# Appendix A.1: DTS (6 dB) Bandwidth


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# 1 Result Table

NOTE 1: In this document, the DTS6dBBW refers to the measured “DTS (6 dB) Bandwidth” value. In this Appendix, the fc(DTS6dBBW) refers to the center frequency of the DTS6dBBW. The introduction of the fc(DTS6dBBW) is due to the FCC OET KDB 558074 measurement procedure for “Fundamental Emission Output Power - Maximum Peak Conducted Output Power”, which uses the DTS6dBBW band edges.

NOTE 2: For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

| EUT Conf. | DTS6dBBW, Ant 1 [MHz] | fc(DTS6dBBW), Ant 1 [MHz] | DTS6dBBW, Ant 2 [MHz] | fc(DTS6dBBW), Ant 2 [MHz] | Verdict |
|---|---|---|---|---|---|
| 11B/1_B@1 | 10.25 | 2411.925 | --- | --- | Pass |
| 11B/1_M@1 | 10.25 | 2436.925 | --- | --- | Pass |
| 11B/1_T@1 | 10.25 | 2461.925 | --- | --- | Pass |
| 11G/6_B@1 | 16.45 | 2411.925 | --- | --- | Pass |
| 11G/6_M@1 | 16.6 | 2436.9 | --- | --- | Pass |
| 11G/6_T@1 | 16.5 | 2461.9 | --- | --- | Pass |
| 11N20/0_B@1 | 17.7 | 2411.9 | --- | --- | Pass |
| 11N20/0_M@1 | 17.75 | 2436.925 | --- | --- | Pass |
| 11N20/0_T@1 | 17.7 | 2461.9 | --- | --- | Pass |


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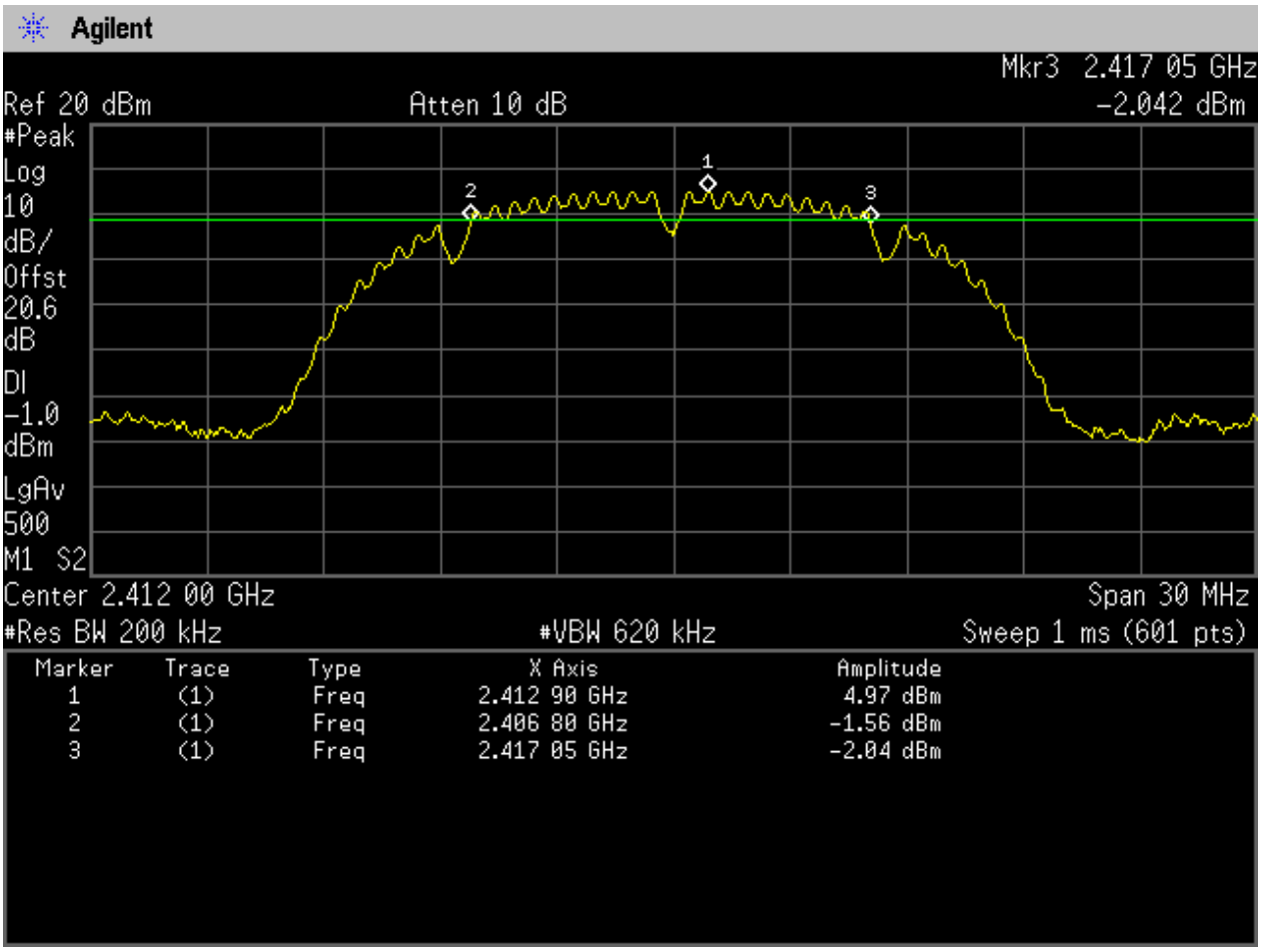
# 2 Test Plot

## 2.1 11B/1_B@1




## 2.2 11B/1_M@1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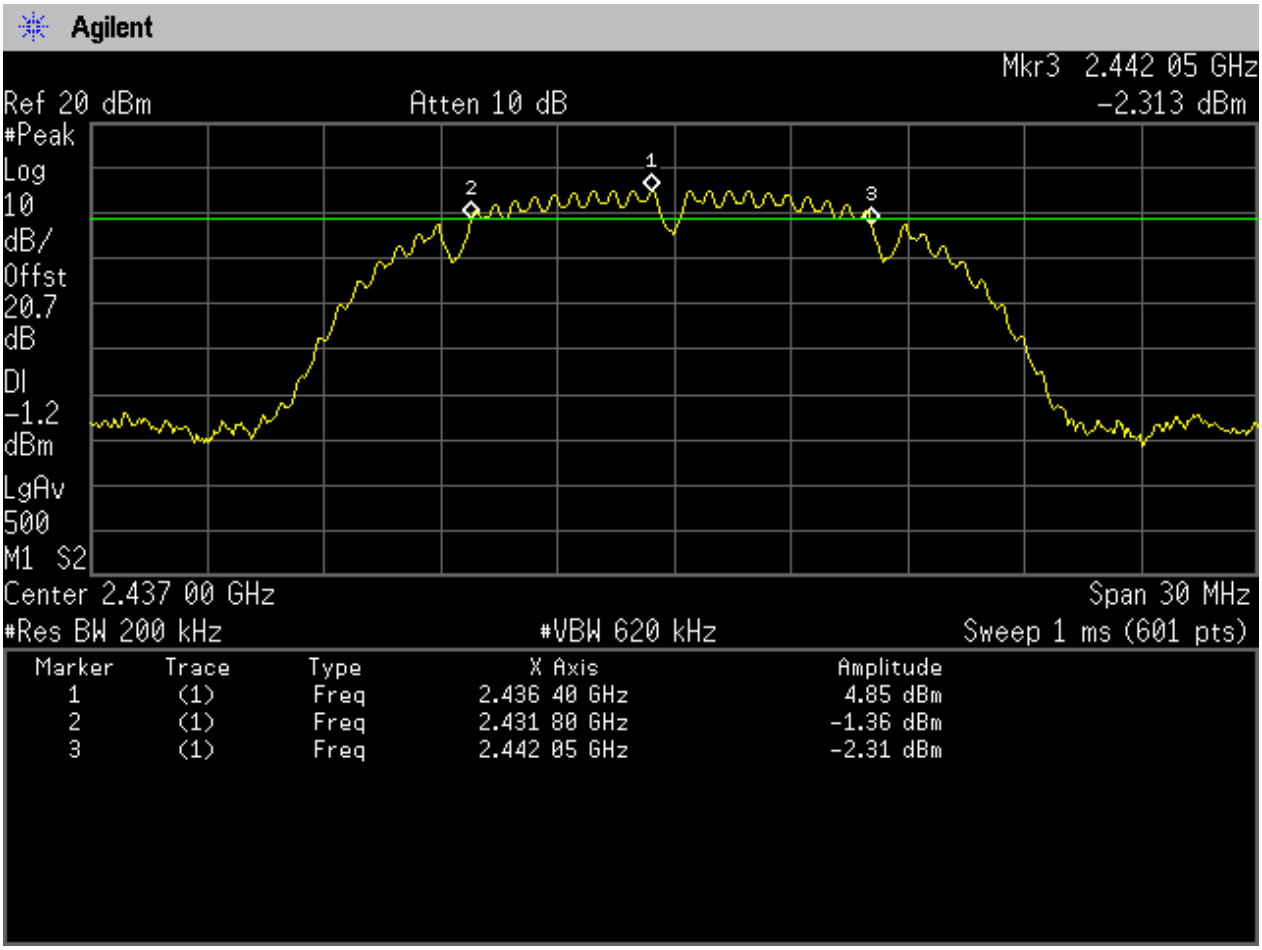


## 2.3 11B/1_T@1


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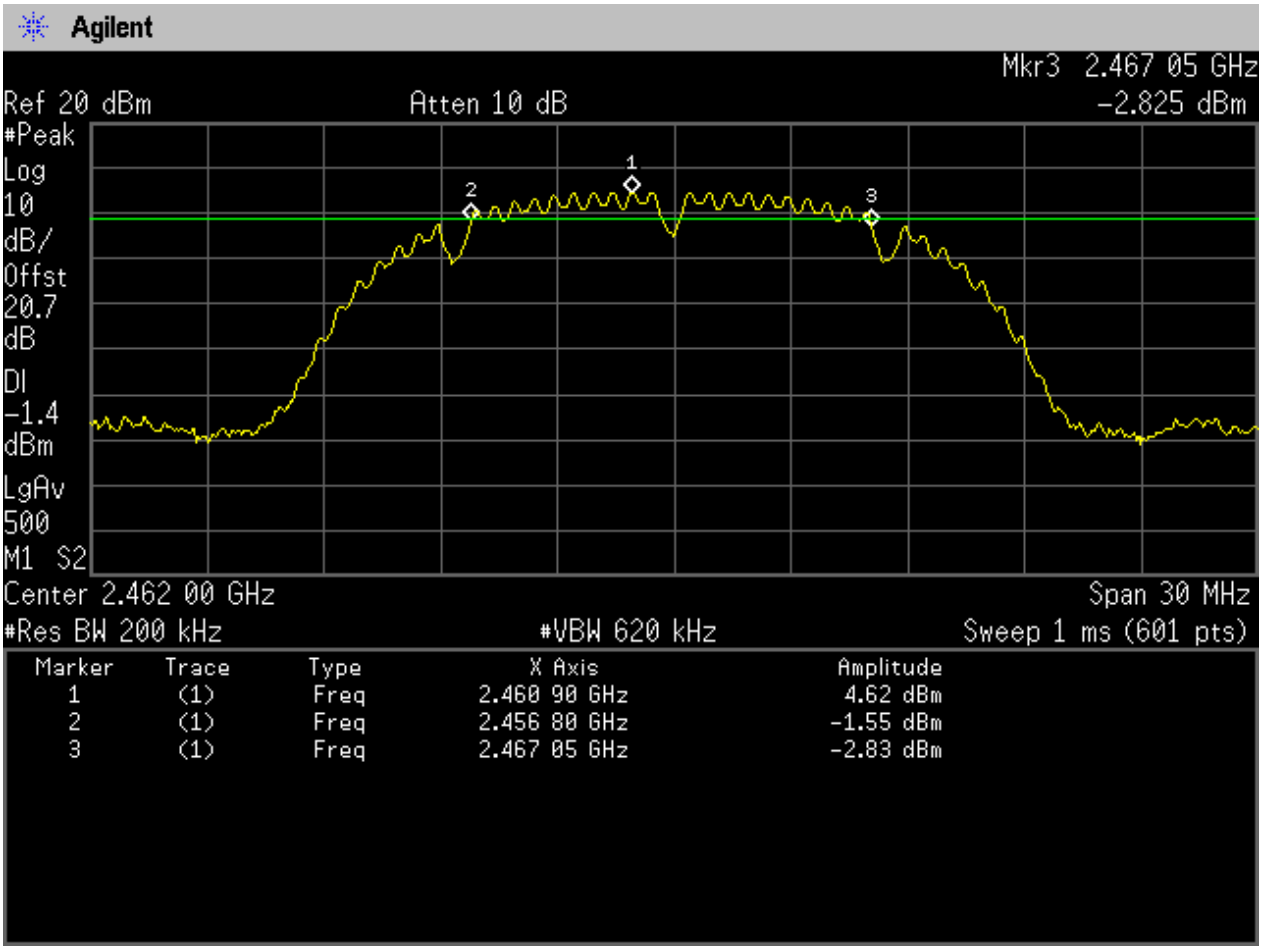


## 2.4 11G/6_B@1


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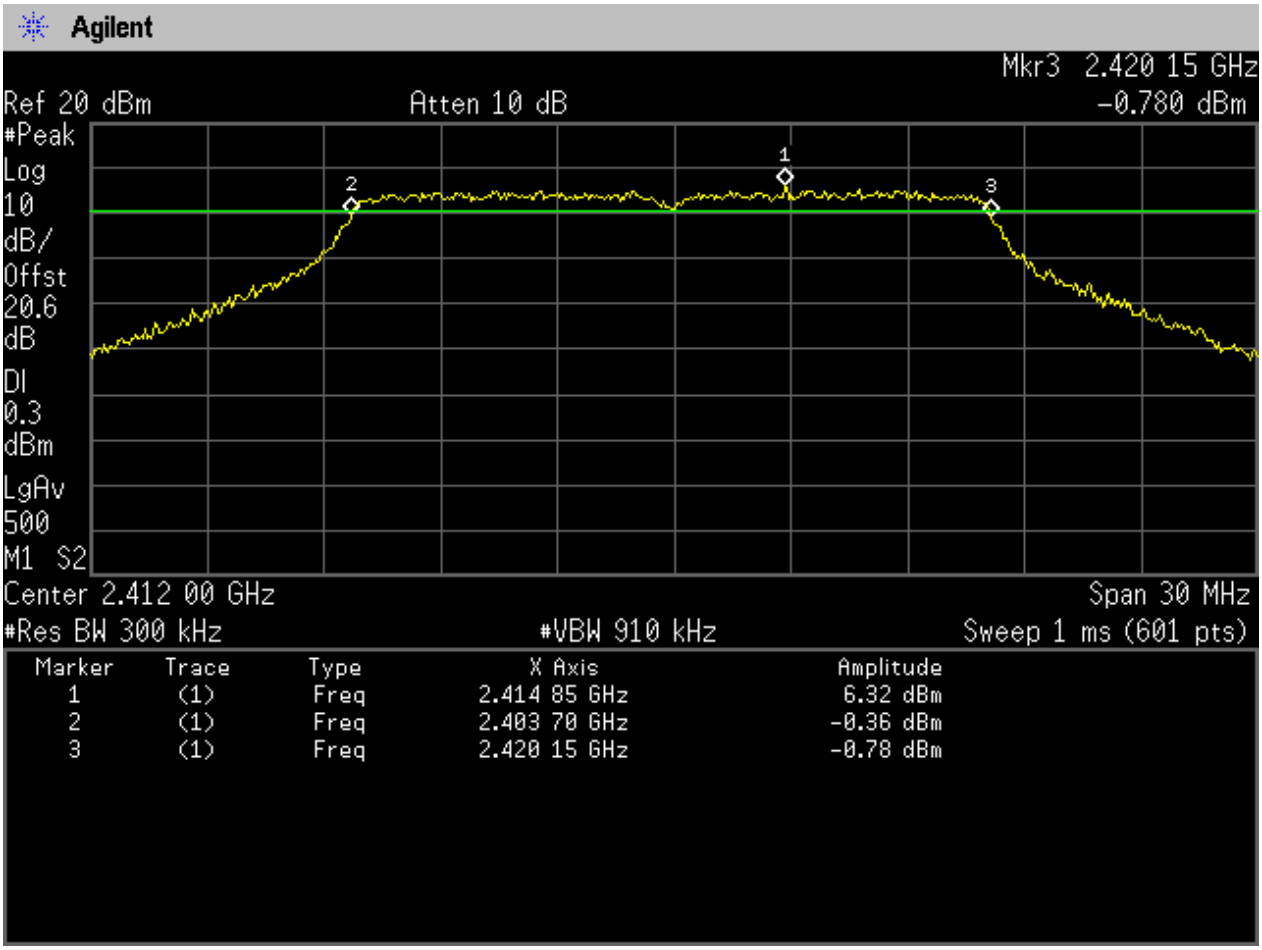


## 2.5 11G/6_M@1


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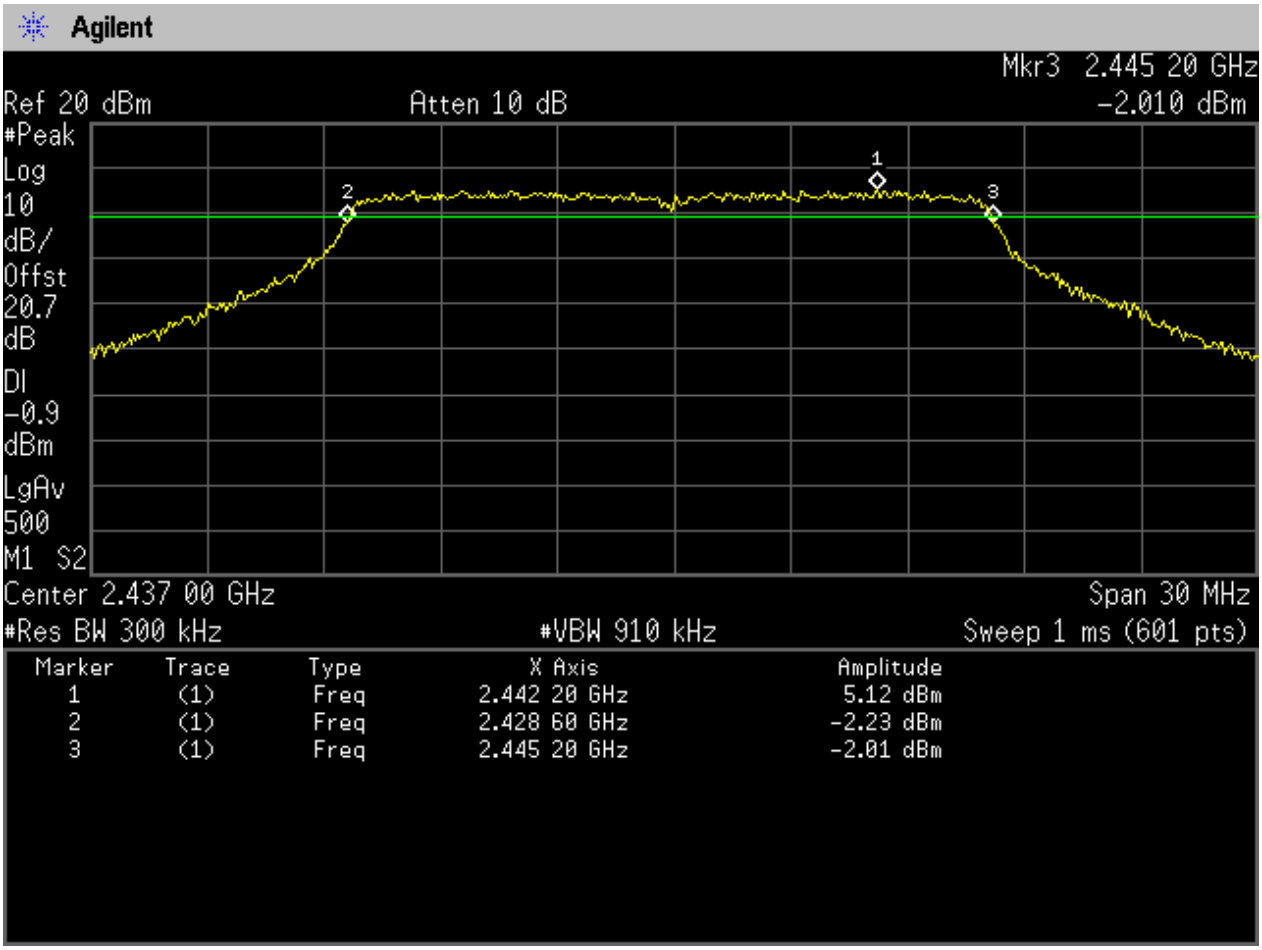


## 2.6 11G/6_T@1


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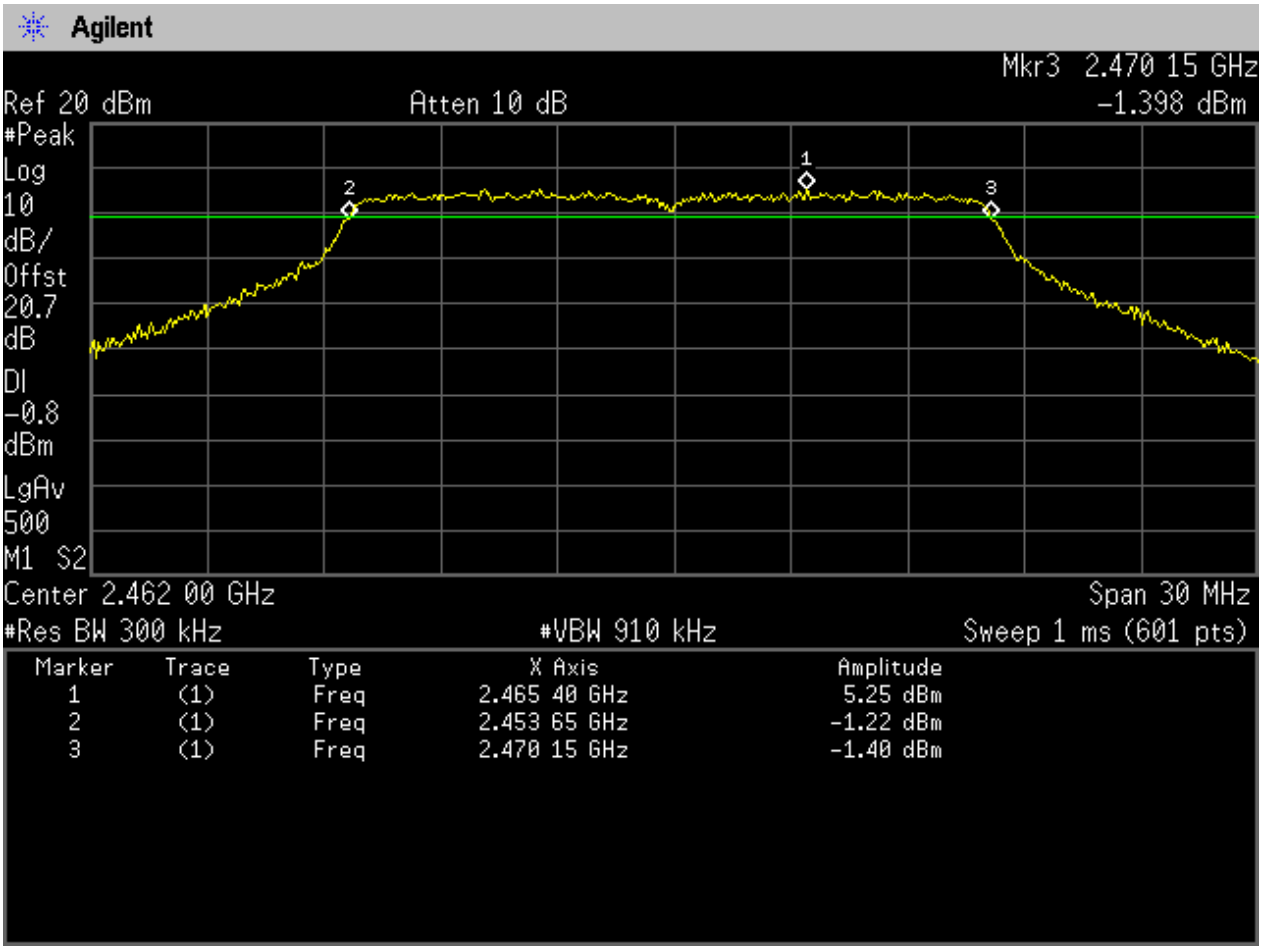


## 2.7 11N20/0_B@1


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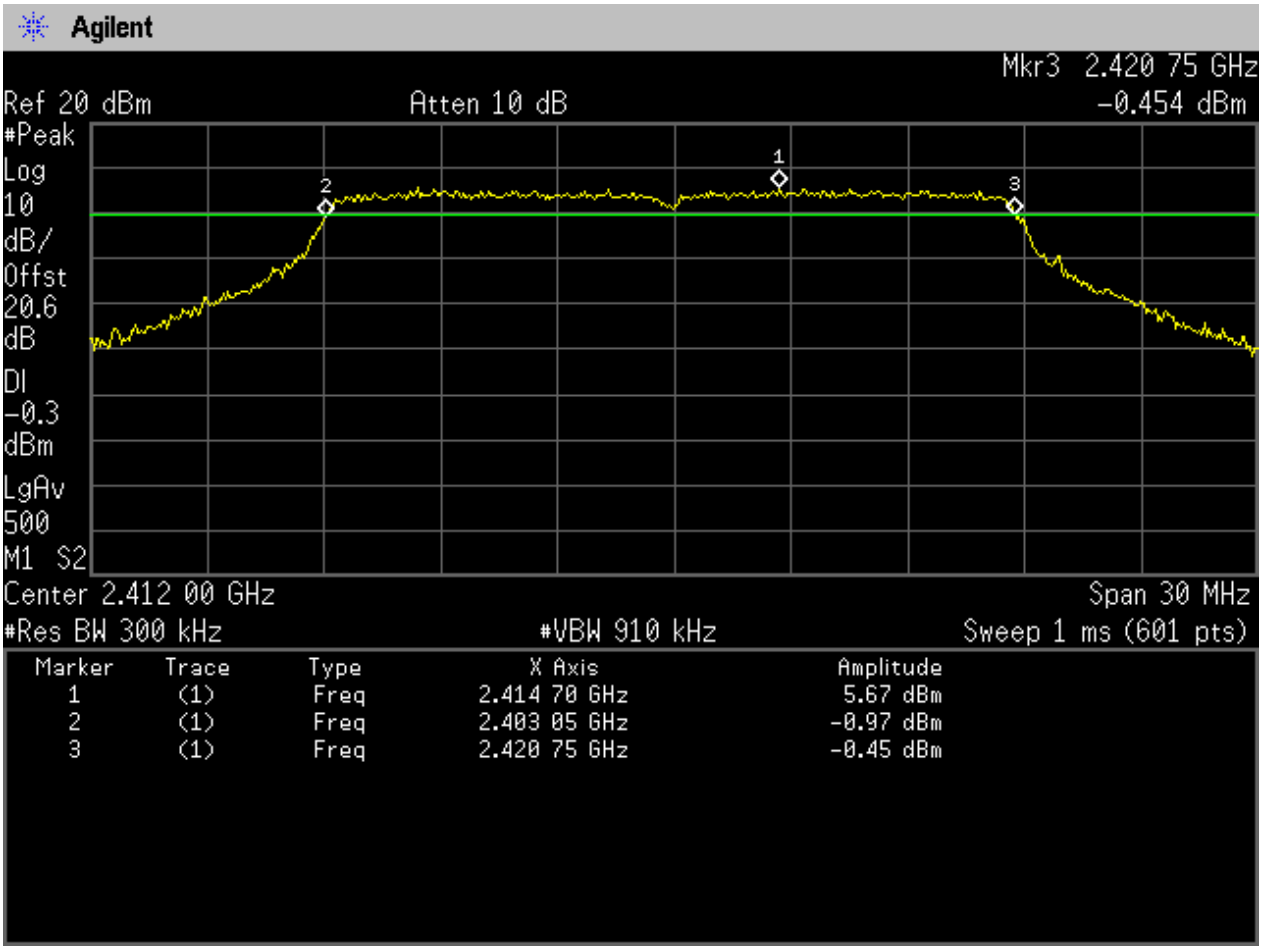


## 2.8 11N20/0_M@1


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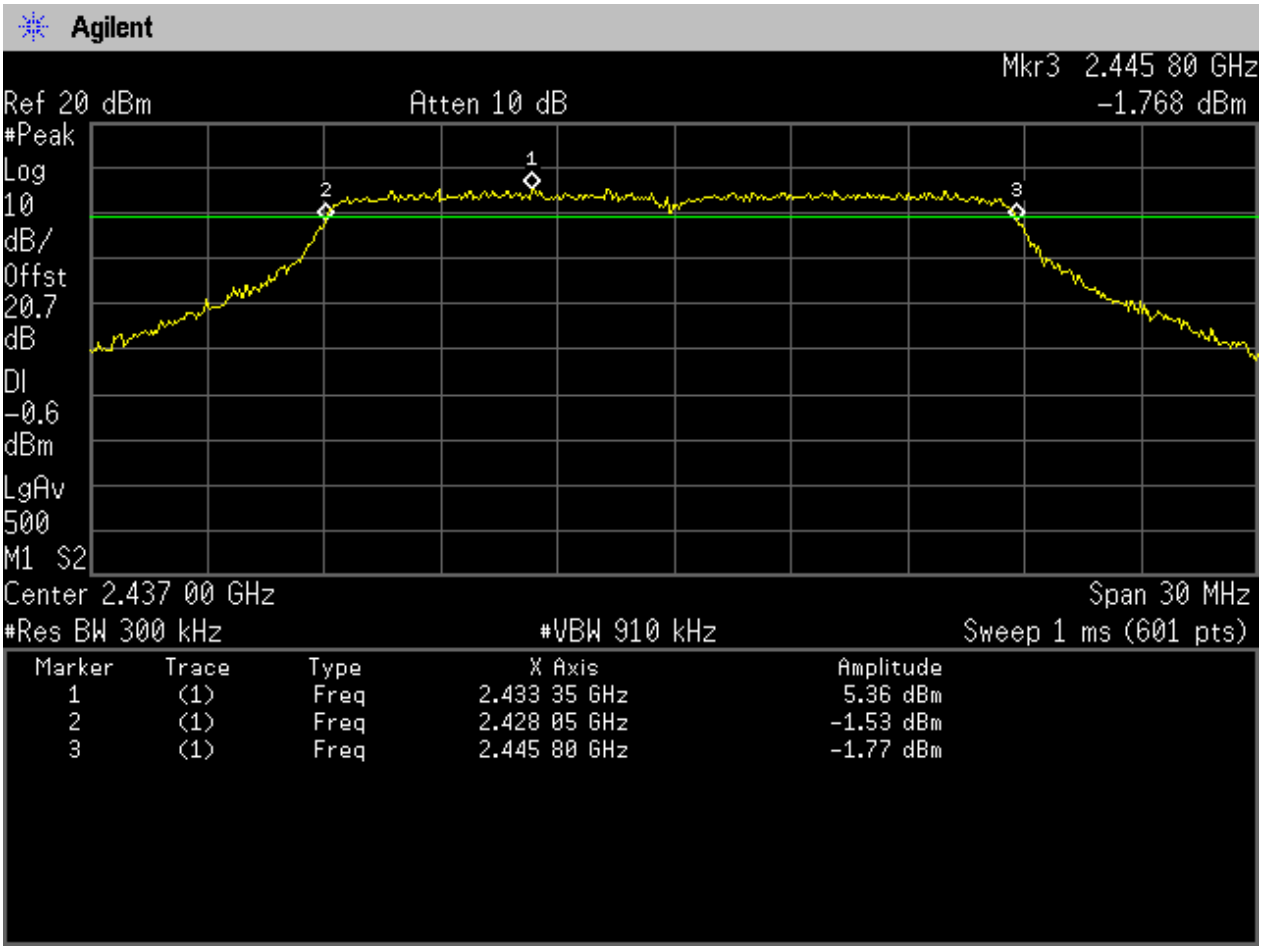


## 2.9 11N20/0_T@1


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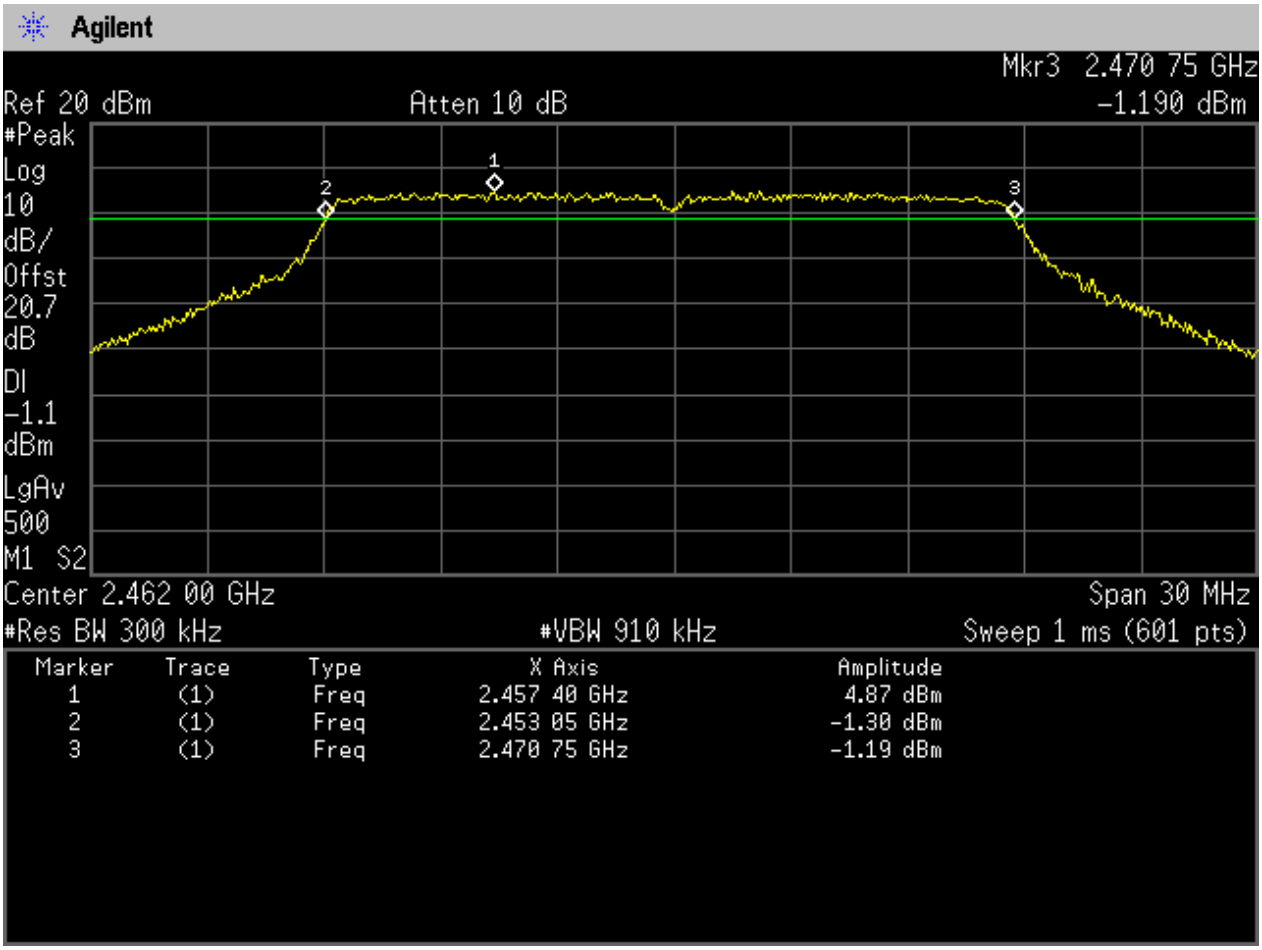



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# Appendix A.2: 99% Occupied Bandwidth


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# 1 Result Table

NOTE 1: For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

| EUT Conf. | 99% Occupied Bandwidth [MHz], Ant 1 [MHz] | 99% Occupied Bandwidth [MHz], Ant 2 [MHz] | Verdict |
|---|---|---|---|
| 11B/1_B@1 | 13.8333 | --- | Pass |
| 11B/1_M@1 | 13.8308 | --- | Pass |
| 11B/1_T@1 | 13.8323 | --- | Pass |
| 11G/6_B@1 | 16.3413 | --- | Pass |
| 11G/6_M@1 | 16.3452 | --- | Pass |
| 11G/6_T@1 | 16.3470 | --- | Pass |
| 11N20/0_B@1 | 17.5066 | --- | Pass |
| 11N20/0_M@1 | 17.5104 | --- | Pass |
| 11N20/0_T@1 | 17.5158 | --- | Pass |


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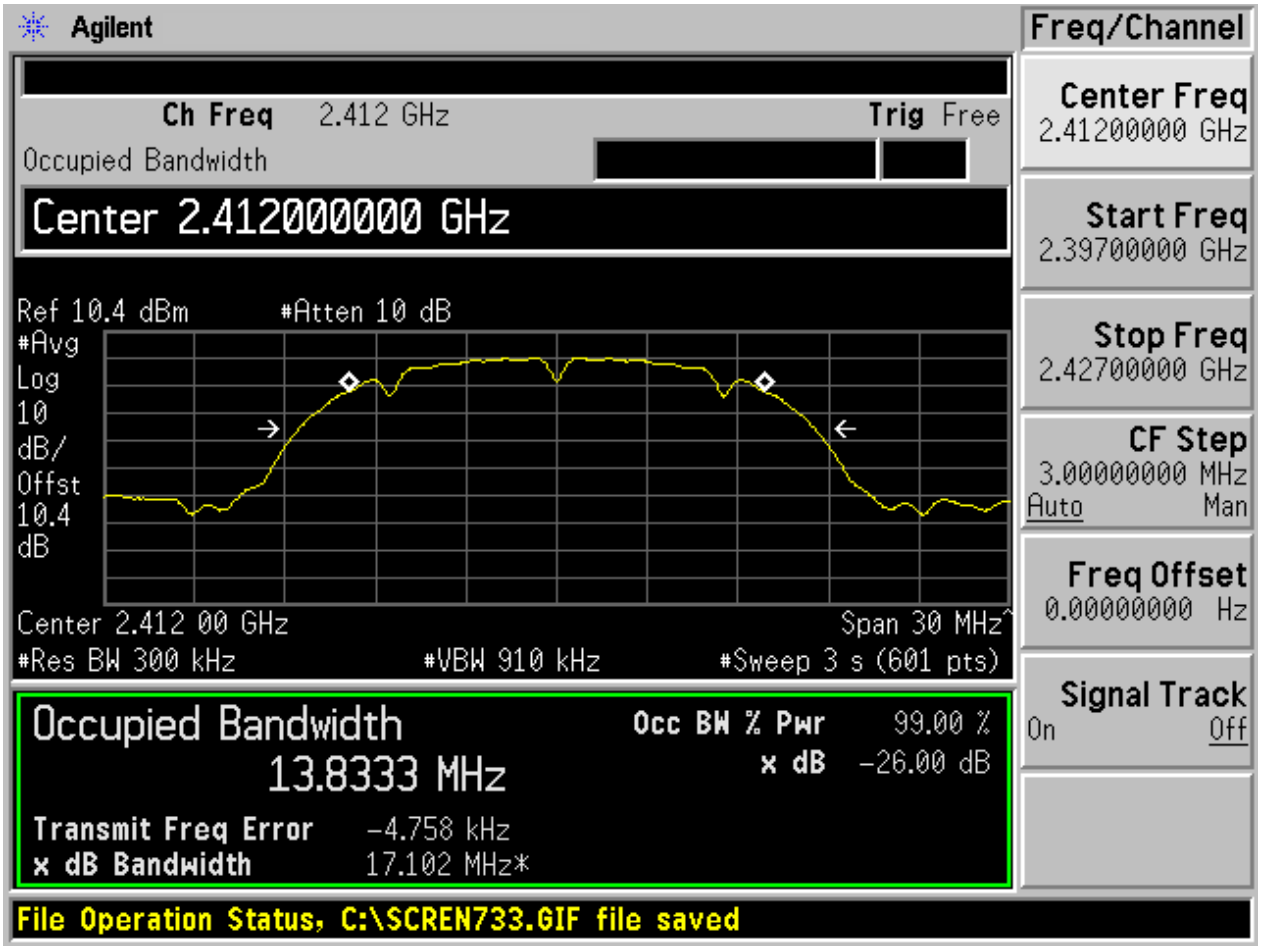
## 2 Test Plot

### 2.1 11B/1_B@1





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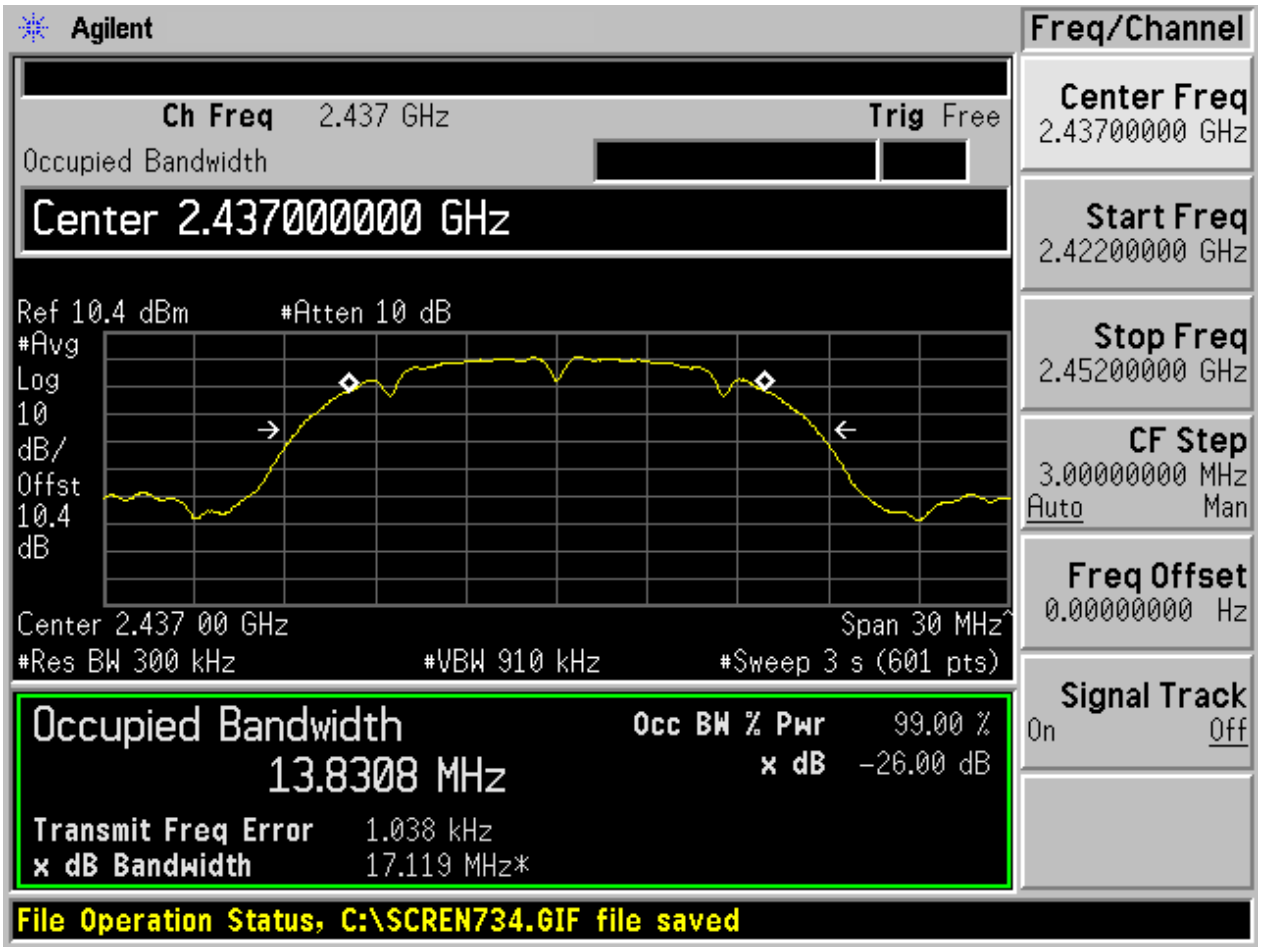
## 2.2 11B/1_M@1





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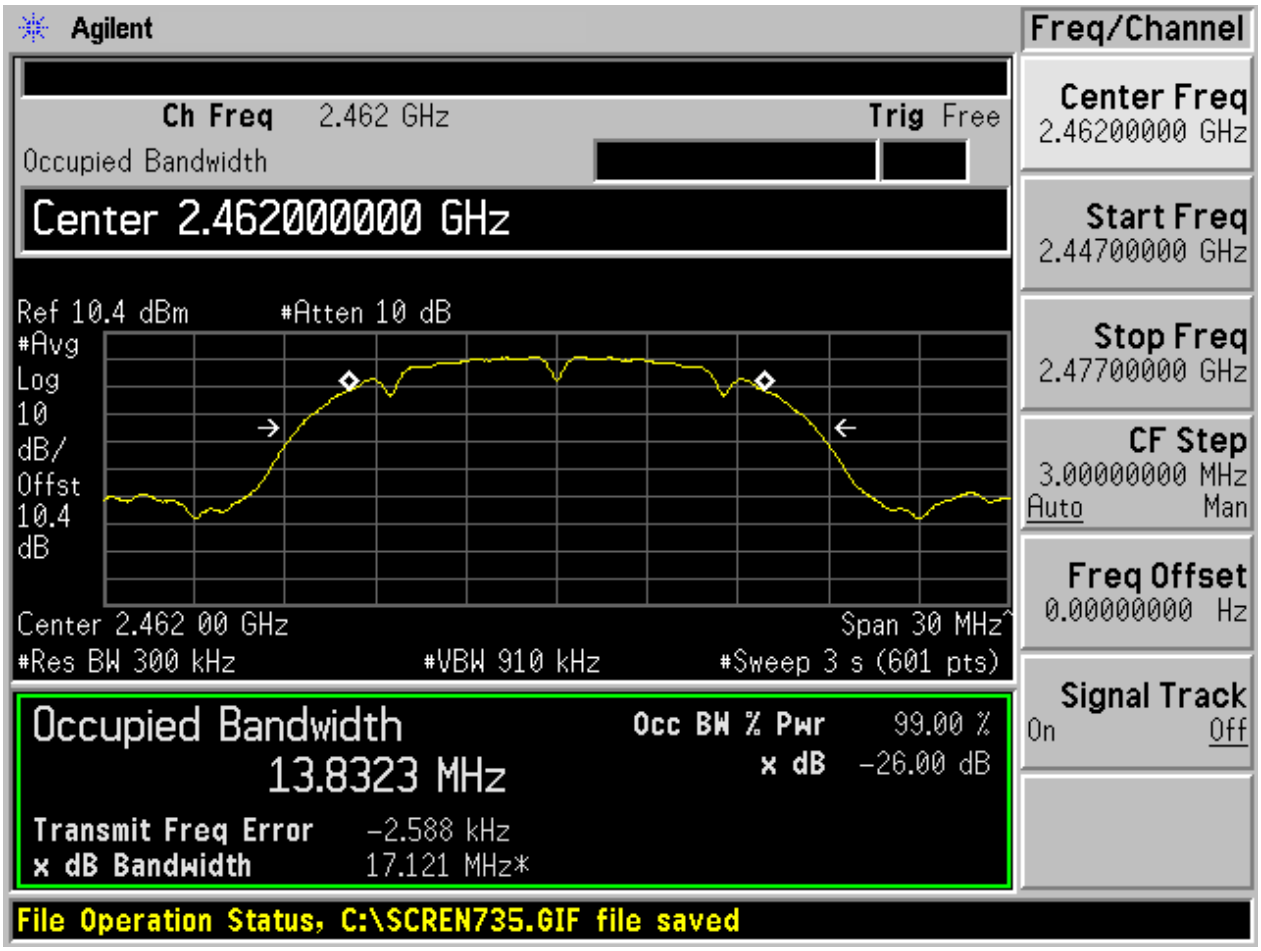
## 2.3 11B/1_T@1





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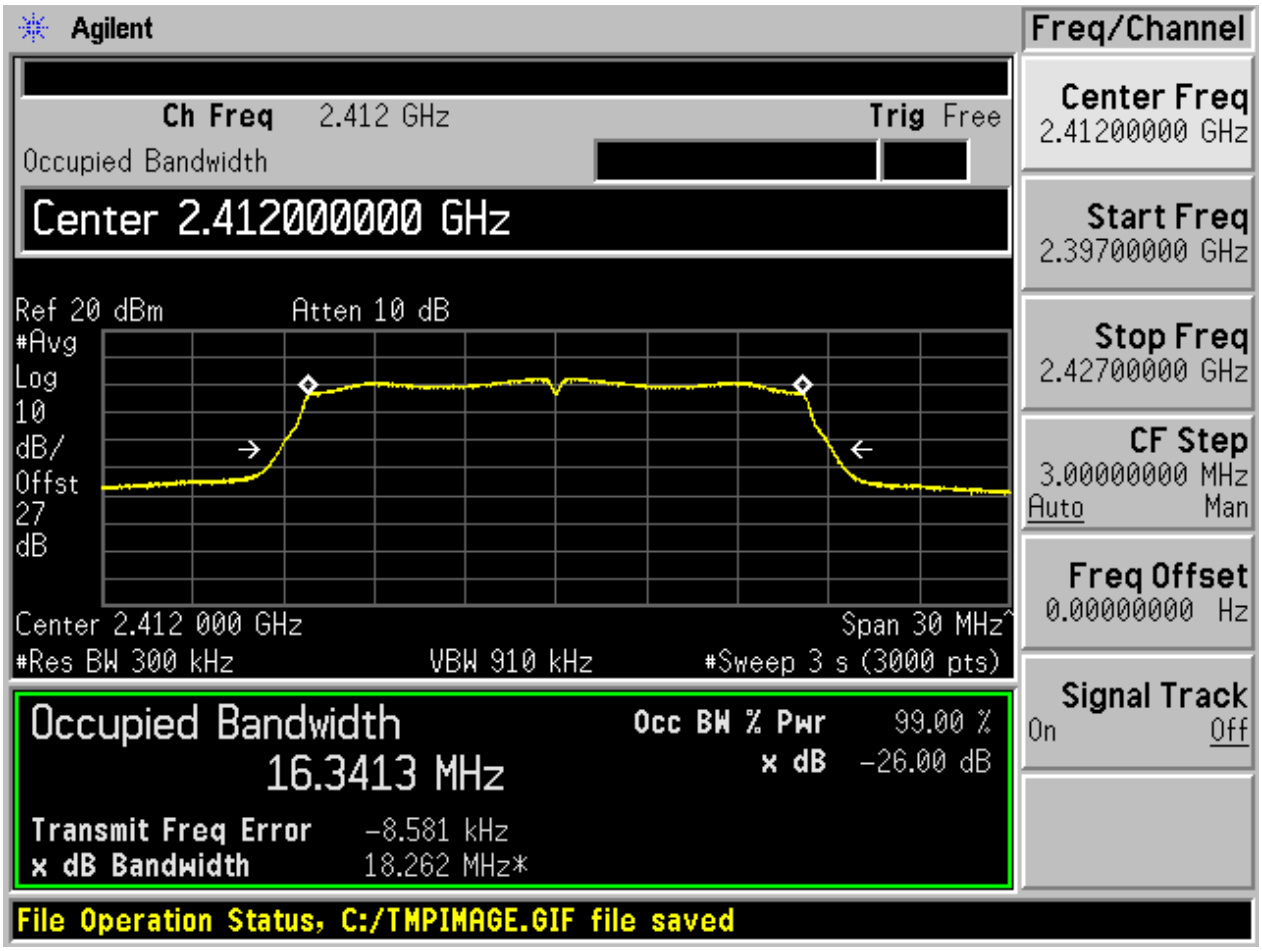
## 2.4 11G/6_B@1





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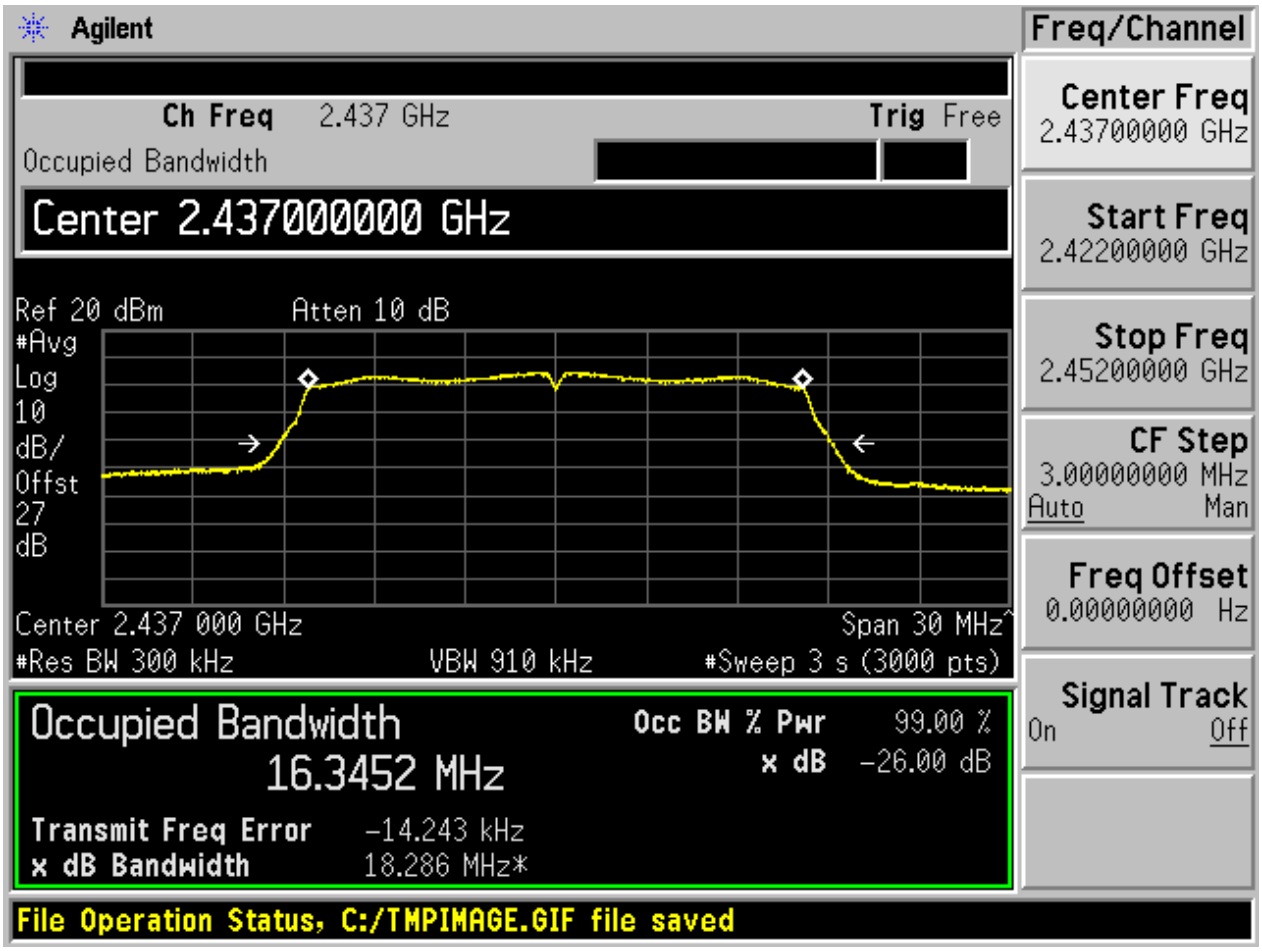
## 2.5 11G/6_M@1





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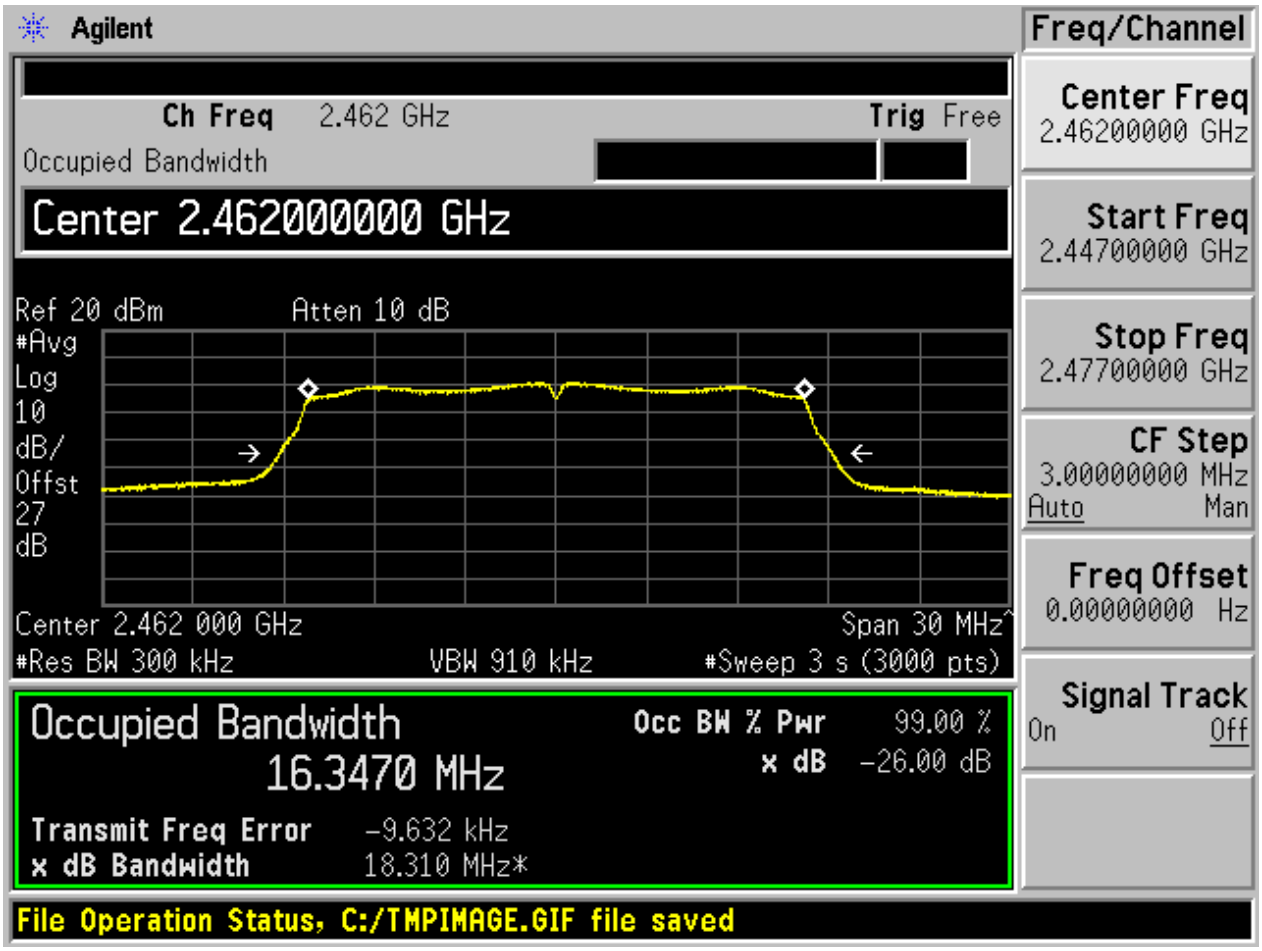
## 2.6 11G/6_T@1





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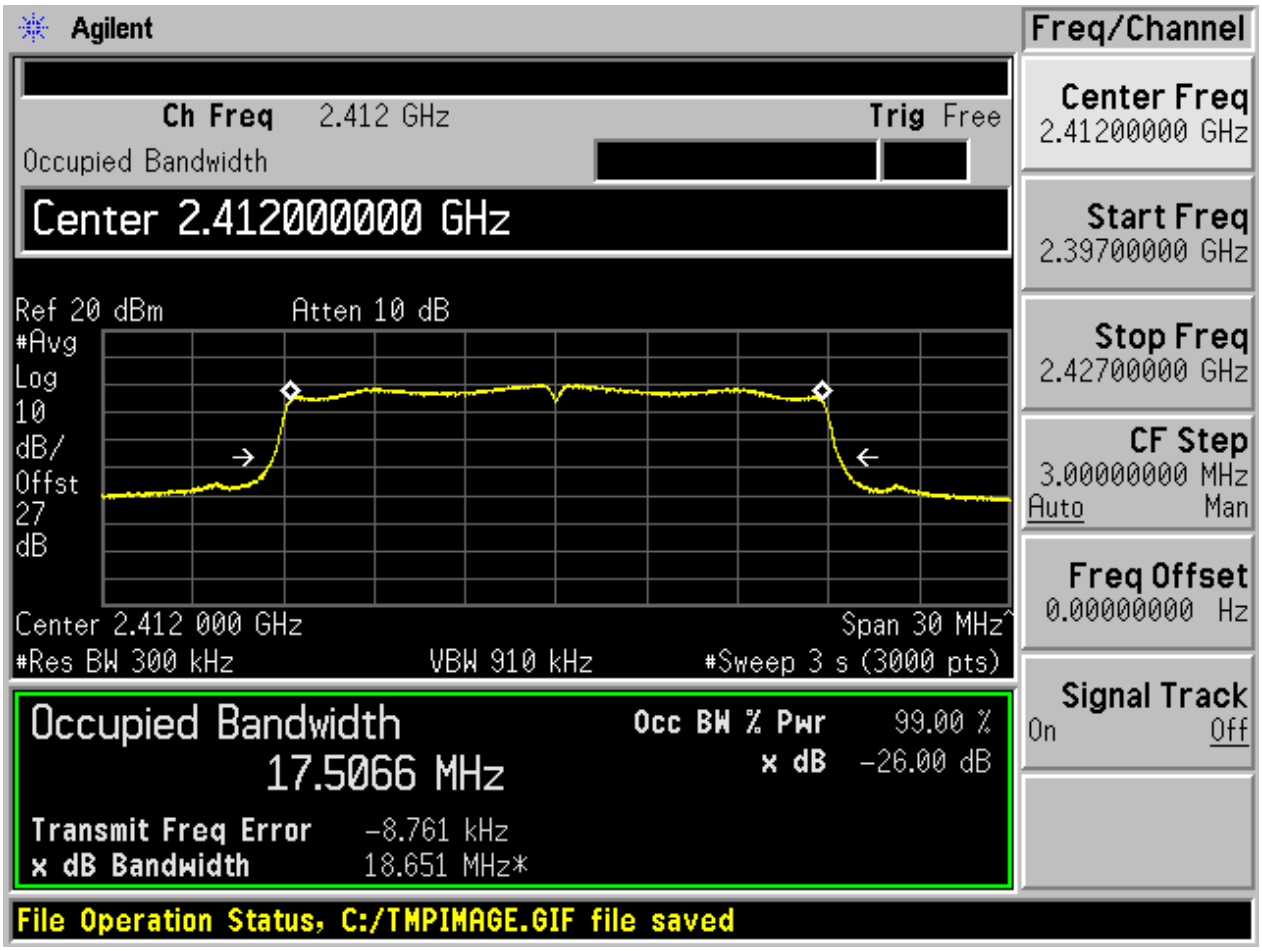
## 2.7 11N20/0_B@1





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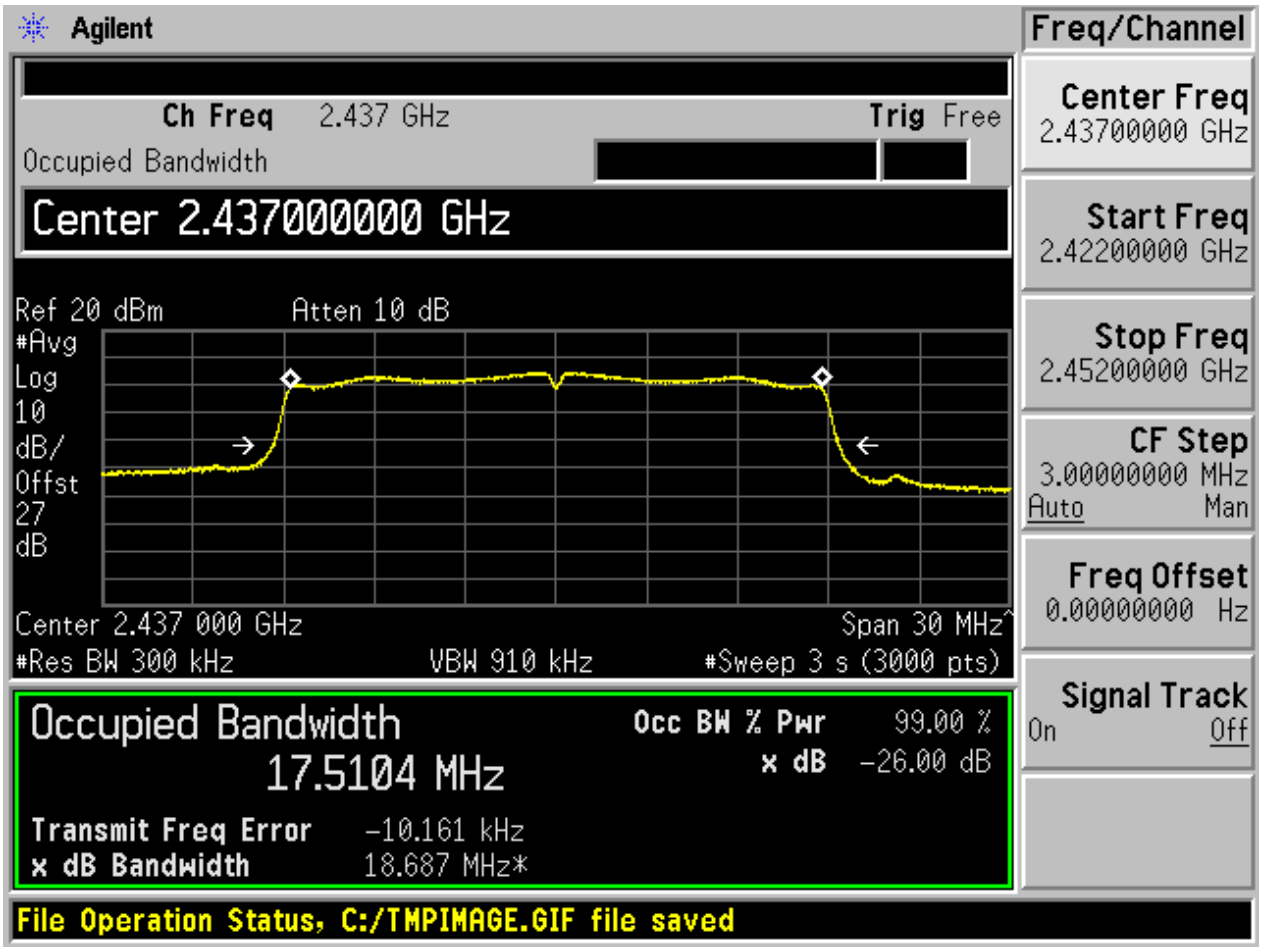
## 2.8 11N20/0_M@1





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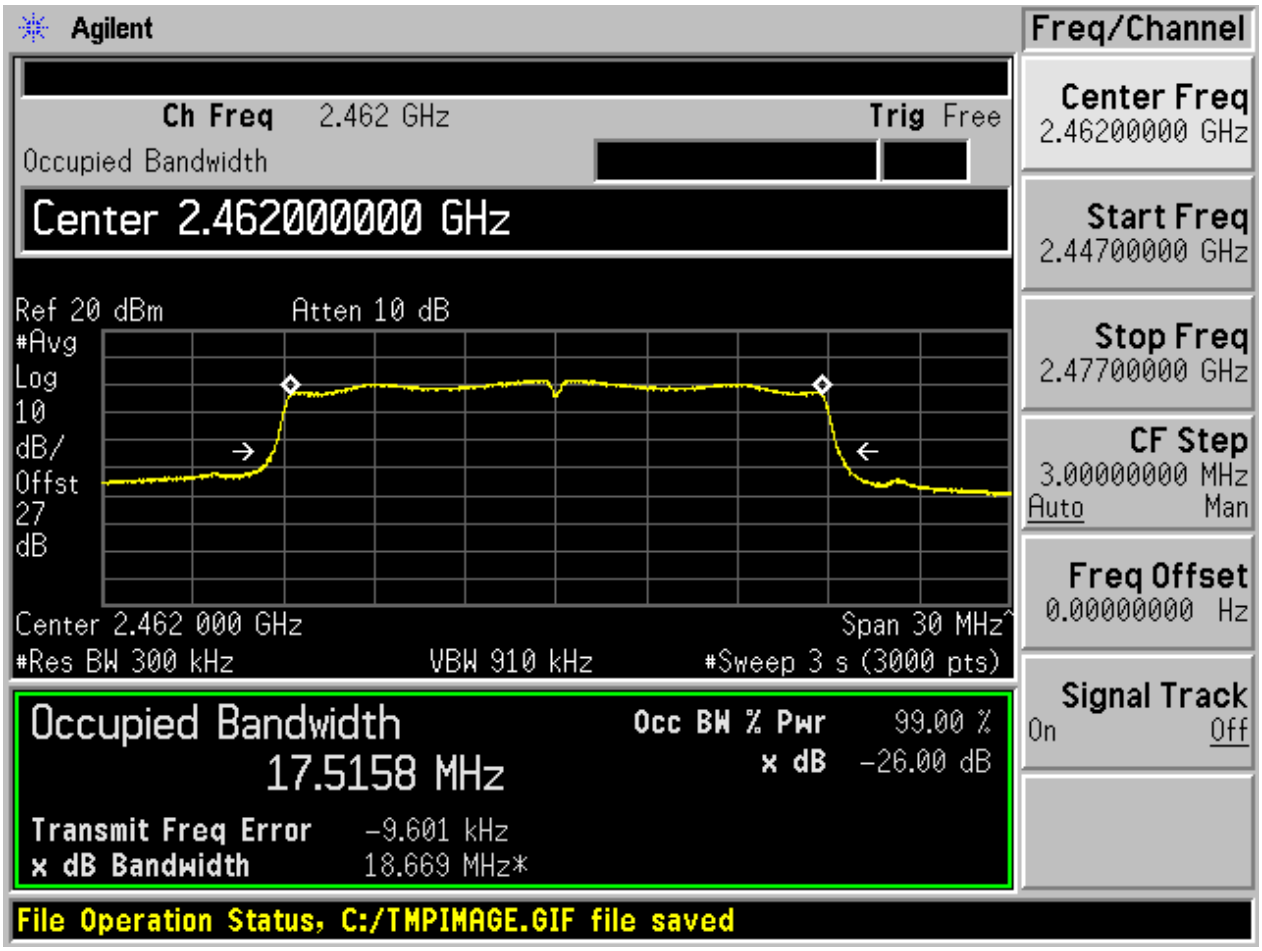
## 2.9 11N20/0_T@1





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# Appendix B: Maximum Peak Conducted Output Power


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# 1 Result Table

NOTE 1: In this Appendix, the Pmax refers to the measured “Maximum Peak Conducted Output Power” value. According to the description of FCC OET KDB 558074, the fc(DTS6dBBW) (as the DTS6dBBW band edges) from “DTS (6 dB) Bandwidth” is used to determine the integrated band power.

NOTE 2: For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and then combined into a final result Pmax which is the calculated linear sum of each result “Pmax@Ant i” with i = 1 to N (the N denotes the antenna ports used by smart antenna systems).

| EUT Conf. | Pmax@Ant 1 [dBm] | Pmax@Ant 2 [dBm] | Pmax [dBm] | Verdict |
|---|---|---|---|---|
| 11B/1_B@1 | 16.66 | --- | 16.66 | Pass |
| 11B/1_M@1 | 16.5 | --- | 16.5 | Pass |
| 11B/1_T@1 | 16.21 | --- | 16.21 | Pass |
| 11G/6_B@1 | 21.65 | --- | 21.65 | Pass |
| 11G/6_M@1 | 21.57 | --- | 21.57 | Pass |
| 11G/6_T@1 | 21.53 | --- | 21.53 | Pass |
| 11N20/0_B@1 | 22.22 | --- | 22.22 | Pass |
| 11N20/0_M@1 | 21.77 | --- | 21.77 | Pass |
| 11N20/0_T@1 | 21.71 | --- | 21.71 | Pass |


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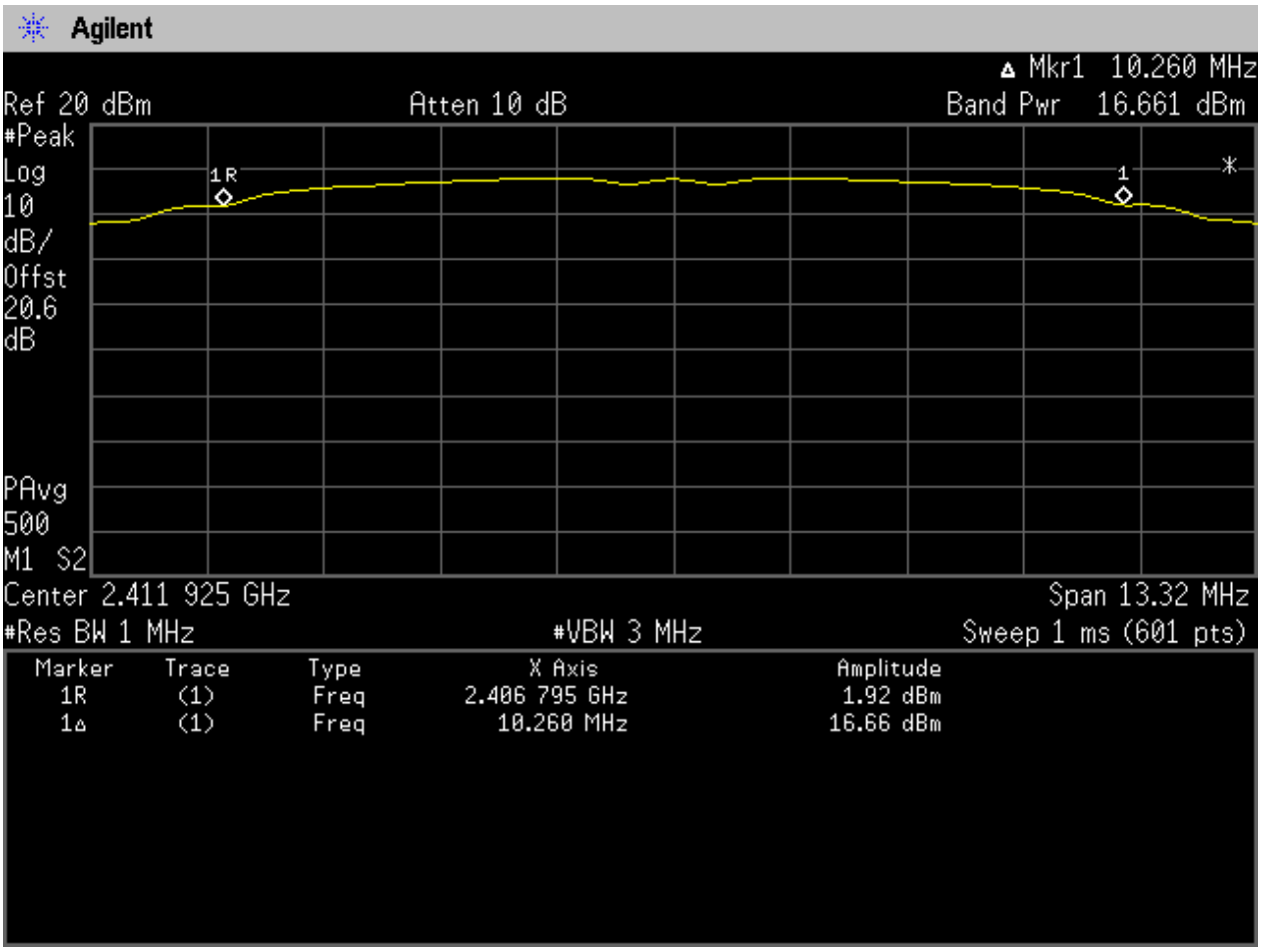
# 2 Test Plot

## 2.1 11B/1_B@1




## 2.2 11B/1_M@1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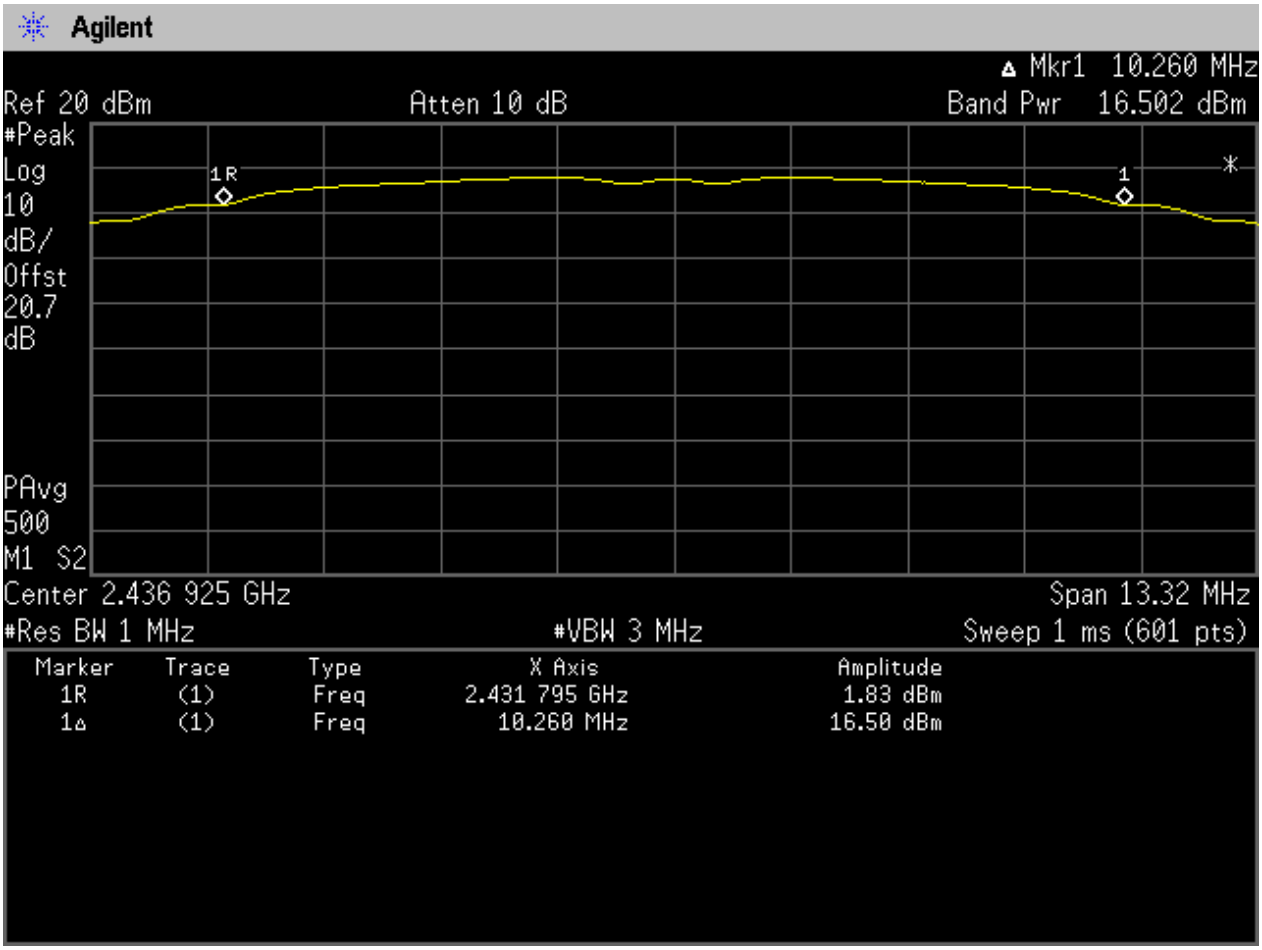


## 2.3 11B/1_T@1


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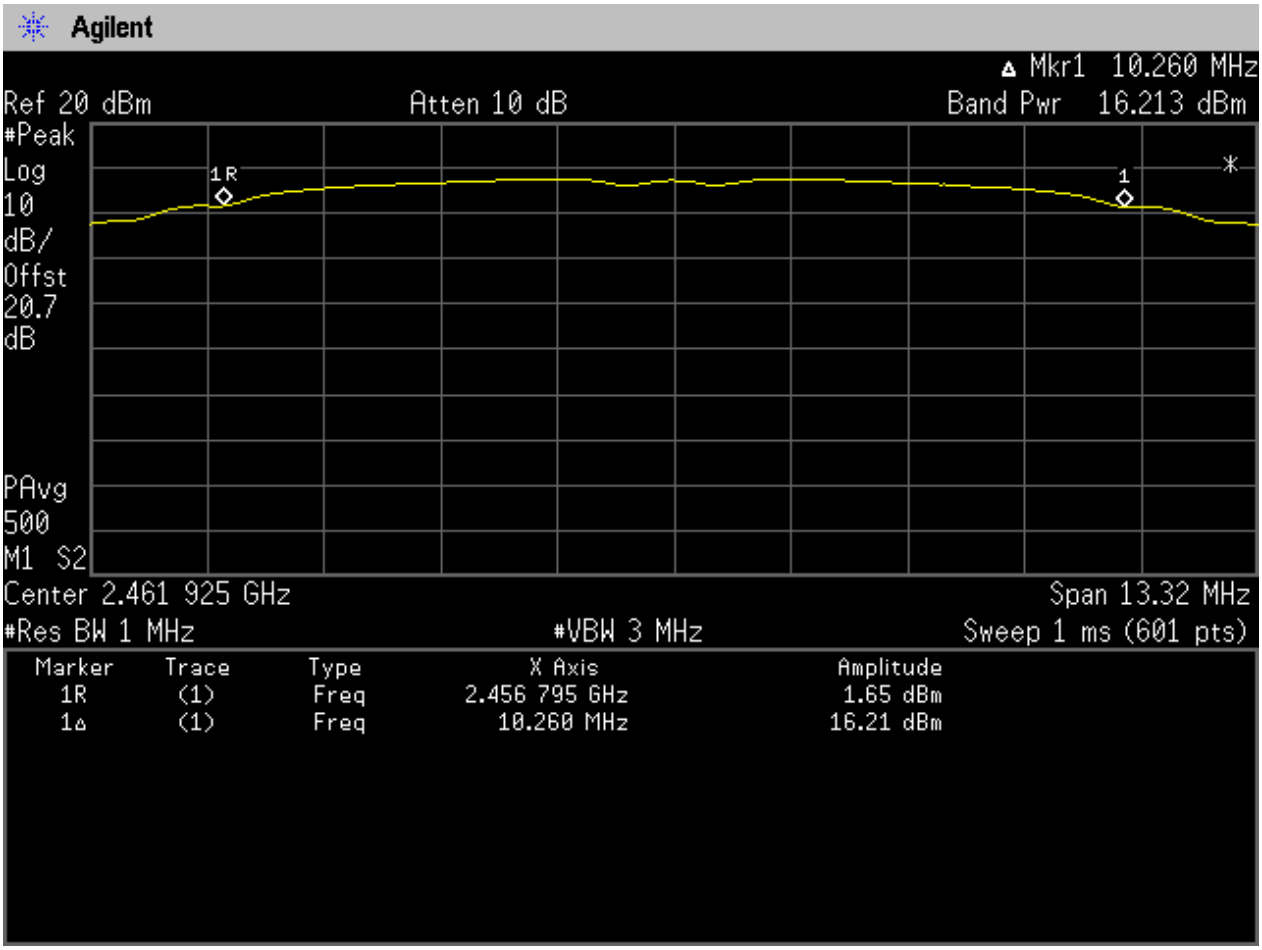


## 2.4 11G/6_B@1


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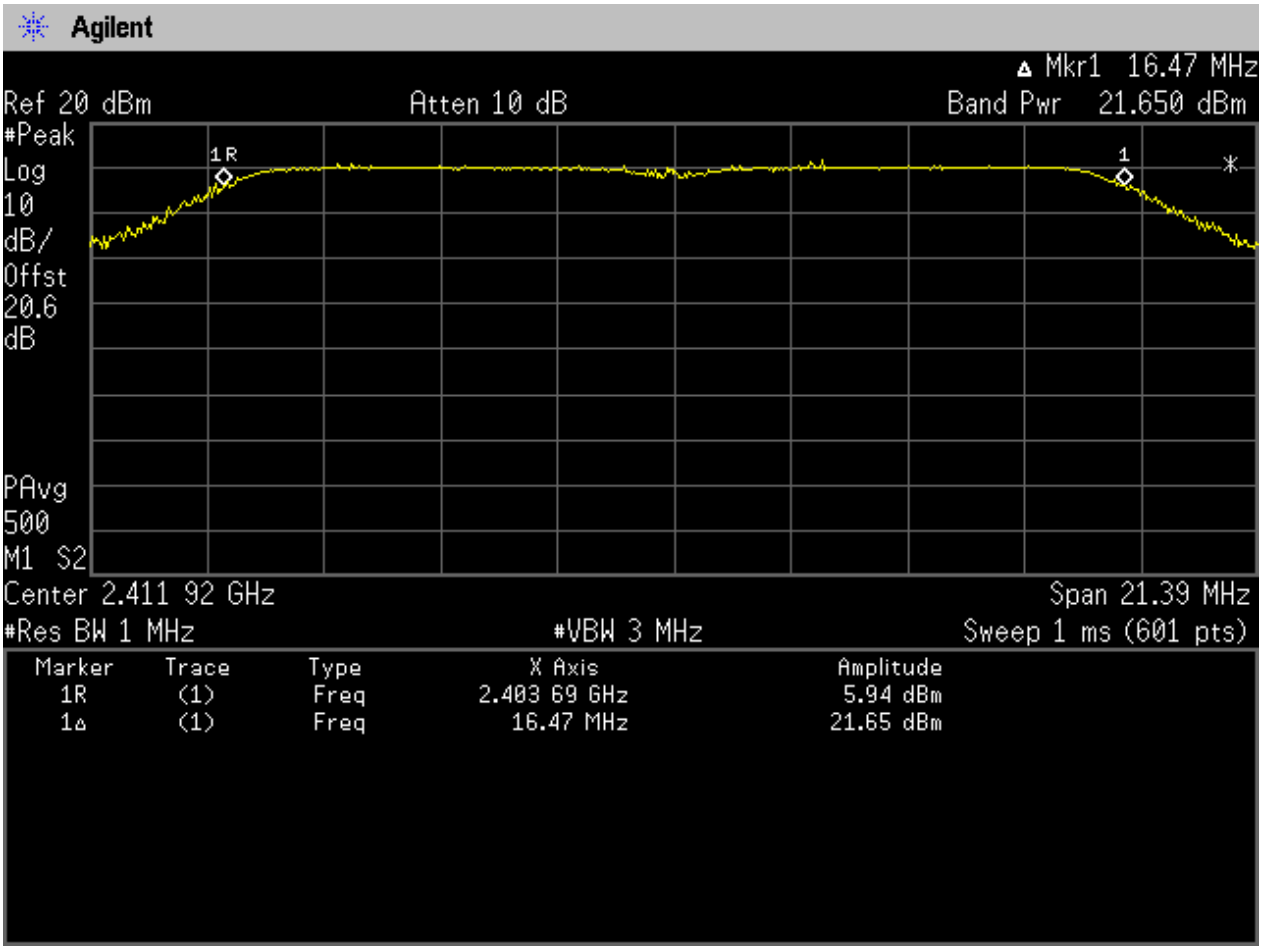


## 2.5 11G/6_M@1


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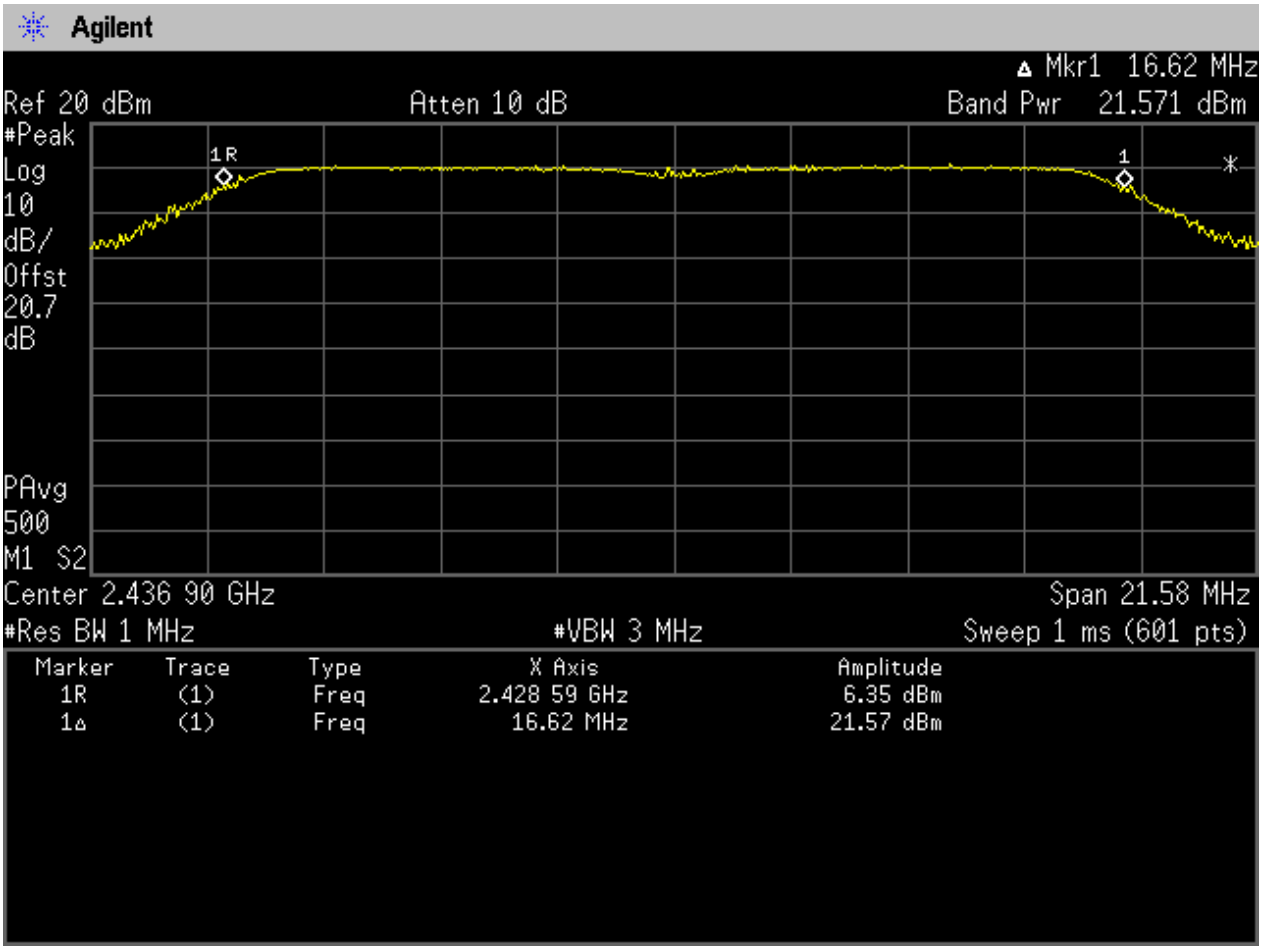


## 2.6 11G/6_T@1


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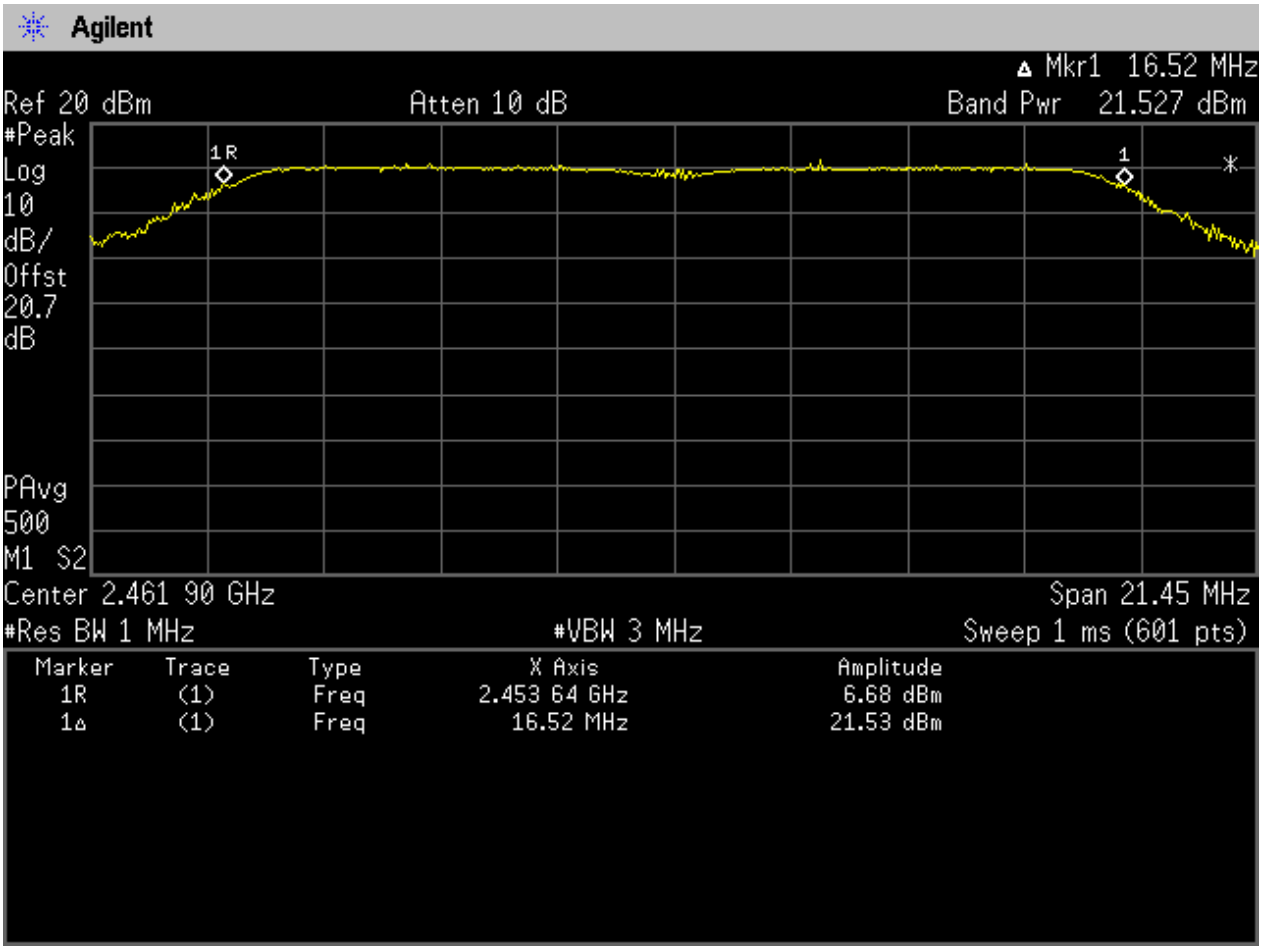


## 2.7 11N20/0_B@1


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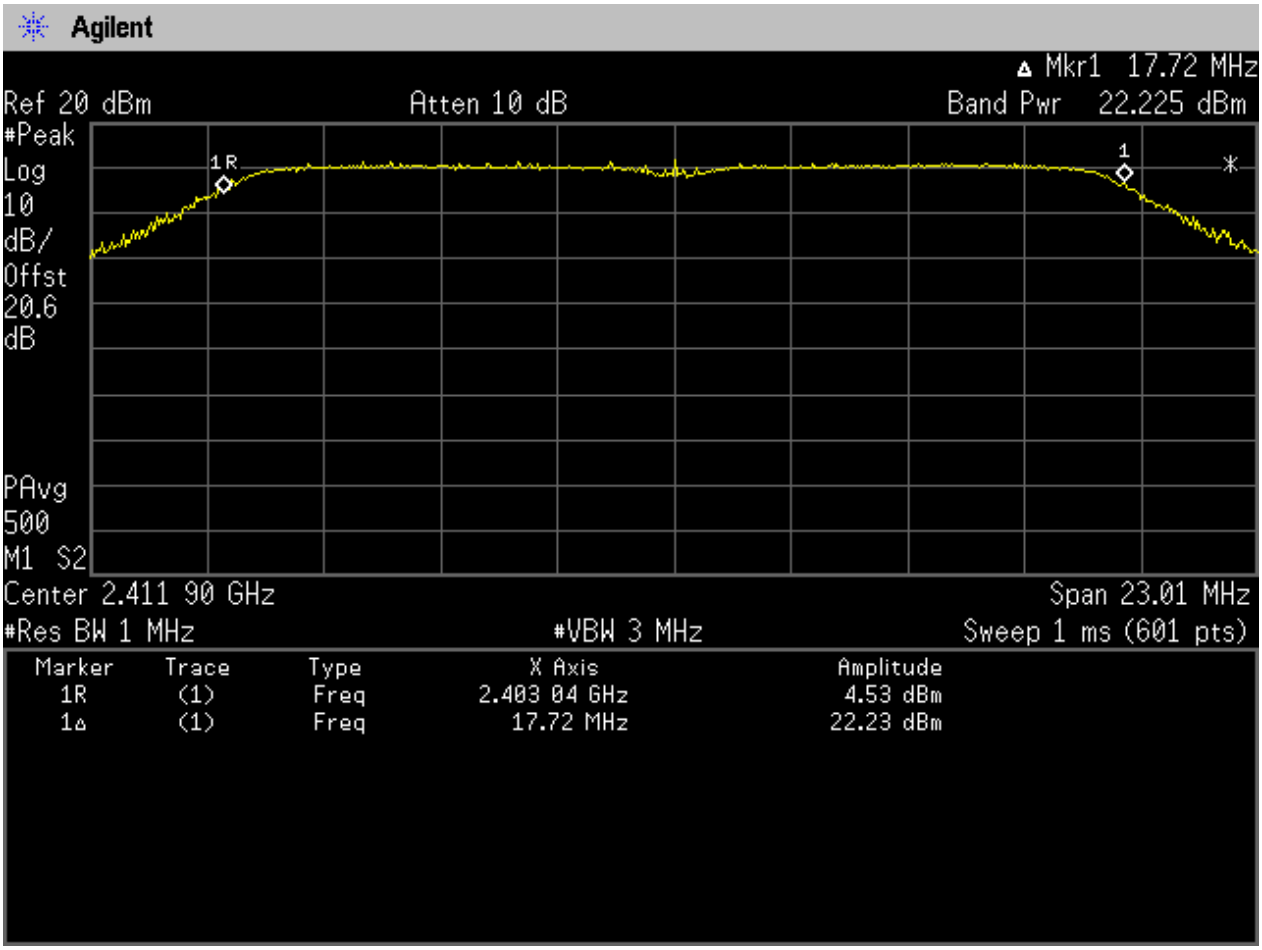


## 2.8 11N20/0_M@1


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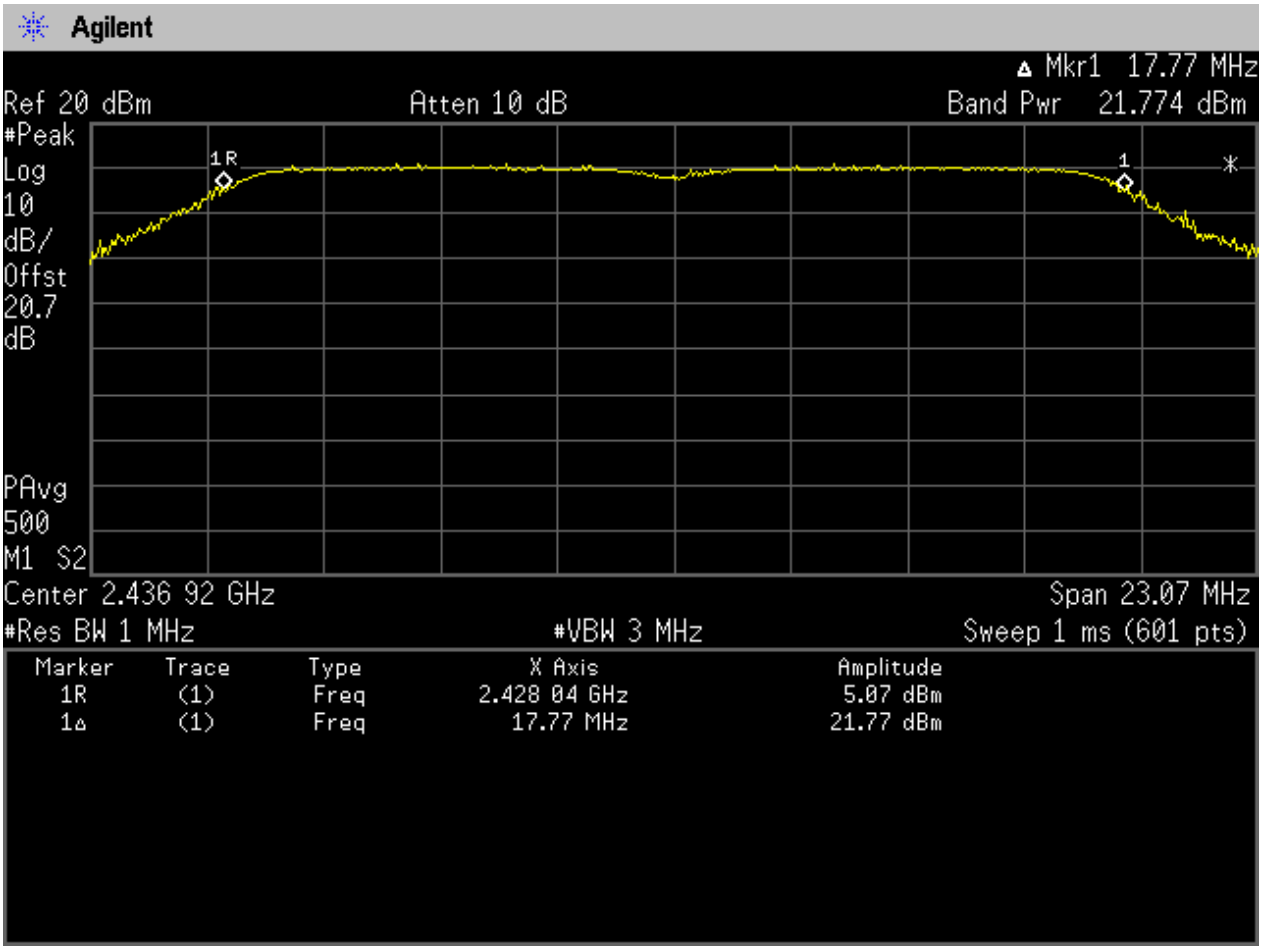


## 2.9 11N20/0_T@1


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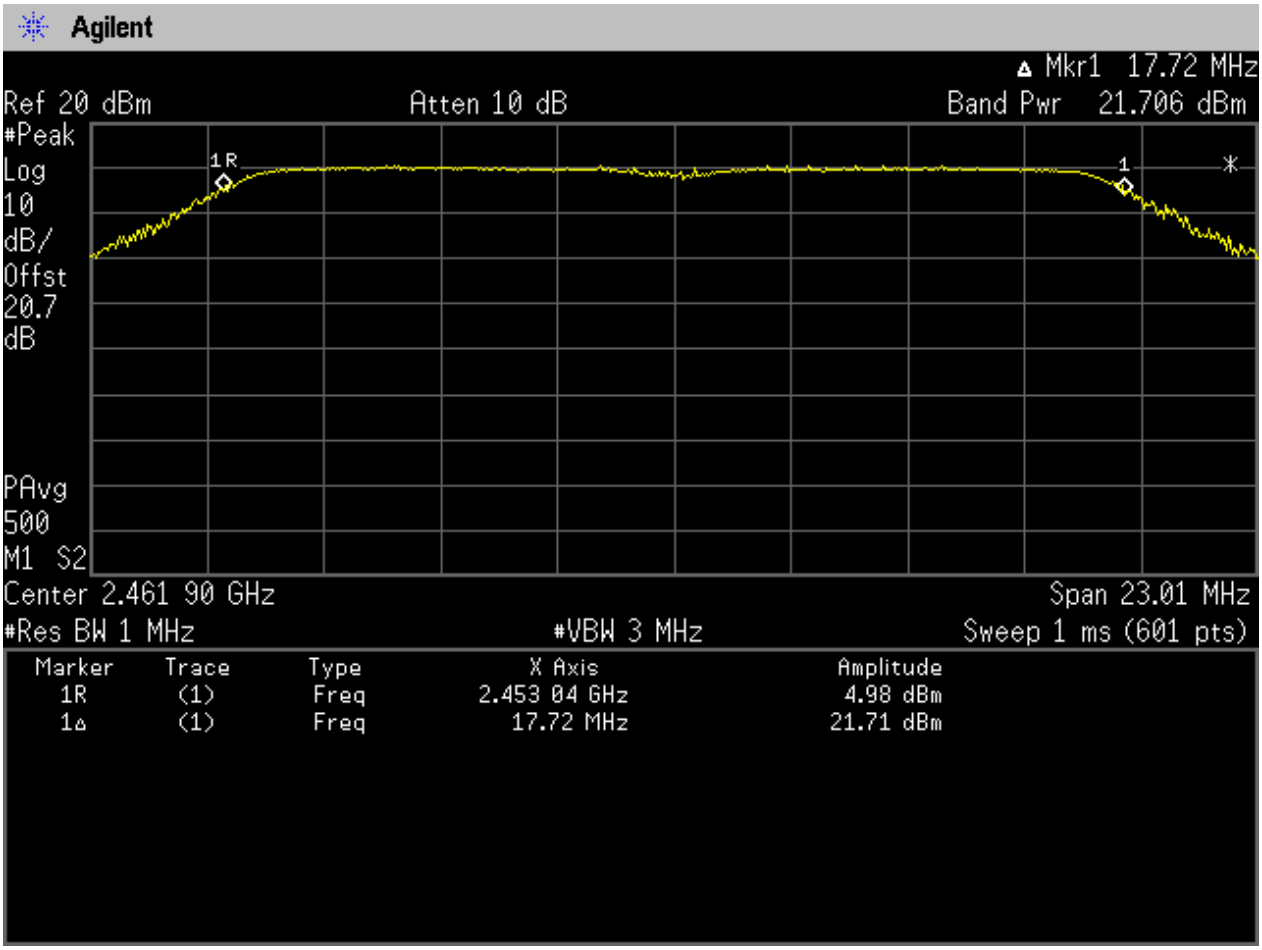



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# Appendix C: Maximum Power Spectral Density Level


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# 1 Result Table

NOTE 1: In this Appendix, the PD* refers to the measured “Maximum Power Spectral Density” value with 100 kHz RBW. According to the description of FCC OET KDB 558074, the final result PD should be adjusted based on the PD* with a factor of BWCF = 10 * lg(3 kHz/100 kHz) = -15.2 dB (i.e. PD [dBm/3 kHz] = PD* [dBm/100 kHz] - 15.2 [dB]).

NOTE 2: For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and then combined into the final result PD* or PD which is the calculated linear sum of each result “PD*@Ant i” or “PD@Ant i” with i = 1 to N (the N denotes the antenna ports used by smart antenna systems). It should be noted that the method is a worse consideration (for convenience, the linear sum frequency by frequency for each antenna port is not used), because each “PD*@Ant i” or “PD@Ant i” value maybe correspond to different frequency occurrence.

| EUT Conf. | PD*@Ant 1 [dBm/100 kHz] | PD*@Ant 2 [dBm/100 kHz] | PD [dBm/3kHz] | Verdict |
|---|---|---|---|---|
| 11B/1_B@1 | 4.82 | --- | -10.38 | Pass |
| 11B/1_M@1 | 4.7 | --- | -10.5 | Pass |
| 11B/1_T@1 | 4.39 | --- | -10.81 | Pass |
| 11G/6_B@1 | 2.45 | --- | -12.75 | Pass |
| 11G/6_M@1 | 2.39 | --- | -12.81 | Pass |
| 11G/6_T@1 | 2.43 | --- | -12.77 | Pass |
| 11N20/0_B@1 | 3.43 | --- | -11.77 | Pass |
| 11N20/0_M@1 | 2.6 | --- | -12.6 | Pass |
| 11N20/0_T@1 | 2.56 | --- | -12.64 | Pass |


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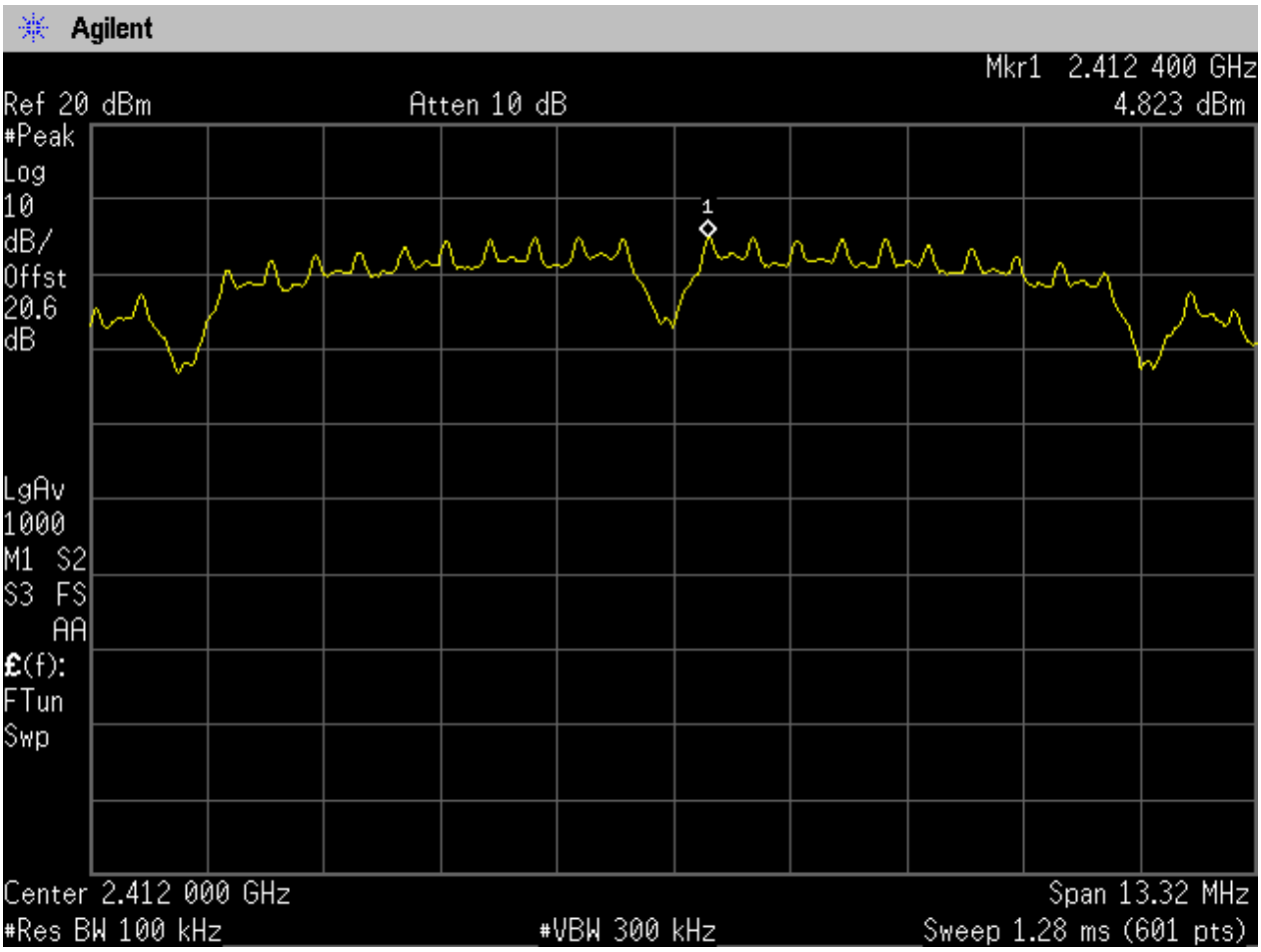
# 2 Test Plot

## 2.1 11B/1_B@1




## 2.2 11B/1_M@1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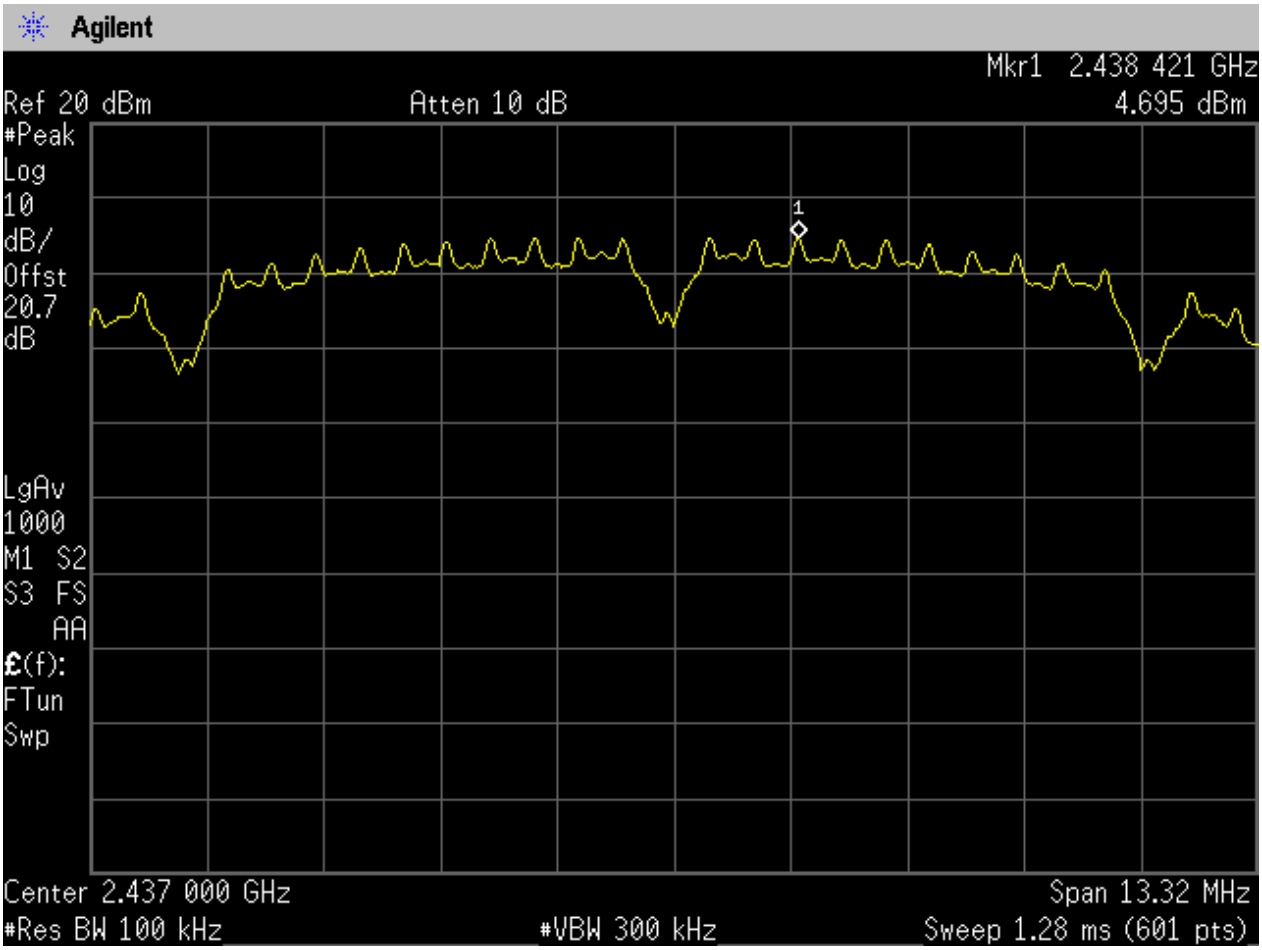


## 2.3 11B/1_T@1


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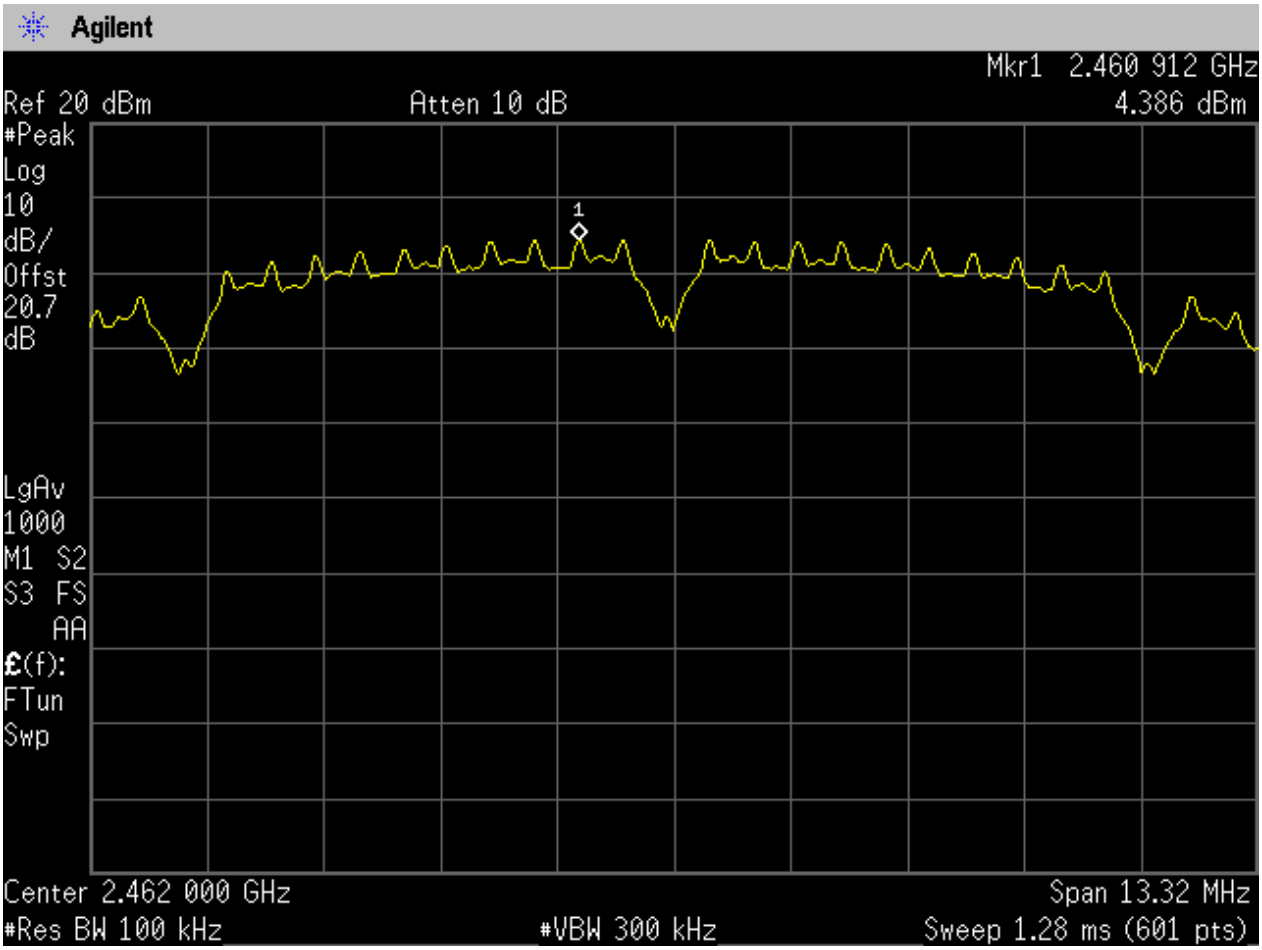


## 2.4 11G/6_B@1


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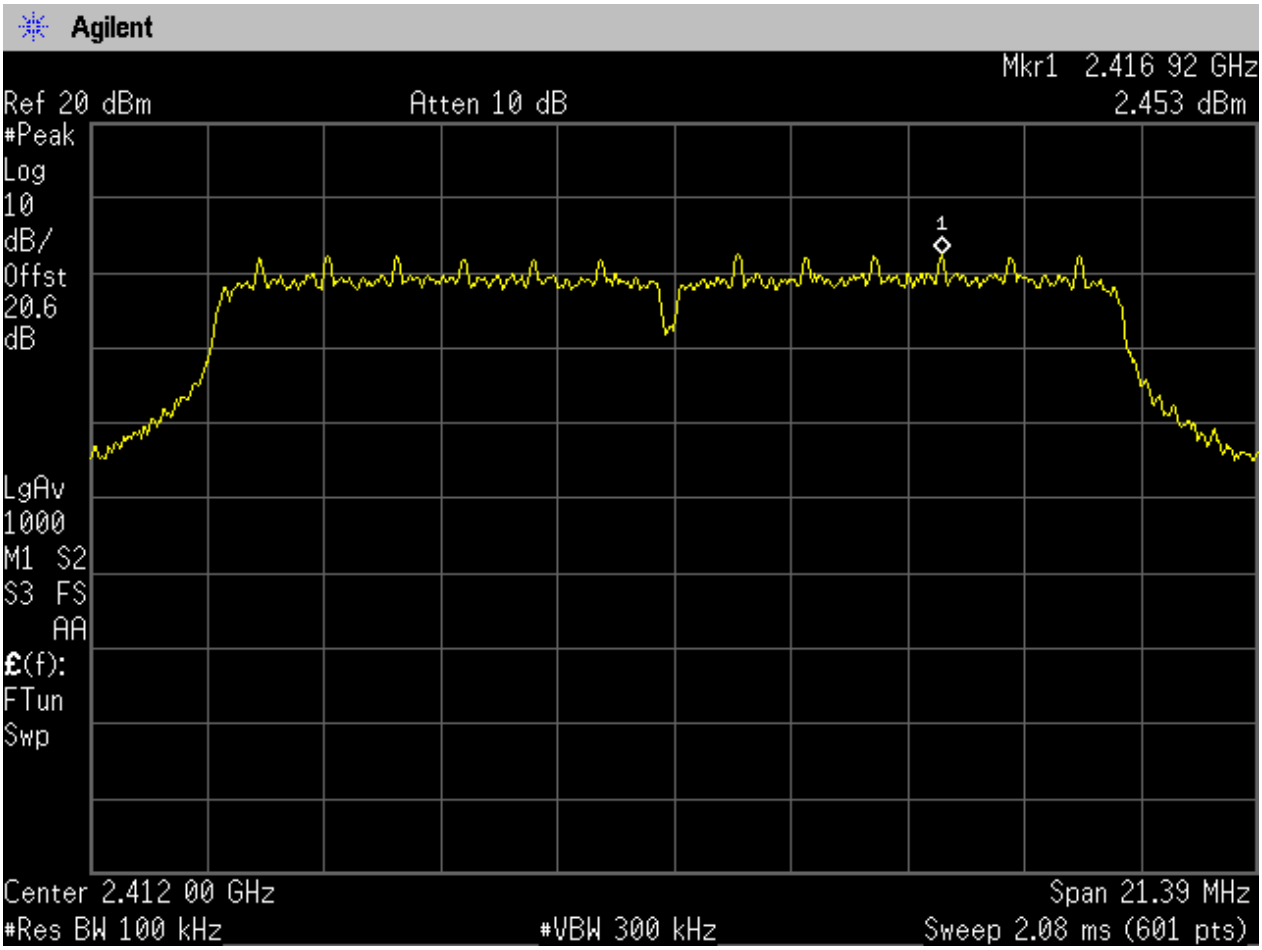


## 2.5 11G/6_M@1


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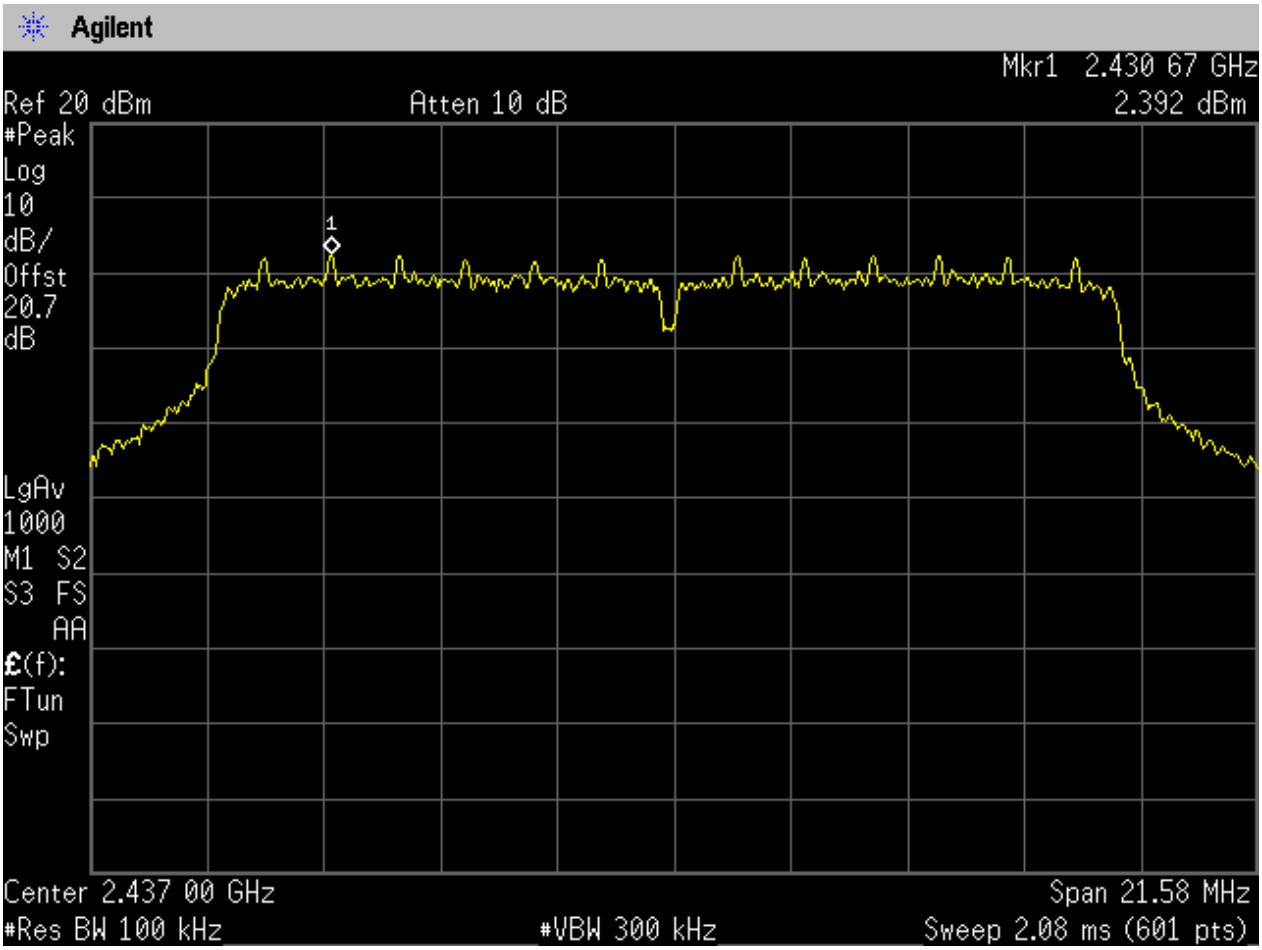


## 2.6 11G/6_T@1


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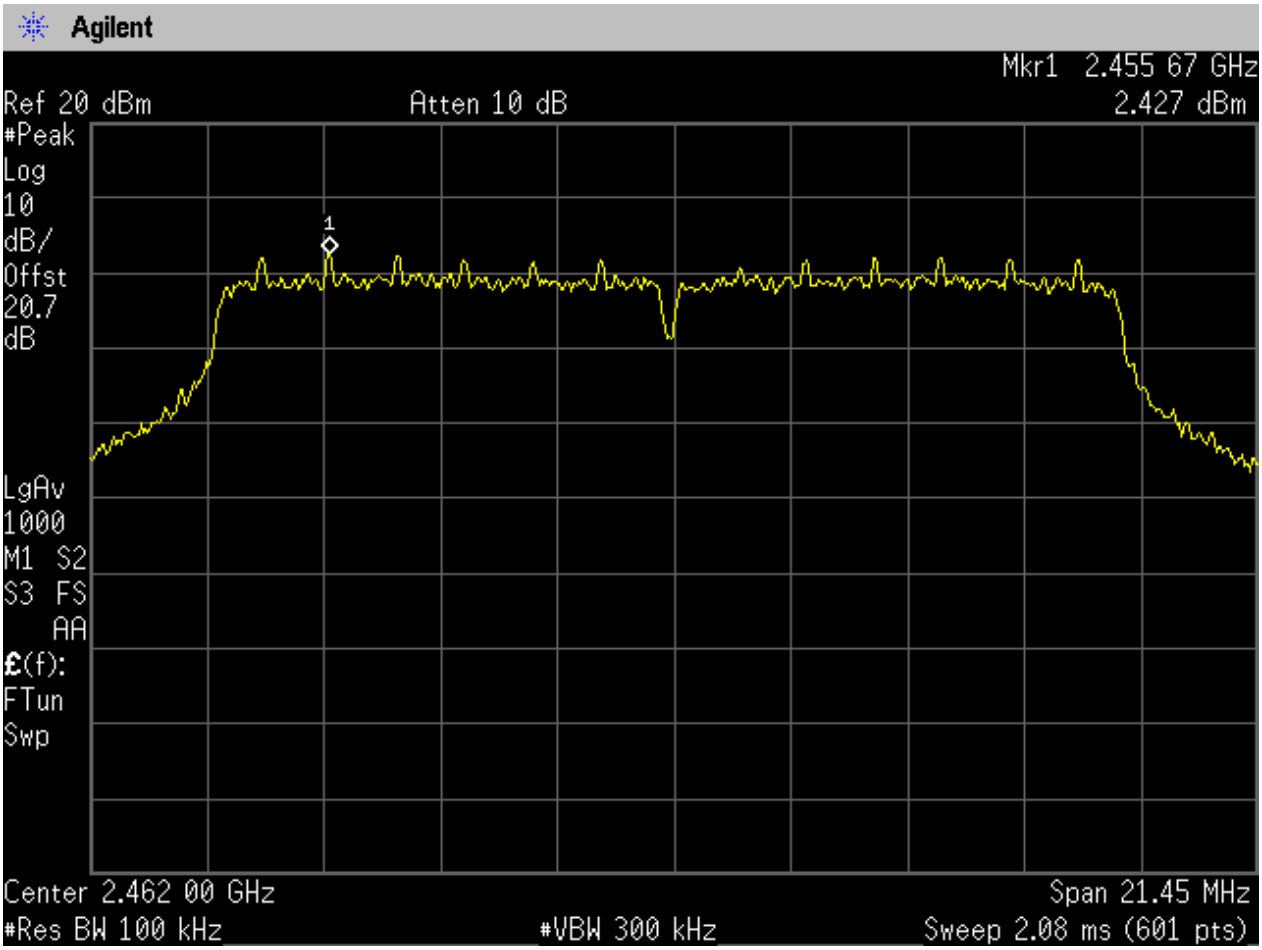


## 2.7 11N20/0_B@1


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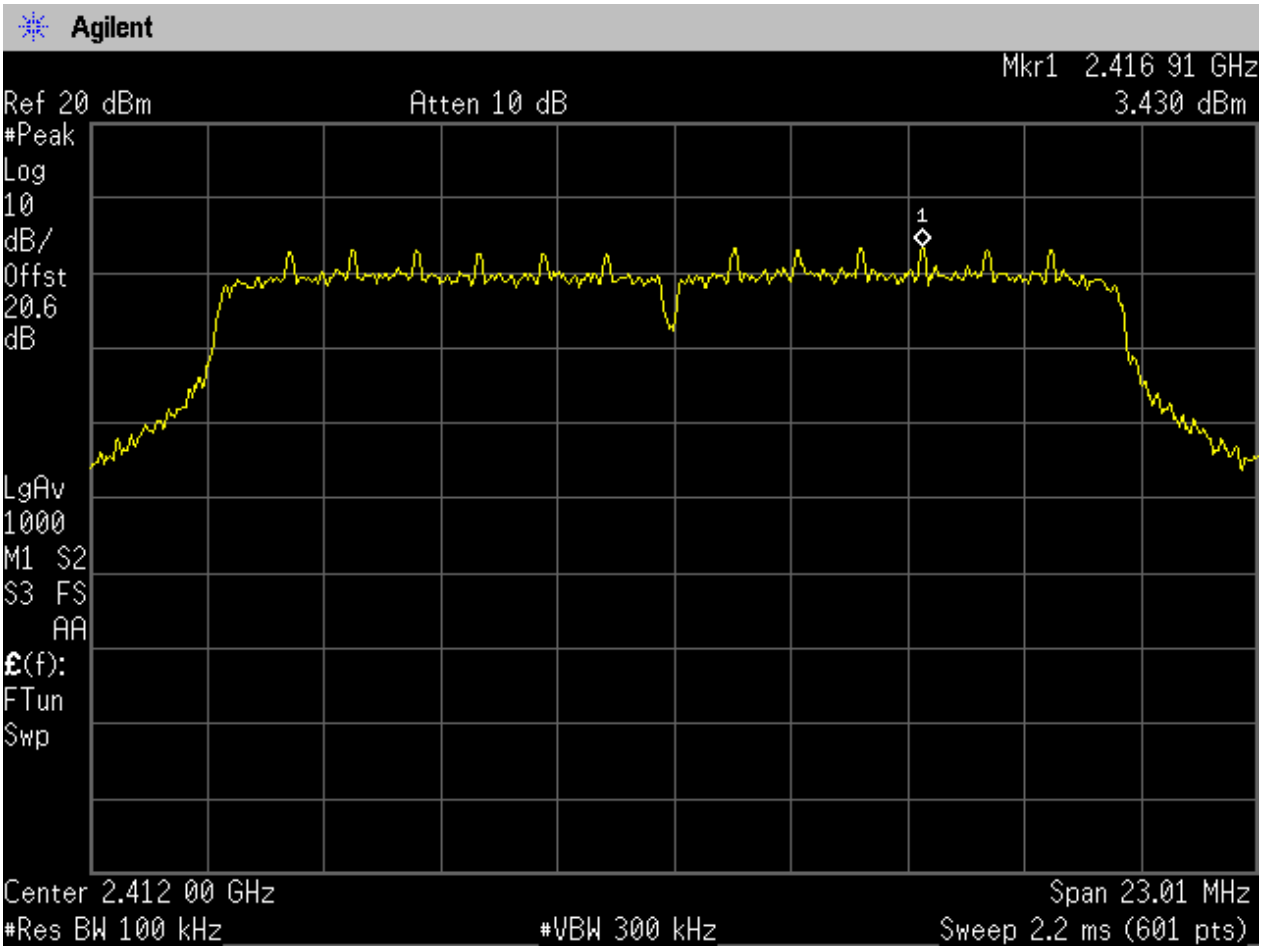


## 2.8 11N20/0_M@1


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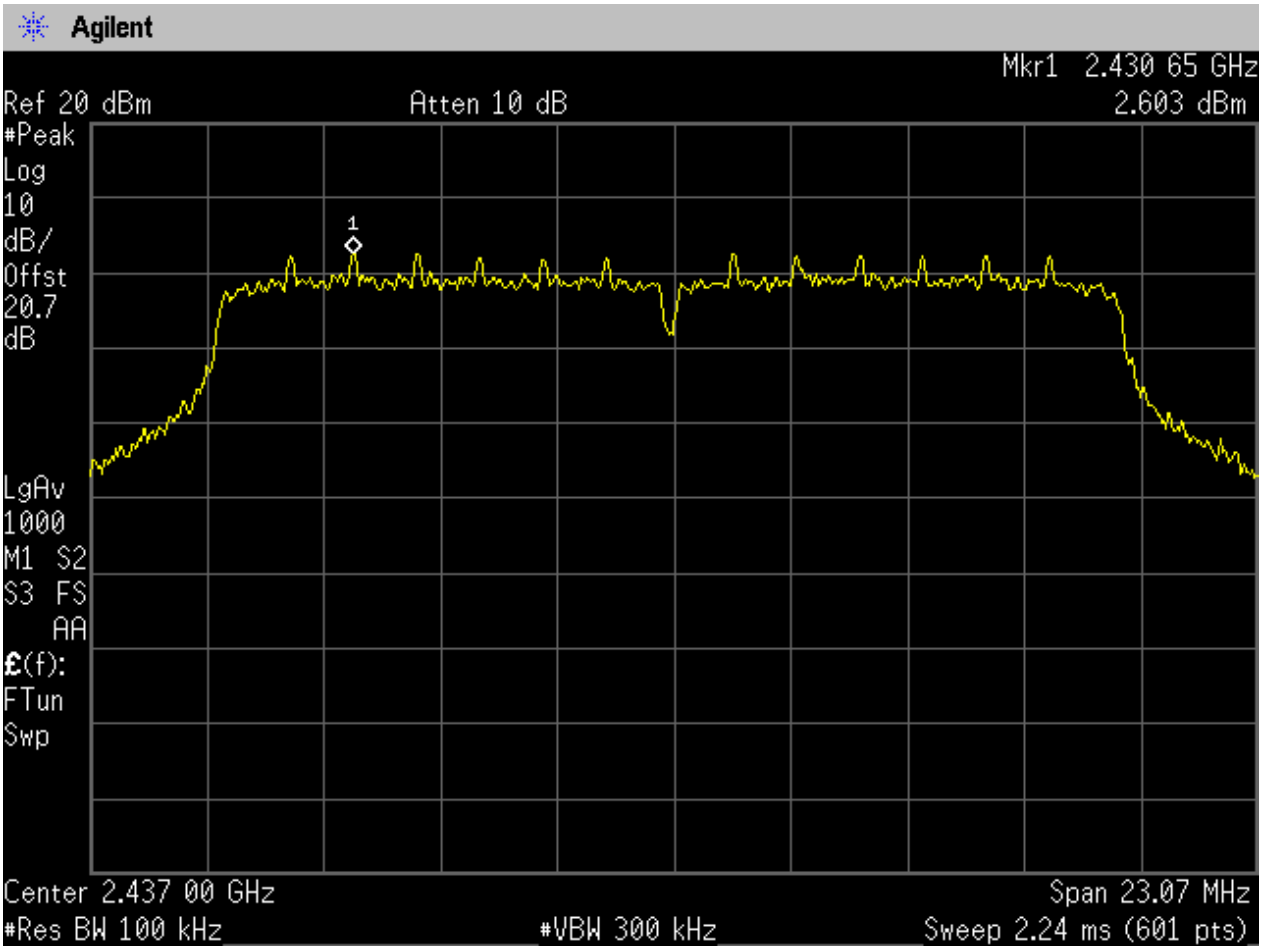


## 2.9 11N20/0_T@1


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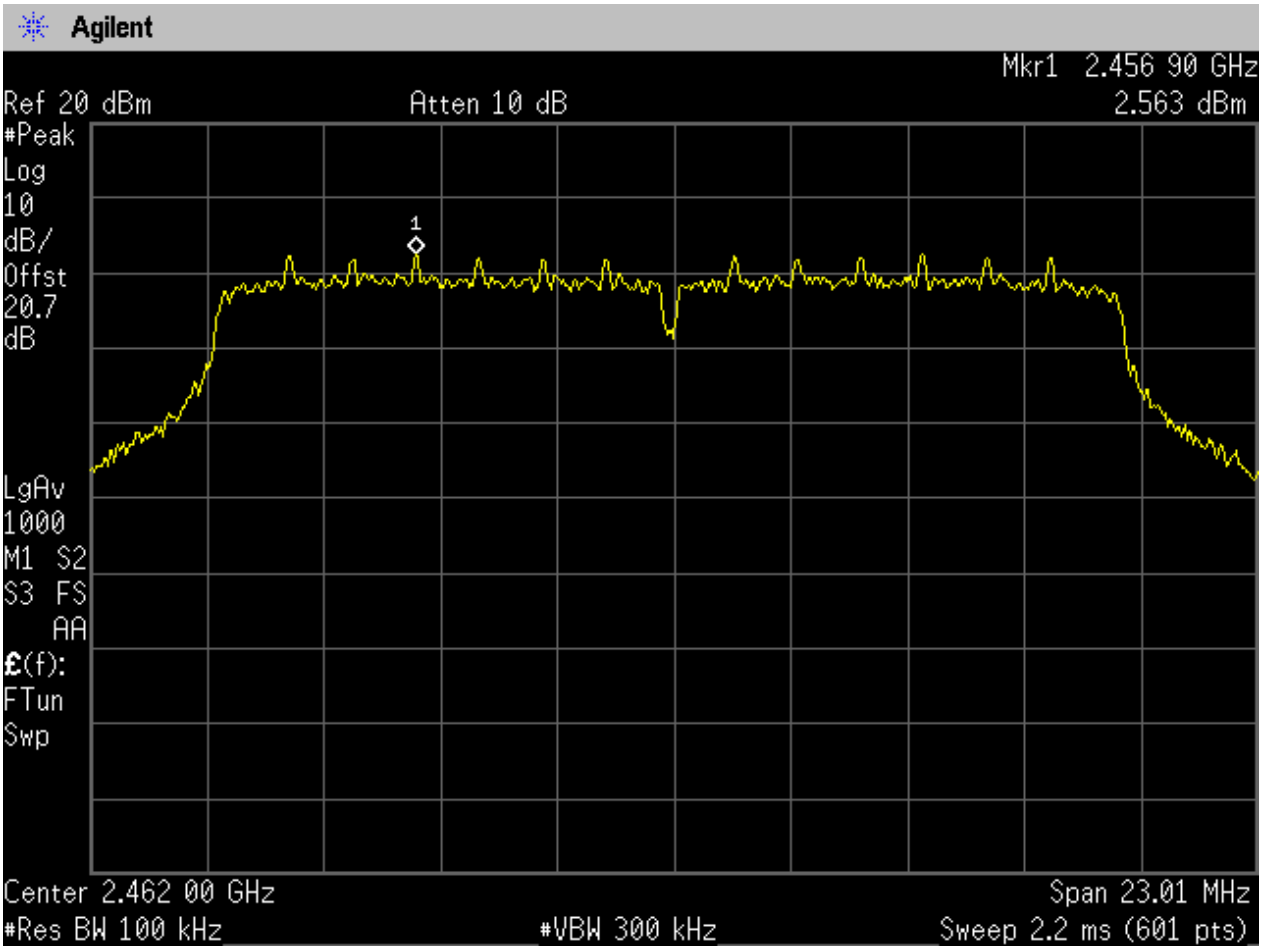



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# Appendix D: Unwanted Emissions into Non-Restricted Frequency Bands


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# 1 Result Table

NOTE 1: In this Appendix, the Pref refers to the peak power level in any 100 kHz bandwidth within the fundamental emission which is used as the reference level, the Puw referrers to the maximum emission power in 100 kHz band segments outside of the authorized frequency band.

NOTE 2: Considering that the higher ratio of 100 kHz RBW to the span for the frequency ranges below 30 MHz make the results determination be complicated, a narrower RBW is used for these ranges but the measured value should add a RBW correction factor (RBWCF) where RBWCF [dB] = 10*lg(100 [kHz]/narrower RBW [kHz]). In this Appendix, the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

NOTE 3: For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain and used as respective results for each chain, due to the relative-limit requirement.

NOTE 4: In this Appendix, the “< Limit” in results table denotes “Puw less than Pref – 20 dB”.

| EUT Conf. | Pref@Ant 1 [dBm/100 kHz] | Puw@Ant 1 [dBm/100 kHz] | Pref@Ant 2 [dBm/100 kHz] | Puw@Ant 2 [dBm/100 kHz] | Verdict |
|---|---|---|---|---|---|
| 11B/1_B@1 | 4.84 | < Limit | --- | --- | Pass |
| 11B/1_M@1 | 4.64 | < Limit | --- | --- | Pass |
| 11B/1_T@1 | 4.43 | < Limit | --- | --- | Pass |
| 11G/6_B@1 | 2.51 | < Limit | --- | --- | Pass |
| 11G/6_M@1 | 2.3 | < Limit | --- | --- | Pass |
| 11G/6_T@1 | 2.41 | < Limit | --- | --- | Pass |
| 11N20/0_B@1 | 3.34 | < Limit | --- | --- | Pass |
| 11N20/0_M@1 | 2.91 | < Limit | --- | --- | Pass |
| 11N20/0_T@1 | 2.6 | < Limit | --- | --- | Pass |


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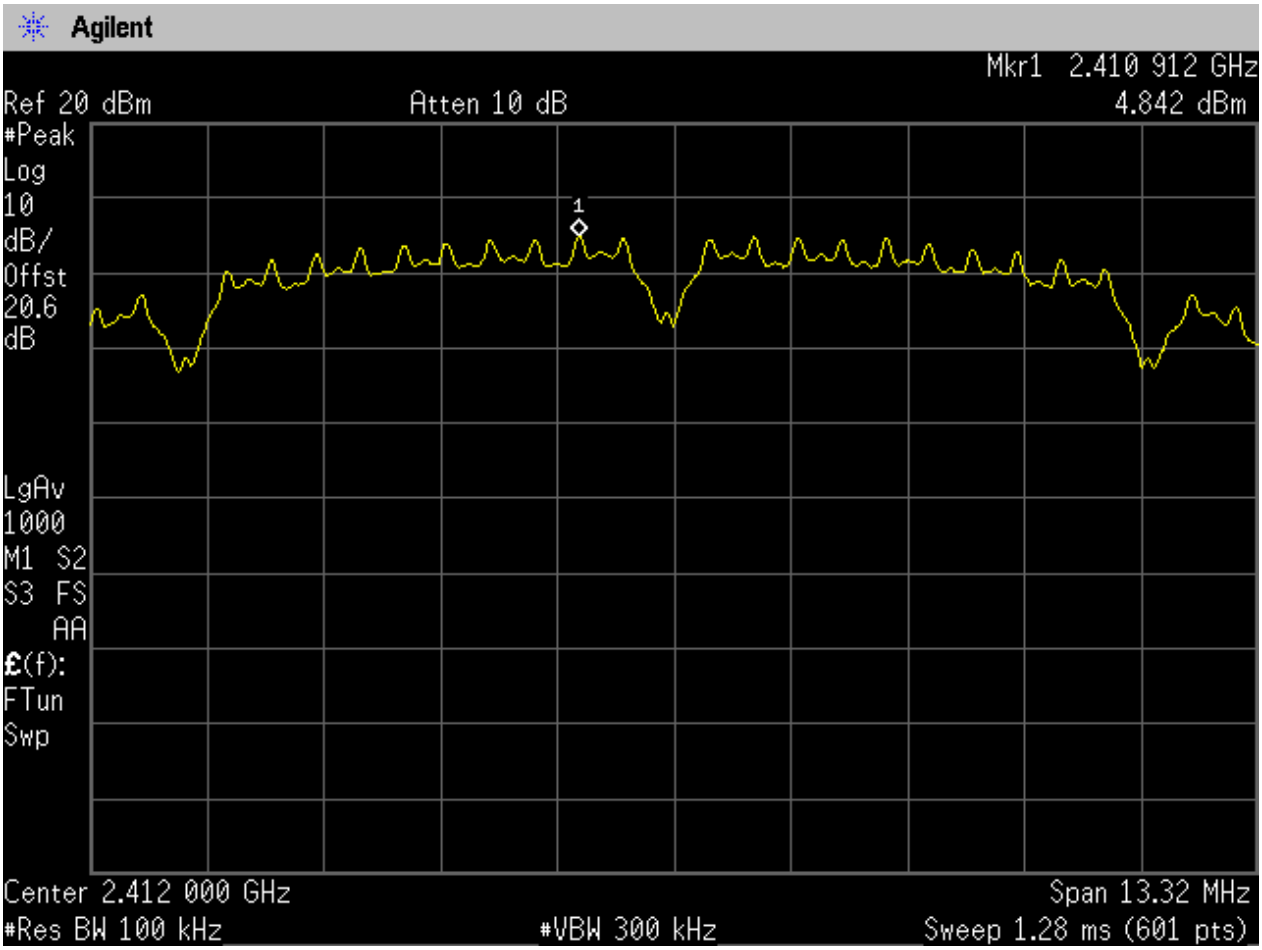
# 2 Test Plot

## 2.1 11B/1_B@1

### 2.1.1 Pref




### 2.1.2 Puw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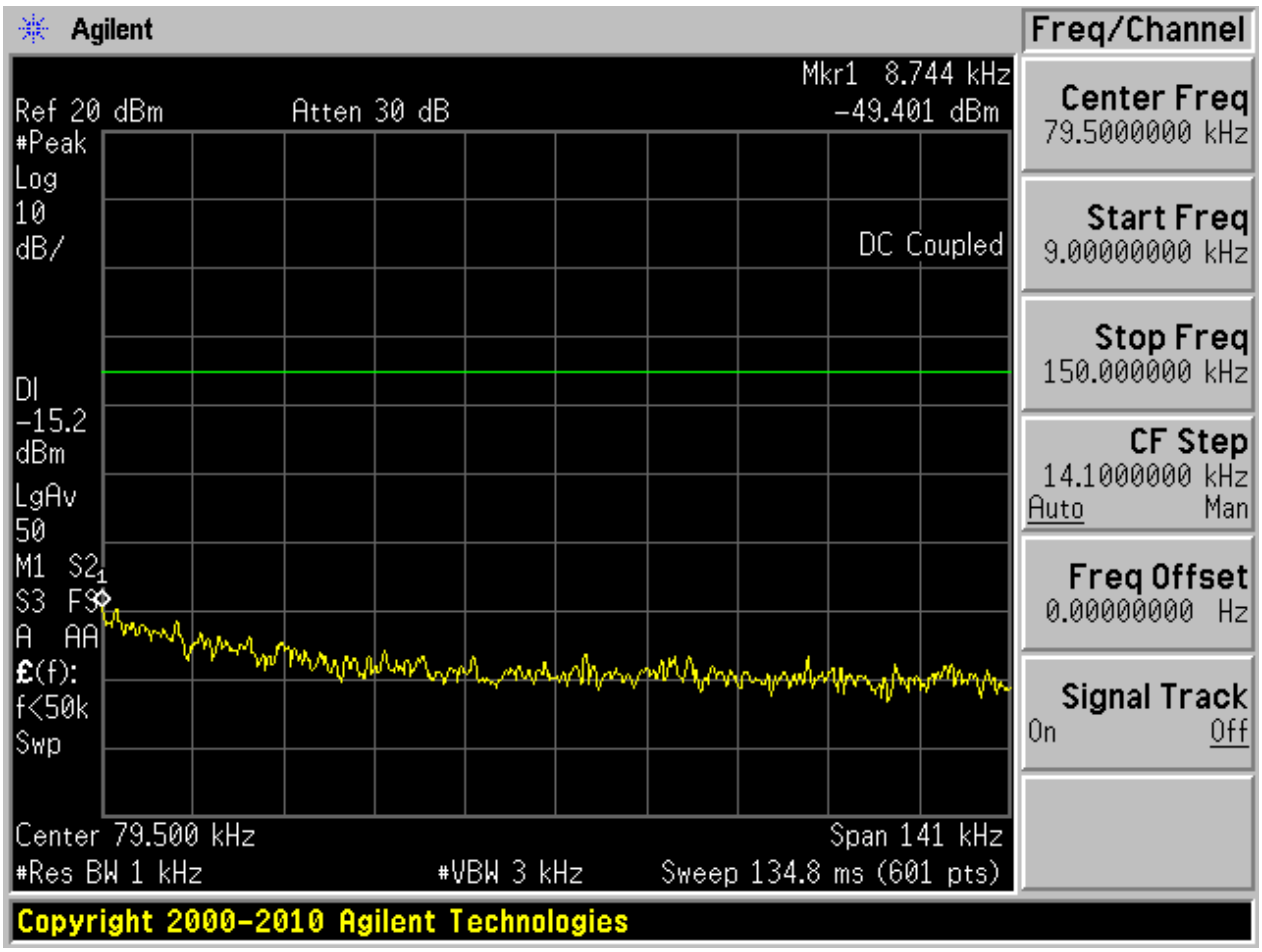



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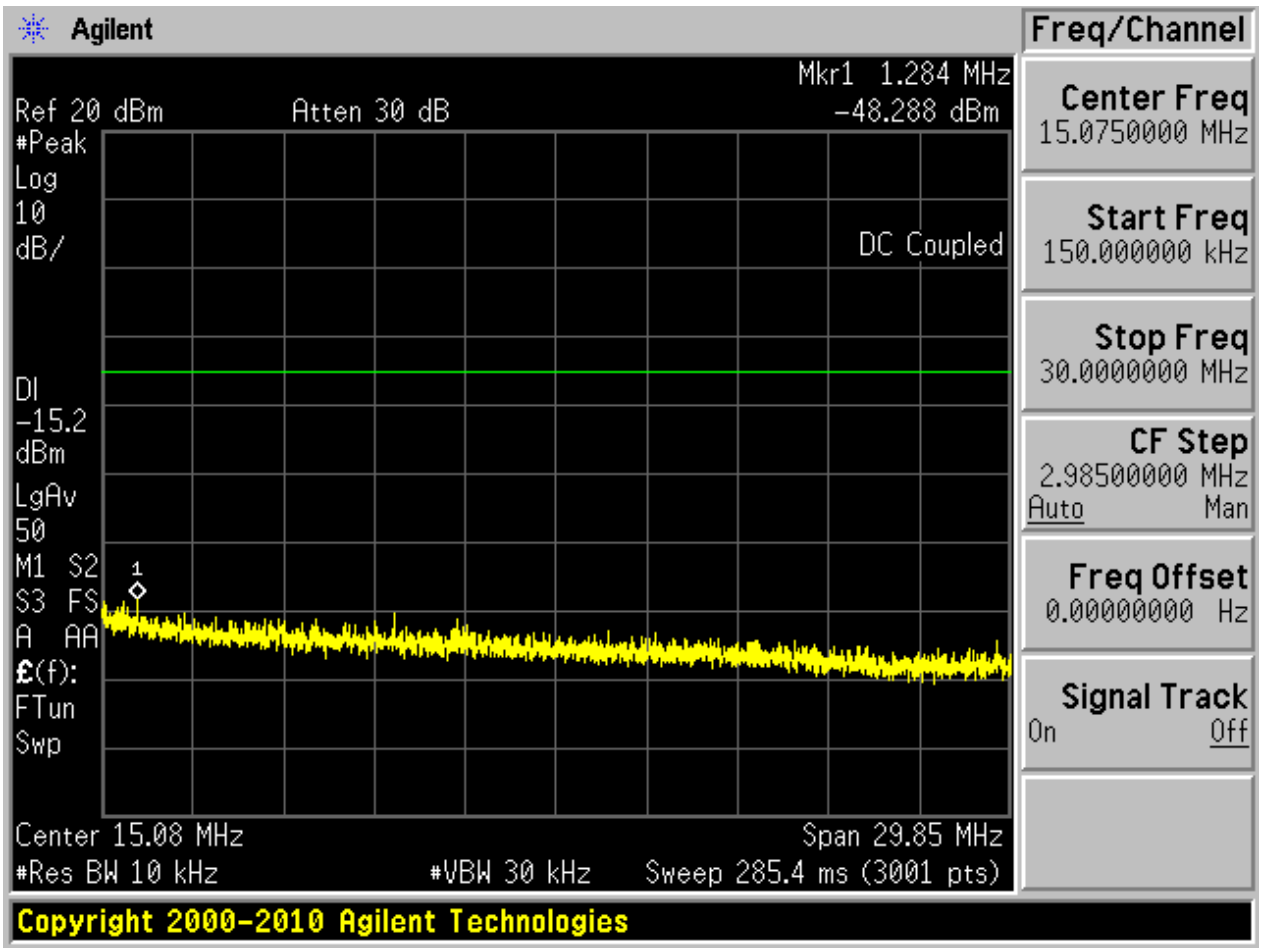



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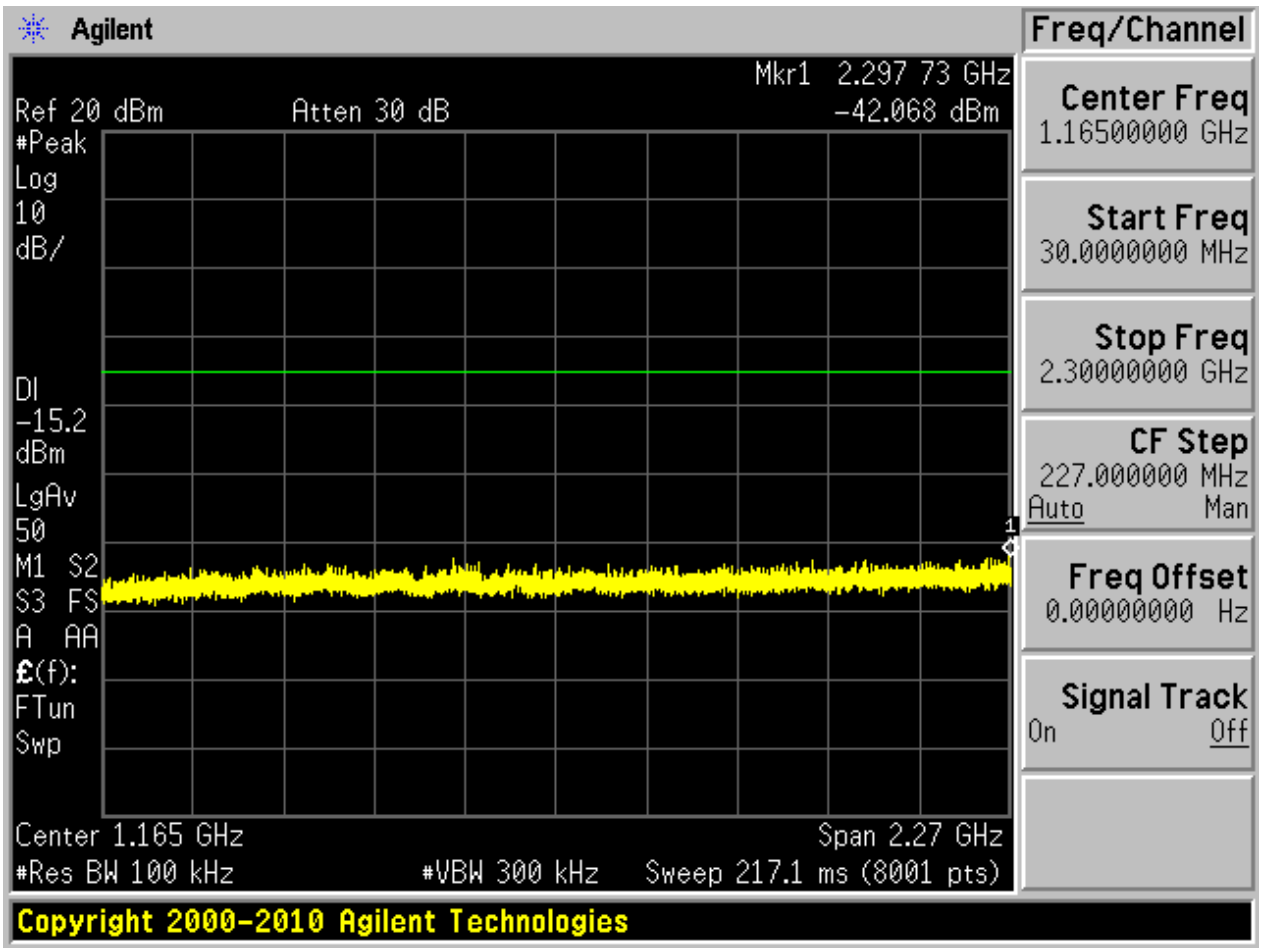



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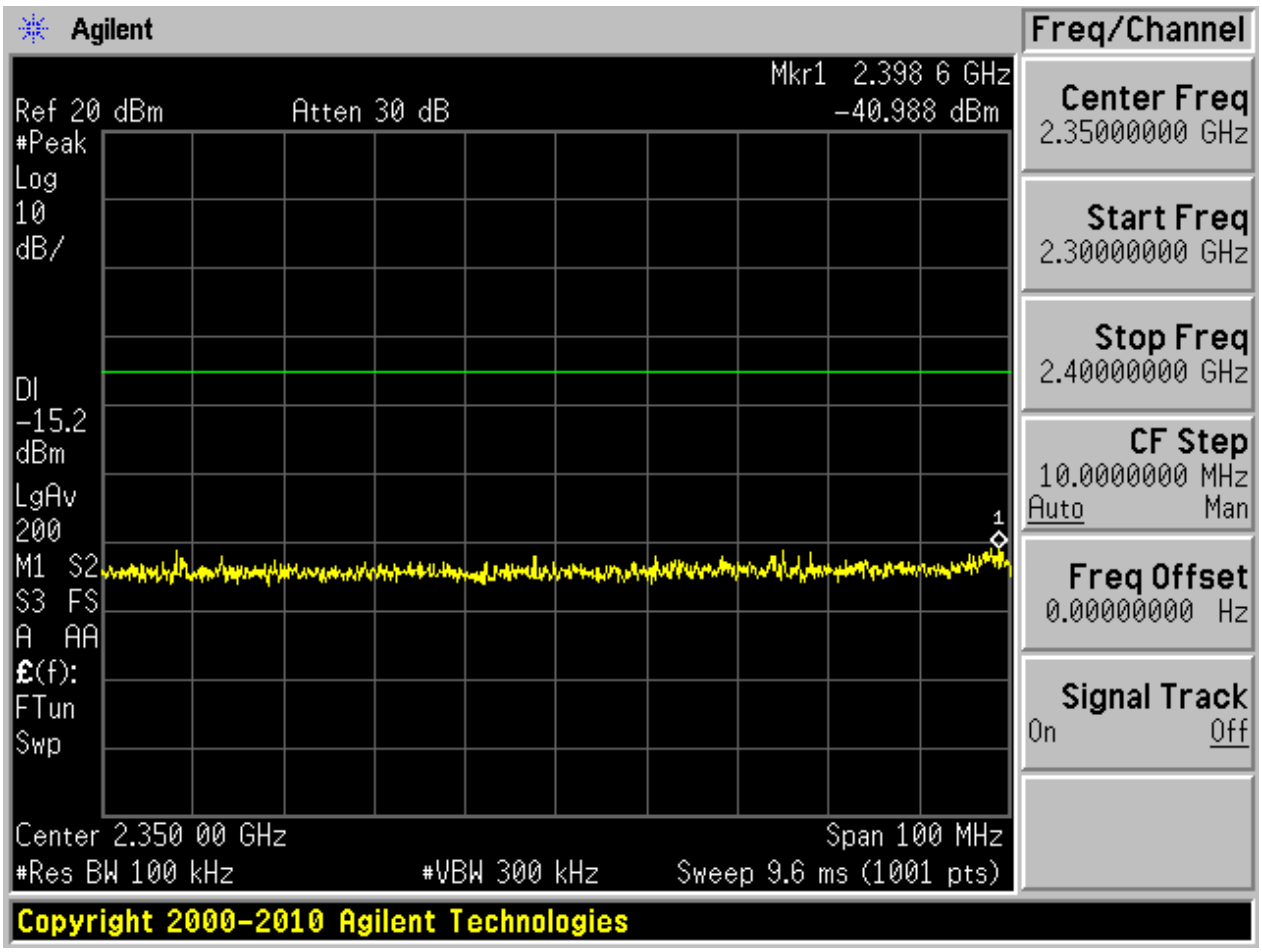



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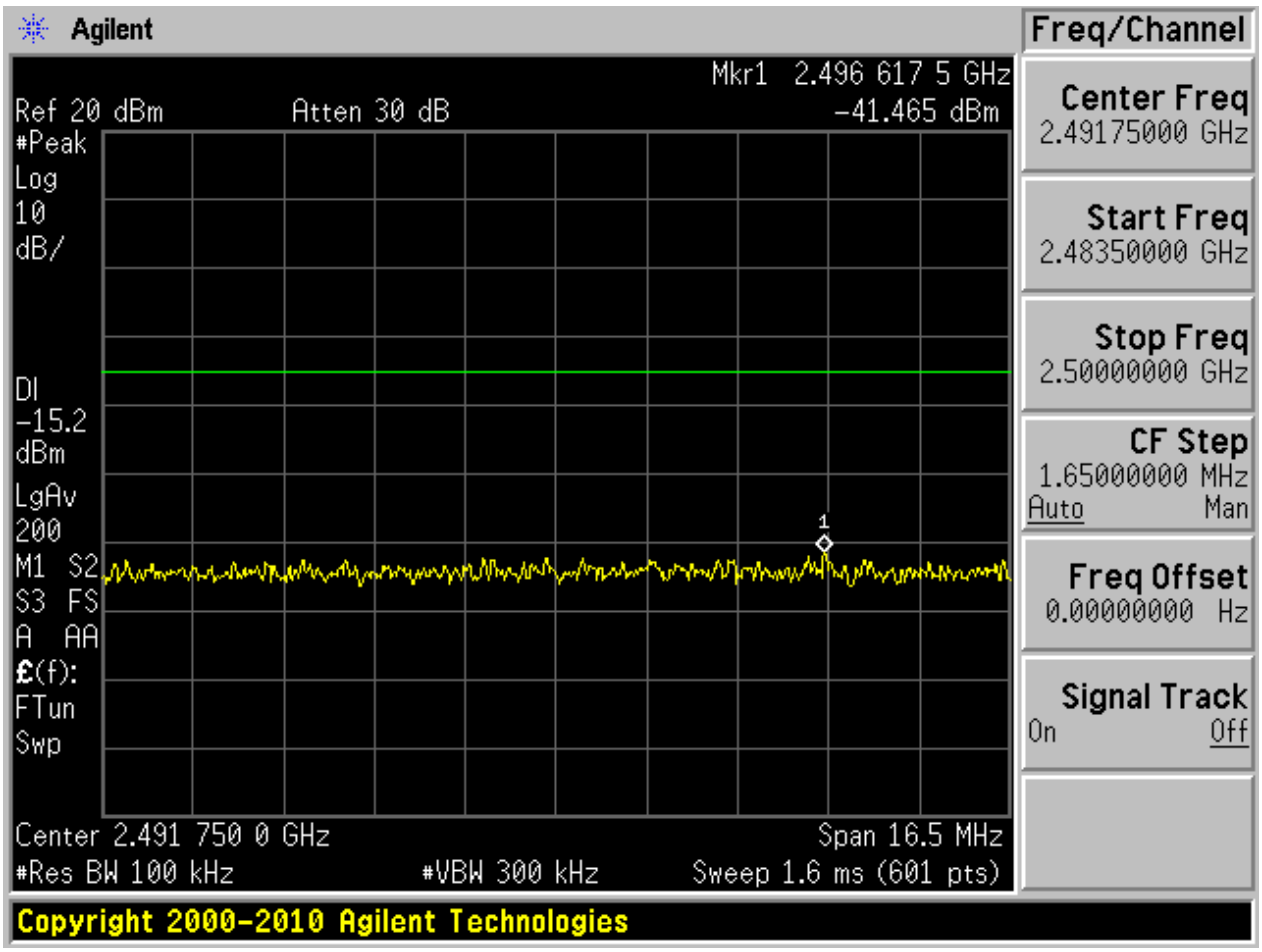



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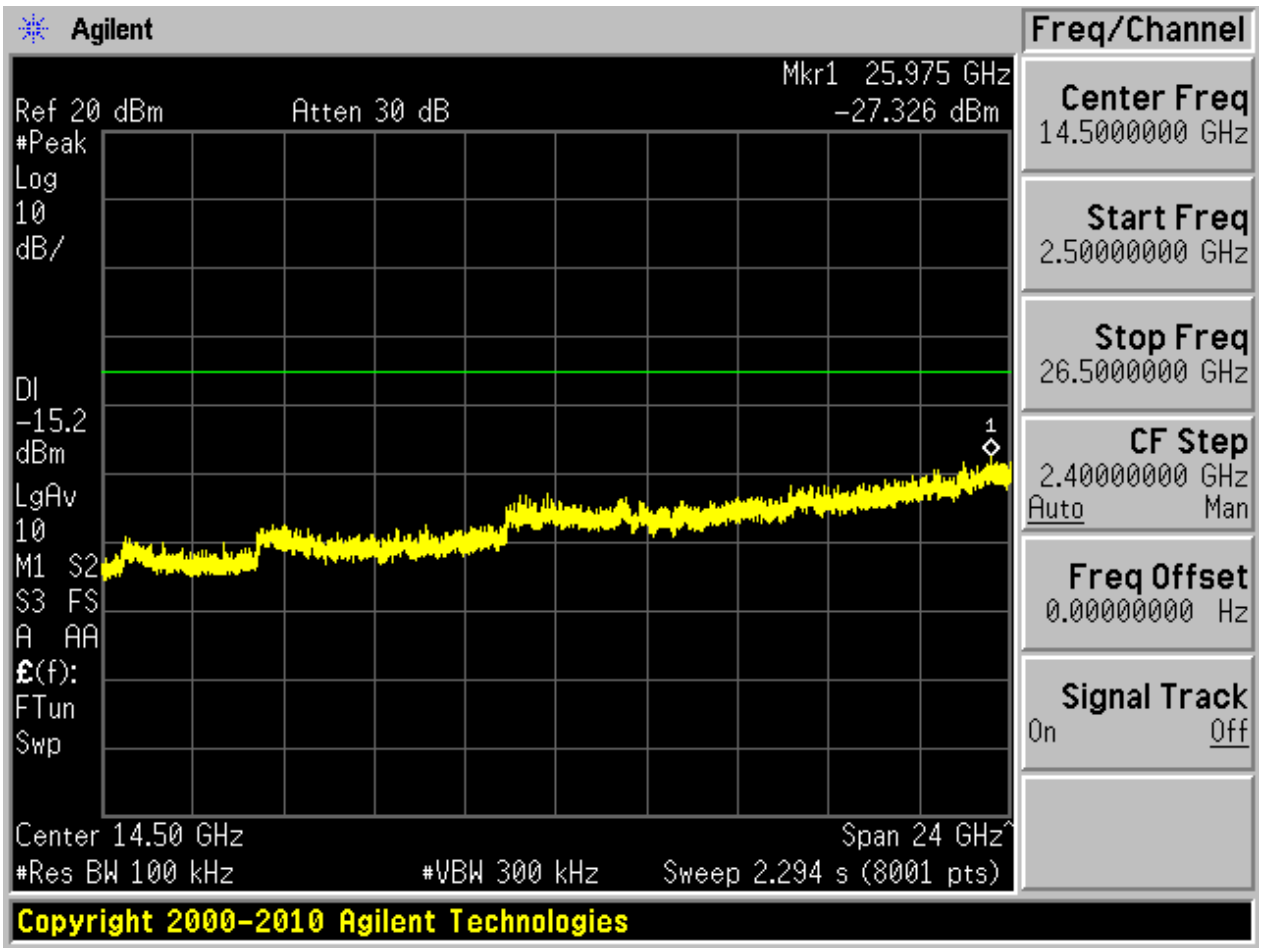


## 2.2 11B/1_M@1

### 2.2.1 Pref


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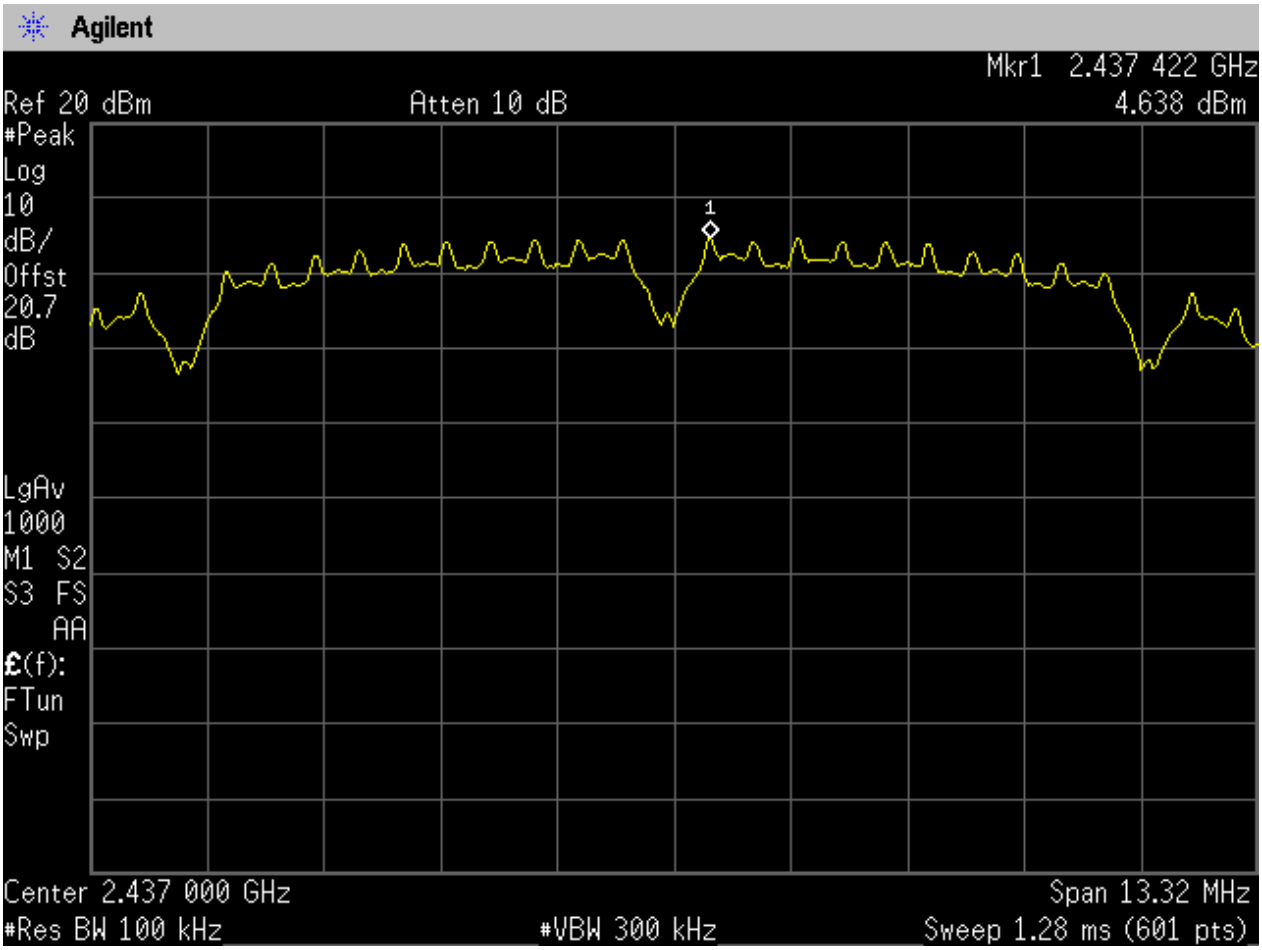


### 2.2.2 Puw


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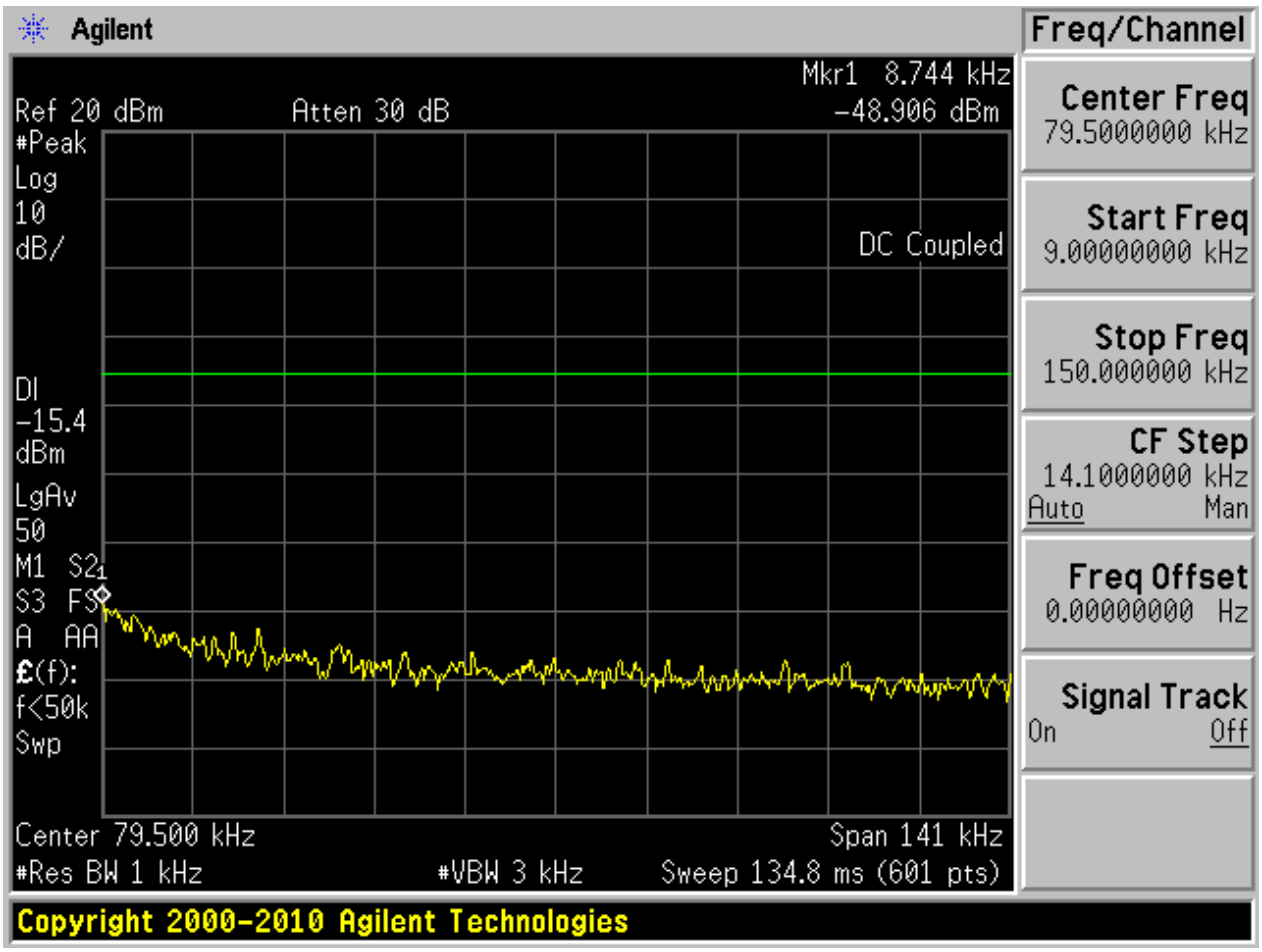



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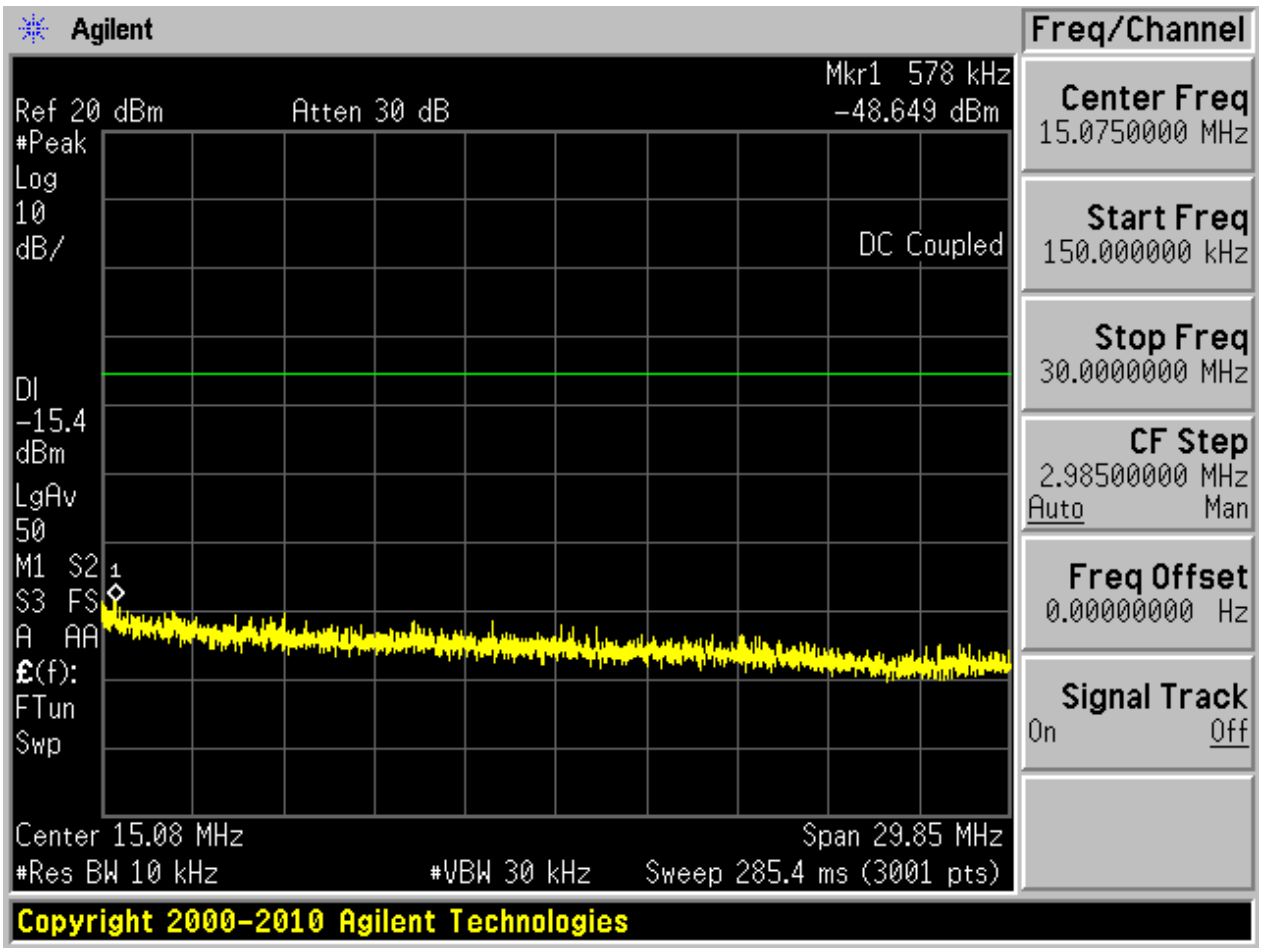



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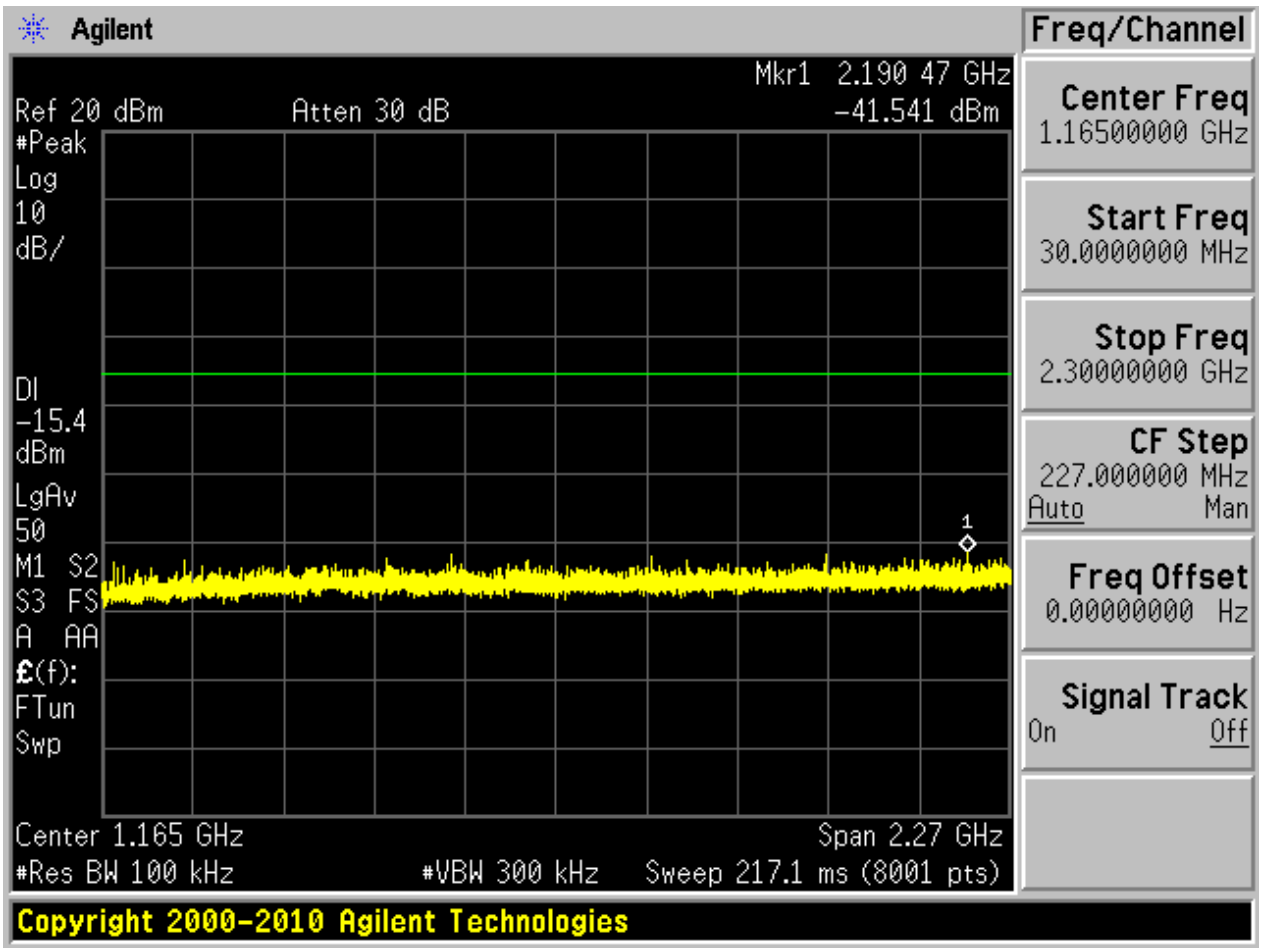



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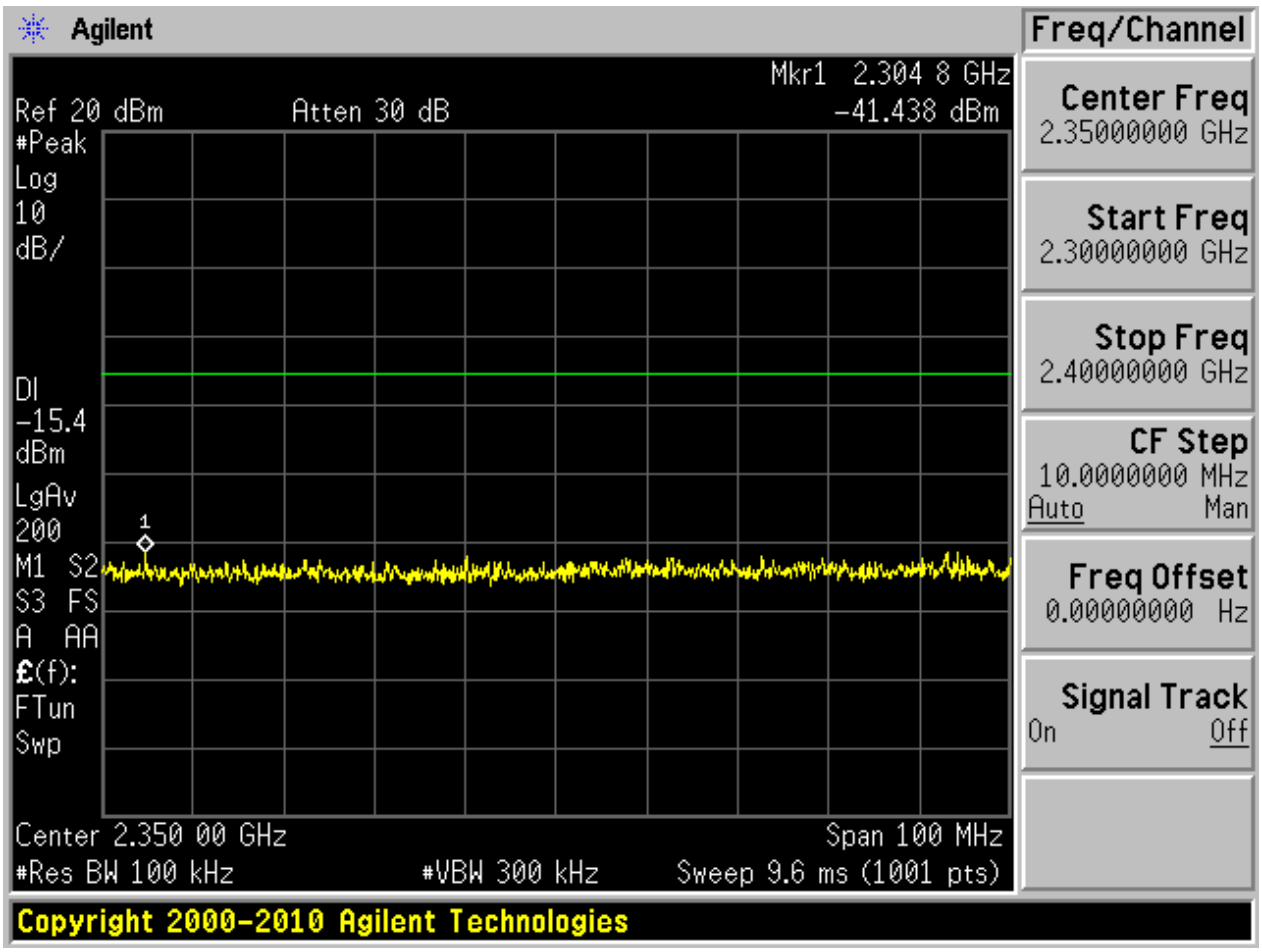



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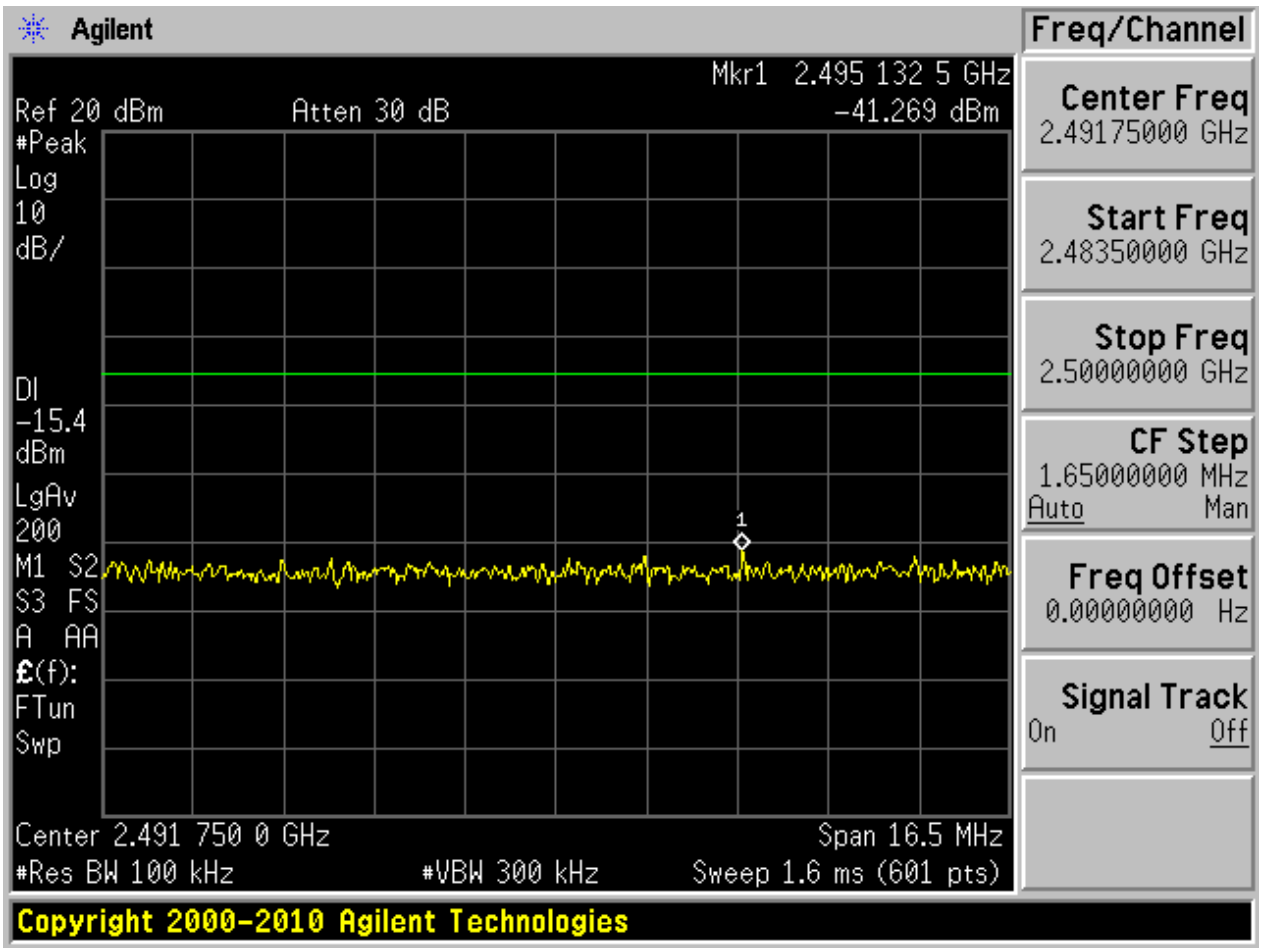



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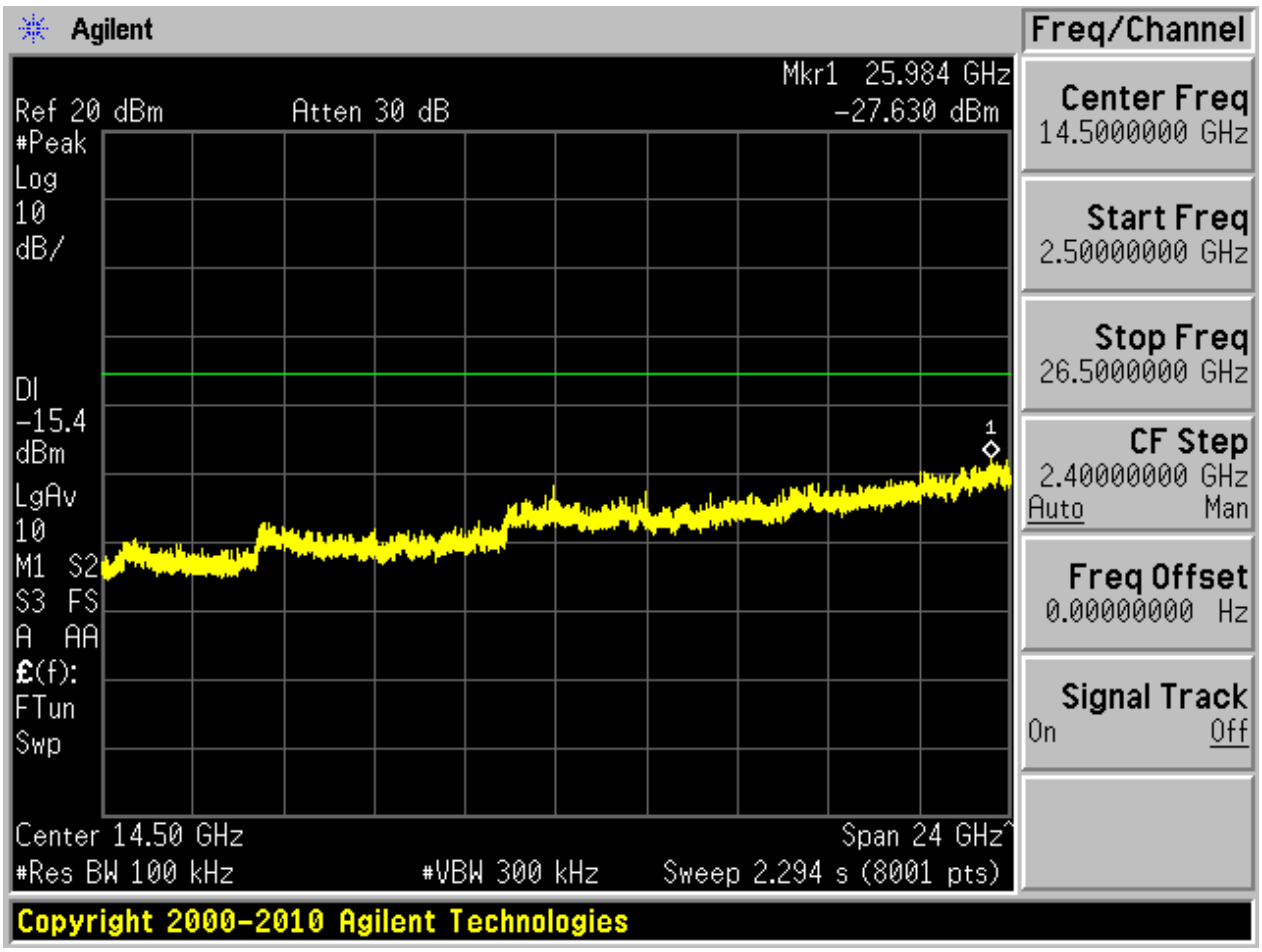


## 2.3 11B/1_T@1

### 2.3.1 Pref


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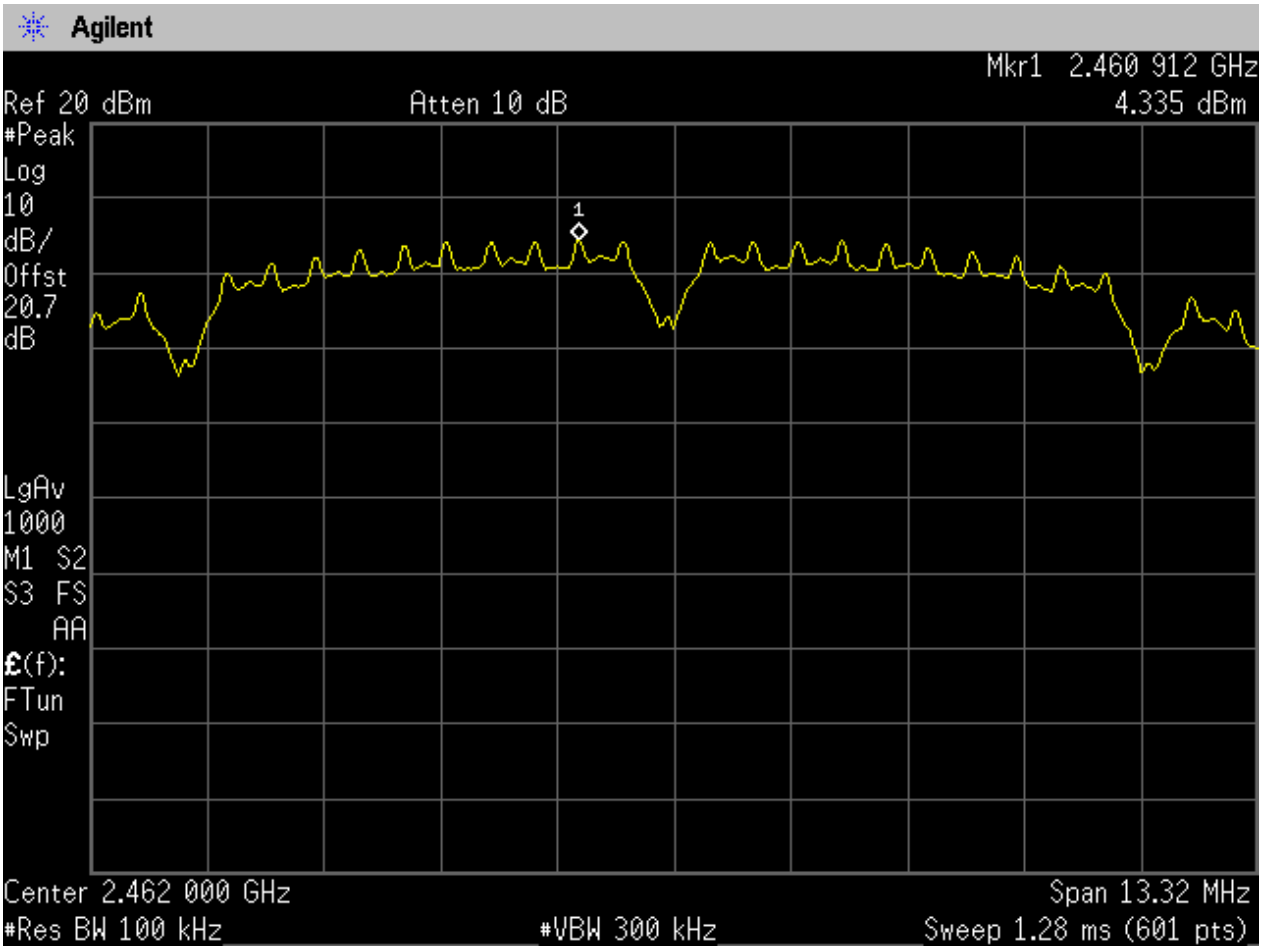


### 2.3.2 Puw


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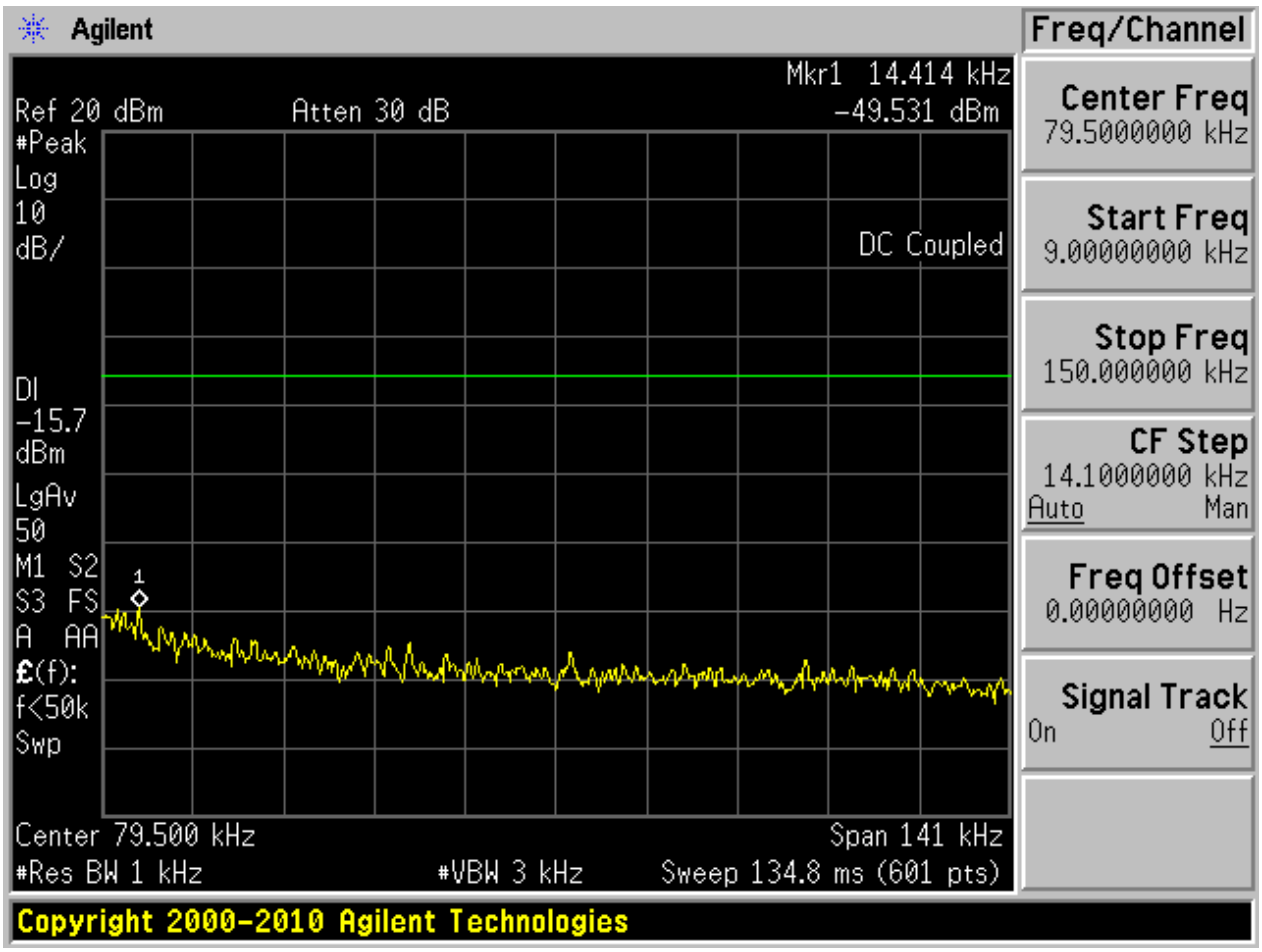



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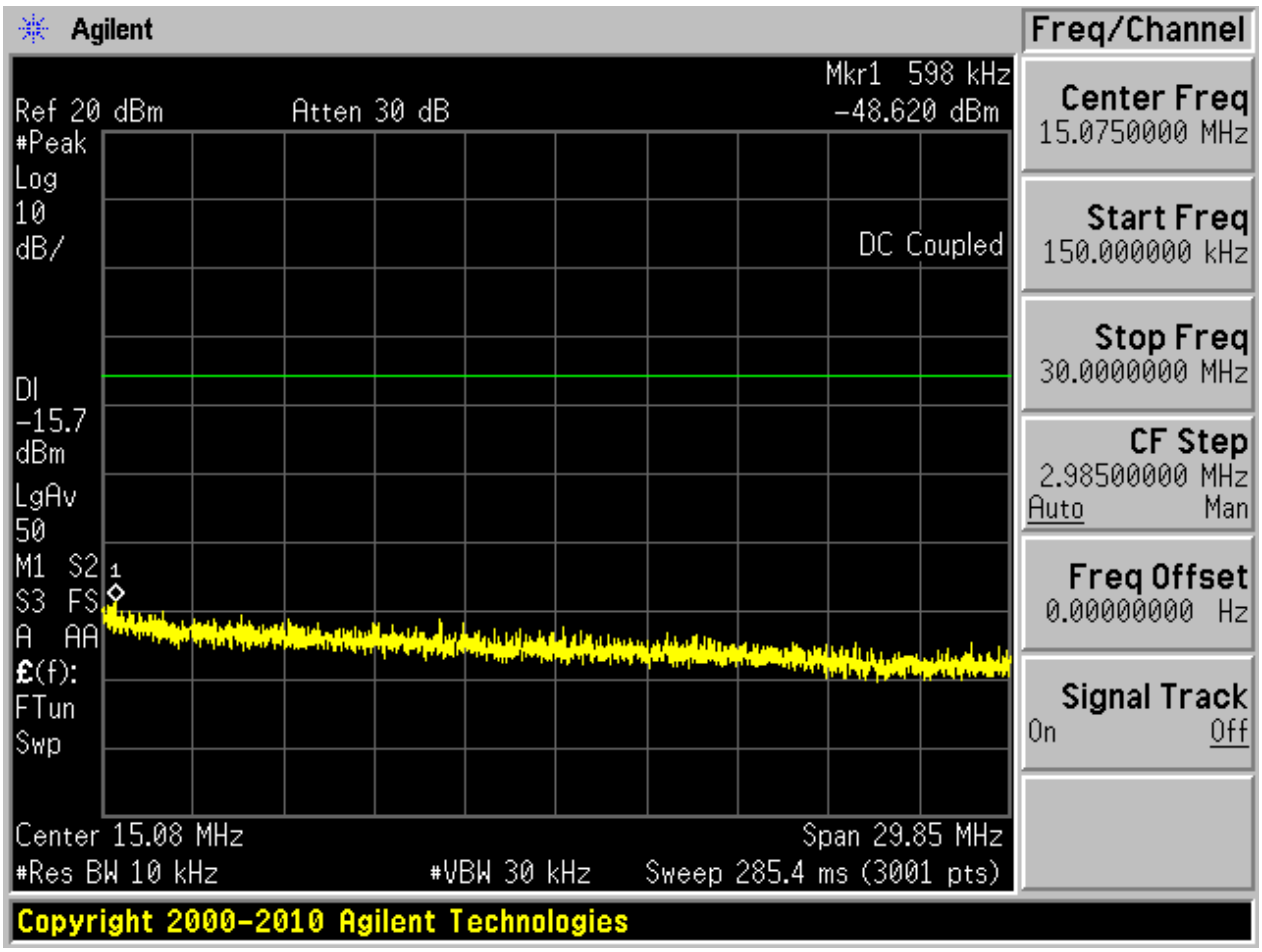



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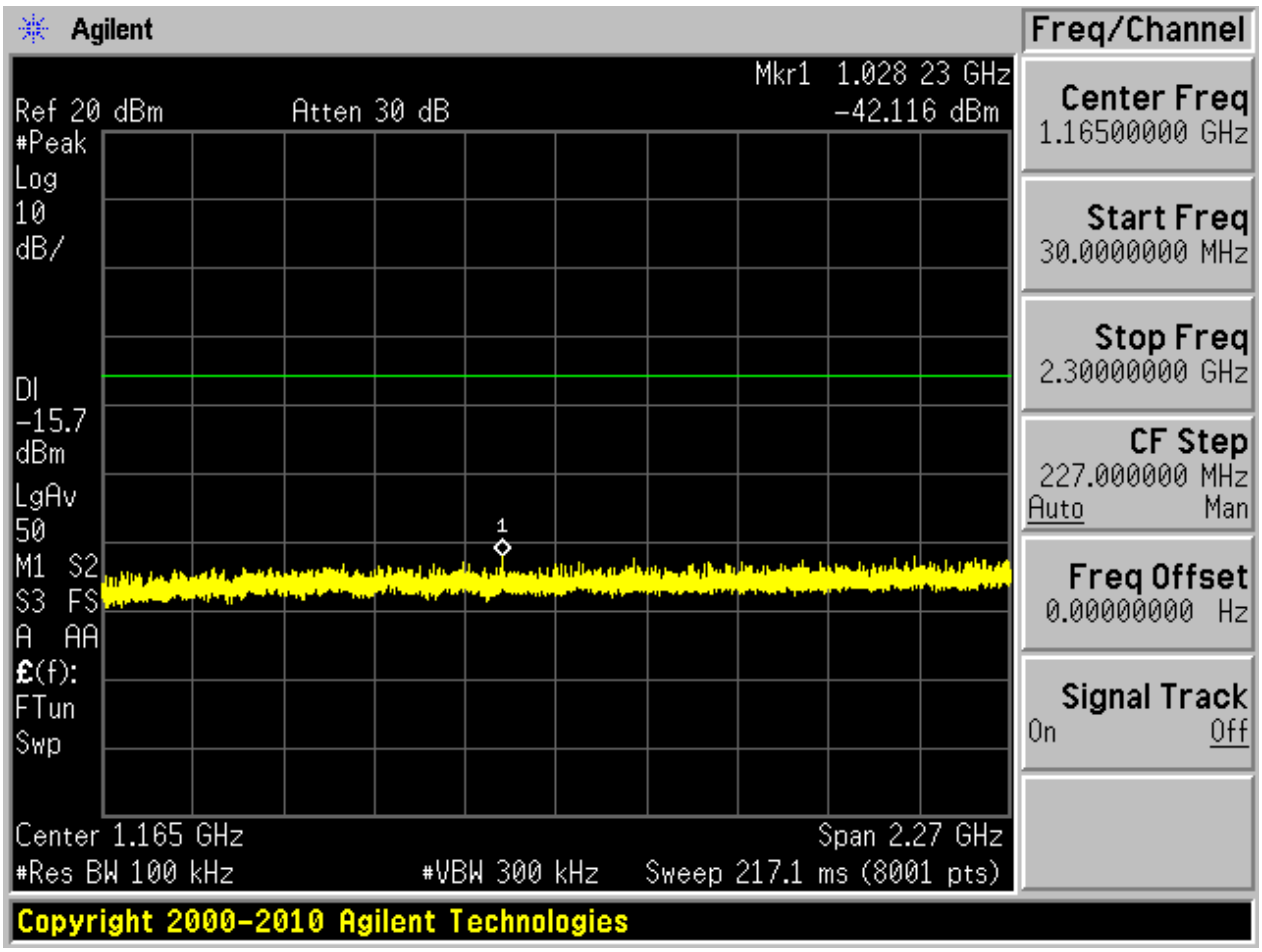



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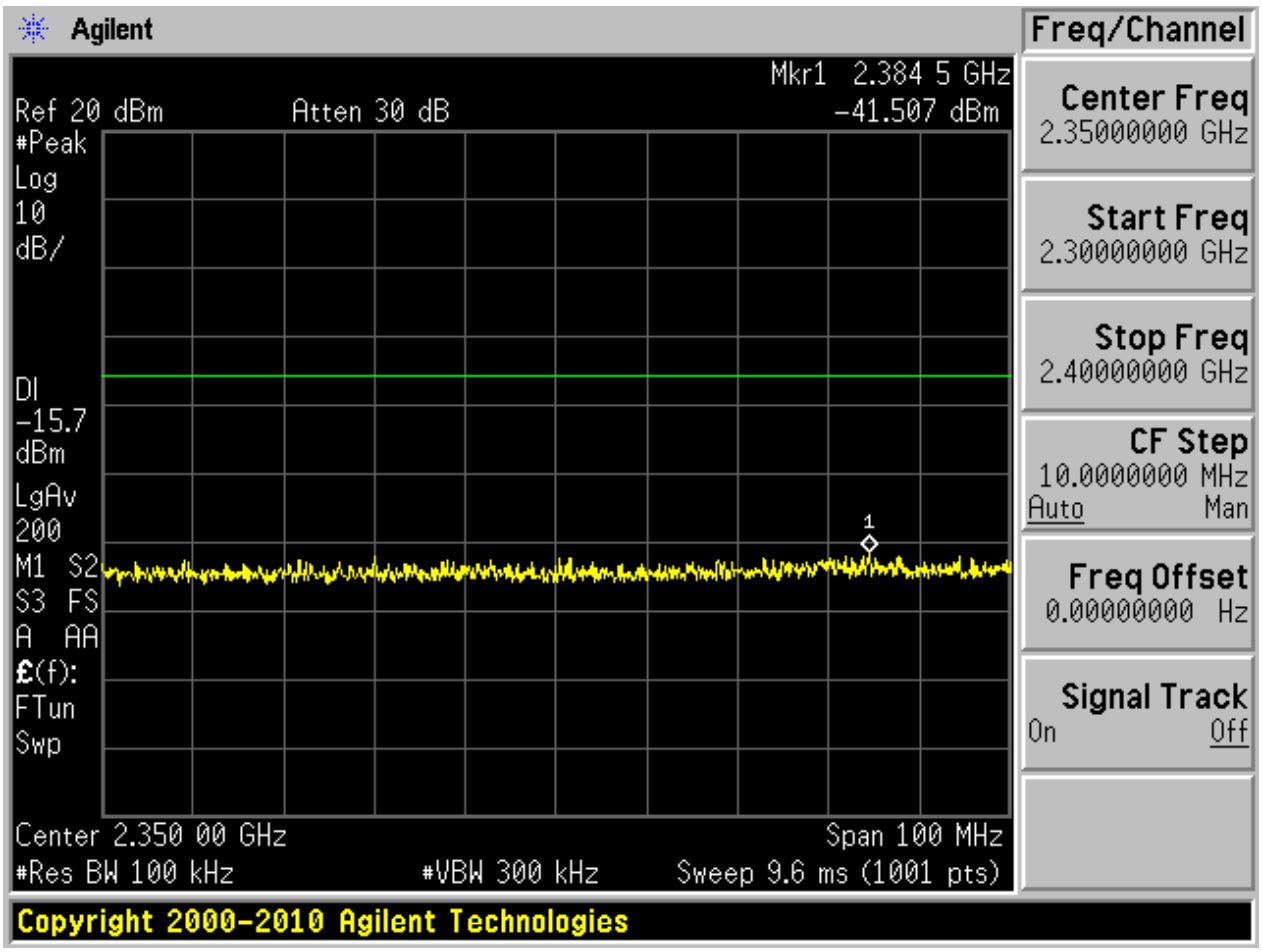



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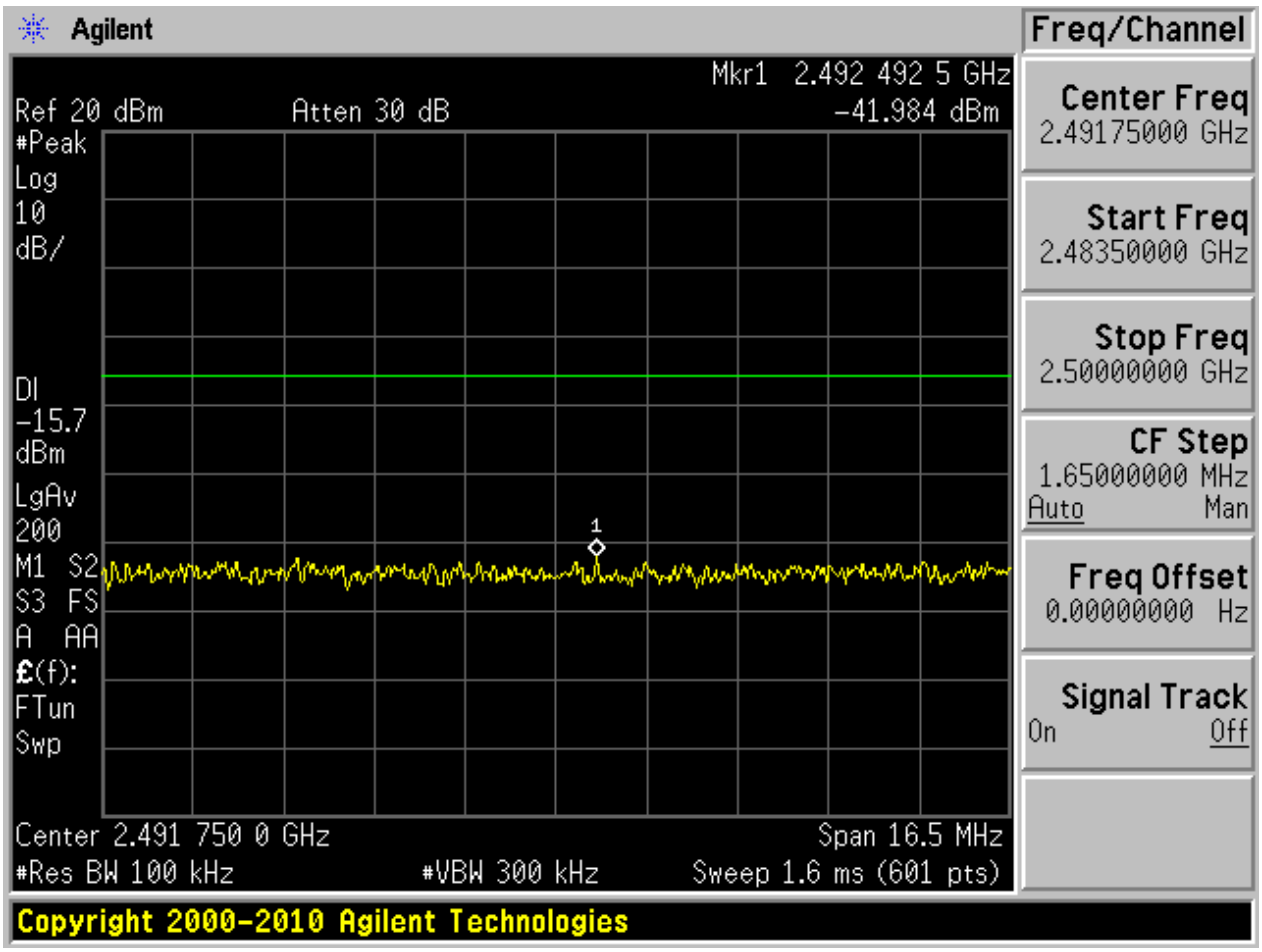



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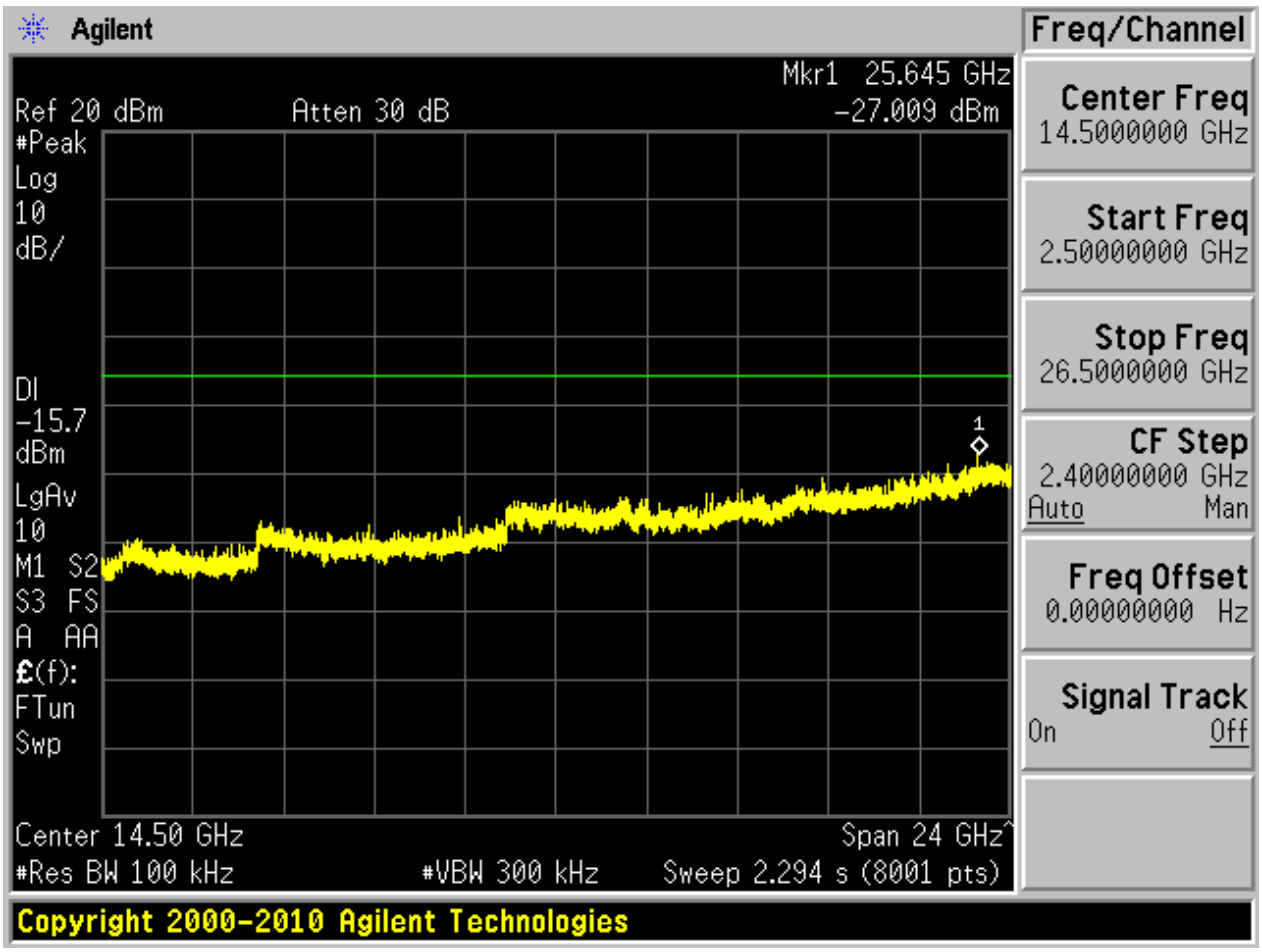


## 2.4 11G/6_B@1

### 2.4.1 Pref


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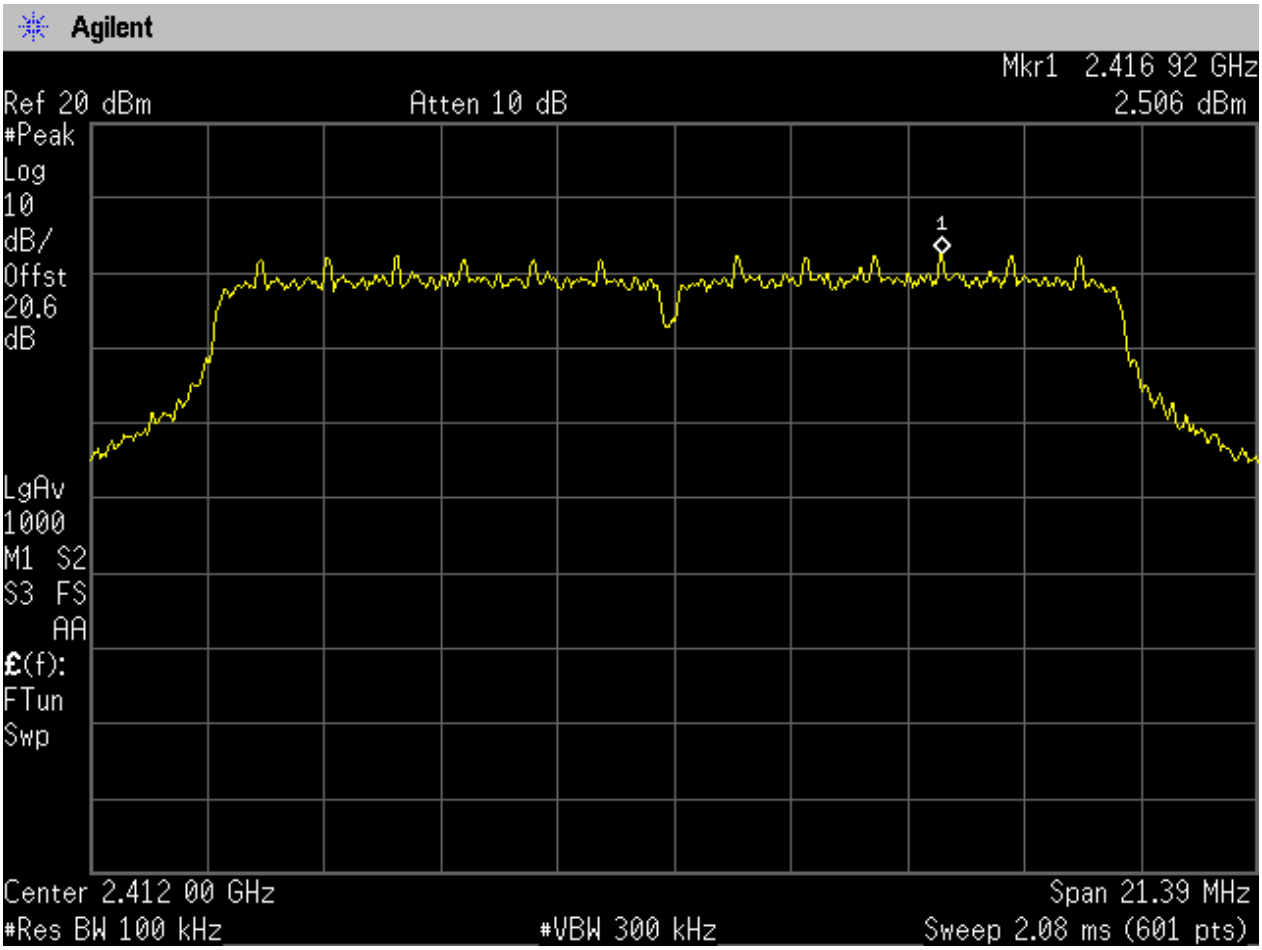


### 2.4.2 Puw


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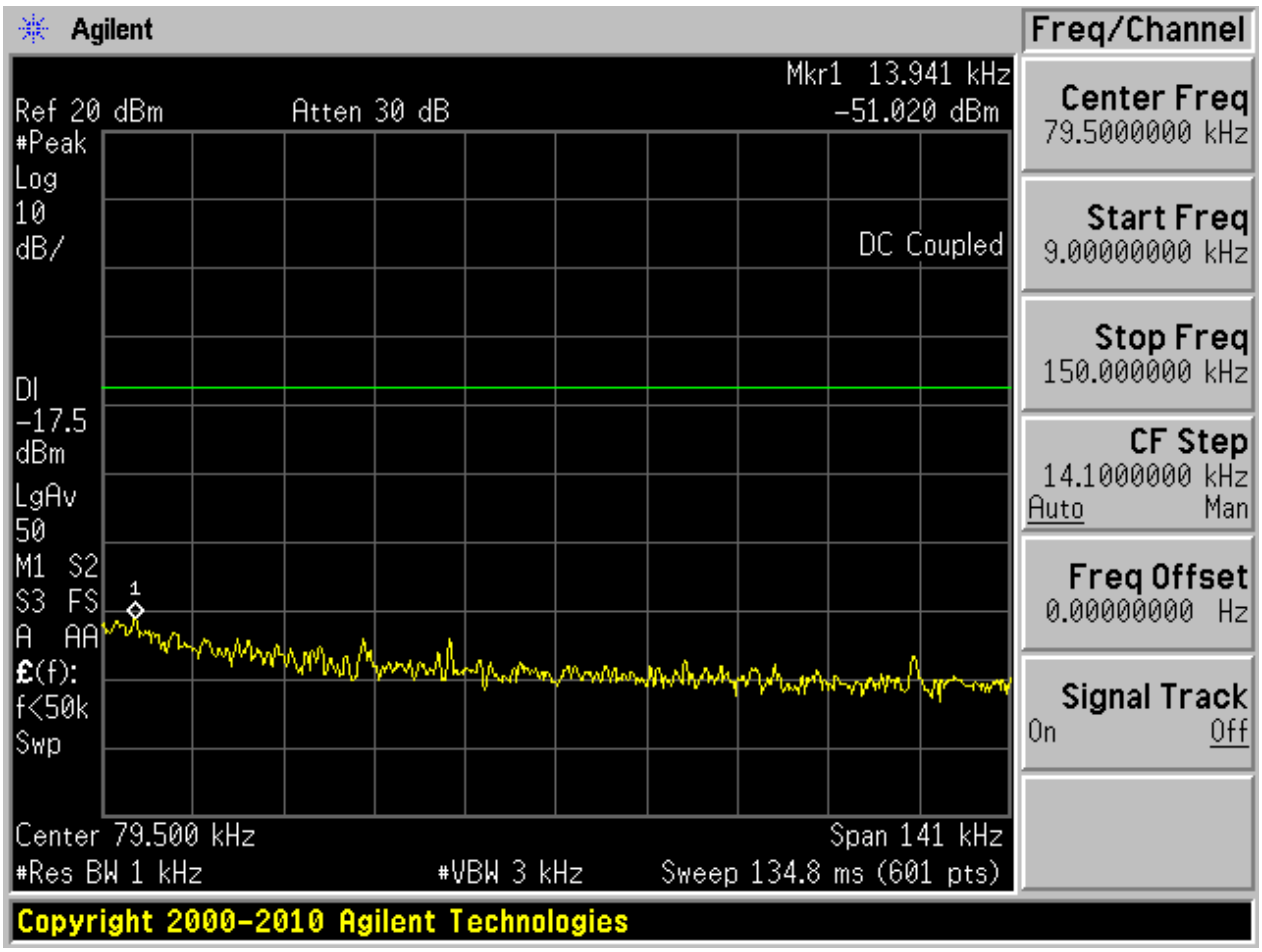



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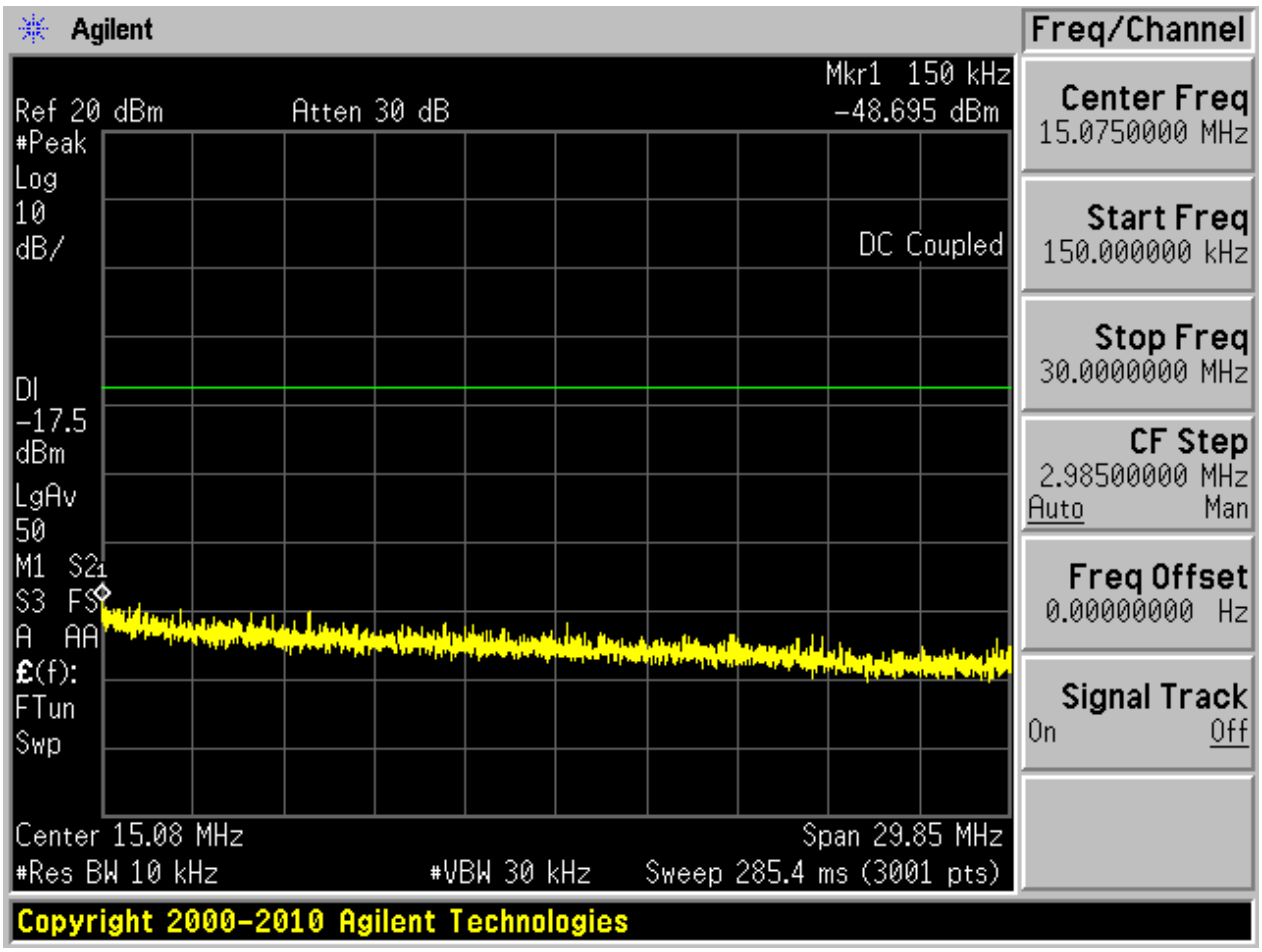



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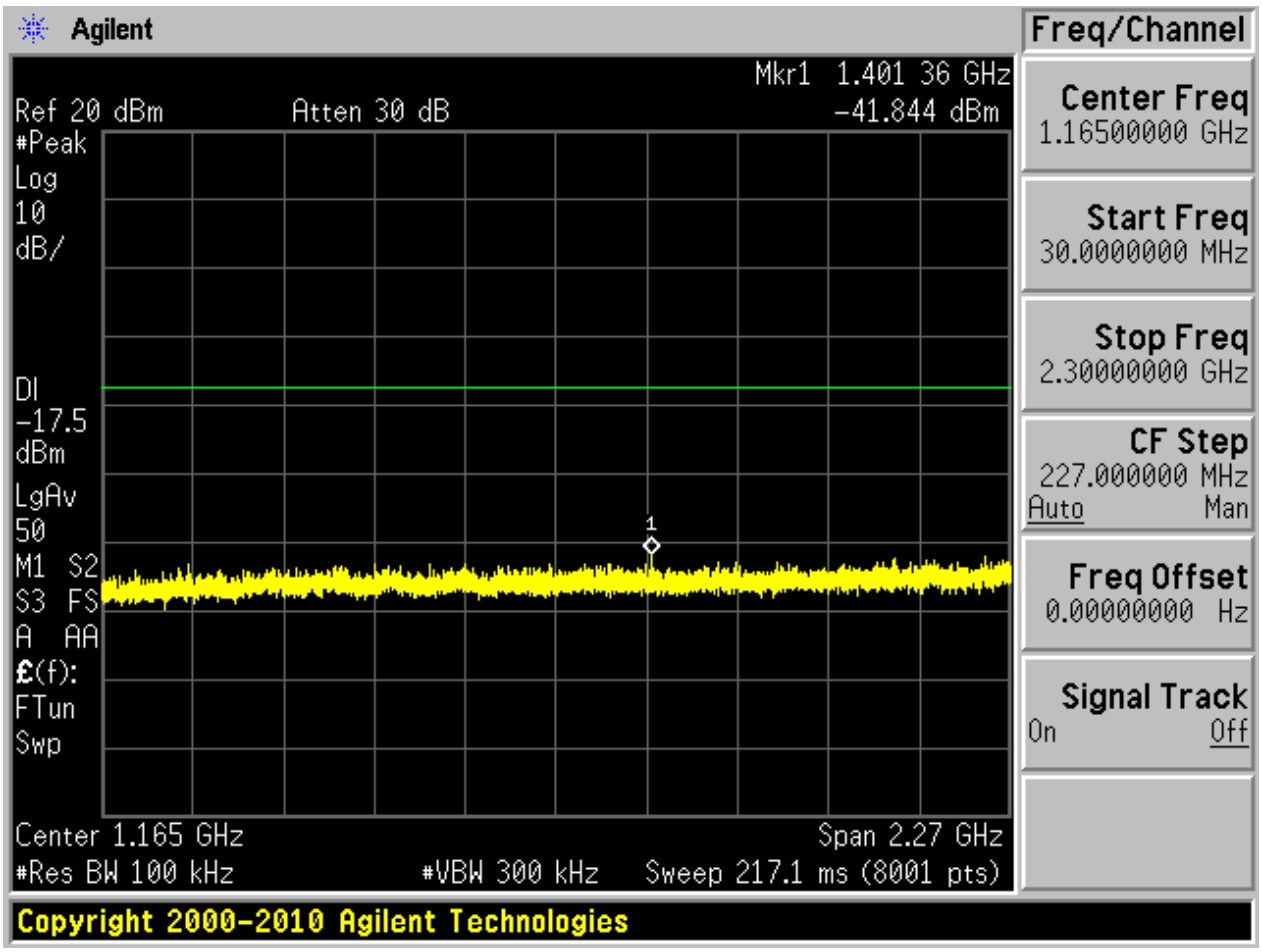



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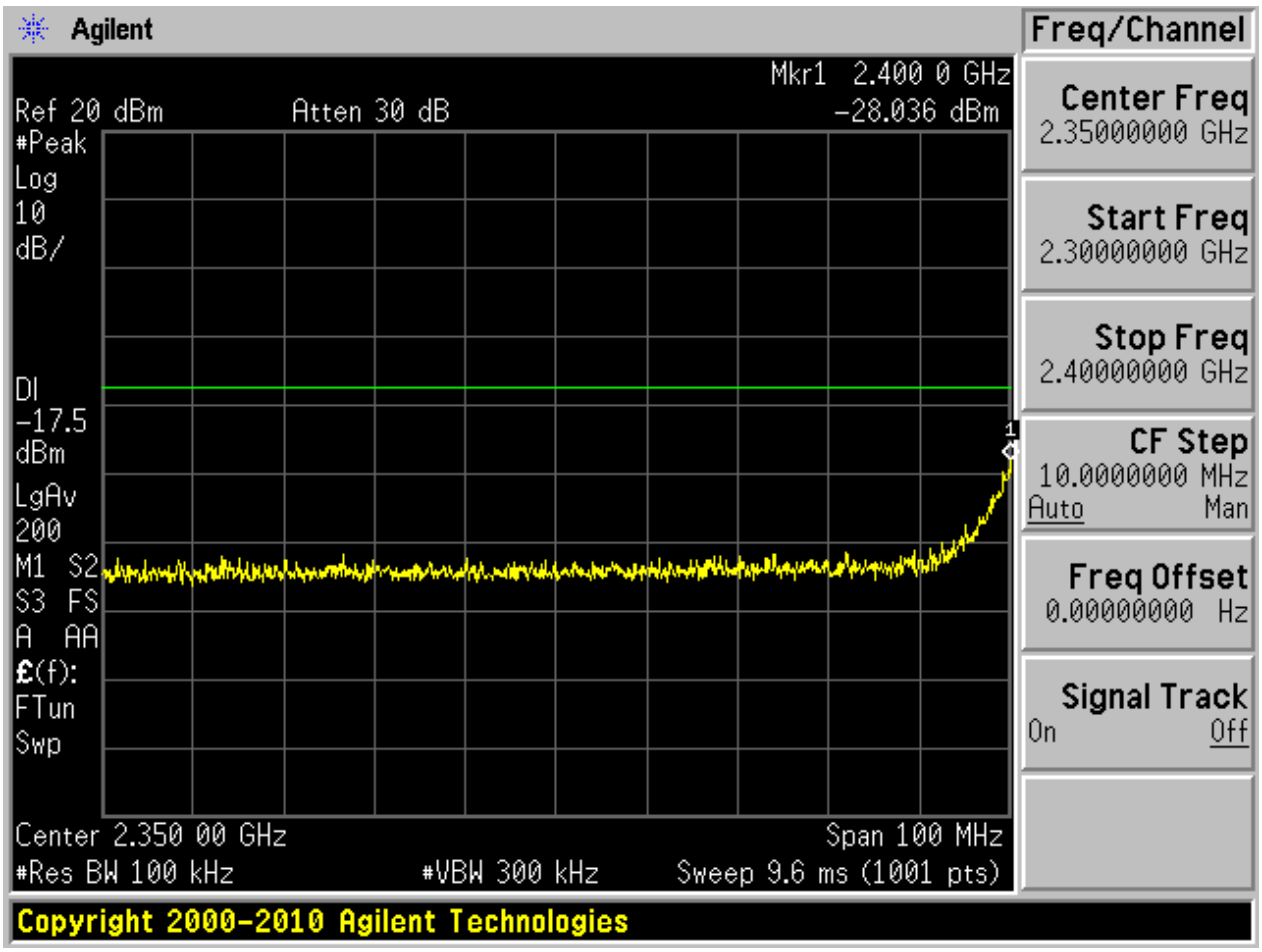



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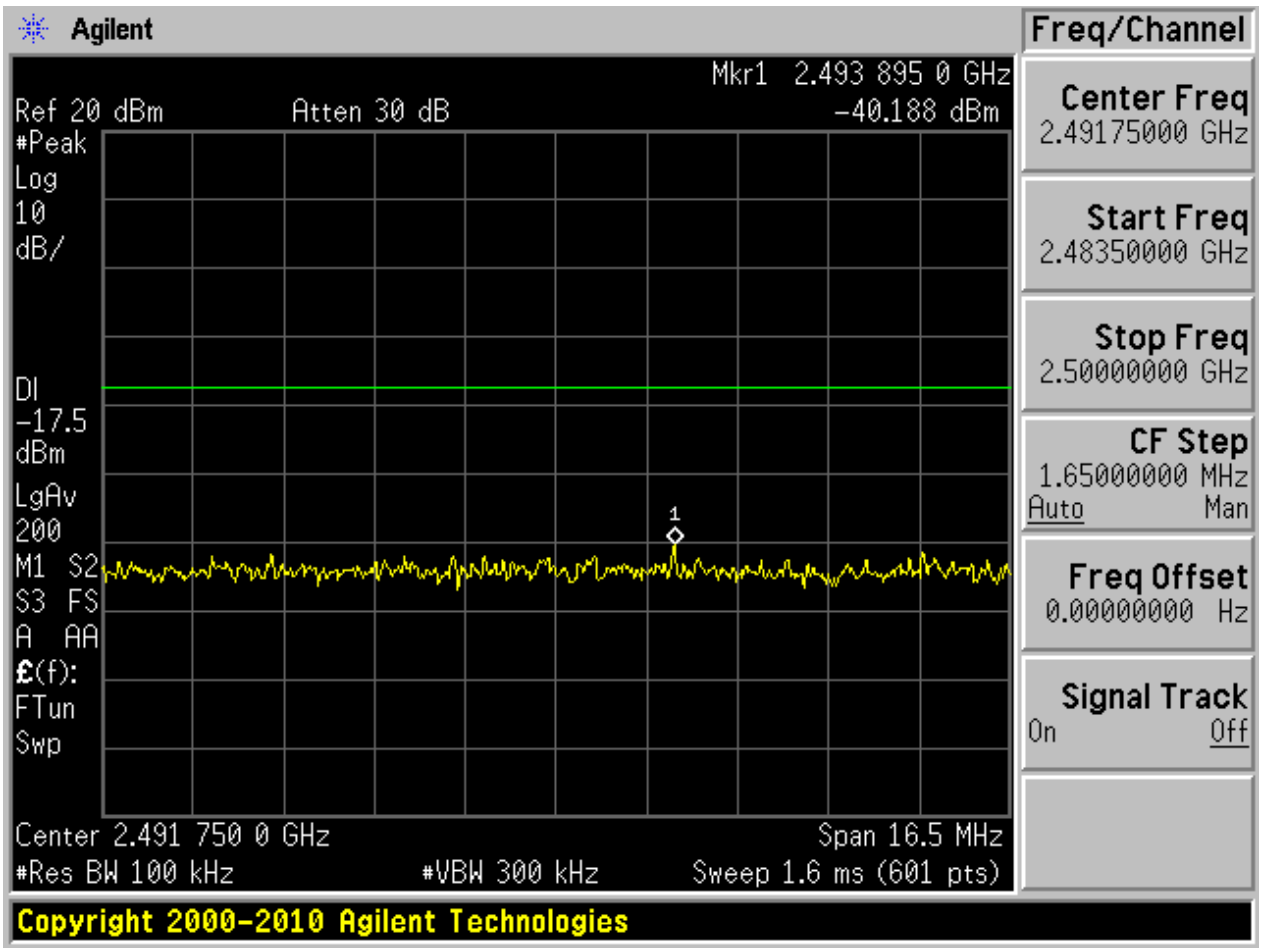



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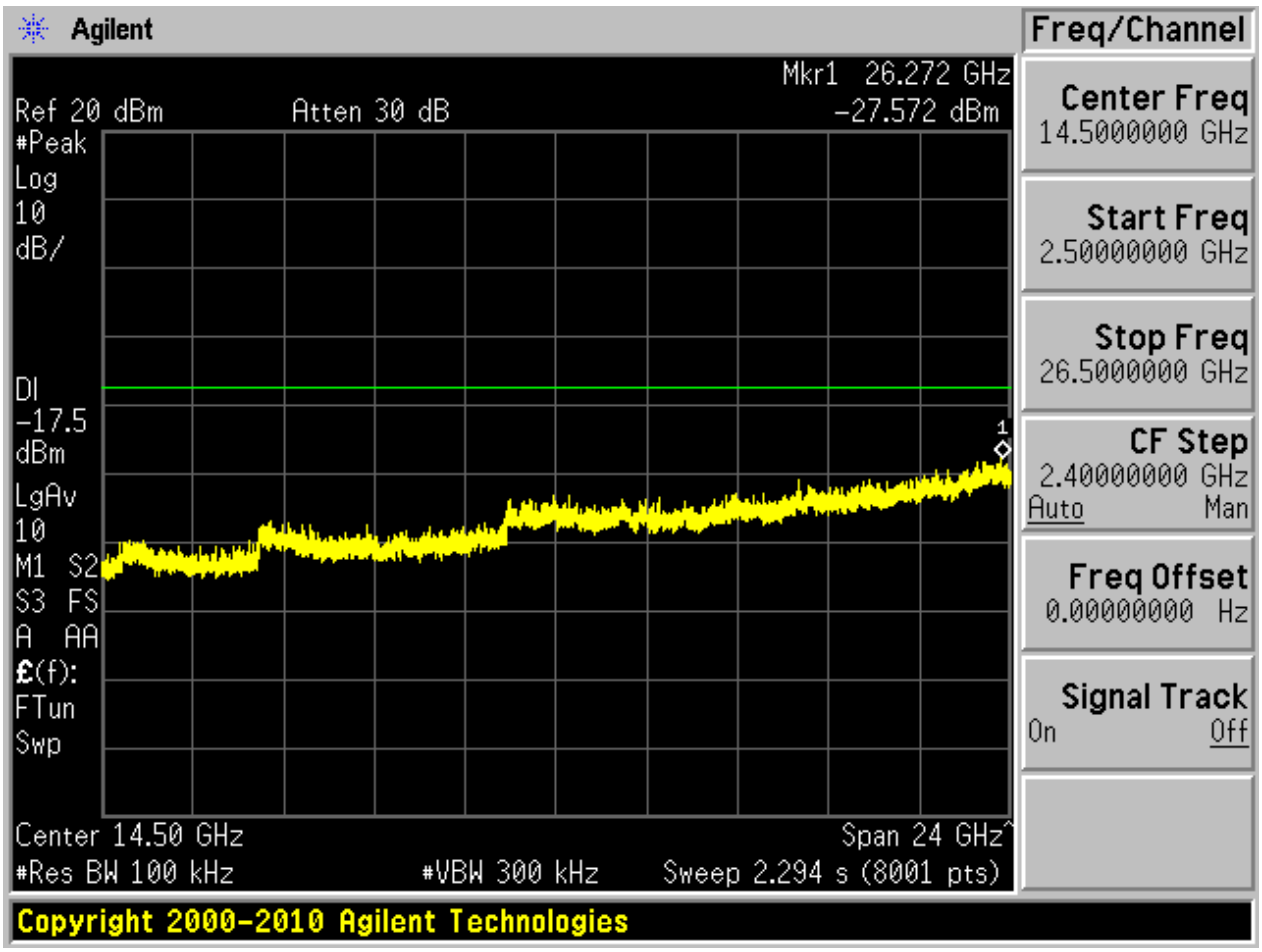


## 2.5 11G/6_M@1

### 2.5.1 Pref


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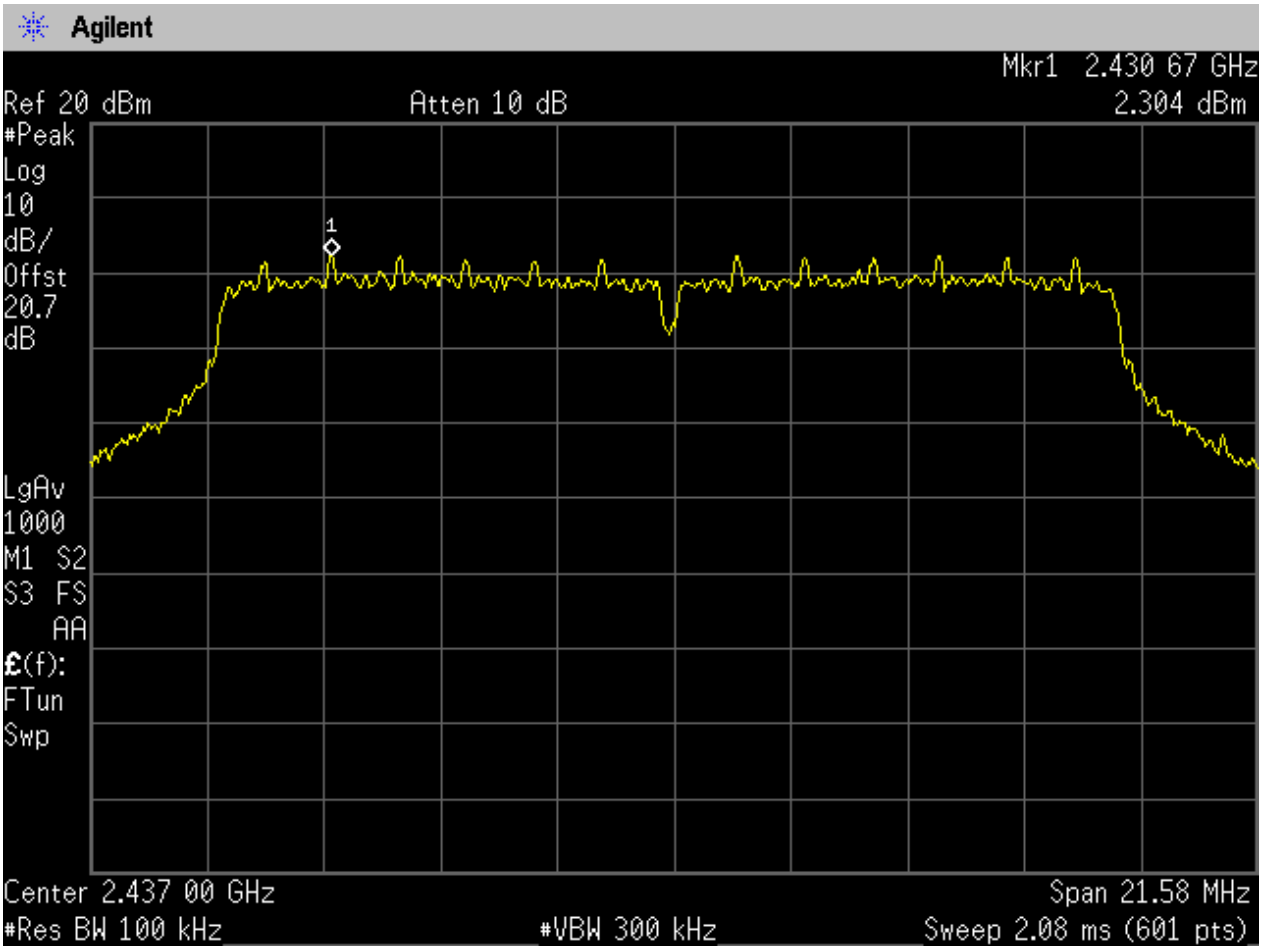


### 2.5.2 Puw


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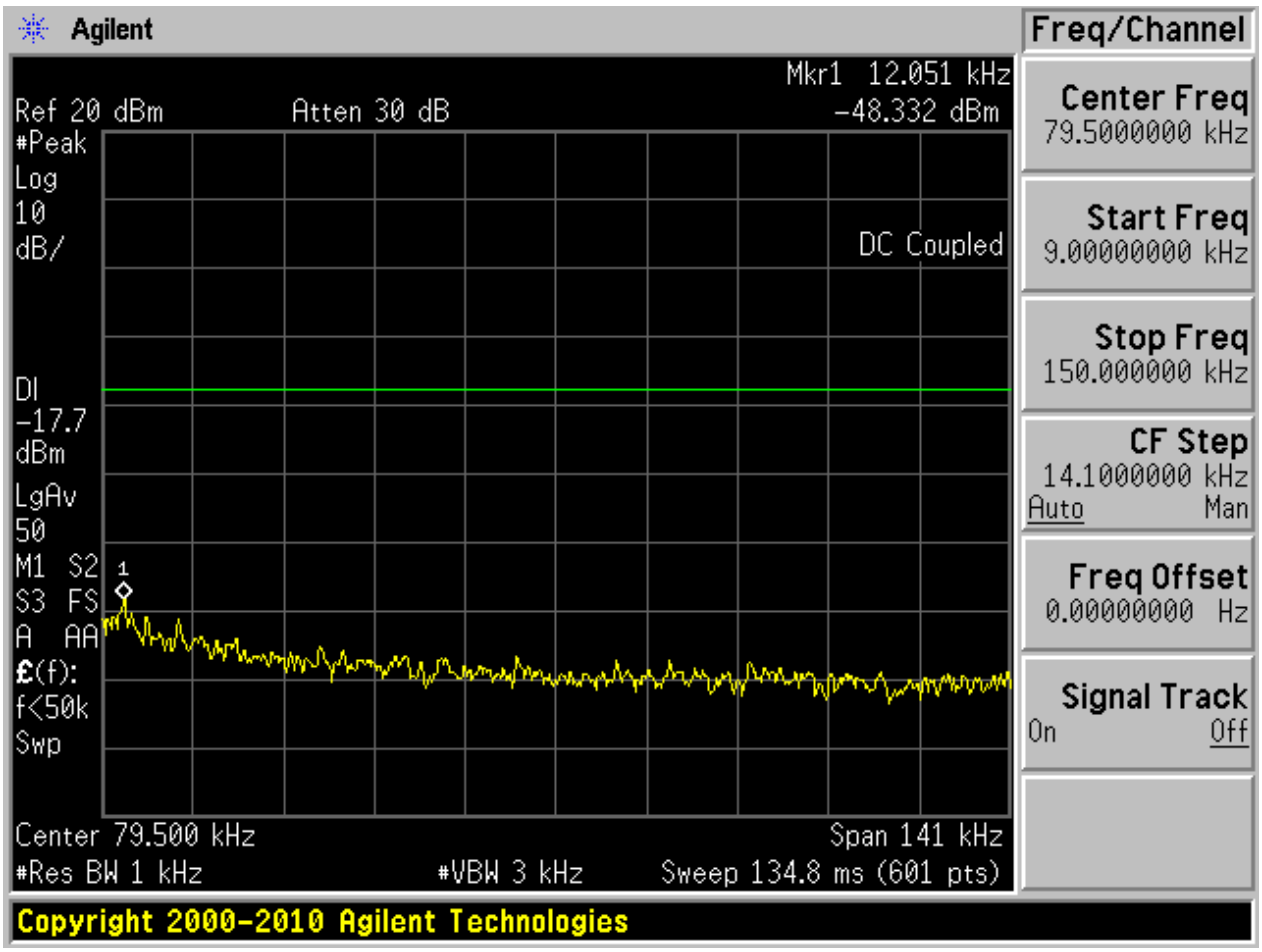



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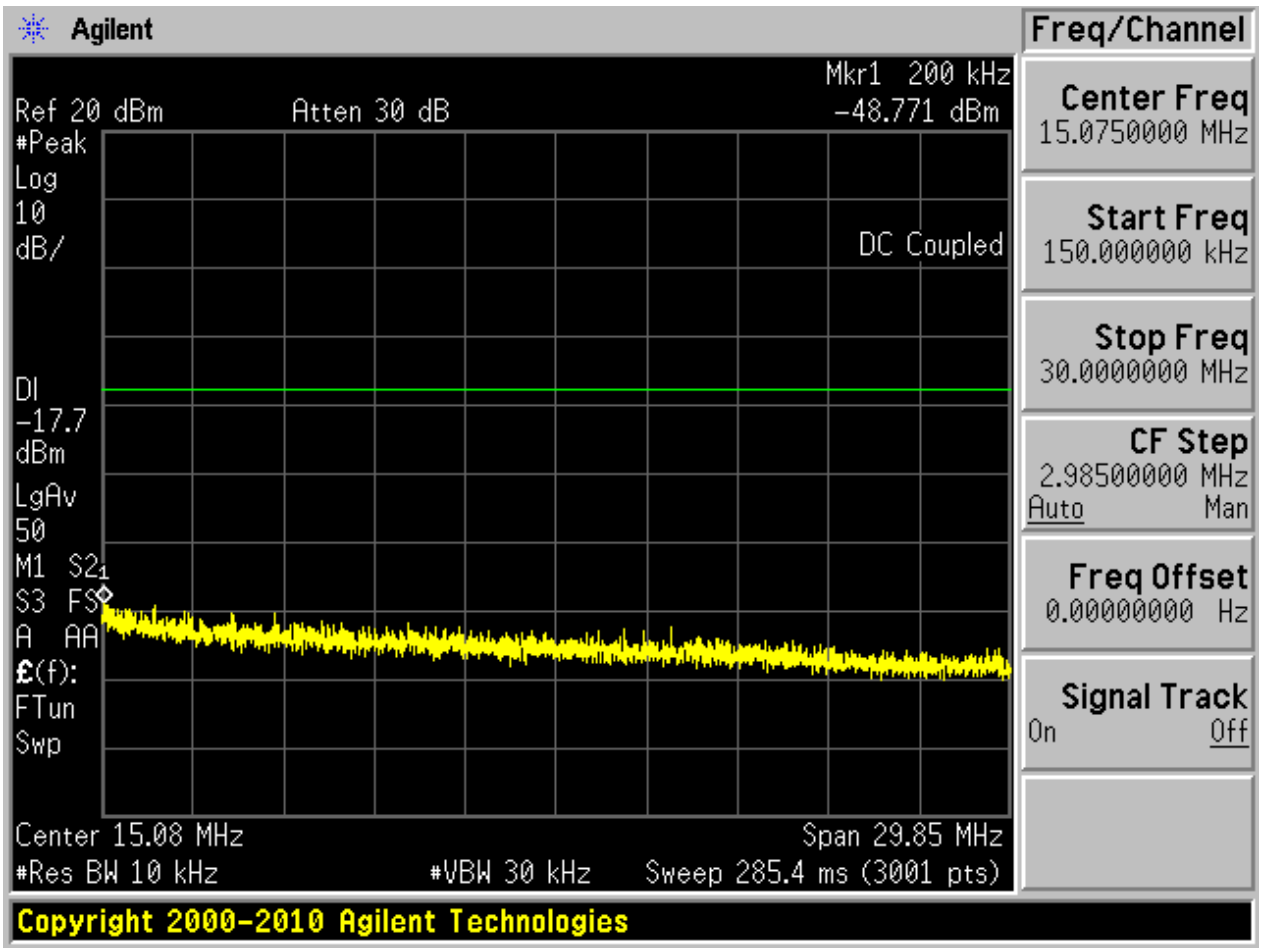



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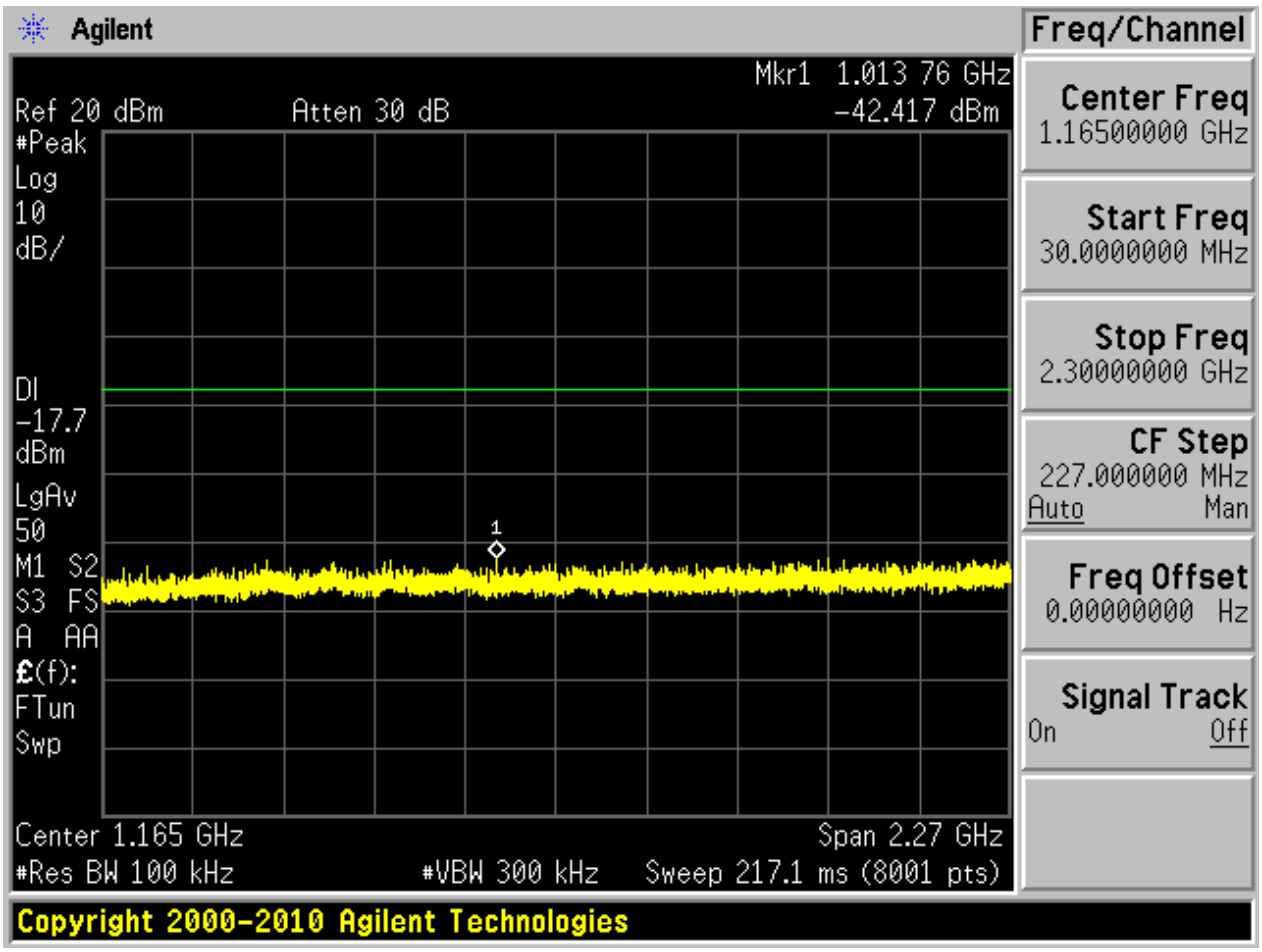



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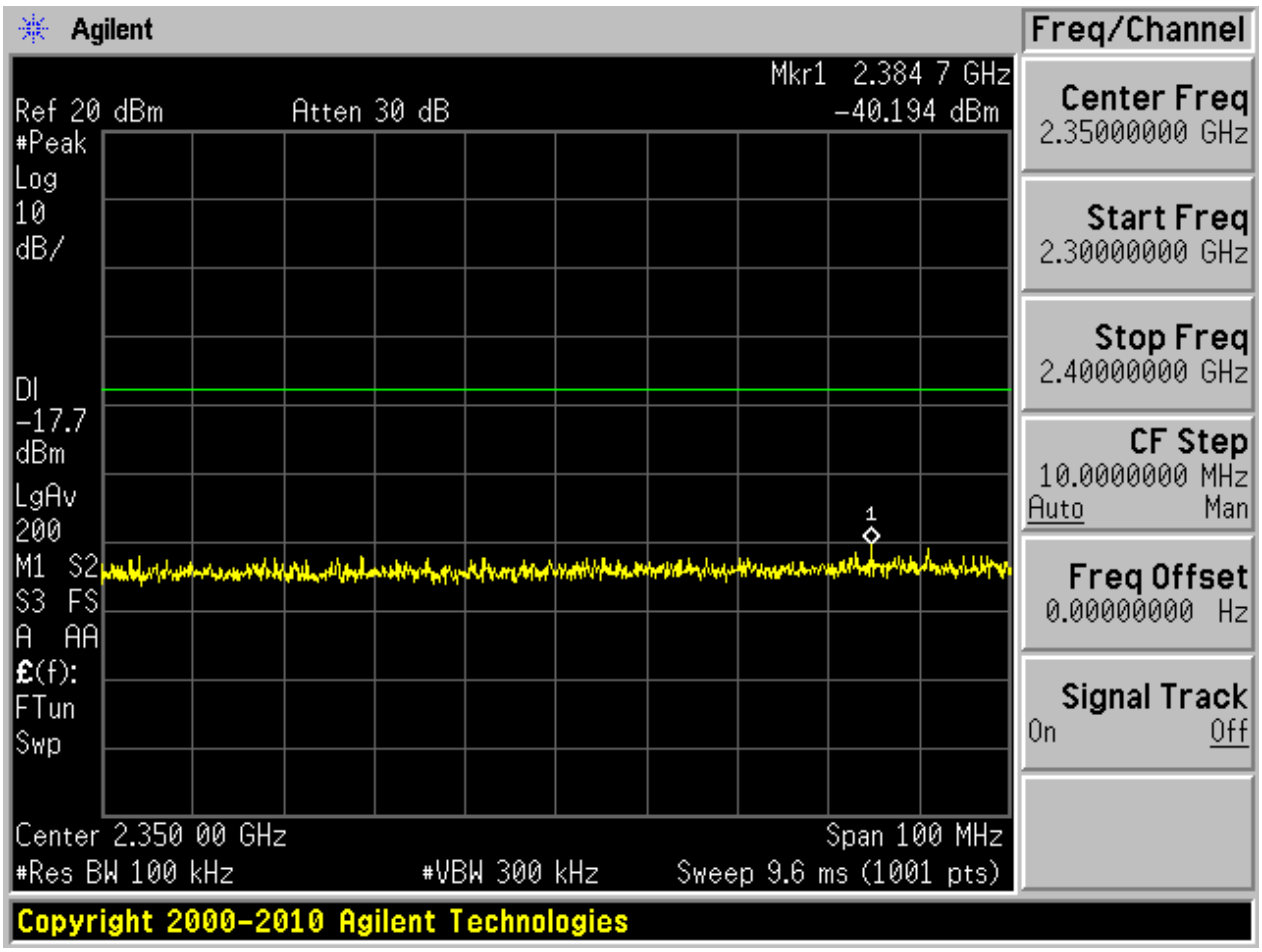



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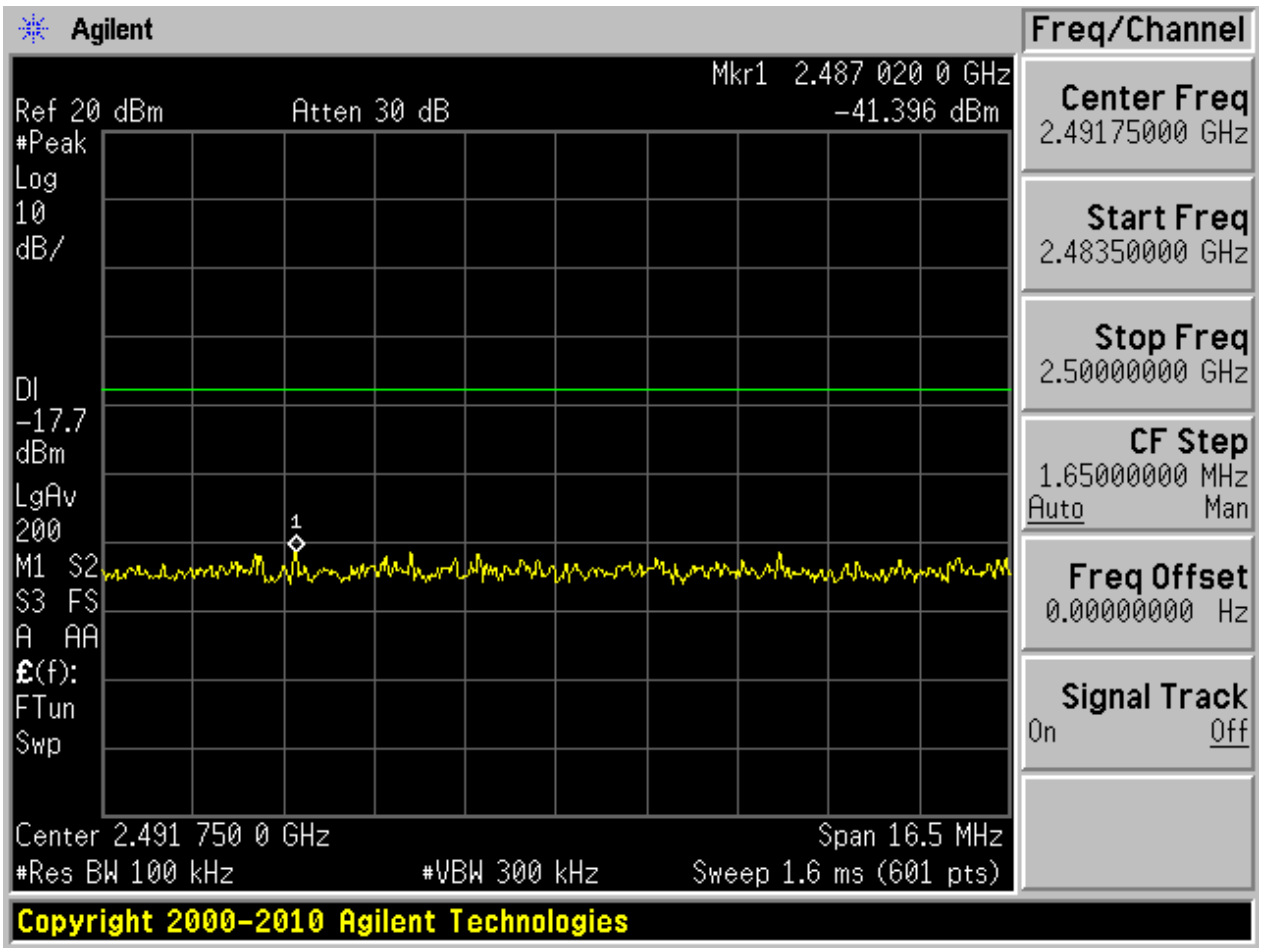



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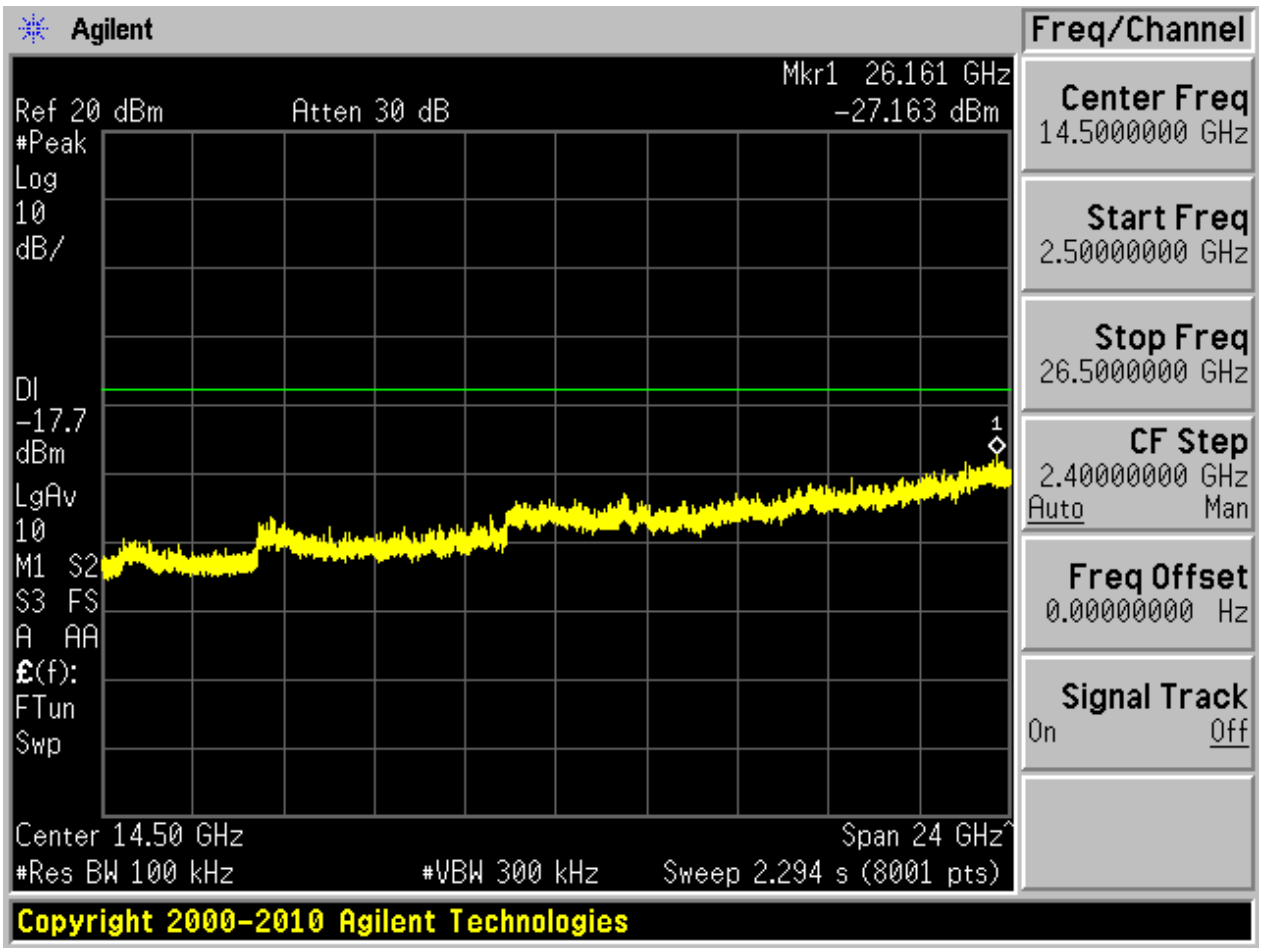


## 2.6 11G/6_T@1

### 2.6.1 Pref


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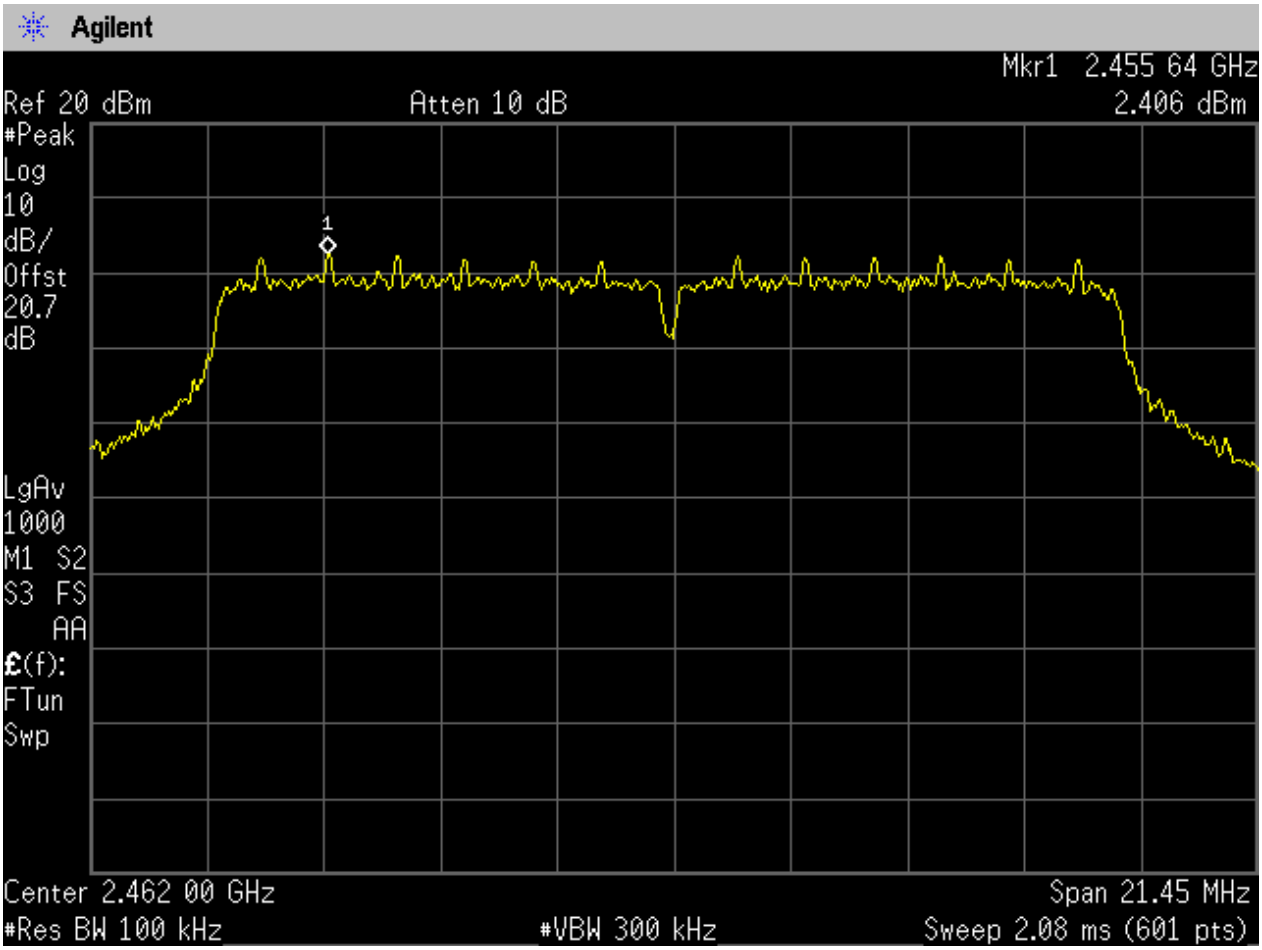


### 2.6.2 Puw


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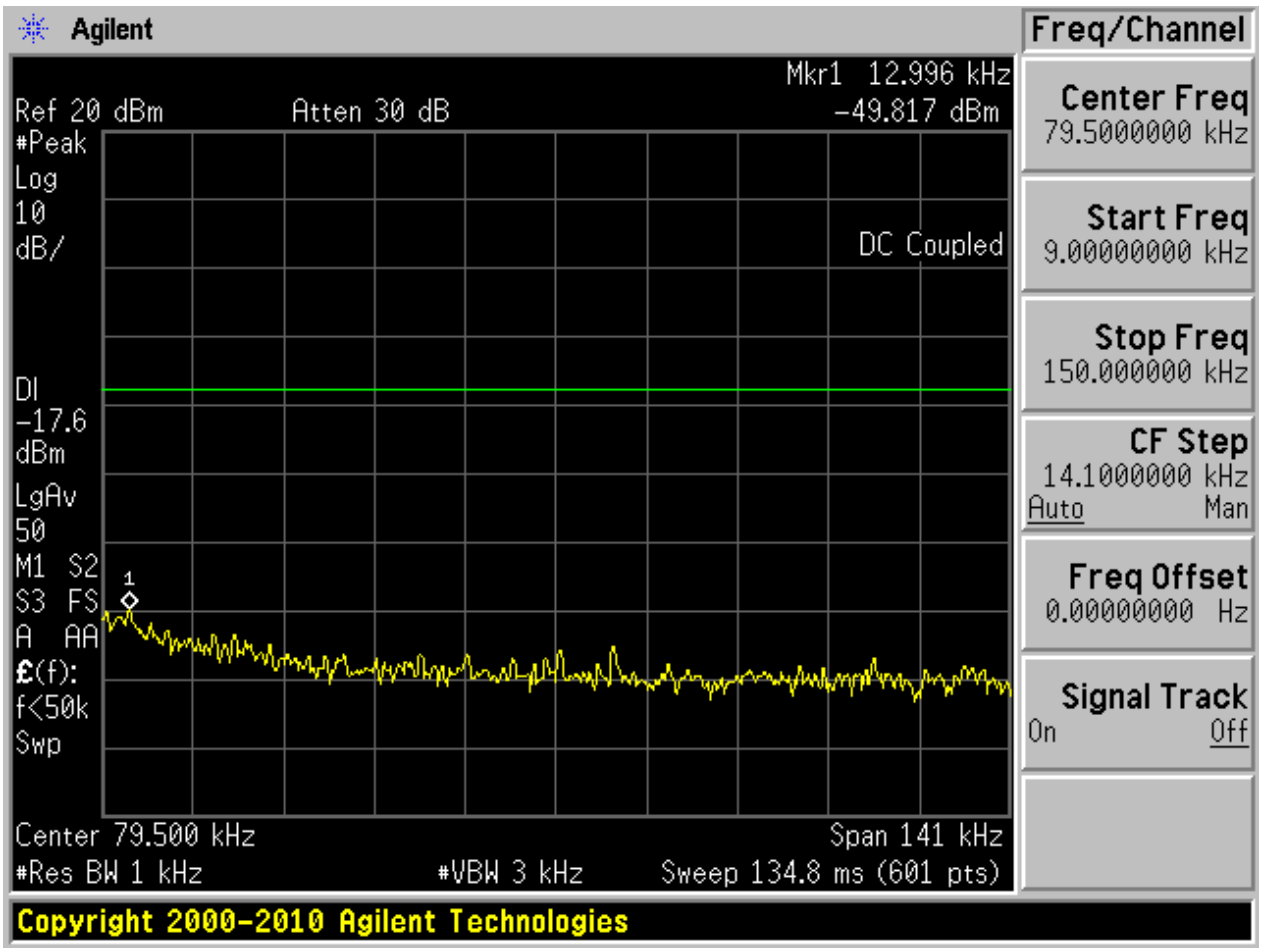



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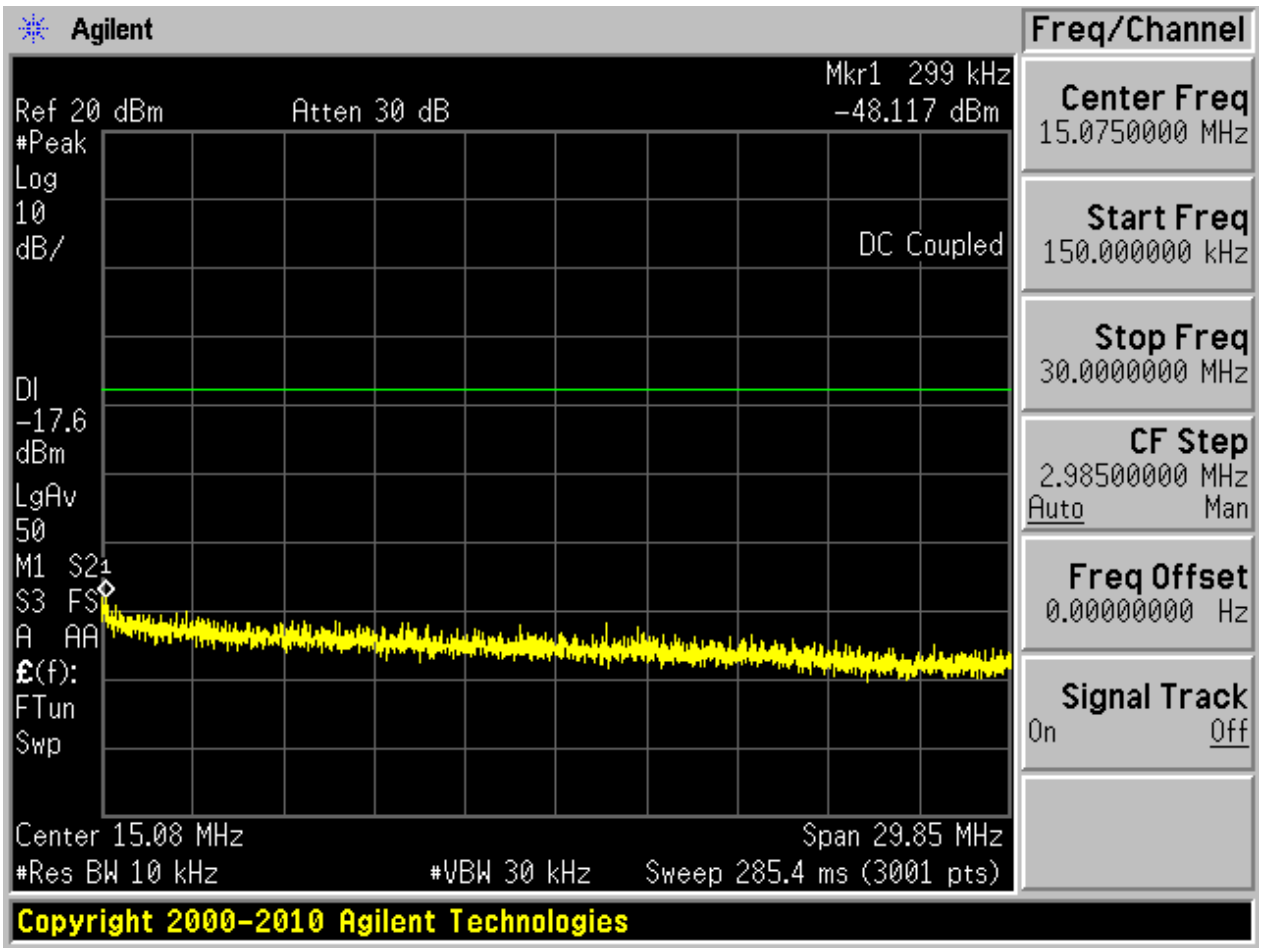



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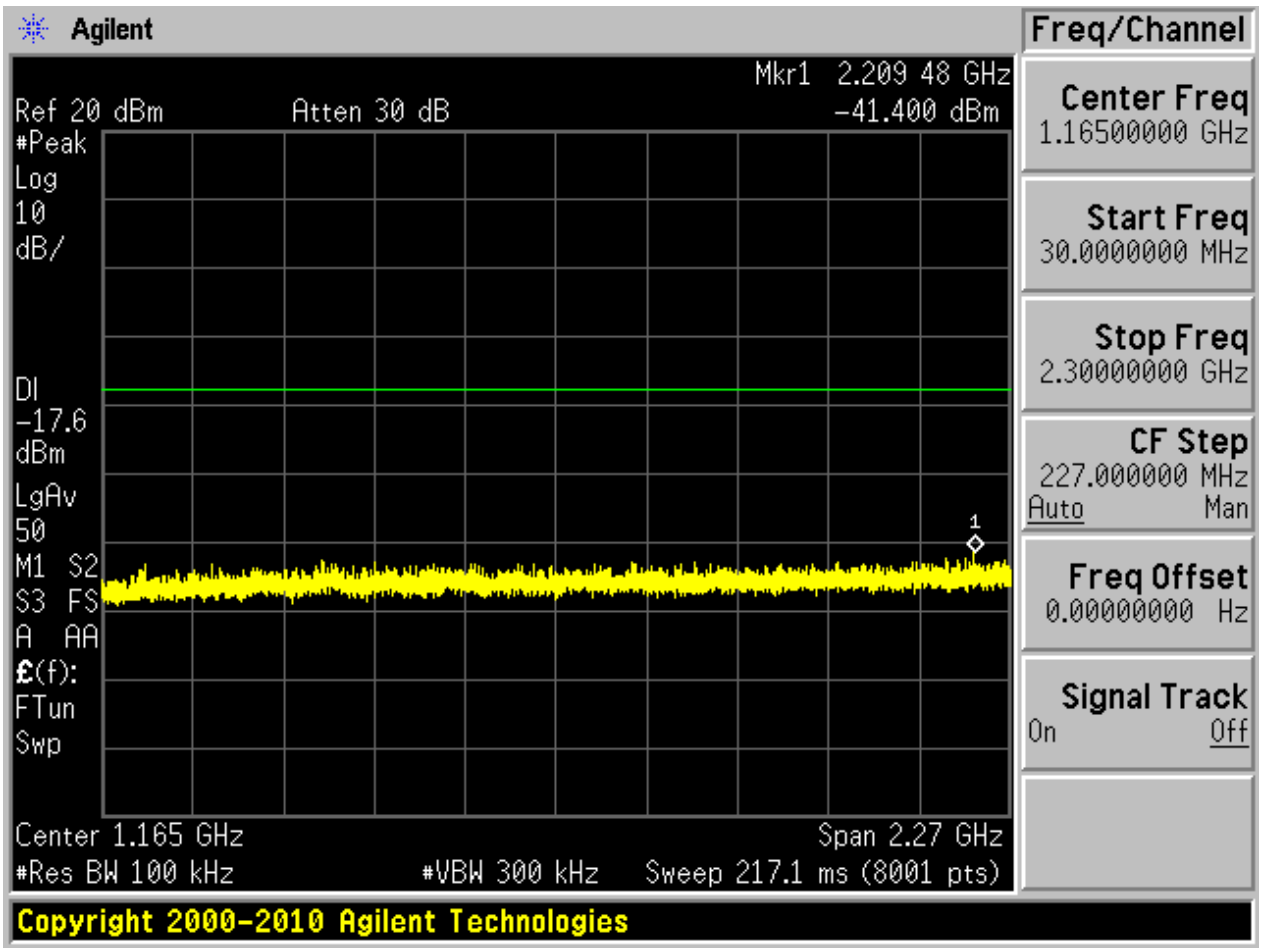



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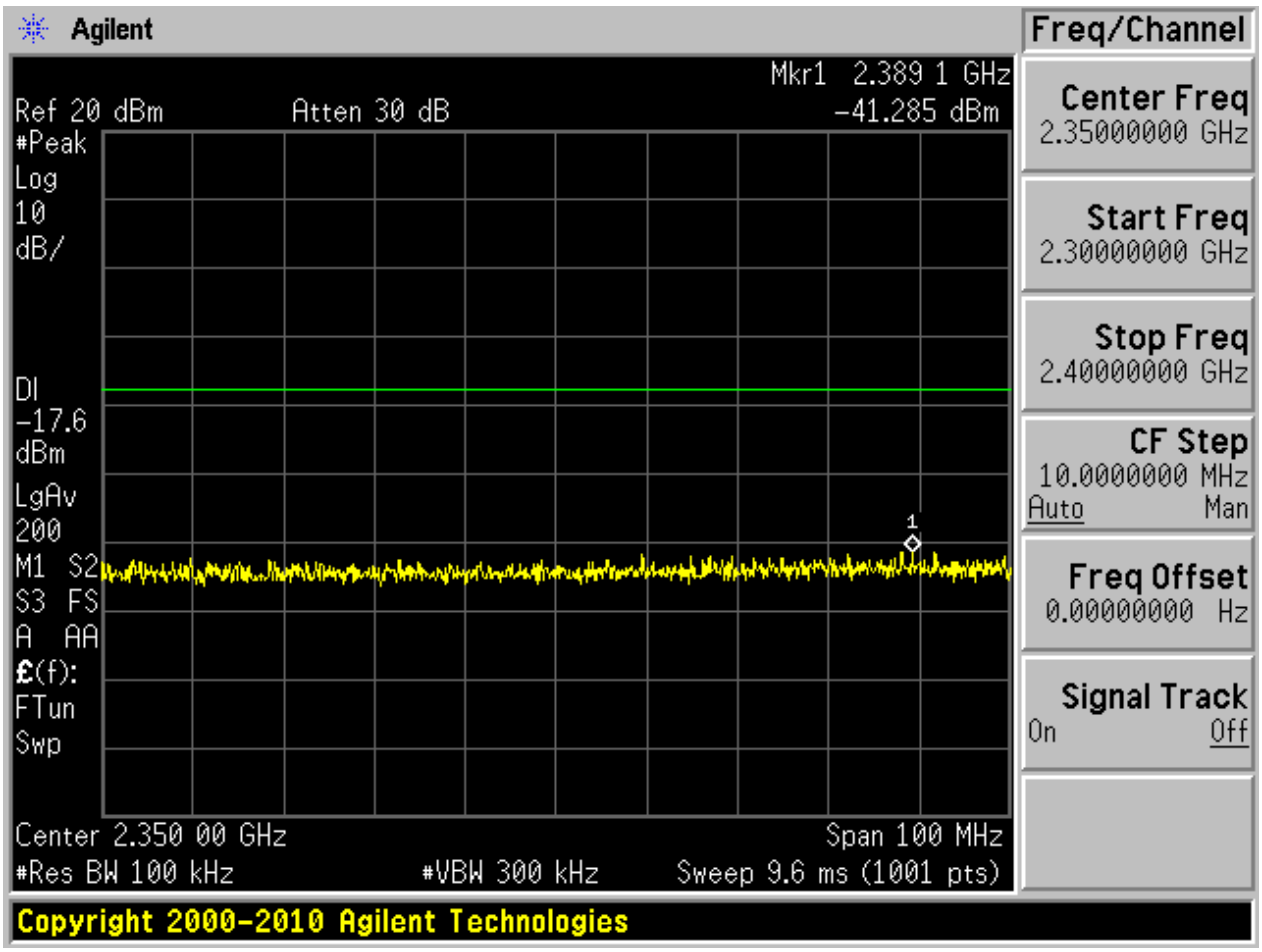



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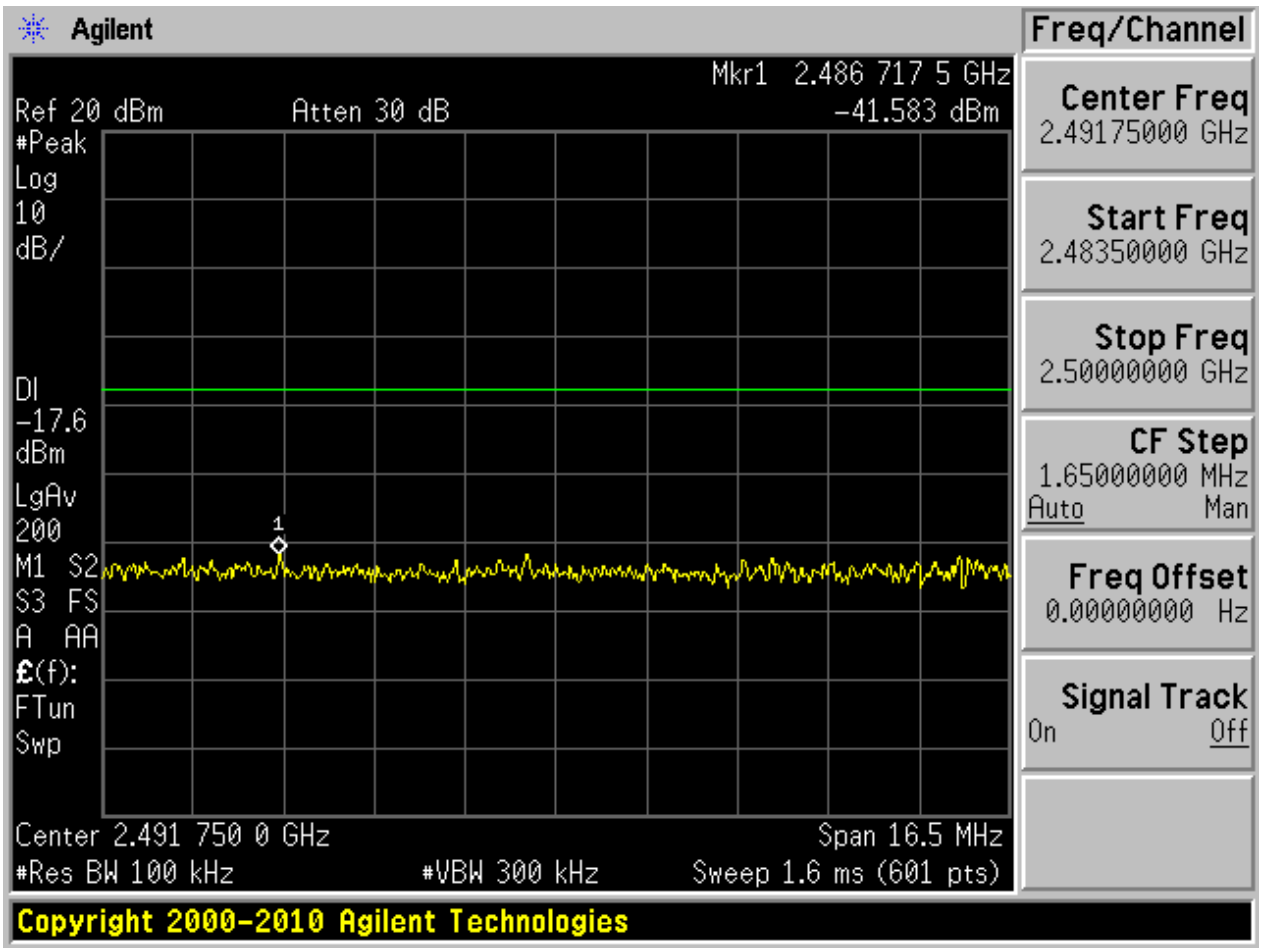



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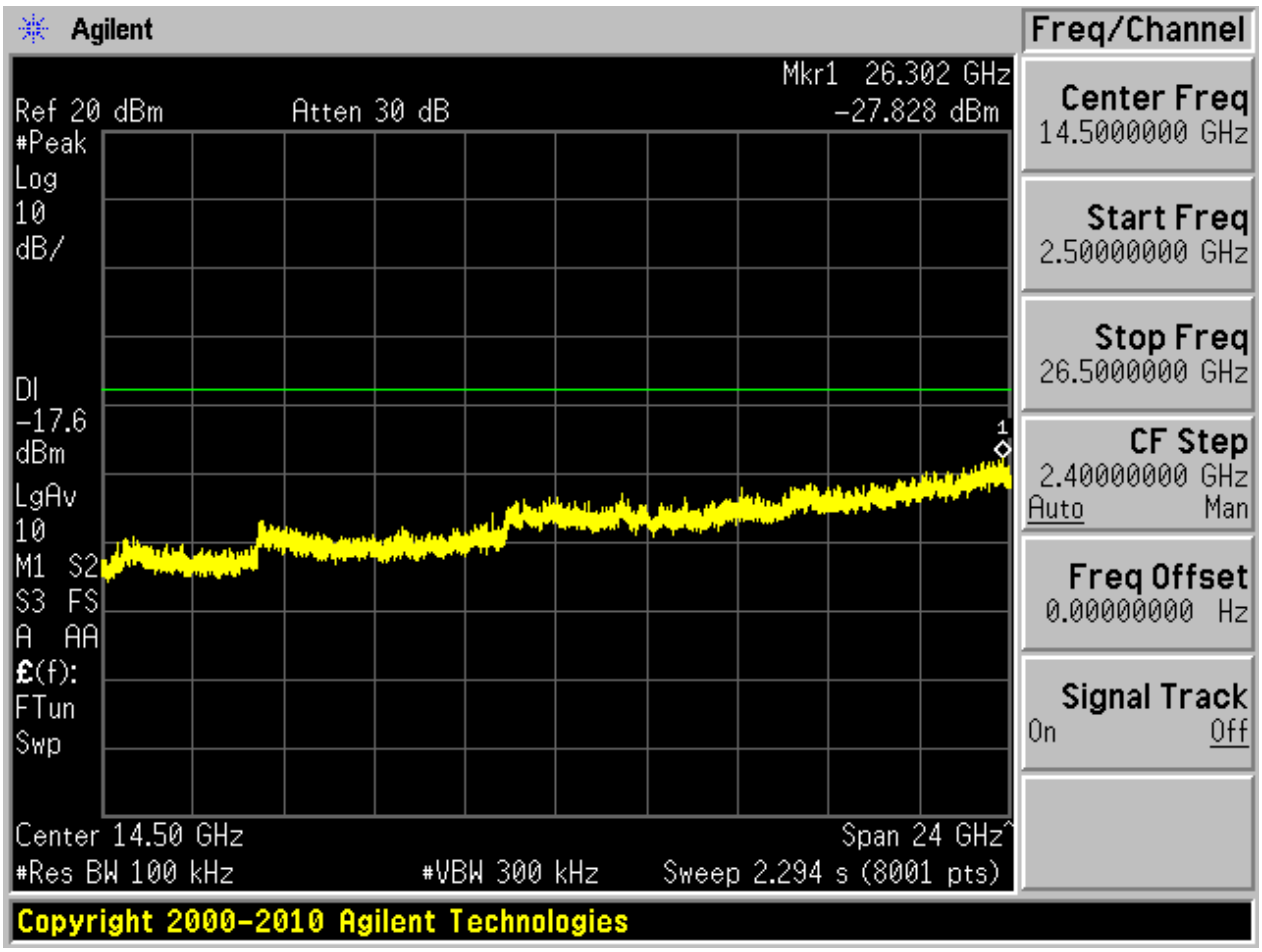


## 2.7 11N20/0_B@1

### 2.7.1 Pref


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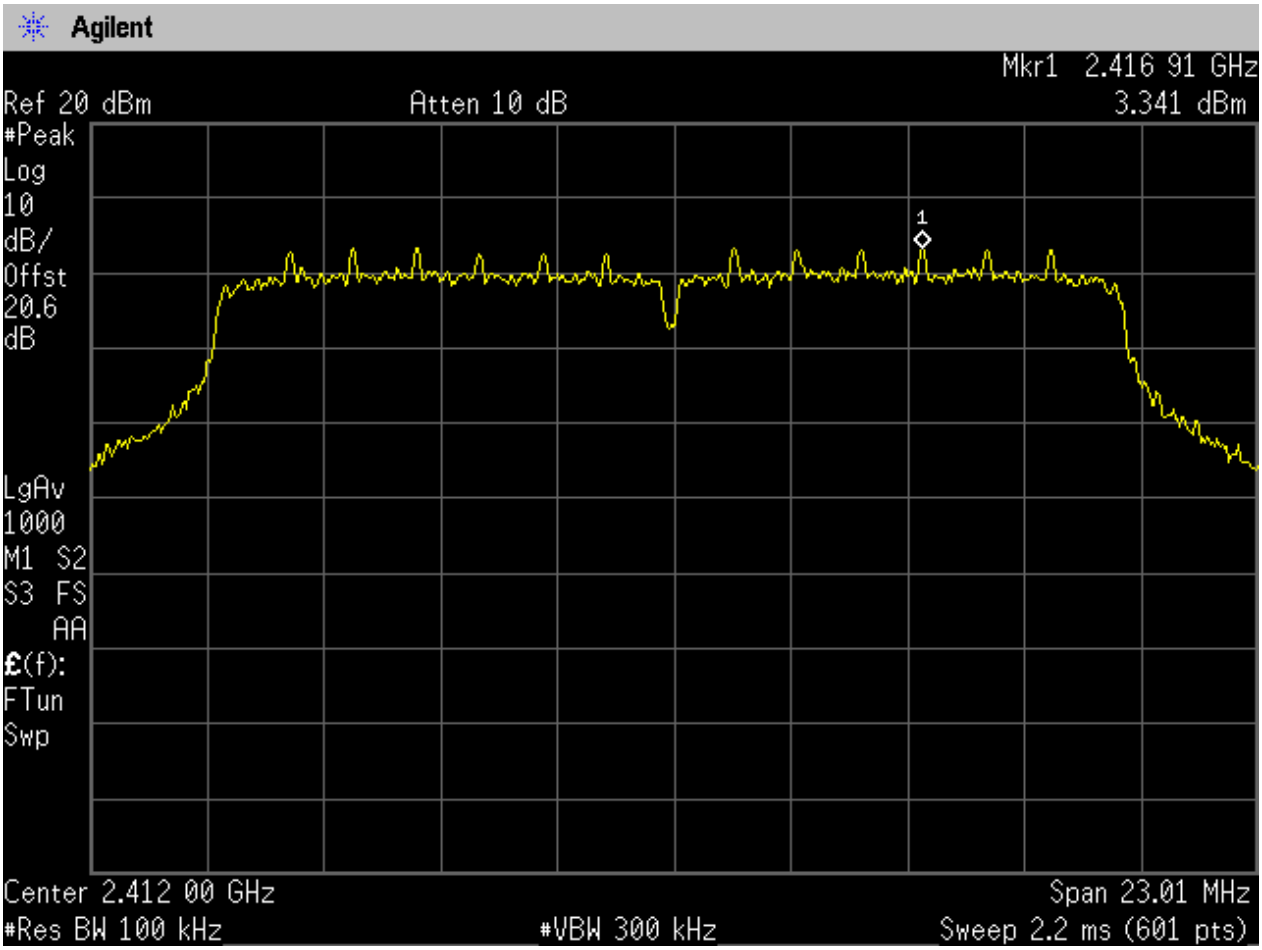


### 2.7.2 Puw


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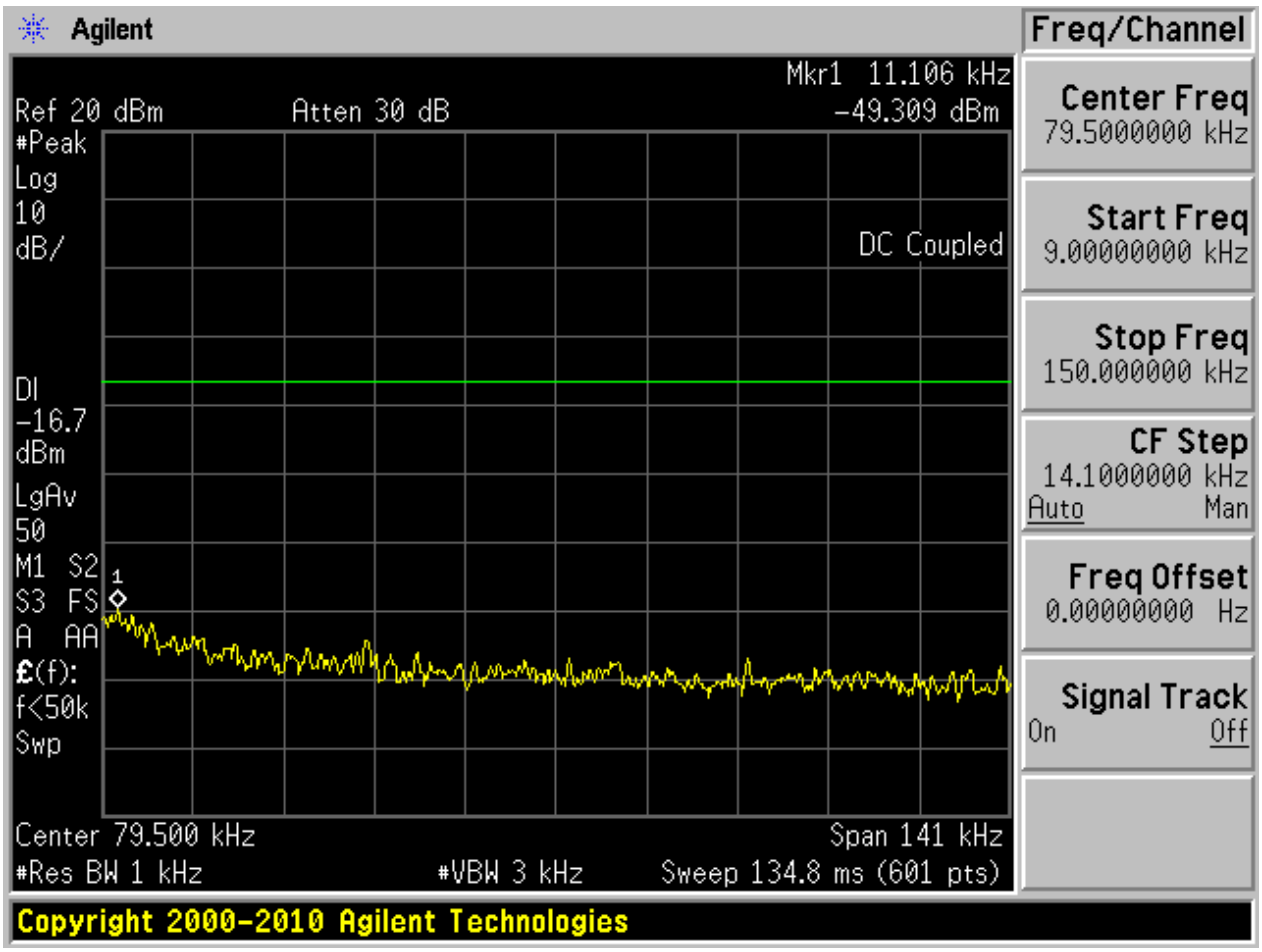



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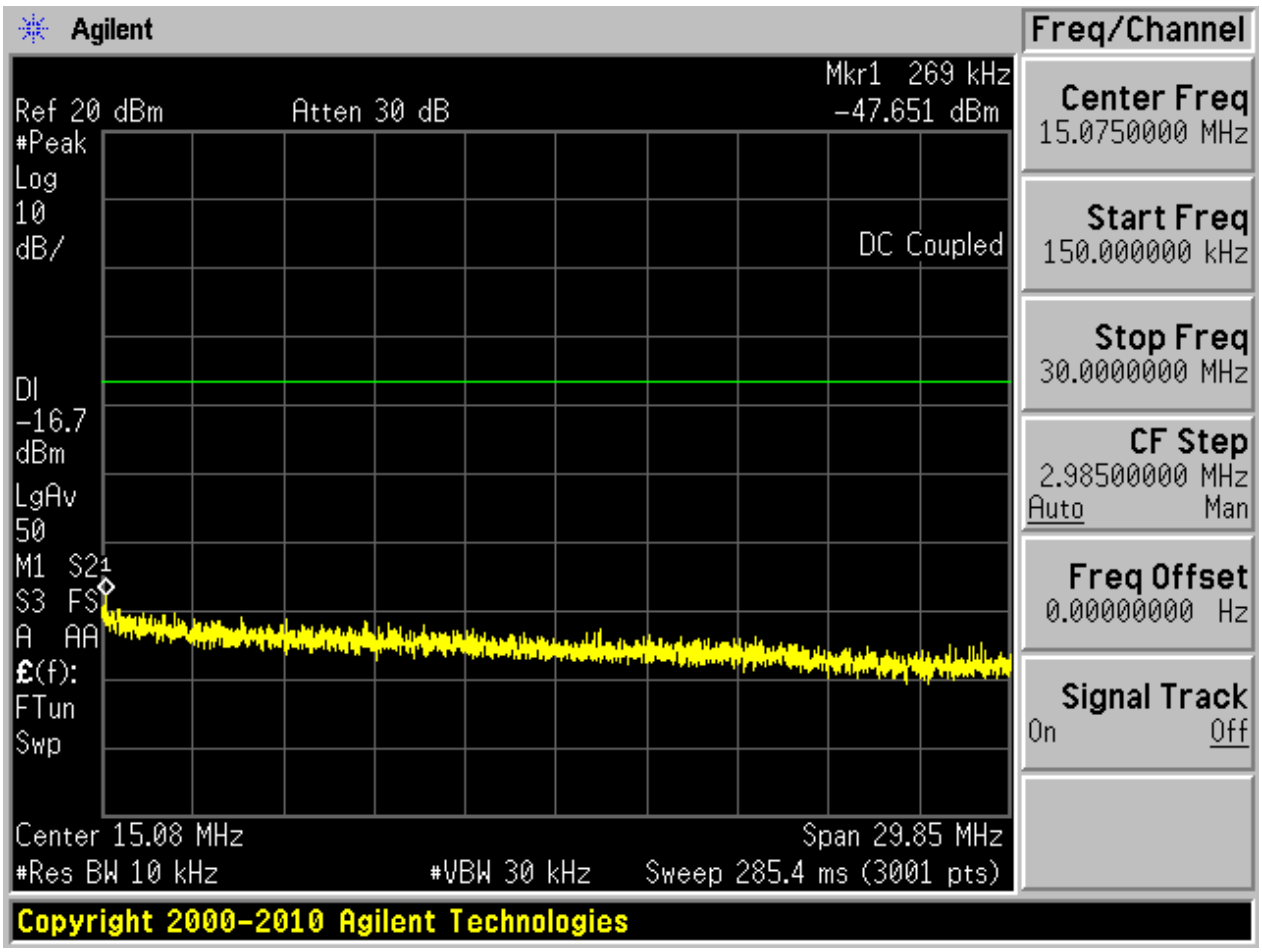



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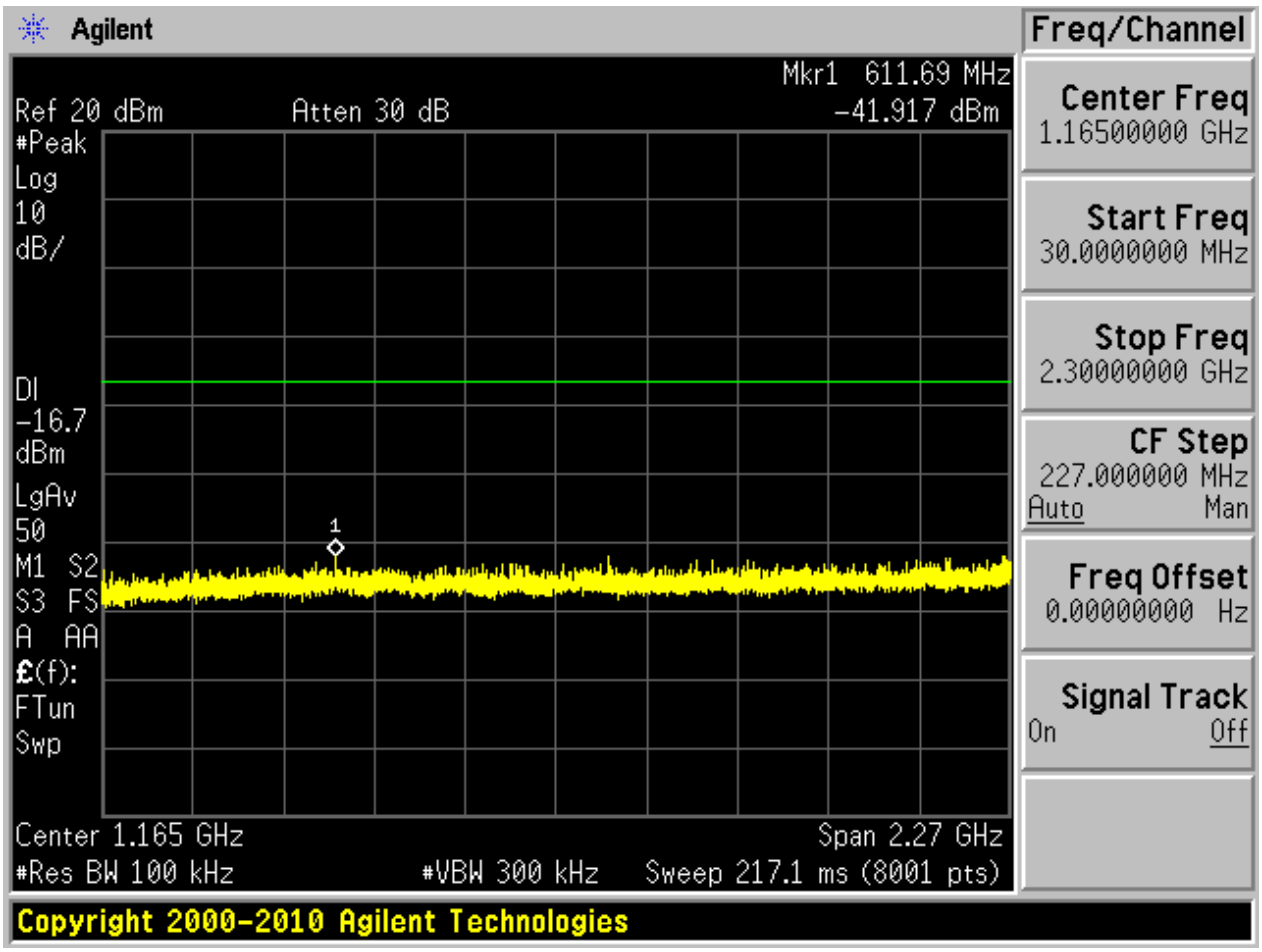



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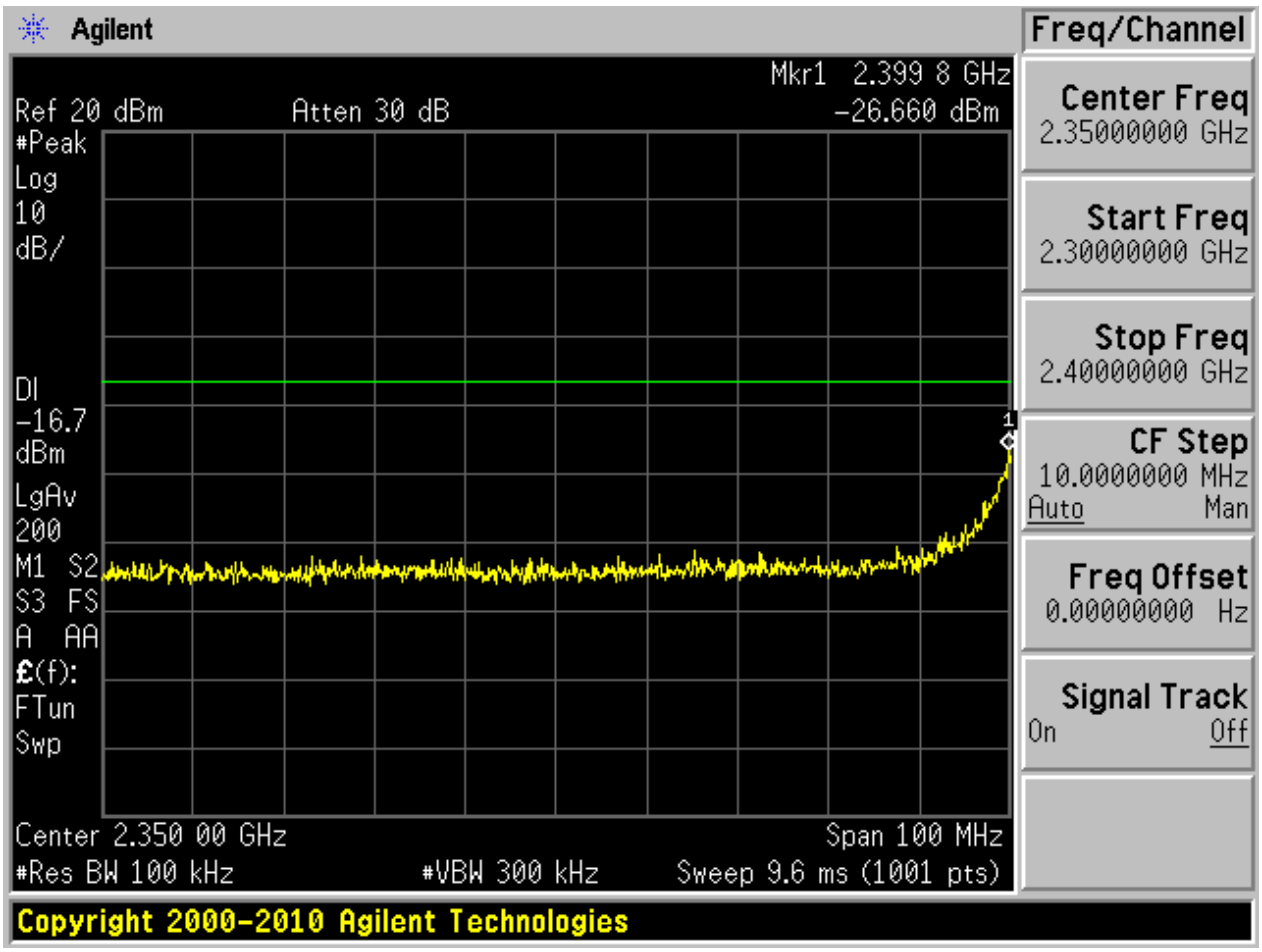



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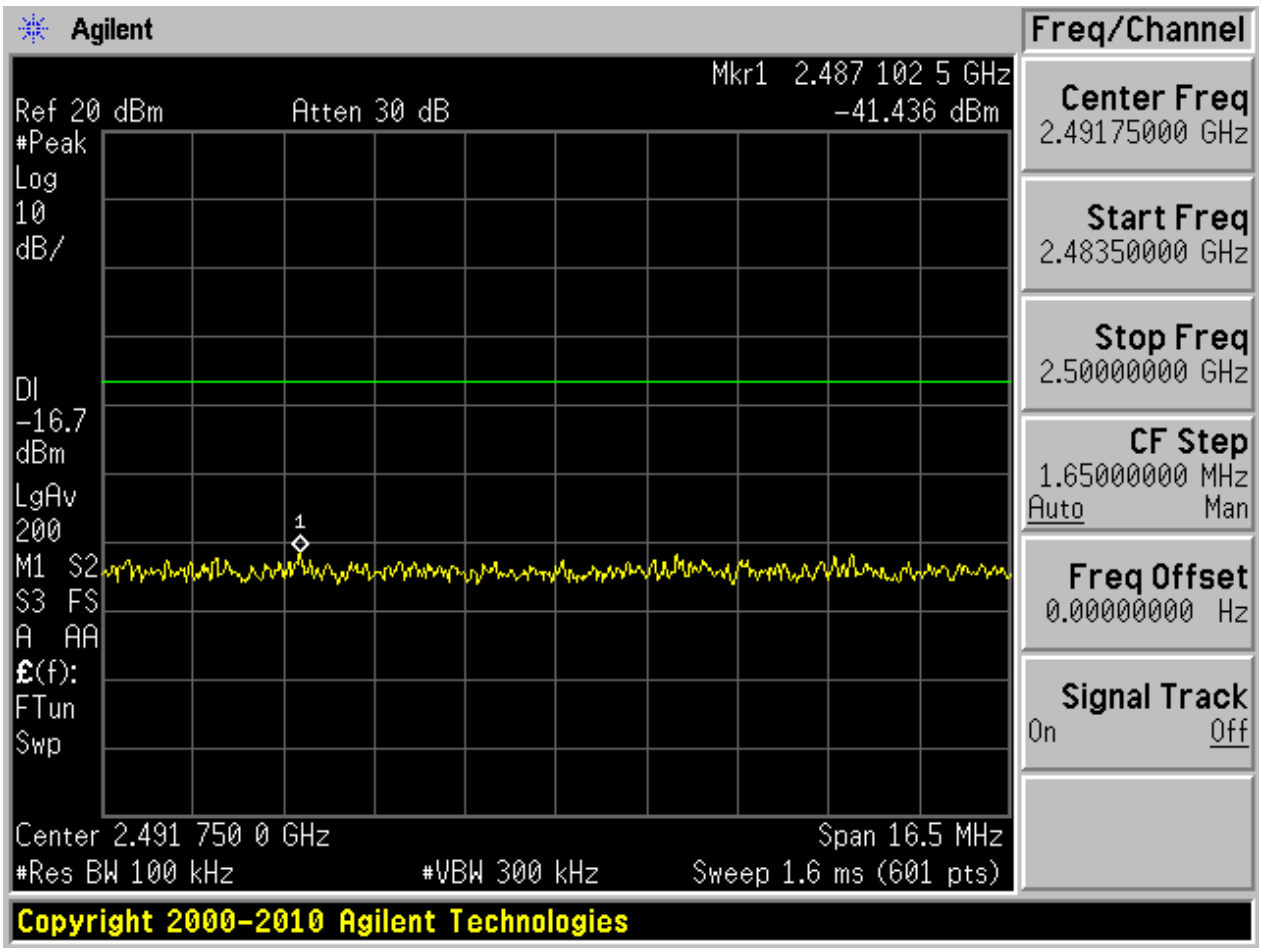



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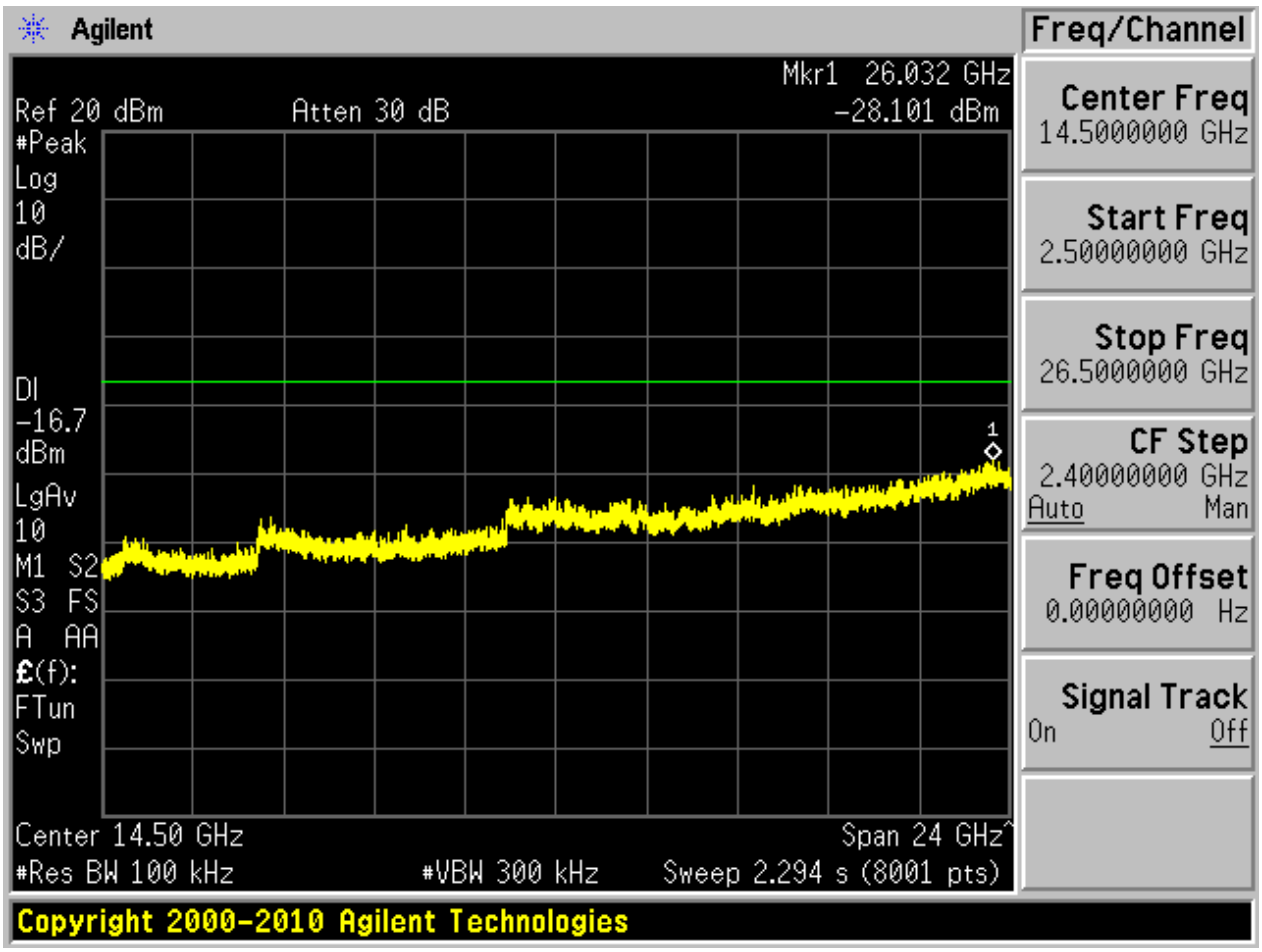


## 2.8 11N20/0_M@1

### 2.8.1 Pref


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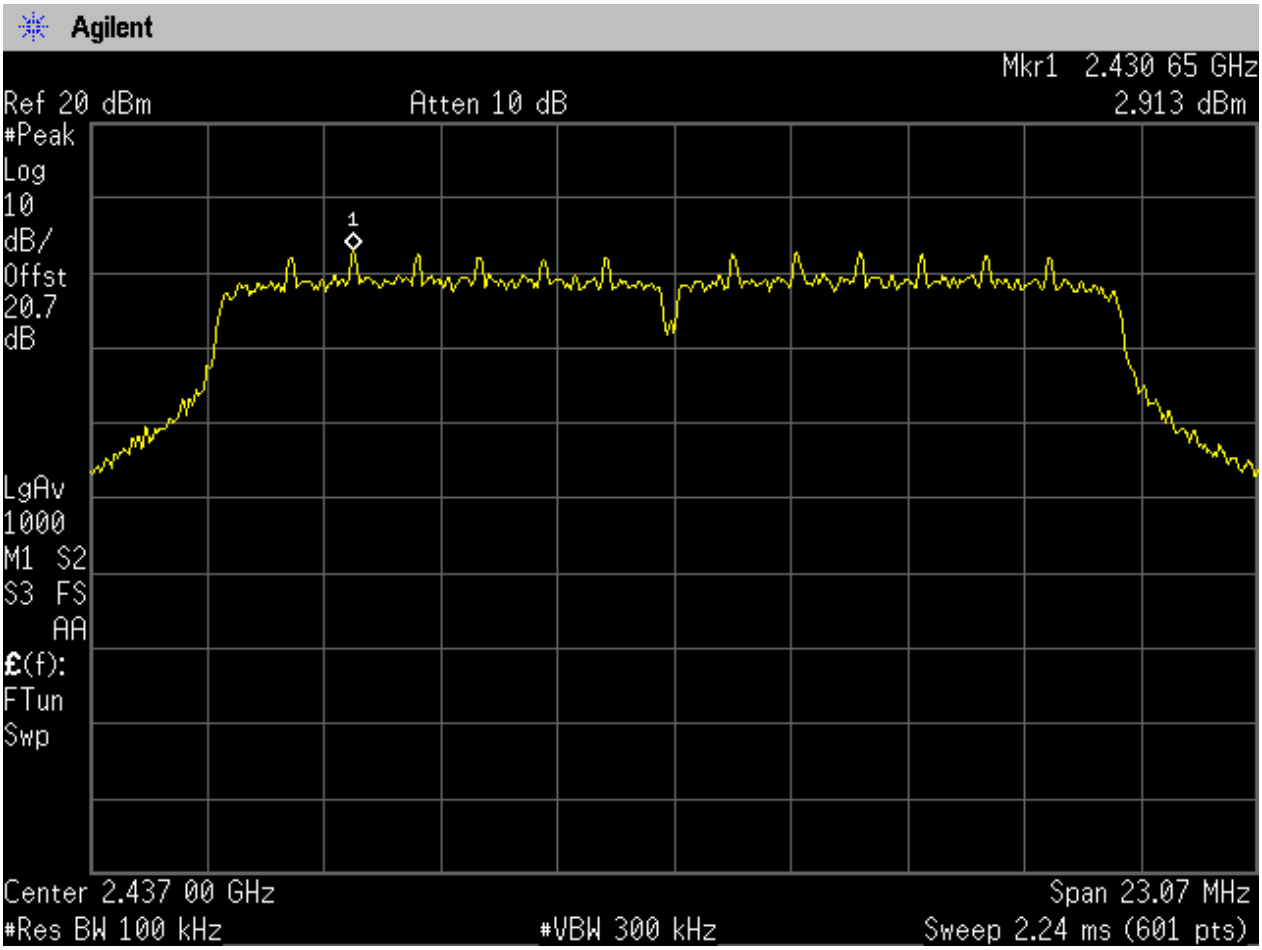


### 2.8.2 Puw


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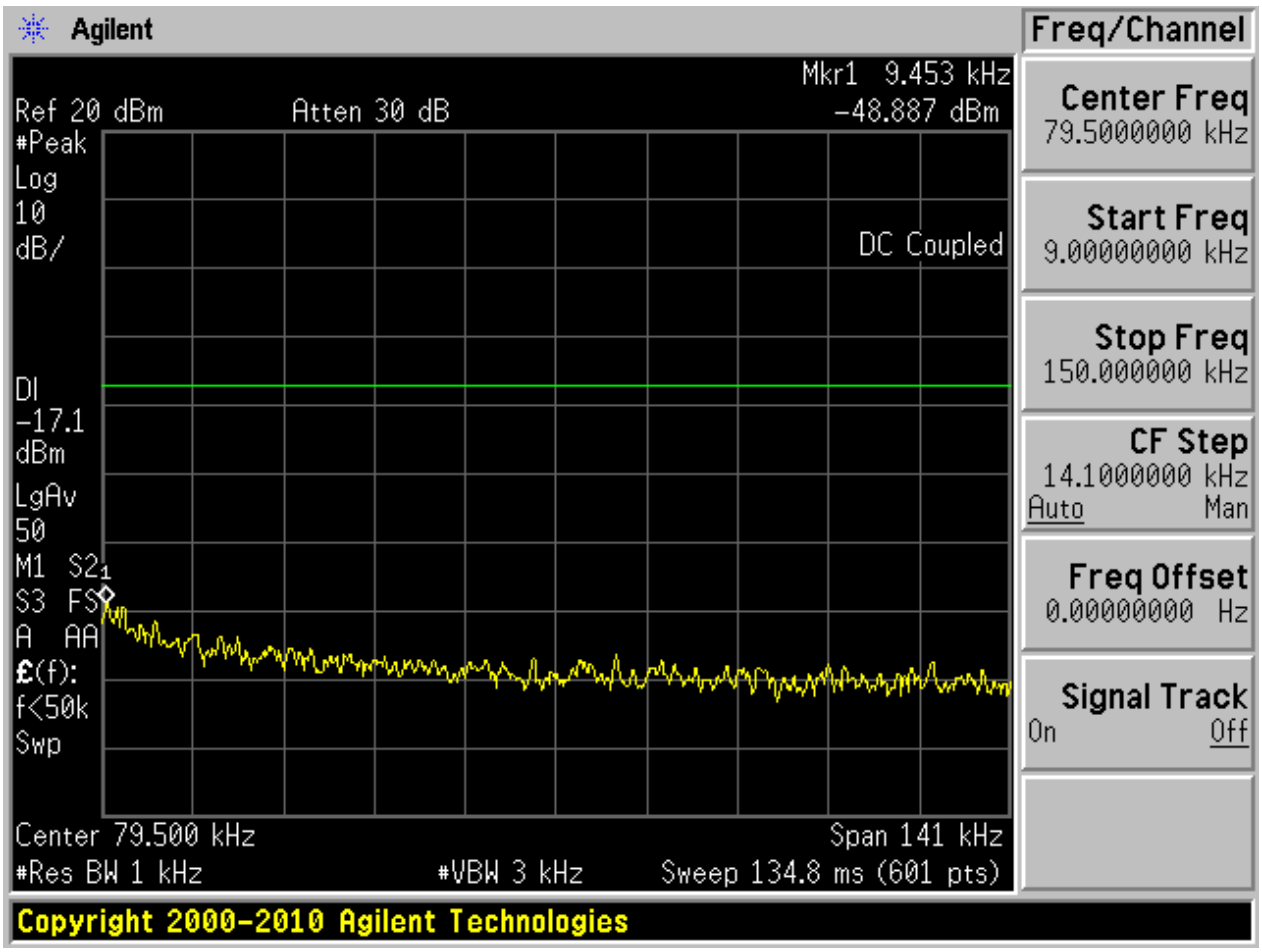



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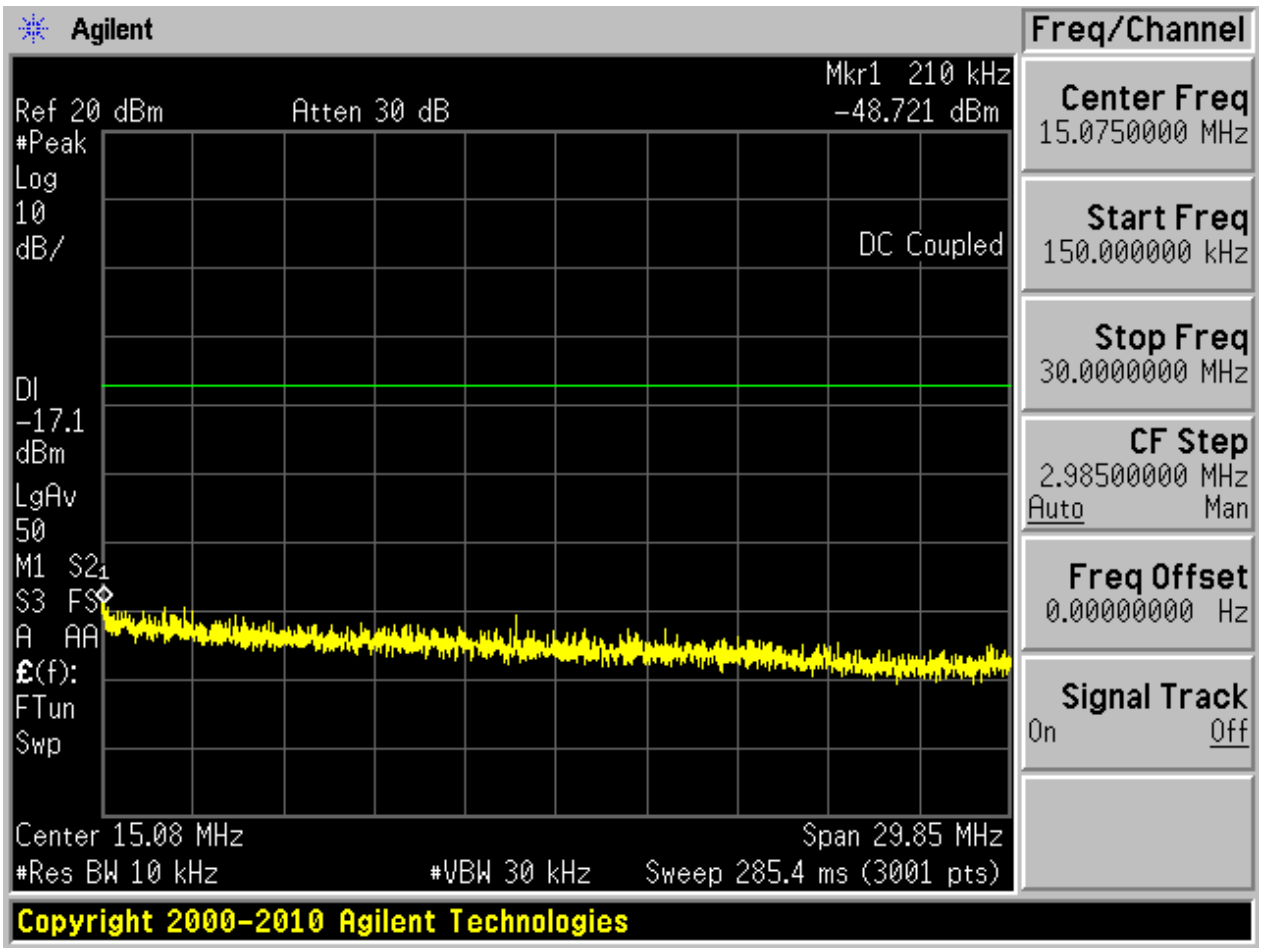



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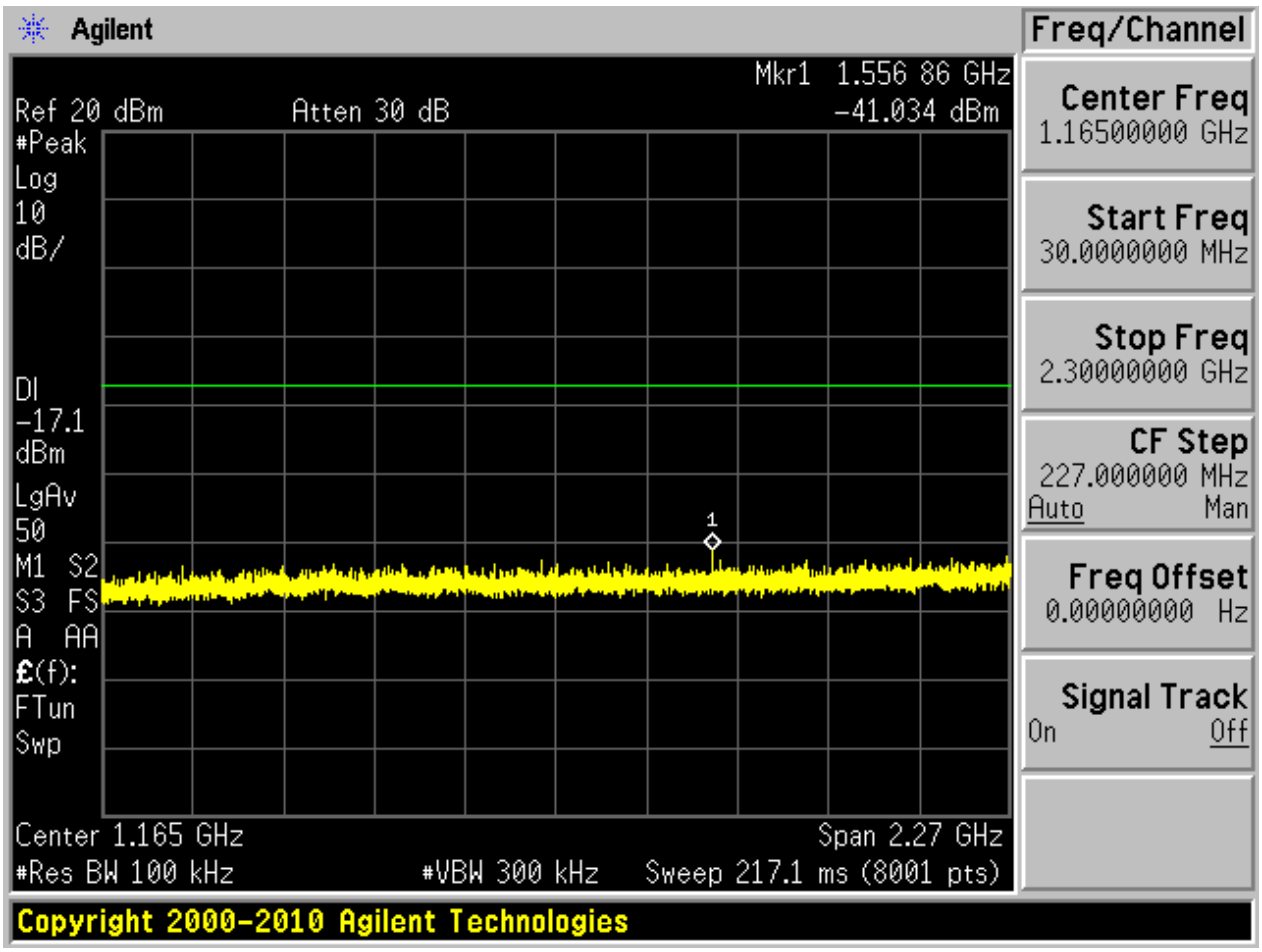



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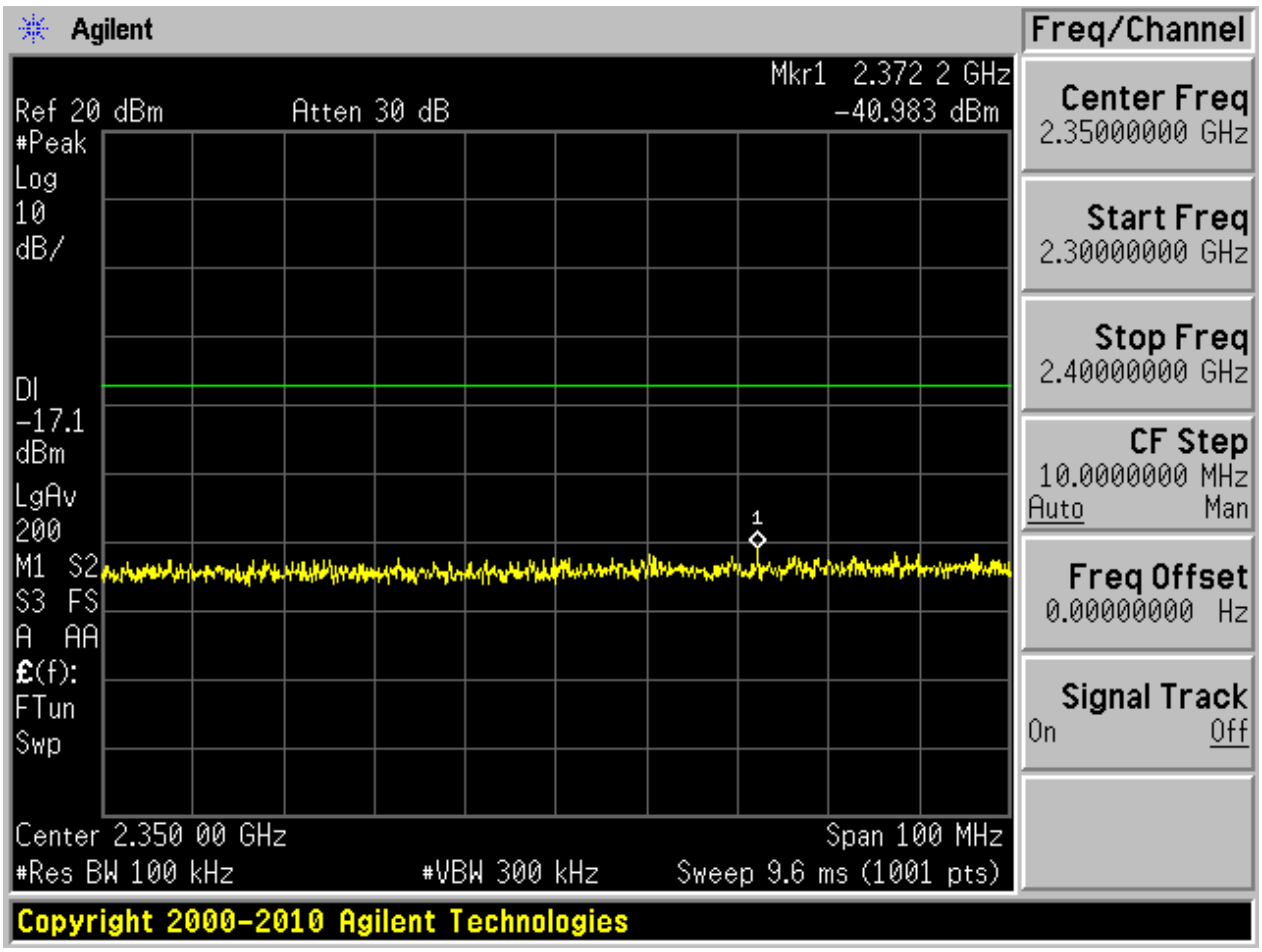



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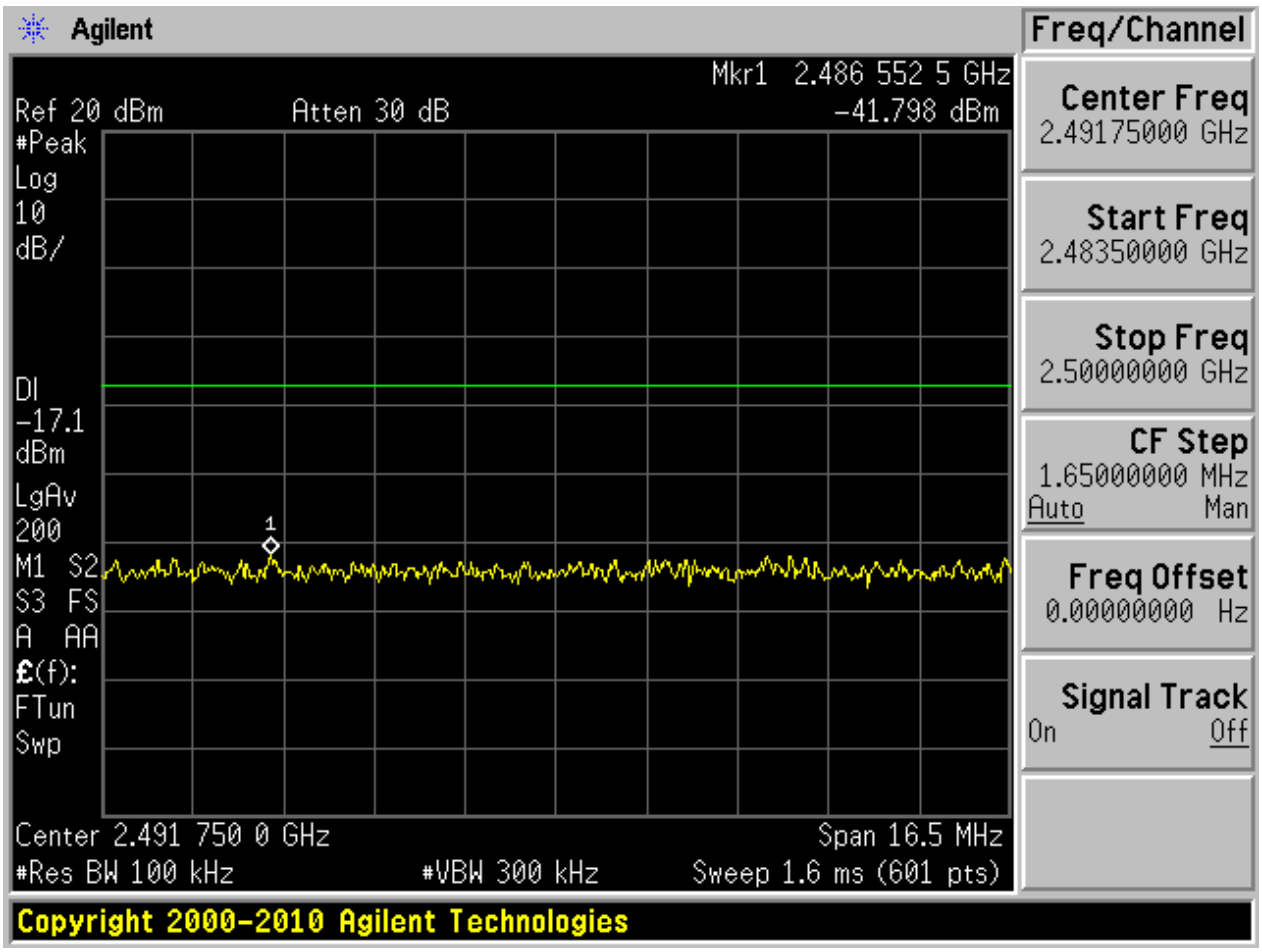



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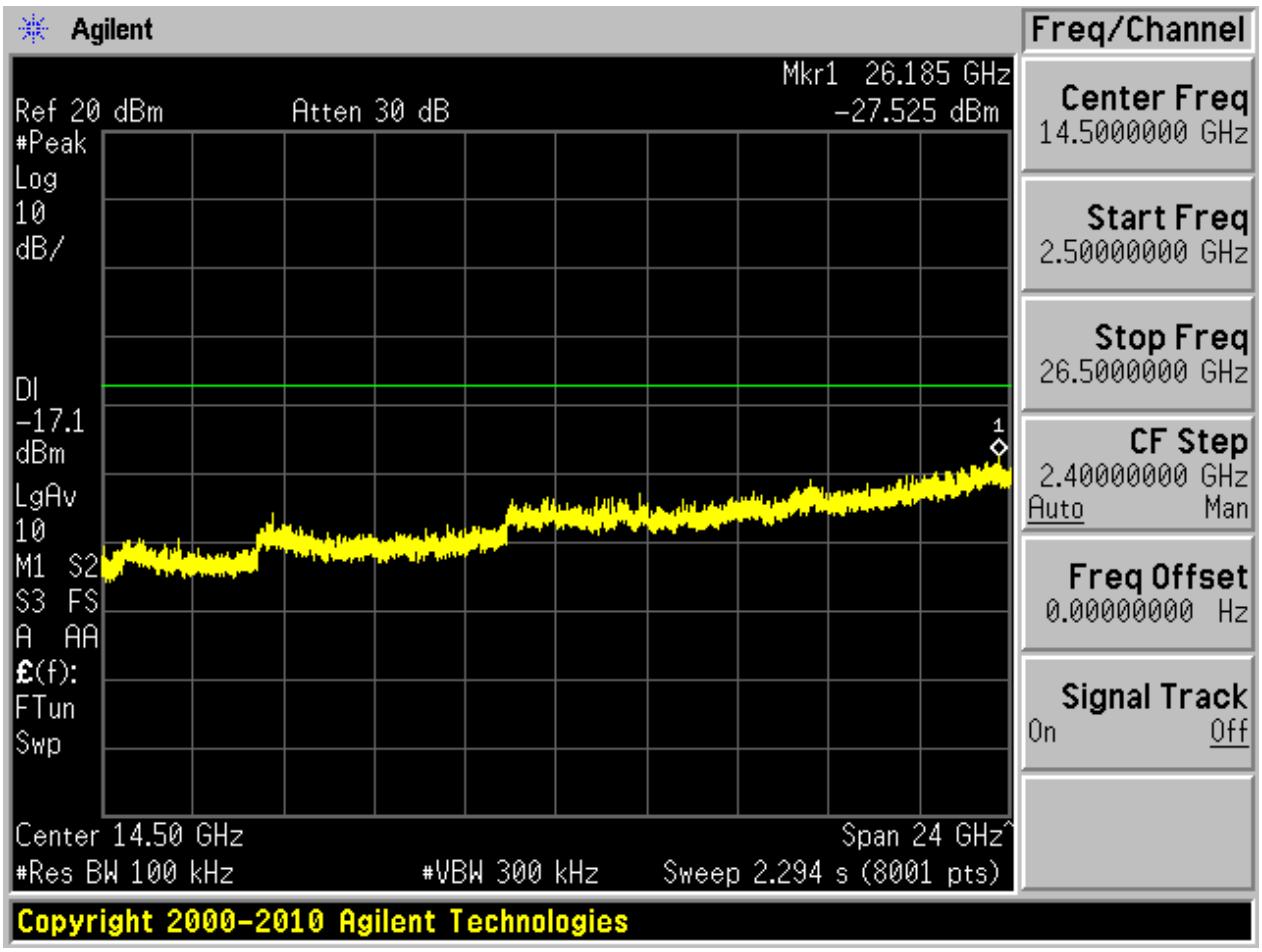


## 2.9 11N20/0_T@1

### 2.9.1 Pref


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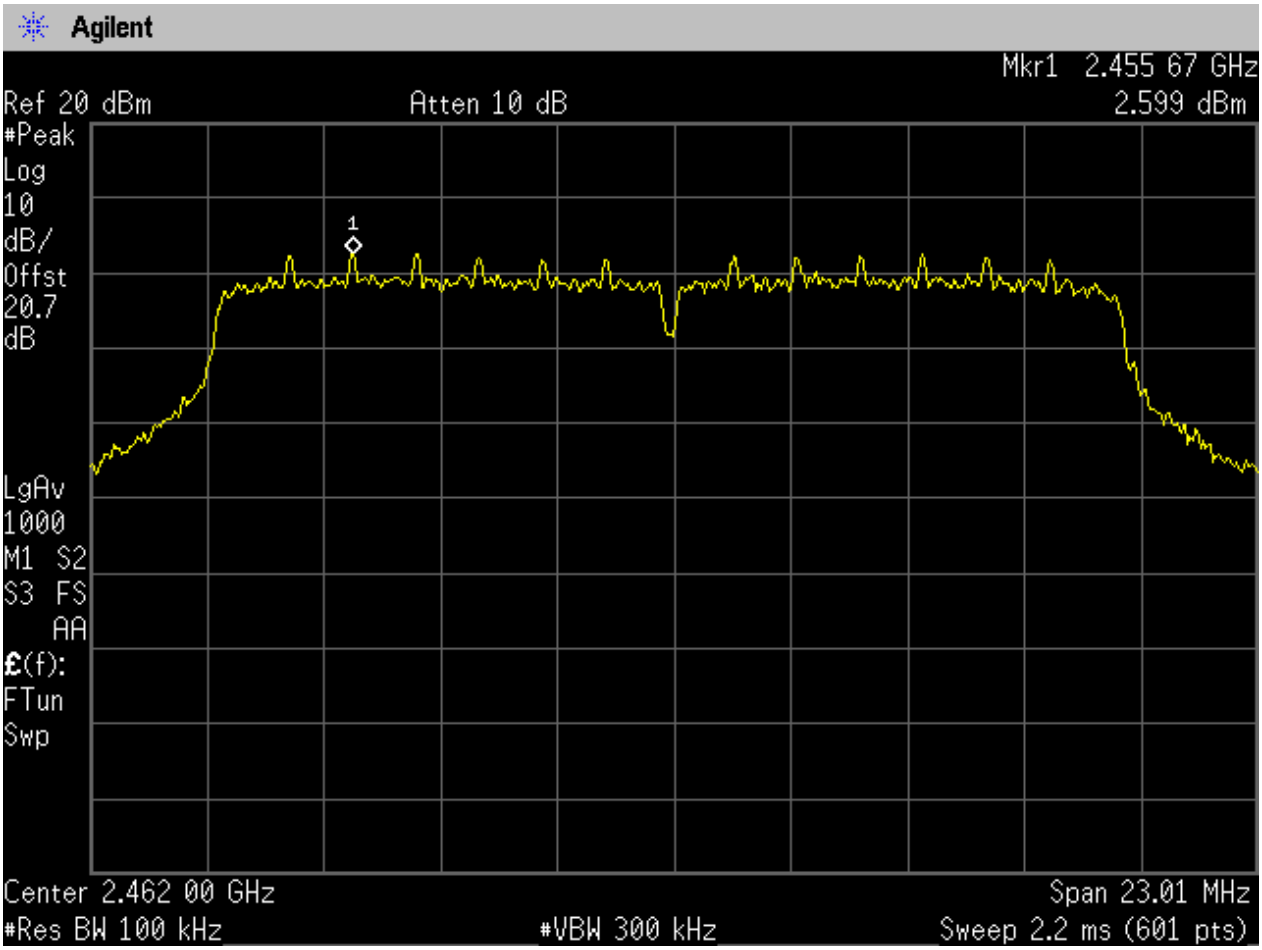


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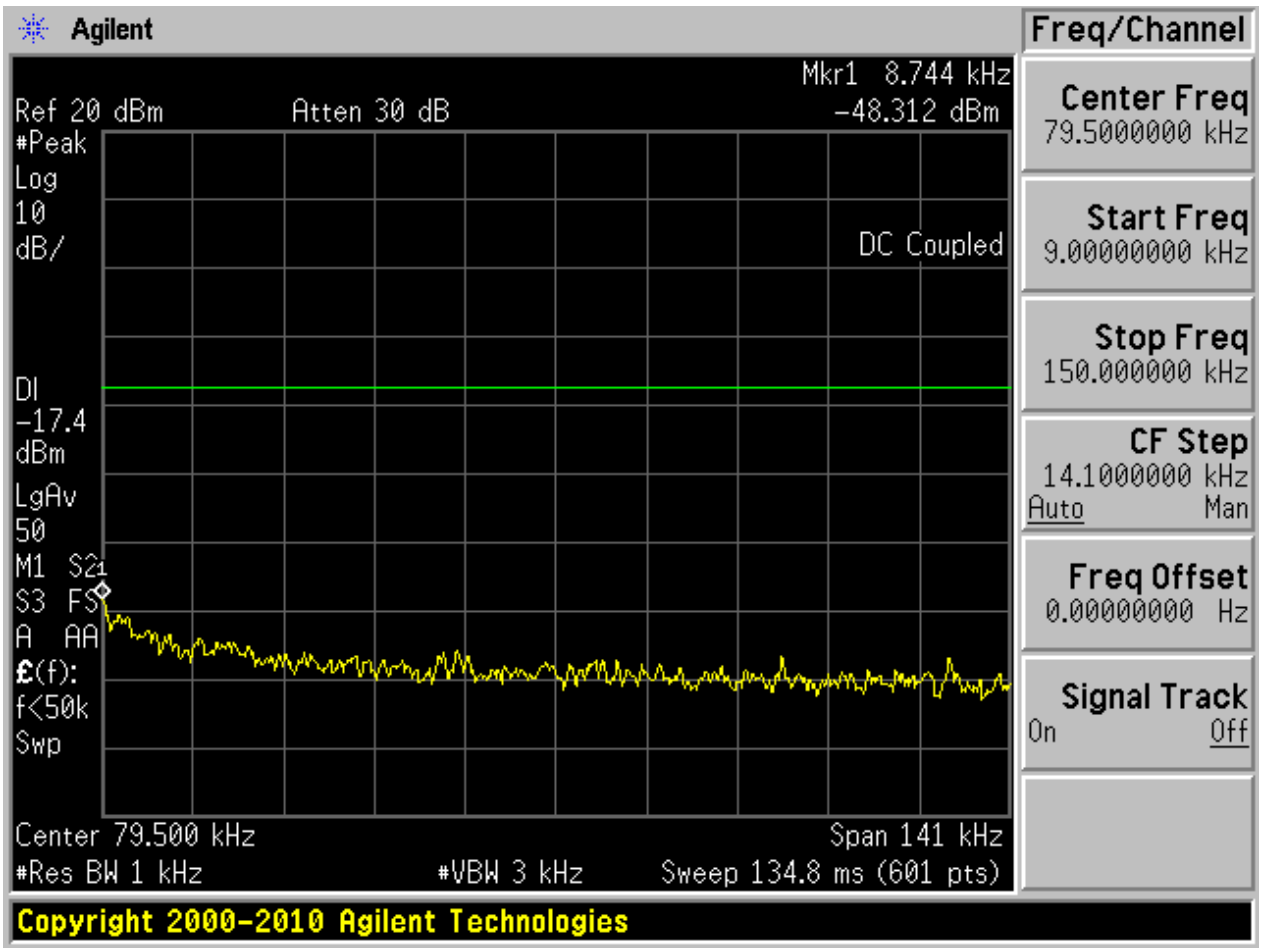



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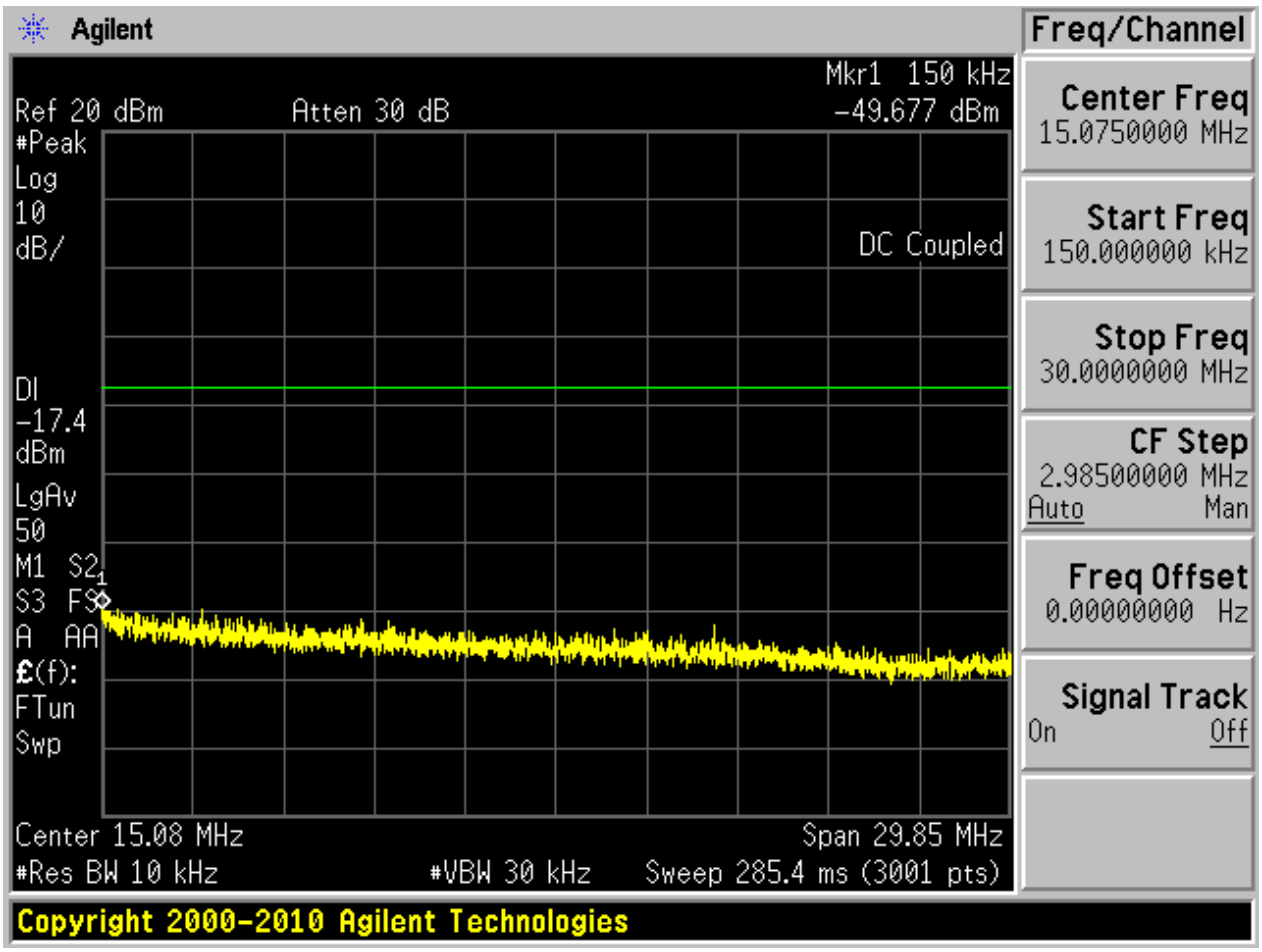



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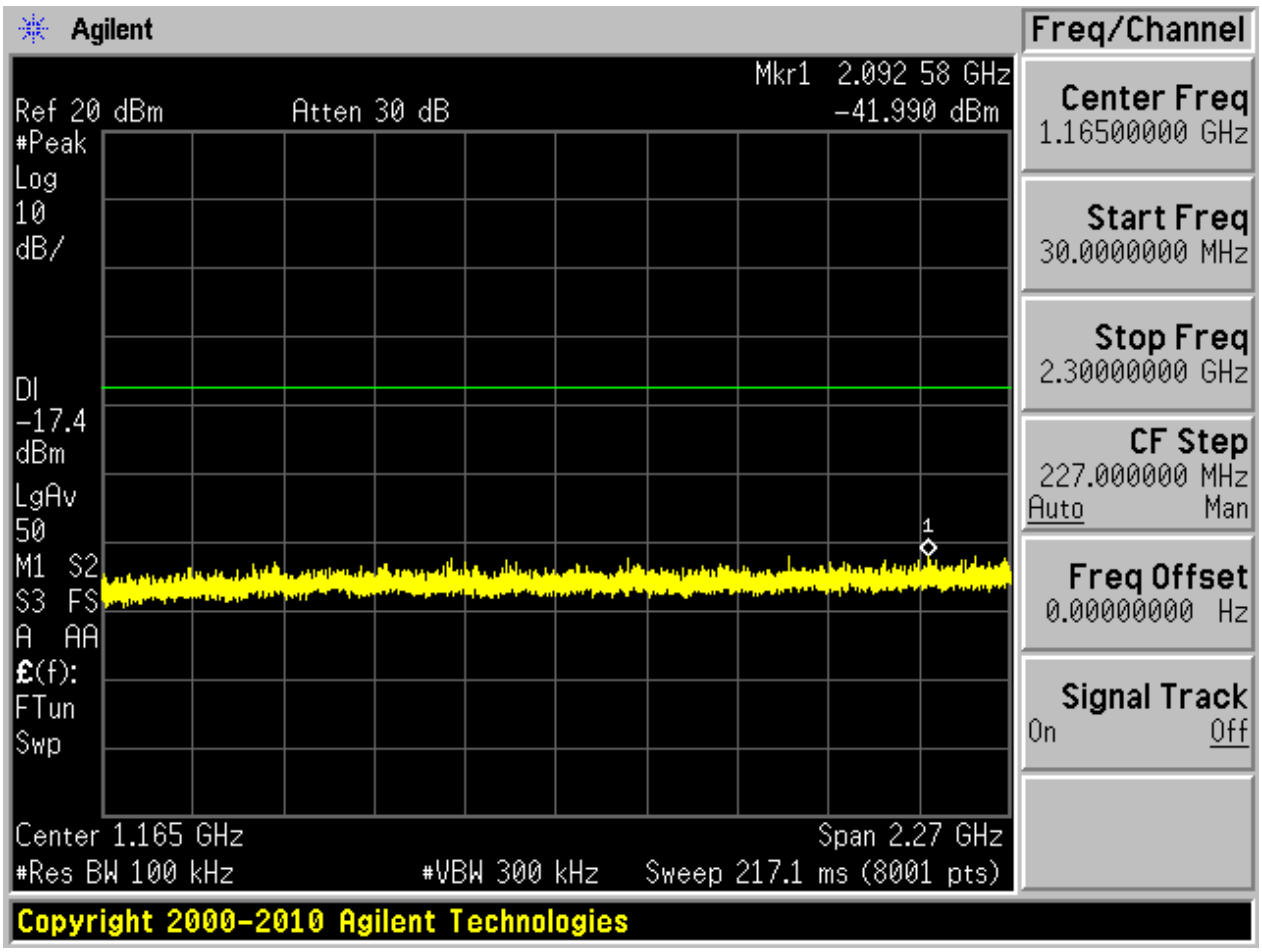



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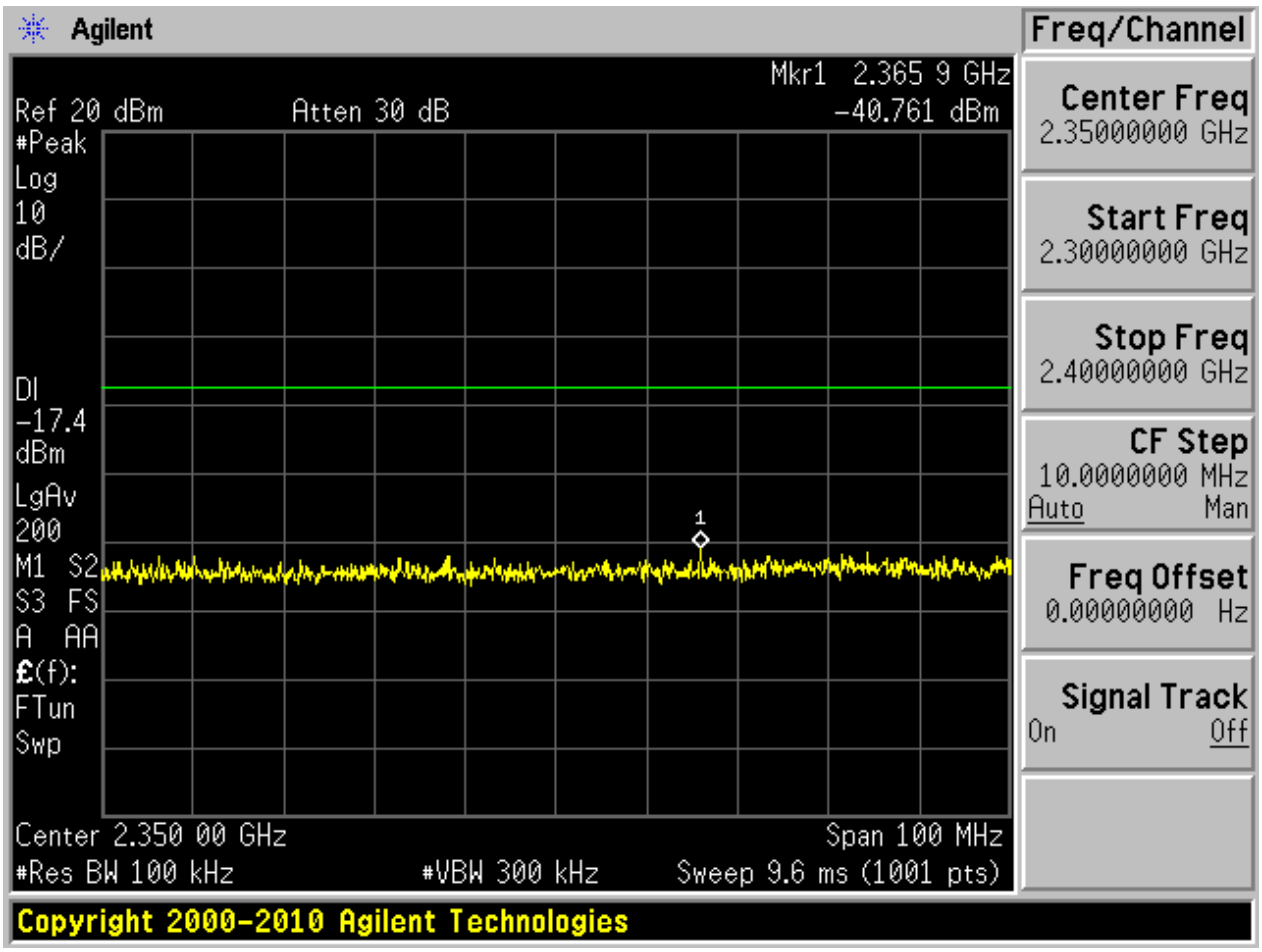



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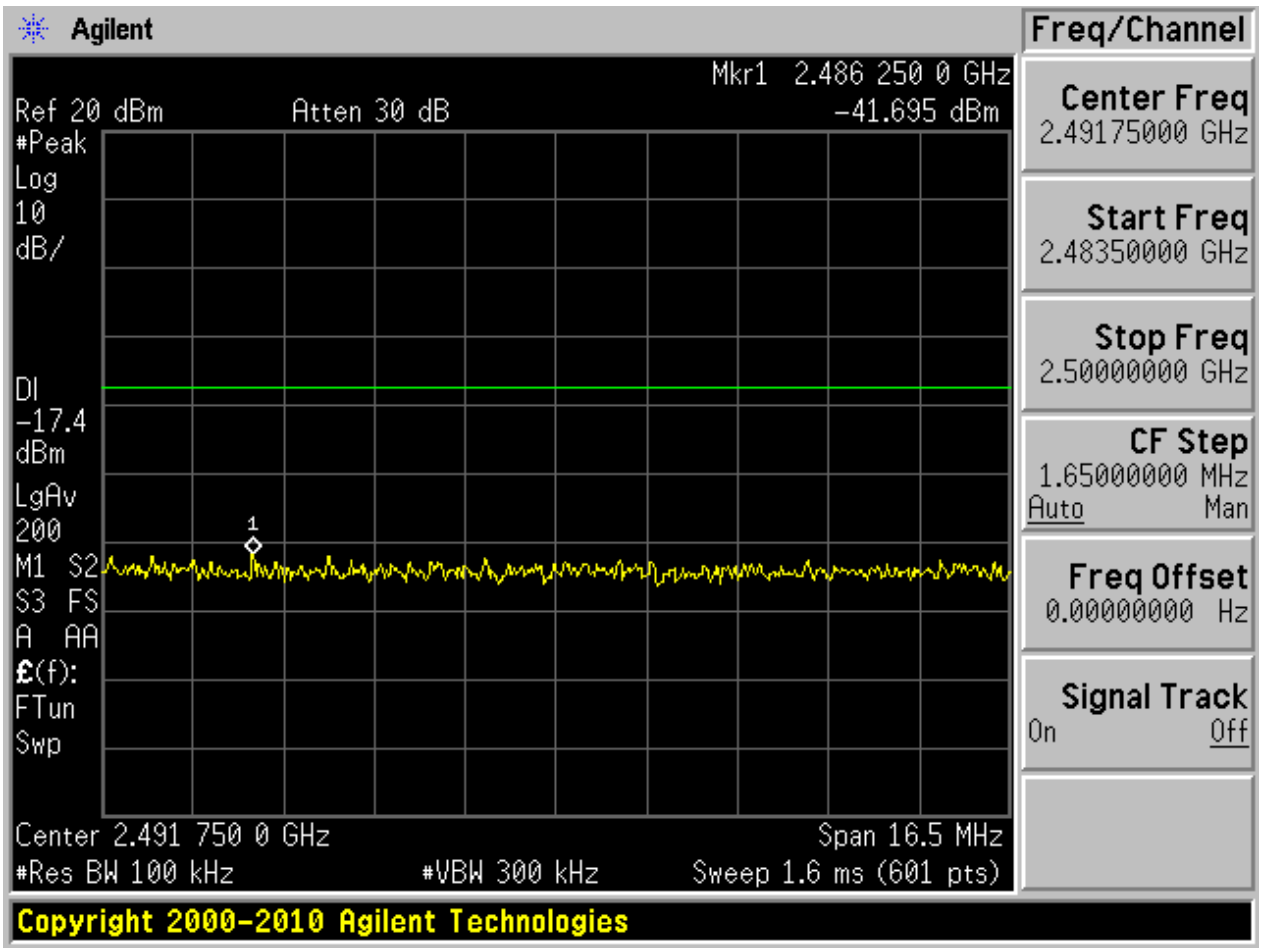



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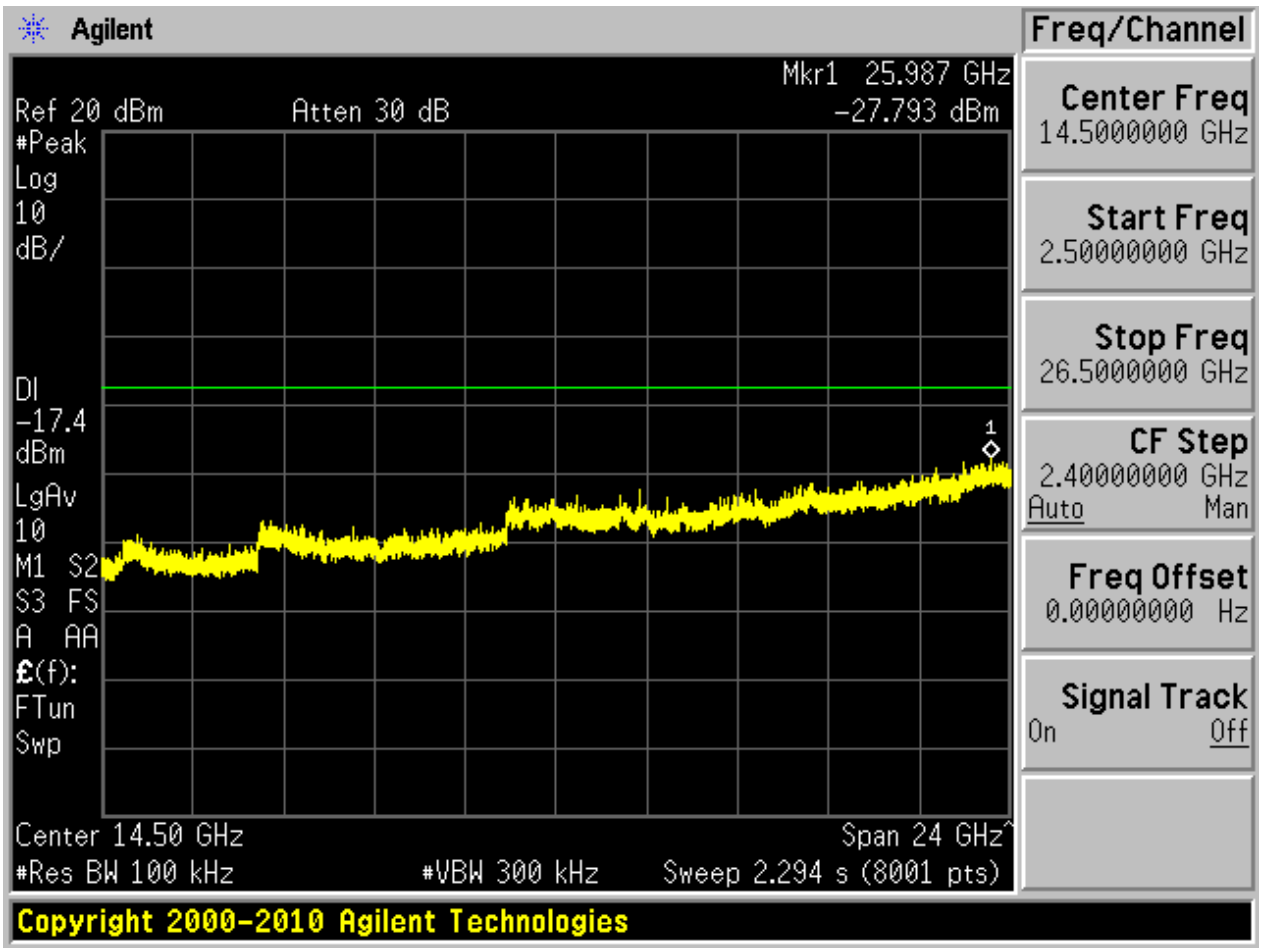



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# Appendix E.1: Unwanted Emissions into Restricted Frequency Bands (Conducted)


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# 1 Result Table

NOTE 1: According to FCC OET KDB 558074, the limit for conducted measurement is converted by the formula of “Plim [dBm] = Elim [dBµV/m] + 20*log(d [m]) - 104.8 [dB] - G [dBi] - f [dB]”, where:

- “Plim” denotes the conducted limit at antenna port,
- “Elim” denotes the electric field strength limit,
- “d” denotes the measurement distance for radiated measurement,
- “G” denotes the antenna gain (max per port), and
- “f” denotes the factor to model worst-case ground reflections, that is 6.0 dB for emissions ≤ 30 MHz, 4.7 dB for emissions > 30 MHz and ≤ 1000 MHz, and 0.0 dB for emissions > 1000 MHz.

NOTE 2: The measurement normally contain two steps:

- For the measurement below 1 GHz:
  (1) Step 1 – Pre-measurement with Peak detector and CISPR Quasi-peak limit;
  (2) Step 2 – if needed, measurement with CISPR Quasi-peak detector and limit.
- For the measurement above 1 GHz:
  (1) Step 1 – measurement with Average detector and Average limit;
  (2) Step 2 – measurement with Peak detector and Peak limit.

NOTE 3: The measurement of unwanted emissions at the edge of the authorized frequency bands can be complicated by the leakage of RF energy from the fundamental emission into the RBW passband. For measurements at the band edges, a narrower RBW is used within the first 1 MHz beyond the fundamental emissions (in this Appendix it refers to the range 2483.5 MHz to 2484.5 MHz) and the measured energy is subsequently integrated over the appropriate reference bandwidth (i.e. 1 MHz).

NOTE 4: For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain and used as respective results for each chain with the limit requirement adjusted by antenna ports number (i.e. the Plim is reduced to “Plim [dBm] - 10 *log(N) [dB]”, in which N denotes the antenna ports number used by smart antenna systems).

NOTE 5: In this Appendix, the “< Limit“ in results table denotes “Not found obvious spikes, or see marked spikes on plots or listed emissions in result tables”.

| EUT Conf. | Maximum Emissions | Verdict |
|---|---|---|
| 11B/1_B@1 | < Limit | Pass |
| 11B/1_M@1 | < Limit | Pass |
| 11B/1_T@1 | < Limit | Pass |
| 11G/6_B@1 | < Limit | Pass |
| 11G/6_M@1 | < Limit | Pass |
| 11G/6_T@1 | < Limit | Pass |
| 11N20/0_B@1 | < Limit | Pass |
| 11N20/0_M@1 | < Limit | Pass |
| 11N20/0_T@1 | < Limit | Pass |


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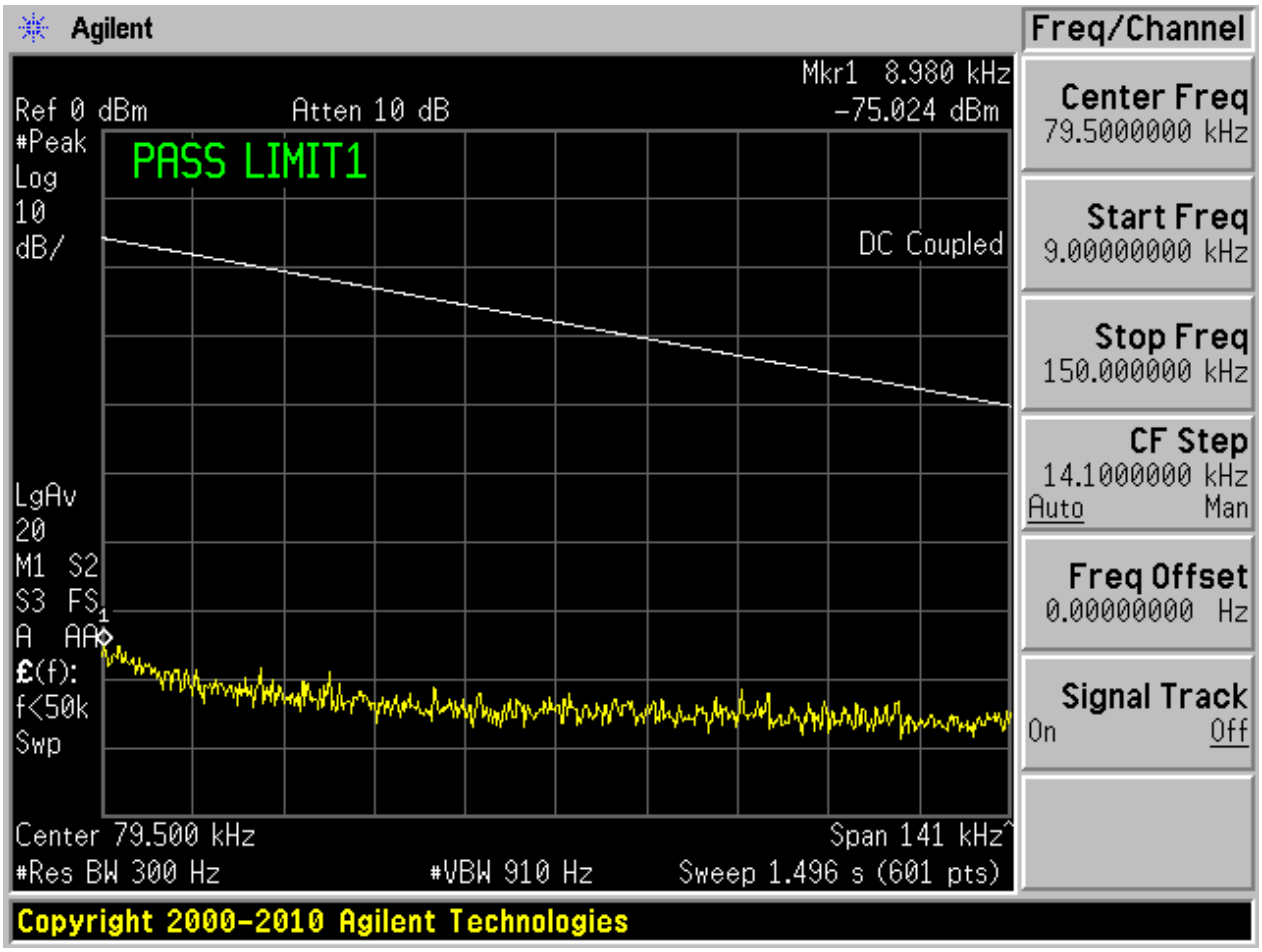
## 2 Result Plot

### 2.1 11B/1_B@1





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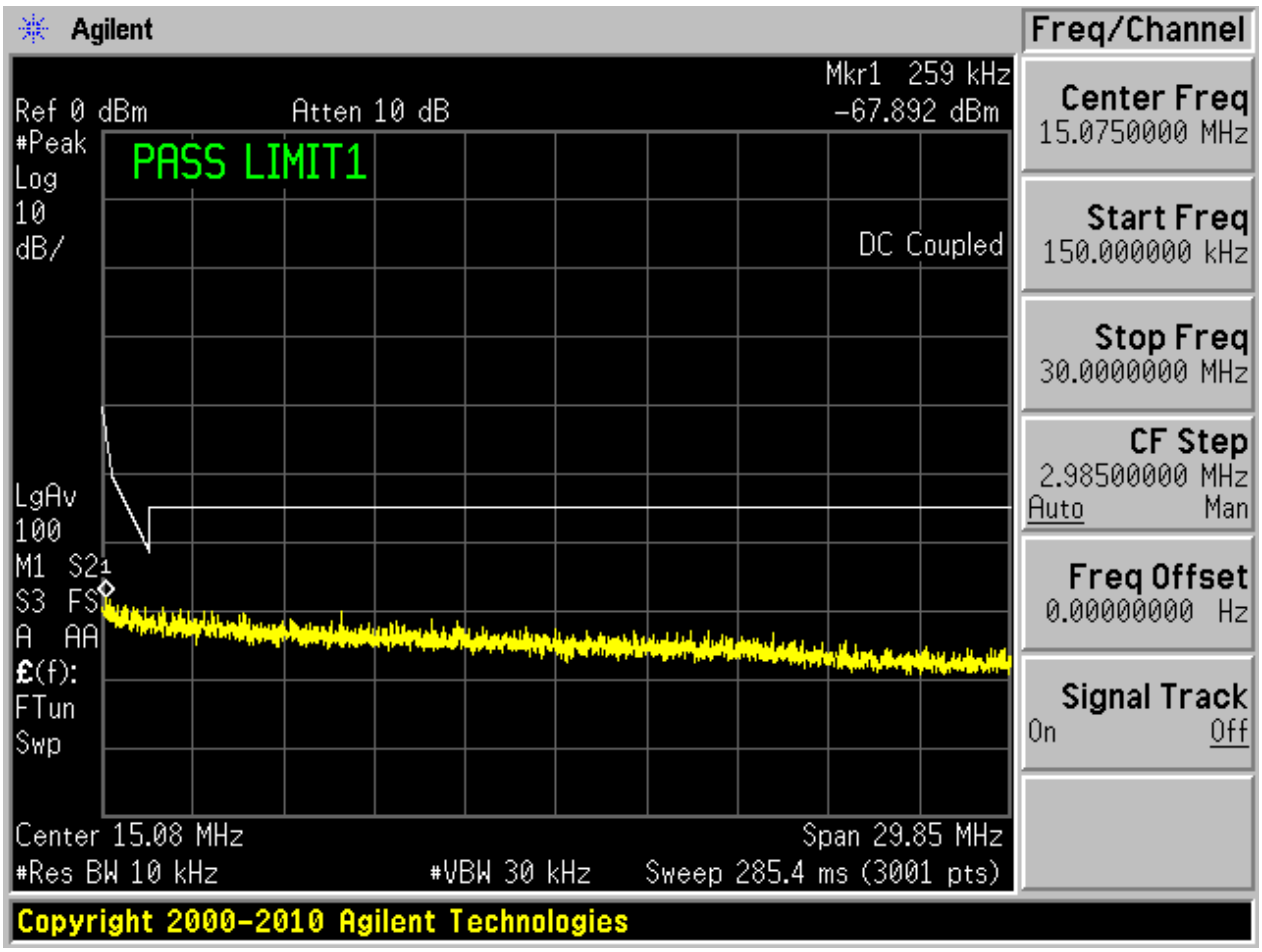



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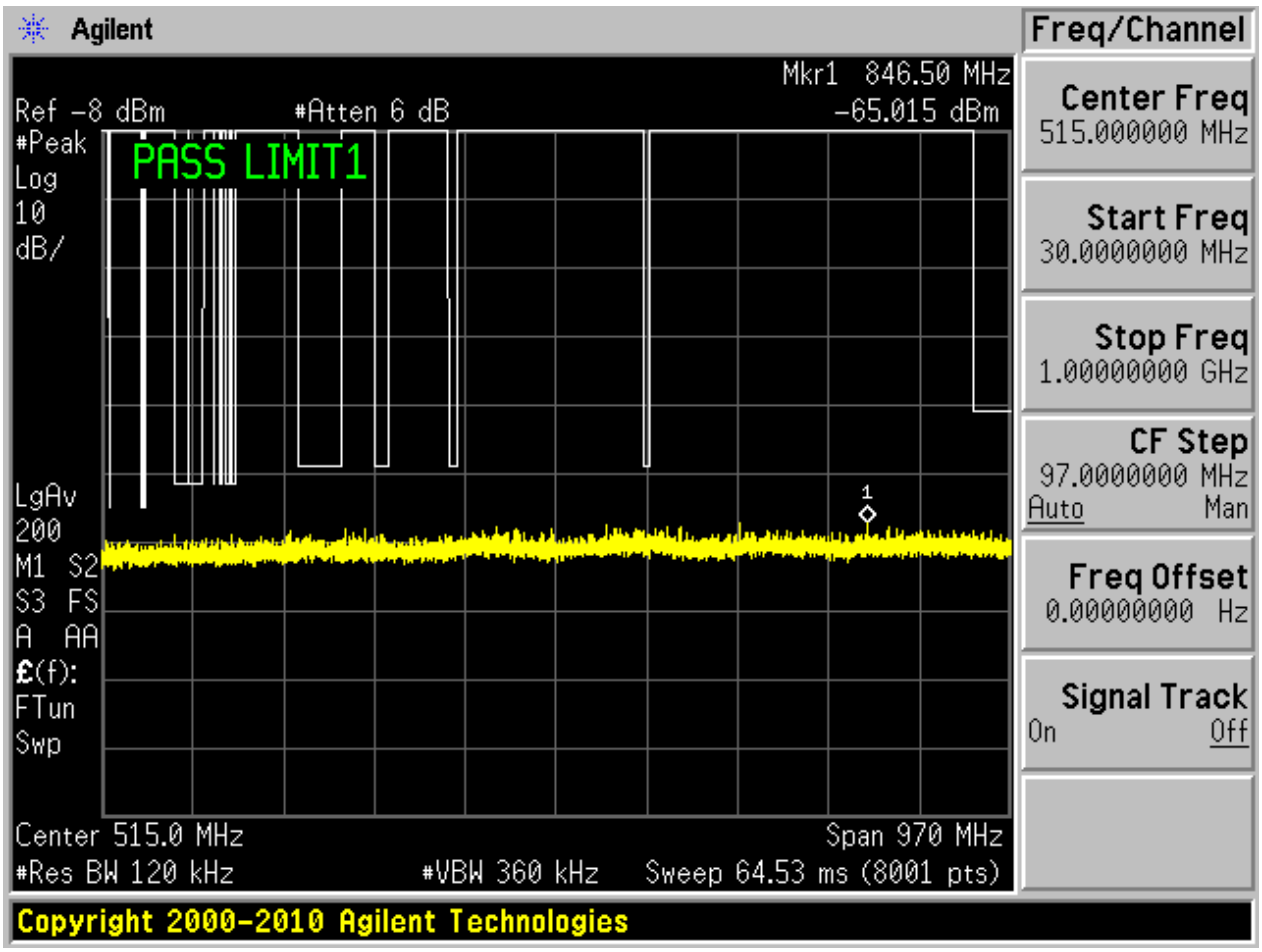



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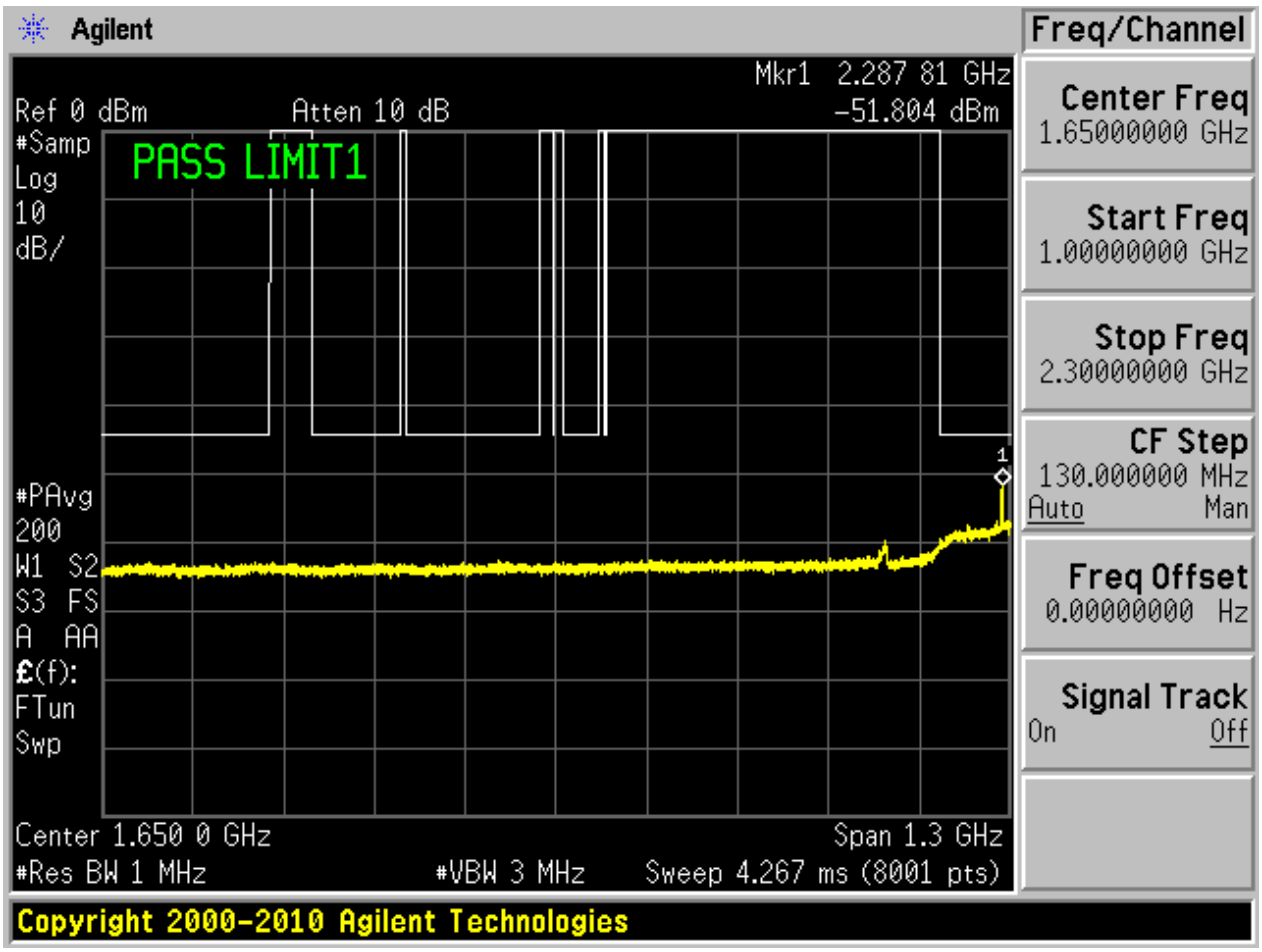



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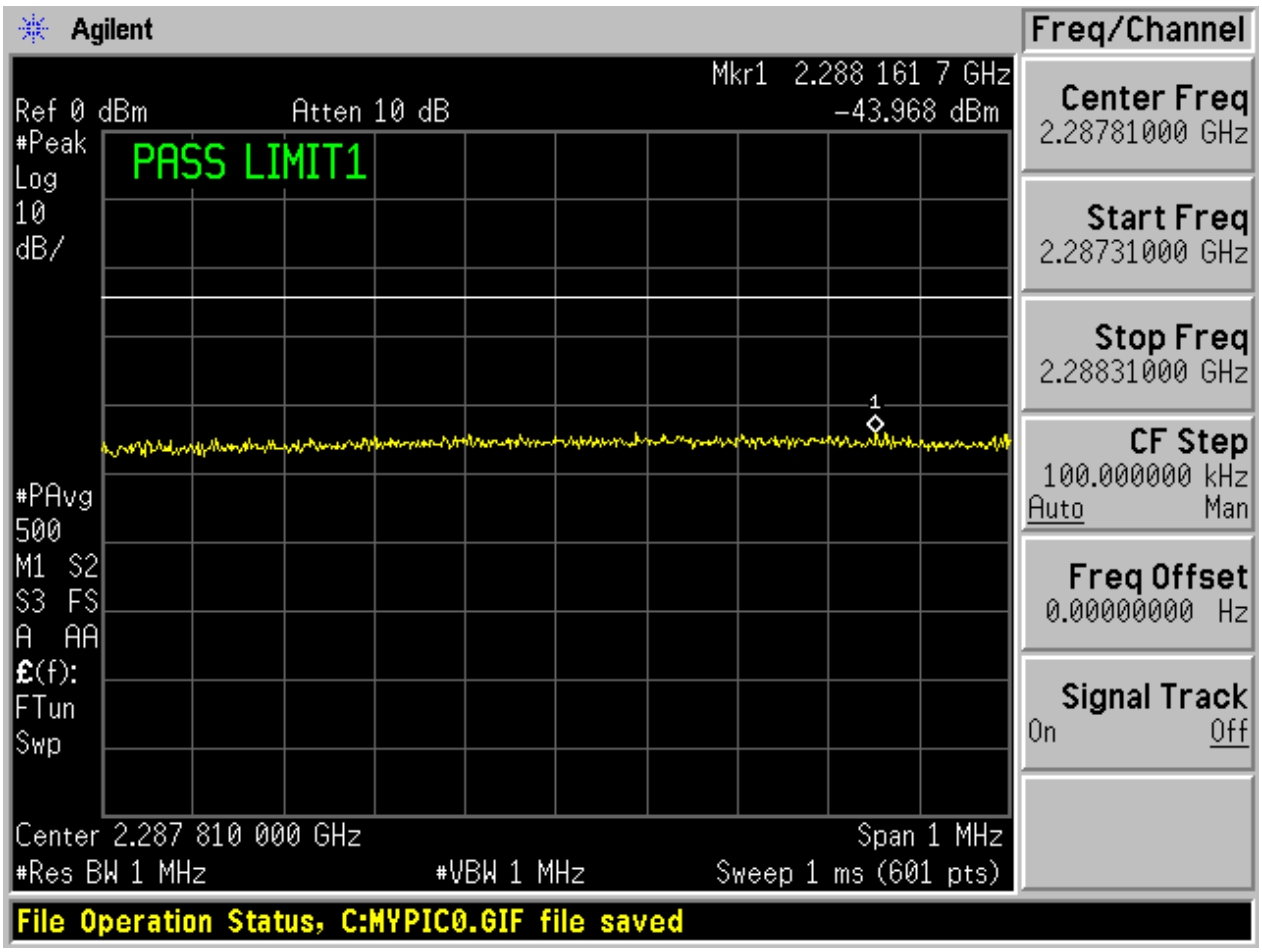



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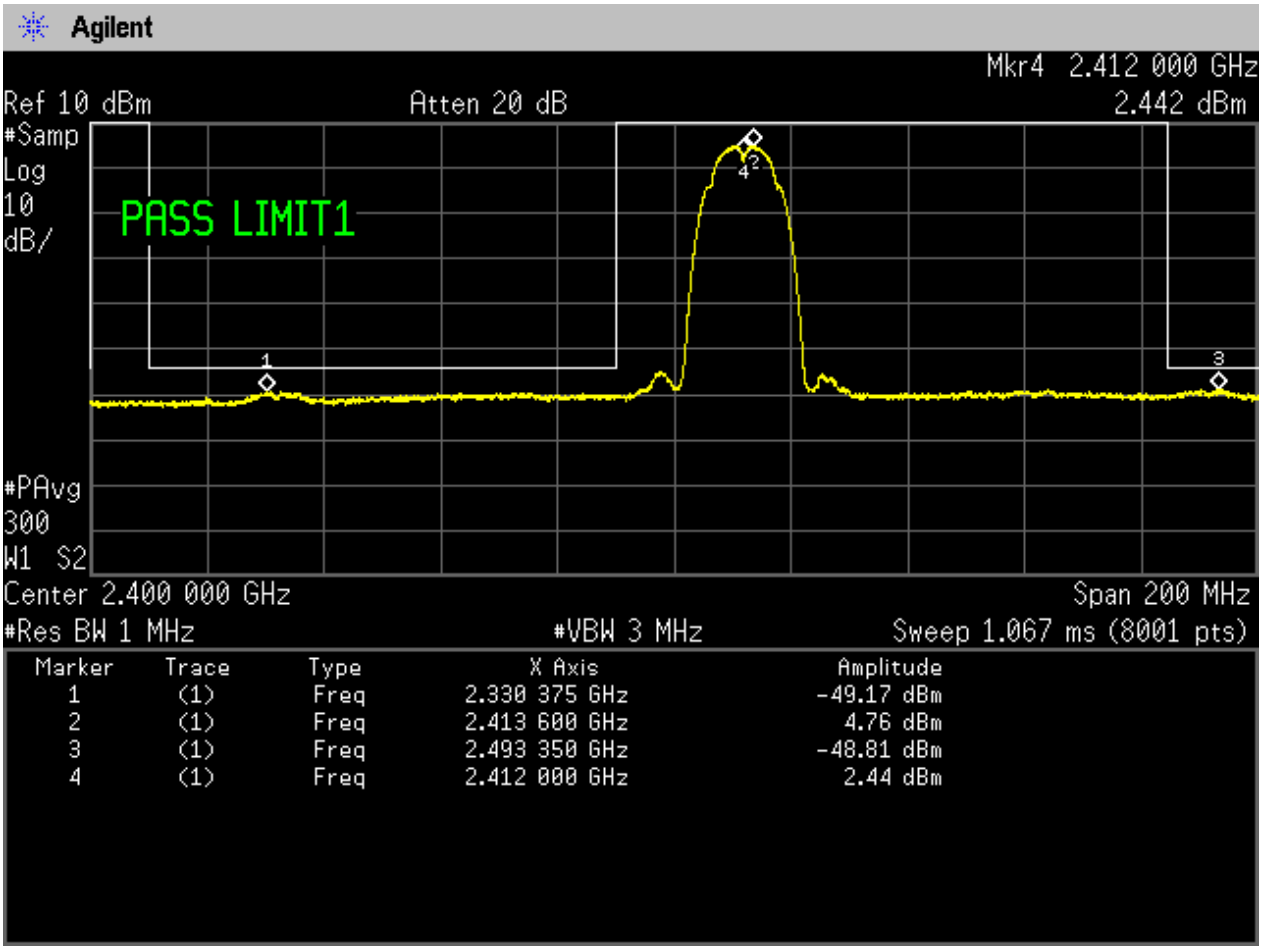



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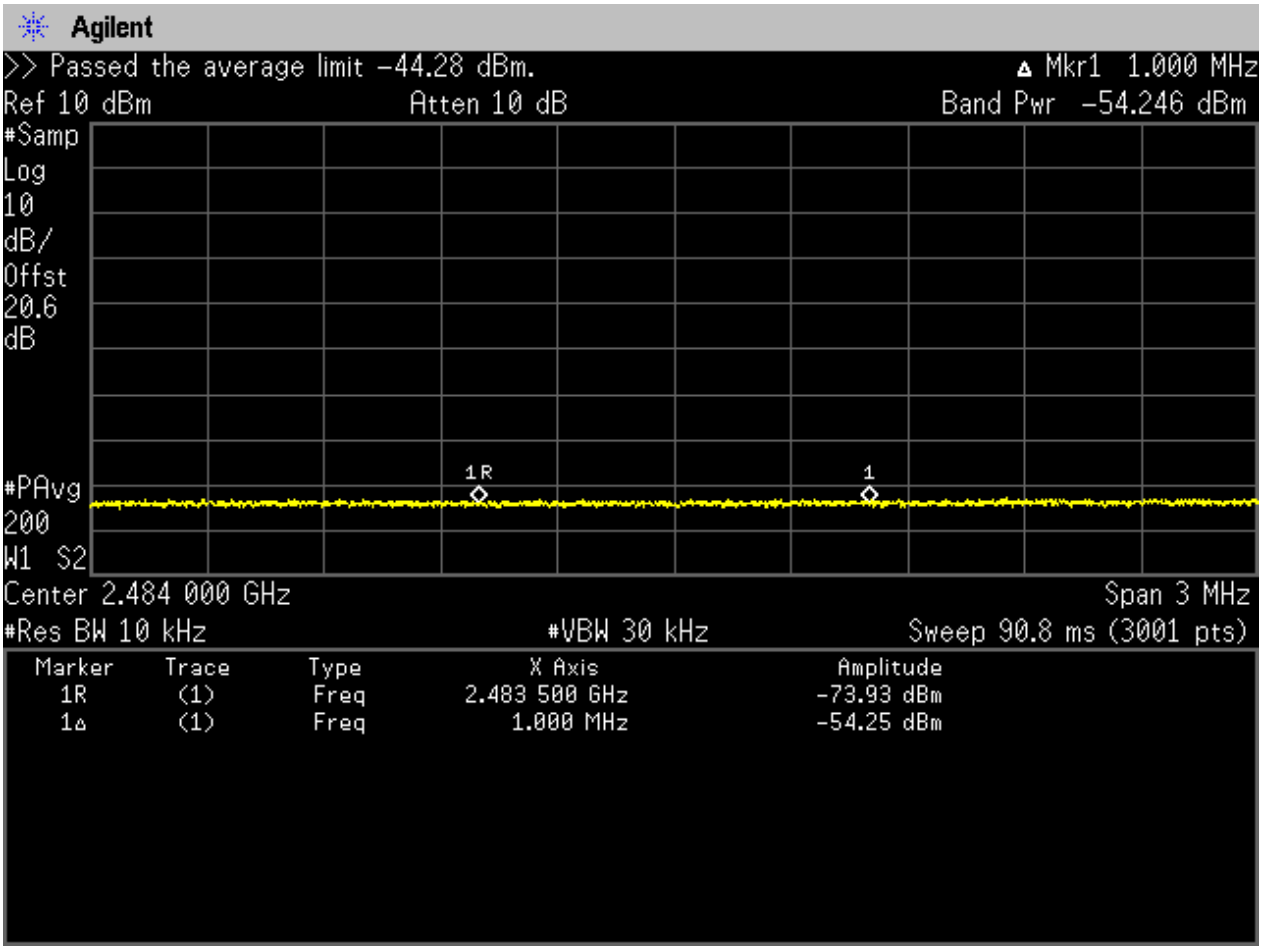



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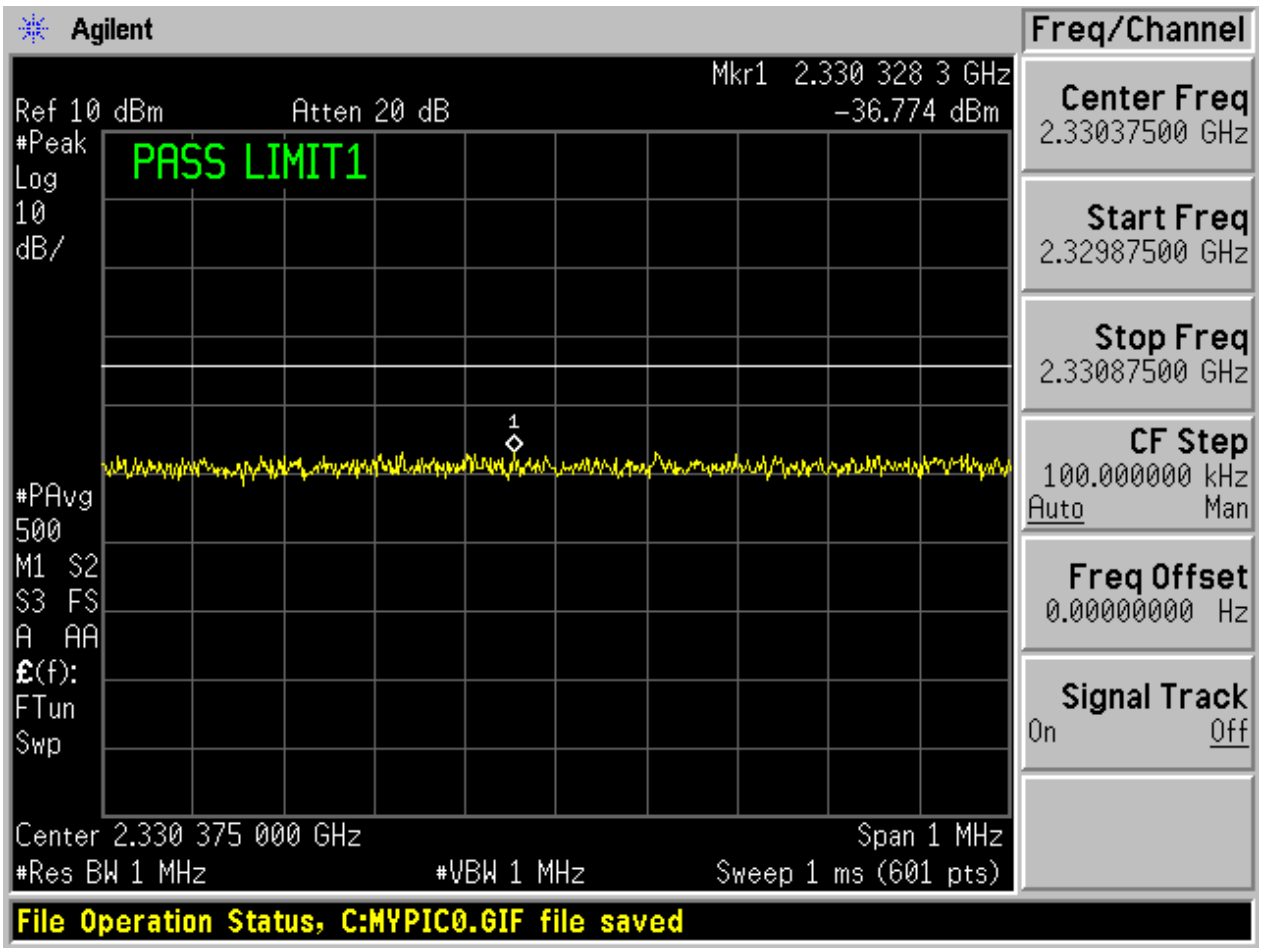



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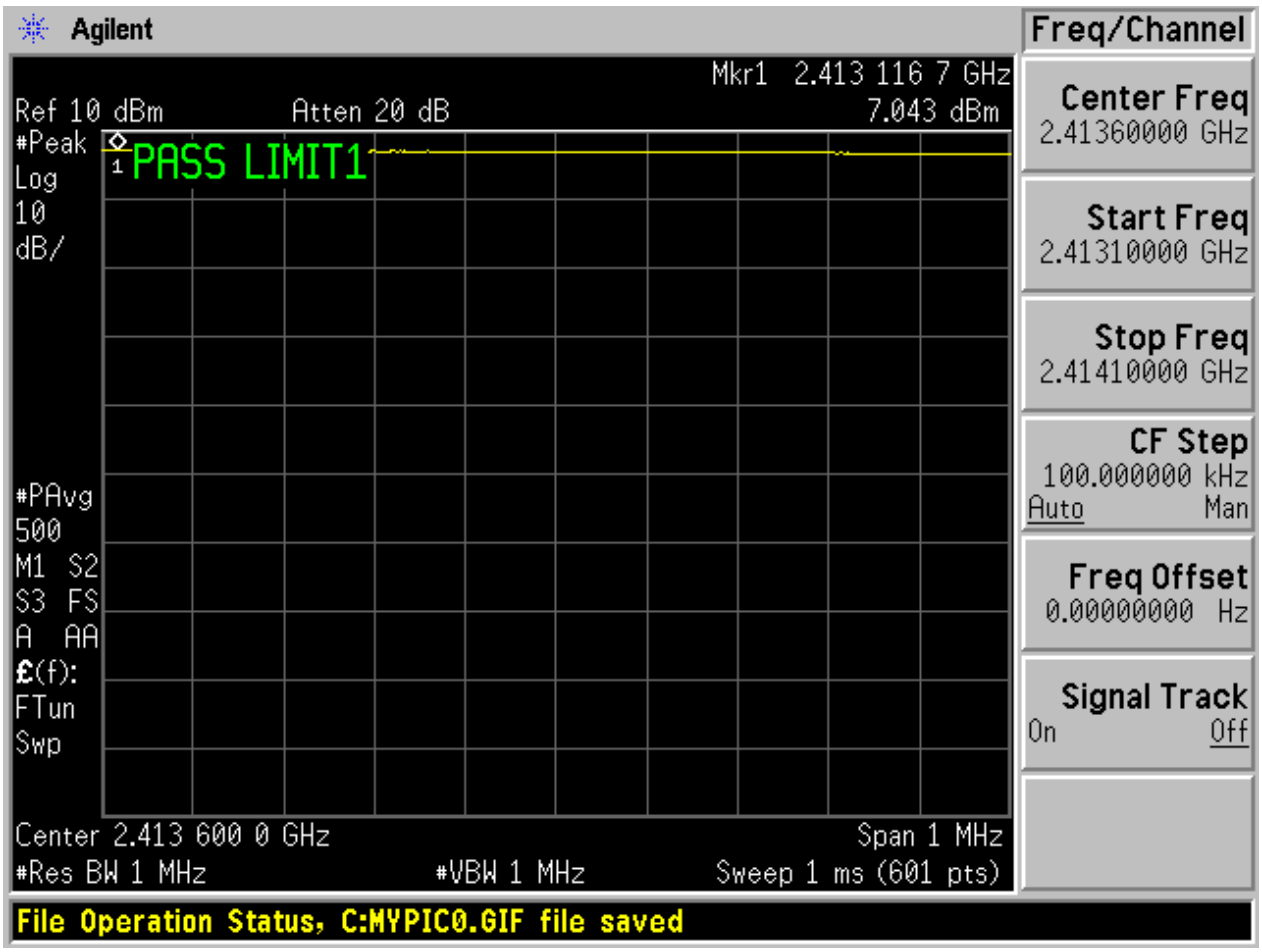



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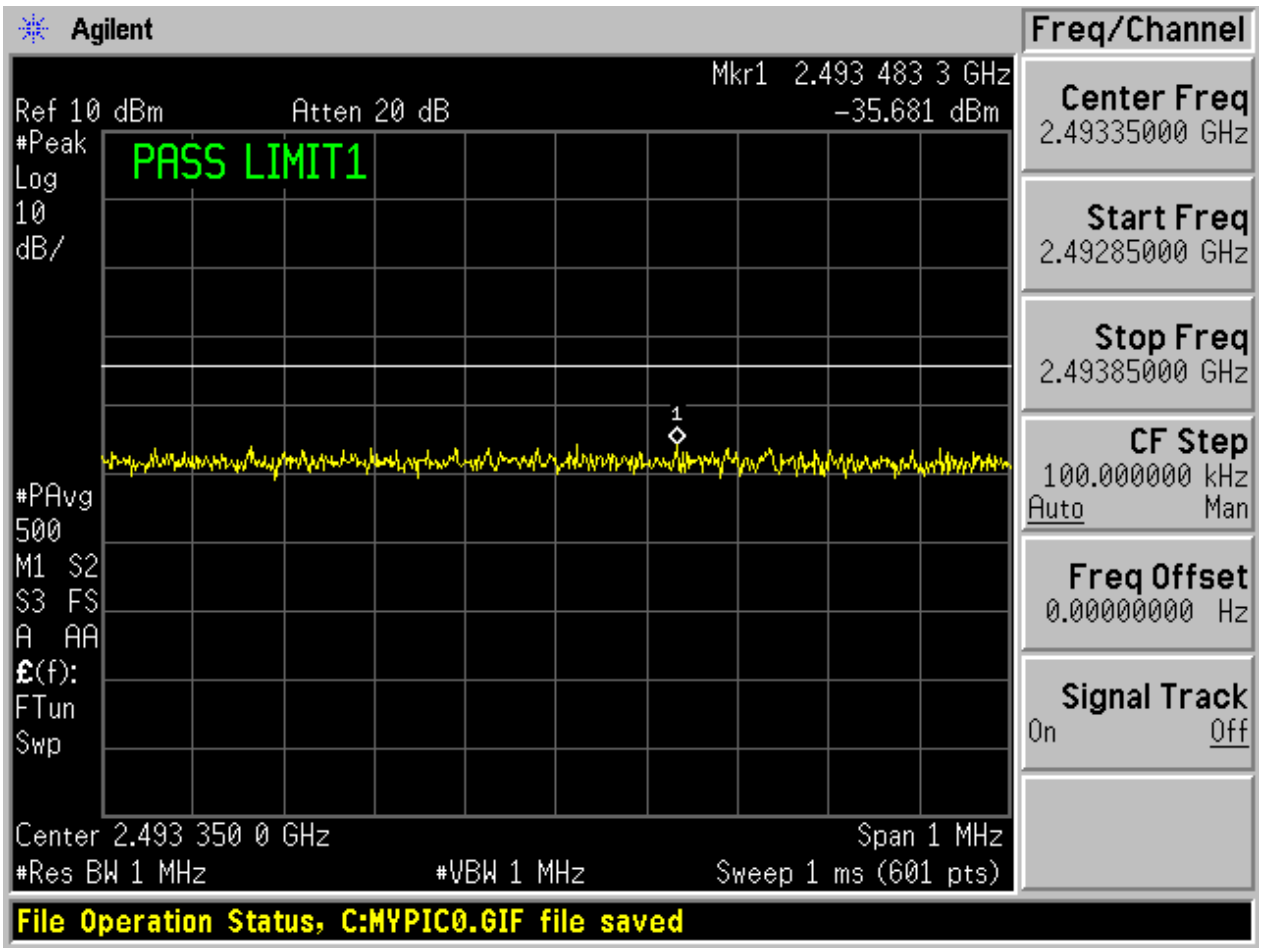



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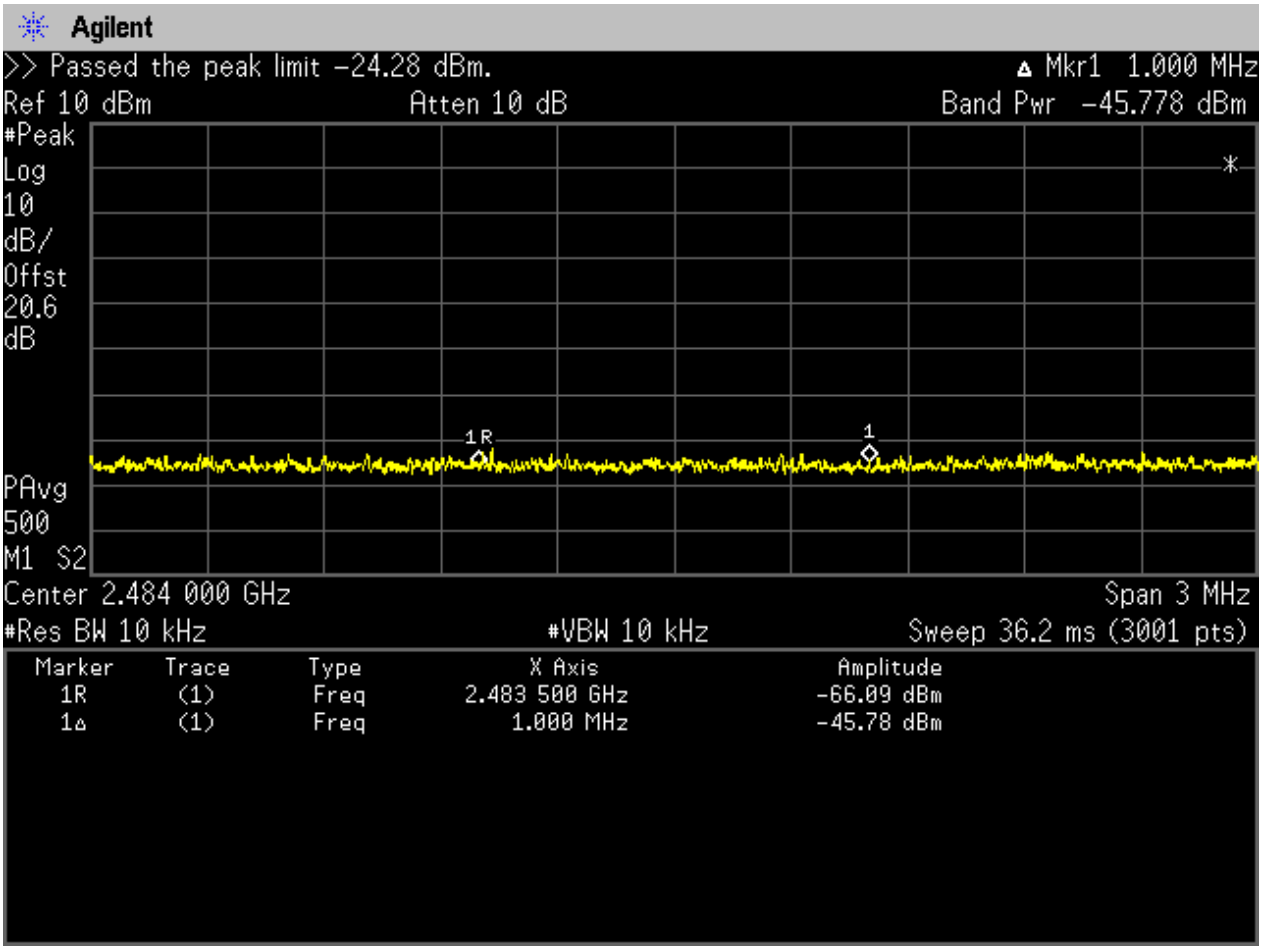



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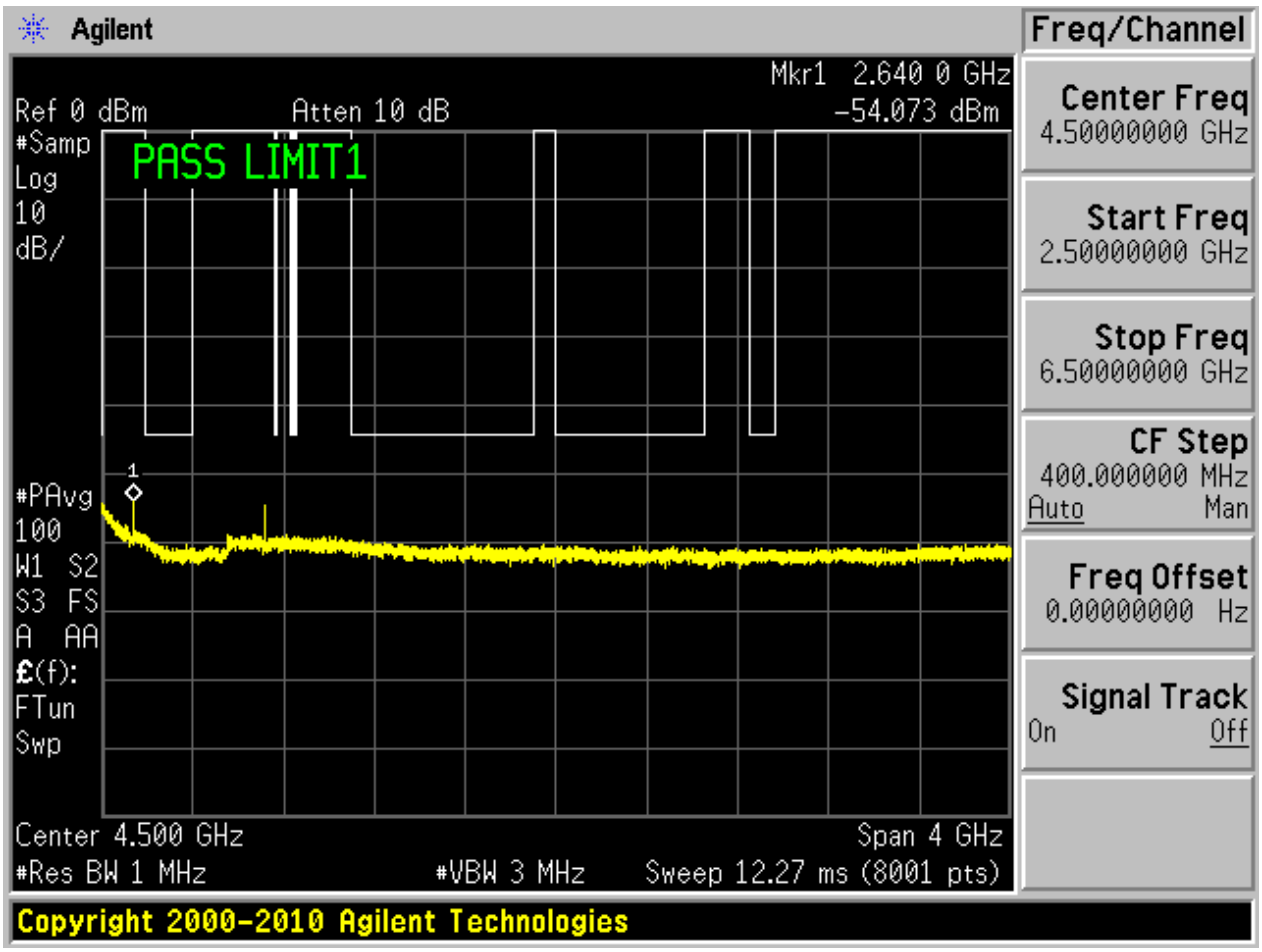



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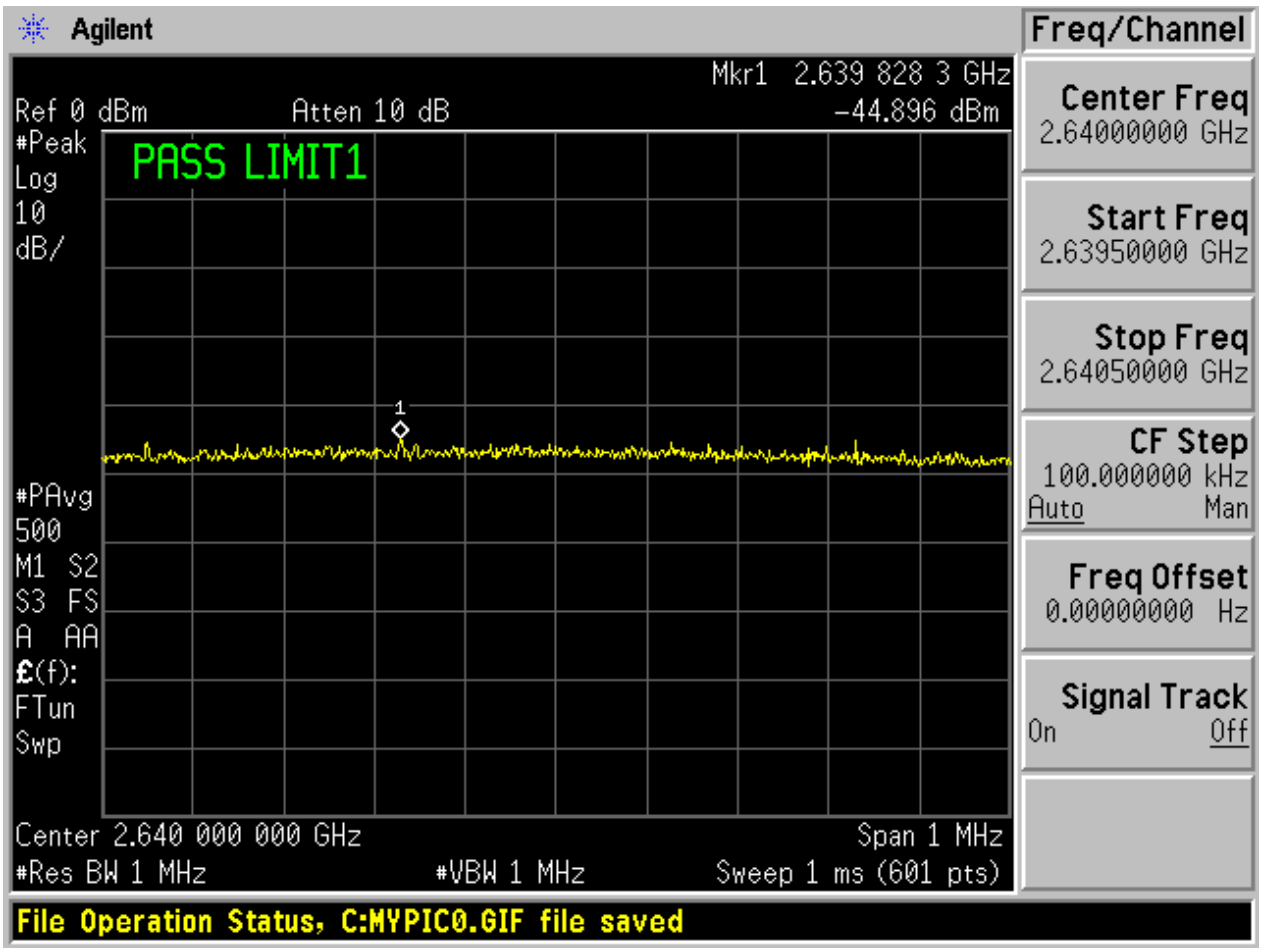



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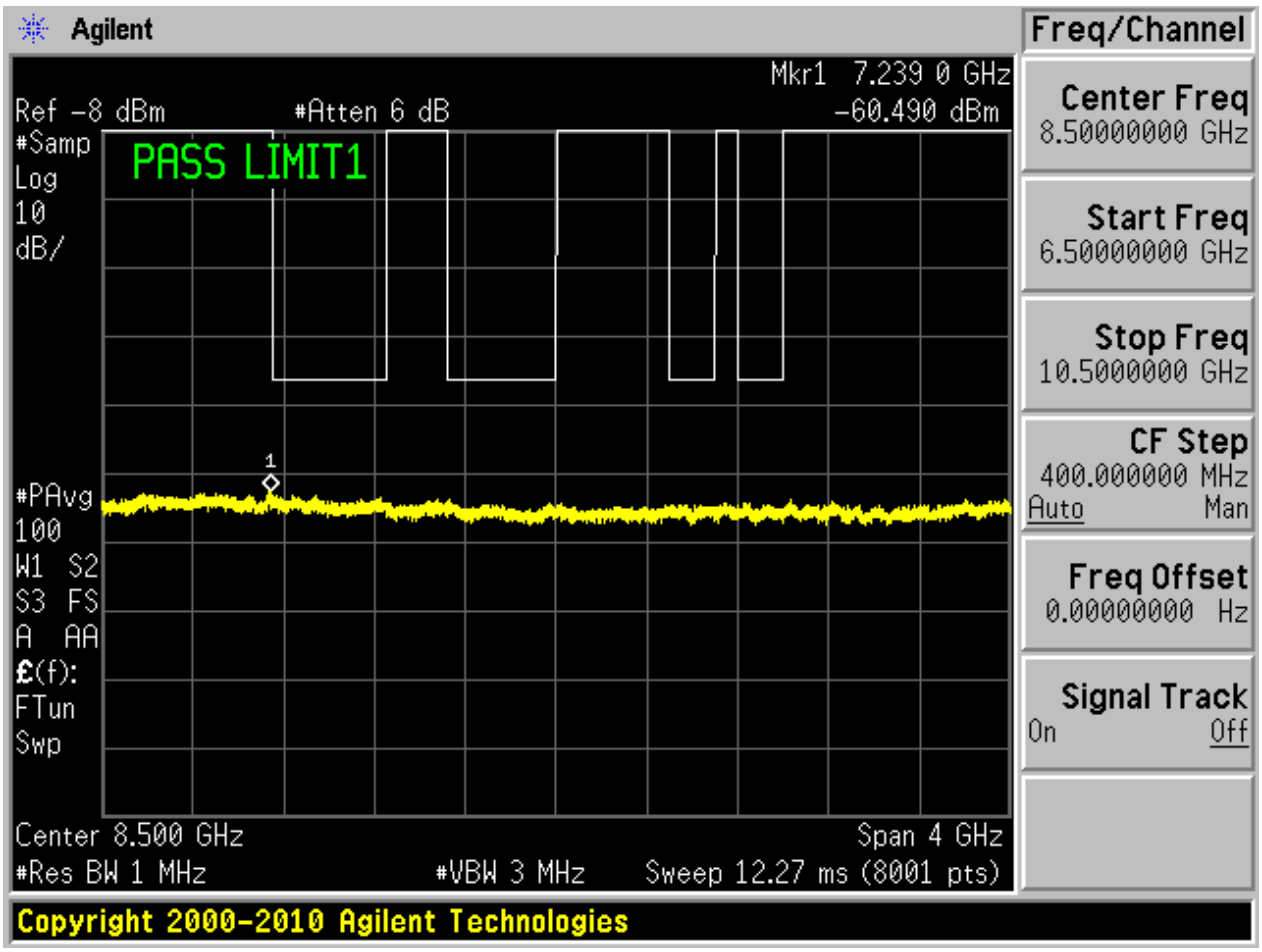



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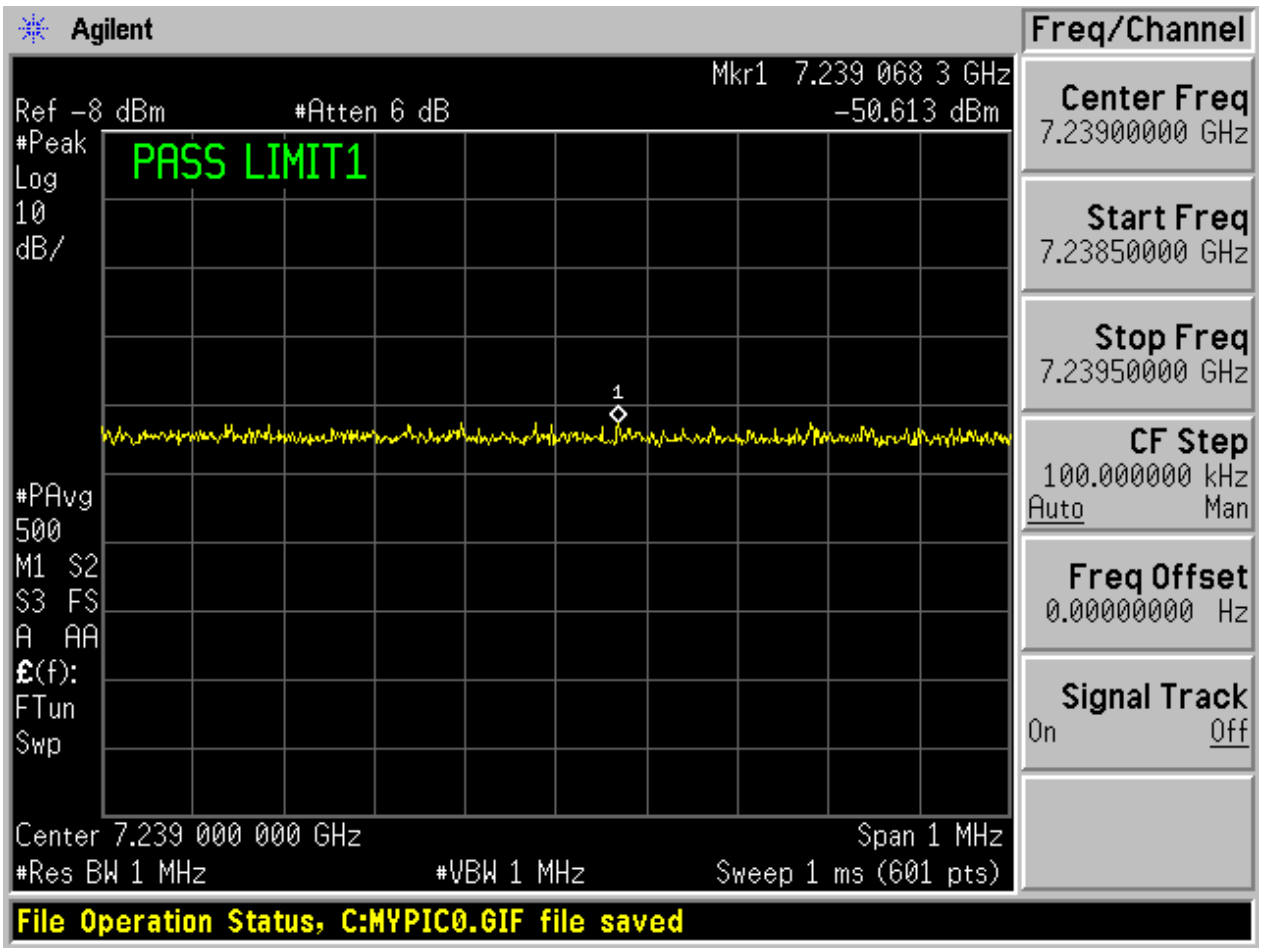



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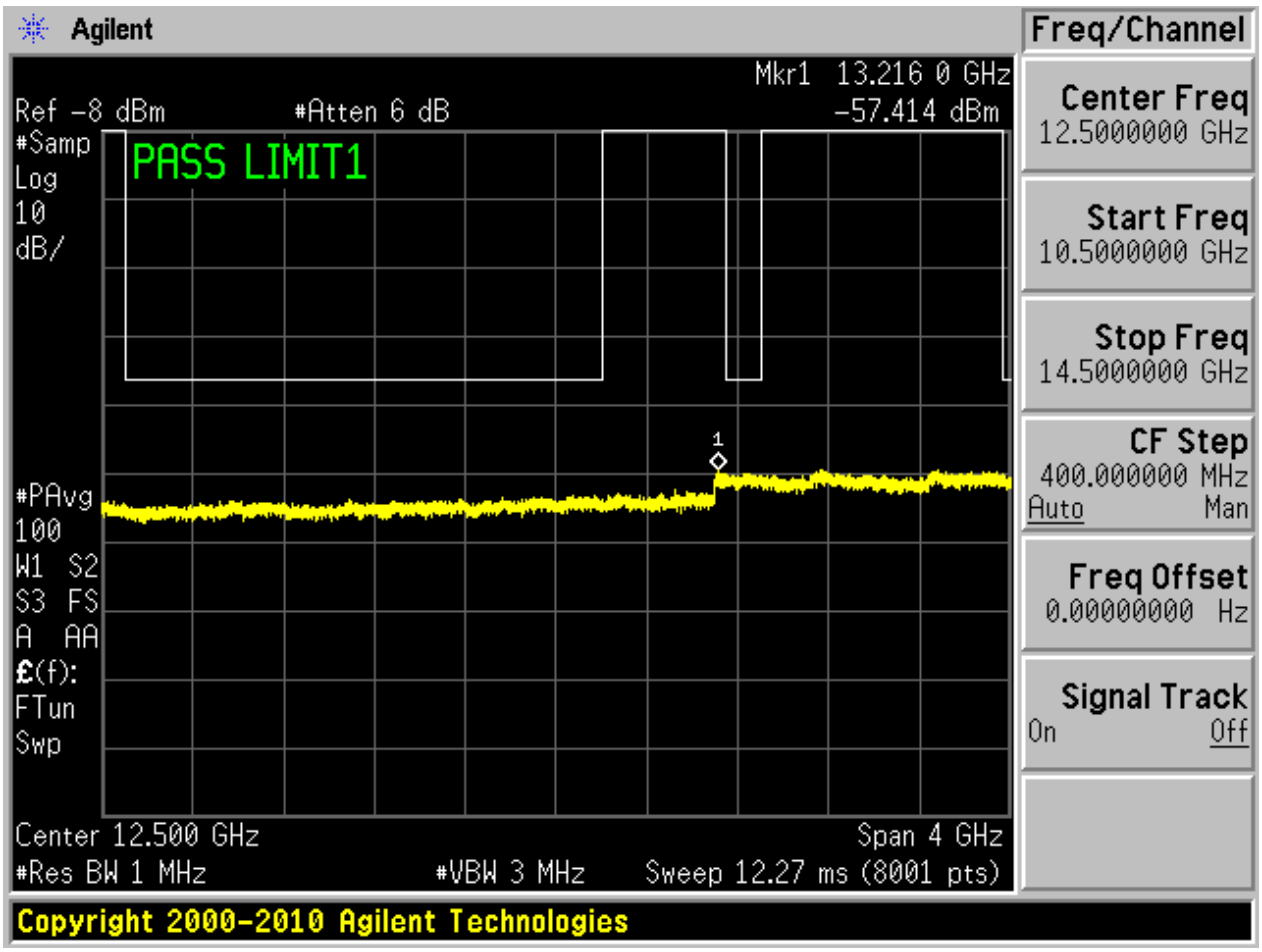



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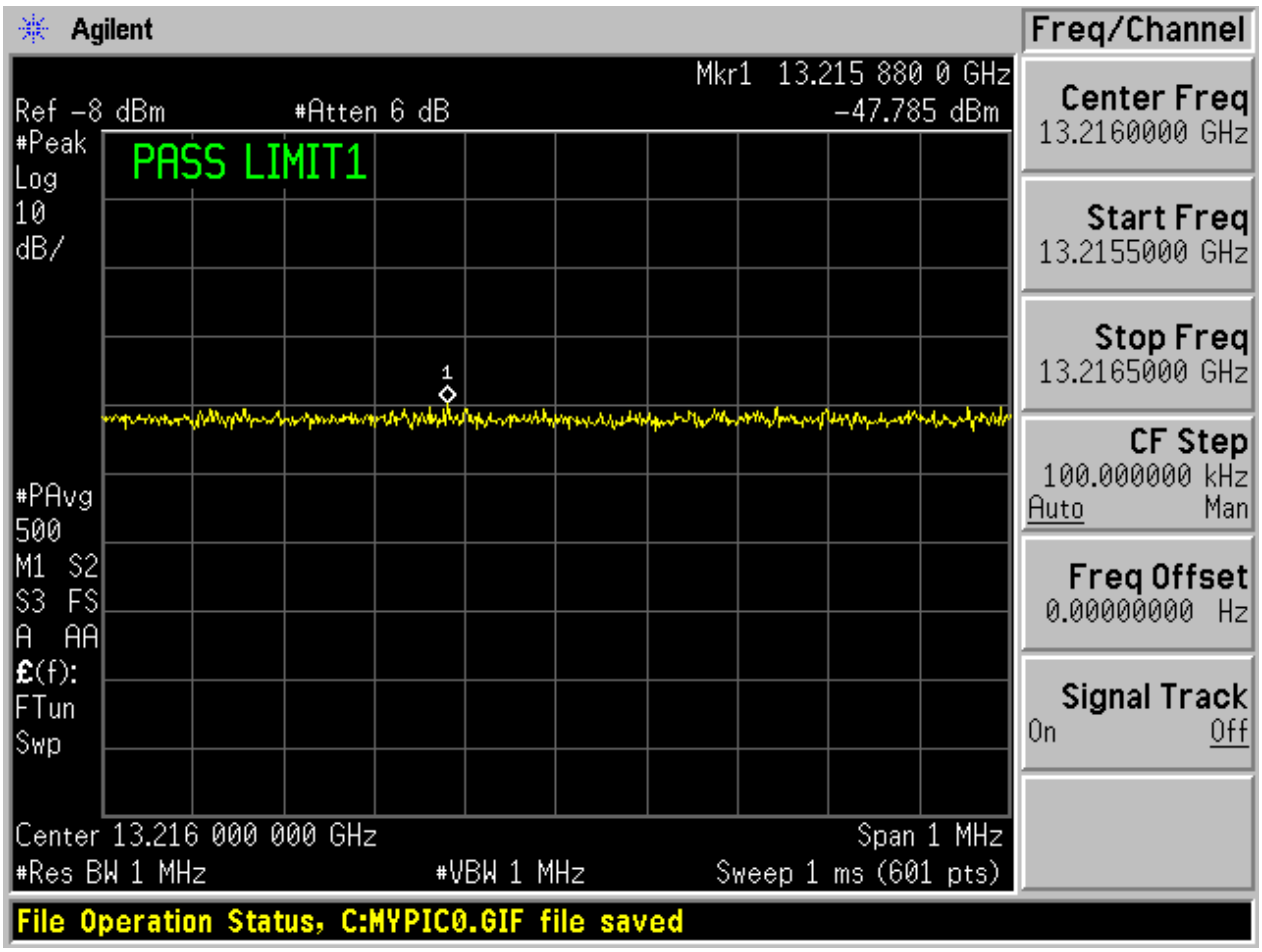



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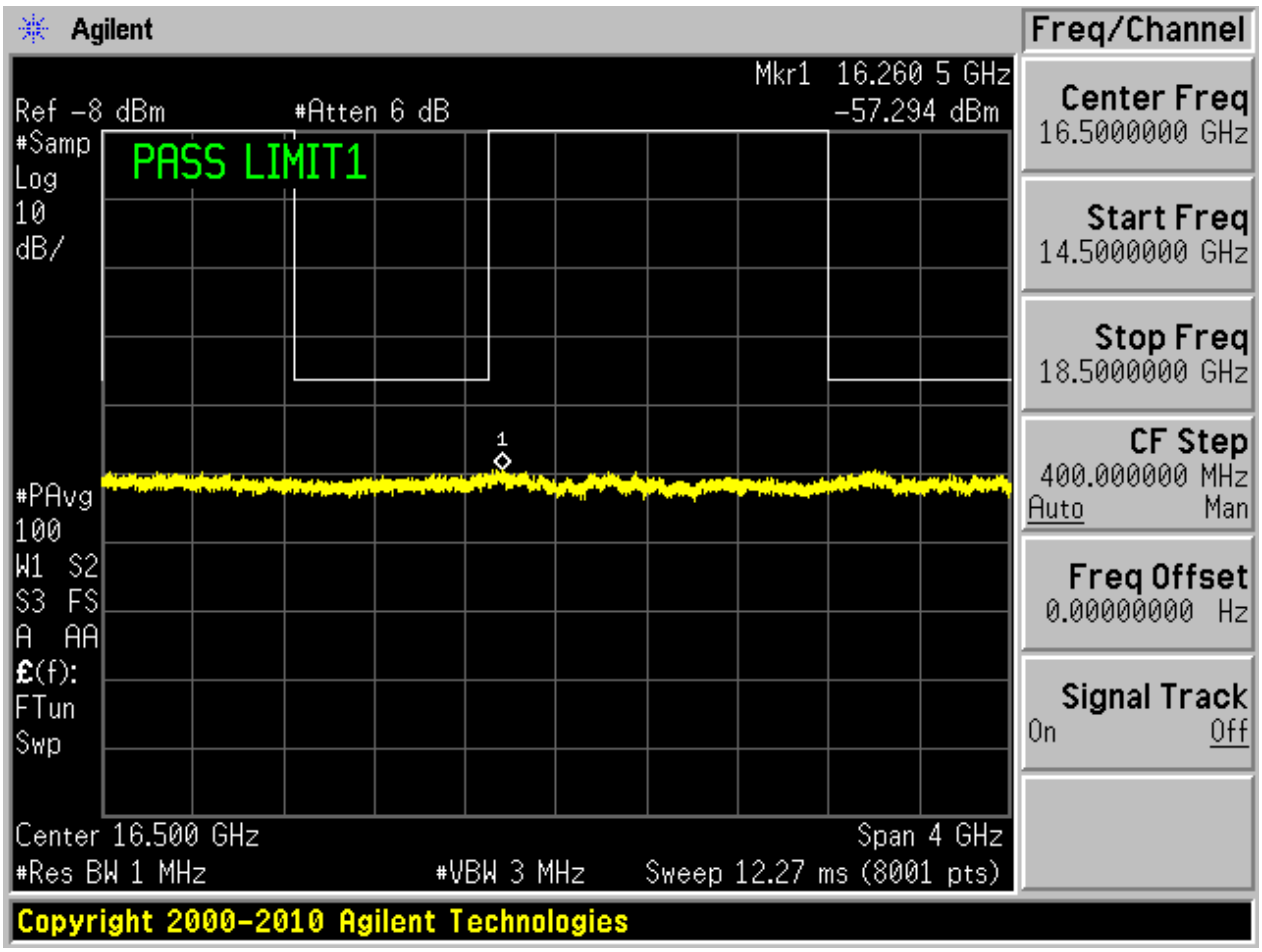



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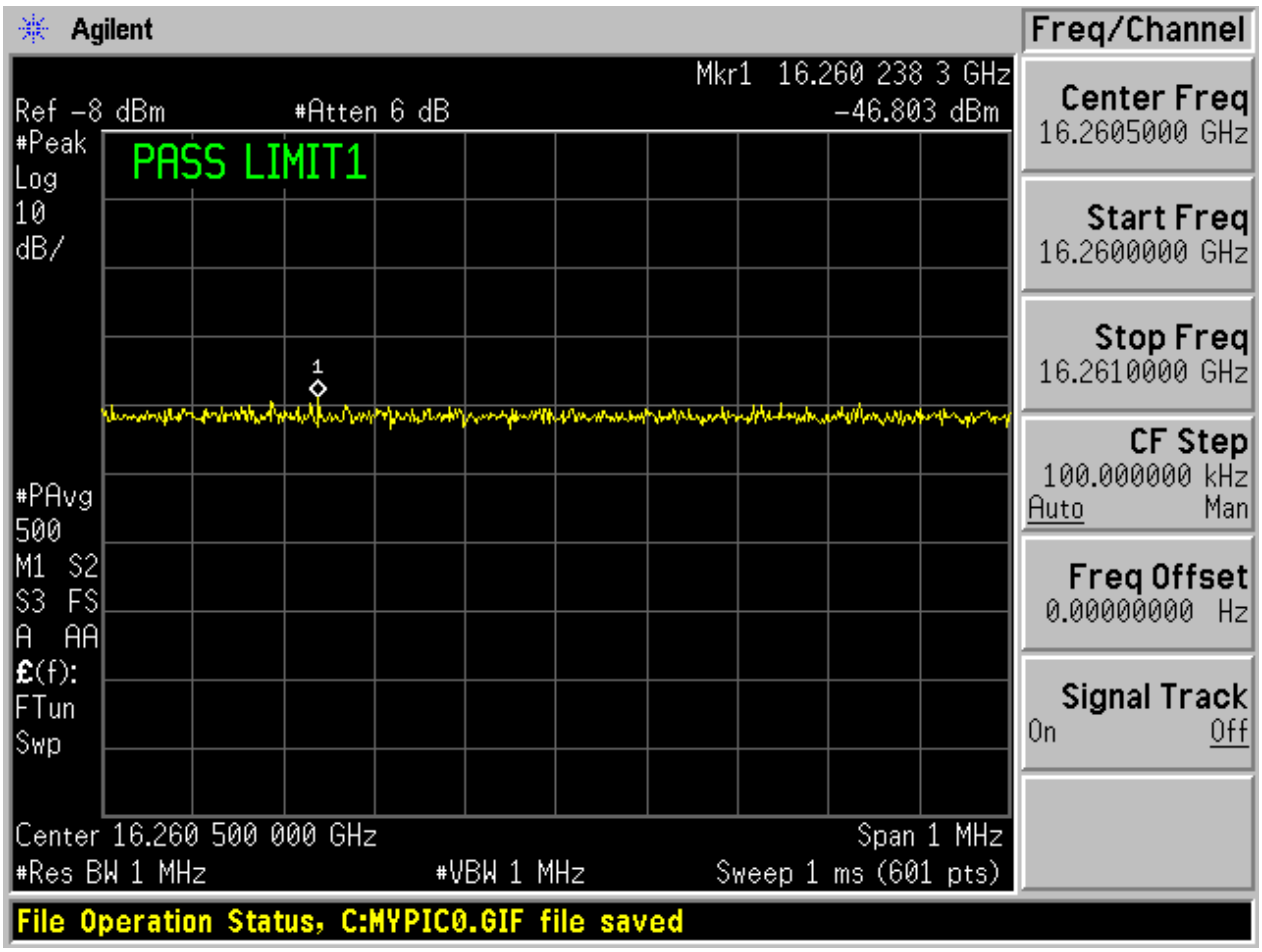



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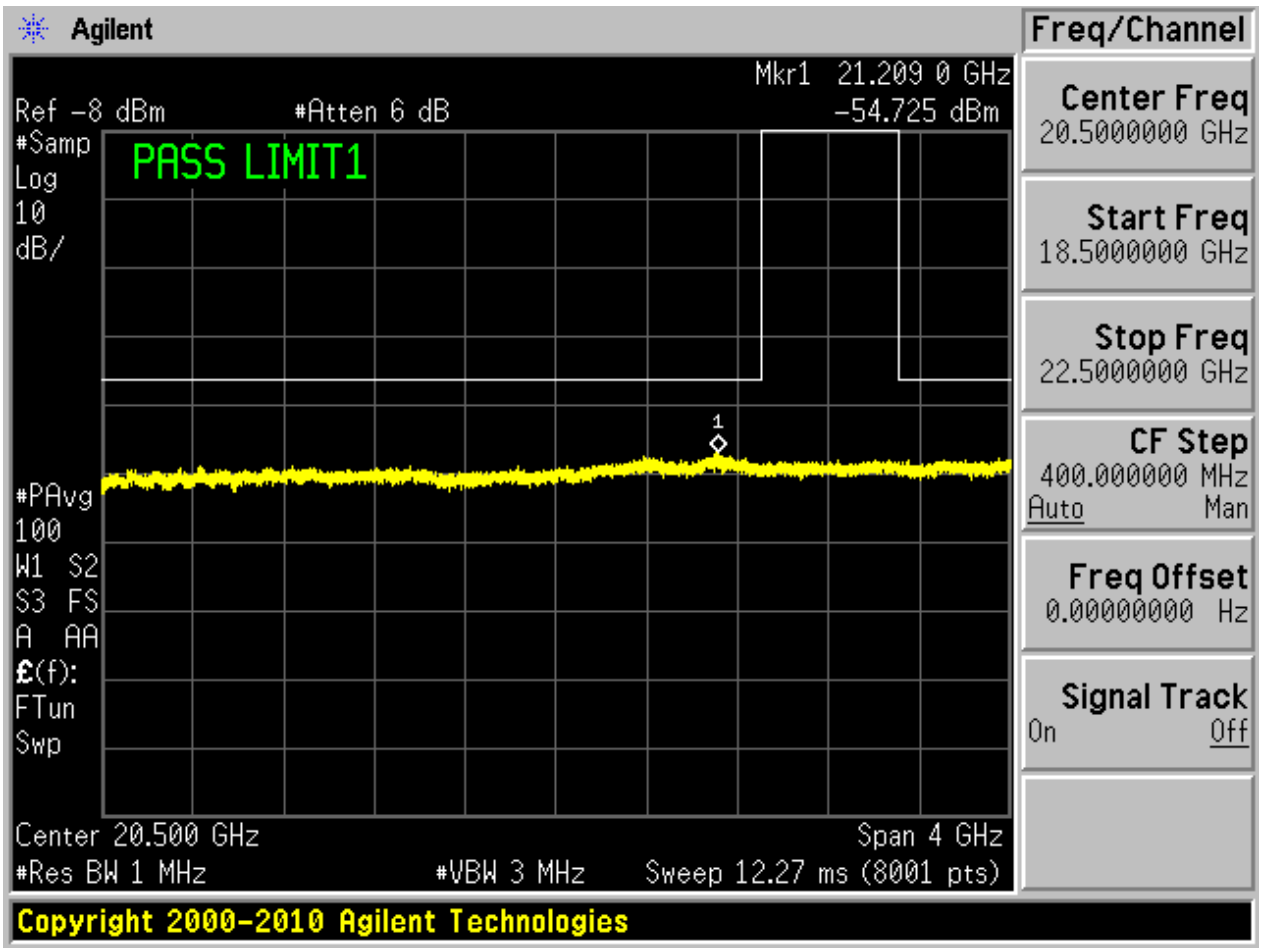



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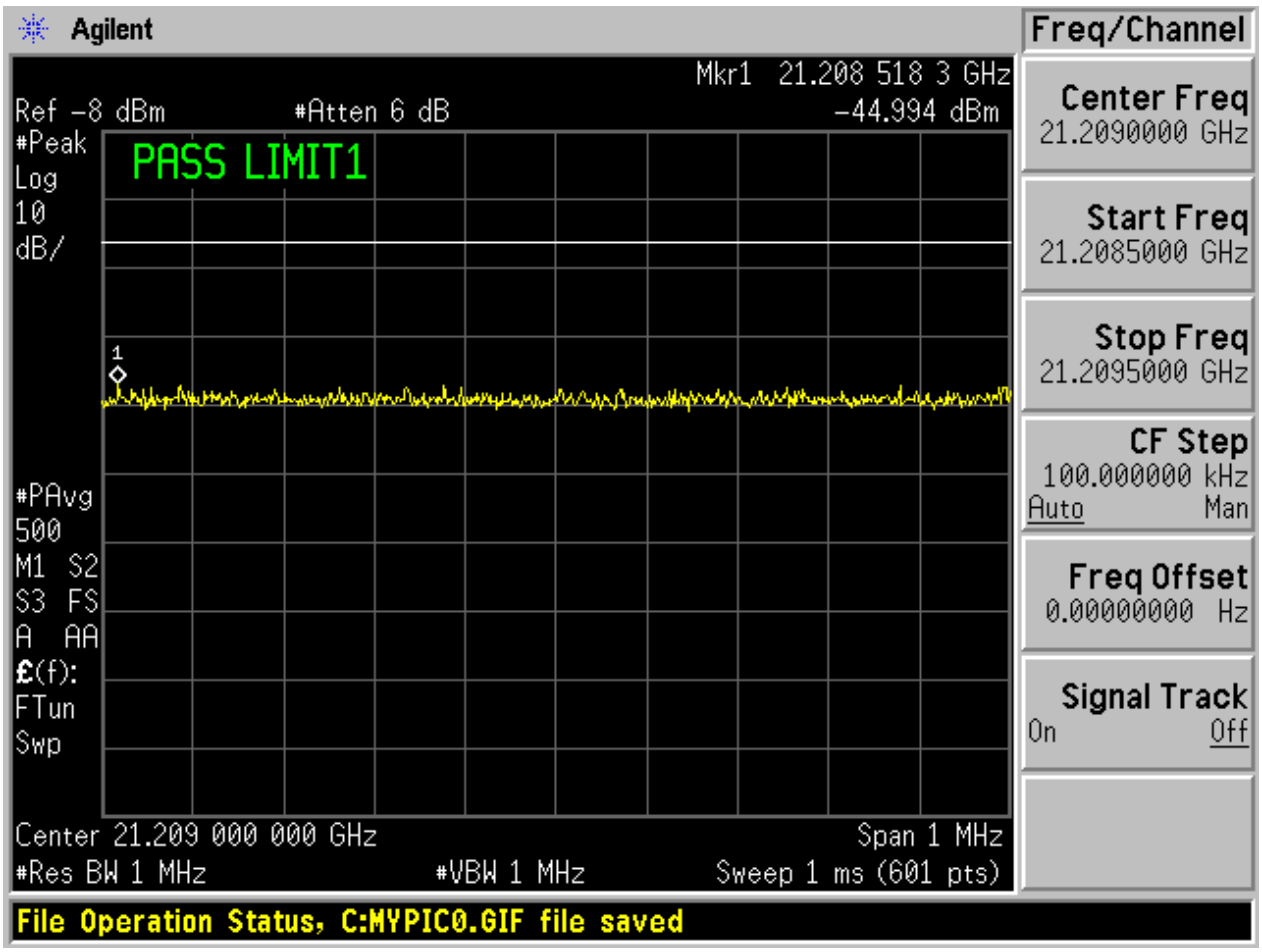



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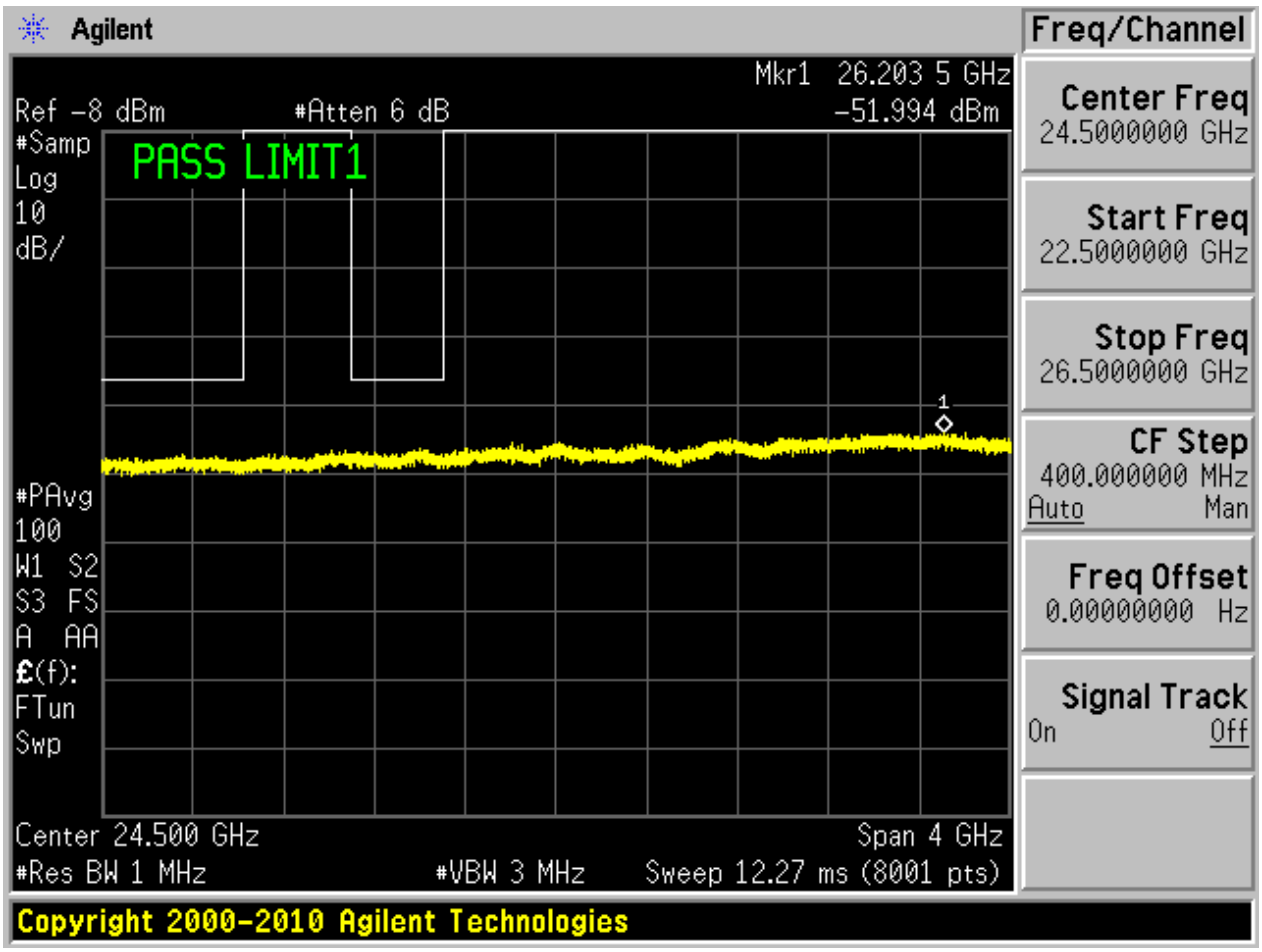



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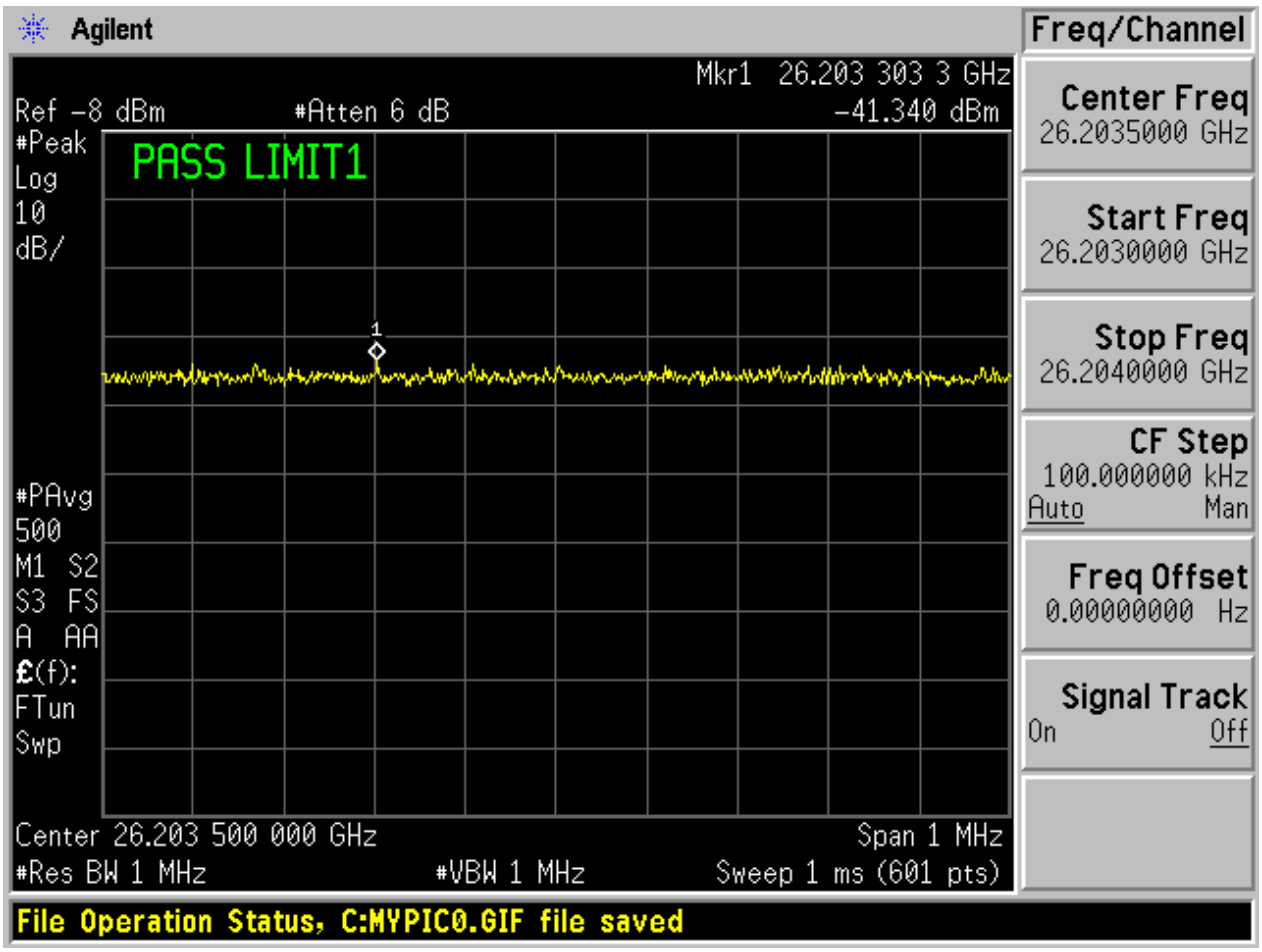


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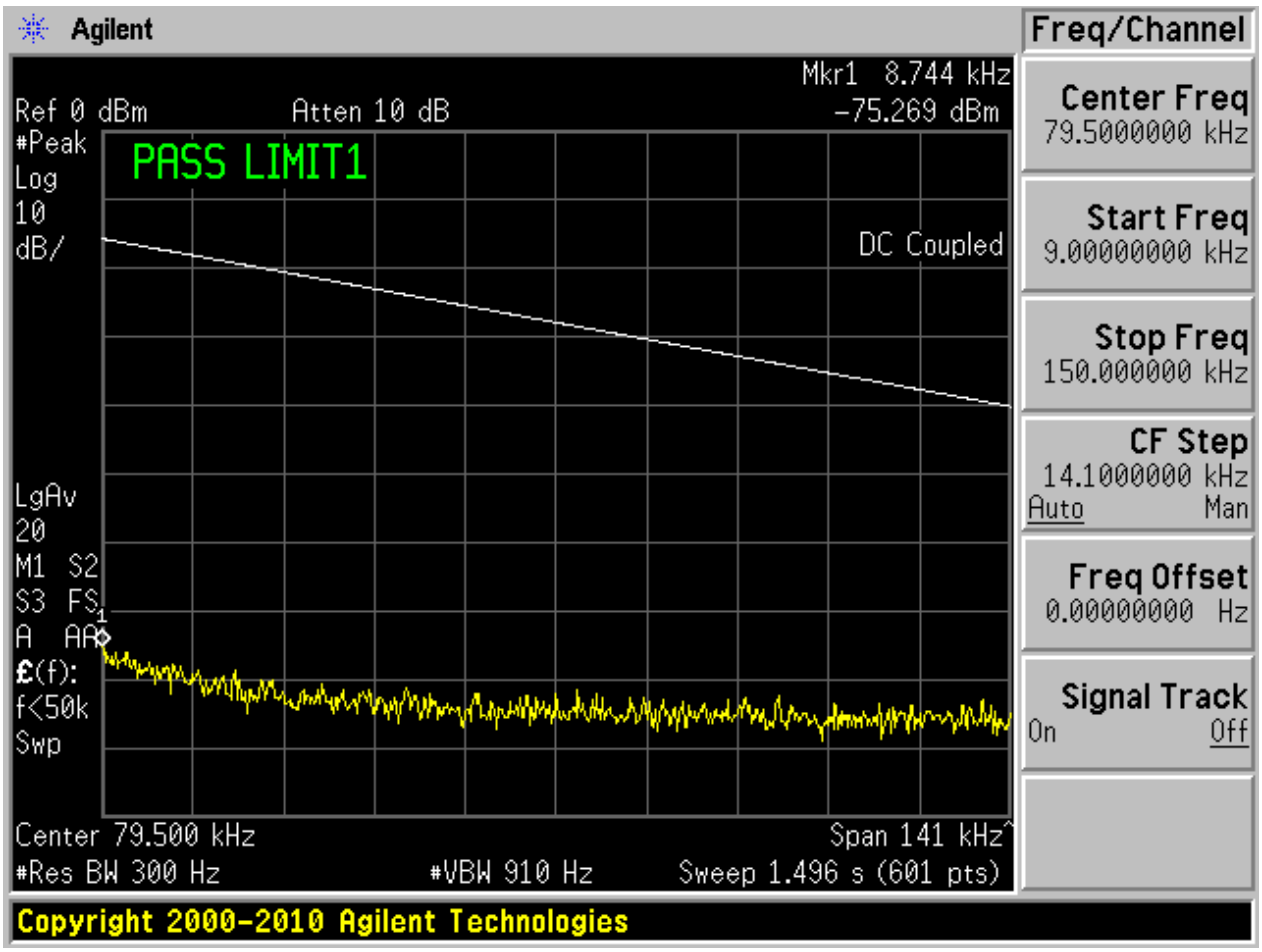



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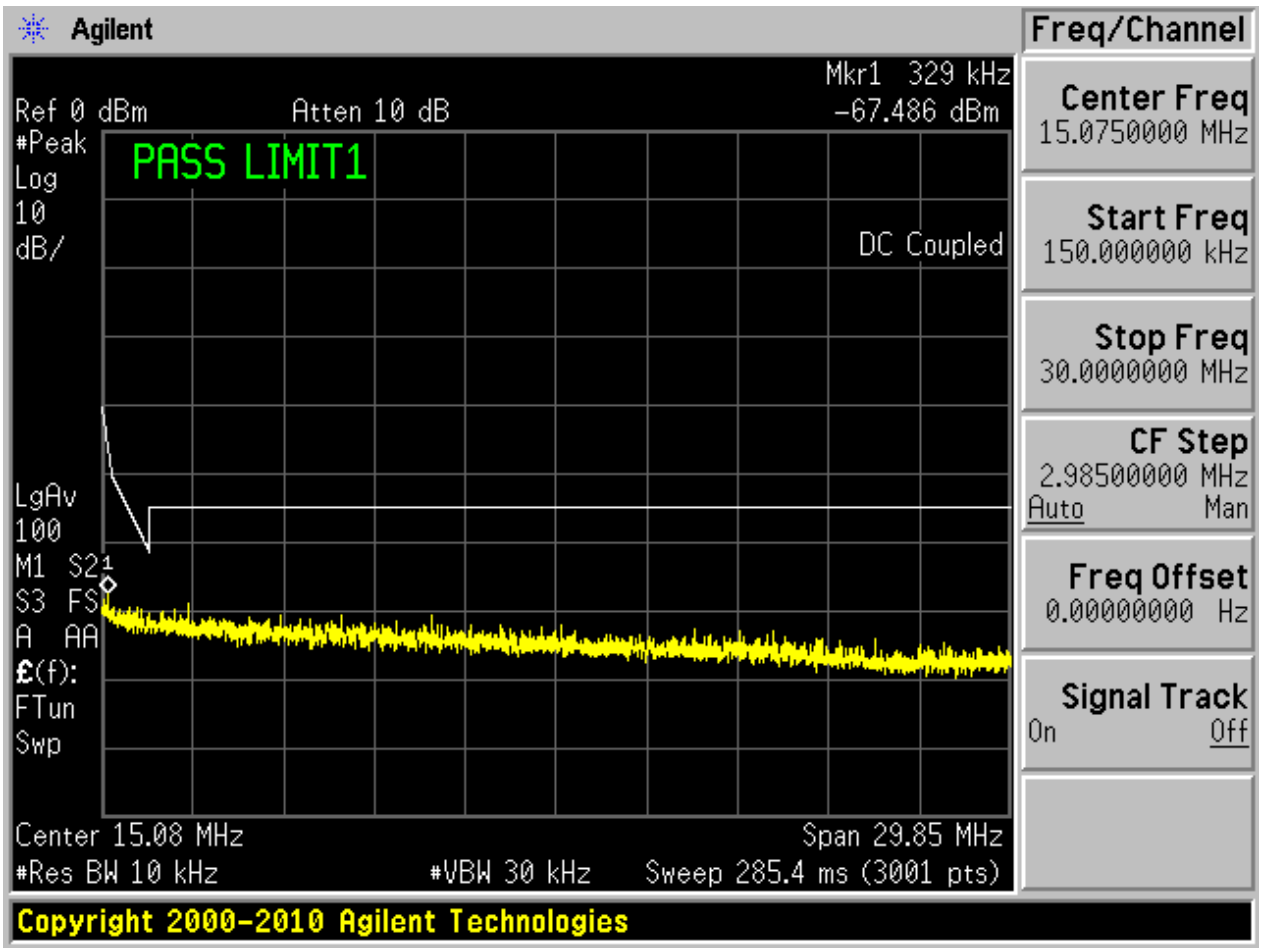



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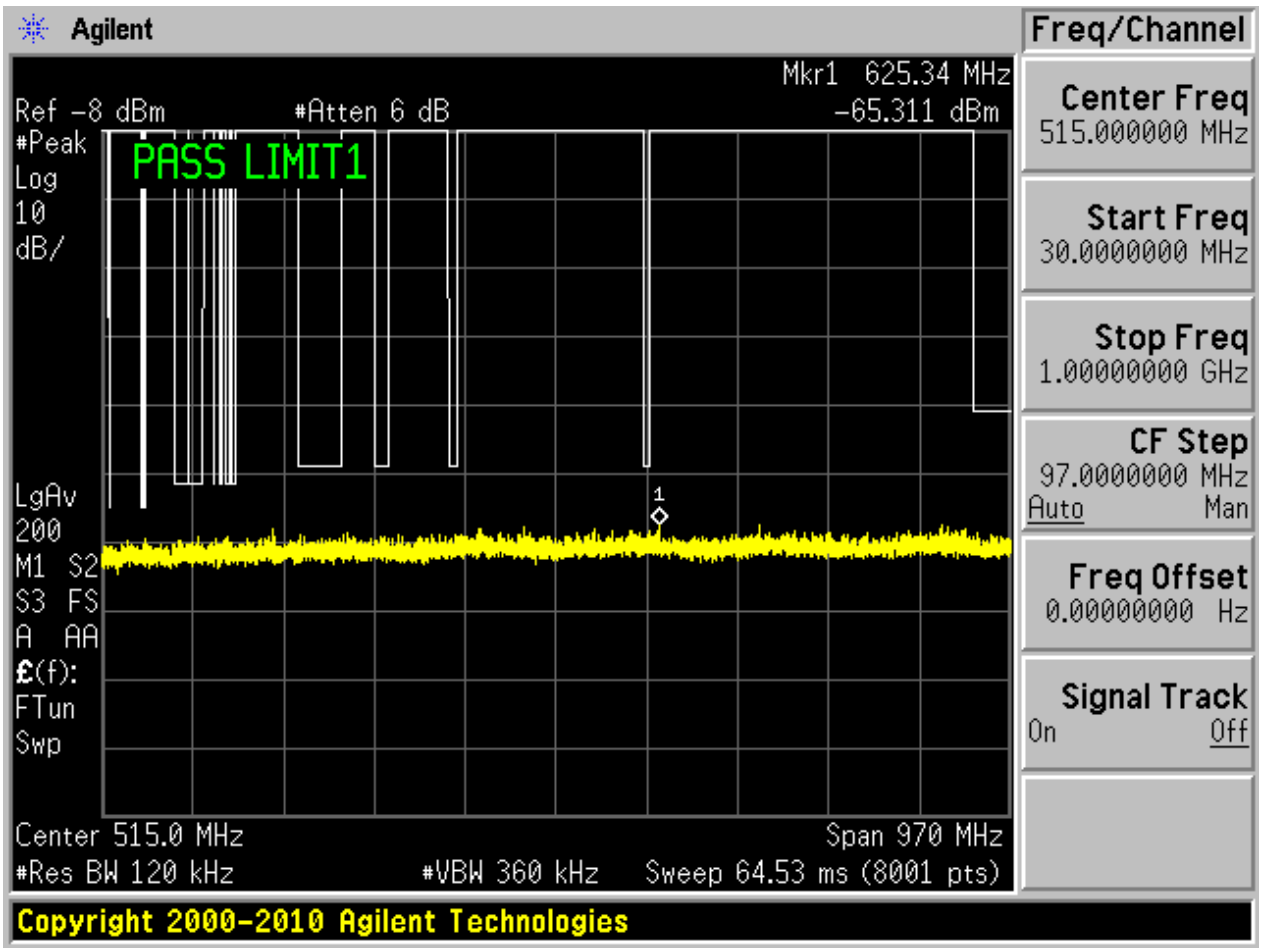



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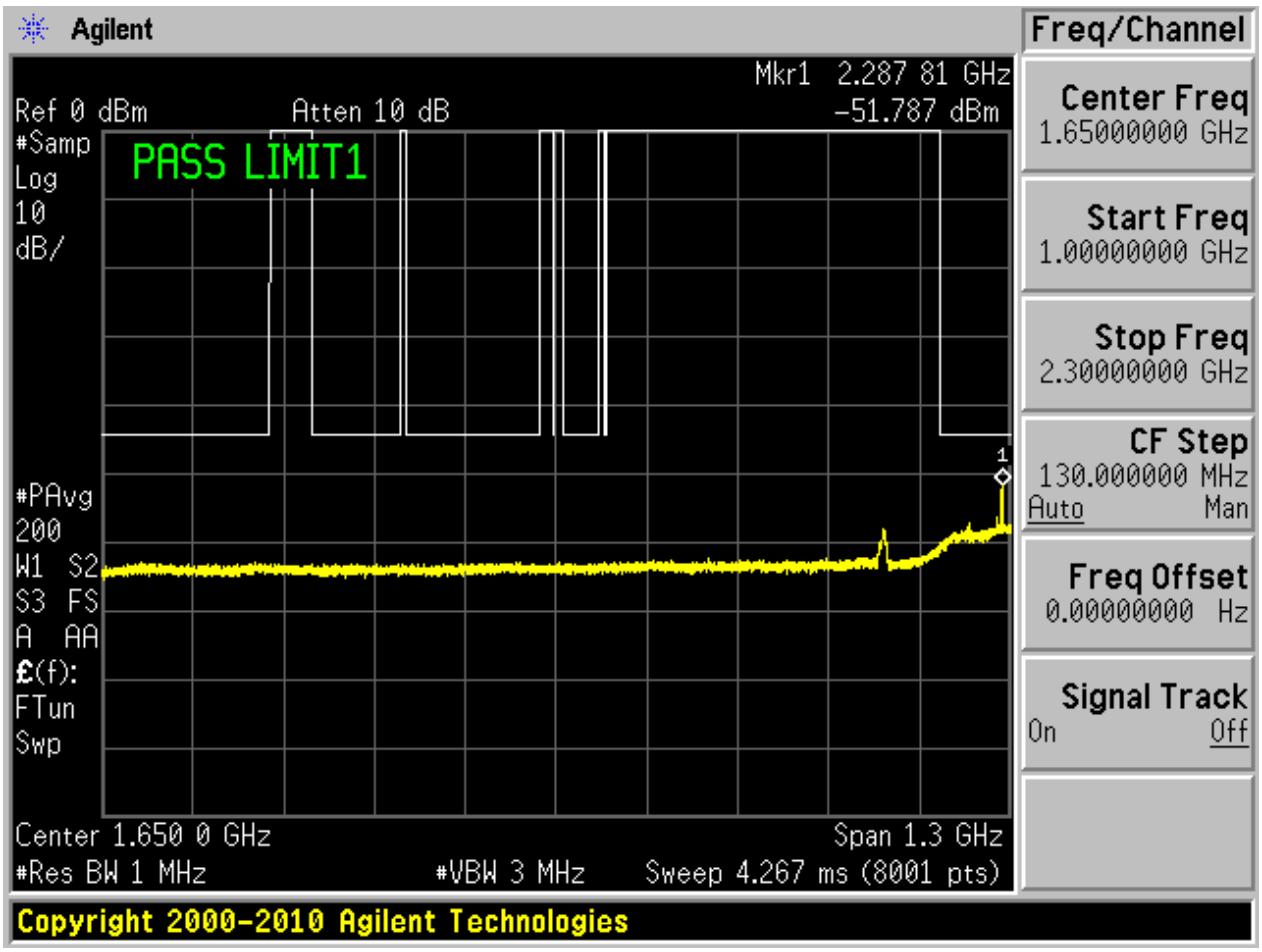



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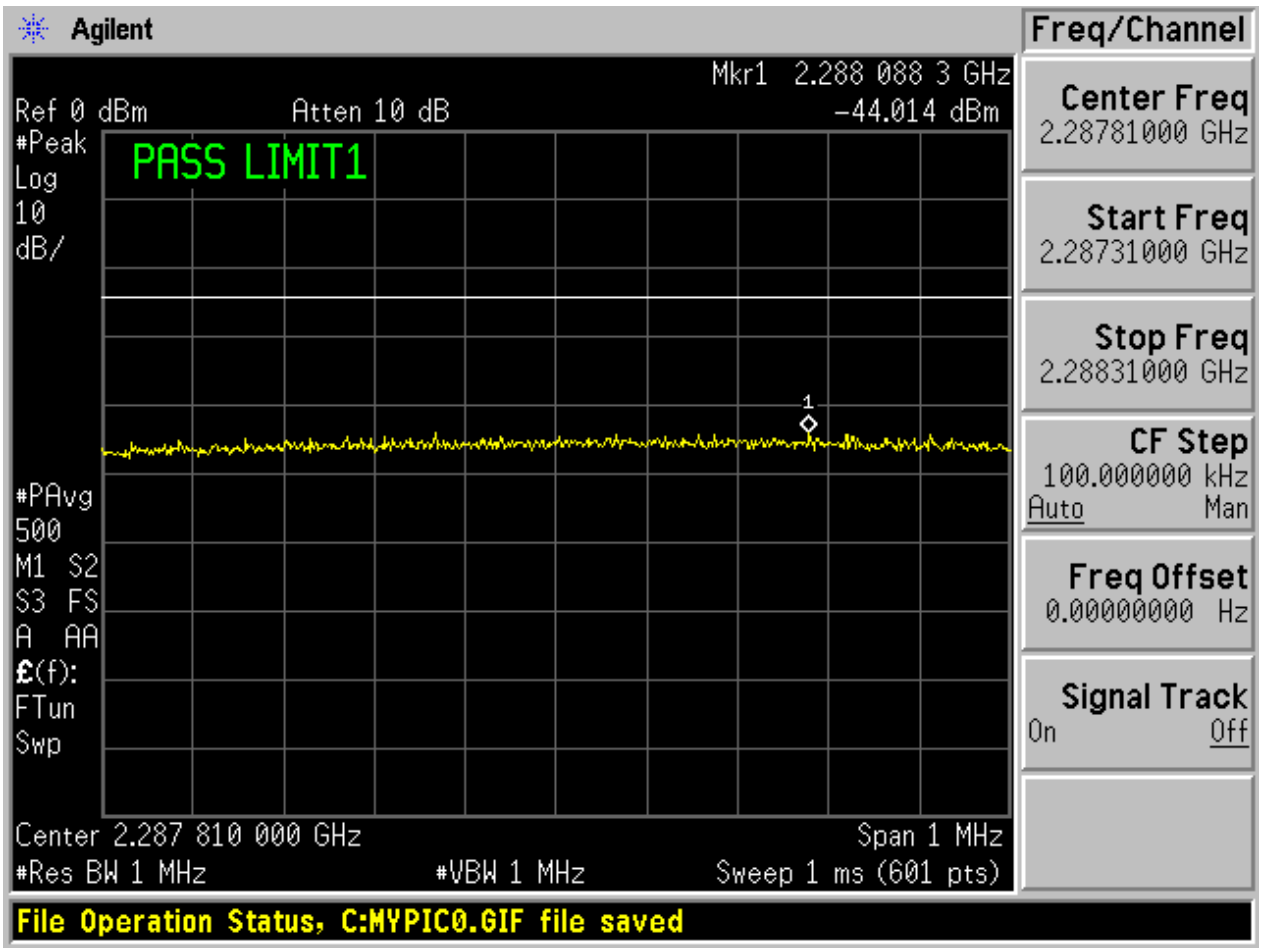



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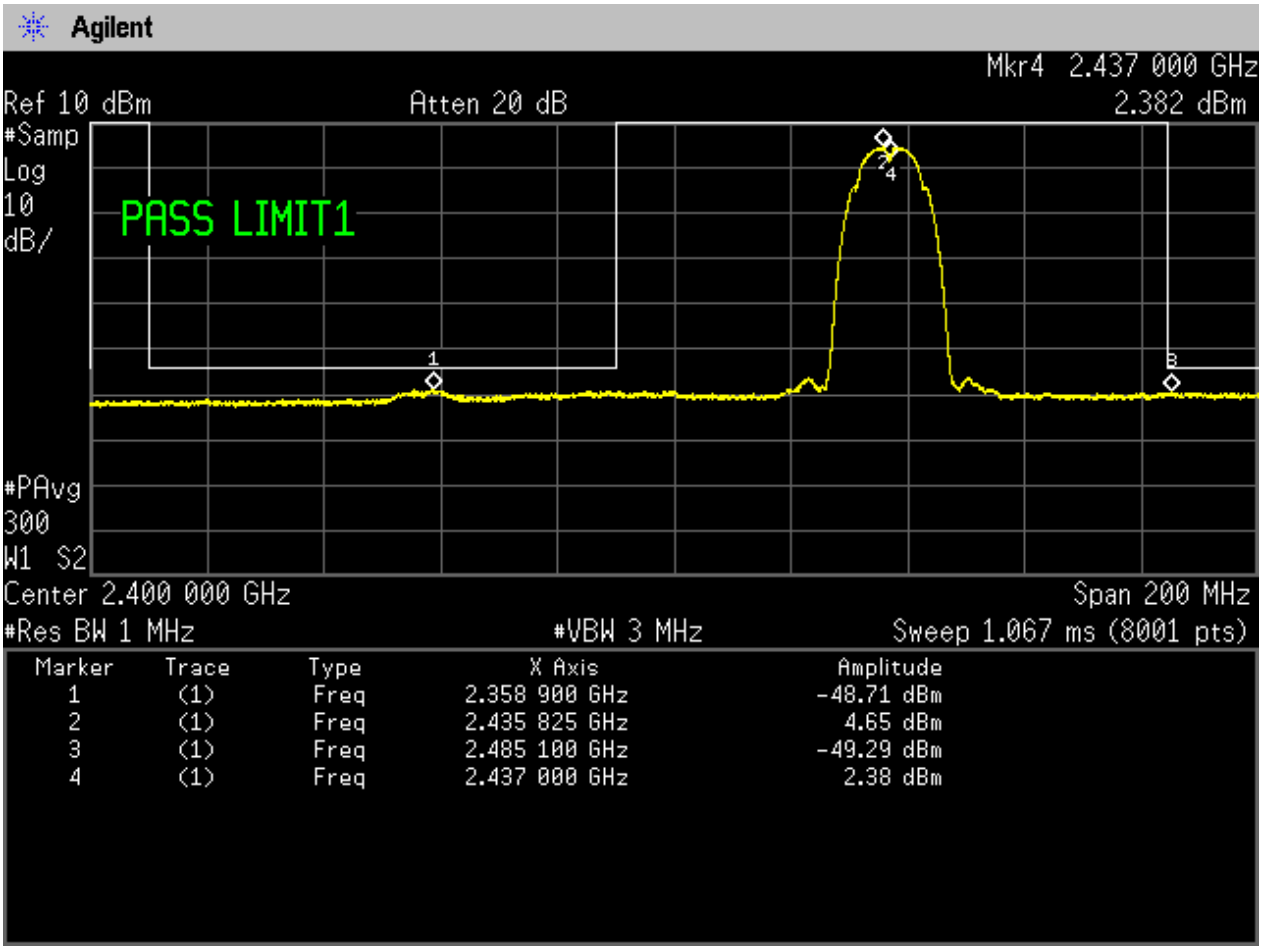



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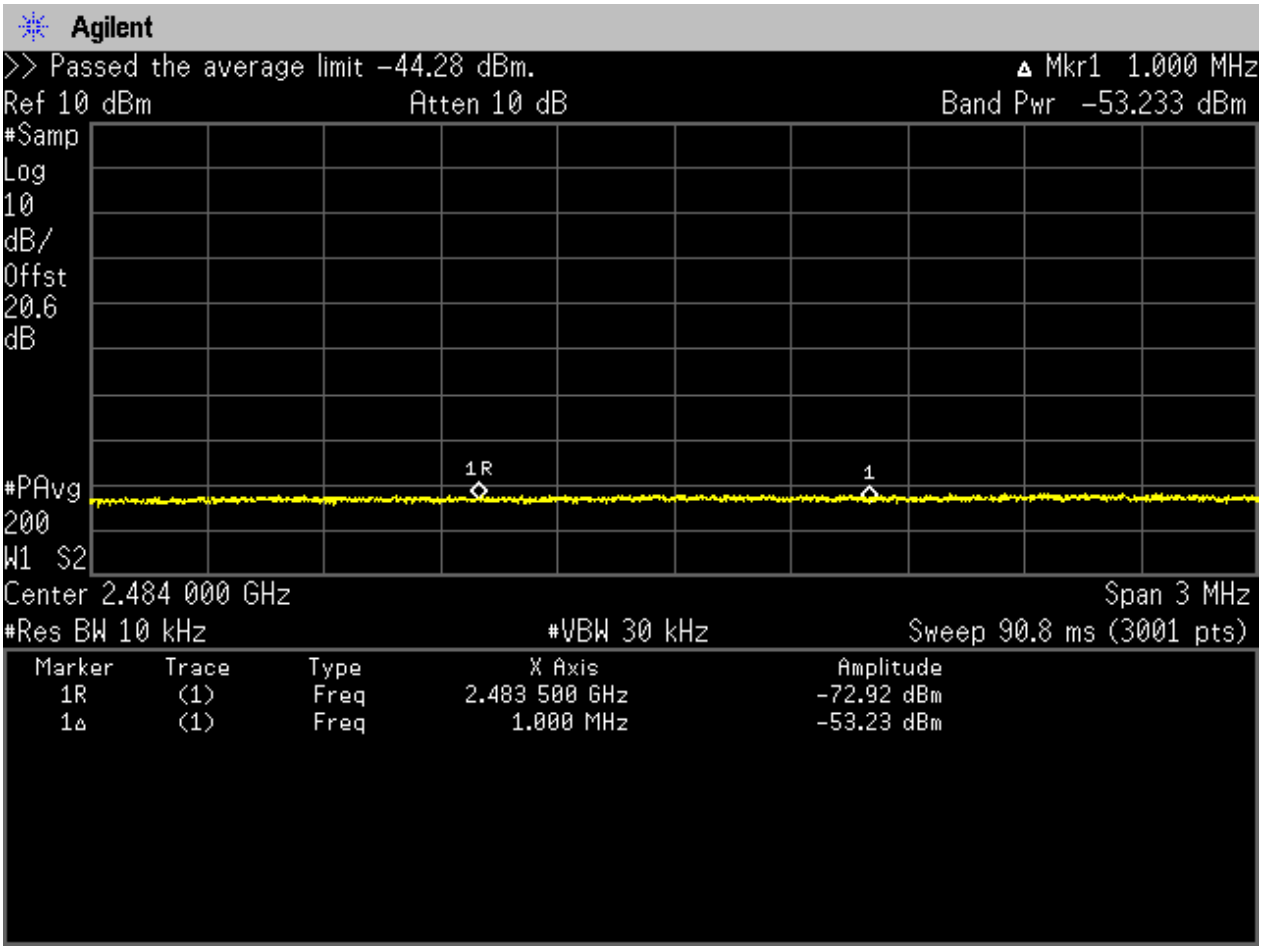



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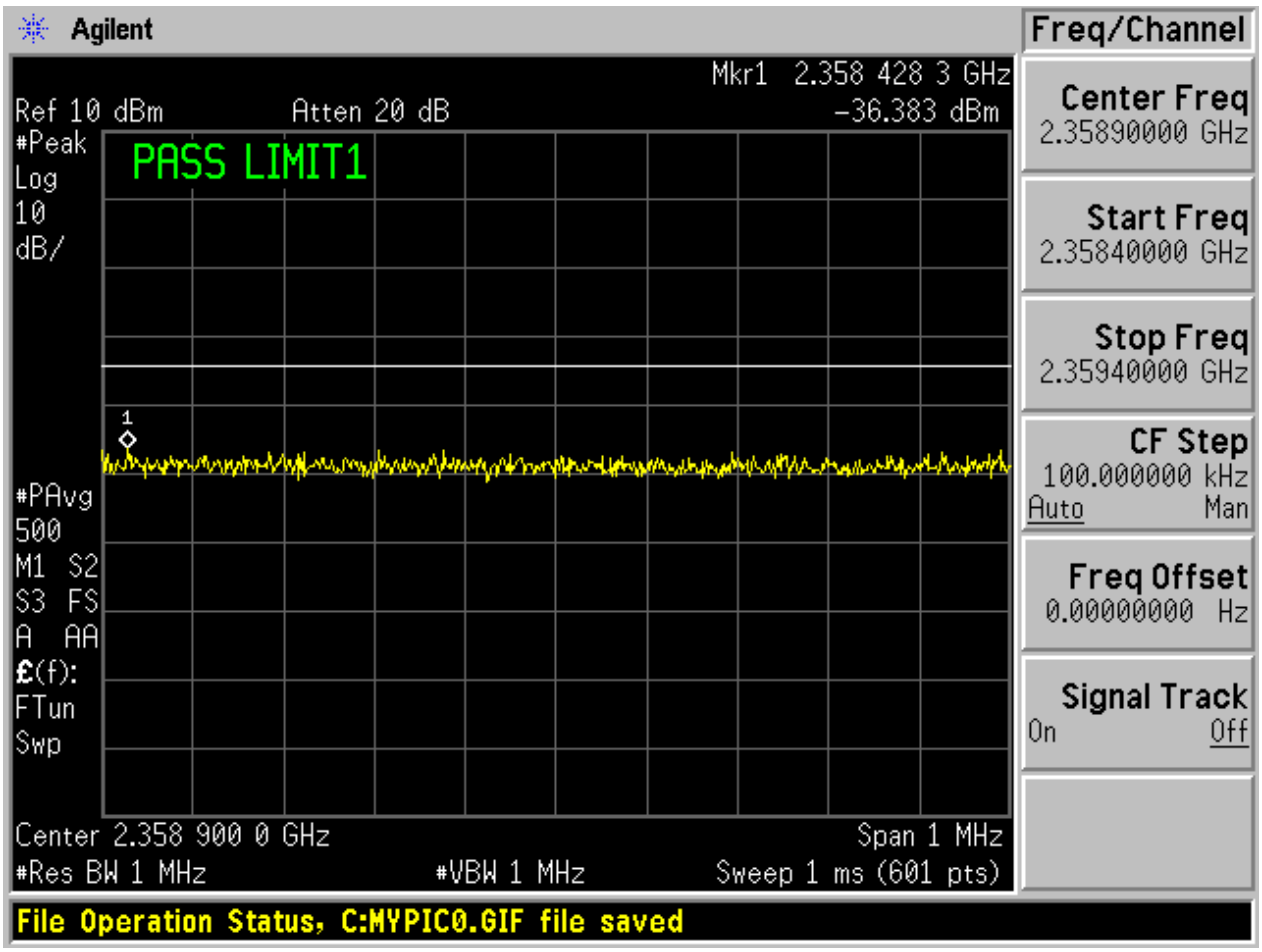



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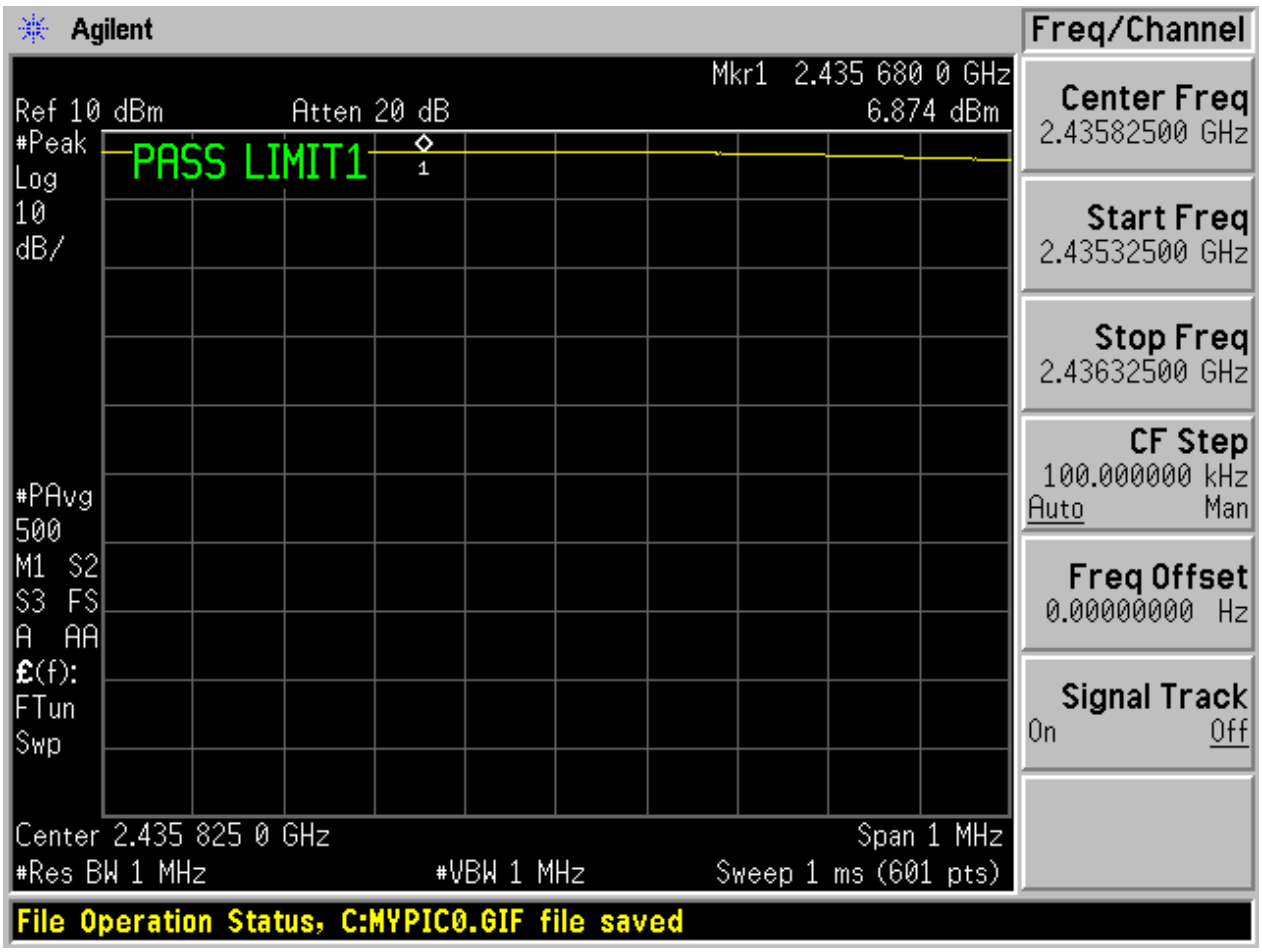



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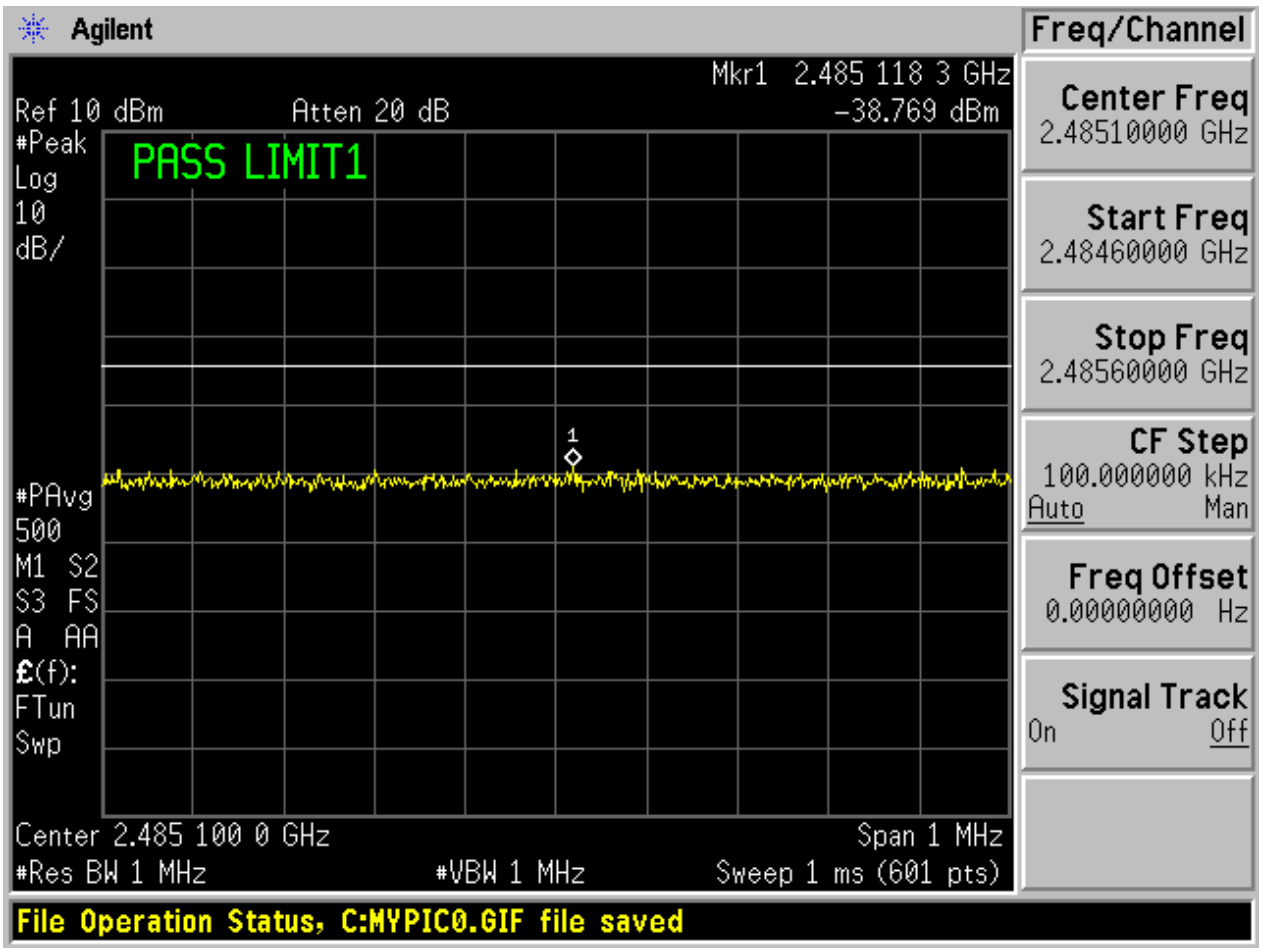



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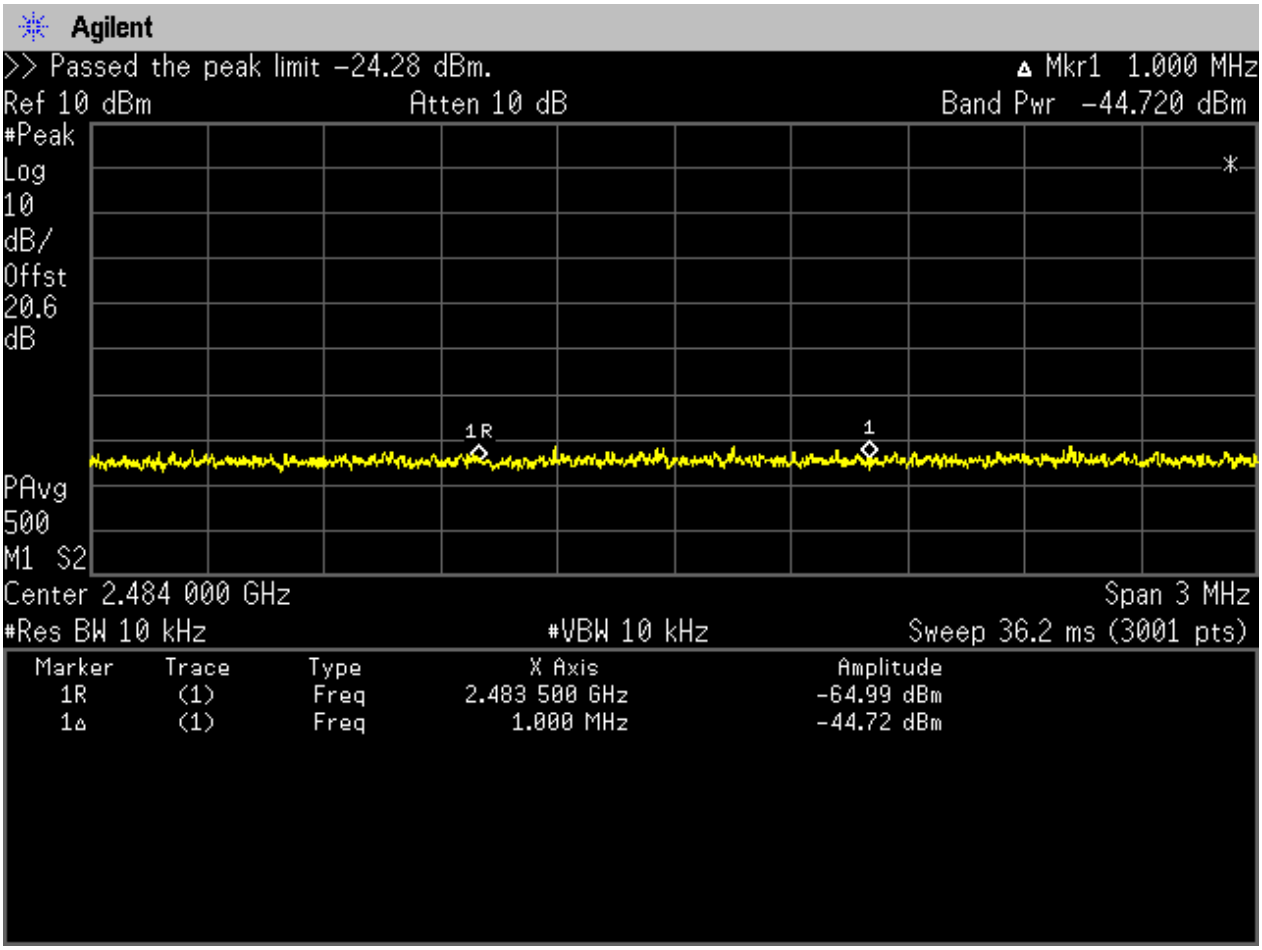



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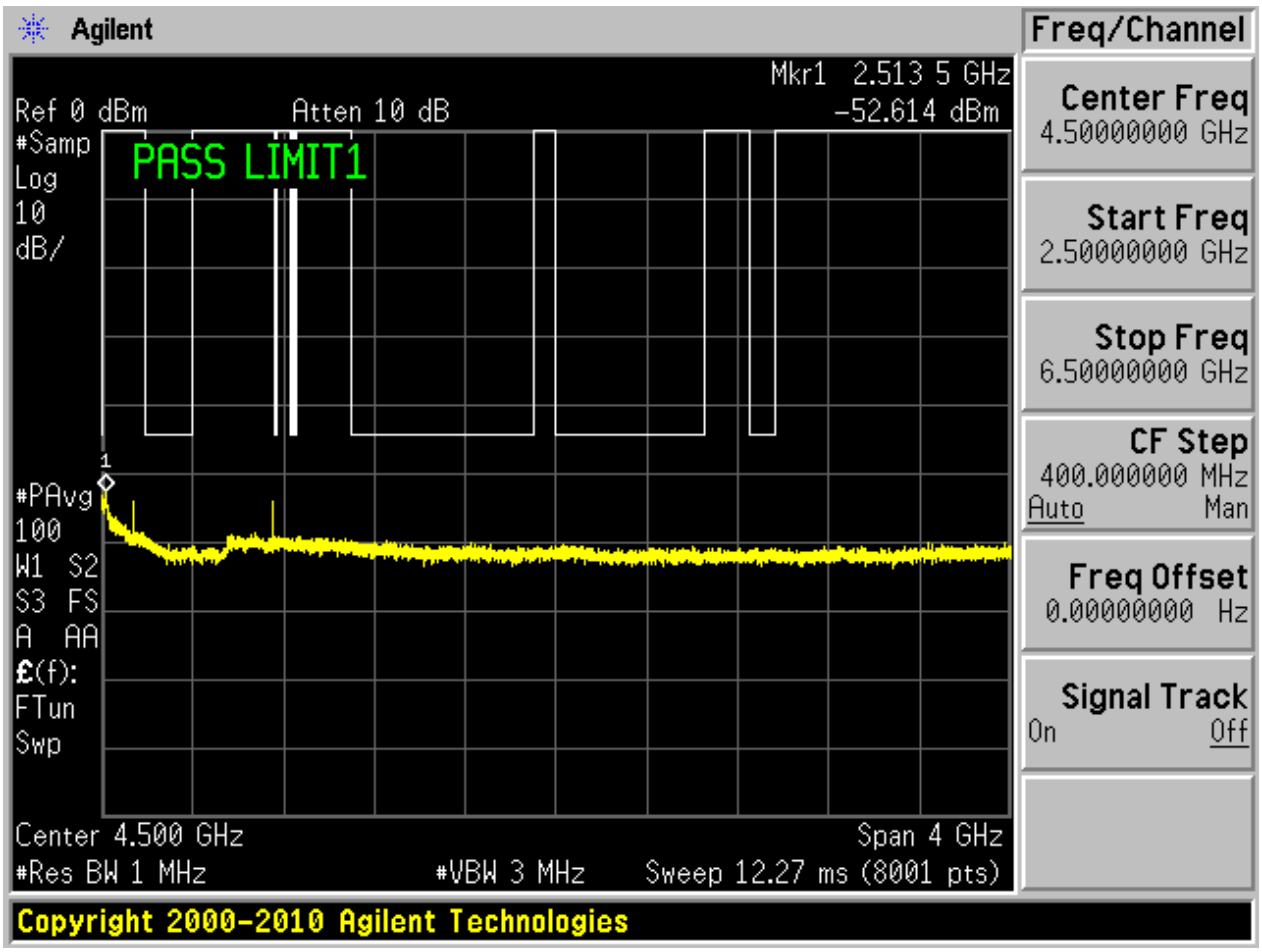



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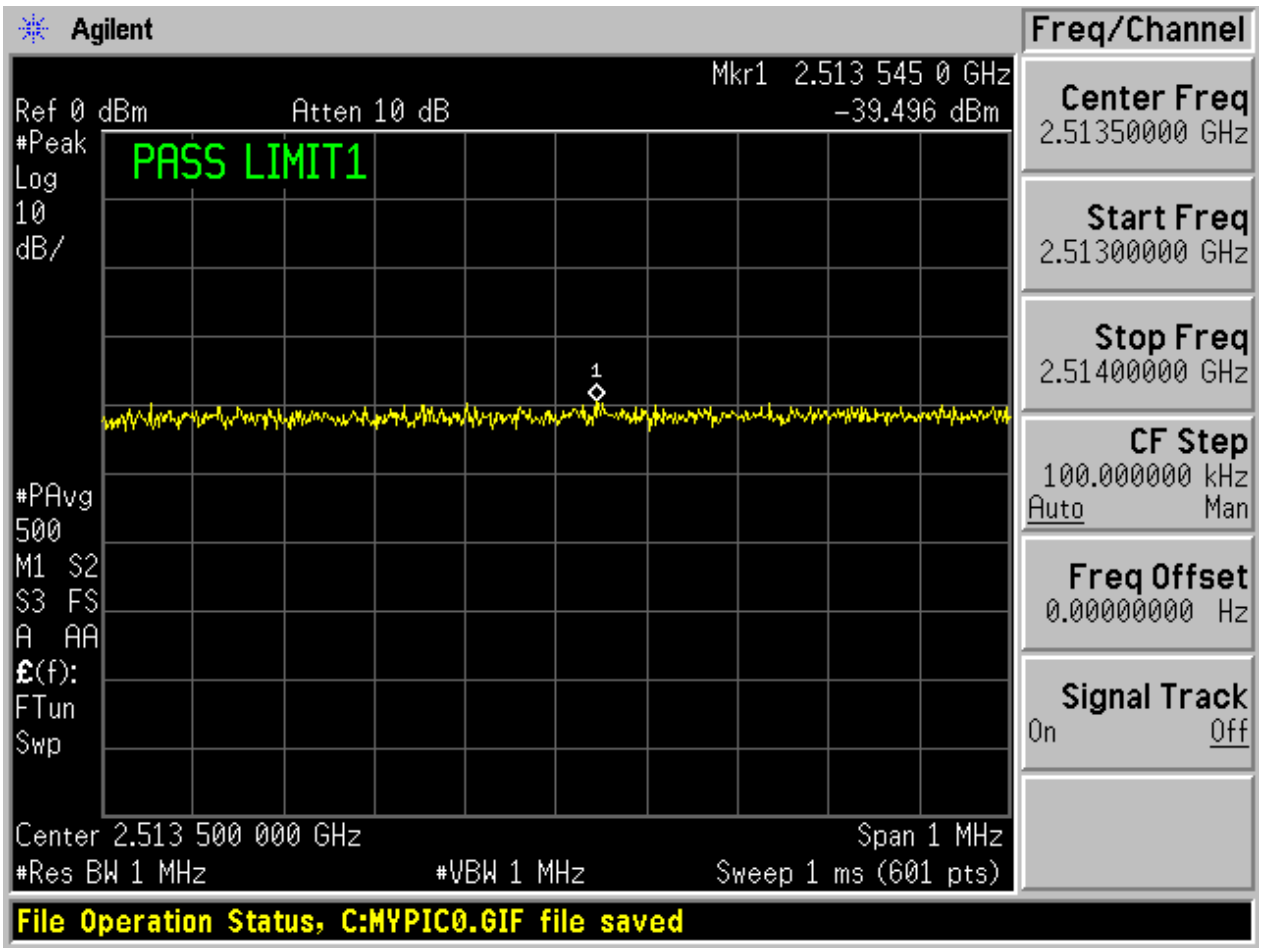



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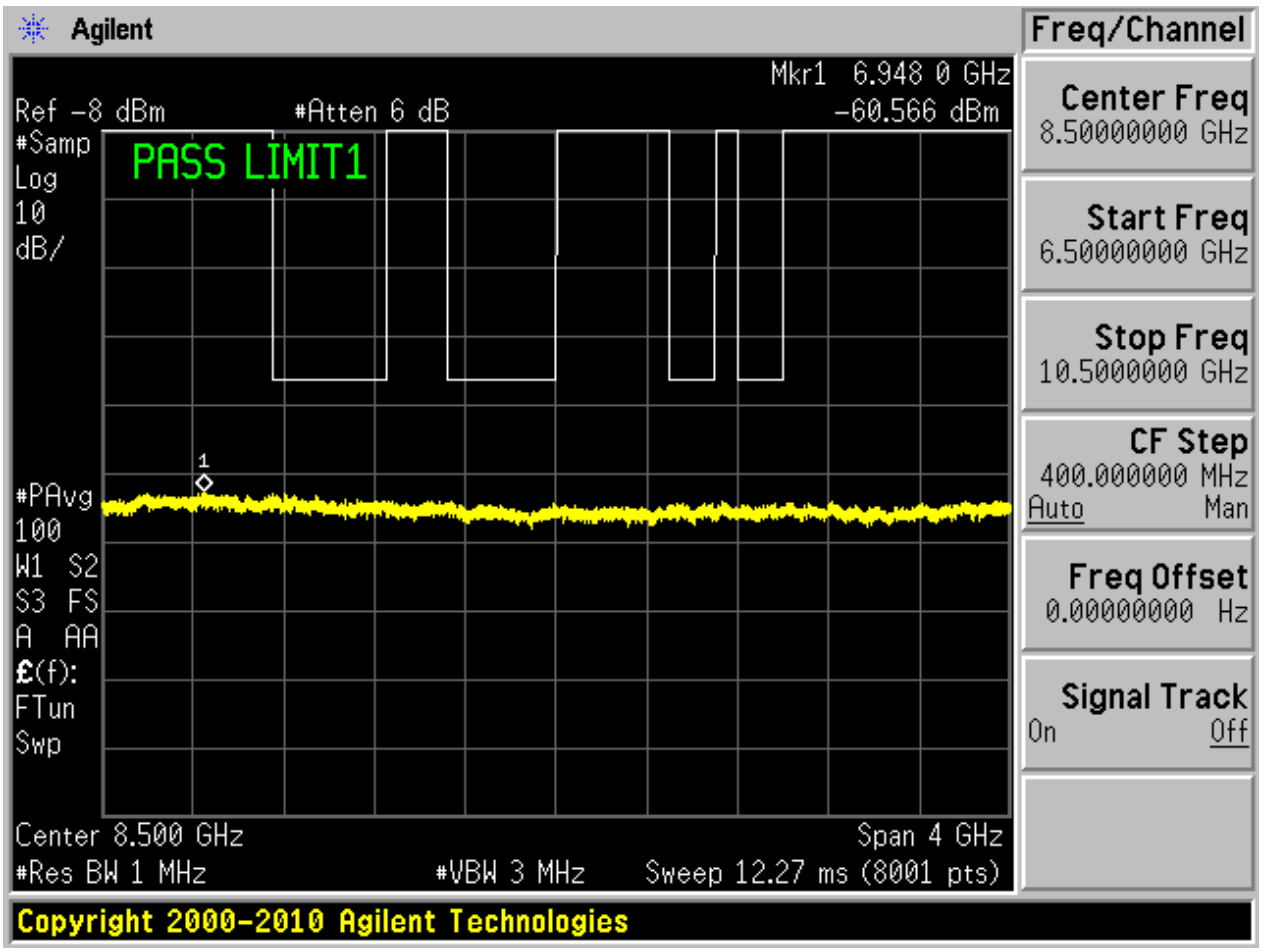



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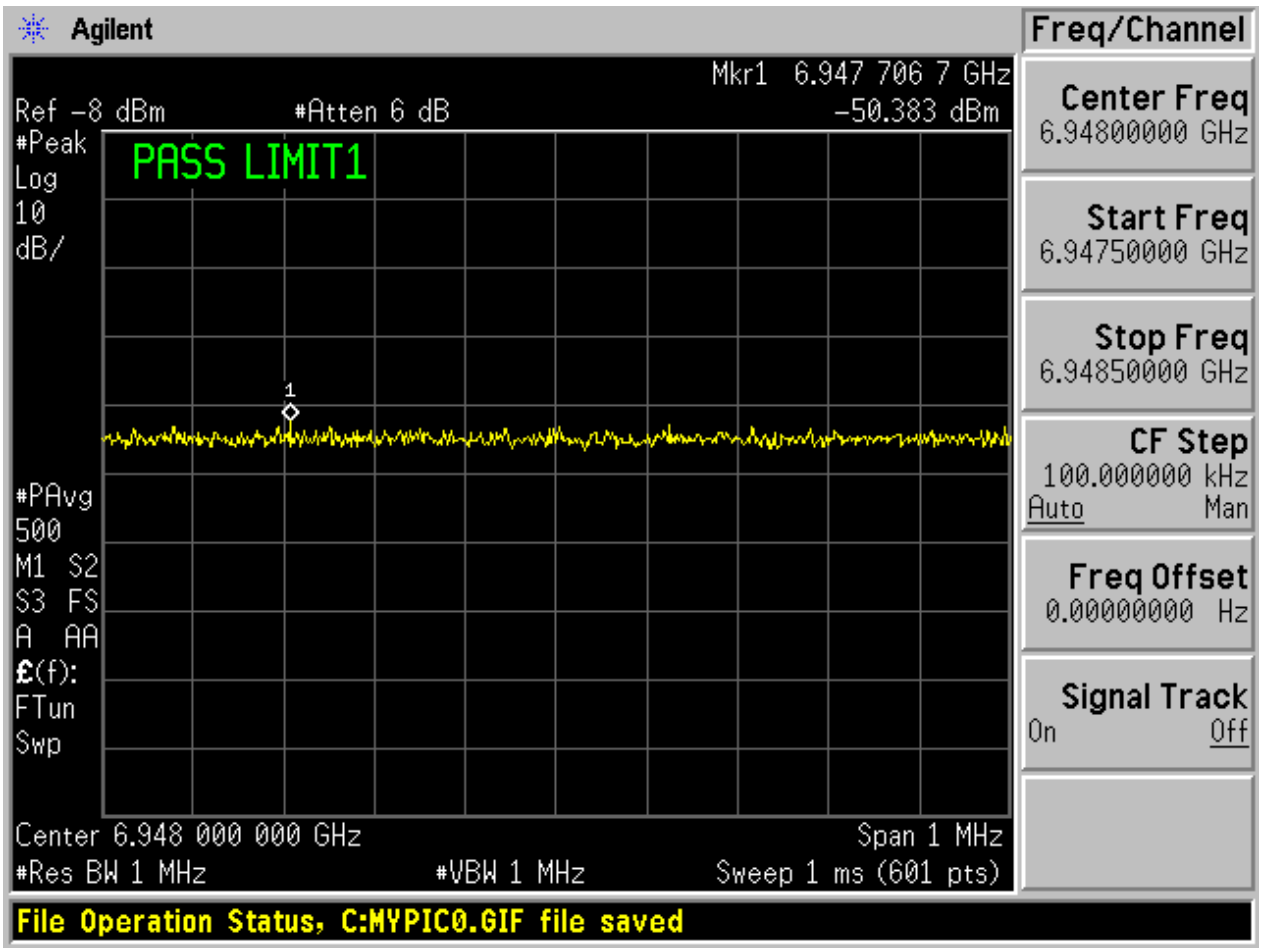



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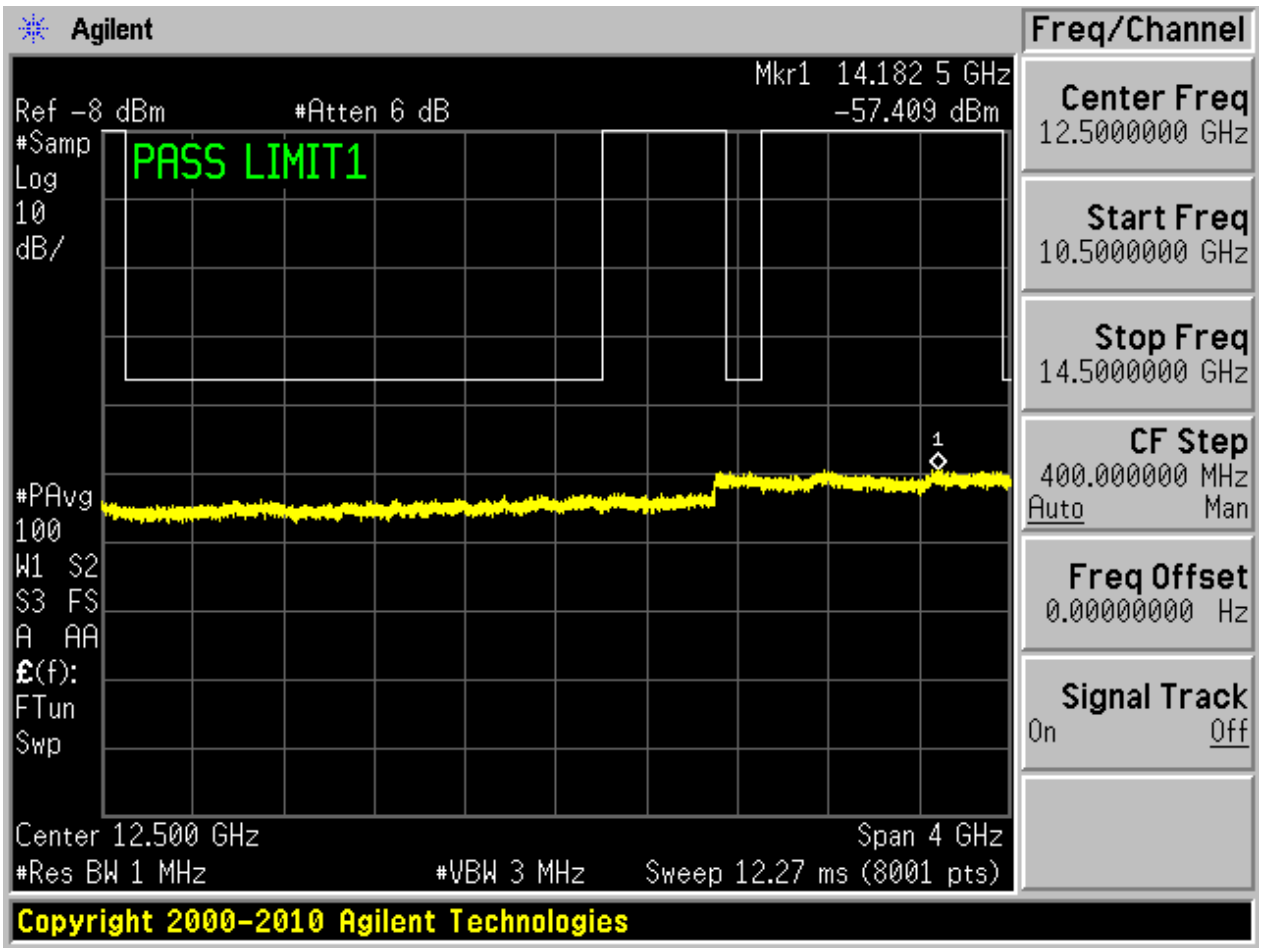



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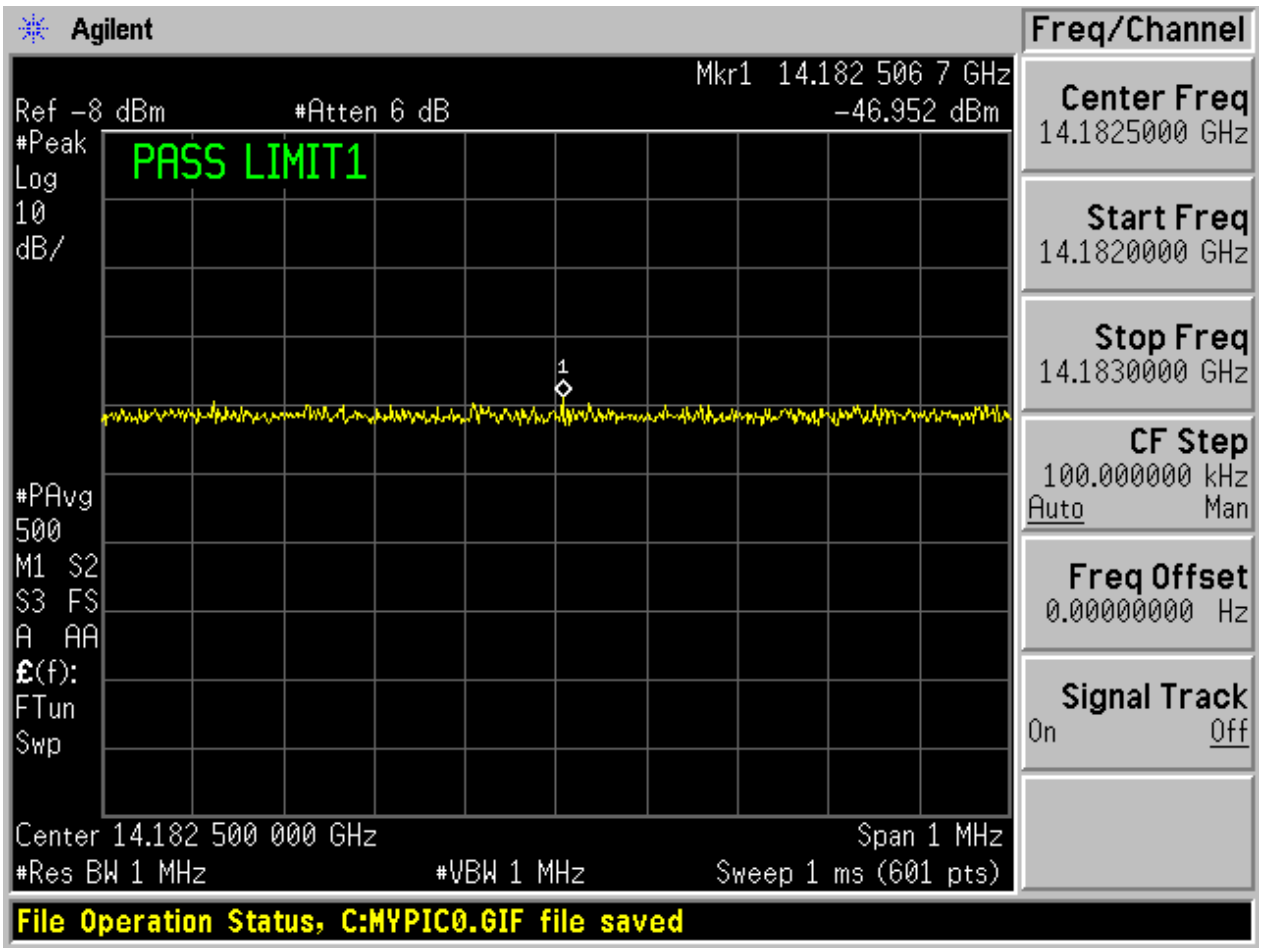



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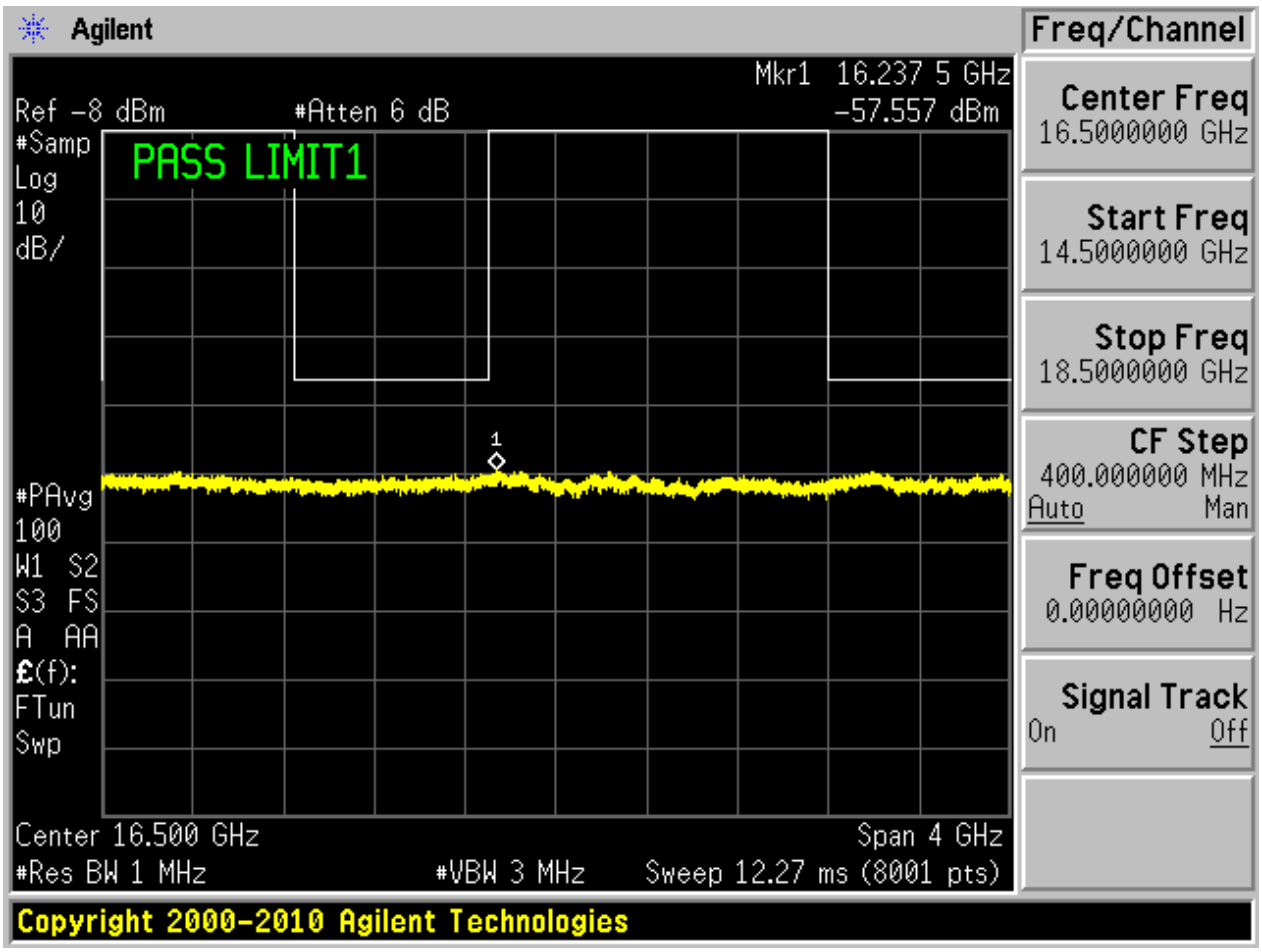



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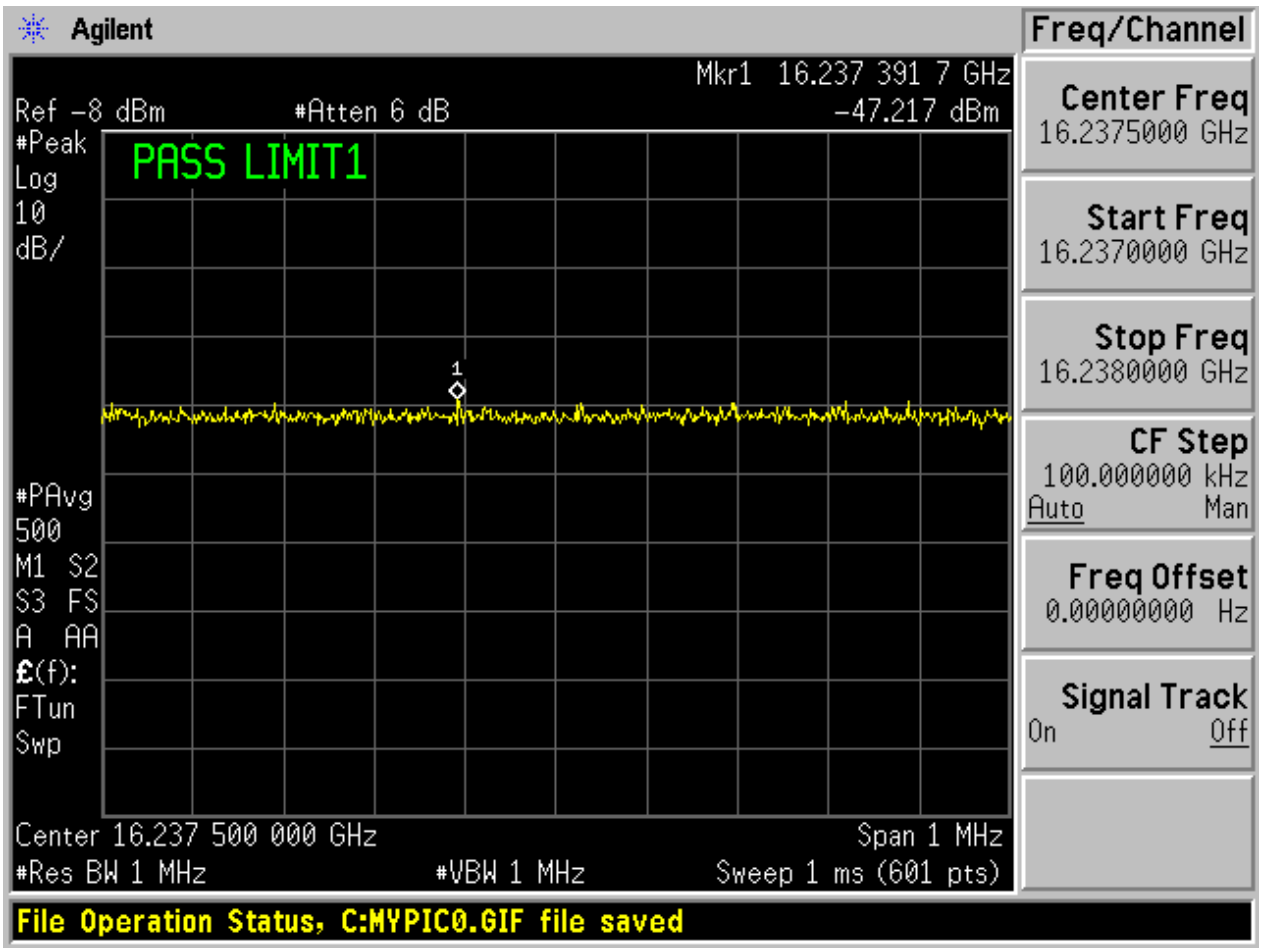



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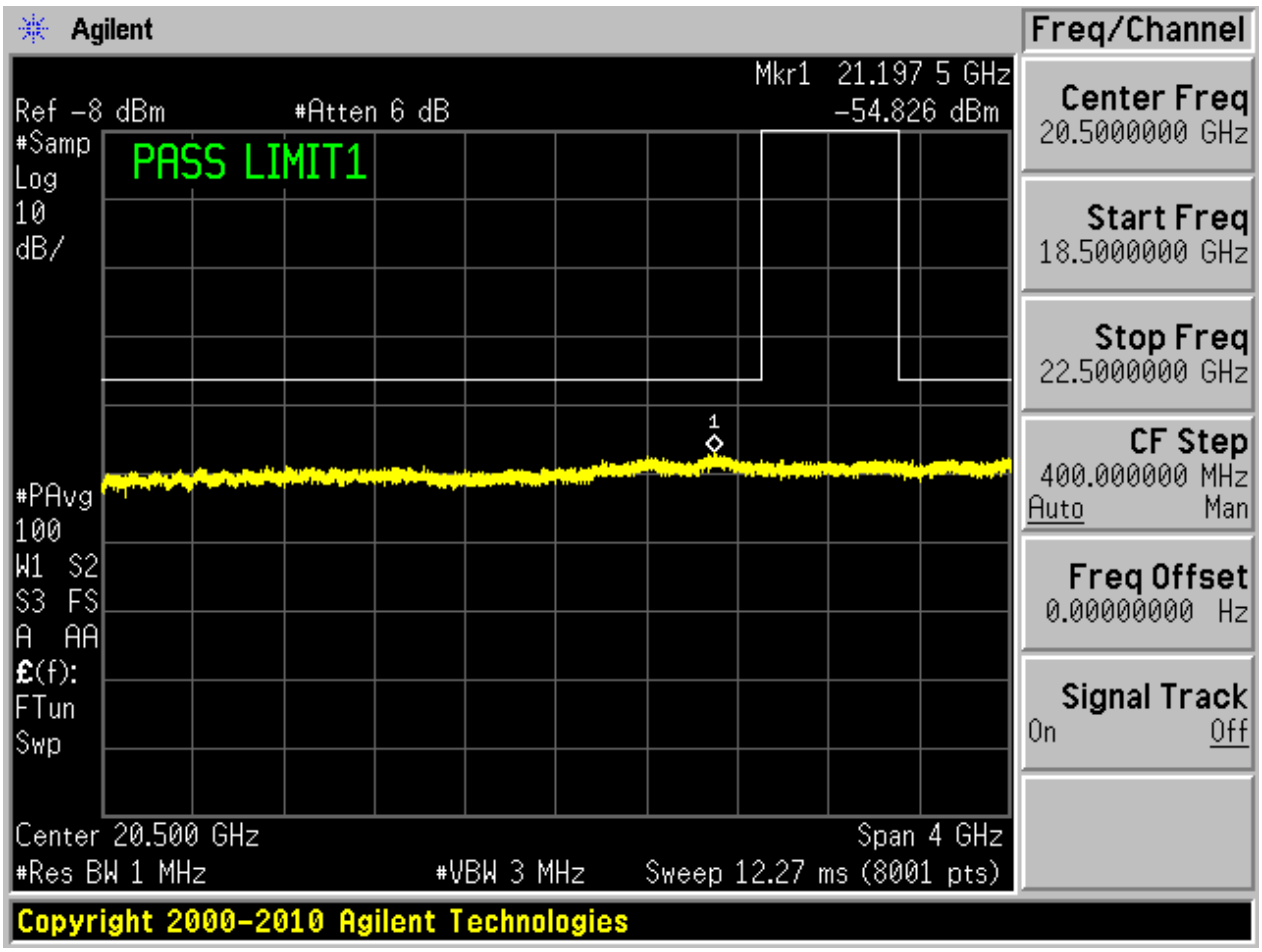



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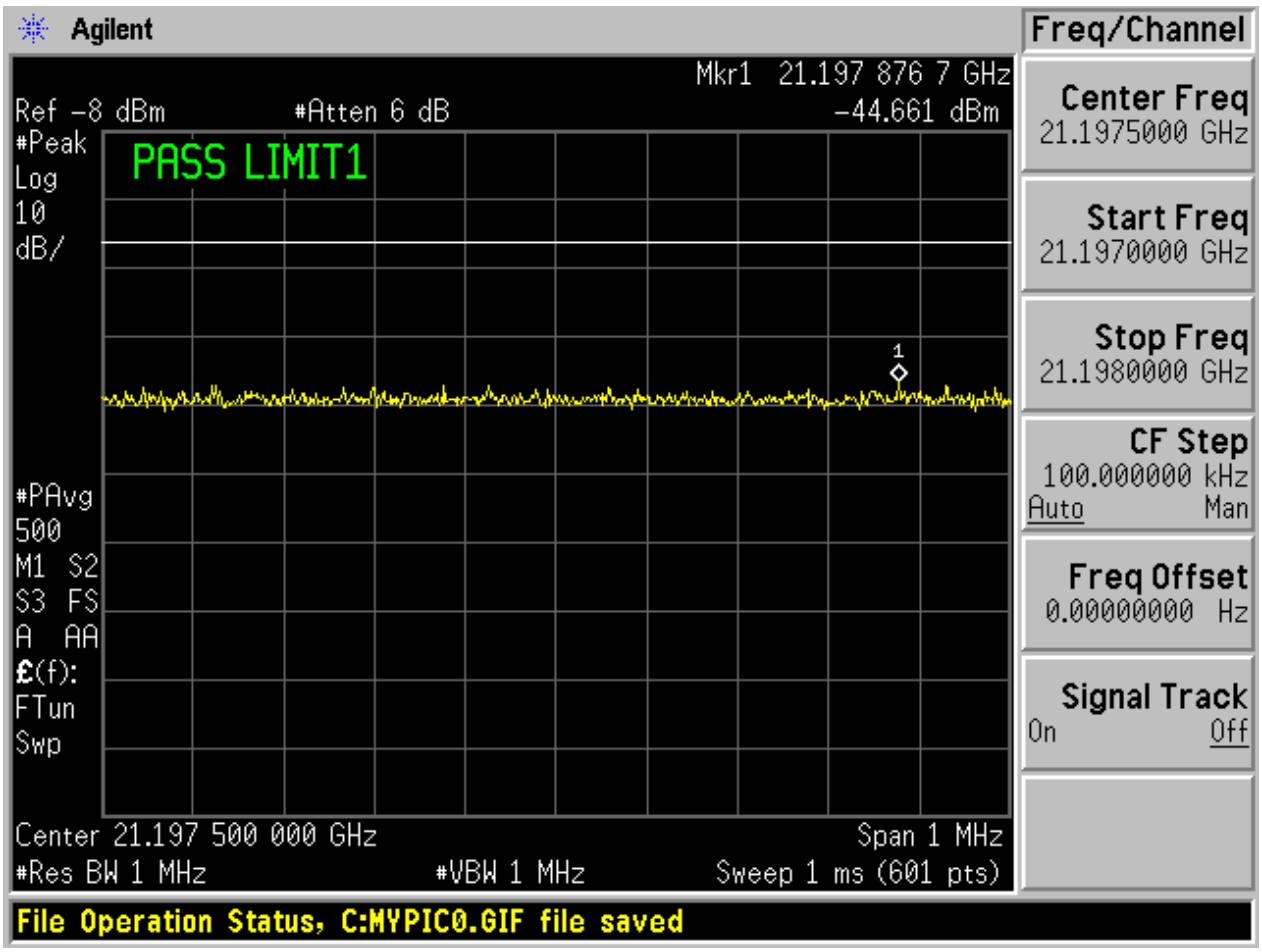



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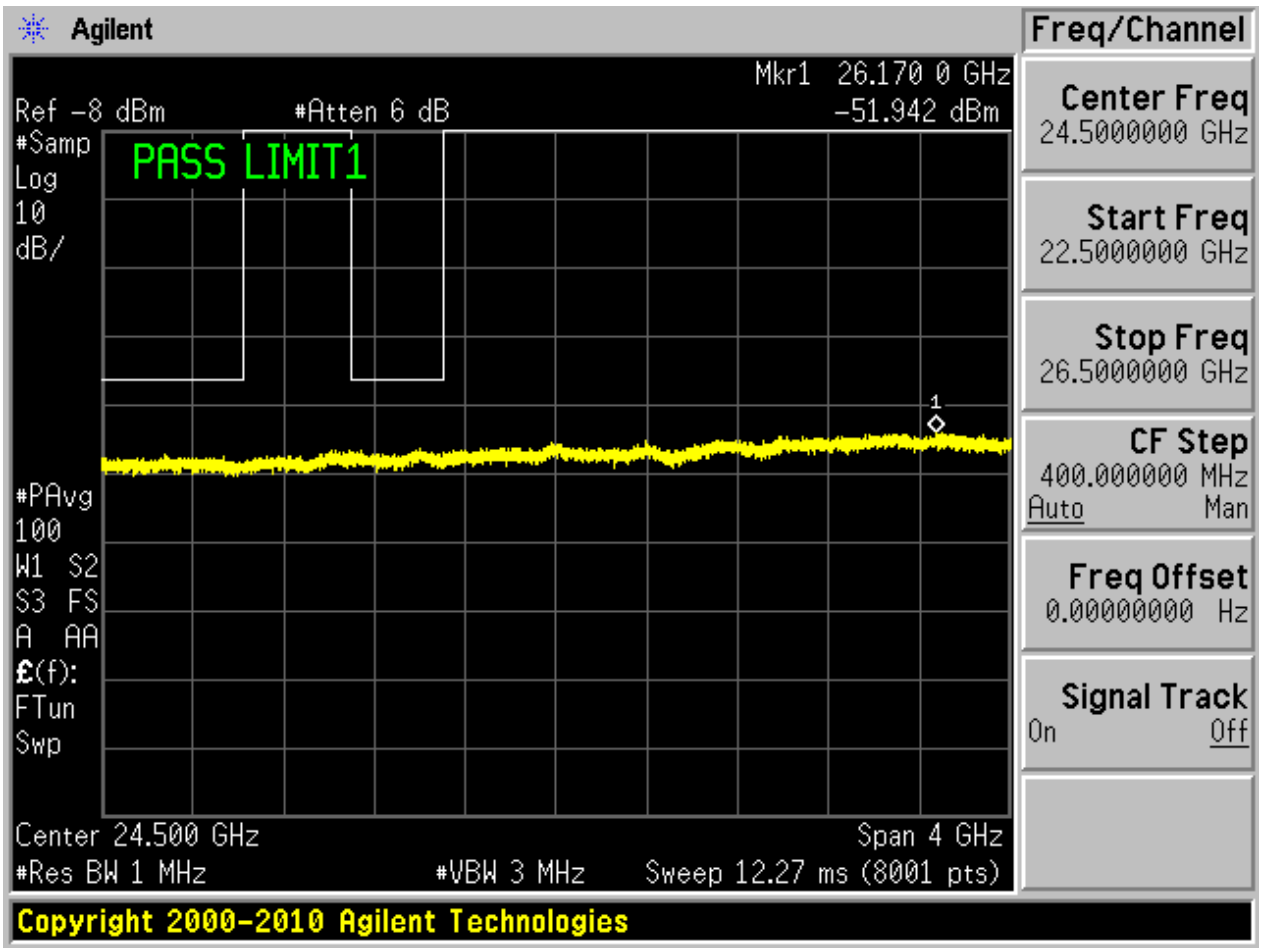



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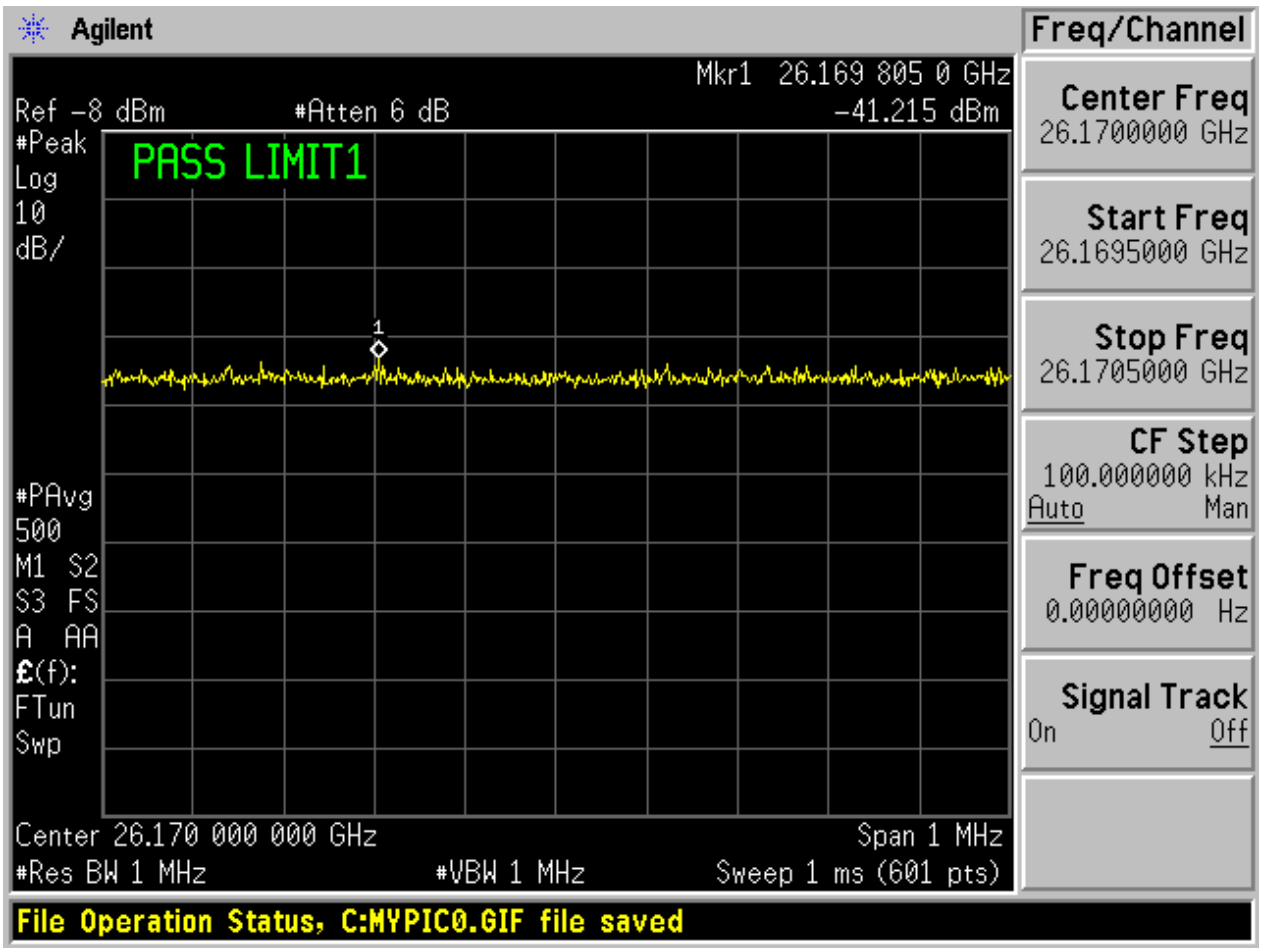


## 2.3 11B/1_T@1


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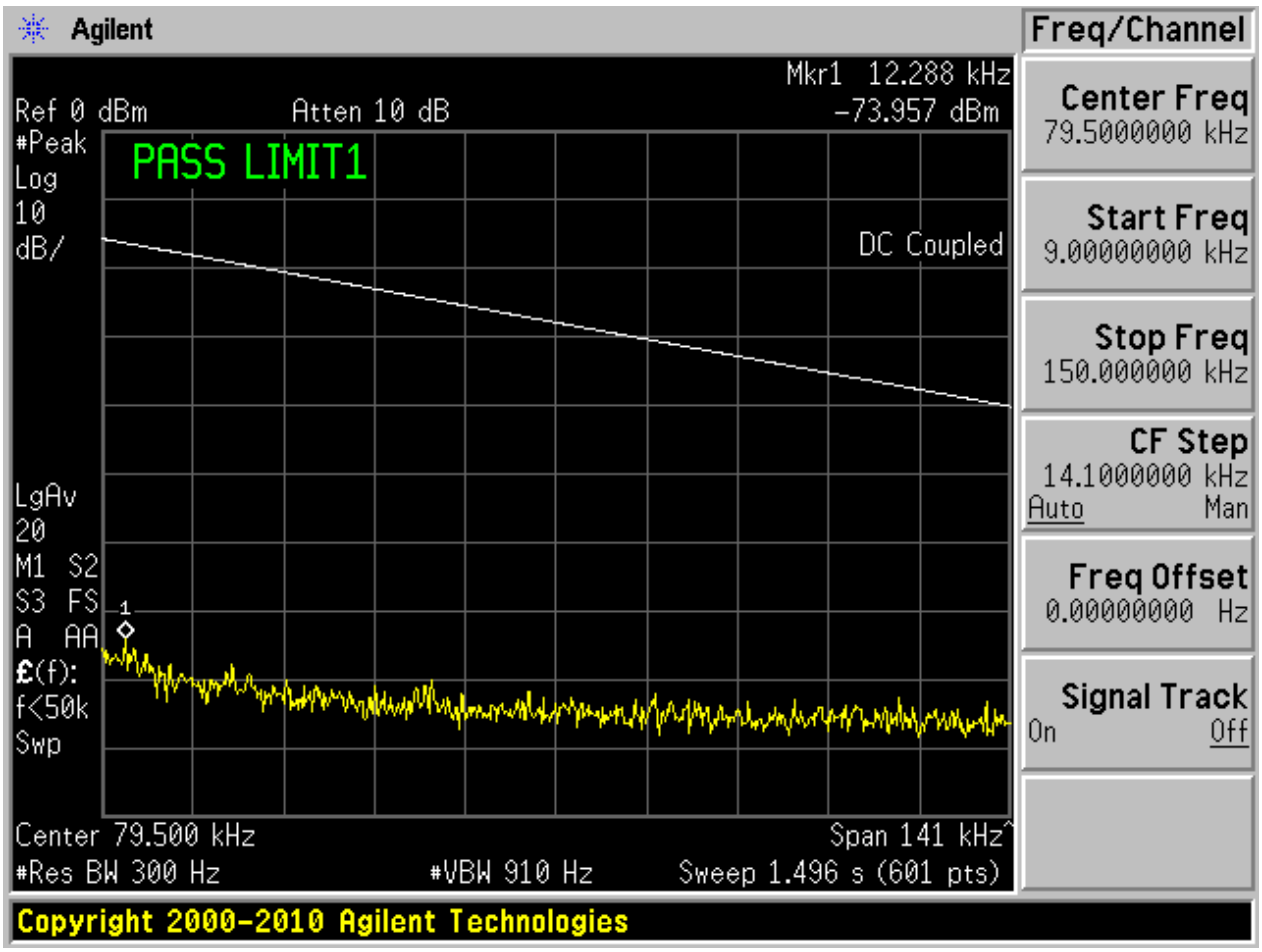



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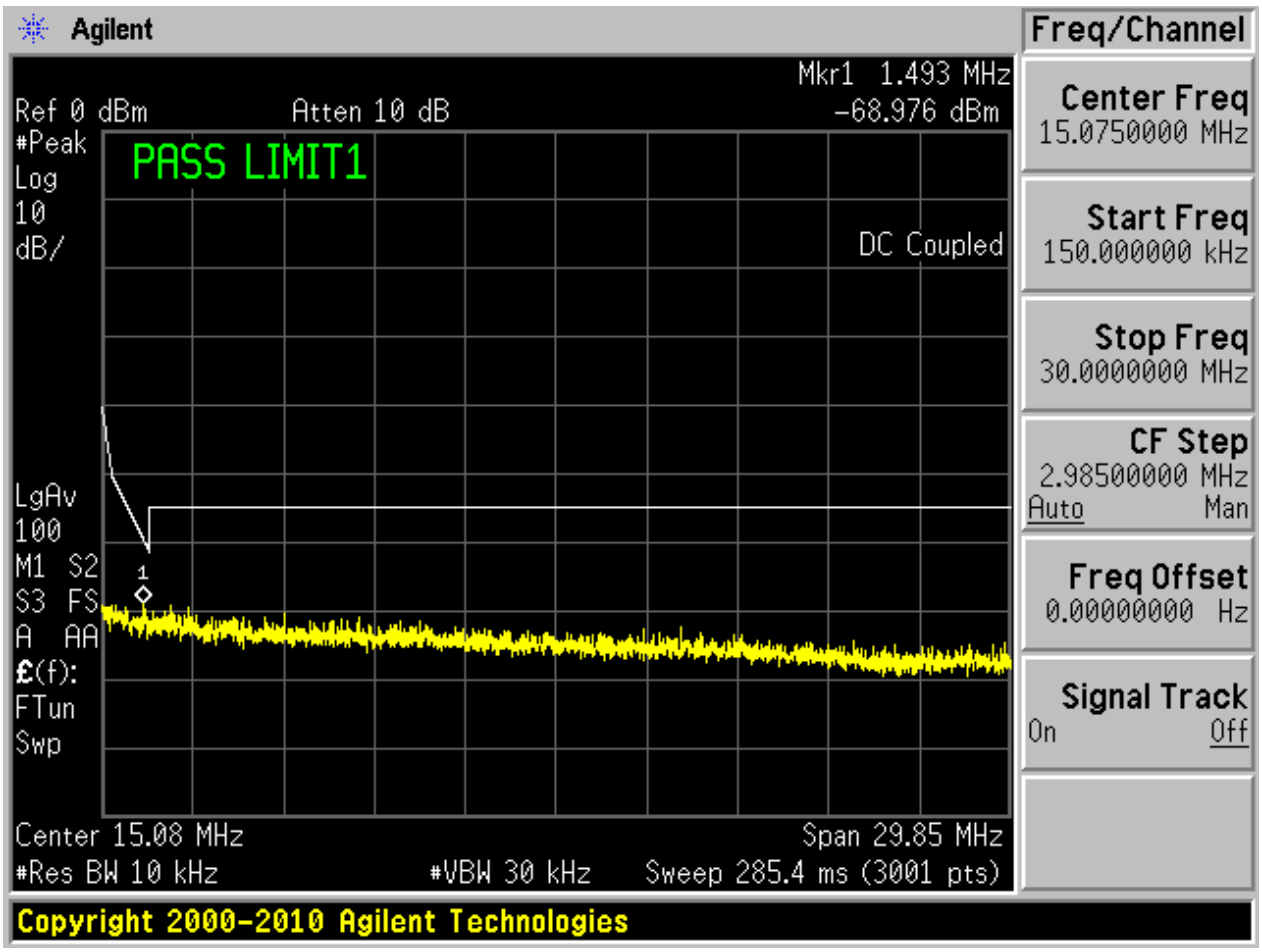



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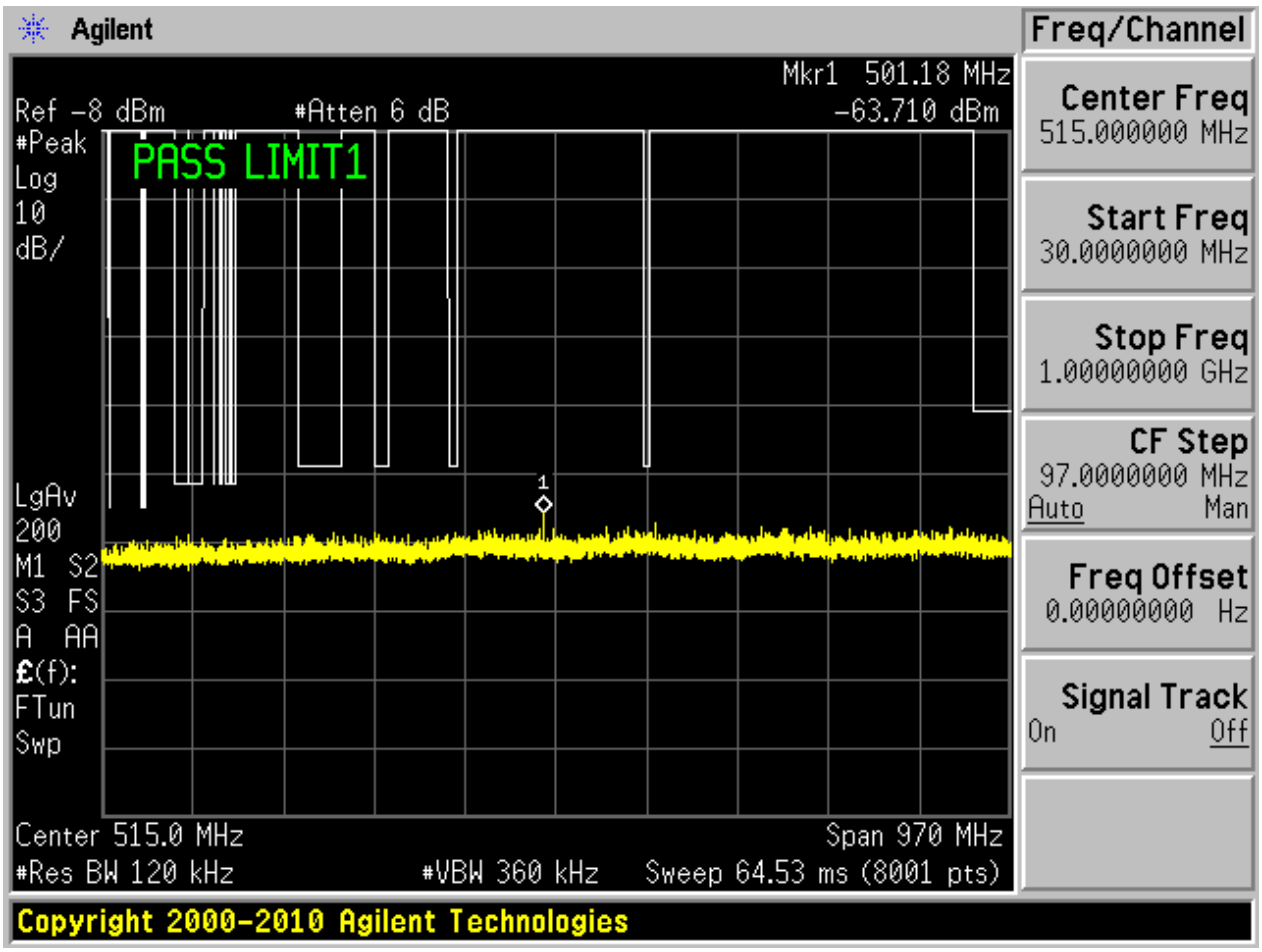



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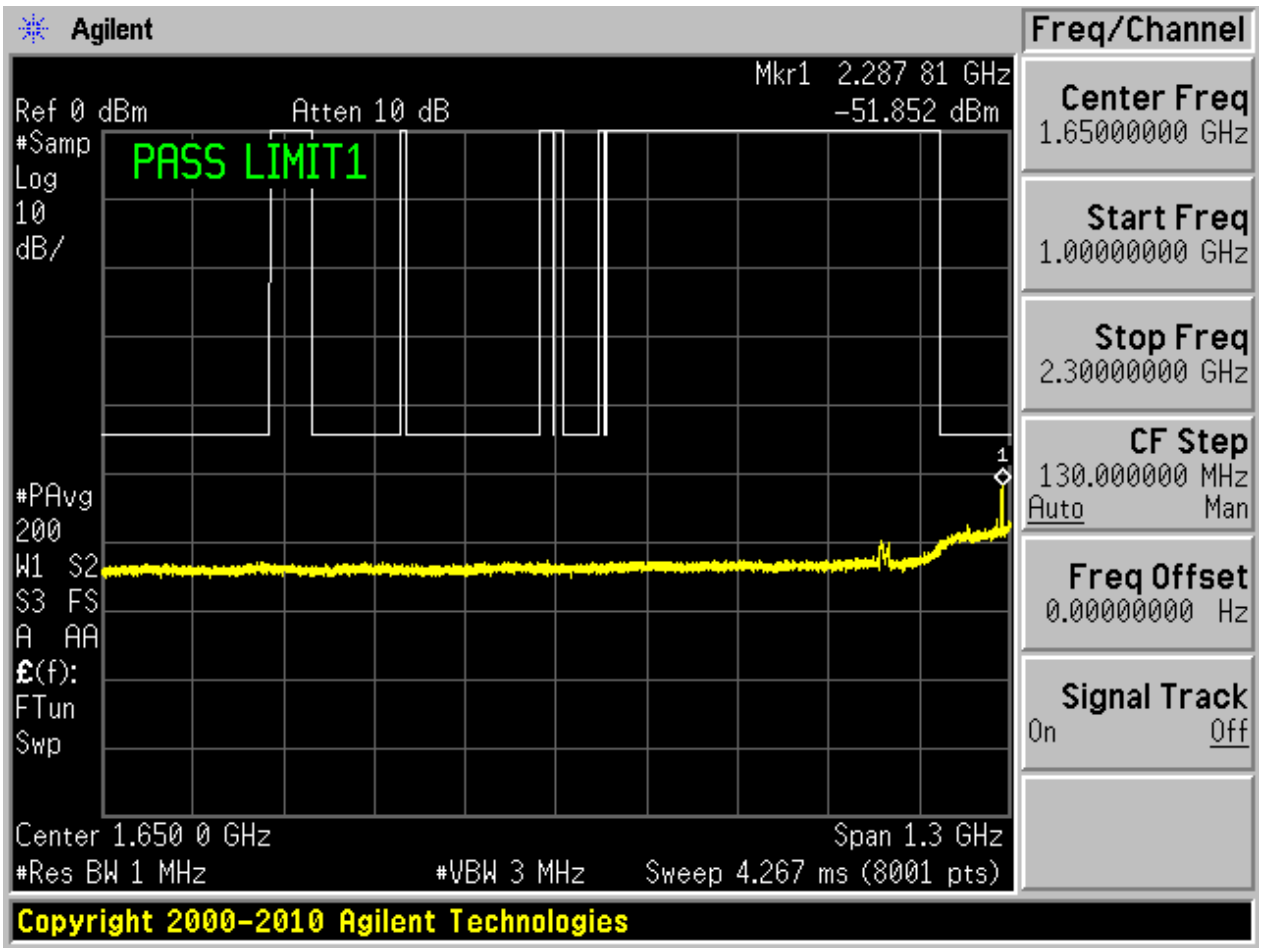



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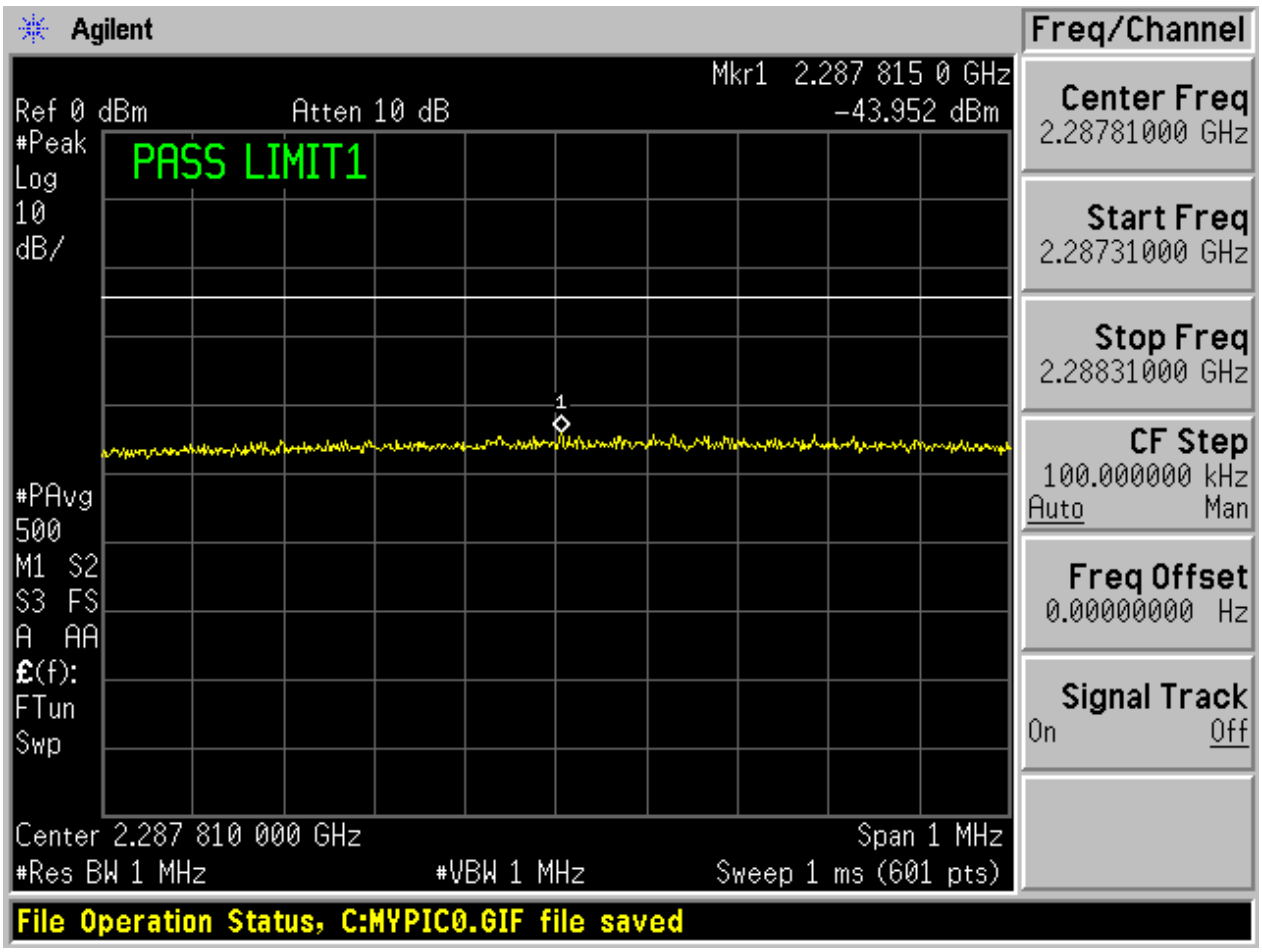



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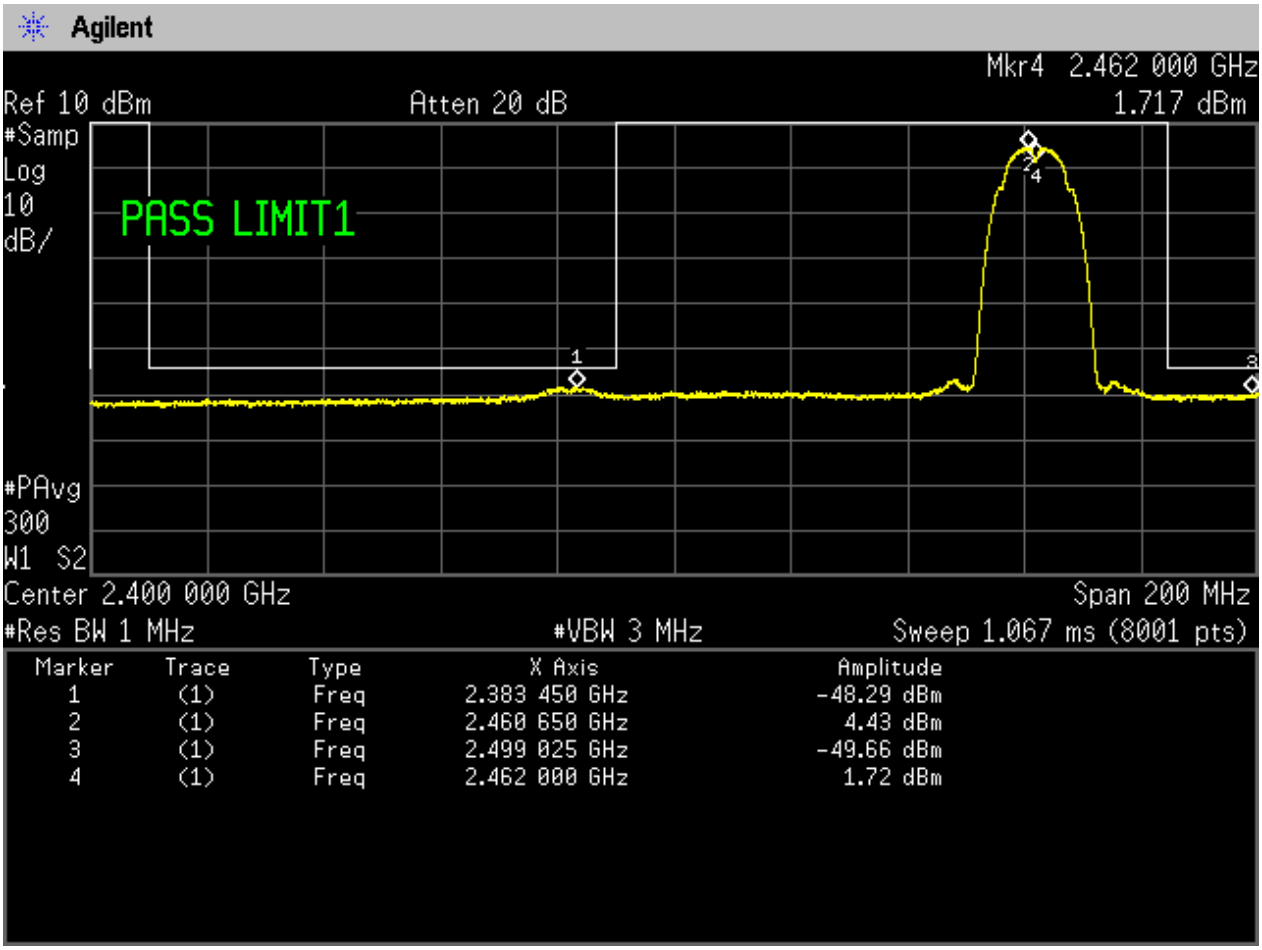



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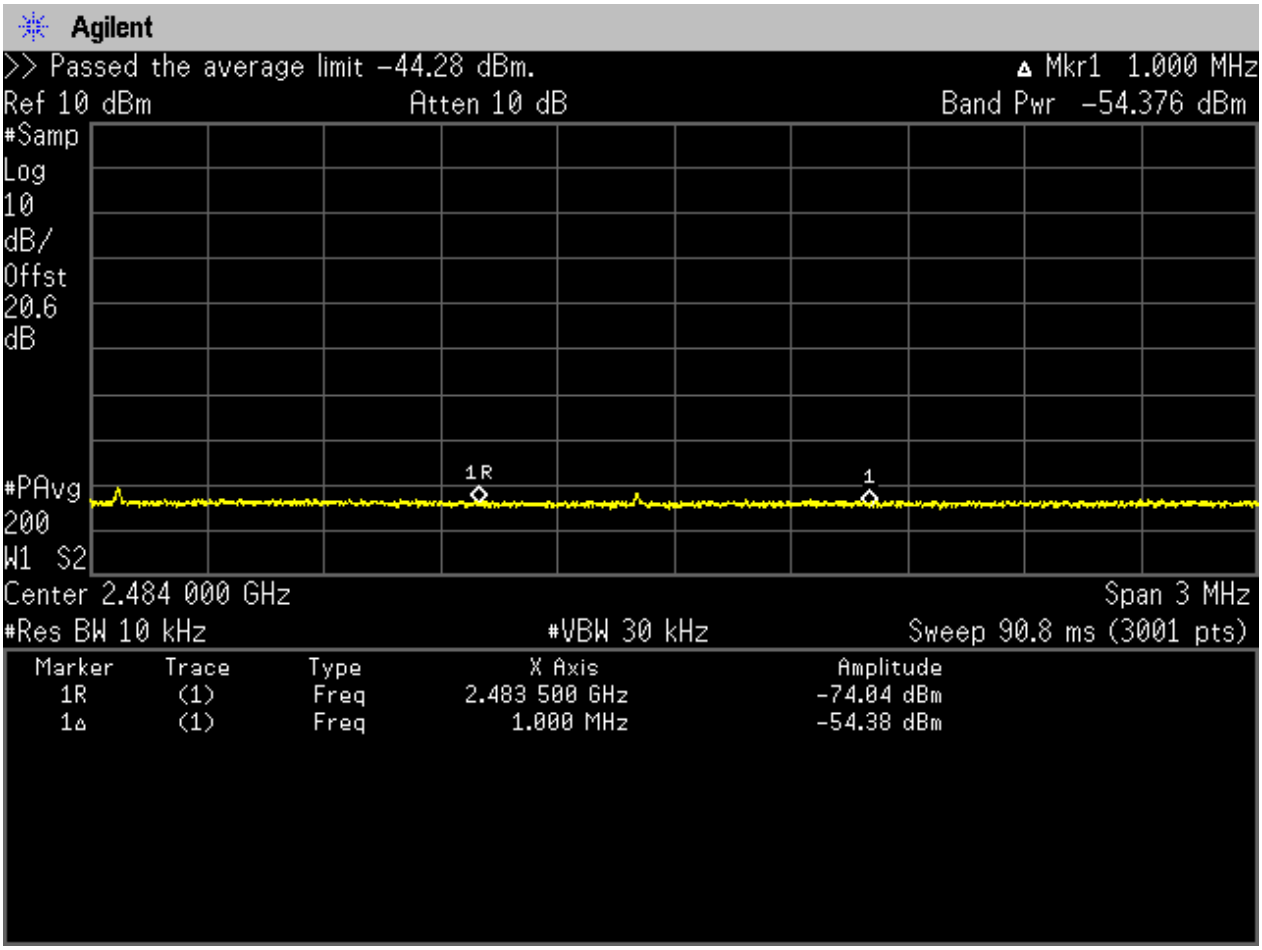



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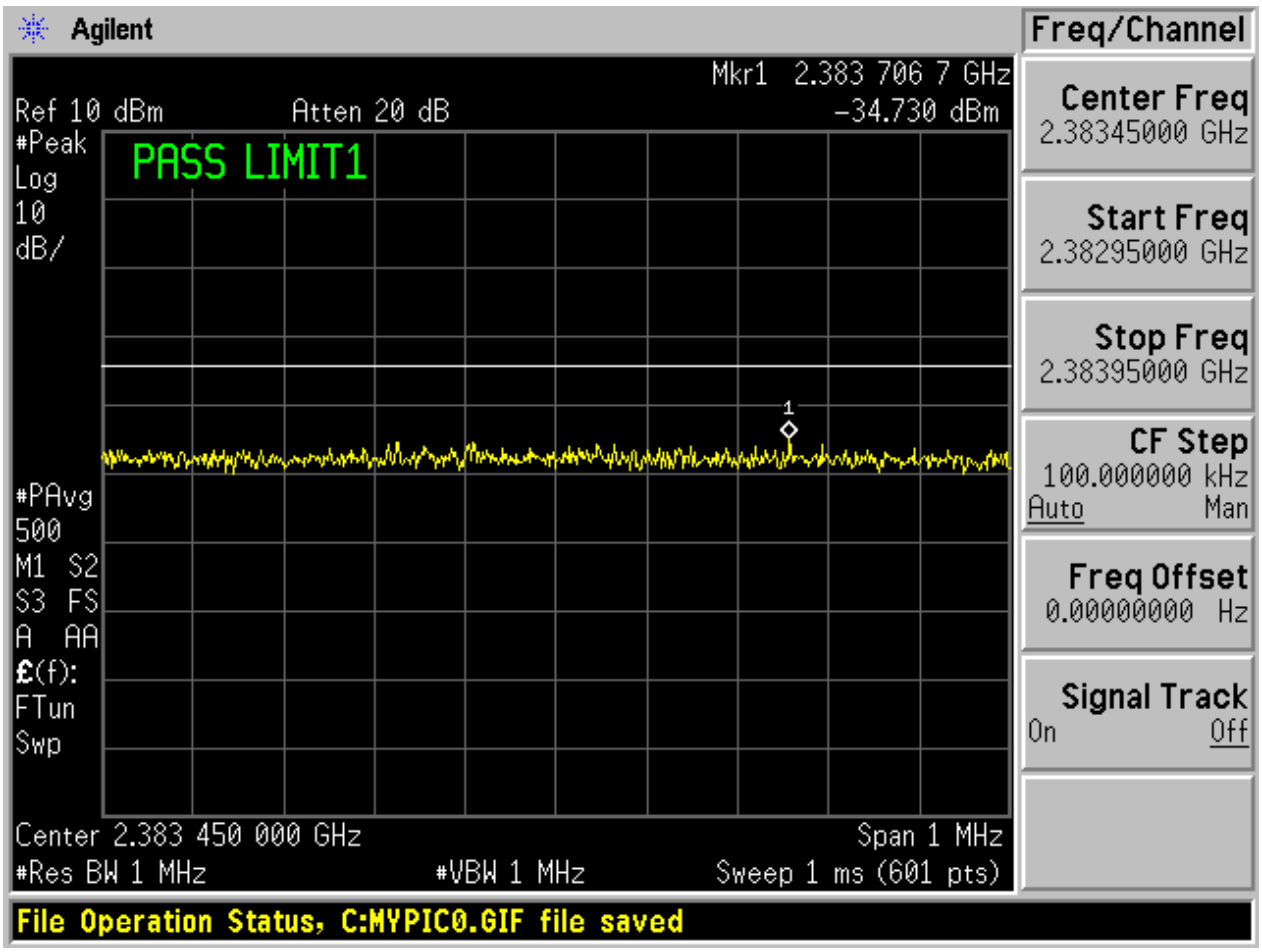



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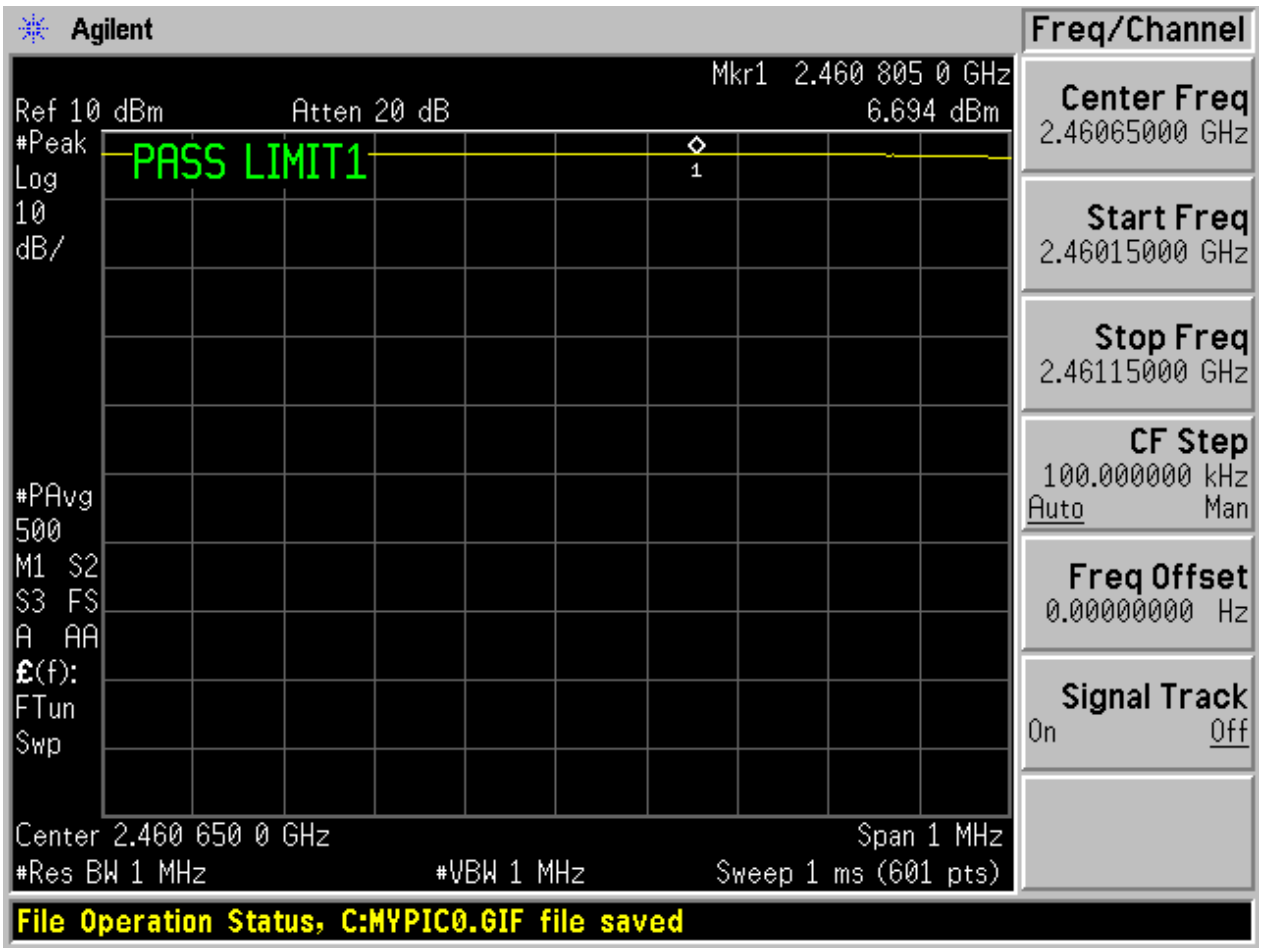



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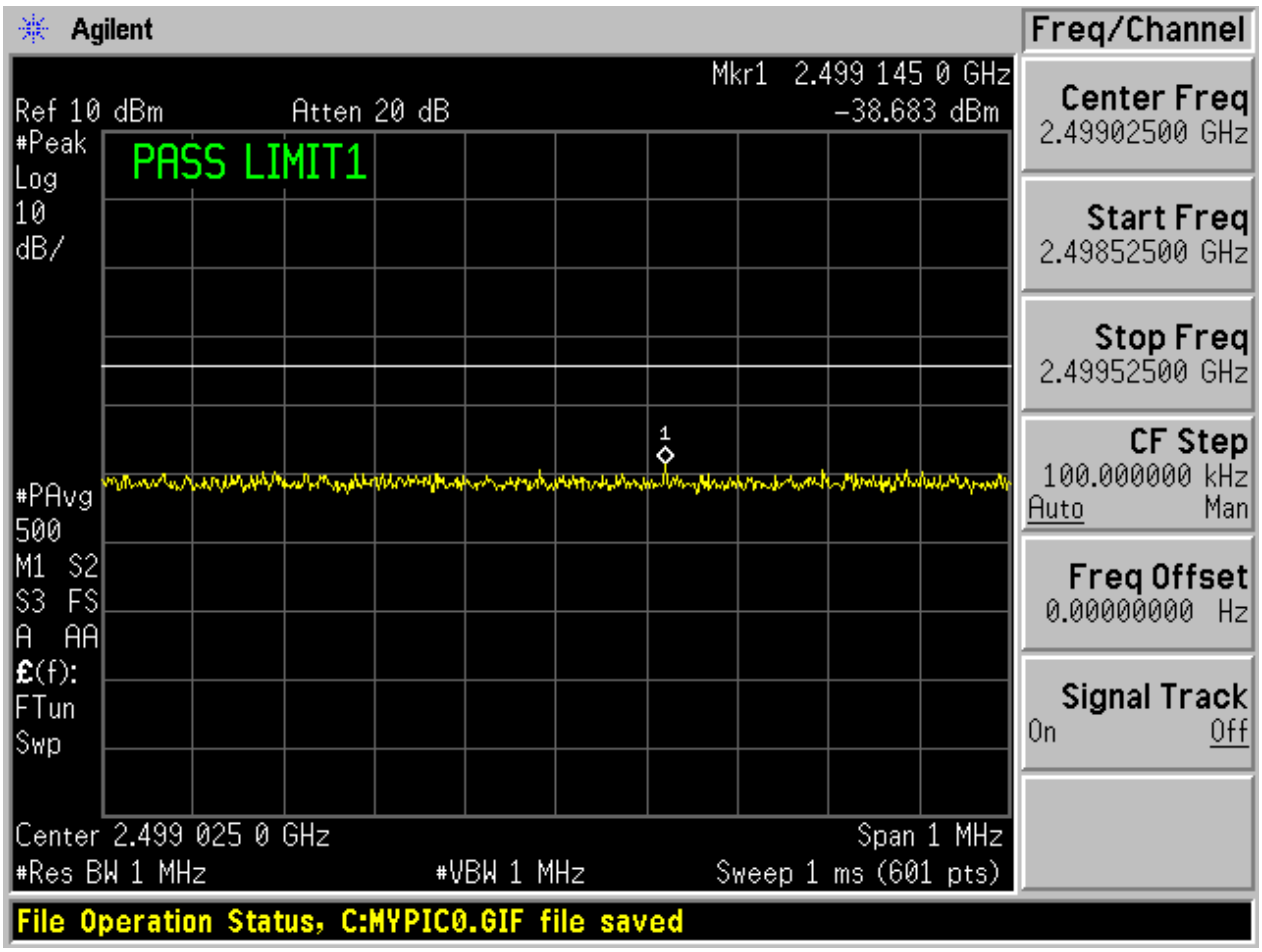



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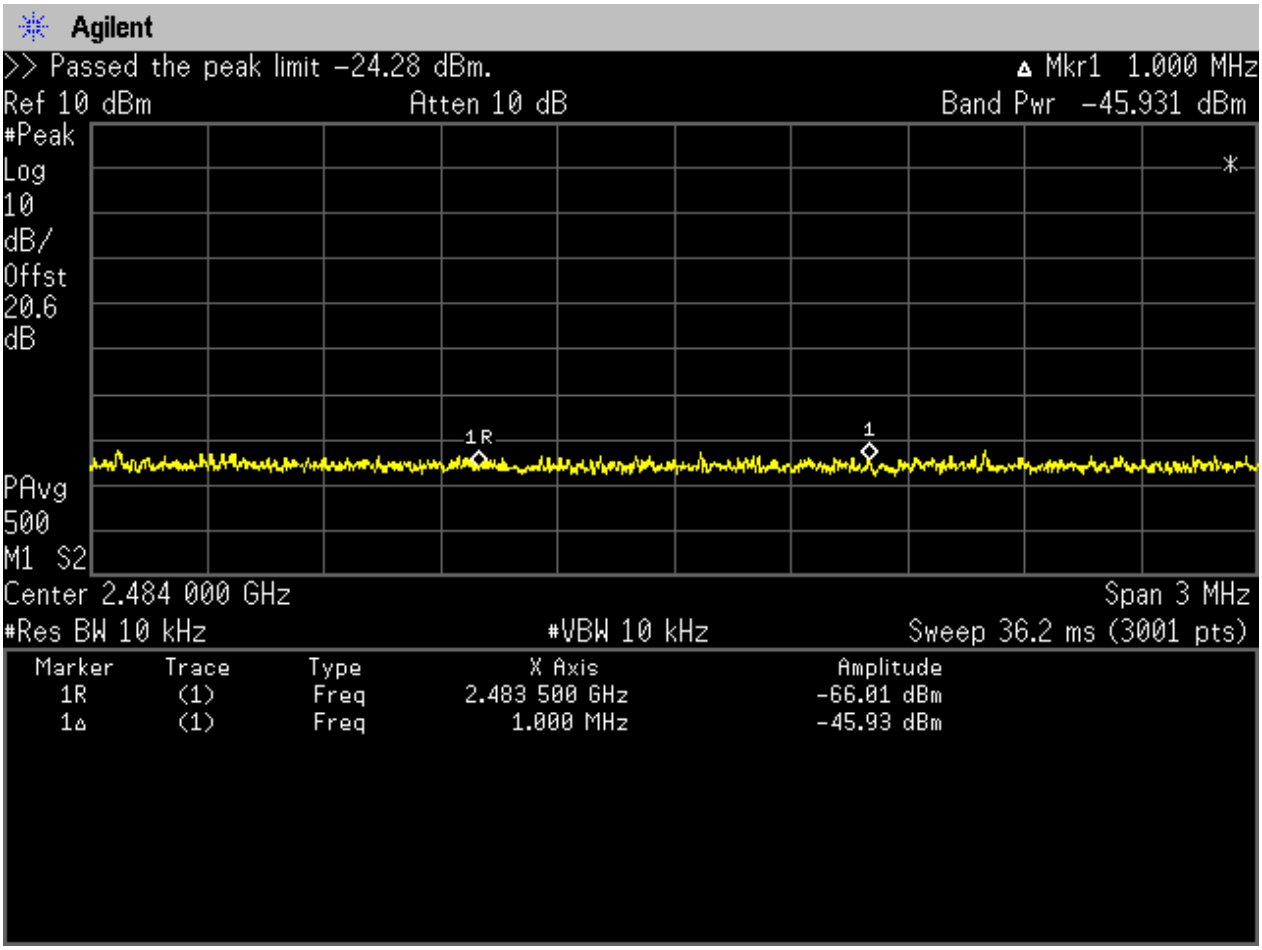



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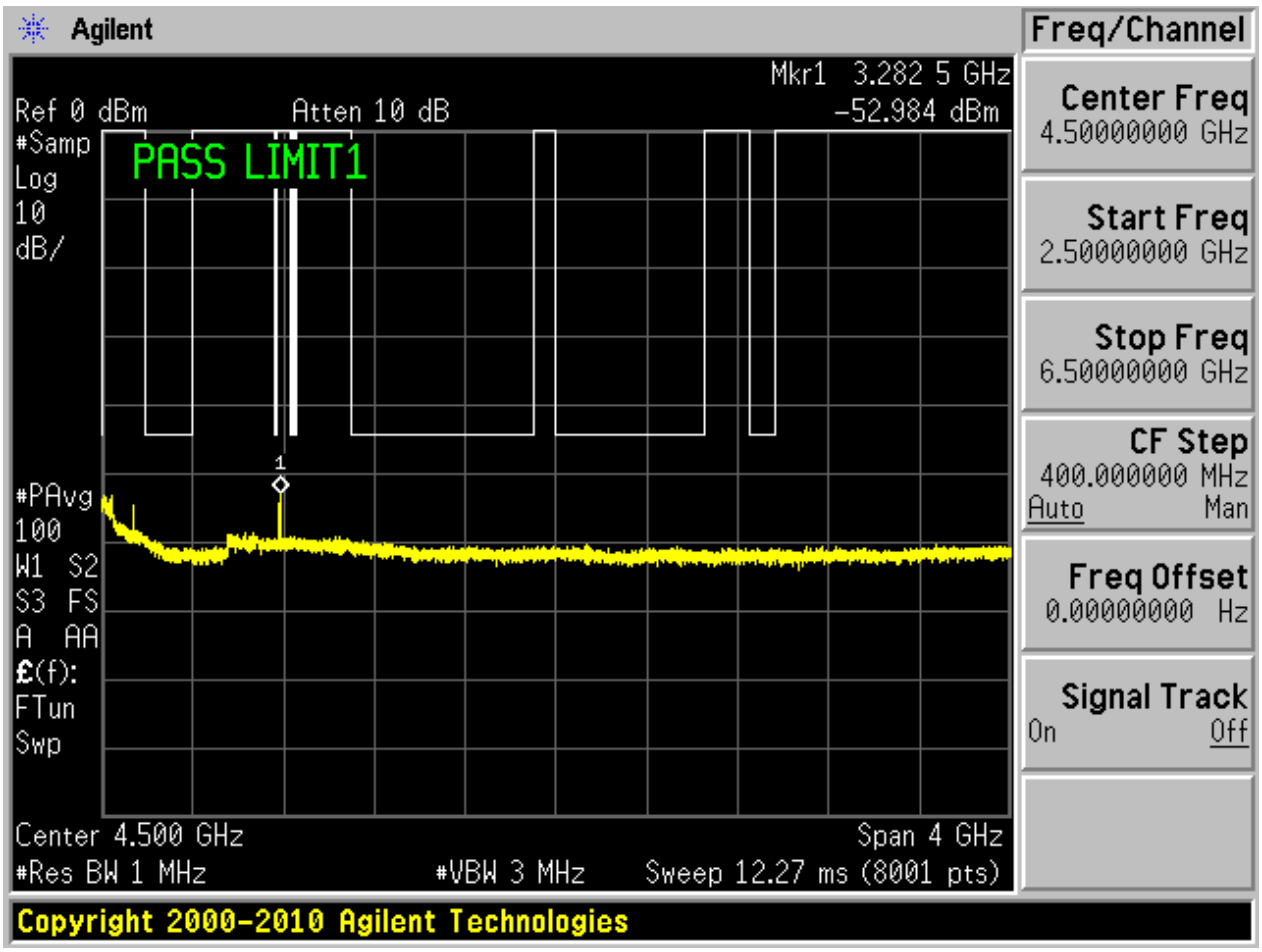



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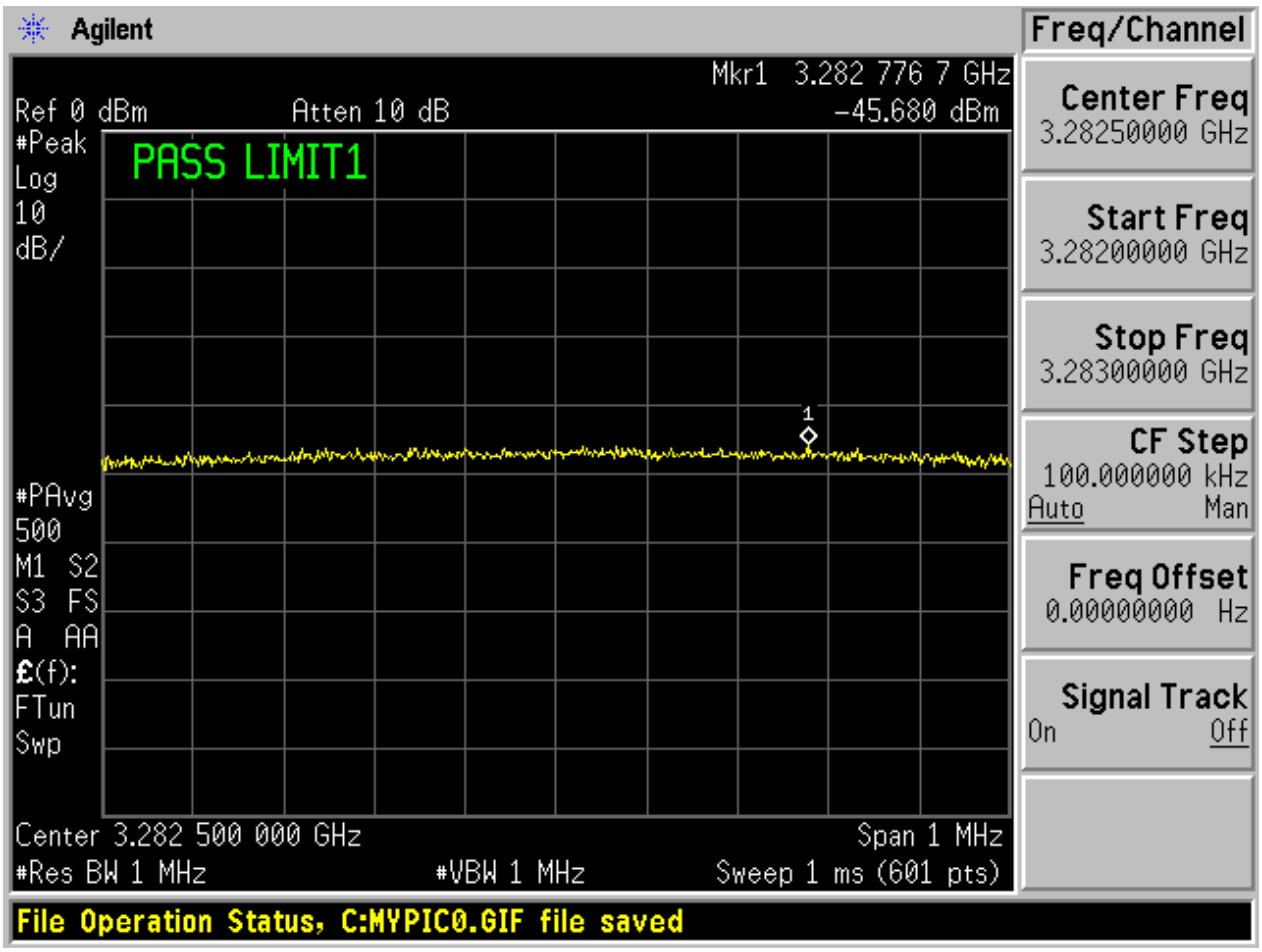



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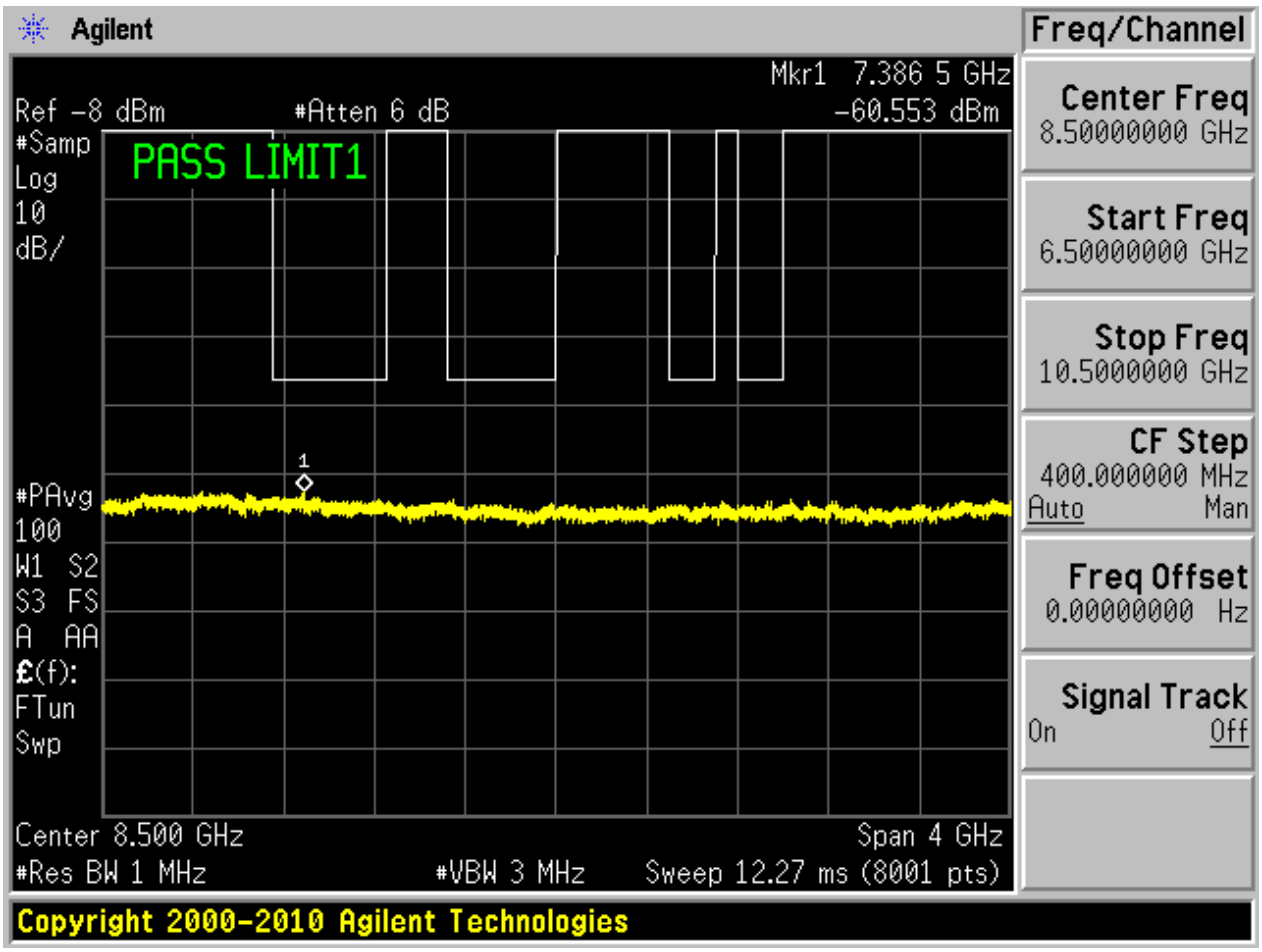



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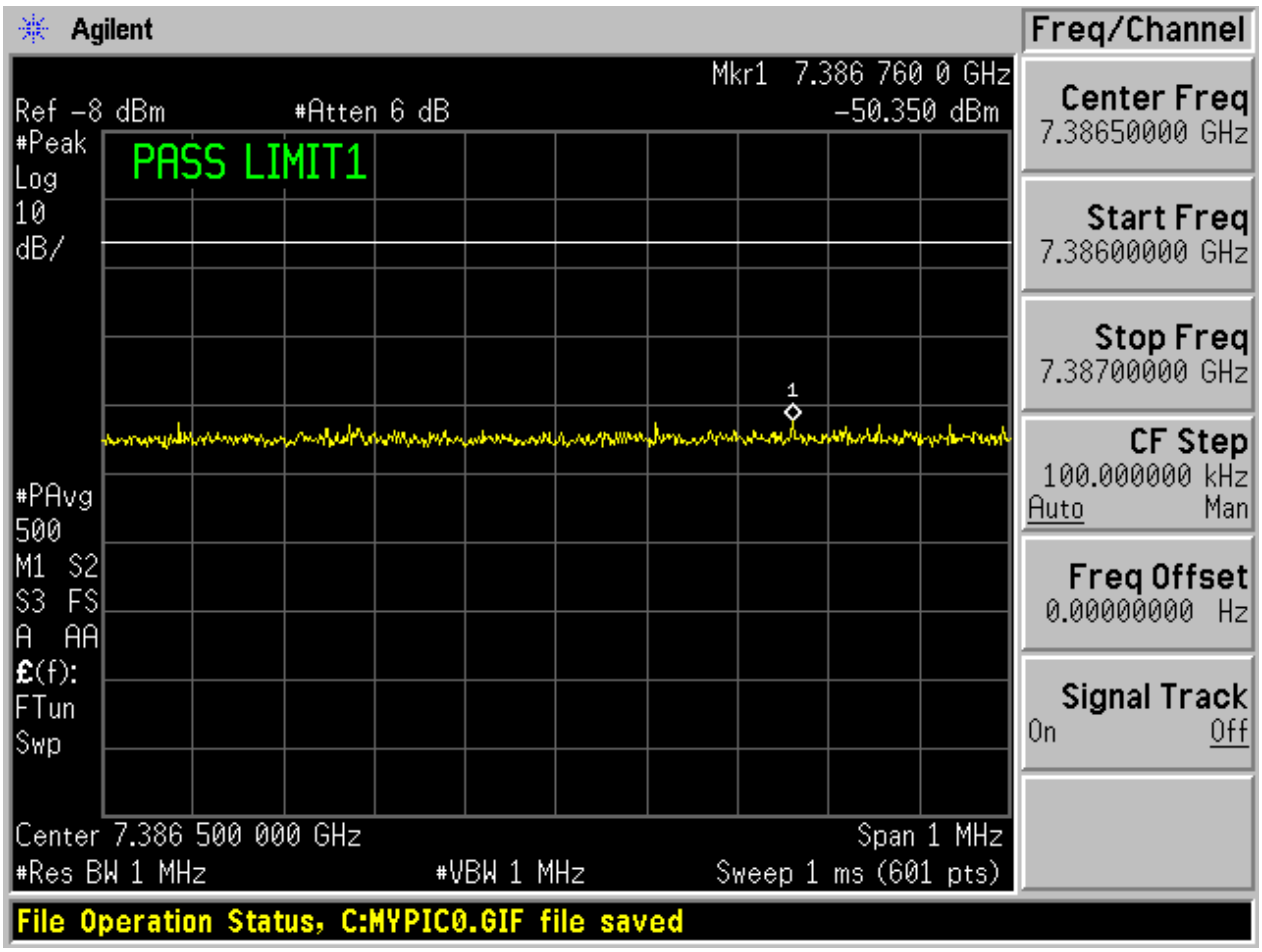



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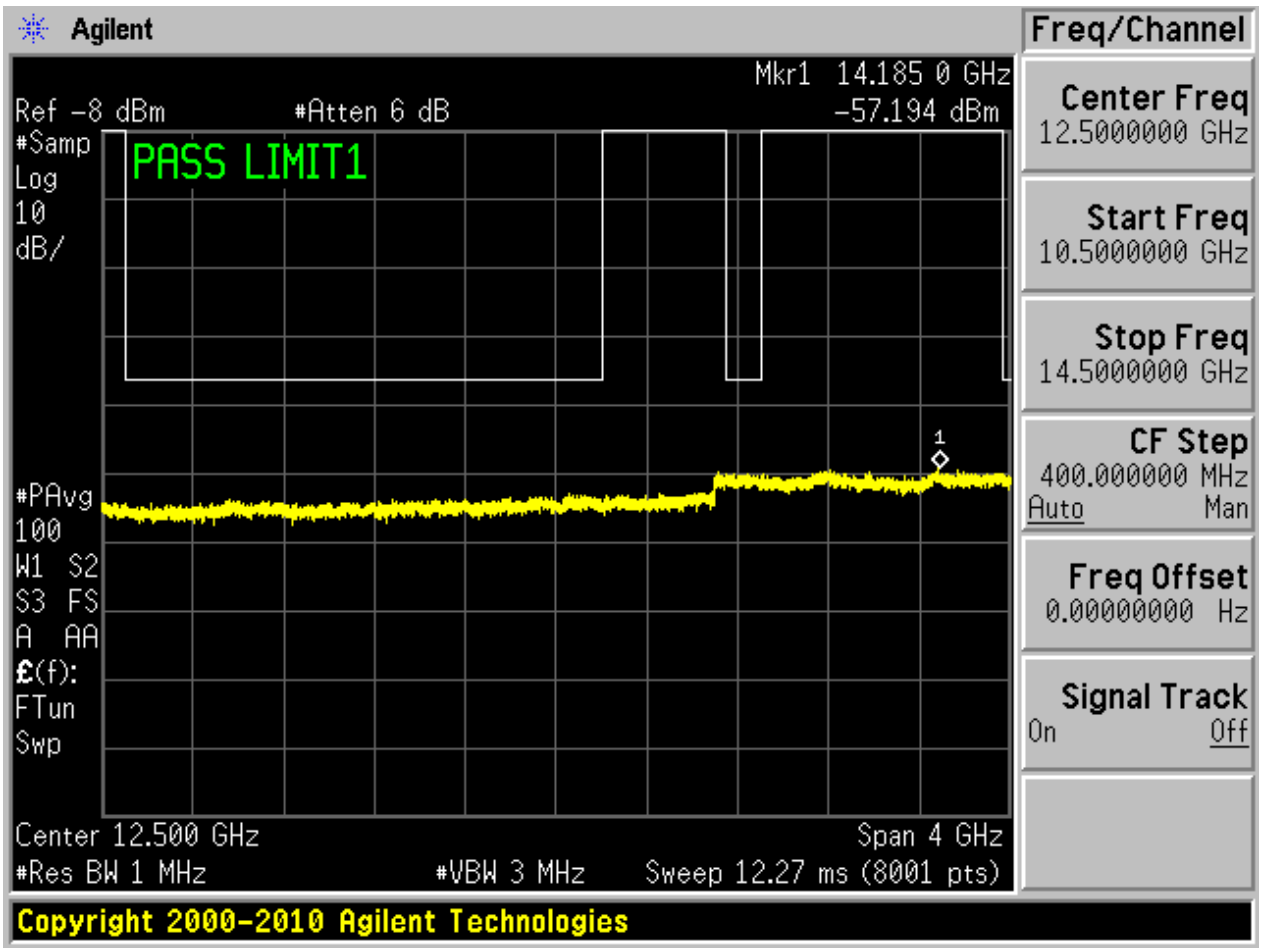



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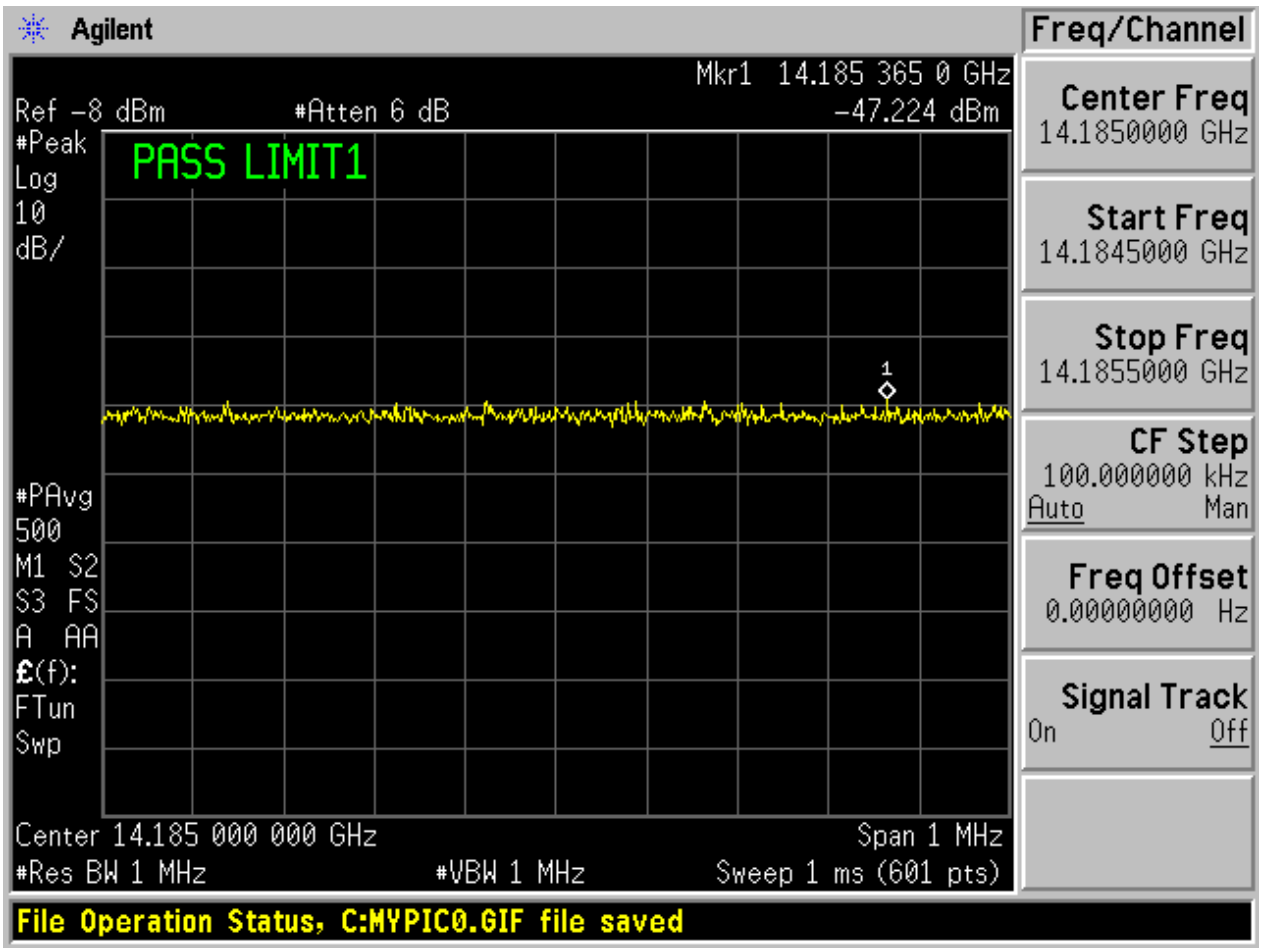



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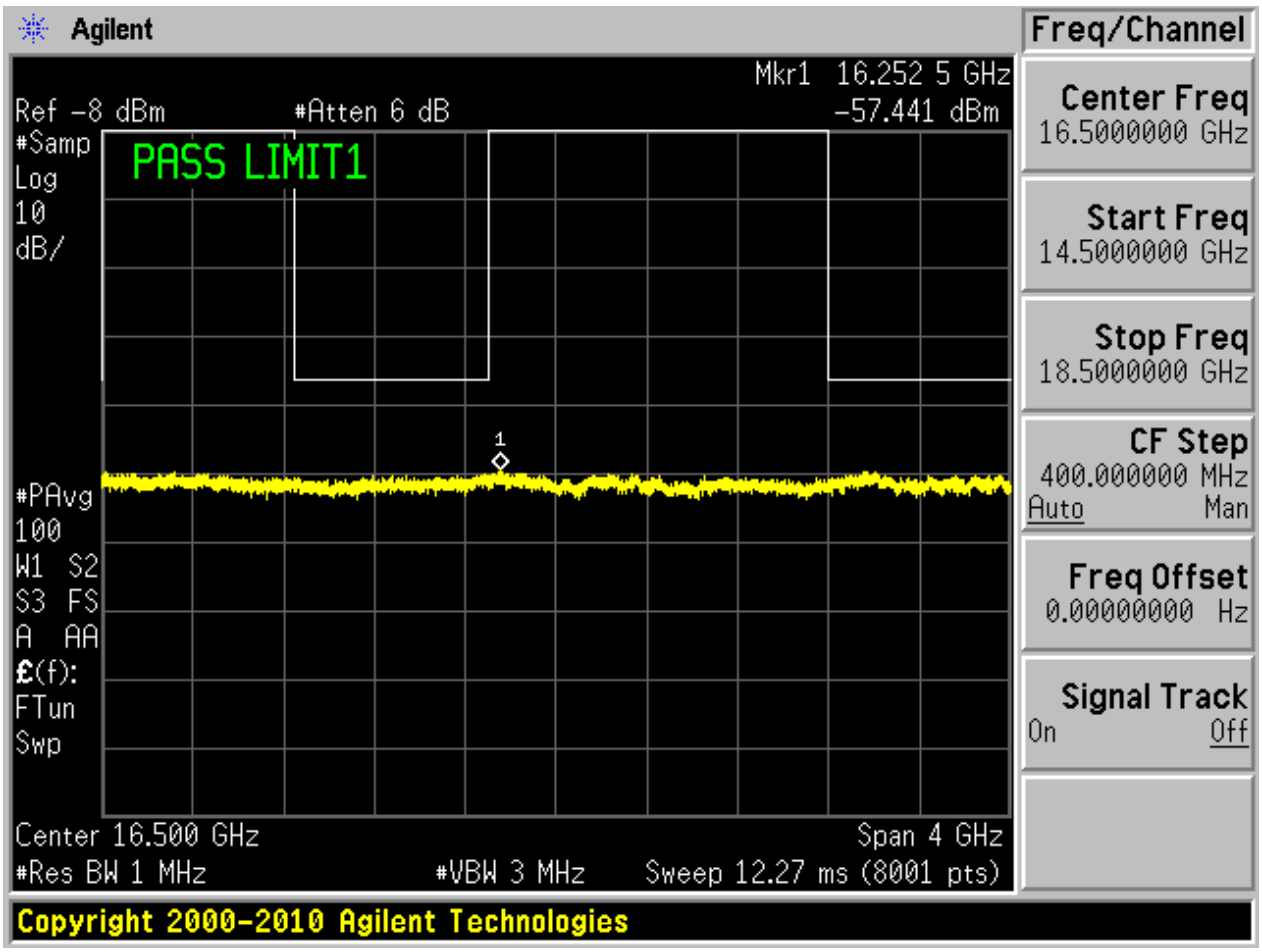



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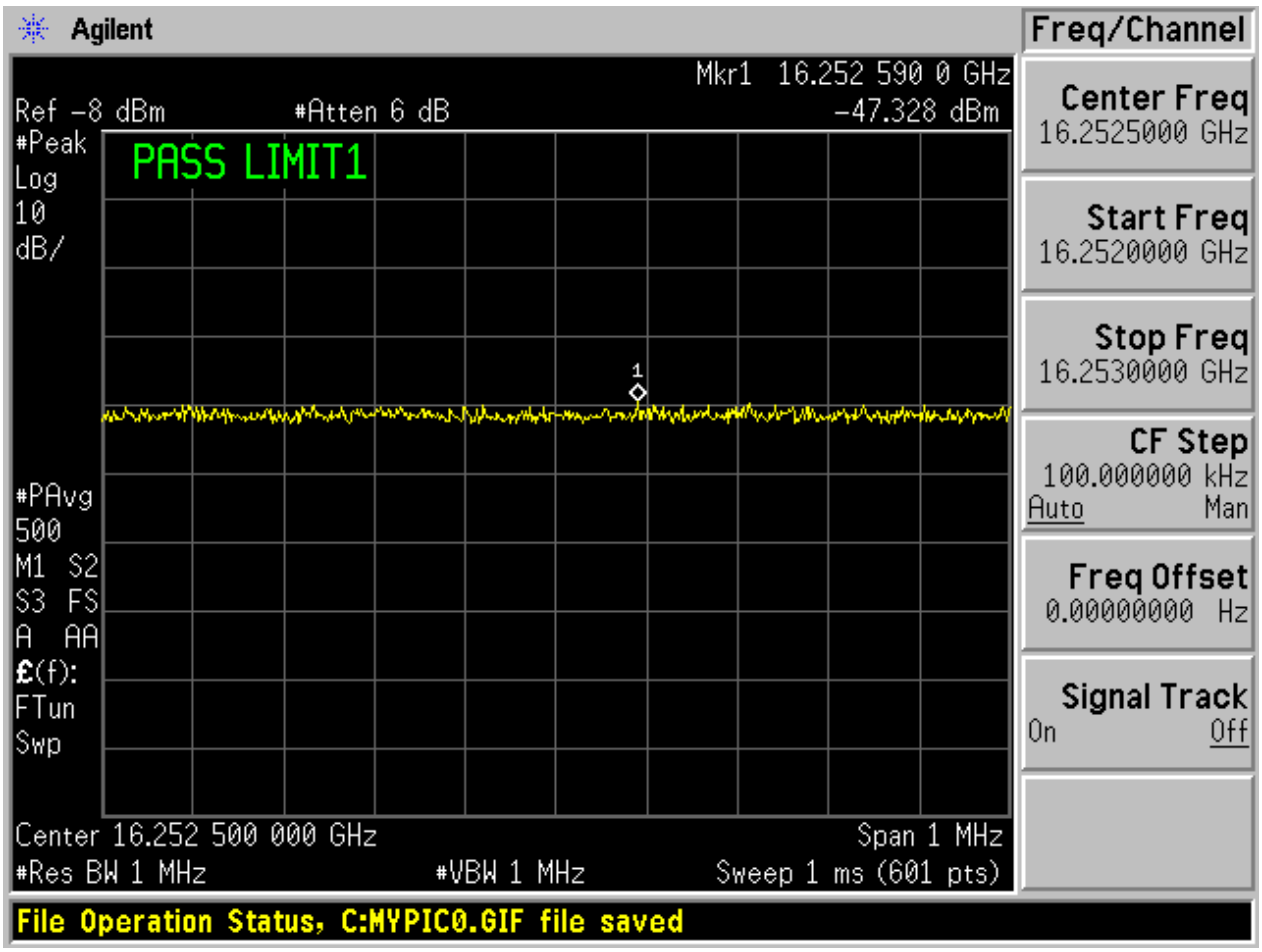



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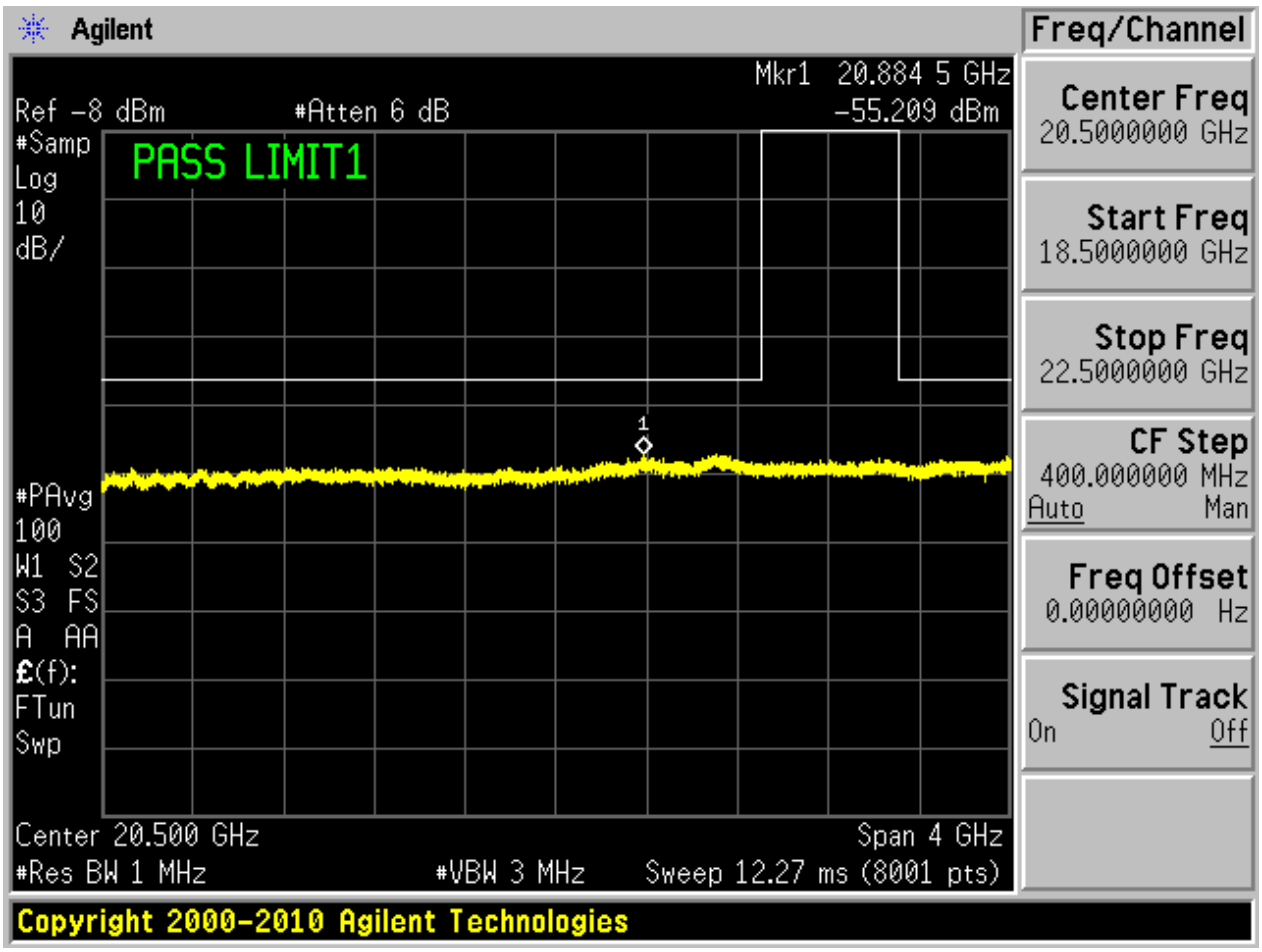



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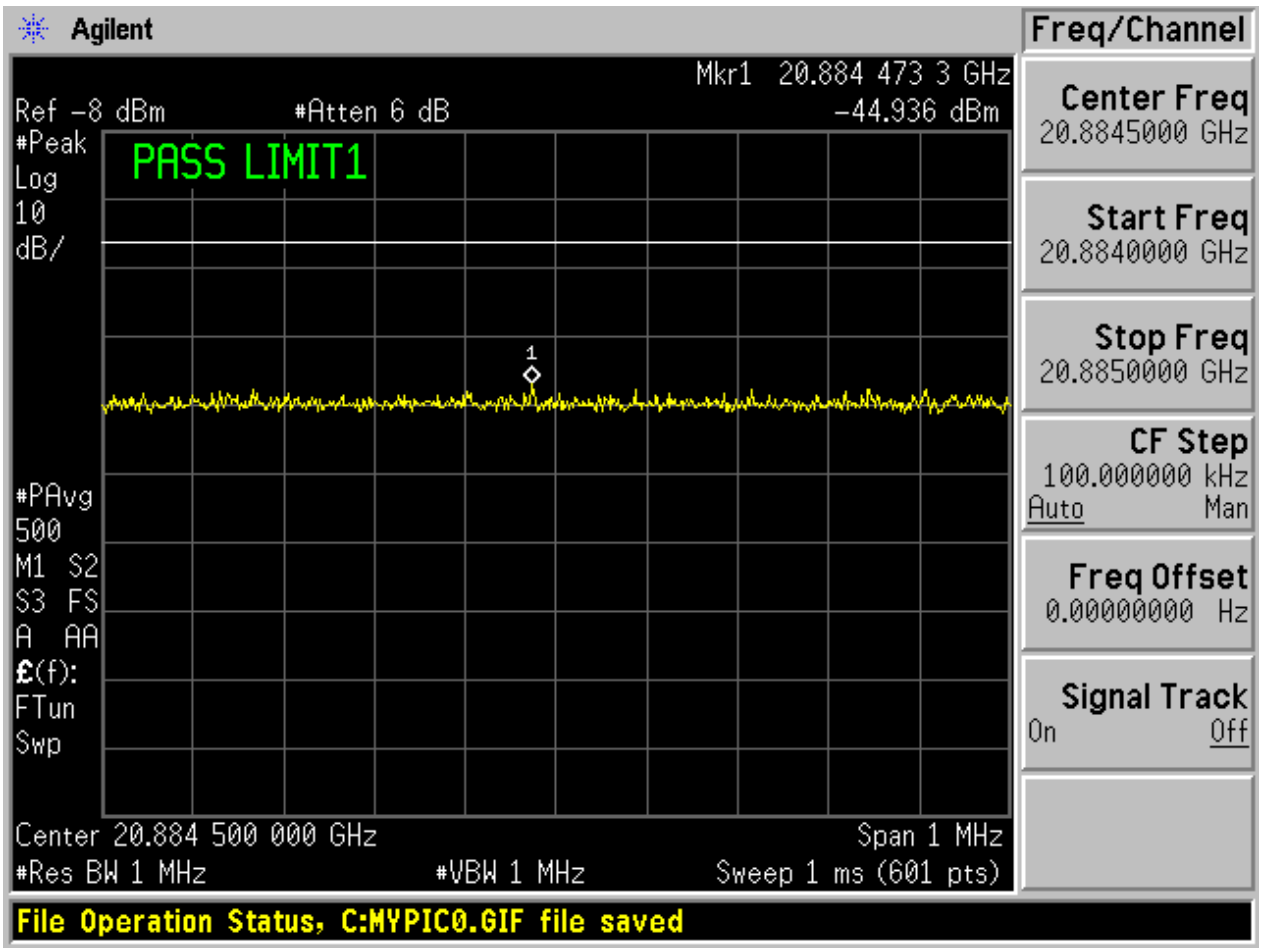



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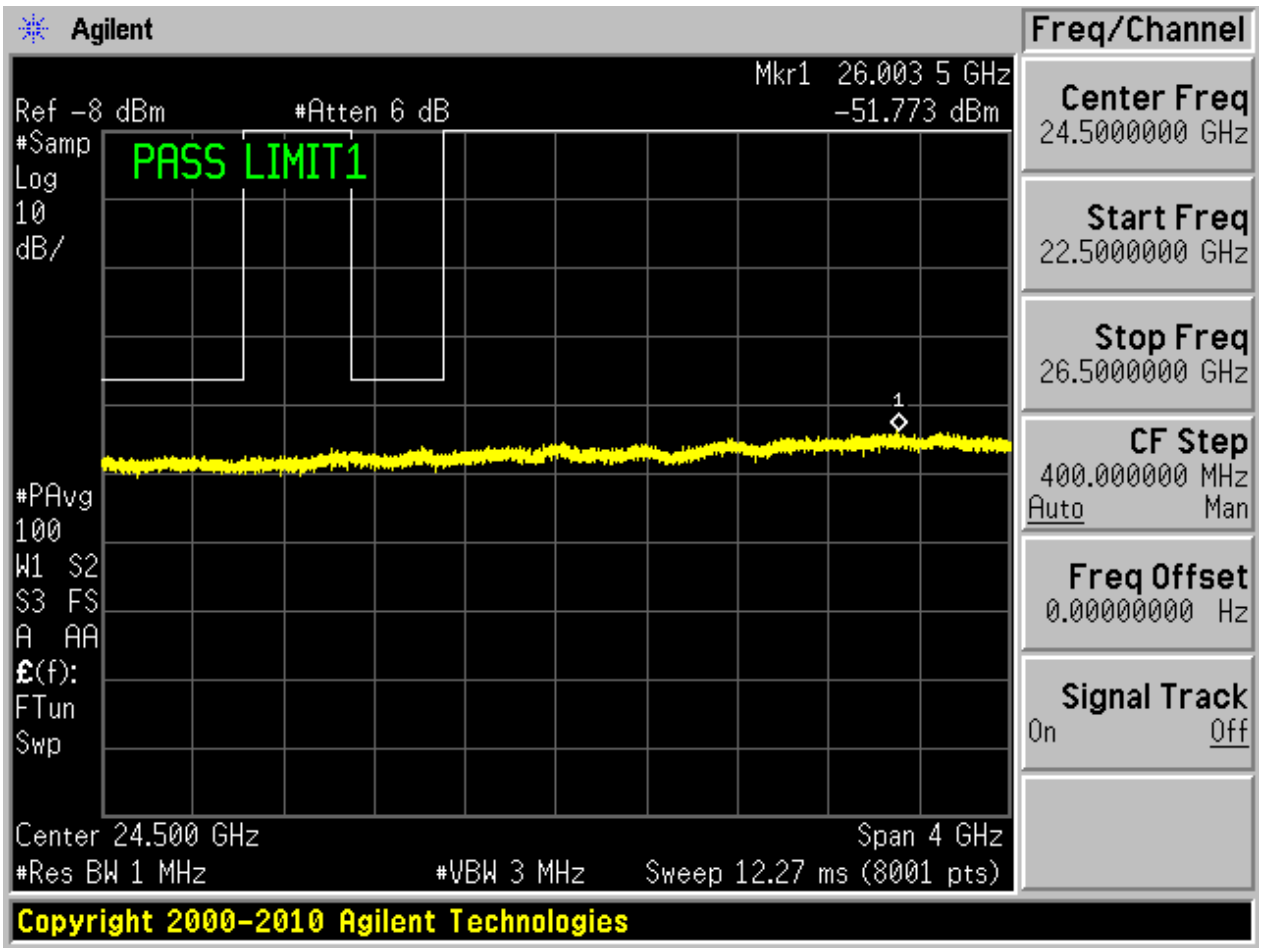



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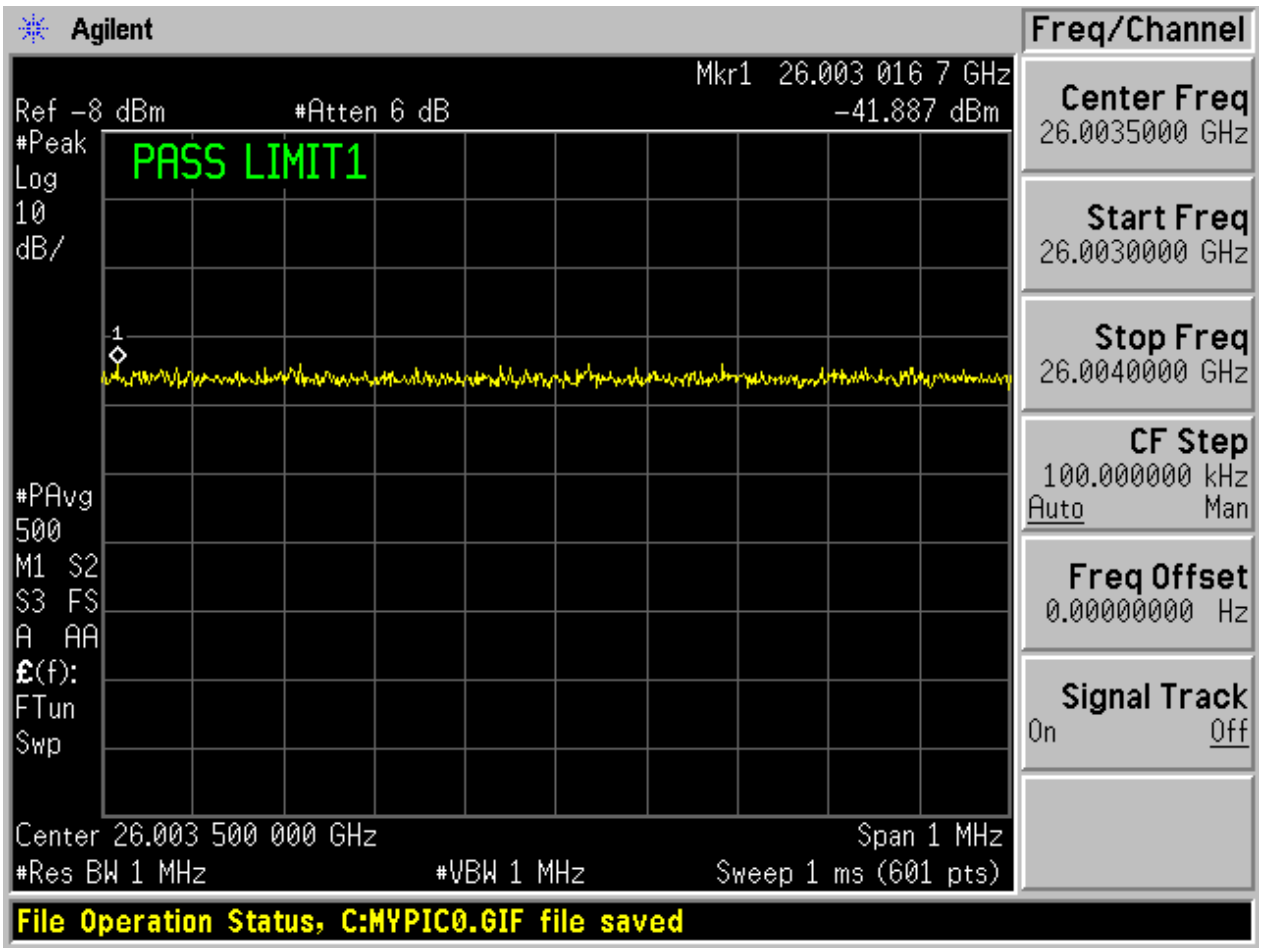


## 2.4 11G/6_B@1


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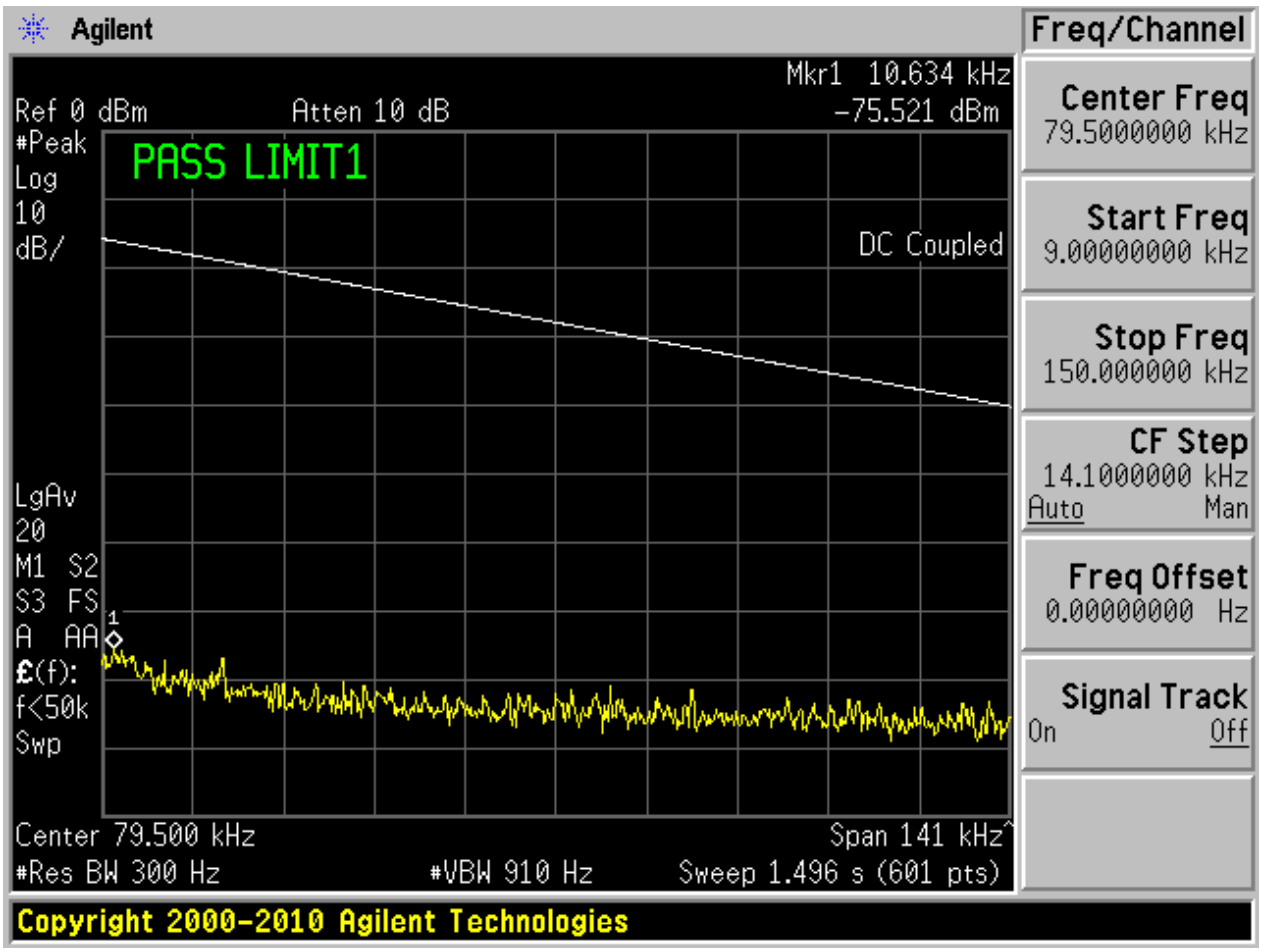



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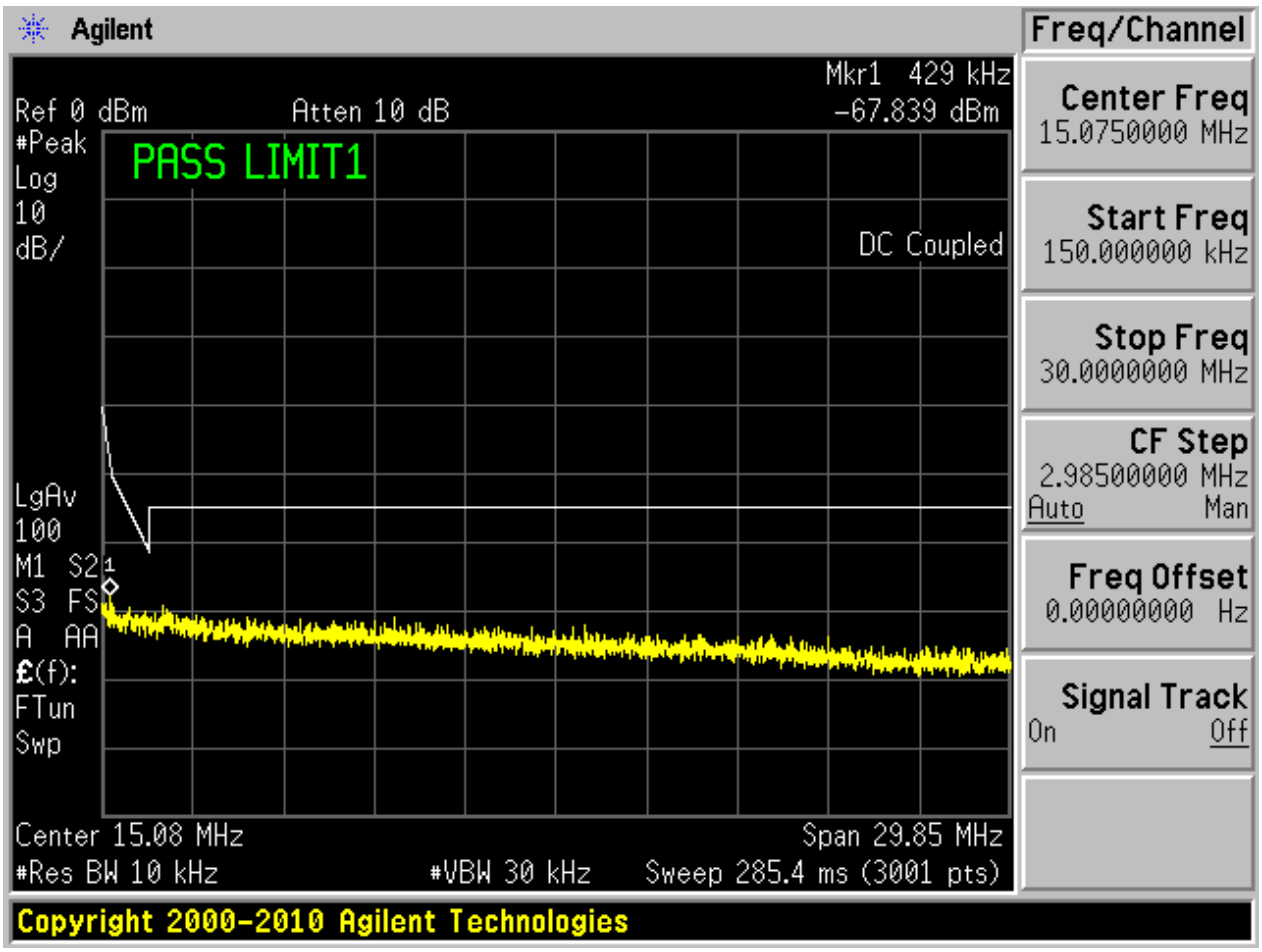



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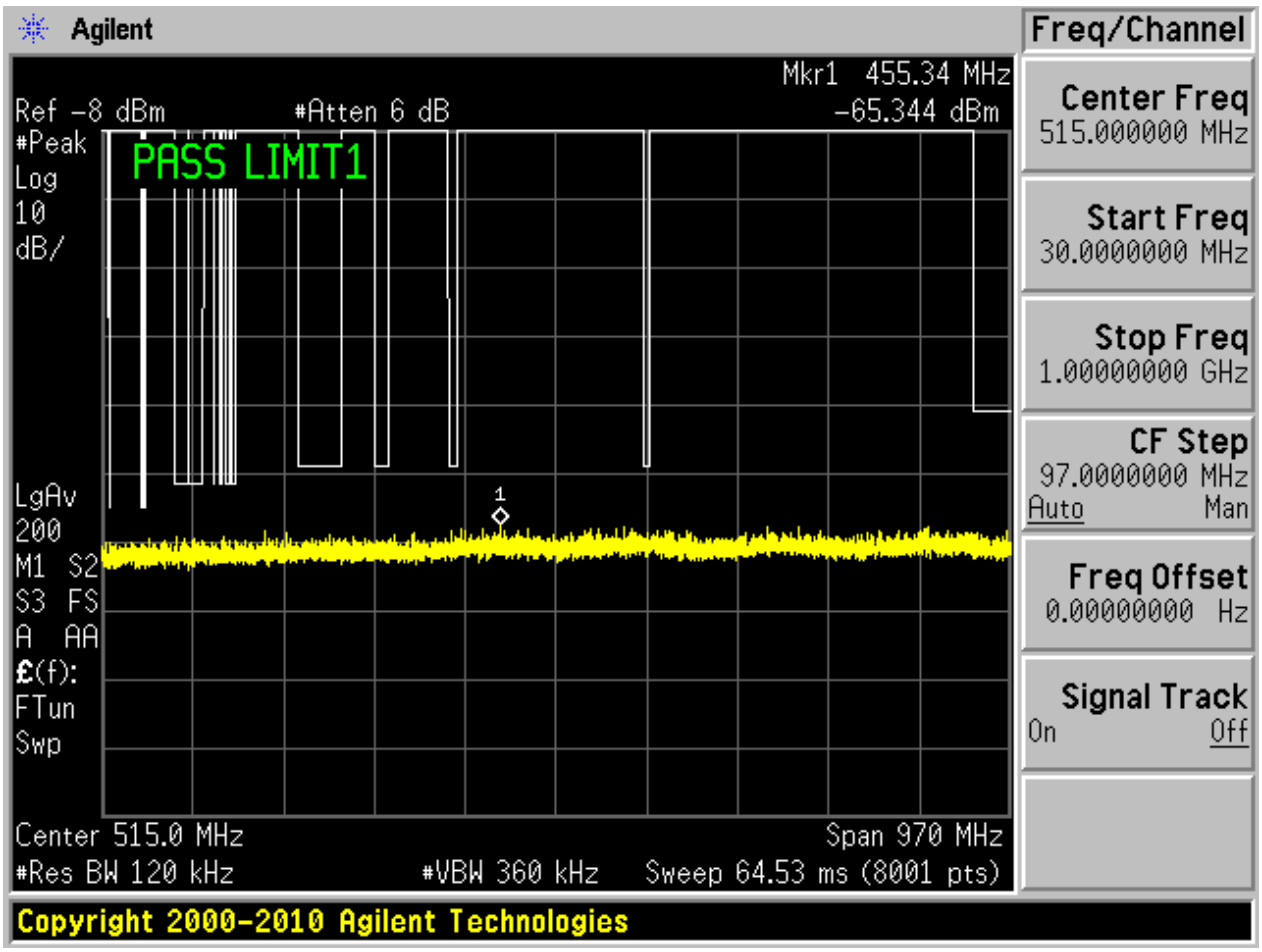



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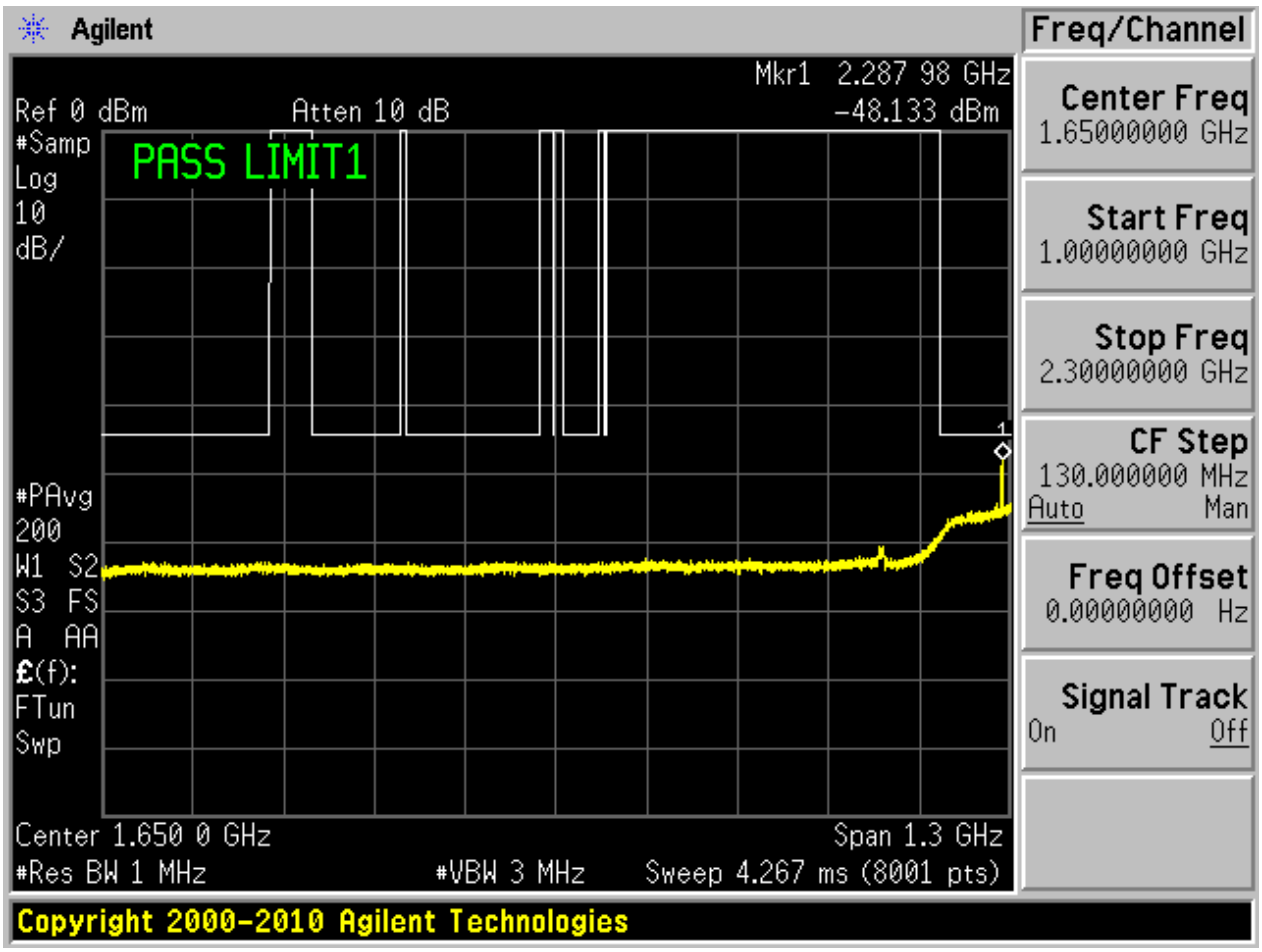



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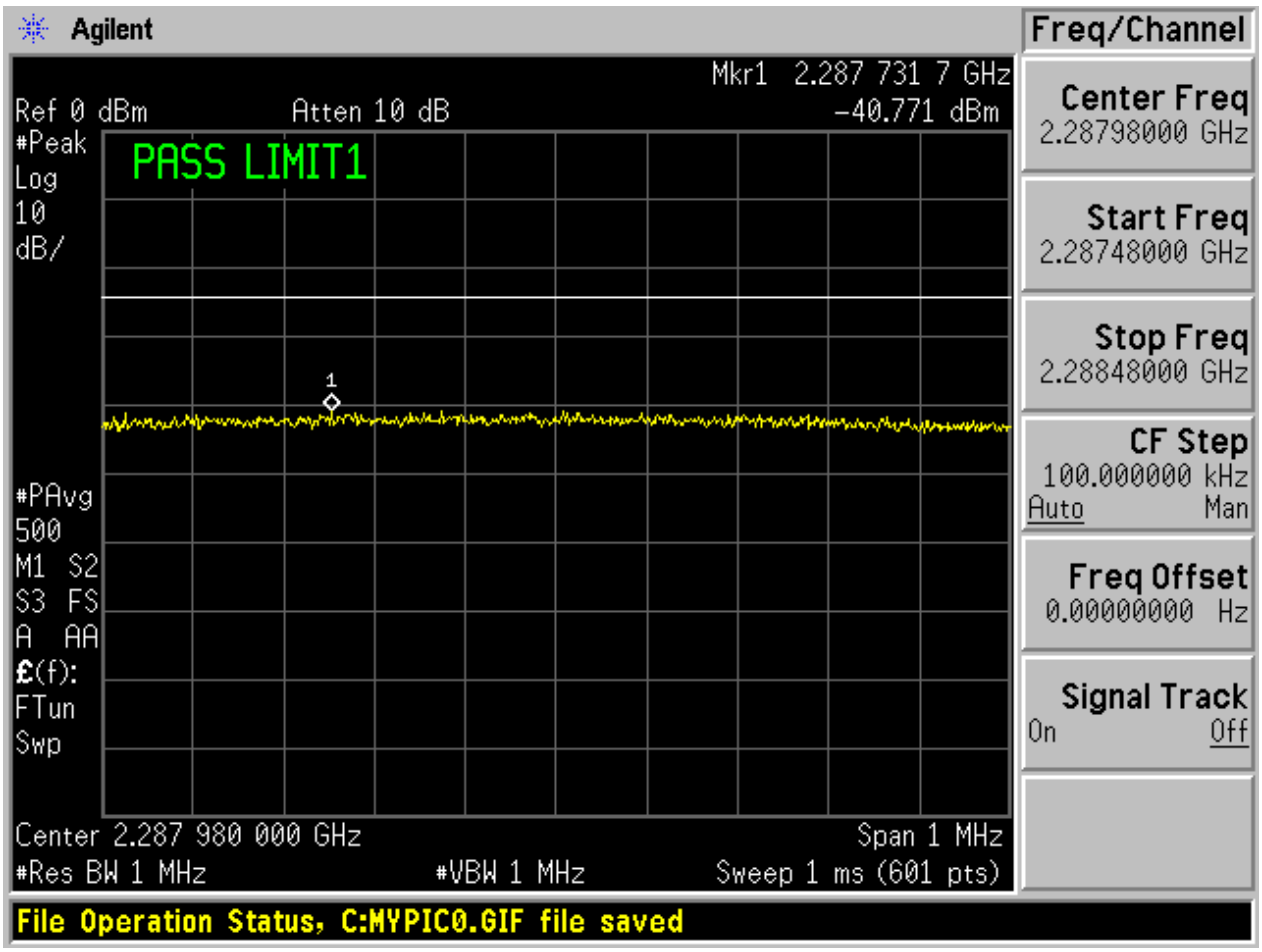



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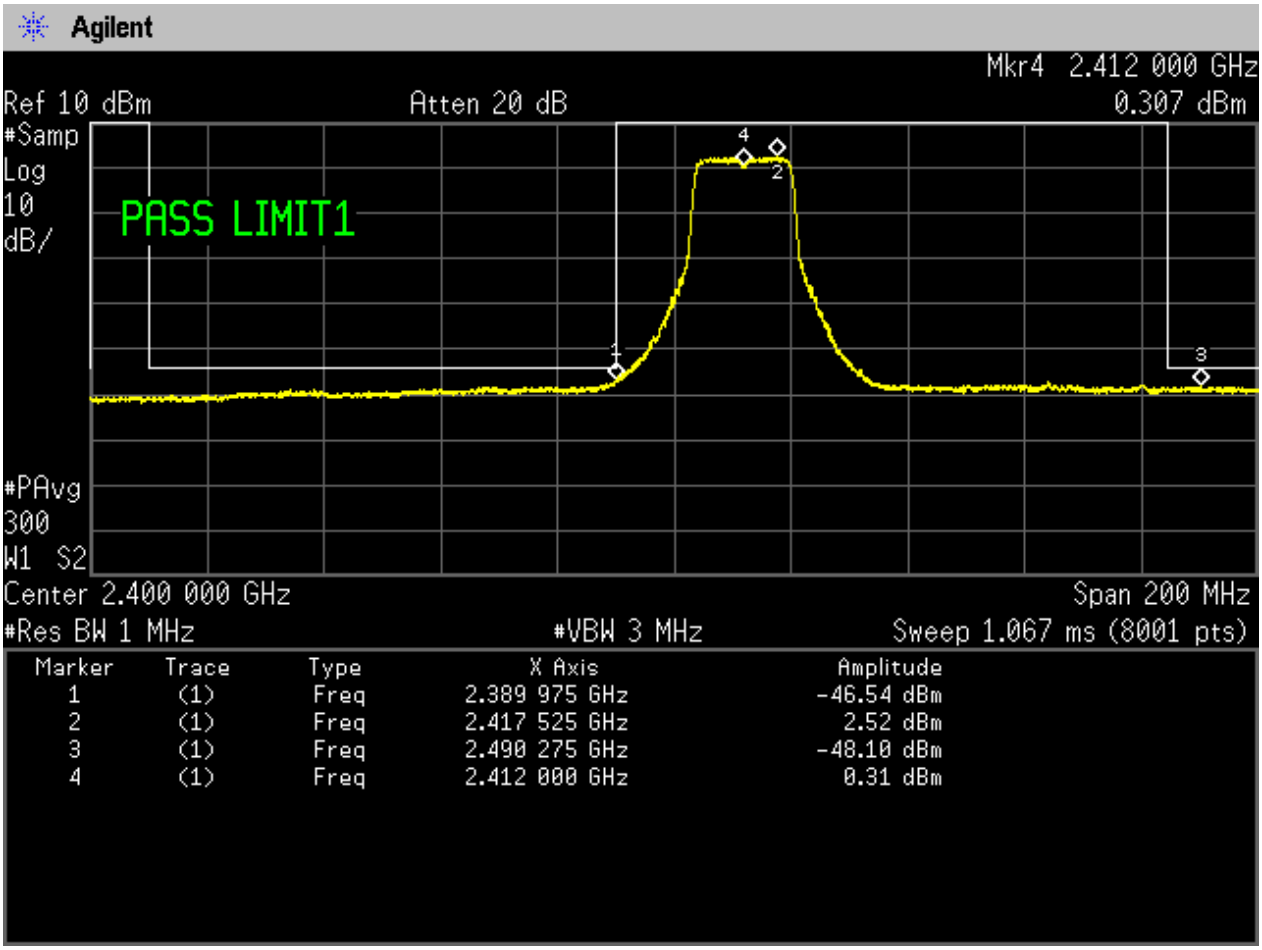



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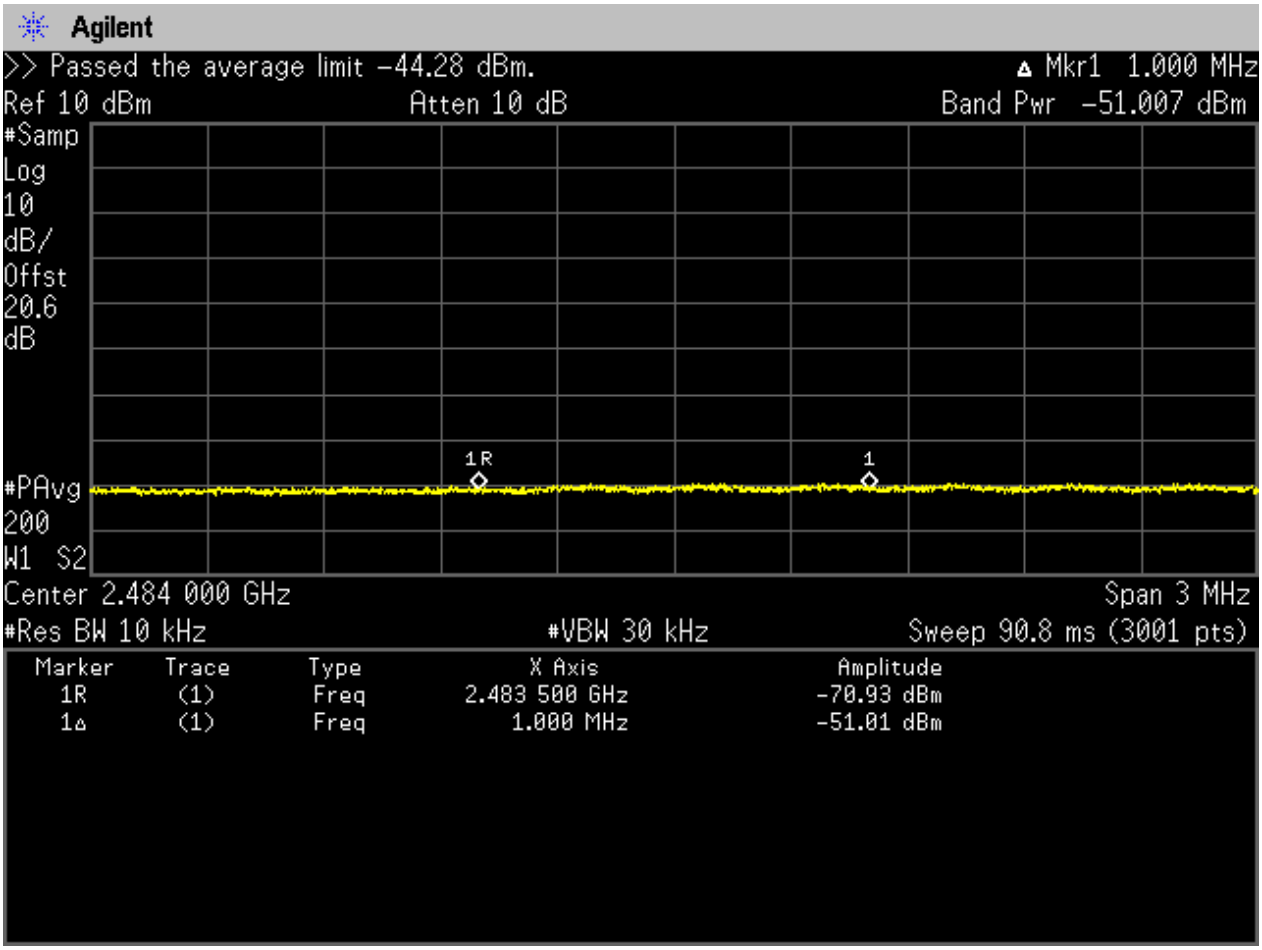



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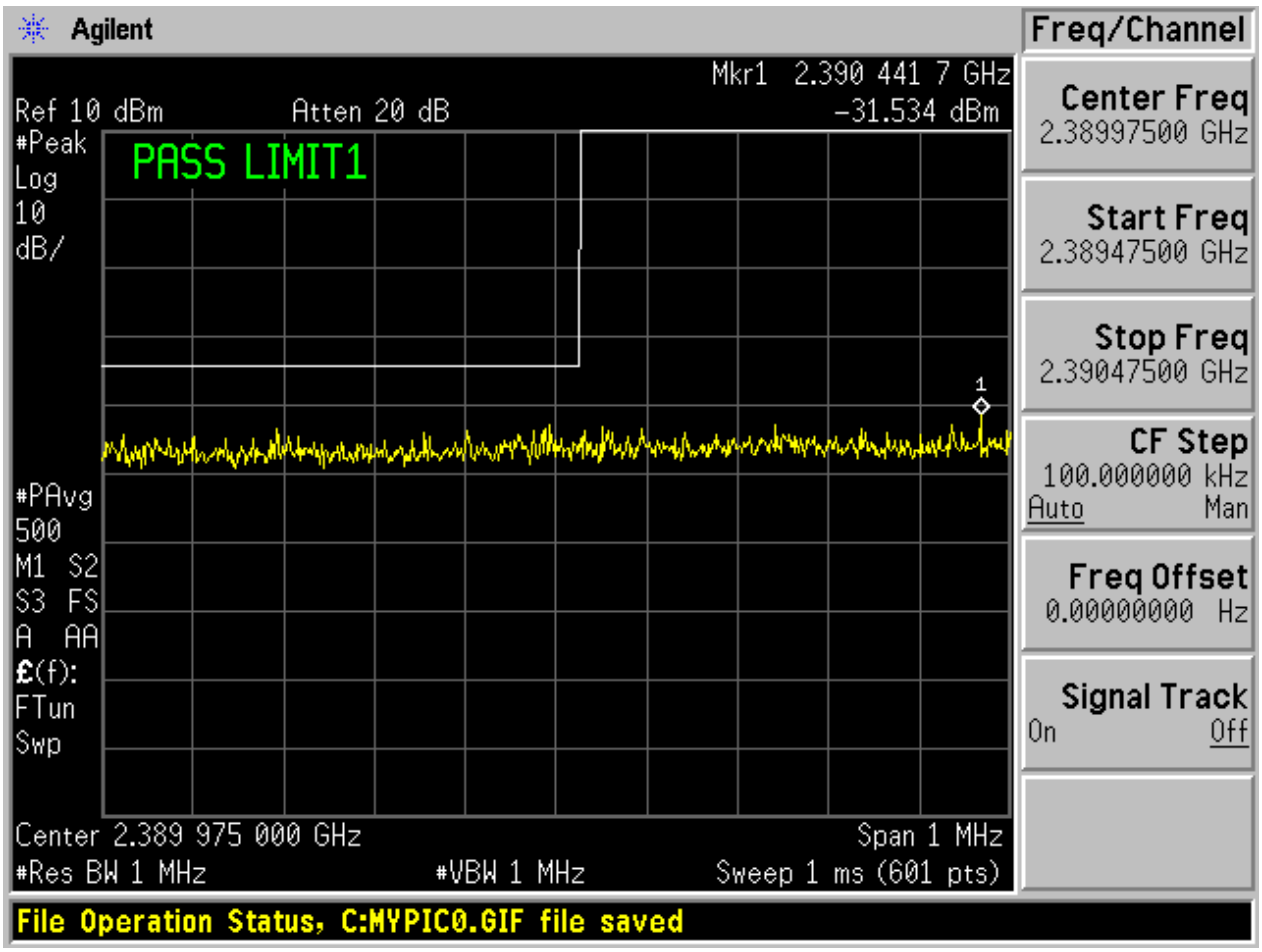



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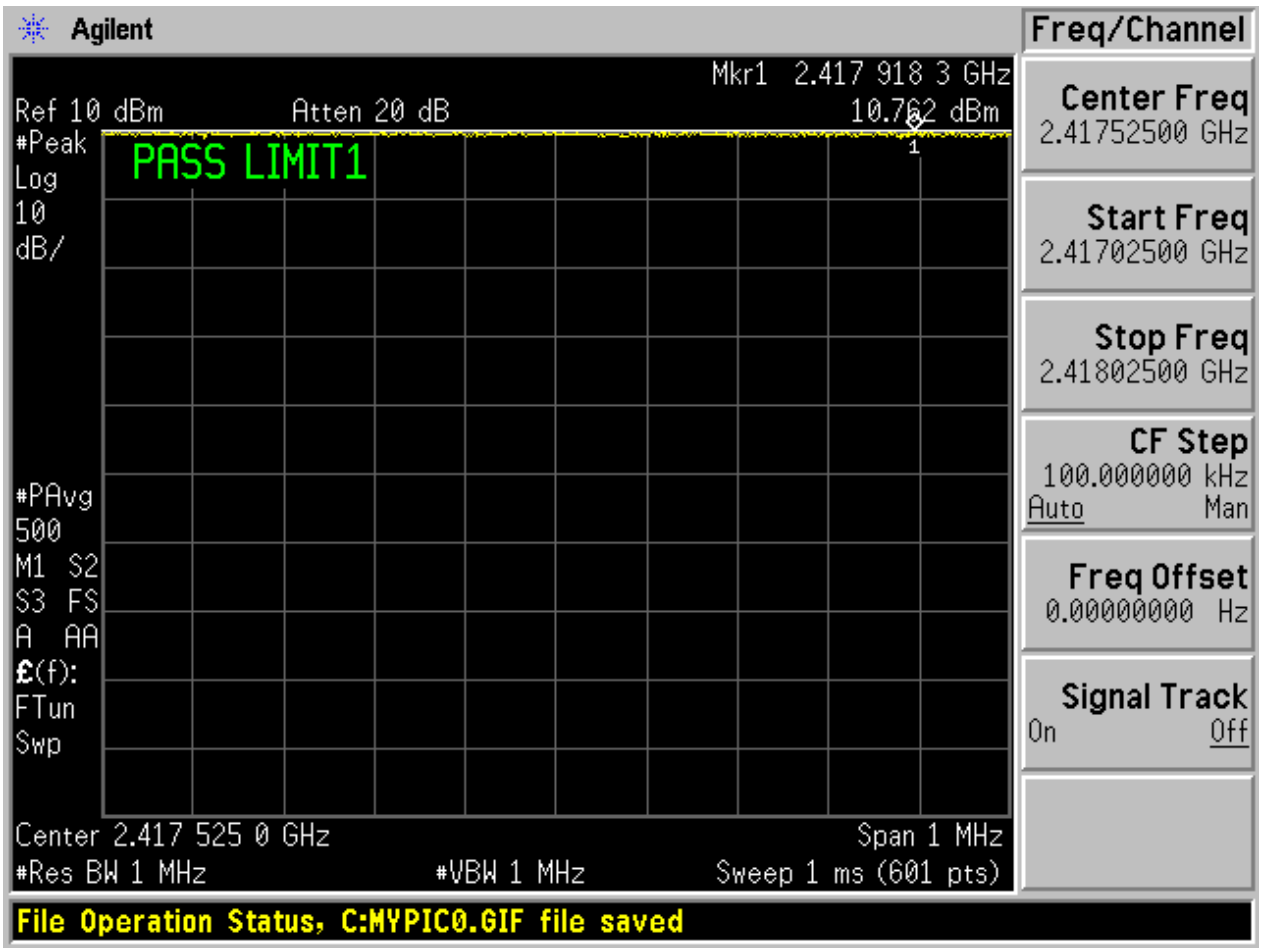



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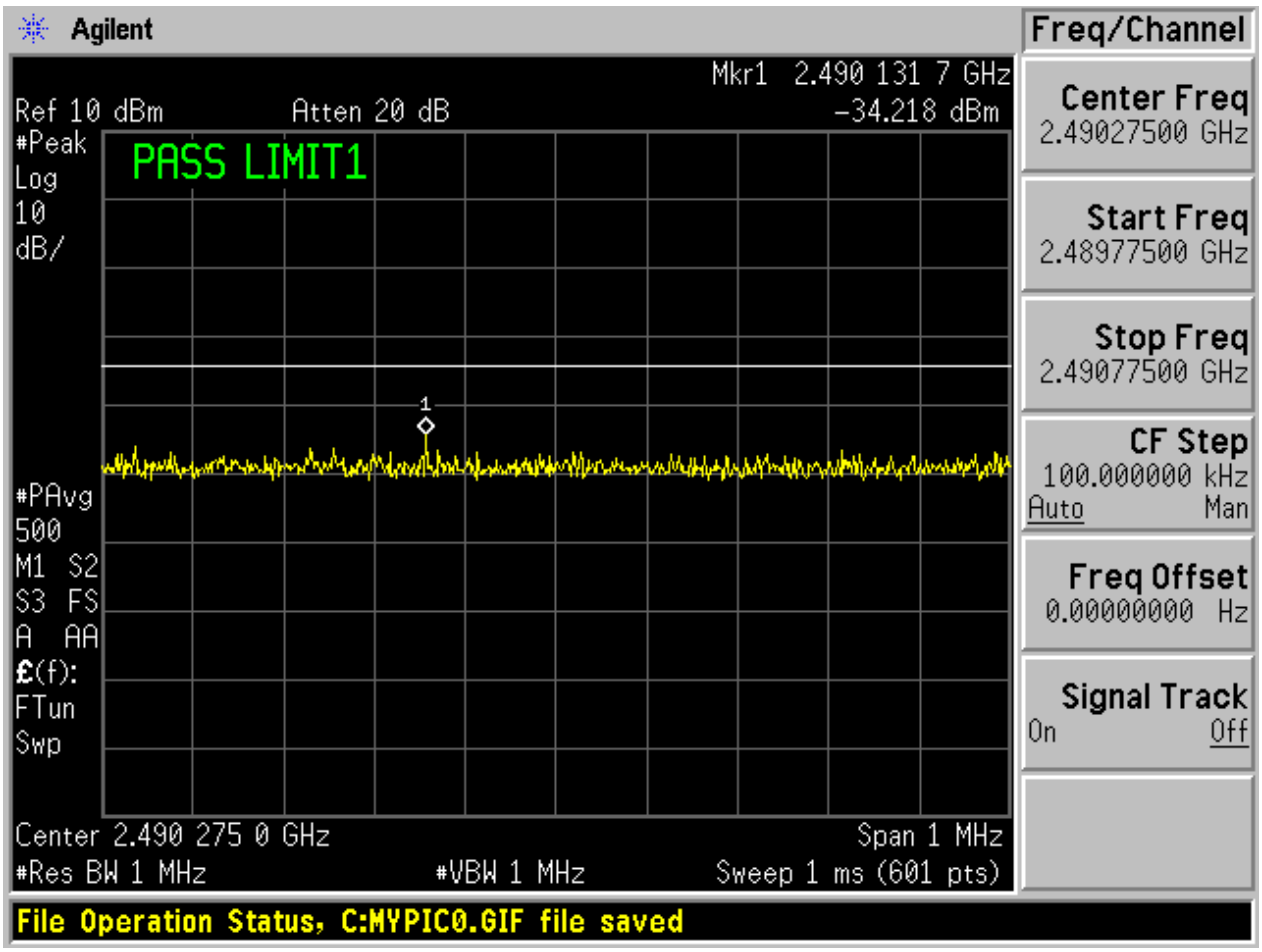



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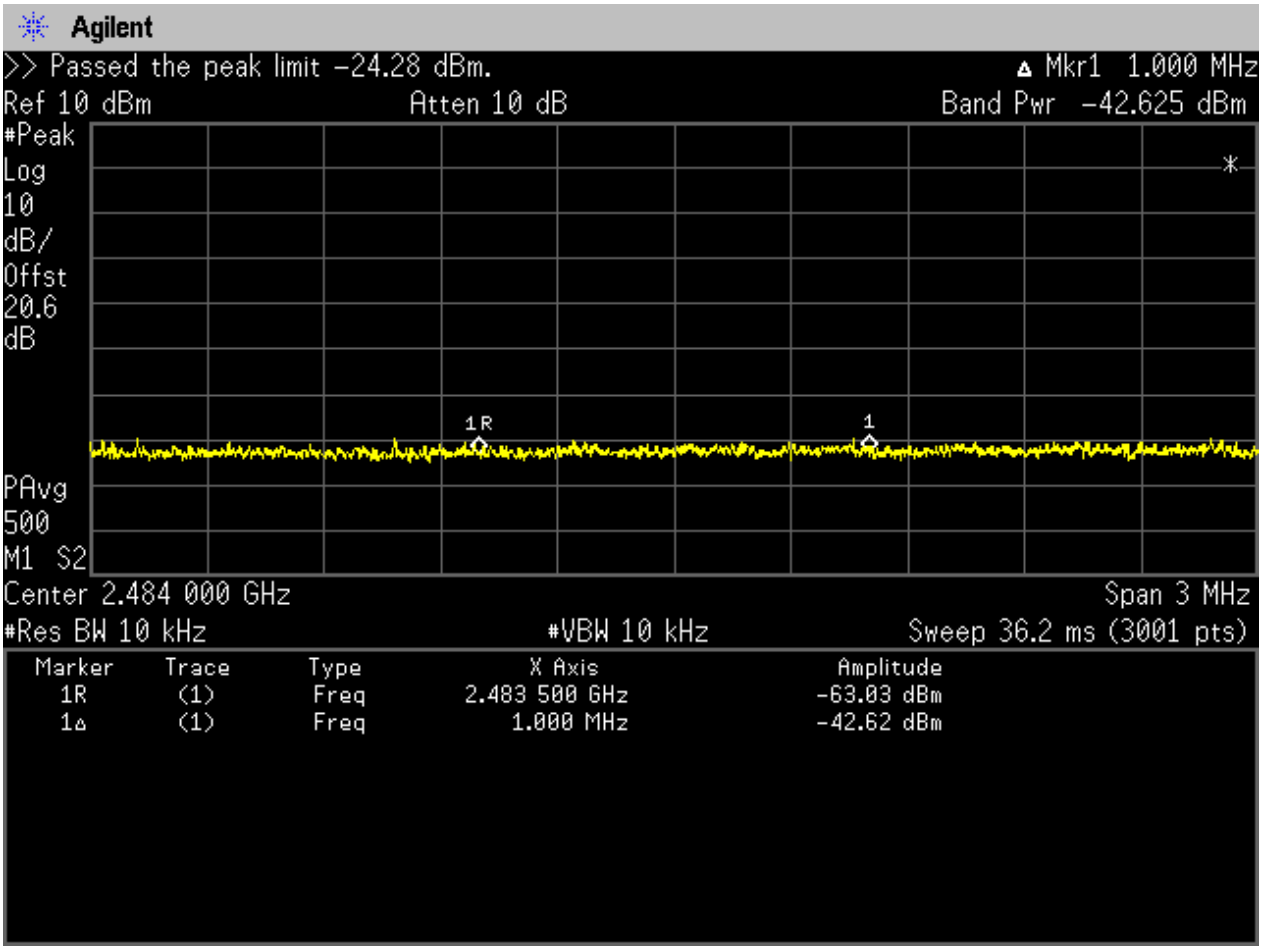



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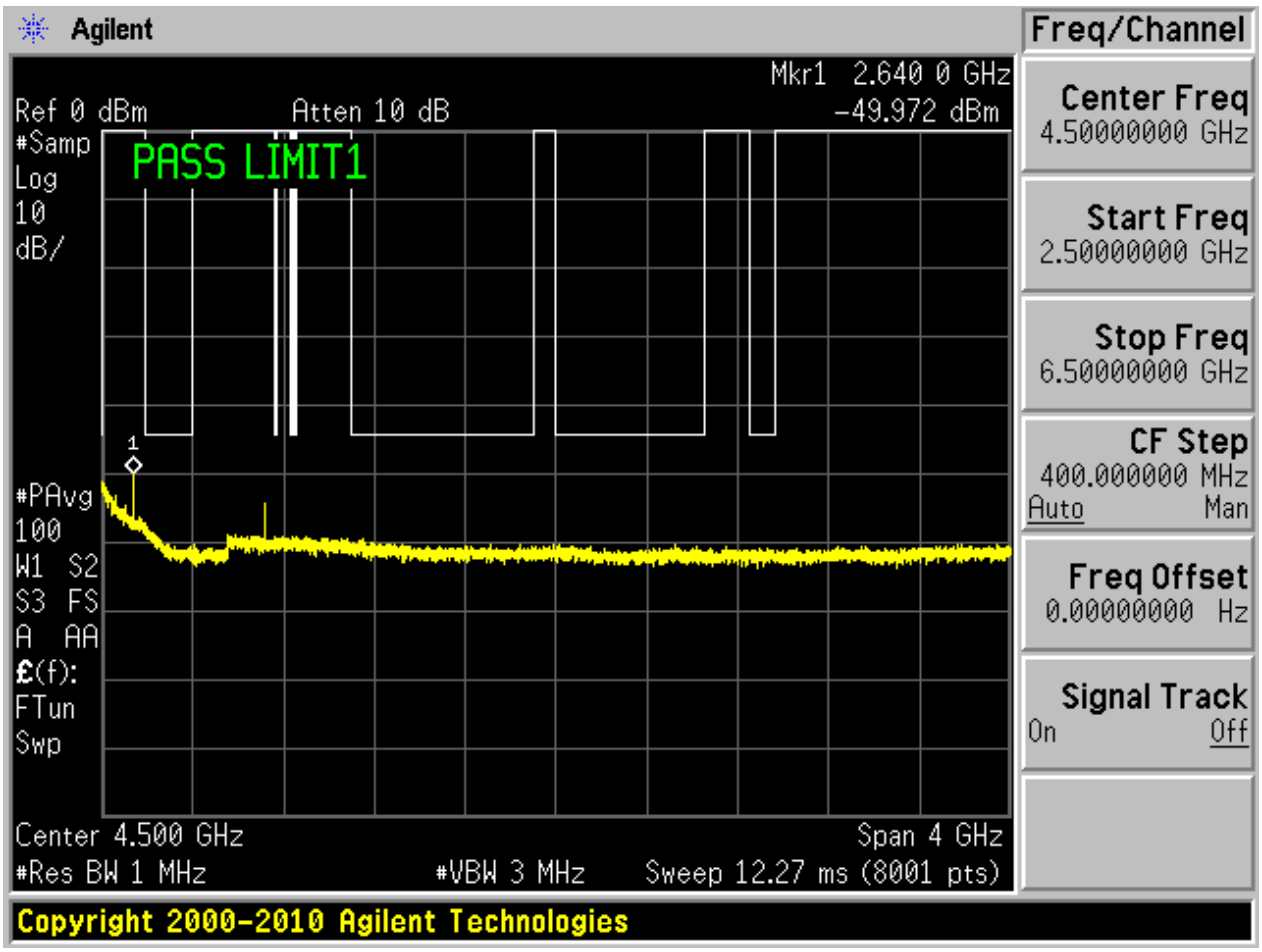



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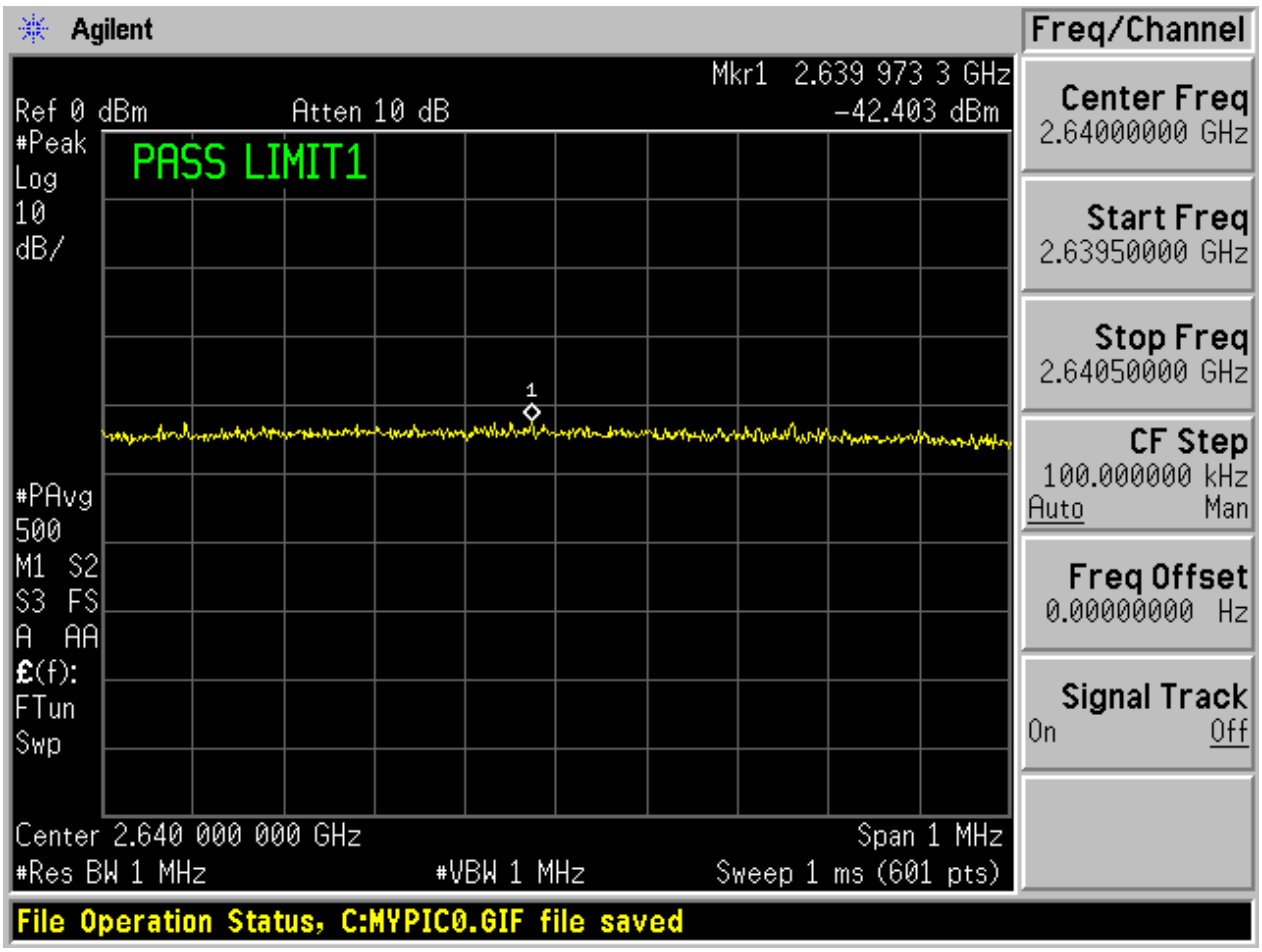



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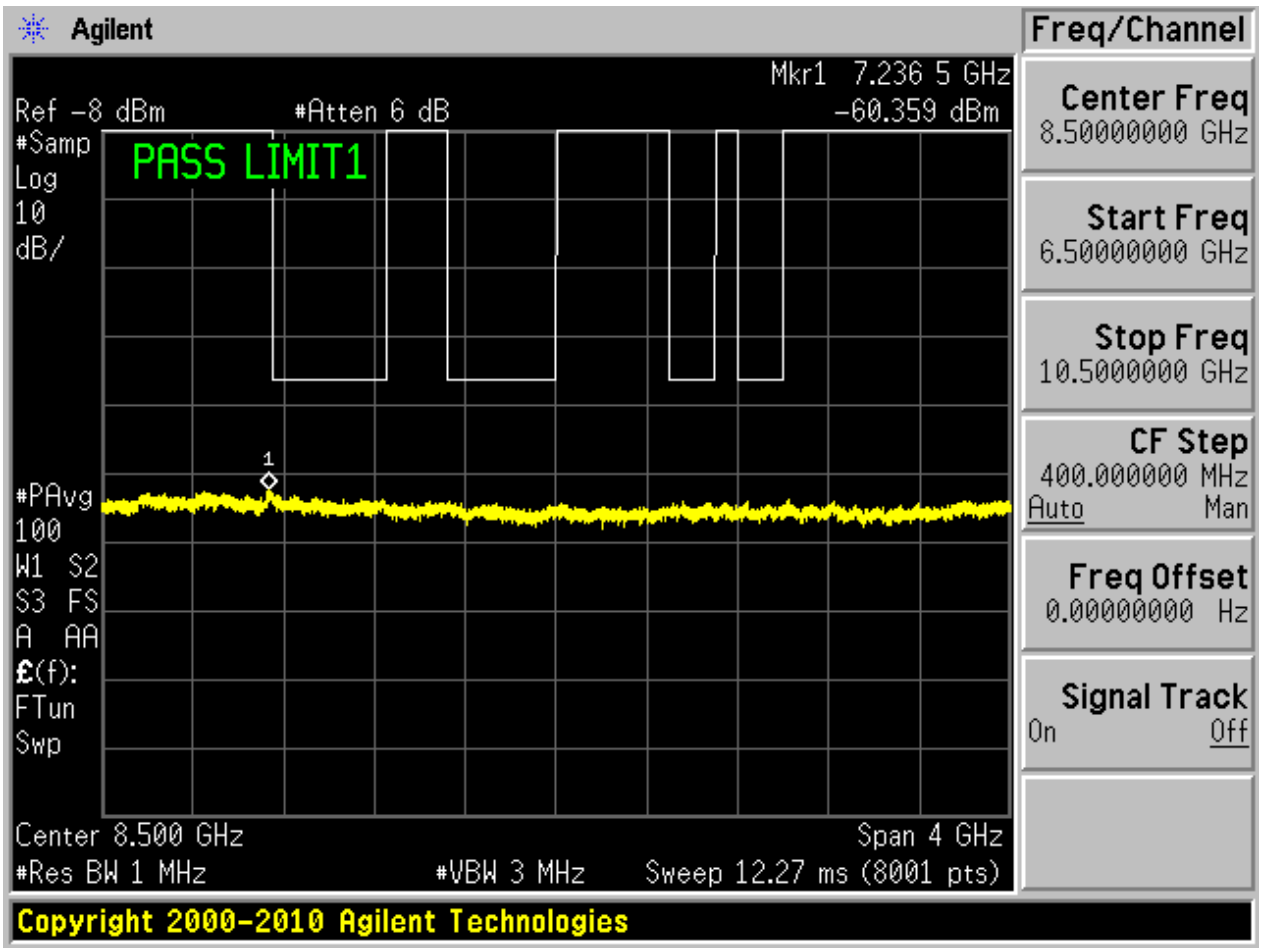



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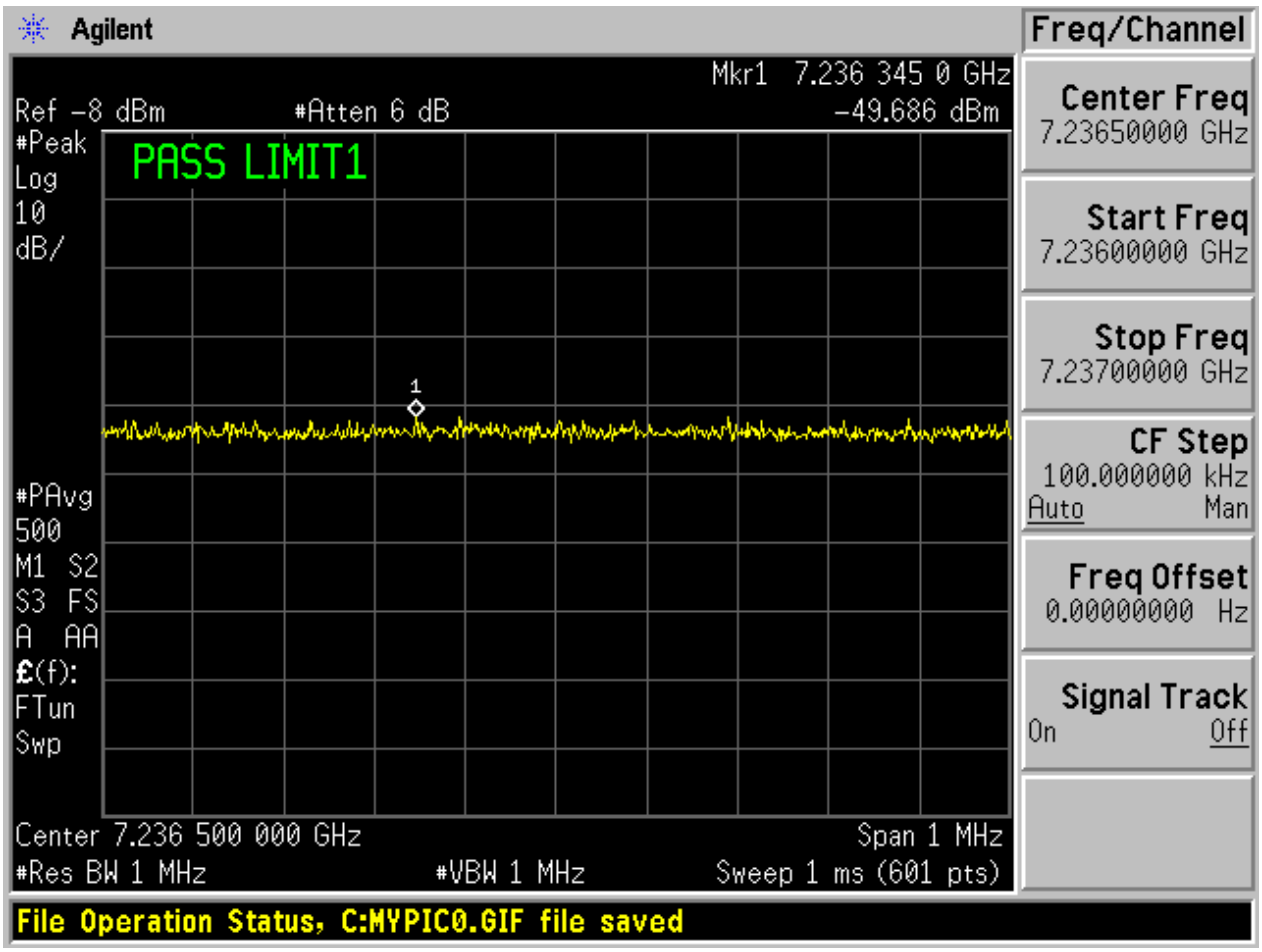



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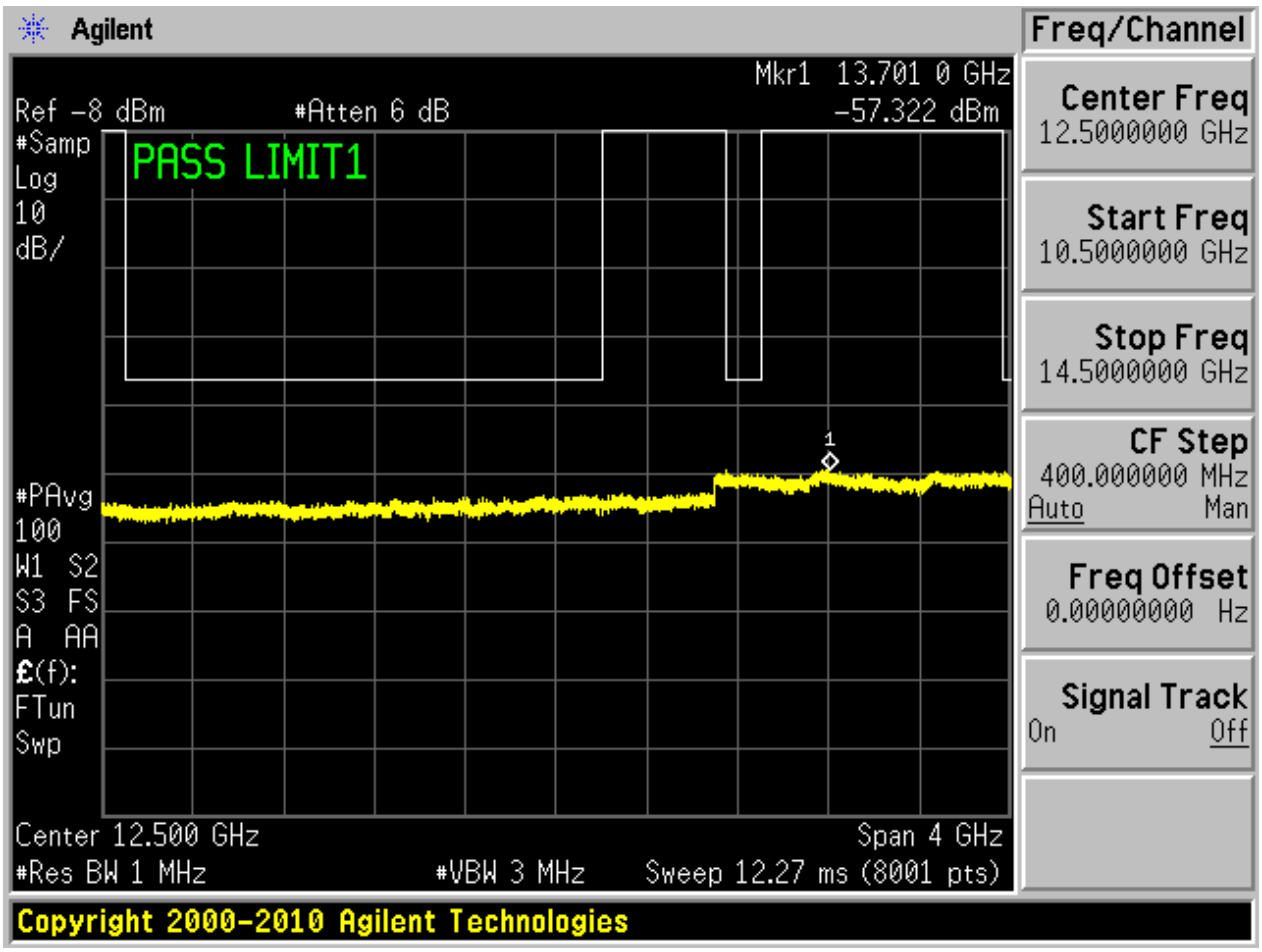



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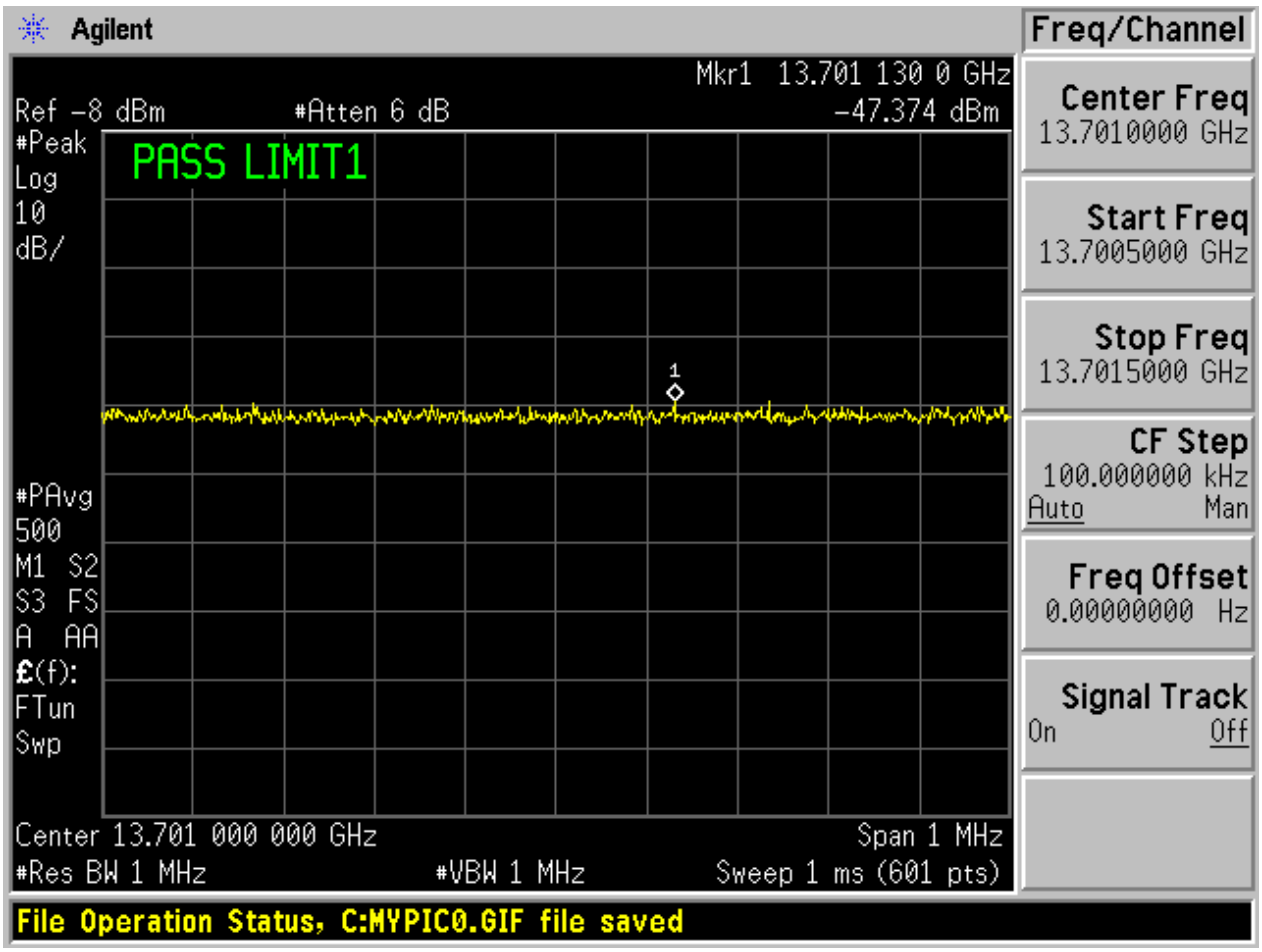



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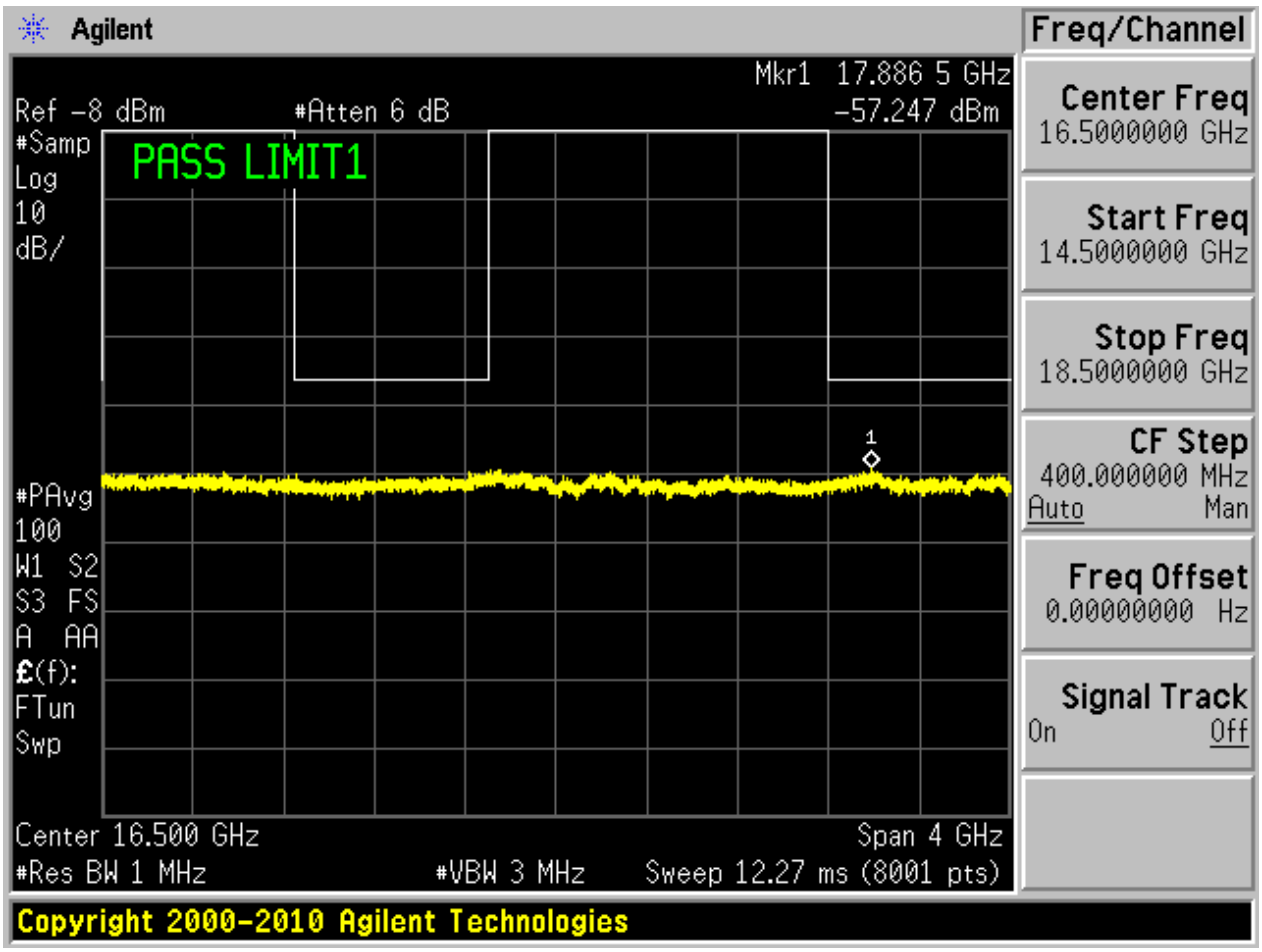



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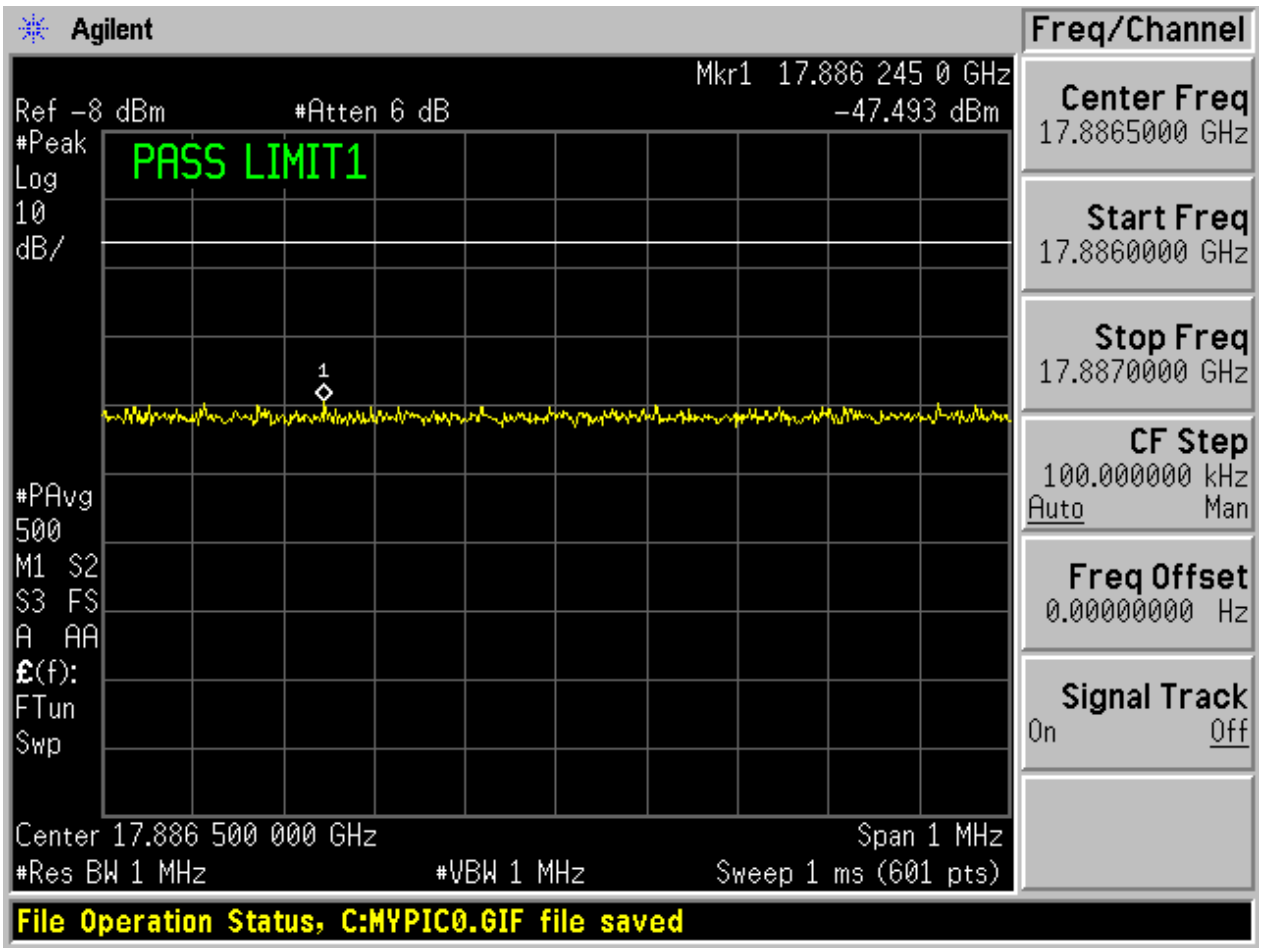



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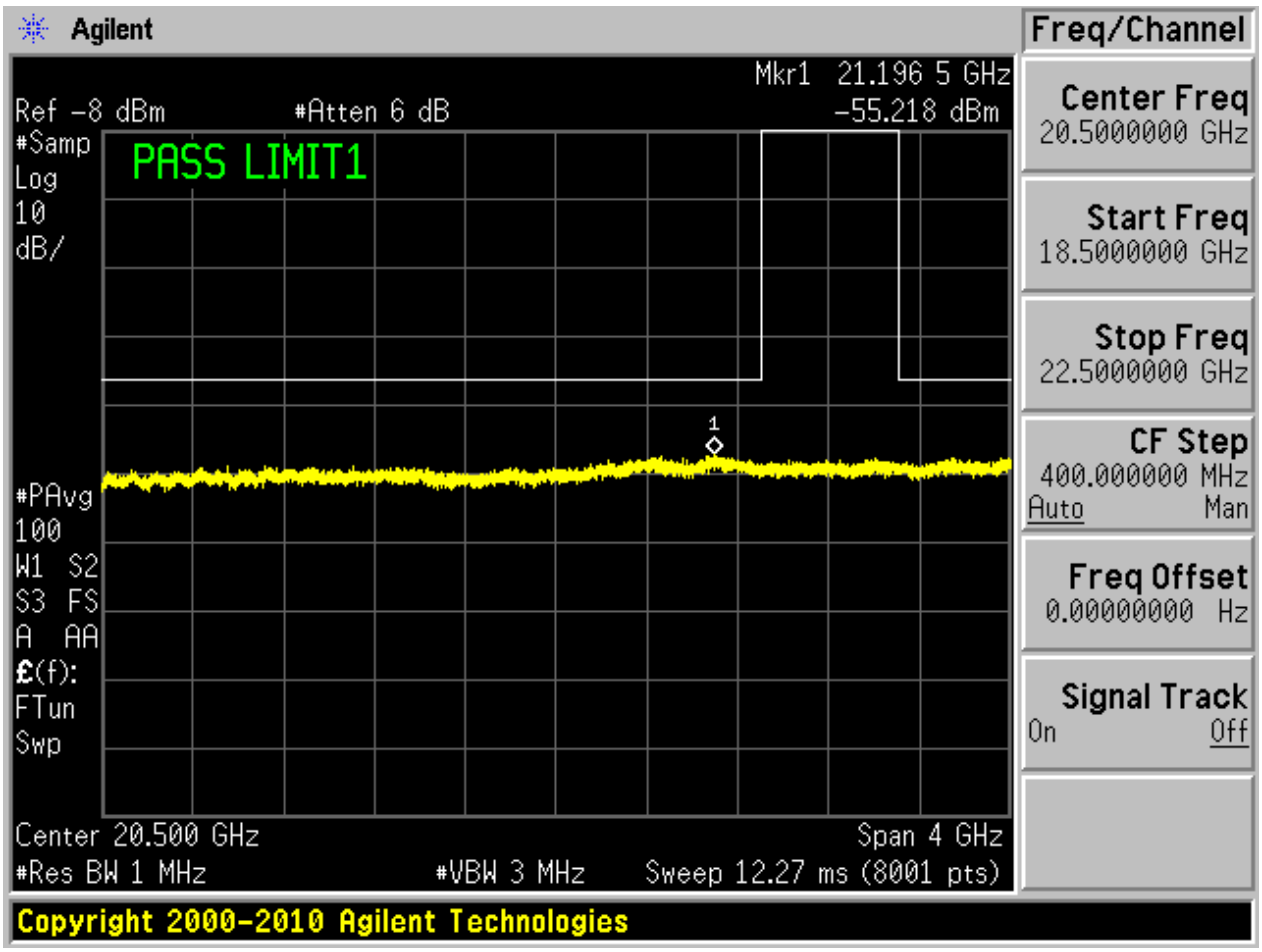



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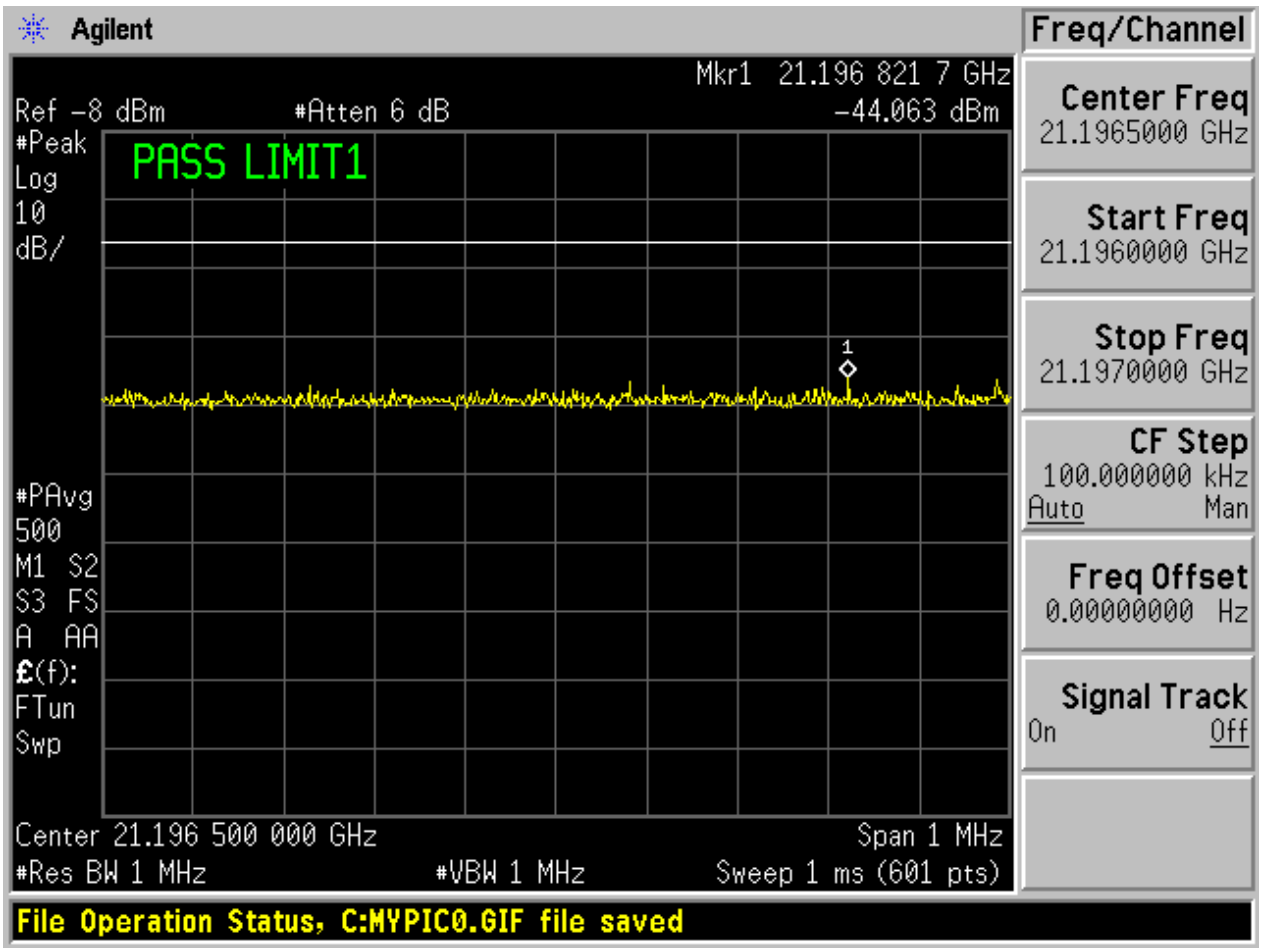



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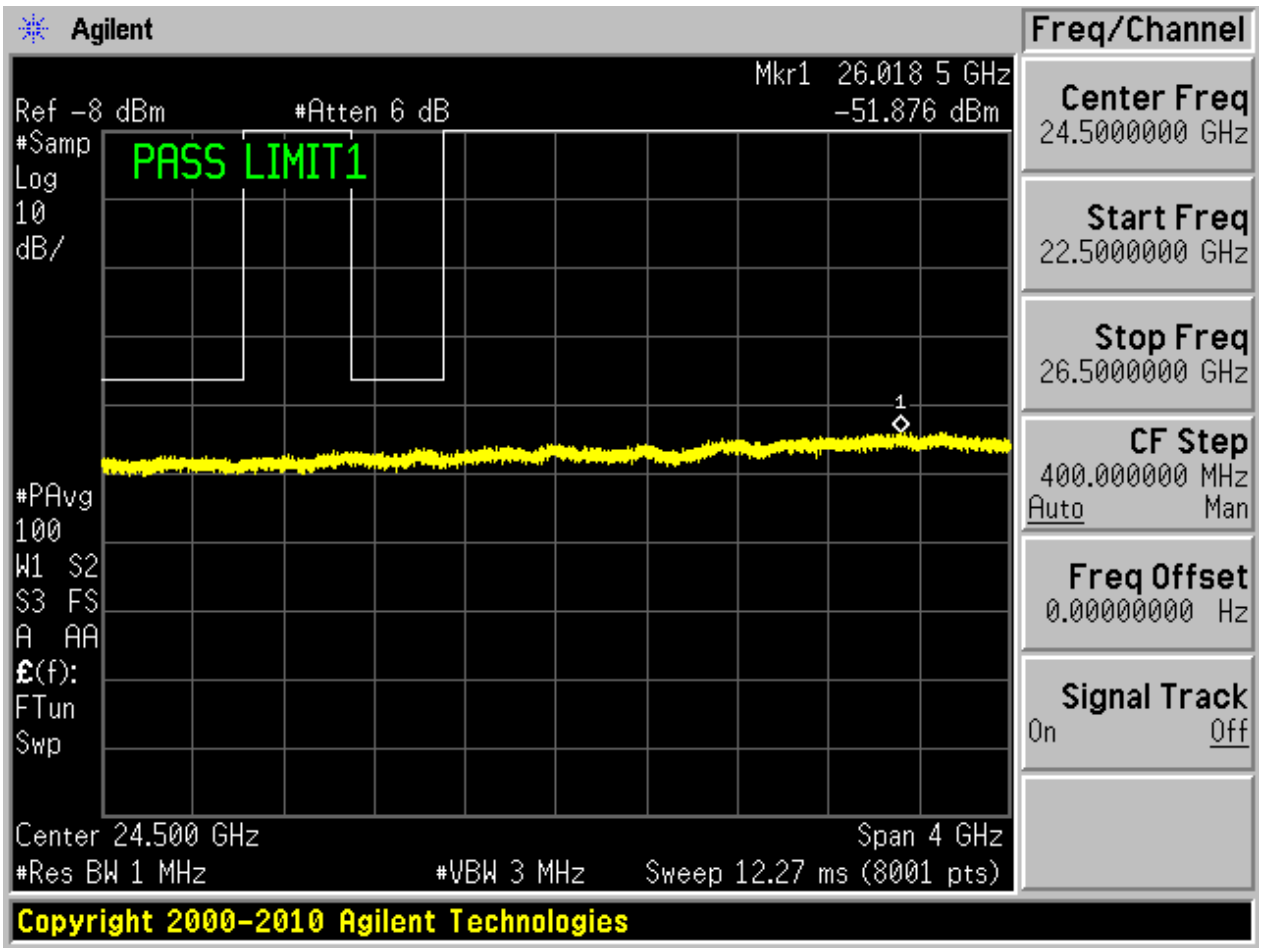



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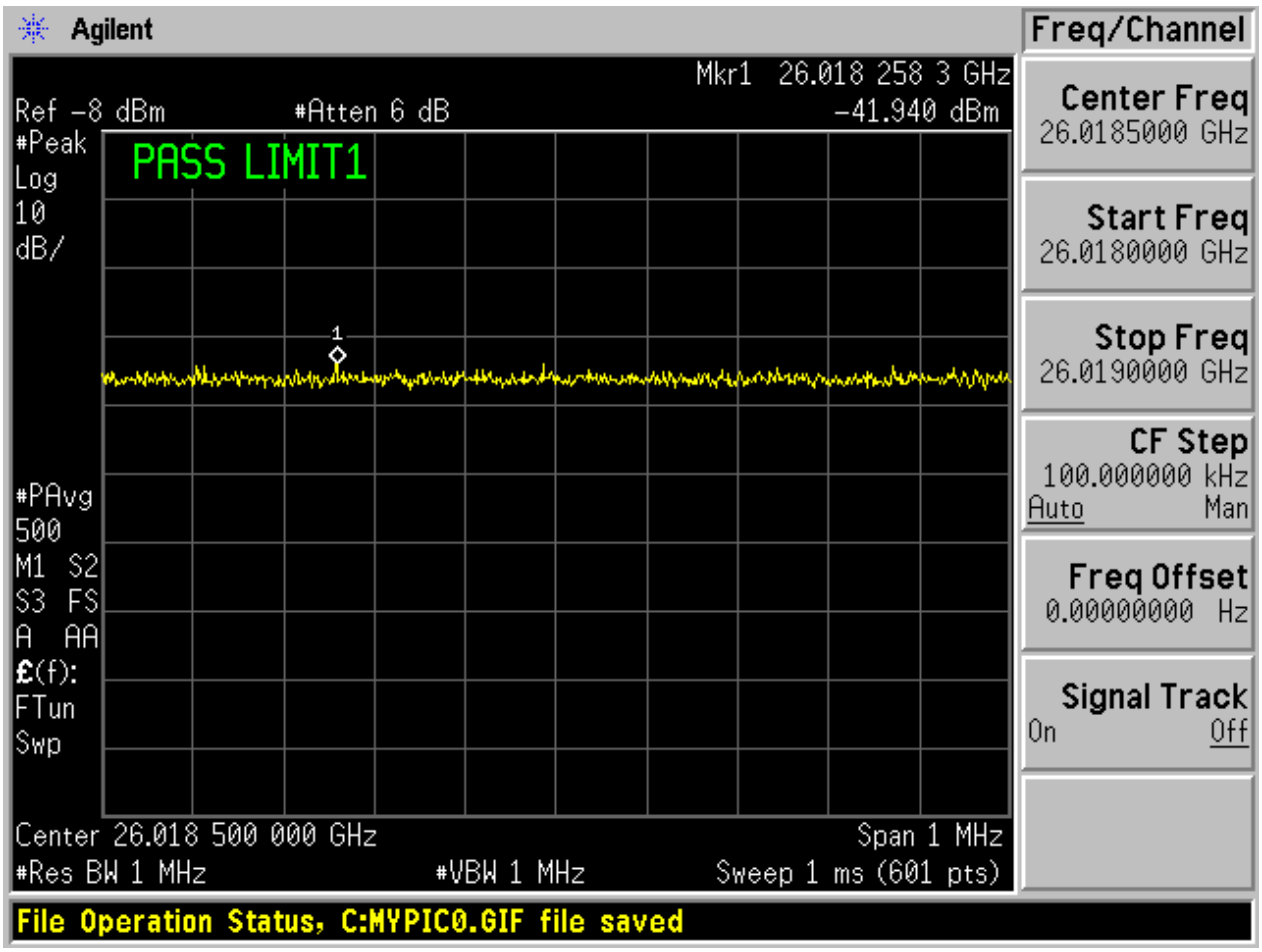


## 2.5 11G/6_M@1


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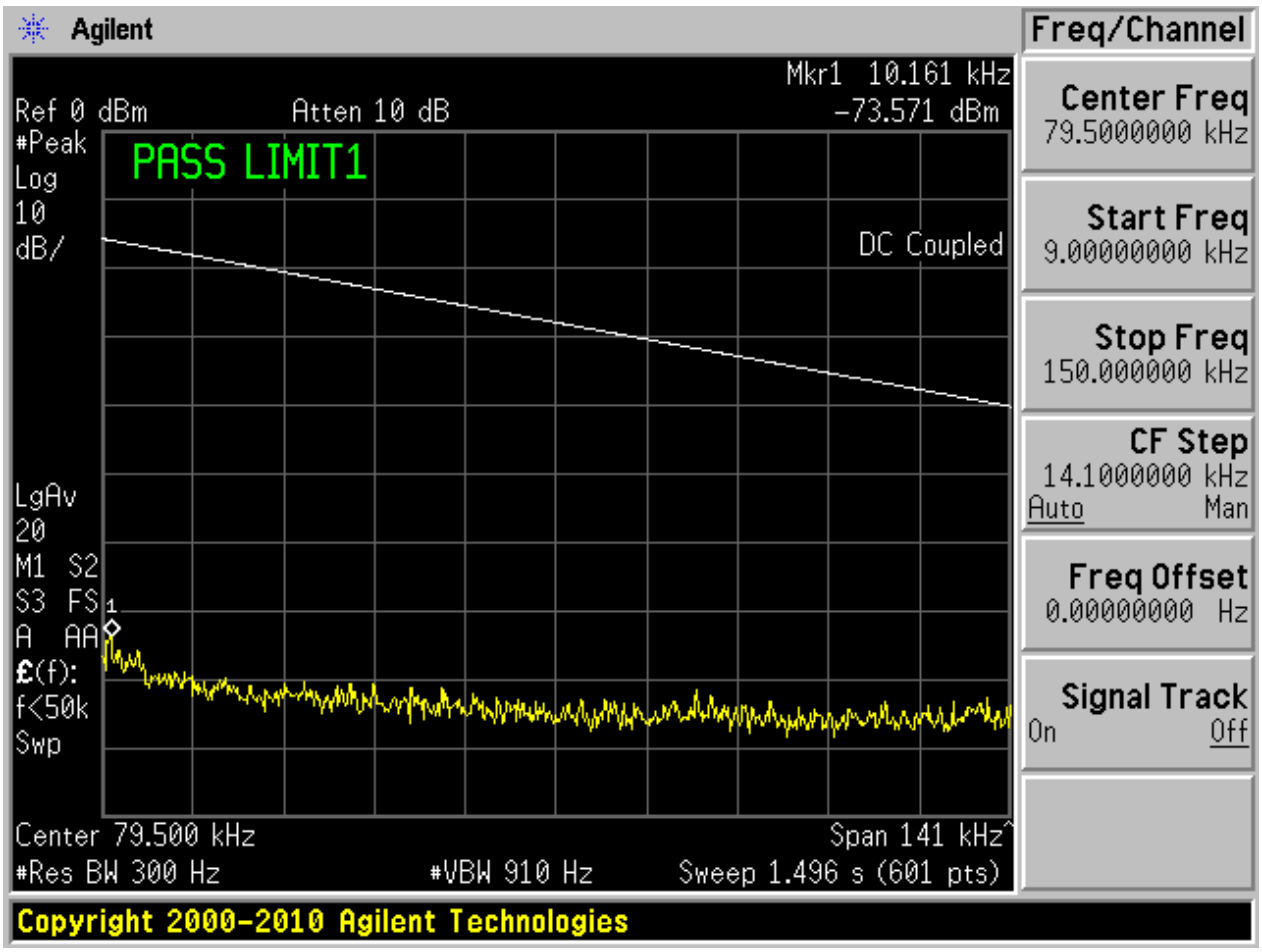



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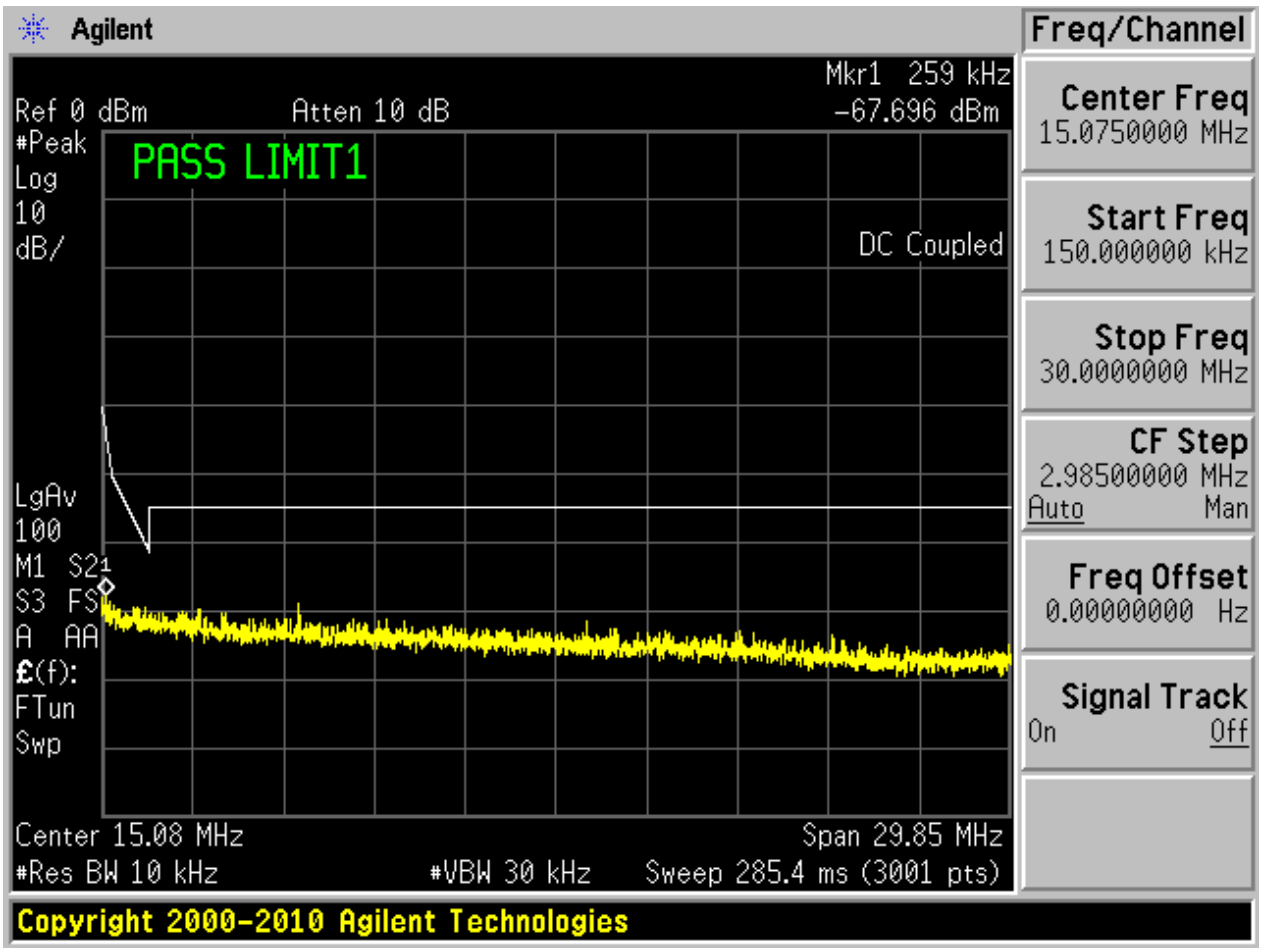



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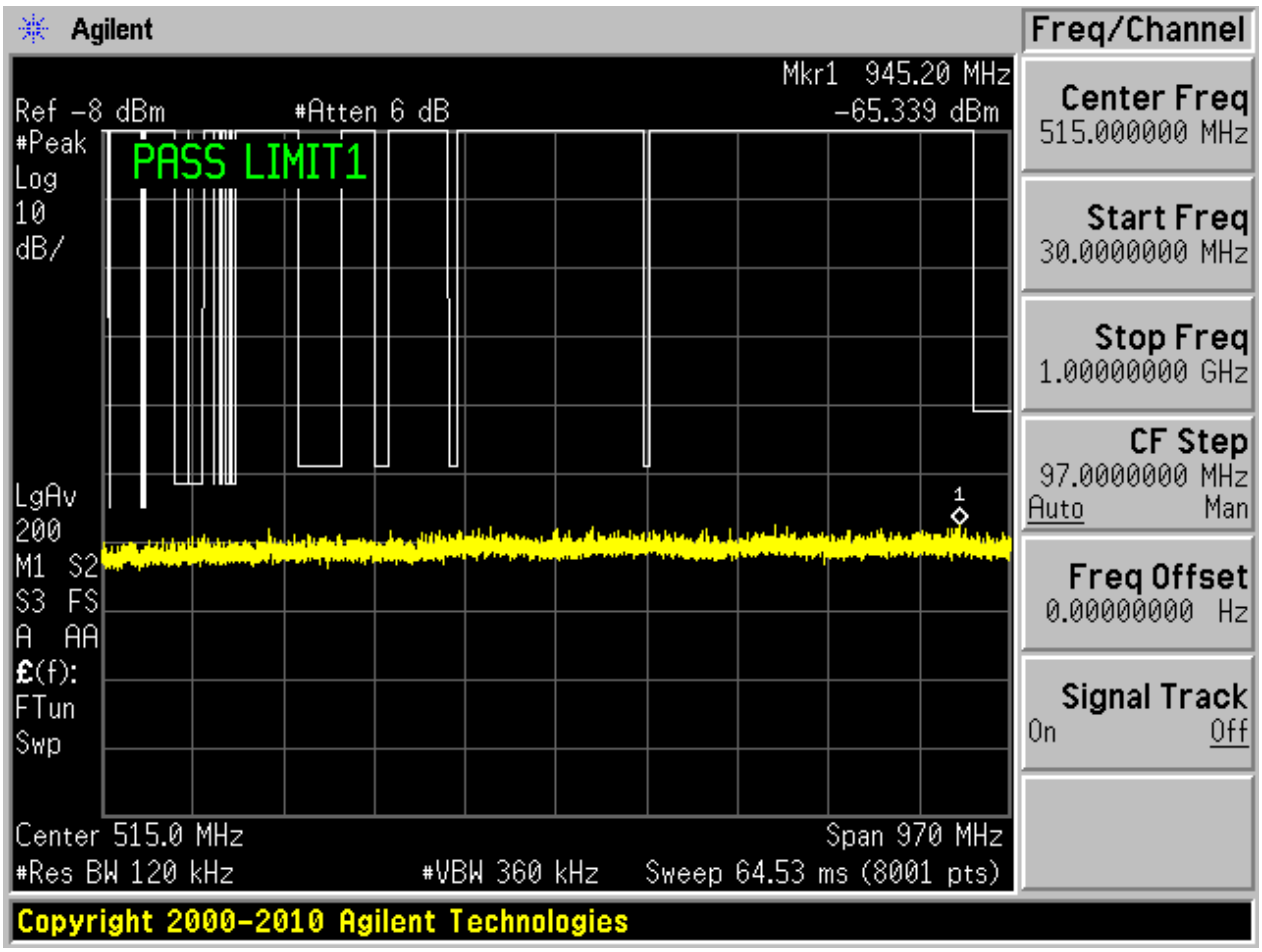



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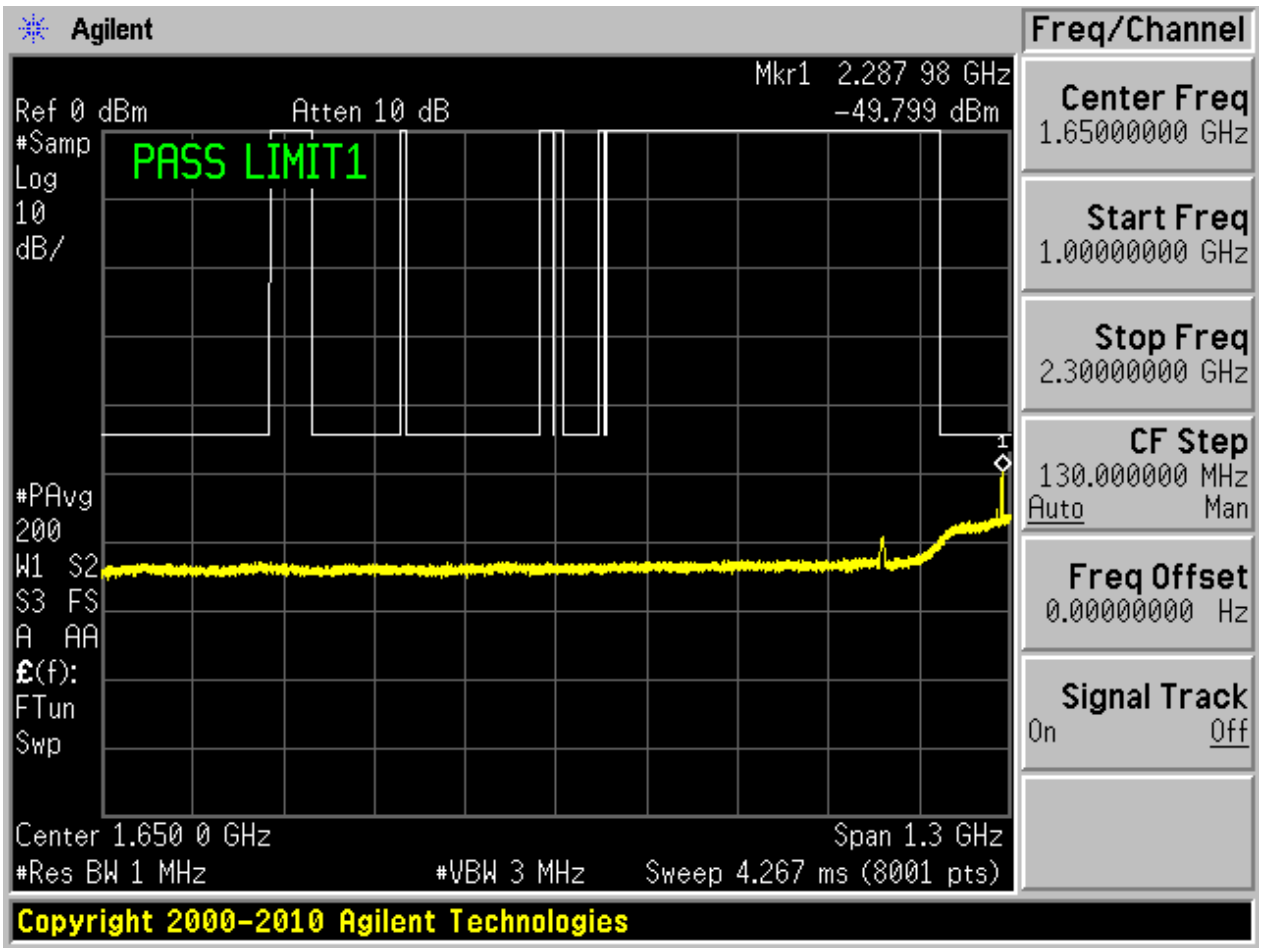



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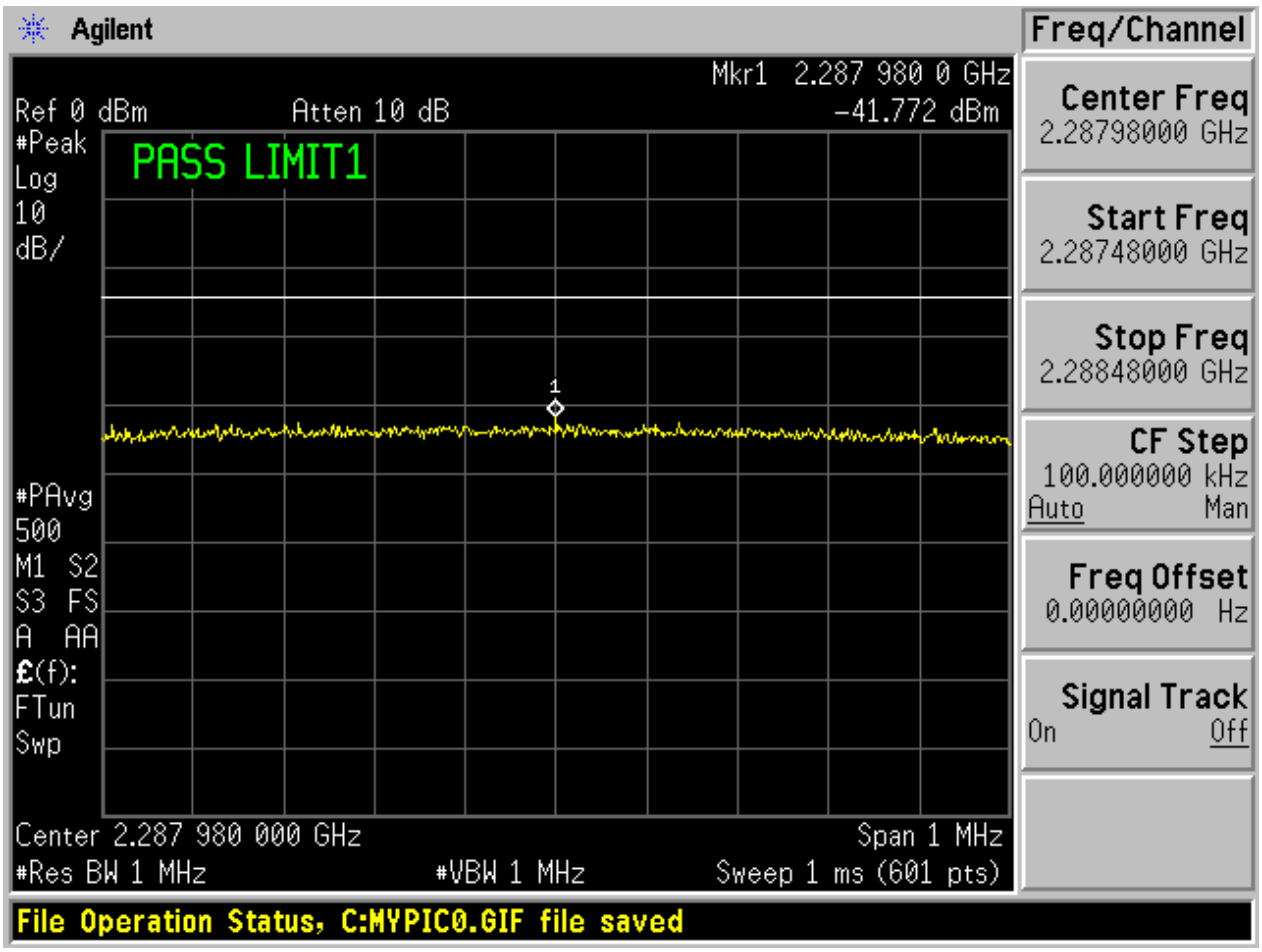



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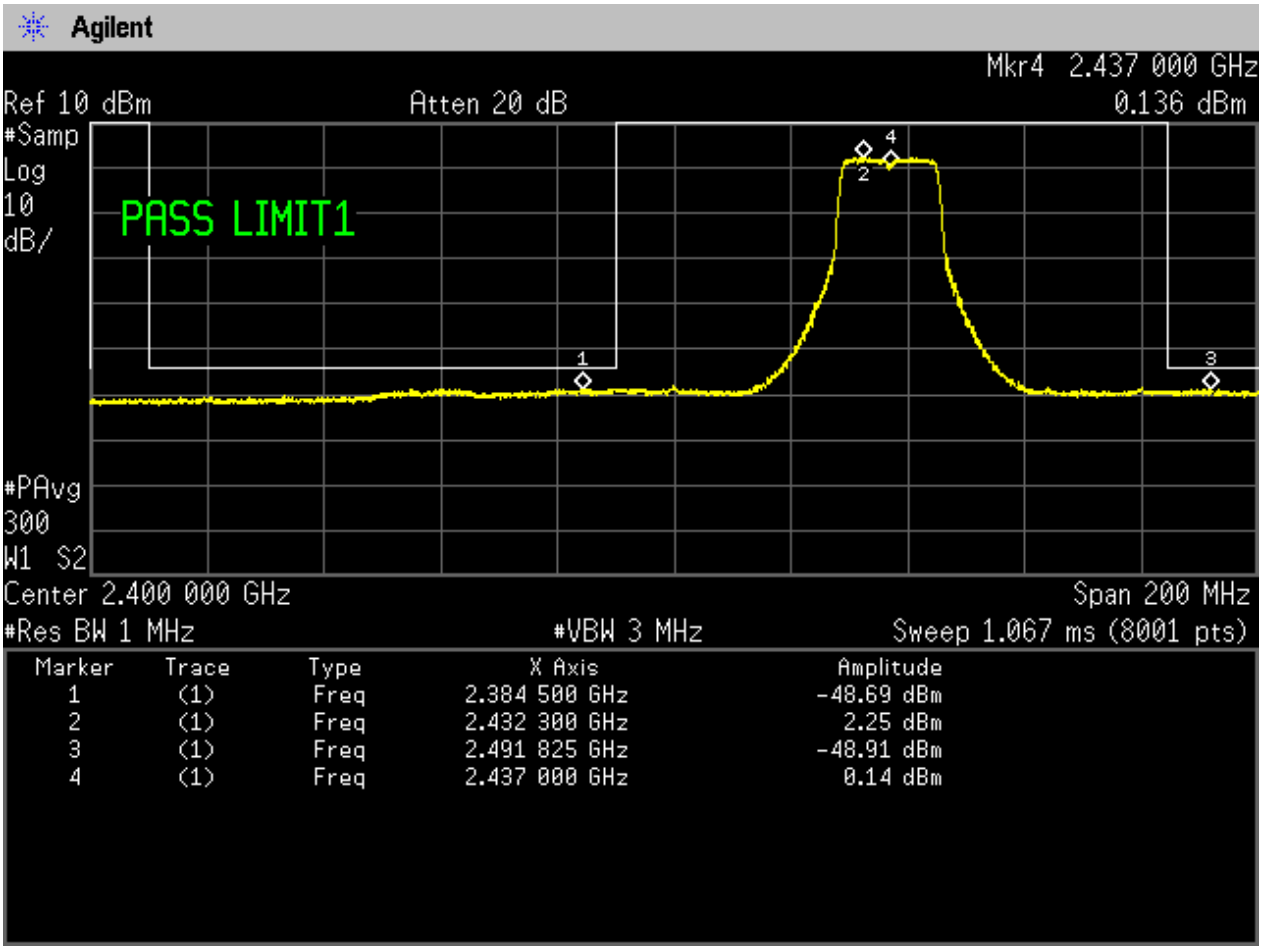



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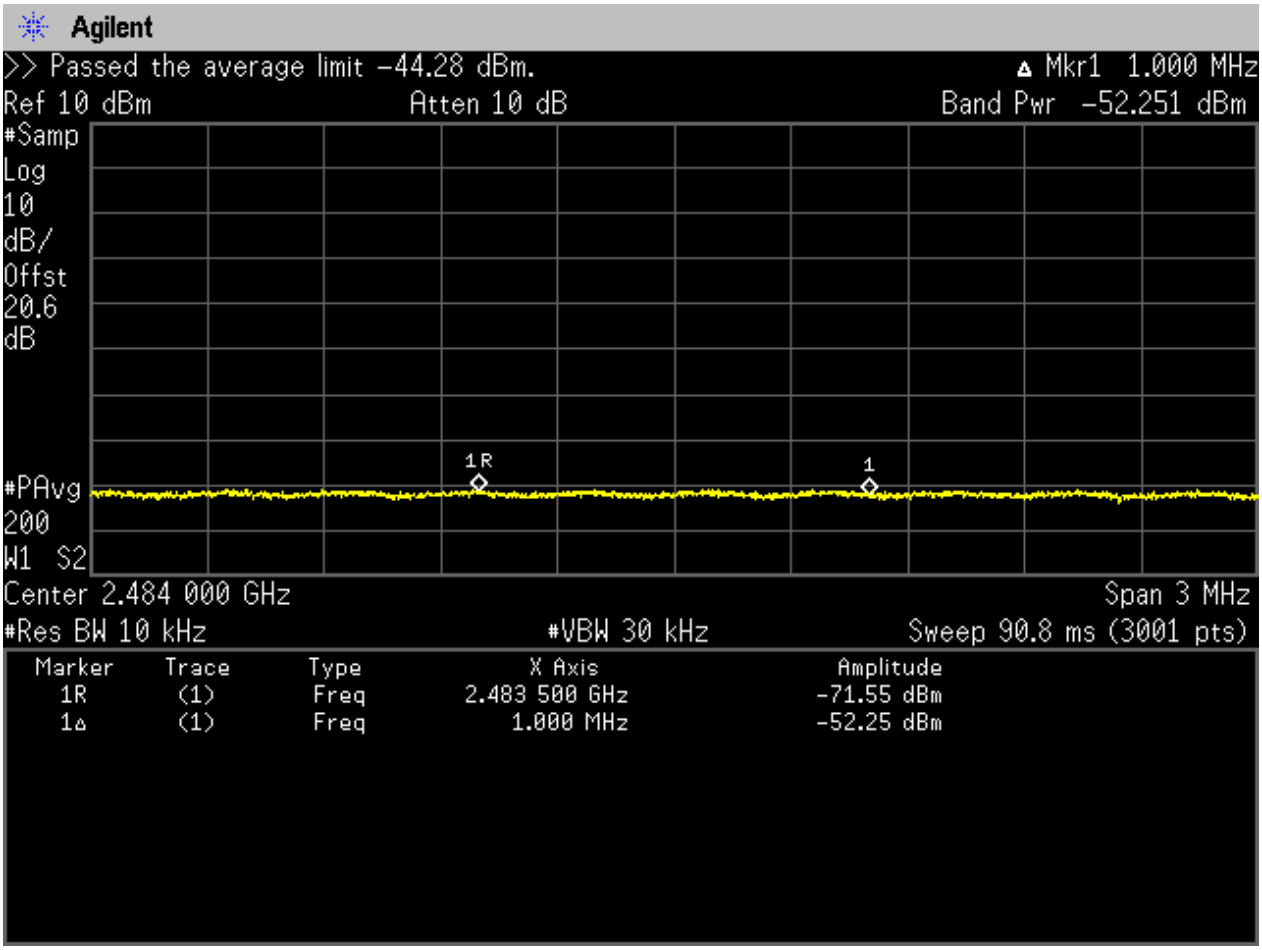



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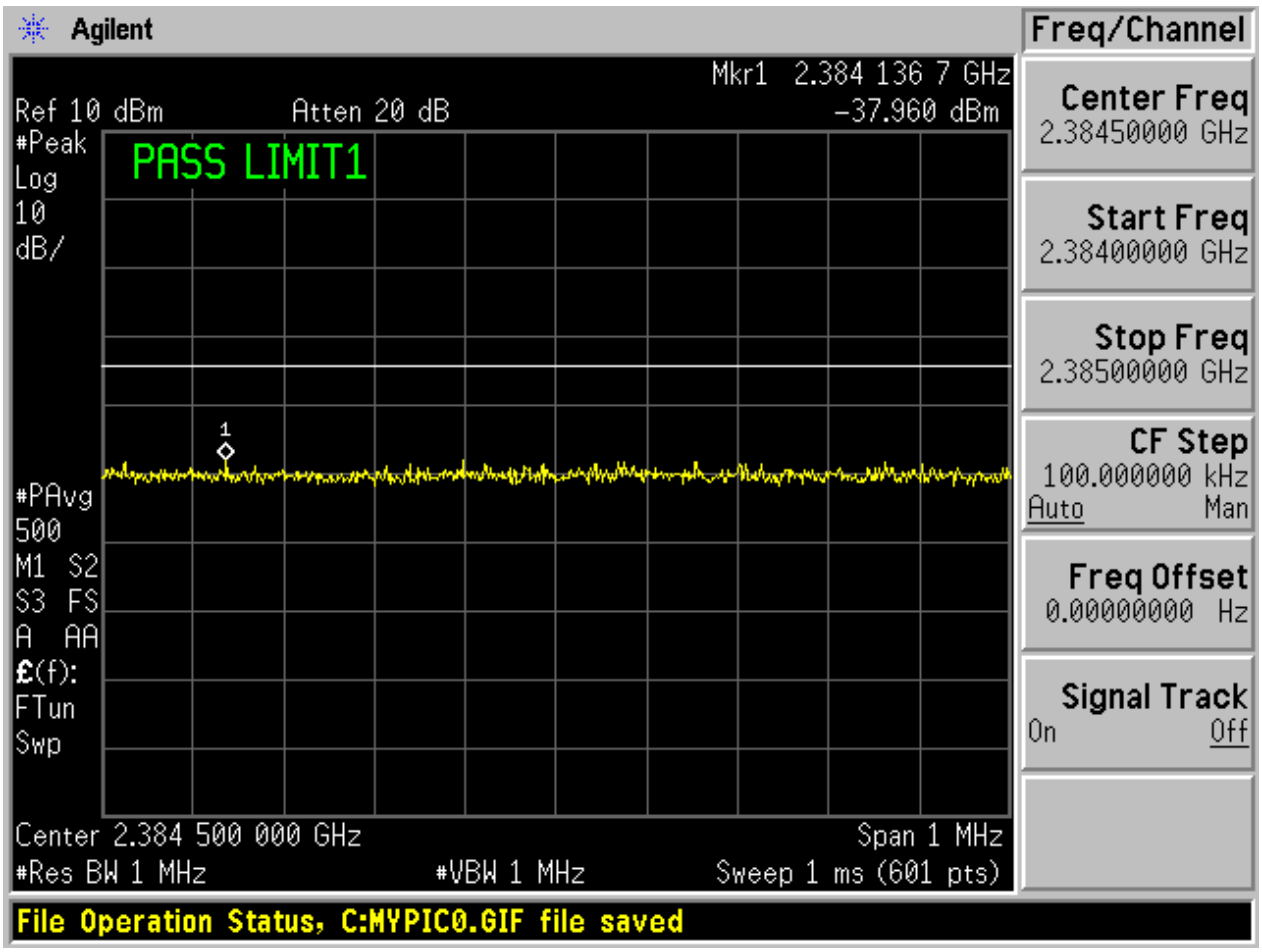



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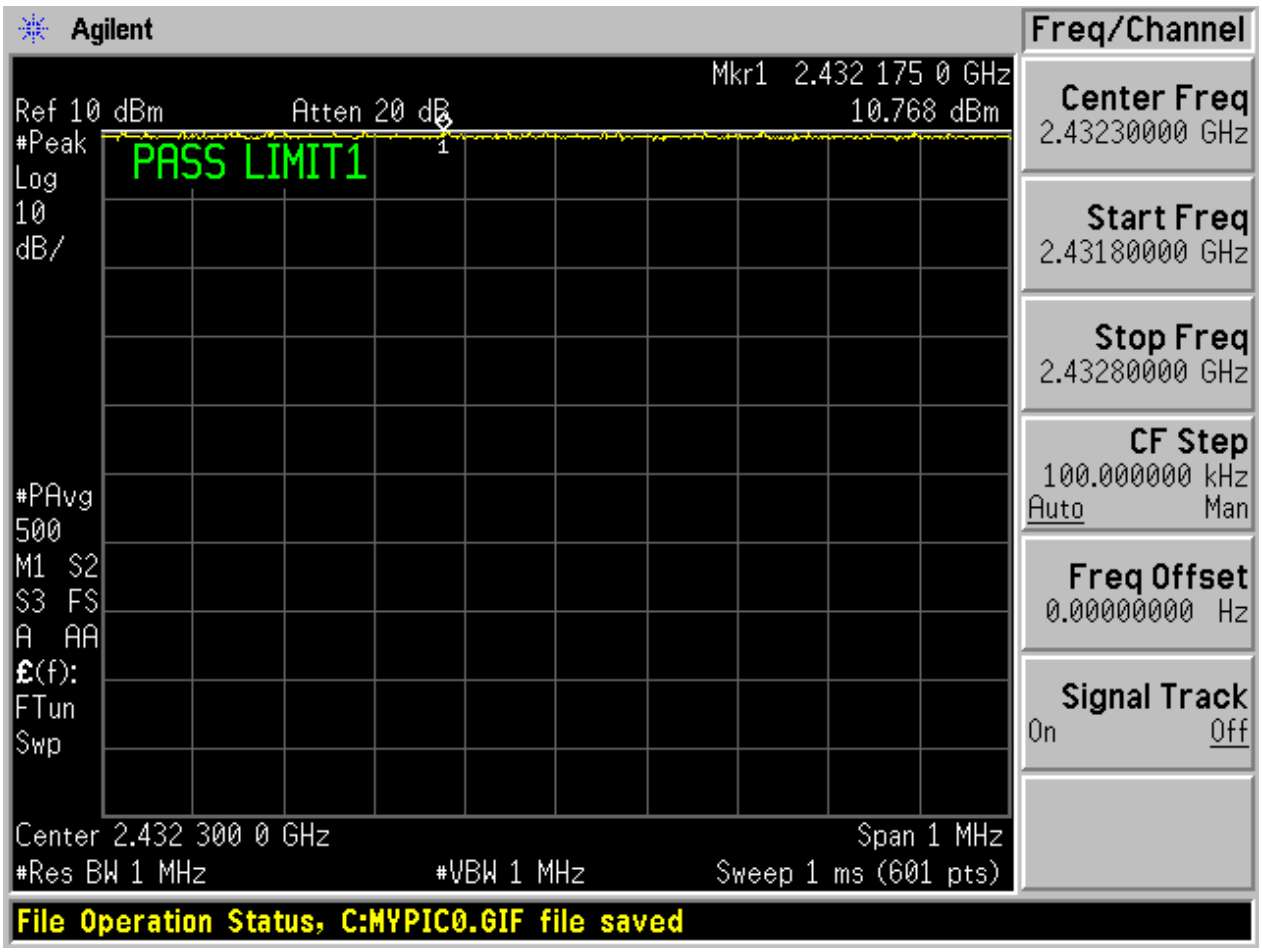



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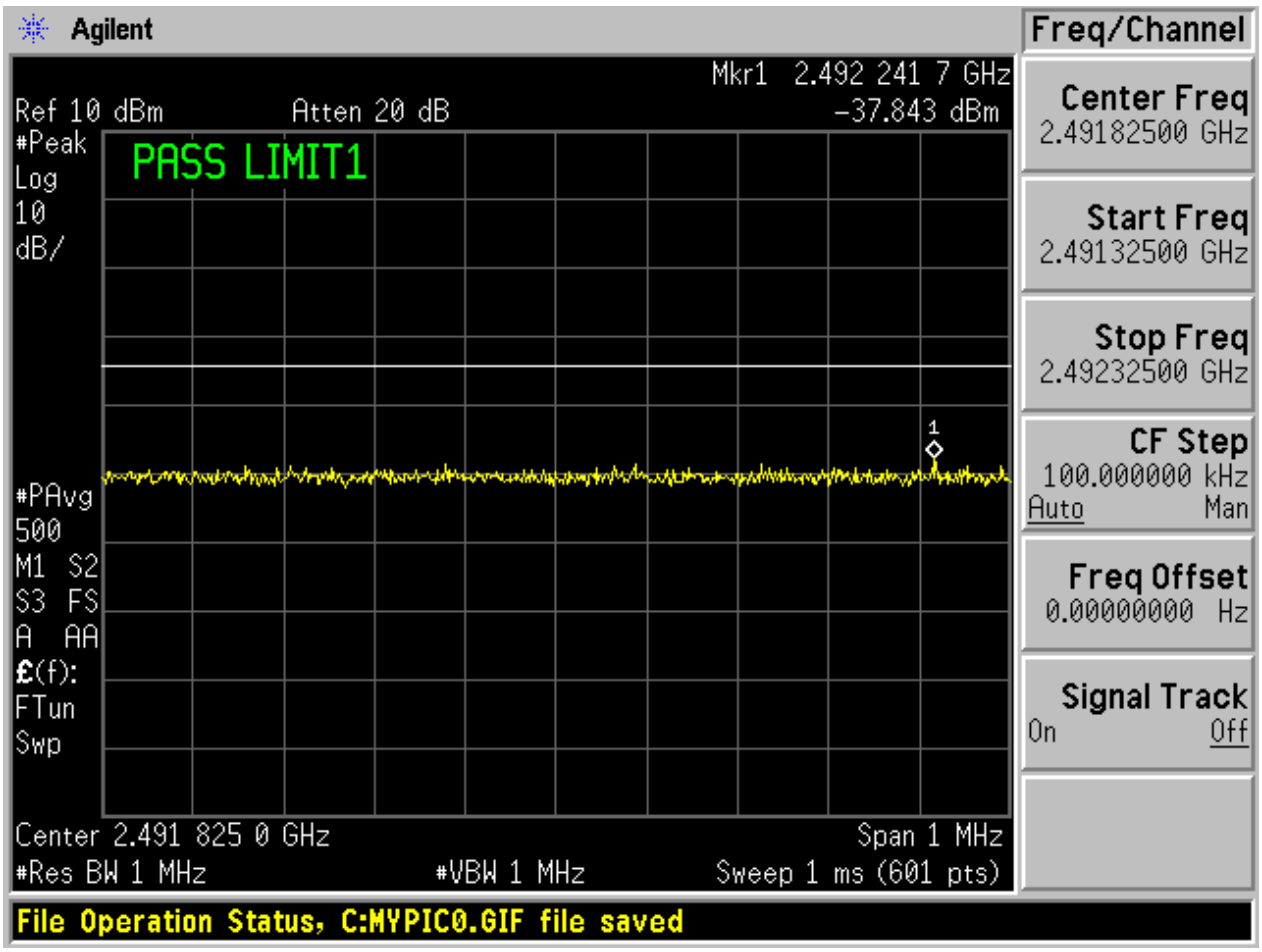



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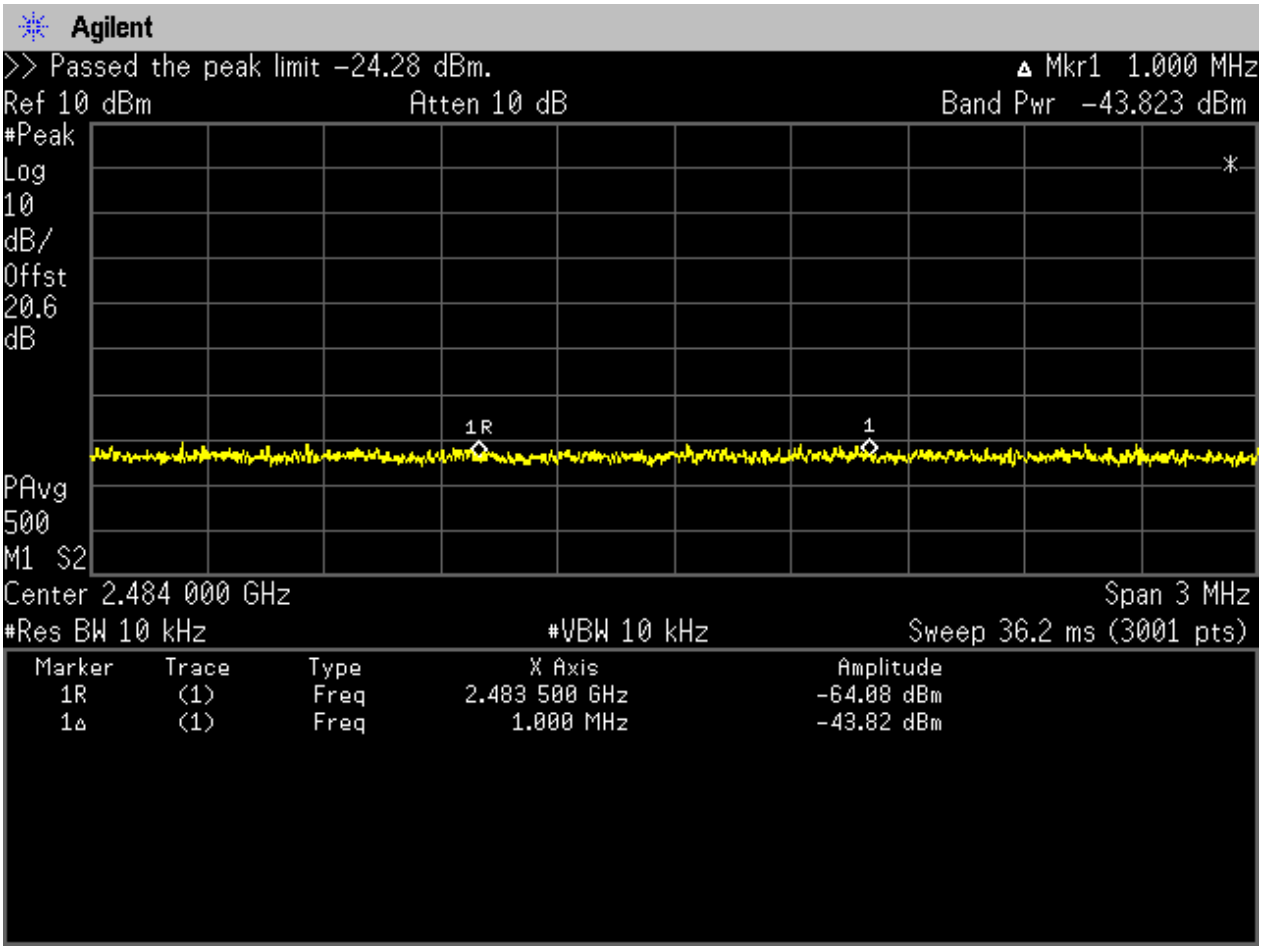



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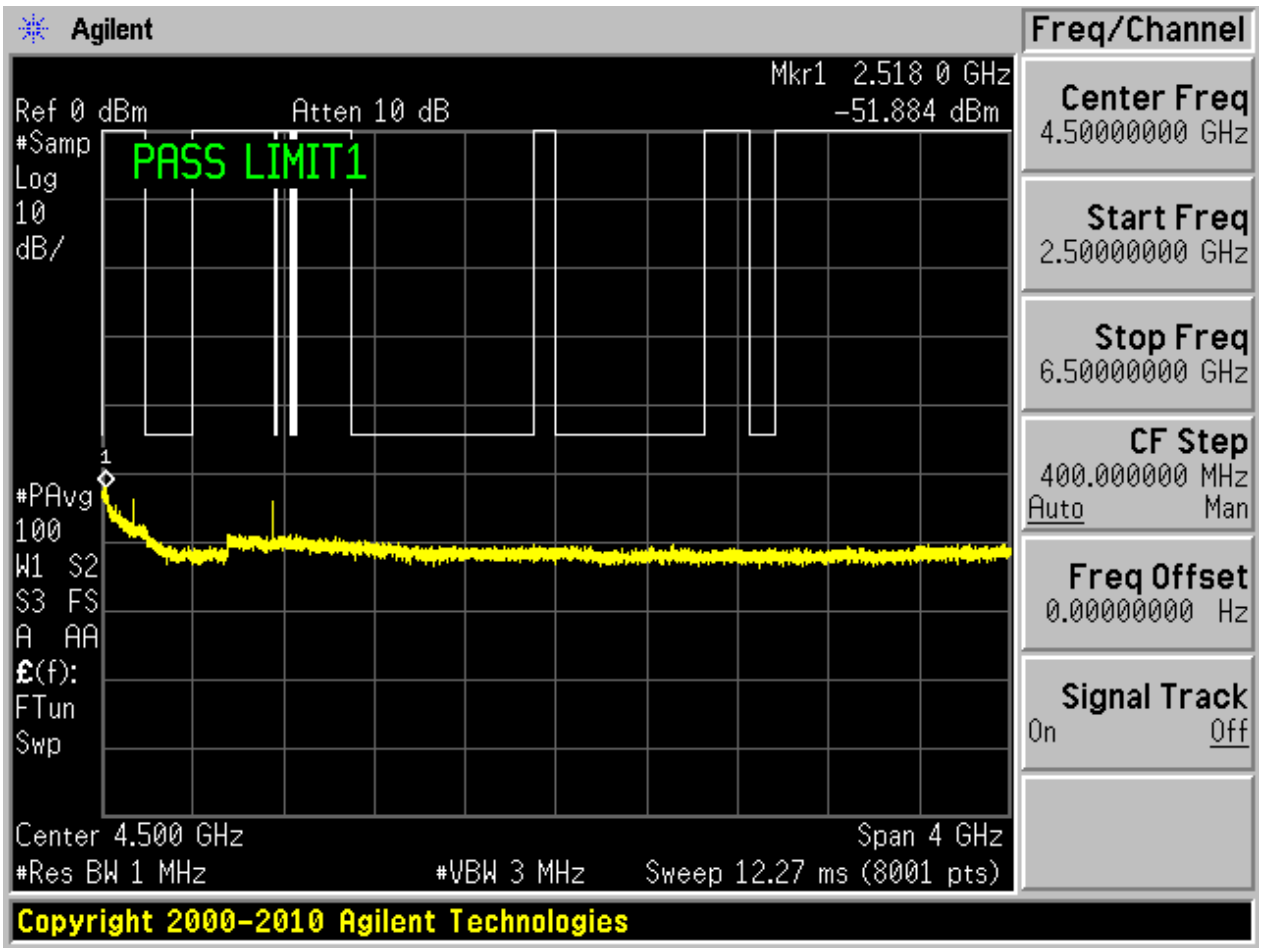



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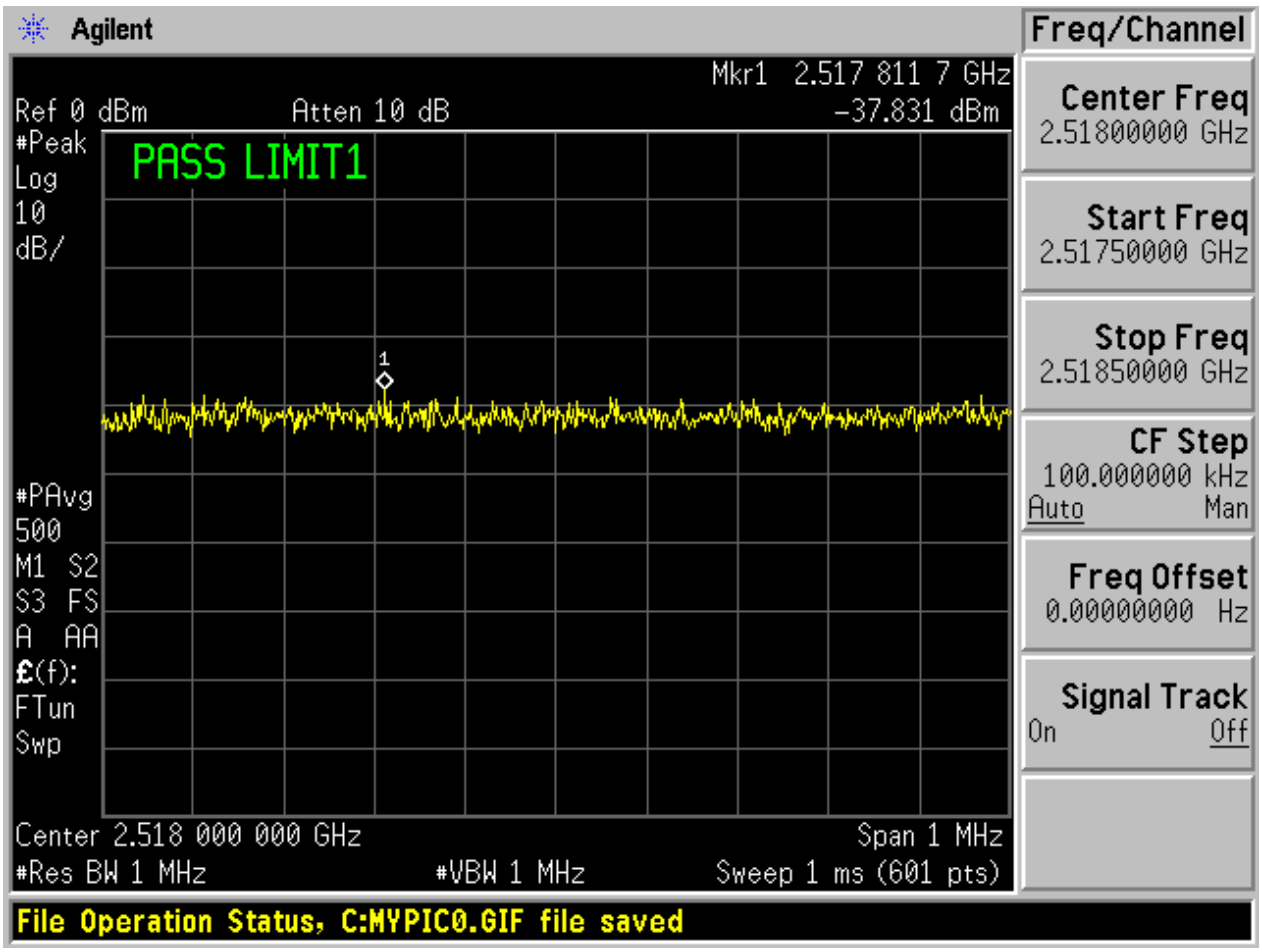



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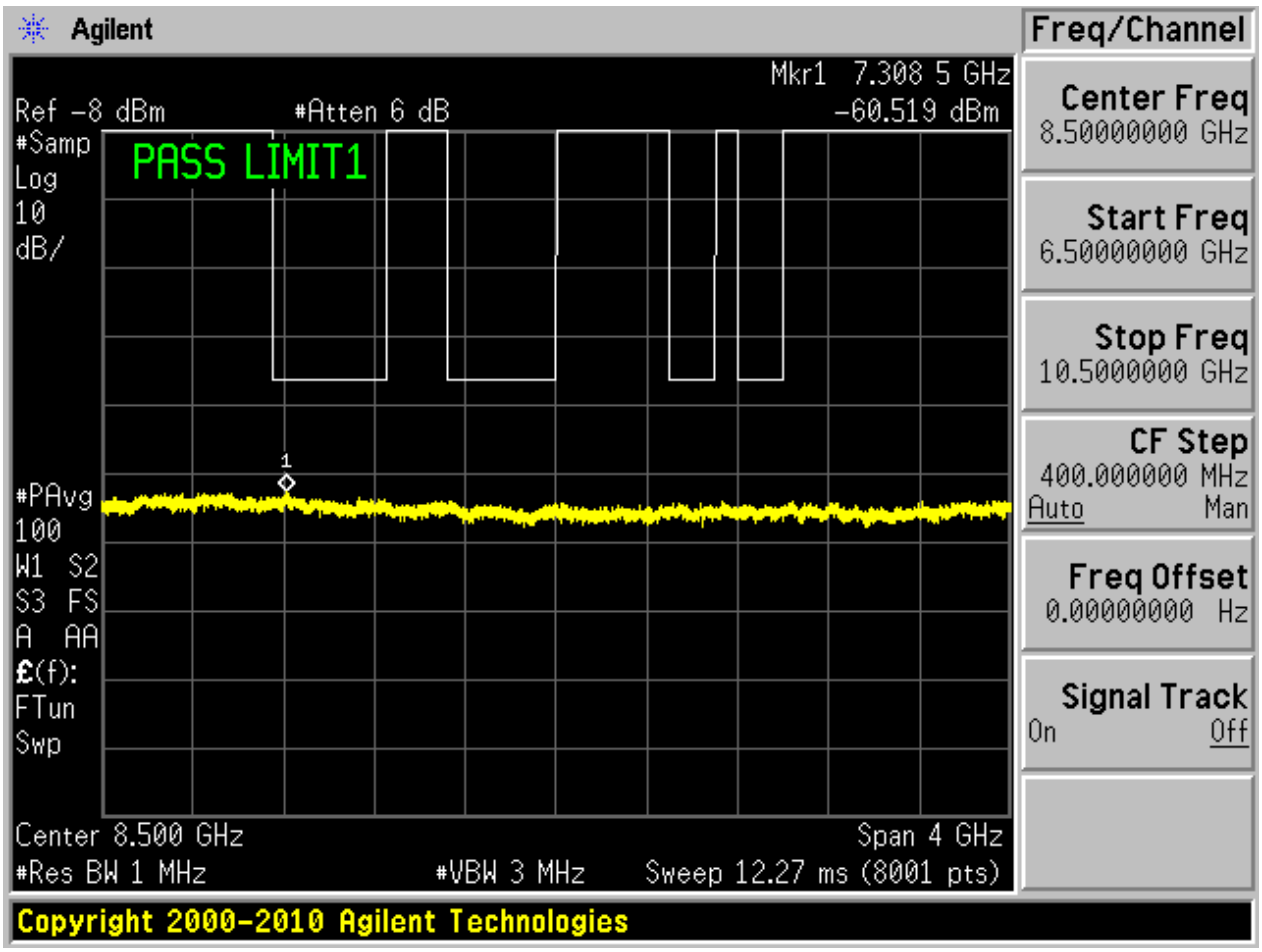



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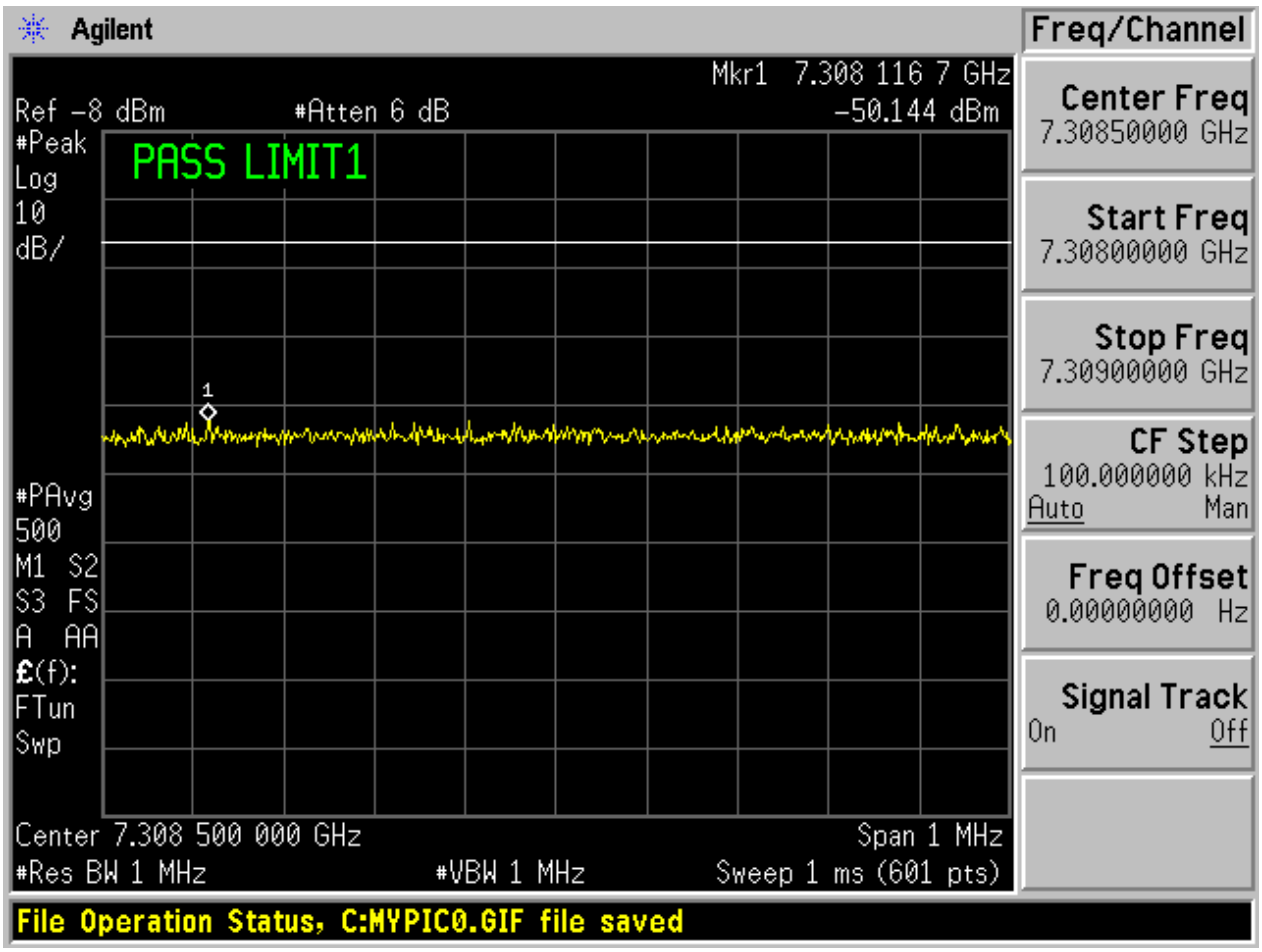



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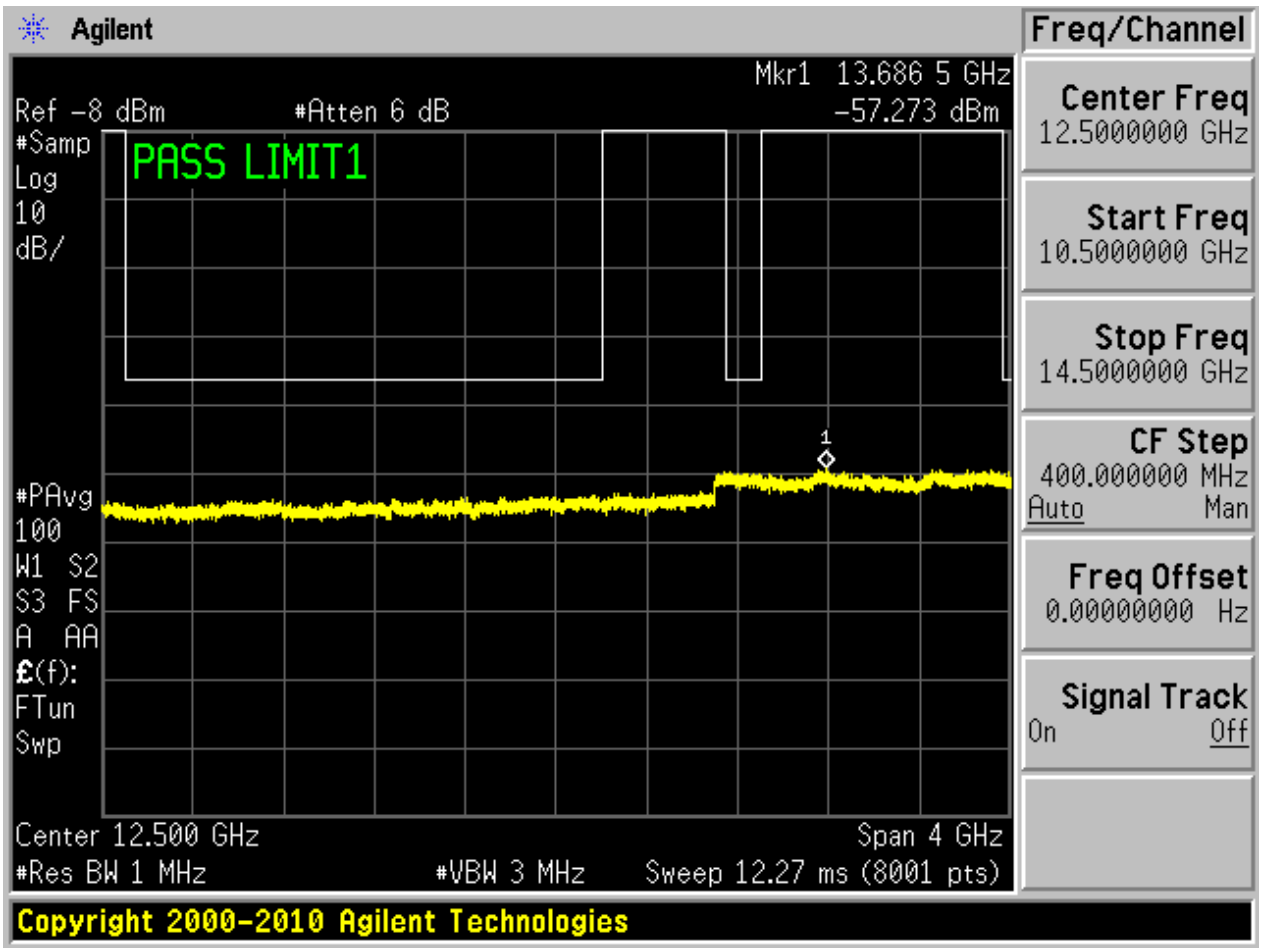



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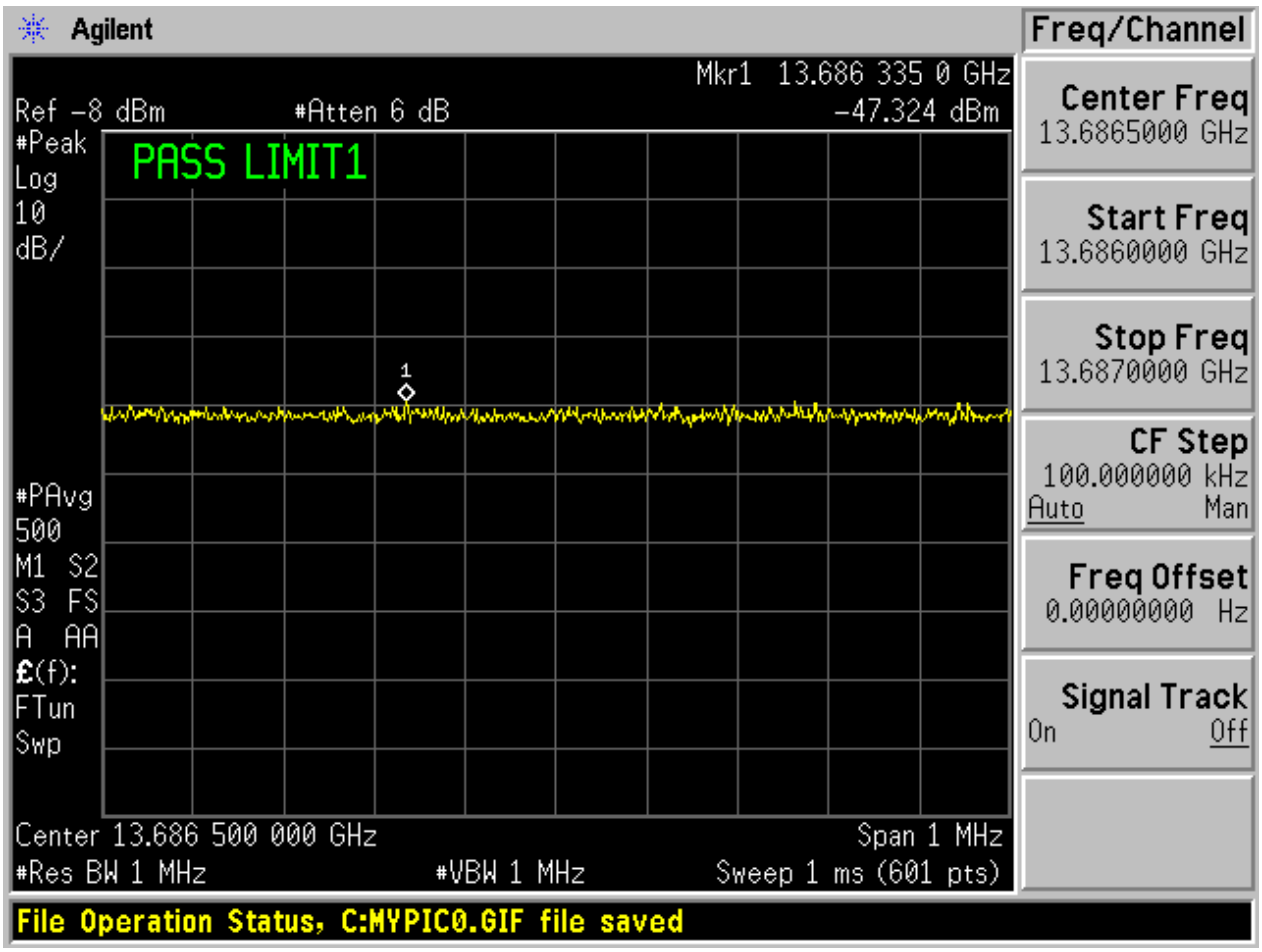



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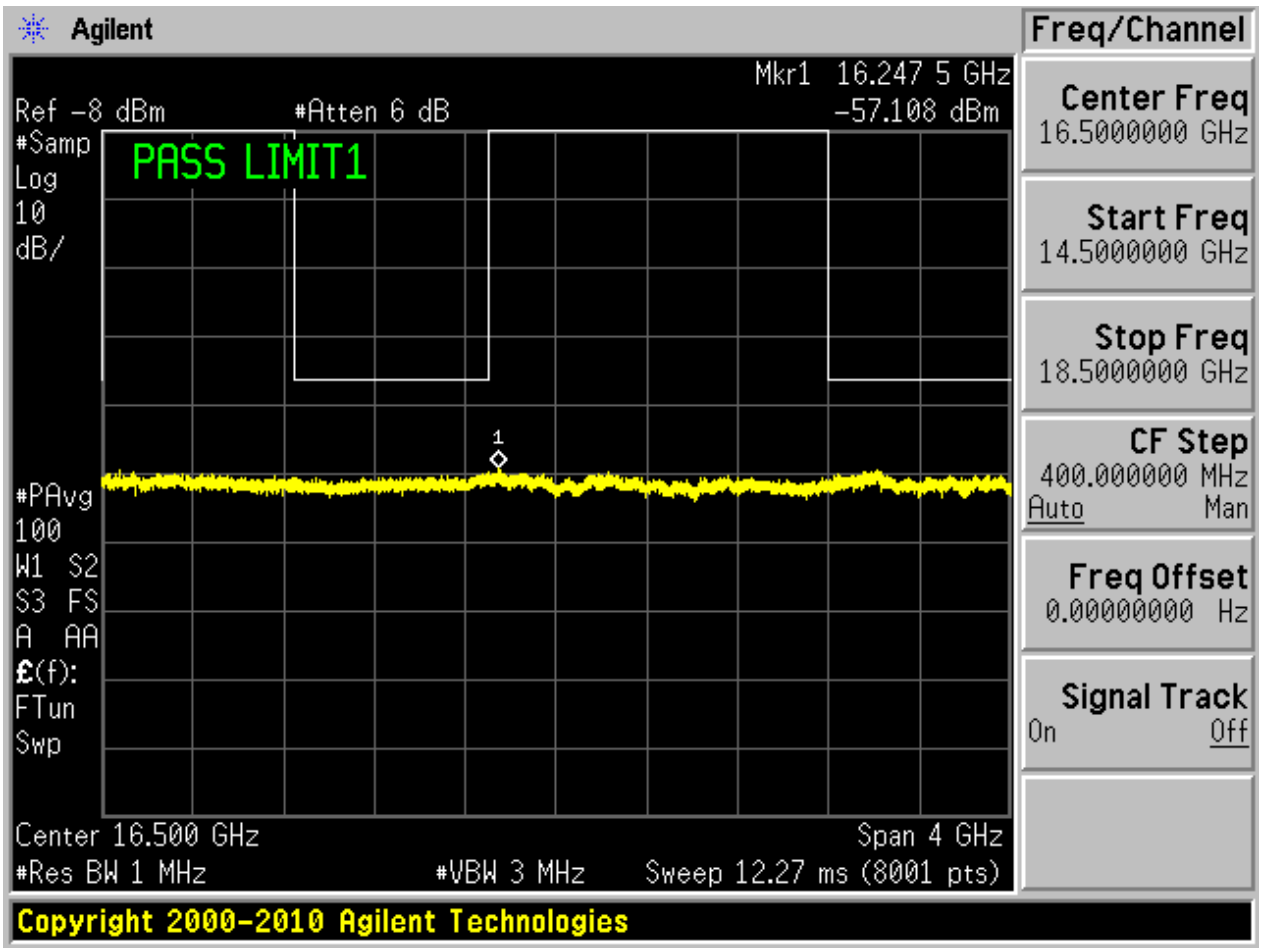



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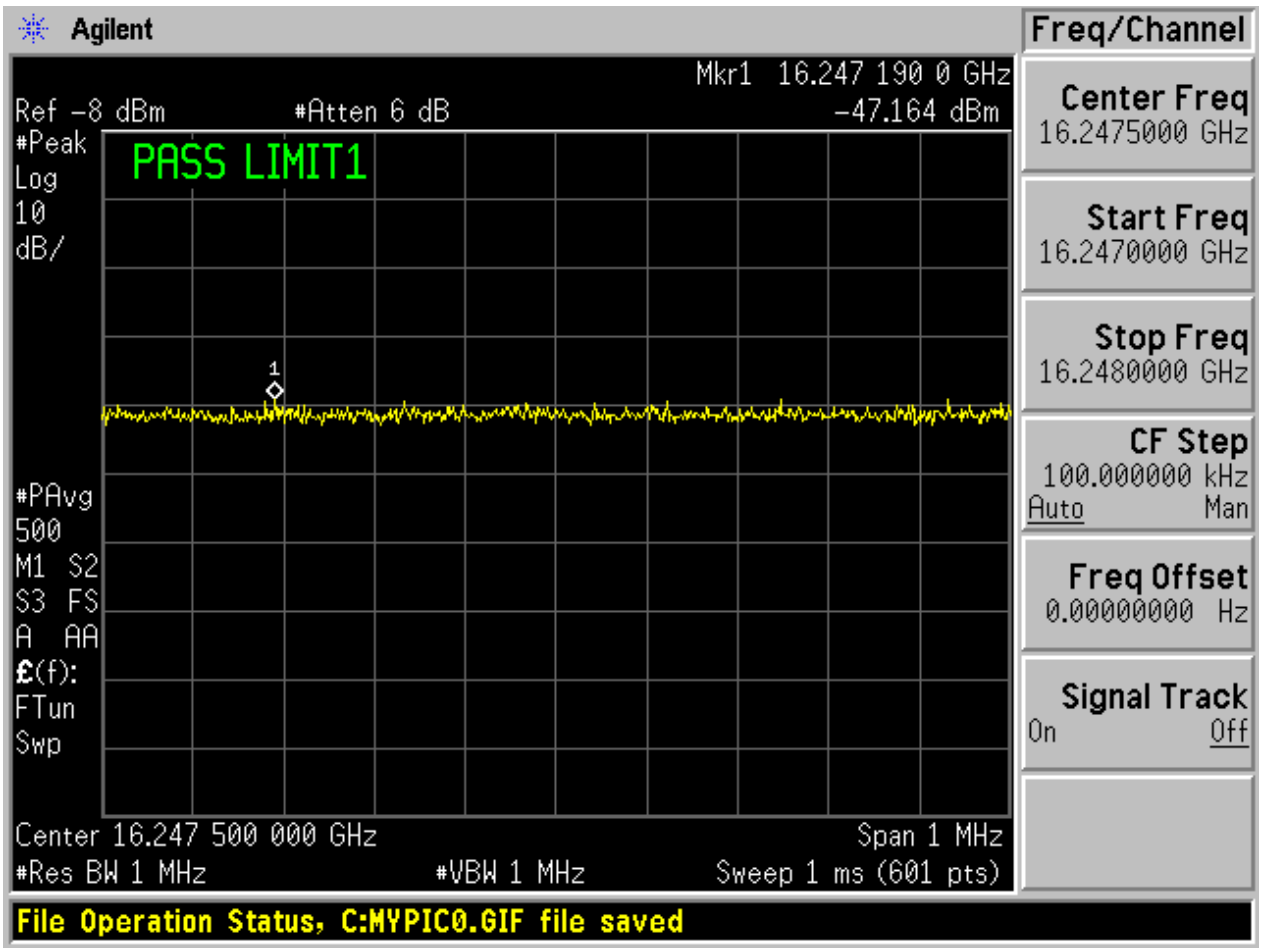



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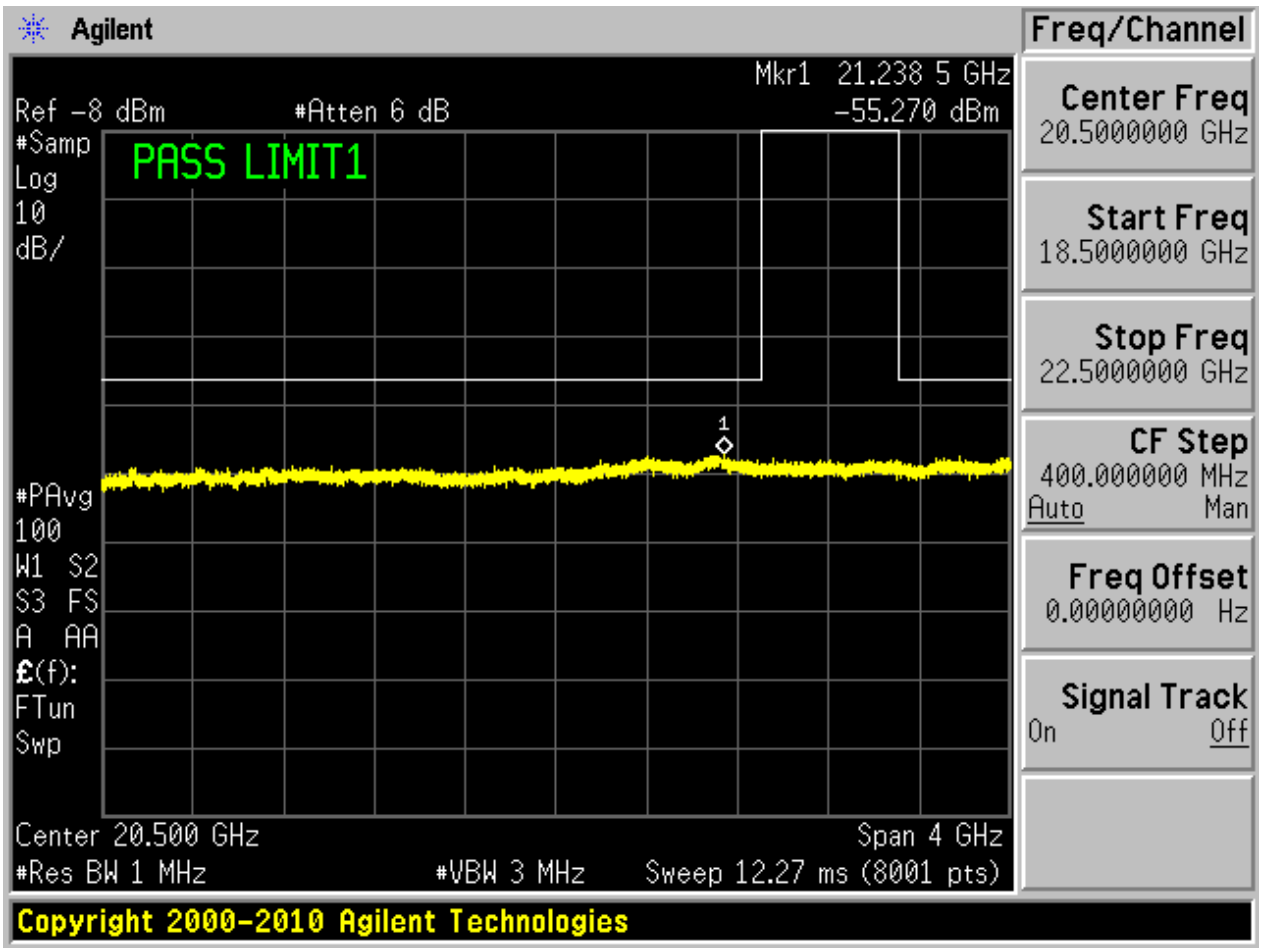



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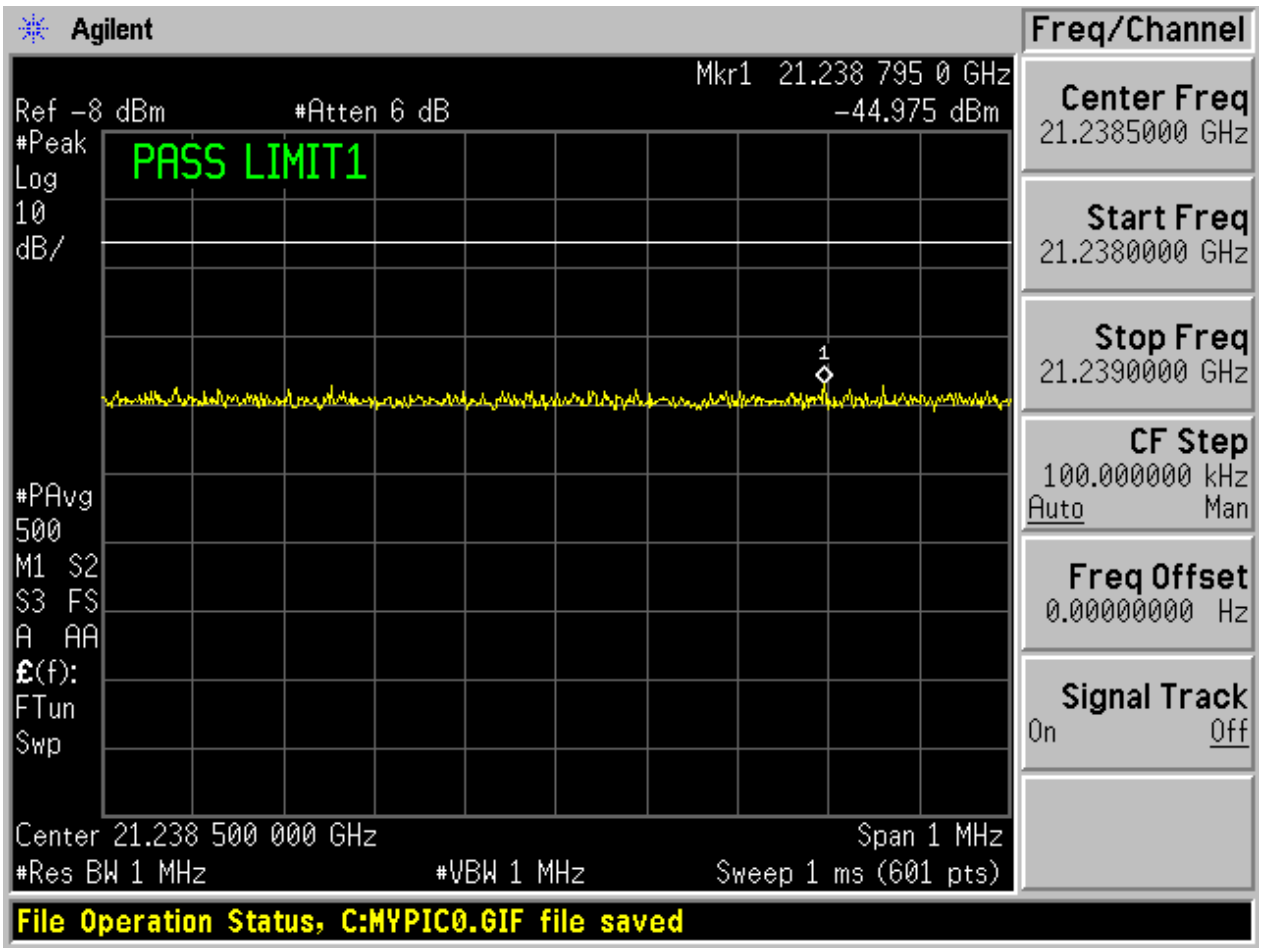



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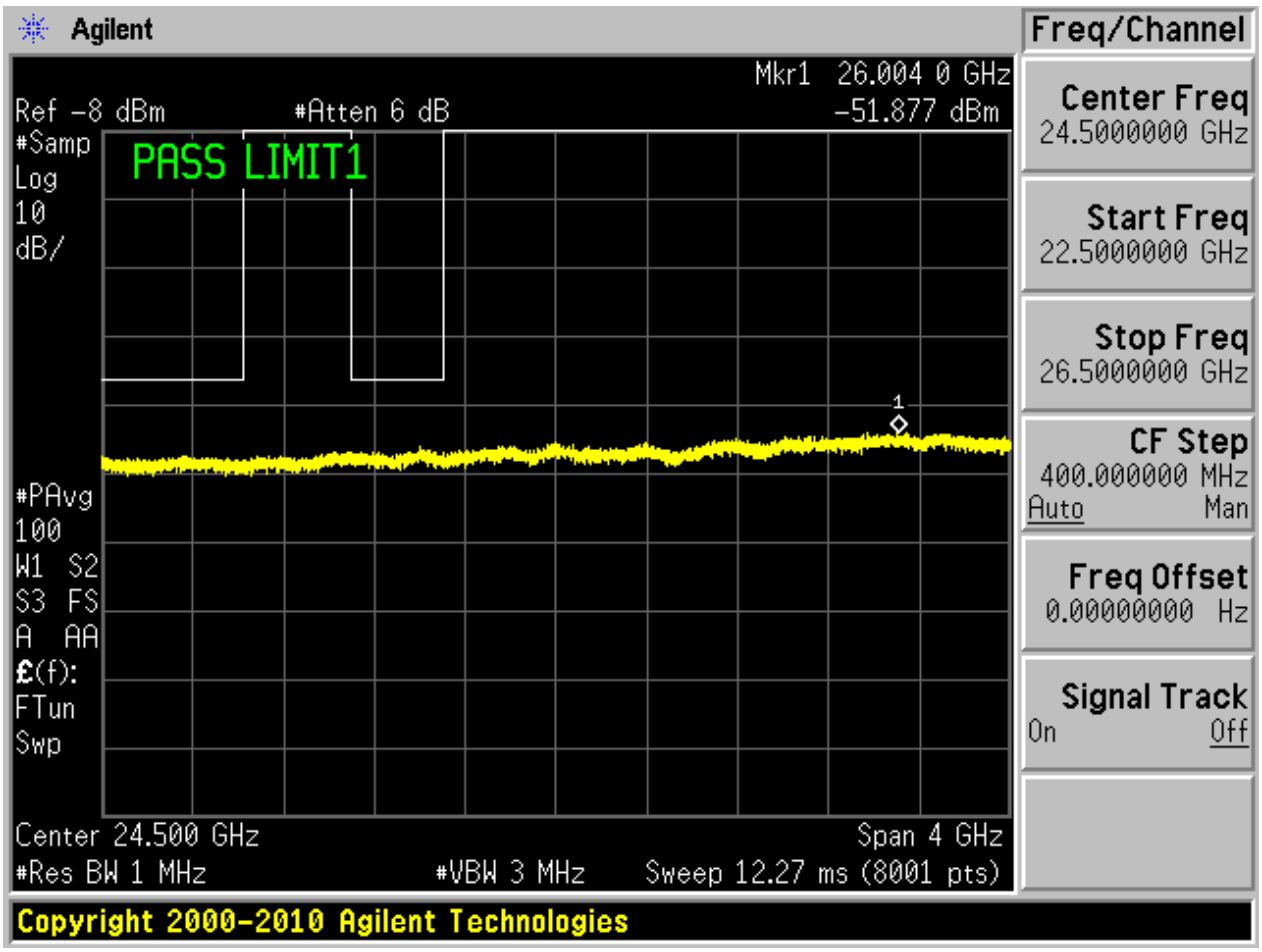



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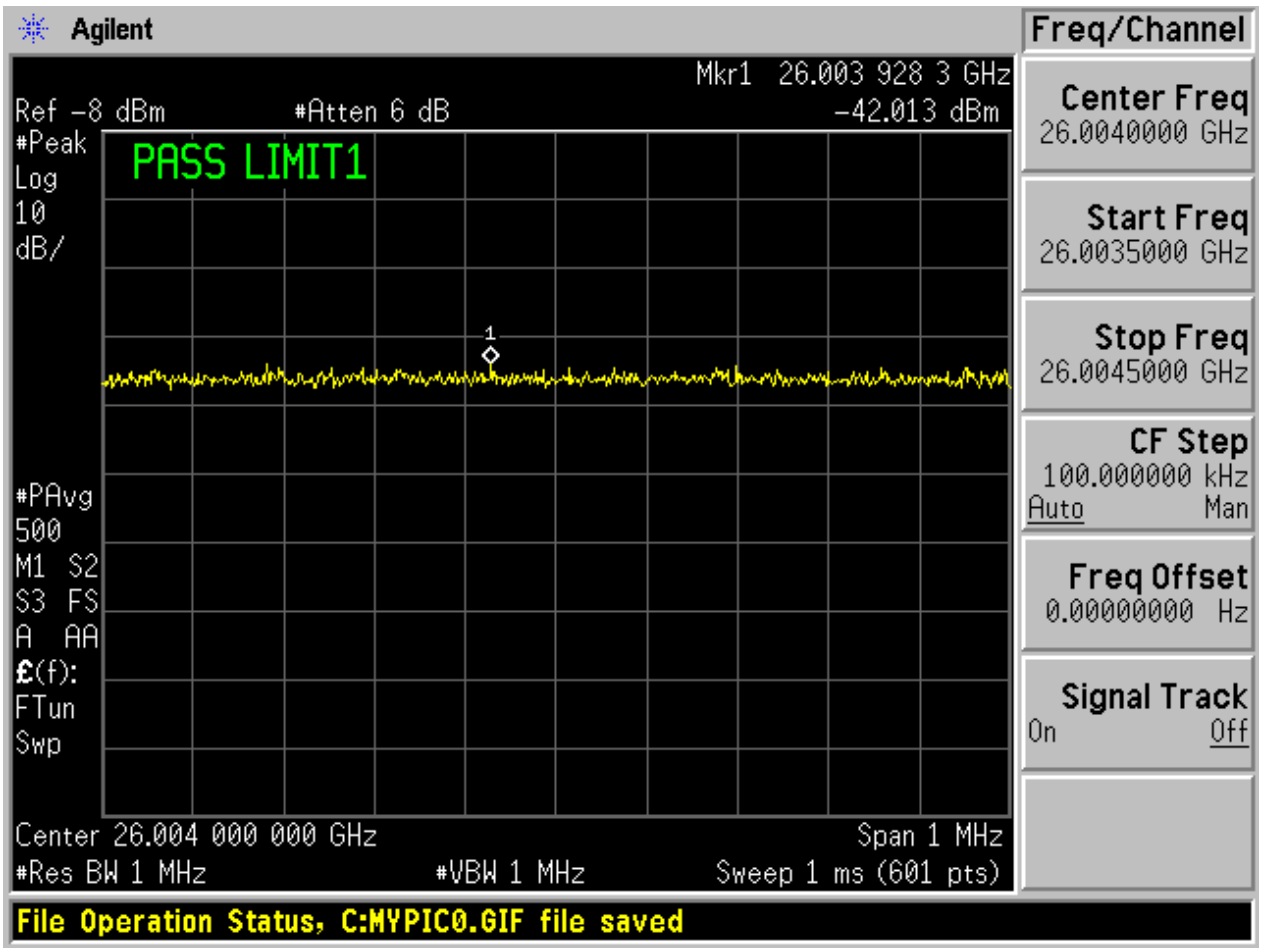


## 2.6 11G/6_T@1


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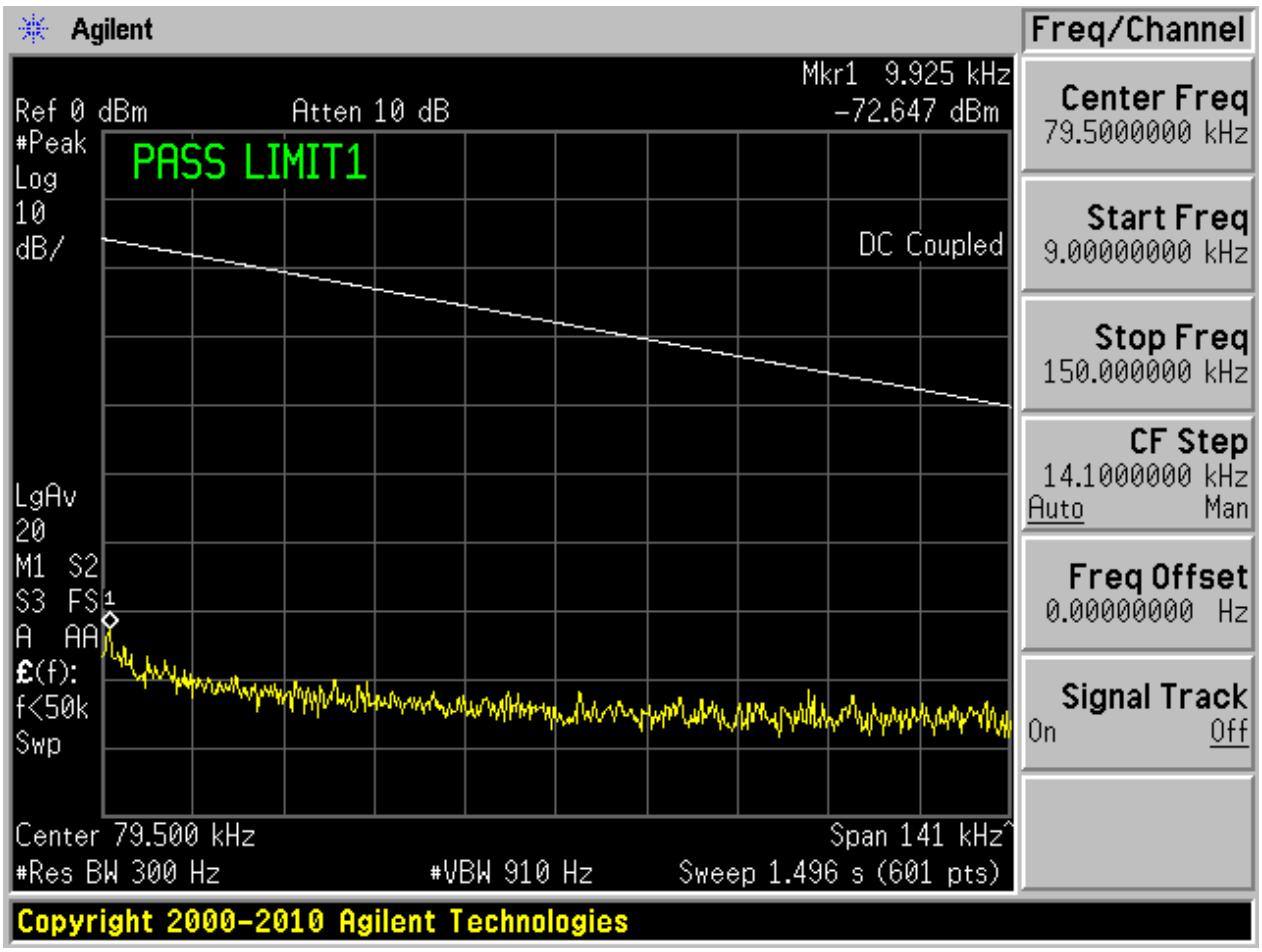



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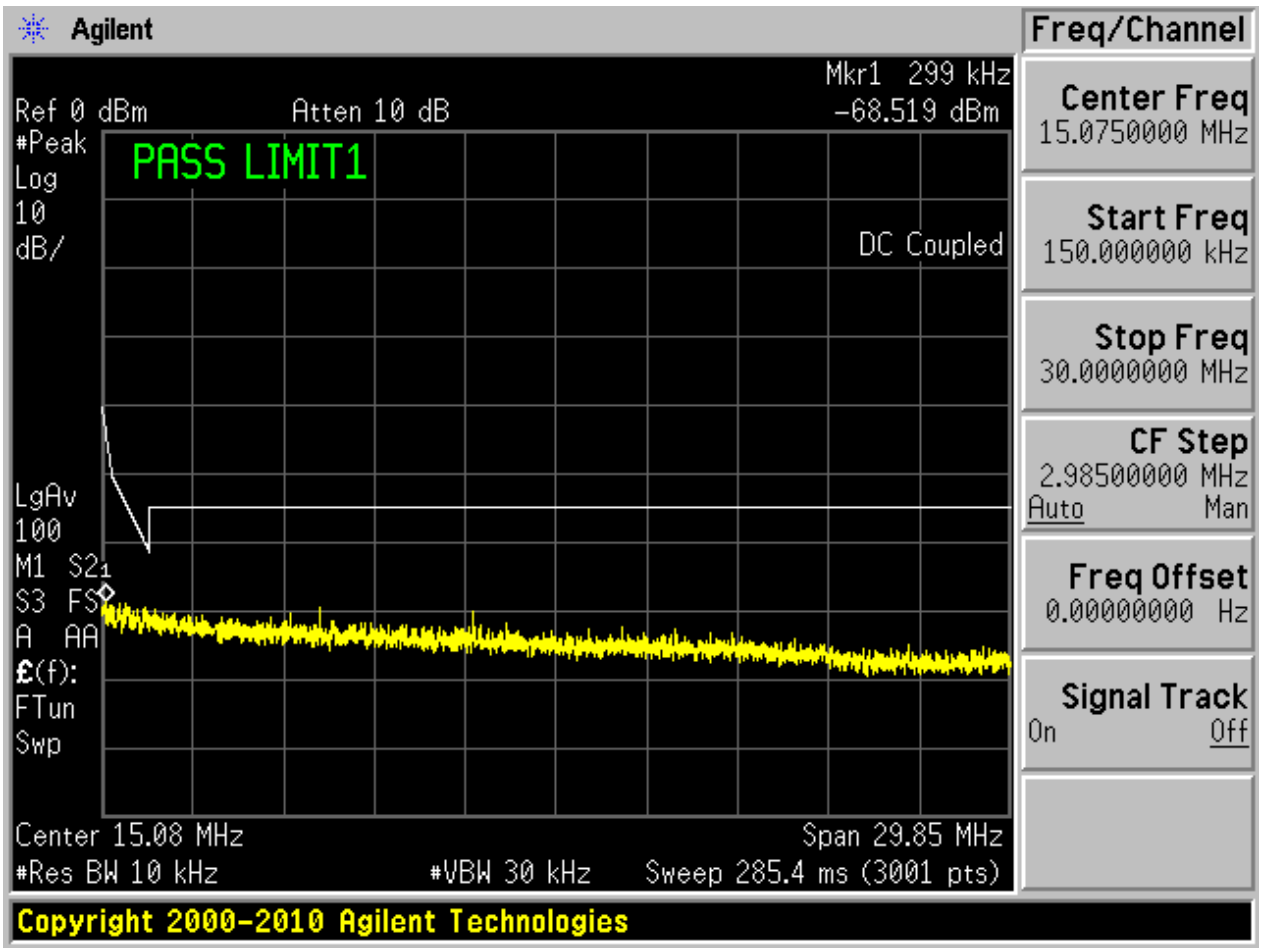



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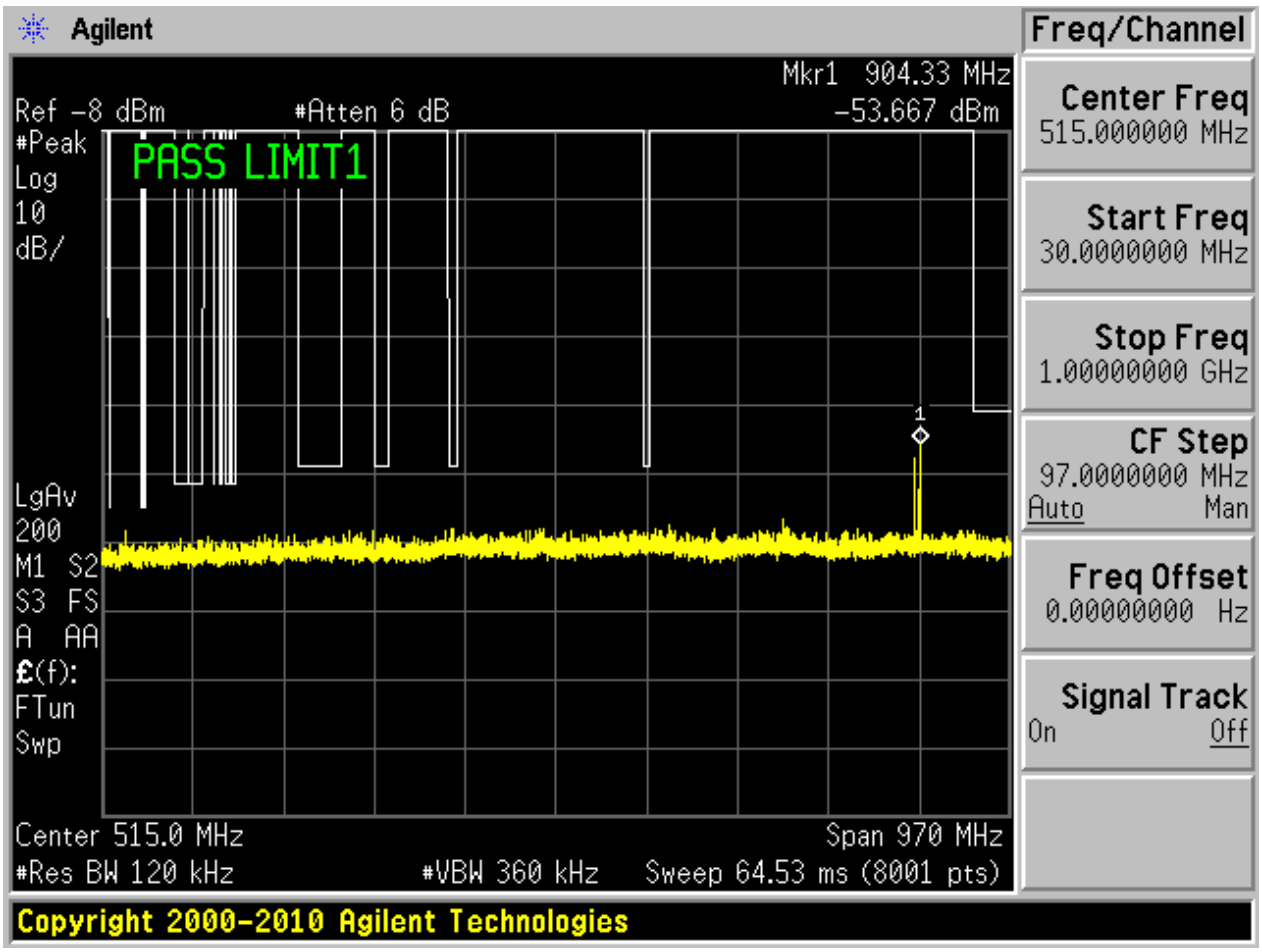



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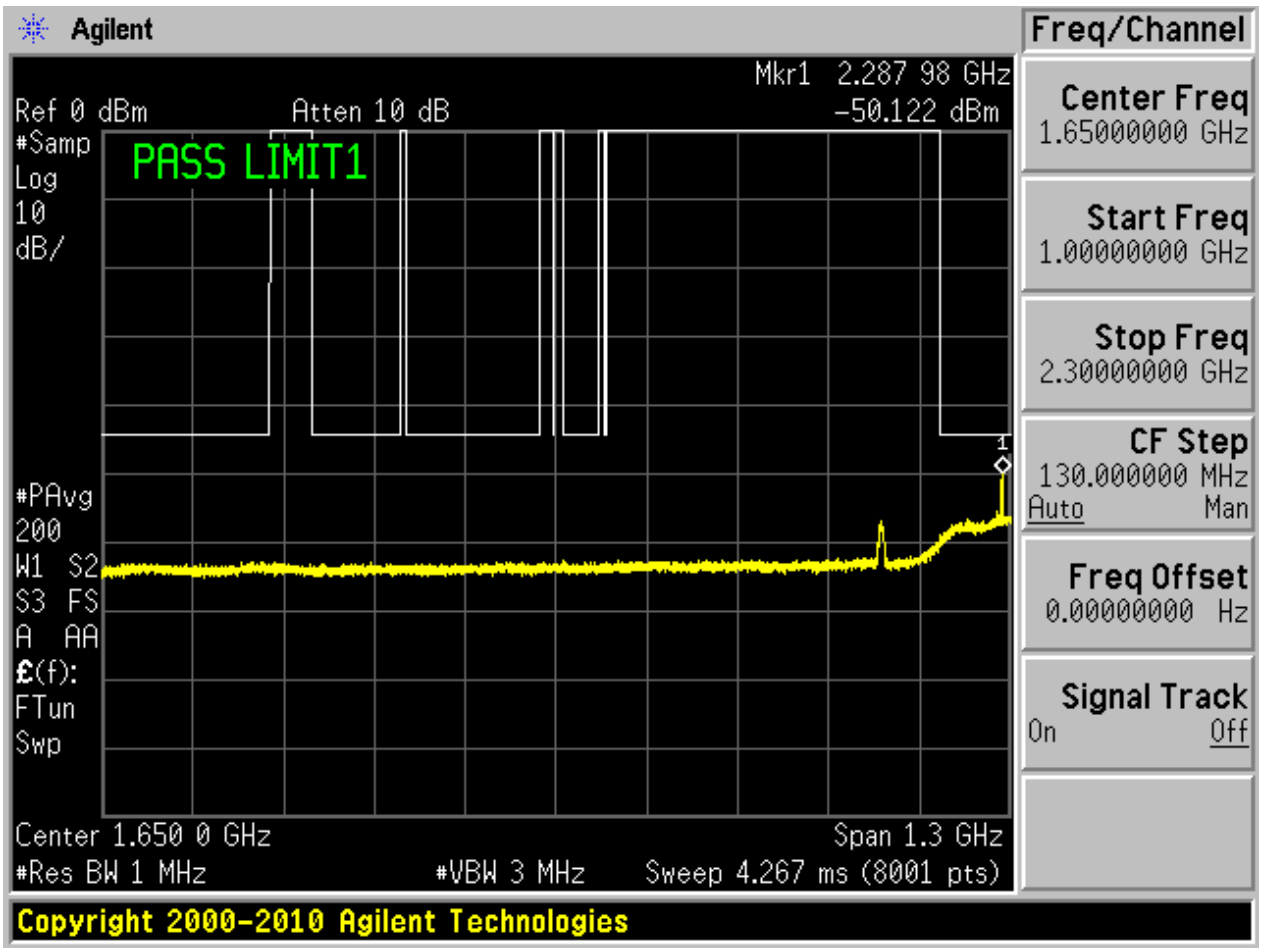



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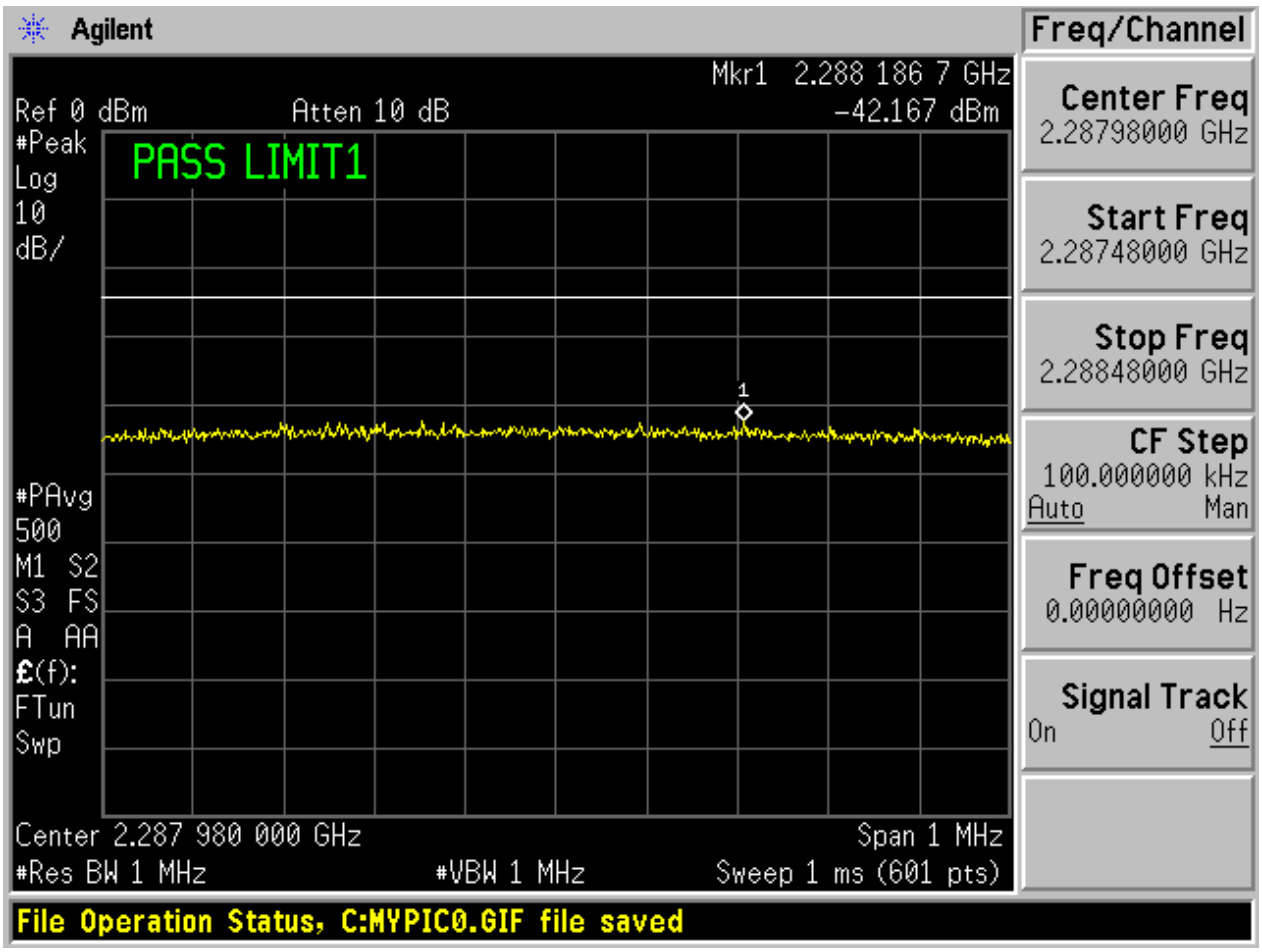



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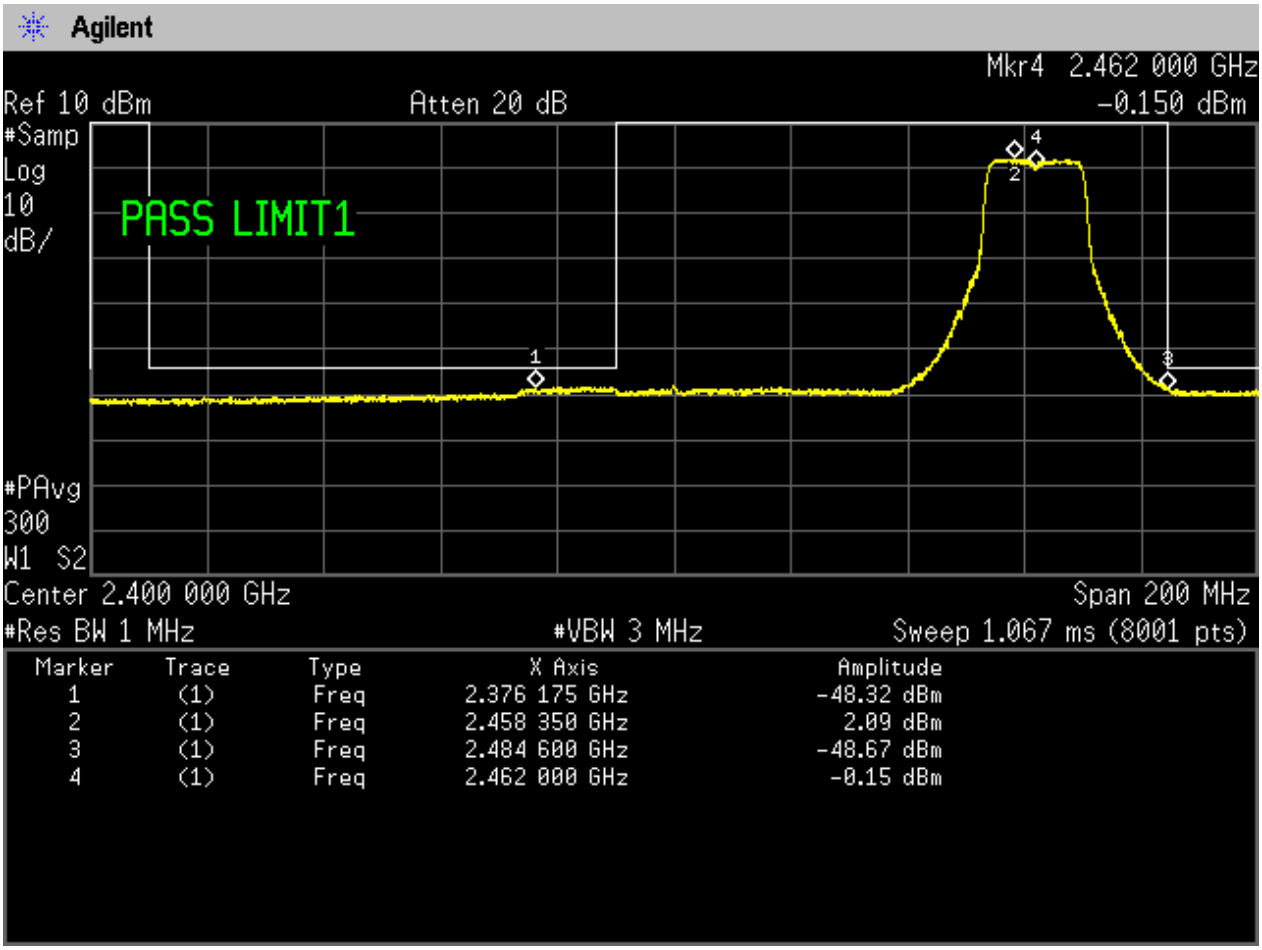



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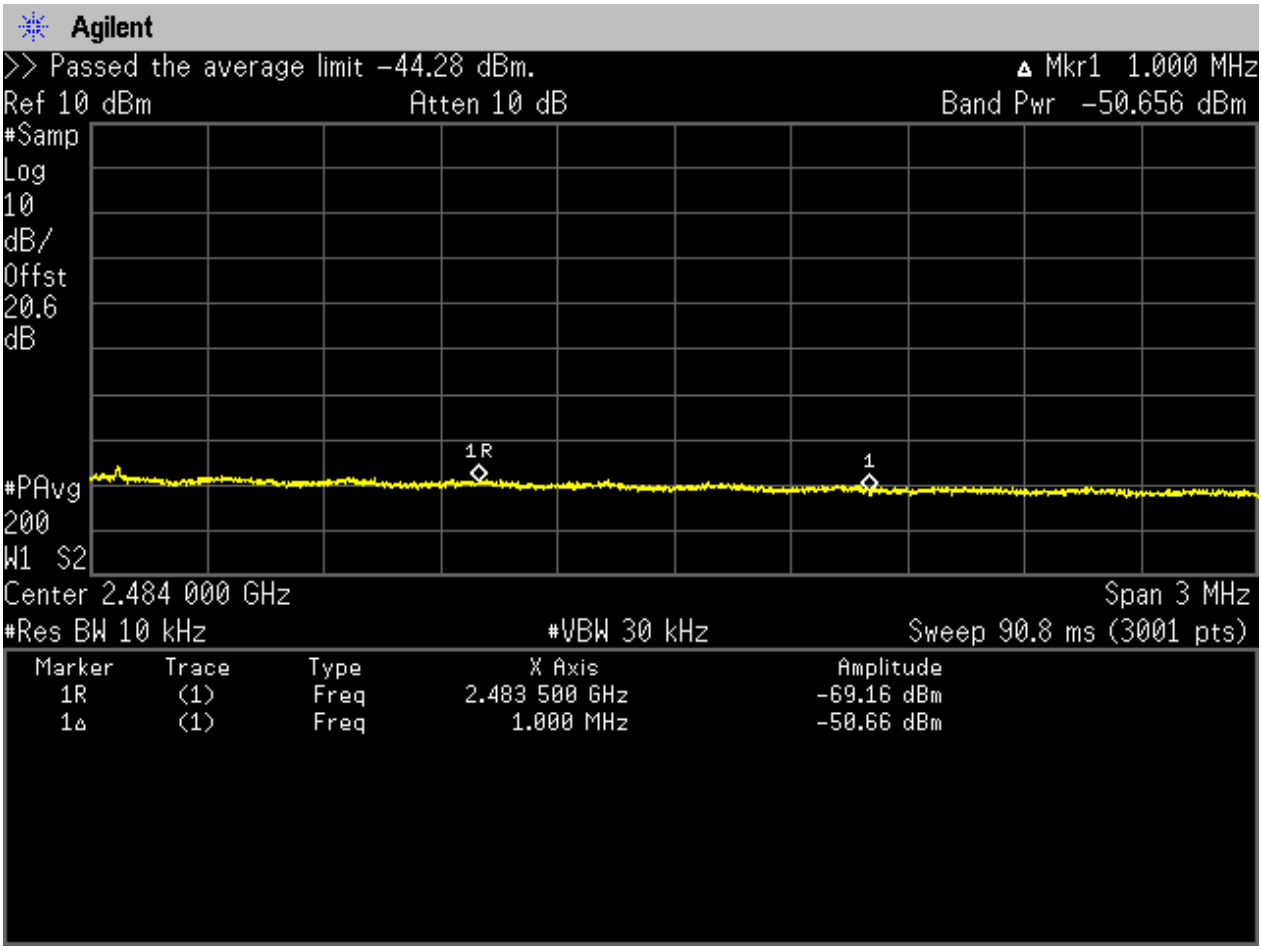



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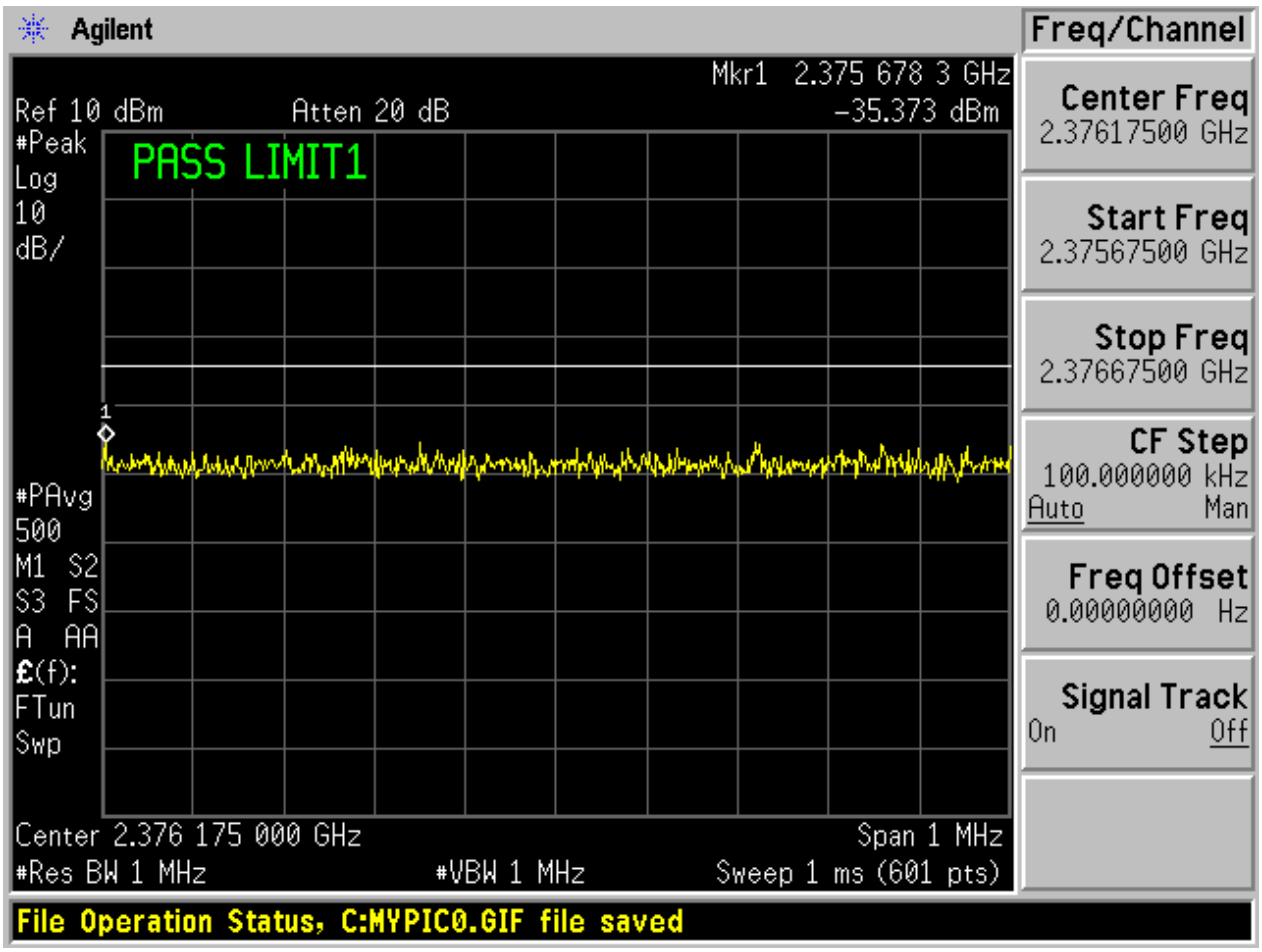



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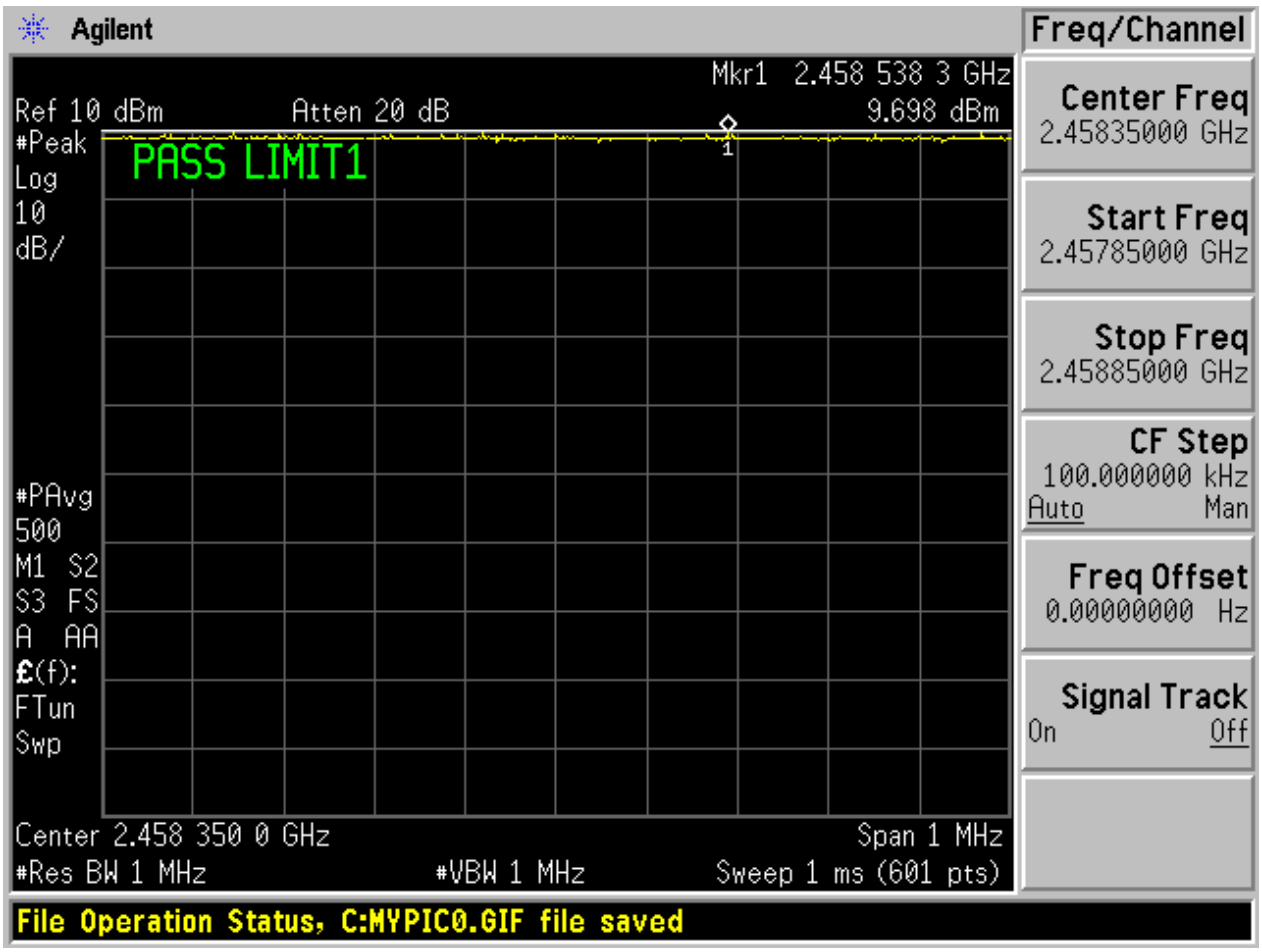



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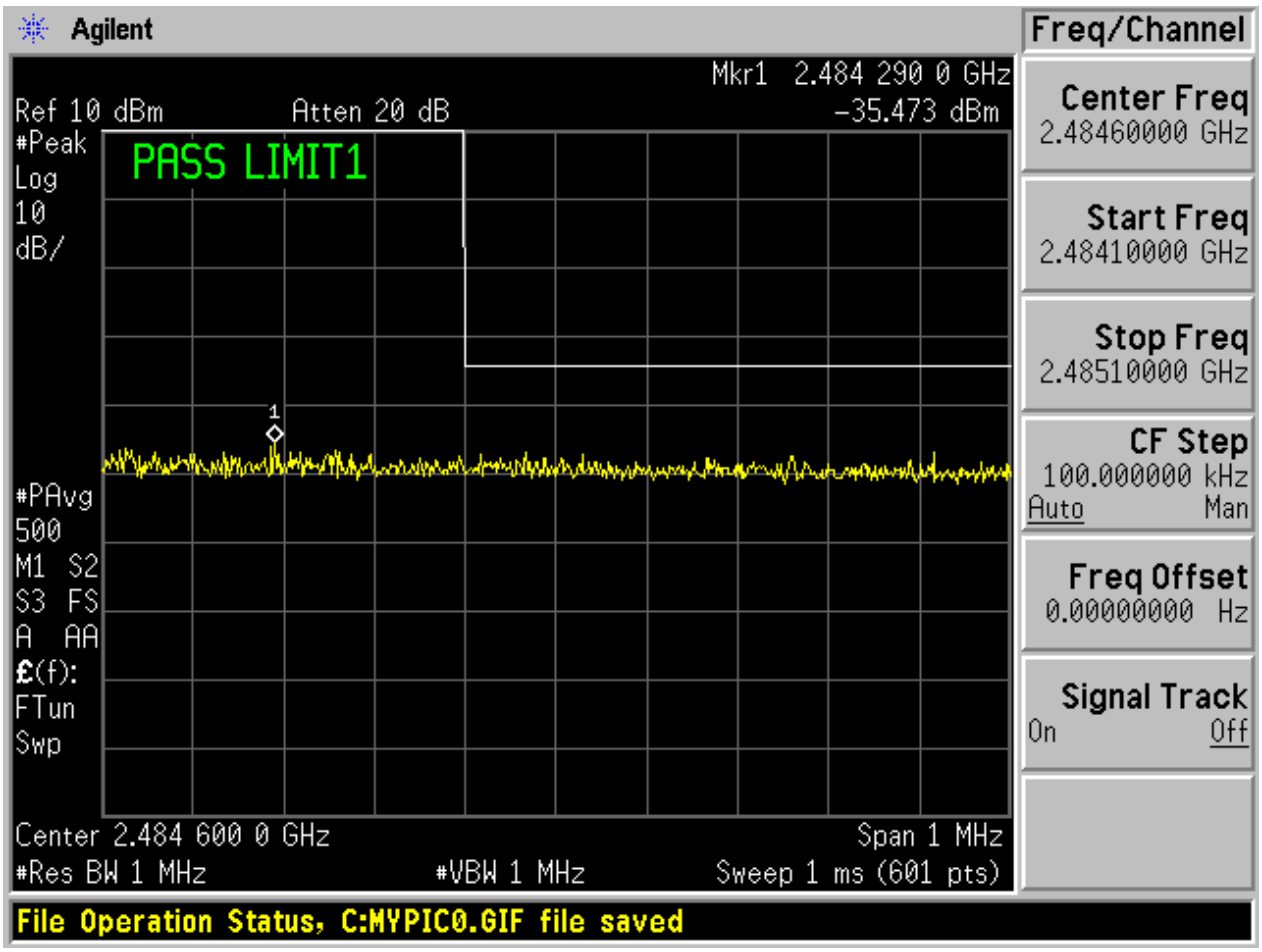



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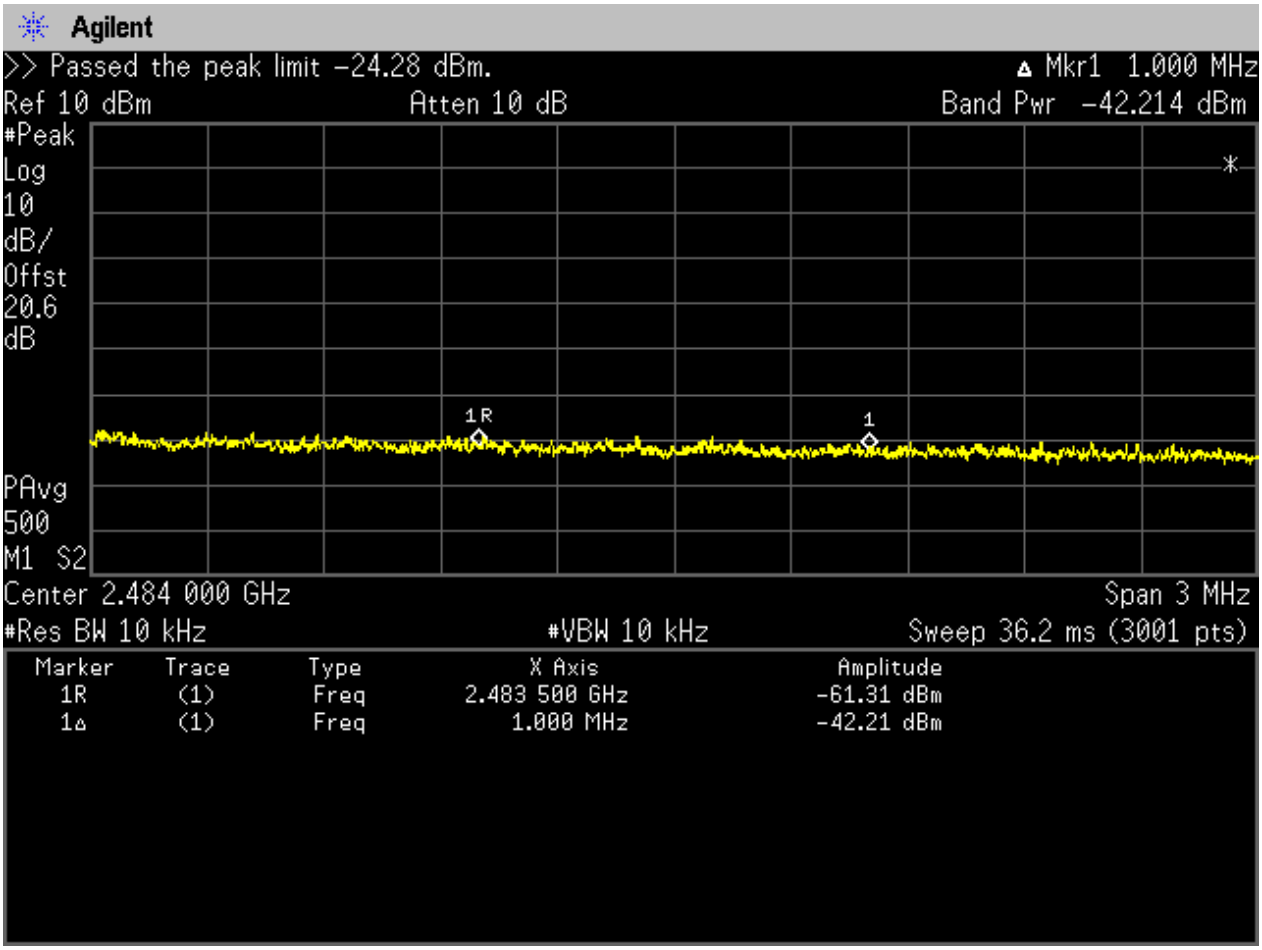



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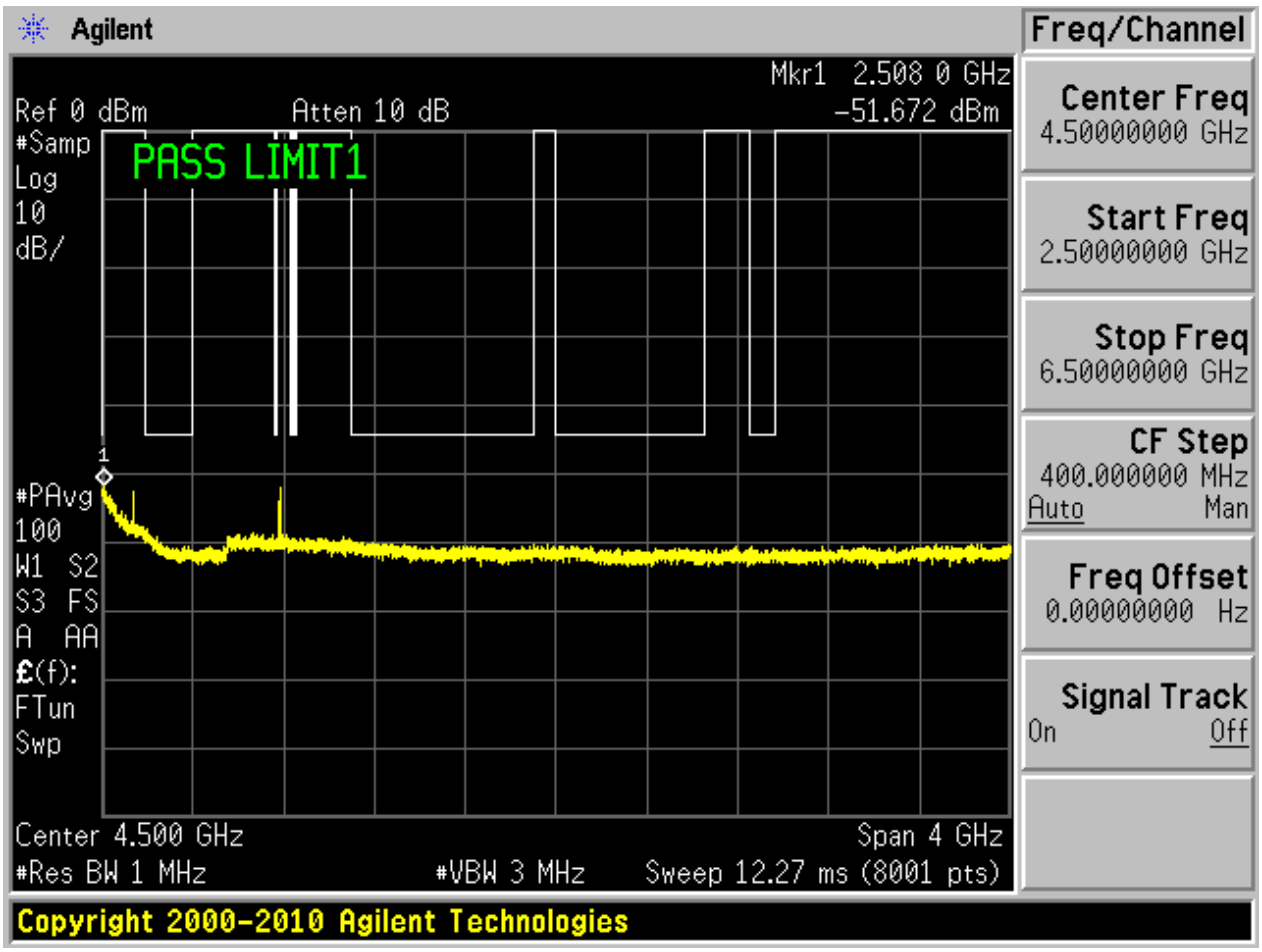



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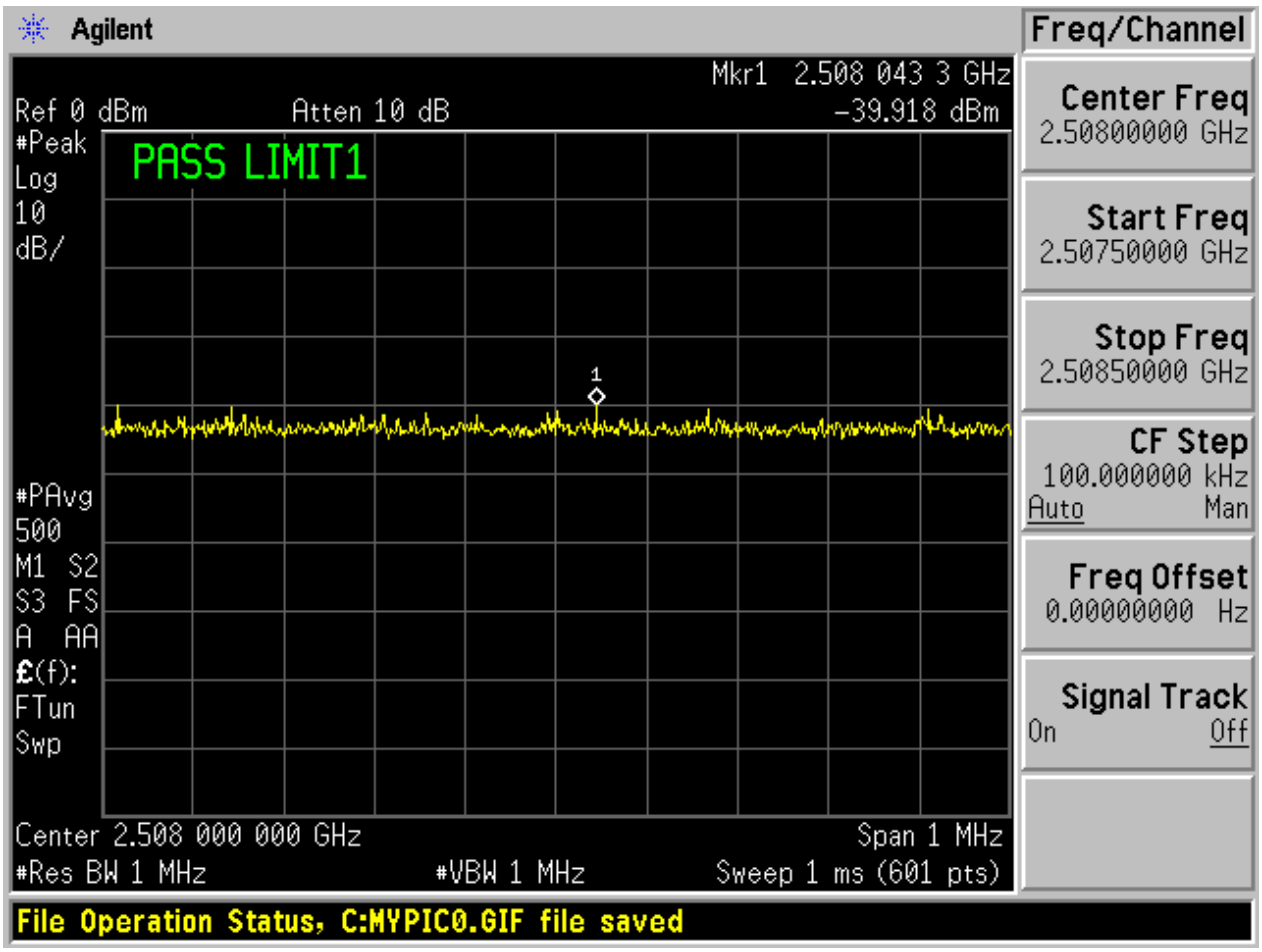



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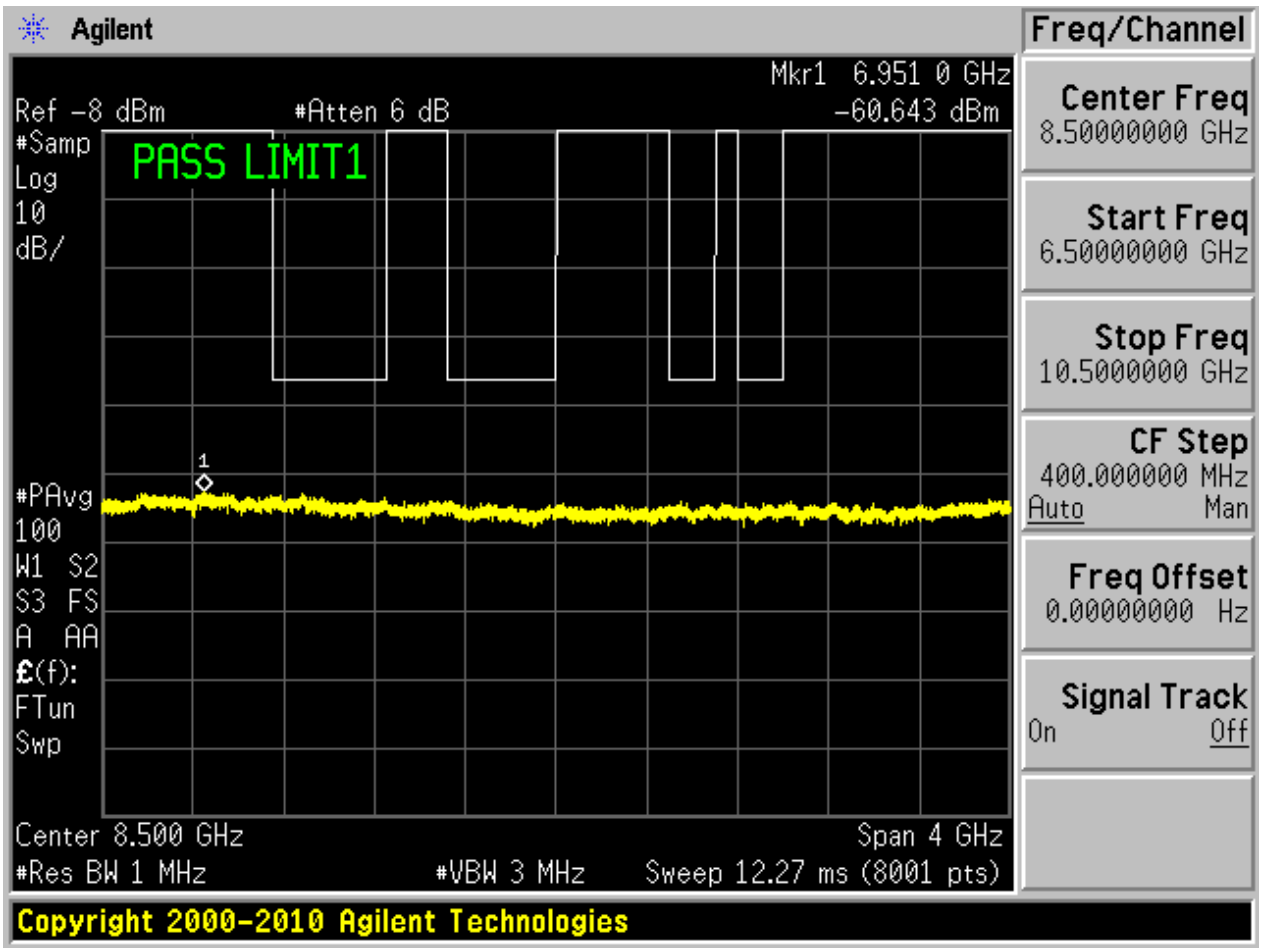



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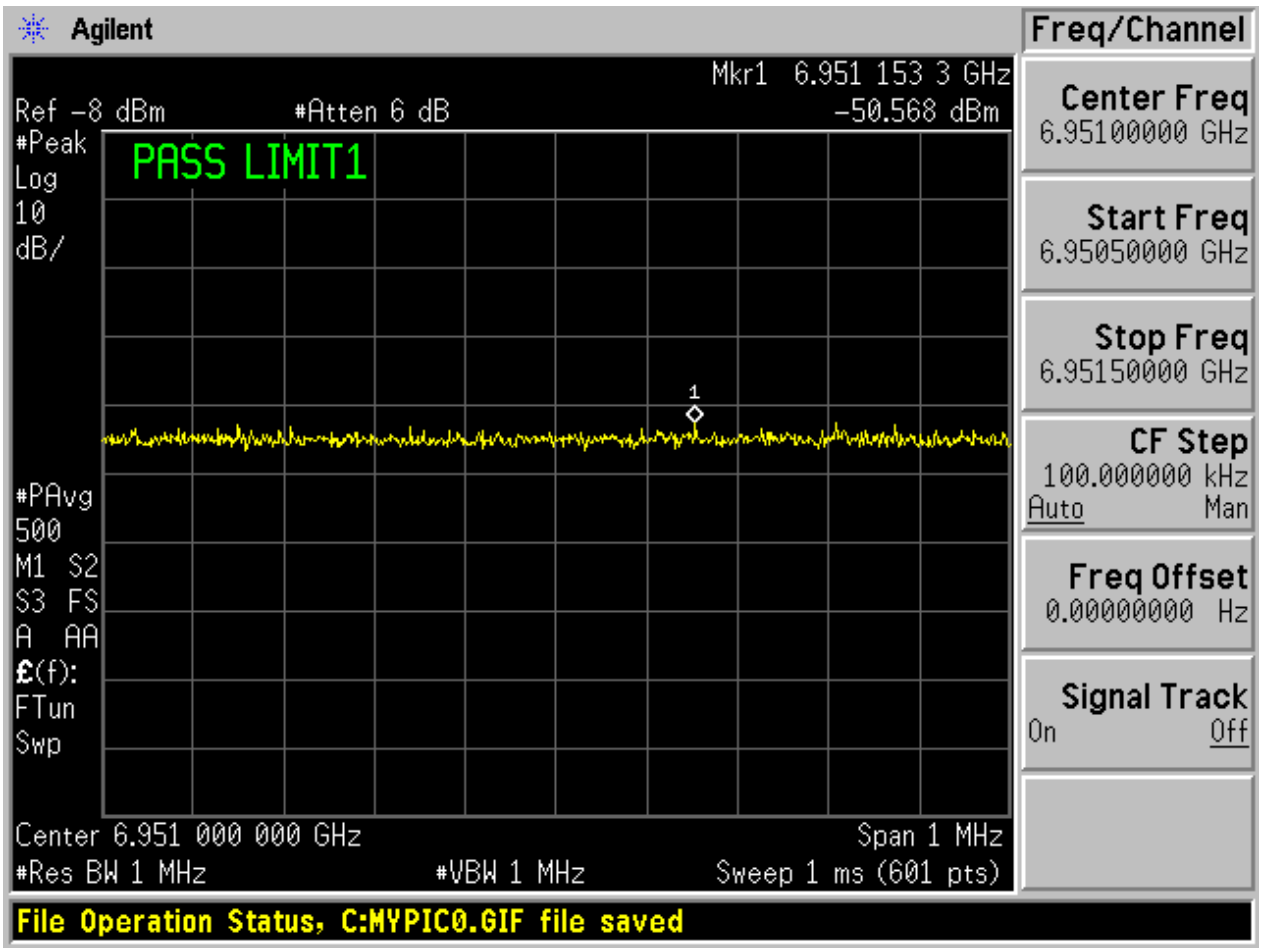



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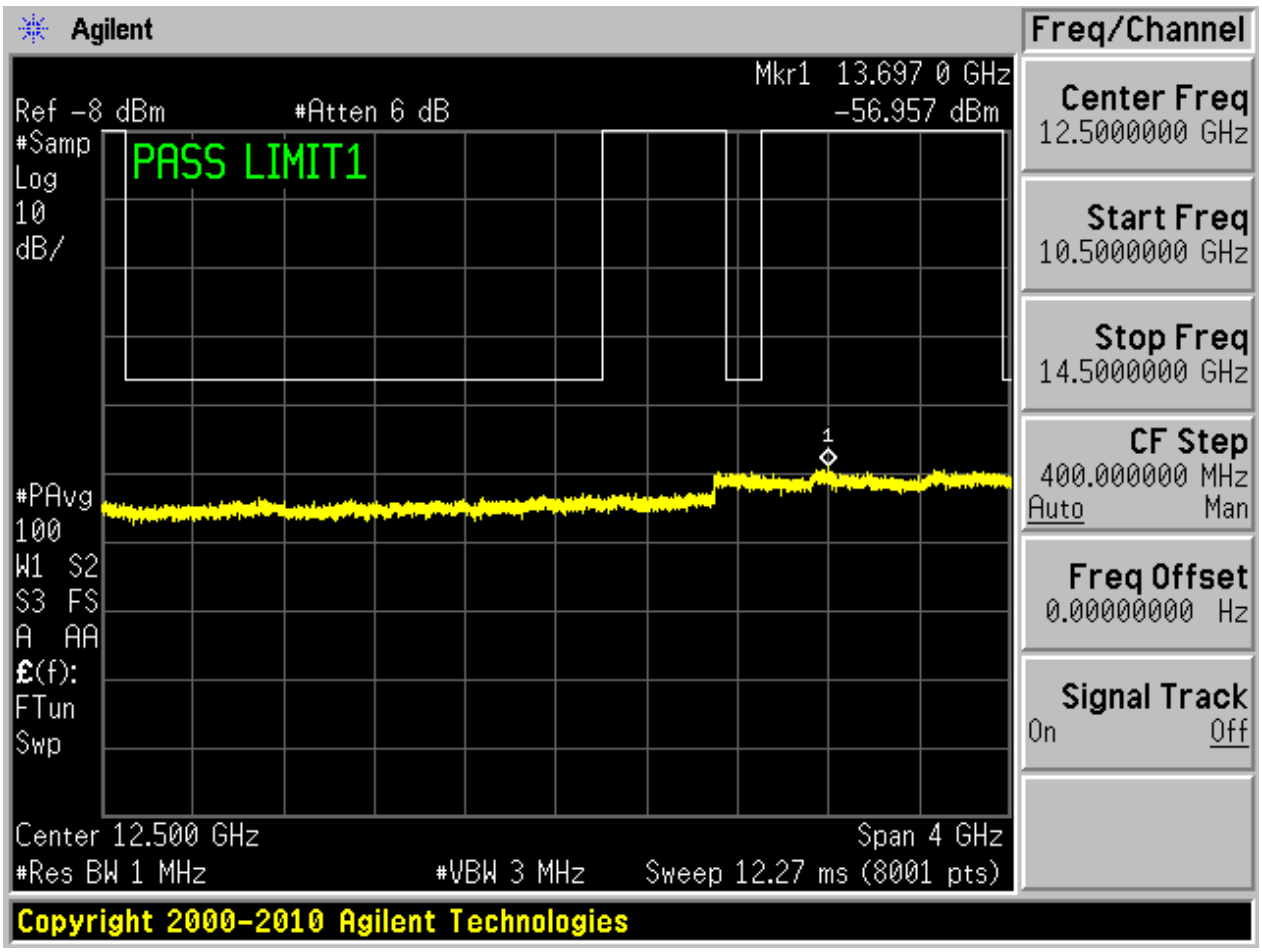



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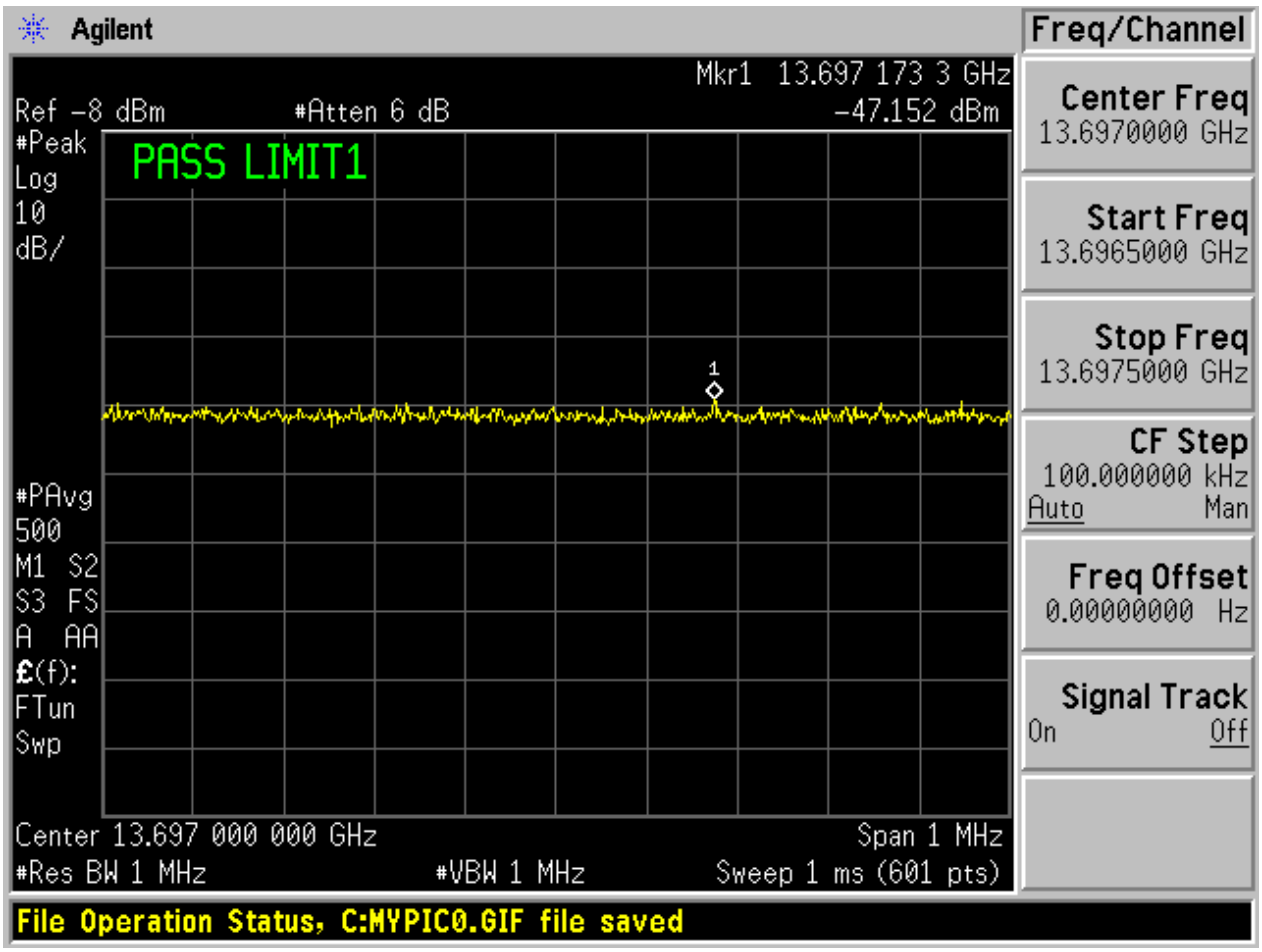



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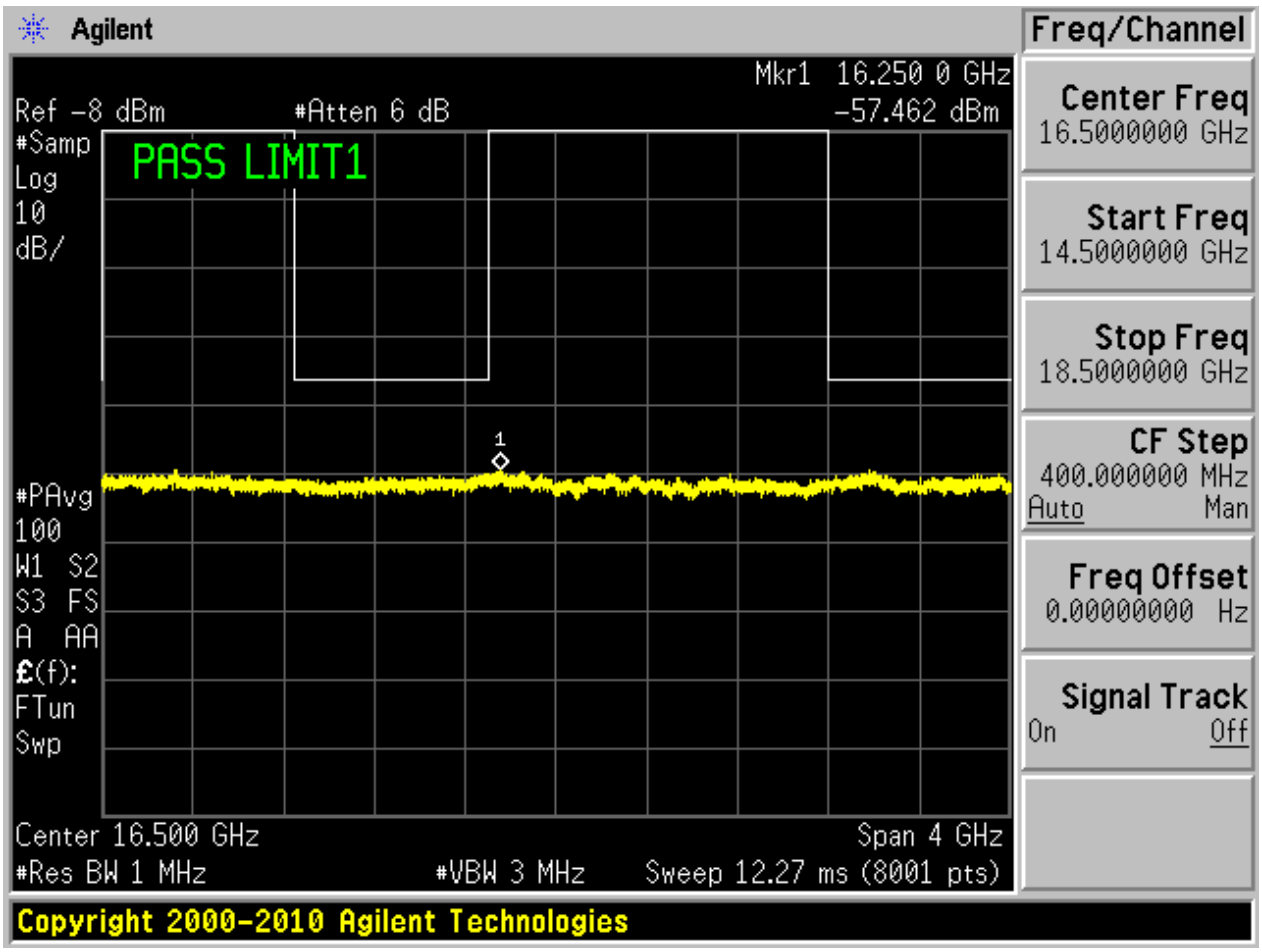



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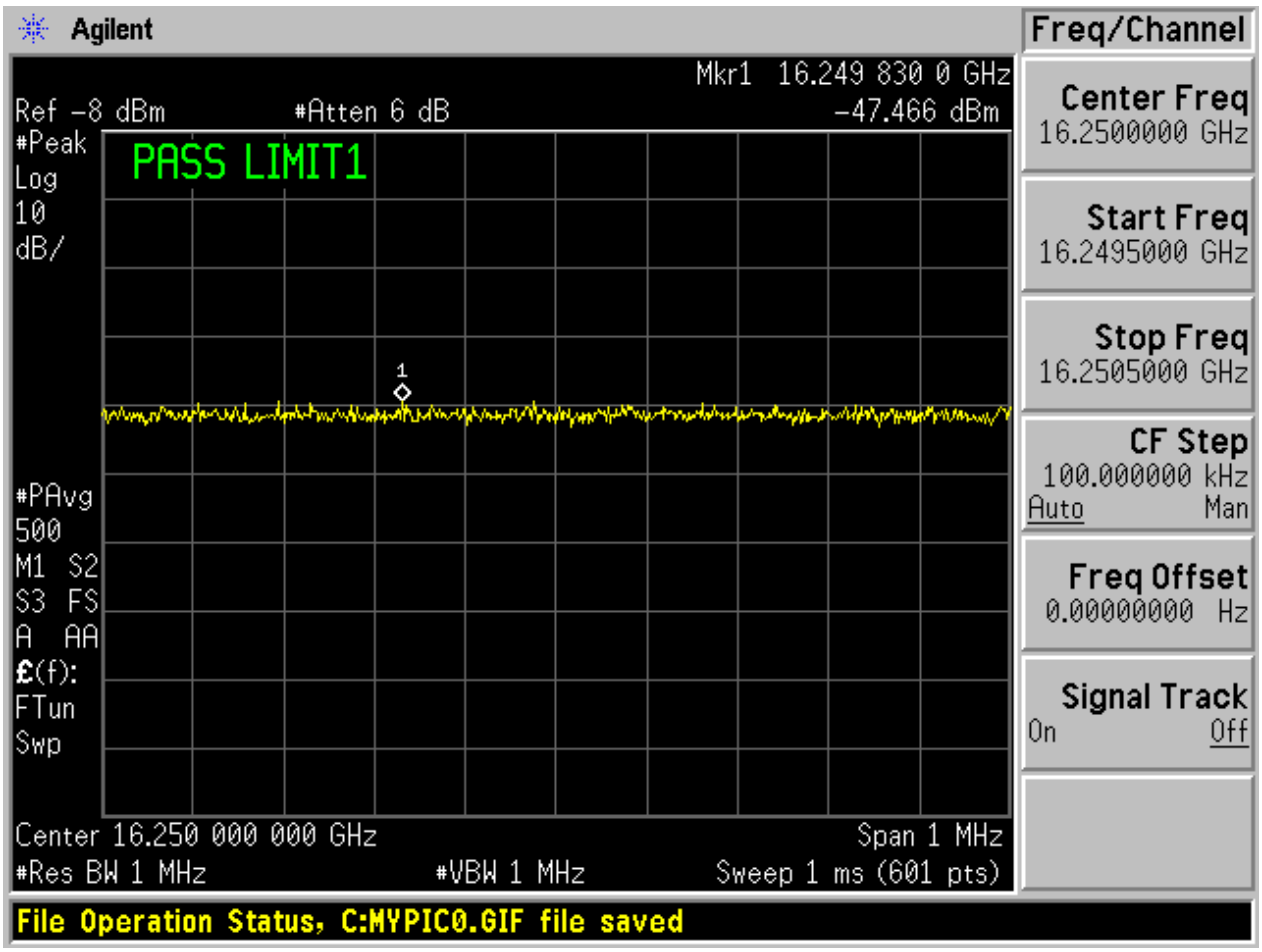



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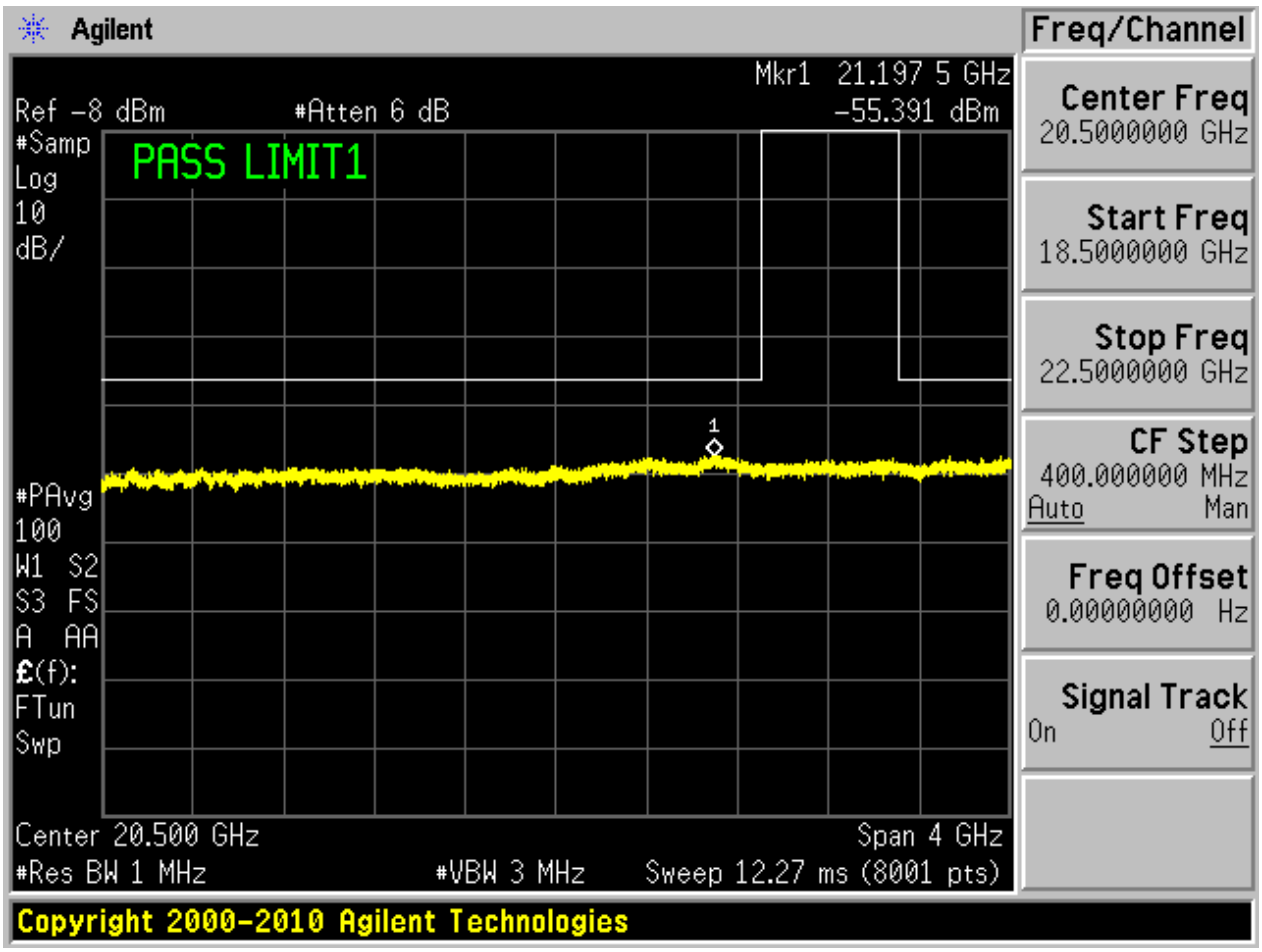



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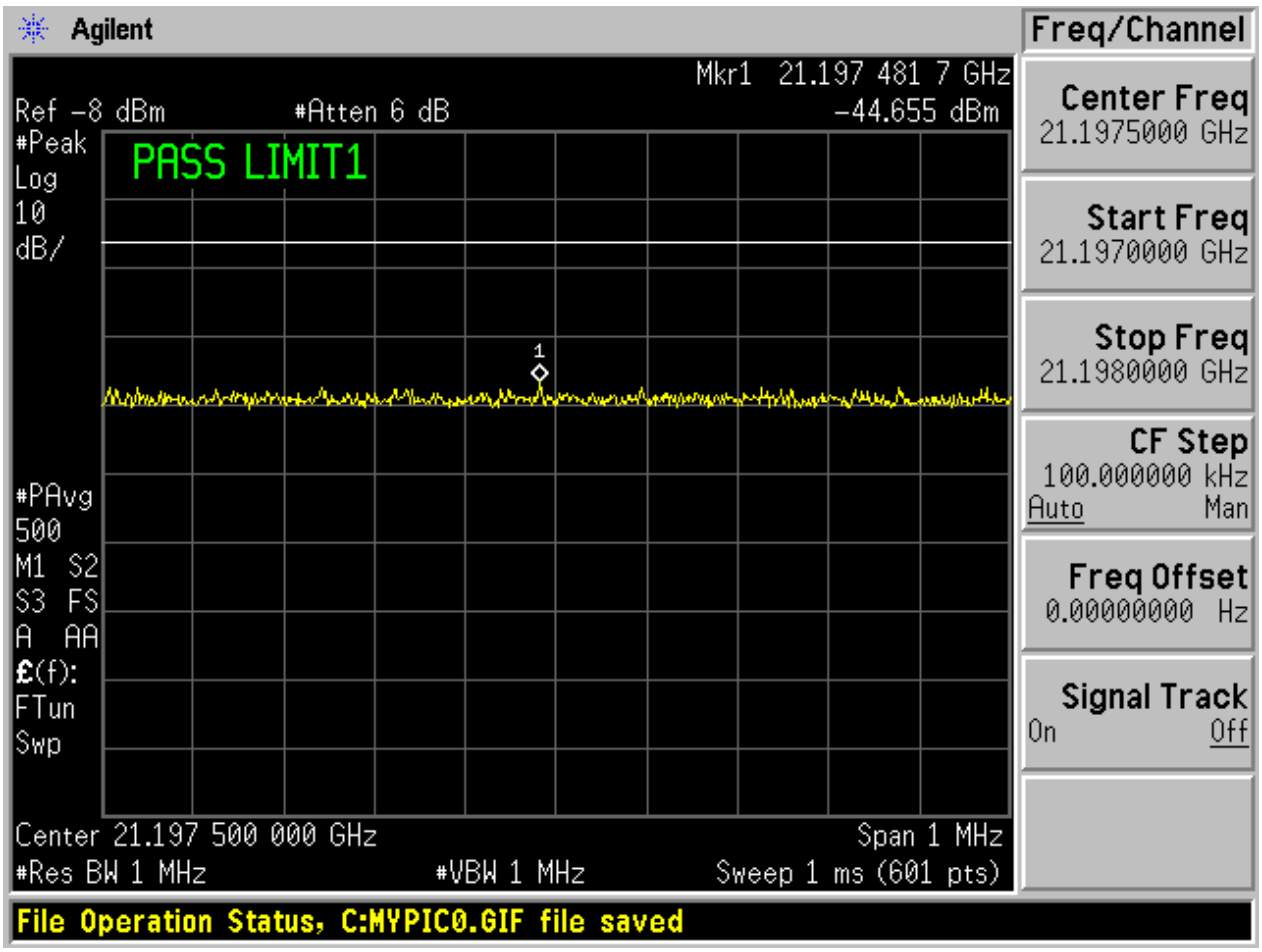



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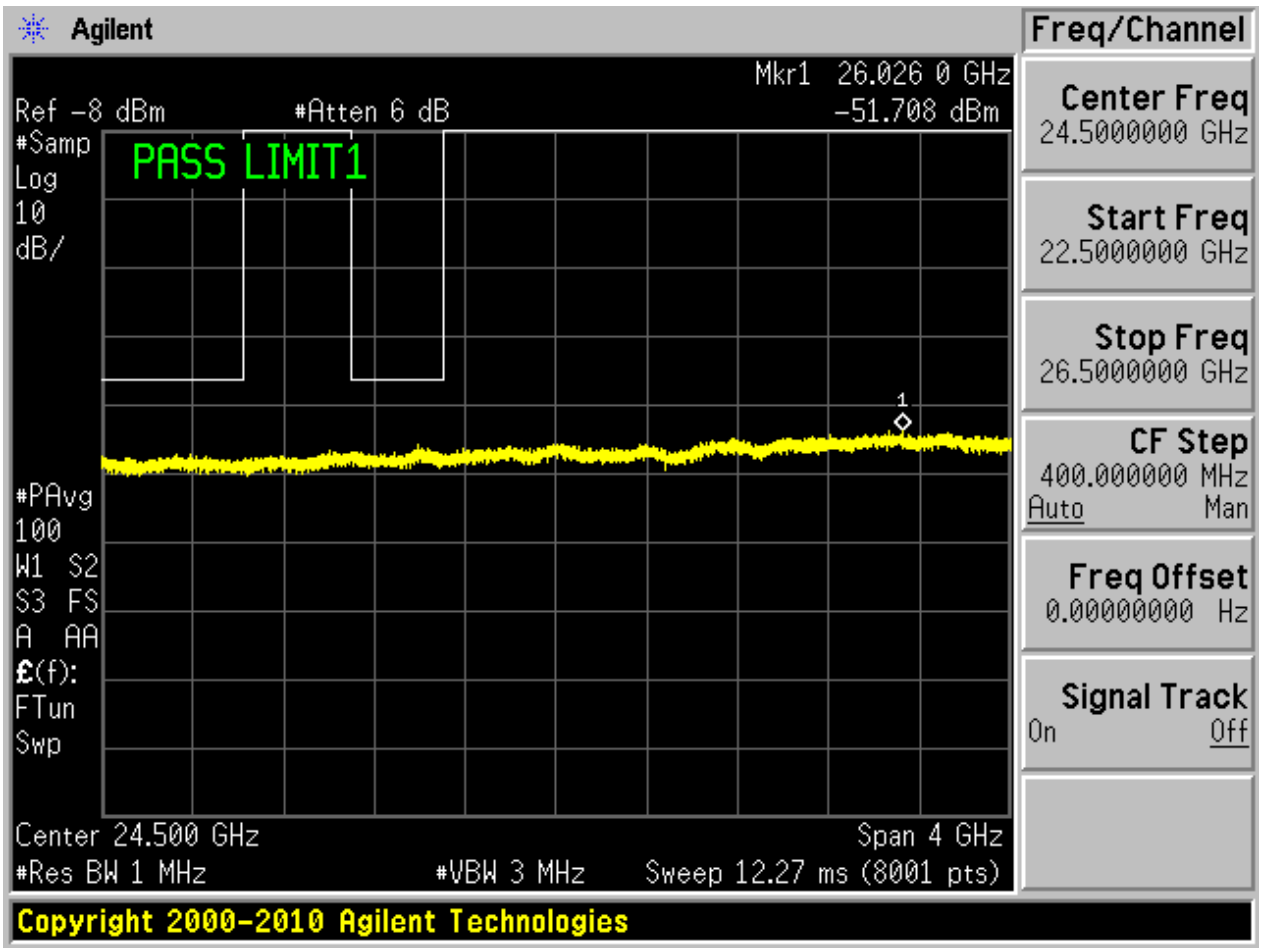



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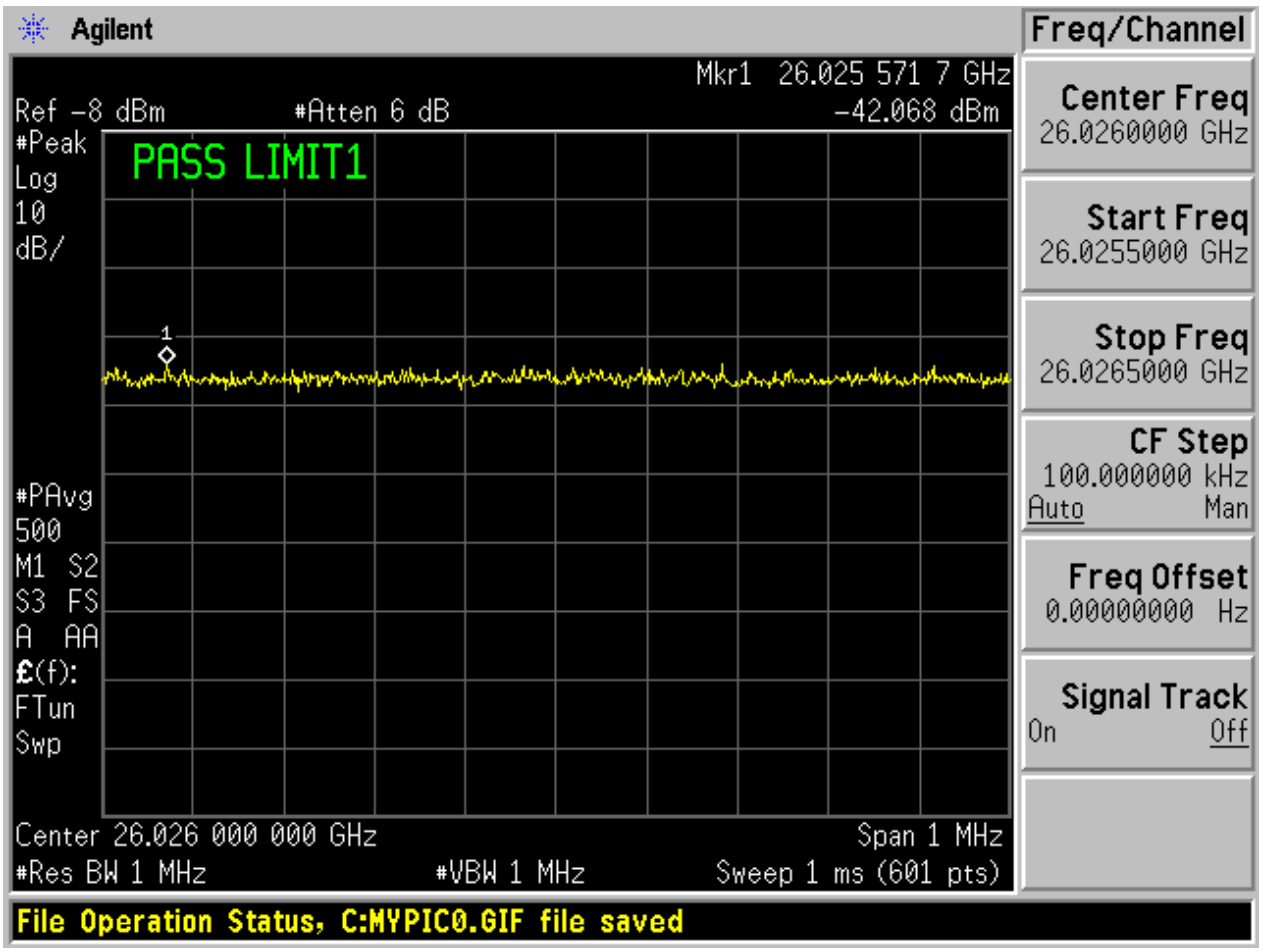


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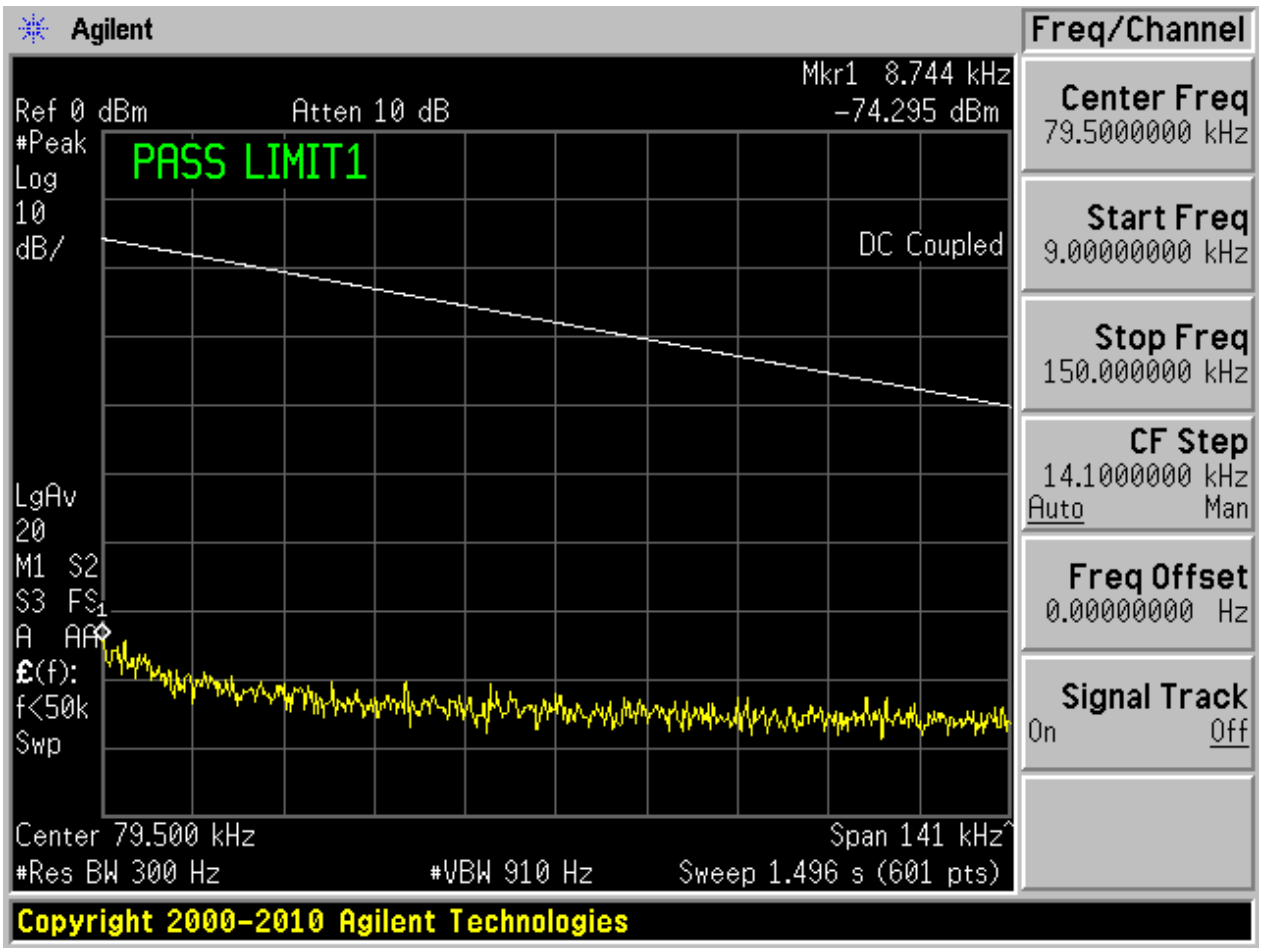



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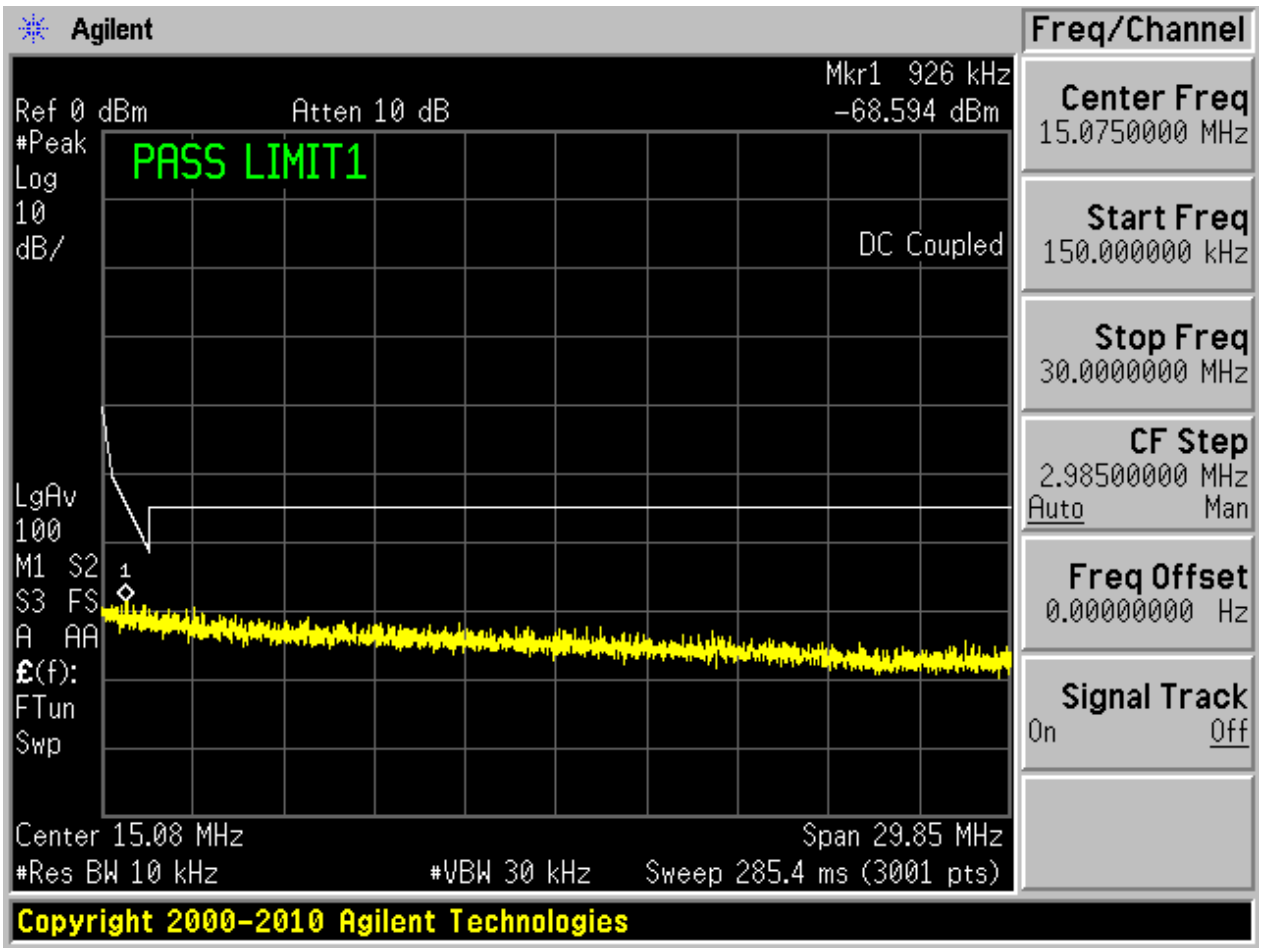



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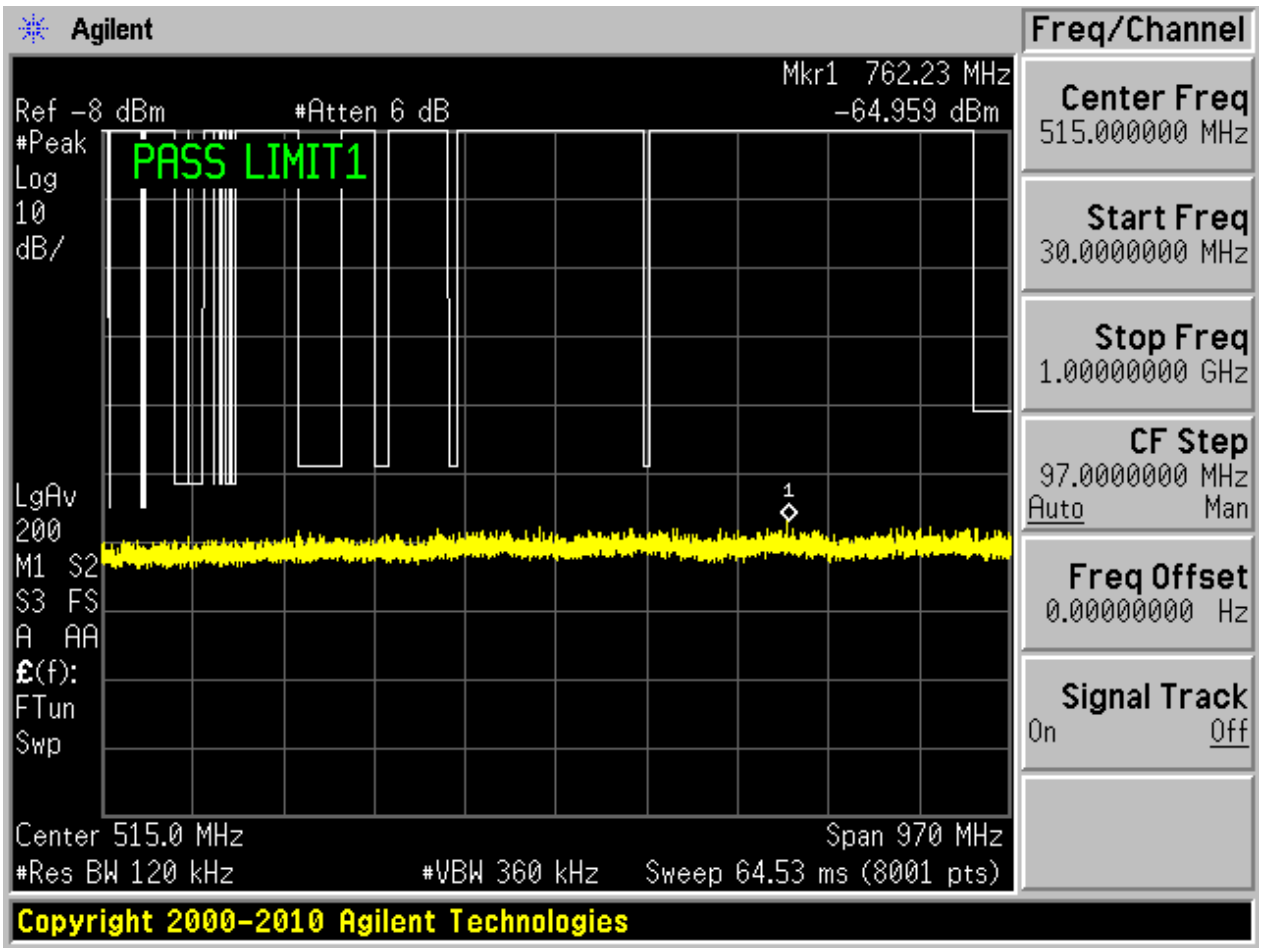



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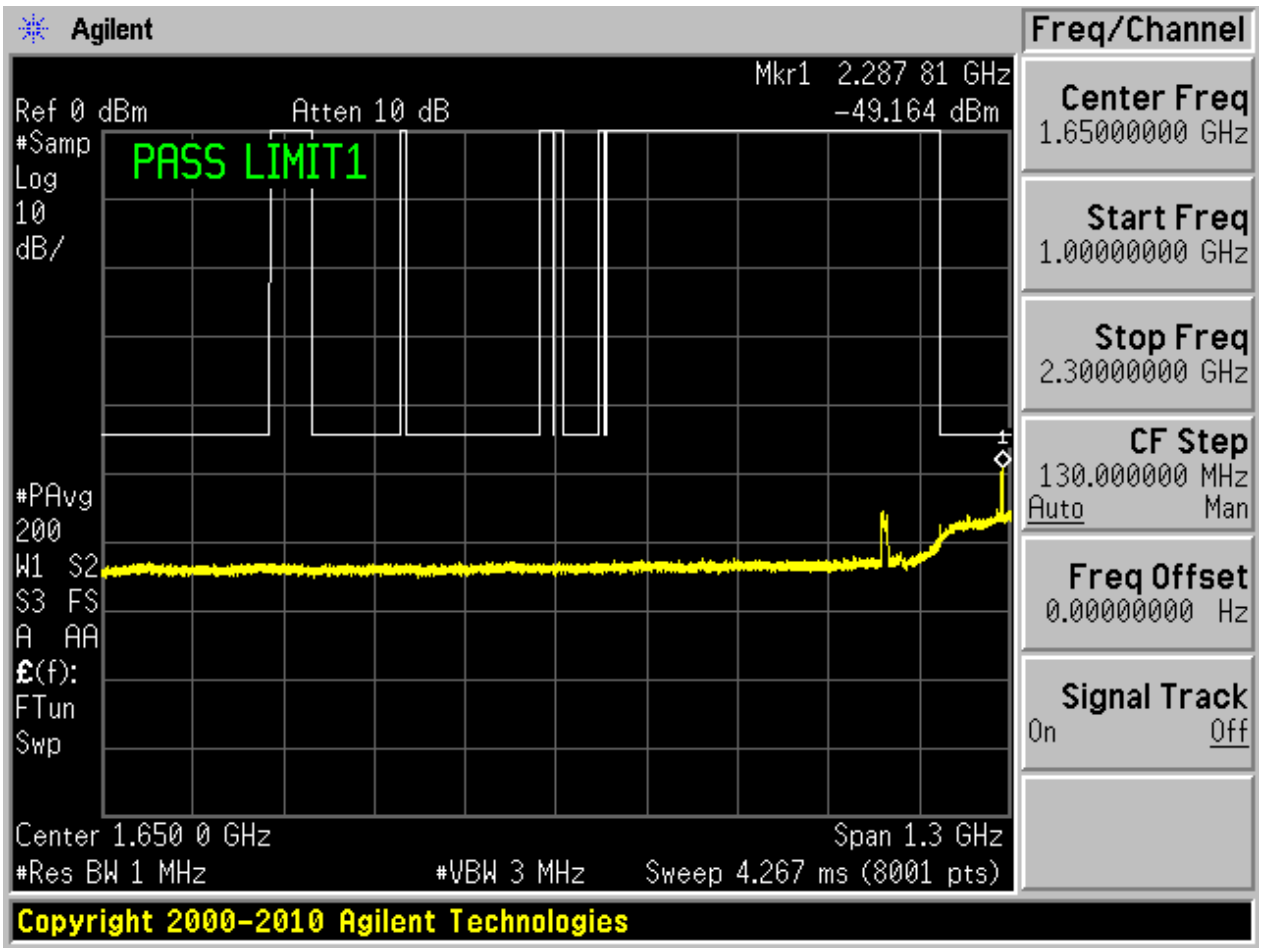



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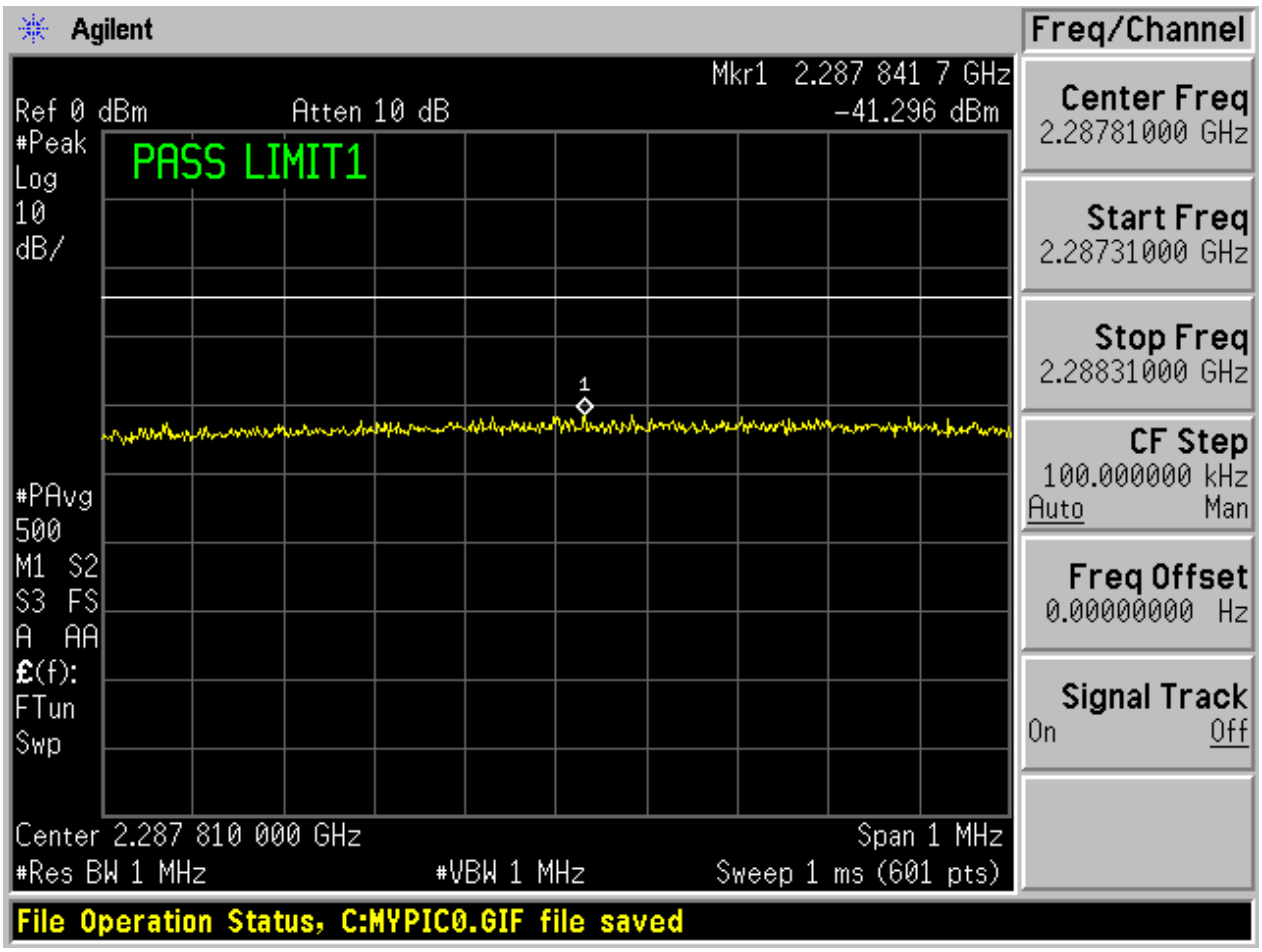



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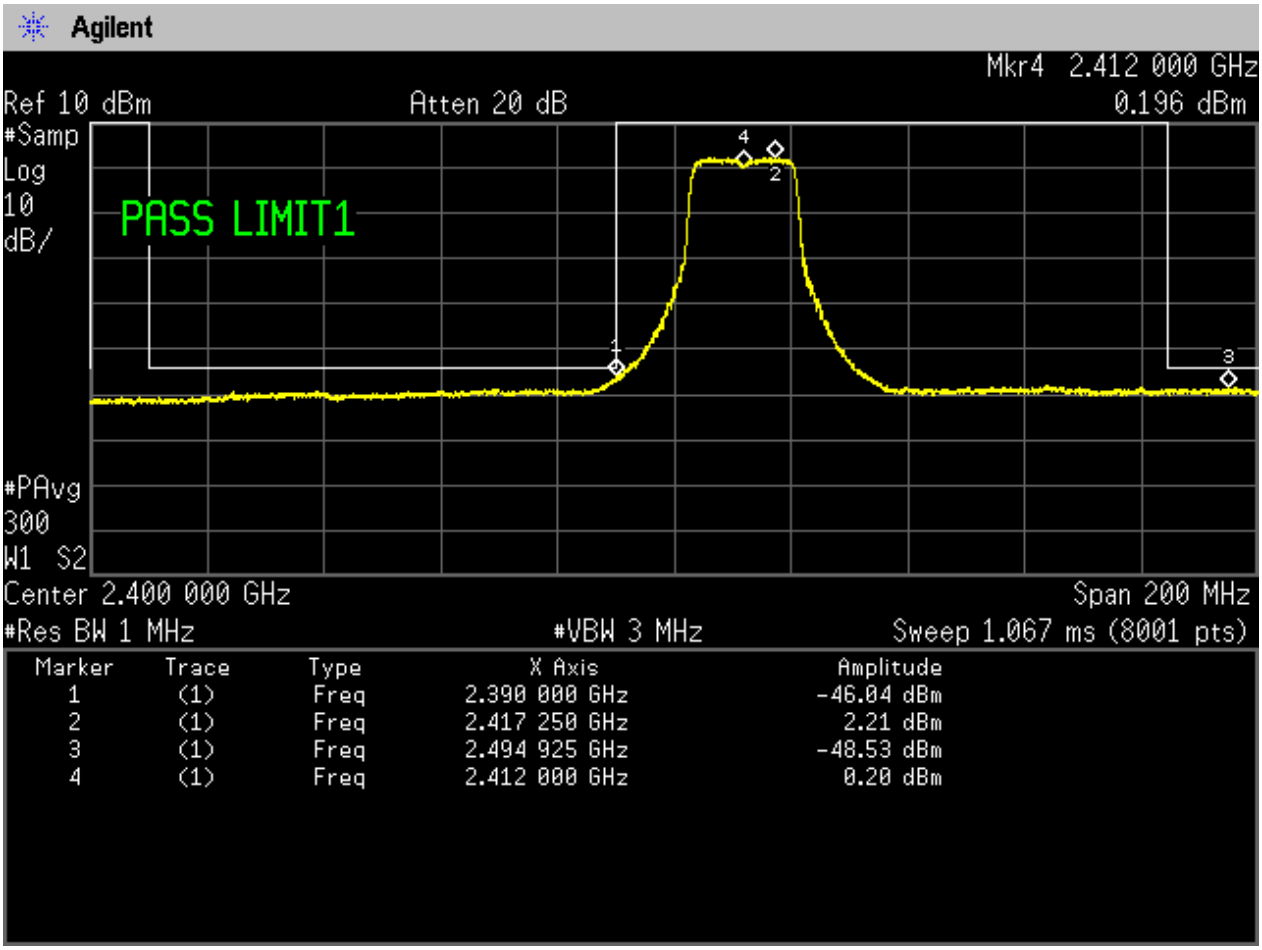



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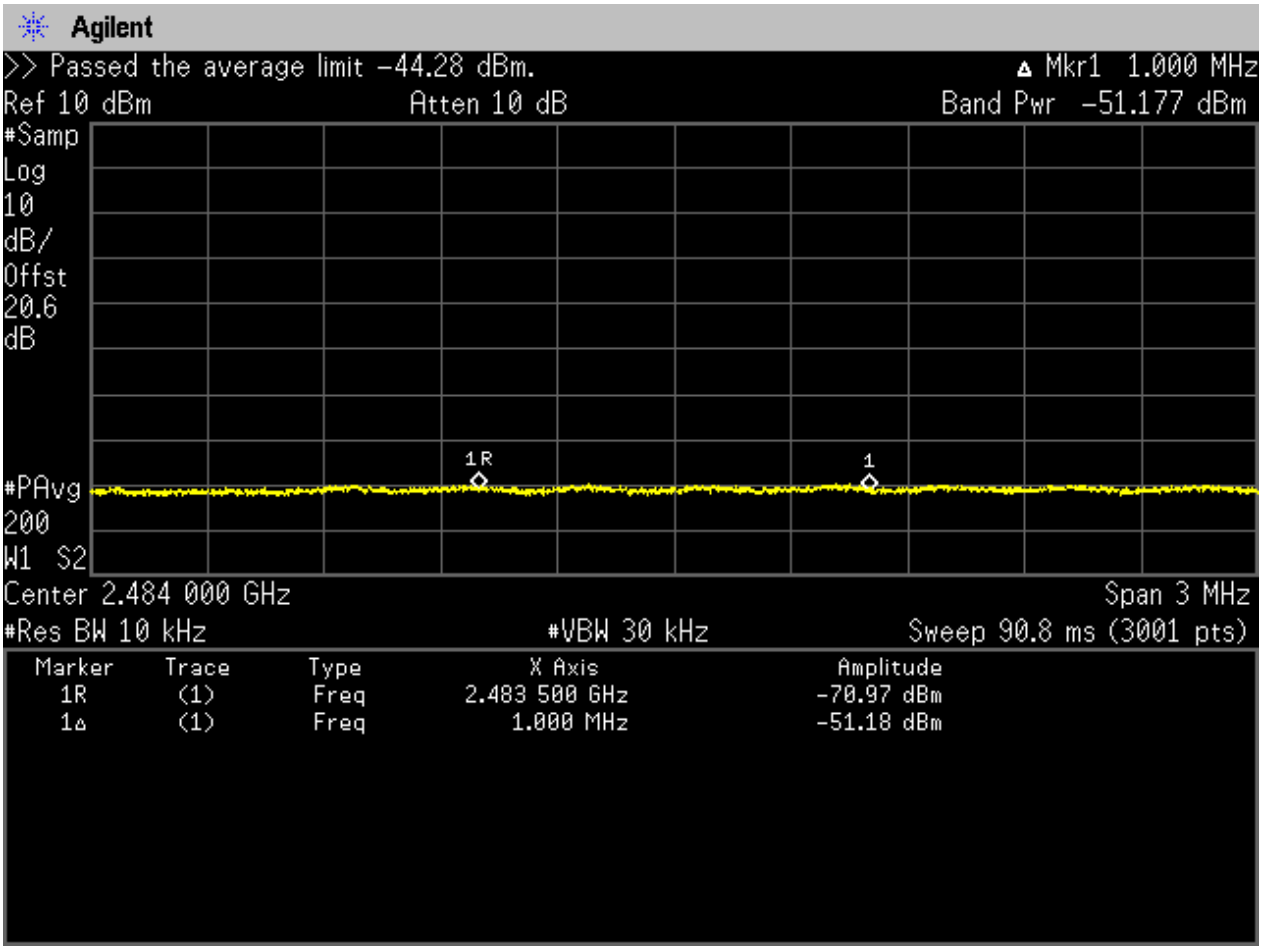



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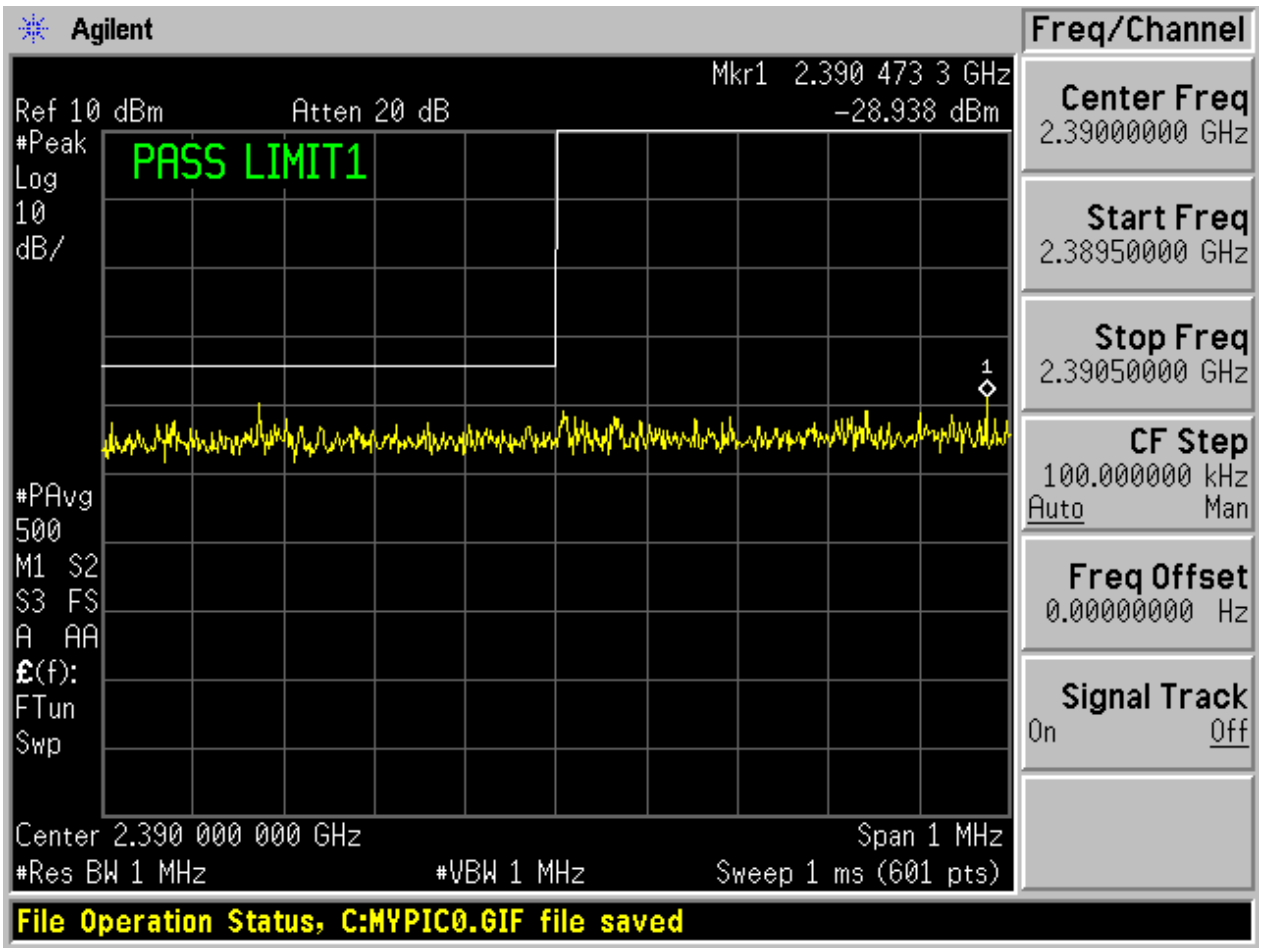



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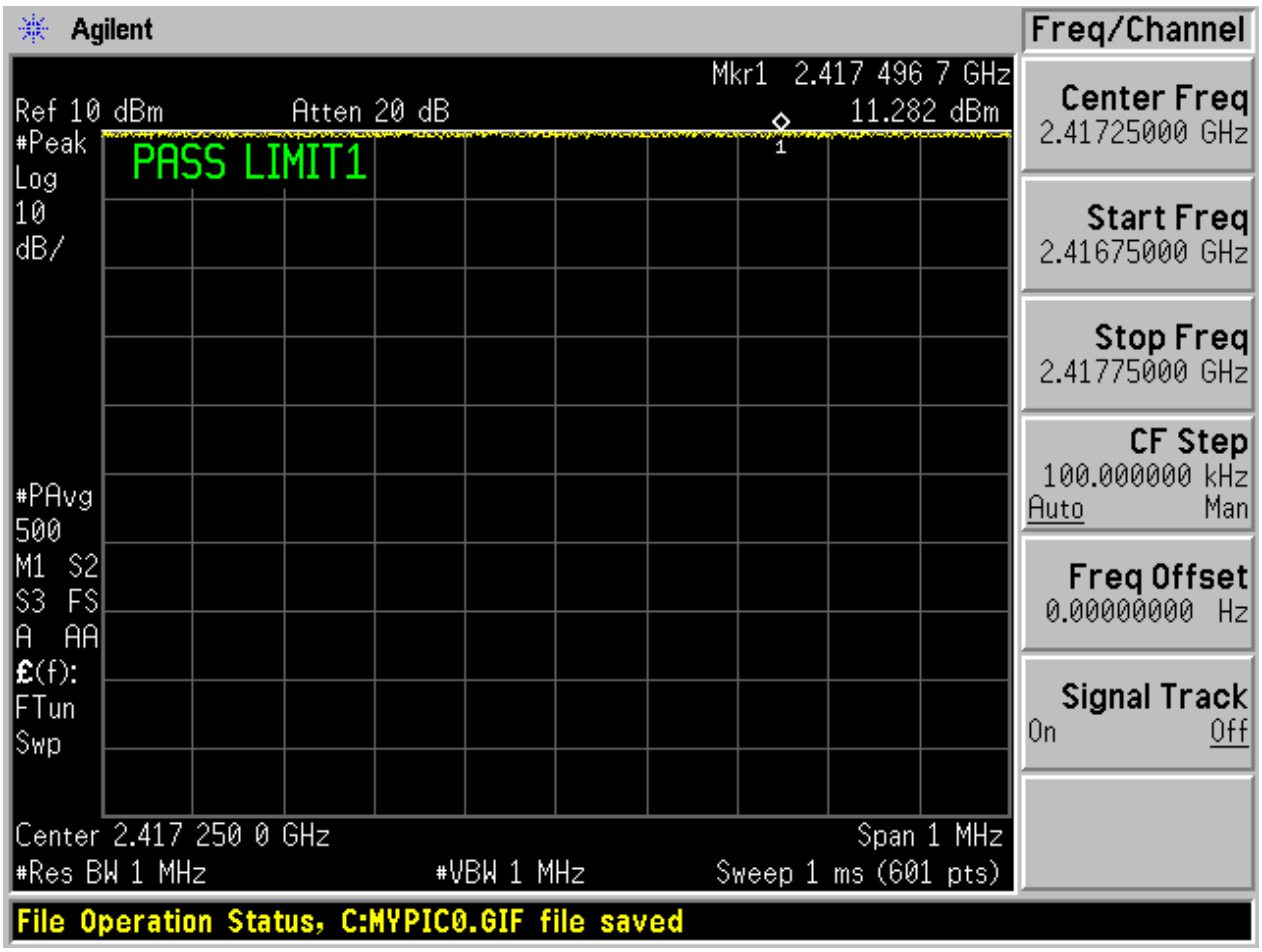



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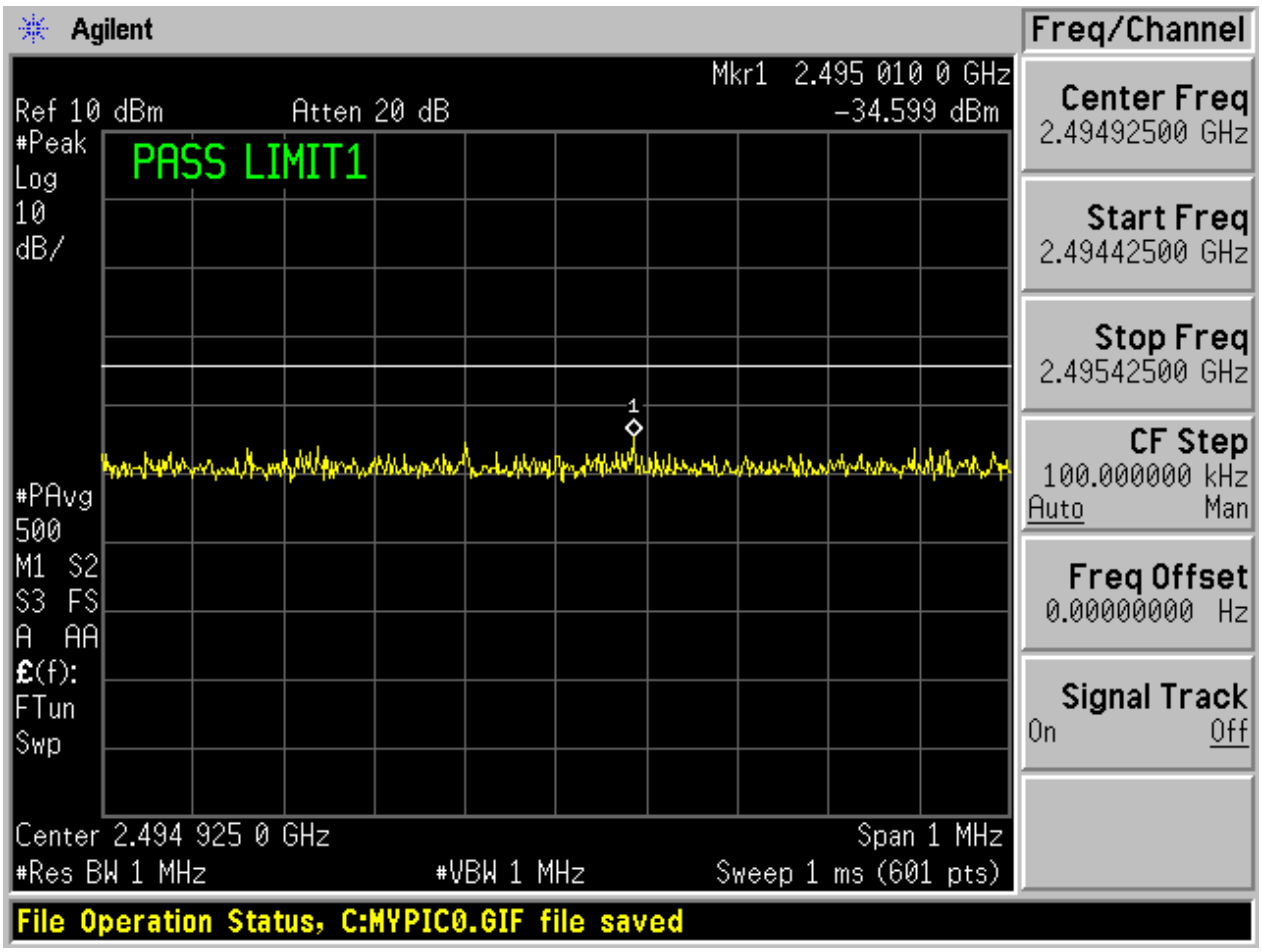



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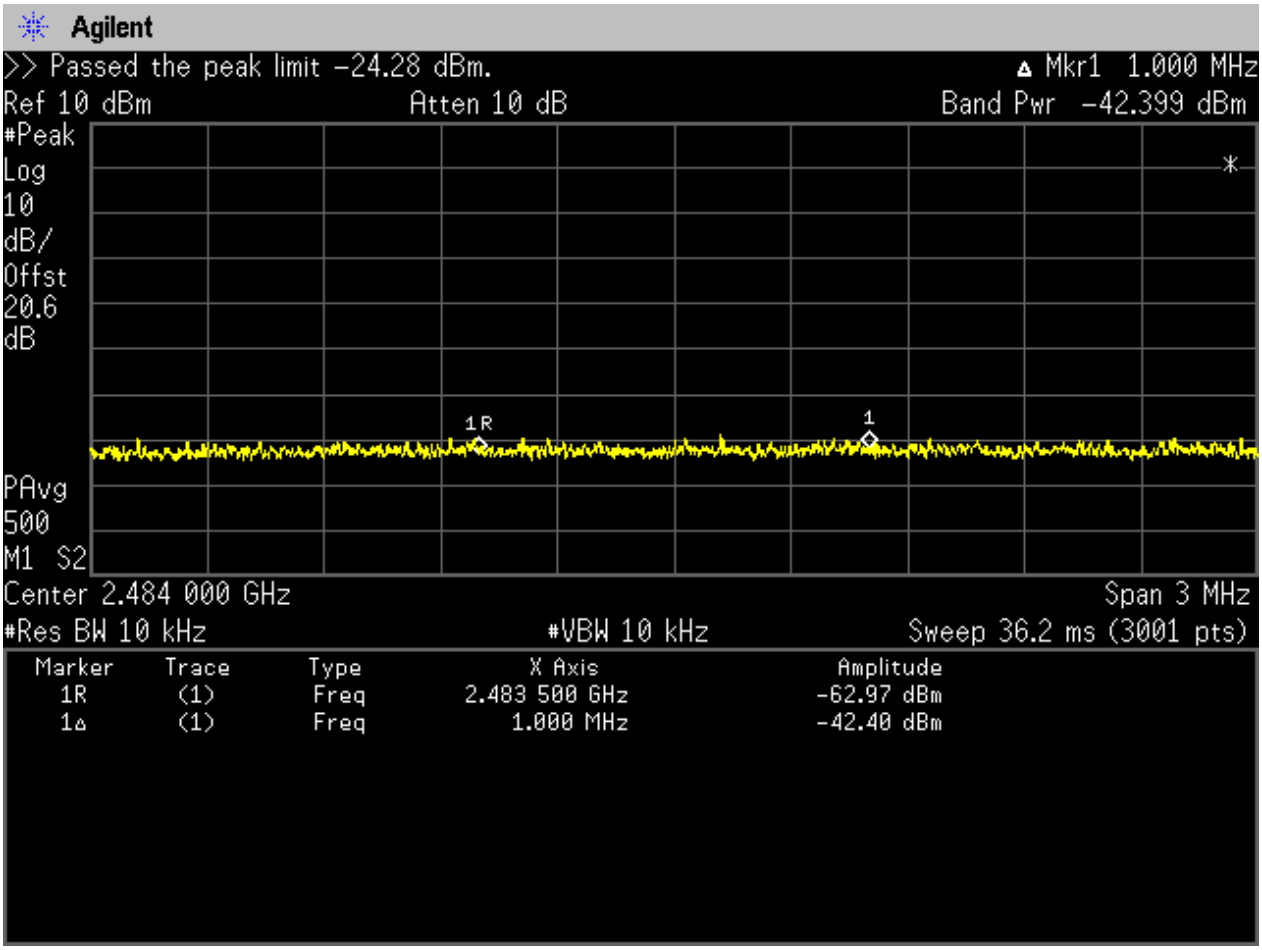



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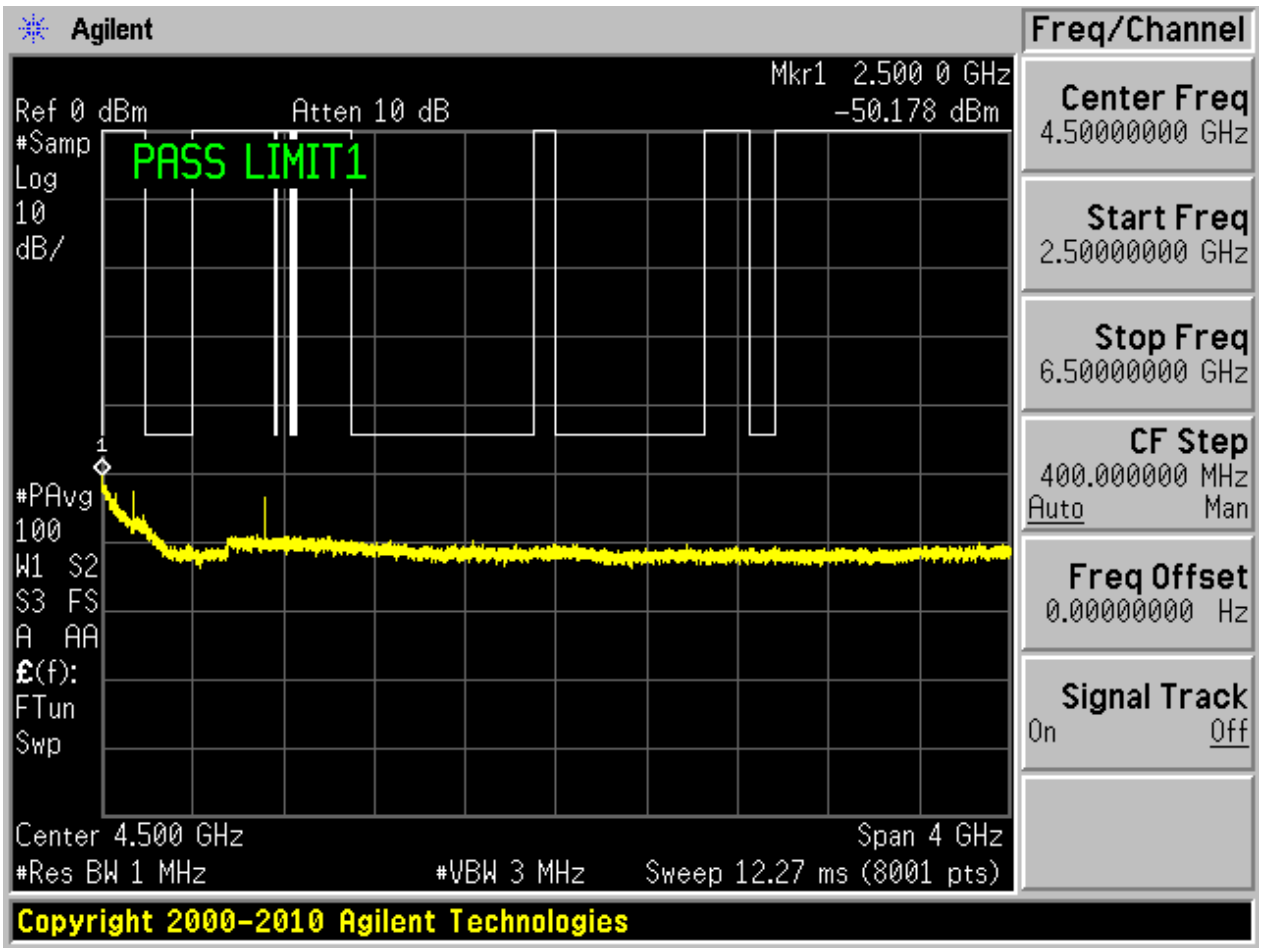



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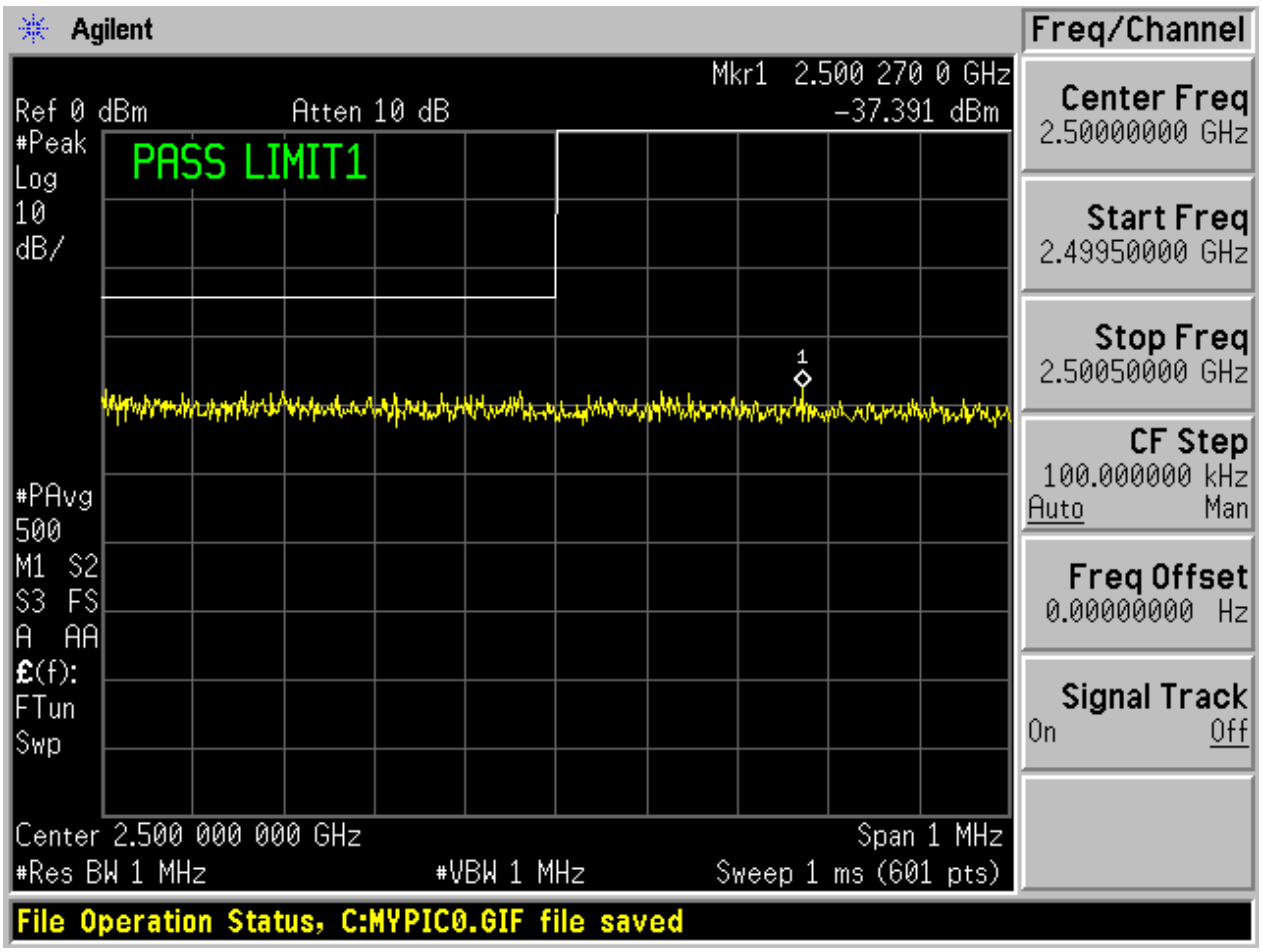



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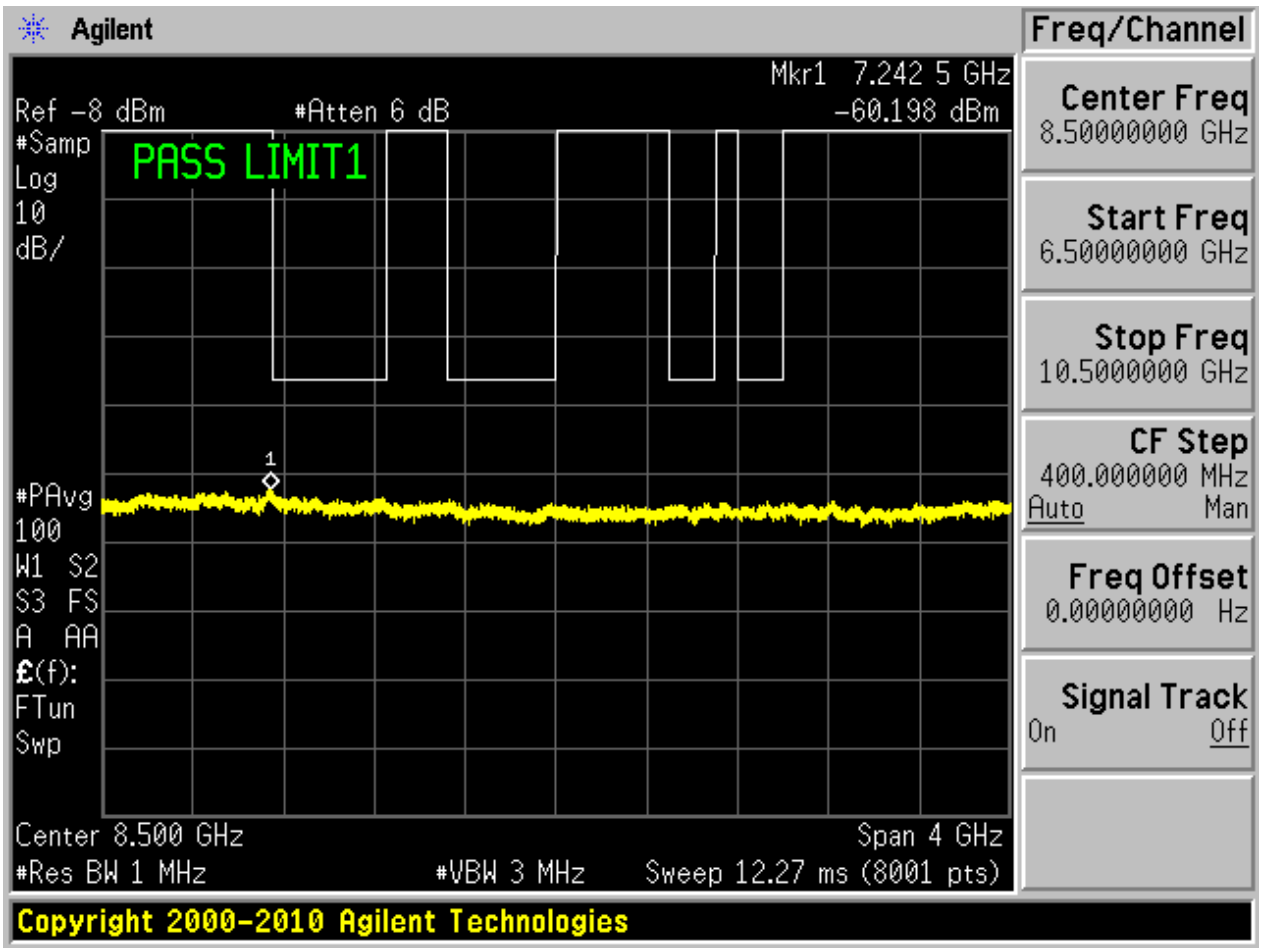



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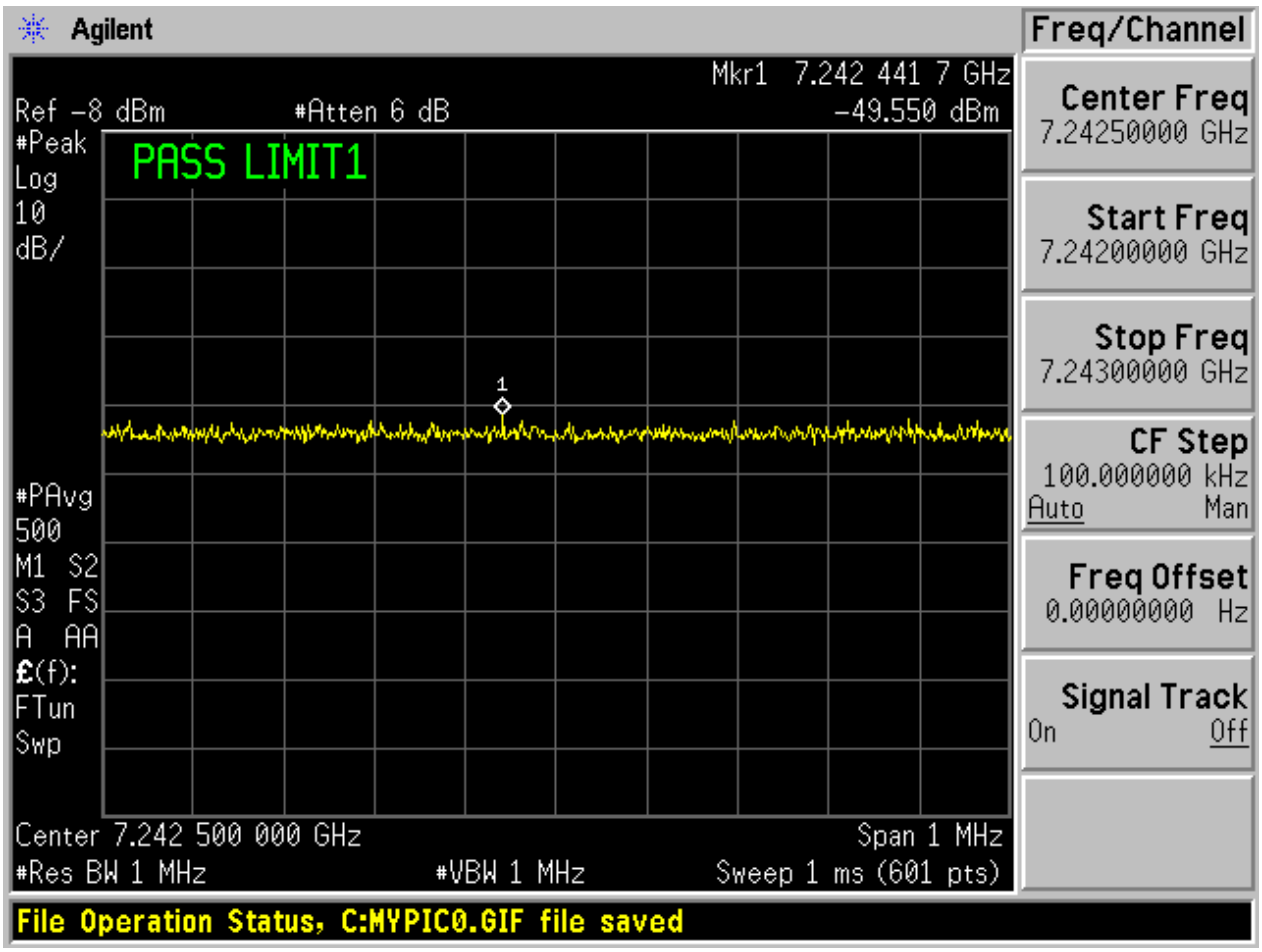



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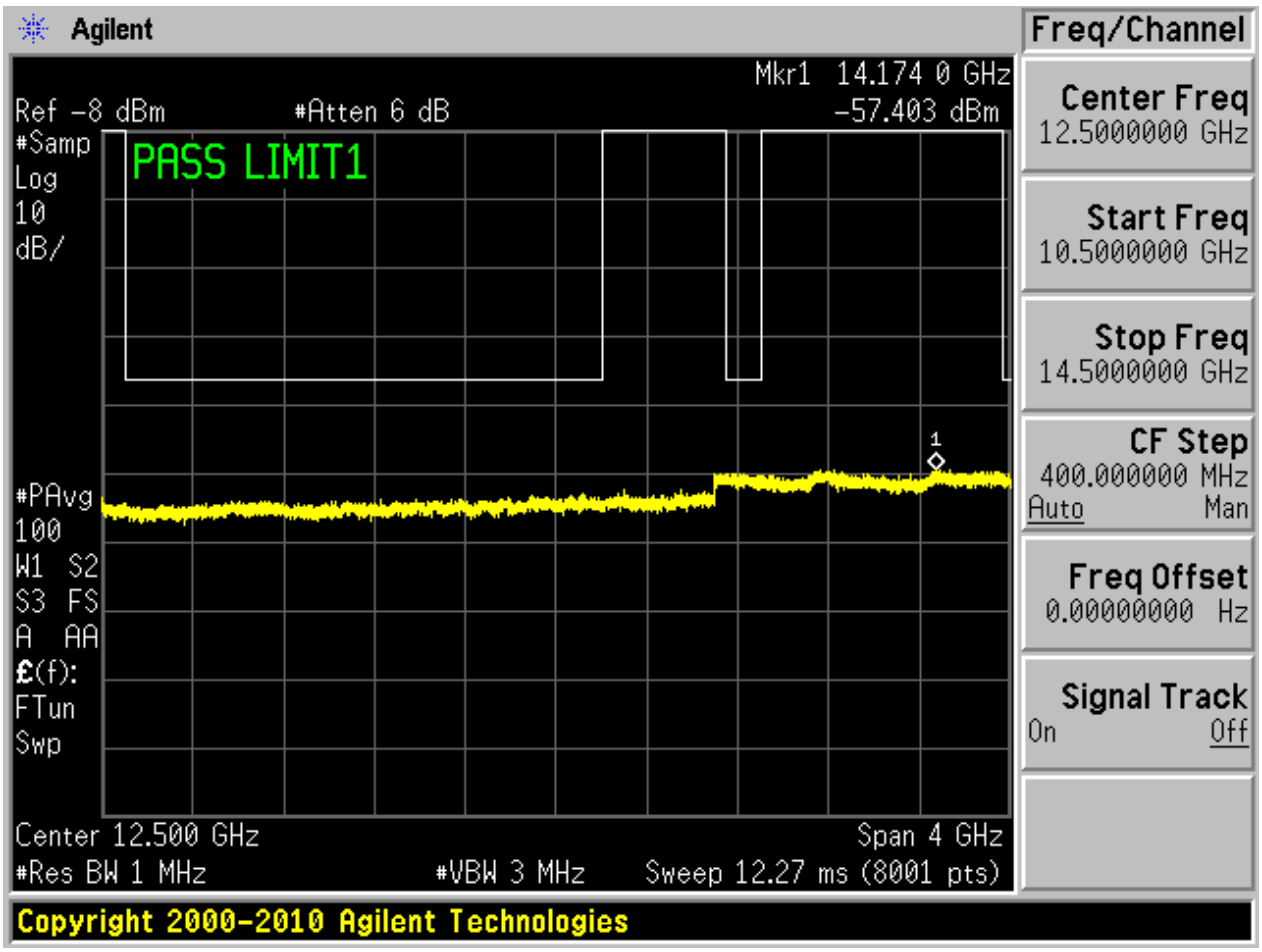



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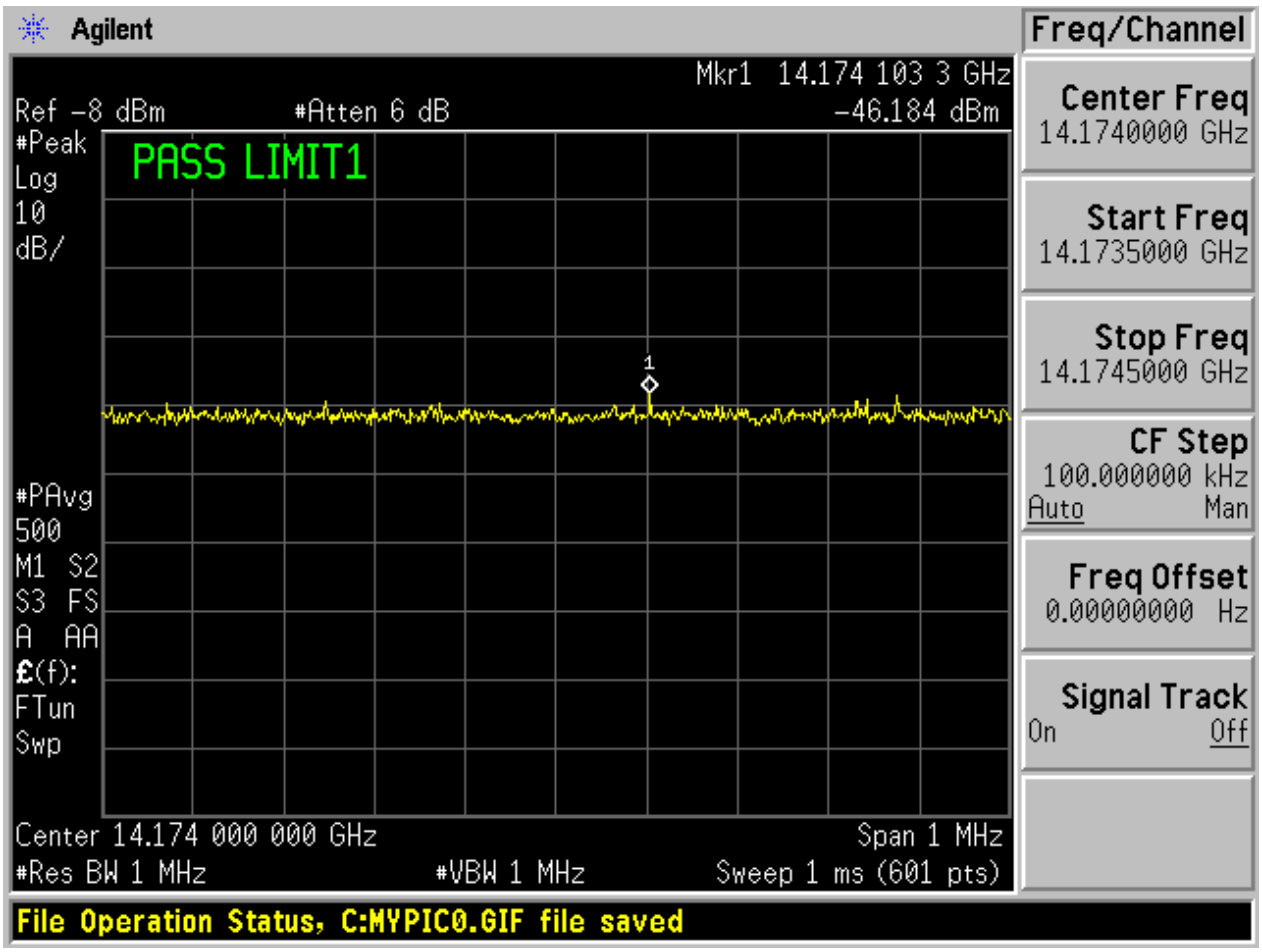



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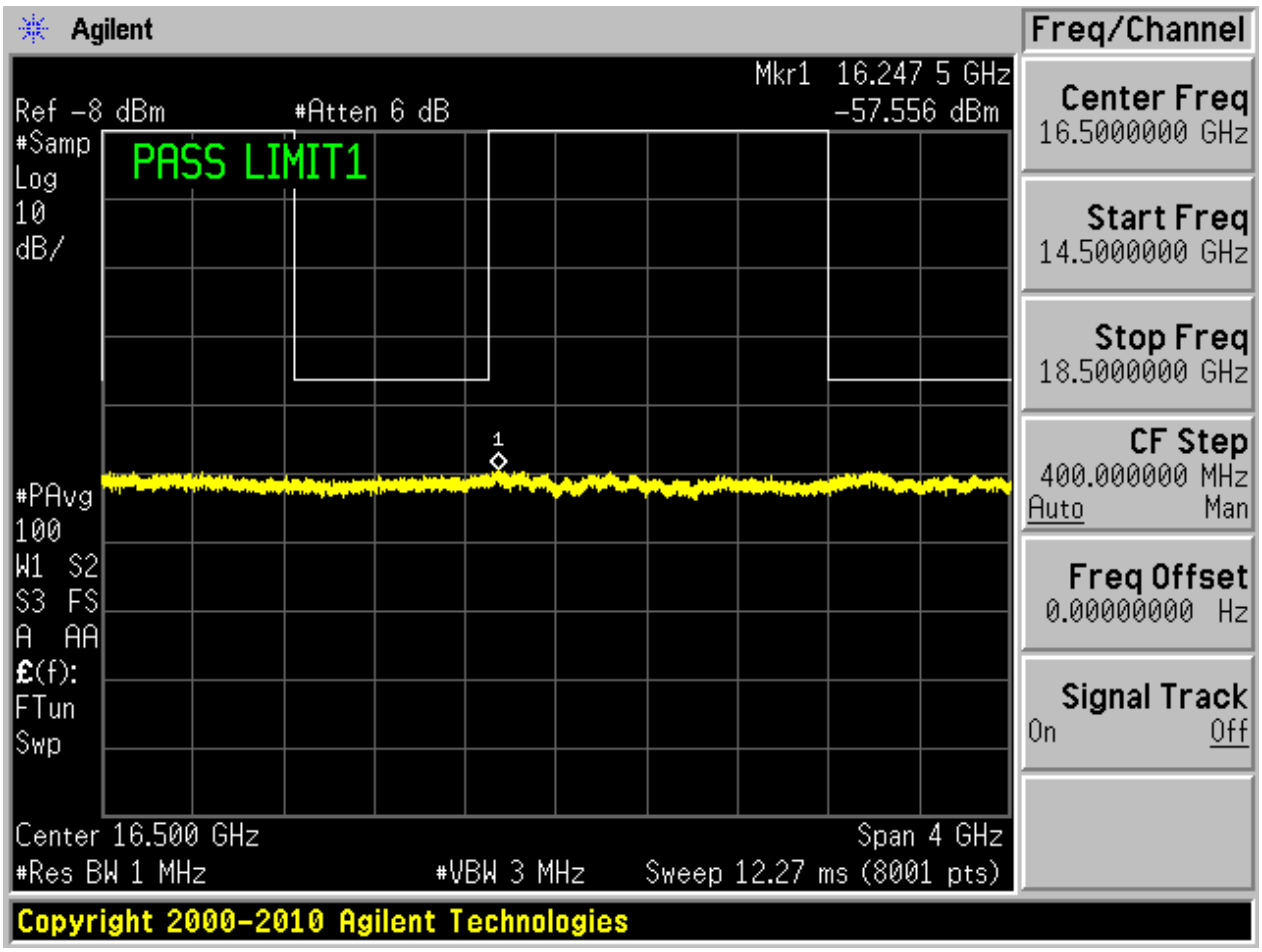



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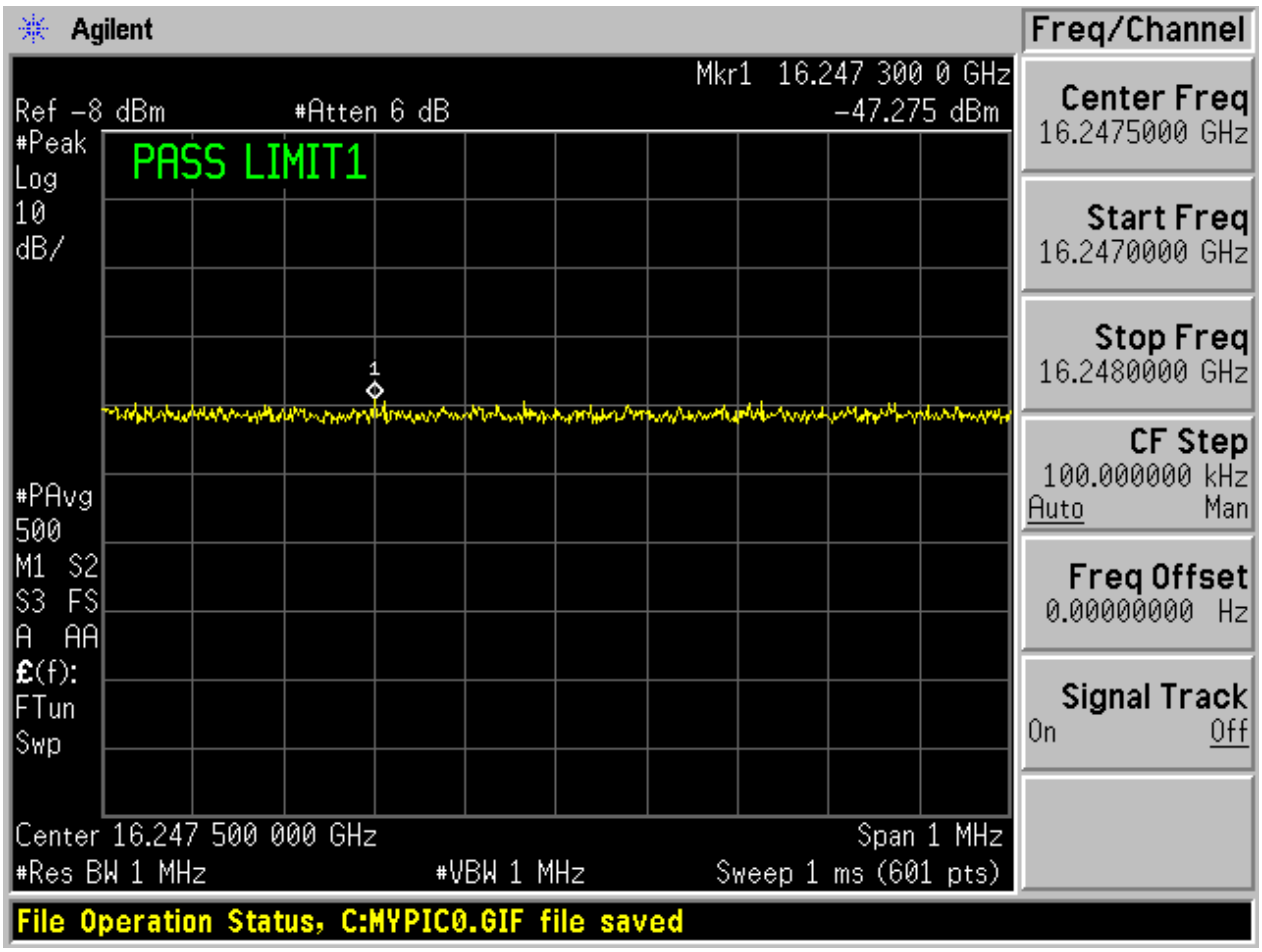



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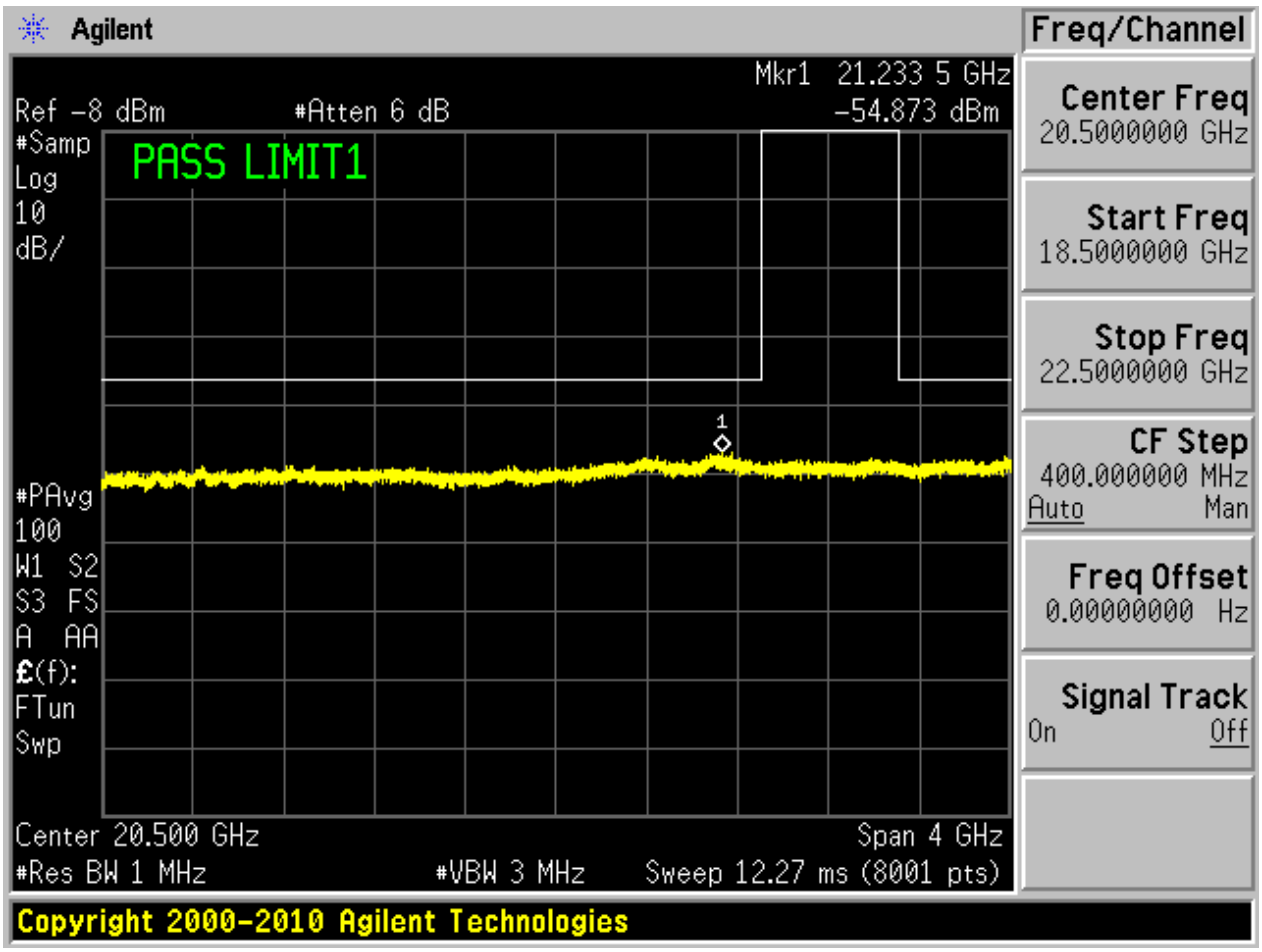



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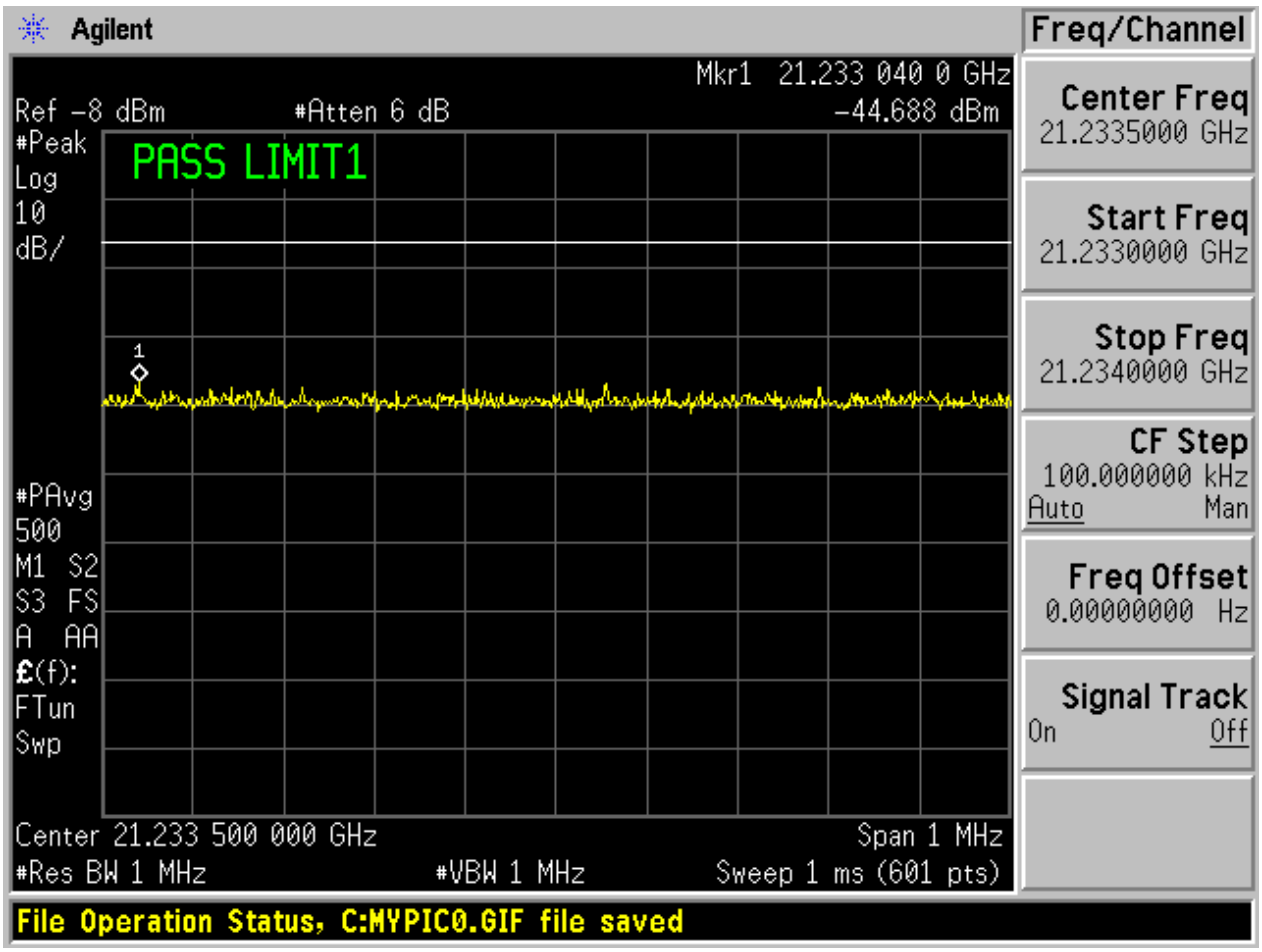



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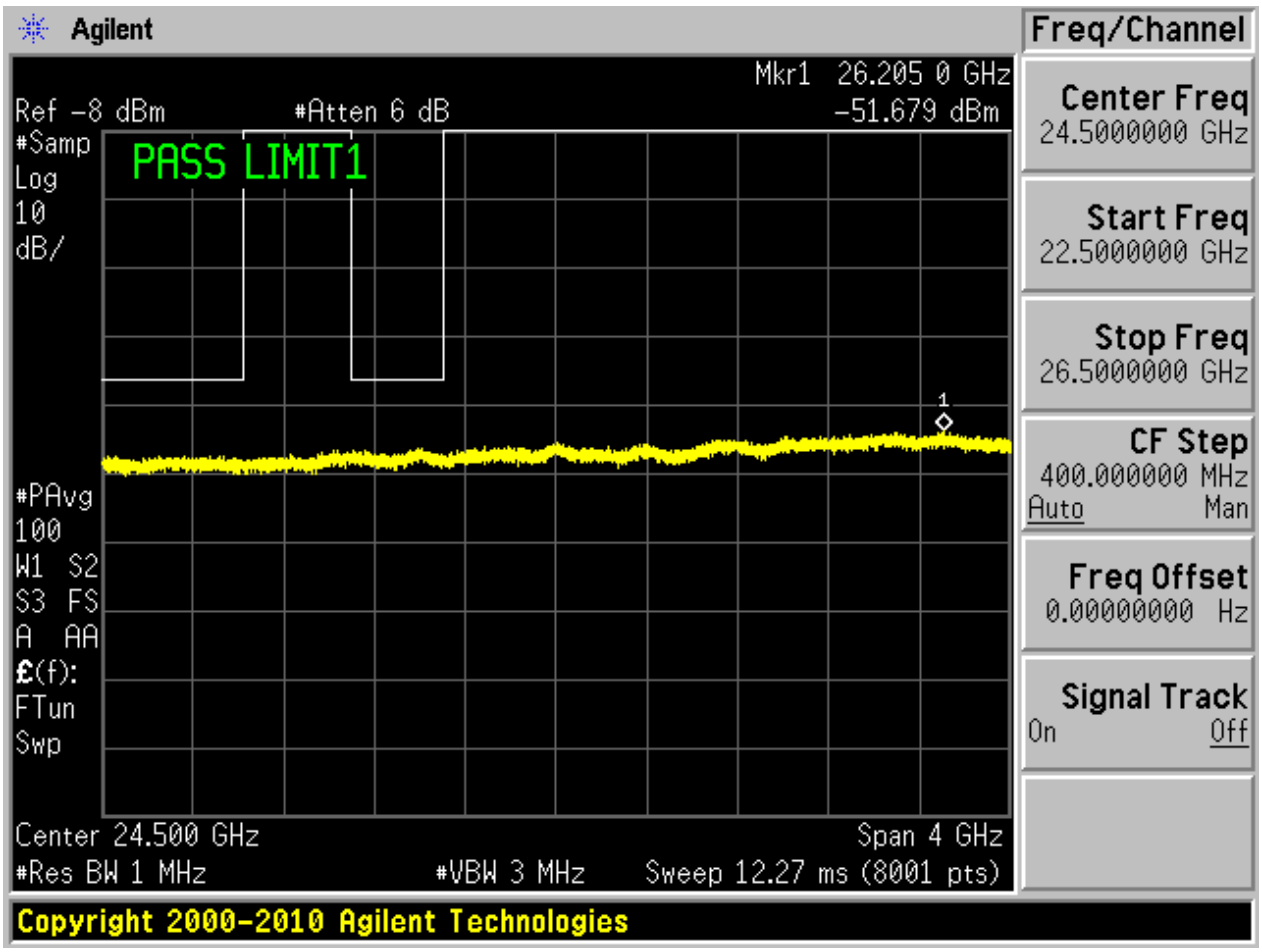



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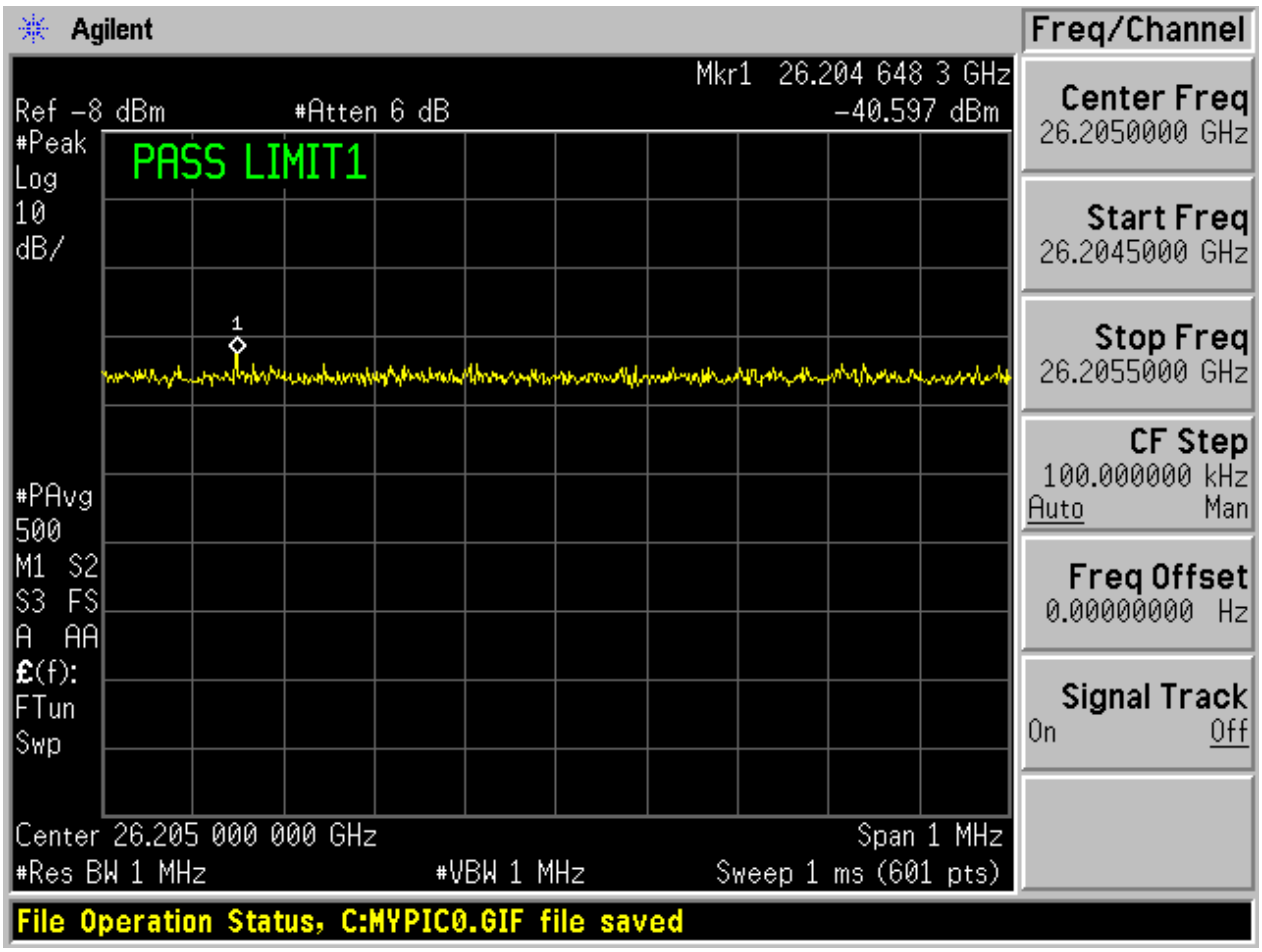


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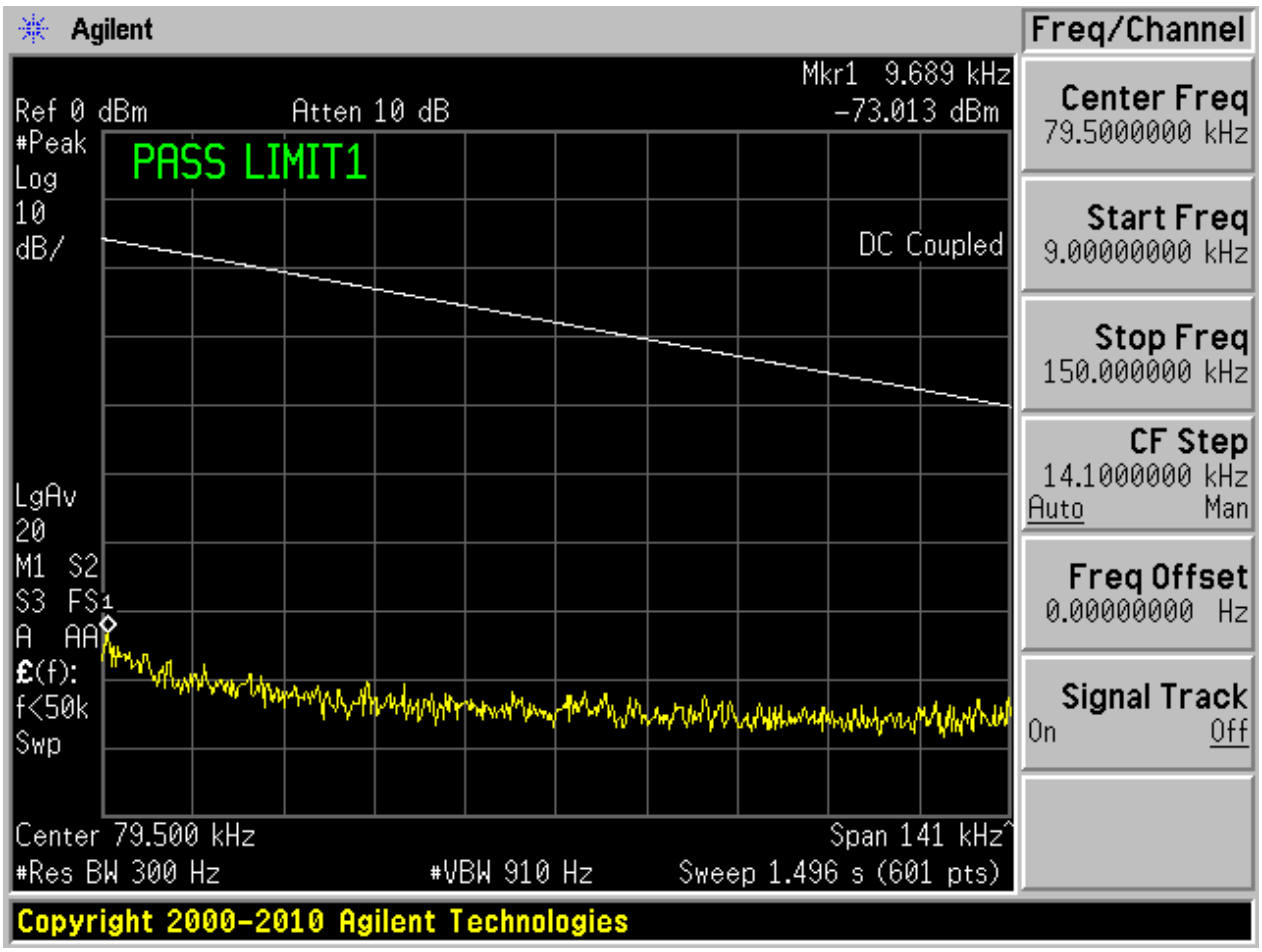



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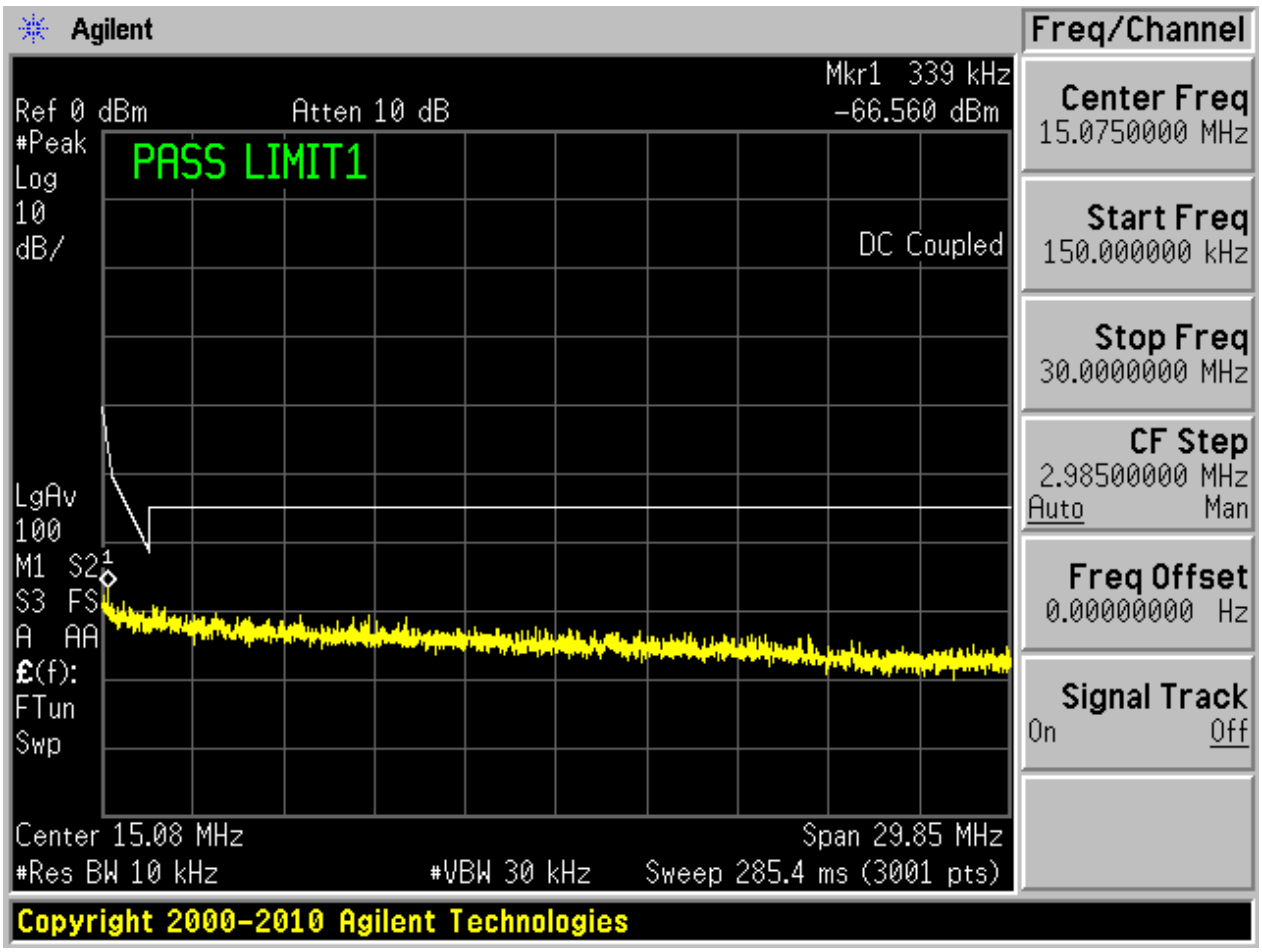



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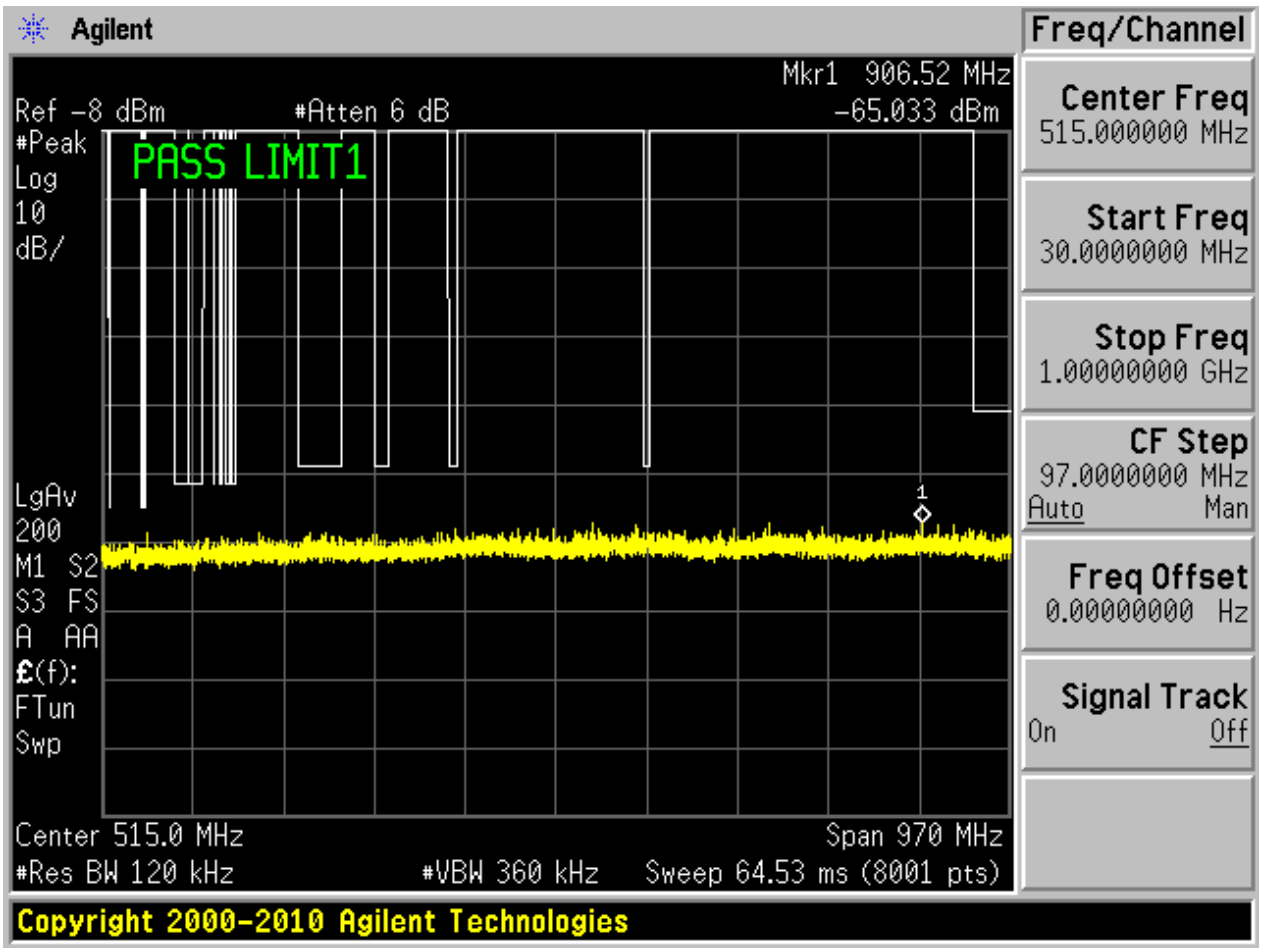



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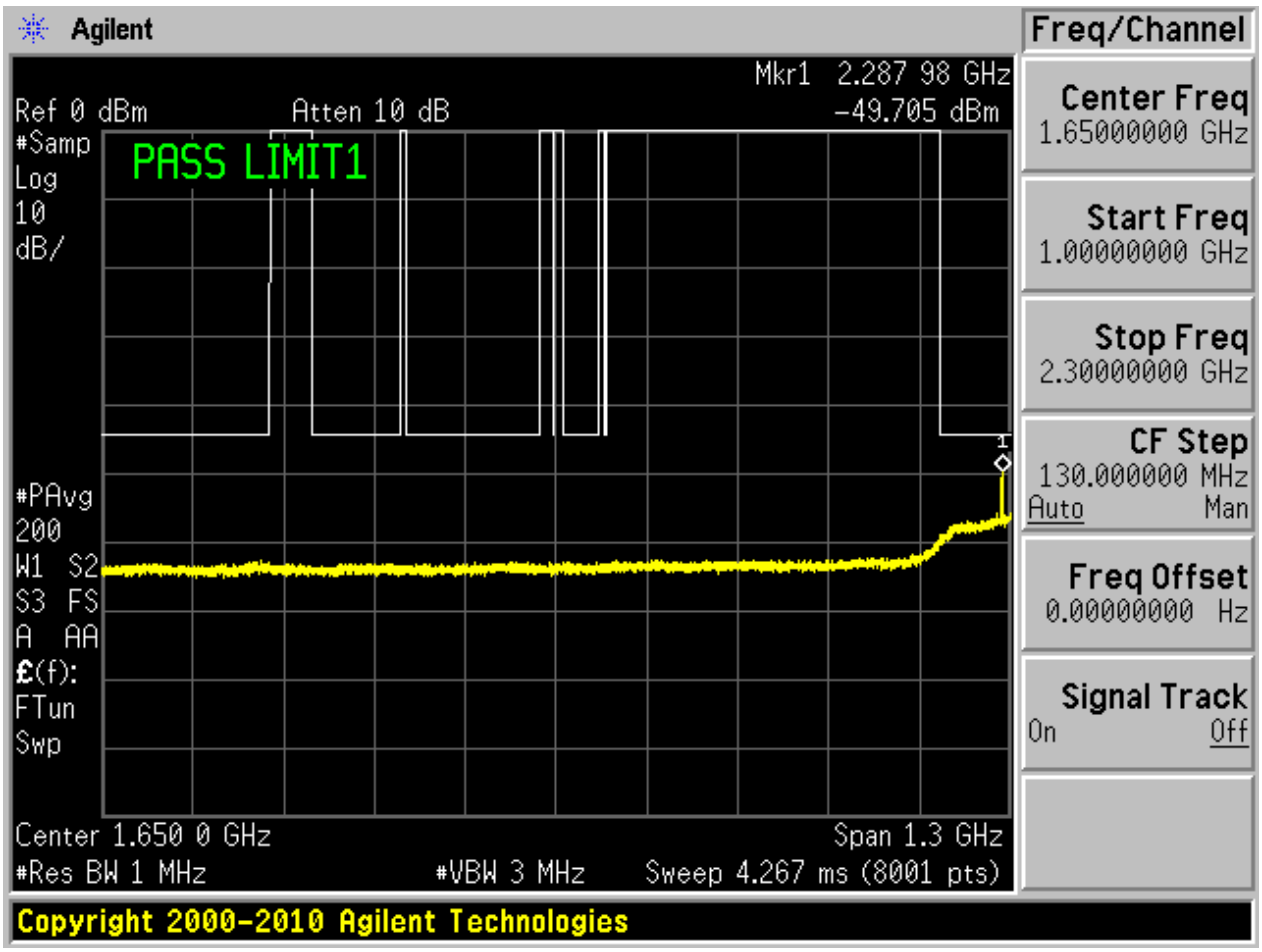



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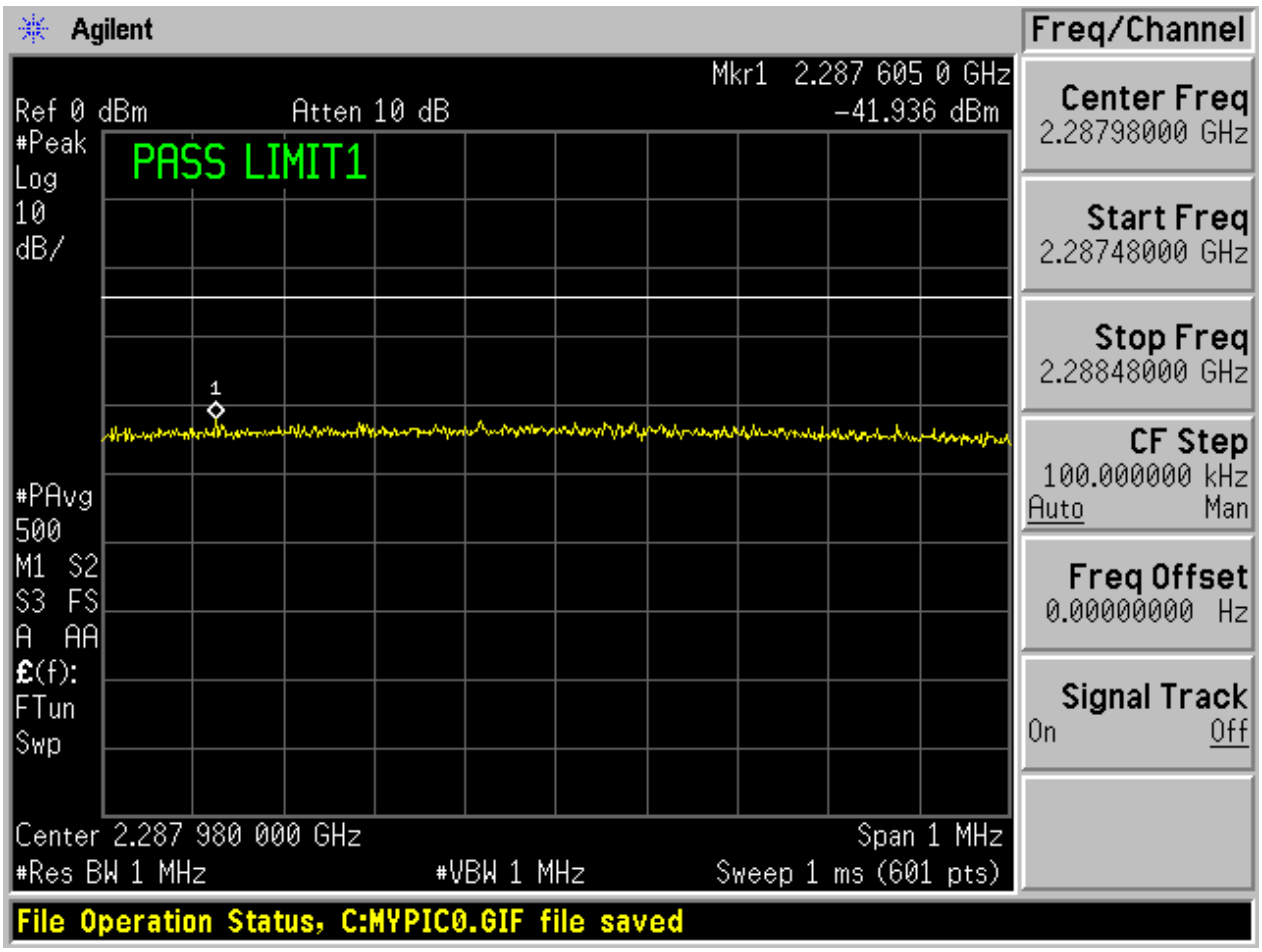



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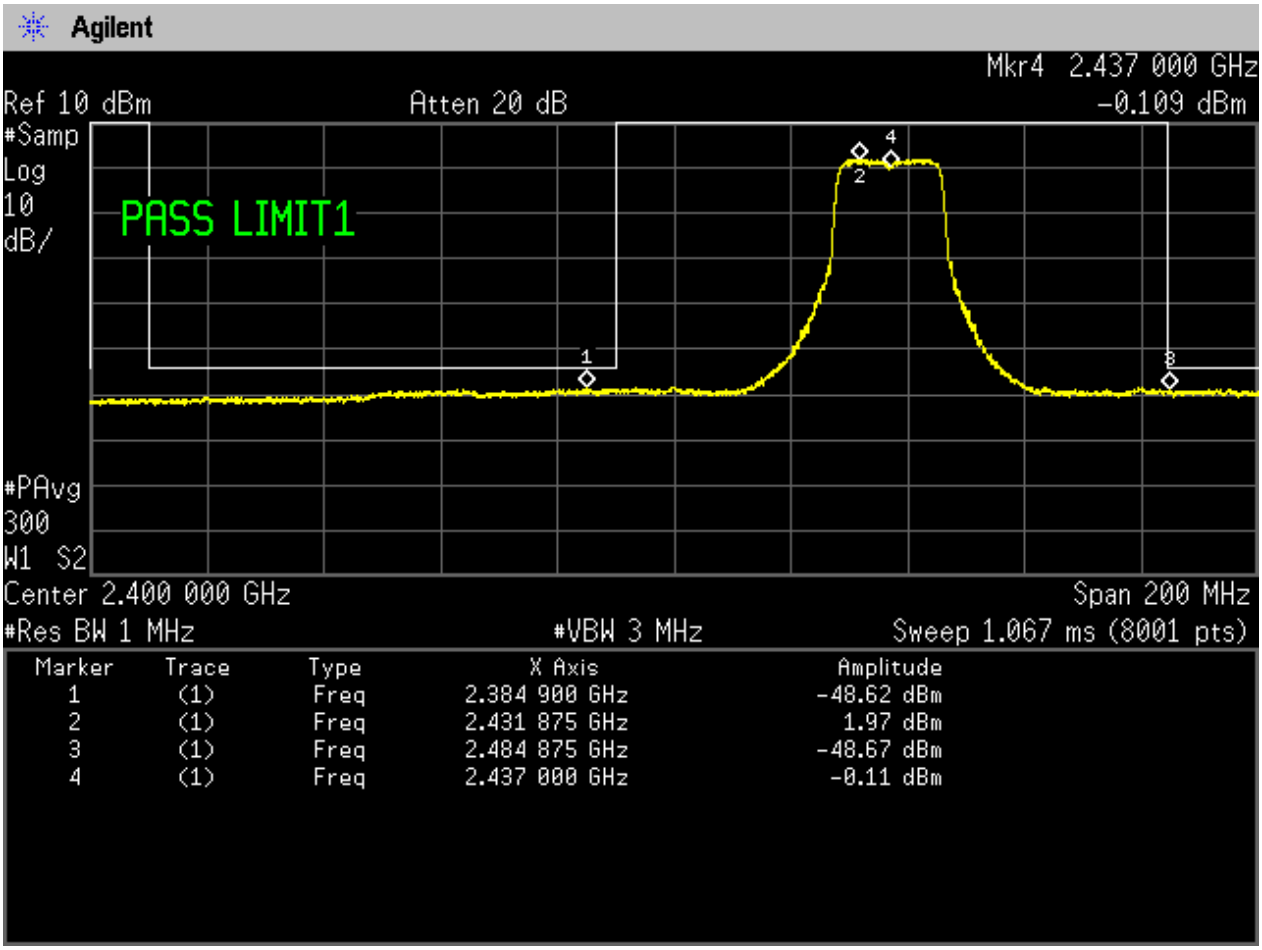



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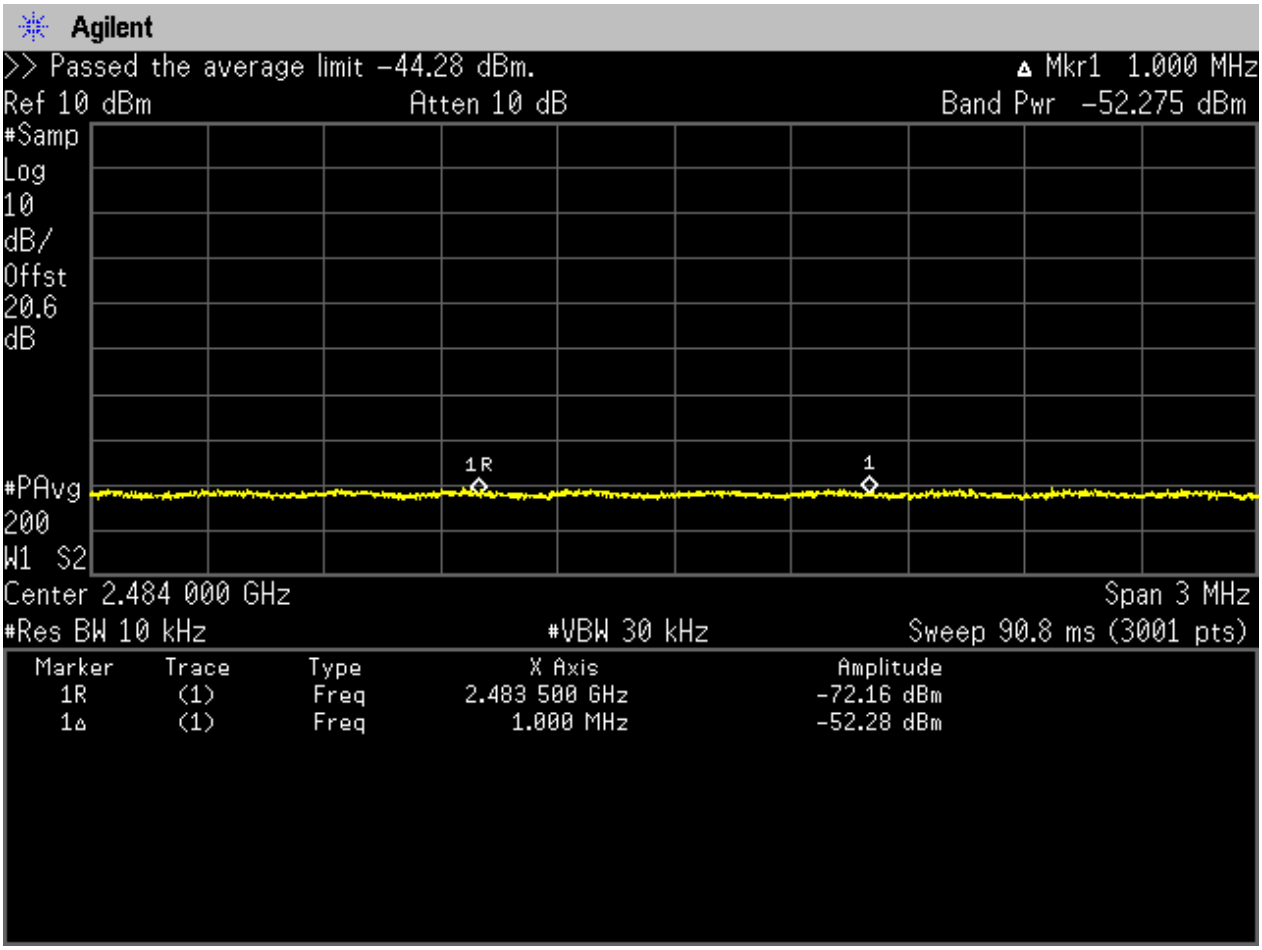



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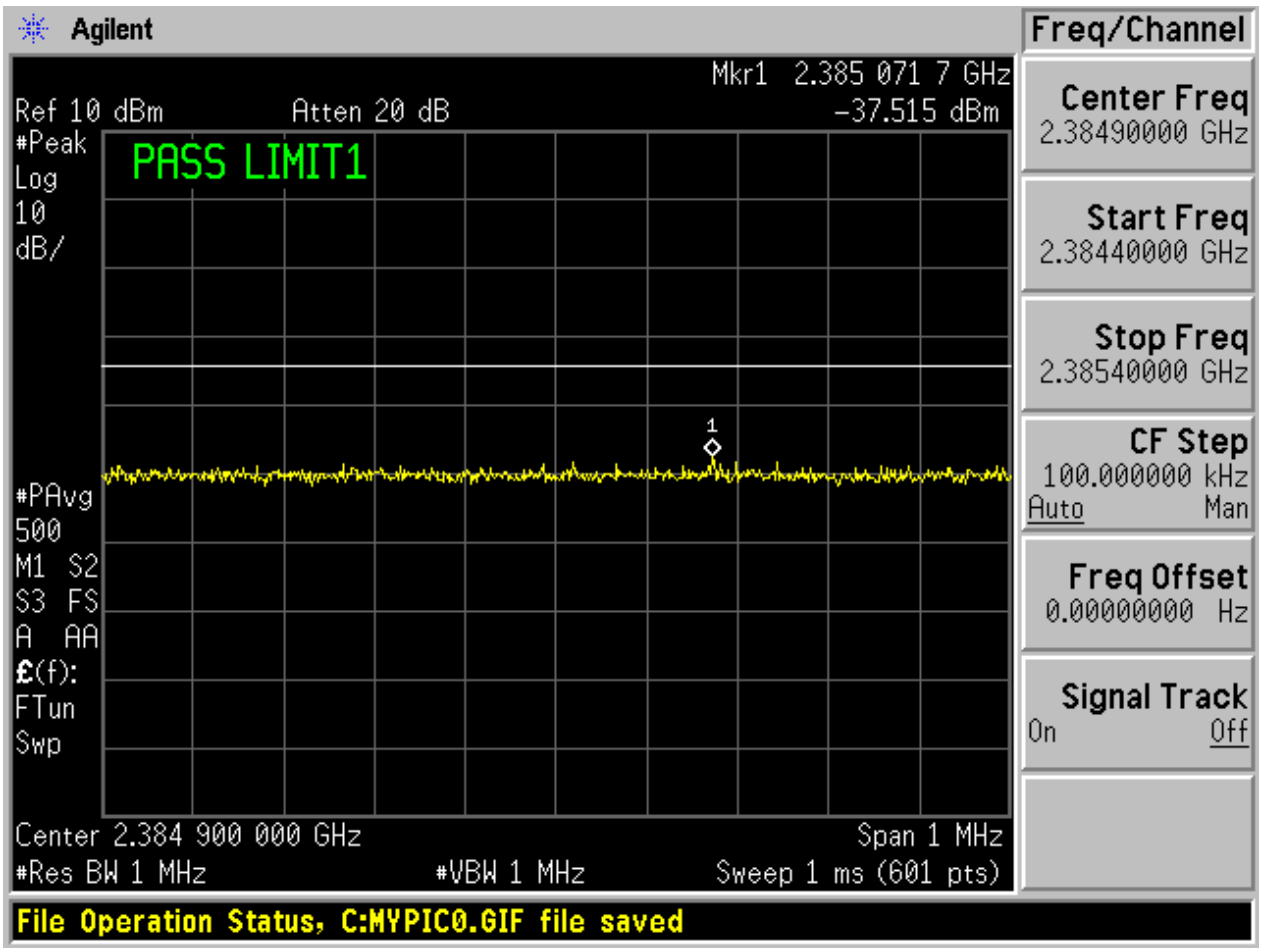



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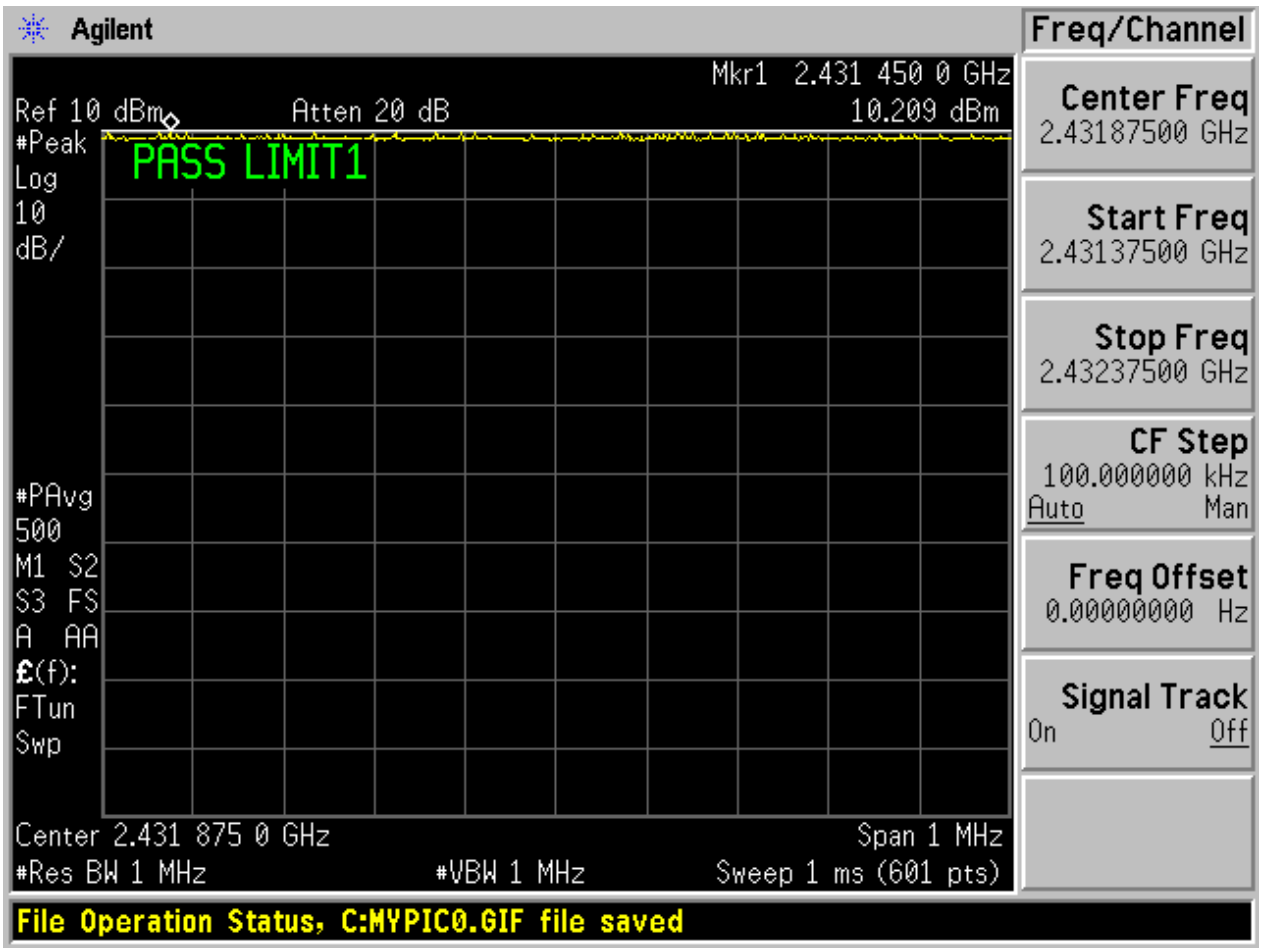



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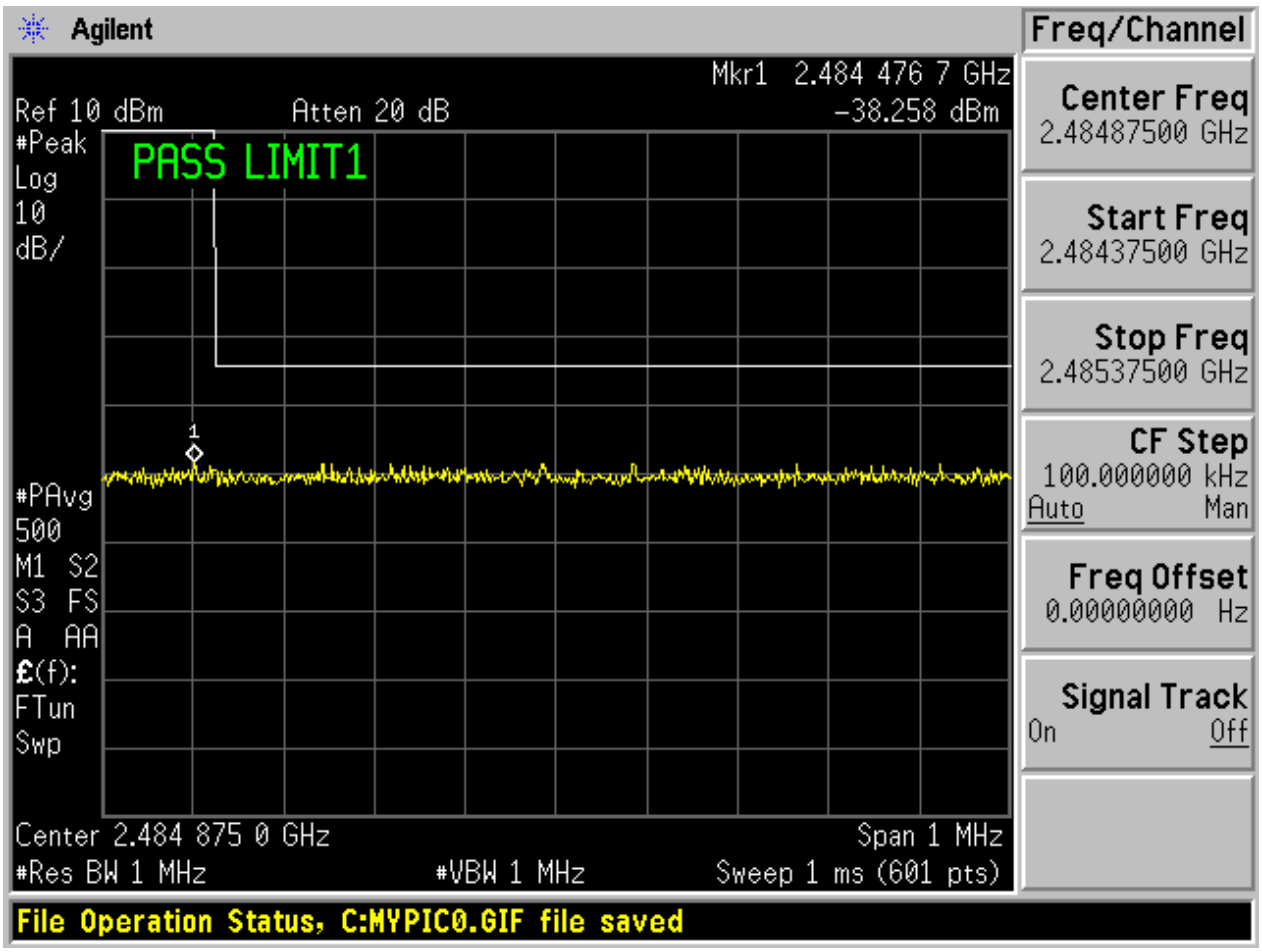



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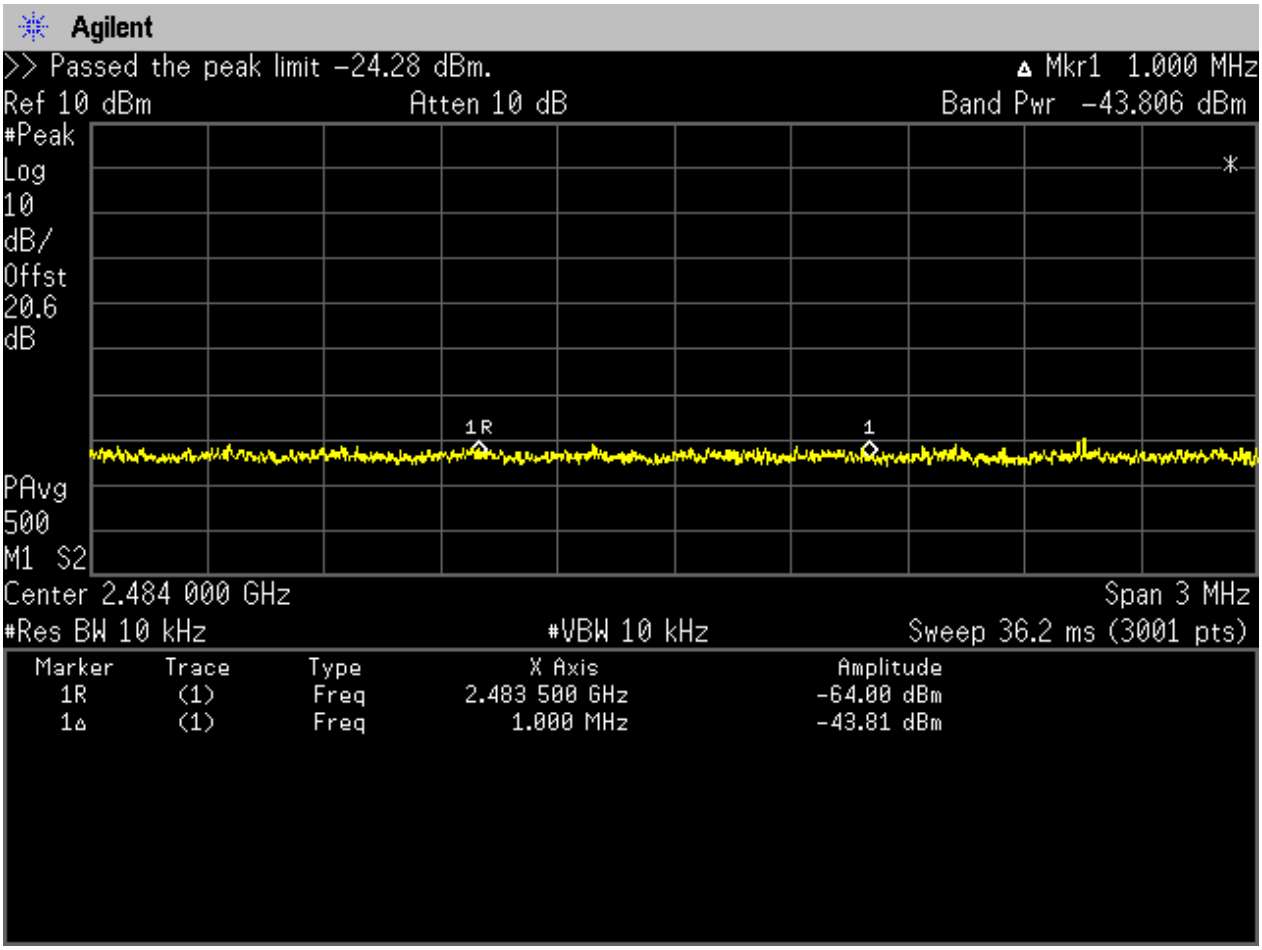



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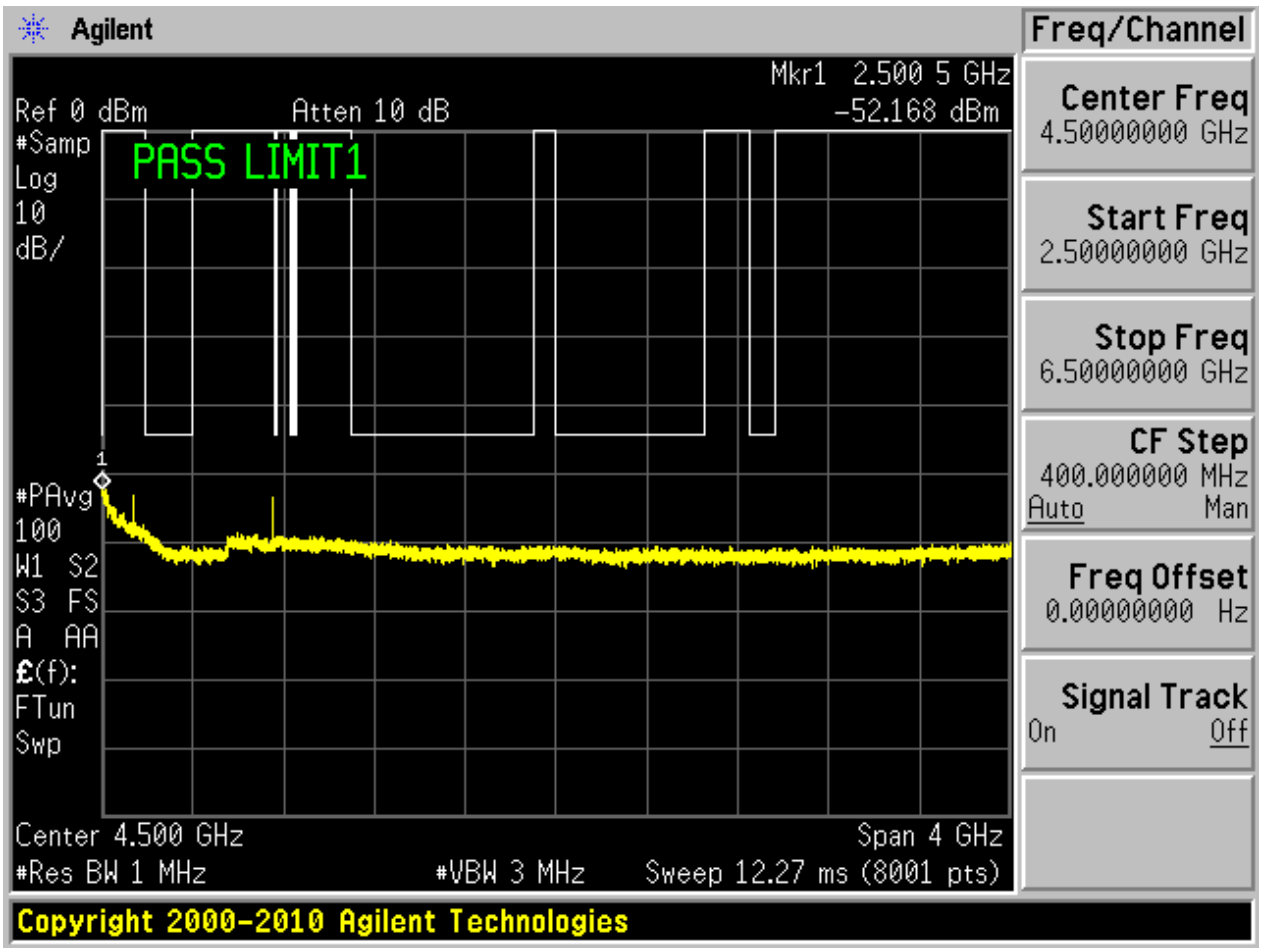



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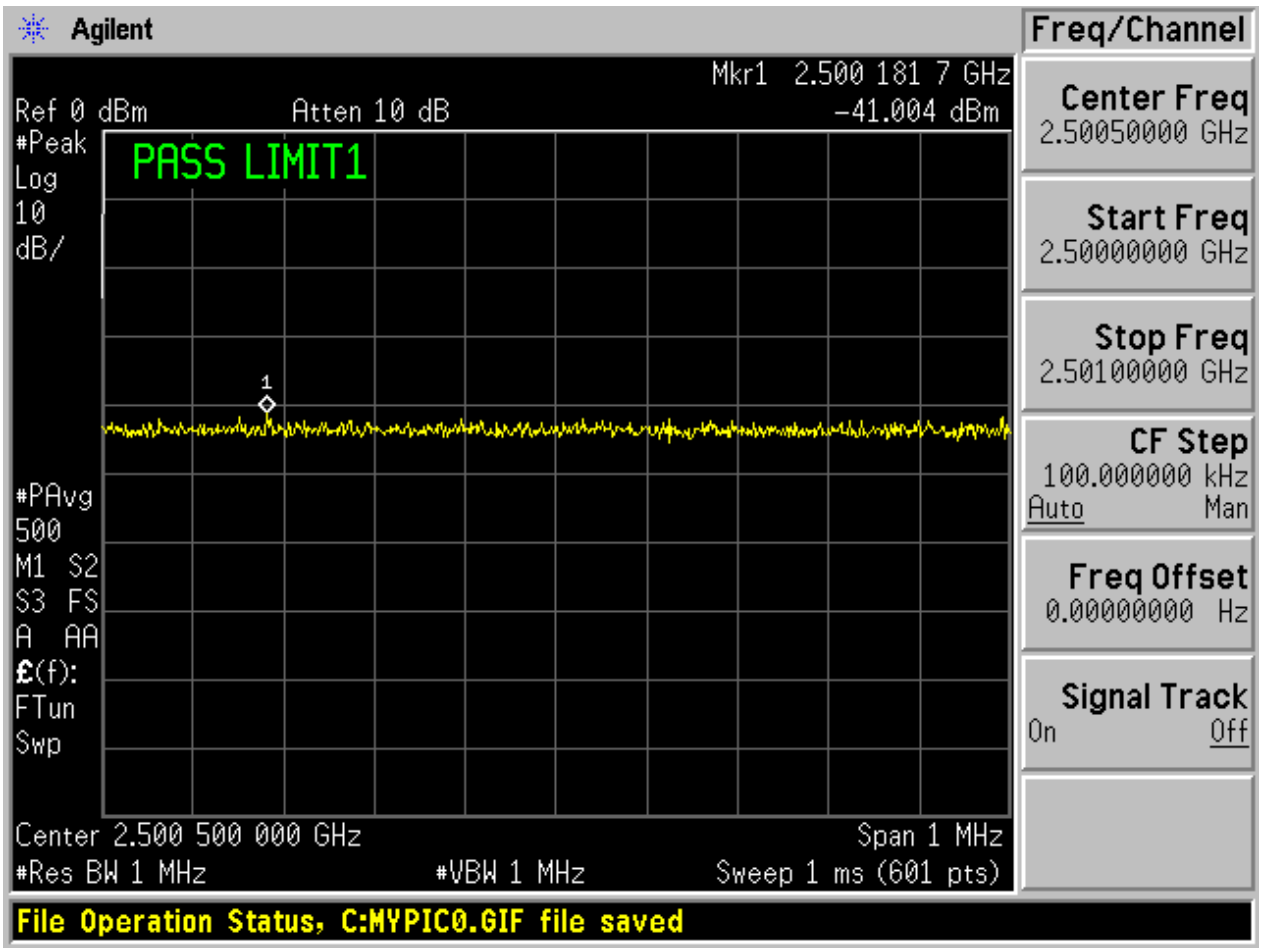



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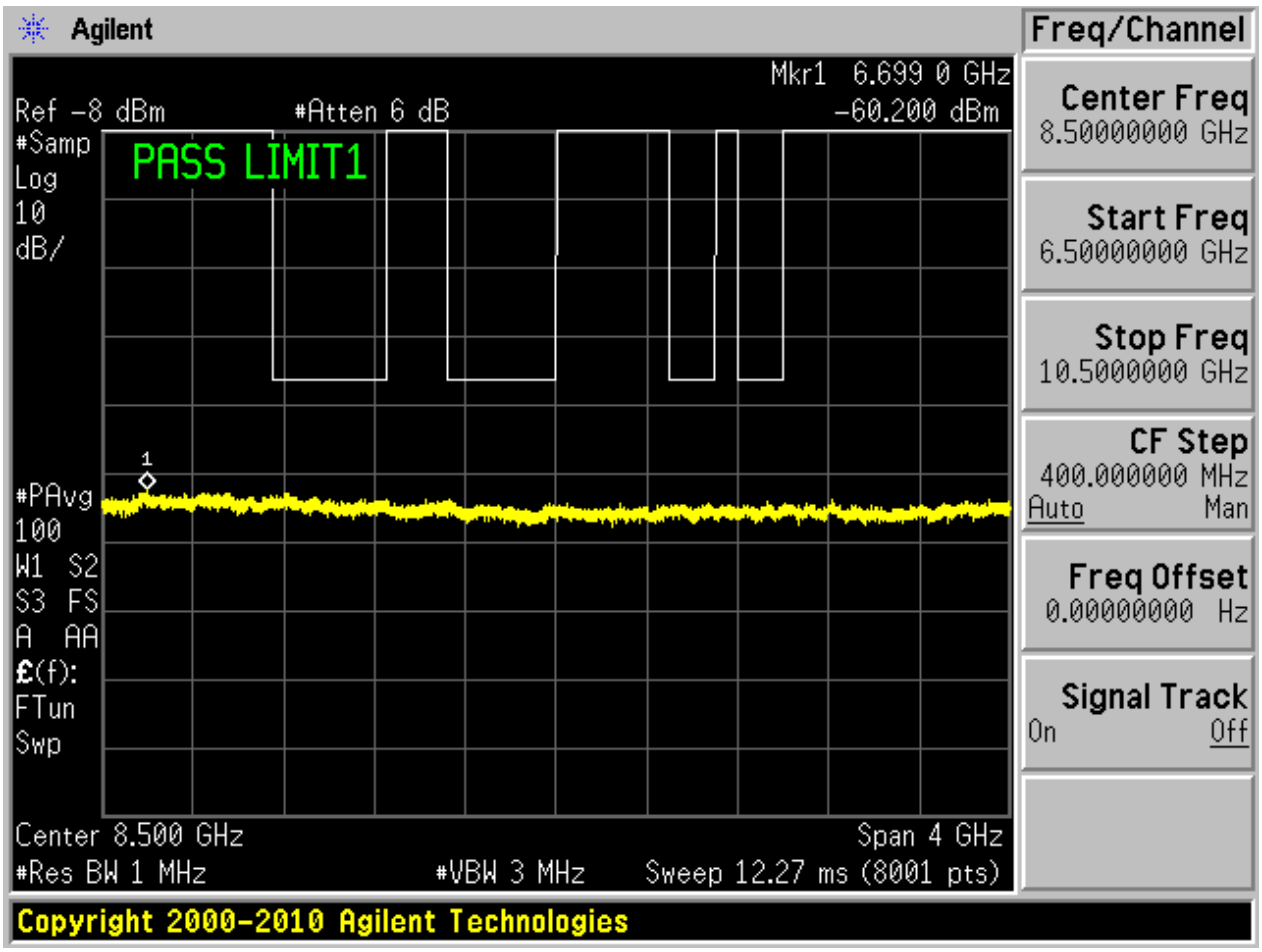



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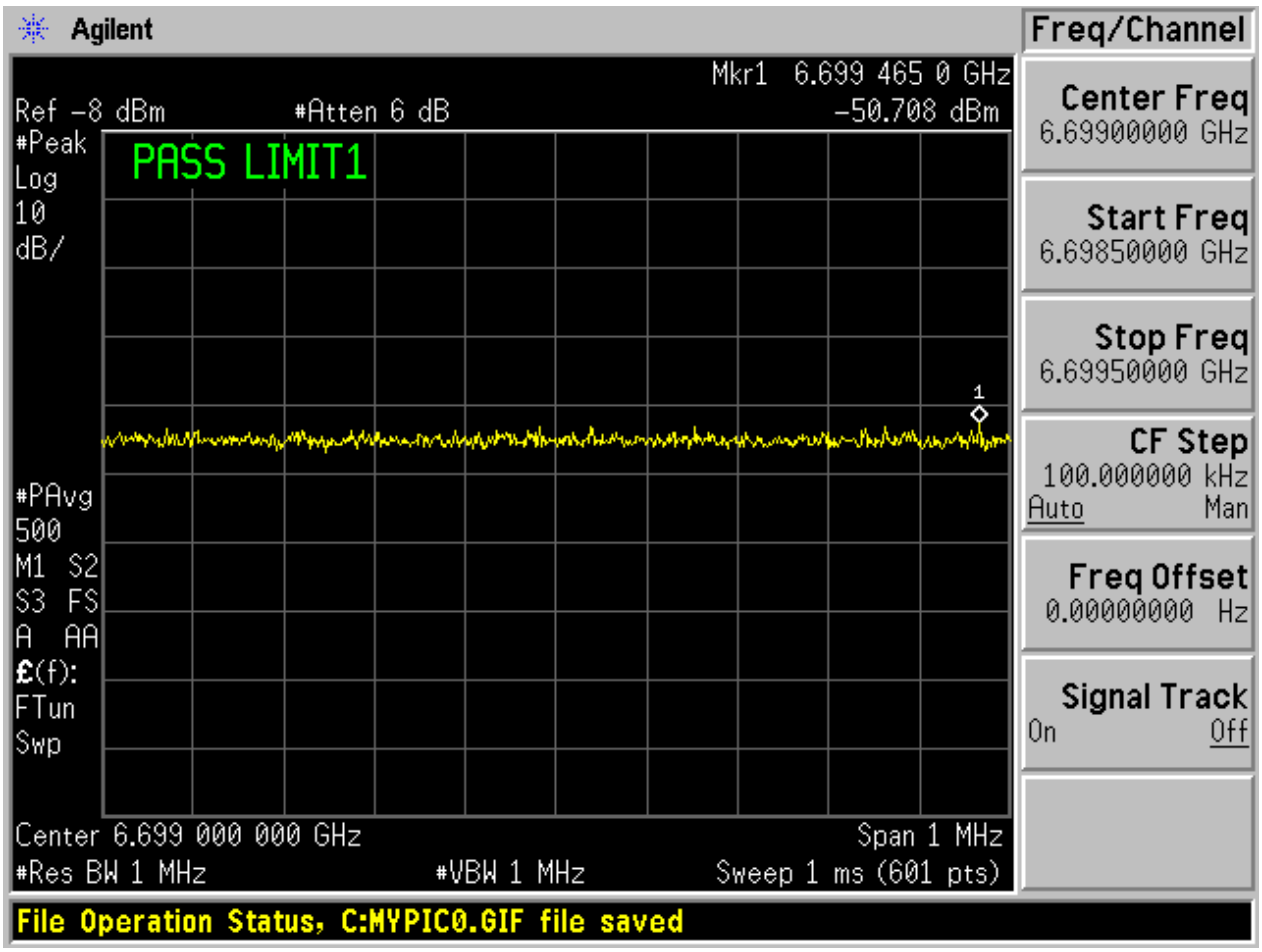



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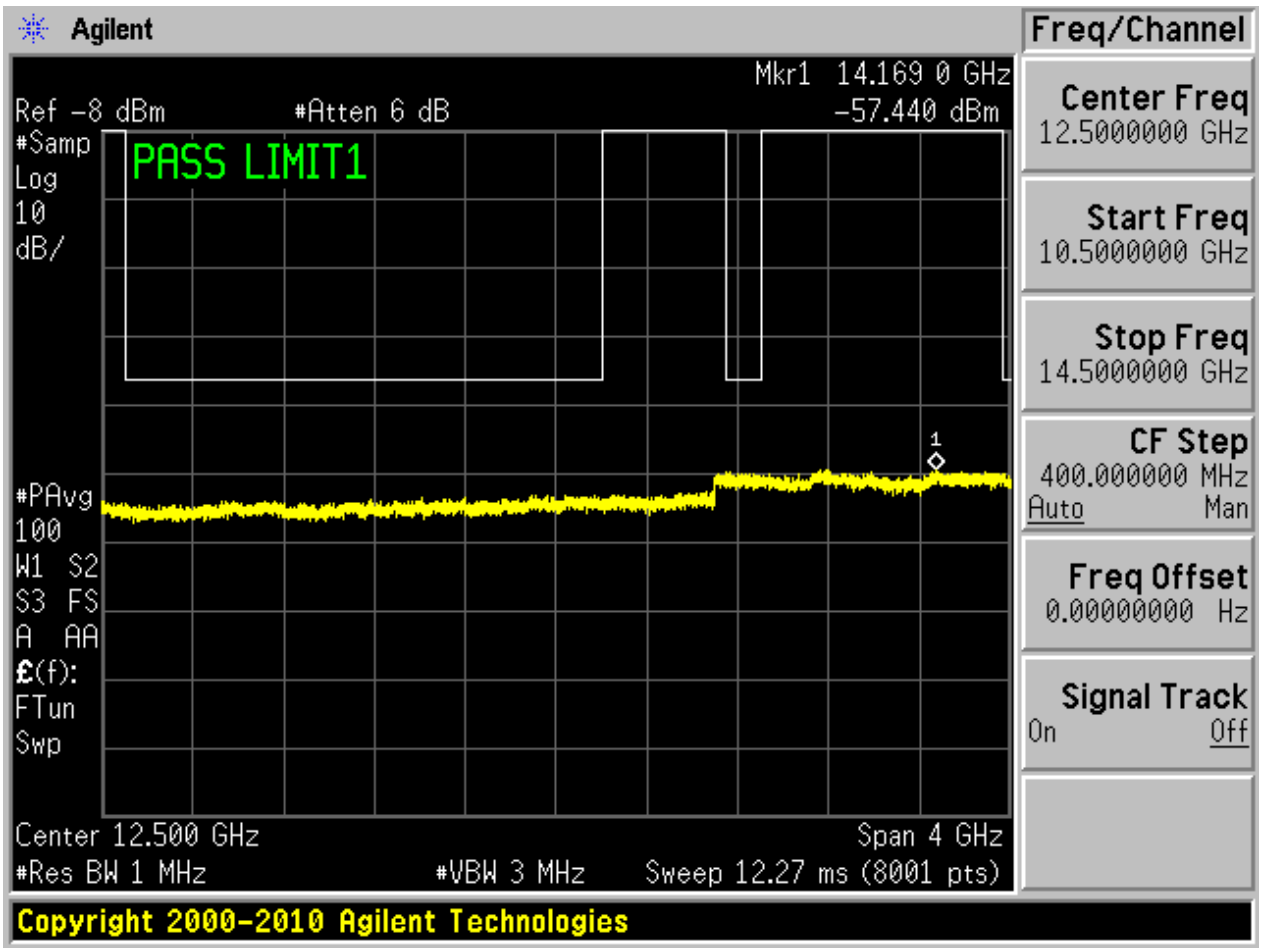



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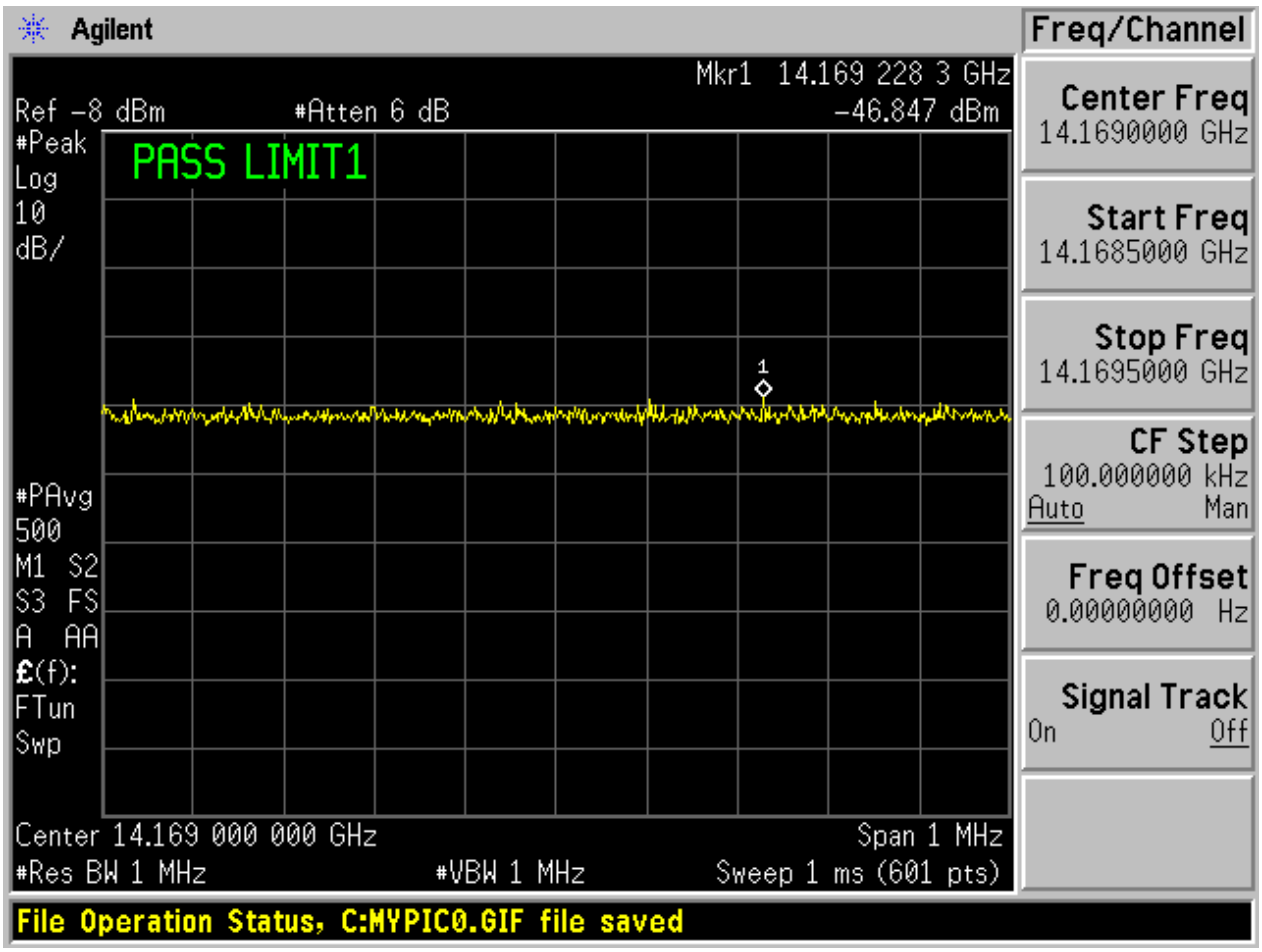



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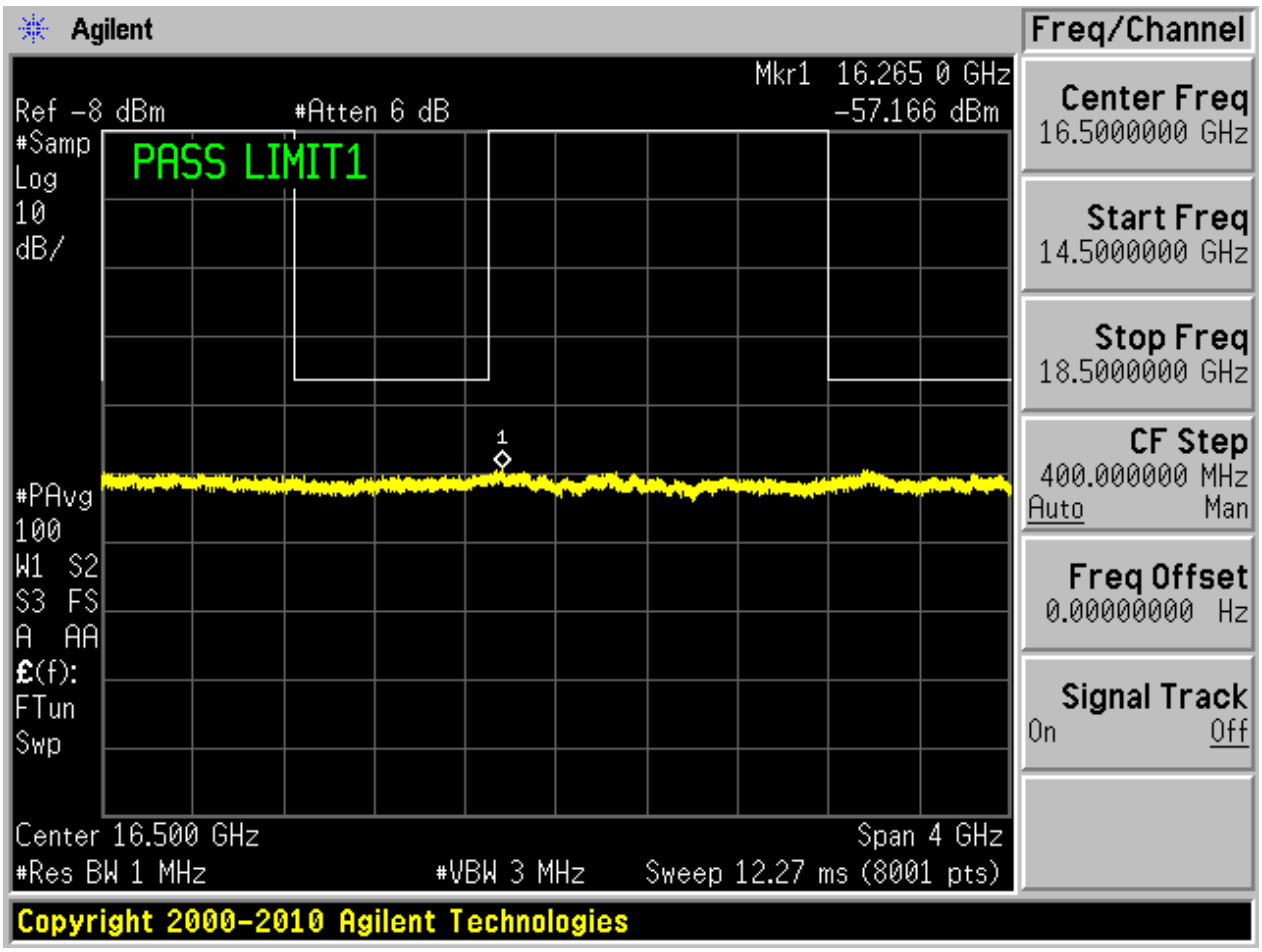



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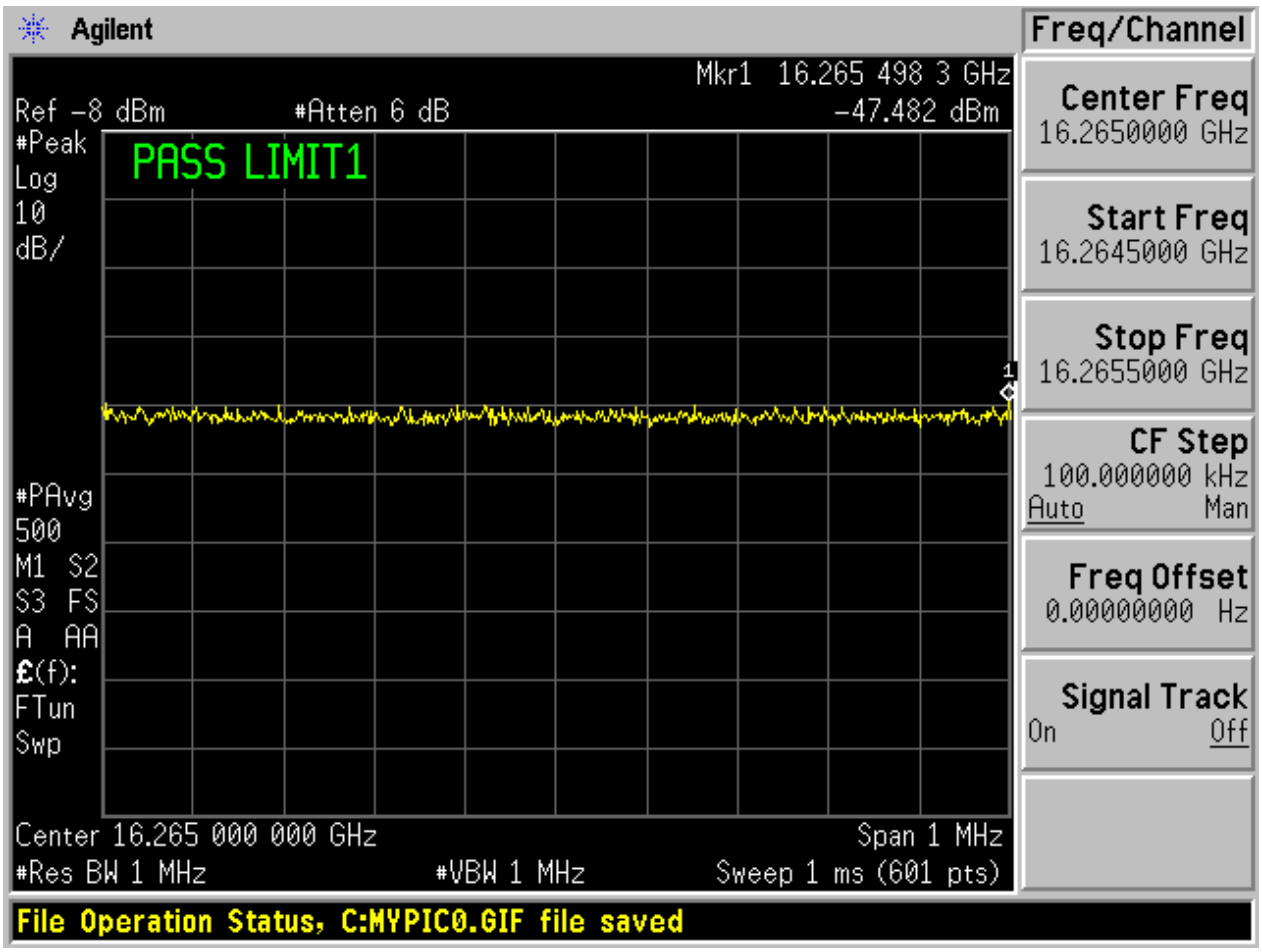



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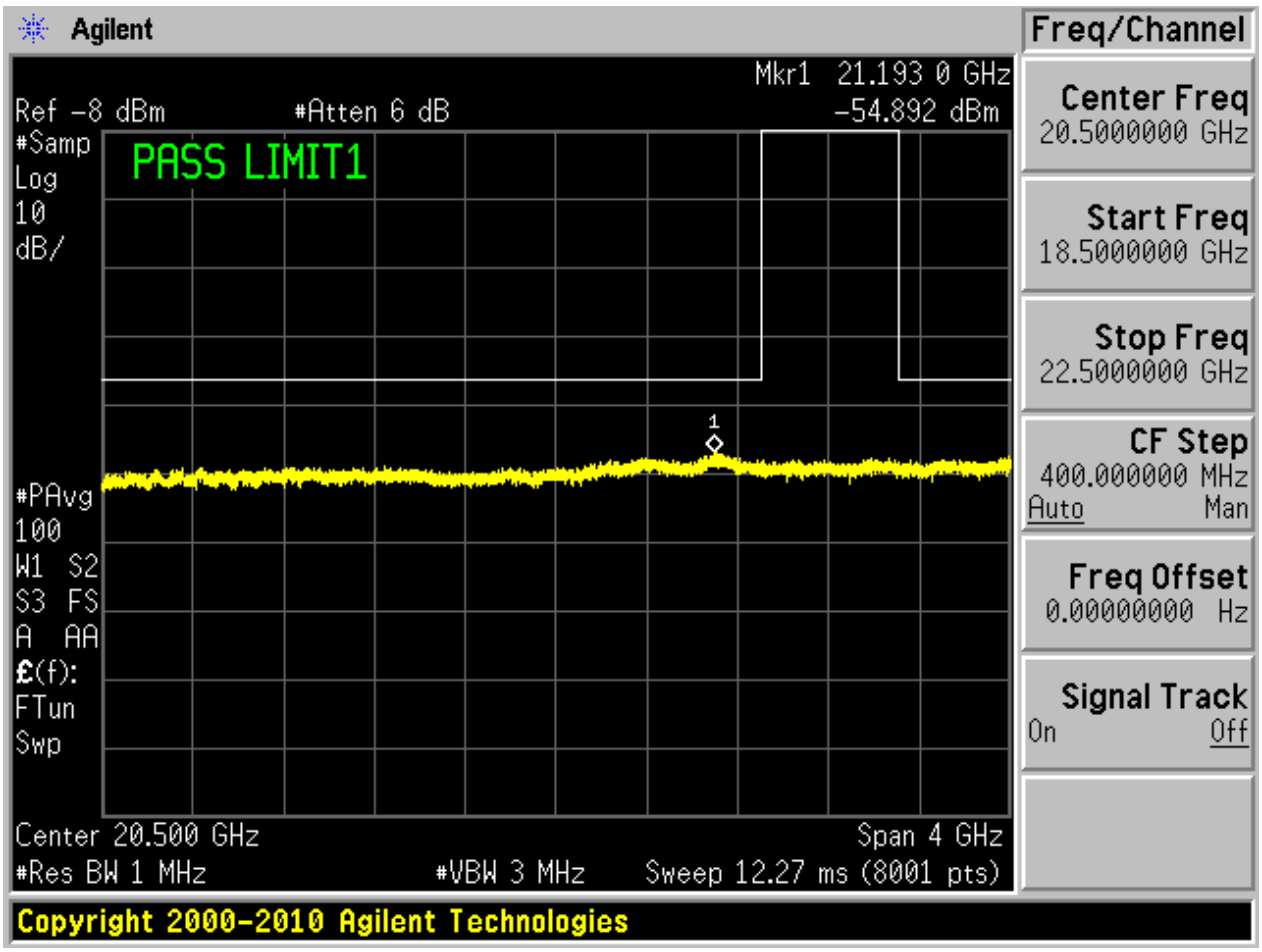



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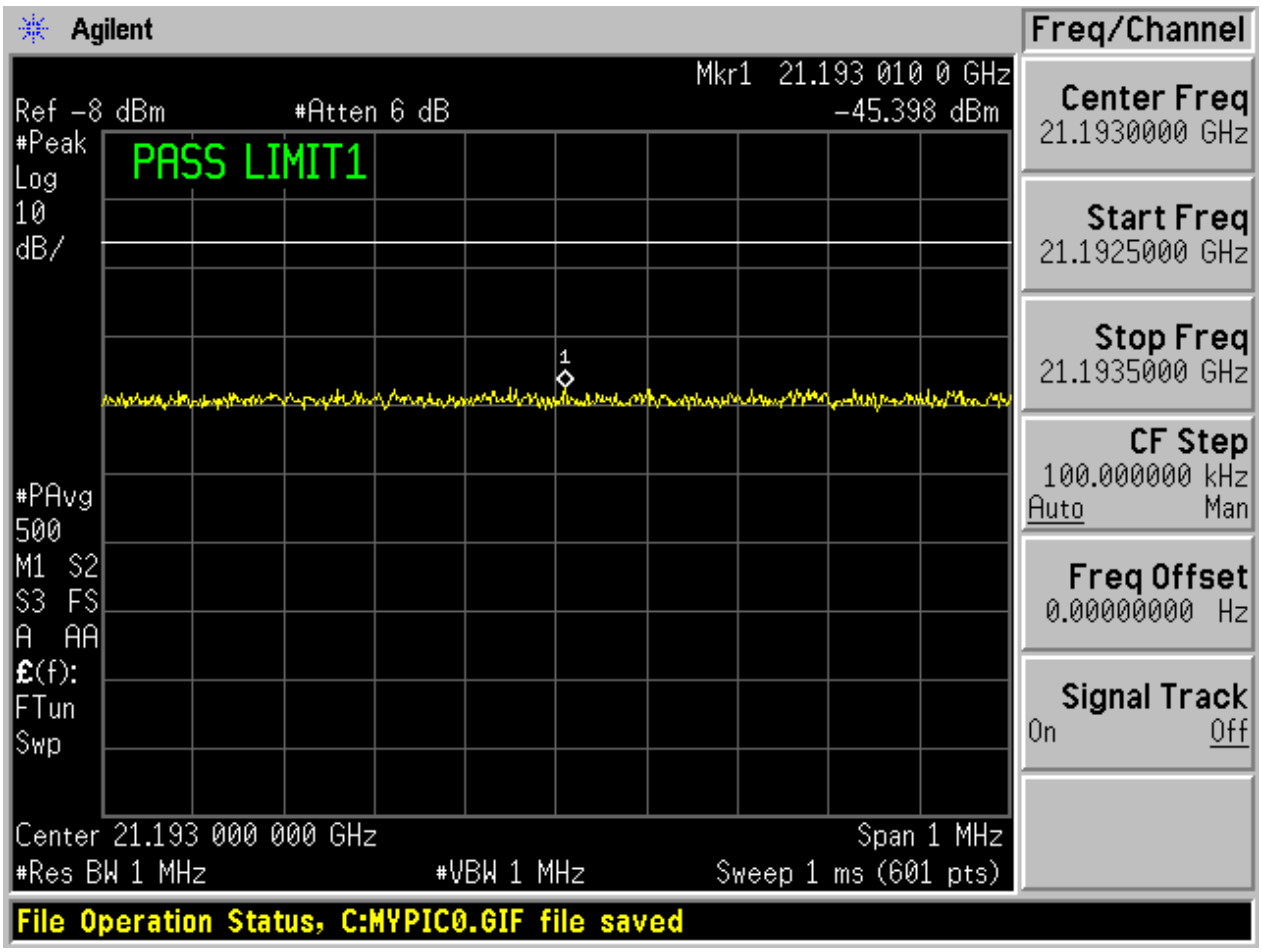



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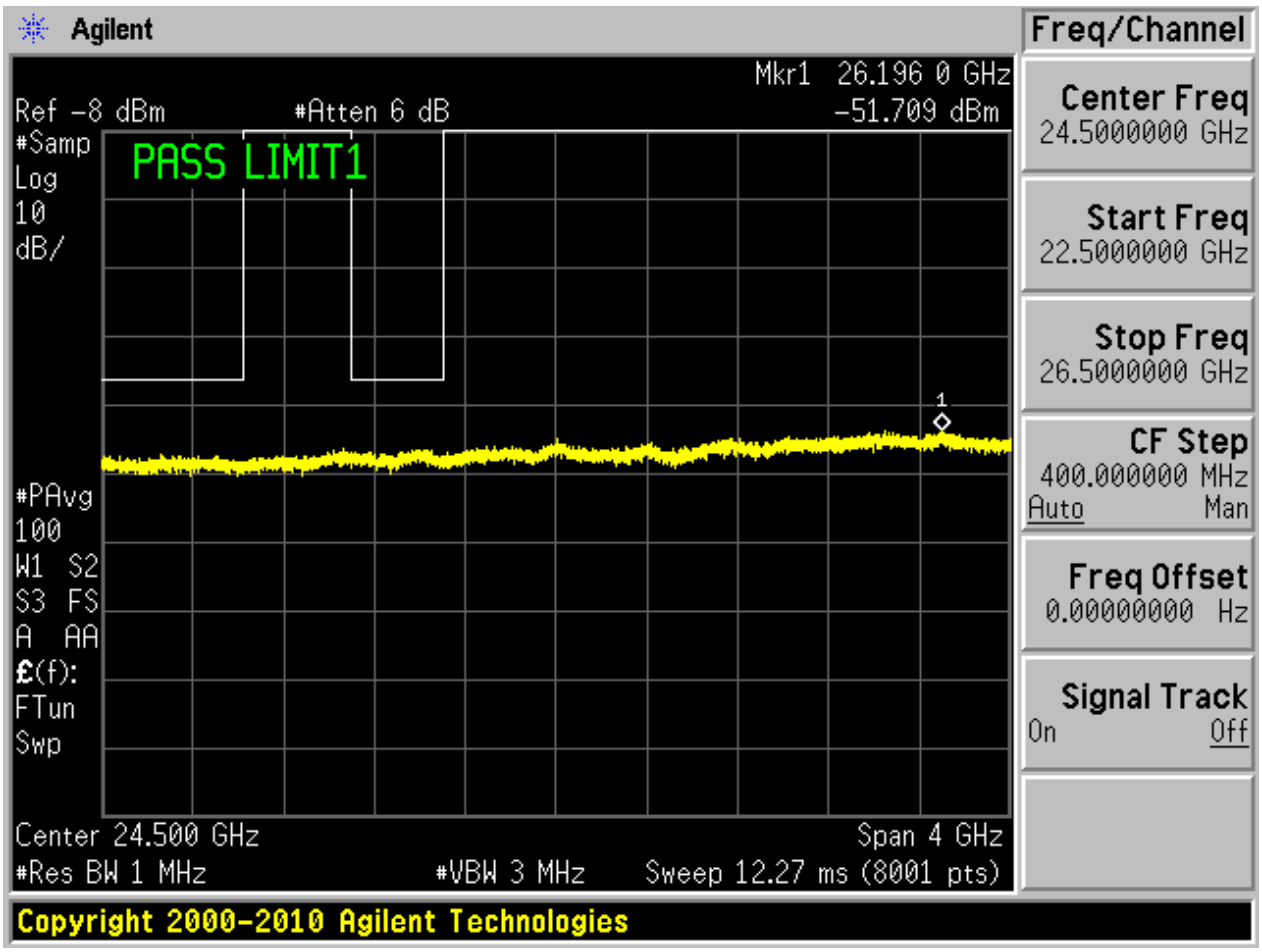



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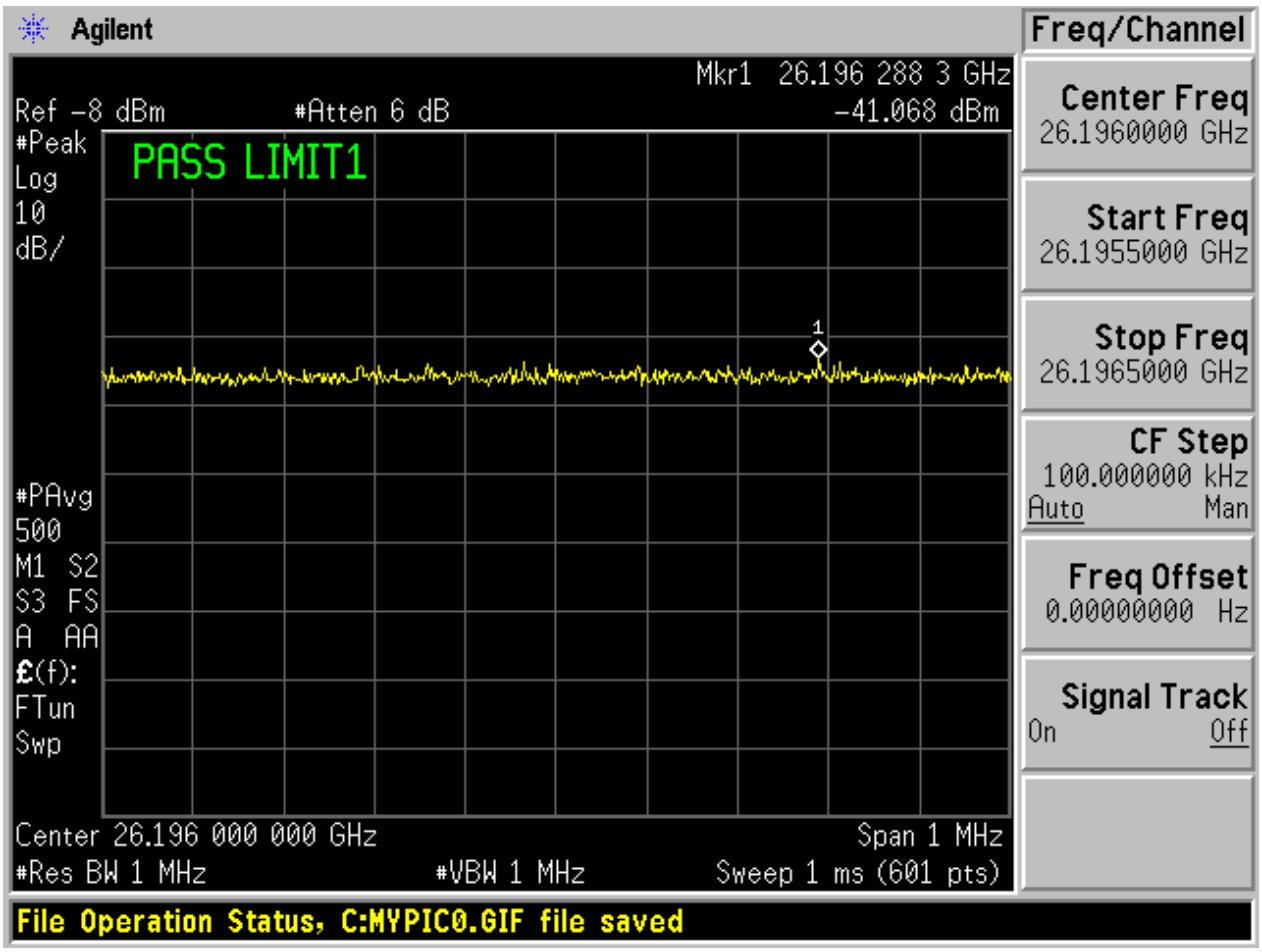


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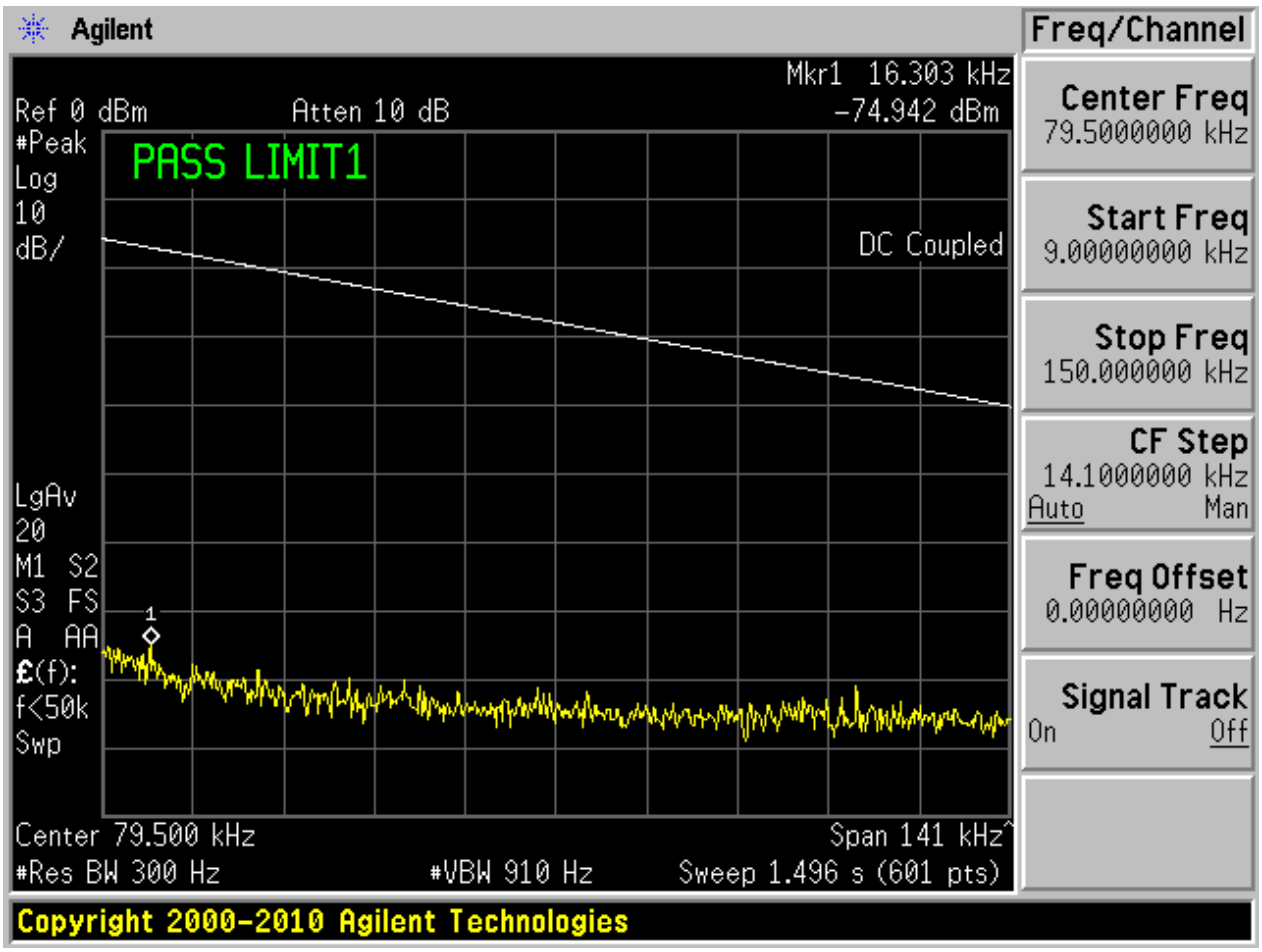



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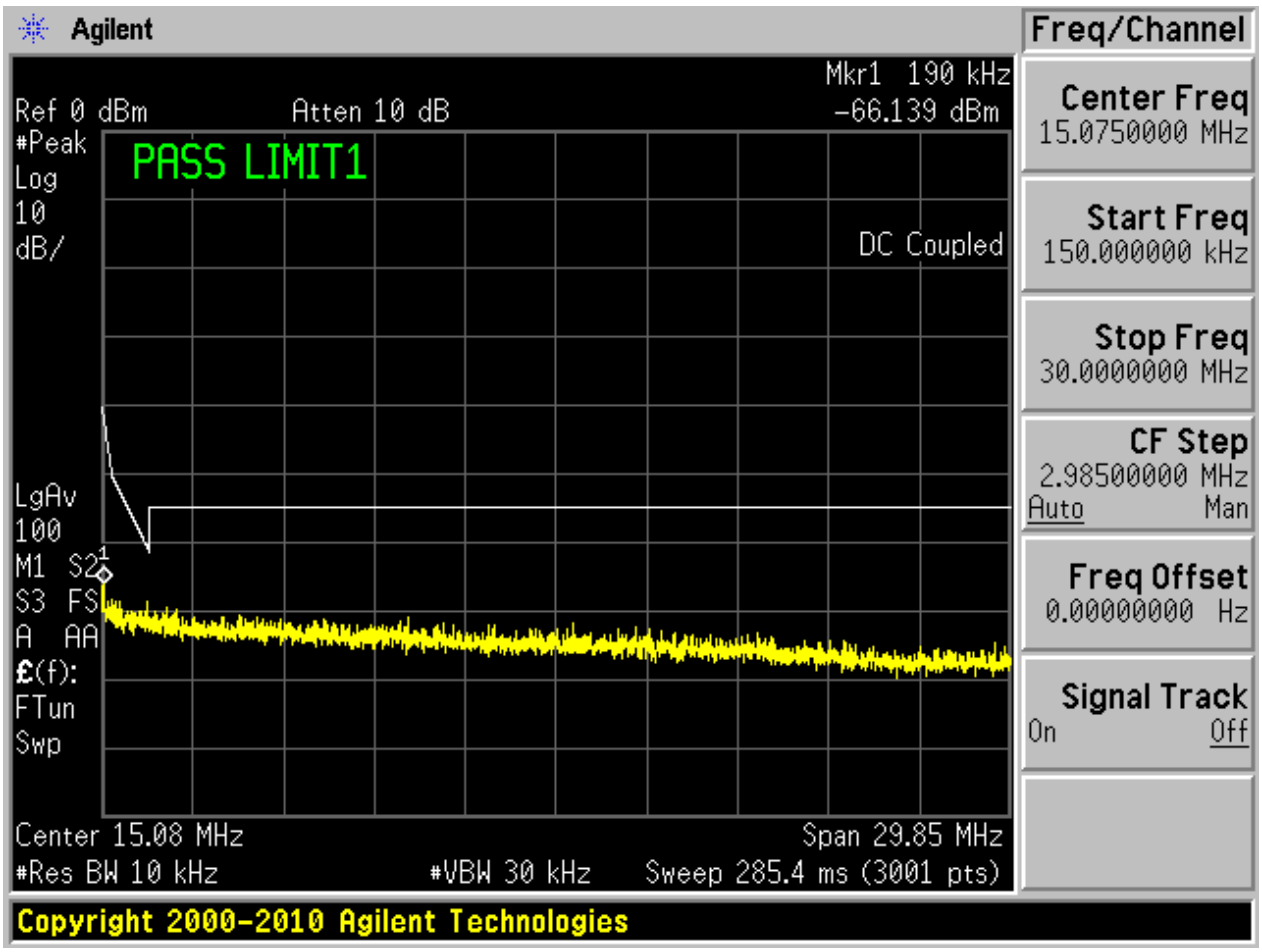



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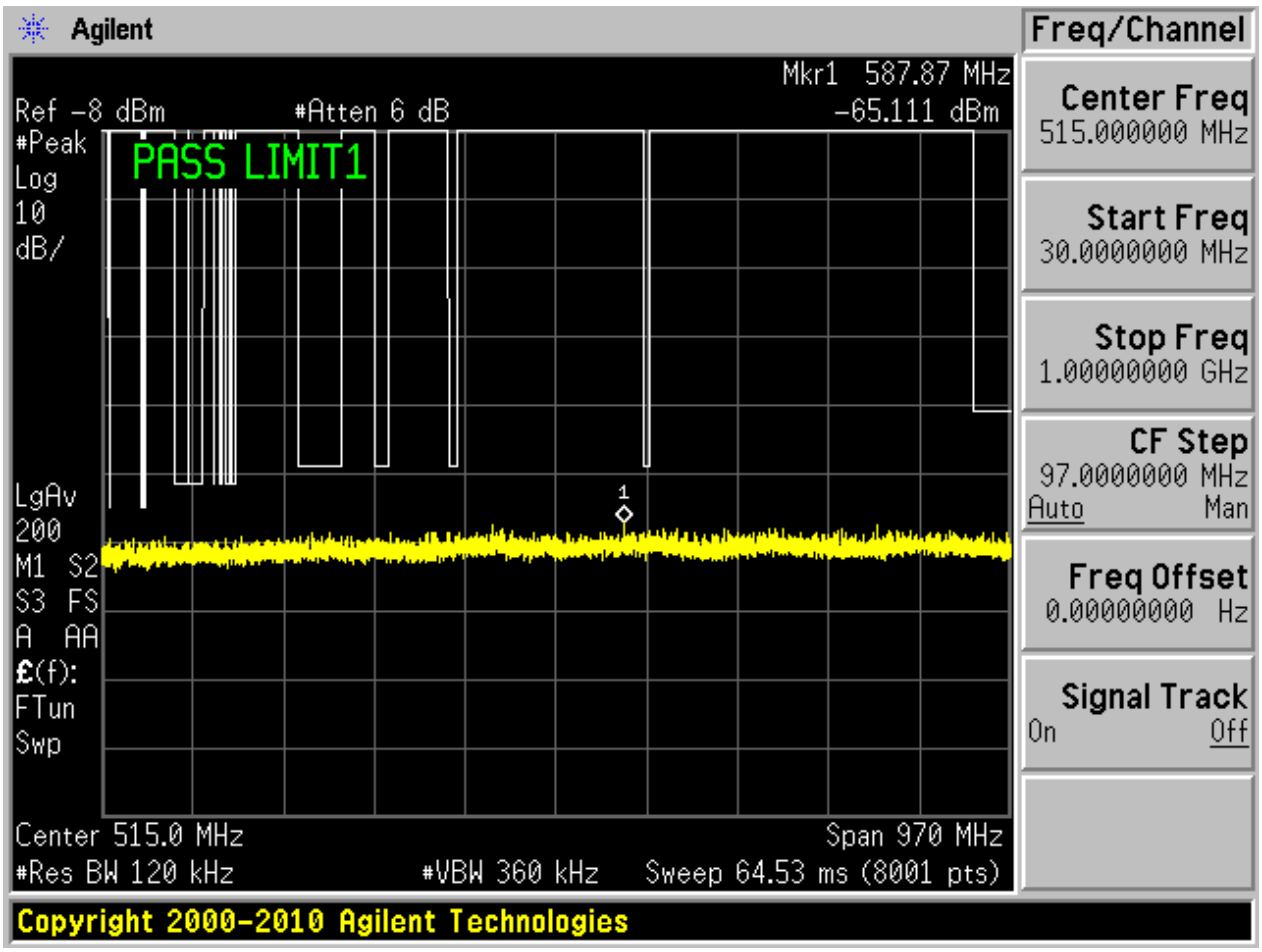



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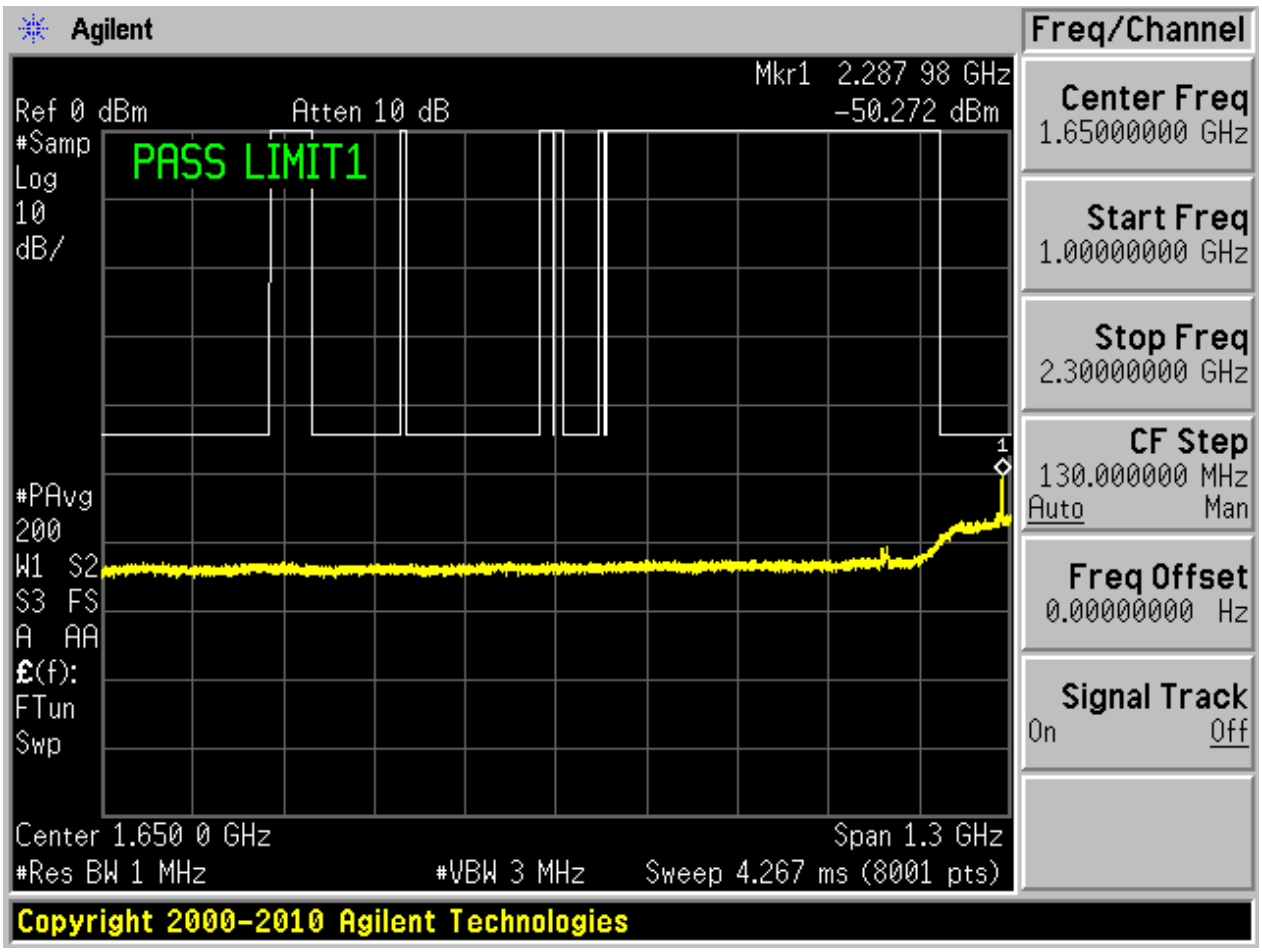



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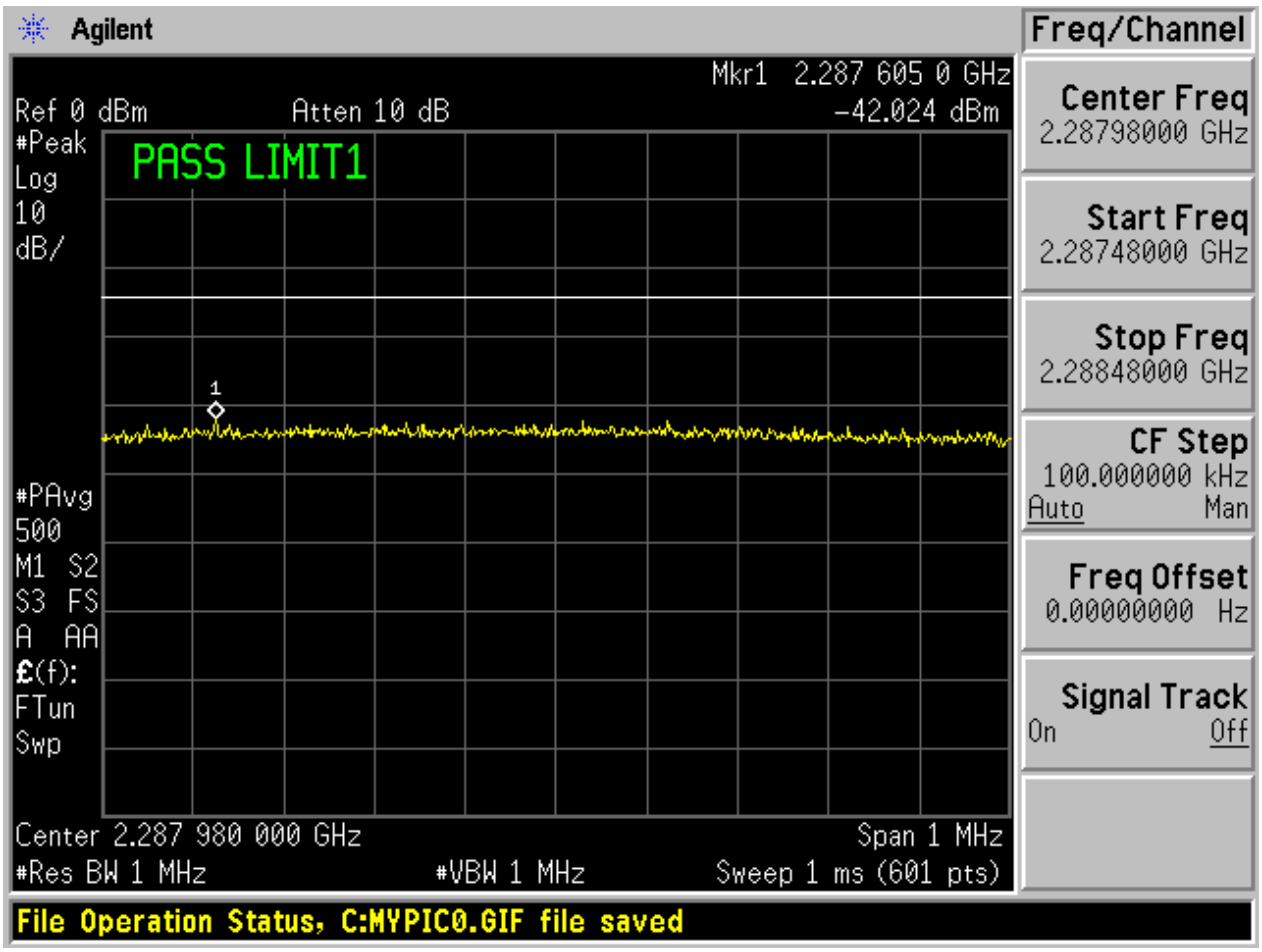



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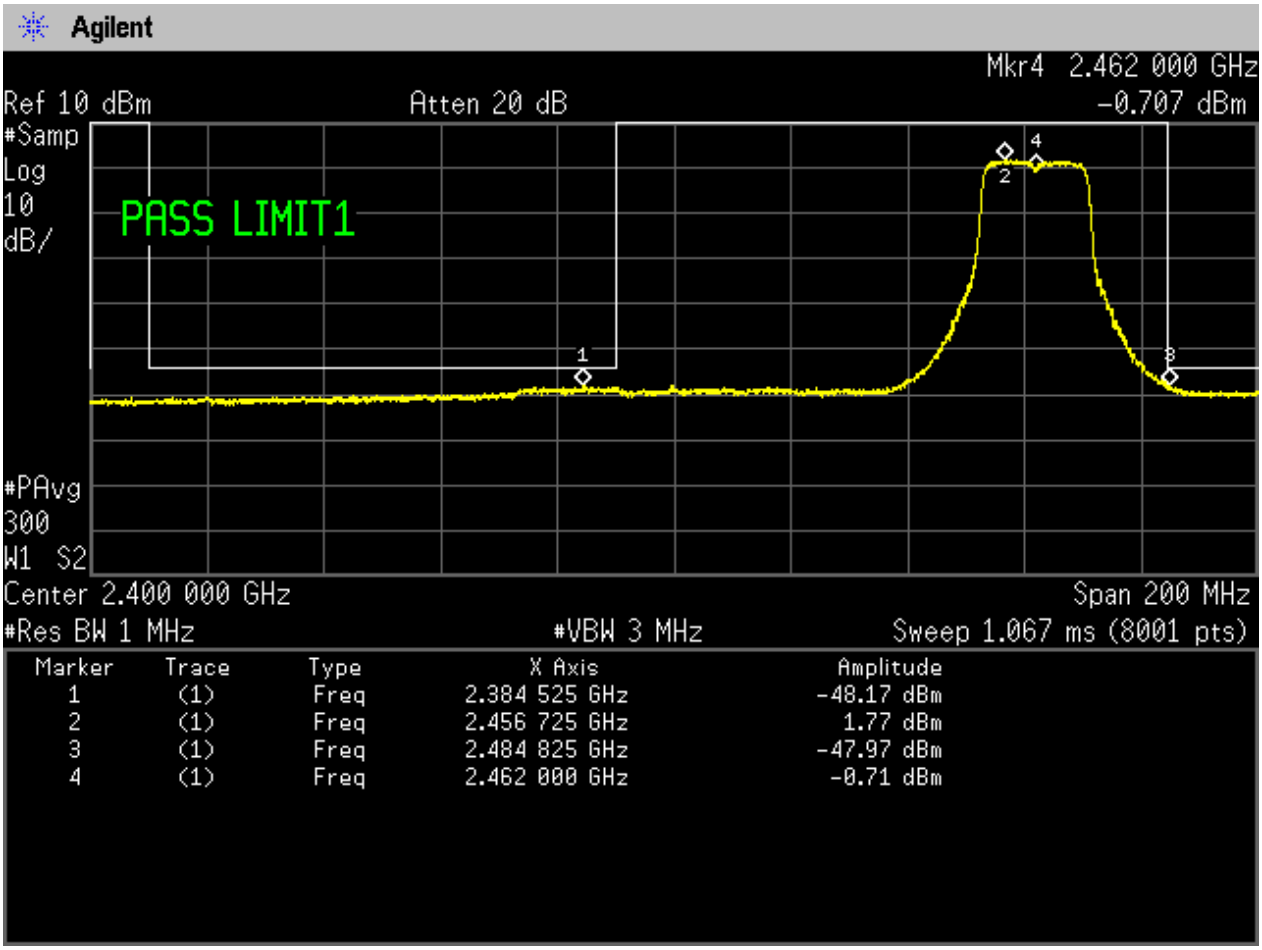



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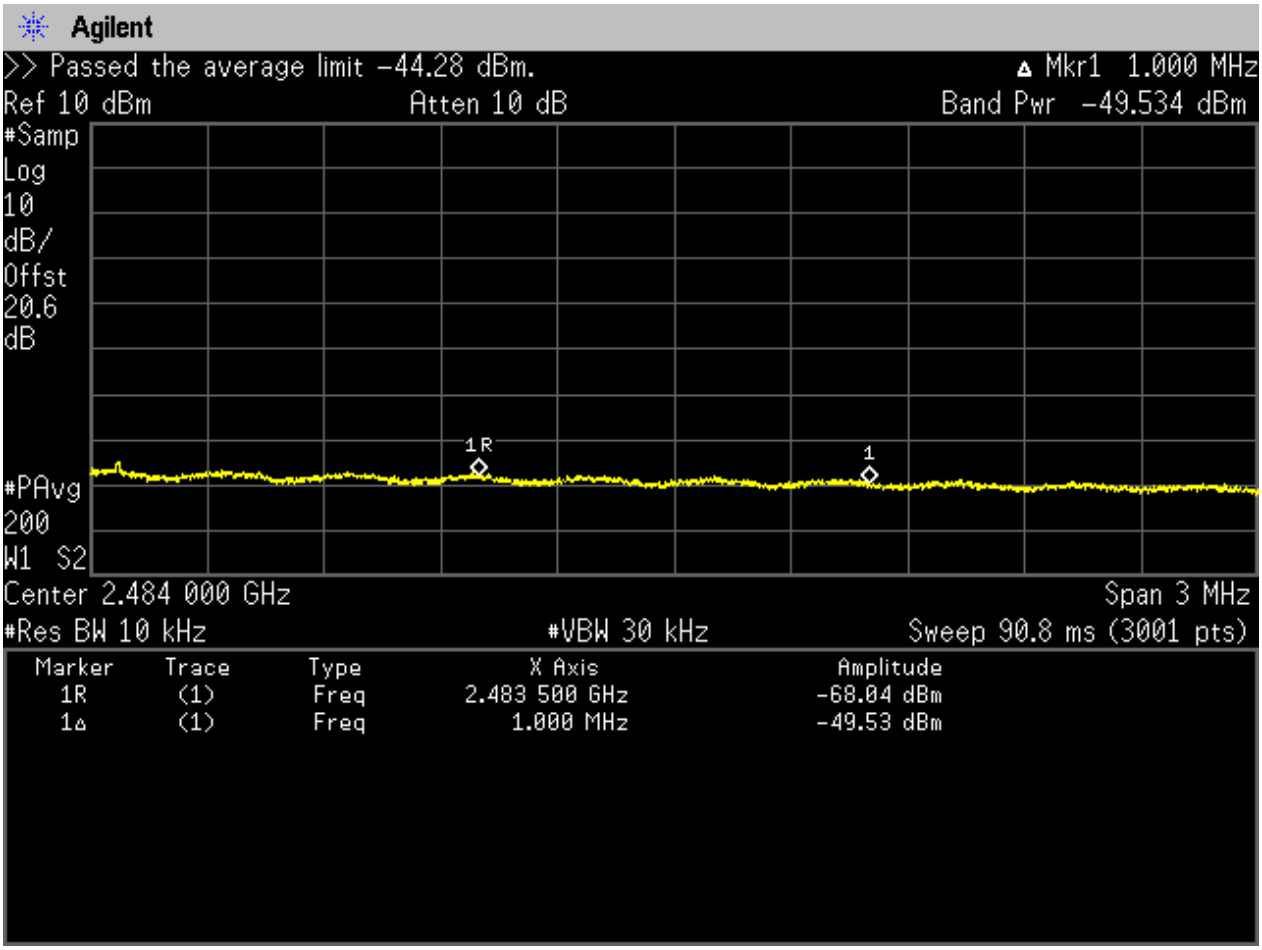



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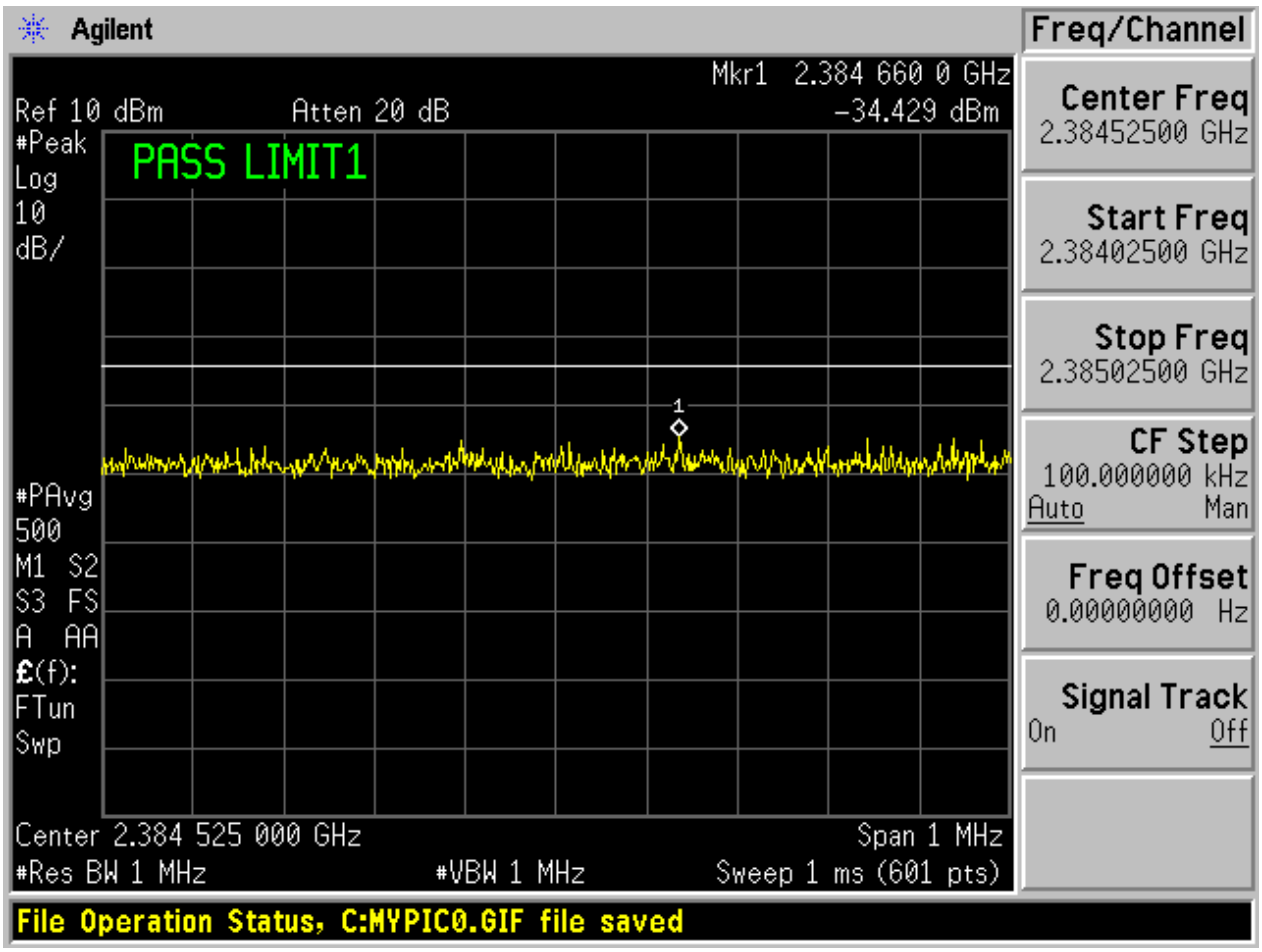



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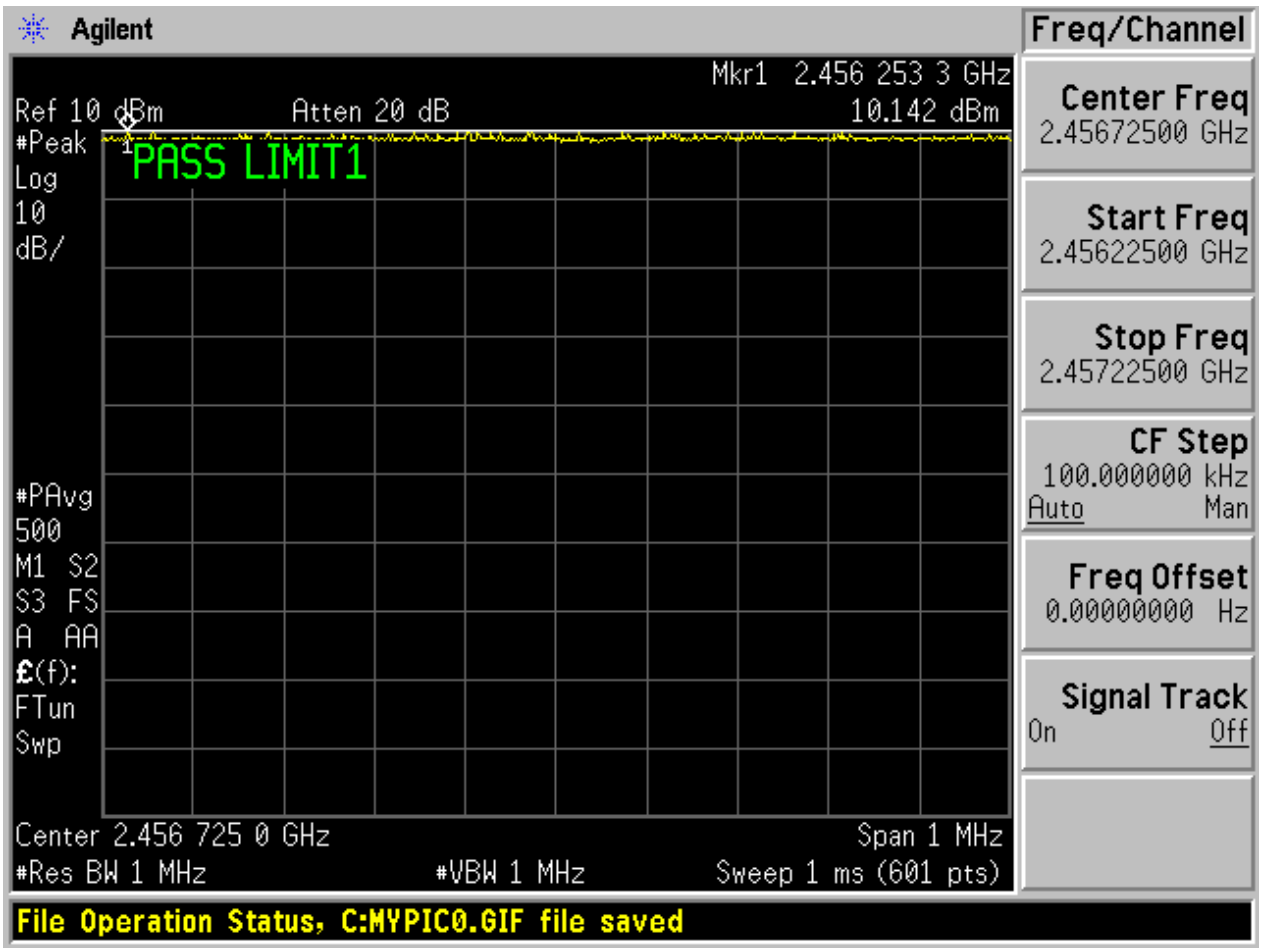



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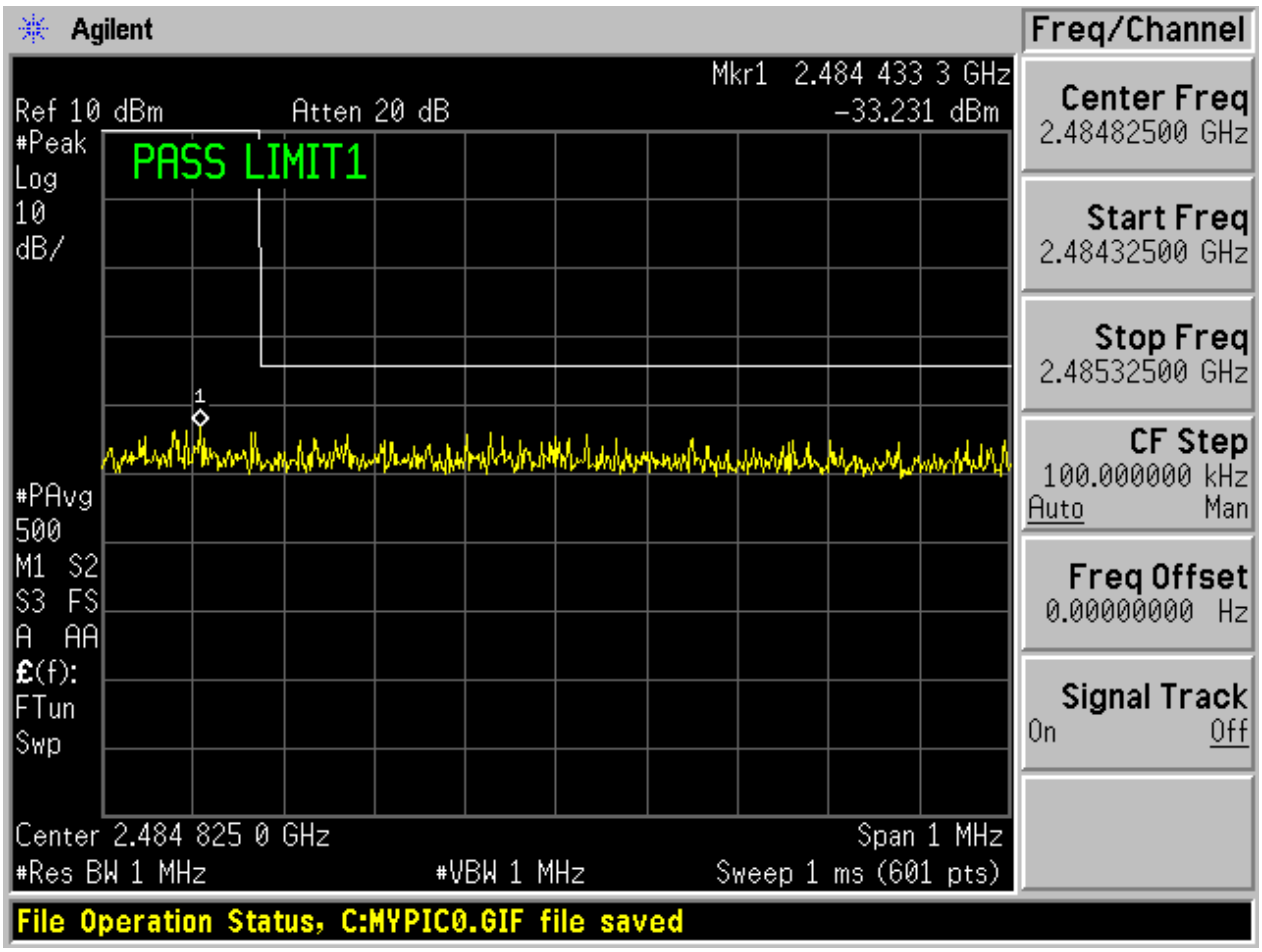



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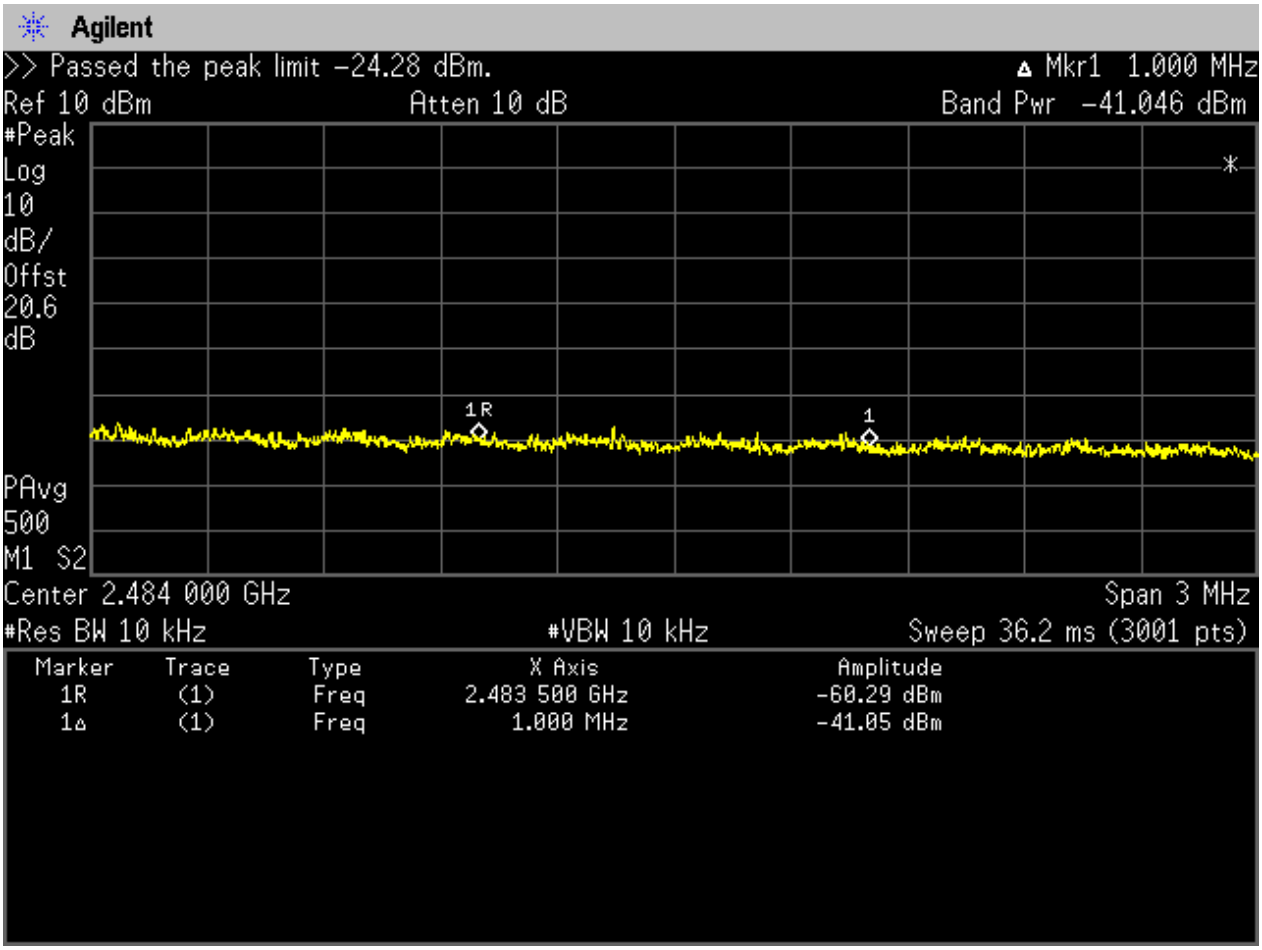



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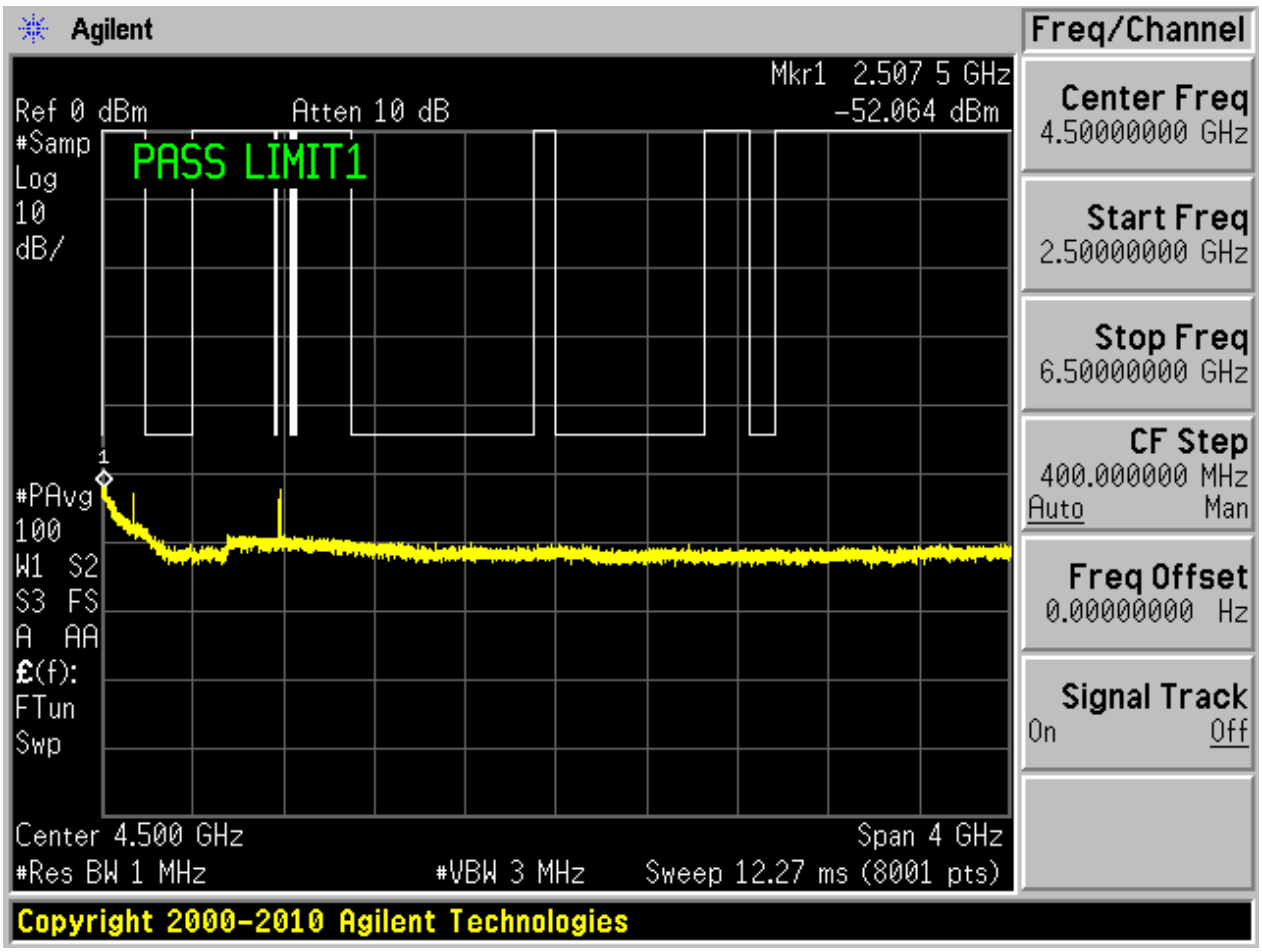



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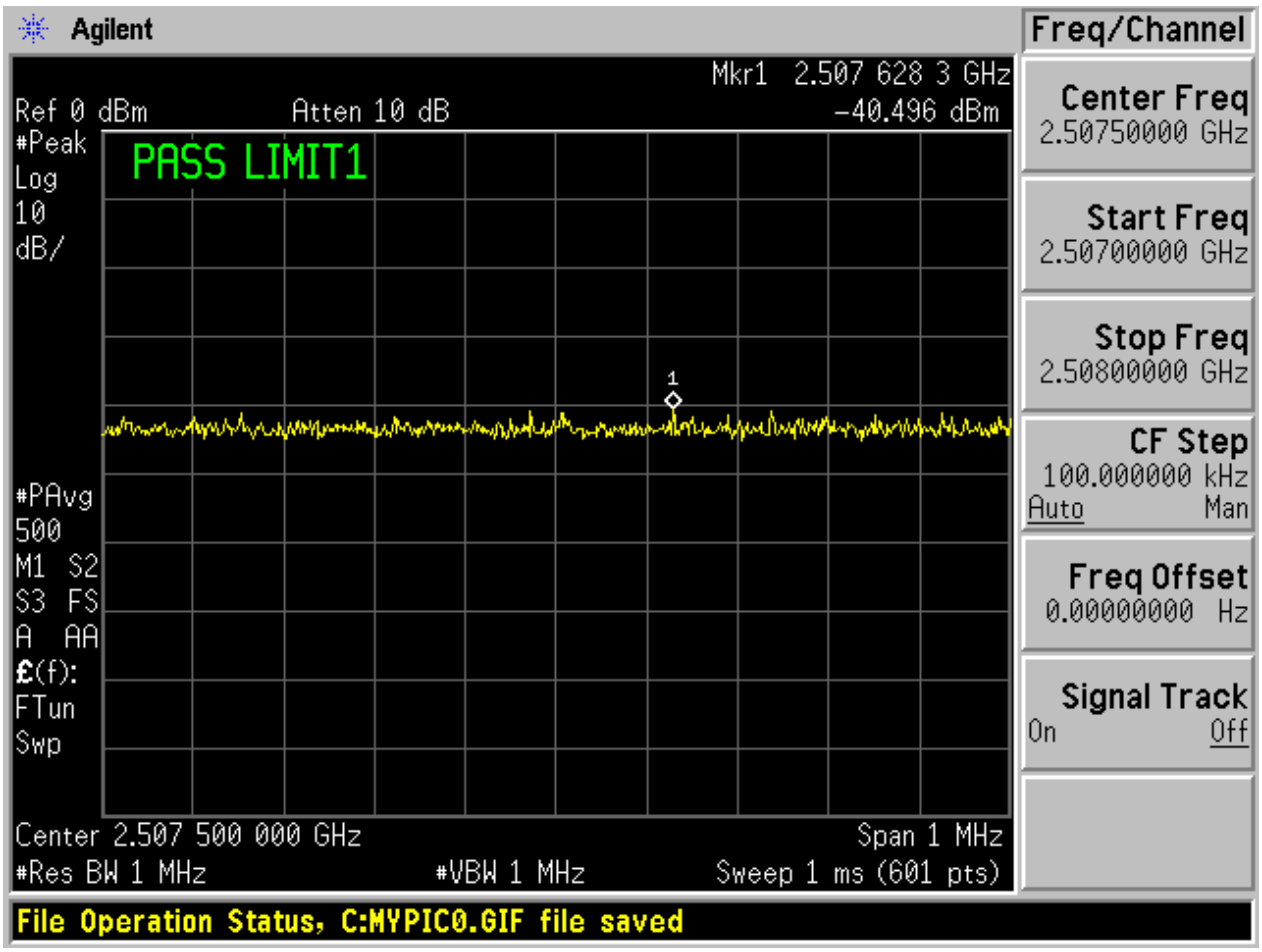



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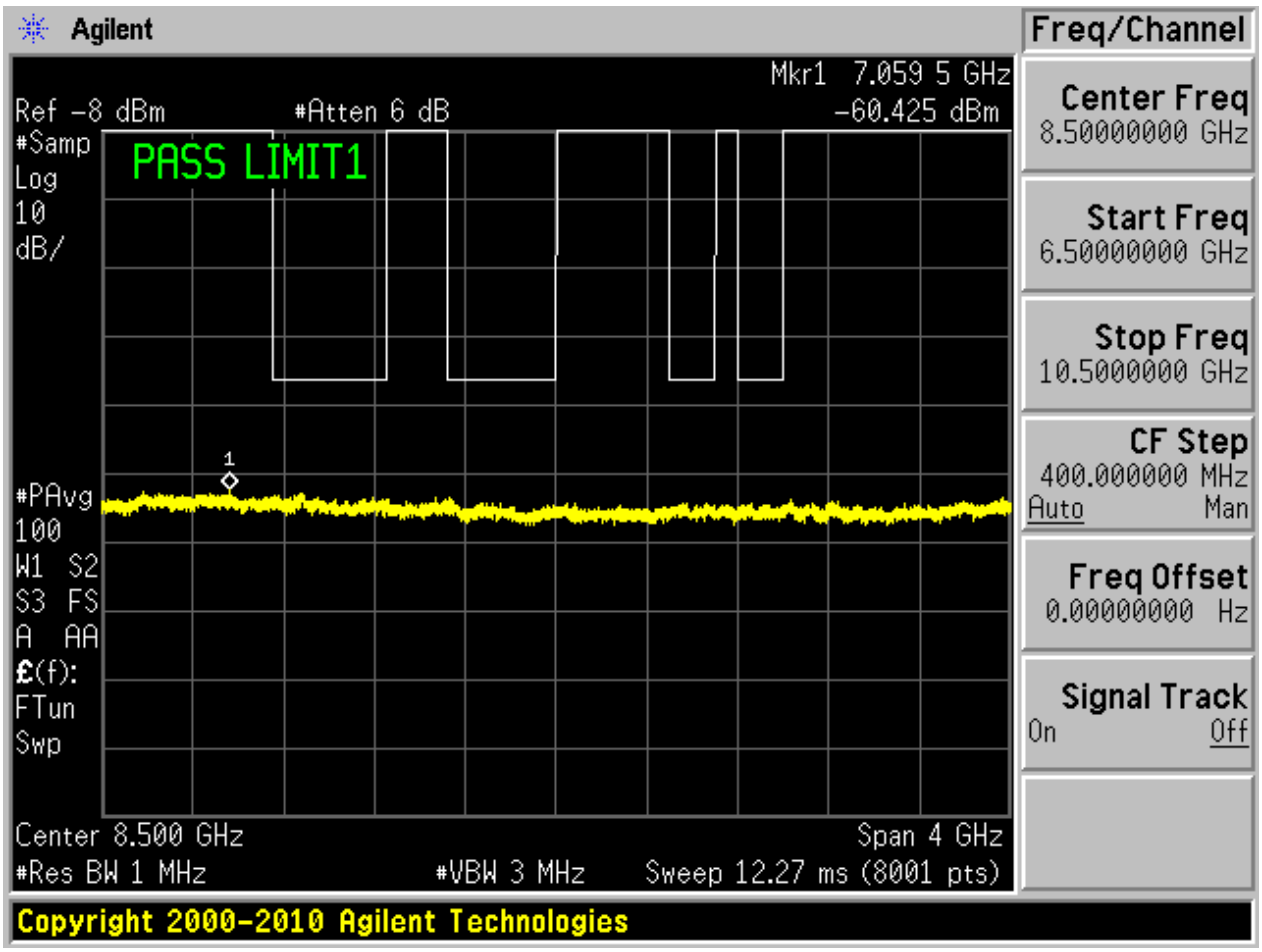



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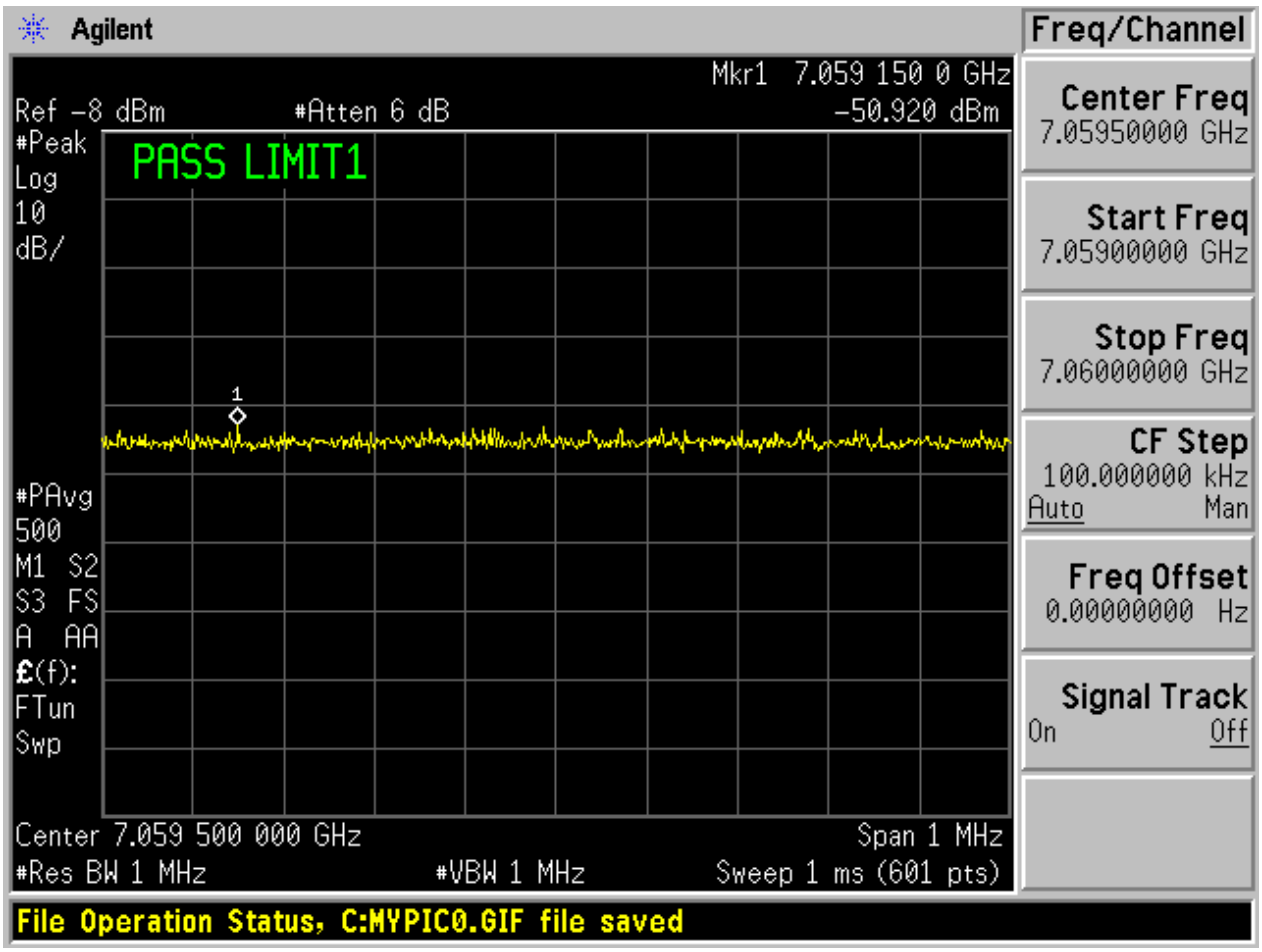



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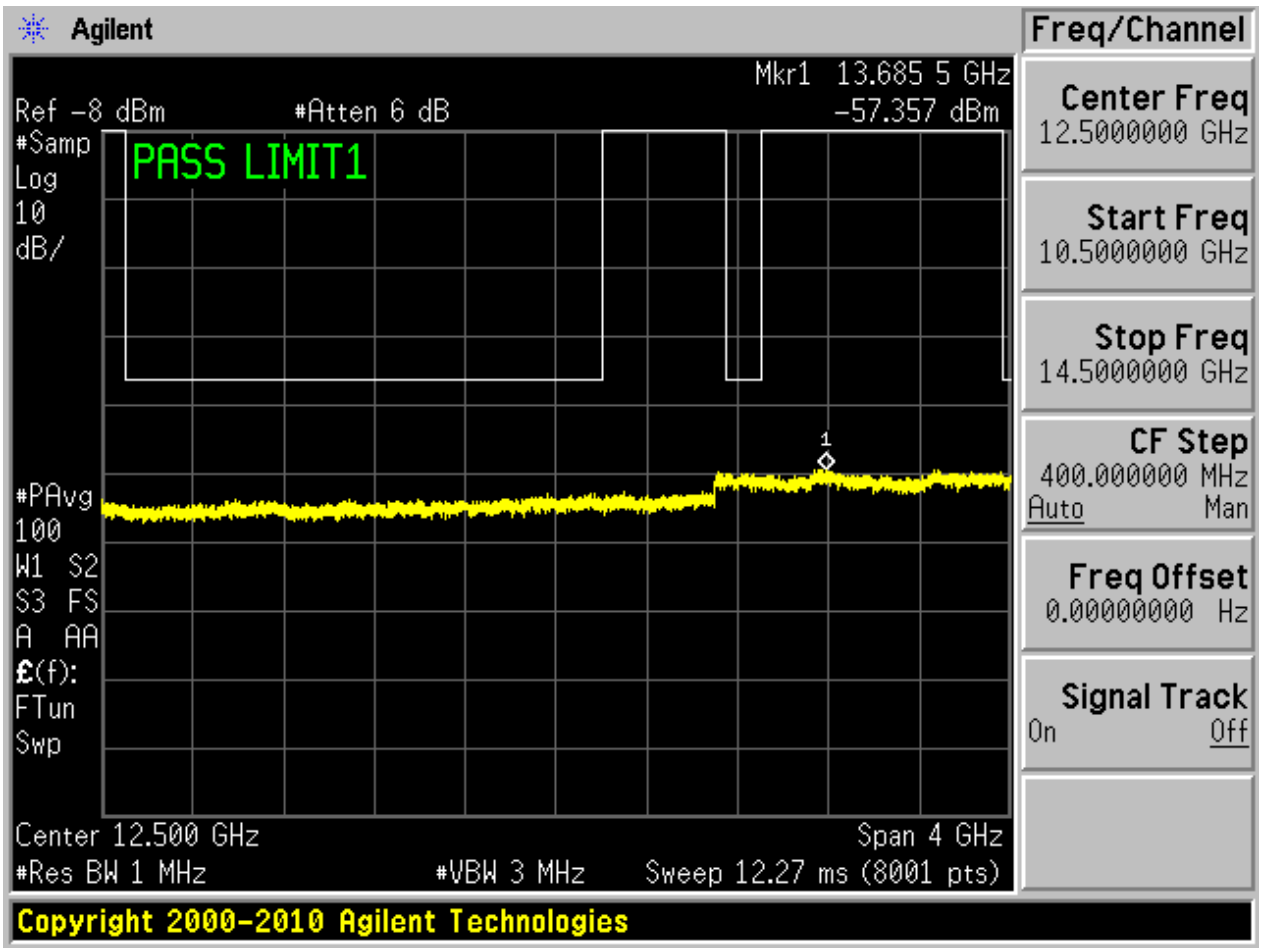



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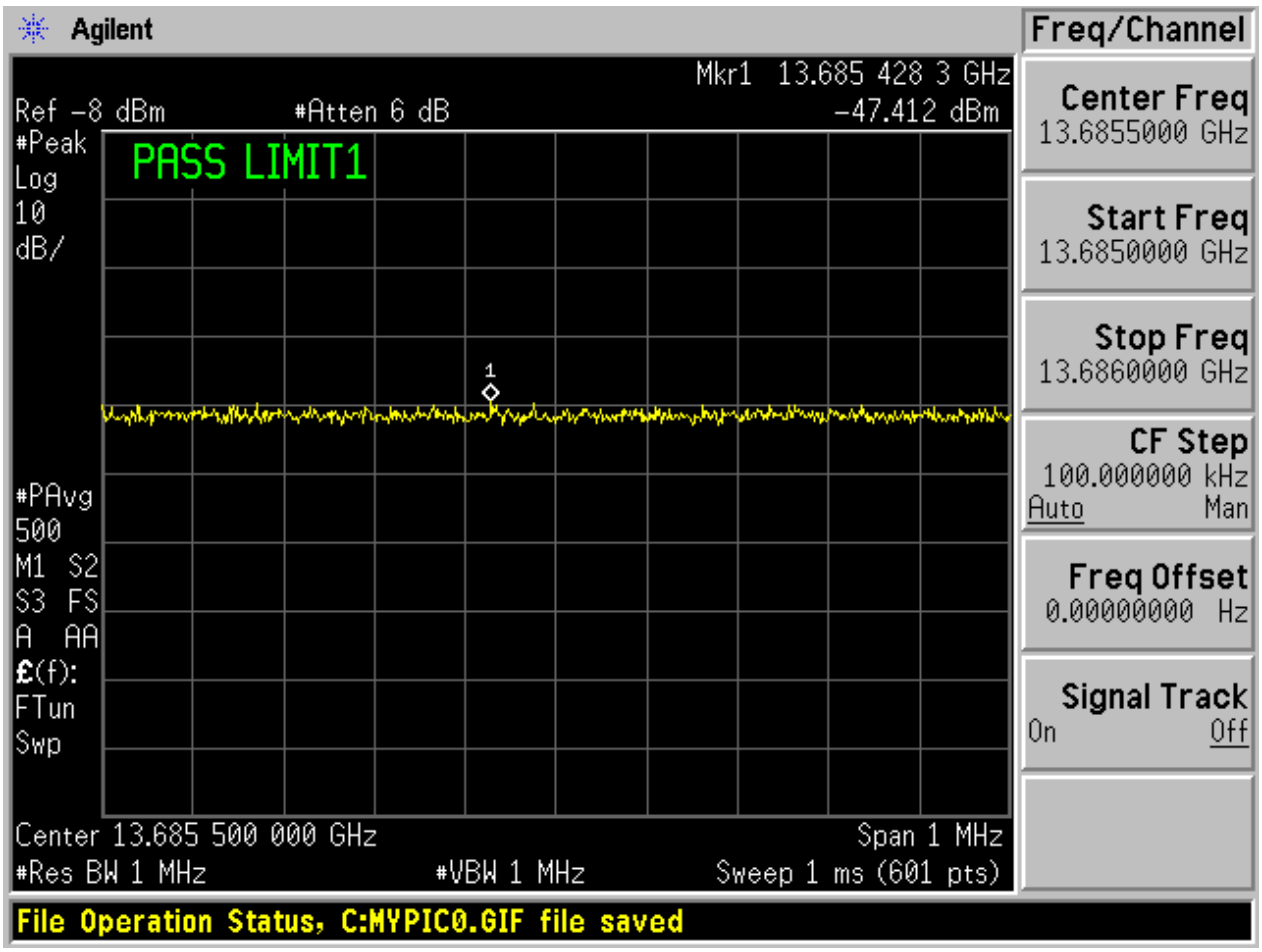



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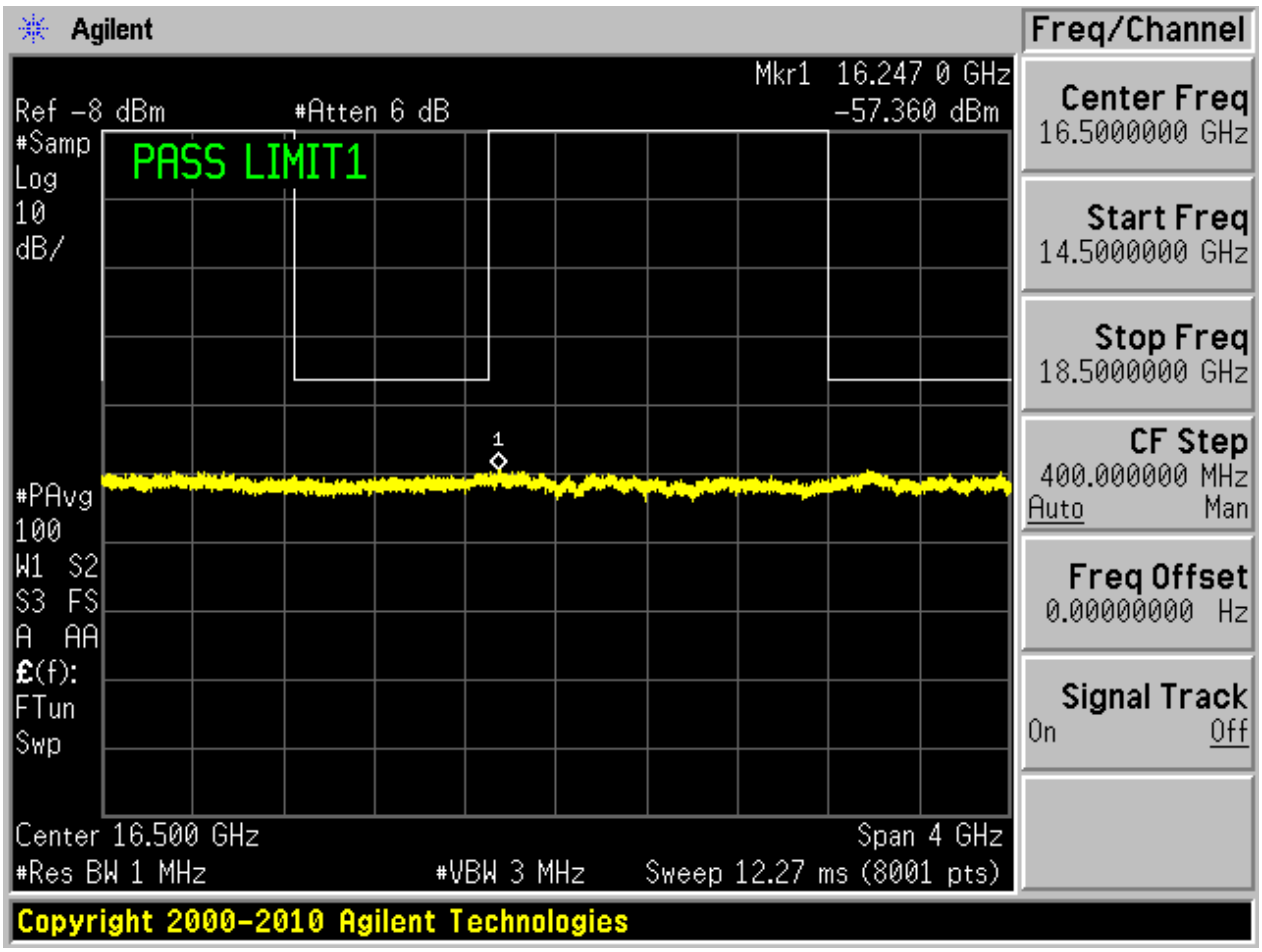



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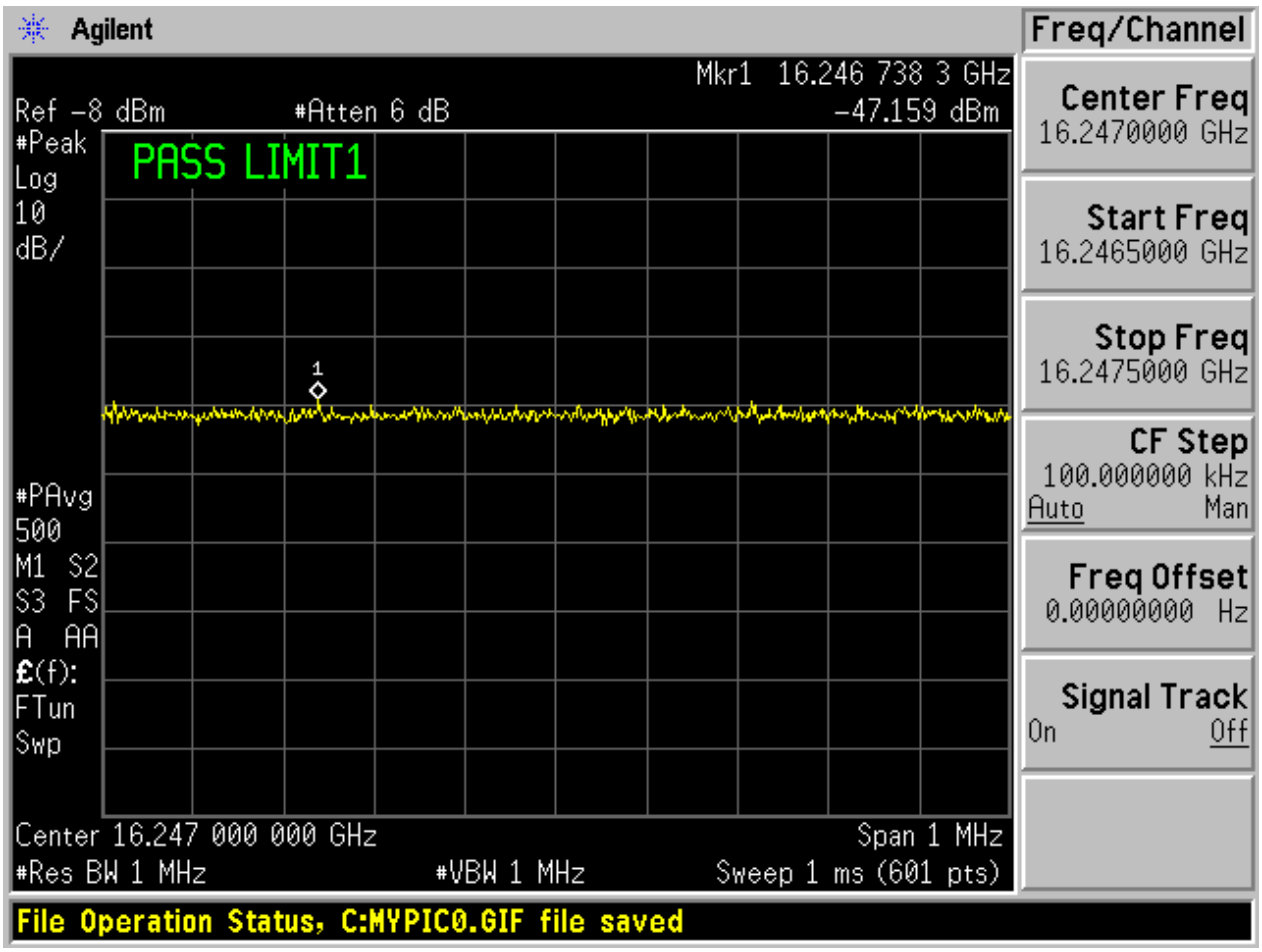



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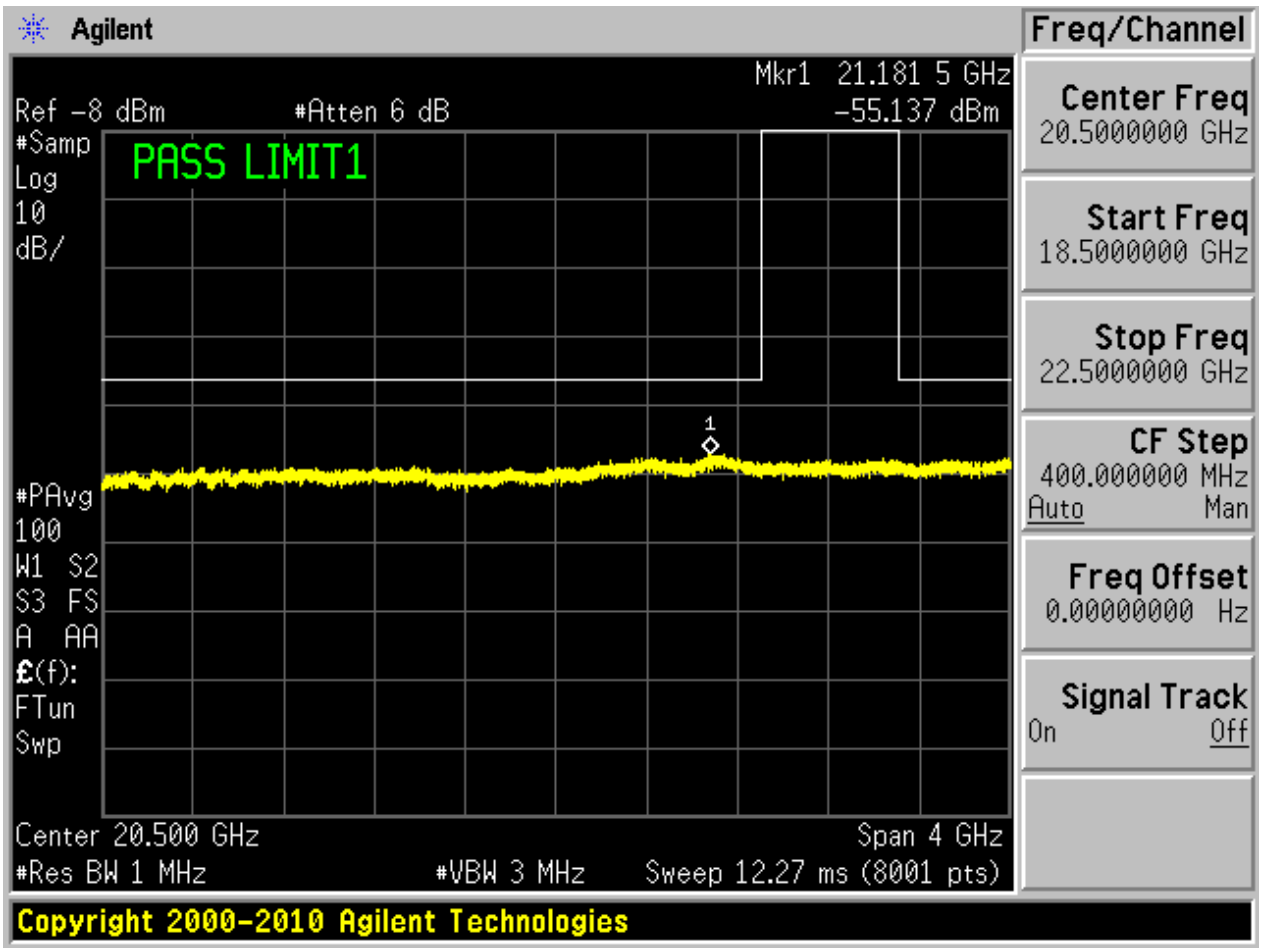



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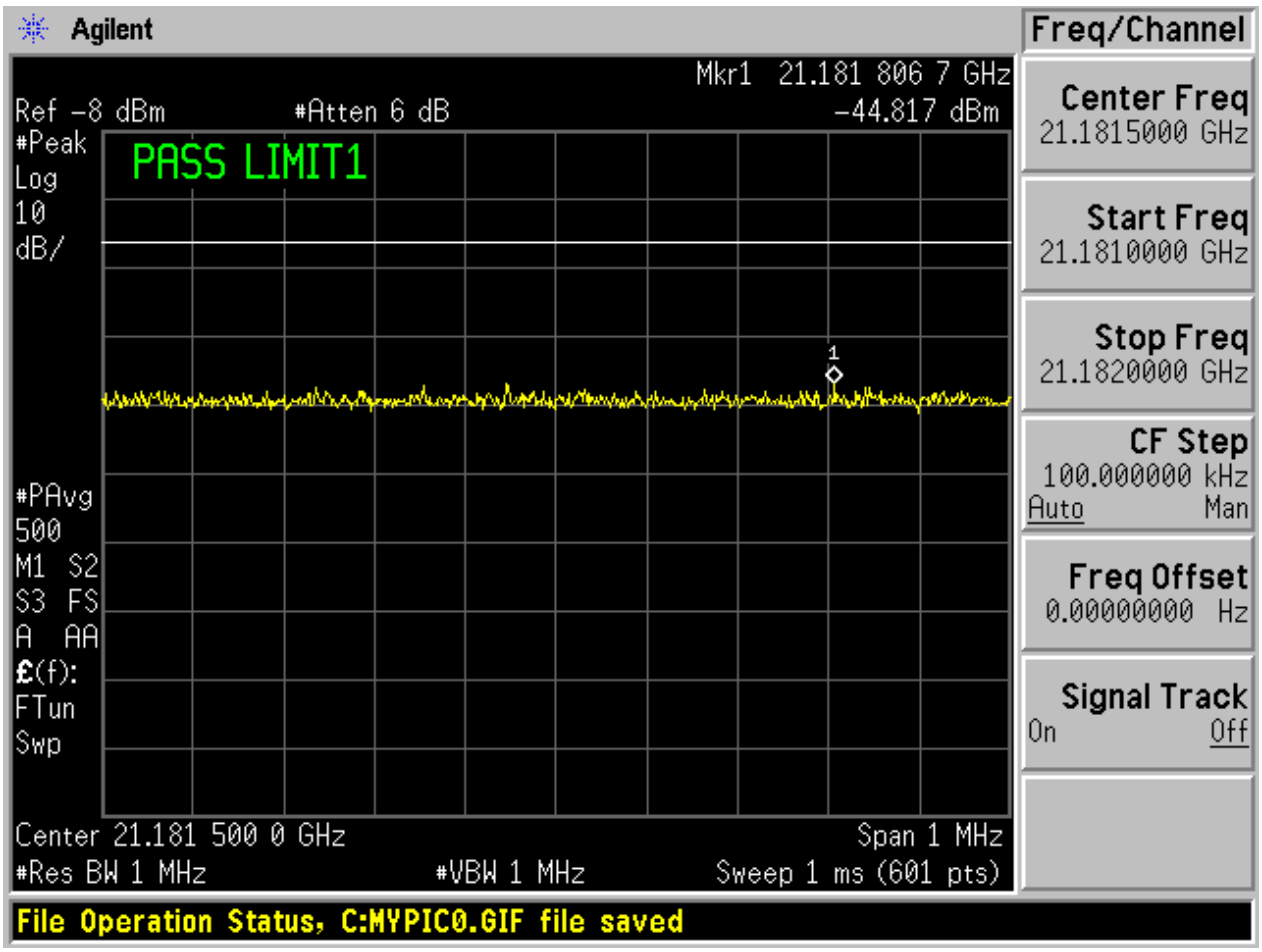



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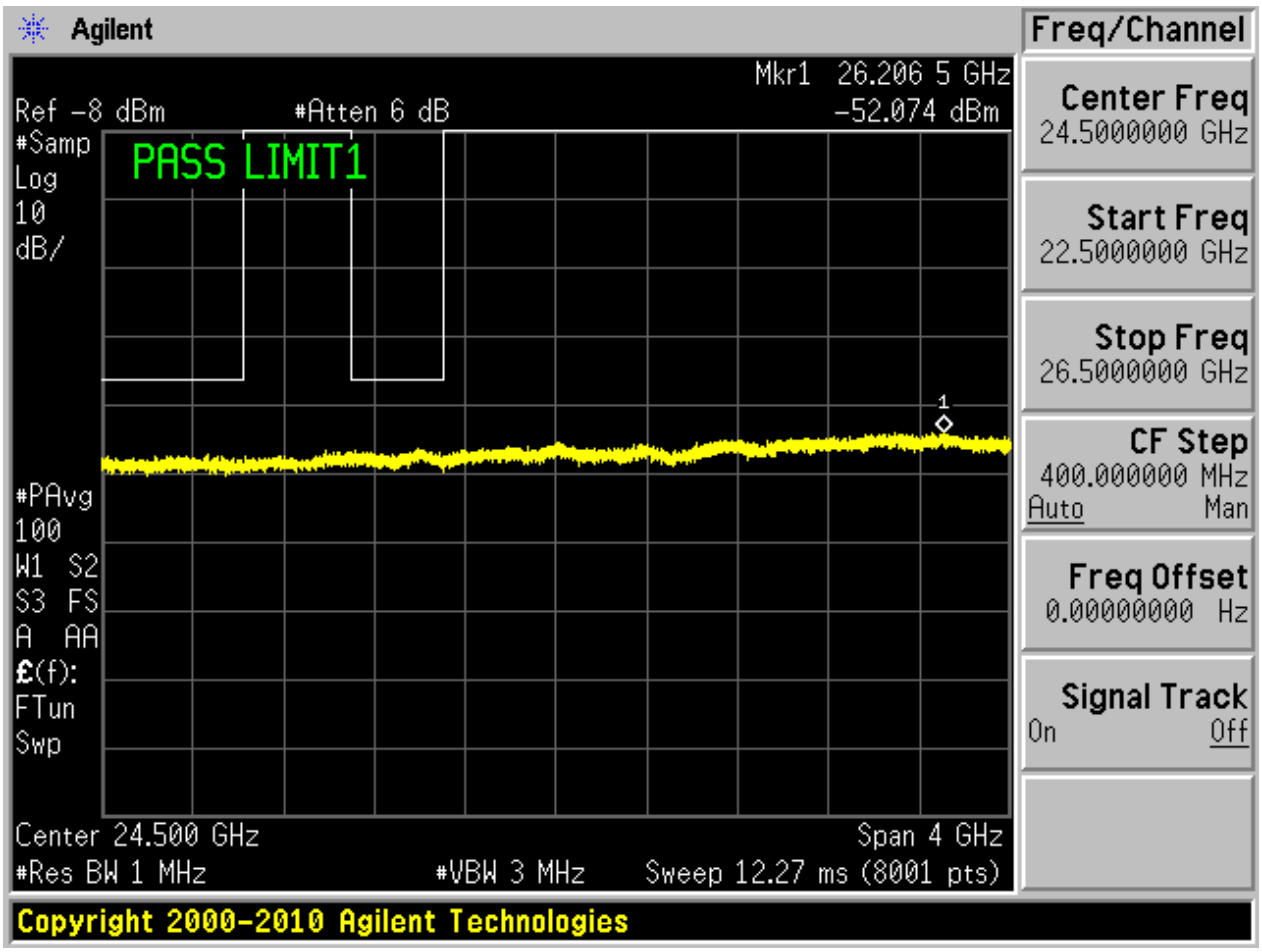



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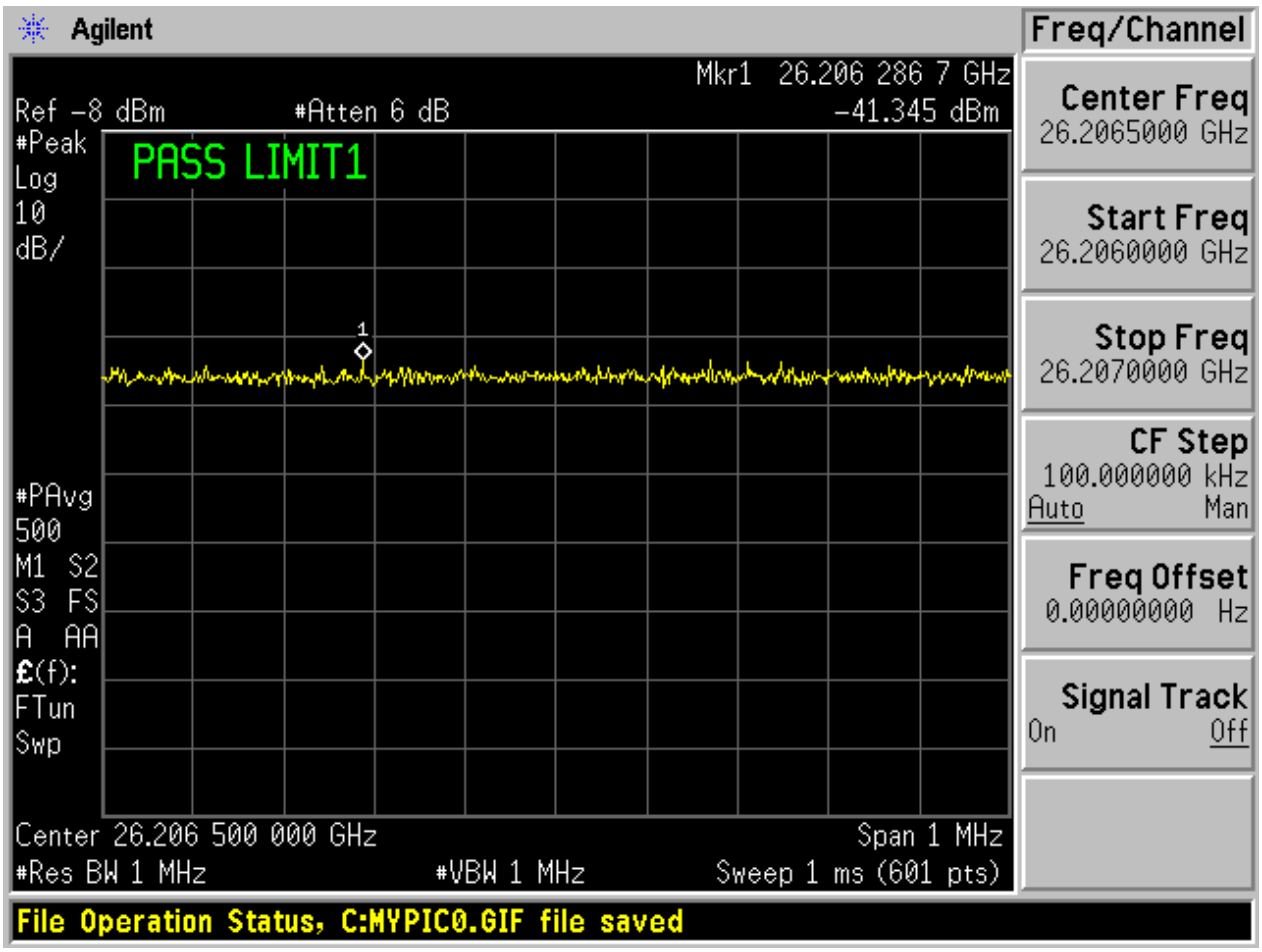



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# Appendix E.2: Unwanted Emissions into Restricted Frequency Bands (Radiated)


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# 1 Result Table

NOTE 1: The whole testing range is from “30 MHz to 26.5 GHz (10th harmonics)” is divided into 4 parts according to the test site settings, which are:

- Part 1: Test range of “30 MHz to 1 GHz”,
- Part 2: Test range of “1 GHz to 3 GHz”,
- Part 3: Test range of “3 GHz to 18 GHz”.
- Part 4: Test range of “18 GHz to 26.5 GHz”.

NOTE 2: For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at all chains to get a final result. The result is the directly measured sum of each chain.

NOTE 3: In this Appendix, may only the test results and plots under the worst case are reported. The “< Limit“ in results table denotes “Not found obvious spikes, or see marked spikes on plots or listed emissions in result tables”.

| EUT Placement | Test Range | EUT Conf. | Maximum Emissions | Verdict |
|---|---|---|---|---|
| Flatwise | 30 MHz to 1 GHz | Worst Case (11B/1_B@1) | < Limit | Pass |
| | 1 GHz to 3 GHz | 11B/1_B@1 | < Limit | Pass |
| | | 11B/1_T@1 | < Limit | Pass |
| | | 11G/6_B@1 | < Limit | Pass |
| | | 11G/6_T@1 | < Limit | Pass |
| | | 11N20/0_B@1 | < Limit | Pass |
| | | 11N20/0_T@1 | < Limit | Pass |
| | 3 GHz to 18 GHz | Worst Case (11B/1_B@1) | < Limit | Pass |
| | 18 GHz to 26.5 GHz | Worst Case (11B/1_B@1) | < Limit | Pass |


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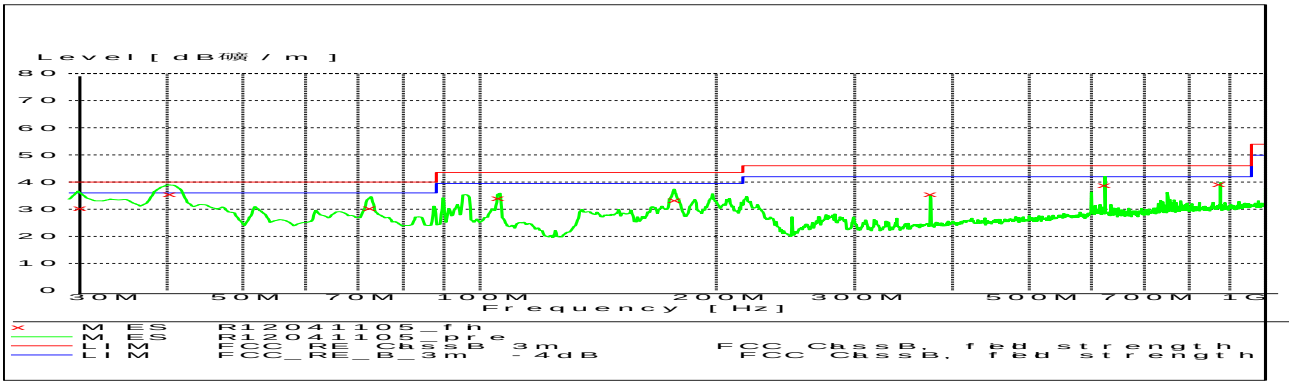
# 2 Result Plot

## 2.1 EUT Placement: Flatwise

### 2.1.1 Test range of “30 MHz to 1 GHz”

#### 2.1.1.1 Worst Case (11B/1_B@1)




***MEASUREMENT RESULT: "R12041105_fin"***

4/11/2012 6:54PM

| Frequency MHz | Level dBμV/m | Transd dB | Limit dBμV/m | Margin dB | Det. | Height cm | Azimuth deg | Polarization |
|---|---|---|---|---|---|---|---|---|
| 31.080000 | 30.40 | -3.5 | 40.0 | 9.6 | QP | 100.0 | 261.00 | VERTICAL |
| 40.380000 | 35.70 | -8.9 | 40.0 | 4.3 | QP | 100.0 | 303.00 | VERTICAL |
| 72.600000 | 30.20 | -14.6 | 40.0 | 9.8 | QP | 158.0 | 0.00 | VERTICAL |
| 105.720000 | 33.90 | -9.1 | 43.5 | 9.6 | QP | 400.0 | 0.00 | HORIZONTAL |
| 177.360000 | 33.10 | -10.4 | 43.5 | 10.4 | QP | 150.0 | 1.00 | HORIZONTAL |
| 375.000000 | 35.70 | -3.3 | 46.0 | 10.3 | QP | 100.0 | 226.00 | HORIZONTAL |
| 624.960000 | 38.70 | 0.0 | 46.0 | 7.3 | QP | 100.0 | 226.00 | VERTICAL |
| 874.980000 | 39.20 | 3.6 | 46.0 | 6.8 | QP | 100.0 | 193.00 | HORIZONTAL |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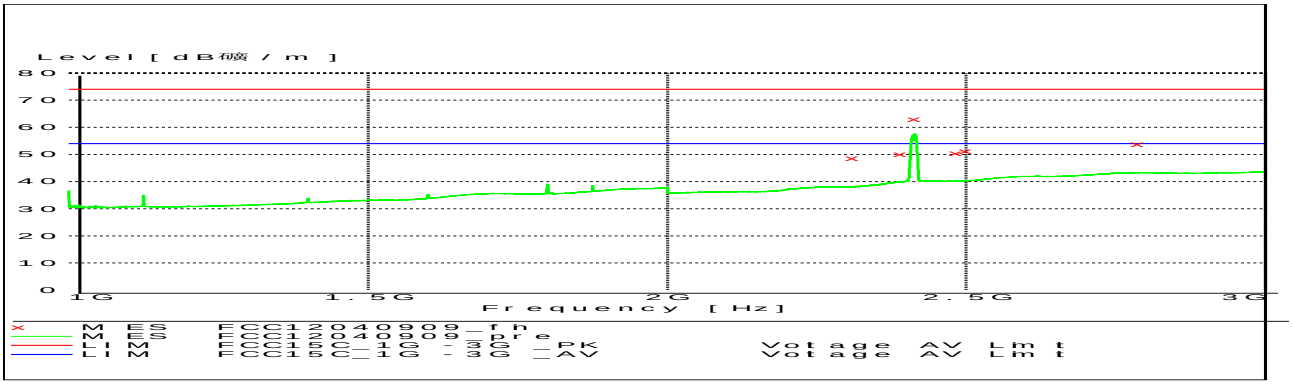
### 2.1.2 Test range of “1 GHz to 3 GHz”

#### 2.1.2.1 11B/1_B@1

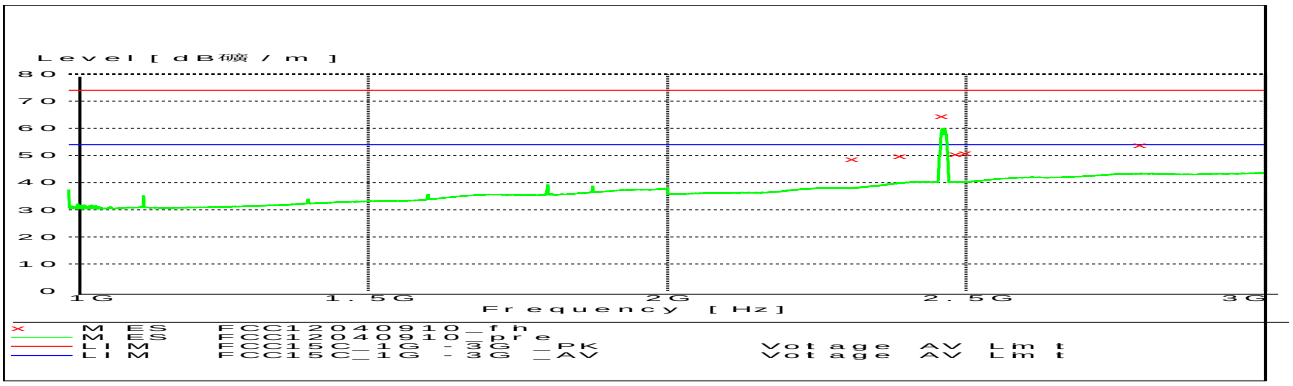



***MEASUREMENT RESULT: "FCC12040909_fin"***

4/9/2012 8:36PM

| Frequency MHz | Level dBµV/m | Transd dB | Limit dBµV/m | Margin dB | Det. | Height cm | Azimuth deg | Polarization |
|---|---|---|---|---|---|---|---|---|
| 2310.240000 | 48.70 | 0.1 | 74.0 | 25.3 | PK | 100.0 | 90.00 | HORIZONTAL |
| 2390.080000 | 50.20 | 0.5 | 74.0 | 23.8 | PK | 200.0 | 270.00 | VERTICAL |
| 2413.600000 | 63.00 | 0.6 | 74.0 | 11.0 | PK | 100.0 | 0.00 | VERTICAL |
| 2483.360000 | 50.40 | 0.9 | 74.0 | 23.6 | PK | 100.0 | 0.00 | HORIZONTAL |
| 2500.000000 | 51.00 | 1.0 | 74.0 | 23.0 | PK | 200.0 | 0.00 | HORIZONTAL |
| 2787.200000 | 53.70 | 3.1 | 74.0 | 20.3 | PK | 200.0 | 270.00 | VERTICAL |

#### 2.1.2.2 11B/1_T@1




***MEASUREMENT RESULT: "FCC12040910_fin"***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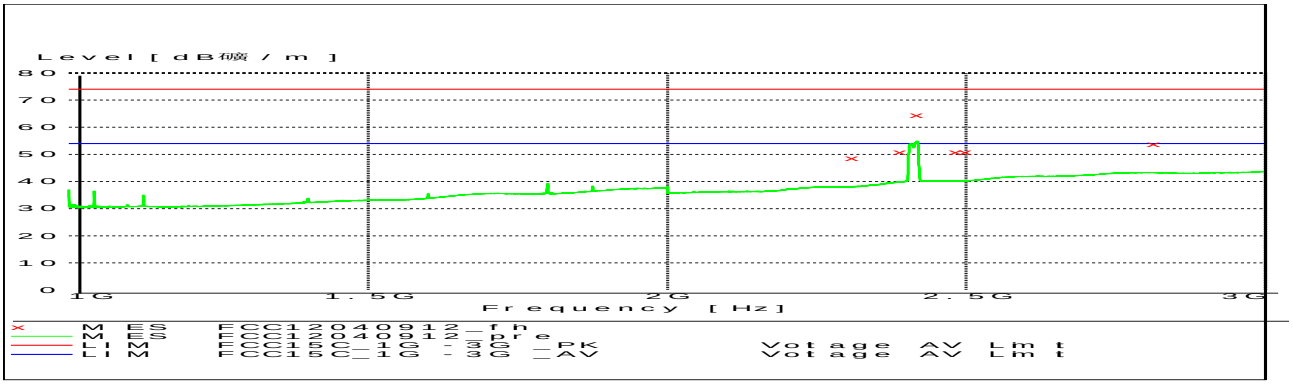
4/9/2012 8:48PM

| Frequency MHz | Level dBμV/m | Transd dB | Limit dBμV/m | Margin dB | Det. | Height cm | Azimuth deg | Polarization |
|---|---|---|---|---|---|---|---|---|
| 2310.240000 | 48.60 | 0.1 | 74.0 | 25.4 | PK | 200.0 | 90.00 | VERTICAL |
| 2390.240000 | 49.60 | 0.5 | 74.0 | 24.4 | PK | 100.0 | 90.00 | VERTICAL |
| 2460.000000 | 64.40 | 0.8 | 74.0 | 9.6 | PK | 100.0 | 270.00 | VERTICAL |
| 2483.360000 | 50.30 | 0.9 | 74.0 | 23.7 | PK | 100.0 | 270.00 | HORIZONTAL |
| 2499.840000 | 50.90 | 1.0 | 74.0 | 23.1 | PK | 100.0 | 180.00 | HORIZONTAL |
| 2791.200000 | 53.80 | 3.1 | 74.0 | 20.2 | PK | 100.0 | 180.00 | VERTICAL |

### 2.1.2.3 11G/6_B@1




***MEASUREMENT RESULT: "FCC12040912_fin"***

4/9/2012 9:13PM

| Frequency MHz | Level dBμV/m | Transd dB | Limit dBμV/m | Margin dB | Det. | Height cm | Azimuth deg | Polarization |
|---|---|---|---|---|---|---|---|---|
| 2310.080000 | 48.40 | 0.1 | 74.0 | 25.6 | PK | 100.0 | 180.00 | HORIZONTAL |
| 2390.080000 | 50.70 | 0.5 | 74.0 | 23.3 | PK | 100.0 | 0.00 | HORIZONTAL |
| 2418.080000 | 64.60 | 0.6 | 74.0 | 9.4 | PK | 100.0 | 270.00 | HORIZONTAL |
| 2483.520000 | 50.80 | 0.9 | 74.0 | 23.2 | PK | 200.0 | 0.00 | HORIZONTAL |
| 2500.000000 | 50.60 | 1.0 | 74.0 | 23.4 | PK | 100.0 | 90.00 | HORIZONTAL |
| 2814.000000 | 53.70 | 3.2 | 74.0 | 20.3 | PK | 100.0 | 0.00 | VERTICAL |

### 2.1.2.4 11G/6_T@1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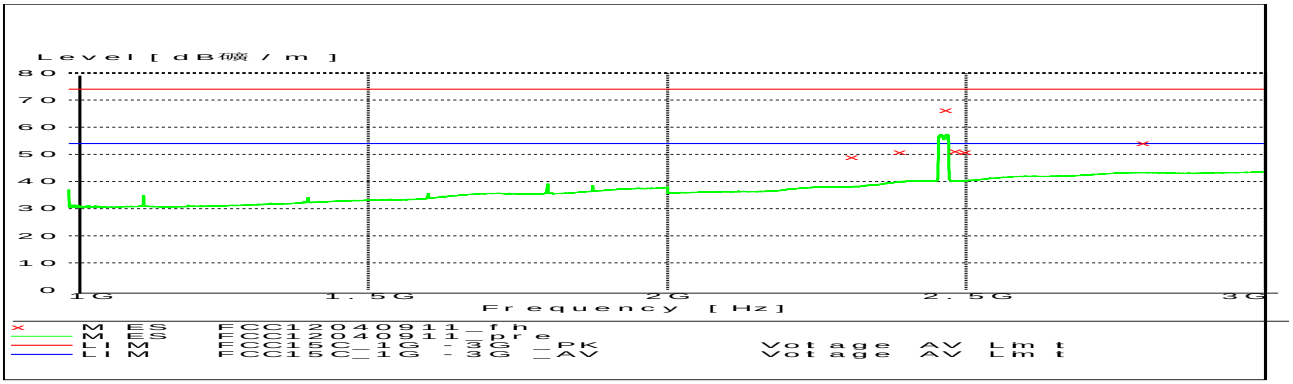
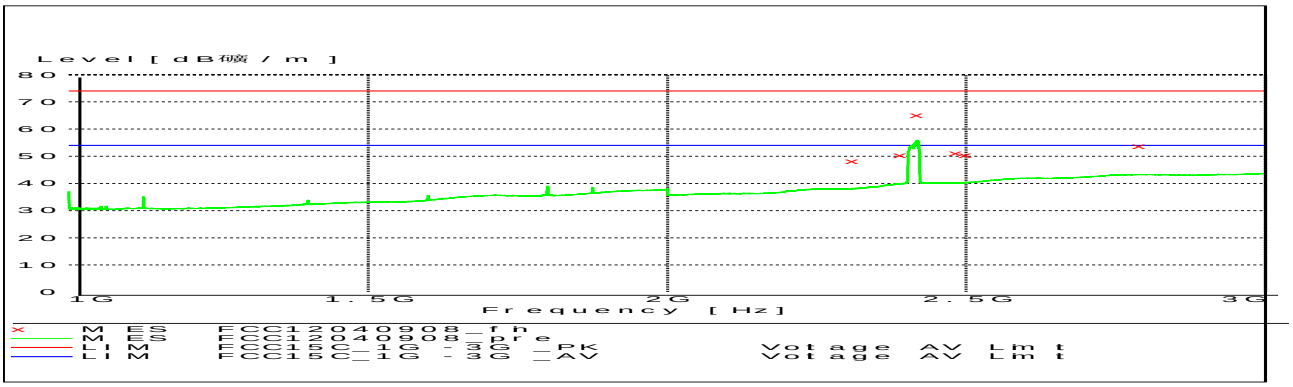



***MEASUREMENT RESULT: "FCC12040911_fin"***

4/9/2012 9:02PM

| Frequency MHz | Level dBμV/m | Transd dB | Limit dBμV/m | Margin dB | Det. | Height cm | Azimuth deg | Polarization |
|---|---|---|---|---|---|---|---|---|
| 2310.080000 | 49.10 | 0.1 | 74.0 | 24.9 | PK | 100.0 | 90.00 | VERTICAL |
| 2390.240000 | 50.60 | 0.5 | 74.0 | 23.4 | PK | 100.0 | 180.00 | HORIZONTAL |
| 2467.840000 | 66.40 | 0.9 | 74.0 | 7.6 | PK | 100.0 | 270.00 | VERTICAL |
| 2483.360000 | 51.10 | 0.9 | 74.0 | 22.9 | PK | 200.0 | 0.00 | HORIZONTAL |
| 2500.000000 | 50.80 | 1.0 | 74.0 | 23.2 | PK | 100.0 | 90.00 | HORIZONTAL |
| 2796.800000 | 53.90 | 3.2 | 74.0 | 20.1 | PK | 100.0 | 180.00 | HORIZONTAL |

### 2.1.2.5 11N20/0_B@1




***MEASUREMENT RESULT: "FCC12040908_fin"***

4/9/2012 8:24PM

| Frequency MHz | Level dBμV/m | Transd dB | Limit dBμV/m | Margin dB | Det. | Height cm | Azimuth deg | Polarization |
|---|---|---|---|---|---|---|---|---|
| 2309.920000 | 48.30 | 0.1 | 74.0 | 25.7 | PK | 200.0 | 90.00 | HORIZONTAL |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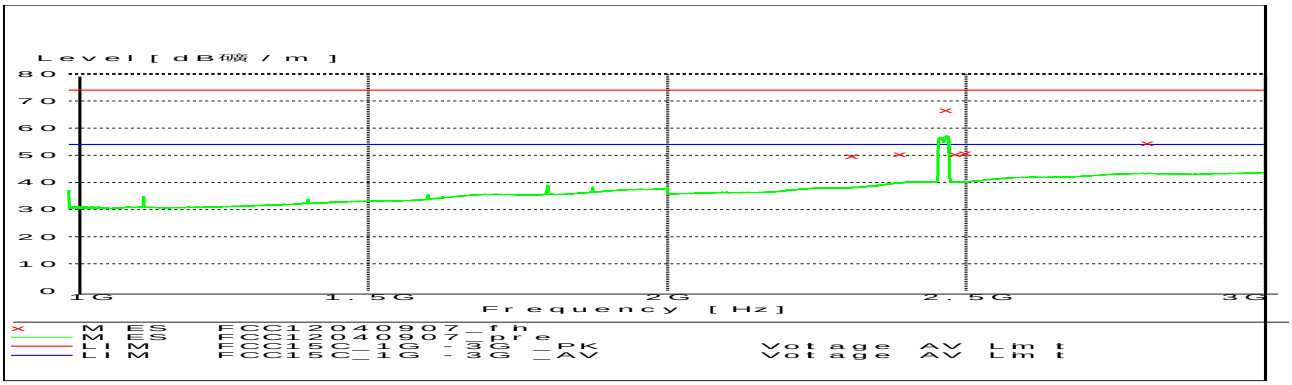
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2390.240000 | 50.30 | 0.5 | 74.0 | 23.7 | PK | 100.0 | 180.00 | VERTICAL |
| 2418.400000 | 65.00 | 0.6 | 74.0 | 9.0 | PK | 100.0 | 0.00 | VERTICAL |
| 2483.520000 | 51.00 | 0.9 | 74.0 | 23.0 | PK | 200.0 | 90.00 | VERTICAL |
| 2500.000000 | 50.50 | 1.0 | 74.0 | 23.5 | PK | 200.0 | 90.00 | VERTICAL |
| 2789.200000 | 53.70 | 3.1 | 74.0 | 20.3 | PK | 100.0 | 90.00 | VERTICAL |

### 2.1.2.6 11N20/0_T@1




***MEASUREMENT RESULT: "FCC12040907_fin"***

4/9/2012 8:10PM

| Frequency MHz | Level dBµV/m | Transd dB | Limit dBµV/m | Margin dB | Det. | Height cm | Azimuth deg | Polarization |
|---|---|---|---|---|---|---|---|---|
| 2309.920000 | 49.50 | 0.1 | 74.0 | 24.5 | PK | 100.0 | 180.00 | HORIZONTAL |
| 2390.080000 | 50.30 | 0.5 | 74.0 | 23.7 | PK | 200.0 | 0.00 | HORIZONTAL |
| 2467.680000 | 66.50 | 0.9 | 74.0 | 7.5 | PK | 100.0 | 270.00 | VERTICAL |
| 2483.360000 | 50.50 | 0.9 | 74.0 | 23.5 | PK | 100.0 | 90.00 | HORIZONTAL |
| 2499.840000 | 50.80 | 1.0 | 74.0 | 23.2 | PK | 100.0 | 270.00 | VERTICAL |
| 2804.400000 | 54.30 | 3.2 | 74.0 | 19.7 | PK | 200.0 | 0.00 | VERTICAL |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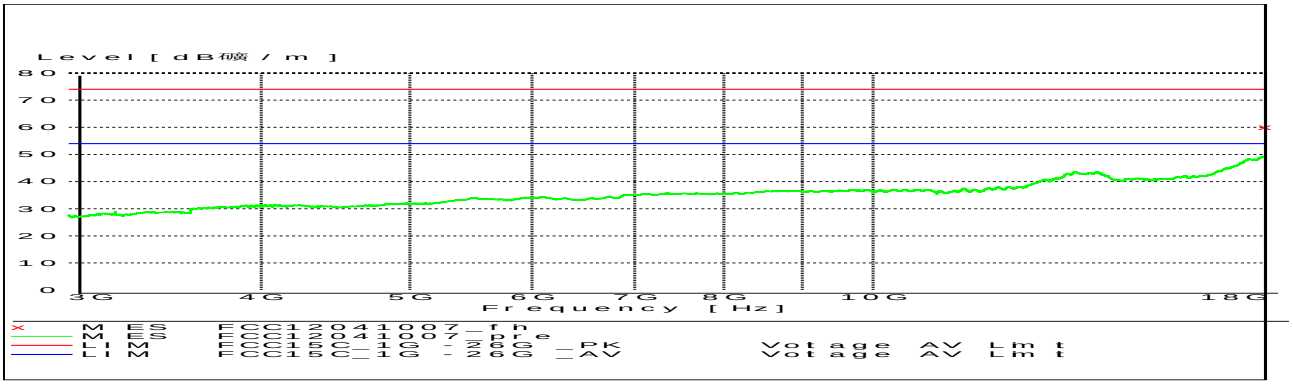
### 2.1.3 Test range of “3 GHz to 18 GHz”

#### 2.1.3.1 Worst Case (11B/1_B@1)




***MEASUREMENT RESULT: "FCC12041007_fin"***

4/10/2012 6:46AM

| Frequency MHz | Level dBµV/m | Transd dB | Limit dBµV/m | Margin dB | Det. | Height cm | Azimuth deg | Polarization |
|---|---|---|---|---|---|---|---|---|
| 18000.000000 | 59.90 | 29.5 | 74.0 | 14.1 | PK | 100.0 | 0.00 | VERTICAL |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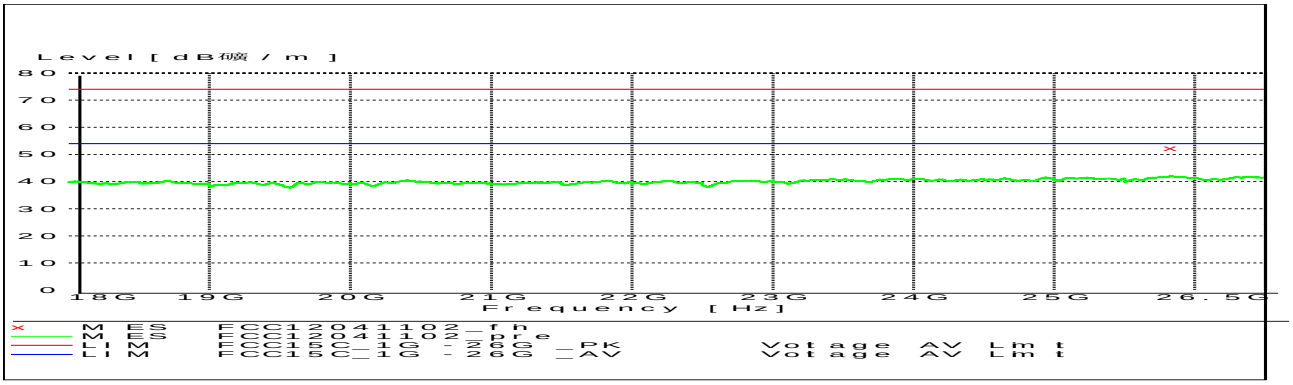
### 2.1.4 Test range of “18 GHz to 26.5 GHz”

#### 2.1.4.1 Worst Case (11B/1_B@1)




***MEASUREMENT RESULT: "FCC12041102_fin"***

4/11/2012 2:56PM

| Frequency MHz | Level dBµV/m | Transd dB | Limit dBµV/m | Margin dB | Det. | Height cm | Azimuth deg | Polarization |
|---|---|---|---|---|---|---|---|---|
| 25830.000000 | 52.20 | 29.9 | 74.0 | 21.8 | PK | 200.0 | 180.00 | VERTICAL |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# Appendix F: Receiver Spurious Emissions (Radiated, Only for IC requirement)


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# 1 Result Table

NOTE 1: The whole testing range is from “30 MHz to 8 GHz (3rd harmonics)” is divided into 2 parts, which are:

- Part 1: Test range of “30 MHz to 1 GHz”,
- Part 2: Test range of “1 GHz to 8 GHz”.

NOTE 2: For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at all chains to get a final result. The result is the directly measured sum of each chain.

NOTE 3: In this Appendix, may only the test results and plots under the worst case are reported. The “< Limit“ in results table denotes “Not found obvious spikes, or see marked spikes on plots or listed emissions in result tables”.

| EUT Placement | Test Range | EUT Conf. | Maximum Emissions | Verdict |
|---|---|---|---|---|
| Flatwise | 30 MHz to 1 GHz | 11x_RX | < Limit | Pass |
| | 1 GHz to 8 GHz | 11x_RX | < Limit | Pass |


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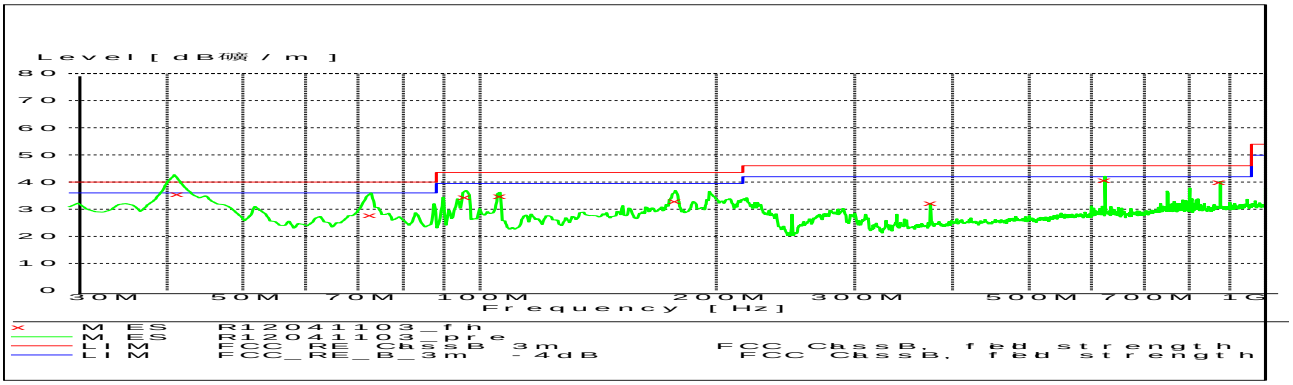
# 2 Result Plot

## 2.1 EUT Placement: Flatwise

### 2.1.1 Testing Range of “30 MHz to 1 GHz”

#### 2.1.1.1 11x_RX




***MEASUREMENT RESULT: "R12041103_fin"***

4/11/2012 6:03PM

| Frequency MHz | Level dBµV/m | Transd dB | Limit dBµV/m | Margin dB | Det. | Height cm | Azimuth deg | Polarization |
|---|---|---|---|---|---|---|---|---|
| 41.220000 | 35.40 | -9.4 | 40.0 | 4.6 | QP | 101.0 | 0.00 | VERTICAL |
| 72.600000 | 27.60 | -14.6 | 40.0 | 12.4 | QP | 178.0 | 283.00 | VERTICAL |
| 95.820000 | 34.30 | -10.3 | 43.5 | 9.2 | QP | 133.0 | 1.00 | VERTICAL |
| 106.200000 | 34.90 | -9.1 | 43.5 | 8.6 | QP | 252.0 | 0.00 | HORIZONTAL |
| 177.300000 | 32.80 | -10.4 | 43.5 | 10.7 | QP | 209.0 | 350.00 | HORIZONTAL |
| 375.000000 | 32.30 | -3.3 | 46.0 | 13.7 | QP | 100.0 | 234.00 | HORIZONTAL |
| 624.960000 | 40.50 | 0.0 | 46.0 | 5.5 | QP | 100.0 | 281.00 | VERTICAL |
| 874.980000 | 39.80 | 3.6 | 46.0 | 6.2 | QP | 100.0 | 154.00 | HORIZONTAL |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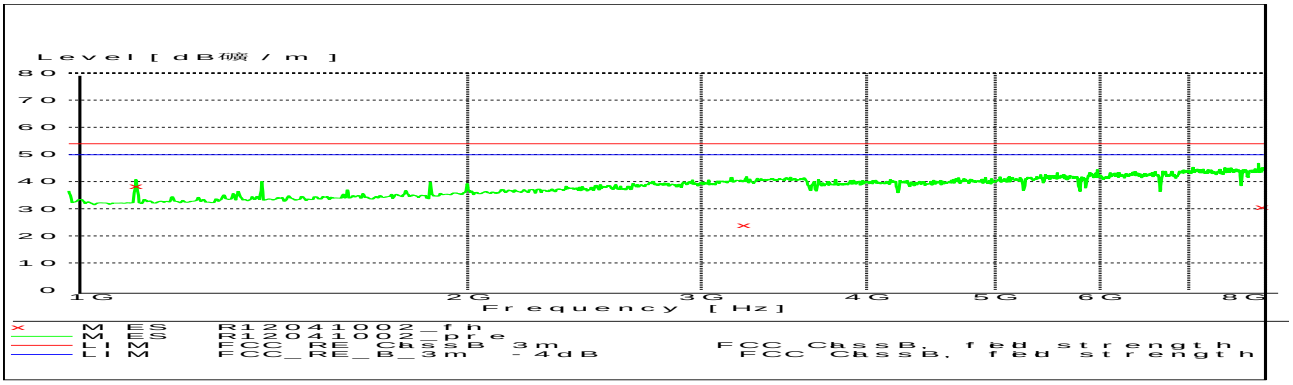
### 2.1.2 Testing Range of “1 GHz to 8 GHz”

#### 2.1.2.1 11x_RX




***MEASUREMENT RESULT: "R12041002_fin"***

4/10/2012 7:07AM

| Frequency MHz | Level dBµV/m | Transd dB | Limit dBµV/m | Margin dB | Det. | Height cm | Azimuth deg | Polarization |
|---|---|---|---|---|---|---|---|---|
| 1125.000000 | 38.20 | -6.7 | 53.9 | 15.7 | AV | 111.0 | 226.00 | HORIZONTAL |
| 3236.000000 | 24.10 | 4.3 | 53.9 | 29.8 | AV | 200.0 | 0.00 | HORIZONTAL |
| 7960.500000 | 30.50 | 12.1 | 53.9 | 23.4 | AV | 101.0 | 329.00 | HORIZONTAL |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# Appendix G: AC Power Line Conducted Emissions


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# 1 Result Table

NOTE: In this document, may only the test results and plots under the worst case are reported.

| EUT Conf. | Maximum Emissions | Verdict |
|---|---|---|
| 11B/1_M@1 | Not found obvious spikes, or see marked spikes on plots or listed emissions in result tables. | Pass |


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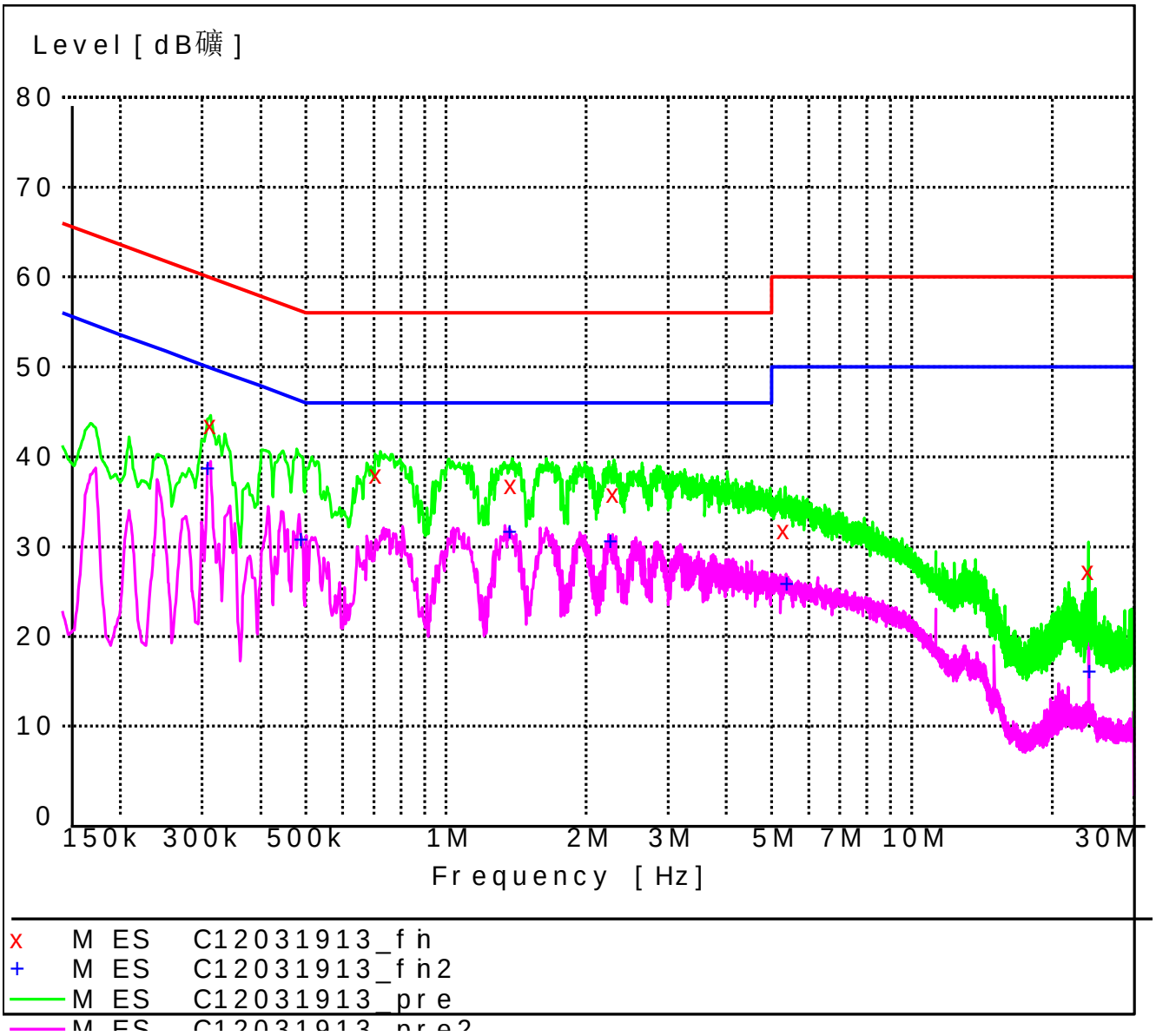
## 2 Result Plot

### 2.1 11B/1_M@1




***MEASUREMENT RESULT: "C12031913_fin"***

3/19/2012 4:10PM

| Frequency MHz | Level dBµV | Transd dB | Limit dBµV | Margin dB | Detector | Line | PE |
|---|---|---|---|---|---|---|---|
| 0.312000 | 43.50 | 9.9 | 60 | 16.4 | QP | N | GND |
| 0.708000 | 38.00 | 9.9 | 56 | 18.0 | QP | L3 | GND |
| 1.378500 | 36.90 | 9.9 | 56 | 19.1 | QP | N | GND |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| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2.287500 | 35.90 | 10.1 | 56 | 20.1 | QP | L3 | GND |
| 5.320500 | 31.80 | 10.3 | 60 | 28.2 | QP | L3 | GND |
| 23.959500 | 27.20 | 10.8 | 60 | 32.8 | QP | N | GND |


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# Appendix H: Photos of Test Setups


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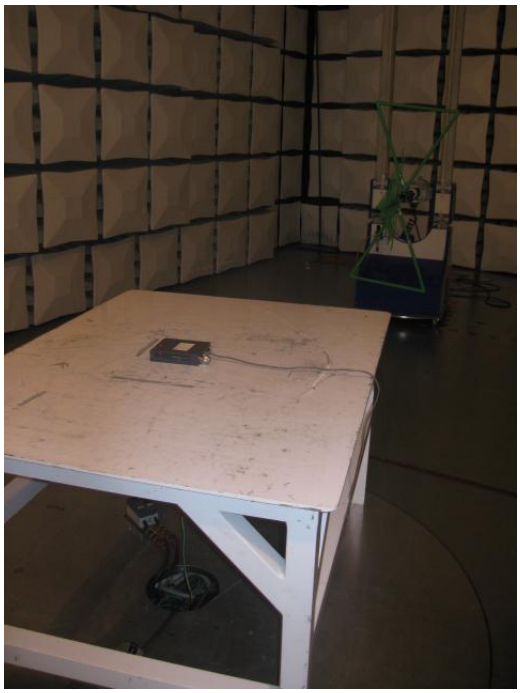
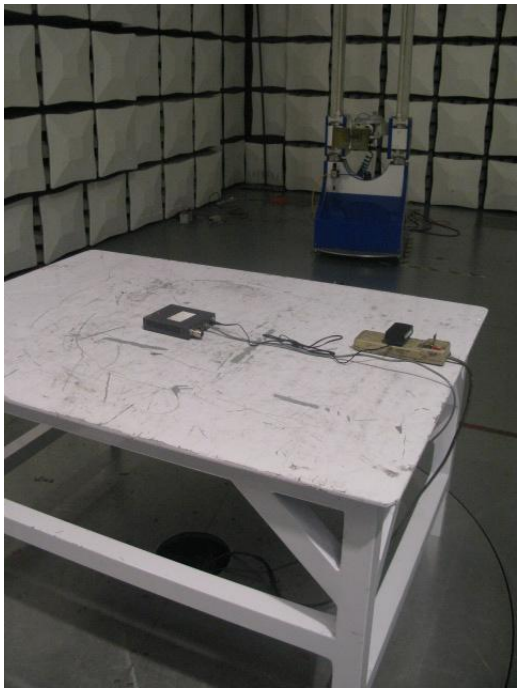
# 1 Test Setup 2

## 1.1 Radiated (cabinet/case emissions with impedance matching for antenna-port)

### 1.1.1 Measurement Setup from 30 MHz to 1 GHz



### 1.1.2 Measurement Setup from 1 GHz to 3 GHz, 3 GHz to 18 GHz

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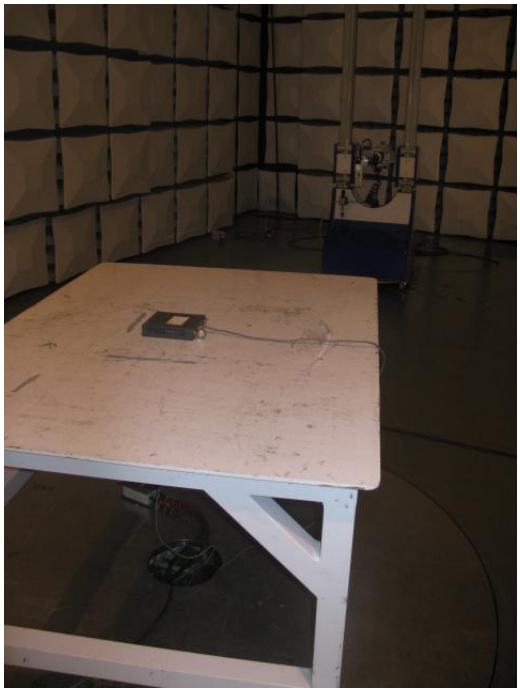
### 1.1.3 Measurement Setup from 18 GHz to 26.5 GHz

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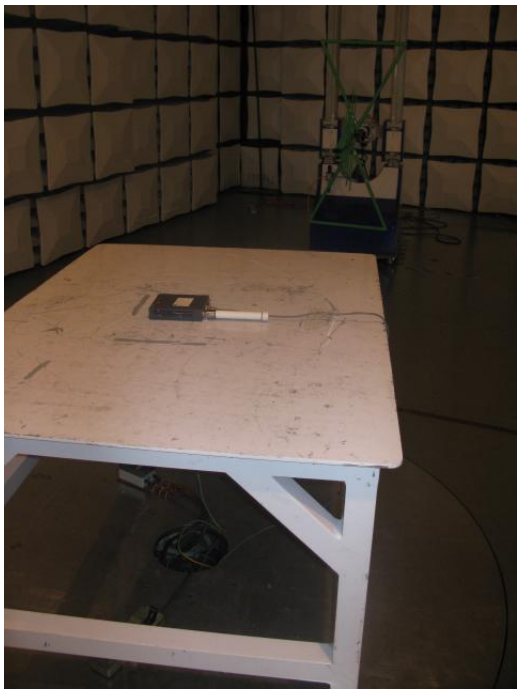
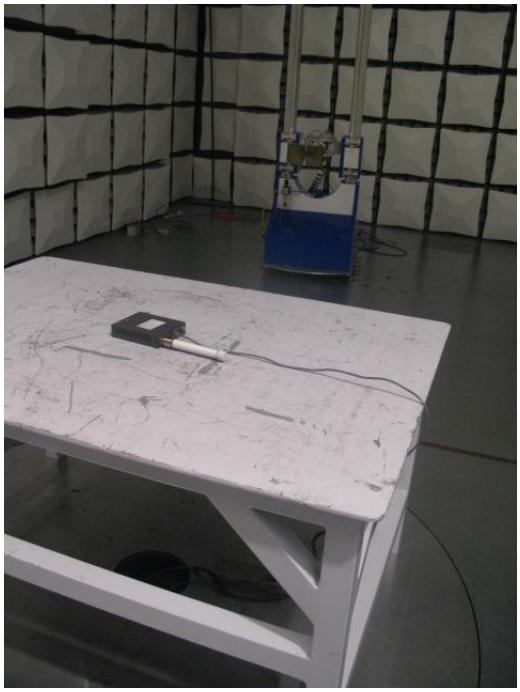
## 1.2 Radiated (Only for IC Requirement - Receiver Spurious Emissions)

### 1.2.1 Measurement Setup from 30 MHz to 1 GHz



### 1.2.2 Measurement Setup from 1 GHz to 8 GHz

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## 2 Test Setup 3

END


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