

## 6 - SPURIOUS EMISSION AT ANTENNA TERMINAL

### 6.1 Standard Applicable

According to §15.209 (f) and §15.33(a), in some cases the emissions from an intentional radiator must be measured to beyond the tenth harmonic of the highest fundamental frequency designed to be emitted by the intentional radiator because of the incorporation of a digital device. If measurements above the tenth harmonic are so required, the radiated emissions above the tenth harmonic shall comply with the general radiated emission limits applicable to the incorporated digital device, as shown in §15.109 and as based on the frequency of the emission being measured, or, except for emissions contained in the restricted frequency bands shown in §15.205, the limit on spurious emissions specified for the intentional radiator, whichever is the higher limit.

### 6.2 Measurement Procedure

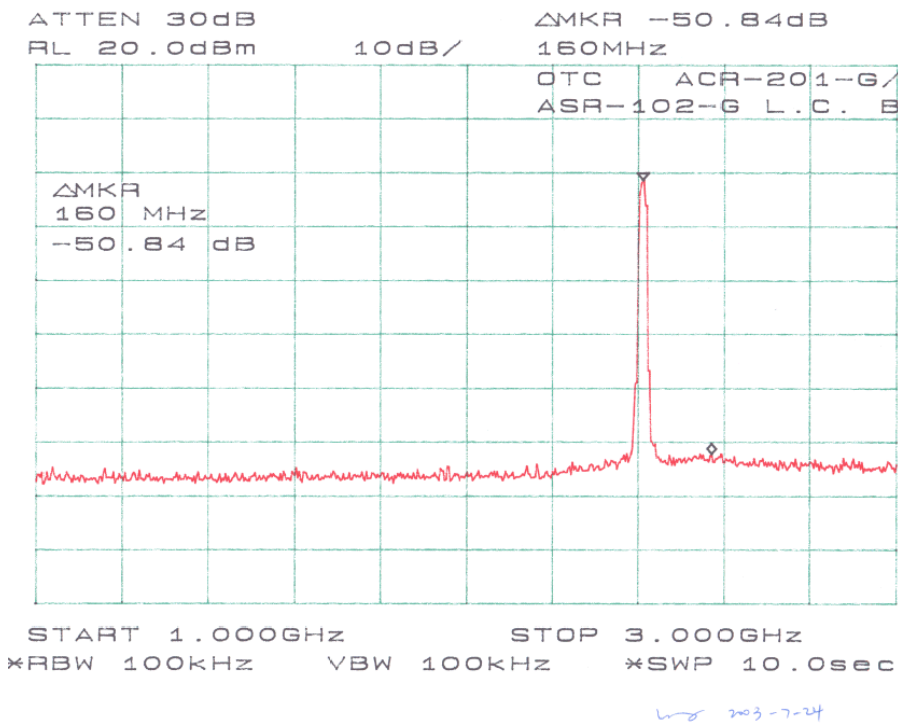
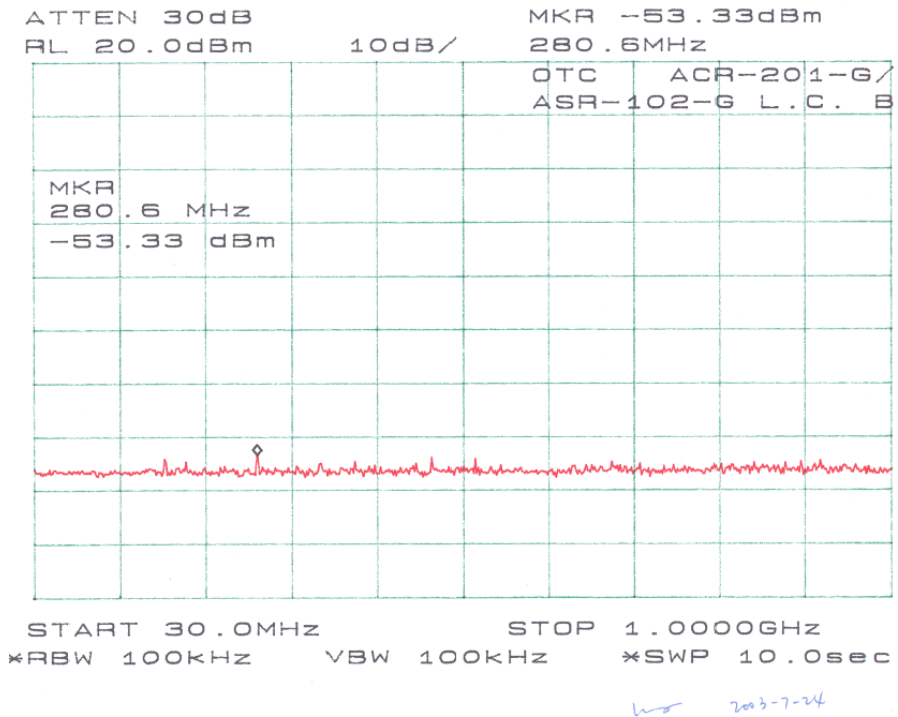
1. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.
2. Position the EUT as shown in figure 4 without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set the SA on Max-Hold Mode, and then keep the EUT in transmitting mode. Record all the signals from each channel until each one has been recorded.
4. Set the SA on View mode and then plot the result on SA screen.
5. Repeat above procedures until all frequencies measured were complete.

### 6.3 Test Equipment

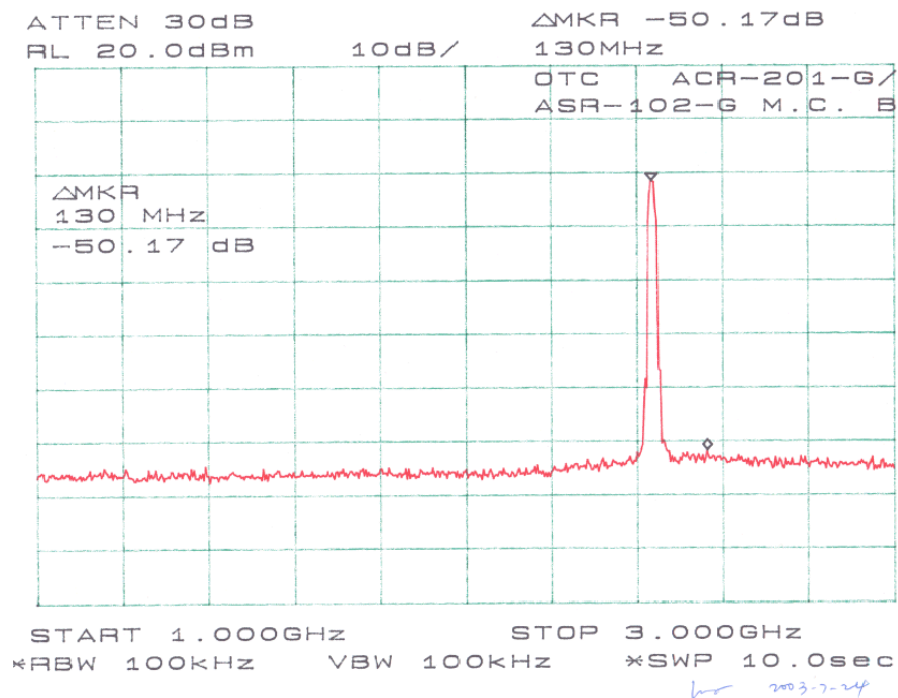
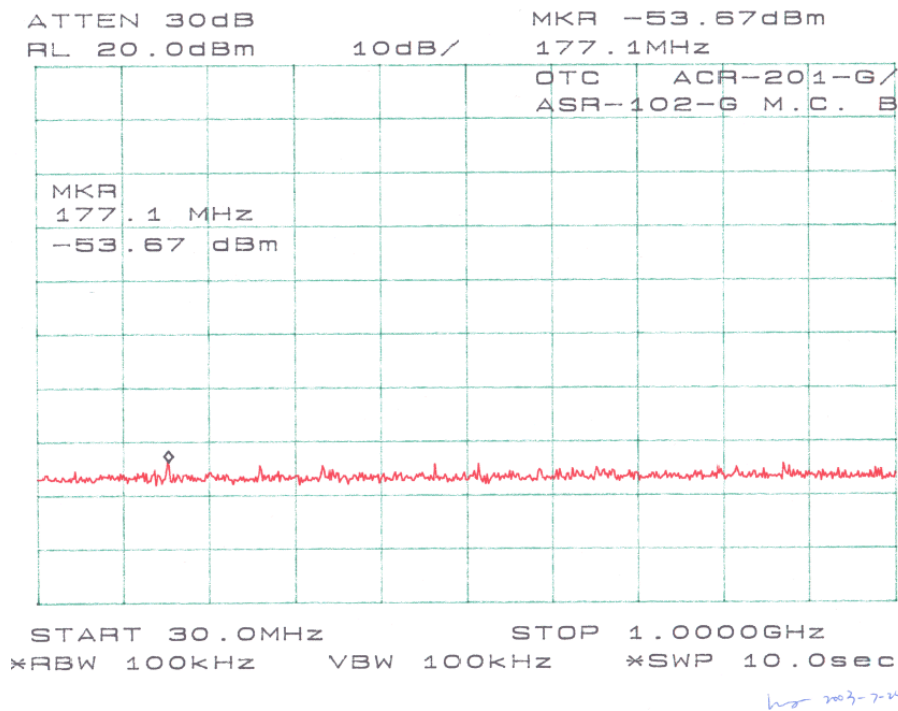
Manufacturer	Model No.	Serial No.	Calibration Due Date
HP	8564E	Spectrum Analyzer	2003-12-06

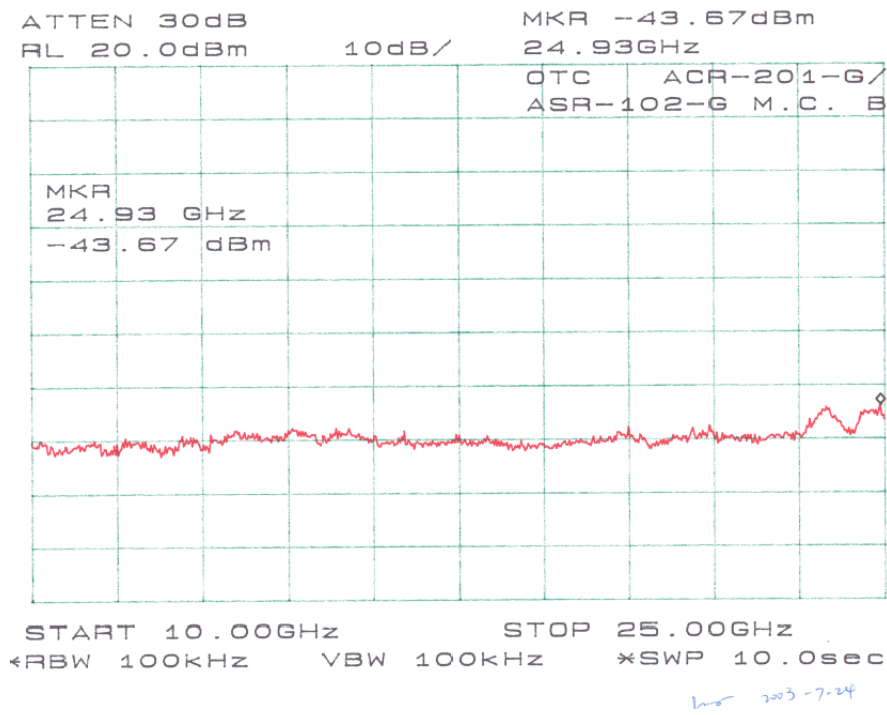
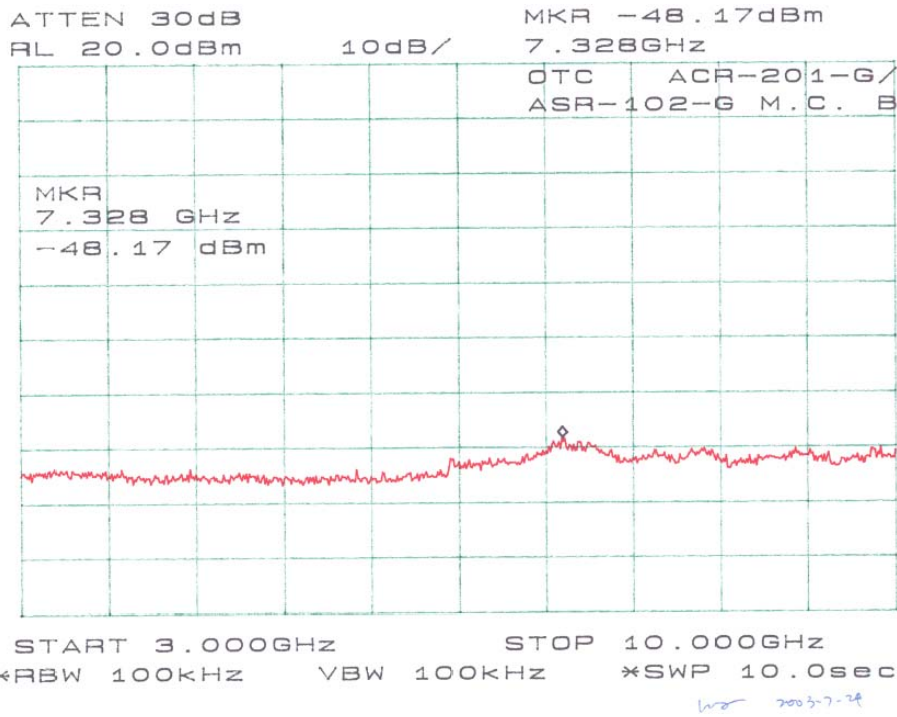
### 6.4 Measurement Result

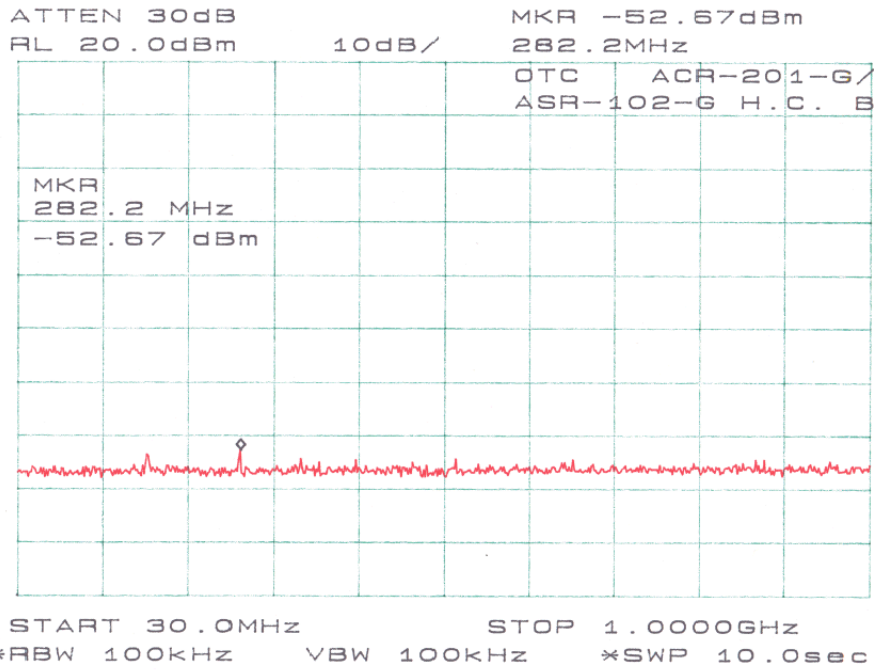
Please refer to following pages for plots of spurious emission.



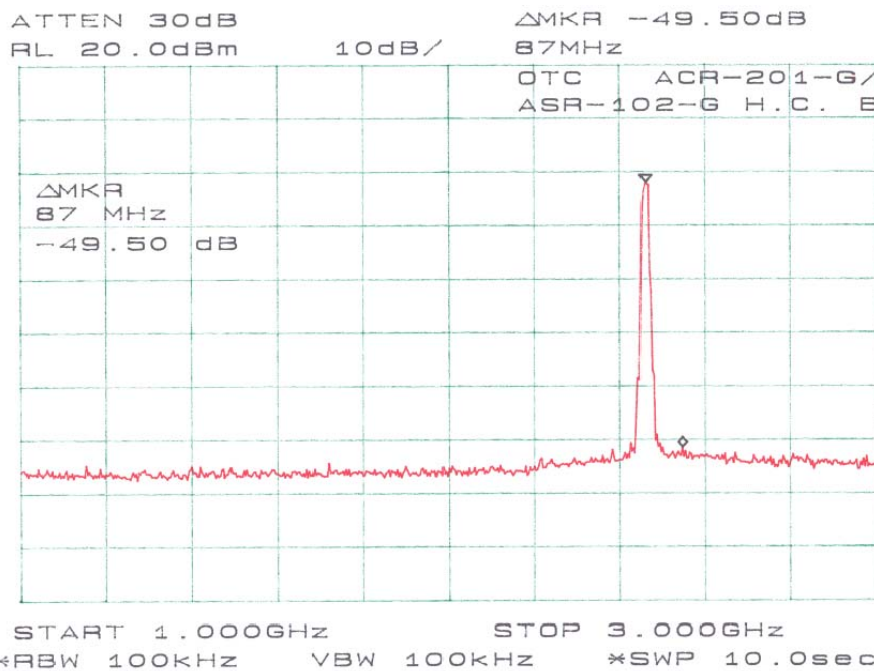




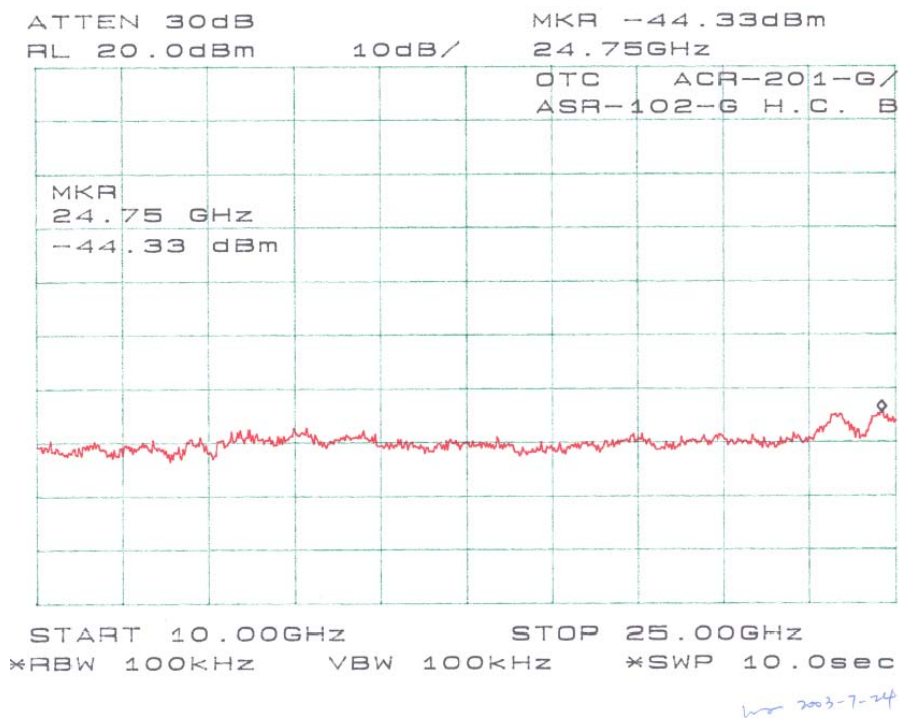
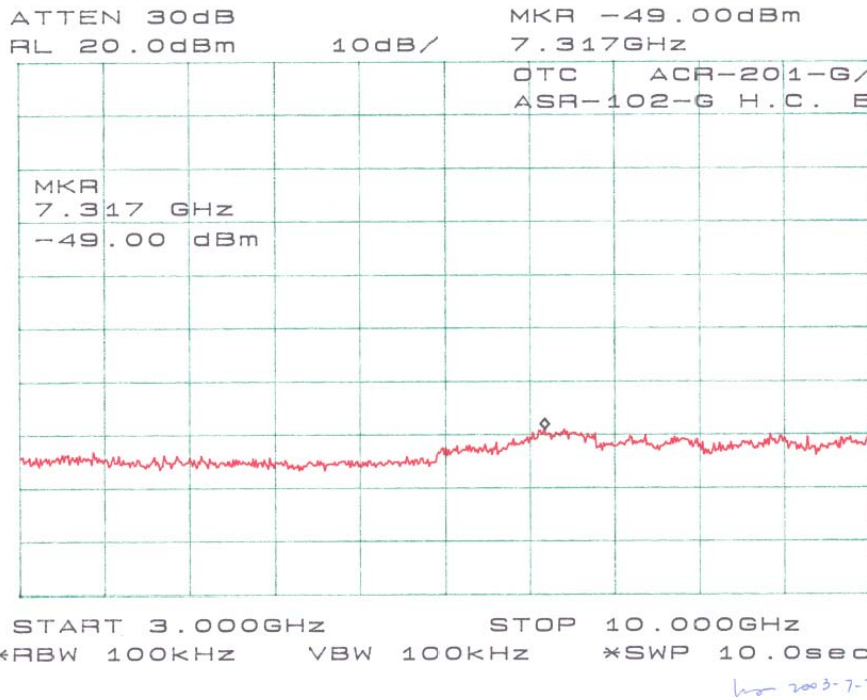


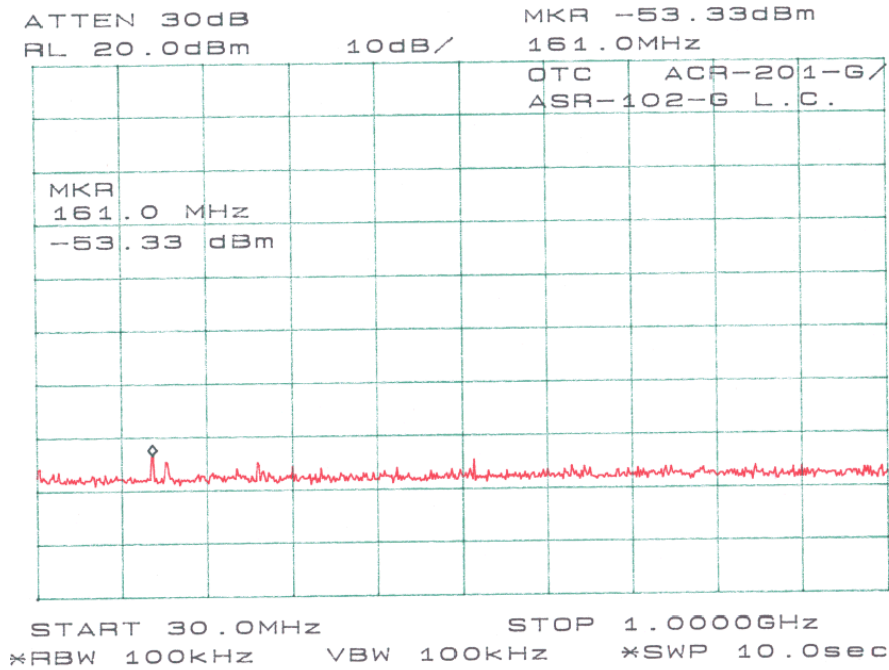


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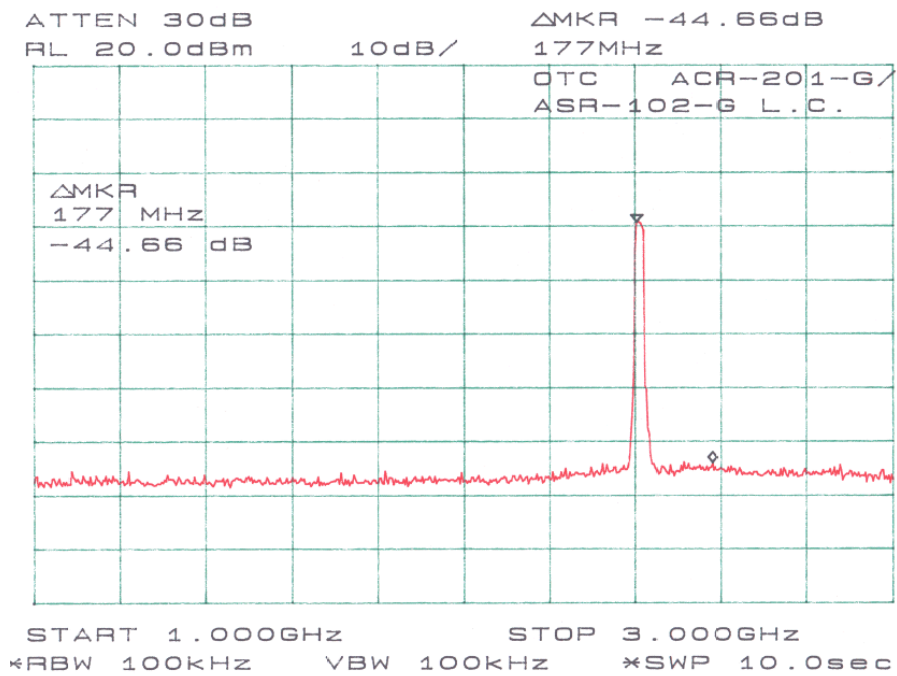


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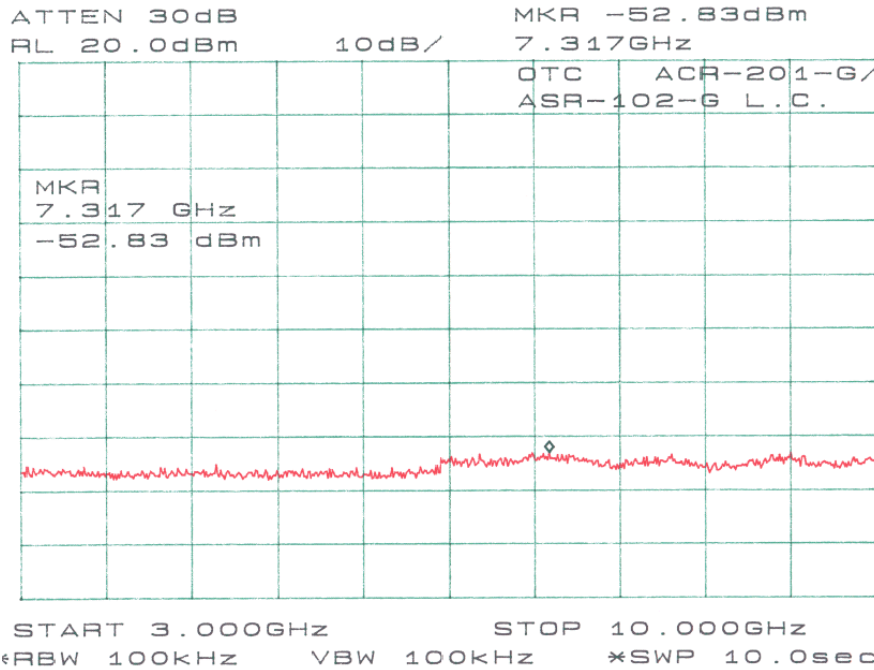


*Wj 2003-7-21*

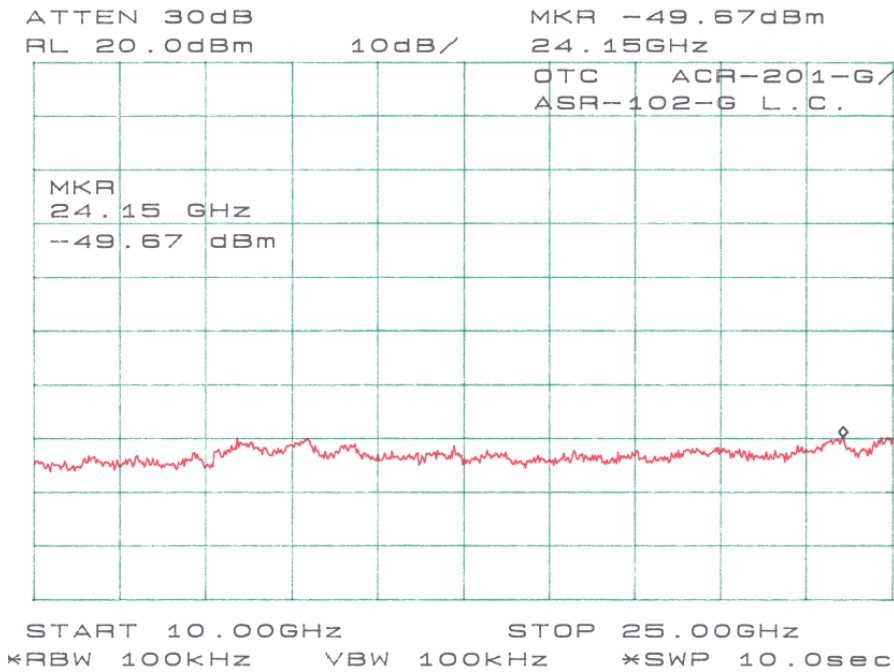


*Wj 2003-7-21*

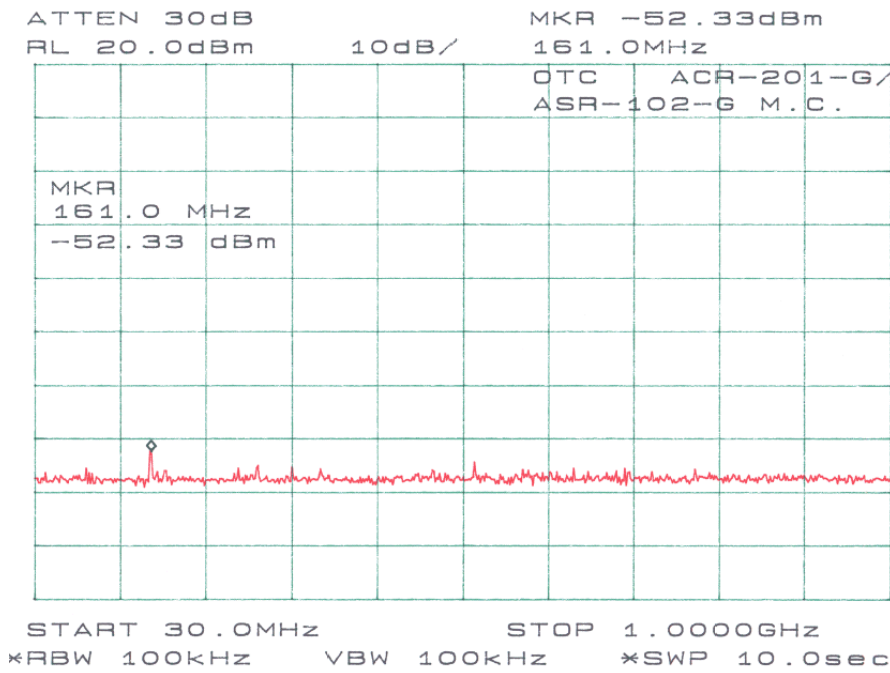




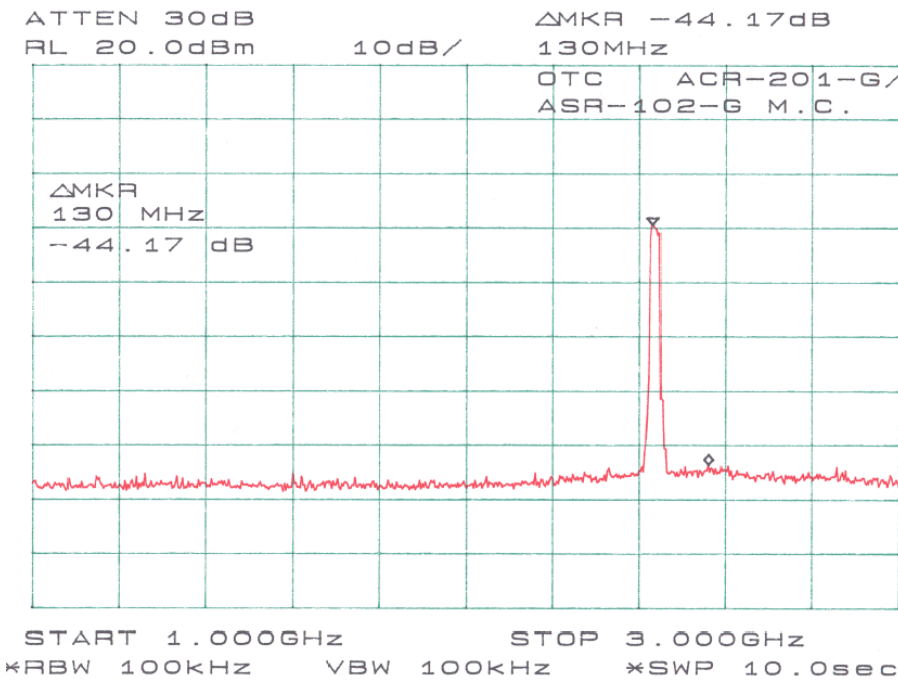
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*ly 2003-7-21*



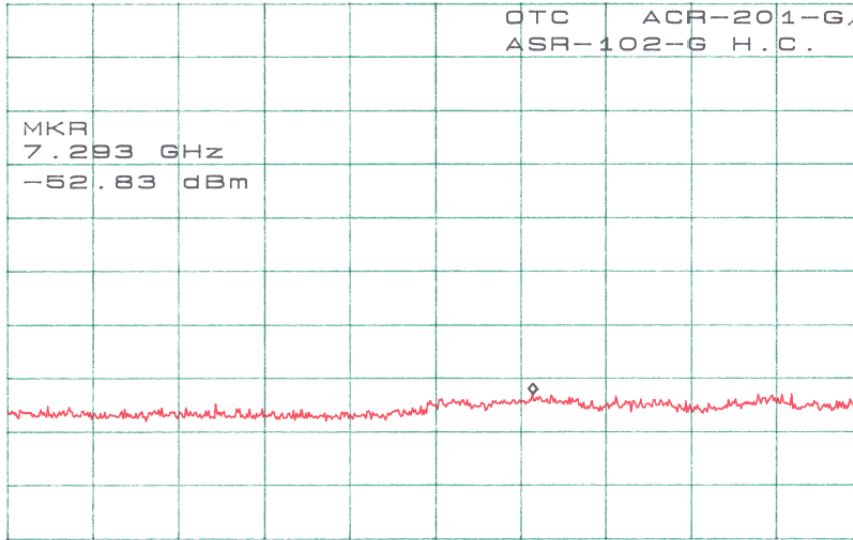


ATTEN 30dB  
RL 20.0dBm

10dB/

MKR -52.83dBm  
7.293GHz

OTC ACR-201-G/  
ASR-102-G H.C.



START 3.000GHz STOP 10.000GHz  
\*RBW 100kHz VBW 100kHz \*SWP 10.0sec

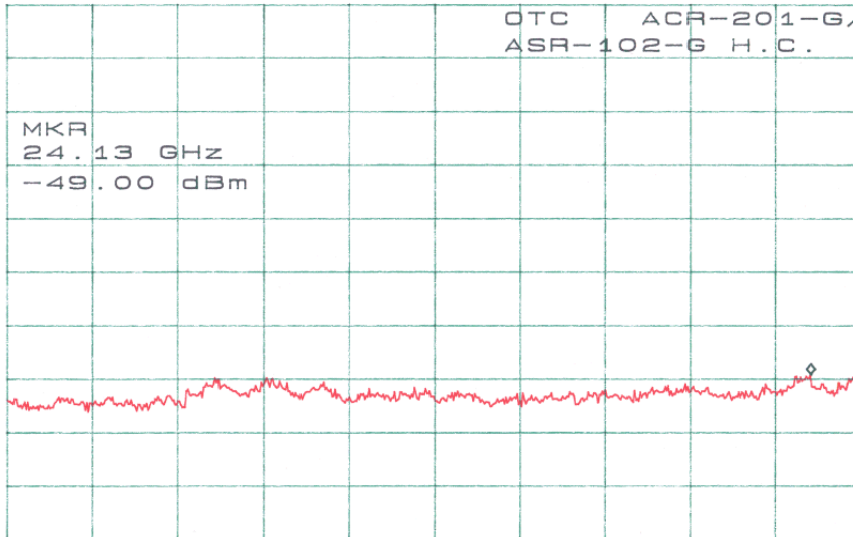
*Log 2003-7-21*

ATTEN 30dB  
RL 20.0dBm

10dB/

MKR -49.00dBm  
24.13GHz

OTC ACR-201-G/  
ASR-102-G H.C.



START 10.000GHz STOP 25.000GHz  
\*RBW 100kHz VBW 100kHz \*SWP 10.0sec

*Log 2003-7-21*

## 7 - PEAK POWER SPECTRAL DENSITY

### 7.1 Standard Applicable

According to §15.247 (d), digitally modulated systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

### 7.2 Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Adjust the center frequency of SA on any frequency be measured and set SA to 6MHz span mode. And then, set RBW and VBW of spectrum analyzer to proper value.
4. Repeat above procedures until all frequencies measured were complete.

### 7.3 Test Equipment

Manufacturer	Model No.	Serial No.	Calibration Due Date
HP	8564E	Spectrum Analyzer	2003-12-06

### 7.4 Measurement Results

	Frequency (MHz)	Peak Power Spectral Density (dBm)	Standard (dBm)	Result
802.11b	2412	-12.50	≤ 8	Compliant
	2437	-12.67	≤ 8	Compliant
	2462	-13.00	≤ 8	Compliant
802.11g	2412	-20.00	≤ 8	Compliant
	2437	-25.83	≤ 8	Compliant
	2462	-26.50	≤ 8	Compliant

### 7.5 Plot of Peak Power Spectral Density

Please refer to following pages for plots of peak power spectral density.

