The Measurement of Occupied Bandwidth

20dB BANDWIDTH MEASUREMENT

1. LIMITS OF 20dB BANDWIDTH MEASUREMENT

The minimum of 20dB Bandwidth Measurement is 0.5 MHz.

2. TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSP40	100036	Nov. 27, 2004

NOTE:

1. The measurement uncertainty is less than +/- 2.6dB, which is calculated as per the NAMAS document NIS81.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

3. TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 100kHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

4. DEVIATION FROM TEST STANDARD

No deviation

5. TEST SETUP

6. EUT OPERATING CONDITIONS

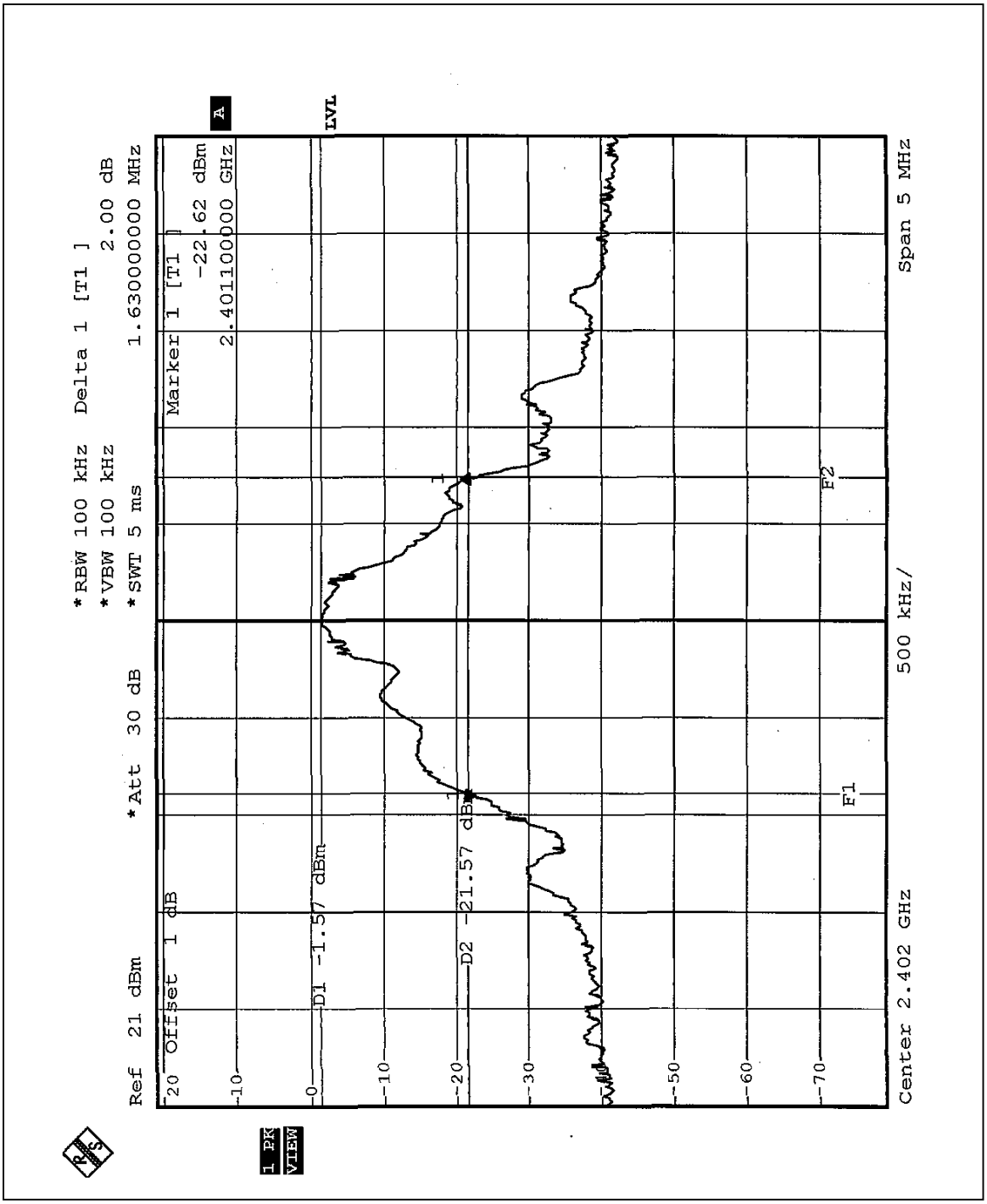
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

7. TEST RESULTS

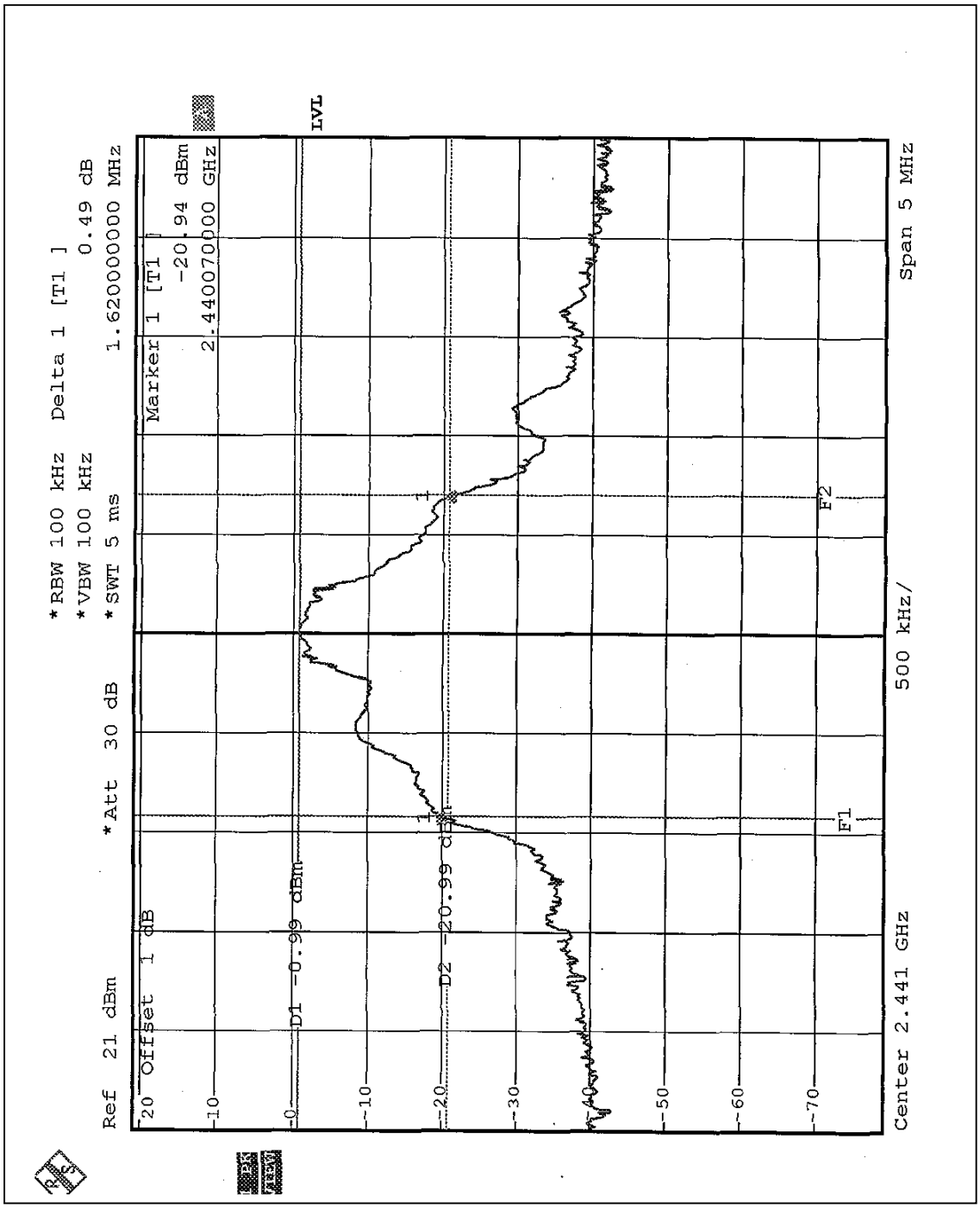
EUT	Logitech Freedom 2.4 Cordless Joystick	**MODEL**	J-UH16
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**ENVIRONMENTAL CONDITIONS**	27 deg. C, 59 %RH, 972 hPa
TESTED BY	Sky Liao		

CHANNEL	CHANNEL FREQUENCY (MHz)	20 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
0	2402	1.63	0.5	PASS
39	2441	1.62	0.5	PASS
78	2480	1.23	0.5	PASS

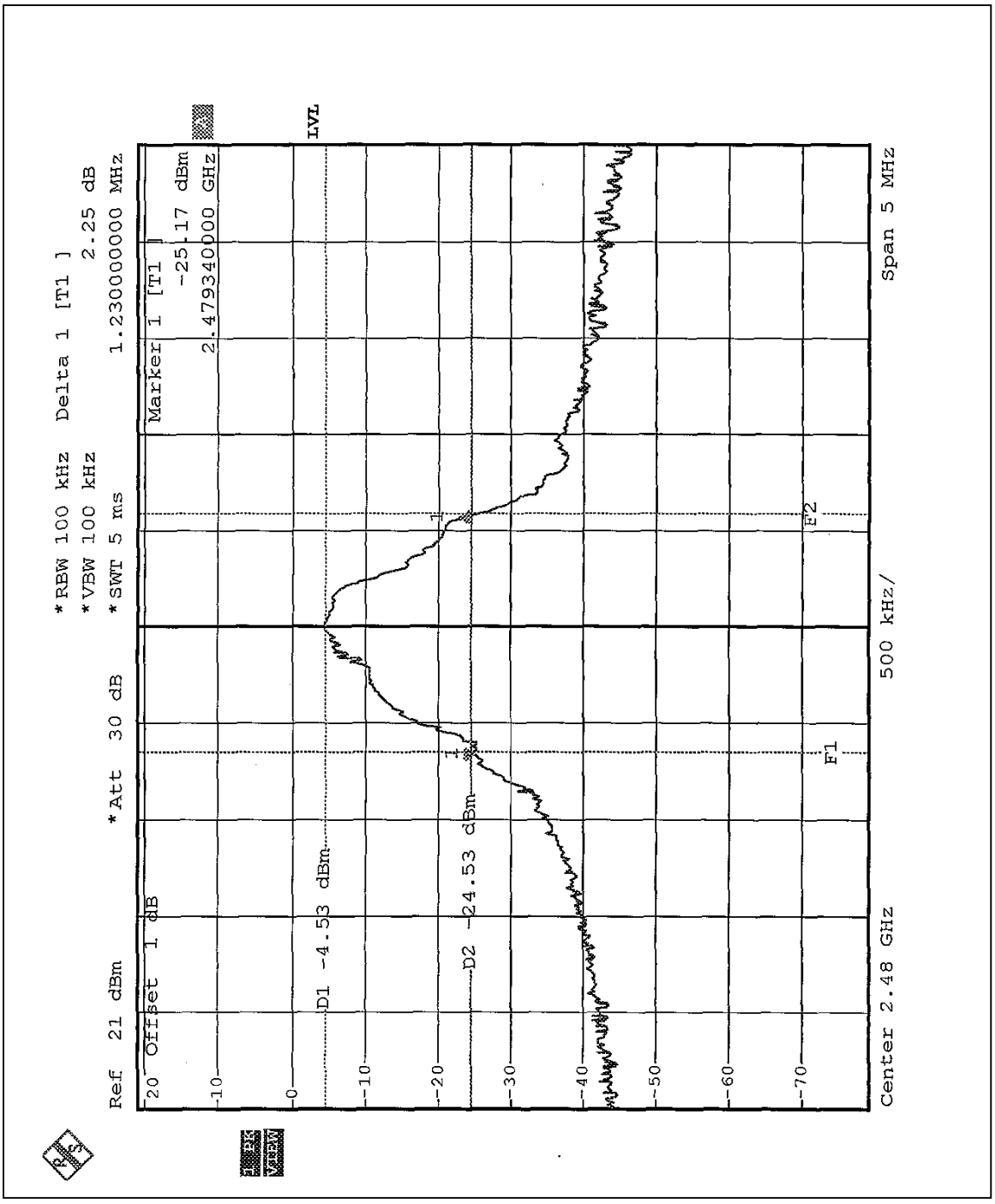
CH0


*RBW 100 kHz
*VBW 100 kHz
*SWT 5 ms
Delta 1 [T1]
2.00 dB
1.630000000 MHz
Ref 21 dBm
Offset 1 dB
*Att 30 dB
Marker 1 [T1]
-22.62 dBm
2.401100000 GHz
LVL
A
D1 -1.57 dBm
D2 -21.57 dBm
F1
F2
Center 2.402 GHz
500 kHz/
Span 5 MHz
1 PK
VIEW

CH39


*RBW 100 kHz
*VBW 100 kHz
*SWT 5 ms
Delta 1 [T1]
0.49 dB
1.620000000 MHz
Marker 1 [T1]
-20.94 dBm
2.440070000 GHz
Ref 21 dBm
Offset 1 dB
*Att 30 dB
LVL
D1 -0.99 dBm
D2 -20.99 dBm
F1
F2
Center 2.441 GHz
500 kHz/
Span 5 MHz

CH78


*RBW 100 kHz
*VBW 100 kHz
*SWT 5 ms
Delta 1 [T1]
2.25 dB
1.230000000 MHz
Marker 1 [T1]
-25.17 dBm
2.479340000 GHz
Ref 21 dBm
Offset 1 dB
*Att 30 dB
LVL
D1 -4.53 dBm
D2 -24.53 dBm
F1
F2
Center 2.48 GHz
500 kHz/
Span 5 MHz