


















## 12. Frequency Stability Measurement

### 12.1. Block Diagram of Test Setup

Same as section 8.1

### 12.2. Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

### 12.3. Test Procedures

(1) To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
(2) The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10 dB lower than the measured peak value.
(3) The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

### 12.4. Test Result

|  |  |  |  | Voltag |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Test <br> Mode | Ant. | Freq. (MHz) | Voltage (Vdc) | Temper ature ( ${ }^{\circ} \mathrm{C}$ ) | $\begin{aligned} & \text { Deviation } \\ & (\mathrm{Hz}) \end{aligned}$ | Deviation (ppm) | $\begin{aligned} & \text { Limit } \\ & (\mathrm{ppm}) \end{aligned}$ | Verdict |
| 11A | Ant1 | 5180 | NV | NT | -19200.00 | -3.706564 | 20 | PASS |
|  |  |  | LV | NT | -16800.00 | -3.243243 | 20 | PASS |
|  |  |  | HV | NT | -16200.00 | -3.127413 | 20 | PASS |
|  |  | 5200 | NV | NT | -16500.00 | -3.173077 | 20 | PASS |
|  |  |  | LV | NT | -14700.00 | -2.826923 | 20 | PASS |
|  |  |  | HV | NT | -12900.00 | -2.480769 | 20 | PASS |
|  |  | 5240 | NV | NT | -19800.00 | -3.778626 | 20 | PASS |
|  |  |  | LV | NT | -16800.00 | -3.206107 | 20 | PASS |
|  |  |  | HV | NT | -14700.00 | -2.805344 | 20 | PASS |
|  |  | 5260 | NV | NT | -16200.00 | -3.079848 | 20 | PASS |
|  |  |  | LV | NT | -13200.00 | -2.509506 | 20 | PASS |
|  |  |  | HV | NT | -11400.00 | -2.167300 | 20 | PASS |
|  |  | 5280 | NV | NT | -17400.00 | -3.295455 | 20 | PASS |
|  |  |  | LV | NT | -12600.00 | -2.386364 | 20 | PASS |
|  |  |  | HV | NT | -11400.00 | -2.159091 | 20 | PASS |
|  |  | 5320 | NV | NT | -18000.00 | -3.383459 | 20 | PASS |
|  |  |  | LV | NT | -17100.00 | -3.214286 | 20 | PASS |
|  |  |  | HV | NT | -12900.00 | -2.424812 | 20 | PASS |
|  |  | 5500 | NV | NT | -9900.00 | -1.800000 | 20 | PASS |
|  |  |  | LV | NT | -8100.00 | -1.472727 | 20 | PASS |
|  |  |  | HV | NT | -6900.00 | -1.254545 | 20 | PASS |
|  |  | 5580 | NV | NT | -23700.00 | -4.247312 | 20 | PASS |
|  |  |  | LV | NT | -19500.00 | -3.494624 | 20 | PASS |
|  |  |  | HV | NT | -18600.00 | -3.333333 | 20 | PASS |
|  |  | 5700 | NV | NT | -14100.00 | -2.473684 | 20 | PASS |
|  |  |  | LV | NT | -10500.00 | -1.842105 | 20 | PASS |
|  |  |  | HV | NT | -8400.00 | -1.473684 | 20 | PASS |
|  |  | 5720 | NV | NT | -13200.00 | -2.307692 | 20 | PASS |
|  |  |  | LV | NT | -9600.00 | -1.678322 | 20 | PASS |
|  |  |  | HV | NT | -9600.00 | -1.678322 | 20 | PASS |
|  |  | 5745 | NV | NT | -13500.00 | -2.349869 | 20 | PASS |
|  |  |  | LV | NT | -10500.00 | -1.827676 | 20 | PASS |

