

***RF BAND EDGES
FOR THE BASE***



114 OLINDA DRIVE, BREA, CALIFORNIA 92823 PHONE: (714) 579-0500 FAX: (714) 579-1850

BAND EDGE OF LOW CHANNEL - BASE - HORIZONTAL
MKR 2.400 20 GHZ
40.40 dB μ V

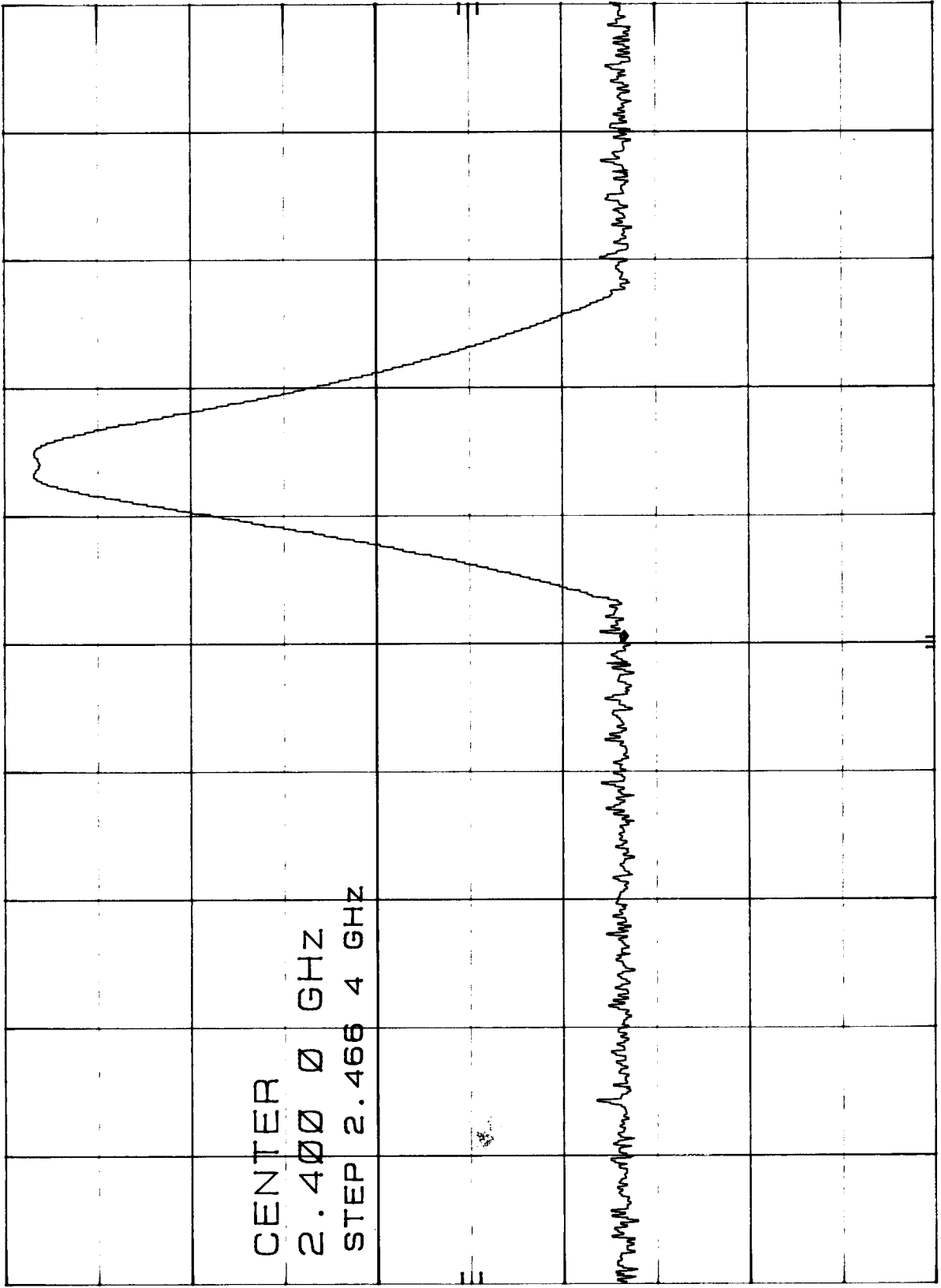
hp

10 dB/

CENTER
2.400 0 GHZ
STEP 2.466 4 GHZ

DL
67.0
dB μ V

CORR'D



CENTER 2.400 0 GHZ
RES BW 1 MHz
SPAN 50.0 MHz
SWP 20.0 msec
VBW 1 MHz

BAND EDGE OF LOW CHANNEL BASE - VERTICAL
MKR 2.400 10 GHZ
REF 117.0 dBμV ATTEN 20 dB
48.20 dBμV

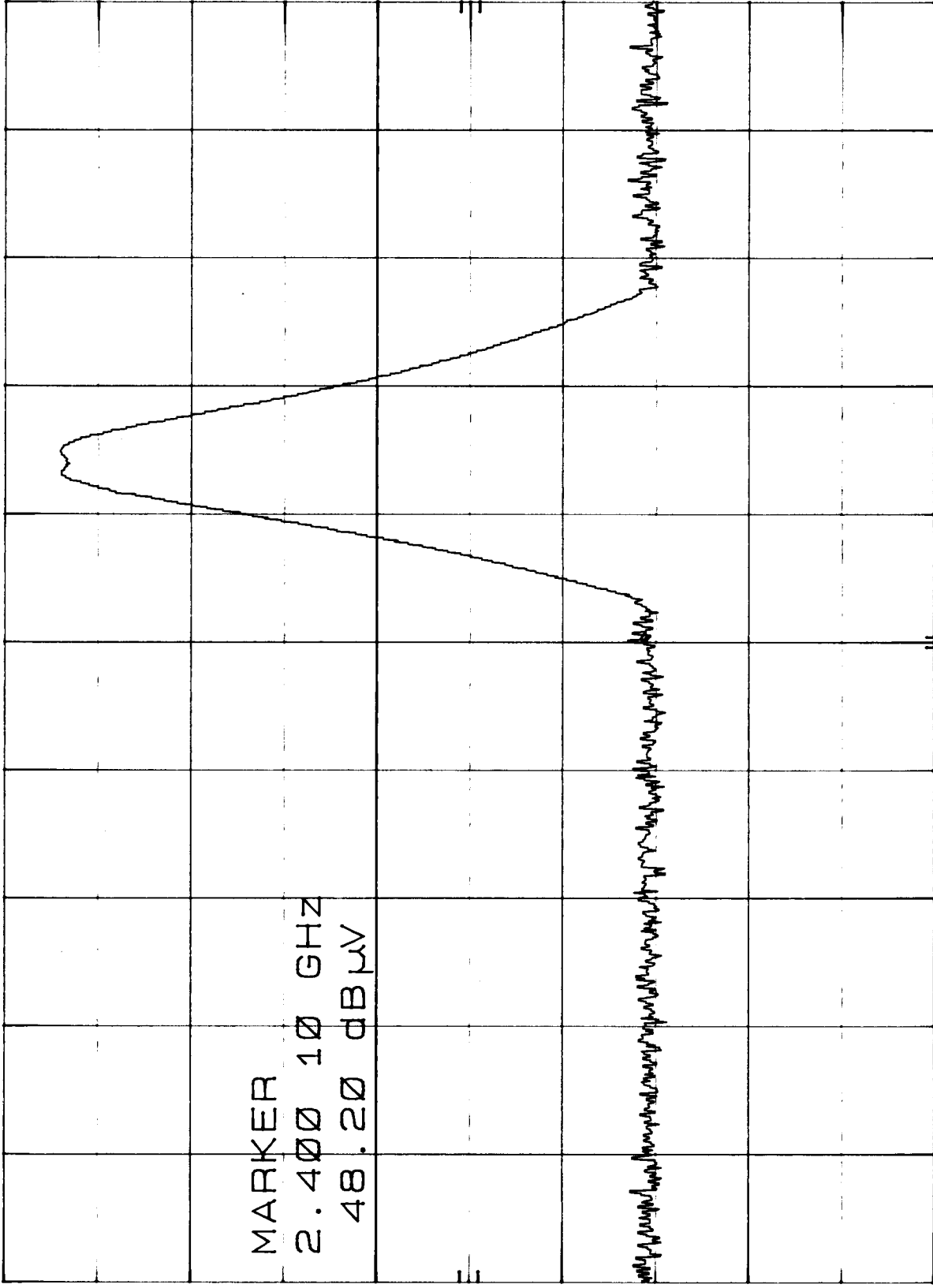
hp

10 dB/

MARKER
2.400 10 GHZ
48.20 dBμV

DL
77.0
dBμV

CORR'D



CENTER 2.400 0 GHZ
RES BW 1 MHz
SPAN 50.0 MHz
SWP 20.0 msec
VBW 1 MHz

BAND EDGE OF HIGH CHANNEL BASE - ~~HORIZONTAL~~ MKR 2.483 65 GHZ
REF 107.0 dBμV ATTEN 10 dB

HP

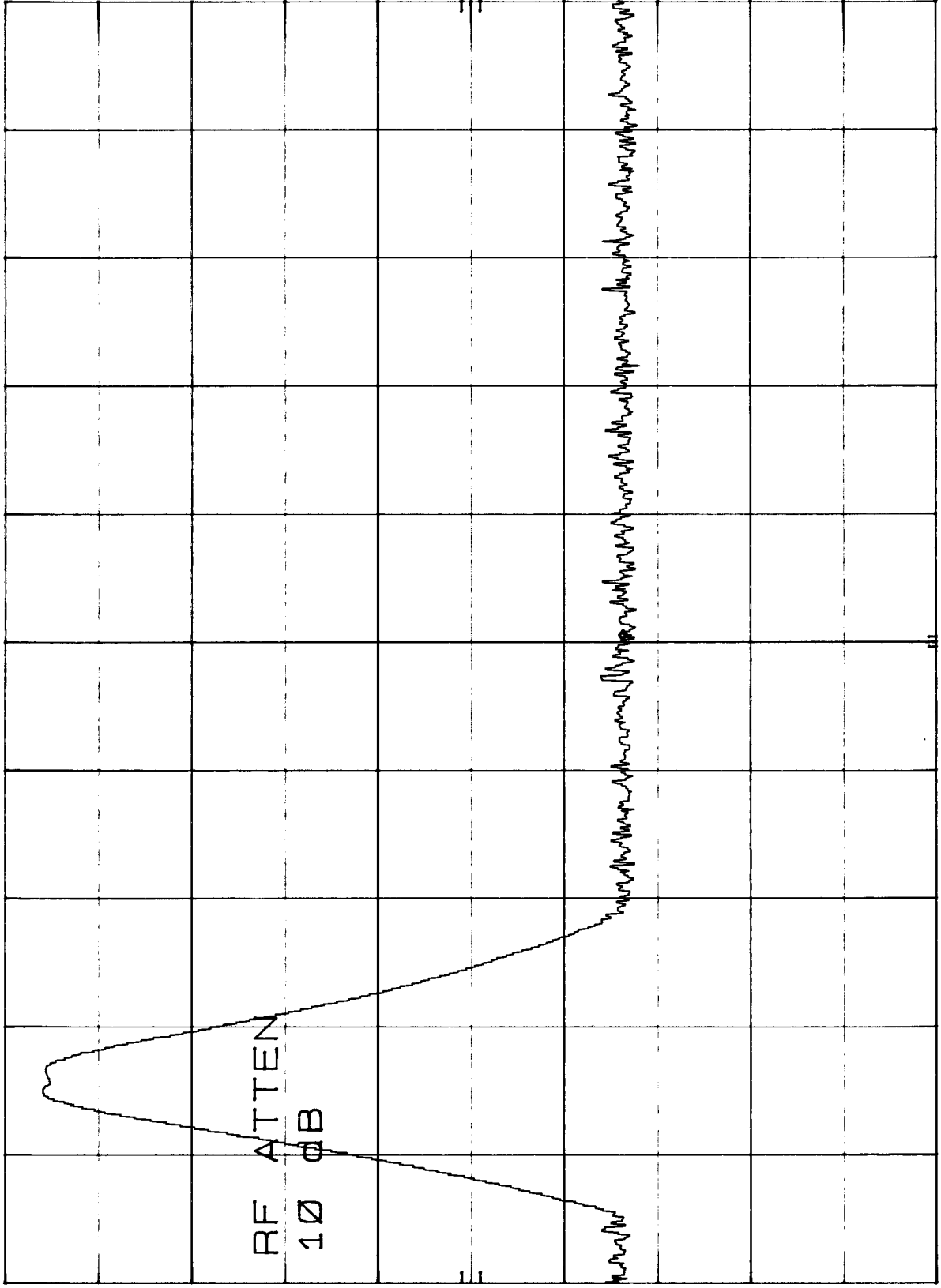
10 dB/

RF ATTEN

10 dB

DL
67.0
dBμV

CORR'D



CENTER 2.483 4 GHZ
RES BW 1 MHz

VBW 1 MHz

SPAN 50.0 MHz
SWP 20.0 msec

BAND EDGE OF HIGH CHANNEL BASE - Vertical
MKR 2.483 50 GHZ
48.90 dB μ V

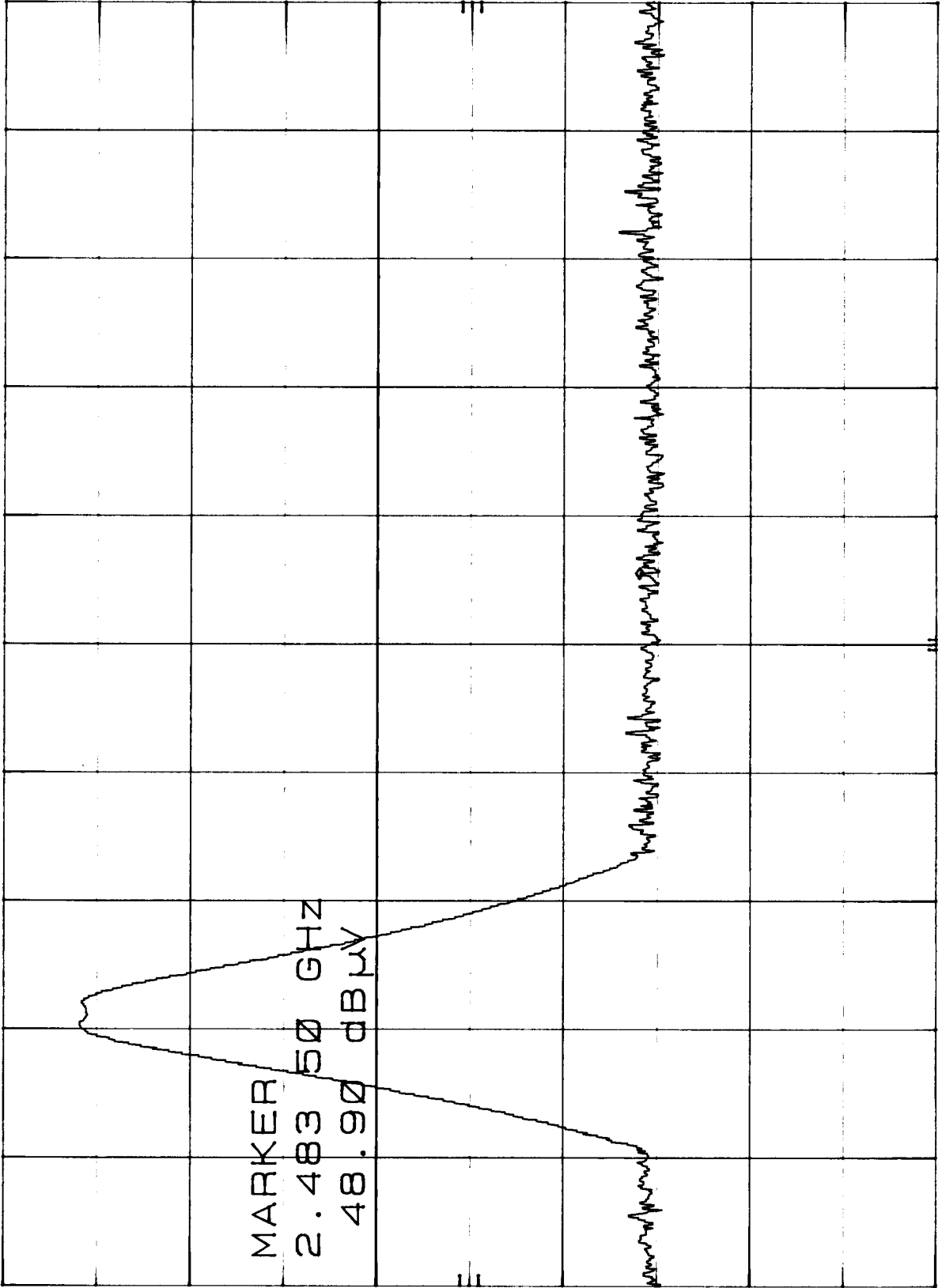
hp

10 dB/

MARKER
2.483 50 GHZ
48.90 dB μ V

DL
77.0
dB μ V

CORR'D



CENTER 2.480 8 GHZ

RES BW 1 MHz

VBW 1 MHz

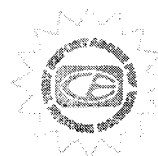
SPAN 50.0 MHz
SWP 20.0 msec

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

| | | | | | |
|----------------------|---|--|--|--------------------|----------|
| COMPANY | SANYO | | | DATE | 2/16/00 |
| EUT | 2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - BASE | | | | |
| MODEL | CLT-2420 | | | | |
| S/N | N/A | | | | |
| TEST ENGINEER | KYLE FUJIMOTO | | | | |
| | | | | LAB | D |
| | | | | DUTY CYCLE | 50.00 % |
| | | | | PEAK TO AVG | -6.02 dB |
| | | | | TEST DIST. | 3 METERS |

| Frequency MHz | Peak Reading (dBuV) | Average (A) or Quasi- Peak (QP) | Antenna Polar. (V or H) | Antenna Height (meters) | EUT Azimuth (degrees) | EUT Axis | EUT Tx Channel | Antenna Factor (dB) | Cable Loss (dB) | Amplifier Gain (dB) | *Corrected Reading (dBuV/m) | Delta ** (dB) | Spec Limit (dBuV/m) | Comments |
|------------------|---------------------------|---------------------------------------|-------------------------------|-------------------------------|-----------------------------|-------------|----------------------|---------------------------|-----------------------|---------------------------|-----------------------------------|---------------------|---------------------------|------------------------|
| 2400.0000 | 40.4 | 34.4 A | H | 1.0 | 180 | X | LOW | 28.2 | 4.5 | 31.8 | 35.3 | -18.7 | 54.0 | Band Edge Low Channel |
| 2400.0000 | 48.2 | 42.2 A | V | 3.0 | 90 | X | LOW | 28.2 | 4.5 | 31.8 | 43.1 | -10.9 | 54.0 | Band Edge Low Channel |
| 2483.5000 | 40.7 | 34.7 A | H | 1.0 | 180 | X | MID | 28.2 | 4.5 | 31.8 | 35.6 | -18.4 | 54.0 | Band Edge High Channel |
| 2483.5000 | 48.9 | 42.9 A | V | 3.0 | 90 | X | MID | 28.2 | 4.5 | 31.8 | 43.8 | -10.2 | 54.0 | Band Edge High Channel |
| | | | | | | | | | | | | | | |
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***RADIATED EMISSIONS
DATA SHEETS FOR THE HANDSET***



RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

| | | | | | |
|---------------|--|--|--|-------------|----------|
| COMPANY | SANYO | | | DATE | 2/14/00 |
| EUT | 2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - HANDSET | | | DUTY CYCLE | 50.00 % |
| MODEL | CLT-2420 | | | PEAK TO AVG | -6.02 dB |
| S/N | N/A | | | TEST DIST. | 3 METERS |
| TEST ENGINEER | KYLE FUJIMOTO | | | LAB | D |

| Frequency MHz | Peak Reading (dBuV) | Average (A) or Quasi-Peak (QP) | Antenna Polar. (V or H) | Antenna Height (meters) | EUT Azimuth (degrees) | EUT Axis (X,Y,Z) | EUT Tx Channel | Antenna Factor (dB) | Cable Loss (dB) | Amplifier Gain (dB) | *Corrected Reading (dBuV/m) | Delta ** (dB) | Spec Limit (dBuV/m) | Comments |
|---------------|---------------------|--------------------------------|-------------------------|-------------------------|-----------------------|------------------|----------------|---------------------|-----------------|---------------------|-----------------------------|---------------|---------------------|----------|
| 2416.1400 | 64.5 | 58.5 A | H | 1.0 | 180 | X | LOW | 28.2 | 4.5 | 0.0 | 91.2 | 91.2 | 0.0 | |
| 2416.1400 | 73.6 | 67.6 A | V | 1.0 | 180 | X | LOW | 28.2 | 4.5 | 0.0 | 100.3 | 100.3 | 0.0 | |
| 2446.5700 | 67.0 | 61.0 A | H | 1.0 | 180 | X | MID | 28.2 | 4.5 | 0.0 | 93.7 | 93.7 | 0.0 | |
| 2446.5700 | 78.4 | 68.4 A | V | 1.0 | 90 | X | MID | 28.2 | 4.5 | 0.0 | 101.1 | 101.1 | 0.0 | |
| 2475.4200 | 64.1 | 58.1 A | H | 1.0 | 180 | X | HIGH | 28.2 | 4.5 | 0.0 | 90.8 | 90.8 | 0.0 | |
| 2475.4200 | 74.6 | 68.6 A | V | 1.0 | 180 | X | HIGH | 28.2 | 4.5 | 0.0 | 101.3 | 101.3 | 0.0 | |

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

| | | | |
|---------------|--|-------------|----------|
| COMPANY | SANYO | DATE | 2/14/00 |
| EUT | 2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - HANDSET | DUTY CYCLE | 50.00 % |
| MODEL | CLT-2420 | PEAK TO AVG | -6.02 dB |
| S/N | N/A | TEST DIST. | 3 METERS |
| TEST ENGINEER | KYLE FUJIMOTO | | |
| | | LAB | D |

| Frequency MHz | Peak Reading (dBuV) | Average (A) or Quasi- Peak (QP) | Antenna Polar. (V or H) | Antenna Height (meters) | EUT Azimuth (degrees) | EUT Axis (X,Y,Z) | EUT Tx Channel | Antenna Factor (dB) | Cable Loss (dB) | Amplifier Gain (dB) | *Corrected Reading (dBuV/m) | Delta ** (dB) | Spec Limit (dBuV/m) | Comments |
|------------------|---------------------------|---------------------------------------|-------------------------------|-------------------------------|-----------------------------|------------------------|----------------------|---------------------------|-----------------------|---------------------------|-----------------------------------|---------------------|---------------------------|----------|
| 4832.2800 | 38.3 | 32.3 A | H | 1.0 | 0 | Y | LOW | 32.3 | 5.7 | 31.1 | 39.2 | -14.8 | 54.0 | |
| 4832.2800 | 37.8 | 31.8 A | V | 1.0 | 0 | Y | LOW | 32.3 | 5.7 | 31.1 | 38.7 | -15.3 | 54.0 | |
| 4893.1400 | 38.0 | 32.0 A | H | 1.0 | 90 | Y | MID | 32.3 | 5.7 | 31.1 | 38.9 | -15.1 | 54.0 | |
| 4893.1400 | 37.2 | 31.2 A | V | 1.0 | 90 | Y | MID | 32.3 | 5.7 | 31.1 | 38.1 | -15.9 | 54.0 | |
| 4950.8400 | 36.5 | 30.5 A | H | 1.0 | 180 | Y | HIGH | 32.3 | 5.7 | 31.1 | 37.4 | -16.6 | 54.0 | |
| 4950.8400 | 38.9 | 32.9 A | V | 1.0 | 0 | Y | HIGH | 32.3 | 5.7 | 31.1 | 39.8 | -14.2 | 54.0 | |

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN

** DELTA = SPEC LIMIT - CORRECTED READING

RADIATED EMISSIONS (FCC SECTION 15.205 AND 15.247)

| | | | | | |
|---------------|--|--|--|-------------|----------|
| COMPANY | SANYO | | | DATE | 2/14/00 |
| EUT | 2.4 GHz SPREAD SPECTRUM CORDLESS PHONE - HANDSET | | | DUTY CYCLE | 50.00 % |
| MODEL | CLT-2420 | | | PEAK TO AVG | -6.02 dB |
| S/N | N/A | | | TEST DIST. | 3 METERS |
| TEST ENGINEER | KYLE FUJIMOTO | | | LAB | D |

| Frequency MHz | Peak Reading (dBuV) | Average (A) or Quasi- Peak (QP) | Antenna Polar. (V or H) | Antenna Height (meters) | EUT Azimuth (degrees) | EUT Axis (X,Y,Z) | EUT Tx Channel | Antenna Factor (dB) | Cable Loss (dB) | Amplifier Gain (dB) | *Corrected Reading (dBuV/m) | Delta ** (dB) | Spec Limit (dBuV/m) | Comments |
|------------------|---------------------------|---------------------------------------|-------------------------------|-------------------------------|-----------------------------|------------------------|----------------------|---------------------------|-----------------------|---------------------------|-----------------------------------|---------------------|---------------------------|----------|
| 7248.4200 | 39.7 | 33.7 A | H | 1.0 | 180 | Y | LOW | 36.8 | 6.4 | 32.9 | 44.0 | -10.0 | 54.0 | |
| 7248.4200 | 37.1 | 31.1 A | V | 1.0 | 90 | Y | LOW | 36.8 | 6.4 | 32.9 | 41.4 | -12.6 | 54.0 | |
| 7339.7100 | 36.9 | 30.9 A | H | 1.0 | 90 | V | MID | 36.8 | 6.4 | 32.9 | 41.2 | -12.8 | 54.0 | |
| 7339.7100 | 38.6 | 32.6 A | V | 1.0 | 0 | Y | MID | 36.8 | 6.4 | 32.9 | 42.9 | -11.1 | 54.0 | |
| 7426.2600 | 40.8 | 34.0 A | H | 1.0 | 90 | Y | HIGH | 36.8 | 6.4 | 32.9 | 44.3 | -9.7 | 54.0 | |
| 7426.2600 | 38.4 | 32.4 A | V | 1.0 | 180 | Y | HIGH | 36.8 | 6.4 | 32.9 | 42.7 | -11.3 | 54.0 | |

* CORRECTED READING = METER READING + ANTENNA FACTOR + CABLE LOSS - AMPLIFIER GAIN
 ** DELTA = SPEC LIMIT - CORRECTED READING

Note: No Harmonics nor emissions found
 after the 3rd harmonic

Test location: Compatible Electronics

Customer : SANYO

Date : 2/14/2000

Manufacturer : UNIDEN CORPORATION

Time : 16.32

EUT name : 2.4 GHz PHONE

Model: CLT-2420

Specification: Fcc_B Test distance: 3.0 mtrs

Lab: D

Distance correction factor($20 \cdot \log(\text{test}/\text{spec})$)

: 0.00


Test Mode :

HANDSET UNIT - SPURIOUS EMISSIONS

TEMPERATURE 55 DEGREES F.

RELATIVE HUMIDITY 89%

TESTED BY:


KYLE FUJIMOTO

NO EMISSIONS FOUND FROM 10 KHZ TO 30 MHZ IN
EITHER POLARIZATION FOR THE HANDSET UNIT

Test location: Compatible Electronics
 Customer : SANYO
 Manufacturer : UNIDEN CORPORATION
 EUT name : 2.4 GHz PHONE
 Specification: Fcc_B Test distance: 3.0 mtrs
 Distance correction factor(20*log(test/spec)) : 0.00
 Test Mode :
 HANDSET UNIT - SPURIOUS EMISSIONS
 TEMPERATURE 55 DEGREES F.
 RELATIVE HUMIDITY 89%
 TESTED BY: Kyle Fujimoto
 KYLE FUJIMOTO

| Pol | Freq MHz | Rdng dBuV | Cable loss dB | Ant factor dB | Amp gain dB | Cor'd rdg = R dBuV | limit = L dBuV/m | Delta R-L dB |
|-----|-------------|--------------|---------------------|---------------------|-------------------|--------------------------|------------------------|--------------------|
| 1H | 343.50 | 40.60 | 2.56 | 15.64 | 38.60 | 20.21 | 46.00 | -25.79 |
| 2H | 375.60 | 40.00 | 2.65 | 14.70 | 38.60 | 18.75 | 46.00 | -27.25 |
| 3H | 390.62 | 39.90 | 2.68 | 14.12 | 38.60 | 18.10 | 46.00 | -27.90 |
| 4H | 408.24 | 43.70 | 2.72 | 14.06 | 38.52 | 21.96 | 46.00 | -24.04 |
| 5H | 456.18 | 45.70 | 2.84 | 15.76 | 38.08 | 26.22 | 46.00 | -19.78 |
| 6H | 531.33 | 44.30 | 3.41 | 17.01 | 38.71 | 26.01 | 46.00 | -19.99 |
| 7H | 60.05 | 40.10 | 0.80 | 11.72 | 38.80 | 13.82 | 40.00 | -26.18 |
| 8H | 69.94 | 46.80 | 1.00 | 11.34 | 38.90 | 20.24 | 40.00 | -19.76 |

Test location: Compatible Electronics
 Customer : SANYO
 Manufacturer : UNIDEN CORPORATION
 EUT name : 2.4 GHz PHONE
 Specification: Fcc_B Test distance: 3.0 mtrs
 Distance correction factor(20*log(test/spec)) : 0.00
 Test Mode :
 HANDSET UNIT - SPURIOUS EMISSIONS
 TEMPERATURE 55 DEGREES F.
 RELATIVE HUMIDITY 89%
 TESTED BY: *Kyle Fujimoto*

KYLE FUJIMOTO

| Pol | Freq MHz | Rdng dBuV | Cable loss dB | Ant factor dB | Amp gain dB | Cor'd rdg = R dBuV | limit = L dBuV/m | Delta R-L dB |
|-----|-------------|--------------|---------------------|---------------------|-------------------|--------------------------|------------------------|--------------------|
| 1V | 47.04 | 41.70 | 0.87 | 12.76 | 38.67 | 16.66 | 40.00 | -23.34 |
| 2V | 66.04 | 48.30 | 0.92 | 11.49 | 38.86 | 21.85 | 40.00 | -18.15 |
| 3V | 42.02 | 53.70 | 0.82 | 12.90 | 38.62 | 28.80 | 40.00 | -11.20 |
| 4V | 384.49 | 39.40 | 2.67 | 14.36 | 38.60 | 17.82 | 46.00 | -28.18 |
| 5V | 984.49 | 32.50 | 4.50 | 25.04 | 37.42 | 24.61 | 54.00 | -29.39 |