

EXHIBIT 6. Test Report

FCC ID: AZ489FT5805

HDT502 Hand Held Data Terminal

Certification Under Part 90

Prepared On Behalf Of

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Exhibit 6

CERTIFICATION

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* Please refer to the original Certification data for FCC ID: AZ489FT5796 for Exhibits 6A and 6H.

EXHIBIT 6E TEST: OCCUPIED BANDWIDTH

FCC ID: AZ489FT5805

Grantee: Motorola, Inc.

Minimum Standard Specified: Para. 90.210 (g)

Test Results: Equipment is Compliant with Standard

Equipment Authorization Procedure: Para. 2.1049

The transmitter modulation scheme is QPSK, Quad-16QAM, and Quad-64QAM. The transmitter was modulated with iDEN time division multiplexed (TDM) pseudo random data. The reference level was taken with no modulation and a 100 kHz RBW and VBW to ensure all of the transmitted energy is measured. The unmodulated carrier and the modulated signal level are plotted on the same graph as the upper and lower Trace A and B respectively.

For additional information and detail concerning this complex modulation scheme please refer to the original exhibit data on file for the FCC ID: AZ489FT5796.

MEASUREMENT DATA

Spectrum Analyzer: Hewlett Packard 8562A

Test Plots Located of the following pages.

Pg. 2 Low Power Pg. 3 High Power

Settings:	Upper Trace A Carrier Only	RBW:	100	100 kHz
		VBW:	100	100 kHz
	Lower Trace B Modulated (pseudo random data)	RBW:	300	300 Hz
		VBW:	300	300 Hz
Scan Time:			100	100 sec.
Scan Width:			100	100 kHz
Center Frequency:			813.5125	813.5125 MHz

Page 1

*ATTEN 40dB

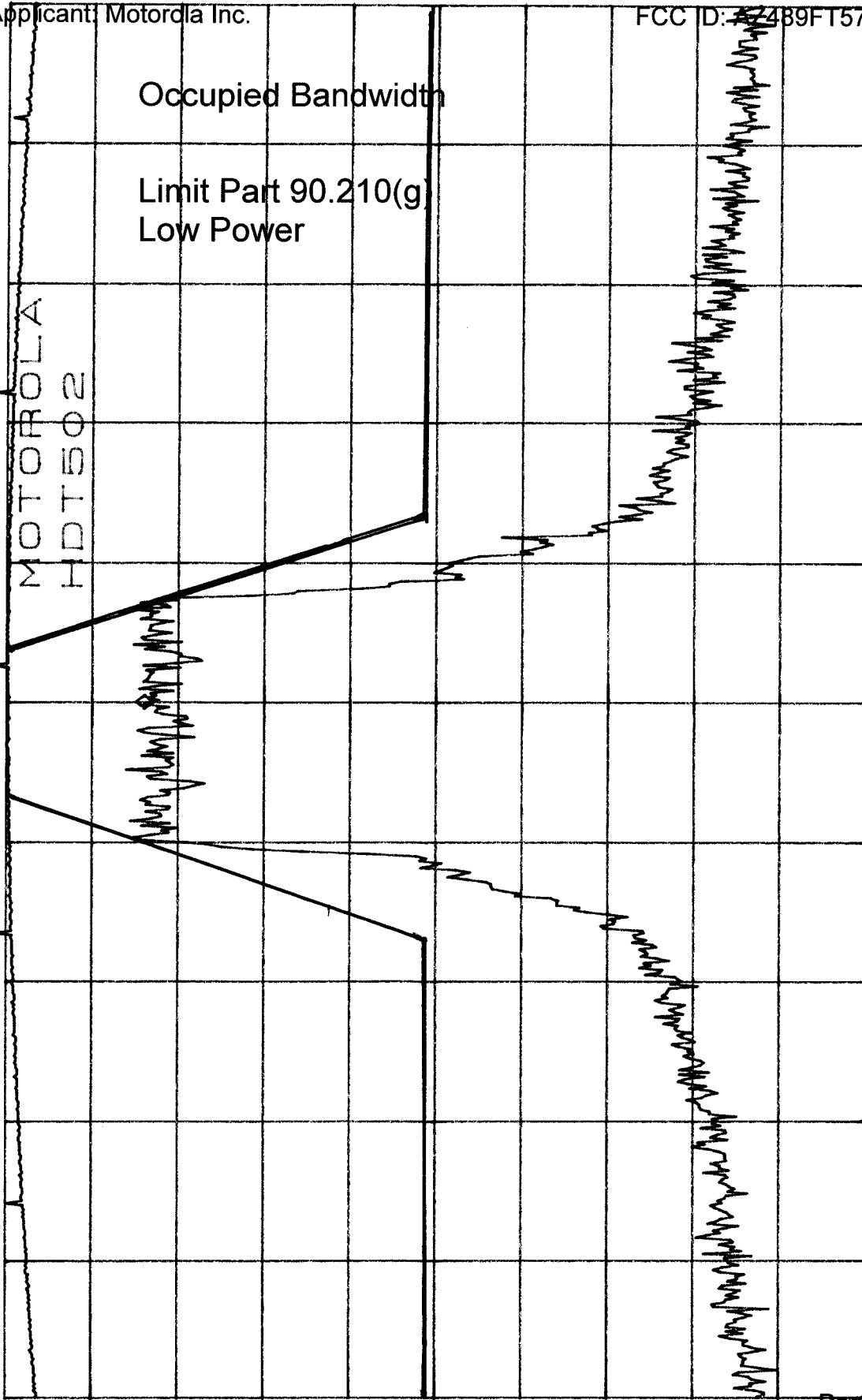
RL 22.5dB

10dB/

NIKE 5.50dBm

MOTOROLA
HDT502

Occupied Bandwidth
Limit Part 90.210(g)
Low Power



913/00

CENTER 813.5125MHZ
SPAN 100.0KHZ
VBW 300HZ
*SWP 100SEC

*ATTEN 10dB

RL -7.7dBm

MKR -25.16dBm

813.5125MHZ

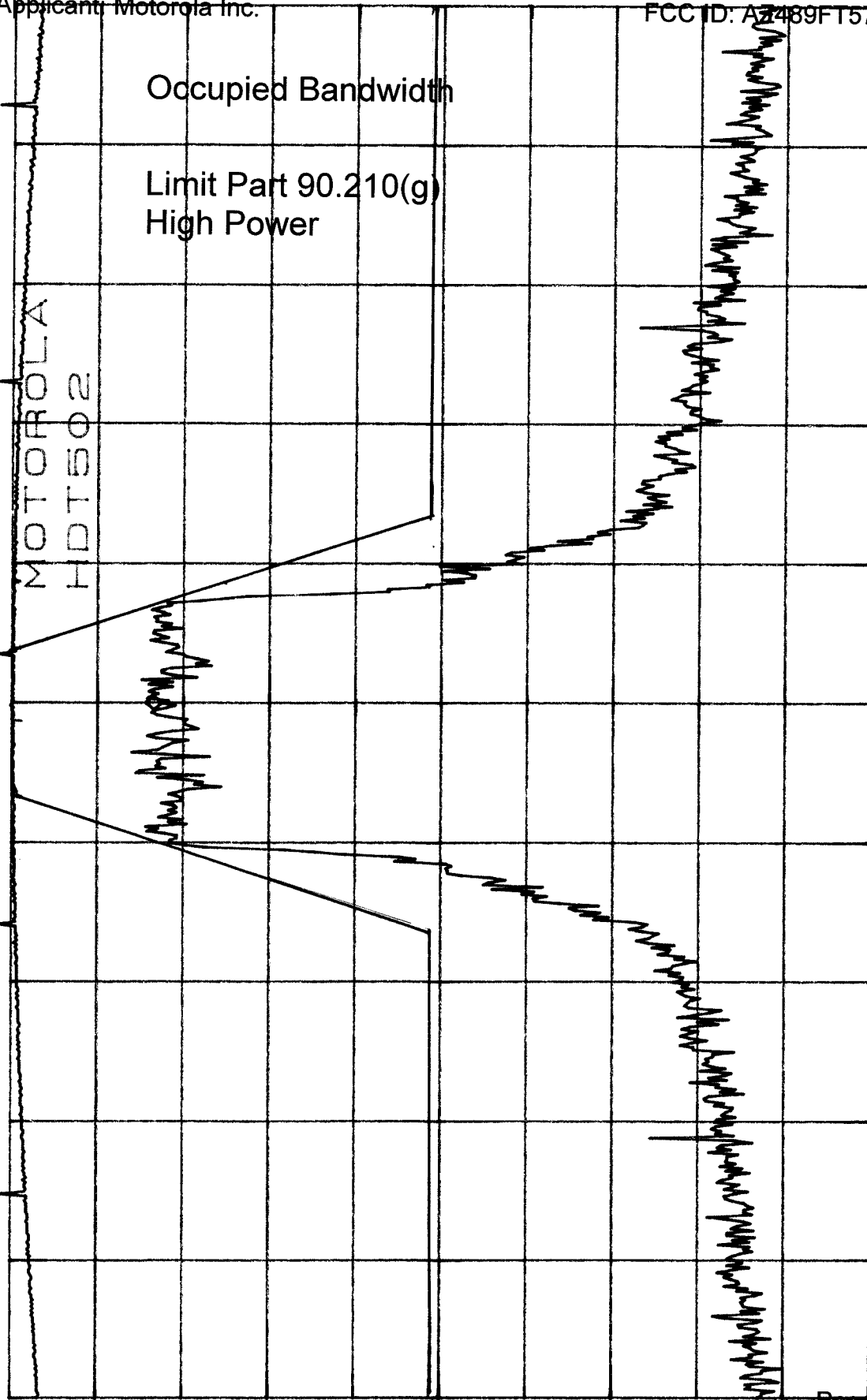
MOTOROLA

HDT502

10dB/

Occupied Bandwidth

Limit Part 90.210(g)
High Power



9/3/00 *W. J. [signature]*

CENTER 813.5125MHZ

*PRBW 300HZ

VBW 300HZ

*SWP 100sec

SPAN 100.0KHZ

EXHIBIT 6F TEST: TRANSMITTER CONDUCTED SPURIOUS EMISSIONS

FCC ID: AZ489FT5805

Manufacturer: Motorola, Inc.

Serial No.: none

Minimum Standard Specified: Para. 90.210 (g)

Test Results: Equipment complies with standard

Equipment Authorization
Procedure: Para. 2.1051

Frequency Range Observed: 0 to 10 GHz

Operating Frequency: 813.5125 MHz

Power Output: 0.0024 variable to 0.7 Watts
+3.8 dBm variable to 28.45 dBmSpurious Limit = $43 \text{ dB} + 10\text{Log}_{10} \text{ PO} = 41.45 \text{ dB}$ below the carrier

Six plots of the spurious emissions measured at the antenna terminals follow:

Low Power

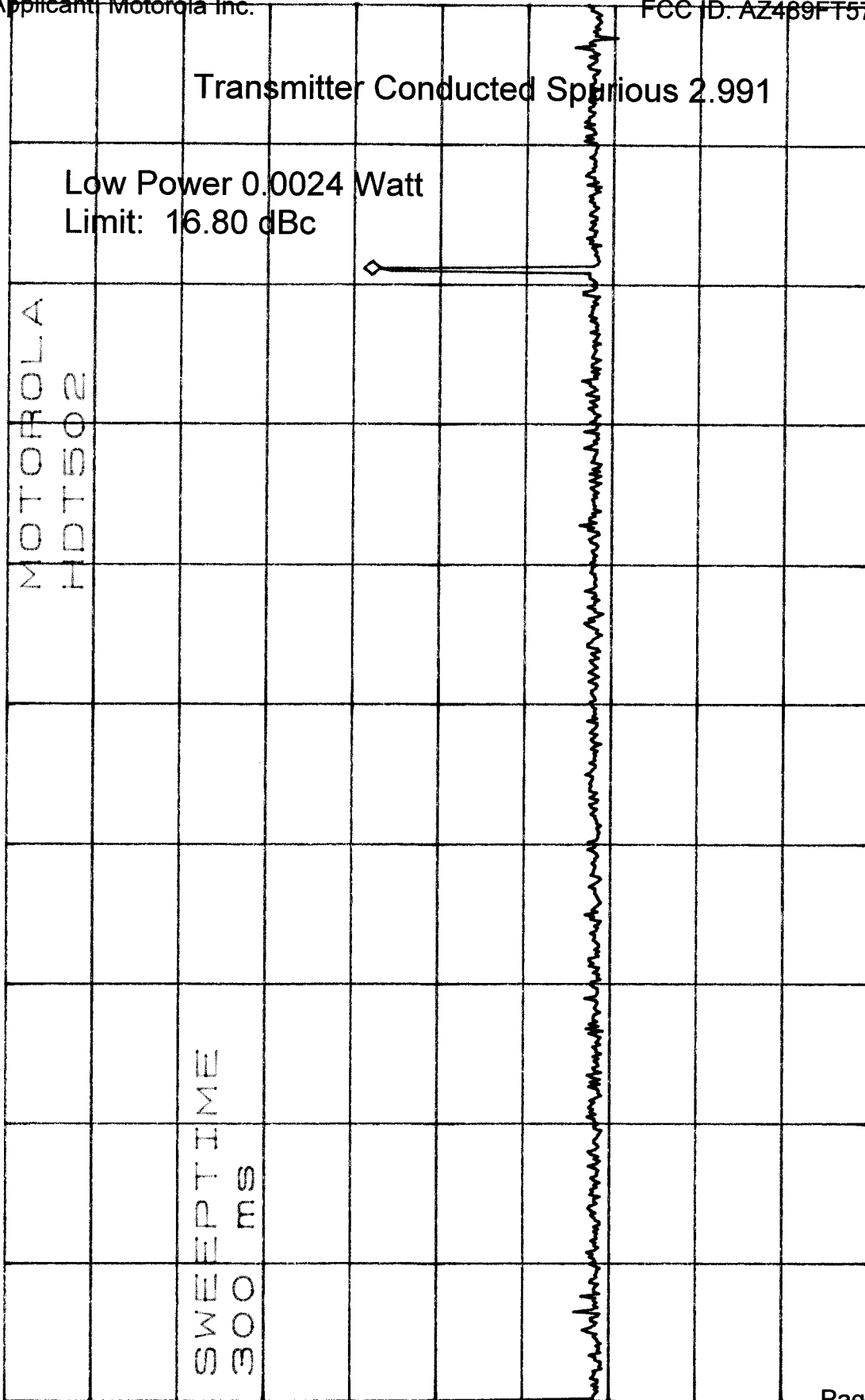
Span 0 – 1.0 GHz,	100kHz	Resolution and Video Bandwidth
Span 0 – 2.9 GHz	1.0 MHz	Resolution and Video Bandwidth
Span 2.75 – 10 GHz	1.0 MHz	Resolution and Video Bandwidth

High Power

Span 0 – 1.0 GHz,	100kHz	Resolution and Video Bandwidth
Span 0 – 2.9 GHz	1.0 MHz	Resolution and Video Bandwidth
Span 2.75 – 10 GHz	1.0 MHz	Resolution and Video Bandwidth

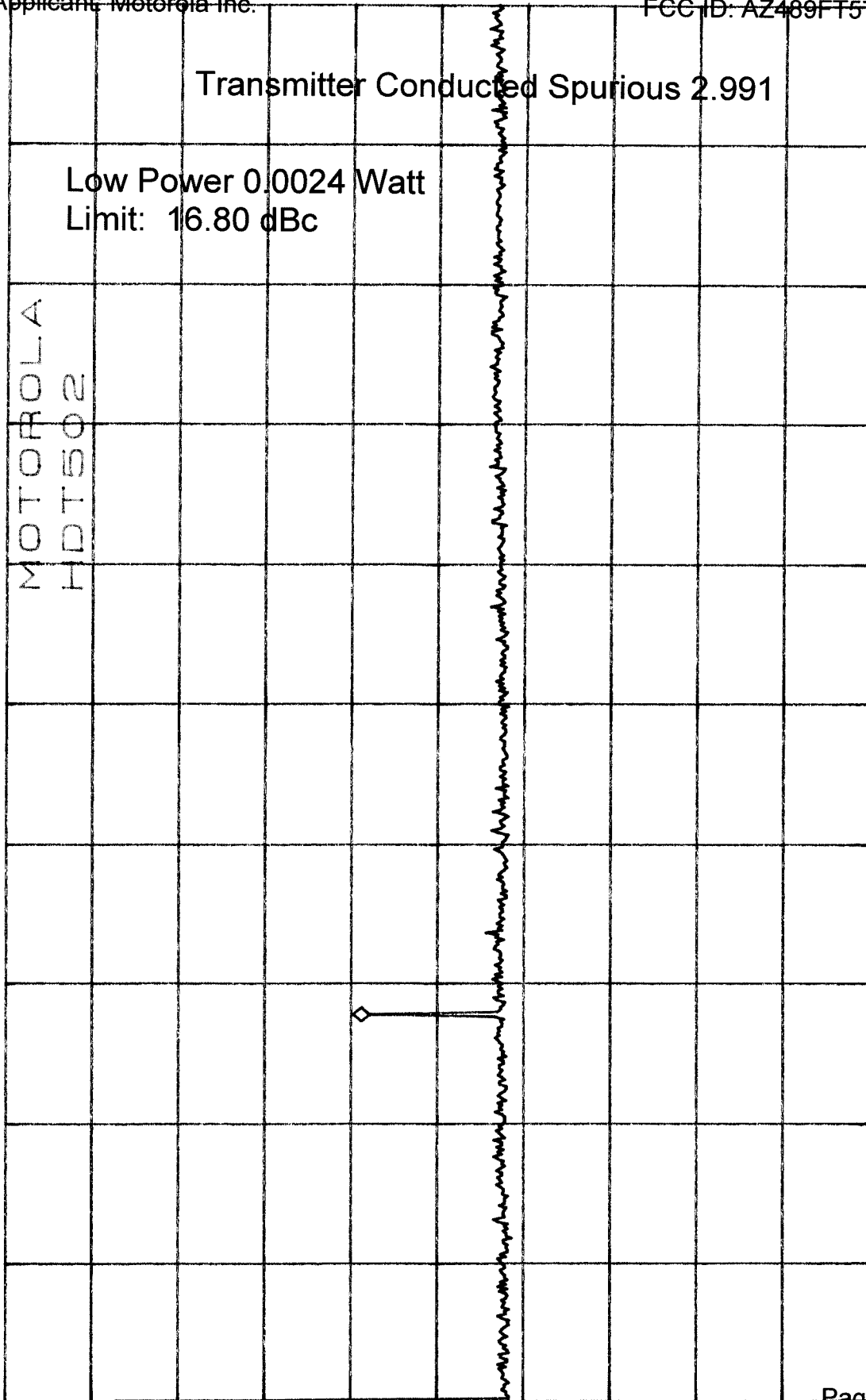
A high pass filter was used to reduce the level of F_o 36 dB and avoid overloading the front end of the analyzer. All conducted harmonic and spurious emissions were at least 20 dB below the limit for both low and high power operation.

*ATTEN 10dB
RL -7.7dBm
MYR -50.66dBm
812MHz
10dB/



9/13/90 1.0000GHz
STOP 1.0000GHz
*SWP 300ms
START 0Hz
VBW 100kHz
*RBW 100kHz

*ATTEN 10dB
 RL -7.7dBm
 MKR -49.83dBm
 807MHz
 10dB/



9/9/00 6:00 PM
 STOP 2.900GHZ
 *SWP 300ms
 START 0Hz
 VBW 1.0MHz
 *RBW 1.0MHz

Transmitter Conducted Spurious 2.991

Low Power 0.0024 Watt
Limit: 16.80 dBc

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10dB/

*ATTEN 40dB
REL -7.7dBm

9/13/00 WJH/MS

10.0000GHZ

STOP

VBW 1.0MHZ

START 2.750GHZ

*SWP 300MS

*ATTEN 40dB
RL 22.5dBm

MKR -20.33dBm
812MHz

MOTOROLA
HDT502

Transmitter Conducted Spurious 2.991

High Power 0.7 Watt
Limit: 41.45 dBc

99.150 dBc

STOP 1.000GHz

VBW 100kHz

SWP 300ms

START 0Hz
RBW 100kHz

*ATTEN 40dB
RL 22.5dBm

MYR -19.83dBm
812MHz

MOTOROLA
HDT502

10dB/

Transmitter Conducted Spurious 2.991

High Power 0.7 Watt
Limit: 41.45 dBc

913100 W/CH 100

START 0Hz

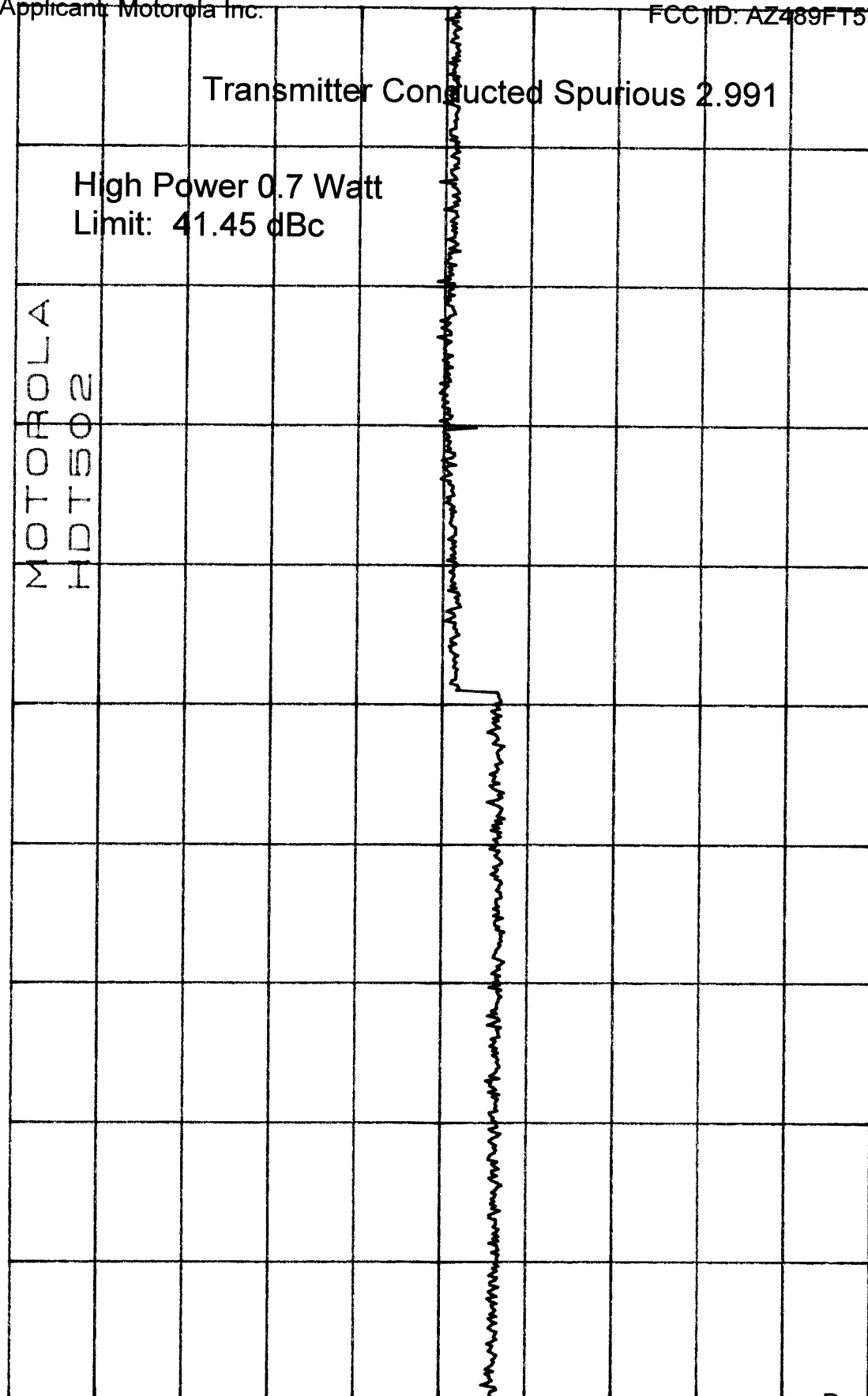
STOP 2.900GHz

*RBW 1.0MHz

VBW 1.0MHz

SWP 60ms

*ATTEN 40dB
 RL 22.5dBm
 10dB/



9/13/00 W/CP/MS
 START 2.750GHZ STOP 10.000GHZ
 RBW 1.0MHZ VBW 1.0MHZ SWP 200ms

EXHIBIT 6G TEST: TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: AZ489FT5805

Manufacturer: Motorola, Inc.

Serial No.: ESN

Minimum Standard Specified: Para. 90.210 (g)

Test Results: Equipment complies with standard

Equipment Authorization Procedure: Para. 2.1053

Test Equipment Set Up: See Block Diagram

Frequency Range Observed: 0 to 10 GHz

Operating Frequency: 813.5125 MHz

Power Output: 0.0024 Watt to 0.7-Watt power

Spurious Limit = $43 + 10\log_{10} PO =$ = 41.45 dB below the carrier

<u>FORMULA</u>	<u>FREQUENCY IN MHz</u>	<u>Low Power Level (dB below carrier)</u>	<u>High Power</u>
Fo	813.5125	-0-	-0-
2Fo	1627.025	-----	-59.48
4Fo	3254.050	-----	-54.60

At 3 meters with 1 MHz RBW and VBW all harmonic and spurious emissions up to 10 GHz were at least 20 dB below the limit for both low and high power settings.