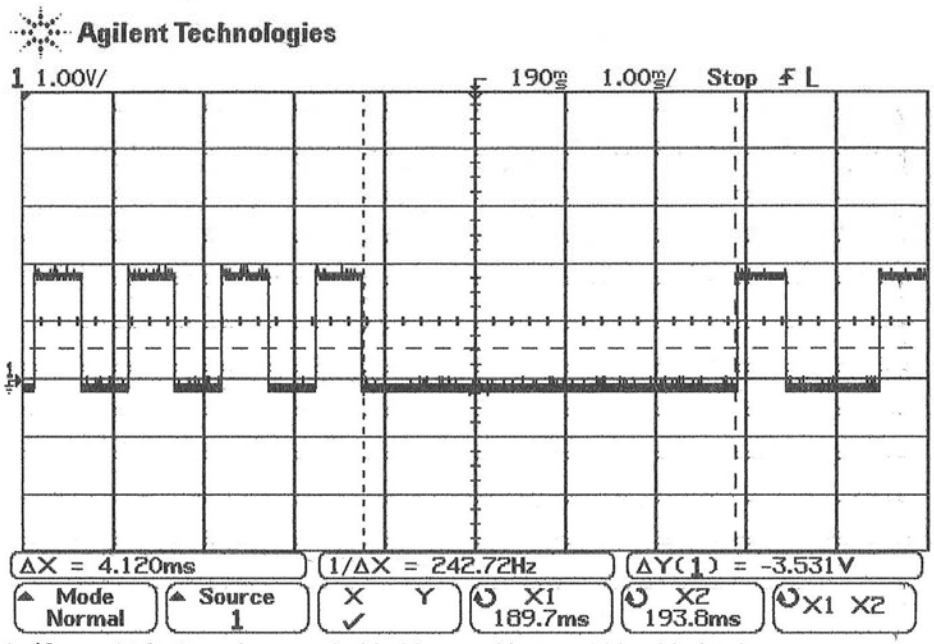
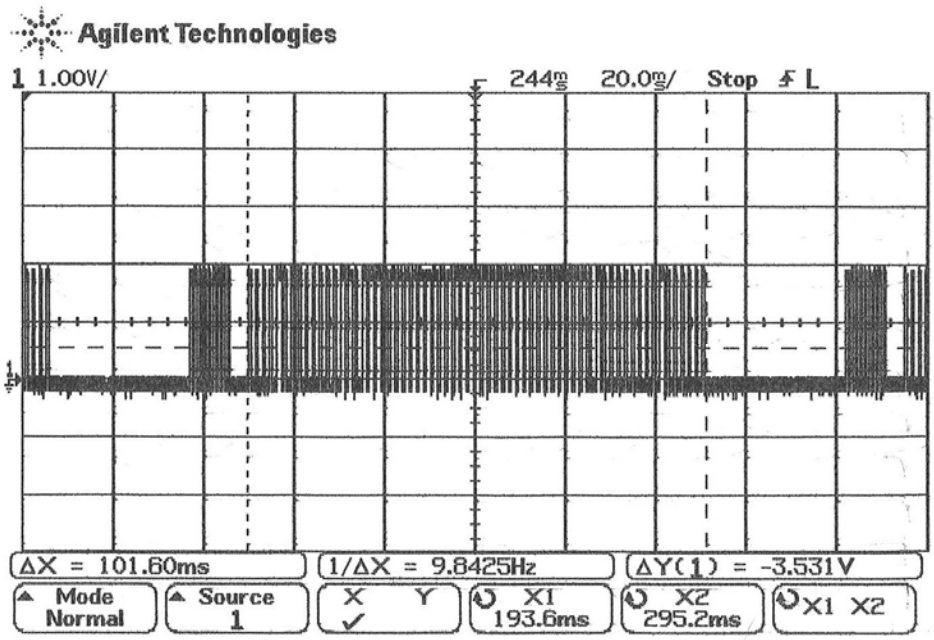
Power Measurements for
R93 2036-010
Button 1

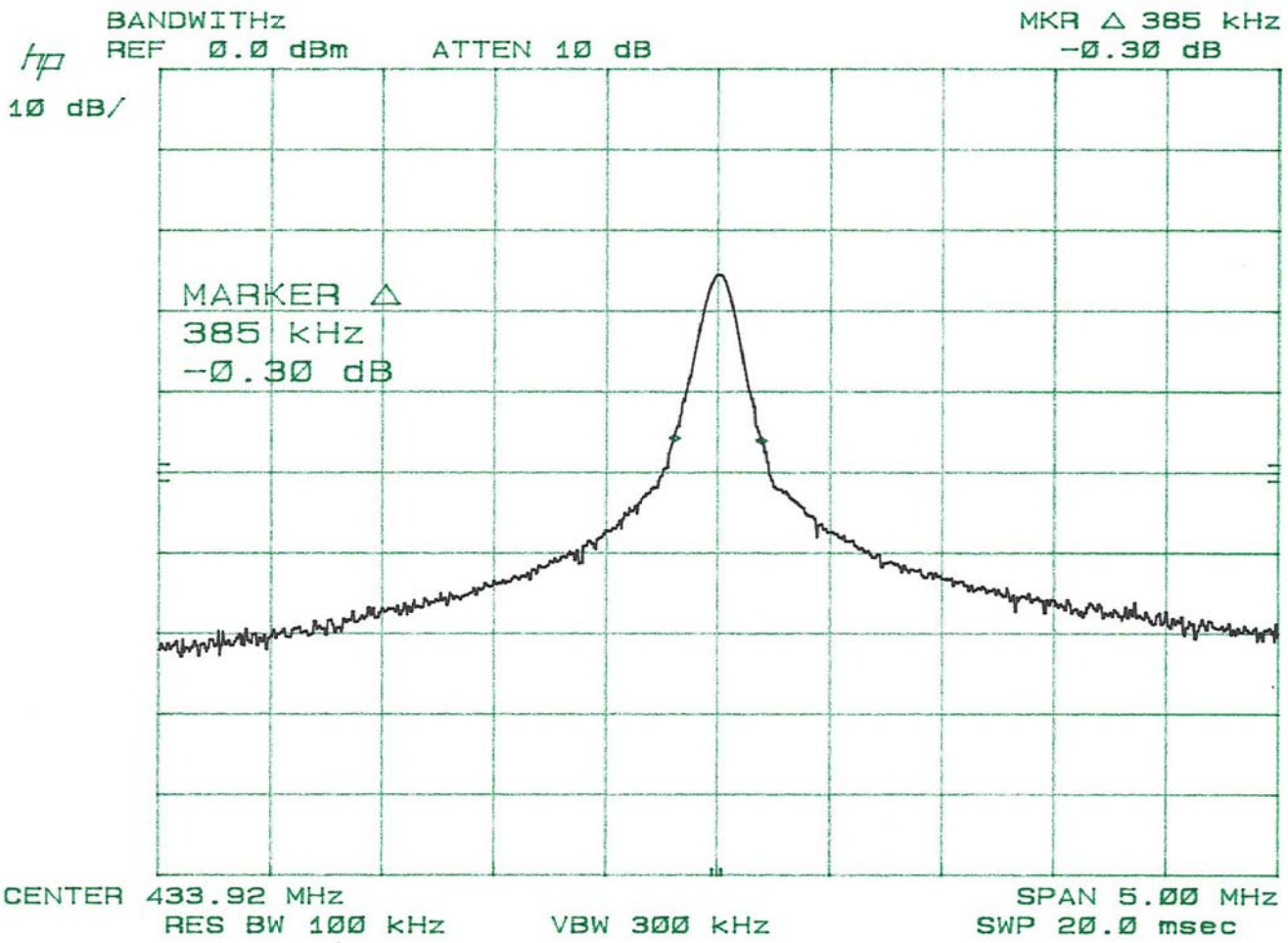
| Scan /Div Mhz | Res. Bandwidth Khz | DUT Frequency (Mhz) | Meter Frequency (Mhz) | Meter Reading (dBm) | Antenna Factor (dB) | Coax Factor (dB) | Amplifier Gain (dB) | Measurement Distance (Meters) | Duty Cycle Correction (dB) | 3 Meter Limit (uV/M) | Field Strength (uV/M) | Delta Limit (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.5 | 100 | 433.92 | 433.92 | -19 | 20.5 | 4 | 25.67 | 3 | -9.1 | 10996.7 | 7,700.16 | -3.10 |
| 0.5 | 100 | 433.92 | 867.84 | -53.2 | 28.3 | 5.8 | 25.5 | 3 | -9.1 | 1096 | 462.38 | -7.50 |
| 0.5 | 1000 | 433.92 | 1301.76 | -48.3 | 24 | 7.9 | 32.5 | 3 | -9.1 | 500 | 281.84 | -4.98 |
| 0.5 | 1000 | 433.92 | 1735.68 | -60.4 | 25.7 | 9.42 | 32.5 | 3 | -9.1 | 1096 | 101.39 | -20.68 |
| 0.5 | 1000 | 433.92 | 2169.6 | -59.7 | 28 | 10.78 | 32.2 | 3 | -9.1 | 1096 | 173.38 | -16.02 |
| 0.5 | 1000 | 433.92 | 2603.52 | -60.4 | 29 | 12 | 30.7 | 3 | -9.1 | 1096 | 245.47 | -13.00 |
| 0.5 | 1000 | 433.92 | 3037.44 | -62.6 | 30.8 | 13.2 | 30 | 3 | -9.1 | 1096 | 291.74 | -11.50 |
| 0.5 | 1000 | 433.92 | 3471.36 | -62 | 31.5 | 14.3 | 29.9 | 3 | -9.1 | 1096 | 389.05 | -9.00 |
| 0.5 | 1000 | 433.92 | 3905.28 | -62.6 | 33.3 | 15.4 | 29.85 | 3 | -9.1 | 1096 | 509.92 | -6.65 |
| 0.5 | 1000 | 433.92 | 4339.2 | -61.9 | 33.1 | 16.4 | 29.8 | 3 | -9.1 | 1096 | 609.54 | -5.10 |
| | Bandwidth = 385 Khz | | | | | | | | | | | |

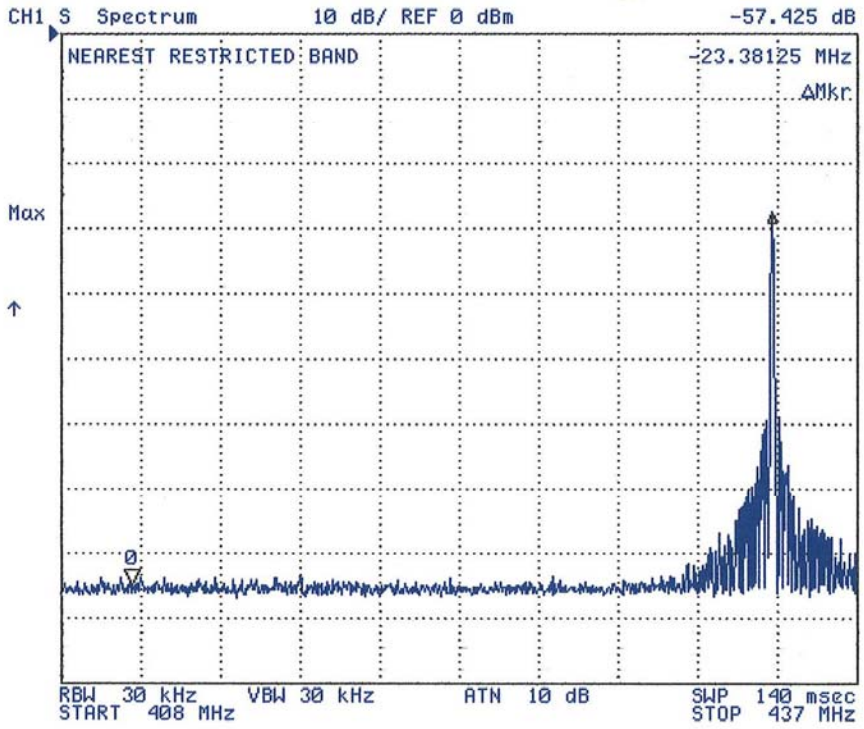
Agilent 54641A System A.02.20 29 Aug 2001 22:23:06



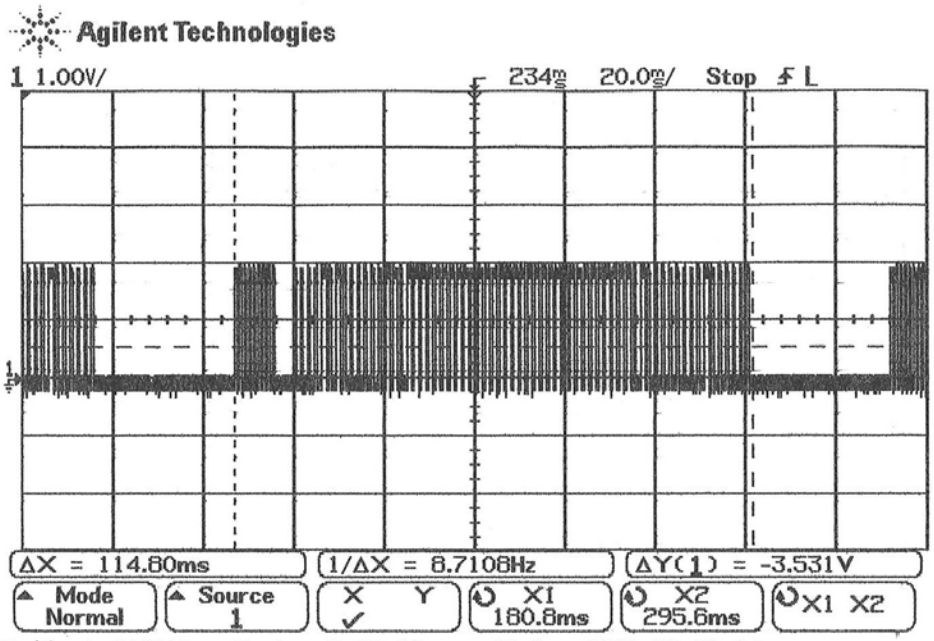

Agilent 54641A System A.02.20 29 Aug 2001 22:24:35



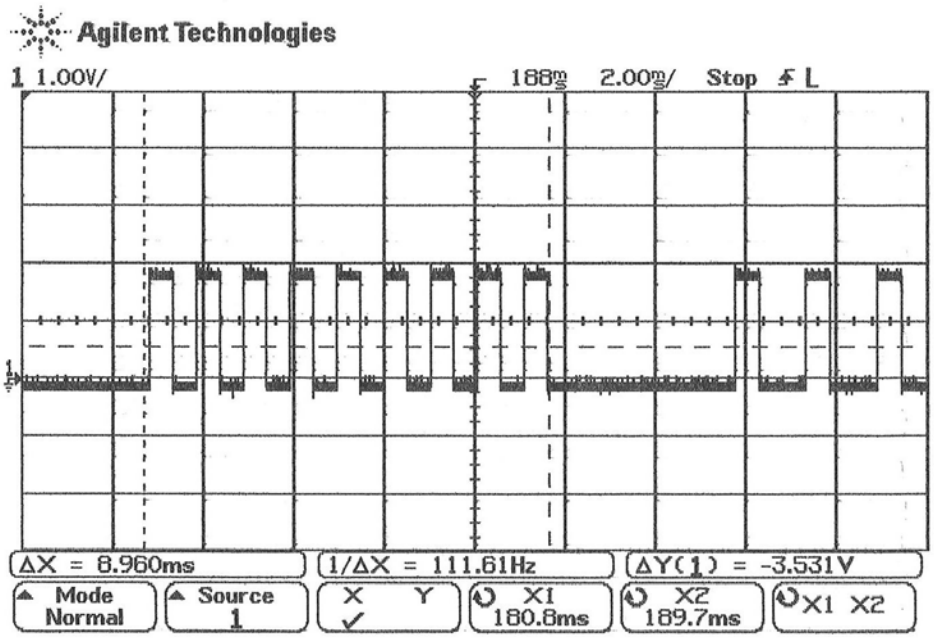

BANDWITHz
REF Ø.Ø dBm
ATTEN 1Ø dB
MKR △ 385 kHz
-Ø.3Ø dB
1Ø dB/
MARKER △
385 kHz
-Ø.3Ø dB
CENTER 433.92 MHz
RES BW 1ØØ kHz
VBW 3ØØ kHz
SPAN 5.ØØ MHz
SWP 2Ø.Ø msec


CH1 S Spectrum
10 dB/ REF 0 dBm
-57.425 dB
NEAREST RESTRICTED BAND
-23.38125 MHz
ΔMkr
Max
0
RBW 30 kHz
VBW 30 kHz
ATN 10 dB
SWP 140 msec
START 408 MHz
STOP 437 MHz

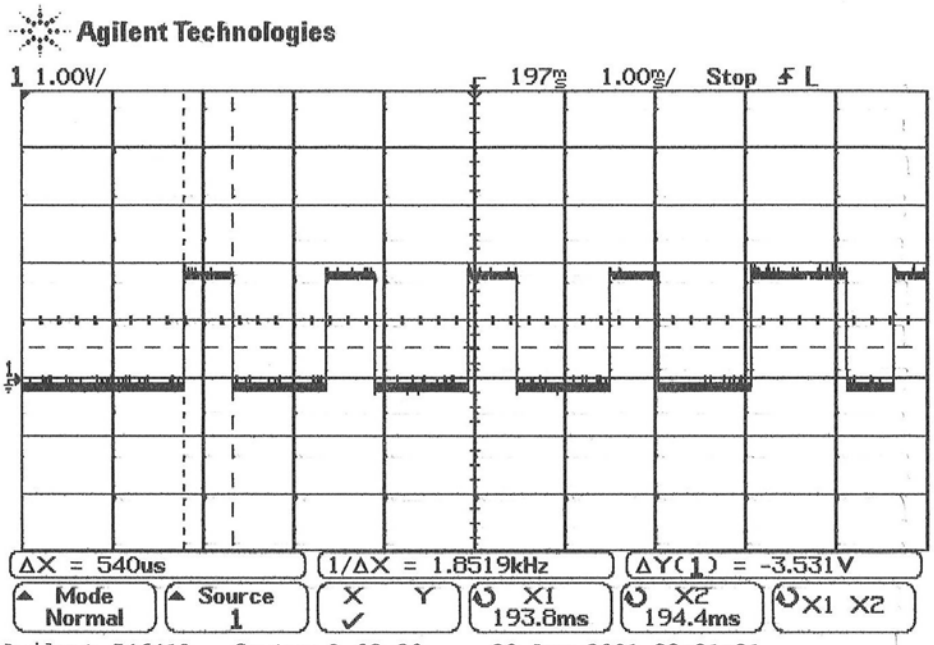
Agilent 54641A System A.02.20 29 Aug 2001 22:20:18



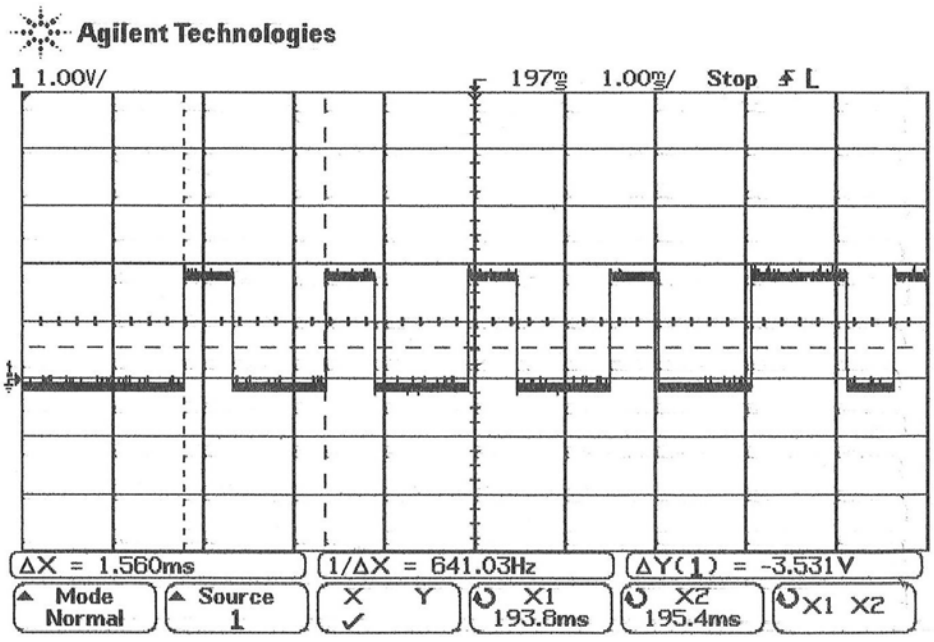

Agilent 54641A System A.02.20 29 Aug 2001 22:21:14



Agilent 54641A  System A.02.20  29 Aug 2001 22:30:55




Agilent 54641A  System A.02.20  29 Aug 2001 22:31:31



## Summery Of Results

1) The transmitter passes all limits of Part 15.229 (See Tables for power measurements) for a class B device.
2) The actual duty cycle is a function of the transmitted code. Using the data times shown in the expository, the correction factor calculation is as follows.

correction = 20* log ((8.96ms * .5) + (101.6ms * .35)/114.8ms) = -9.1

3) The reported meter readings are the highest peak levels observed of the six positions of the DUT and antenna orientations.

4) The measurements up to 1Mhz were taken with the HP 8447D amp. Measurements above 1Mhz were taken using the HP 8449B amp.

5) No spurious emissions were found.

6) Sample Power Calculation: uV/m = 10^(107+M+AF+CF-G-9.1)/20

M = Measurement
AF = Antenna Factor
CF = Coax Factor
G = Preamp Gain
9.1 = Duty Cycle correction factor.

Example : M = -28.0
AF = 2.0 uV/M = 221.3
CF = 2.0
G = 27.0
Dut Cyc = 9.1

7) The transmitter ceases transmission immediately when the activation button is released.