

THRU Lab & Engineering.

477-6, Hager-Ri, Yoju-Up, Yoju-Gun

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THRU

Test Report

Product Name: SLIM CHARGER TRANSMITTER

FCC ID: QBTLTK-1700CT

Applicant:

LEE TECHNOLOGY KOREA CO., LTD.

**3rd FL #499-2, Sang 3-dong, Wonmi-gu,
Bucheon-city, Kyungki-do,
KOREA**

Date Receipt: 15/Dec/2007

Date Tested: 17/Dec/2007

APPLICANT: LEE TECHNOLOGY KOREA CO., LTD.

FCC ID: QBTLTK-1700CT

REPORT #: THRU-702009

COVER SHEET

THRU Lab & Engineering.

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TABLE OF CONTENTS LIST FOR PART 90 UHF DEVICE

APPLICANT: LEE TECHNOLOGY KOREA CO., LTD.

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TEST REPORT CONTAINING:

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EXHIBITS CONTAINING:

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FCC ID: QBTLTK-1700CT

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GENERAL INFORMATION REQUIRED FOR TYPE ACCEPTANCE

2.1033 (c)(1)(2) LEE TECHNOLOGY KOREA CO., LTD.. will sell the
FCC ID: QBTLTK-1700CT
UHF transceiver in quantity,
for use under FCC RULES PART 90 .

2.1033 (C) TECHNICAL DESCRIPTION
2.1033 (3) User Manual See Exhibit 6

2.1033 (4) Type of Emission: 10K2F1D
FOR 25kHz

$B_n = 2M + 2DK$
 $M = 1,200$ Bits per second
 $D = 4.5$ kHz (Peak Deviation)
 $K = 1$
 $B_n = 2(1,200\text{bps}/2) + 2(4500)(1) = 10.2\text{k}$

ALLOWED AUTHORIZED BANDWIDTH = 10.2 kHz.

90.209(b) (5)

2.1033 (5) Frequency Range: 450.3250 ~ 467,8500 MHz
2.1034

(6) Power Range and Controls: There are NO user Power
controls.

(7) Maximum Output Power Rating:
see Next Page.

(8) DC Voltages and Current into Final Amplifier:

POWER INPUT
FIANL AMPLIFIER ONLY
Vce = 5 Volts
IC = 450 mA

(9) Tune-up procedure. The tune-up procedure is given
in EXHIBIT 9.

2.1033 (10) Complete Circuit Diagrams: The circuit diagram is
included as EXHIBIT 2. The block diagram is
included as EXHIBIT 3.

(11) Function of each electron tube or semiconductor
device or other active circuit device:
- SEE EXHIBIT 8.

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(8) Instruction book. The instruction manual is included as EXHIBIT 6.

(10) Description of all circuitry and devices provided for determining and stabilizing frequency is included in the circuit description in Exhibit #7.

2.1033(c)(11) A photograph or drawing of the equipment identification label is shown in Exhibit 1.

2.1033(c)(12) Photographs of the equipment of sufficient clarity to reveal equipment construction and layout and label location are shown in Exhibit 4-5.

2.1033(c)(13) For equipment employing digital modulation, a detail description of the modulation technique. This UUT uses FSK to modulate the transmitter.

2.1033(c)(14) Data required for 2.1046 to 2.1057 See Below

2.1046(a) RF power output.
& 90.205

MAXIMUM PEAK OUTPUT POWER(CONDUCTED)

| Maximum peak output power(W) | | |
|------------------------------|----------|----------|
| LOW | Mid | High |
| 1.0965 W | 1.1482 W | 1.1749 W |
| 30.4 dBm | 30.6 dBm | 30.7 dBm |

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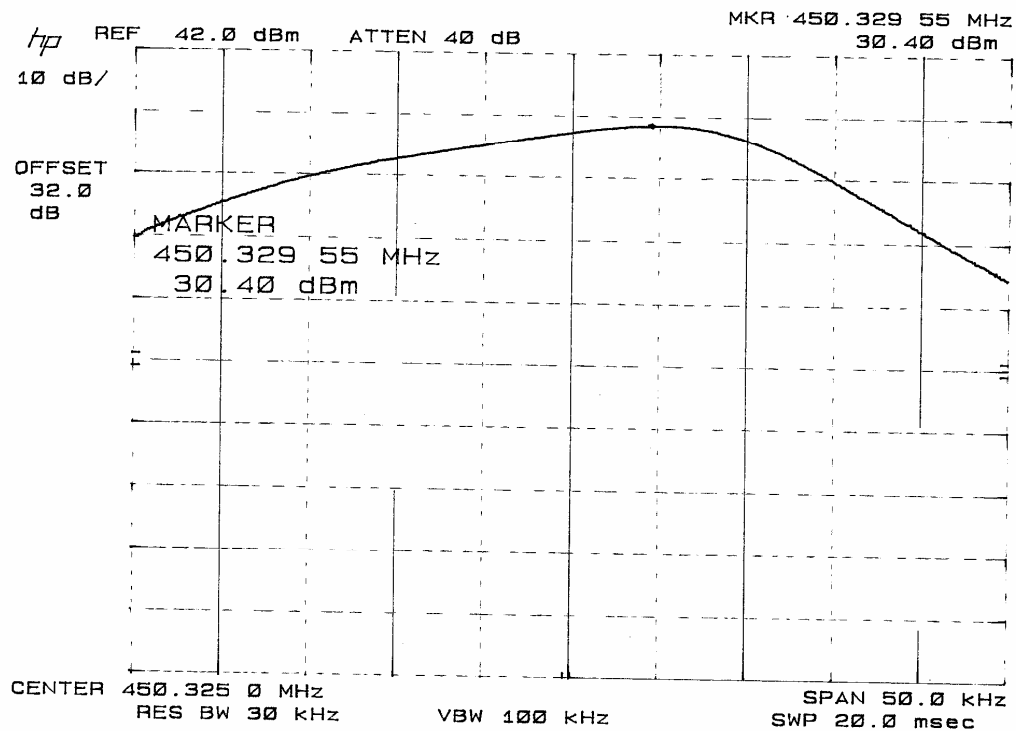
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PLOT

LOW



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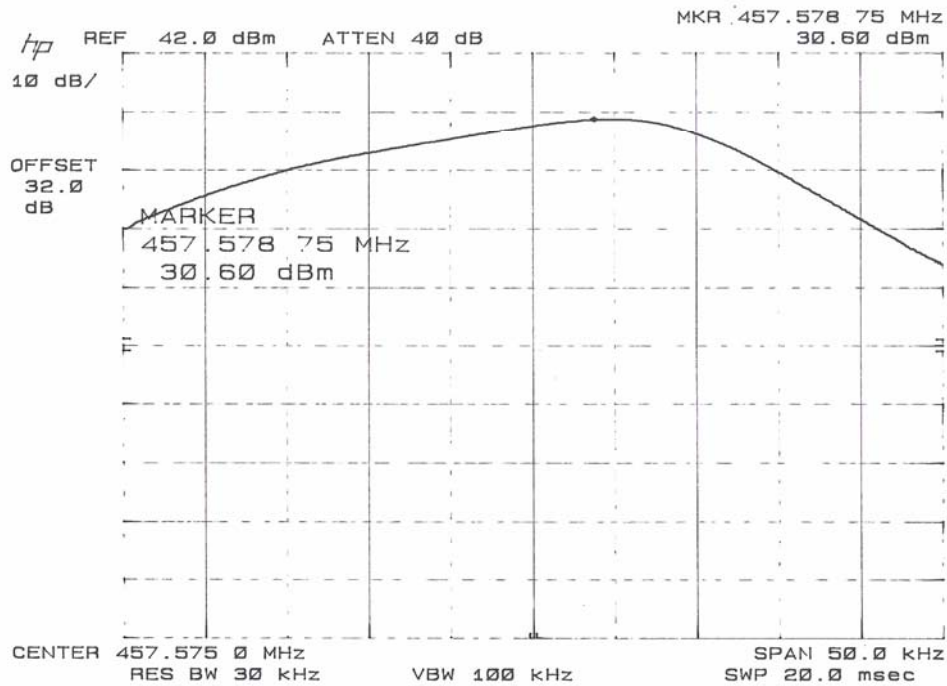
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Mid



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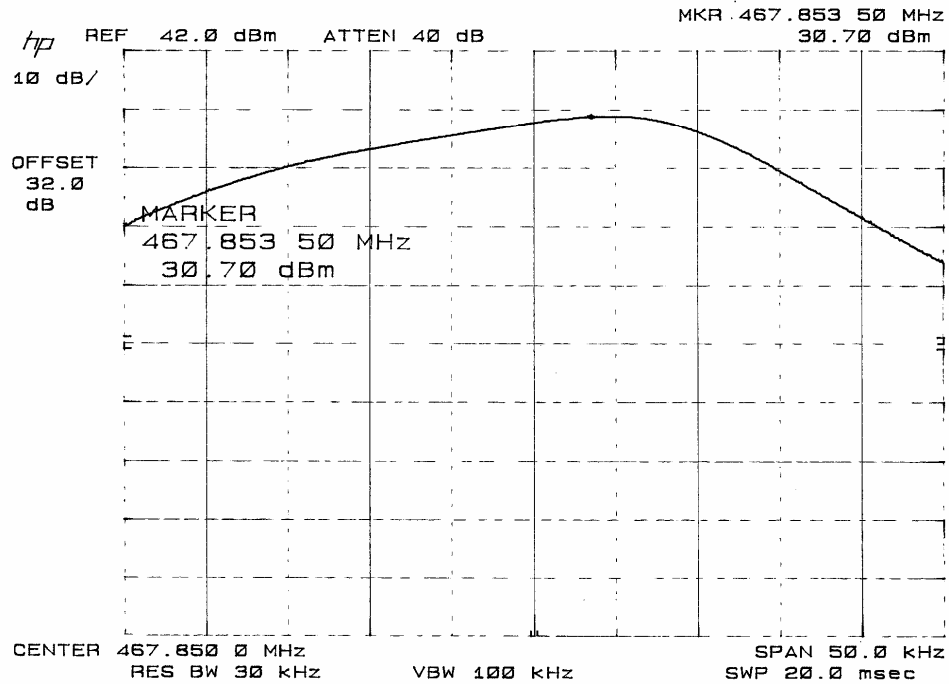
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High



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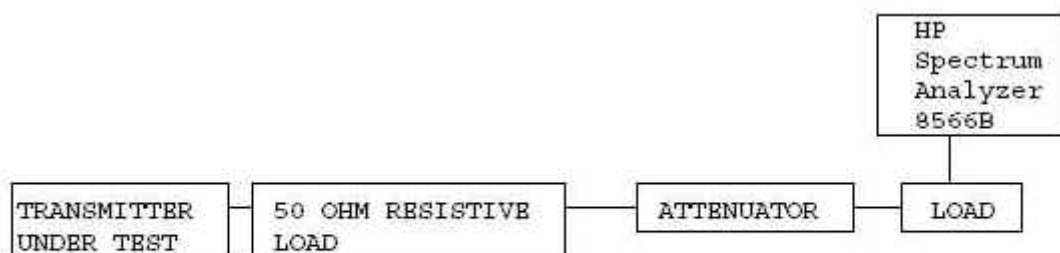
SPURIOUS EMISSIONS (Conducted)

2.1057 SPECTRUM RANGE TO BE INVESTIGATED

Lowest radio frequency signal generated in the equipment, without going below 9kHz, up to at least the frequency shown below:

- (1) If the equipment operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40GHz, whichever is lower.
- (2) If the equipment operates at or above 10GHz and below 30GHz: to the fifth harmonic of the highest fundamental frequency or to 100GHz, whichever is lower.
- (3) If the equipment operates at or above 30GHz: to the fifth harmonic of the highest fundamental frequency or to 200GHz, whichever is lower.
- (b) Particular attention should be paid to harmonics and sub-harmonics of the carrier frequency as well as to those frequencies removed from the carrier by multiples of the oscillator frequency. Radiation at the frequencies of multiplier stages should also be checked.
- (c) The amplitude of spurious emissions, which are attenuated more than 20dB below the permissible value, need not be reported.
- (d) Unless otherwise specified, measurements above 40GHz shall be performed using a minimum resolution bandwidth of 1MHz.

Method of Measuring Conducted Spurious Emissions



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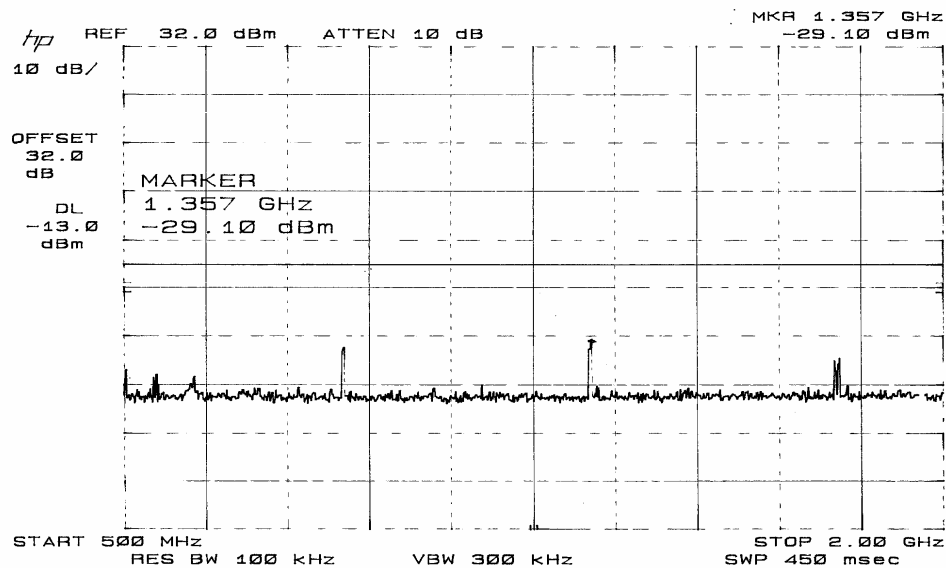
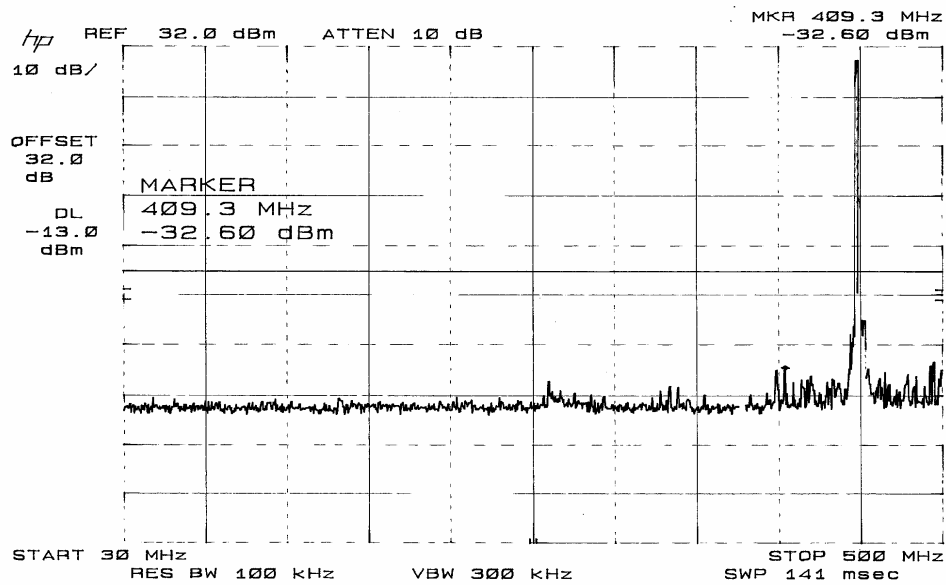
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PLOT

REQUIREMENTS : $43 + 10\log(1.0965) = 43.40 \text{ dB}$

LOW



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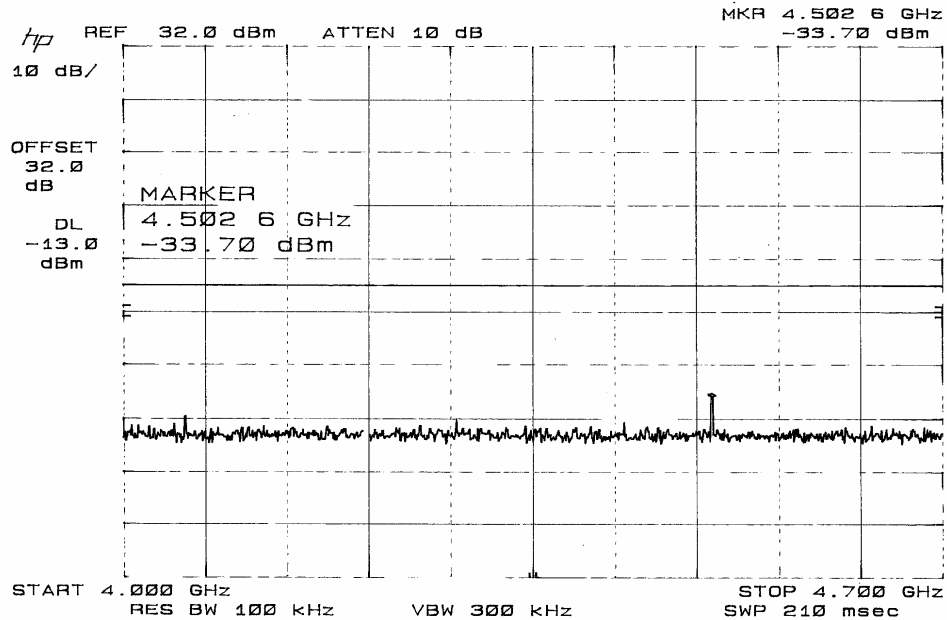
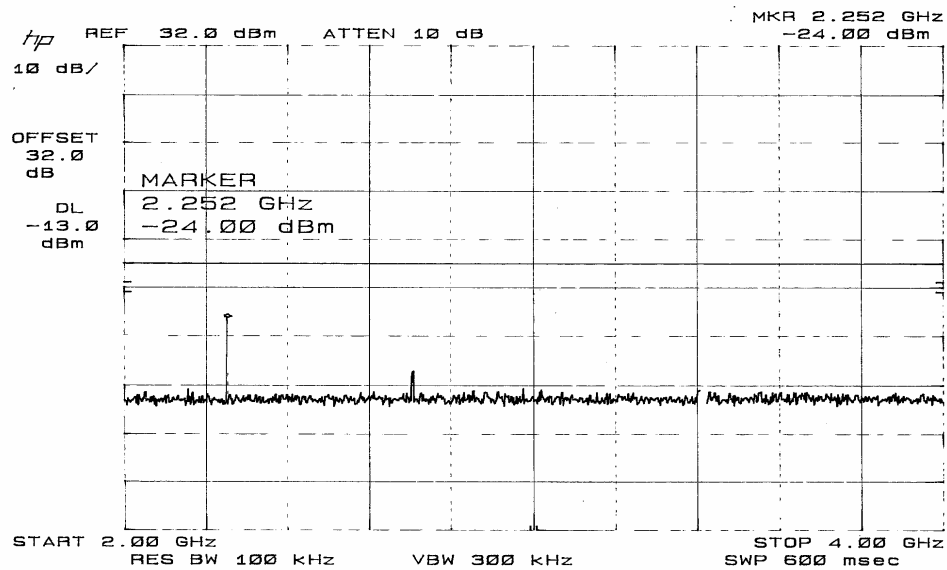
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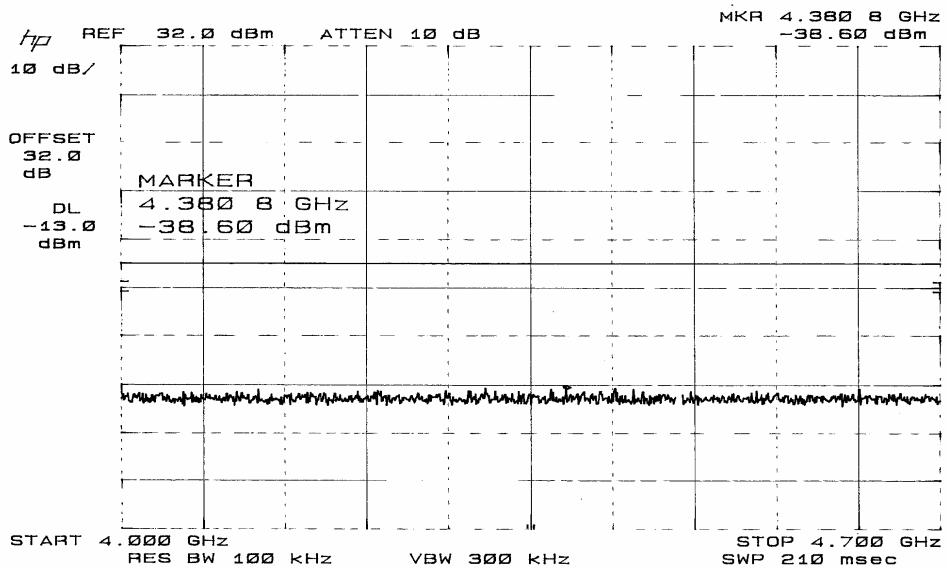
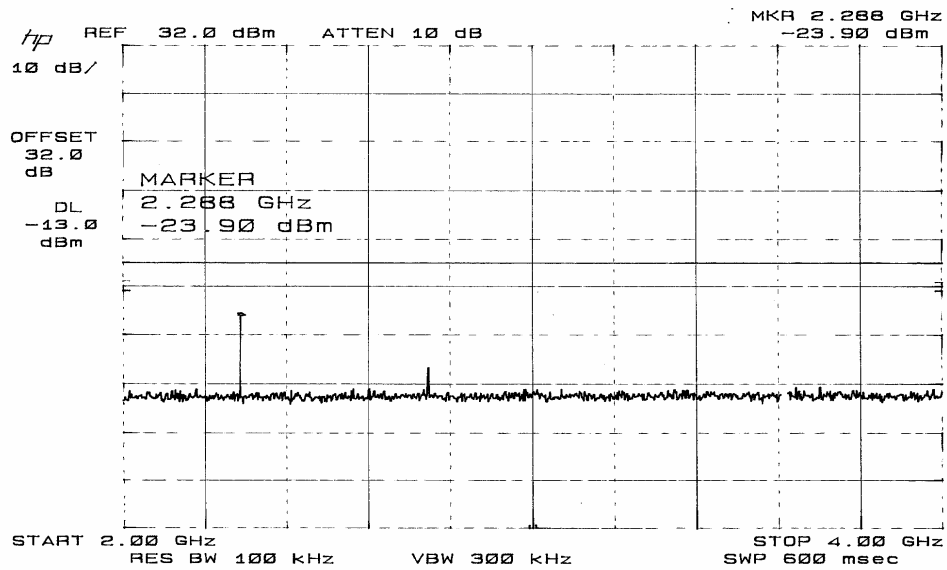
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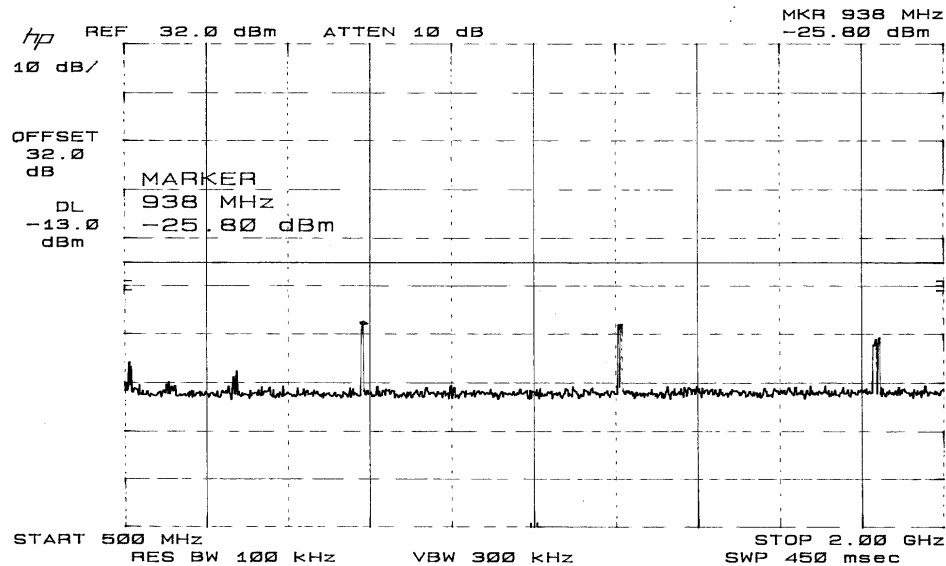
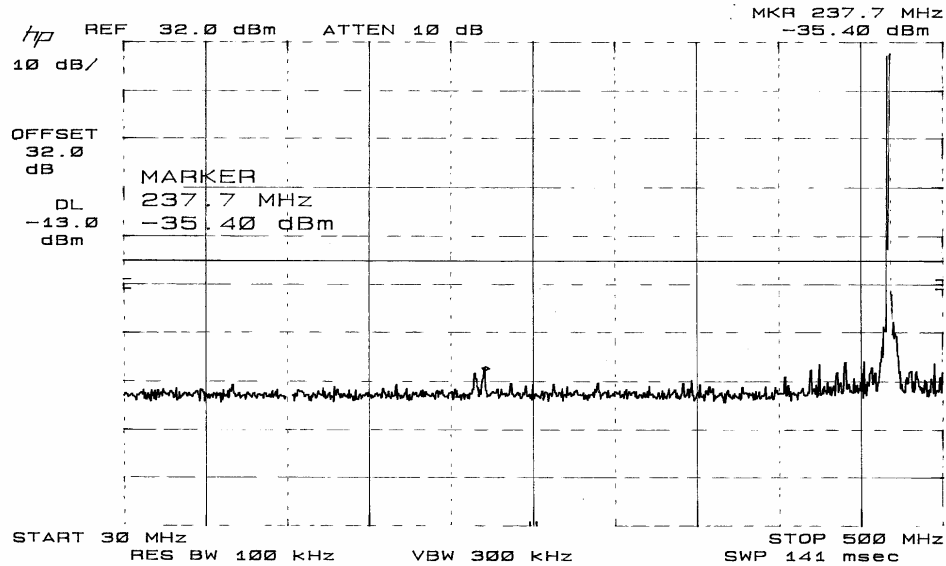
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HIGH

REQUIREMENTS : $43 + 10\log(1.1749) = 43.70 \text{ dB}$



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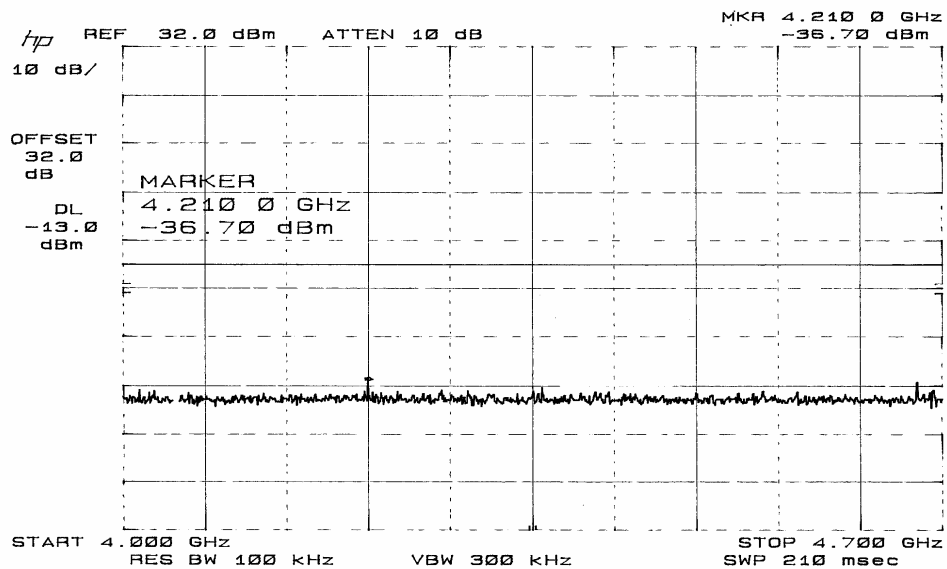
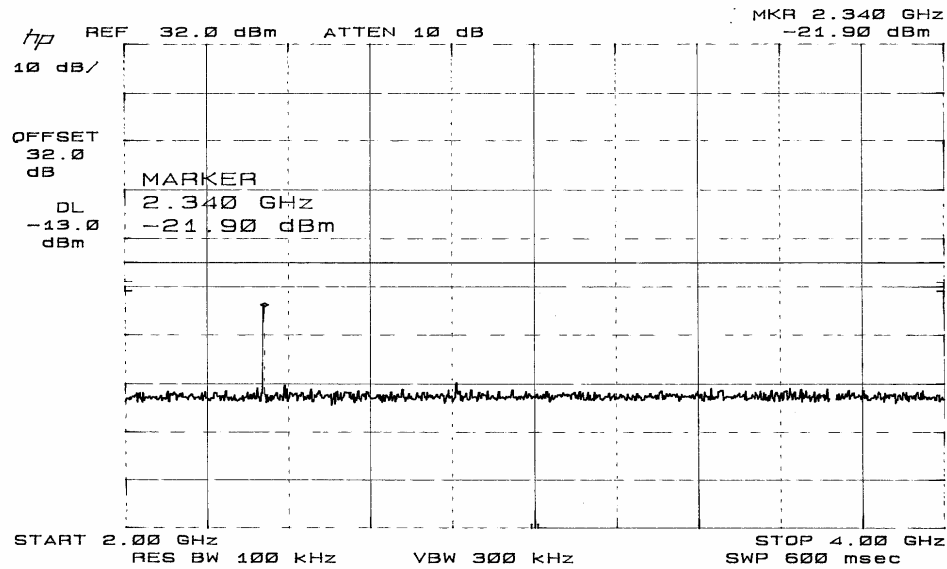
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2.1053

UNWANTED RADIATION

90.210 (g) (3) The tabulated Data shows the results of the radiated Field strength emissions test. The spectrum was Scanned from 30 MHz to at least the 10th harmonic of the fundamental.

REQUIREMENTS: $43 + 10\log(1.0965) = 43.40$ dB

Test result : LOW

| Horizontal | | | | Vertical | | | |
|------------|-------|--------|--------|-----------|-------|--------|--------|
| Frequency | dBc | Margin | dBm | Frequency | dBc | Margin | dBm |
| 450.3250 | 0 | 0 | 0 | 450.3250 | 0 | 0 | 0 |
| 900.6500 | 62.98 | 19.58 | -32.58 | 900.6500 | 47.08 | 3.68 | -16.68 |
| 1350.9750 | 60.29 | 16.89 | -29.89 | 1350.9750 | 63.39 | 19.99 | -32.99 |
| 1801.3000 | 67.10 | 23.70 | -36.70 | 1801.3000 | 63.80 | 20.40 | -33.40 |
| 2251.6250 | 60.24 | 16.84 | -29.84 | 2251.6250 | 57.84 | 14.44 | -27.44 |
| 2701.9500 | 52.47 | 9.07 | -22.07 | 2701.9500 | 47.97 | 4.57 | -17.57 |
| 3152.2750 | 57.56 | 14.16 | -27.16 | 3152.2750 | 58.06 | 14.66 | -27.66 |
| 3602.6000 | 58.34 | 14.94 | -27.94 | 3602.6000 | 58.24 | 14.84 | -27.84 |
| 4052.9250 | 56.94 | 13.54 | -26.54 | 4052.9250 | 56.04 | 12.64 | -25.64 |
| 4503.2500 | 58.68 | 15.28 | -28.28 | 4503.2500 | 54.08 | 10.68 | -23.68 |

METHOD OF MEASUREMENT : The tabulated data shows the results of the radiated field strength emissions test. The spectrum was scanned from 30 MHz to at least the tenth harmonic of the fundamental. This test was conducted per TIA/EIA STANDARD 603 using the substitution method. Measurements were made at the open field test site of ThruLab & ENGINEERING. located at 477-6, Hager-Ri, Yoju-Up, Yoju-Gun, Kyunggi-Do, 469-803, Korea

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2.1053

UNWANTED RADIATION

90.210 (g) (3)

The tabulated Data shows the results of the radiated Field strength emissions test. The spectrum was Scanned from 30 MHz to at least the 10th harmonic of The fundamental.

REQUIREMENTS: $43 + 10\log(1.1482) = 43.60 \text{ dB}$

Test result : Mid

| Horizontal | | | | Vertical | | | |
|------------|-------|--------|--------|-----------|-------|--------|--------|
| Frequency | dBc | Margin | dBm | Frequency | dBc | Margin | dBm |
| 457.5750 | 0 | 0 | 0 | 457.5750 | 0 | 0 | 0 |
| 915.1500 | 67.77 | 24.17 | -37.17 | 915.1500 | 65.97 | 22.37 | -35.37 |
| 1372.7250 | 63.38 | 19.78 | -32.78 | 1372.7250 | 59.58 | 15.98 | -28.98 |
| 1830.3000 | 68.63 | 25.03 | -38.03 | 1830.3000 | 63.83 | 20.23 | -33.23 |
| 2287.8750 | 59.53 | 15.93 | -28.93 | 2287.8750 | 54.93 | 11.33 | -24.33 |
| 2745.4500 | 52.55 | 8.95 | -21.95 | 2745.4500 | 46.65 | 3.05 | -16.05 |
| 3203.0250 | 59.75 | 16.15 | -29.15 | 3203.0250 | 60.05 | 16.45 | -29.45 |
| 3660.6000 | 58.74 | 15.14 | -28.14 | 3660.6000 | 55.44 | 11.84 | -24.84 |
| 4118.1750 | 55.76 | 12.16 | -25.16 | 4118.1750 | 59.66 | 16.06 | -29.06 |
| 4575.7500 | 54.77 | 11.17 | -24.17 | 4575.7500 | 54.37 | 10.77 | -23.77 |

METHOD OF MEASUREMENT : The tabulated data shows the results of the radiated field strength emissions test. The spectrum was scanned from 30 MHz to at least the tenth harmonic of the fundamental. This test was conducted per TIA/EIA STANDARD 603 using the substitution method. Measurements were made at the open field test site of ThruLab & ENGINEERING. located at 477-6, Hager-Ri, Yoju-Up, Yoju-Gun, Kyunggi-Do, 469-803, Korea

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2.1053

UNWANTED RADIATION

90.210 (g) (3)

The tabulated Data shows the results of the radiated Field strength emissions test. The spectrum was Scanned from 30 MHz to at least the 10th harmonic of The fundamental.

REQUIREMENTS: $43 + 10\log(1.1749) = 43.70$ dB

Test result :HIGH

| Horizontal | | | | Vertical | | | |
|------------|-------|--------|--------|-----------|-------|--------|--------|
| Frequency | dBc | Margin | dBm | Frequency | dBc | Margin | dBm |
| 467.8500 | 0 | 0 | 0 | 467.8500 | 0 | 0 | 0 |
| 935.7000 | 60.86 | 17.16 | -30.16 | 935.7000 | 60.26 | 16.56 | -29.56 |
| 1403.5500 | 66.34 | 22.64 | -35.64 | 1403.5500 | 58.44 | 14.74 | -27.74 |
| 1871.4000 | 67.21 | 23.51 | -36.51 | 1871.4000 | 62.61 | 18.91 | -31.91 |
| 2339.2500 | 55.01 | 11.31 | -24.31 | 2339.2500 | 54.31 | 10.61 | -23.61 |
| 2807.1000 | 55.54 | 11.84 | -24.84 | 2807.1000 | 53.24 | 9.54 | -22.54 |
| 3274.9500 | 59.60 | 15.90 | -28.90 | 3274.9500 | 58.90 | 15.20 | -28.20 |
| 3742.8000 | 61.00 | 17.30 | -30.30 | 3742.8000 | 56.20 | 12.50 | -25.50 |
| 4210.6500 | 59.66 | 15.96 | -28.96 | 4210.6500 | 58.86 | 15.16 | -28.16 |
| 4678.5000 | 56.01 | 12.31 | -25.31 | 4678.5000 | 55.51 | 11.81 | -24.81 |

METHOD OF MEASUREMENT : The tabulated data shows the results of the radiated field strength emissions test. The spectrum was scanned from 30 MHz to at least the tenth harmonic of the fundamental. This test was conducted per TIA/EIA STANDARD 603 using the substitution method. Measurements were made at the open field test site of ThruLab & ENGINEERING. located at 477-6, Hager-Ri, Yoju-Up, Yoju-Gun, Kyunggi-Do, 469-803, Korea

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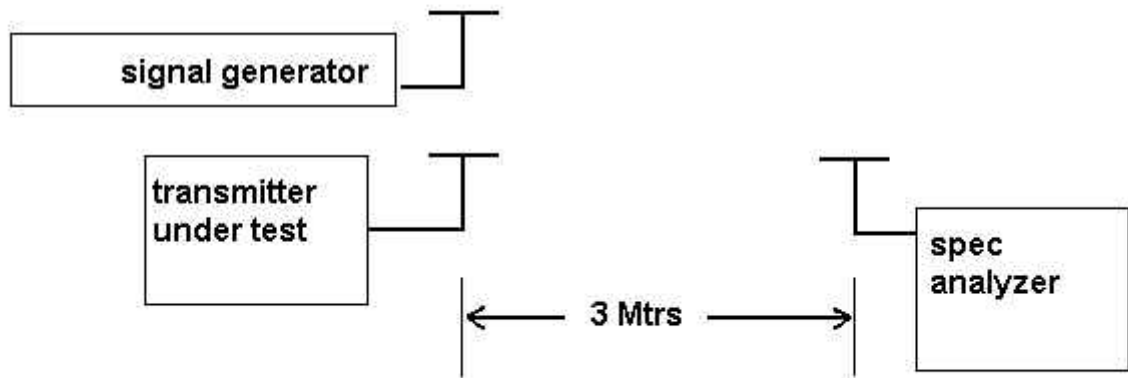
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Method of Measuring Radiated Spurious Emissions



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BANDWIDTH LIMITATION

90.209 According to 90.203(3) For all other types of emissions, the maximum authorized bandwidth shall not be more than that normally authorized for voice operations. According to 90.200(5), Unless specified elsewhere, channel spacing and bandwidths that will be authorized in the following frequency bands are given in the following "STANDARD CHANNEL SPACING/BANDWIDTH" table.

Standard Channel Spacing/Bandwidth

| Frequency band (MHz) (KHz) | Channel | |
|-------------------------------|----------------|----------------|
| | spacing | Authorized |
| | Bandwidth(kHz) | |
| Below 25 | | |
| 25-50. | 20 | 20 |
| 72-76 | 20 | 20 |
| 150-174 | 1)7.5 | 1,3)20/11.25/6 |
| 220-222 | 5 | 4 |
| 421-512 | 1)6.25 | 1,3)20/11.25/6 |
| 806-821/851-866 | 25 | 20 |
| 821-824/866-869 | 12.5 | 20 |
| 896-901/935-940 | 12.5 | 13.6 |
| 902-928..... | | |
| 929-930 | 25 | 20 |
| 1427-1435..... | | |
| 2450-2483.52..... | | |
| Above 2500..... | | |

- 1) For stations authorized on or after August 18,1995.
- 3) Operations using equipment designed to operate with a 25kHz channel bandwidth will be authorized a 20kHz bandwidth.
Operations using equipment designed to operate with a 12.5kHz channel bandwidth will be authorized an 11.25kHz bandwidth.
Operations using equipment designed to operate with a 6.25kHz channel bandwidth will be authorized a 6kHz bandwidth.

Specification Limit: 20kHz

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2.1049 Audio Low Pass Filter
This UUT does not have a low pass filter

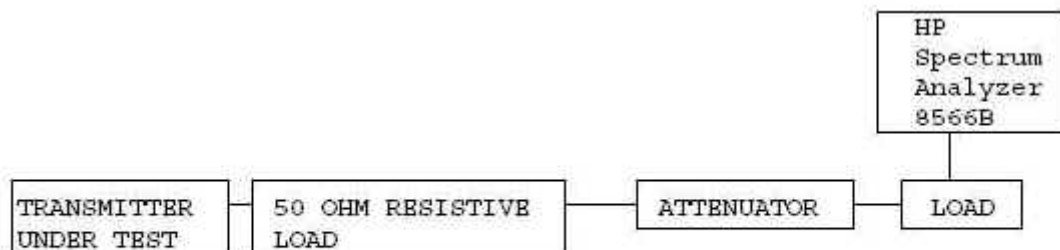
2.1049 Occupied bandwidth:

90.210(g) Emission Mask G.

For transmitters that are not equipped with an audio low-pass filter, the power of any emission must be attenuated below the unmodulated carrier power (P) as follows:

(1) On any frequency removed from the center of the authorized bandwidth by a displacement frequency (f_d in kHz) of more than 10 kHz, but no more than 250 percent of the authorized bandwidth: At least $116 \log(f_d/6.1)$ dB, or $50 + 10 \log(P)$ dB, or 70 dB, whichever is the lesser attenuation; (2) On any frequency removed from the center of the authorized bandwidth by more than 250 percent of the authorized bandwidth: At least $43 + 10 \log(P)$ dB.

Method of Measuring Occupied Bandwidth



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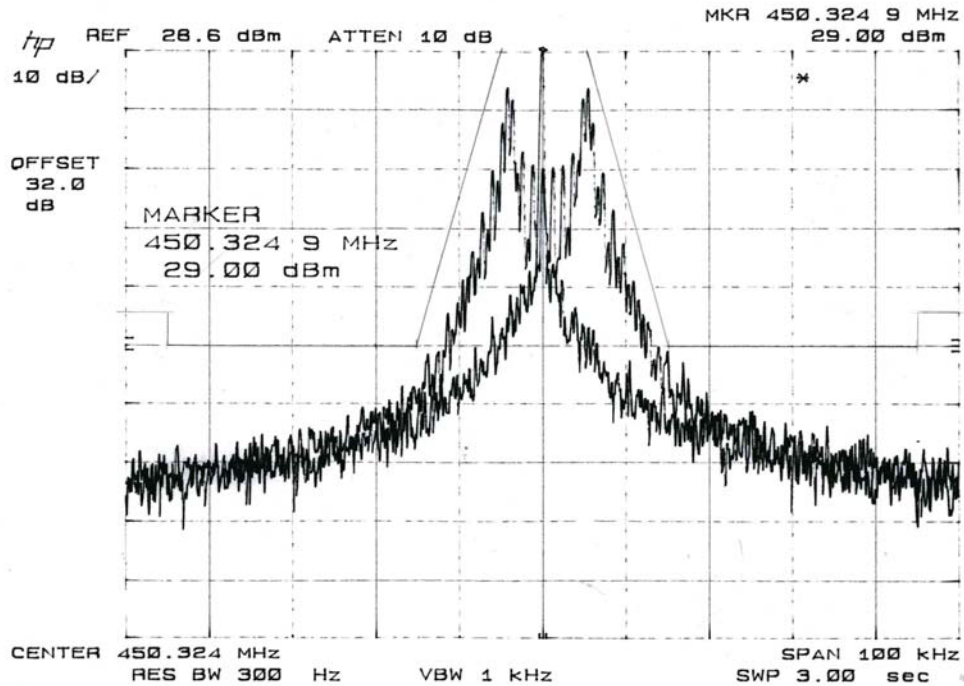
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EMISSIONS MASK(G) PLOT

Low



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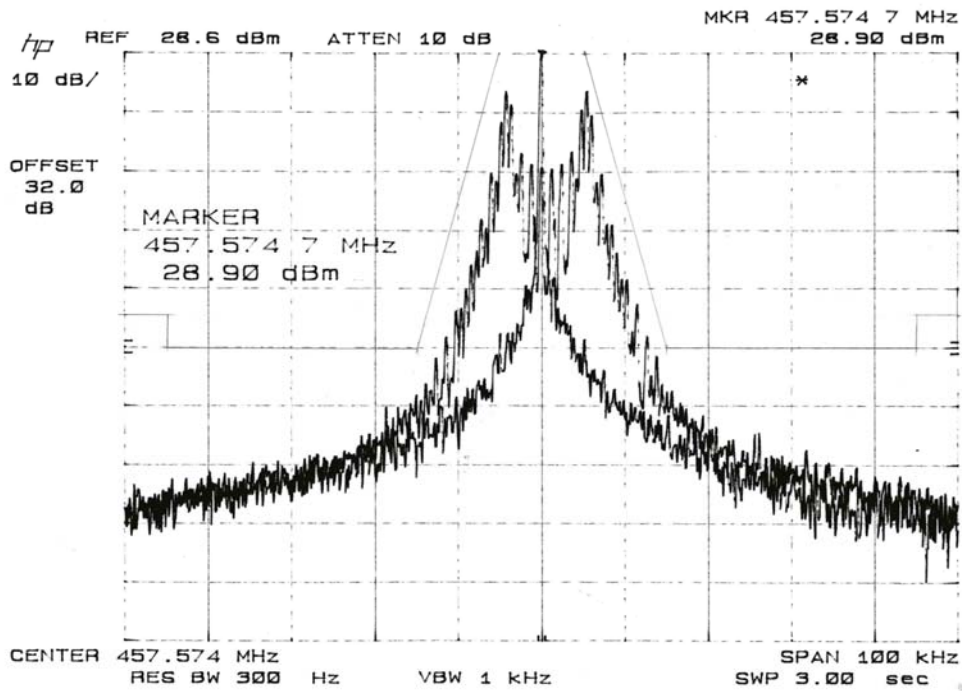
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Mid



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REPORT #: THRU-712007

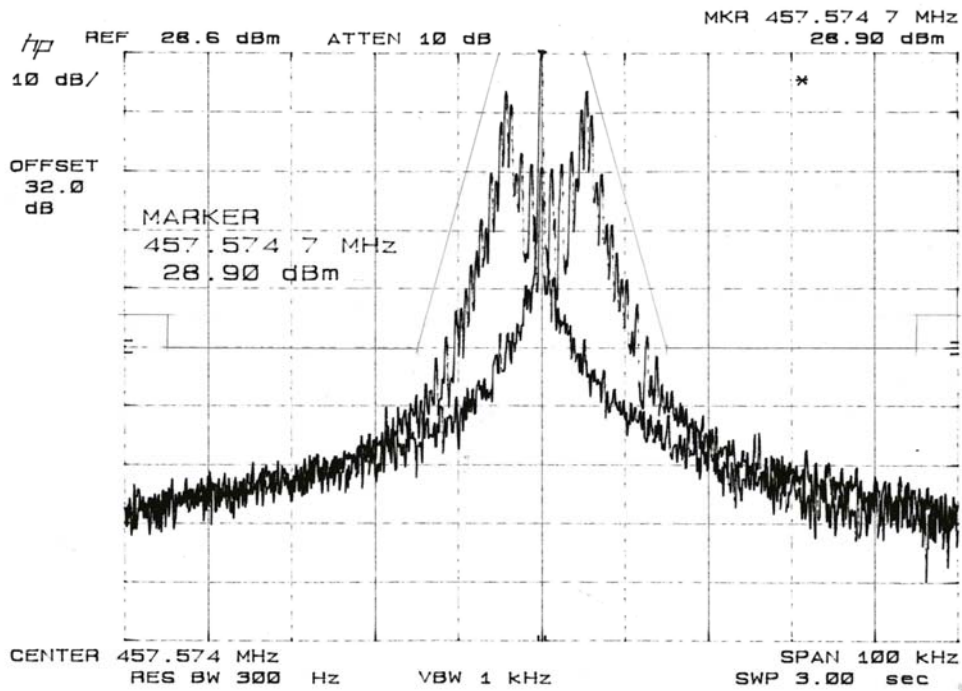
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High



APPLICANT: LEE TECHNOLOGY KOREA CO., LTD.

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Frequency stability:

90.213 (a)(11)

Temperature and voltage tests were performed to verify that the frequency remains within the .00025%, 2.5 ppm specification limit, for 25 kHz spacing. The test was conducted as follows: The transmitter was placed in the temperature chamber at 25 degrees C and allowed to stabilize for one hour. The transmitter was keyed ON for one minute during which four frequency readings were recorded at 15 second intervals. The worse case number was taken for temperature plotting. The assigned channel frequency was considered to be the reference frequency. The temperature was then reduced to -30 degrees C after which the transmitter was again allowed to stabilize for one hour. The transmitter was keyed ON for one minute, and again frequency readings were noted at 15 second intervals. The worst case number was recorded for temperature plotting. This procedure was repeated in 10 degree increments up to +50 degrees C.

MEASUREMENT DATA:

Assigned Frequency (Ref. Frequency) : 457.57500 MHz

| | | | |
|----------------------------|----------------|---------------------------------|------------|
| REFERENCE VOTAGE (V DC) | 12.0 | REFERENCE FREQUENCY (MHz) | 457.57500 |
| | | | |
| TEMPERATURE | FREQUENCY(MHz) | PPM | LIMIT(ppm) |
| -30 | 457.57566 | 1.45 | 2.5 |
| -20 | 457.57527 | 0.59 | 2.5 |
| -10 | 457.57516 | 0.35 | 2.5 |
| 0 | 457.57516 | 0.34 | 2.5 |
| 10 | 457.57526 | 0.56 | 2.5 |
| 20 | 457.57510 | 0.22 | 2.5 |
| 30 | 457.57487 | -0.28 | 2.5 |
| 40 | 457.57477 | -0.49 | 2.5 |
| 50 | 457.57491 | -0.19 | 2.5 |
| +15% Voltage : 13.8V | 457.57494 | -0.13 | 2.5 |
| -15% Voltage : 10.2V | 457.57495 | -0.10 | 2.5 |

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APPLICANT: LEE TECHNOLOGY KOREA CO., LTD.

FCC ID: QBTLTK-1700CT

NAME OF TEST: POWER LINE CONDUCTED INTERFERENCE

RULES PART NO.: 15.207

| REQUIREMENTS: | QUASI-PEAK | AVERAGE |
|---------------|------------|------------|
| .15 - 0.5 MHz | 66-56 dBuV | 56-46 dBuV |
| 0.5 - 5.0 | 56 | 46 |
| 5.0 - 30. | 60 | 50 |

TEST PROCEDURE: ANSI STANDARD C63.4-2003. The spectrum was scanned from .15 to 30 MHz.

Stand by Mode

The highest emission read for Line 1 was 0.195 MHz @ 26.0 dBuV/m

The highest emission read for Line 2 was 0.186 MHz @ 26.2 dbuv/m

Operating Mode

The highest emission read for Line 1 was 0.176 MHz @ 44.5 dBuV/m

The highest emission read for Line 2 was 0.183 MHz @ 44.8 dbuv/m

THE GRAPHS ON THE FOLLOWING PAGES REPRESENT THE EMISSIONS READ FOR POWER LINE CONDUCTED FOR THIS DEVICE.

TEST RESULTS: Both lines were observed. The measurements indicate that the unit DOES appear to meet the FCC requirements for this class of equipment.

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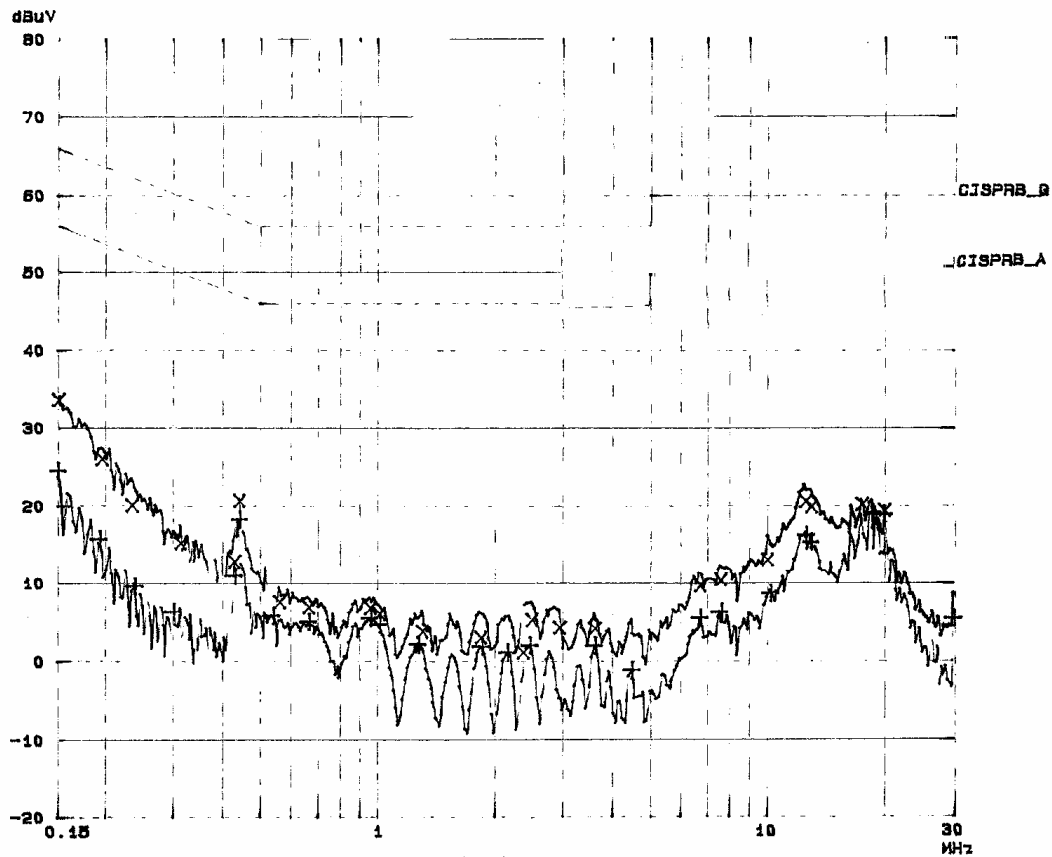
Line1(H) Stand by Mode

EUT: LTK1700CT
Op Cond: H
Operator: THRU
Test Spec: KN228

Scan Settings (2 Ranges)

| Frequencies | | | Receiver Settings | | | | | |
|-------------|------|------|-------------------|----------|--------|-------|--------|-------|
| Start | Stop | Step | IF BW | Detector | M-Time | Atten | Preamp | OpAmp |
| 150k | 3M | 3k | 10k | PK+AV | 10ms | AUTO | LN ON | 50dB |
| 3M | 30M | 3k | 10k | PK+AV | 10ms | AUTO | LN ON | 50dB |

Final Measurement: x GP / + AV
Meas Time: 1 s
Subranges: 25
Acc Margin: 50dB



PAGE 1

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Line2(N) Stand by Mode

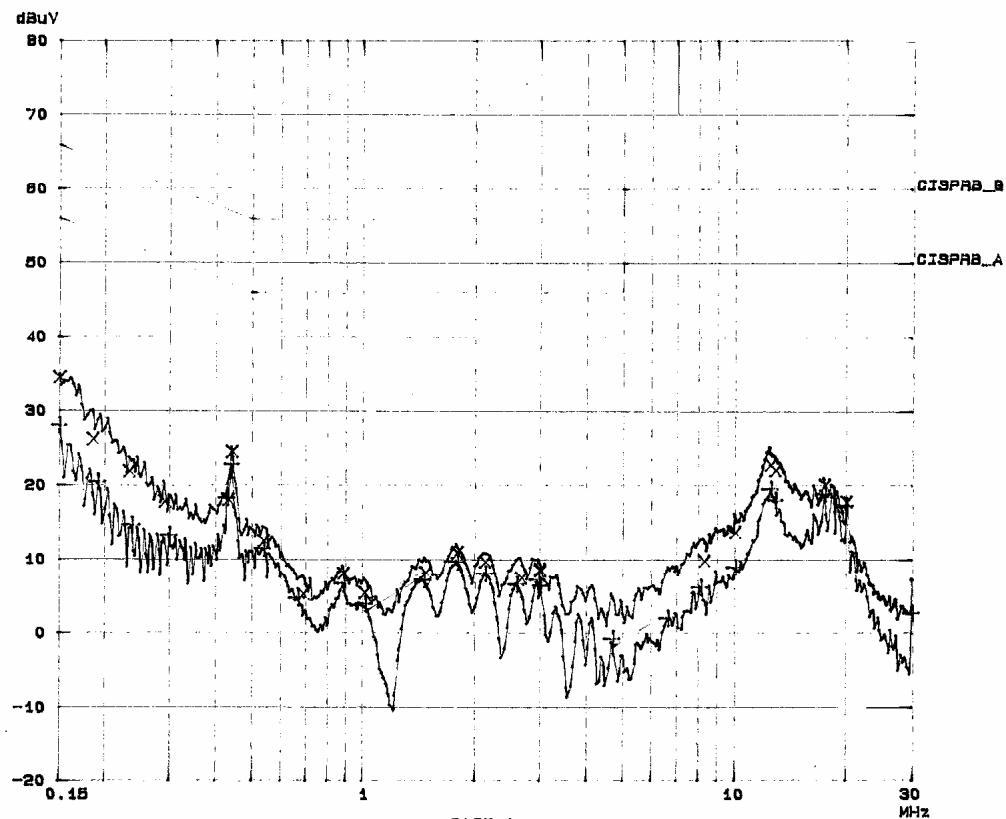
CONDUCTED EMISSION

EUT: LTK1700CT
Op Cond: N
Operator: THRU
Test Spec: KN22B

Scan Settings (2 Ranges)

| Frequencies | | | Receiver Settings | | | | | |
|-------------|------|------|-------------------|----------|--------|-------|--------|-------|
| Start | Stop | Step | IF BW | Detector | M-Time | Atten | Preamp | OpRge |
| 150k | 3M | 3k | 10k | PK+AV | 10ms | AUTO | LN ON | 80dB |
| .3M | 30M | 9k | 10k | PK+AV | 10ms | AUTO | LN ON | 80dB |

Final Measurement: x QP / + AV
Meas Time: 1 s
Subranges: 25
Acc Margin: 80dB



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Line1(H)Operating Mode

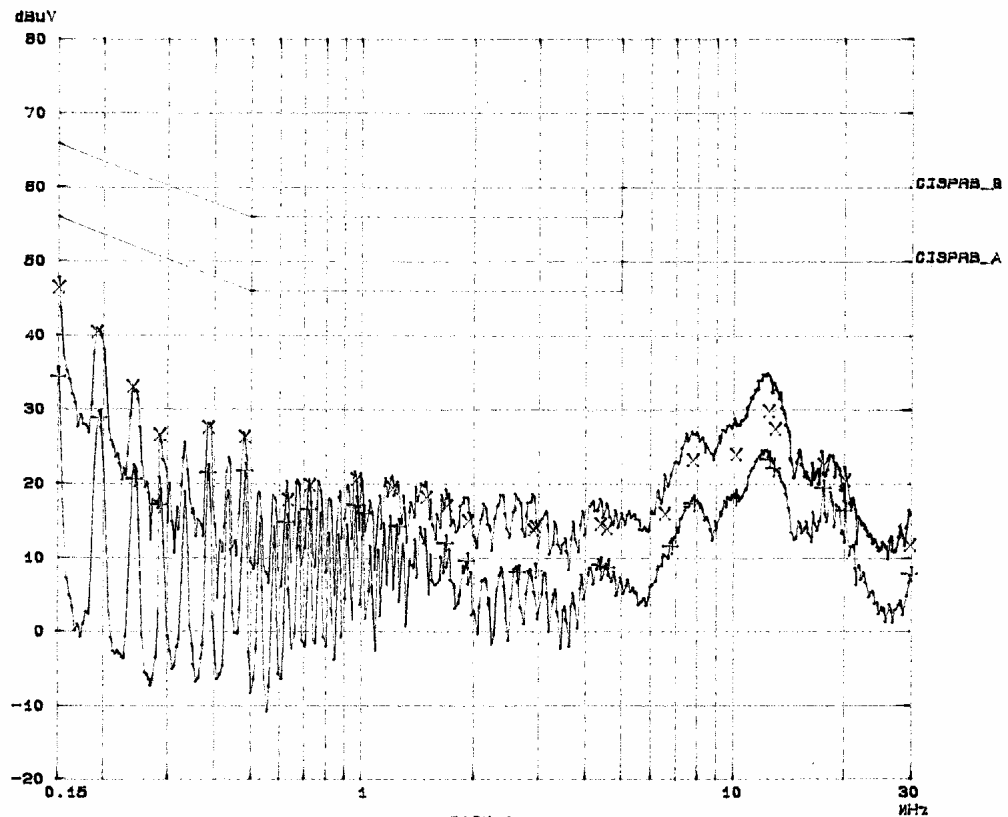
CONDUCTED EMISSION

EUT: LTK1700CT
Op Cond: H
Operator: THRU
Test Spec: KN22B

Scan Settings (2 Ranges)

| Frequencies | | | Receiver Settings | | | | | | |
|-------------|------|------|-------------------|----------|--------|-------|--------|------|--|
| Start | Stop | Step | IF BW | Detector | M-Time | Atten | Preamp | DPG | |
| 150k | 3M | 3k | 10K | PK+AV | 10ms | AUTO | LN ON | 60dB | |
| .3M | 30M | 9k | 10K | PK+AV | 10ms | AUTO | LN ON | 60dB | |

Final Measurement: x QP / + AV
Meas Time: 1 s
Subranges: 25
Acc Margin: 50dB



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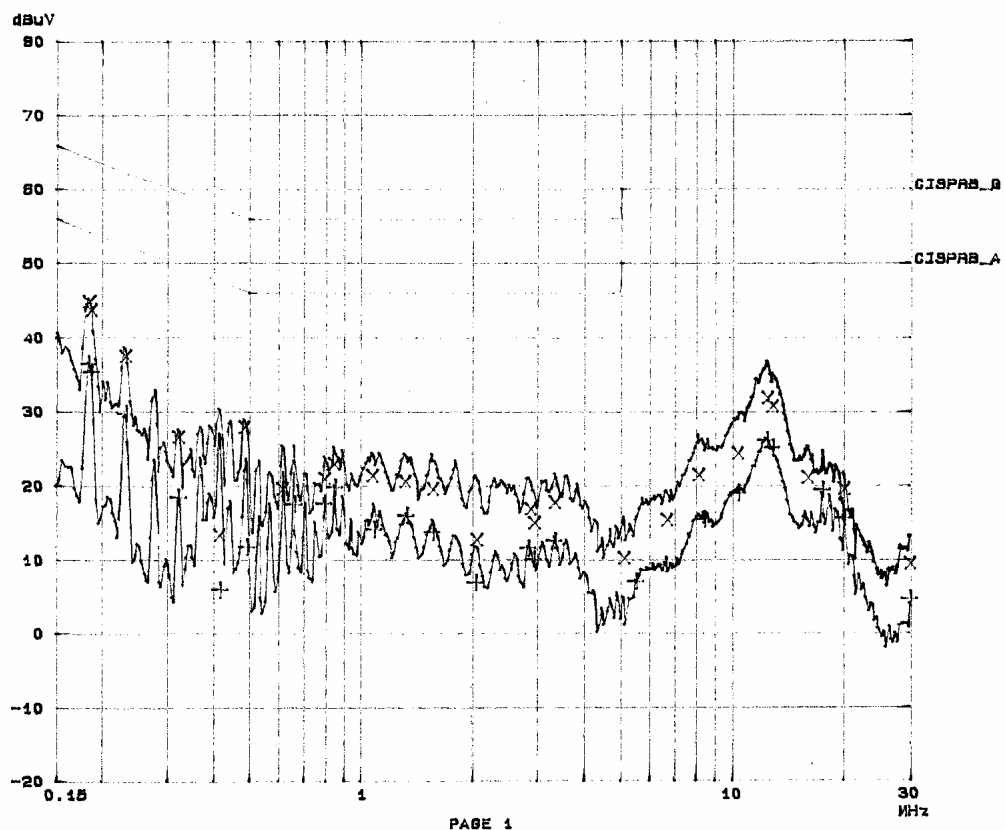
Line2(N) Operating Mode

CONDUCTED EMISSION

EUT: LTK1700CT
Op Cond: N
Operator: THRU
Test Spec: KN22B

```
Scan Settings (2 Ranges)
|----- Frequencies -----|----- Receiver Settings -----|
Start Stop Step IF BW Detector M-Time Atten Preamp OpAmp
150k 3M 3k 10K PK+AV 10ms AUTO LN ON 60dB
3M 30M 3k 10K PK+AV 10ms AUTO LN ON 60dB

Final Measurement: X BP / + AV
Measure Time: 1 s
Subranges: 25
Acc Margin: 50dB
```



APPLICANT: LEE TECHNOLOGY KOREA CO., LTD.
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2.1055(a)(1) Frequency stability:
90.214 Transient Frequency Behavior

REQUIREMENTS: In the 450-500MHz frequency band, transient frequencies must be within the maximum frequency difference limits during the time interval indicated below for 25kHz Channels:

| Time Interval | Maximum Frequency | Portable Radios 450-500 MHz |
|---------------|-------------------|--------------------------------|
| t 1 | +25 kHz | 10.0 ms |
| t 2 | +12.5 kHz | 25.0 ms |
| t 3 | +25 kHz | 10.0 ms |

TEST PROCEEDURE: TIA/EIA TS603 PARA 2.2.19, the levels were set as follows;

1. Using the variable attenuator the transmitter level was set to 40 dB below the test receivers maximum input level, then the transmitter was turned off.
2. With the transmitter off the signal generator was set 20dB below the level of the transmitter in the above step, this level will be maintained with the signal generator through-out the test.
3. Reduce the attenuation between the transmitter and the RF detector by 30 dB.
4. With the levels set as above the transient frequency behavior was observed & recorded

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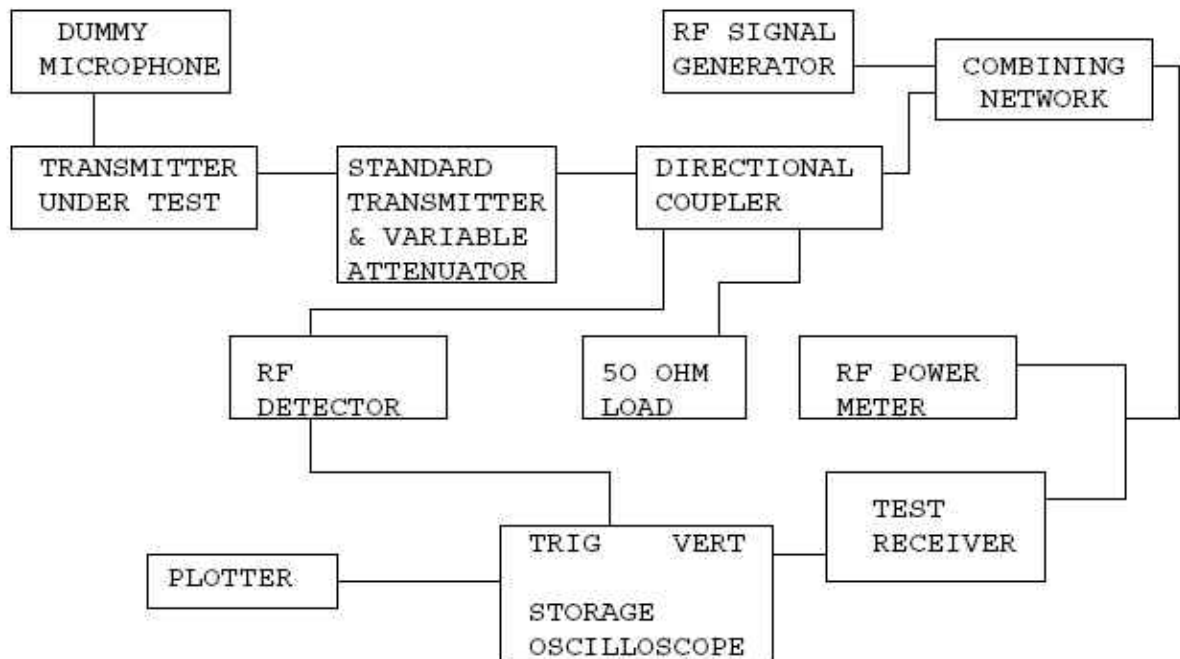
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2.1055 Frequency stability:
90.214 Transient Frequency Behavior
 (Continued)

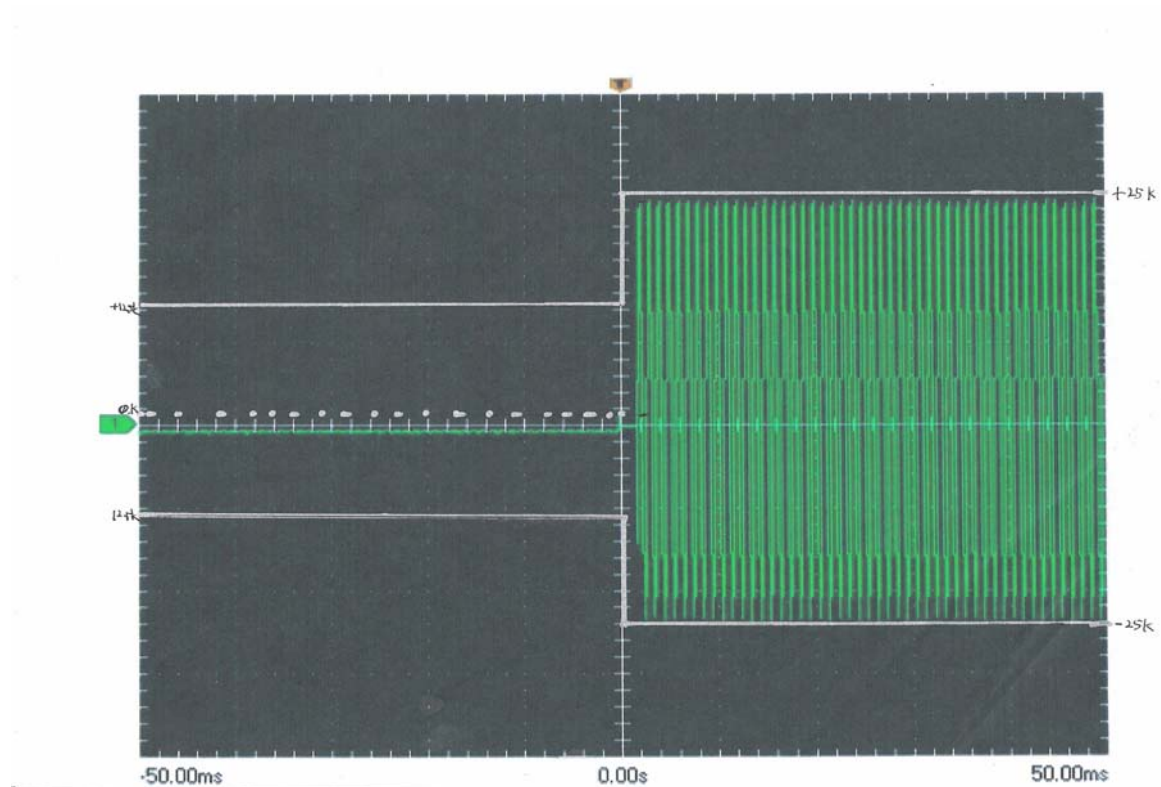
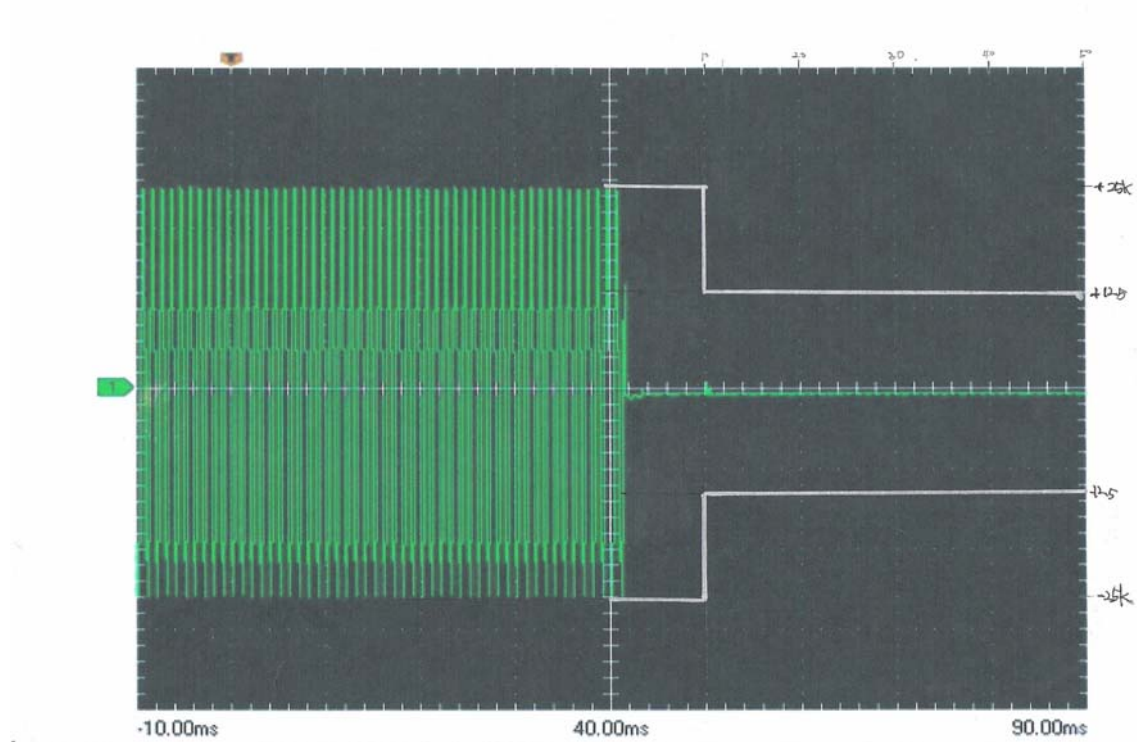


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TEST Equipment List

| No | Description | Manufacturer | Model No. | Serial No. | Due Cal. | Used |
|----|---------------------|-----------------|--------------------|------------|------------|-------------------------------------|
| 1 | Test Receiver | Rohde & Schwarz | ESHS 10 | 862970/018 | 2008.05.01 | <input checked="" type="checkbox"/> |
| 2 | Test Receiver | Rohde & Schwarz | ESVS 10 | 826008/014 | 2008.06.12 | <input checked="" type="checkbox"/> |
| 3 | Spectrum Analyzer | Hewlett Packard | 8566B | 2311A02394 | 2008.06.13 | <input checked="" type="checkbox"/> |
| 4 | Spectrum Display | Hewlett Packard | 85662A | 2542A12429 | 2008.06.13 | <input checked="" type="checkbox"/> |
| 5 | Quasi-peak Adapter | Hewlett Packard | 85650A | 2521A00887 | 2008.06.13 | <input type="checkbox"/> |
| 6 | RF Preselector | Hewlett Packard | 85685A | 2648A00504 | 2008.06.13 | <input type="checkbox"/> |
| 7 | Preamplifier | Hewlett Packard | 8447F | 2805A02570 | 2008.05.28 | <input type="checkbox"/> |
| 8 | Preamplifier | A.H. Systems | PAM-0118 | 164 | 2008.05.08 | <input checked="" type="checkbox"/> |
| 9 | Biconical Antenna | Eaton Corp. | 94455-1 | 0977 | 2008.04.01 | <input checked="" type="checkbox"/> |
| 10 | Biconical Antenna | EMCO | 3104C | 9111-2468 | 2008.06.07 | <input checked="" type="checkbox"/> |
| 11 | Log Periodic Antenn | EMCO | 3146 | 2051 | 2008.05.11 | <input checked="" type="checkbox"/> |
| 12 | Horn Antenna | A.H. Systems | SAS-571 | 414 | 2008.03.17 | <input checked="" type="checkbox"/> |
| 13 | Loop Antenna | Rohde & Schwarz | HFH2-Z2.335.4711.5 | 826532/006 | 2009.01.31 | <input type="checkbox"/> |
| 14 | Dipole Antenna | Rohde & Schwarz | VHAP | 574 | 2008.12.12 | <input type="checkbox"/> |
| 15 | Dipole Antenna | Rohde & Schwarz | VHAP | 575 | 2008.12.12 | <input type="checkbox"/> |
| 16 | Dipole Antenna | Rohde & Schwarz | UHAP | 546 | 2008.12.12 | <input type="checkbox"/> |
| 17 | Dipole Antenna | Rohde & Schwarz | UHAP | 547 | 2008.12.12 | <input type="checkbox"/> |
| 18 | Signal Generator | Hewlett Packard | 8673D | 2708A00448 | 2008.06.12 | <input checked="" type="checkbox"/> |
| 19 | Spectrum Analyzer | Advantest Corp. | R3261C | 61720208 | 2008.06.12 | <input checked="" type="checkbox"/> |
| 20 | LISN | EMCO | 3825/2 | 9111-1912 | 2008.12.12 | <input type="checkbox"/> |
| 21 | LISN | Kyoritsu | KNW-242 | 8-923-2 | 2009.05.23 | <input checked="" type="checkbox"/> |
| 22 | Modulation Analyzer | Hewlett Packard | 8901B | 3438A05094 | 2008.05.25 | <input type="checkbox"/> |
| 23 | Waveform Generato | Hewlett Packard | 33120A | US34001190 | 2008.05.21 | <input type="checkbox"/> |
| 24 | Audio analyzer | Hewlett Packard | 8903B | 3011A12915 | 2008.05.21 | <input type="checkbox"/> |

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| | | | | | | |
|----|----------------------|-----------|----------|---------|------------|-------------------------------------|
| 25 | Digital Oscilloscope | Tektronix | TDS 340A | B012287 | 2008.06.13 | <input checked="" type="checkbox"/> |
|----|----------------------|-----------|----------|---------|------------|-------------------------------------|

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