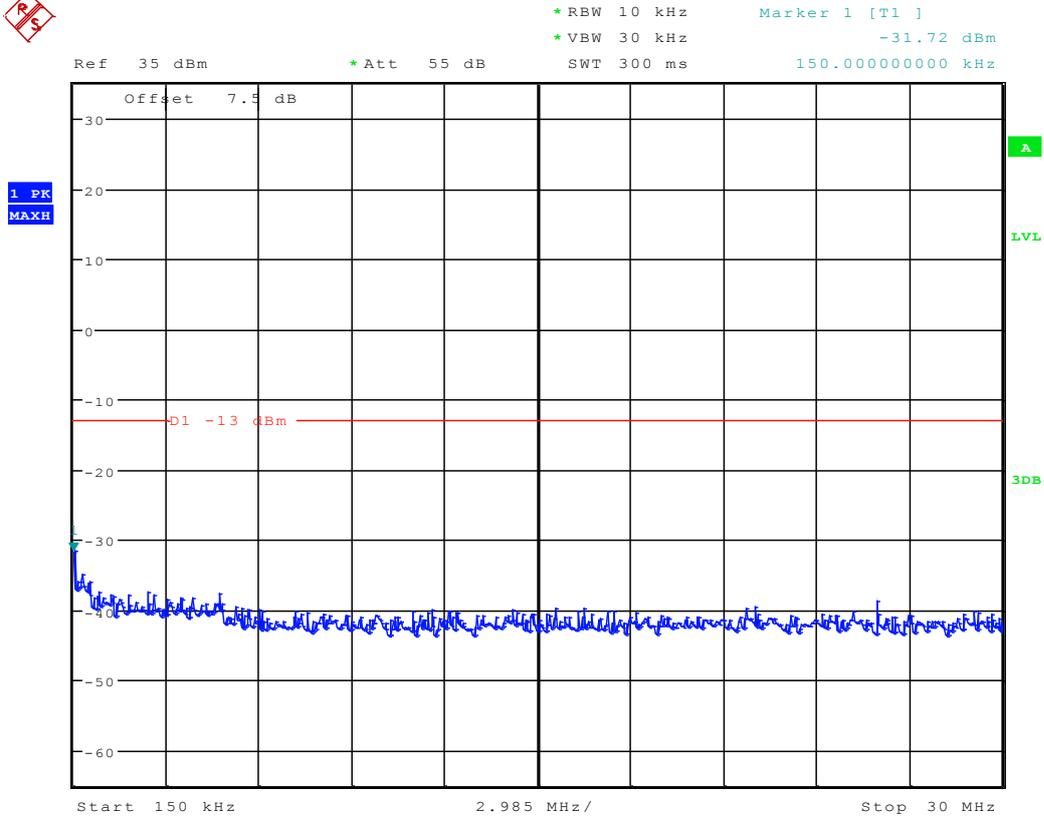


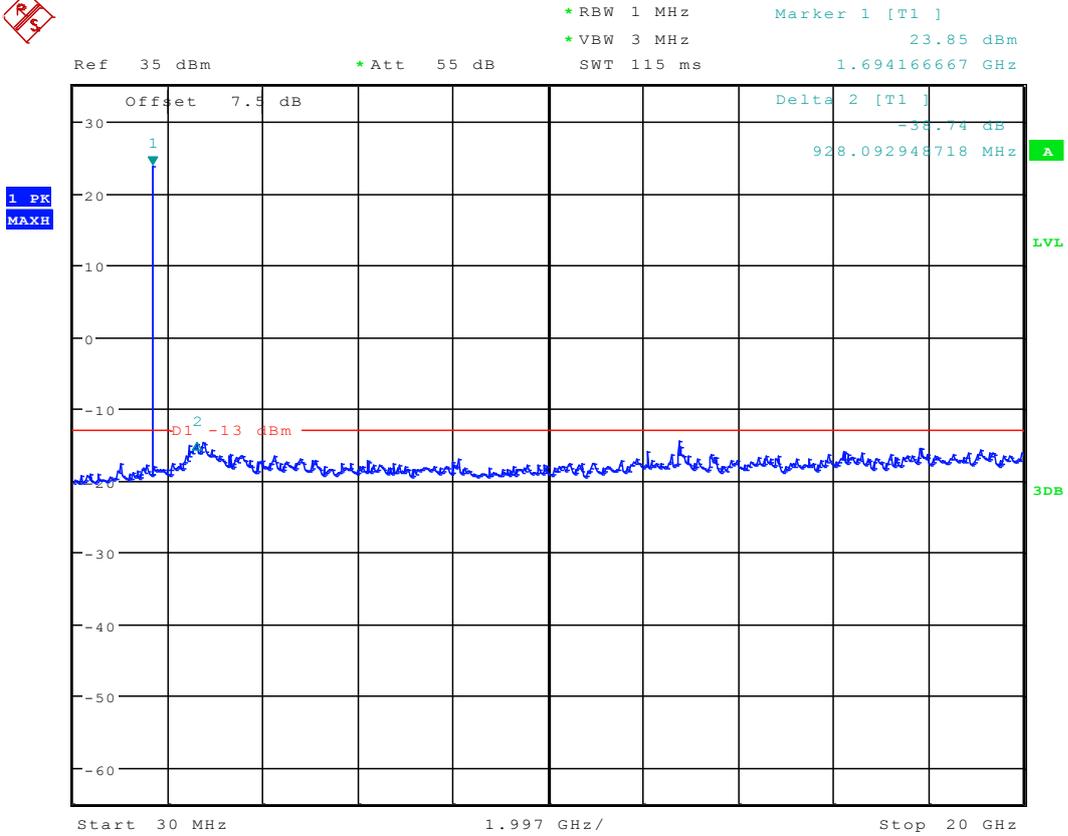
3MHz(BW) Channel 19965



*RBW 1 kHz Marker 1 [T1]
*VBW 10 kHz -34.31 dBm
Ref 35 dBm *Att 55 dB SWT 145 ms 9.000000000 kHz

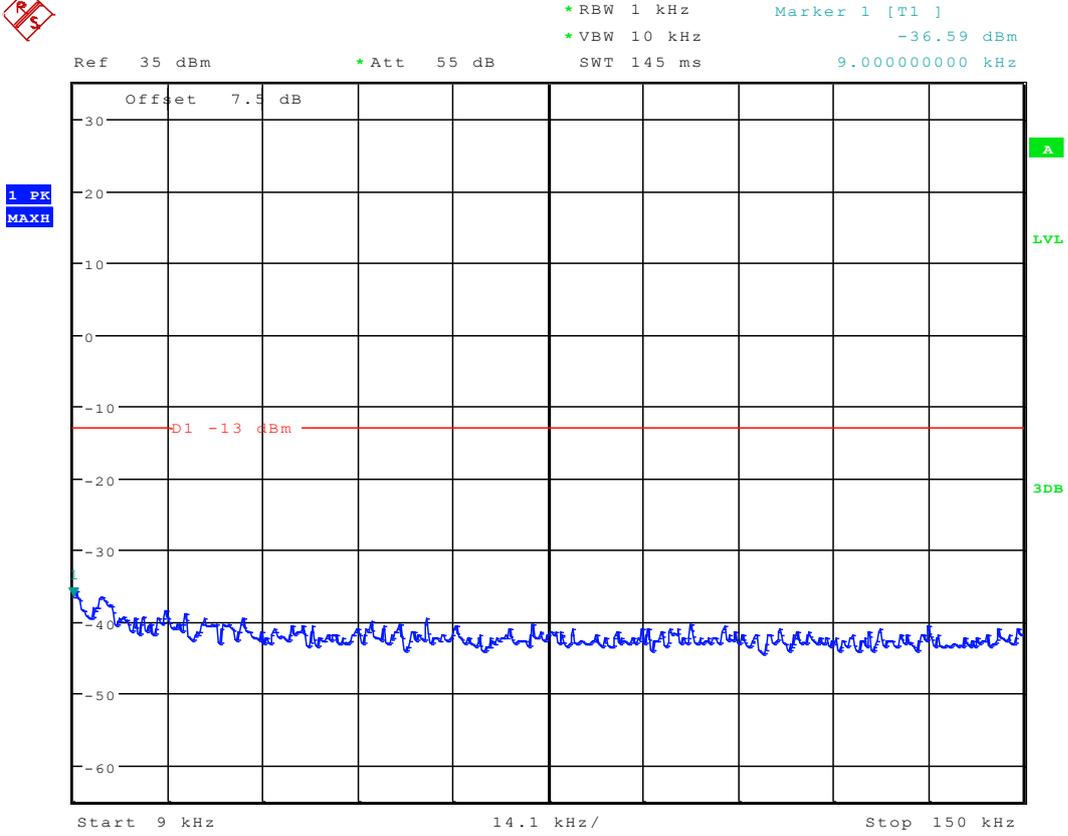






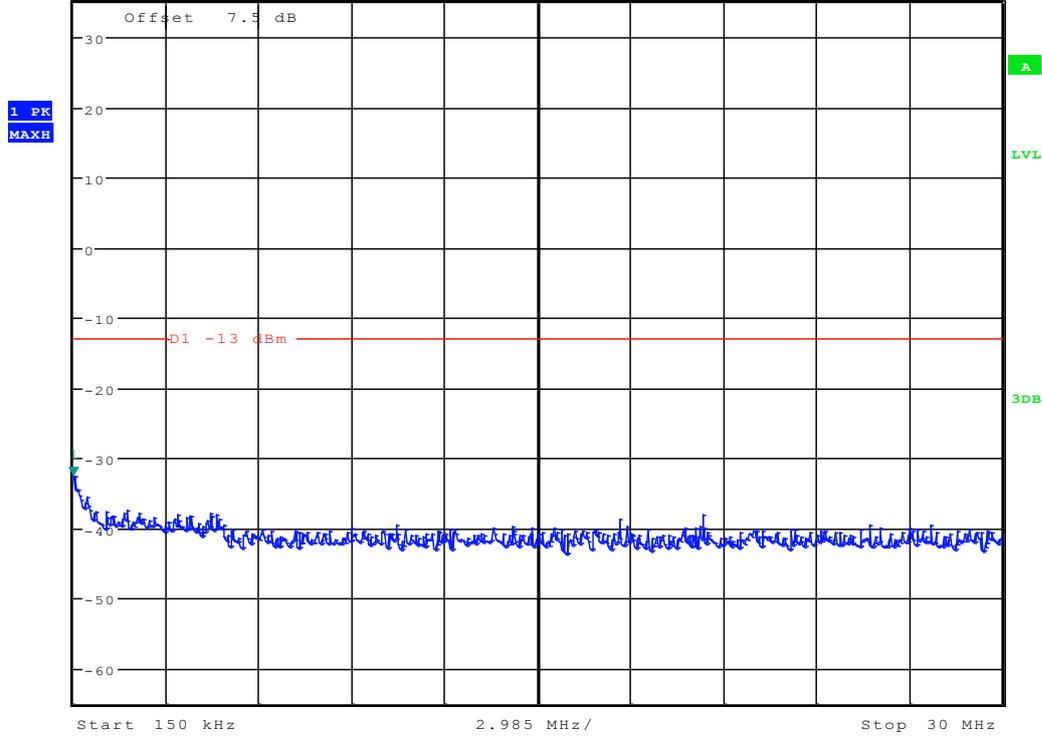


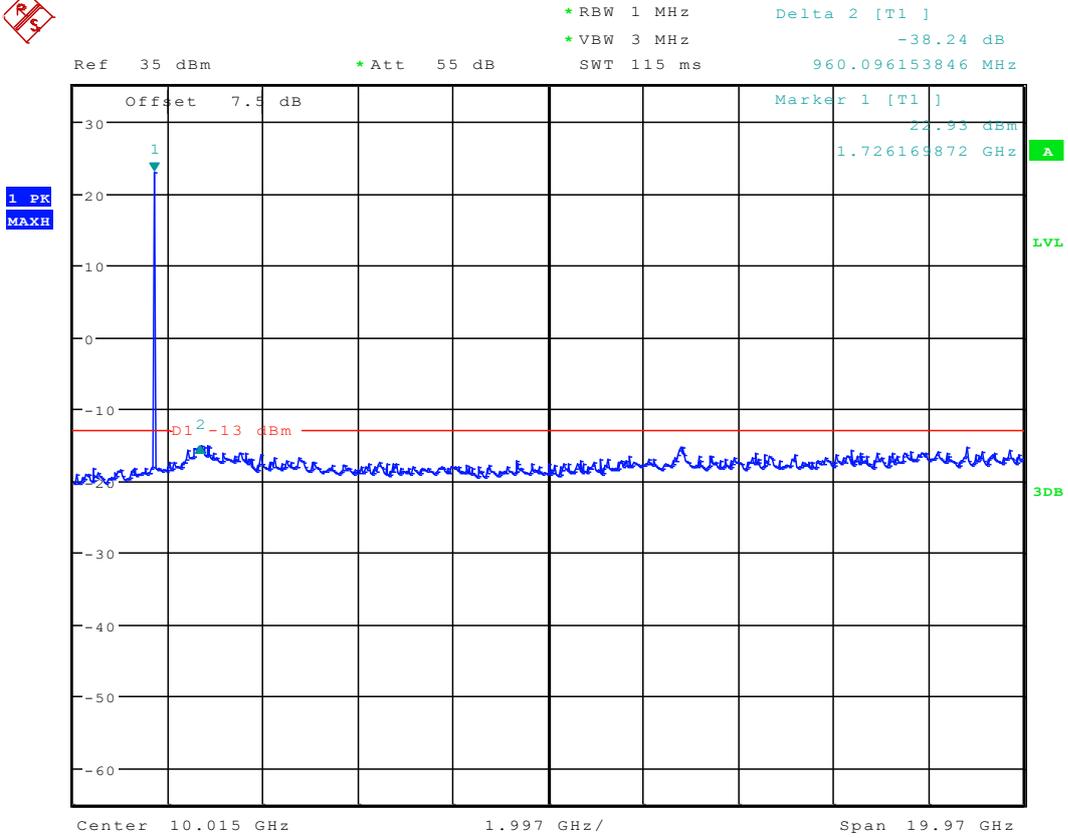
3MHz(BW) Channel 20175





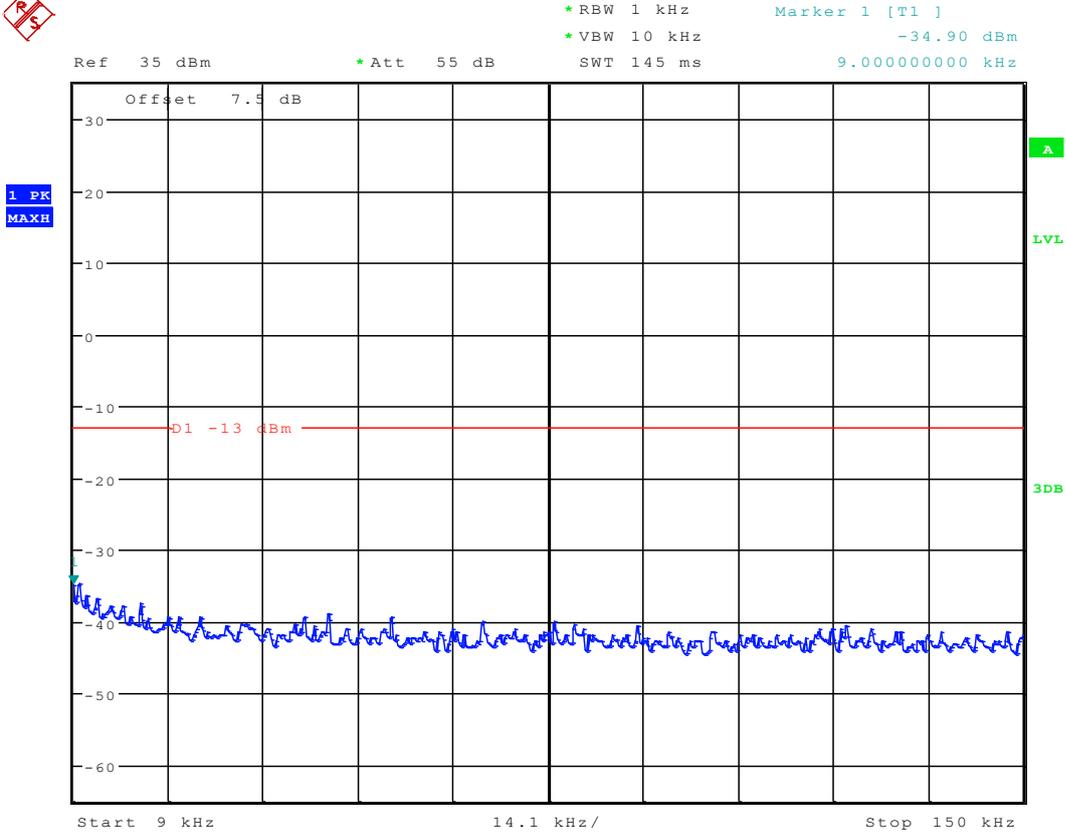
Ref 35 dBm * Att 55 dB * RBW 10 kHz Marker 1 [T1]
* VBW 30 kHz -32.56 dBm
SWT 300 ms 150.00000000 kHz

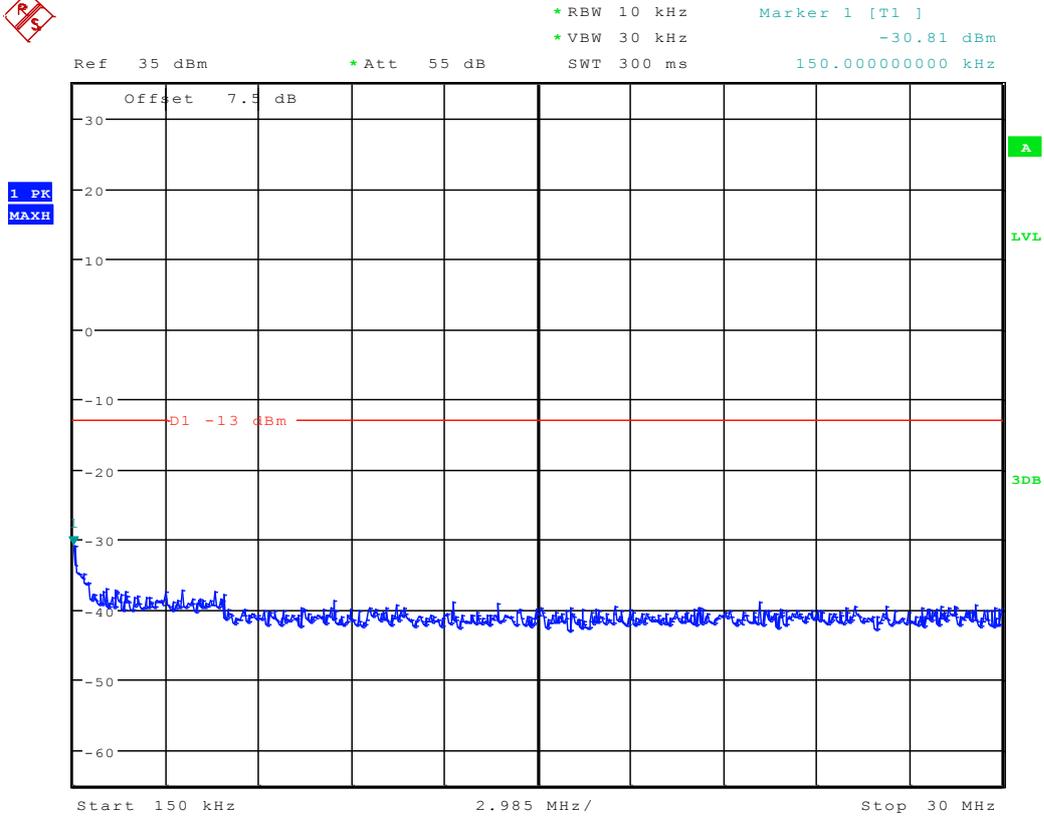


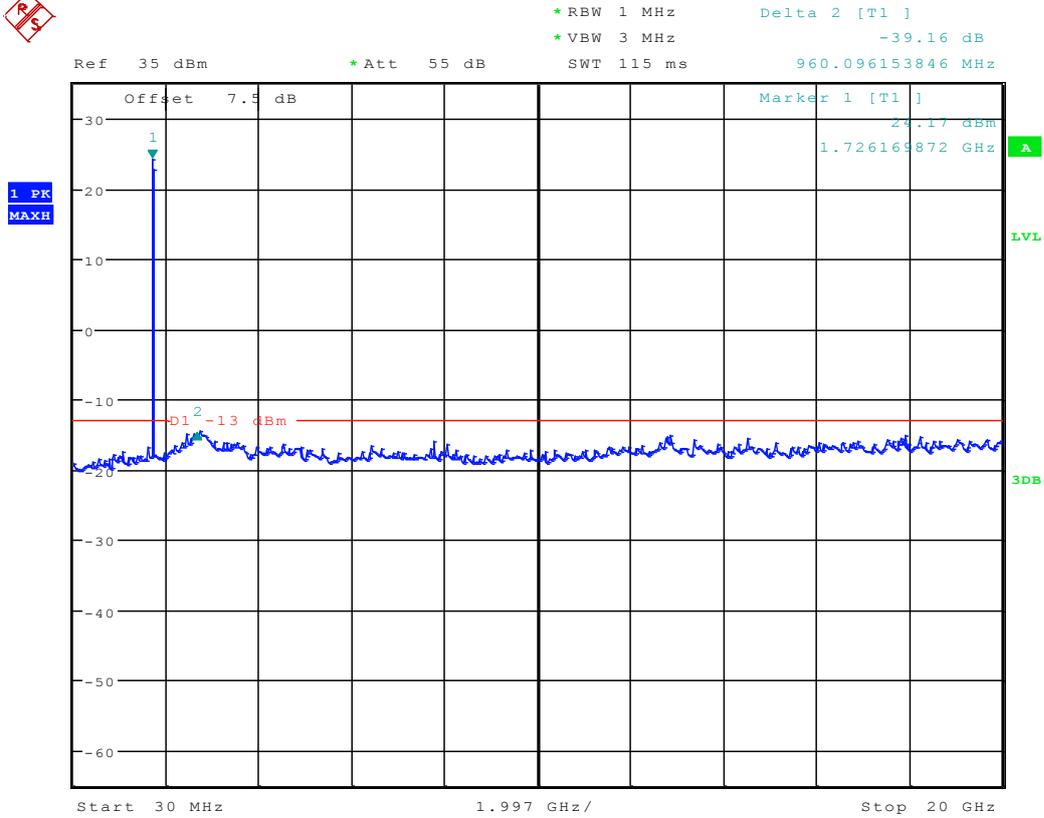




3MHz(BW) Channel 20385





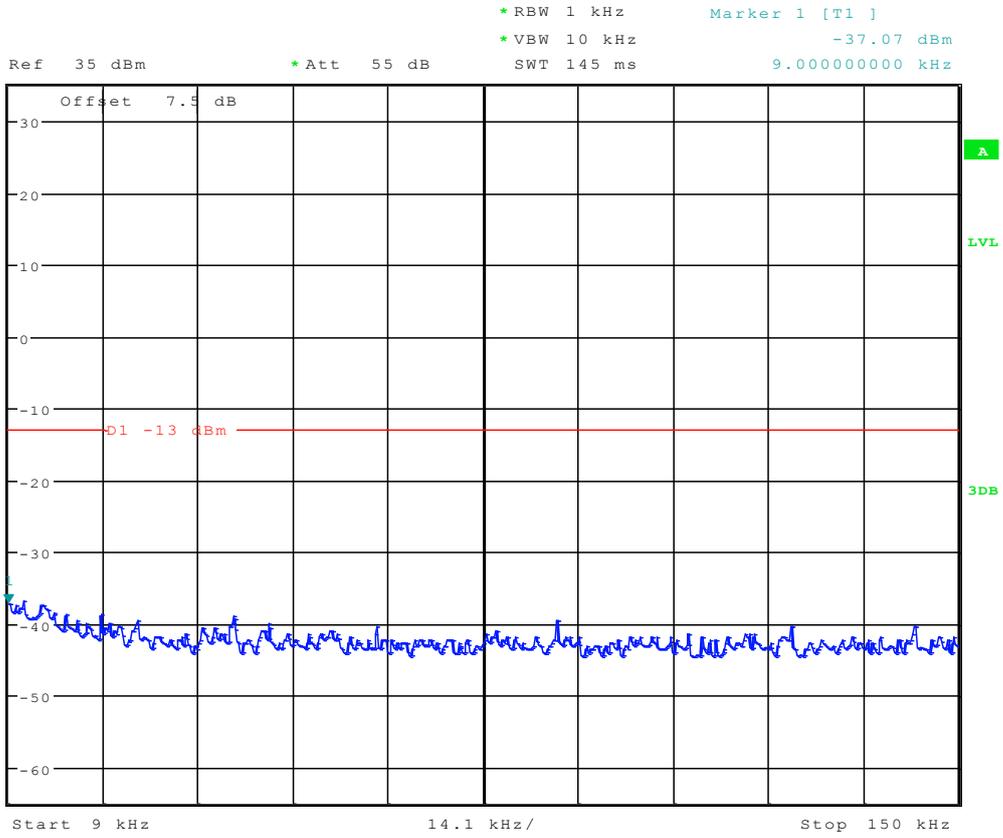


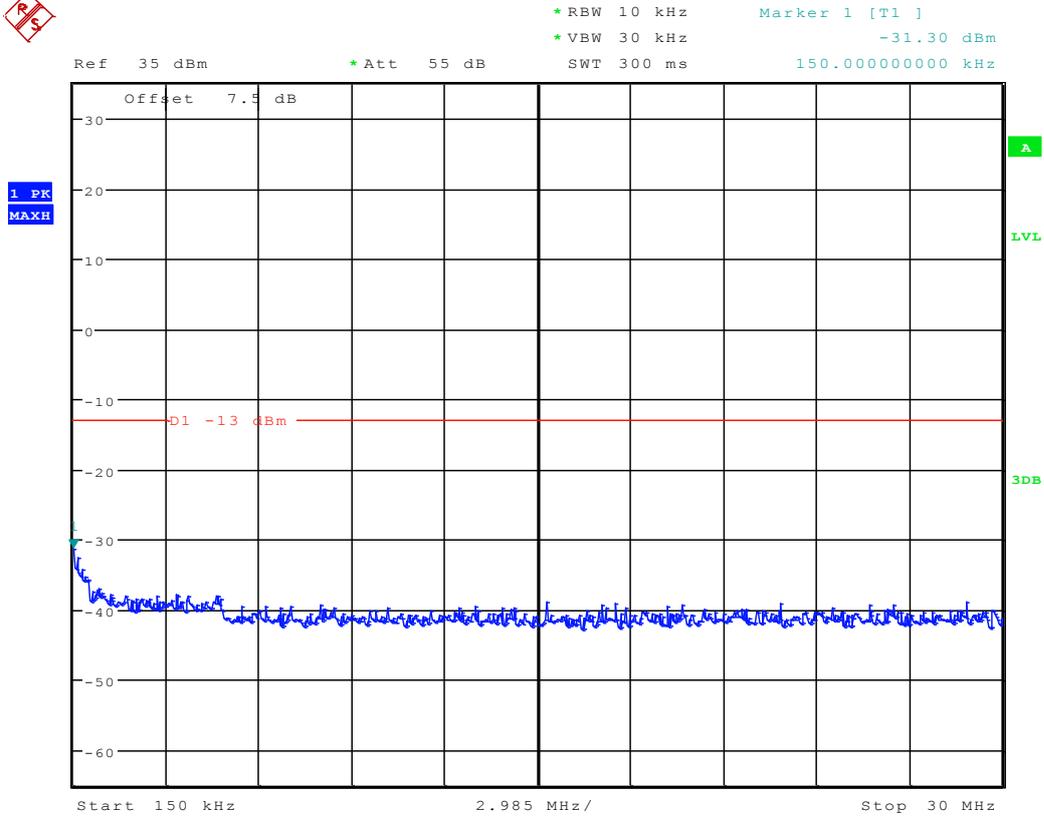


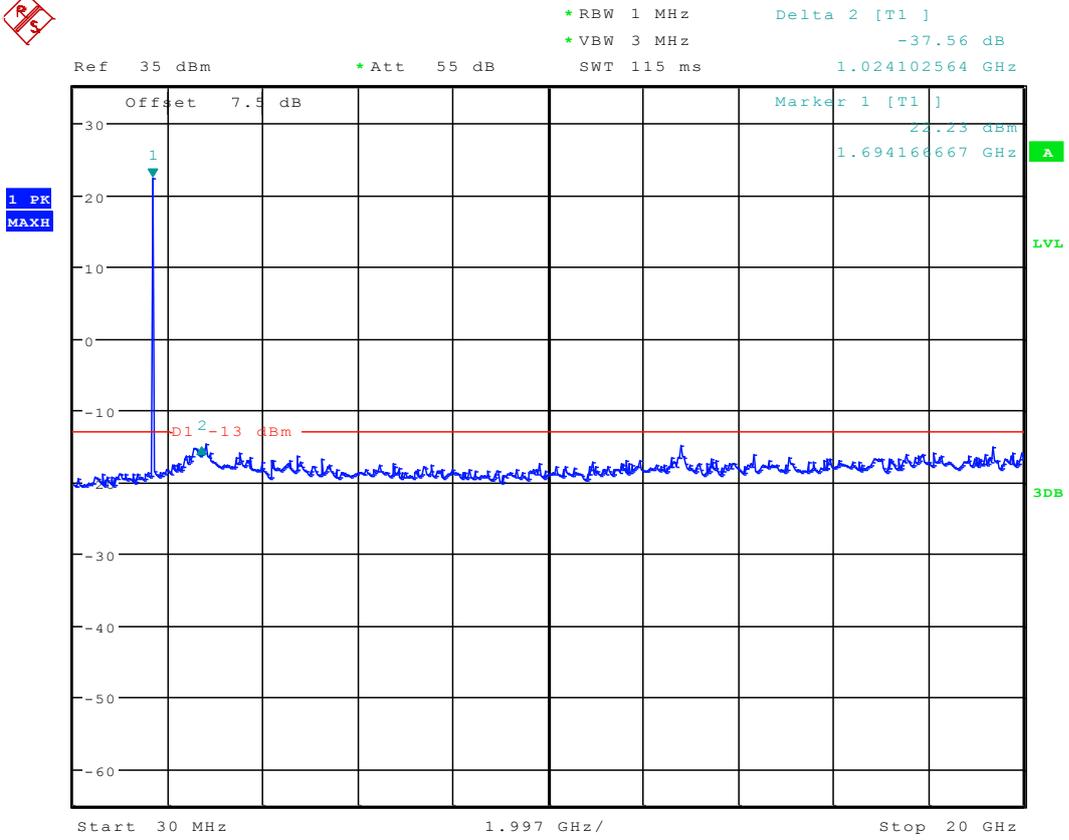
5MHz(BW) Channel 19975



1 PK
MAXH

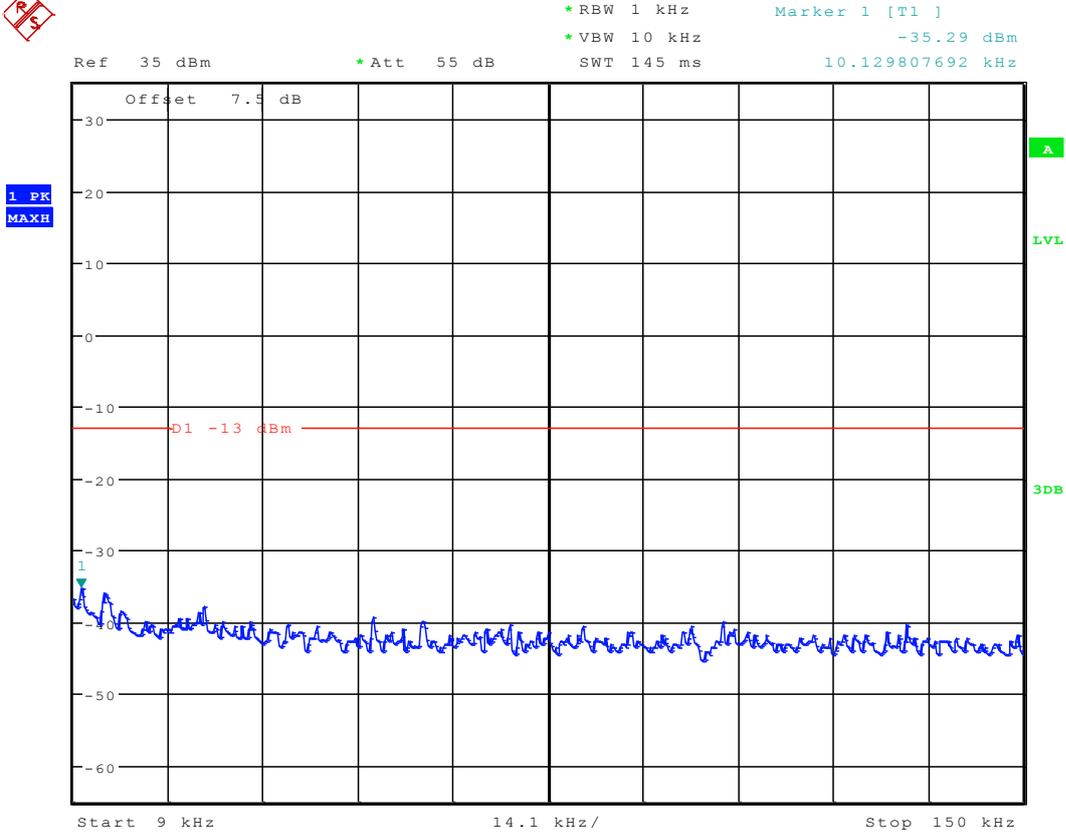


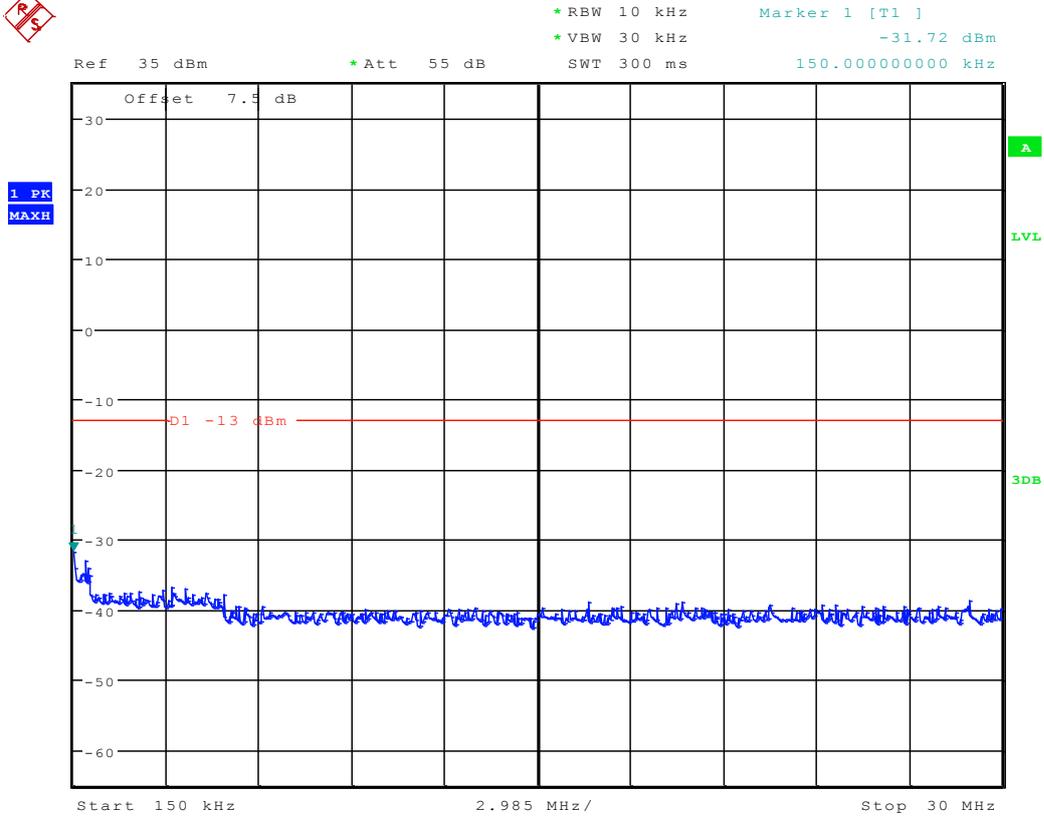


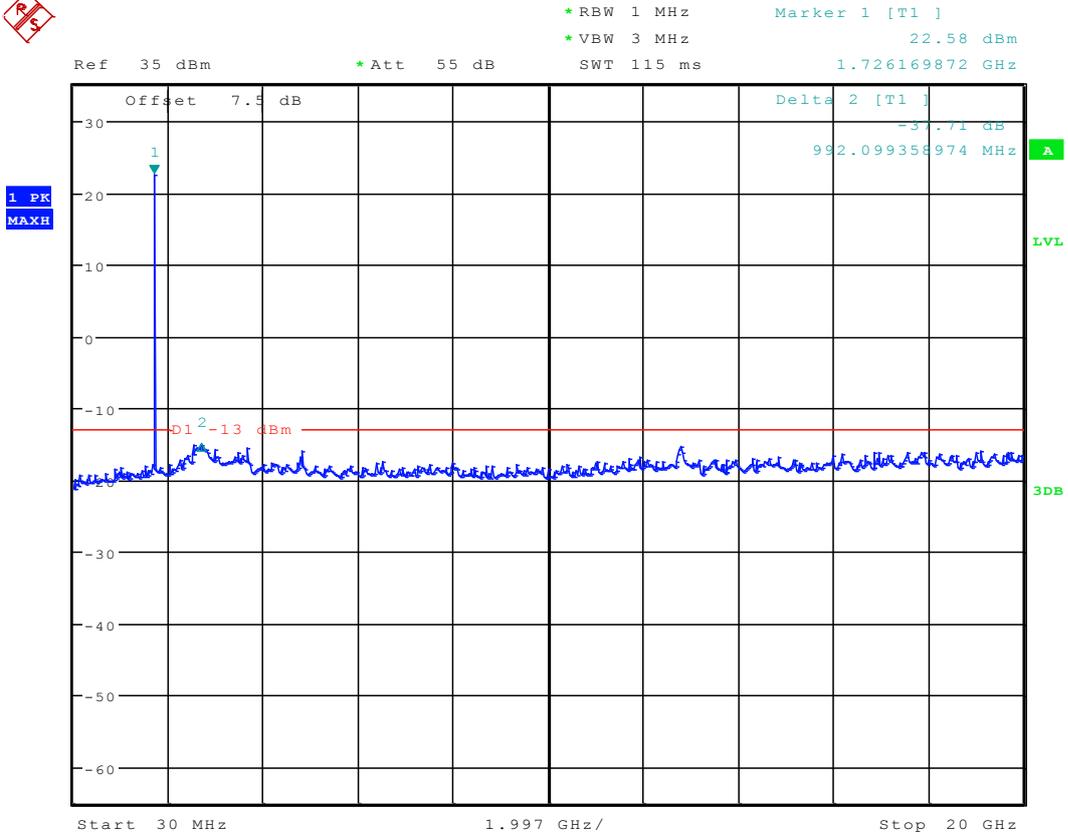




5MHz(BW) Channel 20175

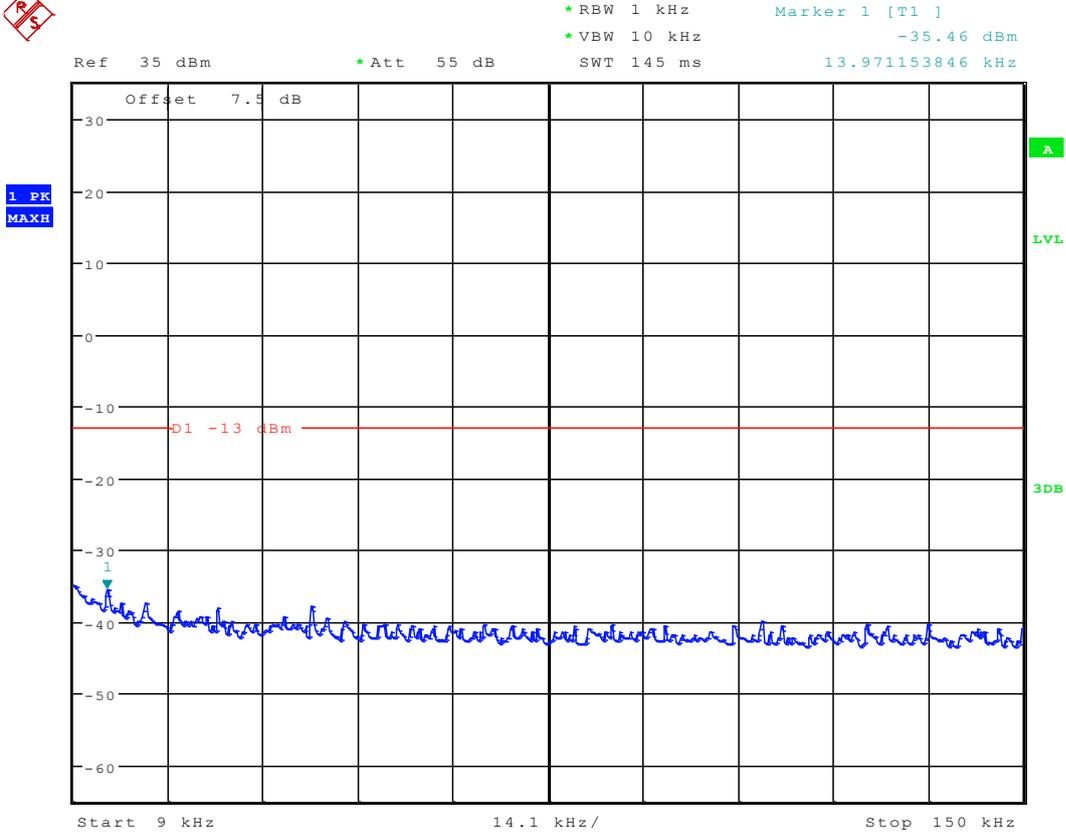


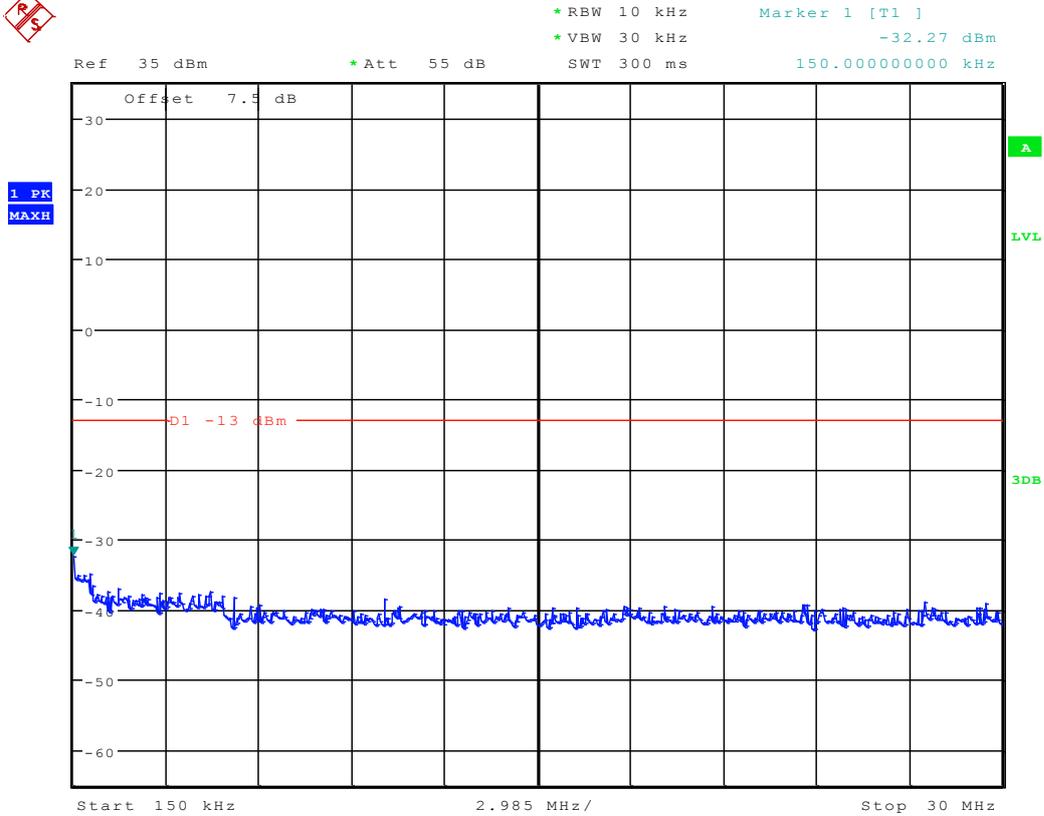


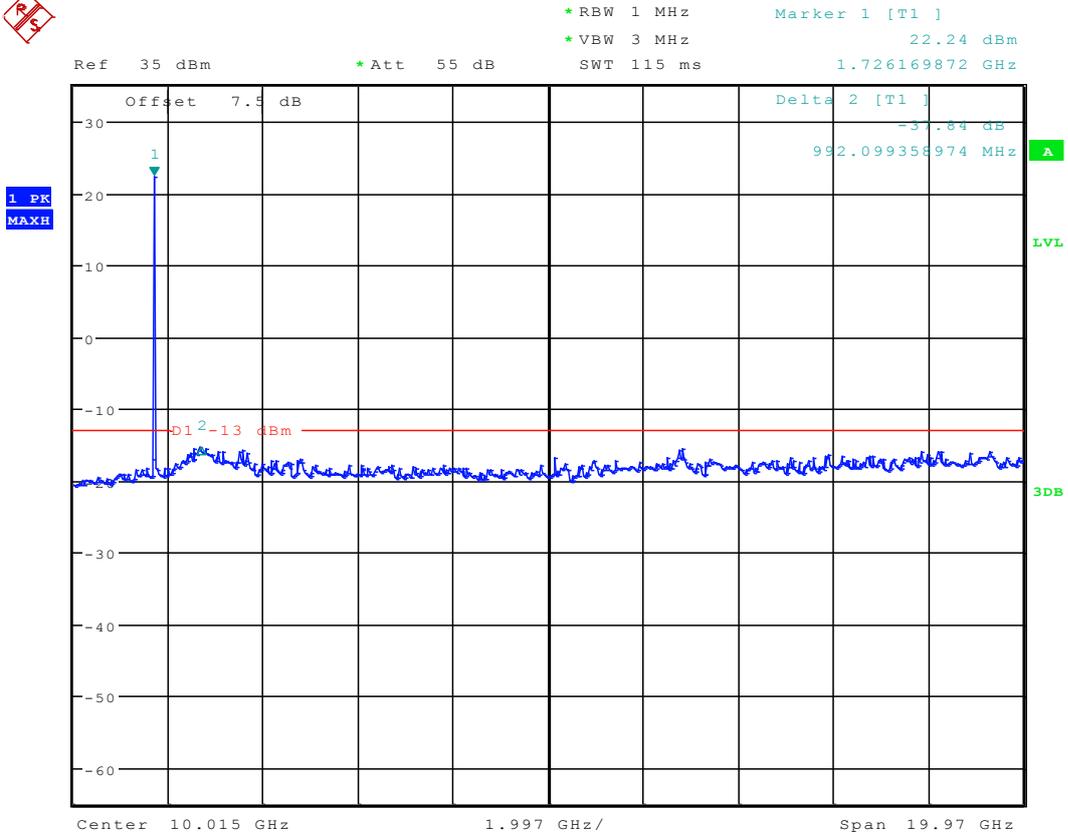




5MHz(BW) Channel 20375

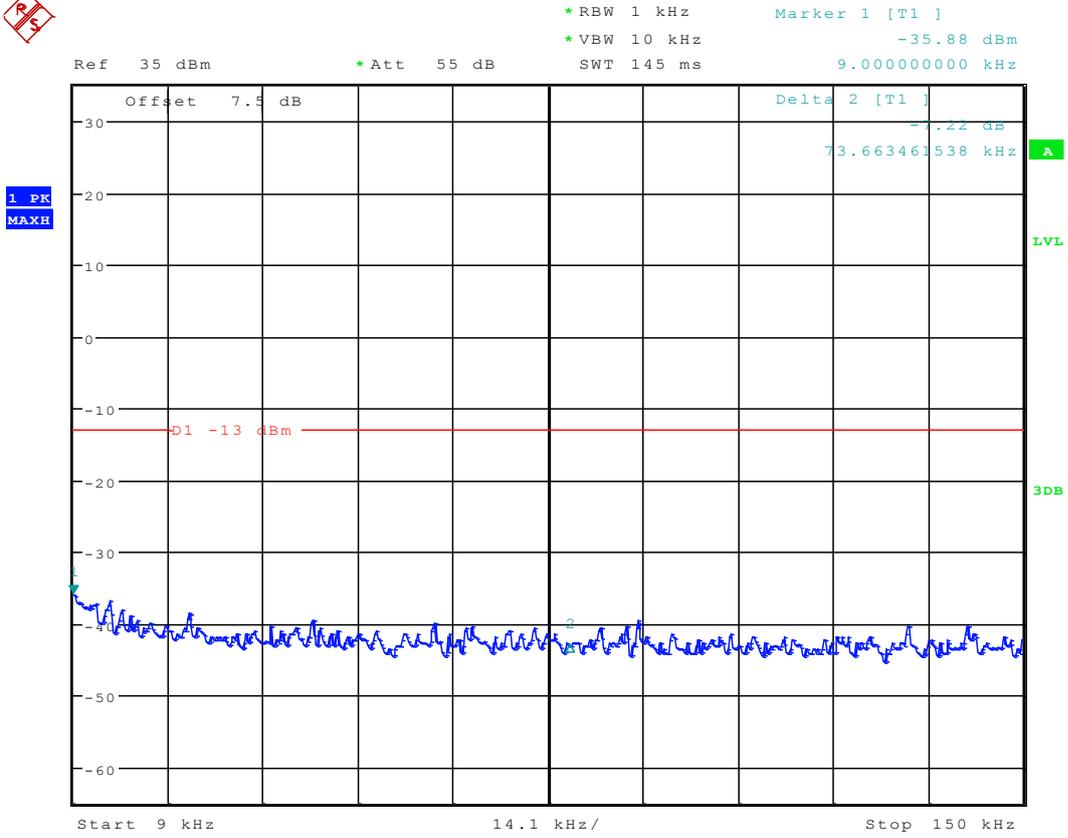


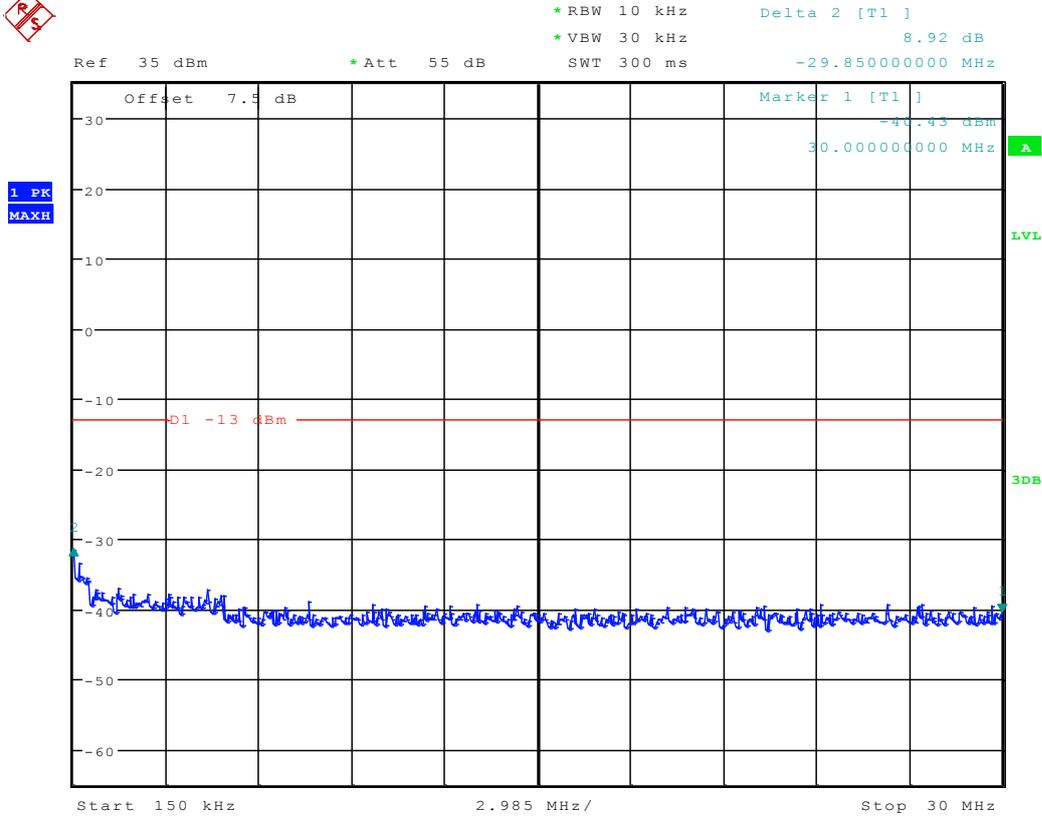


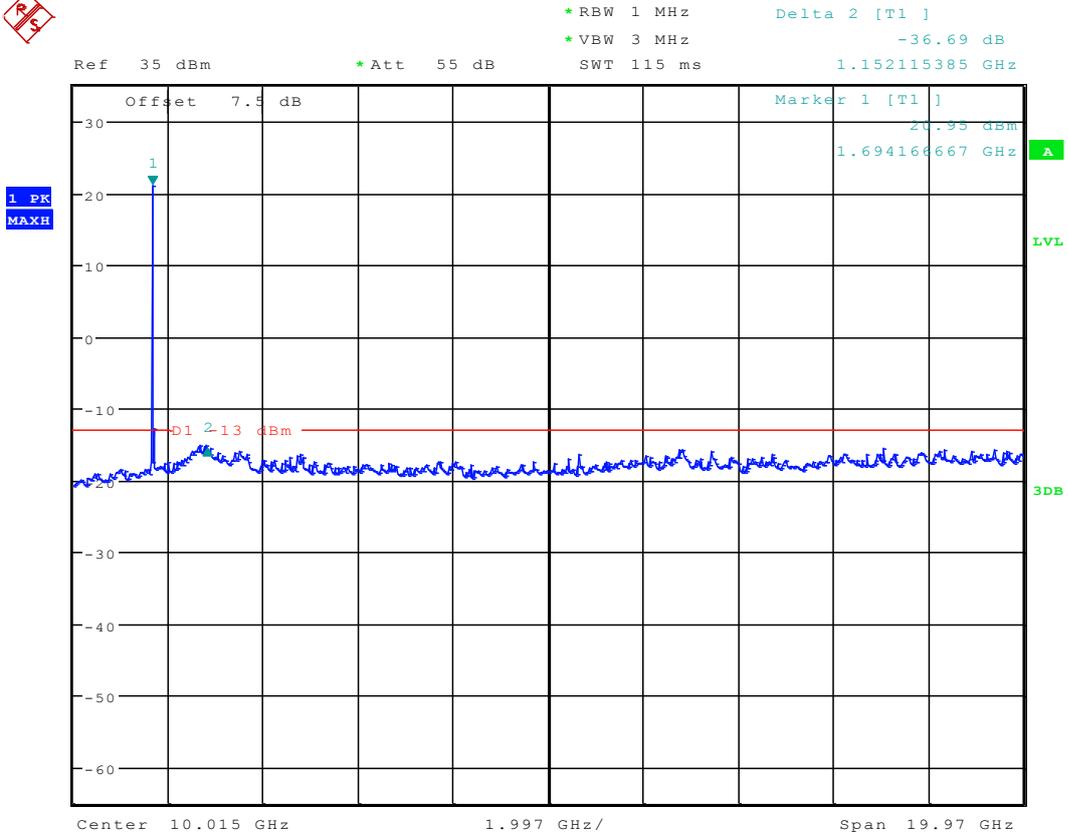




10MHz(BW) Channel 20000

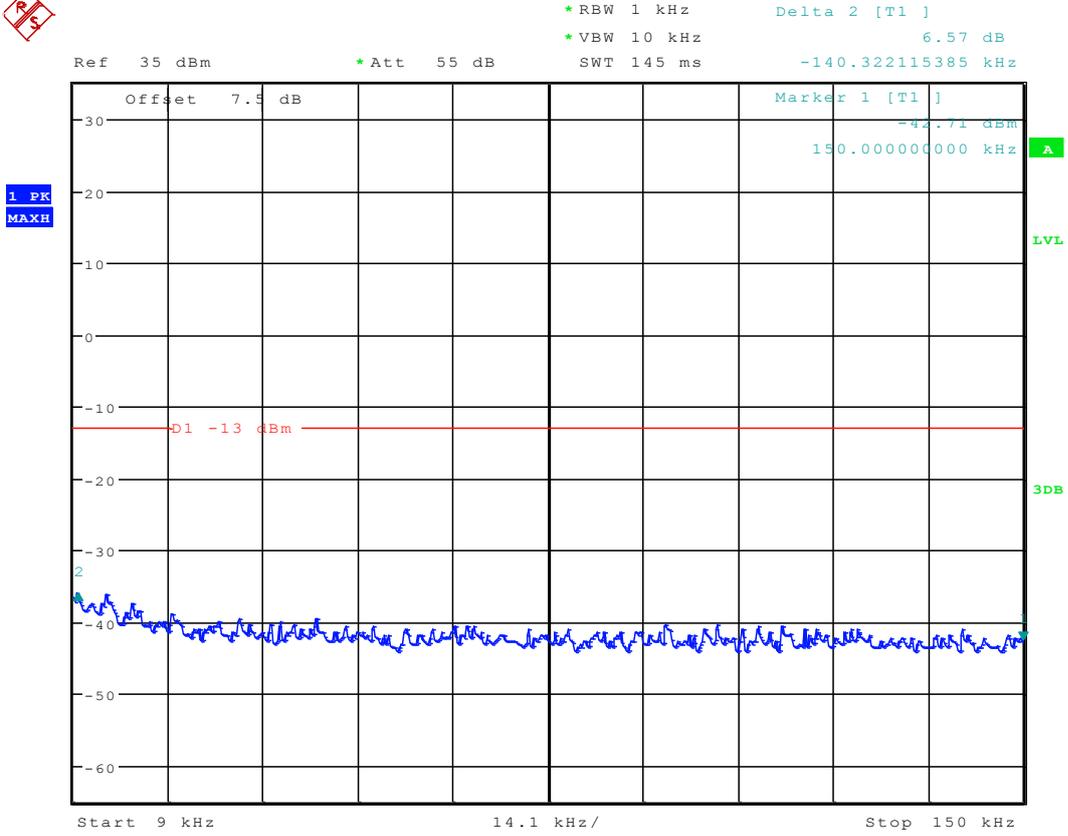


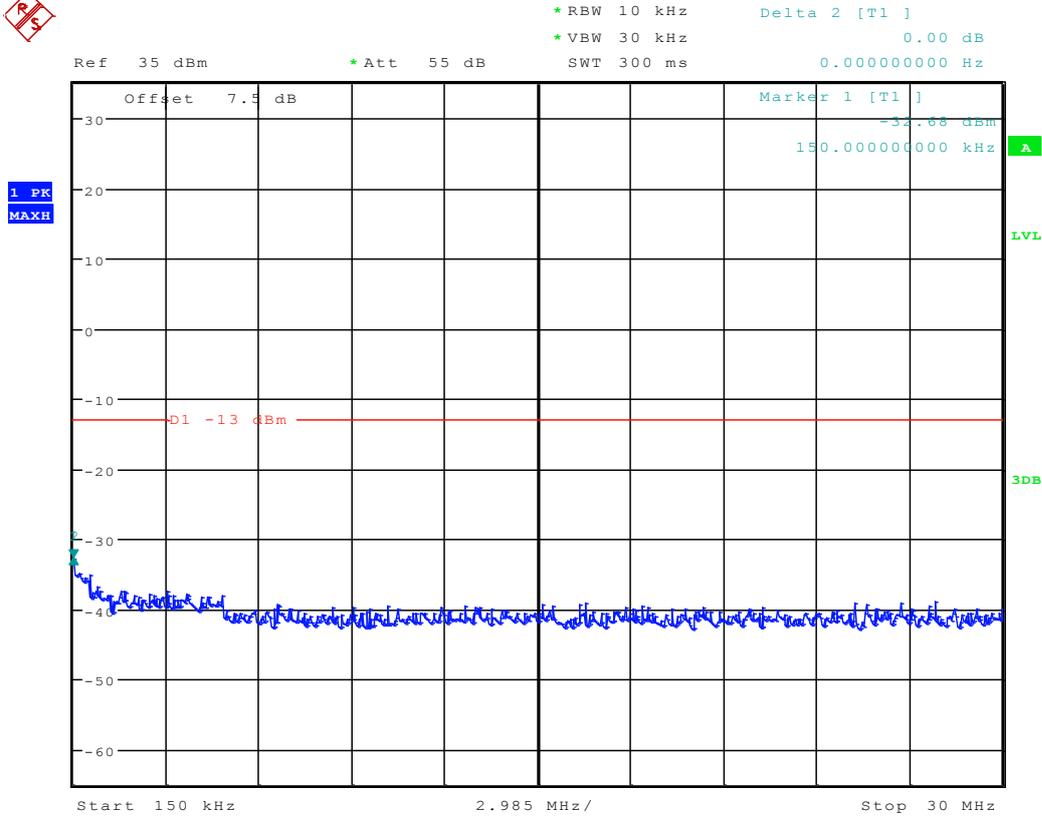


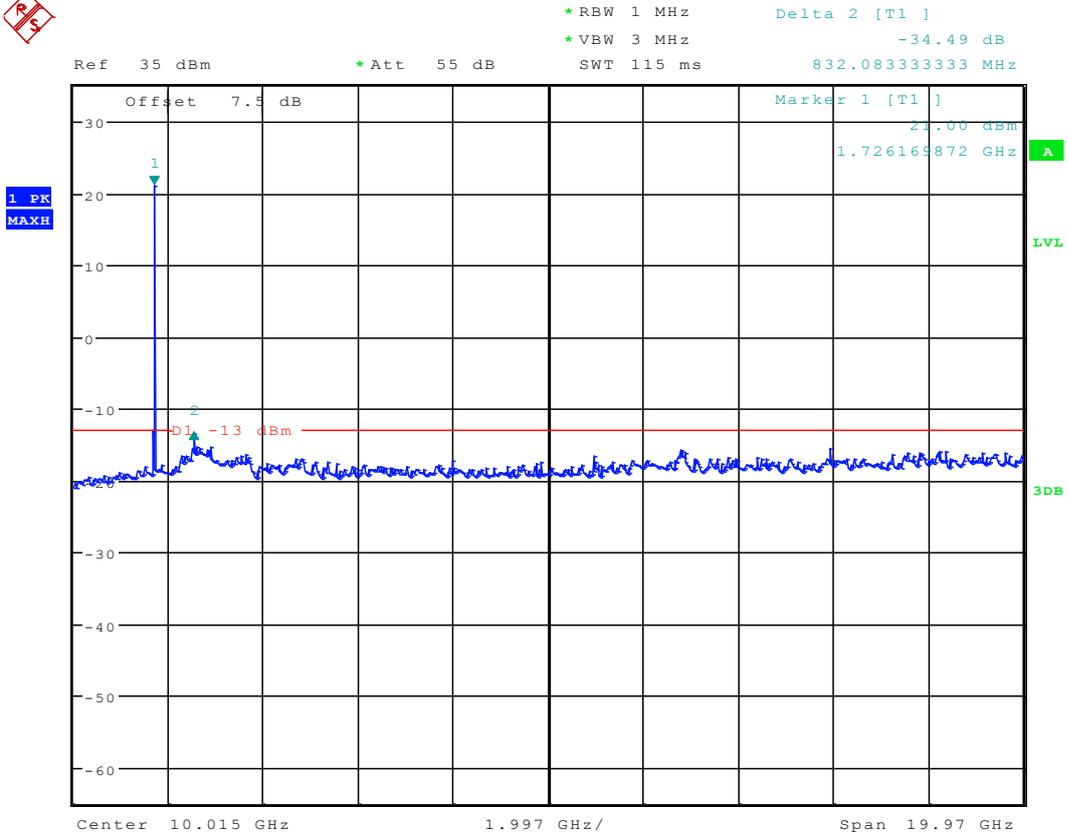




10MHz(BW) Channel 20175

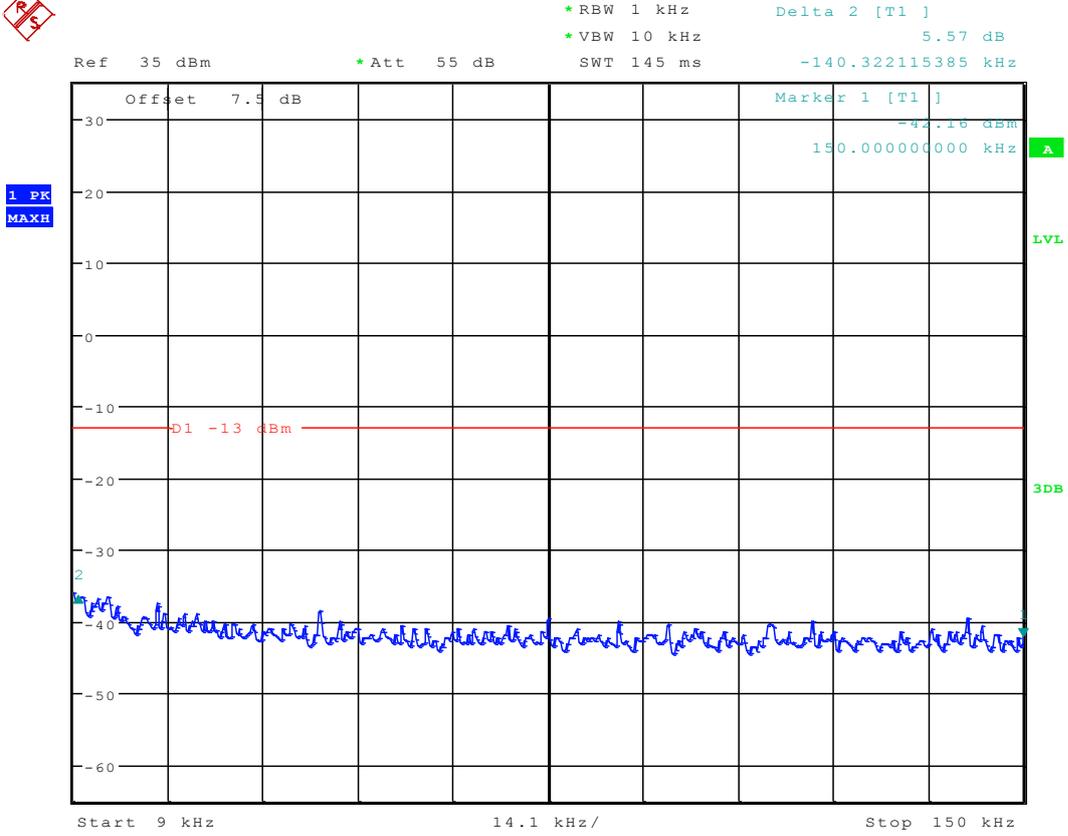


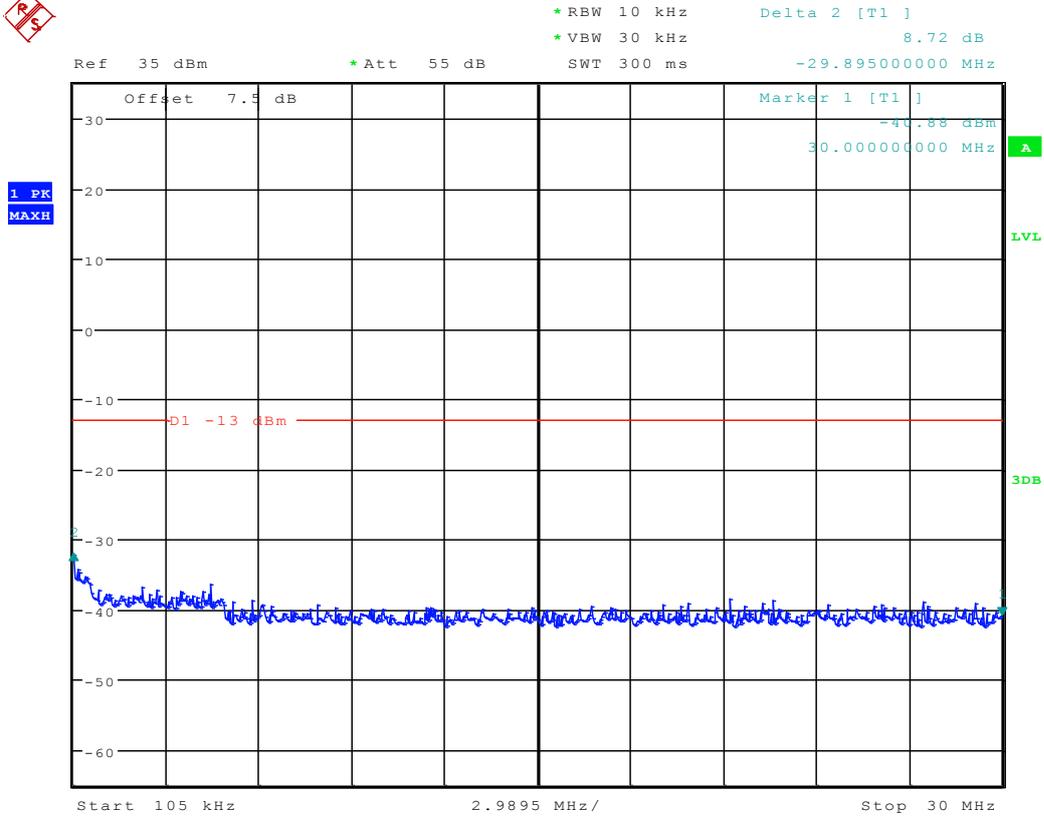


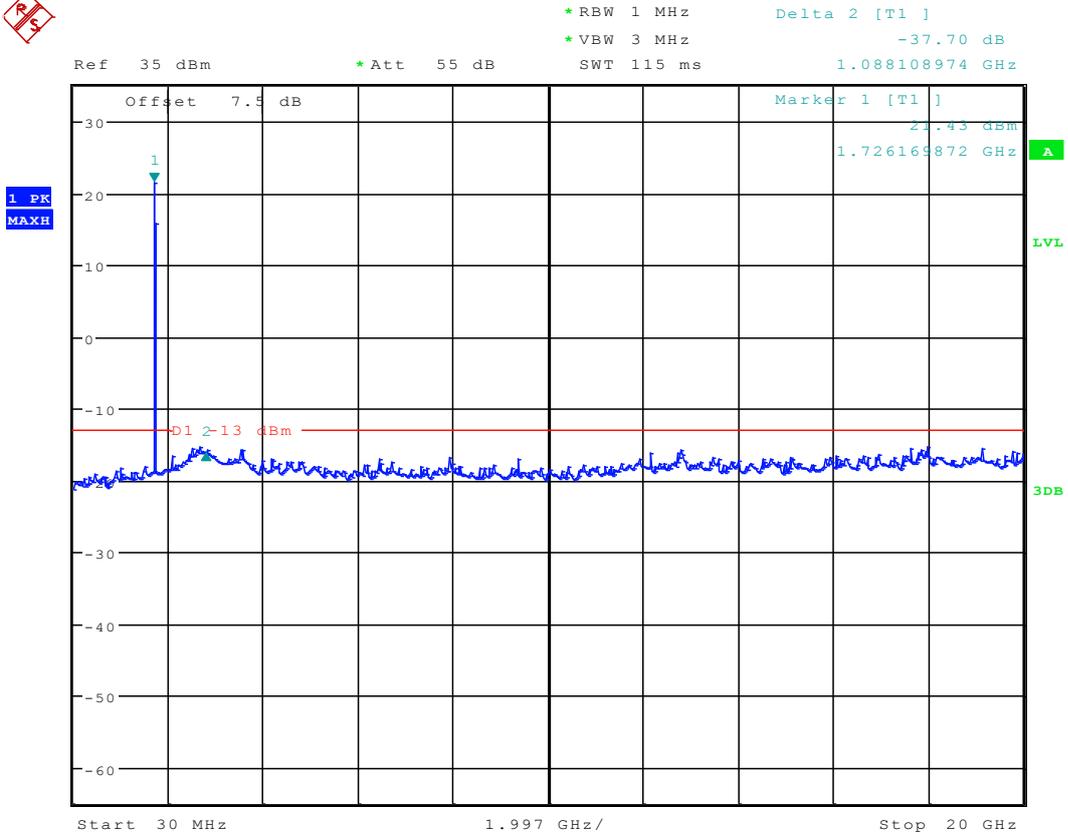




10MHz(BW) Channel 20350









Appendix E

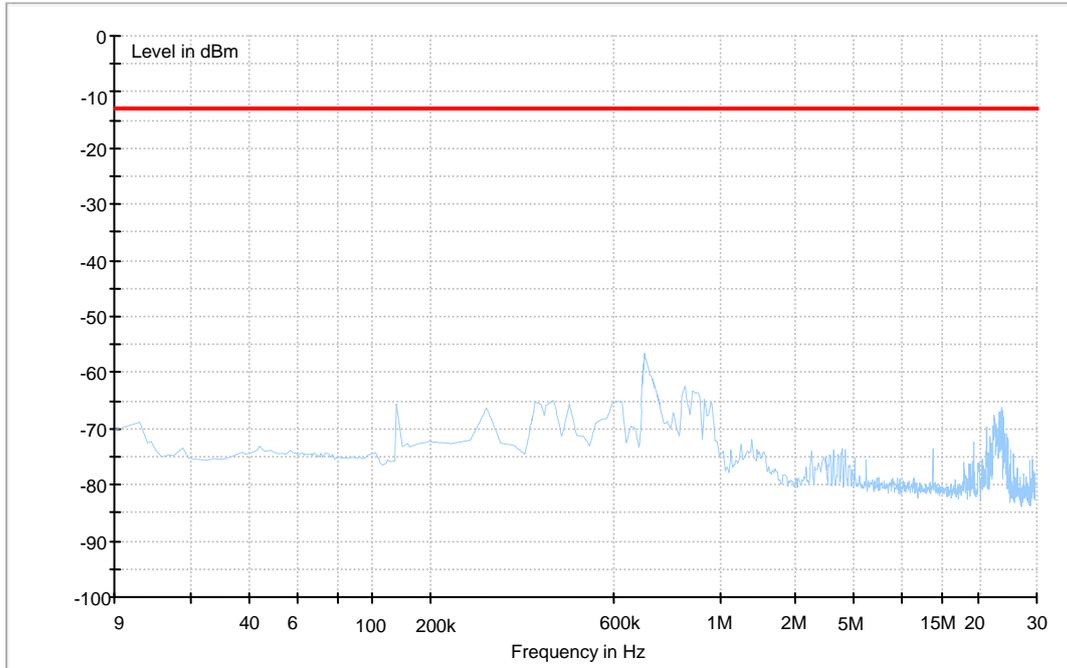
Radiated spurious emission

According to FCC Part 2.1053& Part 27.53(h)



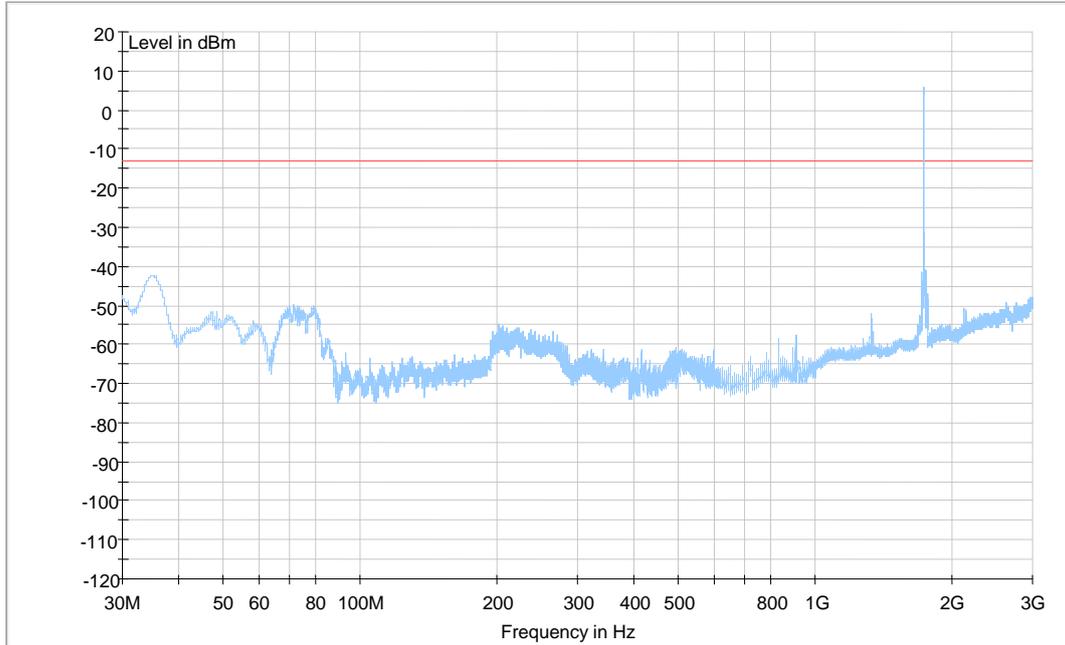
CDMA 1700

Traffic Mode (9kHz-30MHz)



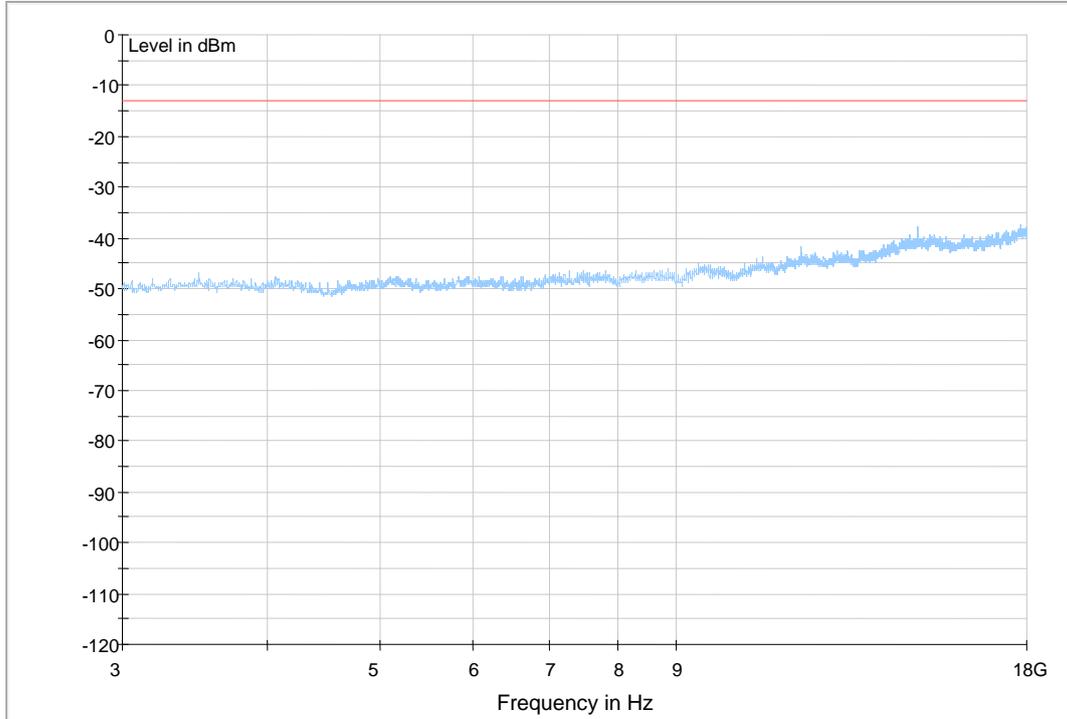


Traffic Mode (30MHz-3GHz)





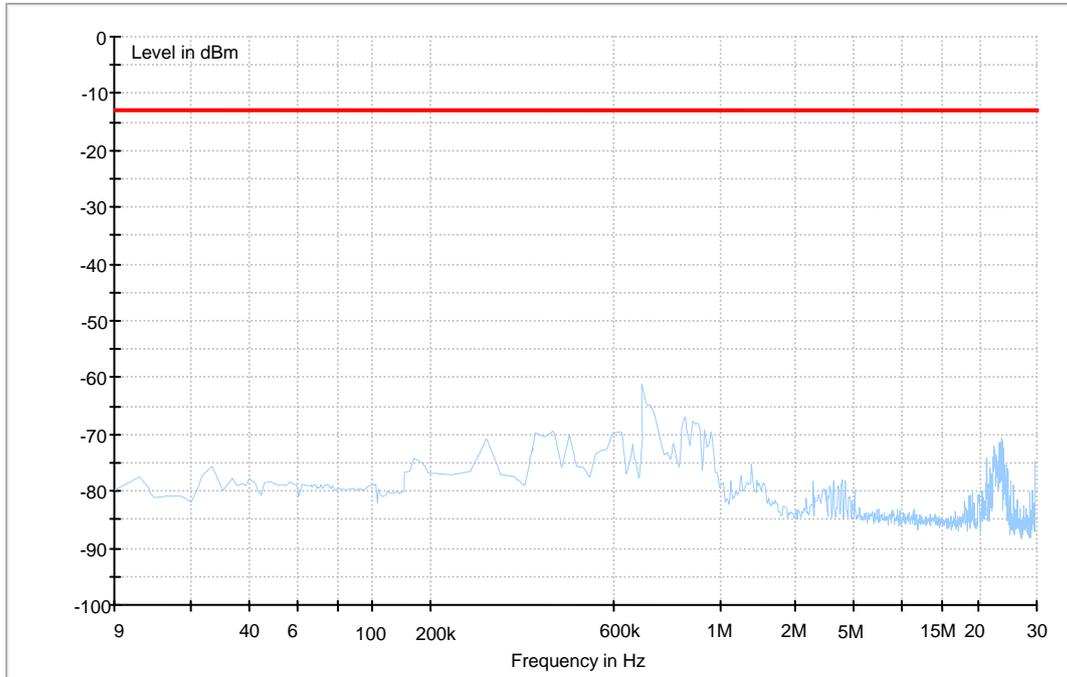
Traffic Mode (3GHz-18GHz)





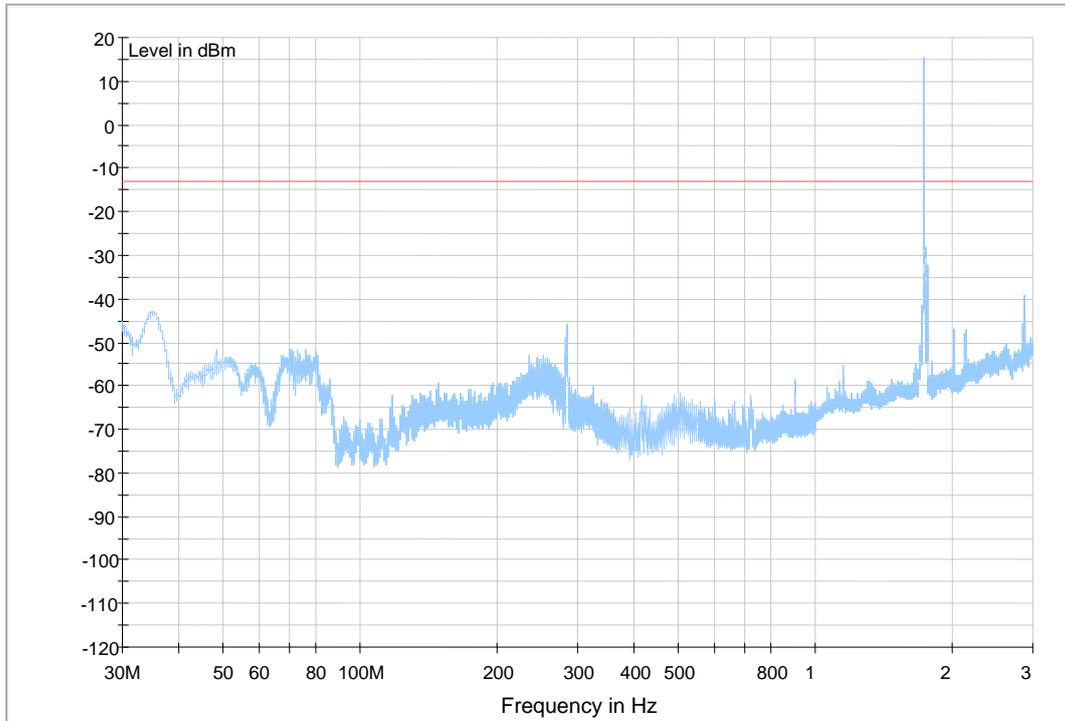
EVDO.0 1700

Traffic Mode (9kHz-30MHz)



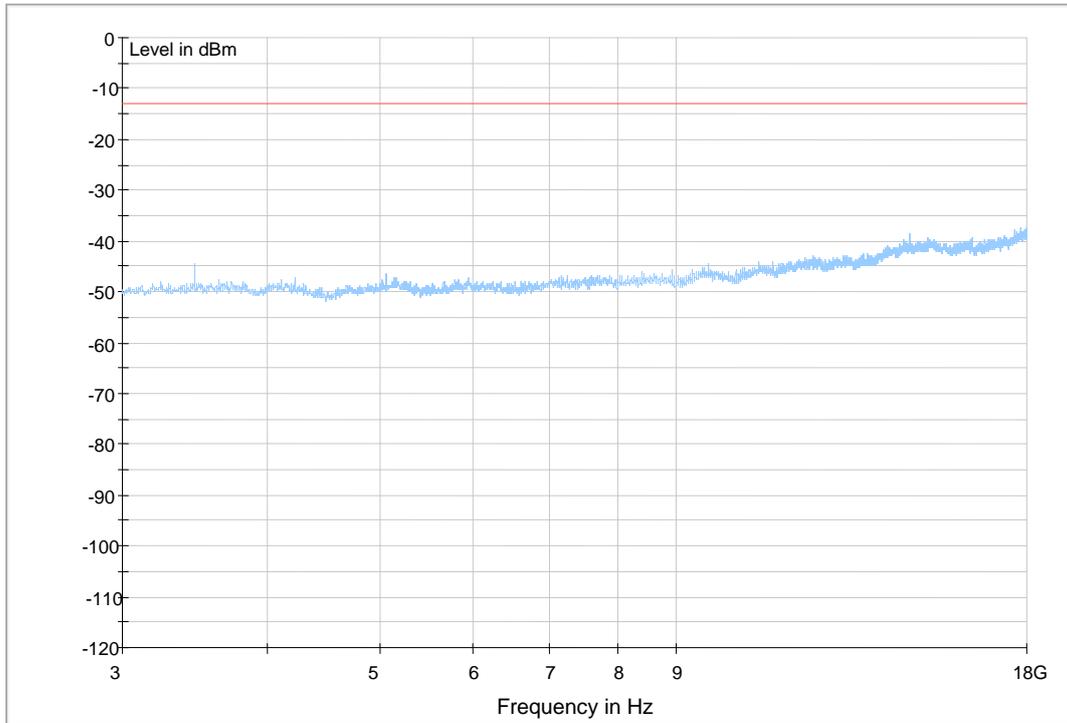


Traffic Mode (30MHz-3GHz)





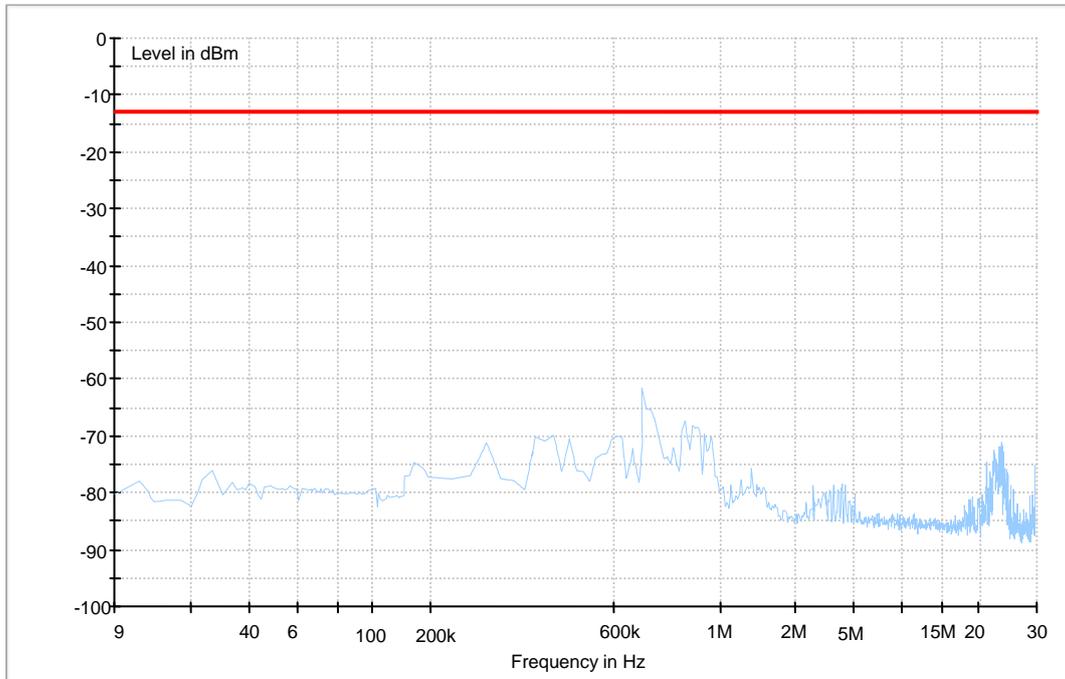
Traffic Mode (3GHz-18GHz)





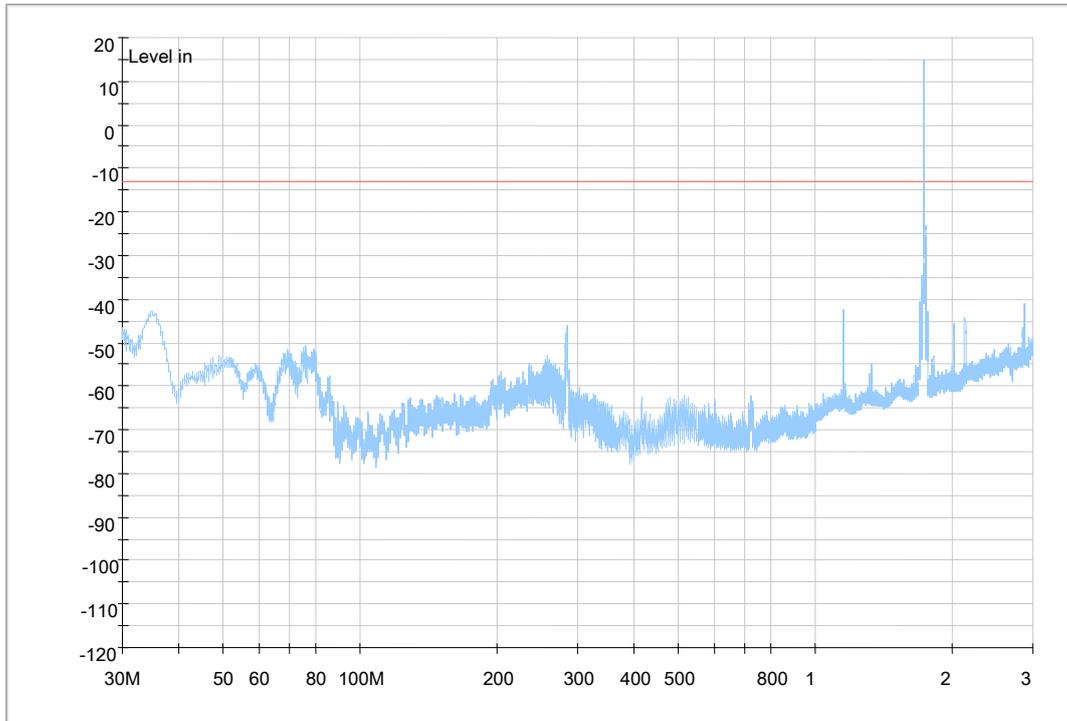
EVDO.A 1700

Traffic Mode (9kHz-30MHz)



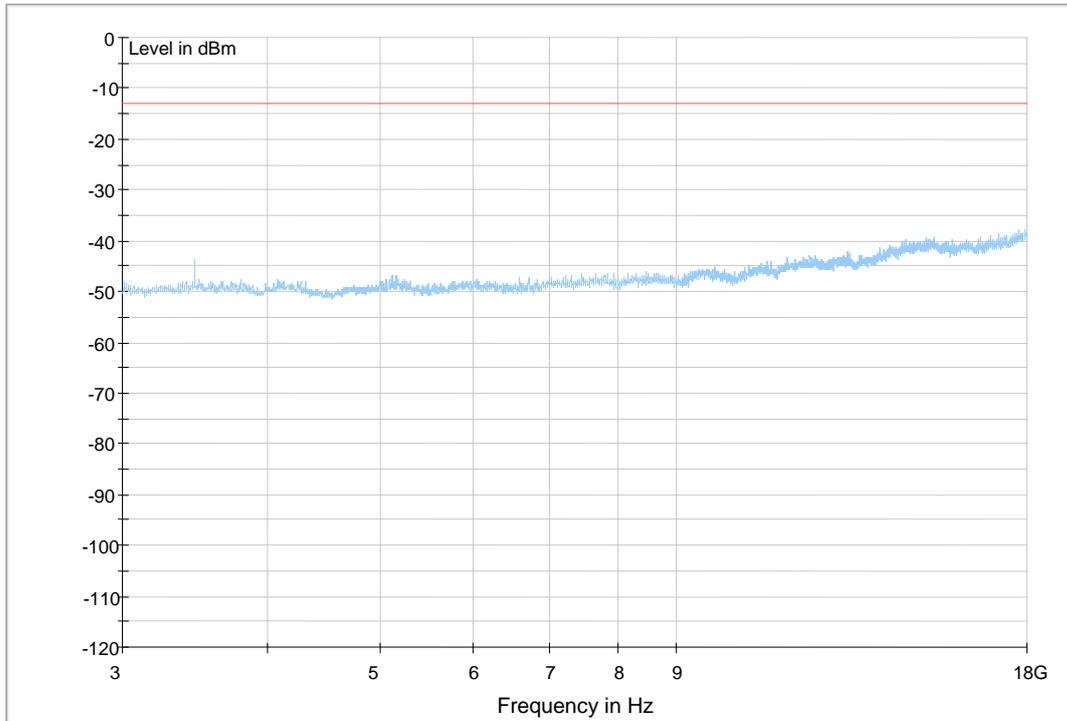


Traffic Mode (30MHz-3GHz)





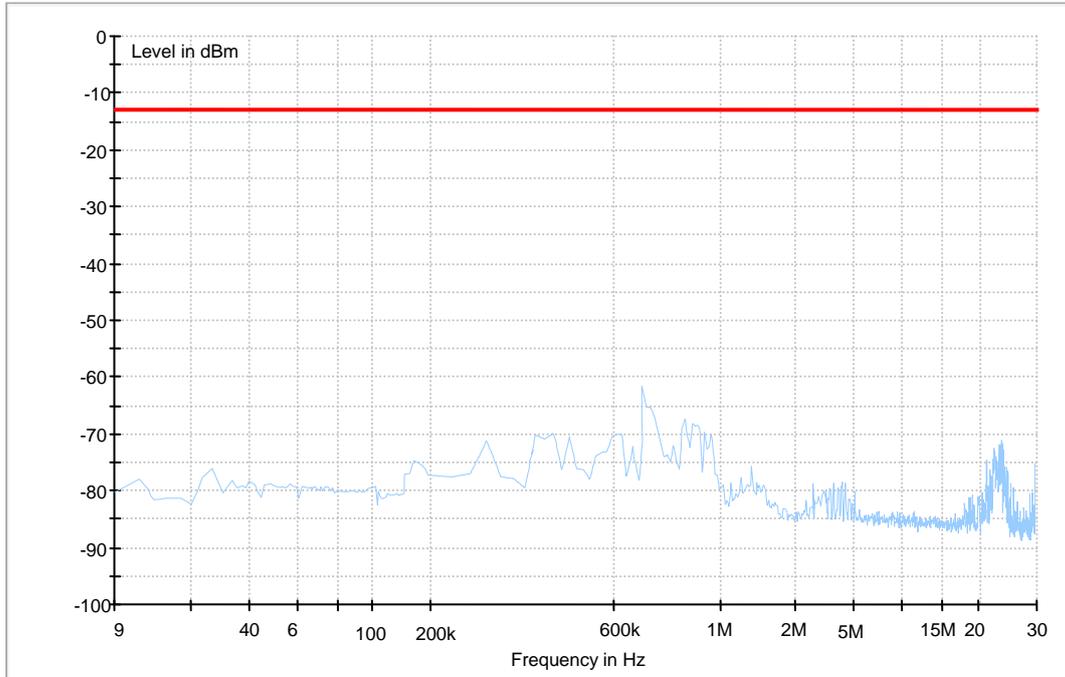
Traffic Mode (3GHz-18GHz)





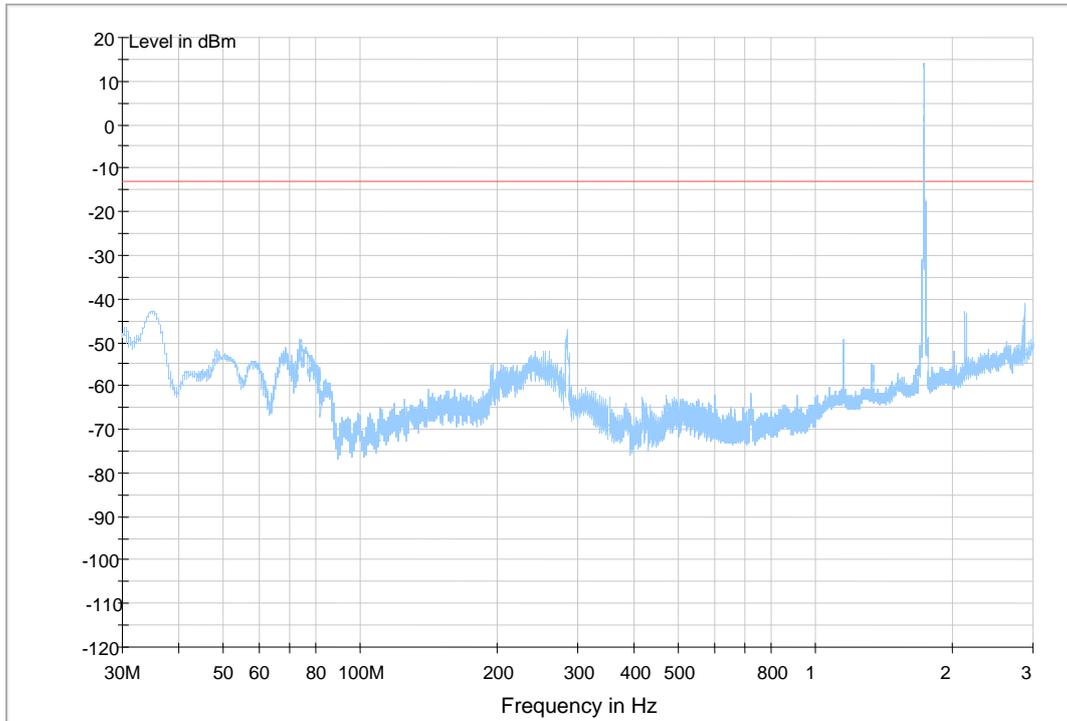
LTE band IV (Channel Bandwidth=1.4MHz)

Traffic Mode (9kHz-30MHz)



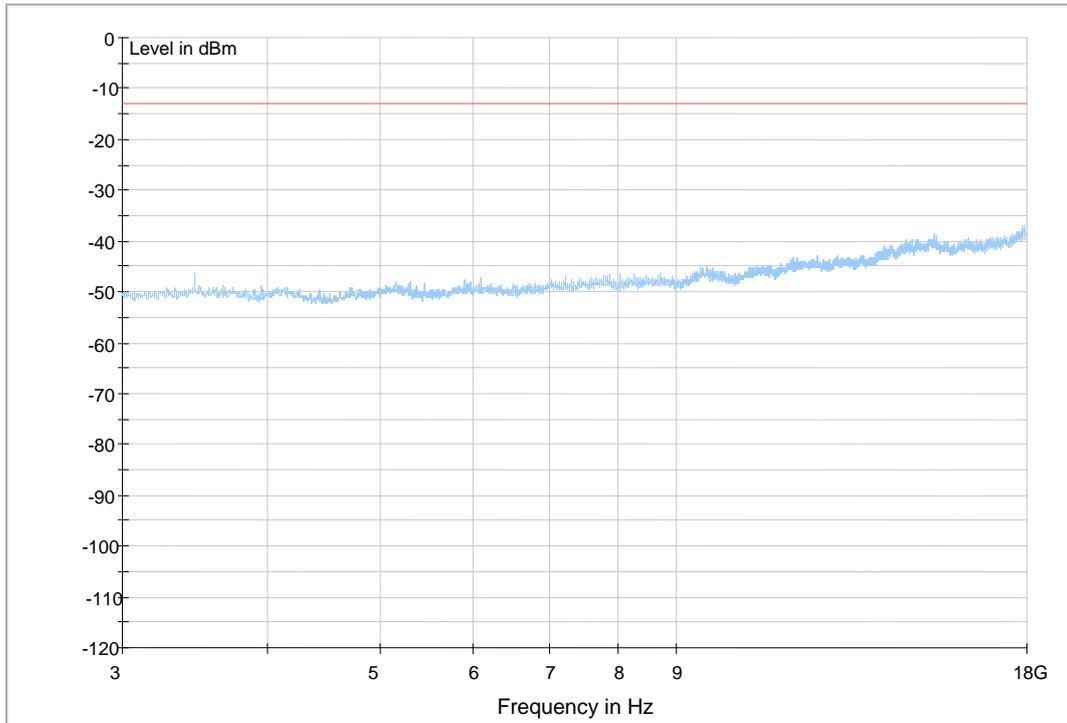


Traffic Mode (30MHz-3GHz)





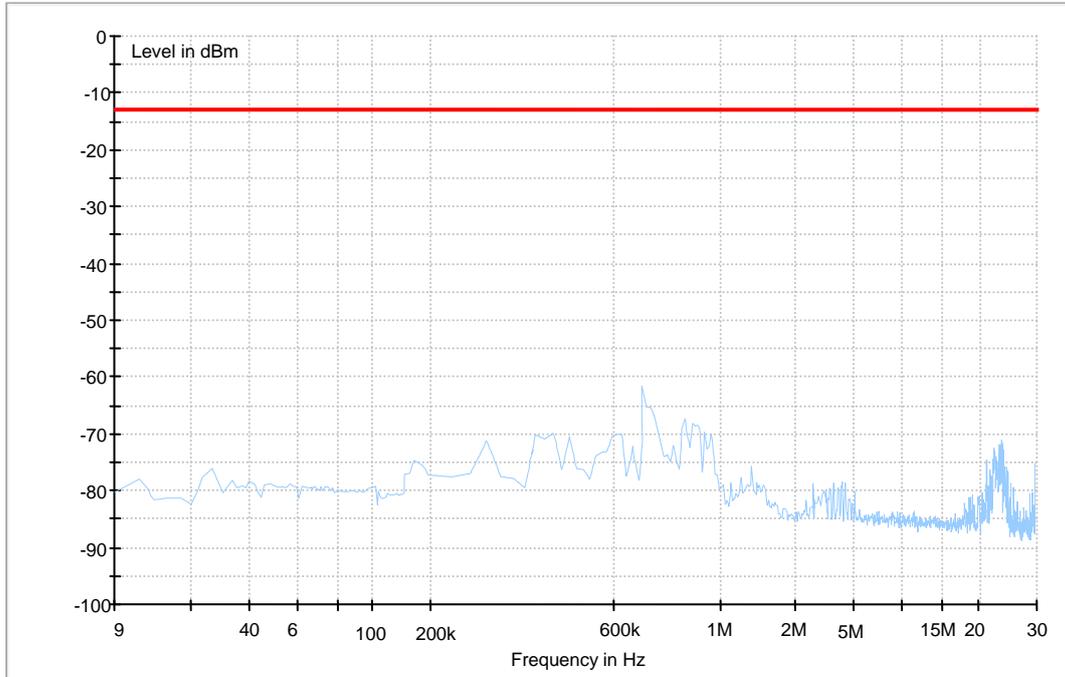
Traffic Mode (3GHz-18GHz)





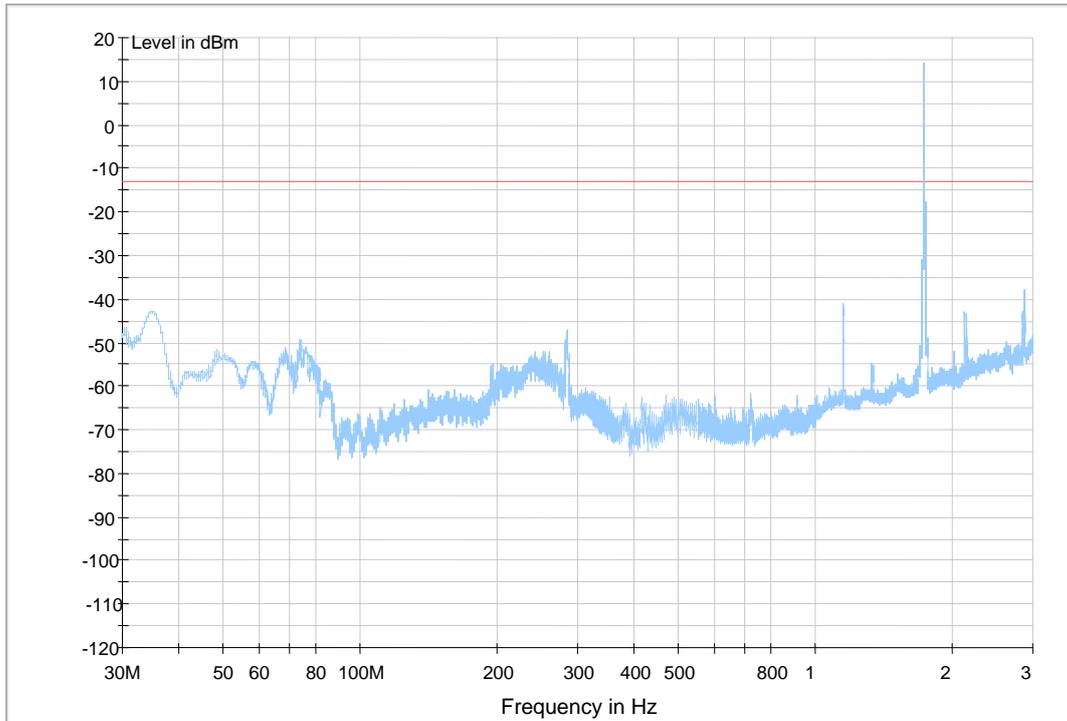
LTE band IV (Channel Bandwidth=3MHz)

Traffic Mode (9kHz-30MHz)



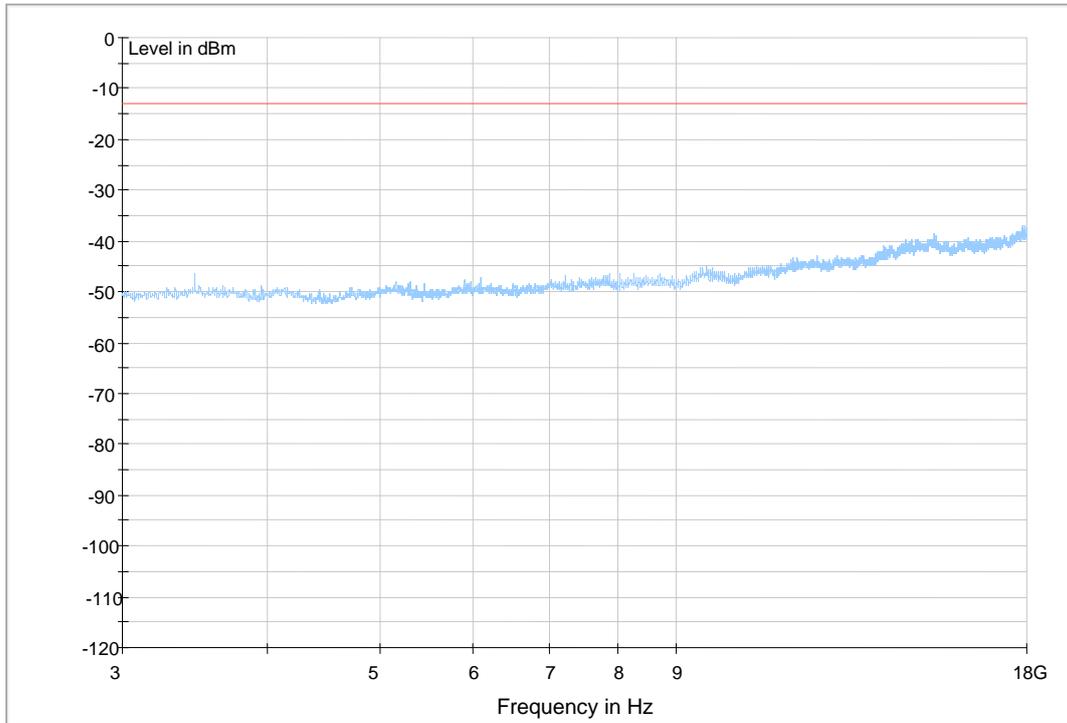


Traffic Mode (30MHz-3GHz)





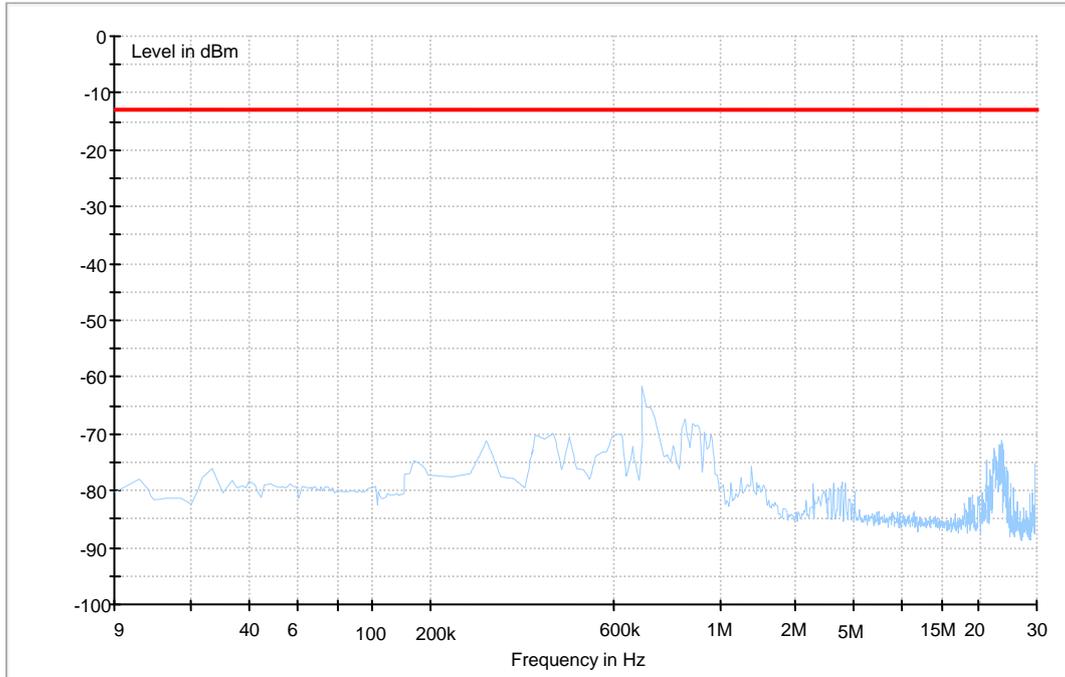
Traffic Mode (3GHz-18GHz)





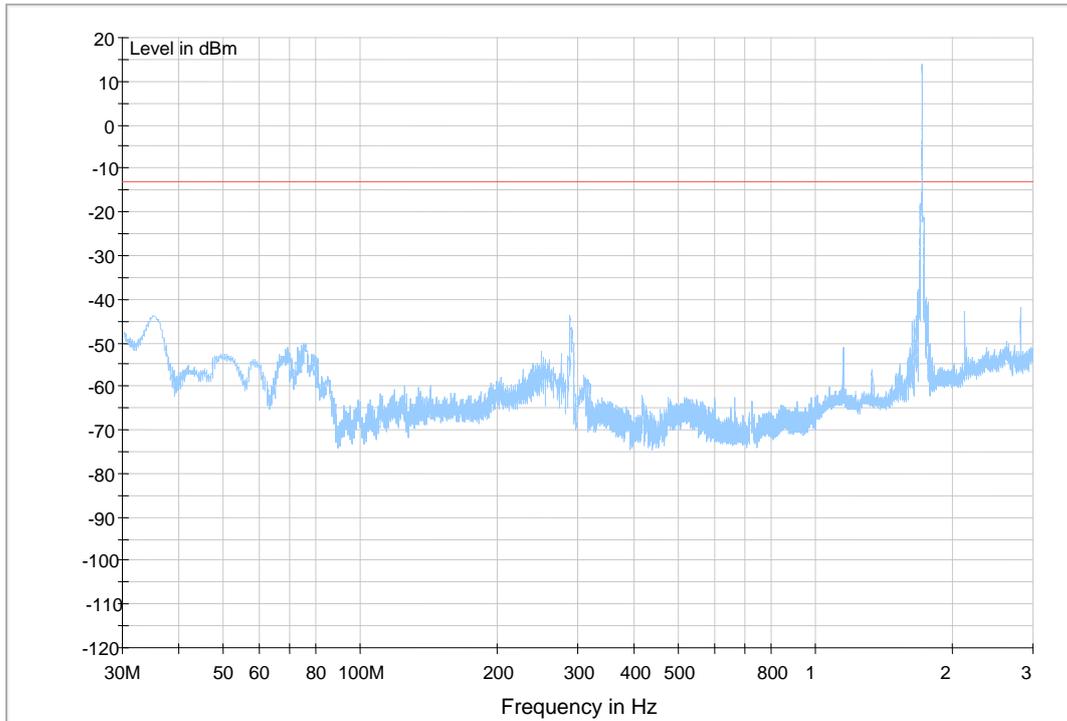
LTE band IV (Channel Bandwidth=5MHz)

Traffic Mode (9kHz-30MHz)



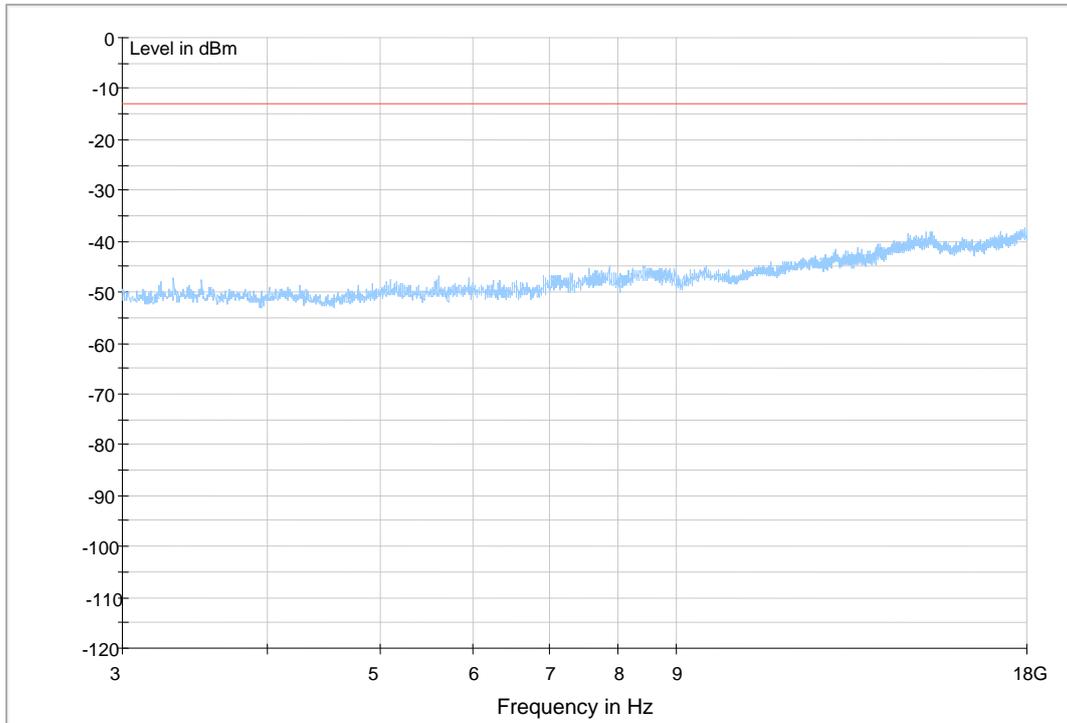


Traffic Mode (30MHz-3GHz)





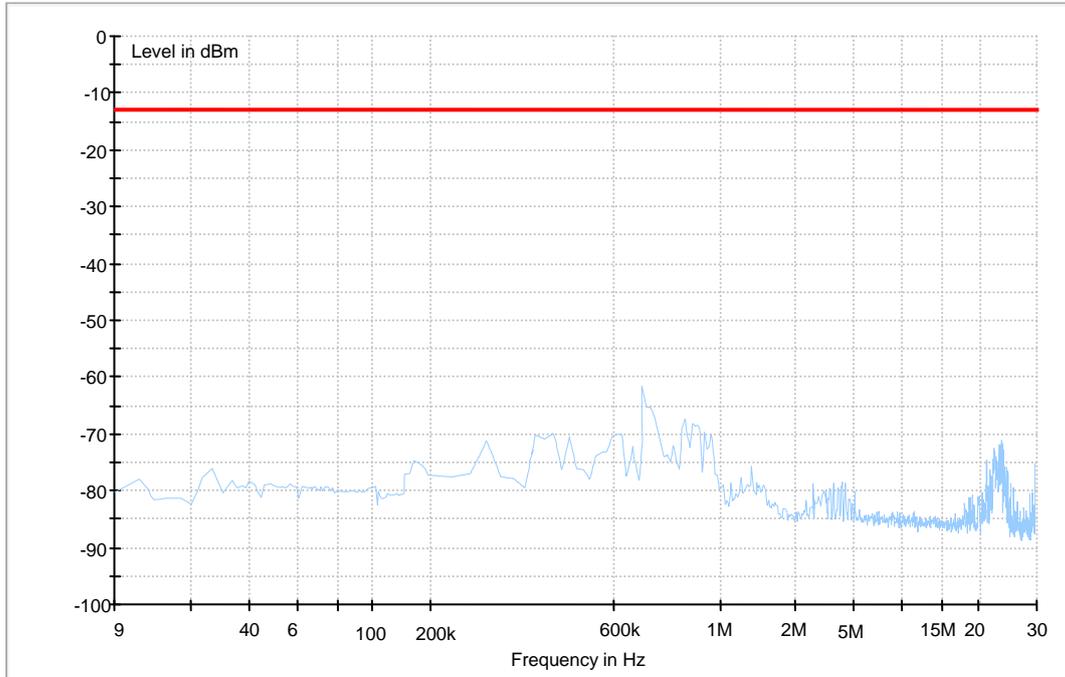
Traffic Mode (3GHz-18GHz)





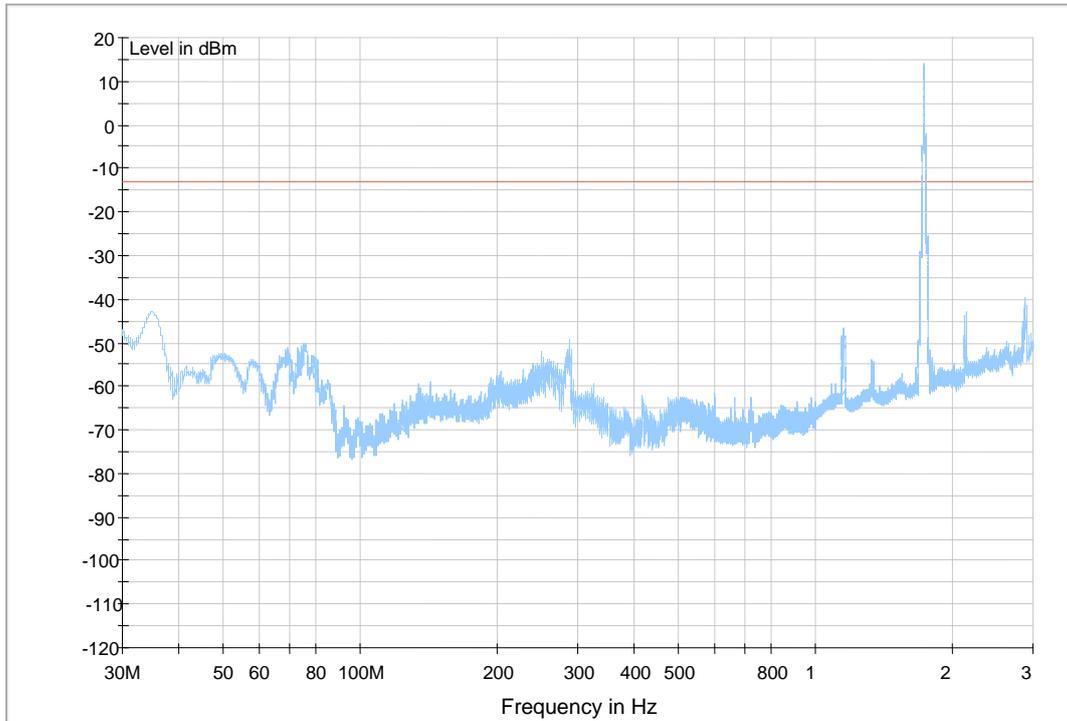
For LTE band IV (Channel Bandwidth=10MHz)

Traffic Mode (9kHz-30MHz)





Traffic Mode (30MHz-3GHz)





Traffic Mode (3GHz-18GHz)

