

***Appendix F***

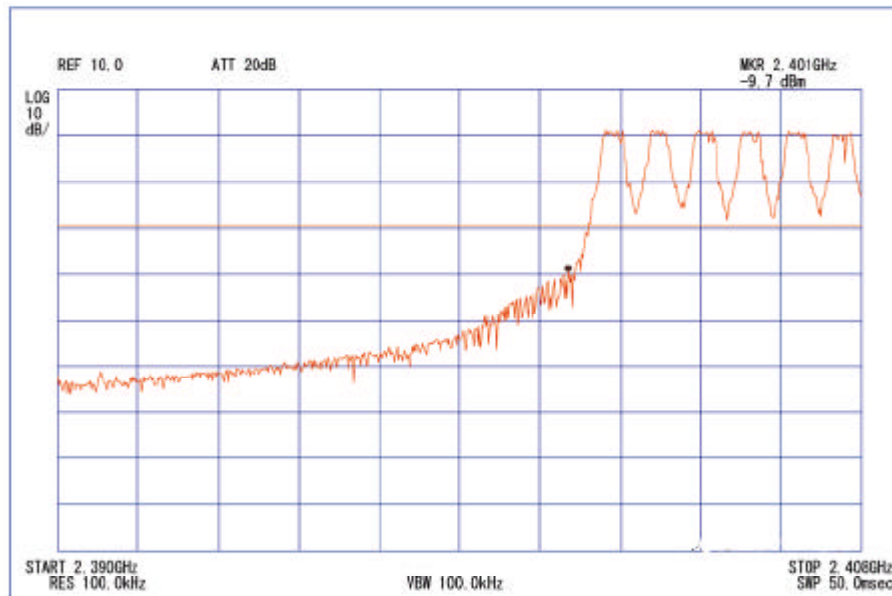
---

***Appendix F***

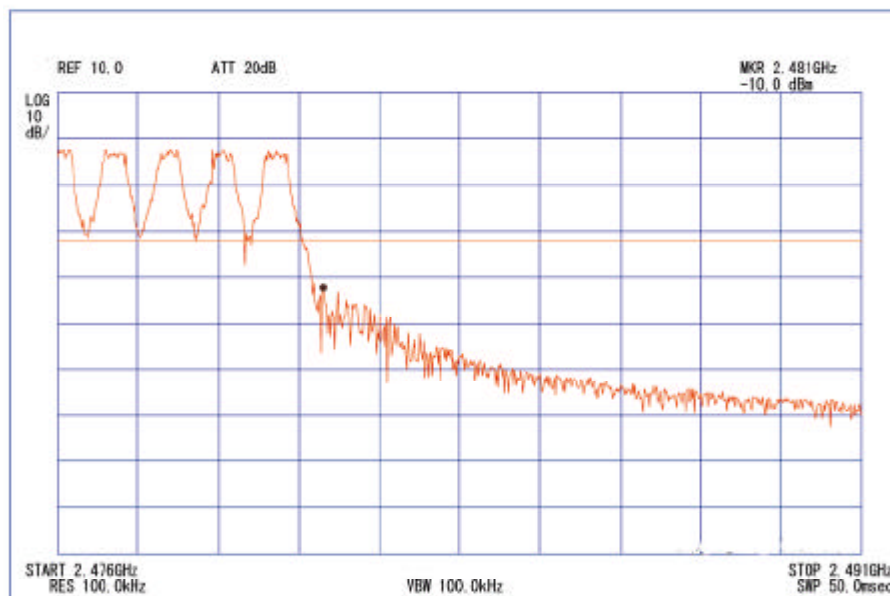
***Band Edge Compliance of RF Conducted Emissions  
Trace Data***

- Hopping -

Channel Low : 2402.0MHz [Channel 1]

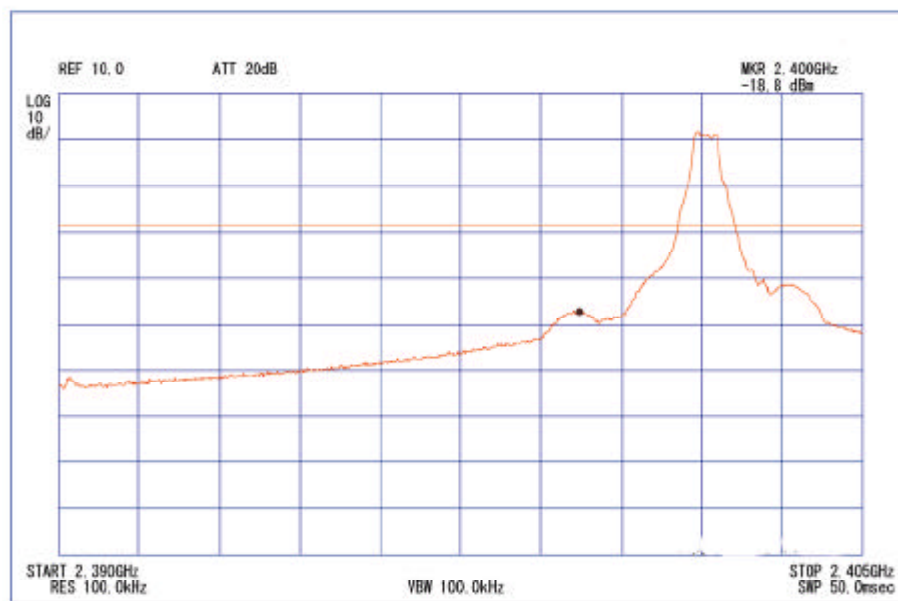


Channel High : 2480.0MHz [Channel 79]

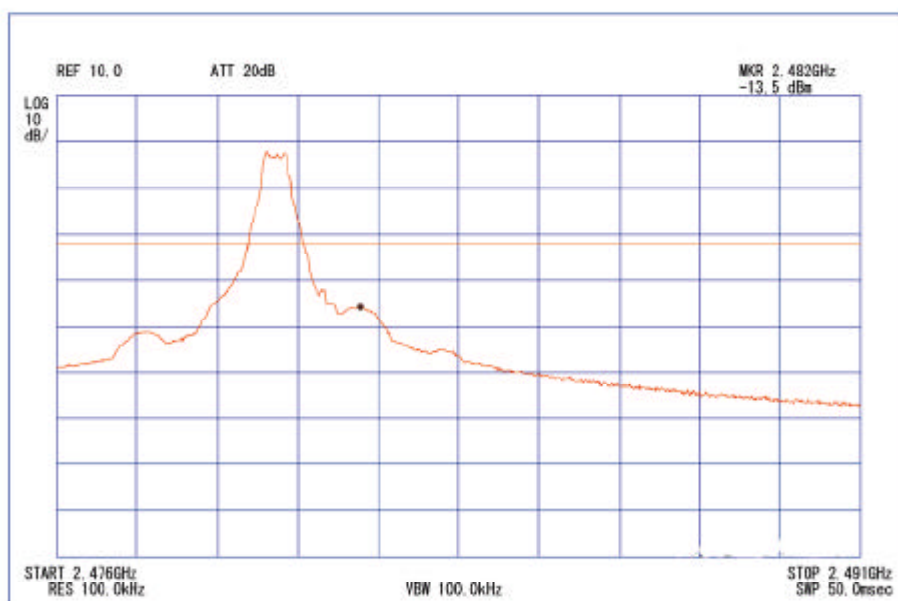


- No hopping -

Channel Low : 2402.0MHz [Channel 1]



Channel High : 2480.0MHz [Channel 79]



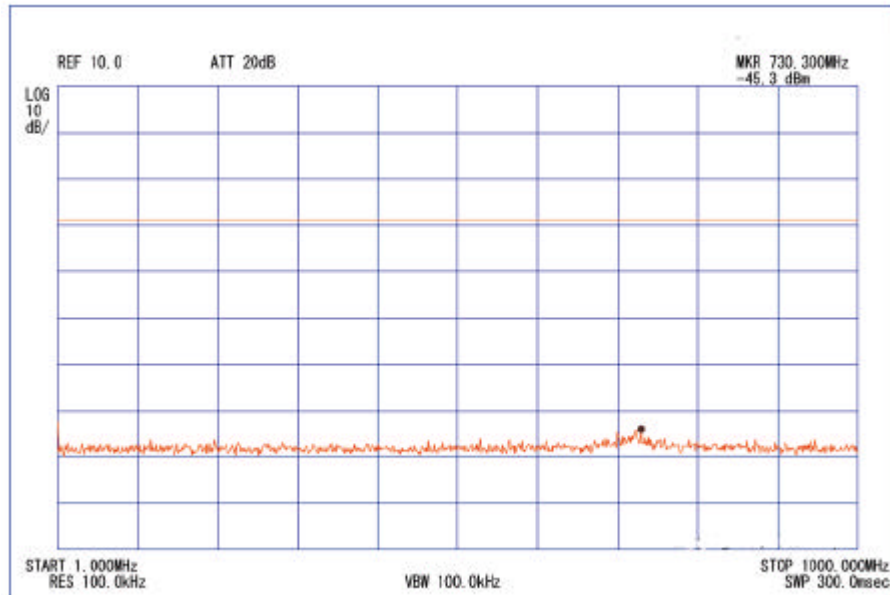
## ***Appendix G***

---

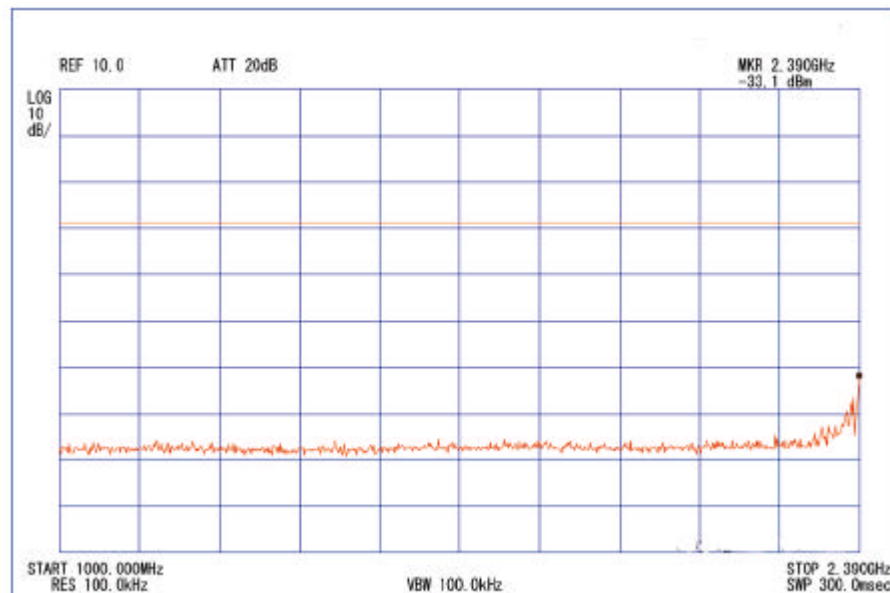
### ***Appendix G***

#### ***Suprious Emissions - Conducted - Trace Data***

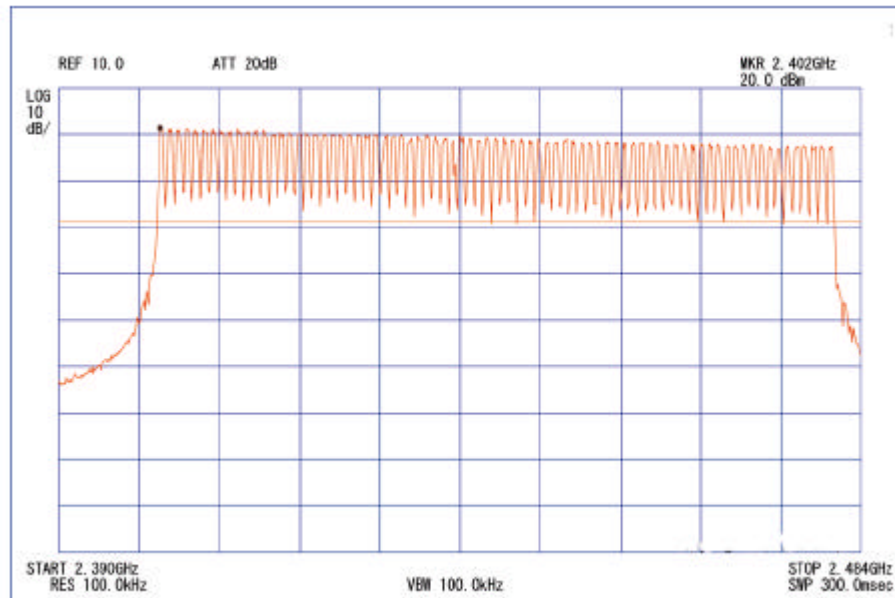
- Hopping -  
1 - 1000MHz



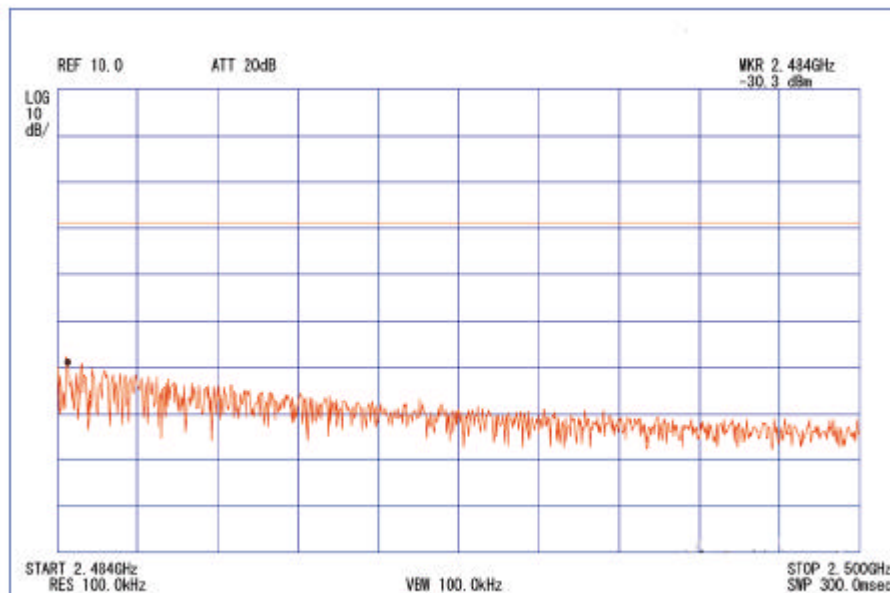
1000 - 2390MHz



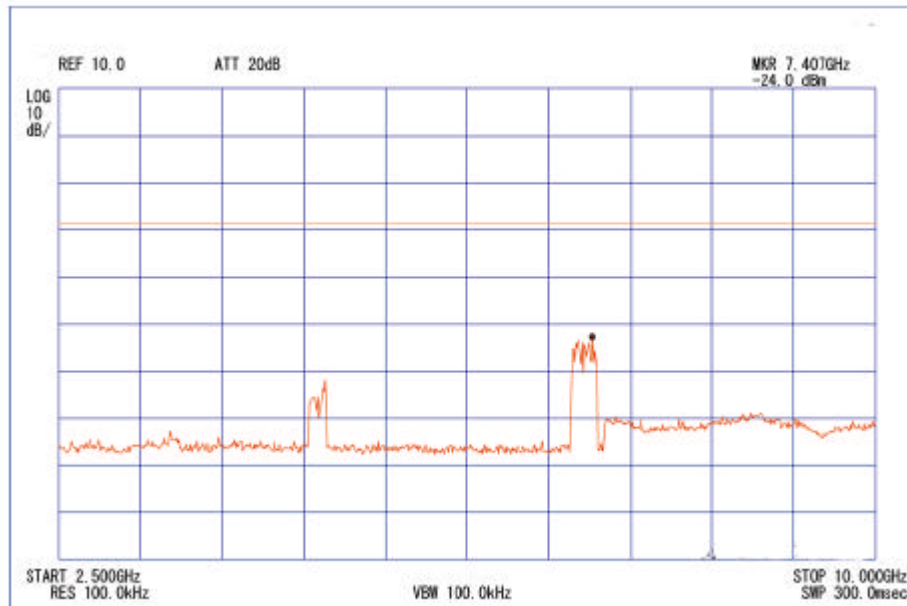
2390 - 2483.5MHz



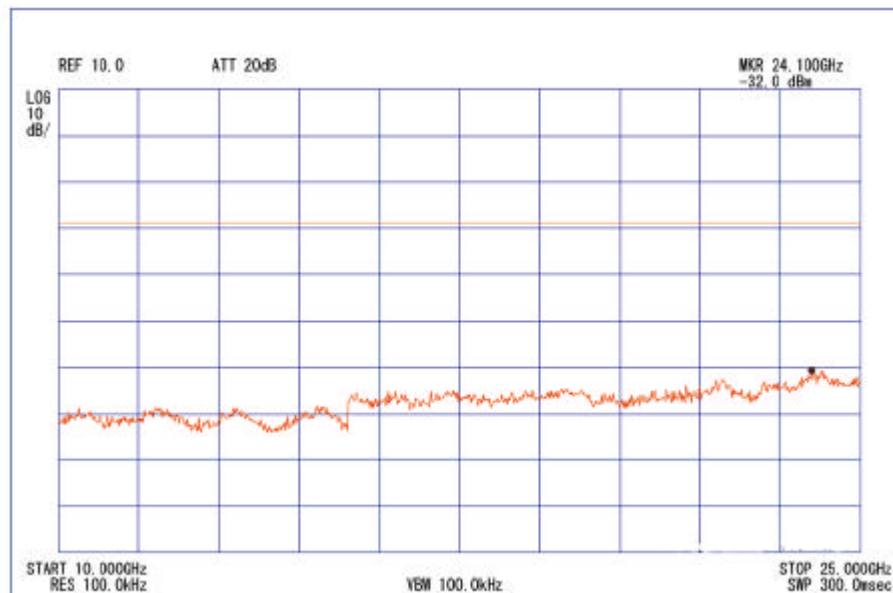
2483.5MHz - 2.5GHz



## 2.5GHz - 10GHz



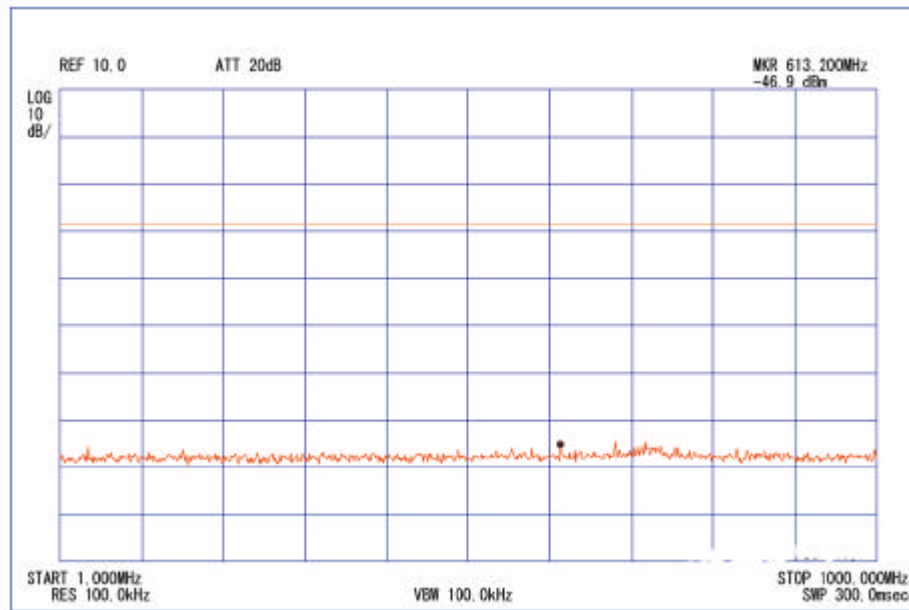
## 10GHz - 25GHz



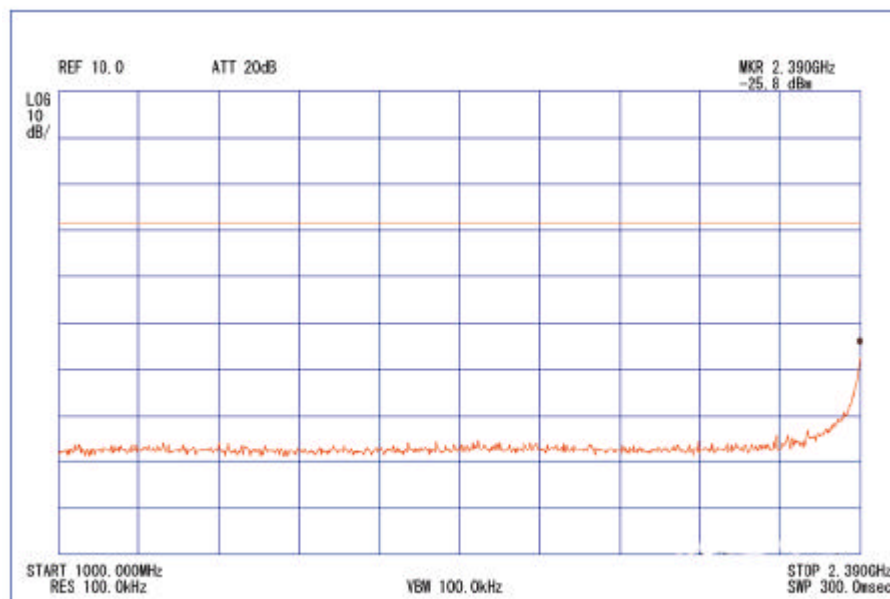
- No hopping -

Channel Low : 2402.0MHz [Channel 1]

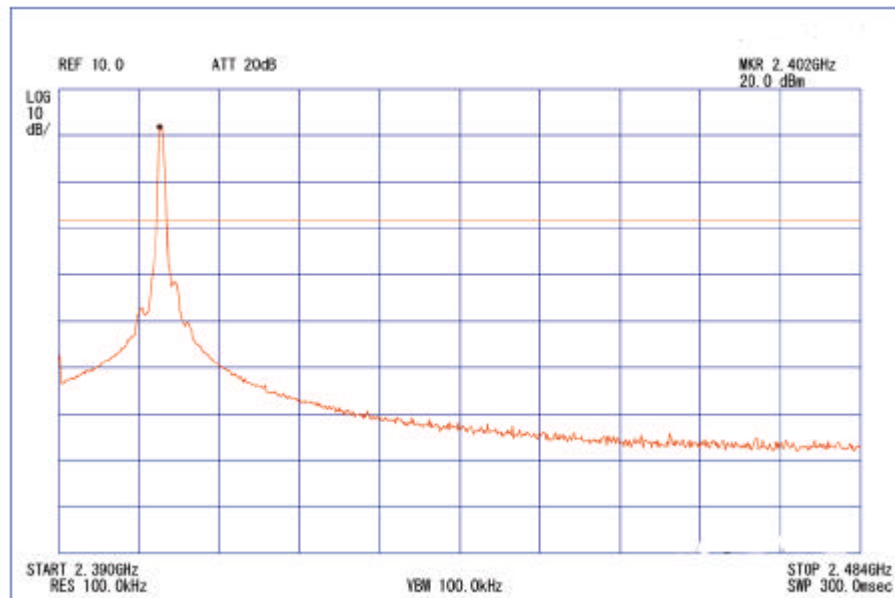
1-1000MHz



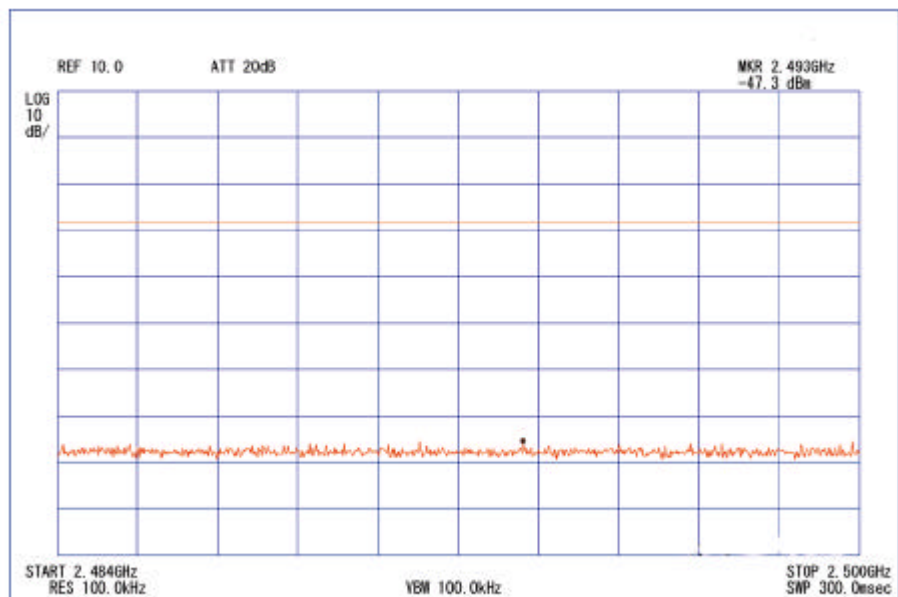
1000-2390MHz



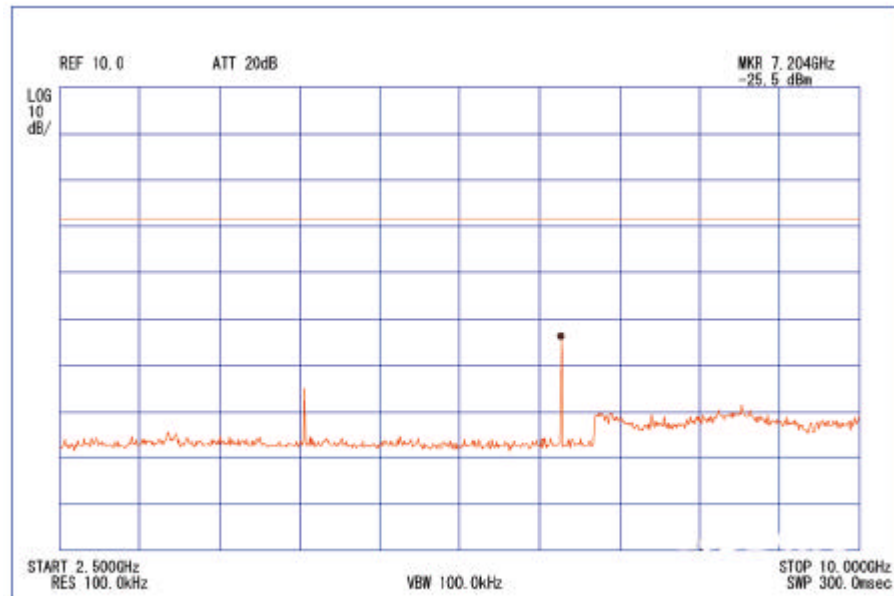
2390 - 2483.5MHz



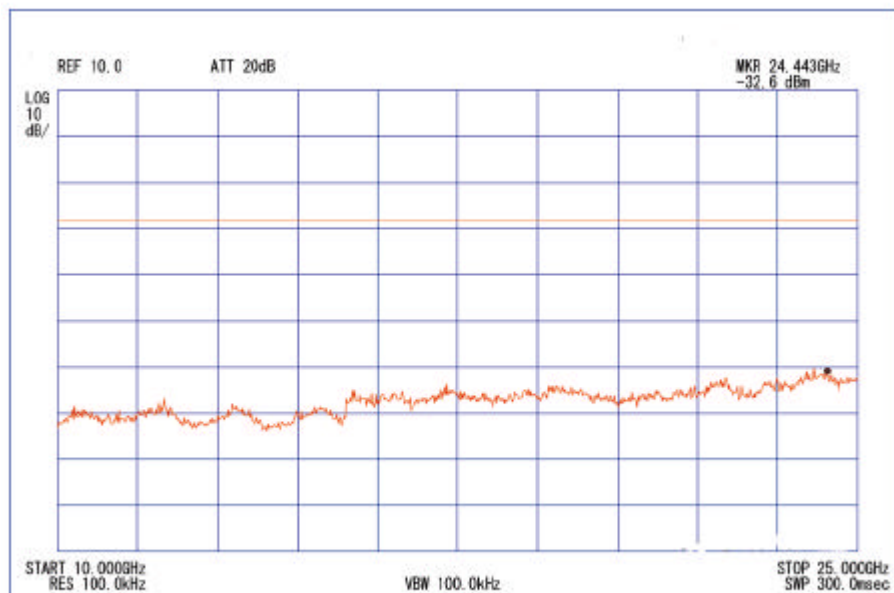
2483.5MHz - 2.5GHz



## 2.5GHz - 10GHz

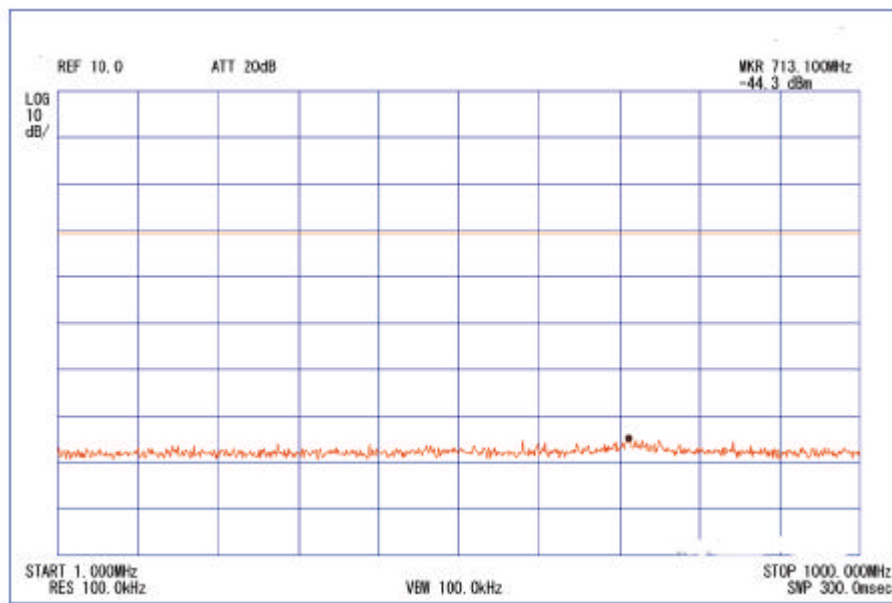


## 10GHz - 25GHz

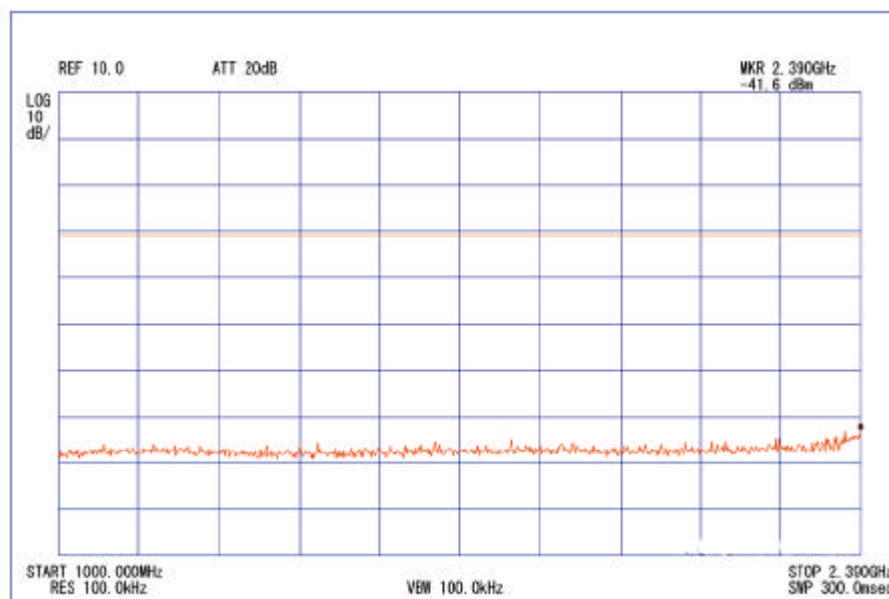


**Channel Mid : 2441.0MHz [Channel 40]**

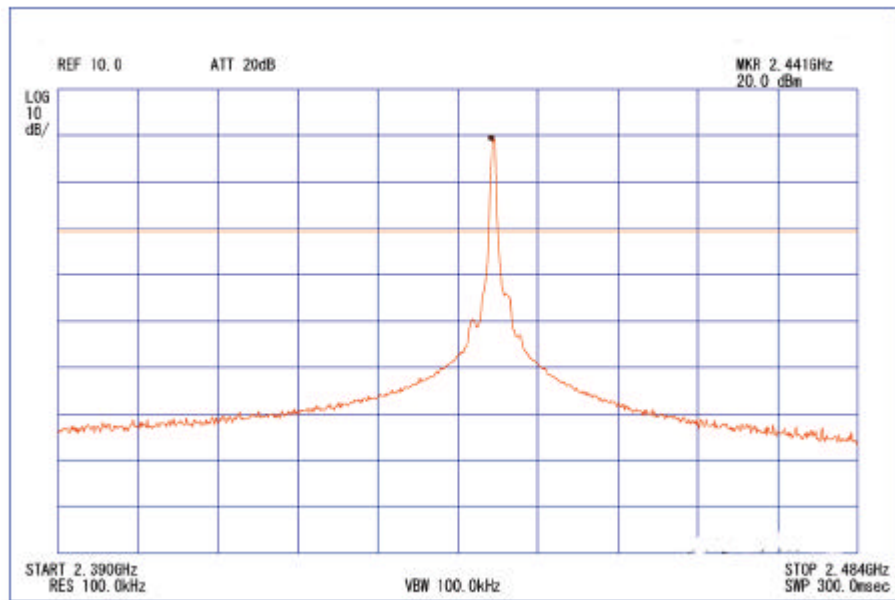
**1-1000MHz**



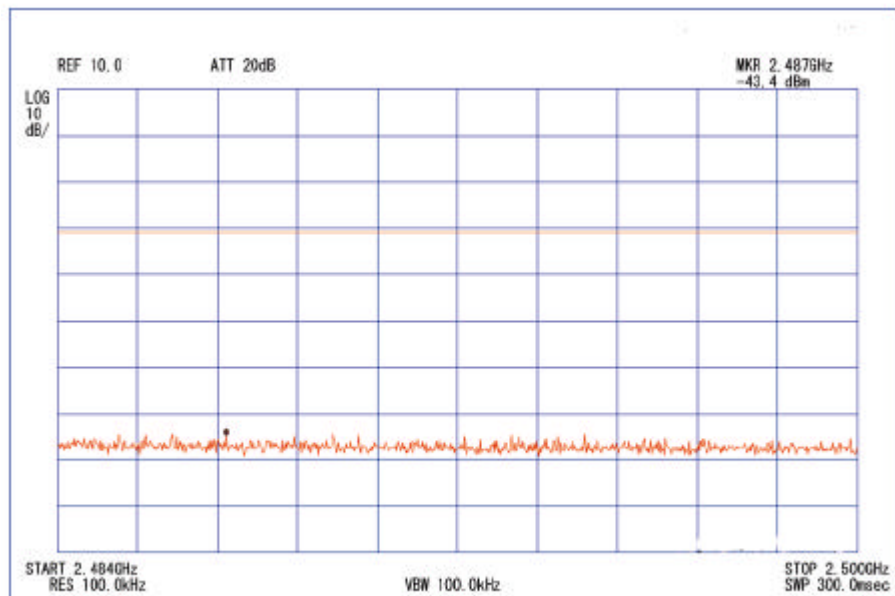
**1000-2390MHz**



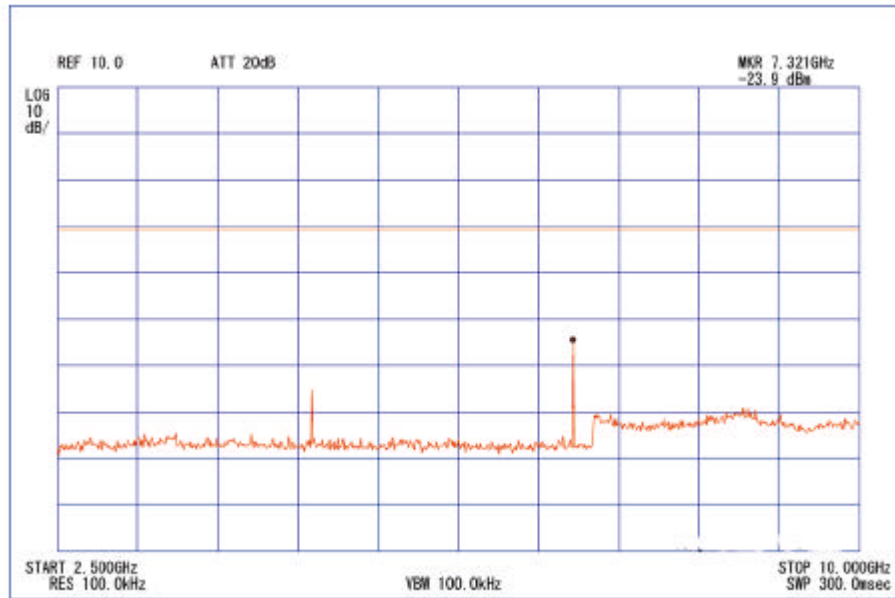
## 2390-2483.5MHz



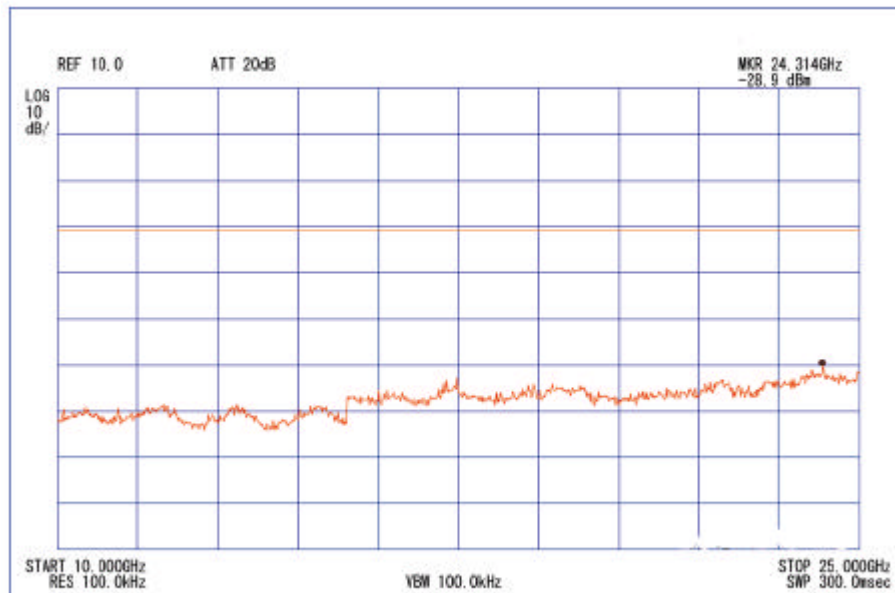
## 2483.5MHz - 2.5GHz



## 2.5GHz - 10GHz

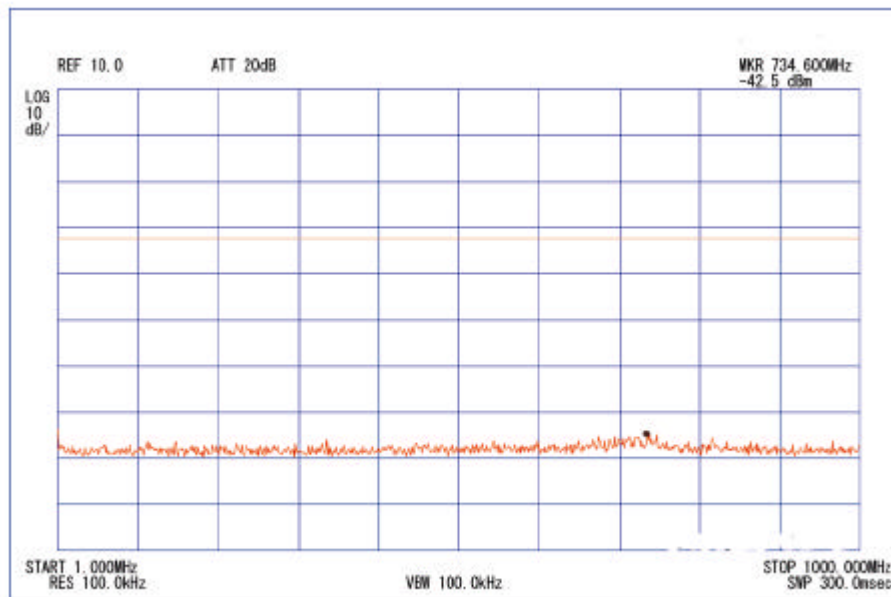


## 10GHz - 25GHz

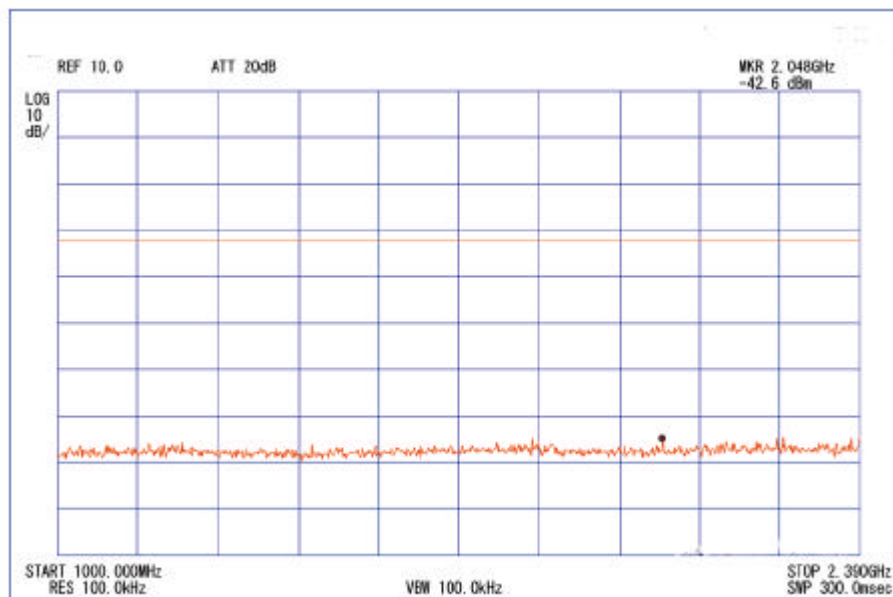


Channel High : 2480.0MHz [Channel 79]

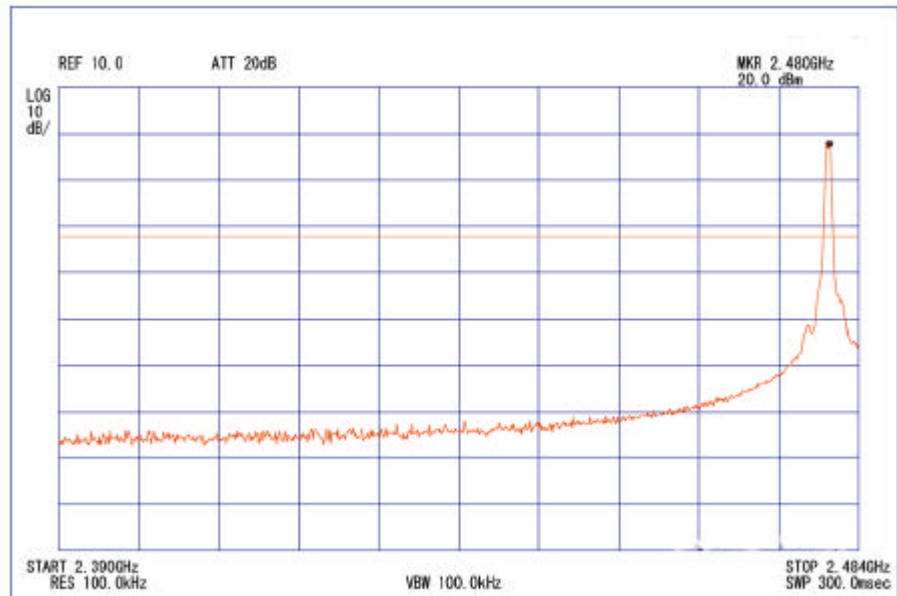
1-1000MHz



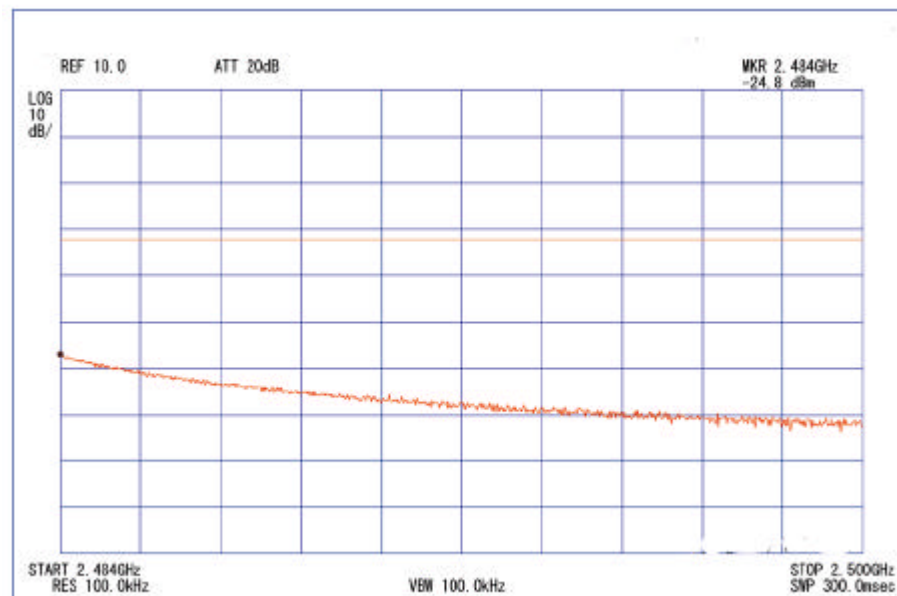
1000-2390MHz



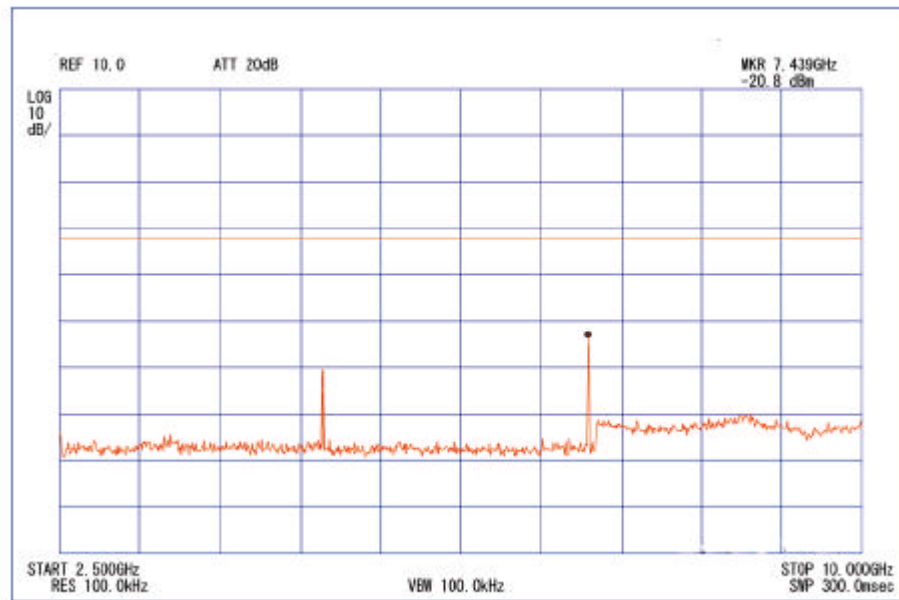
## 2390-2483.5MHz



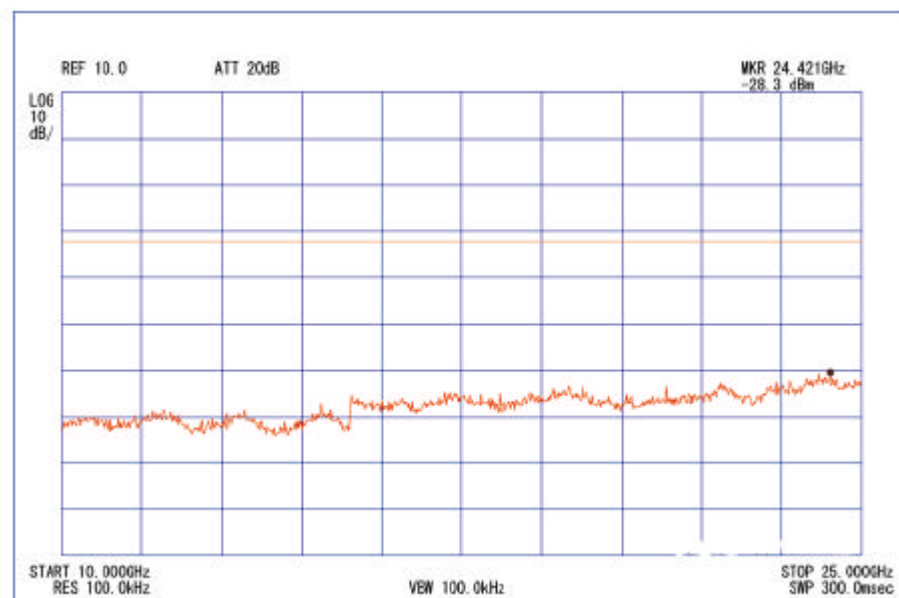
## 2483.5MHz - 2.5GHz



## 2.5GHz - 10GHz



## 10GHz - 25GHz



## ***Appendix H***

---

### ***Appendix H***

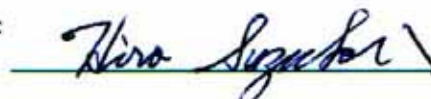
#### ***Suprious Emissions - Radiated - Data***

\*\*\*\*\* RADIATED EMISSION \*\*\*\*\*

Standard : FCC Part 15 Subpart C  
Class :  
Distance [m] : 3  
Date of test : 2003/4/24  
Test site : 2  
Temperature [°C] : 20.1  
Humidity [%] : 53.6  
Operator : H.Suzuki  
Company name : Seiko Instruments Inc.  
Product name : Thermal printer  
Product ID : MPU-L465  
Serial number : N/A  
Test mode : Test mode  
Comment :

Sheet number : 1

Signature :



| Antenna                          | Table  | Reading | Factor    | Emission              | Limit  | Margin                  |                              |
|----------------------------------|--------|---------|-----------|-----------------------|--------|-------------------------|------------------------------|
| Pol.                             | Height | Radian  | Frequency | Level                 | Level  |                         | Comment                      |
| HOR/VER                          | [m]    | [Deg.]  | [MHz]     | [dB <sub>v</sub> , V] | [dB/m] | [dB <sub>v</sub> , V/m] | [dB <sub>v</sub> , V/m] [dB] |
| Test mode(No hopping Channel 1)  |        |         |           |                       |        |                         |                              |
| VER                              | 1.0    | 100     | 42.05     | 37.8                  | -13.9  | 23.9                    | 40.0 16.1                    |
| HOR                              | 1.4    | 5       | 4804.50   | 36.5                  | 7.7    | 44.2                    | 74.0 29.8 PEAK               |
| HOR                              | 1.4    | 5       | 4804.50   | 24.8                  | 7.7    | 32.5                    | 54.0 21.5 AVERAGE            |
| VER                              | 1.4    | 5       | 7206.40   | 35.9                  | 12.5   | 48.4                    | 74.0 25.6 PEAK               |
| VER                              | 1.4    | 5       | 7206.40   | 24.3                  | 12.5   | 36.8                    | 54.0 17.2 AVERAGE            |
| HOR                              | 1.4    | 250     | 7206.70   | 38.0                  | 12.5   | 50.5                    | 74.0 23.5 PEAK               |
| HOR                              | 1.4    | 250     | 7206.70   | 26.7                  | 12.5   | 39.2                    | 54.0 14.8 * AVERAGE          |
| Test mode(No hopping Channel 40) |        |         |           |                       |        |                         |                              |
| VER                              | 1.0    | 95      | 42.05     | 37.7                  | -13.9  | 23.8                    | 40.0 16.2                    |
| HOR                              | 1.4    | 0       | 4881.80   | 37.2                  | 7.7    | 44.9                    | 74.0 29.1 PEAK               |
| HOR                              | 1.4    | 0       | 4881.80   | 25.8                  | 7.7    | 33.5                    | 54.0 20.5 AVERAGE            |
| VER                              | 1.4    | 0       | 7323.70   | 36.1                  | 12.8   | 48.9                    | 74.0 25.1 PEAK               |
| VER                              | 1.4    | 0       | 7323.70   | 24.5                  | 12.8   | 37.3                    | 54.0 16.7 AVERAGE            |
| HOR                              | 1.5    | 305     | 7323.70   | 37.6                  | 12.8   | 50.4                    | 74.0 23.6 PEAK               |
| HOR                              | 1.5    | 305     | 7323.70   | 26.4                  | 12.8   | 39.2                    | 54.0 14.8 * AVERAGE          |
| Test mode(No hopping Channel 79) |        |         |           |                       |        |                         |                              |
| VER                              | 1.0    | 100     | 42.05     | 37.8                  | -13.9  | 23.9                    | 40.0 16.1                    |
| HOR                              | 1.5    | 30      | 4960.50   | 38.0                  | 8.1    | 46.1                    | 74.0 27.9 PEAK               |
| HOR                              | 1.5    | 30      | 4960.50   | 26.5                  | 8.1    | 34.6                    | 54.0 19.4 AVERAGE            |
| VER                              | 1.4    | 10      | 7440.70   | 35.7                  | 13.0   | 48.7                    | 74.0 25.3 PEAK               |
| VER                              | 1.4    | 10      | 7440.70   | 24.3                  | 13.0   | 37.3                    | 54.0 16.7 AVERAGE            |
| HOR                              | 1.5    | 310     | 7440.70   | 36.8                  | 13.0   | 49.8                    | 74.0 24.2 PEAK               |
| HOR                              | 1.5    | 310     | 7440.70   | 25.5                  | 13.0   | 38.5                    | 54.0 15.5 AVERAGE            |

\* : The worst emission.

Factor: Antenna Factor + Cable Loss - Amp Gain

Ver.2.61 F2#009

***Appendix I***

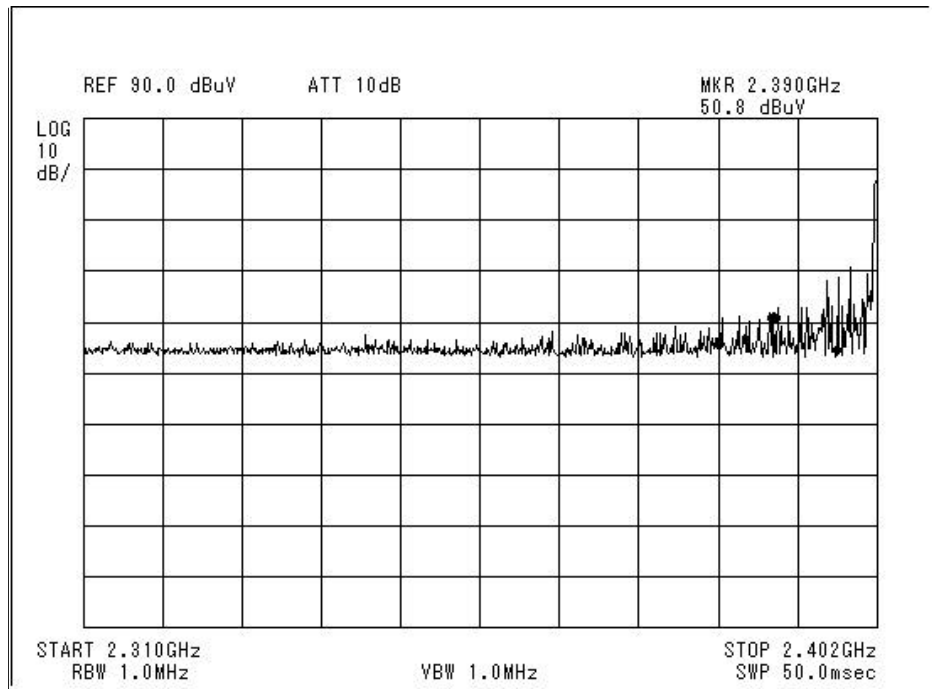
---

***Appendix I***

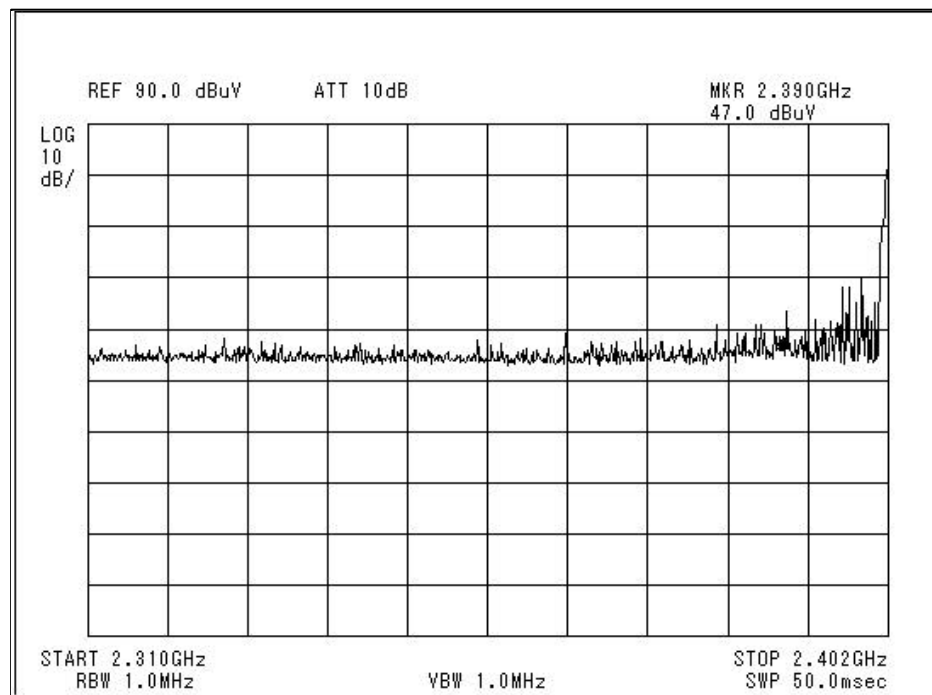
***Restricted Band of Operation***

***Trace data***

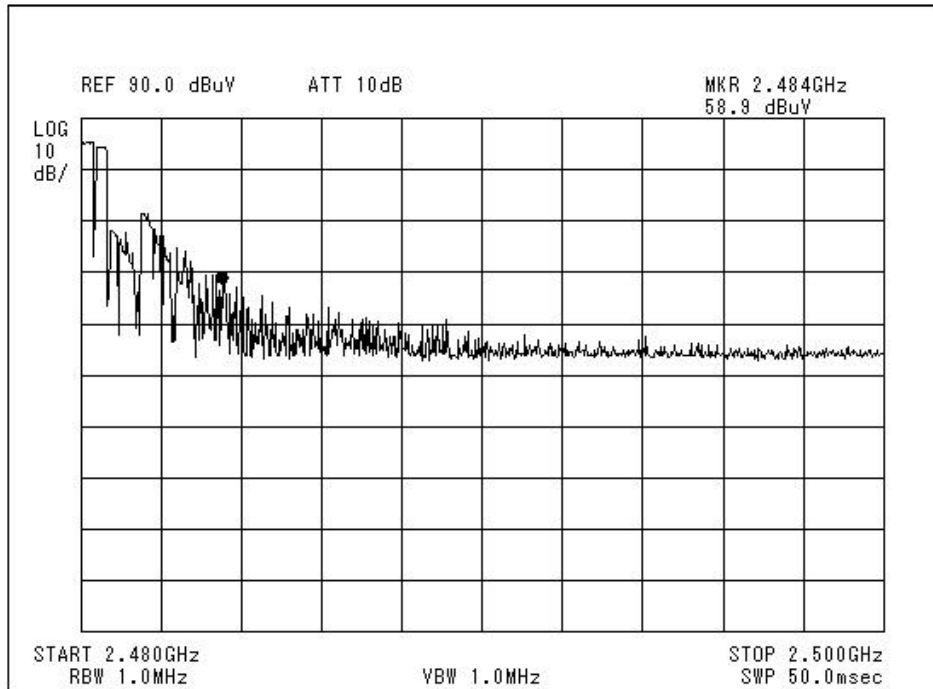
- 2390.0MHz Horizontal -



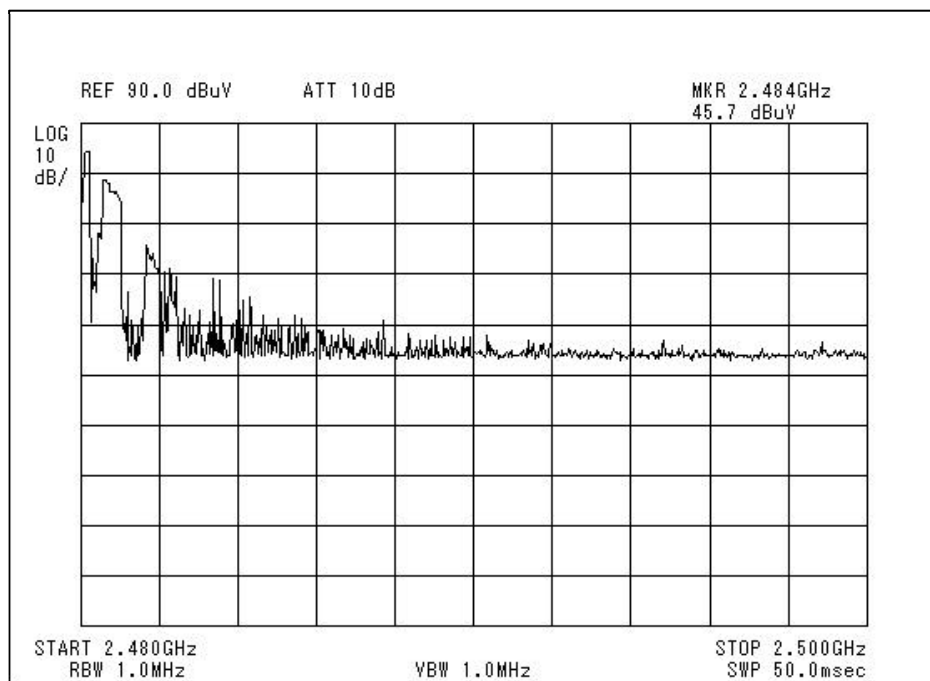
- 2390.0MHz Vartical -



- 2483.5MHz Horizontal -



- 2483.5MHz Vartical -



## ***Appendix J***

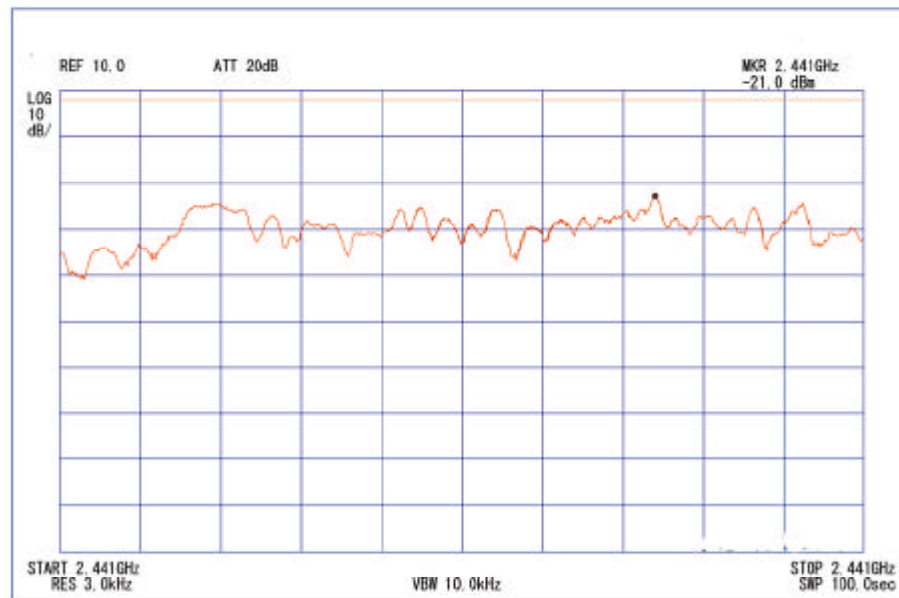
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### ***Appendix J***

#### ***Transmitter Power Spectral Density***

#### ***Trace data***

- Inquiry mode -



## ***Appendix K***

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|                                                                                                   |
|---------------------------------------------------------------------------------------------------|
| <p><b><i>Appendix K</i></b></p> <p><b><i>Conducted emission</i></b></p> <p><b><i>Data</i></b></p> |
|---------------------------------------------------------------------------------------------------|

\*\*\*\*\* CONDUCTED EMISSION at MAIN PORT \*\*\*\*\*

Standard : FCC Part15 Subpart C  
Class :

Sheet number : 1

Date of test : 2003/4/22  
Test site : 2  
Temperature [°C] : 20.4  
Humidity [%] : 22.9  
Operator : H.Suzuki  
Company name : Seiko Instruments Inc.  
EUT : Thermal printer  
Model number : MPU-L465  
Serial number : N/A  
Test mode : Test mode  
Comment :

Signature :



| Phase | Frequency<br>[MHz] | Reading      |              | Factor<br>[dB] | Emission level |              | Limit        |              | Margin     |            | Comment |
|-------|--------------------|--------------|--------------|----------------|----------------|--------------|--------------|--------------|------------|------------|---------|
|       |                    | QP<br>[dBμV] | AV<br>[dBμV] |                | QP<br>[dBμV]   | AV<br>[dBμV] | QP<br>[dBμV] | AV<br>[dBμV] | QP<br>[dB] | AV<br>[dB] |         |
| L1    | 0.184              | 54.7         | 38.7         | 0.1            | 54.8           | 38.8         | 64.3         | 54.3         | 9.5        | 15.5       | *       |
| L1    | 0.256              | 45.0         | 30.2         | 0.1            | 45.1           | 30.3         | 61.6         | 51.6         | 16.5       | 21.3       |         |
| L1    | 0.307              | 45.5         | 29.8         | 0.1            | 45.6           | 29.9         | 60.1         | 50.1         | 14.5       | 20.2       |         |
| L1    | 0.367              | 42.8         | 29.9         | 0.1            | 42.9           | 30.0         | 58.6         | 48.6         | 15.7       | 18.6       |         |
| L1    | 4.114              | 38.4         | 30.1         | 0.2            | 38.6           | 30.3         | 56.0         | 46.0         | 17.4       | 15.7       |         |
| L1    | 19.287             | 44.1         | 37.0         | 0.6            | 44.7           | 37.6         | 60.0         | 50.0         | 15.3       | 12.4       |         |
| L2    | 0.183              | 53.8         | 38.1         | 0.1            | 53.9           | 38.2         | 64.3         | 54.3         | 10.4       | 16.1       |         |
| L2    | 0.245              | 44.7         | 30.4         | 0.1            | 44.8           | 30.5         | 61.9         | 51.9         | 17.1       | 21.4       |         |
| L2    | 0.307              | 45.8         | 32.0         | 0.1            | 45.9           | 32.1         | 60.1         | 50.1         | 14.2       | 18.0       |         |
| L2    | 0.367              | 43.4         | 32.1         | 0.1            | 43.5           | 32.2         | 58.6         | 48.6         | 15.1       | 16.4       |         |
| L2    | 4.114              | 38.3         | 29.4         | 0.2            | 38.5           | 29.6         | 56.0         | 46.0         | 17.5       | 16.4       |         |
| L2    | 19.284             | 42.1         | 34.6         | 0.6            | 42.7           | 35.2         | 60.0         | 50.0         | 17.3       | 14.8       |         |

\*: The worst emission. Factor: AMN Factor + Cable Loss

Ver.2.61 F2#009

\*\*\*\*\* CONDUCTED EMISSION \*\*\*\*\*

Standard : RSS-210  
Class :

Sheet Number : 2

Date of test : 2003/4/22  
Test Site : 2  
Temperature [℃] : 20.4  
Humidity [%] : 22.9  
Operator : H.Suzuki  
Company Name : Seiko Instruments Inc.  
EUT : Thermal printer  
Model Number : MPU-L465  
Serial Number : N/A  
Test Mode : Test mode  
Comment :

Signature : 

| Phase | Frequency<br>[MHz] | Reading      |              | Factor | Emission Level |              | Limit        |              | Margin     |            | Comment |
|-------|--------------------|--------------|--------------|--------|----------------|--------------|--------------|--------------|------------|------------|---------|
|       |                    | QP<br>[dBμV] | AV<br>[dBμV] |        | QP<br>[dBμV]   | AV<br>[dBμV] | QP<br>[dBμV] | AV<br>[dBμV] | QP<br>[dB] | AV<br>[dB] |         |
| L1    | 0.522              | 27.5         |              | 0.1    | 27.6           |              | 48.0         |              | 20.4       |            |         |
| L1    | 0.682              | 21.3         |              | 0.1    | 21.4           |              | 48.0         |              | 26.6       |            |         |
| L1    | 1.033              | 22.5         |              | 0.1    | 22.6           |              | 48.0         |              | 25.4       |            |         |
| L1    | 3.014              | 26.7         |              | 0.2    | 26.9           |              | 48.0         |              | 21.1       |            |         |
| L1    | 4.114              | 38.4         |              | 0.2    | 38.6           |              | 48.0         |              | 9.4        |            |         |
| L1    | 19.287             | 44.1         |              | 0.6    | 44.7           |              | 48.0         |              | 3.3        |            |         |
| L2    | 0.522              | 27.3         |              | 0.1    | 27.4           |              | 48.0         |              | 20.6       |            |         |
| L2    | 0.683              | 20.2         |              | 0.1    | 20.3           |              | 48.0         |              | 27.7       |            |         |
| L2    | 1.035              | 25.3         |              | 0.1    | 25.4           |              | 48.0         |              | 22.6       |            |         |
| L2    | 3.022              | 28.7         |              | 0.2    | 28.9           |              | 48.0         |              | 19.1       |            |         |
| L2    | 4.114              | 38.3         |              | 0.2    | 38.5           |              | 48.0         |              | 9.5        |            |         |
| L2    | 19.284             | 42.1         |              | 0.6    | 42.7           |              | 48.0         |              | 5.3        |            |         |

\*: The worst emission. Factor: LISN Factor + Cable Loss

Ver.2.40 #REF!