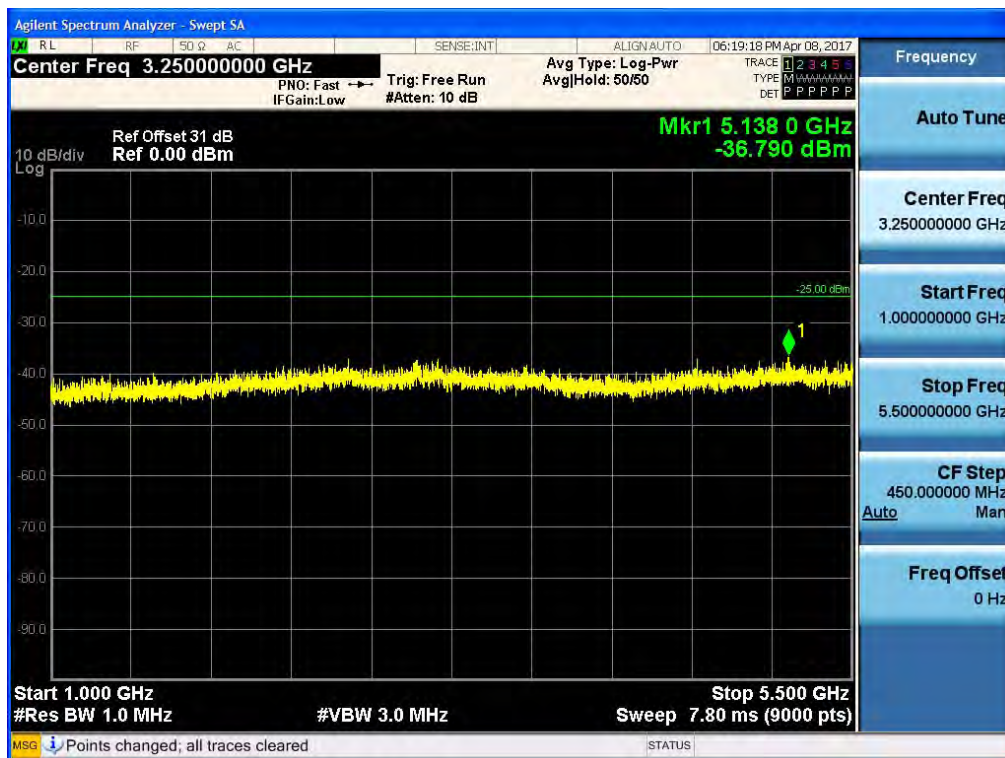
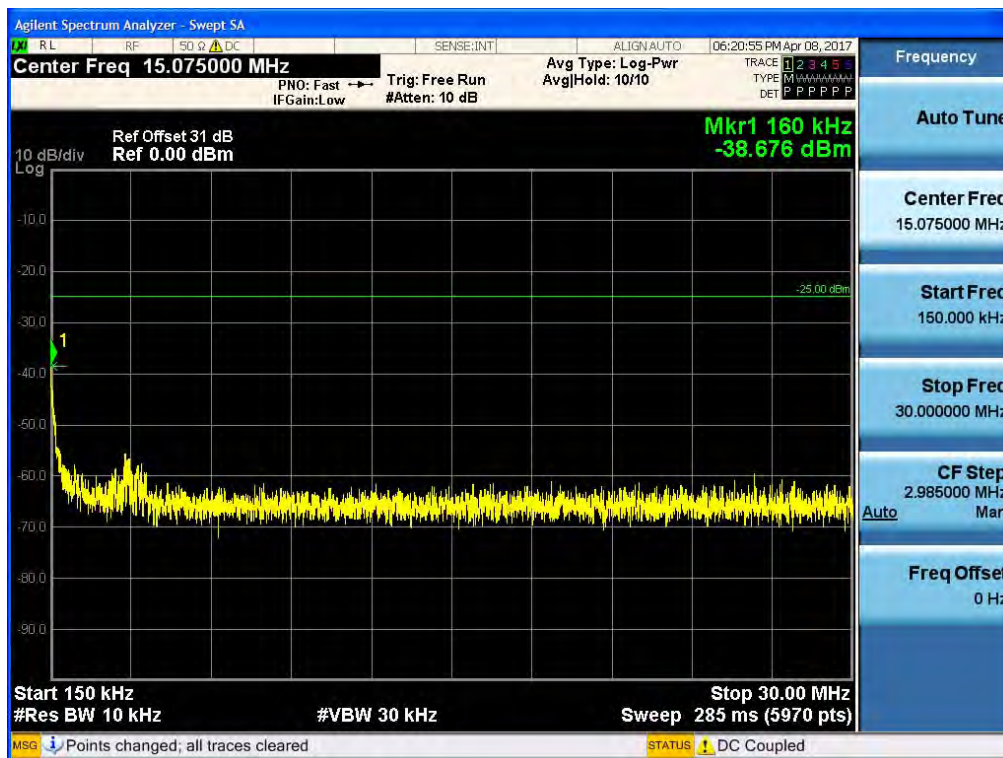
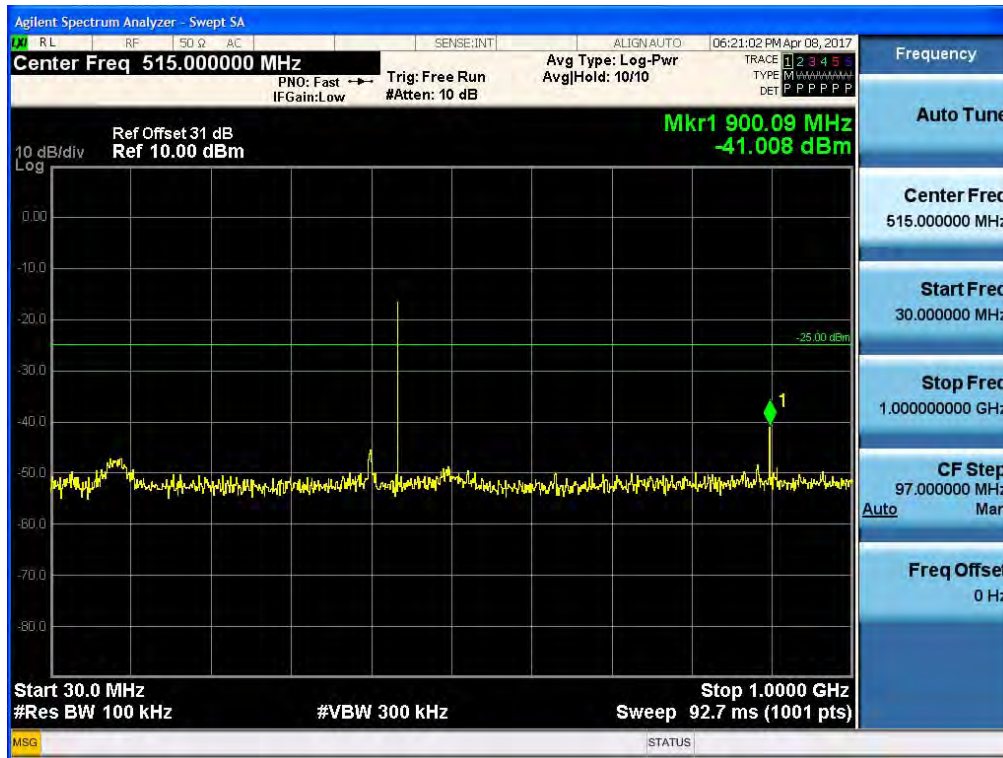




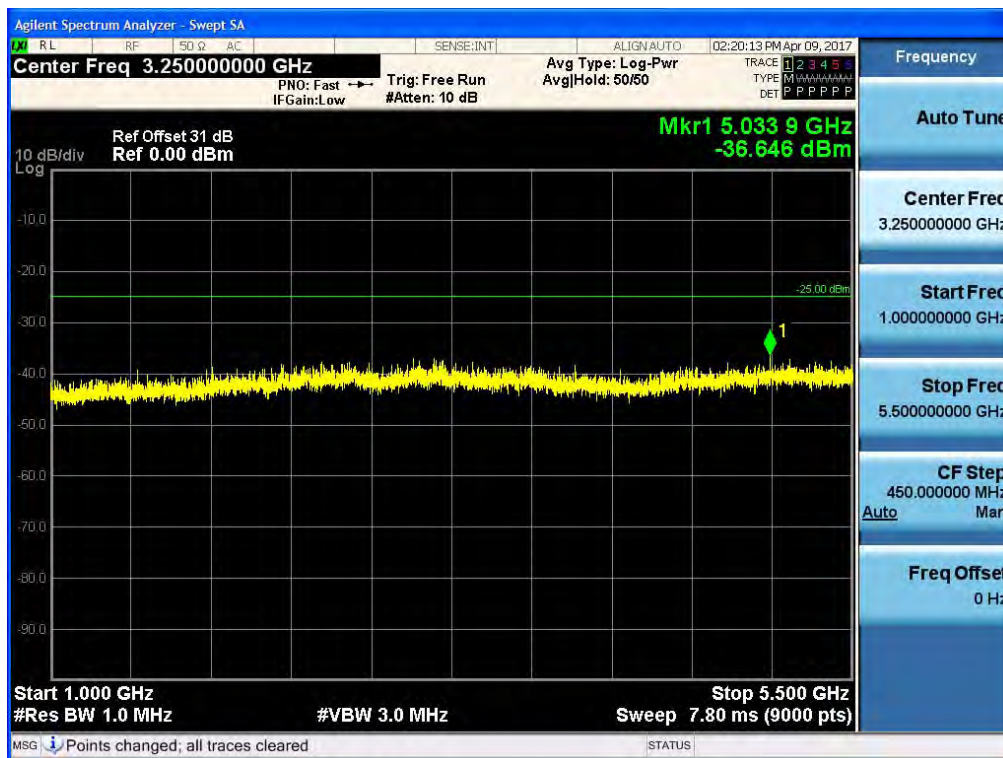
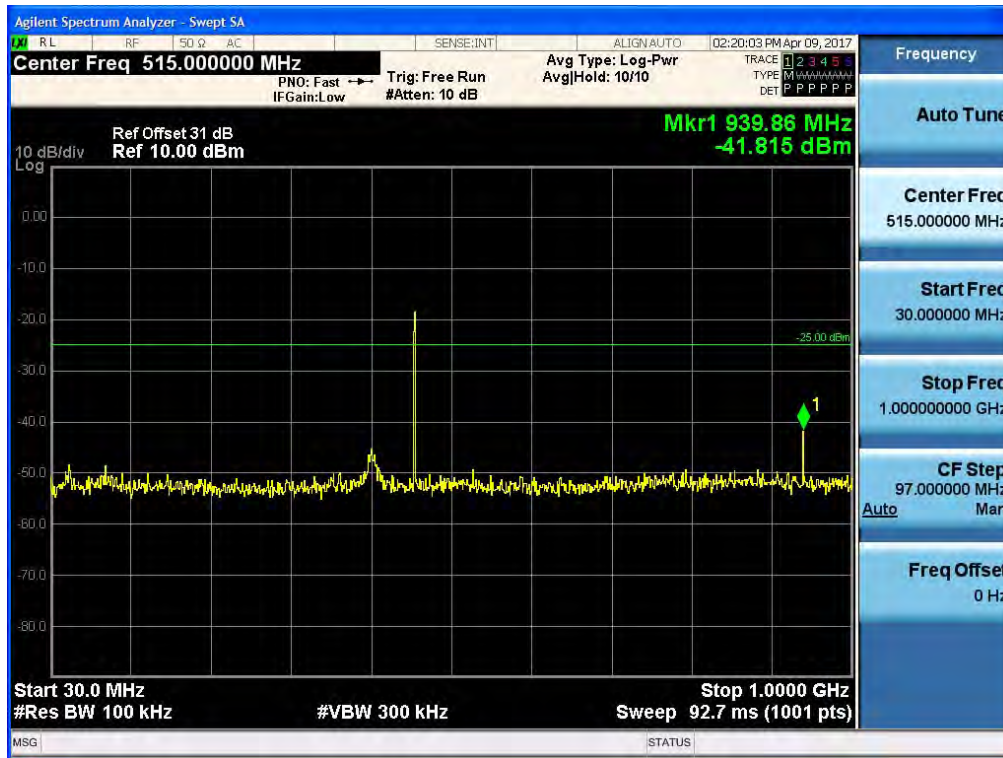
(4K00F1E, 4K00F1D, 4K00F7W \_ 450.05 MHz)\_Low



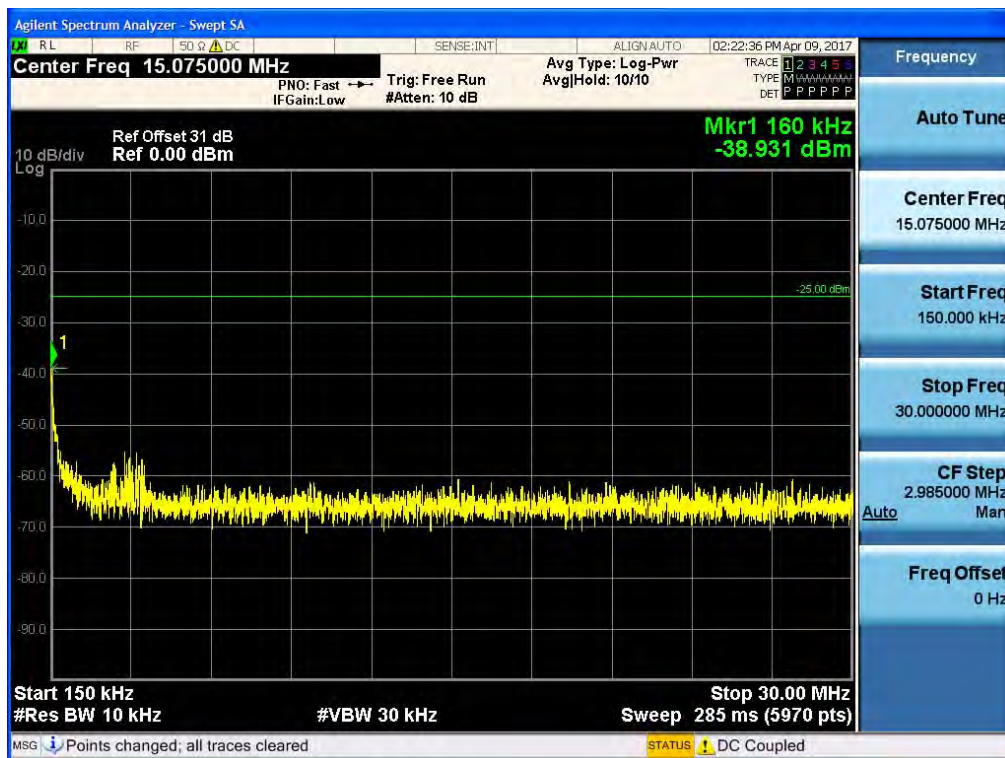


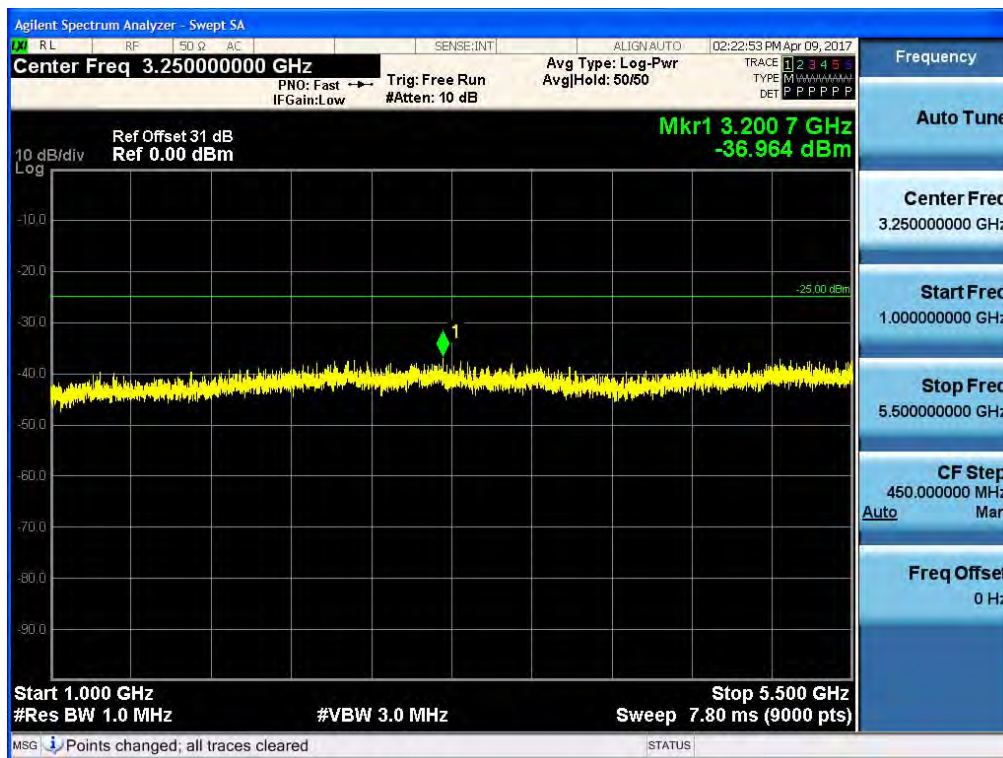
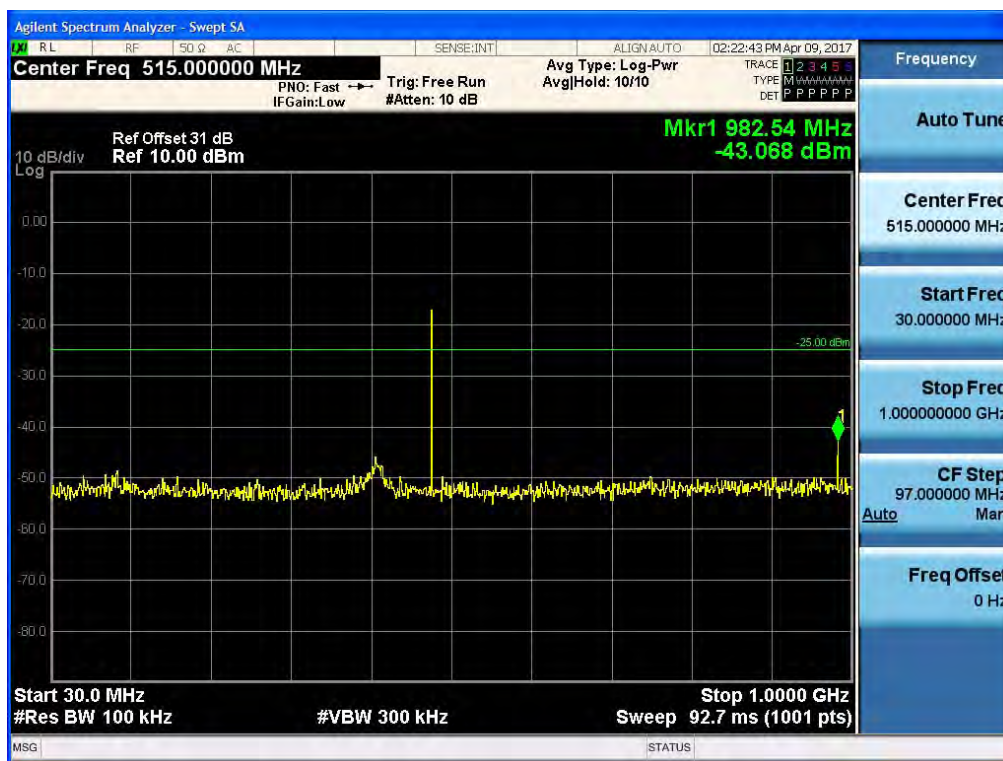
(4K00F1E, 4K00F1D, 4K00F7W \_ 469.95 MHz)\_Low



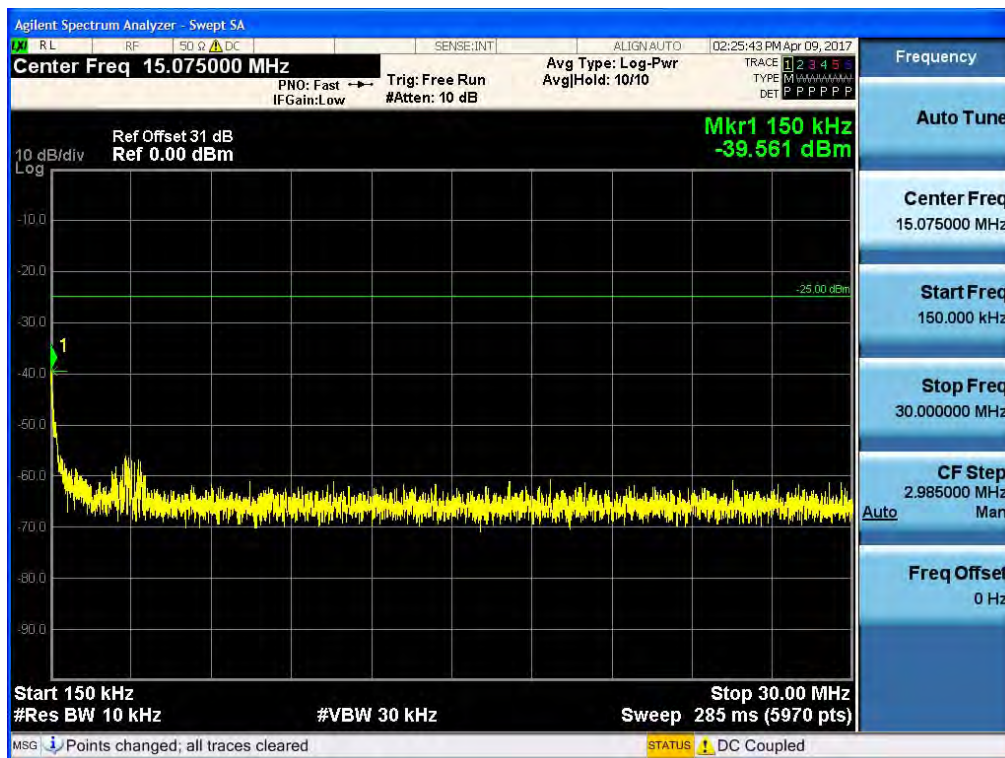


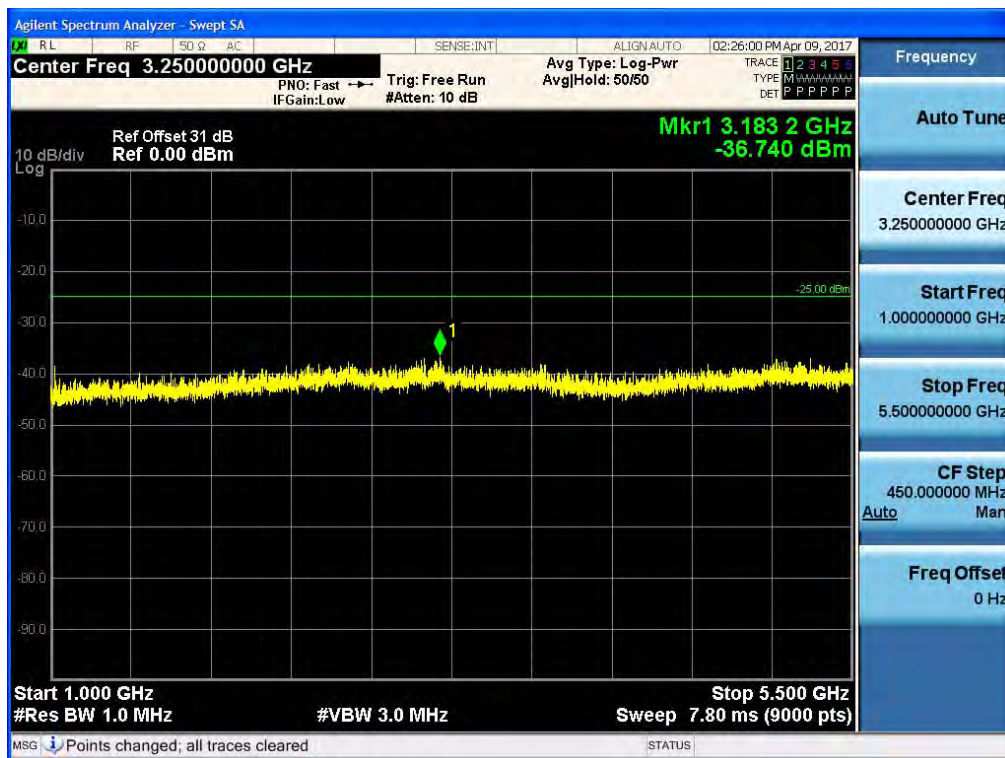
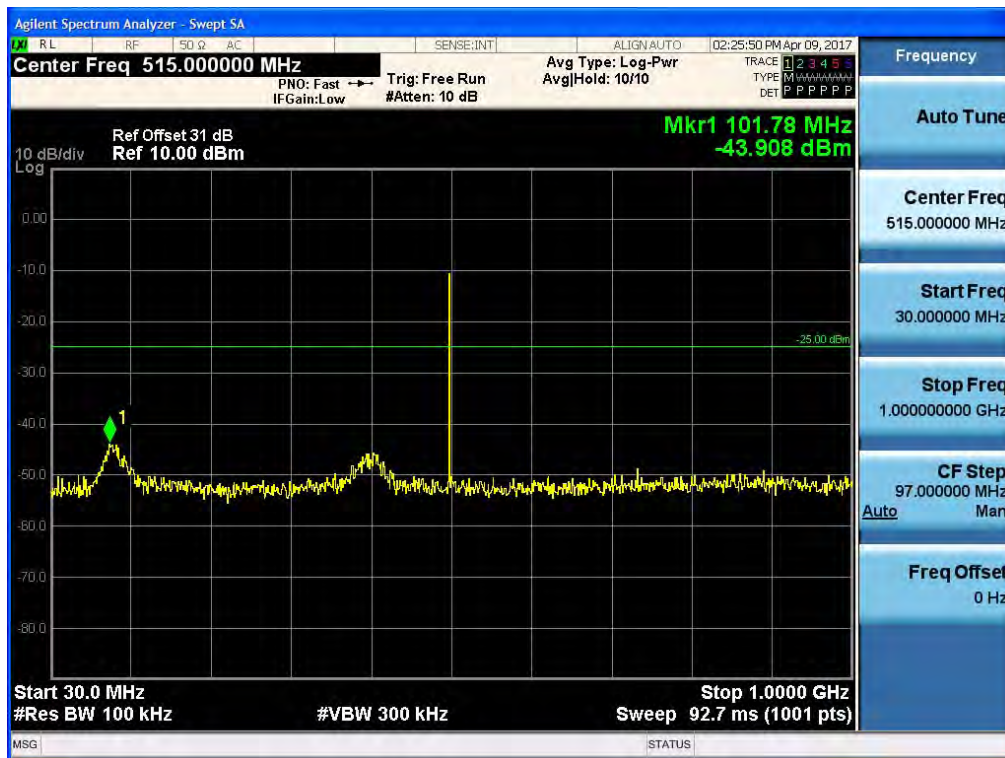
(4K00F1E, 4K00F1D, 4K00F7W \_ 491.05 MHz)\_Low



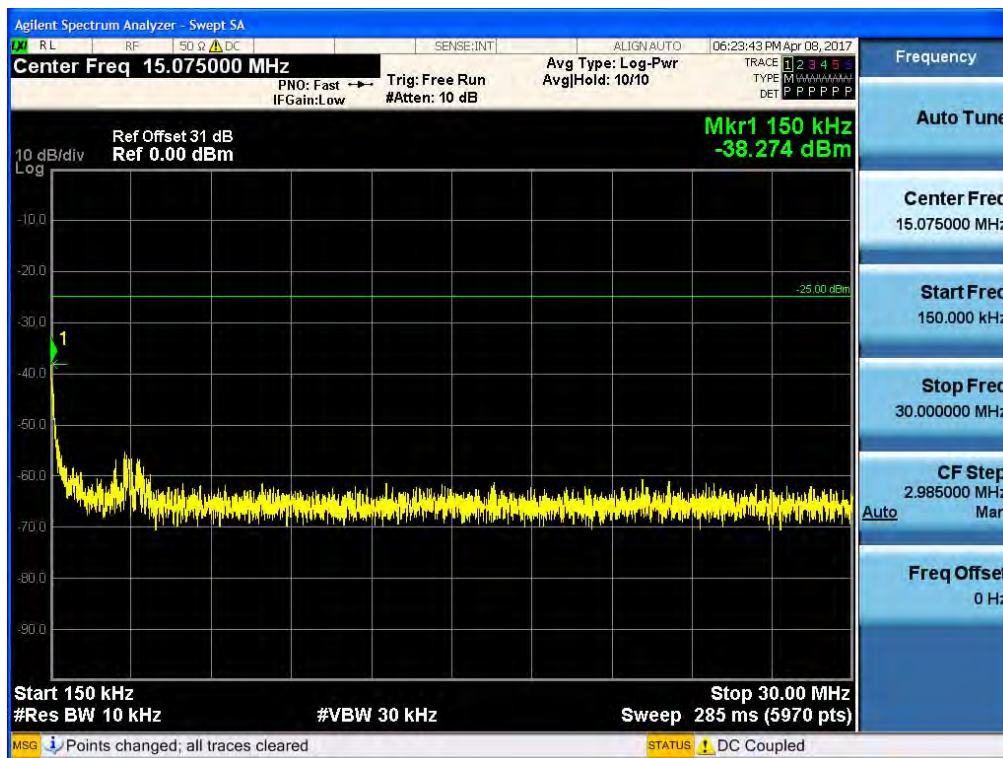


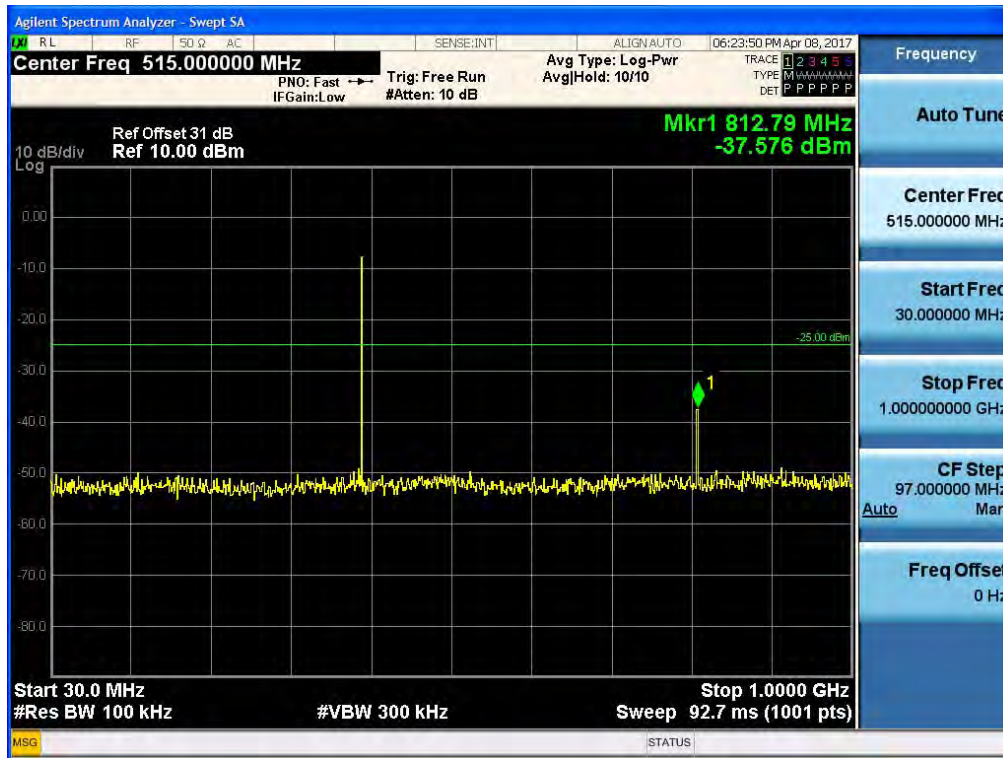
(4K00F1E, 4K00F1D, 4K00F7W \_ 511.95 MHz)\_Low



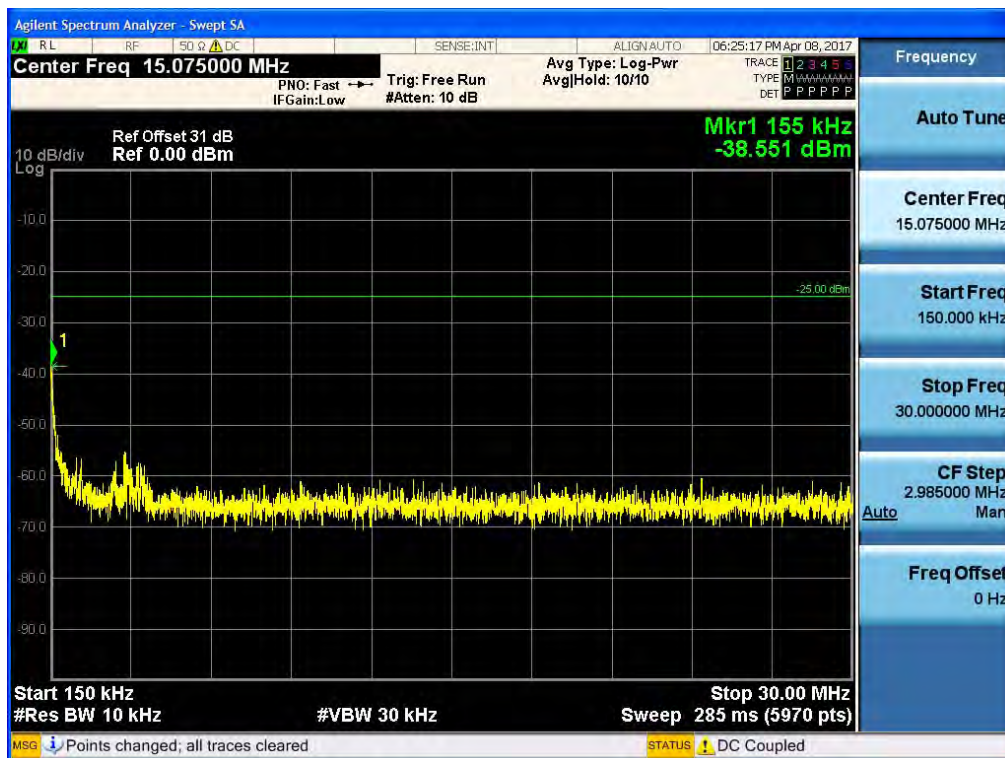


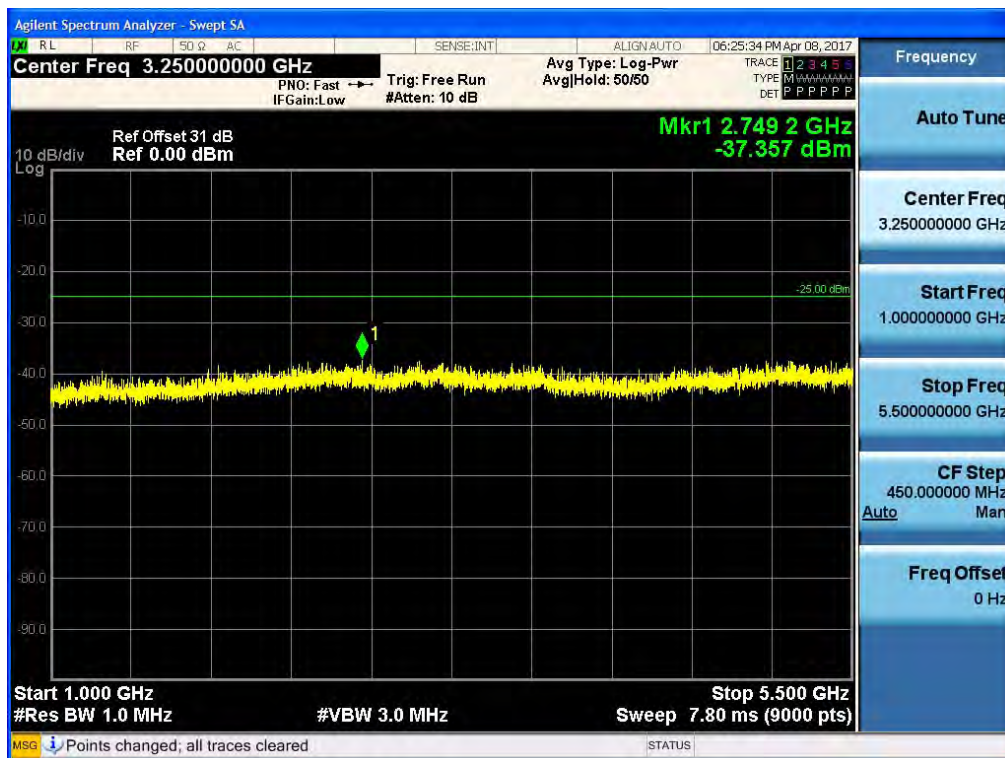
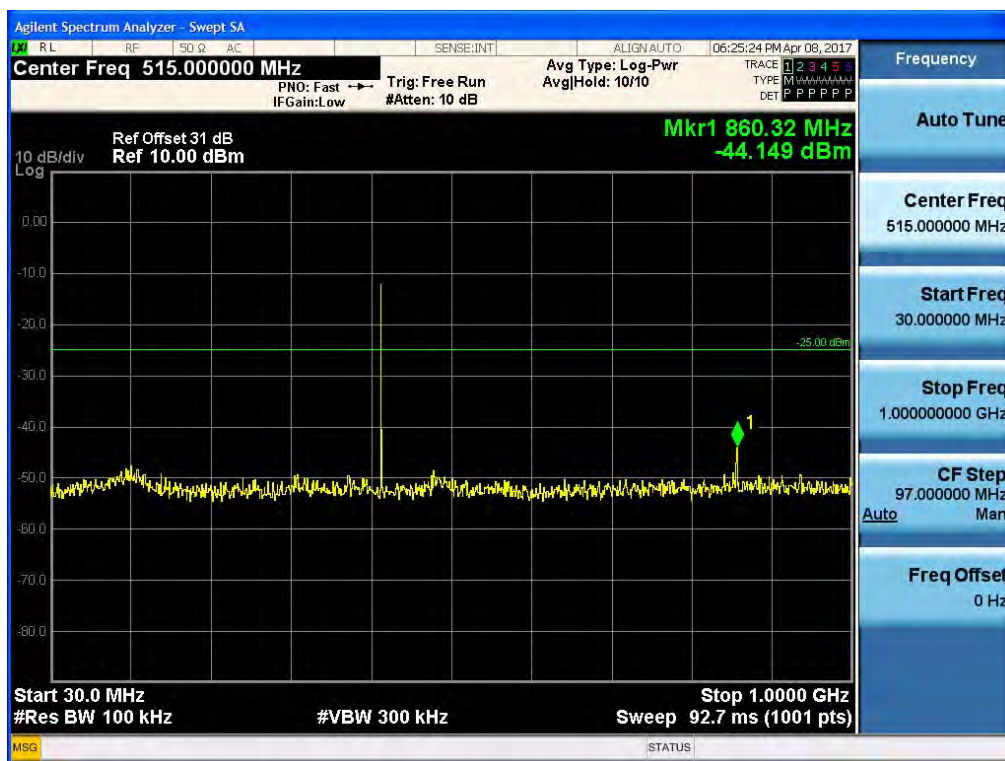
(4K00F2D\_ 406.15 MHz)\_Low



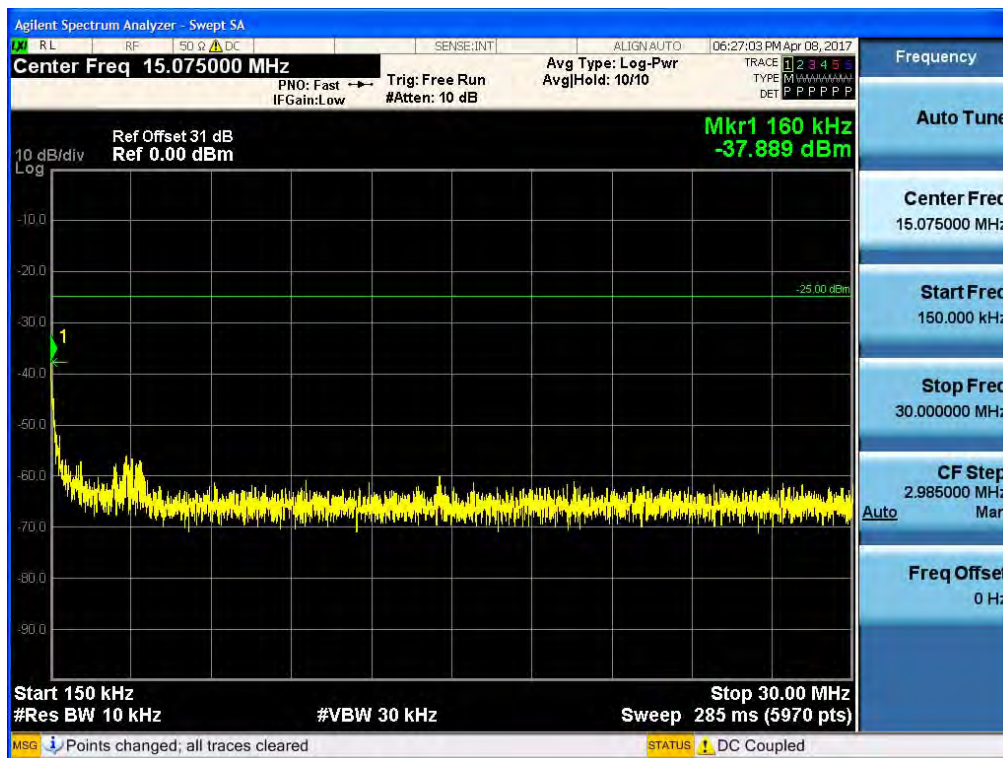


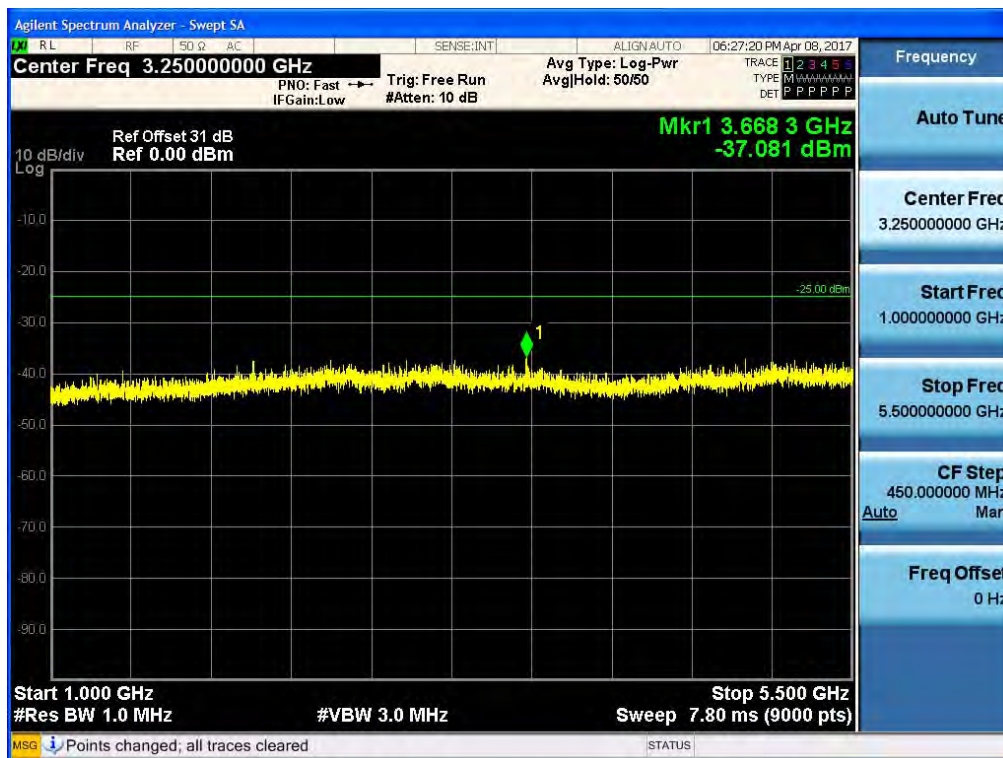
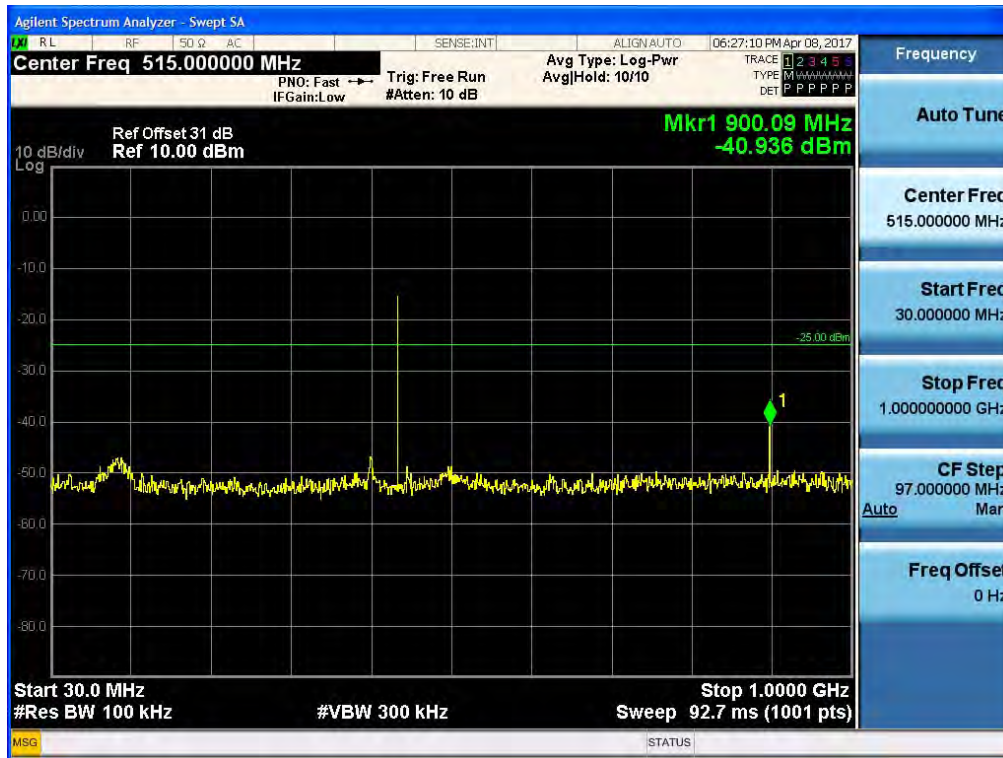
(4K00F2D\_ 429.95 MHz)\_Low



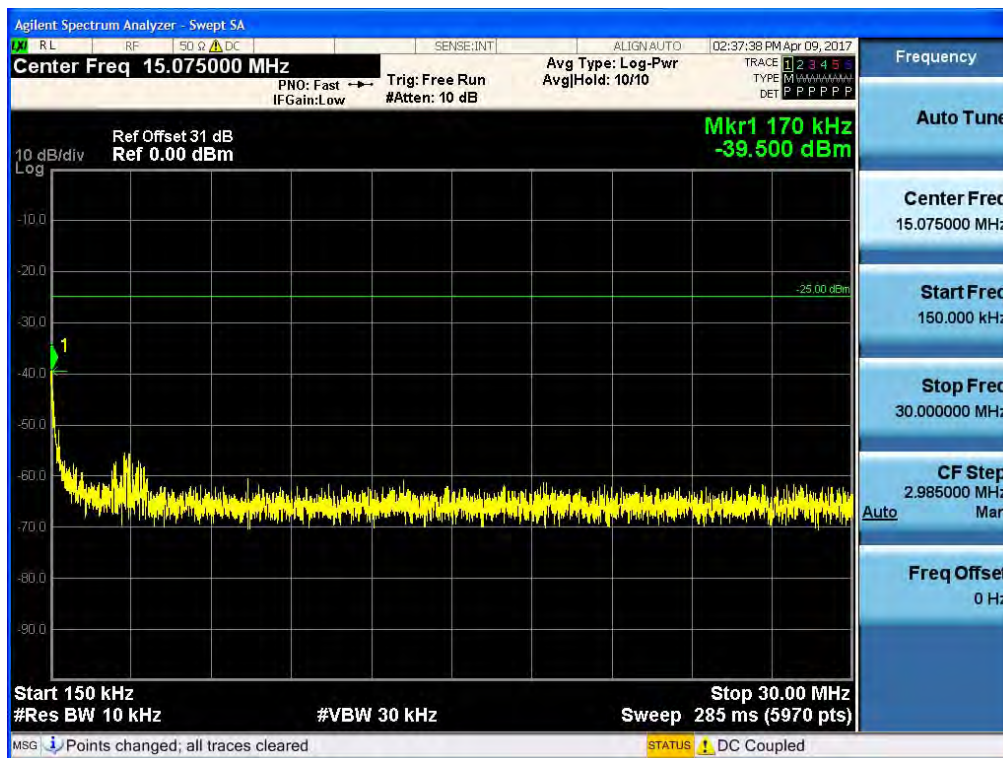
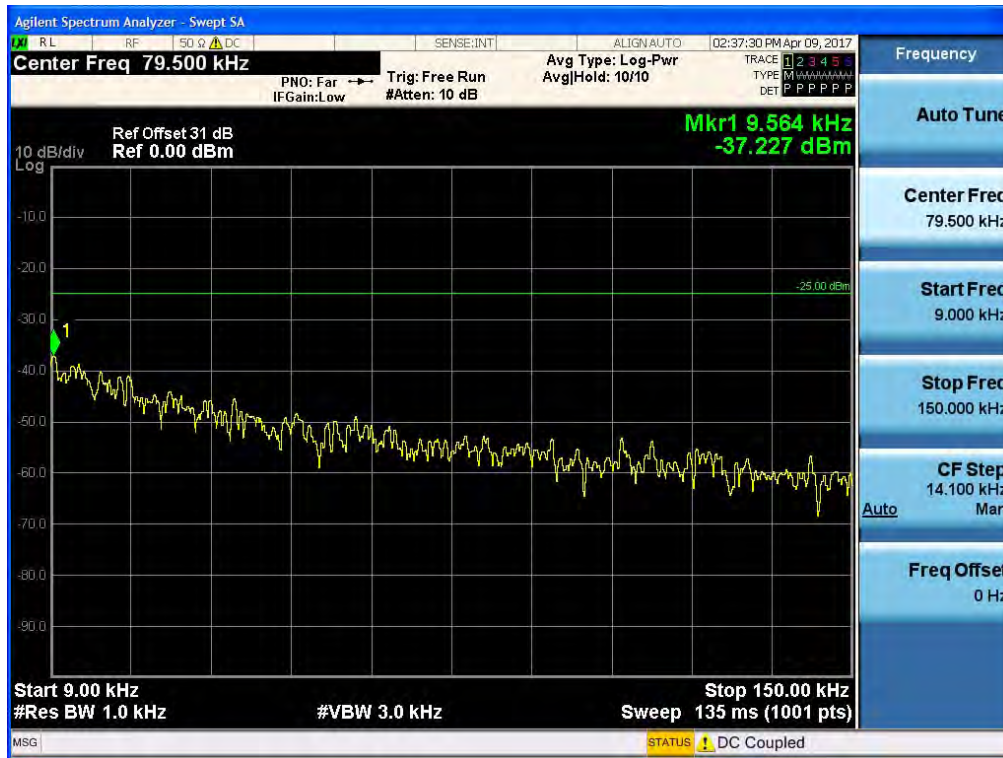


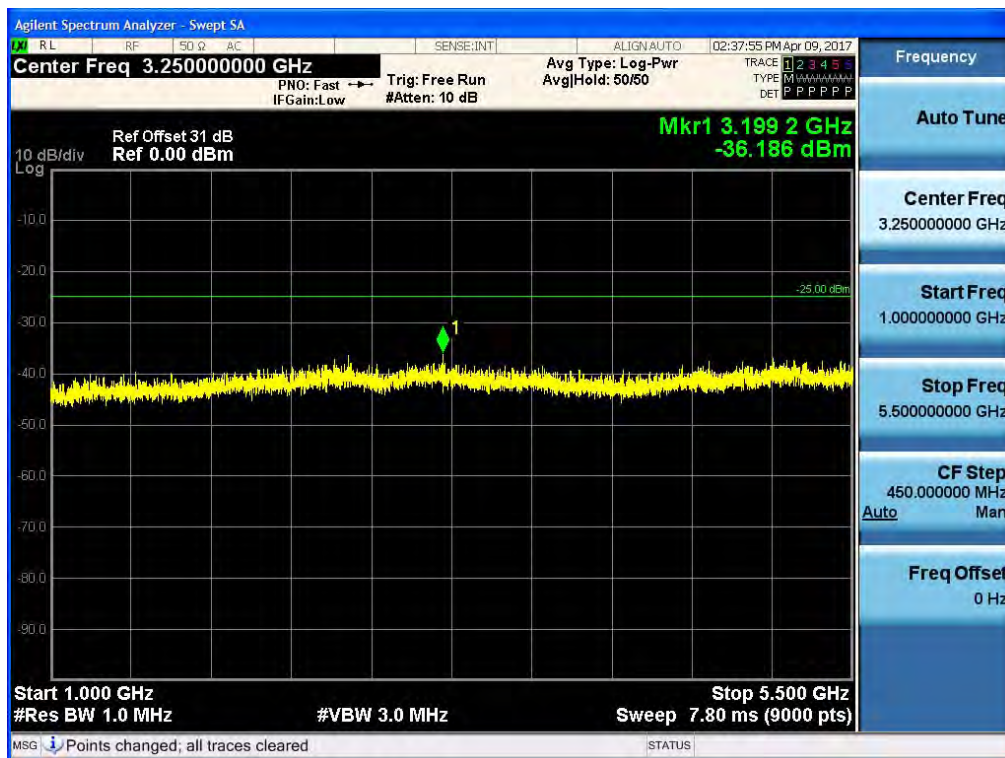
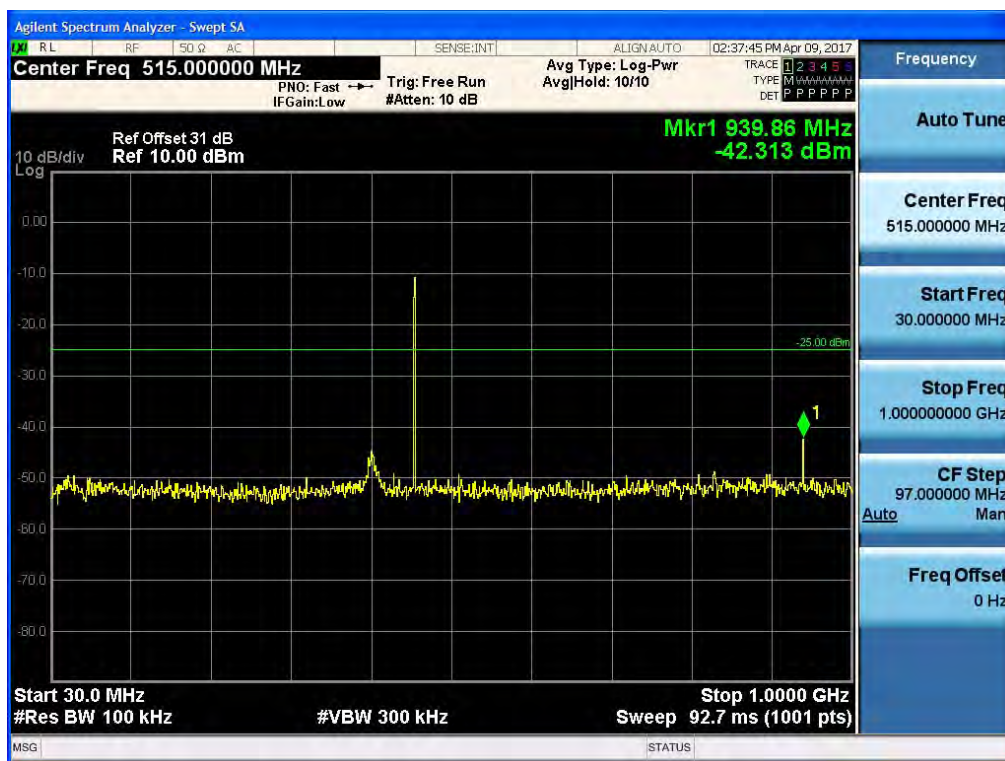
(4K00F2D\_ 450.05 MHz)\_Low



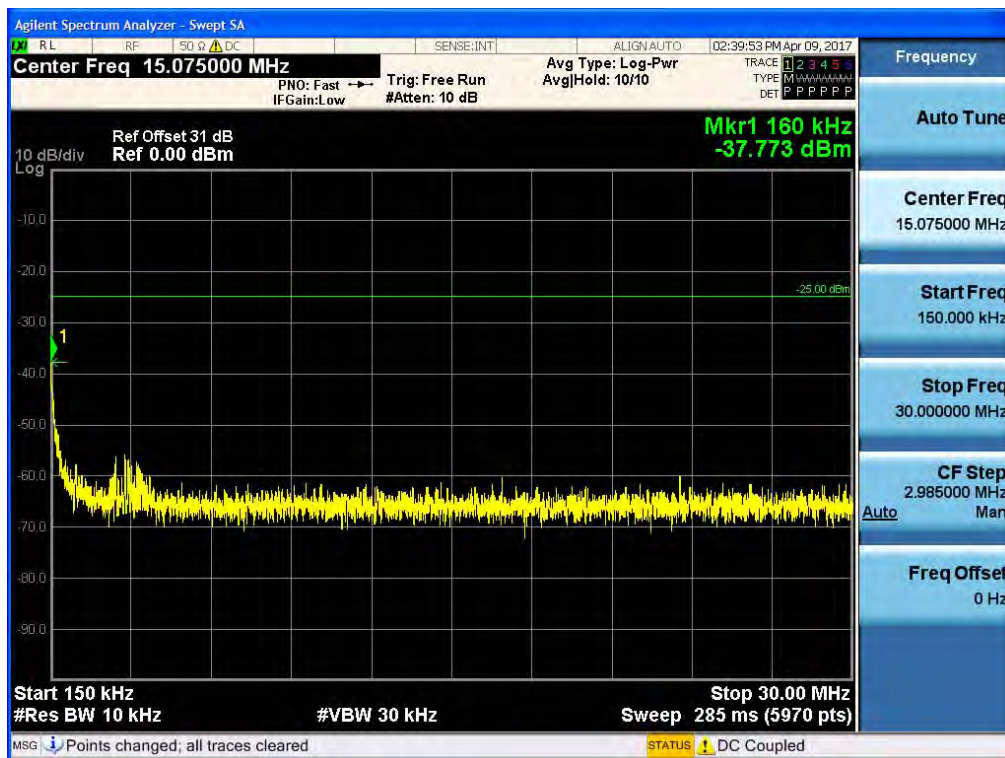


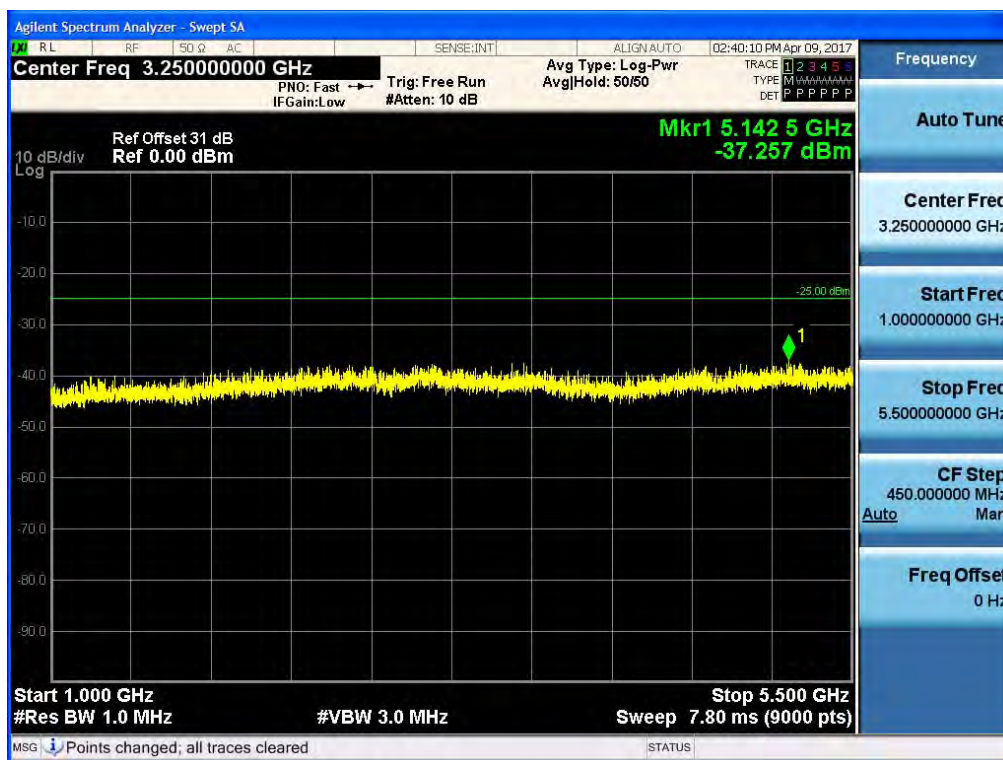
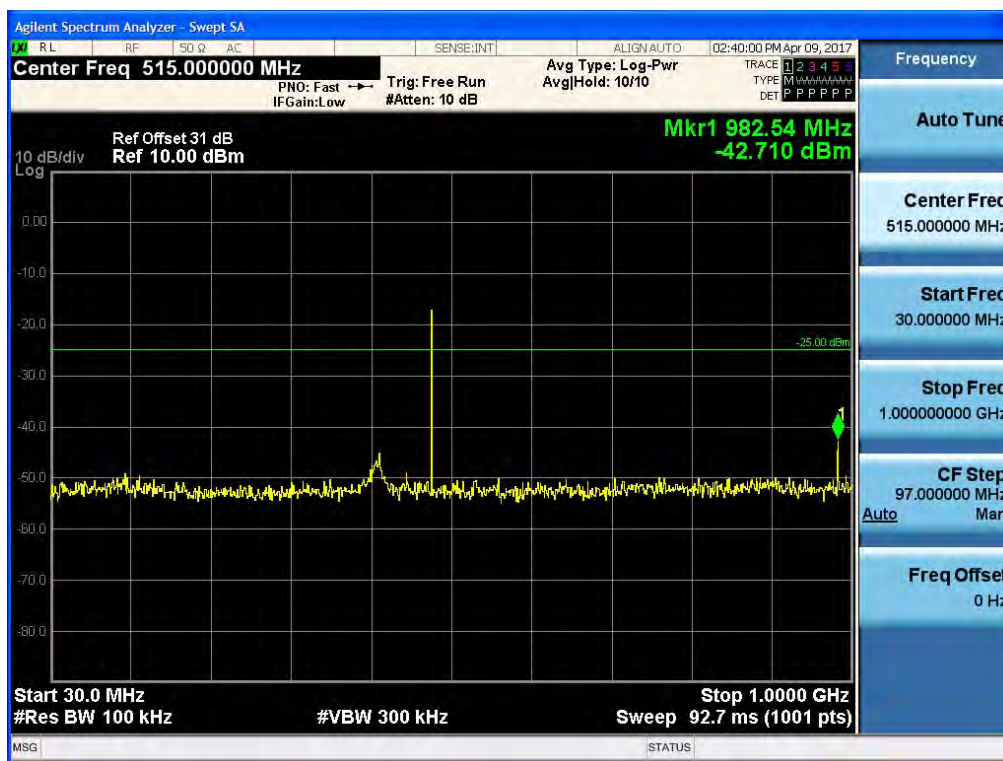
(4K00F2D\_ 469.95 MHz)\_Low



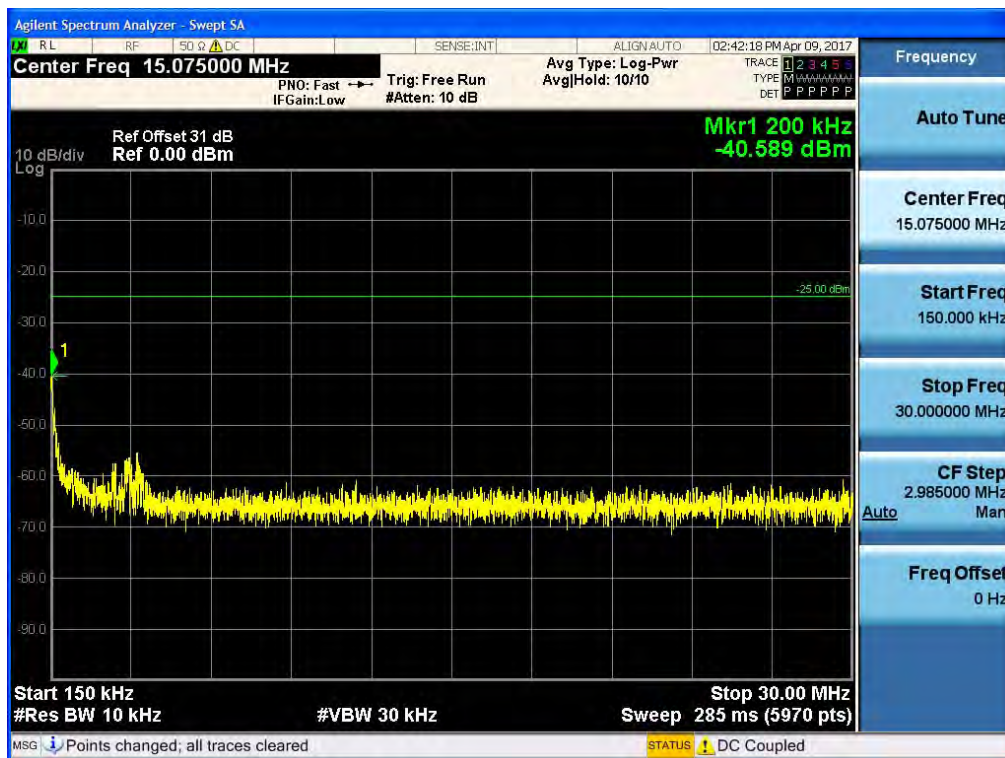


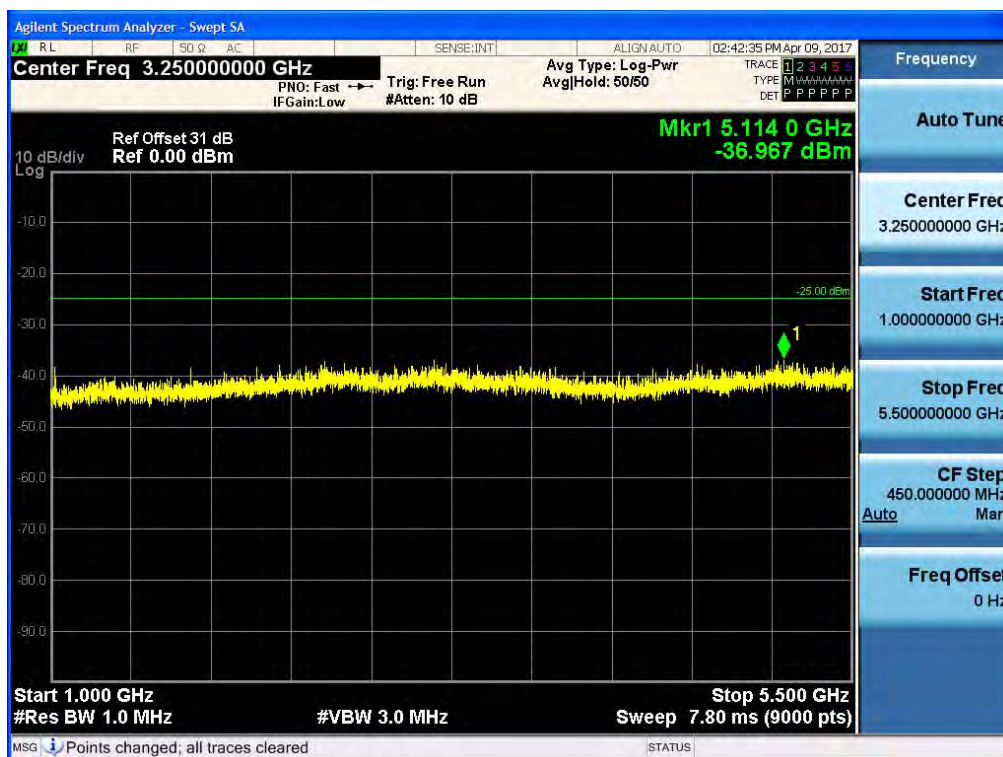
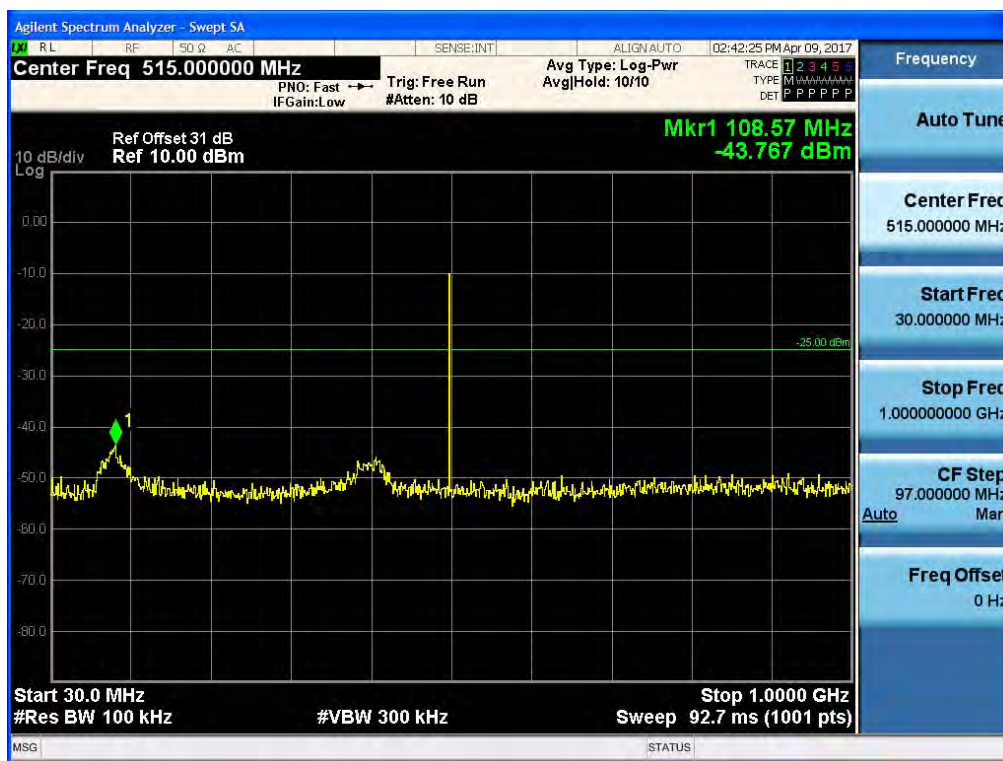
(4K00F2D\_ 491.05 MHz)\_Low





(4K00F2D\_ 511.95 MHz)\_Low





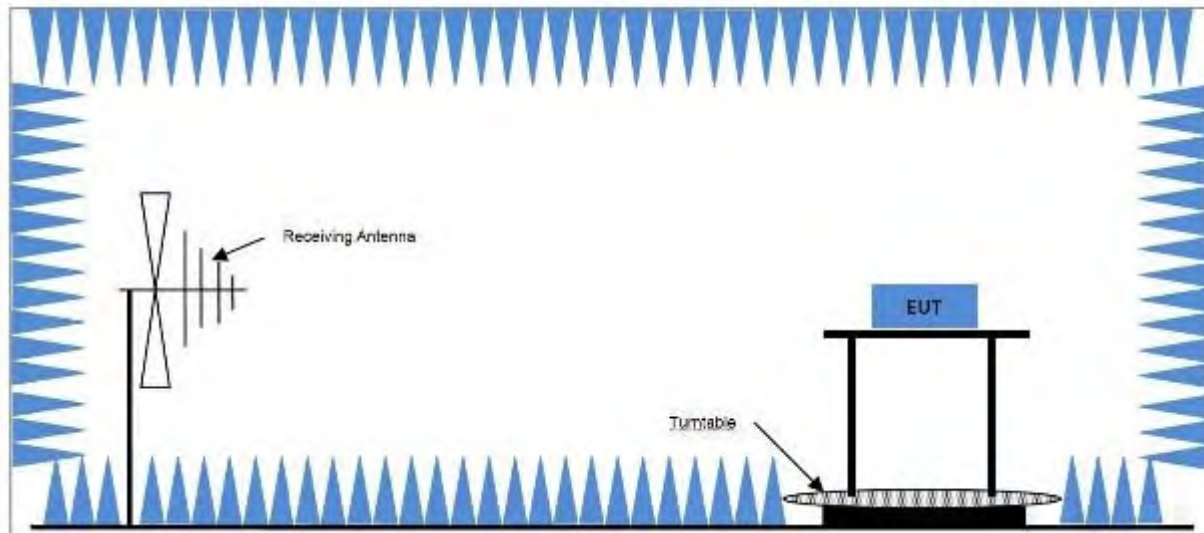
## 7.9 Unwanted Emissions : Radiated Spurious Emission

### ■ Definition

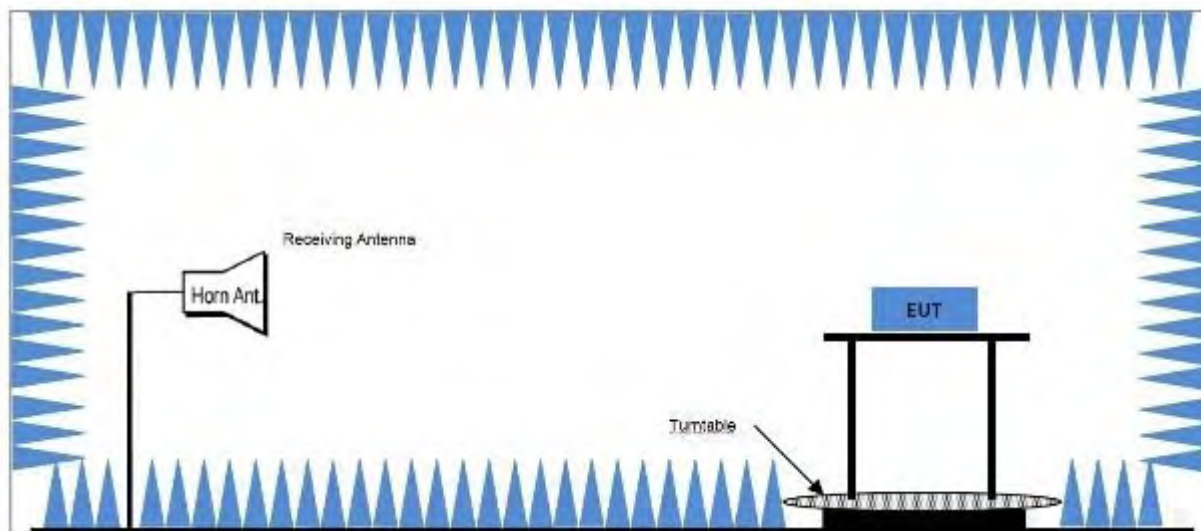
Radiated spurious emissions are emissions from the equipment when transmitting into a non-radiating load on a frequency or frequencies that are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communications desired.

### ■ TEST CONFIGURATION

#### Below 30 MHz



#### Above 1 GHz



### TEST PROCEDURE USED

According to 2.2.12 in TIA-603-D Standard.

- Connect the equipment as illustrated.
- Adjust the spectrum analyzer for the following settings:

- 1) Resolution Bandwidth = 10 kHz for spurious emissions below 1 GHz, and 1 MHz for spurious emissions above 1GHz.
- 2) Video Bandwidth = 300 kHz for spurious emissions below 1 GHz, and 3 MHz for spurious emissions above 1 GHz.
- 3) Sweep Speed slow enough to maintain measurement calibration.
- 4) Detector Mode = Positive Peak.
- c) Place the transmitter to be tested on the turntable in the standard test site, or an FCC listed site compliant with ANSI C63.4-2001 clause 5.4. The transmitter is transmitting into a nonradiating load that is placed on the turntable. The RF cable to this load should be of minimum length. For transmitters with integral antennas, the tests are to be run with the unit operating into the integral antenna.
- d) For each spurious measurement the test antenna should be adjusted to the correct length for the frequency involved. This length may be determined from a calibration ruler supplied with the equipment. Measurements shall be made from the lowest radio frequency generated in the equipment to the tenth harmonic of the carrier, except for the region close to the carrier equal to  $\pm$  the test bandwidth (see 1.3.4.4).
- e) Key the transmitter.
- f) For each spurious frequency, raise and lower the test antenna from 1 m to 4 m to obtain a maximum reading on the spectrum analyzer with the test antenna at horizontal polarity. Then the turntable should be rotated 360° to determine the maximum reading.  
Repeat this procedure to obtain the highest possible reading. Record this maximum reading.
- g) Repeat step f) for each spurious frequency with the test antenna polarized vertically.
- h) Reconnect the equipment as illustrated.
- i) Keep the spectrum analyzer adjusted as in step b).
- j) Remove the transmitter and replace it with a substitution antenna (the antenna should be half-wavelength for each frequency involved). The center of the substitution antenna should be approximately at the same location as the center of the transmitter. At the lower frequencies, where the substitution antenna is very long, this will be impossible to achieve when the antenna is polarized vertically. In such case the lower end of the antenna should be 0.3 m above the ground.
- k) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a nonradiating cable. With the antennas at both ends horizontally polarized, and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.
- l) Repeat step k) with both antennas vertically polarized for each spurious frequency.
- m) Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps k) and l) by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula:

$$Pd(\text{dBm}) = Pg(\text{dBm}) - \text{cable loss (dB)} + \text{antenna gain (dB)}$$

where:

$Pd$  is the dipole equivalent power and

$Pg$  is the generator output power into the substitution antenna.

n) The  $Pd$  levels record in step m) are the absolute levels of radiated spurious emissions in dBm. The radiated spurious emissions in dB can be calculated by the following:

Radiated spurious emissions (dB) =

$$10 \cdot \log_{10}(\text{TX power in watts}/0.001) - \text{the levels in step m)}$$

## LIMIT

| Frequency Band (MHz) | Channel bandwidth (kHz) | Limit (dB)           |
|----------------------|-------------------------|----------------------|
| 406.1 - 512          | 12.5                    | 50+10Log(P) or 70 dB |
|                      | 6.25                    | 55+10Log(P) or 65 dB |
|                      | 25                      | 43+10Log(p)          |

## Operating Mode

| EUT Type<br>(Worst case) | Modulation<br>(Worst case) | Battery<br>(Worst case) | Test frequency<br>(MHz) | Antenna    |
|--------------------------|----------------------------|-------------------------|-------------------------|------------|
| Stand alone              | 11K0F3E                    | KNB-57L                 | 406.15<br>(FCC/IC)      | KRA-23(M3) |
|                          |                            |                         |                         | KRA-27(M3) |
|                          |                            |                         |                         | KRA-42(M3) |
|                          |                            |                         |                         | KRA-29P    |
|                          |                            |                         | 450.05<br>(FCC/IC)      | KRA-23(M)  |
|                          |                            |                         |                         | KRA-27(M)  |
|                          |                            |                         |                         | KRA-42(M)  |
|                          |                            |                         |                         | KRA-29P    |
|                          |                            |                         | 469.95<br>(FCC / IC)    | KRA-23(M)  |
|                          |                            |                         |                         | KRA-27(M)  |
|                          |                            |                         |                         | KRA-42(M)  |
|                          |                            |                         |                         | KRA-29P    |
|                          |                            |                         | 511.95<br>(FCC / IC)    | KRA-23(M2) |
|                          |                            |                         |                         | KRA-27(M2) |
|                          |                            |                         |                         | KRA-42(M2) |
|                          |                            |                         |                         |            |

### Note

1. It is permissible to use other antennas provided they can be referenced to a dipole.
2. We performed stand alone and EUT with KMC49. And worst case is stand alone.

This report is attached only stand alone result.

# ■ TEST RESULTS for NX-3320-K3 (Full Test)

## 11K0F3E

| Frequency [MHz] F1 : 406.15_High<br>Battery : KNB-57L, Antenna : KRA-27M3 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                    | 8.83             | 28.98          | x-H  | 37.81           | -              | -              |
| 812.3                                                                     | -74.11           | 38.25          |      | -35.86          | -20.00         | 15.86          |
| 1218.45                                                                   | -33.66           | -4.27          |      | -37.93          | -20.00         | 17.93          |
| 1624.6                                                                    | -42.15           | -5.10          |      | -47.25          | -20.00         | 27.25          |
| 2030.75                                                                   | -35.30           | -2.67          |      | -37.97          | -20.00         | 17.97          |
| 2436.9                                                                    | -38.99           | 0.23           |      | -38.76          | -20.00         | 18.76          |
| 2843.05                                                                   | -49.88           | 1.95           |      | -47.93          | -20.00         | 27.93          |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -                | 6.17           |      | -               | -20.00         | -              |
| 406.15                                                                    | 8.40             | 28.98          | y-V  | 37.38           | -              | -              |
| 812.3                                                                     | -76.29           | 38.25          |      | -38.04          | -20.00         | 18.04          |
| 1218.45                                                                   | -32.97           | -4.27          |      | -37.24          | -20.00         | 17.24          |
| 1624.6                                                                    | -40.60           | -5.10          |      | -45.70          | -20.00         | 25.70          |
| 2030.75                                                                   | -35.30           | -2.67          |      | -37.97          | -20.00         | 17.97          |
| 2436.9                                                                    | -41.11           | 0.23           |      | -40.88          | -20.00         | 20.88          |
| 2843.05                                                                   | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -                | 6.17           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log(P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 406.15_Low<br>Battery : KNB-57L, Antenna : KRA-27M3 |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                   | 1.78             | 28.98          | x-H  | 30.76           | -              | -              |
| 812.3                                                                    | -70.16           | 38.25          |      | -31.91          | -20.00         | 11.91          |
| 1218.45                                                                  | -43.12           | -4.27          |      | -47.39          | -20.00         | 27.39          |
| 1624.6                                                                   | -45.68           | -5.10          |      | -50.78          | -20.00         | 30.78          |
| 2030.75                                                                  | -42.91           | -2.67          |      | -45.58          | -20.00         | 25.58          |
| 2436.9                                                                   | -49.82           | 0.23           |      | -49.59          | -20.00         | 29.59          |
| 2843.05                                                                  | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                   | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                  | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                   | -                | 6.17           |      | -               | -20.00         | -              |
| 406.15                                                                   | 1.45             | 28.98          | y-V  | 30.43           | -              | -              |
| 812.3                                                                    | -73.62           | 38.25          |      | -35.37          | -20.00         | 15.37          |
| 1218.45                                                                  | -42.10           | -4.27          |      | -46.37          | -20.00         | 26.37          |
| 1624.6                                                                   | -43.66           | -5.10          |      | -48.76          | -20.00         | 28.76          |
| 2030.75                                                                  | -42.74           | -2.67          |      | -45.41          | -20.00         | 25.41          |
| 2436.9                                                                   | -                | 0.23           |      | -               | -20.00         | -              |
| 2843.05                                                                  | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                   | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                  | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                   | -                | 6.17           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 450.05_High<br>Battery : KNB-57L, Antenna : KRA-27M |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 450.05                                                                   | 9.52             | 30.83          | y-V  | 40.35           | -              | -              |
| 900.1                                                                    | -75.13           | 39.45          |      | -35.68          | -20.00         | 15.68          |
| 1350.15                                                                  | -31.11           | -2.99          |      | -34.10          | -20.00         | 14.10          |
| 1800.2                                                                   | -46.72           | -4.31          |      | -51.03          | -20.00         | 31.03          |
| 2250.25                                                                  | -39.36           | 1.52           |      | -37.84          | -20.00         | 17.84          |
| 2700.3                                                                   | -43.97           | 0.93           |      | -43.04          | -20.00         | 23.04          |
| 3150.35                                                                  | -49.91           | 3.68           |      | -46.23          | -20.00         | 26.23          |
| 3600.4                                                                   | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                  | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                   | -                | 7.84           |      | -               | -20.00         | -              |
| 450.05                                                                   | 9.54             | 30.83          | z-H  | 40.37           | -              | -              |
| 900.1                                                                    | -75.12           | 39.45          |      | -35.67          | -20.00         | 15.67          |
| 1350.15                                                                  | -30.11           | -2.99          |      | -33.10          | -20.00         | 13.10          |
| 1800.2                                                                   | -43.38           | -4.31          |      | -47.69          | -20.00         | 27.69          |
| 2250.25                                                                  | -38.89           | 1.52           |      | -37.37          | -20.00         | 17.37          |
| 2700.3                                                                   | -38.66           | 0.93           |      | -37.73          | -20.00         | 17.73          |
| 3150.35                                                                  | -48.57           | 3.68           |      | -44.89          | -20.00         | 24.89          |
| 3600.4                                                                   | -45.48           | 4.34           |      | -41.14          | -20.00         | 21.14          |
| 4050.45                                                                  | -51.29           | 5.96           |      | -45.33          | -20.00         | 25.33          |
| 4500.5                                                                   | -                | 7.84           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 450.05_Low<br>Battery : KNB-57L, Antenna : KRA-27M |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 450.05                                                                  | 3.39             | 30.83          | y-V  | 34.22           | -              | -              |
| 900.1                                                                   | -73.41           | 39.45          |      | -33.96          | -20.00         | 13.96          |
| 1350.15                                                                 | -41.14           | -2.99          |      | -44.13          | -20.00         | 24.13          |
| 1800.2                                                                  | -48.63           | -4.31          |      | -52.94          | -20.00         | 32.94          |
| 2250.25                                                                 | -44.05           | 1.52           |      | -42.53          | -20.00         | 22.53          |
| 2700.3                                                                  | -51.60           | 0.93           |      | -50.67          | -20.00         | 30.67          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |
| 450.05                                                                  | 3.44             | 30.83          | z-H  | 34.27           | -              | -              |
| 900.1                                                                   | -72.19           | 39.45          |      | -32.74          | -20.00         | 12.74          |
| 1350.15                                                                 | -40.48           | -2.99          |      | -43.47          | -20.00         | 23.47          |
| 1800.2                                                                  | -44.92           | -4.31          |      | -49.23          | -20.00         | 29.23          |
| 2250.25                                                                 | -43.76           | 1.52           |      | -42.24          | -20.00         | 22.24          |
| 2700.3                                                                  | -49.96           | 0.93           |      | -49.03          | -20.00         | 29.03          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 469.95_High<br>Battery : KNB-57L, Antenna : KRA-29P |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 469.95                                                                   | 7.33             | 31.19          | x-H  | 38.52           | -              | -              |
| 939.9                                                                    | -76.22           | 40.53          |      | -35.69          | -20.00         | 15.69          |
| 1409.85                                                                  | -35.93           | -2.86          |      | -38.79          | -20.00         | 18.79          |
| 1879.8                                                                   | -37.91           | -3.70          |      | -41.61          | -20.00         | 21.61          |
| 2349.75                                                                  | -42.25           | 0.59           |      | -41.67          | -20.00         | 21.67          |
| 2819.7                                                                   | -49.06           | 1.99           |      | -47.07          | -20.00         | 27.07          |
| 3289.65                                                                  | -50.31           | 2.43           |      | -47.88          | -20.00         | 27.88          |
| 3759.6                                                                   | -35.34           | 5.00           |      | -30.34          | -20.00         | 10.34          |
| 4229.55                                                                  | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                   | -                | 9.07           |      | -               | -20.00         | -              |
| 469.95                                                                   | 7.68             | 31.19          | y-V  | 38.87           | -              | -              |
| 939.9                                                                    | -74.96           | 40.53          |      | -34.43          | -20.00         | 14.43          |
| 1409.85                                                                  | -31.91           | -2.86          |      | -34.77          | -20.00         | 14.77          |
| 1879.8                                                                   | -41.21           | -3.70          |      | -44.91          | -20.00         | 24.91          |
| 2349.75                                                                  | -41.56           | 0.59           |      | -40.98          | -20.00         | 20.98          |
| 2819.7                                                                   | -50.38           | 1.99           |      | -48.39          | -20.00         | 28.39          |
| 3289.65                                                                  | -53.59           | 2.43           |      | -51.16          | -20.00         | 31.16          |
| 3759.6                                                                   | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                  | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                   | -                | 9.07           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 469.95_Low<br>Battery : KNB-57L, Antenna : KRA-29P |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 469.95                                                                  | 0.53             | 31.19          | x-H  | 31.72           | -              | -              |
| 939.9                                                                   | -74.94           | 40.53          |      | -34.41          | -20.00         | 14.41          |
| 1409.85                                                                 | -43.70           | -2.86          |      | -46.56          | -20.00         | 26.56          |
| 1879.8                                                                  | -45.33           | -3.70          |      | -49.03          | -20.00         | 29.03          |
| 2349.75                                                                 | -45.69           | 0.59           |      | -45.11          | -20.00         | 25.11          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |
| 469.95                                                                  | 0.88             | 31.19          | y-V  | 32.07           | -              | -              |
| 939.9                                                                   | -74.42           | 40.53          |      | -33.89          | -20.00         | 13.89          |
| 1409.85                                                                 | -40.95           | -2.86          |      | -43.81          | -20.00         | 23.81          |
| 1879.8                                                                  | -47.51           | -3.70          |      | -51.21          | -20.00         | 31.21          |
| 2349.75                                                                 | -44.79           | 0.59           |      | -44.21          | -20.00         | 24.21          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 511.95_High<br>Battery : KNB-57L, Antenna : KRA-42M2 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 511.95                                                                    | 6.63             | 31.78          | x-H  | 38.41           | -              | -              |
| 1023.9                                                                    | -39.71           | -6.89          |      | -46.60          | -20.00         | 26.60          |
| 1535.85                                                                   | -34.20           | -4.35          |      | -38.55          | -20.00         | 18.55          |
| 2047.8                                                                    | -37.34           | -1.95          |      | -39.29          | -20.00         | 19.29          |
| 2559.75                                                                   | -35.92           | 0.39           |      | -35.53          | -20.00         | 15.53          |
| 3071.7                                                                    | -50.80           | 2.79           |      | -48.01          | -20.00         | 28.01          |
| 3583.65                                                                   | -42.81           | 4.57           |      | -38.24          | -20.00         | 18.24          |
| 4095.6                                                                    | -49.51           | 6.38           |      | -43.14          | -20.00         | 23.14          |
| 4607.55                                                                   | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                    | -                | 10.74          |      | -               | -20.00         | -              |
| 511.95                                                                    | 6.19             | 31.78          | y-V  | 37.97           | -              | -              |
| 1023.9                                                                    | -35.50           | -6.89          |      | -42.39          | -20.00         | 22.39          |
| 1535.85                                                                   | -35.41           | -4.35          |      | -39.76          | -20.00         | 19.76          |
| 2047.8                                                                    | -39.96           | -1.95          |      | -41.91          | -20.00         | 21.91          |
| 2559.75                                                                   | -39.39           | 0.39           |      | -39.00          | -20.00         | 19.00          |
| 3071.7                                                                    | -49.13           | 2.79           |      | -46.34          | -20.00         | 26.34          |
| 3583.65                                                                   | -47.29           | 4.57           |      | -42.72          | -20.00         | 22.72          |
| 4095.6                                                                    | -47.89           | 6.38           |      | -41.52          | -20.00         | 21.52          |
| 4607.55                                                                   | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                    | -                | 10.74          |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 511.95_Low<br>Battery : KNB-57L, Antenna : KRA-42M2 |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 511.95                                                                   | 3.19             | 31.78          | x-H  | 34.97           | -              | -              |
| 1023.9                                                                   | -43.83           | -6.89          |      | -50.72          | -20.00         | 30.72          |
| 1535.85                                                                  | -48.48           | -4.35          |      | -52.83          | -20.00         | 32.83          |
| 2047.8                                                                   | -44.05           | -1.95          |      | -46.00          | -20.00         | 26.00          |
| 2559.75                                                                  | -46.43           | 0.39           |      | -46.04          | -20.00         | 26.04          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |
| 511.95                                                                   | 2.57             | 31.78          | y-V  | 34.35           | -              | -              |
| 1023.9                                                                   | -40.07           | -6.89          |      | -46.96          | -20.00         | 26.96          |
| 1535.85                                                                  | -47.81           | -4.35          |      | -52.16          | -20.00         | 32.16          |
| 2047.8                                                                   | -47.63           | -1.95          |      | -49.58          | -20.00         | 29.58          |
| 2559.75                                                                  | -48.94           | 0.39           |      | -48.55          | -20.00         | 28.55          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

# 16K0F3E

Frequency [MHz] F1 : 450.05\_High  
Battery : KNB-57L, Antenna : KRA-27M

| Frequency (MHz) | Reading [dBm] | Factor (dB) | Pol. | Result (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|---------------|-------------|------|--------------|-------------|-------------|
| 450.05          | 9.30          | 30.83       | y-V  | 40.13        | -           | -           |
| 900.1           | -76.18        | 39.45       |      | -36.73       | -20.00      | 16.73       |
| 1350.15         | -31.16        | -2.99       |      | -34.15       | -20.00      | 14.15       |
| 1800.2          | -47.98        | -4.31       |      | -52.29       | -20.00      | 32.29       |
| 2250.25         | -38.91        | 1.52        |      | -37.39       | -20.00      | 17.39       |
| 2700.3          | -43.51        | 0.93        |      | -42.58       | -20.00      | 22.58       |
| 3150.35         | -49.69        | 3.68        |      | -46.01       | -20.00      | 26.01       |
| 3600.4          | -50.81        | 4.34        |      | -46.47       | -20.00      | 26.47       |
| 4050.45         | -52.66        | 5.96        |      | -46.70       | -20.00      | 26.70       |
| 4500.5          | -             | 7.84        |      | -            | -20.00      | -           |
| 450.05          | 9.20          | 30.83       | z-H  | 40.03        | -           | -           |
| 900.1           | -75.10        | 39.45       |      | -35.65       | -20.00      | 15.65       |
| 1350.15         | -30.04        | -2.99       |      | -33.03       | -20.00      | 13.03       |
| 1800.2          | -44.73        | -4.31       |      | -49.04       | -20.00      | 29.04       |
| 2250.25         | -38.52        | 1.52        |      | -37.00       | -20.00      | 17.00       |
| 2700.3          | -38.80        | 0.93        |      | -37.87       | -20.00      | 17.87       |
| 3150.35         | -50.12        | 3.68        |      | -46.44       | -20.00      | 26.44       |
| 3600.4          | -45.41        | 4.34        |      | -41.07       | -20.00      | 21.07       |
| 4050.45         | -51.78        | 5.96        |      | -45.82       | -20.00      | 25.82       |
| 4500.5          | -49.71        | 7.84        |      | -41.87       | -20.00      | 21.87       |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 450.05_Low<br>Battery : KNB-57L, Antenna : KRA-27M |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 450.05                                                                  | 3.28             | 30.83          | y-V  | 34.11           | -              | -              |
| 900.1                                                                   | -73.64           | 39.45          |      | -34.19          | -20.00         | 14.19          |
| 1350.15                                                                 | -41.55           | -2.99          |      | -44.54          | -20.00         | 24.54          |
| 1800.2                                                                  | -47.95           | -4.31          |      | -52.26          | -20.00         | 32.26          |
| 2250.25                                                                 | -43.55           | 1.52           |      | -42.03          | -20.00         | 22.03          |
| 2700.3                                                                  | -51.20           | 0.93           |      | -50.27          | -20.00         | 30.27          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |
| 450.05                                                                  | 3.27             | 30.83          | z-H  | 34.10           | -              | -              |
| 900.1                                                                   | -72.32           | 39.45          |      | -32.87          | -20.00         | 12.87          |
| 1350.15                                                                 | -40.57           | -2.99          |      | -43.56          | -20.00         | 23.56          |
| 1800.2                                                                  | -44.59           | -4.31          |      | -48.90          | -20.00         | 28.90          |
| 2250.25                                                                 | -44.00           | 1.52           |      | -42.48          | -20.00         | 22.48          |
| 2700.3                                                                  | -49.85           | 0.93           |      | -48.92          | -20.00         | 28.92          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 469.95_High<br>Battery : KNB-57L, Antenna : KRA-29P |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 469.95                                                                   | 7.68             | 31.19          | x-H  | 38.87           | -              | -              |
| 939.9                                                                    | -75.62           | 40.53          |      | -35.09          | -20.00         | 15.09          |
| 1409.85                                                                  | -36.01           | -2.86          |      | -38.87          | -20.00         | 18.87          |
| 1879.8                                                                   | -38.65           | -3.70          |      | -42.35          | -20.00         | 22.35          |
| 2349.75                                                                  | -42.99           | 0.59           |      | -42.41          | -20.00         | 22.41          |
| 2819.7                                                                   | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                  | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                   | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                  | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                   | -                | 9.07           |      | -               | -20.00         | -              |
| 469.95                                                                   | 8.05             | 31.19          | y-V  | 39.24           | -              | -              |
| 939.9                                                                    | -75.11           | 40.53          |      | -34.58          | -20.00         | 14.58          |
| 1409.85                                                                  | -32.04           | -2.86          |      | -34.90          | -20.00         | 14.90          |
| 1879.8                                                                   | -41.79           | -3.70          |      | -45.49          | -20.00         | 25.49          |
| 2349.75                                                                  | -41.45           | 0.59           |      | -40.87          | -20.00         | 20.87          |
| 2819.7                                                                   | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                  | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                   | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                  | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                   | -                | 9.07           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 469.95_Low<br>Battery : KNB-57L, Antenna : KRA-29P |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 469.95                                                                  | 0.43             | 31.19          | x-H  | 31.62           | -              | -              |
| 939.9                                                                   | -75.98           | 40.53          |      | -35.45          | -20.00         | 15.45          |
| 1409.85                                                                 | -44.31           | -2.86          |      | -47.17          | -20.00         | 27.17          |
| 1879.8                                                                  | -45.35           | -3.70          |      | -49.05          | -20.00         | 29.05          |
| 2349.75                                                                 | -45.62           | 0.59           |      | -45.04          | -20.00         | 25.04          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |
| 469.95                                                                  | 0.75             | 31.19          | y-V  | 31.94           | -              | -              |
| 939.9                                                                   | -74.65           | 40.53          |      | -34.12          | -20.00         | 14.12          |
| 1409.85                                                                 | -40.78           | -2.86          |      | -43.64          | -20.00         | 23.64          |
| 1879.8                                                                  | -48.11           | -3.70          |      | -51.81          | -20.00         | 31.81          |
| 2349.75                                                                 | -44.80           | 0.59           |      | -44.22          | -20.00         | 24.22          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 511.95_High<br>Battery : KNB-57L, Antenna : KRA-42M2 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 511.95                                                                    | 6.50             | 31.78          | x-H  | 38.28           | -              | -              |
| 1023.9                                                                    | -43.59           | -6.89          |      | -50.48          | -20.00         | 30.48          |
| 1535.85                                                                   | -33.93           | -4.35          |      | -38.28          | -20.00         | 18.28          |
| 2047.8                                                                    | -37.17           | -1.95          |      | -39.12          | -20.00         | 19.12          |
| 2559.75                                                                   | -35.97           | 0.39           |      | -35.58          | -20.00         | 15.58          |
| 3071.7                                                                    | -51.34           | 2.79           |      | -48.55          | -20.00         | 28.55          |
| 3583.65                                                                   | -43.52           | 4.57           |      | -38.95          | -20.00         | 18.95          |
| 4095.6                                                                    | -50.50           | 6.38           |      | -44.13          | -20.00         | 24.13          |
| 4607.55                                                                   | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                    | -                | 10.74          |      | -               | -20.00         | -              |
| 511.95                                                                    | 5.69             | 31.78          | y-V  | 37.47           | -              | -              |
| 1023.9                                                                    | -36.04           | -6.89          |      | -42.93          | -20.00         | 22.93          |
| 1535.85                                                                   | -36.25           | -4.35          |      | -40.60          | -20.00         | 20.60          |
| 2047.8                                                                    | -40.98           | -1.95          |      | -42.93          | -20.00         | 22.93          |
| 2559.75                                                                   | -39.93           | 0.39           |      | -39.54          | -20.00         | 19.54          |
| 3071.7                                                                    | -49.59           | 2.79           |      | -46.80          | -20.00         | 26.80          |
| 3583.65                                                                   | -47.28           | 4.57           |      | -42.71          | -20.00         | 22.71          |
| 4095.6                                                                    | -48.64           | 6.38           |      | -42.27          | -20.00         | 22.27          |
| 4607.55                                                                   | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                    | -                | 10.74          |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 511.95_Low<br>Battery : KNB-57L, Antenna : KRA-42M2 |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 511.95                                                                   | 3.18             | 31.78          | x-H  | 34.96           | -              | -              |
| 1023.9                                                                   | -44.39           | -6.89          |      | -51.28          | -20.00         | 31.28          |
| 1535.85                                                                  | -48.33           | -4.35          |      | -52.68          | -20.00         | 32.68          |
| 2047.8                                                                   | -43.95           | -1.95          |      | -45.90          | -20.00         | 25.90          |
| 2559.75                                                                  | -46.77           | 0.39           |      | -46.38          | -20.00         | 26.38          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |
| 511.95                                                                   | 2.58             | 31.78          | y-V  | 34.36           | -              | -              |
| 1023.9                                                                   | -40.88           | -6.89          |      | -47.77          | -20.00         | 27.77          |
| 1535.85                                                                  | -48.71           | -4.35          |      | -53.06          | -20.00         | 33.06          |
| 2047.8                                                                   | -46.96           | -1.95          |      | -48.91          | -20.00         | 28.91          |
| 2559.75                                                                  | -49.42           | 0.39           |      | -49.03          | -20.00         | 29.03          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

# 7K60FXD, 7K60FXE

| Frequency [MHz] F1 : 406.15_High<br>Battery : KNB-57L, Antenna : KRA-27M3 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                    | 8.93             | 28.98          | x-H  | 37.91           | -              | -              |
| 812.3                                                                     | -70.14           | 38.25          |      | -31.89          | -20.00         | 11.89          |
| 1218.45                                                                   | -32.70           | -4.27          |      | -36.97          | -20.00         | 16.97          |
| 1624.6                                                                    | -41.79           | -5.10          |      | -46.89          | -20.00         | 26.89          |
| 2030.75                                                                   | -34.43           | -2.67          |      | -37.10          | -20.00         | 17.10          |
| 2436.9                                                                    | -38.94           | 0.23           |      | -38.71          | -20.00         | 18.71          |
| 2843.05                                                                   | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -                | 6.17           |      | -               | -20.00         | -              |
| 406.15                                                                    | 8.68             | 28.98          | y-V  | 37.66           | -              | -              |
| 812.3                                                                     | -75.21           | 38.25          |      | -36.96          | -20.00         | 16.96          |
| 1218.45                                                                   | -32.83           | -4.27          |      | -37.10          | -20.00         | 17.10          |
| 1624.6                                                                    | -41.36           | -5.10          |      | -46.46          | -20.00         | 26.46          |
| 2030.75                                                                   | -33.66           | -2.67          |      | -36.33          | -20.00         | 16.33          |
| 2436.9                                                                    | -40.43           | 0.23           |      | -40.20          | -20.00         | 20.20          |
| 2843.05                                                                   | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -                | 6.17           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 406.15_Low<br>Battery : KNB-57L, Antenna : KRA-28 |                  |                |      |                 |                |                |
|------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                     | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                 | 1.61             | 28.98          | x-H  | 30.59           | -              | -              |
| 812.3                                                                  | -66.34           | 38.25          |      | -28.09          | -20.00         | 8.09           |
| 1218.45                                                                | -43.54           | -4.27          |      | -47.81          | -20.00         | 27.81          |
| 1624.6                                                                 | -43.48           | -5.10          |      | -48.58          | -20.00         | 28.58          |
| 2030.75                                                                | -41.26           | -2.67          |      | -43.93          | -20.00         | 23.93          |
| 2436.9                                                                 | -50.97           | 0.23           |      | -50.74          | -20.00         | 30.74          |
| 2843.05                                                                | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                 | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                 | -                | 6.17           |      | -               | -20.00         | -              |
| 406.15                                                                 | 1.27             | 28.98          | y-V  | 30.25           | -              | -              |
| 812.3                                                                  | -73.52           | 38.25          |      | -35.27          | -20.00         | 15.27          |
| 1218.45                                                                | -41.38           | -4.27          |      | -45.65          | -20.00         | 25.65          |
| 1624.6                                                                 | -44.44           | -5.10          |      | -49.54          | -20.00         | 29.54          |
| 2030.75                                                                | -44.17           | -2.67          |      | -46.84          | -20.00         | 26.84          |
| 2436.9                                                                 | -50.87           | 0.23           |      | -50.64          | -20.00         | 30.64          |
| 2843.05                                                                | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                 | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                 | -                | 6.17           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 450.05_High<br>Battery : KNB-57L, Antenna : KRA-27M |               |             |      |              |             |             |
|--------------------------------------------------------------------------|---------------|-------------|------|--------------|-------------|-------------|
| Frequency (MHz)                                                          | Reading [dBm] | Factor (dB) | Pol. | Result (dBm) | Limit (dBm) | Margin (dB) |
| 450.05                                                                   | 8.92          | 30.83       | y-V  | 39.75        | -           | -           |
| 900.1                                                                    | -76.12        | 39.45       |      | -36.67       | -20.00      | 16.67       |
| 1350.15                                                                  | -34.59        | -2.99       |      | -37.58       | -20.00      | 17.58       |
| 1800.2                                                                   | -46.53        | -4.31       |      | -50.84       | -20.00      | 30.84       |
| 2250.25                                                                  | -39.12        | 1.52        |      | -37.60       | -20.00      | 17.60       |
| 2700.3                                                                   | -43.61        | 0.93        |      | -42.68       | -20.00      | 22.68       |
| 3150.35                                                                  | -49.84        | 3.68        |      | -46.16       | -20.00      | 26.16       |
| 3600.4                                                                   | -50.81        | 4.34        |      | -46.47       | -20.00      | 26.47       |
| 4050.45                                                                  | -50.52        | 5.96        |      | -44.56       | -20.00      | 24.56       |
| 4500.5                                                                   | -52.37        | 7.84        |      | -44.53       | -20.00      | 24.53       |
| 450.05                                                                   | 8.95          | 30.83       | z-H  | 39.78        | -           | -           |
| 900.1                                                                    | -75.61        | 39.45       |      | -36.16       | -20.00      | 16.16       |
| 1350.15                                                                  | -29.88        | -2.99       |      | -32.87       | -20.00      | 12.87       |
| 1800.2                                                                   | -43.54        | -4.31       |      | -47.85       | -20.00      | 27.85       |
| 2250.25                                                                  | -38.96        | 1.52        |      | -37.44       | -20.00      | 17.44       |
| 2700.3                                                                   | -38.91        | 0.93        |      | -37.98       | -20.00      | 17.98       |
| 3150.35                                                                  | -50.25        | 3.68        |      | -46.57       | -20.00      | 26.57       |
| 3600.4                                                                   | -45.15        | 4.34        |      | -40.81       | -20.00      | 20.81       |
| 4050.45                                                                  | -51.42        | 5.96        |      | -45.46       | -20.00      | 25.46       |
| 4500.5                                                                   | -49.85        | 7.84        |      | -42.01       | -20.00      | 22.01       |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 450.05_Low<br>Battery : KNB-57L, Antenna : KRA-27M |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 450.05                                                                  | 3.17             | 30.83          | y-V  | 34.00           | -              | -              |
| 900.1                                                                   | -74.10           | 39.45          |      | -34.65          | -20.00         | 14.65          |
| 1350.15                                                                 | -41.50           | -2.99          |      | -44.49          | -20.00         | 24.49          |
| 1800.2                                                                  | -48.20           | -4.31          |      | -52.51          | -20.00         | 32.51          |
| 2250.25                                                                 | -43.61           | 1.52           |      | -42.09          | -20.00         | 22.09          |
| 2700.3                                                                  | -51.12           | 0.93           |      | -50.19          | -20.00         | 30.19          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |
| 450.05                                                                  | 3.18             | 30.83          | z-H  | 34.01           | -              | -              |
| 900.1                                                                   | -72.70           | 39.45          |      | -33.25          | -20.00         | 13.25          |
| 1350.15                                                                 | -40.37           | -2.99          |      | -43.36          | -20.00         | 23.36          |
| 1800.2                                                                  | -45.38           | -4.31          |      | -49.69          | -20.00         | 29.69          |
| 2250.25                                                                 | -44.11           | 1.52           |      | -42.59          | -20.00         | 22.59          |
| 2700.3                                                                  | -49.45           | 0.93           |      | -48.52          | -20.00         | 28.52          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 469.95_High<br>Battery : KNB-57L, Antenna : KRA-29P |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 469.95                                                                   | 7.49             | 31.19          | x-H  | 38.68           | -              | -              |
| 939.9                                                                    | -74.31           | 40.53          |      | -33.78          | -20.00         | 13.78          |
| 1409.85                                                                  | -35.80           | -2.86          |      | -38.66          | -20.00         | 18.66          |
| 1879.8                                                                   | -39.11           | -3.70          |      | -42.81          | -20.00         | 22.81          |
| 2349.75                                                                  | -41.26           | 0.59           |      | -40.68          | -20.00         | 20.68          |
| 2819.7                                                                   | -48.60           | 1.99           |      | -46.61          | -20.00         | 26.61          |
| 3289.65                                                                  | -49.11           | 2.43           |      | -46.68          | -20.00         | 26.68          |
| 3759.6                                                                   | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                  | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                   | -                | 9.07           |      | -               | -20.00         | -              |
| 469.95                                                                   | 7.88             | 31.19          | y-V  | 39.07           | -              | -              |
| 939.9                                                                    | -71.97           | 40.53          |      | -31.44          | -20.00         | 11.44          |
| 1409.85                                                                  | -32.02           | -2.86          |      | -34.88          | -20.00         | 14.88          |
| 1879.8                                                                   | -42.88           | -3.70          |      | -46.58          | -20.00         | 26.58          |
| 2349.75                                                                  | -40.31           | 0.59           |      | -39.73          | -20.00         | 19.73          |
| 2819.7                                                                   | -49.30           | 1.99           |      | -47.31          | -20.00         | 27.31          |
| 3289.65                                                                  | -53.02           | 2.43           |      | -50.59          | -20.00         | 30.59          |
| 3759.6                                                                   | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                  | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                   | -                | 9.07           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 469.95_Low<br>Battery : KNB-57L, Antenna : KRA-29P |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 469.95                                                                  | 0.34             | 31.19          | x-H  | 31.53           | -              | -              |
| 939.9                                                                   | -74.25           | 40.53          |      | -33.72          | -20.00         | 13.72          |
| 1409.85                                                                 | -44.35           | -2.86          |      | -47.21          | -20.00         | 27.21          |
| 1879.8                                                                  | -45.54           | -3.70          |      | -49.24          | -20.00         | 29.24          |
| 2349.75                                                                 | -45.02           | 0.59           |      | -44.44          | -20.00         | 24.44          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |
| 469.95                                                                  | 0.62             | 31.19          | y-V  | 31.81           | -              | -              |
| 939.9                                                                   | -73.05           | 40.53          |      | -32.52          | -20.00         | 12.52          |
| 1409.85                                                                 | -41.81           | -2.86          |      | -44.67          | -20.00         | 24.67          |
| 1879.8                                                                  | -48.43           | -3.70          |      | -52.13          | -20.00         | 32.13          |
| 2349.75                                                                 | -44.31           | 0.59           |      | -43.73          | -20.00         | 23.73          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 511.95_High<br>Battery : KNB-57L, Antenna : KRA-42M2 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 511.95                                                                    | 6.01             | 31.78          | x-H  | 37.79           | -              | -              |
| 1023.9                                                                    | -40.86           | -6.89          |      | -47.75          | -20.00         | 27.75          |
| 1535.85                                                                   | -34.75           | -4.35          |      | -39.10          | -20.00         | 19.10          |
| 2047.8                                                                    | -37.17           | -1.95          |      | -39.12          | -20.00         | 19.12          |
| 2559.75                                                                   | -36.85           | 0.39           |      | -36.46          | -20.00         | 16.46          |
| 3071.7                                                                    | -51.63           | 2.79           |      | -48.84          | -20.00         | 28.84          |
| 3583.65                                                                   | -43.72           | 4.57           |      | -39.15          | -20.00         | 19.15          |
| 4095.6                                                                    | -50.52           | 6.38           |      | -44.15          | -20.00         | 24.15          |
| 4607.55                                                                   | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                    | -                | 10.74          |      | -               | -20.00         | -              |
| 511.95                                                                    | 5.29             | 31.78          | y-V  | 37.07           | -              | -              |
| 1023.9                                                                    | -36.21           | -6.89          |      | -43.10          | -20.00         | 23.10          |
| 1535.85                                                                   | -36.65           | -4.35          |      | -41.00          | -20.00         | 21.00          |
| 2047.8                                                                    | -39.99           | -1.95          |      | -41.94          | -20.00         | 21.94          |
| 2559.75                                                                   | -40.11           | 0.39           |      | -39.72          | -20.00         | 19.72          |
| 3071.7                                                                    | -49.39           | 2.79           |      | -46.60          | -20.00         | 26.60          |
| 3583.65                                                                   | -47.94           | 4.57           |      | -43.37          | -20.00         | 23.37          |
| 4095.6                                                                    | -50.03           | 6.38           |      | -43.66          | -20.00         | 23.66          |
| 4607.55                                                                   | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                    | -                | 10.74          |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 511.95_Low<br>Battery : KNB-57L, Antenna : KRA-42M2 |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 511.95                                                                   | 2.86             | 31.78          | x-H  | 34.64           | -              | -              |
| 1023.9                                                                   | -44.60           | -6.89          |      | -51.49          | -20.00         | 31.49          |
| 1535.85                                                                  | -47.48           | -4.35          |      | -51.83          | -20.00         | 31.83          |
| 2047.8                                                                   | -43.44           | -1.95          |      | -45.39          | -20.00         | 25.39          |
| 2559.75                                                                  | -47.70           | 0.39           |      | -47.31          | -20.00         | 27.31          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |
| 511.95                                                                   | 2.24             | 31.78          | y-V  | 34.02           | -              | -              |
| 1023.9                                                                   | -41.42           | -6.89          |      | -48.31          | -20.00         | 28.31          |
| 1535.85                                                                  | -47.18           | -4.35          |      | -51.53          | -20.00         | 31.53          |
| 2047.8                                                                   | -46.46           | -1.95          |      | -48.41          | -20.00         | 28.41          |
| 2559.75                                                                  | -49.14           | 0.39           |      | -48.75          | -20.00         | 28.75          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

### 8K30F1E, 8K30F1D, 8K30F7W

| Frequency [MHz] F1 : 406.15_High<br>Battery : KNB-57L, Antenna : KRA-27M3 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                    | 9.07             | 28.98          | x-H  | 38.05           | -              | -              |
| 812.3                                                                     | -72.55           | 38.25          |      | -34.30          | -20.00         | 14.30          |
| 1218.45                                                                   | -33.40           | -4.27          |      | -37.67          | -20.00         | 17.67          |
| 1624.6                                                                    | -41.67           | -5.10          |      | -46.77          | -20.00         | 26.77          |
| 2030.75                                                                   | -35.40           | -2.67          |      | -38.07          | -20.00         | 18.07          |
| 2436.9                                                                    | -39.40           | 0.23           |      | -39.17          | -20.00         | 19.17          |
| 2843.05                                                                   | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -                | 6.17           |      | -               | -20.00         | -              |
| 406.15                                                                    | 8.82             | 28.98          | y-V  | 37.80           | -              | -              |
| 812.3                                                                     | -76.60           | 38.25          |      | -38.35          | -20.00         | 18.35          |
| 1218.45                                                                   | -32.48           | -4.27          |      | -36.75          | -20.00         | 16.75          |
| 1624.6                                                                    | -40.65           | -5.10          |      | -45.75          | -20.00         | 25.75          |
| 2030.75                                                                   | -35.04           | -2.67          |      | -37.71          | -20.00         | 17.71          |
| 2436.9                                                                    | -40.28           | 0.23           |      | -40.05          | -20.00         | 20.05          |
| 2843.05                                                                   | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -                | 6.17           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 406.15_Low<br>Battery : KNB-57L, Antenna : KRA-27M3 |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                   | 1.58             | 28.98          | x-H  | 30.56           | -              | -              |
| 812.3                                                                    | -67.35           | 38.25          |      | -29.10          | -20.00         | 9.10           |
| 1218.45                                                                  | -42.63           | -4.27          |      | -46.90          | -20.00         | 26.90          |
| 1624.6                                                                   | -45.21           | -5.10          |      | -50.31          | -20.00         | 30.31          |
| 2030.75                                                                  | -42.61           | -2.67          |      | -45.28          | -20.00         | 25.28          |
| 2436.9                                                                   | -49.78           | 0.23           |      | -49.55          | -20.00         | 29.55          |
| 2843.05                                                                  | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                   | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                  | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                   | -                | 6.17           |      | -               | -20.00         | -              |
| 406.15                                                                   | 1.25             | 28.98          | y-V  | 30.23           | -              | -              |
| 812.3                                                                    | -73.45           | 38.25          |      | -35.20          | -20.00         | 15.20          |
| 1218.45                                                                  | -40.99           | -4.27          |      | -45.26          | -20.00         | 25.26          |
| 1624.6                                                                   | -43.23           | -5.10          |      | -48.33          | -20.00         | 28.33          |
| 2030.75                                                                  | -42.52           | -2.67          |      | -45.19          | -20.00         | 25.19          |
| 2436.9                                                                   | -50.68           | 0.23           |      | -50.45          | -20.00         | 30.45          |
| 2843.05                                                                  | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                   | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                  | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                   | -                | 6.17           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 450.05_High<br>Battery : KNB-57L, Antenna : KRA-27M |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 450.05                                                                   | 8.68             | 30.83          | y-V  | 39.51           | -              | -              |
| 900.1                                                                    | -75.80           | 39.45          |      | -36.35          | -20.00         | 16.35          |
| 1350.15                                                                  | -31.56           | -2.99          |      | -34.55          | -20.00         | 14.55          |
| 1800.2                                                                   | -46.28           | -4.31          |      | -50.59          | -20.00         | 30.59          |
| 2250.25                                                                  | -39.70           | 1.52           |      | -38.18          | -20.00         | 18.18          |
| 2700.3                                                                   | -42.80           | 0.93           |      | -41.87          | -20.00         | 21.87          |
| 3150.35                                                                  | -49.67           | 3.68           |      | -45.99          | -20.00         | 25.99          |
| 3600.4                                                                   | -49.80           | 4.34           |      | -45.46          | -20.00         | 25.46          |
| 4050.45                                                                  | -50.27           | 5.96           |      | -44.31          | -20.00         | 24.31          |
| 4500.5                                                                   | -51.87           | 7.84           |      | -44.03          | -20.00         | 24.03          |
| 450.05                                                                   | 8.62             | 30.83          | z-H  | 39.45           | -              | -              |
| 900.1                                                                    | -74.32           | 39.45          |      | -34.87          | -20.00         | 14.87          |
| 1350.15                                                                  | -29.93           | -2.99          |      | -32.92          | -20.00         | 12.92          |
| 1800.2                                                                   | -42.69           | -4.31          |      | -47.00          | -20.00         | 27.00          |
| 2250.25                                                                  | -39.20           | 1.52           |      | -37.68          | -20.00         | 17.68          |
| 2700.3                                                                   | -38.90           | 0.93           |      | -37.97          | -20.00         | 17.97          |
| 3150.35                                                                  | -49.85           | 3.68           |      | -46.17          | -20.00         | 26.17          |
| 3600.4                                                                   | -44.50           | 4.34           |      | -40.16          | -20.00         | 20.16          |
| 4050.45                                                                  | -49.83           | 5.96           |      | -43.87          | -20.00         | 23.87          |
| 4500.5                                                                   | -48.97           | 7.84           |      | -41.13          | -20.00         | 21.13          |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 450.05_Low<br>Battery : KNB-57L, Antenna : KRA-27M |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 450.05                                                                  | 3.17             | 30.83          | y-V  | 34.00           | -              | -              |
| 900.1                                                                   | -73.86           | 39.45          |      | -34.41          | -20.00         | 14.41          |
| 1350.15                                                                 | -40.67           | -2.99          |      | -43.66          | -20.00         | 23.66          |
| 1800.2                                                                  | -48.74           | -4.31          |      | -53.05          | -20.00         | 33.05          |
| 2250.25                                                                 | -43.17           | 1.52           |      | -41.65          | -20.00         | 21.65          |
| 2700.3                                                                  | -51.36           | 0.93           |      | -50.43          | -20.00         | 30.43          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |
| 450.05                                                                  | 3.16             | 30.83          | z-H  | 33.99           | -              | -              |
| 900.1                                                                   | -71.73           | 39.45          |      | -32.28          | -20.00         | 12.28          |
| 1350.15                                                                 | -39.58           | -2.99          |      | -42.57          | -20.00         | 22.57          |
| 1800.2                                                                  | -45.02           | -4.31          |      | -49.33          | -20.00         | 29.33          |
| 2250.25                                                                 | -44.14           | 1.52           |      | -42.62          | -20.00         | 22.62          |
| 2700.3                                                                  | -49.23           | 0.93           |      | -48.30          | -20.00         | 28.30          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 469.95_High<br>Battery : KNB-57L, Antenna : KRA-29P |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 469.95                                                                   | 7.59             | 31.19          | x-H  | 38.78           | -              | -              |
| 939.9                                                                    | -76.57           | 40.53          |      | -36.04          | -20.00         | 16.04          |
| 1409.85                                                                  | -35.94           | -2.86          |      | -38.80          | -20.00         | 18.80          |
| 1879.8                                                                   | -38.40           | -3.70          |      | -42.10          | -20.00         | 22.10          |
| 2349.75                                                                  | -42.04           | 0.59           |      | -41.46          | -20.00         | 21.46          |
| 2819.7                                                                   | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                  | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                   | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                  | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                   | -                | 9.07           |      | -               | -20.00         | -              |
| 469.95                                                                   | 7.91             | 31.19          | y-V  | 39.10           | -              | -              |
| 939.9                                                                    | -75.59           | 40.53          |      | -35.06          | -20.00         | 15.06          |
| 1409.85                                                                  | -32.04           | -2.86          |      | -34.90          | -20.00         | 14.90          |
| 1879.8                                                                   | -41.68           | -3.70          |      | -45.38          | -20.00         | 25.38          |
| 2349.75                                                                  | -41.07           | 0.59           |      | -40.49          | -20.00         | 20.49          |
| 2819.7                                                                   | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                  | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                   | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                  | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                   | -                | 9.07           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 469.95_Low<br>Battery : KNB-57L, Antenna : KRA-29P |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 469.95                                                                  | 0.35             | 31.19          | x-H  | 31.54           | -              | -              |
| 939.9                                                                   | -76.10           | 40.53          |      | -35.57          | -20.00         | 15.57          |
| 1409.85                                                                 | -43.91           | -2.86          |      | -46.77          | -20.00         | 26.77          |
| 1879.8                                                                  | -45.33           | -3.70          |      | -49.03          | -20.00         | 29.03          |
| 2349.75                                                                 | -45.27           | 0.59           |      | -44.69          | -20.00         | 24.69          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |
| 469.95                                                                  | 0.67             | 31.19          | y-V  | 31.86           | -              | -              |
| 939.9                                                                   | -75.16           | 40.53          |      | -34.63          | -20.00         | 14.63          |
| 1409.85                                                                 | -41.03           | -2.86          |      | -43.89          | -20.00         | 23.89          |
| 1879.8                                                                  | -48.67           | -3.70          |      | -52.37          | -20.00         | 32.37          |
| 2349.75                                                                 | -44.51           | 0.59           |      | -43.93          | -20.00         | 23.93          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 511.95_High<br>Battery : KNB-57L, Antenna : KRA-42M2 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 511.95                                                                    | 6.29             | 31.78          | x-H  | 38.07           | -              | -              |
| 1023.9                                                                    | -40.75           | -6.89          |      | -47.64          | -20.00         | 27.64          |
| 1535.85                                                                   | -34.17           | -4.35          |      | -38.52          | -20.00         | 18.52          |
| 2047.8                                                                    | -37.00           | -1.95          |      | -38.95          | -20.00         | 18.95          |
| 2559.75                                                                   | -36.45           | 0.39           |      | -36.06          | -20.00         | 16.06          |
| 3071.7                                                                    | -51.08           | 2.79           |      | -48.29          | -20.00         | 28.29          |
| 3583.65                                                                   | -43.58           | 4.57           |      | -39.01          | -20.00         | 19.01          |
| 4095.6                                                                    | -50.90           | 6.38           |      | -44.53          | -20.00         | 24.53          |
| 4607.55                                                                   | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                    | -                | 10.74          |      | -               | -20.00         | -              |
| 511.95                                                                    | 5.73             | 31.78          | y-V  | 37.51           | -              | -              |
| 1023.9                                                                    | -36.31           | -6.89          |      | -43.20          | -20.00         | 23.20          |
| 1535.85                                                                   | -36.47           | -4.35          |      | -40.82          | -20.00         | 20.82          |
| 2047.8                                                                    | -40.02           | -1.95          |      | -41.97          | -20.00         | 21.97          |
| 2559.75                                                                   | -39.90           | 0.39           |      | -39.51          | -20.00         | 19.51          |
| 3071.7                                                                    | -49.37           | 2.79           |      | -46.58          | -20.00         | 26.58          |
| 3583.65                                                                   | -47.55           | 4.57           |      | -42.98          | -20.00         | 22.98          |
| 4095.6                                                                    | -49.01           | 6.38           |      | -42.64          | -20.00         | 22.64          |
| 4607.55                                                                   | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                    | -                | 10.74          |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 511.95_Low<br>Battery : KNB-57L, Antenna : KRA-42M2 |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 511.95                                                                   | 2.99             | 31.78          | x-H  | 34.77           | -              | -              |
| 1023.9                                                                   | -44.64           | -6.89          |      | -51.53          | -20.00         | 31.53          |
| 1535.85                                                                  | -47.99           | -4.35          |      | -52.34          | -20.00         | 32.34          |
| 2047.8                                                                   | -43.24           | -1.95          |      | -45.19          | -20.00         | 25.19          |
| 2559.75                                                                  | -47.88           | 0.39           |      | -47.49          | -20.00         | 27.49          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |
| 511.95                                                                   | 2.40             | 31.78          | y-V  | 34.18           | -              | -              |
| 1023.9                                                                   | -41.43           | -6.89          |      | -48.32          | -20.00         | 28.32          |
| 1535.85                                                                  | -48.02           | -4.35          |      | -52.37          | -20.00         | 32.37          |
| 2047.8                                                                   | -47.65           | -1.95          |      | -49.60          | -20.00         | 29.60          |
| 2559.75                                                                  | -49.20           | 0.39           |      | -48.81          | -20.00         | 28.81          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

### 4K00F1E, 4K00F1D, 4K00F7W

| Frequency [MHz] F1 : 406.15_High<br>Battery : KNB-57L, Antenna : KRA-27M3 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                    | 9.01             | 28.98          | x-H  | 37.99           | -              | -              |
| 812.3                                                                     | -75.82           | 38.25          |      | -37.57          | -20.00         | 17.57          |
| 1218.45                                                                   | -33.35           | -4.27          |      | -37.62          | -20.00         | 17.62          |
| 1624.6                                                                    | -41.17           | -5.10          |      | -46.27          | -20.00         | 26.27          |
| 2030.75                                                                   | -35.41           | -2.67          |      | -38.08          | -20.00         | 18.08          |
| 2436.9                                                                    | -39.42           | 0.23           |      | -39.19          | -20.00         | 19.19          |
| 2843.05                                                                   | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -                | 6.17           |      | -               | -20.00         | -              |
| 406.15                                                                    | 8.77             | 28.98          | y-V  | 37.75           | -              | -              |
| 812.3                                                                     | -76.40           | 38.25          |      | -38.15          | -20.00         | 18.15          |
| 1218.45                                                                   | -32.52           | -4.27          |      | -36.79          | -20.00         | 16.79          |
| 1624.6                                                                    | -40.97           | -5.10          |      | -46.07          | -20.00         | 26.07          |
| 2030.75                                                                   | -35.05           | -2.67          |      | -37.72          | -20.00         | 17.72          |
| 2436.9                                                                    | -40.66           | 0.23           |      | -40.43          | -20.00         | 20.43          |
| 2843.05                                                                   | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -                | 6.17           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log(P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 406.15_Low<br>Battery : KNB-57L, Antenna : KRA-27M3 |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                   | 1.61             | 28.98          | x-H  | 30.59           | -              | -              |
| 812.3                                                                    | -76.14           | 38.25          |      | -37.89          | -20.00         | 17.89          |
| 1218.45                                                                  | -42.47           | -4.27          |      | -46.74          | -20.00         | 26.74          |
| 1624.6                                                                   | -44.33           | -5.10          |      | -49.43          | -20.00         | 29.43          |
| 2030.75                                                                  | -42.15           | -2.67          |      | -44.82          | -20.00         | 24.82          |
| 2436.9                                                                   | -50.39           | 0.23           |      | -50.16          | -20.00         | 30.16          |
| 2843.05                                                                  | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                   | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                  | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                   | -                | 6.17           |      | -               | -20.00         | -              |
| 406.15                                                                   | 1.30             | 28.98          | y-V  | 30.28           | -              | -              |
| 812.3                                                                    | -73.29           | 38.25          |      | -35.04          | -20.00         | 15.04          |
| 1218.45                                                                  | -41.49           | -4.27          |      | -45.76          | -20.00         | 25.76          |
| 1624.6                                                                   | -43.72           | -5.10          |      | -48.82          | -20.00         | 28.82          |
| 2030.75                                                                  | -42.30           | -2.67          |      | -44.97          | -20.00         | 24.97          |
| 2436.9                                                                   | -51.38           | 0.23           |      | -51.15          | -20.00         | 31.15          |
| 2843.05                                                                  | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2                                                                   | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                  | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                   | -                | 6.17           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 450.05_High<br>Battery : KNB-57L, Antenna : KRA-27M |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 450.05                                                                   | 8.81             | 30.83          | y-V  | 39.64           | -              | -              |
| 900.1                                                                    | -75.71           | 39.45          |      | -36.26          | -20.00         | 16.26          |
| 1350.15                                                                  | -34.06           | -2.99          |      | -37.05          | -20.00         | 17.05          |
| 1800.2                                                                   | -46.55           | -4.31          |      | -50.86          | -20.00         | 30.86          |
| 2250.25                                                                  | -38.98           | 1.52           |      | -37.46          | -20.00         | 17.46          |
| 2700.3                                                                   | -43.40           | 0.93           |      | -42.47          | -20.00         | 22.47          |
| 3150.35                                                                  | -50.32           | 3.68           |      | -46.64          | -20.00         | 26.64          |
| 3600.4                                                                   | -48.98           | 4.34           |      | -44.64          | -20.00         | 24.64          |
| 4050.45                                                                  | -51.21           | 5.96           |      | -45.25          | -20.00         | 25.25          |
| 4500.5                                                                   | -52.15           | 7.84           |      | -44.31          | -20.00         | 24.31          |
| 450.05                                                                   | 8.77             | 30.83          | z-H  | 39.60           | -              | -              |
| 900.1                                                                    | -75.29           | 39.45          |      | -35.84          | -20.00         | 15.84          |
| 1350.15                                                                  | -30.03           | -2.99          |      | -33.02          | -20.00         | 13.02          |
| 1800.2                                                                   | -42.83           | -4.31          |      | -47.14          | -20.00         | 27.14          |
| 2250.25                                                                  | -39.04           | 1.52           |      | -37.52          | -20.00         | 17.52          |
| 2700.3                                                                   | -39.07           | 0.93           |      | -38.14          | -20.00         | 18.14          |
| 3150.35                                                                  | -50.13           | 3.68           |      | -46.45          | -20.00         | 26.45          |
| 3600.4                                                                   | -44.65           | 4.34           |      | -40.31          | -20.00         | 20.31          |
| 4050.45                                                                  | -50.85           | 5.96           |      | -44.89          | -20.00         | 24.89          |
| 4500.5                                                                   | -49.41           | 7.84           |      | -41.57          | -20.00         | 21.57          |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 450.05_Low<br>Battery : KNB-57L, Antenna : KRA-27M |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 450.05                                                                  | 3.19             | 30.83          | y-V  | 34.02           | -              | -              |
| 900.1                                                                   | -73.40           | 39.45          |      | -33.95          | -20.00         | 13.95          |
| 1350.15                                                                 | -40.74           | -2.99          |      | -43.73          | -20.00         | 23.73          |
| 1800.2                                                                  | -48.63           | -4.31          |      | -52.94          | -20.00         | 32.94          |
| 2250.25                                                                 | -43.37           | 1.52           |      | -41.85          | -20.00         | 21.85          |
| 2700.3                                                                  | -51.02           | 0.93           |      | -50.09          | -20.00         | 30.09          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |
| 450.05                                                                  | 3.14             | 30.83          | z-H  | 33.97           | -              | -              |
| 900.1                                                                   | -72.47           | 39.45          |      | -33.02          | -20.00         | 13.02          |
| 1350.15                                                                 | -40.20           | -2.99          |      | -43.19          | -20.00         | 23.19          |
| 1800.2                                                                  | -44.77           | -4.31          |      | -49.08          | -20.00         | 29.08          |
| 2250.25                                                                 | -44.17           | 1.52           |      | -42.65          | -20.00         | 22.65          |
| 2700.3                                                                  | -50.04           | 0.93           |      | -49.11          | -20.00         | 29.11          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 469.95_High<br>Battery : KNB-57L, Antenna : KRA-29P |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 469.95                                                                   | 7.54             | 31.19          | x-H  | 38.73           | -              | -              |
| 939.9                                                                    | -72.87           | 40.53          |      | -32.34          | -20.00         | 12.34          |
| 1409.85                                                                  | -36.00           | -2.86          |      | -38.86          | -20.00         | 18.86          |
| 1879.8                                                                   | -38.57           | -3.70          |      | -42.27          | -20.00         | 22.27          |
| 2349.75                                                                  | -42.24           | 0.59           |      | -41.66          | -20.00         | 21.66          |
| 2819.7                                                                   | -49.27           | 1.99           |      | -47.28          | -20.00         | 27.28          |
| 3289.65                                                                  | -50.07           | 2.43           |      | -47.64          | -20.00         | 27.64          |
| 3759.6                                                                   | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                  | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                   | -                | 9.07           |      | -               | -20.00         | -              |
| 469.95                                                                   | 7.88             | 31.19          | y-V  | 39.07           | -              | -              |
| 939.9                                                                    | -71.94           | 40.53          |      | -31.41          | -20.00         | 11.41          |
| 1409.85                                                                  | -31.91           | -2.86          |      | -34.77          | -20.00         | 14.77          |
| 1879.8                                                                   | -41.85           | -3.70          |      | -45.55          | -20.00         | 25.55          |
| 2349.75                                                                  | -40.97           | 0.59           |      | -40.39          | -20.00         | 20.39          |
| 2819.7                                                                   | -49.53           | 1.99           |      | -47.54          | -20.00         | 27.54          |
| 3289.65                                                                  | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                   | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                  | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                   | -                | 9.07           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 469.95_Low<br>Battery : KNB-57L, Antenna : KRA-29P |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 469.95                                                                  | 0.35             | 31.19          | x-H  | 31.54           | -              | -              |
| 939.9                                                                   | -73.75           | 40.53          |      | -33.22          | -20.00         | 13.22          |
| 1409.85                                                                 | -44.19           | -2.86          |      | -47.05          | -20.00         | 27.05          |
| 1879.8                                                                  | -45.39           | -3.70          |      | -49.09          | -20.00         | 29.09          |
| 2349.75                                                                 | -45.41           | 0.59           |      | -44.83          | -20.00         | 24.83          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |
| 469.95                                                                  | 0.66             | 31.19          | y-V  | 31.85           | -              | -              |
| 939.9                                                                   | -72.75           | 40.53          |      | -32.22          | -20.00         | 12.22          |
| 1409.85                                                                 | -41.33           | -2.86          |      | -44.19          | -20.00         | 24.19          |
| 1879.8                                                                  | -47.94           | -3.70          |      | -51.64          | -20.00         | 31.64          |
| 2349.75                                                                 | -44.77           | 0.59           |      | -44.19          | -20.00         | 24.19          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 511.95_High<br>Battery : KNB-57L, Antenna : KRA-42M2 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 511.95                                                                    | 6.07             | 31.78          | x-H  | 37.85           | -              | -              |
| 1023.9                                                                    | -40.67           | -6.89          |      | -47.56          | -20.00         | 27.56          |
| 1535.85                                                                   | -34.05           | -4.35          |      | -38.40          | -20.00         | 18.40          |
| 2047.8                                                                    | -36.84           | -1.95          |      | -38.79          | -20.00         | 18.79          |
| 2559.75                                                                   | -36.27           | 0.39           |      | -35.88          | -20.00         | 15.88          |
| 3071.7                                                                    | -50.90           | 2.79           |      | -48.11          | -20.00         | 28.11          |
| 3583.65                                                                   | -43.21           | 4.57           |      | -38.64          | -20.00         | 18.64          |
| 4095.6                                                                    | -50.29           | 6.38           |      | -43.92          | -20.00         | 23.92          |
| 4607.55                                                                   | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                    | -                | 10.74          |      | -               | -20.00         | -              |
| 511.95                                                                    | 5.38             | 31.78          | y-V  | 37.16           | -              | -              |
| 1023.9                                                                    | -36.02           | -6.89          |      | -42.91          | -20.00         | 22.91          |
| 1535.85                                                                   | -36.44           | -4.35          |      | -40.79          | -20.00         | 20.79          |
| 2047.8                                                                    | -40.69           | -1.95          |      | -42.64          | -20.00         | 22.64          |
| 2559.75                                                                   | -39.72           | 0.39           |      | -39.33          | -20.00         | 19.33          |
| 3071.7                                                                    | -48.87           | 2.79           |      | -46.08          | -20.00         | 26.08          |
| 3583.65                                                                   | -47.21           | 4.57           |      | -42.64          | -20.00         | 22.64          |
| 4095.6                                                                    | -48.95           | 6.38           |      | -42.58          | -20.00         | 22.58          |
| 4607.55                                                                   | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                    | -                | 10.74          |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 511.95_Low<br>Battery : KNB-57L, Antenna : KRA-42M2 |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 511.95                                                                   | 2.94             | 31.78          | x-H  | 34.72           | -              | -              |
| 1023.9                                                                   | -44.24           | -6.89          |      | -51.13          | -20.00         | 31.13          |
| 1535.85                                                                  | -48.32           | -4.35          |      | -52.67          | -20.00         | 32.67          |
| 2047.8                                                                   | -43.50           | -1.95          |      | -45.45          | -20.00         | 25.45          |
| 2559.75                                                                  | -46.91           | 0.39           |      | -46.52          | -20.00         | 26.52          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |
| 511.95                                                                   | 2.32             | 31.78          | y-V  | 34.10           | -              | -              |
| 1023.9                                                                   | -41.28           | -6.89          |      | -48.17          | -20.00         | 28.17          |
| 1535.85                                                                  | -47.48           | -4.35          |      | -51.83          | -20.00         | 31.83          |
| 2047.8                                                                   | -47.77           | -1.95          |      | -49.72          | -20.00         | 29.72          |
| 2559.75                                                                  | -48.51           | 0.39           |      | -48.12          | -20.00         | 28.12          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

# 4K00F2D

Frequency [MHz] F1 : 406.15\_Low  
Battery : KNB-57L, Antenna : KRA-27M3

| Frequency<br>(MHz) | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------|------------------|----------------|------|-----------------|----------------|----------------|
| 406.15             | 1.57             | 28.98          | x-H  | 30.55           | -              | -              |
| 812.3              | -67.46           | 38.25          |      | -29.21          | -20.00         | 9.21           |
| 1218.45            | -43.36           | -4.27          |      | -47.63          | -20.00         | 27.63          |
| 1624.6             | -46.88           | -5.10          |      | -51.98          | -20.00         | 31.98          |
| 2030.75            | -40.77           | -2.67          |      | -43.44          | -20.00         | 23.44          |
| 2436.9             | -51.02           | 0.23           |      | -50.79          | -20.00         | 30.79          |
| 2843.05            | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2             | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35            | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5             | -                | 6.17           |      | -               | -20.00         | -              |
| 406.15             | 1.30             | 28.98          | y-V  | 30.28           | -              | -              |
| 812.3              | -71.44           | 38.25          |      | -33.19          | -20.00         | 13.19          |
| 1218.45            | -41.25           | -4.27          |      | -45.52          | -20.00         | 25.52          |
| 1624.6             | -43.98           | -5.10          |      | -49.08          | -20.00         | 29.08          |
| 2030.75            | -44.16           | -2.67          |      | -46.83          | -20.00         | 26.83          |
| 2436.9             | -51.28           | 0.23           |      | -51.05          | -20.00         | 31.05          |
| 2843.05            | -                | 1.95           |      | -               | -20.00         | -              |
| 3249.2             | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35            | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5             | -                | 6.17           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 450.05_Low<br>Battery : KNB-57L, Antenna : KRA-27M |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 450.05                                                                  | 3.23             | 30.83          | y-V  | 34.06           | -              | -              |
| 900.1                                                                   | -73.66           | 39.45          |      | -34.21          | -20.00         | 14.21          |
| 1350.15                                                                 | -41.24           | -2.99          |      | -44.23          | -20.00         | 24.23          |
| 1800.2                                                                  | -48.75           | -4.31          |      | -53.06          | -20.00         | 33.06          |
| 2250.25                                                                 | -43.90           | 1.52           |      | -42.38          | -20.00         | 22.38          |
| 2700.3                                                                  | -50.79           | 0.93           |      | -49.86          | -20.00         | 29.86          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |
| 450.05                                                                  | 3.18             | 30.83          | z-H  | 34.01           | -              | -              |
| 900.1                                                                   | -72.74           | 39.45          |      | -33.29          | -20.00         | 13.29          |
| 1350.15                                                                 | -40.27           | -2.99          |      | -43.26          | -20.00         | 23.26          |
| 1800.2                                                                  | -44.82           | -4.31          |      | -49.13          | -20.00         | 29.13          |
| 2250.25                                                                 | -43.82           | 1.52           |      | -42.30          | -20.00         | 22.30          |
| 2700.3                                                                  | -48.99           | 0.93           |      | -48.06          | -20.00         | 28.06          |
| 3150.35                                                                 | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4                                                                  | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45                                                                 | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                  | -                | 7.84           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 469.95_Low<br>Battery : KNB-57L, Antenna : KRA-29P |                  |                |      |                 |                |                |
|-------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                      | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 469.95                                                                  | 0.32             | 31.19          | x-H  | 31.51           | -              | -              |
| 939.9                                                                   | -74.50           | 40.53          |      | -33.97          | -20.00         | 13.97          |
| 1409.85                                                                 | -44.90           | -2.86          |      | -47.76          | -20.00         | 27.76          |
| 1879.8                                                                  | -45.13           | -3.70          |      | -48.83          | -20.00         | 28.83          |
| 2349.75                                                                 | -45.01           | 0.59           |      | -44.43          | -20.00         | 24.43          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |
| 469.95                                                                  | 0.62             | 31.19          | y-V  | 31.81           | -              | -              |
| 939.9                                                                   | -72.38           | 40.53          |      | -31.85          | -20.00         | 11.85          |
| 1409.85                                                                 | -41.67           | -2.86          |      | -44.53          | -20.00         | 24.53          |
| 1879.8                                                                  | -47.97           | -3.70          |      | -51.67          | -20.00         | 31.67          |
| 2349.75                                                                 | -44.10           | 0.59           |      | -43.52          | -20.00         | 23.52          |
| 2819.7                                                                  | -                | 1.99           |      | -               | -20.00         | -              |
| 3289.65                                                                 | -                | 2.43           |      | -               | -20.00         | -              |
| 3759.6                                                                  | -                | 5.00           |      | -               | -20.00         | -              |
| 4229.55                                                                 | -                | 6.69           |      | -               | -20.00         | -              |
| 4699.5                                                                  | -                | 9.07           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

| Frequency [MHz] F1 : 511.95_Low<br>Battery : KNB-57L, Antenna : KRA-42M2 |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 511.95                                                                   | 2.87             | 31.78          | x-H  | 34.65           | -              | -              |
| 1023.9                                                                   | -44.54           | -6.89          |      | -51.43          | -20.00         | 31.43          |
| 1535.85                                                                  | -47.63           | -4.35          |      | -51.98          | -20.00         | 31.98          |
| 2047.8                                                                   | -43.70           | -1.95          |      | -45.65          | -20.00         | 25.65          |
| 2559.75                                                                  | -47.87           | 0.39           |      | -47.48          | -20.00         | 27.48          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |
| 511.95                                                                   | 2.25             | 31.78          | y-V  | 34.03           | -              | -              |
| 1023.9                                                                   | -41.39           | -6.89          |      | -48.28          | -20.00         | 28.28          |
| 1535.85                                                                  | -47.81           | -4.35          |      | -52.16          | -20.00         | 32.16          |
| 2047.8                                                                   | -46.63           | -1.95          |      | -48.58          | -20.00         | 28.58          |
| 2559.75                                                                  | -48.62           | 0.39           |      | -48.23          | -20.00         | 28.23          |
| 3071.7                                                                   | -                | 2.79           |      | -               | -20.00         | -              |
| 3583.65                                                                  | -                | 4.57           |      | -               | -20.00         | -              |
| 4095.6                                                                   | -                | 6.38           |      | -               | -20.00         | -              |
| 4607.55                                                                  | -                | 8.66           |      | -               | -20.00         | -              |
| 5119.5                                                                   | -                | 10.74          |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

■ TEST RESULTS for without LCD (Spot check)

**11K0F3E**

| Frequency [MHz] F1 : 450.05_High<br>Battery : KNB-57L, Antenna : KRA-27M |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 450.05                                                                   | 9.21             | 30.83          | z-H  | 40.04           | -              | -              |
| 900.1                                                                    | -73.96           | 39.45          |      | -34.51          | -20.00         | 14.51          |
| 1350.15                                                                  | -40.93           | -2.99          |      | -43.92          | -20.00         | 23.92          |
| 1800.2                                                                   | -44.12           | -4.31          |      | -48.43          | -20.00         | 28.43          |
| 2250.25                                                                  | -32.06           | 1.52           |      | -30.54          | -20.00         | 10.54          |
| 2700.3                                                                   | -37.84           | 0.93           |      | -36.91          | -20.00         | 16.91          |
| 3150.35                                                                  | -48.65           | 3.68           |      | -44.97          | -20.00         | 24.97          |
| 3600.4                                                                   | -46.10           | 4.34           |      | -41.76          | -20.00         | 21.76          |
| 4050.45                                                                  | -53.06           | 5.96           |      | -47.10          | -20.00         | 27.10          |
| 4500.5                                                                   | -50.94           | 7.84           |      | -43.10          | -20.00         | 23.10          |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

# 16K0F3E

Frequency [MHz] F1 : 450.05\_High  
Battery : KNB-57L, Antenna : KRA-27M

| Frequency<br>(MHz) | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------|------------------|----------------|------|-----------------|----------------|----------------|
| 450.05             | 9.22             | 30.83          | y-V  | 40.05           | -              | -              |
| 900.1              | -77.63           | 39.45          |      | -38.18          | -20.00         | 18.18          |
| 1350.15            | -30.65           | -2.99          |      | -33.64          | -20.00         | 13.64          |
| 1800.2             | -46.80           | -4.31          |      | -51.11          | -20.00         | 31.11          |
| 2250.25            | -38.28           | 1.52           |      | -36.76          | -20.00         | 16.76          |
| 2700.3             | -43.12           | 0.93           |      | -42.19          | -20.00         | 22.19          |
| 3150.35            | -48.33           | 3.68           |      | -44.65          | -20.00         | 24.65          |
| 3600.4             | -49.96           | 4.34           |      | -45.62          | -20.00         | 25.62          |
| 4050.45            | -52.27           | 5.96           |      | -46.31          | -20.00         | 26.31          |
| 4500.5             | -48.43           | 7.84           |      | -40.59          | -20.00         | 20.59          |

\*Note :

$$1. \text{ Limit} = P_{\text{dBm}} - (50 + 10 \log (P_{\text{watt}})) = -20 \text{ dBm}$$

# 7K60FXD, 7K60FXE

Frequency [MHz] F1 : 450.05\_High  
Battery : KNB-57L, Antenna : KRA-27M

| Frequency<br>(MHz) | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------|------------------|----------------|------|-----------------|----------------|----------------|
| 450.05             | 9.14             | 30.83          | z-H  | 39.97           | -              | -              |
| 900.1              | -76.23           | 39.45          |      | -36.78          | -20.00         | 16.78          |
| 1350.15            | -41.09           | -2.99          |      | -44.08          | -20.00         | 24.08          |
| 1800.2             | -43.60           | -4.31          |      | -47.91          | -20.00         | 27.91          |
| 2250.25            | -32.34           | 1.52           |      | -30.82          | -20.00         | 10.82          |
| 2700.3             | -37.56           | 0.93           |      | -36.63          | -20.00         | 16.63          |
| 3150.35            | -48.33           | 3.68           |      | -44.65          | -20.00         | 24.65          |
| 3600.4             | -45.56           | 4.34           |      | -41.22          | -20.00         | 21.22          |
| 4050.45            | -52.22           | 5.96           |      | -46.26          | -20.00         | 26.26          |
| 4500.5             | -51.92           | 7.84           |      | -44.08          | -20.00         | 24.08          |

\*Note :

$$1. \text{ Limit} = P_{\text{dBm}} - (50 + 10 \log (P_{\text{watt}})) = -20 \text{ dBm}$$

### 8K30F1E, 8K30F1D, 8K30F7W

| Frequency [MHz] F1 : 406.15_High<br>Battery : KNB-57L, Antenna : KRA-27M3 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                    | 8.59             | 28.98          | x-H  | 37.57           | -              | -              |
| 812.3                                                                     | -76.27           | 38.25          |      | -38.02          | -20.00         | 18.02          |
| 1218.45                                                                   | -40.90           | -4.27          |      | -45.17          | -20.00         | 25.17          |
| 1624.6                                                                    | -41.41           | -5.10          |      | -46.51          | -20.00         | 26.51          |
| 2030.75                                                                   | -41.16           | -2.67          |      | -43.83          | -20.00         | 23.83          |
| 2436.9                                                                    | -46.73           | 0.23           |      | -46.50          | -20.00         | 26.50          |
| 2843.05                                                                   | -50.26           | 1.95           |      | -48.31          | -20.00         | 28.31          |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -                | 6.17           |      | -               | -20.00         | -              |

\*Note :

$$1. \text{ Limit} = P_{\text{dBm}} - (50 + 10 \log(P_{\text{watt}})) = -20 \text{ dBm}$$

### 4K00F1E, 4K00F1D, 4K00F7W

| Frequency [MHz] F1 : 406.15_High<br>Battery : KNB-57L, Antenna : KRA-27M3 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                    | 8.63             | 28.98          | x-H  | 37.61           | -              | -              |
| 812.3                                                                     | -77.06           | 38.25          |      | -38.81          | -20.00         | 18.81          |
| 1218.45                                                                   | -41.24           | -4.27          |      | -45.51          | -20.00         | 25.51          |
| 1624.6                                                                    | -41.13           | -5.10          |      | -46.23          | -20.00         | 26.23          |
| 2030.75                                                                   | -40.55           | -2.67          |      | -43.22          | -20.00         | 23.22          |
| 2436.9                                                                    | -46.66           | 0.23           |      | -46.43          | -20.00         | 26.43          |
| 2843.05                                                                   | -49.58           | 1.95           |      | -47.63          | -20.00         | 27.63          |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -                | 6.17           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

### 4K00F2D

Frequency [MHz] F1 : 450.05\_Low  
Battery : KNB-57L, Antenna : KRA-27M

| Frequency<br>(MHz) | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------|------------------|----------------|------|-----------------|----------------|----------------|
| 450.05             | 3.08             | 30.83          | y-V  | 33.91           | -              | -              |
| 900.1              | -74.28           | 39.45          |      | -34.83          | -20.00         | 14.83          |
| 1350.15            | -40.82           | -2.99          |      | -43.81          | -20.00         | 23.81          |
| 1800.2             | -48.45           | -4.31          |      | -52.76          | -20.00         | 32.76          |
| 2250.25            | -44.86           | 1.52           |      | -43.34          | -20.00         | 23.34          |
| 2700.3             | -                | 0.93           |      | -               | -20.00         | -              |
| 3150.35            | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4             | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45            | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5             | -                | 7.84           |      | -               | -20.00         | -              |

\*Note :

$$1. \text{ Limit} = P_{\text{dBm}} - (50 + 10 \log (P_{\text{watt}})) = -20 \text{ dBm}$$

# TEST RESULTS (Spot check)

## 11K0F3E

| Frequency [MHz] F1 : 450.05_High<br>Battery : KNB-57L, Antenna : KRA-27M |                  |                |      |                 |                |                |
|--------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                       | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 450.05                                                                   | 9.69             | 30.83          | z-H  | 40.52           | -              | -              |
| 900.1                                                                    | -75.53           | 39.45          |      | -36.08          | -20.00         | 16.08          |
| 1350.15                                                                  | -40.85           | -2.99          |      | -43.84          | -20.00         | 23.84          |
| 1800.2                                                                   | -43.60           | -4.31          |      | -47.91          | -20.00         | 27.91          |
| 2250.25                                                                  | -33.46           | 1.52           |      | -31.94          | -20.00         | 11.94          |
| 2700.3                                                                   | -38.77           | 0.93           |      | -37.84          | -20.00         | 17.84          |
| 3150.35                                                                  | -50.68           | 3.68           |      | -47.00          | -20.00         | 27.00          |
| 3600.4                                                                   | -50.24           | 4.34           |      | -45.90          | -20.00         | 25.90          |
| 4050.45                                                                  | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5                                                                   | -                | 7.84           |      | -               | -20.00         | -              |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

# 16K0F3E

Frequency [MHz] F1 : 450.05\_High  
Battery : KNB-57L, Antenna : KRA-27M

| Frequency (MHz) | Reading [dBm] | Factor (dB) | Pol. | Result (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|---------------|-------------|------|--------------|-------------|-------------|
| 450.05          | 9.58          | 30.83       | y-V  | 40.41        | -           | -           |
| 900.1           | -77.34        | 39.45       |      | -37.89       | -20.00      | 17.89       |
| 1350.15         | -32.57        | -2.99       |      | -35.56       | -20.00      | 15.56       |
| 1800.2          | -45.89        | -4.31       |      | -50.20       | -20.00      | 30.20       |
| 2250.25         | -35.06        | 1.52        |      | -33.54       | -20.00      | 13.54       |
| 2700.3          | -42.53        | 0.93        |      | -41.60       | -20.00      | 21.60       |
| 3150.35         | -51.74        | 3.68        |      | -48.06       | -20.00      | 28.06       |
| 3600.4          | -49.56        | 4.34        |      | -45.22       | -20.00      | 25.22       |
| 4050.45         | -51.79        | 5.96        |      | -45.83       | -20.00      | 25.83       |
| 4500.5          | -             | 7.84        |      | -            | -20.00      | -           |

\*Note :

$$1. \text{ Limit} = P_{\text{dBm}} - (50 + 10 \log (P_{\text{watt}})) = -20 \text{ dBm}$$

# 7K60FXD, 7K60FXE

Frequency [MHz] F1 : 450.05\_High  
Battery : KNB-57L, Antenna : KRA-27M

| Frequency (MHz) | Reading [dBm] | Factor (dB) | Pol. | Result (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|---------------|-------------|------|--------------|-------------|-------------|
| 450.05          | 9.29          | 30.83       | z-H  | 40.12        | -           | -           |
| 900.1           | -75.54        | 39.45       |      | -36.09       | -20.00      | 16.09       |
| 1350.15         | -40.90        | -2.99       |      | -43.89       | -20.00      | 23.89       |
| 1800.2          | -44.16        | -4.31       |      | -48.47       | -20.00      | 28.47       |
| 2250.25         | -33.01        | 1.52        |      | -31.49       | -20.00      | 11.49       |
| 2700.3          | -38.19        | 0.93        |      | -37.26       | -20.00      | 17.26       |
| 3150.35         | -51.34        | 3.68        |      | -47.66       | -20.00      | 27.66       |
| 3600.4          | -49.78        | 4.34        |      | -45.44       | -20.00      | 25.44       |
| 4050.45         | -33.18        | 5.96        |      | -27.22       | -20.00      | 7.22        |
| 4500.5          | -             | 7.84        |      | -            | -20.00      | -           |

\*Note :

$$1. \text{ Limit} = P_{\text{dBm}} - (50 + 10 \log (P_{\text{watt}})) = -20 \text{ dBm}$$

### 8K30F1E, 8K30F1D, 8K30F7W

| Frequency [MHz] F1 : 406.15_High<br>Battery : KNB-57L, Antenna : KRA-27M3 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                    | 9.54             | 28.98          | x-H  | 38.52           | -              | -              |
| 812.3                                                                     | -78.20           | 38.25          |      | -39.95          | -20.00         | 19.95          |
| 1218.45                                                                   | -41.12           | -4.27          |      | -45.39          | -20.00         | 25.39          |
| 1624.6                                                                    | -41.55           | -5.10          |      | -46.65          | -20.00         | 26.65          |
| 2030.75                                                                   | -43.56           | -2.67          |      | -46.23          | -20.00         | 26.23          |
| 2436.9                                                                    | -45.14           | 0.23           |      | -44.91          | -20.00         | 24.91          |
| 2843.05                                                                   | -51.44           | 1.95           |      | -49.49          | -20.00         | 29.49          |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -51.86           | 6.17           |      | -45.69          | -20.00         | 25.69          |

\*Note :

$$1. \text{ Limit} = P_{\text{dBm}} - (50 + 10 \log (P_{\text{watt}})) = -20 \text{ dBm}$$

### 4K00F1E, 4K00F1D, 4K00F7W

| Frequency [MHz] F1 : 406.15_High<br>Battery : KNB-57L, Antenna : KRA-27M3 |                  |                |      |                 |                |                |
|---------------------------------------------------------------------------|------------------|----------------|------|-----------------|----------------|----------------|
| Frequency<br>(MHz)                                                        | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
| 406.15                                                                    | 9.47             | 28.98          | x-H  | 38.45           | -              | -              |
| 812.3                                                                     | -78.48           | 38.25          |      | -40.23          | -20.00         | 20.23          |
| 1218.45                                                                   | -41.05           | -4.27          |      | -45.32          | -20.00         | 25.32          |
| 1624.6                                                                    | -41.34           | -5.10          |      | -46.44          | -20.00         | 26.44          |
| 2030.75                                                                   | -43.63           | -2.67          |      | -46.30          | -20.00         | 26.30          |
| 2436.9                                                                    | -45.15           | 0.23           |      | -44.92          | -20.00         | 24.92          |
| 2843.05                                                                   | -51.15           | 1.95           |      | -49.20          | -20.00         | 29.20          |
| 3249.2                                                                    | -                | 2.80           |      | -               | -20.00         | -              |
| 3655.35                                                                   | -                | 4.72           |      | -               | -20.00         | -              |
| 4061.5                                                                    | -51.67           | 6.17           |      | -45.50          | -20.00         | 25.50          |

\*Note :

1. Limit =  $P_{dBm} - (50 + 10 \log (P_{watt})) = -20 \text{ dBm}$

### 4K00F2D

Frequency [MHz] F1 : 450.05\_Low  
Battery : KNB-57L, Antenna : KRA-27M

| Frequency<br>(MHz) | Reading<br>[dBm] | Factor<br>(dB) | Pol. | Result<br>(dBm) | Limit<br>(dBm) | Margin<br>(dB) |
|--------------------|------------------|----------------|------|-----------------|----------------|----------------|
| 450.05             | 3.11             | 30.83          | y-V  | 33.94           | -              | -              |
| 900.1              | -74.87           | 39.45          |      | -35.42          | -20.00         | 15.42          |
| 1350.15            | -42.86           | -2.99          |      | -45.85          | -20.00         | 25.85          |
| 1800.2             | -48.52           | -4.31          |      | -52.83          | -20.00         | 32.83          |
| 2250.25            | -40.94           | 1.52           |      | -39.42          | -20.00         | 19.42          |
| 2700.3             | -52.75           | 0.93           |      | -51.82          | -20.00         | 31.82          |
| 3150.35            | -                | 3.68           |      | -               | -20.00         | -              |
| 3600.4             | -                | 4.34           |      | -               | -20.00         | -              |
| 4050.45            | -                | 5.96           |      | -               | -20.00         | -              |
| 4500.5             | -                | 7.84           |      | -               | -20.00         | -              |

\*Note :

$$1. \text{ Limit} = P_{\text{dBm}} - (50 + 10 \log (P_{\text{watt}})) = -20 \text{ dBm}$$

## 7.10 Unwanted Emissions : Receiver Radiated Spurious Emission

**IC Rule(s)** RSS-GEN  
**Test Requirements:** Blow the table  
**Operating conditions:** Under normal test conditions  
**Method of testing:** Radiated

**S/A. Settings:** F < 1 GHz: RBW: 120 kHz, VBW: 300 kHz (Quasi Peak)  
 F > 1 GHz: RBW: 1 MHz, VBW: 1 MHz (Peak)  
**Mode of operation:** Receive

| Frequency<br>(MHz) | Field Strength<br>(microvolts/m at 3 meters) |
|--------------------|----------------------------------------------|
| 30 – 88            | 100                                          |
| 88 - 216           | 150                                          |
| 216 – 960          | 200                                          |
| Above 960          | 500                                          |

### Operation Mode: Receive:

30 MHz ~ 1 GHz

| Frequency               | Reading    | Ant. factor | Cable loss | Ant. POL | Total        | Limit        | Margin |
|-------------------------|------------|-------------|------------|----------|--------------|--------------|--------|
| MHz                     | dB $\mu$ V | dB /m       | dB         | (H/V)    | dB $\mu$ V/m | dB $\mu$ V/m | dB     |
| No Critical peaks found |            |             |            |          |              |              |        |

Above 1 GHz

| Frequency               | Reading    | Ant. factor | Cable loss | Ant. POL | Total        | Limit        | Margin |
|-------------------------|------------|-------------|------------|----------|--------------|--------------|--------|
| MHz                     | dB $\mu$ V | dB /m       | dB         | (H/V)    | dB $\mu$ V/m | dB $\mu$ V/m | dB     |
| No Critical peaks found |            |             |            |          |              |              |        |

## 7.11 Necessary Bandwidth Calculations

| Modulation : 16K0F3E (Authorized Bandwidth 20 kHz) |                                               |
|----------------------------------------------------|-----------------------------------------------|
| Maximum Modulation (M), kHz                        | 3                                             |
| Maximum Deviation (D), kHz                         | 5                                             |
| Constant Factor (K)                                | 1                                             |
| Necessary Bandwidth (BN), kHz                      | $(2 \times M) + (2 \times D \times K) = 16.0$ |

| Modulation : 11K0F3E (Authorized Bandwidth 11.25 kHz) |                                               |
|-------------------------------------------------------|-----------------------------------------------|
| Maximum Modulation (M), kHz                           | 3                                             |
| Maximum Deviation (D), kHz                            | 2.5                                           |
| Constant Factor (K)                                   | 1                                             |
| Necessary Bandwidth (BN), kHz                         | $(2 \times M) + (2 \times D \times K) = 11.0$ |

| Modulation : 8K30F1E, 8K30F1D, 8K30F7W<br>(4Level FSK / 9600bps, Authorized Bandwidth 11.25 kHz) |                              |
|--------------------------------------------------------------------------------------------------|------------------------------|
| Digital information rate (R), bps                                                                | 9600                         |
| Maximum Deviation (D), kHz                                                                       | 3.391                        |
| Signaling States (S)                                                                             | 4                            |
| Numerical factor (K)                                                                             | 0.516                        |
| Necessary Bandwidth (BN), kHz                                                                    | $(R / \log_2 S) + 2DK = 8.3$ |

| Modulation : 7K60FXD, 7K60FXE     |                        |
|-----------------------------------|------------------------|
| Digital information rate (R), bps | 9600                   |
| Maximum Deviation (D), kHz        | 3.391                  |
| Signaling States (S)              | 4                      |
| Constant Factor (K)               | 0.516                  |
| Necessary Bandwidth (BN), kHz     | $(R / \log_2 S) + 2DK$ |
| Necessary Bandwidth (BN), kHz     | 7.60                   |

| Modulation : 4K00F1E, 4K00F1D, 4K00F7W<br>(4Level FSK / 4800bps, Authorized Bandwidth 6 kHz) |                              |
|----------------------------------------------------------------------------------------------|------------------------------|
| Digital information rate (R), bps                                                            | 4800                         |
| Maximum Deviation (D), kHz                                                                   | 1.55                         |
| Signaling States (S)                                                                         | 4                            |
| Numerical factor (K)                                                                         | 0.516                        |
| Necessary Bandwidth (BN), kHz                                                                | $(R / \log_2 S) + 2DK = 4.0$ |

| Modulation : 4K00F2D (CWID, Authorized Bandwidth 6 kHz) |                                              |
|---------------------------------------------------------|----------------------------------------------|
| Maximum Modulation (M), kHz                             | 0.8                                          |
| Maximum Deviation (D), kHz                              | 1.2                                          |
| Numerical factor (K)                                    | 1                                            |
| Necessary Bandwidth (BN), kHz                           | $(2 \times M) + (2 \times D \times K) = 4.0$ |

## 8. LIST OF TEST EQUIPMENT

| Manufacturer      | Model / Equipment                | Calibration<br>Date | Calibration<br>Interval | Calibration<br>Due | Serial No.    |
|-------------------|----------------------------------|---------------------|-------------------------|--------------------|---------------|
| Agilent           | N9020A/ SIGNAL ANALYZER          | 06/24/2016          | Annual                  | 06/24/2017         | MY51110085    |
| Agilent           | N1911A/Power Meter               | 04/17/2017          | Annual                  | 04/17/2018         | MY45100523    |
| Agilent           | N1921A /POWER SENSOR             | 04/17/2017          | Annual                  | 04/17/2018         | MY45241059    |
| TEKTRONIX         | RSA3408A/SPECTRUM ANALYZER       | 09/09/2016          | Annual                  | 09/09/2017         | B010198       |
| Hewlett Packard   | 8903B/Audio Analyzer             | 10/18/2016          | Annual                  | 10/18/2017         | 3413A13913    |
| Hewlett Packard   | 8901B/Modulation Analyzer        | 10/21/2016          | Annual                  | 10/21/2017         | 3438A05231    |
| Agilent           | 8498A/30 dB Attenuator           | 02/16/2017          | Annual                  | 02/16/2018         | 51162         |
| HP                | 8493C/10 dB Attenuator           | 07/14/2016          | Annual                  | 07/14/2017         | 08285         |
| EAGLE             | 230NFM/Tuneable Notch Filter     | 10/12/2016          | Annual                  | 10/12/2017         | H00564-9      |
| EAGLE             | 230NFM/Tuneable Notch Filter     | 10/12/2016          | Annual                  | 10/12/2017         | H00564-10     |
| Korea Engineering | KR-1005L / Temperature Chamber   | 10/21/2016          | Annual                  | 10/21/2017         | KRAB05063-3CH |
| CERNEX            | CBLU1183540B-01/AMP              | 06/16/2016          | Annual                  | 06/16/2017         | 26822         |
| Wainwright        | WHKX10-900-1000-15000/H.P.F      | 08/04/2016          | Annual                  | 08/04/2016         | 5             |
| Schwarzbeck       | VULB 9160/ TRILOG Antenna        | 10/14/2016          | Biennial                | 10/14/2018         | 3368          |
| Schwarzbeck       | BBHA 9120D/ Horn Antenna         | 05/15/2015          | Biennial                | 05/15/2017         | 1299          |
| REOHDE&SCHWARZ    | FSV30/Spectrum Analyzer          | 05/18/2016          | Annual                  | 05/18/2017         | 100854        |
| Inn-co GmbH       | DE 3260/Turn table               | N/A                 | N/A                     | N/A                | 7860504       |
| EMERSON&CUMING    | 10m×5m×5m/ Full anechoic chamber | N/A                 | N/A                     | N/A                | N/A           |