

Peak conducted transmit output power (Provided by Joe Dichoso as an acceptable procedure)

Peak output power shall be measured with no video averaging and with a video bandwidth (VBW) greater than or equal to the larger of:

--  $EBW/(2\pi \cdot 30)$ , where EBW is the 26-dB emission bandwidth (EBW / 188.52)

--  $1/(2\pi \cdot T)$ , where T is the transmission pulse duration over which the transmission is continuous and average symbol envelope power is constant.

1) With Microwave test system (SA40), use RBW = 1MHz, VBW set in accordance with FCC requirements (see table below if device is transmitting continuously, otherwise calculate VBW).

Emission Bandwidth	VBW
< 2MHz	10kHz
< 5.7MHz	30kHz
< 18.9 MHz	100kHz
< 57 MHz	300kHz
< 100 MHz	1MHz

2) Use Max Hold for 2 seconds and then view the trace. Use the channel power function, setting the channel bandwidth greater than the 26dB bandwidth of the signal.

3) Label the plot and capture spectrum analyzer display with Benchlink software.

Power Spectral Density(Taken from UNII FCC provided acceptable procedure)

Used Test Procedure# 2 from the UNII FCC provided procedure.

Use Video averaging.

Use of a Reduced VBW, "video filter" is not allowed.

Set RBW= 1MHz, VBW > 1 MHz. The PPSD is the highest level found across the emission in any 1 MHz band. After 100 sweeps of video averaging.



# EMC Test Data

Client: Intel	Job Number: J44992
Model: WCB5000	T-Log Number: T45425
	Proj Eng: Mark Briggs
Contact: Jim Baer	
Spec: FCC Part 15 E, RSS-210	Class: N/A

## FCC Part 15 Subpart E Tests: Normal Mode

### Test Specifics

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test:	2/1/01
Test Engineer:	Jmartinez
Test Location:	SVOATS# 4

Config. Used: 1  
 Config Change: None  
 Host Unit Voltage 120V/60Hz

### General Test Configuration

When measuring the conducted emissions from the EUT's antenna port, the antenna port of the EUT was connected to the spectrum analyzer or power meter via a suitable attenuator to prevent overloading the measurement system. All measurements are corrected to allow for the external attenuators and cables used.

**Ambient Conditions:**            Temperature: 24°C  
    Rel. Humidity: 80%

### Summary of Results

Run #	Test Performed	Limit	Result	Comments
1	Output Power (5.15 - 5.25GHz band)	15.407(a) (1)	Pass	16.5 dBm
1	Output Power (5.25 - 5.35GHz band)	15.407(a) (2)	Pass	20.0 dBm
2	26dB Bandwidth	15.407	Pass	26.33 - 36.25 MHz
2	20 dB Bandwidth	RSS 210	Pass	18.17 - 22.00 MHz

### Modifications Made During Testing:

No modifications were made to the EUT during testing

### Deviations From The Standard

No deviations were made from the requirements of the standard.



# EMC Test Data

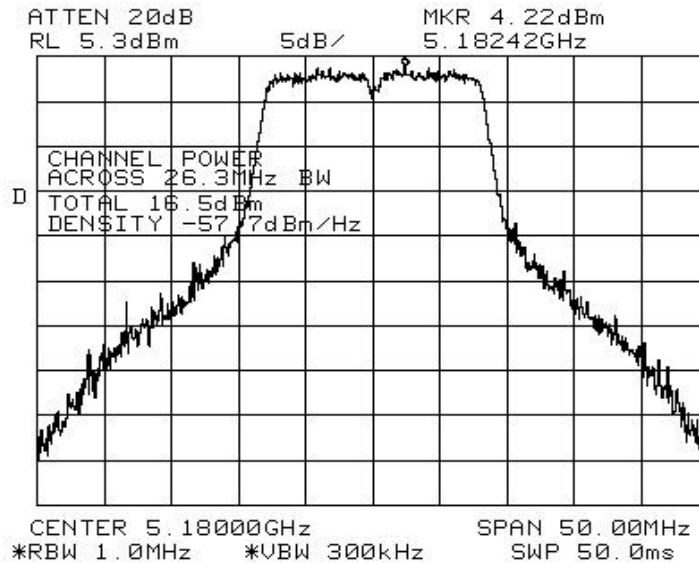
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**Run #1: Output Power**  
 Antenna Gain: 3.9 dBi

Power (dBm)	Frequency (MHz)	VBW (kHz)	26-dB EBW	Measured Power (dBm)	FCC Limit (dBm) (note 3)
13	5180	140	26.33	16.5	17.0
15.4	5260	192	36.25	20.0	24.0
14.3	5320	151	28.50	18.4	24.0

Note 1: Measured using spectrum analyzer's power measurement function (RBW = 1MHz, VBW = (Note 2)) which summed the power over the occupied bandwidth (26dB bandwidth).

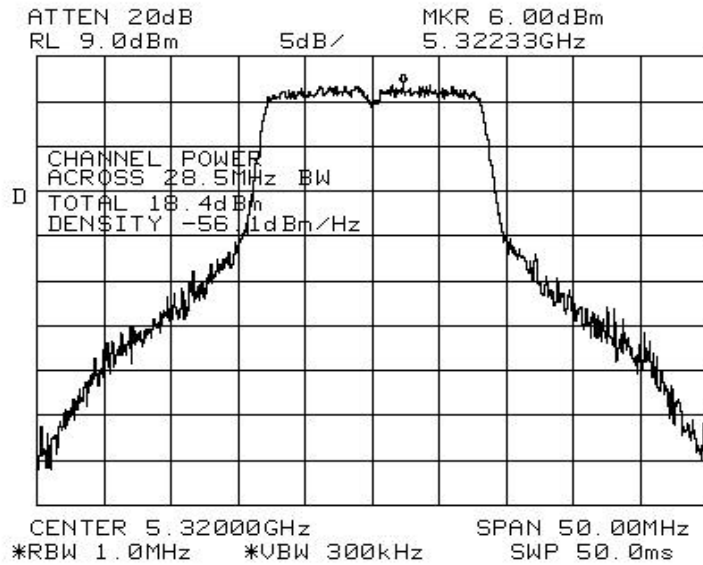
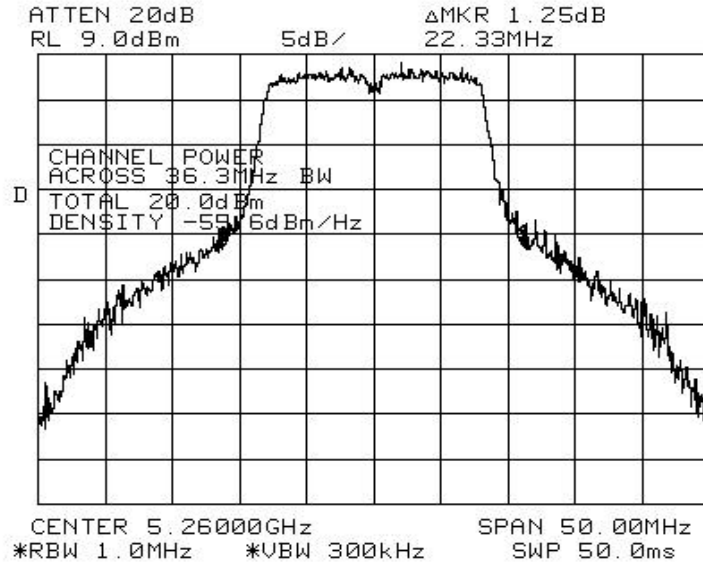
Note 2: VBW was determine by the following formulas:  $EBW/2 \cdot \pi \cdot 30$  or  $1/2 \cdot \pi \cdot T$ , whichever gives the largest VBW.





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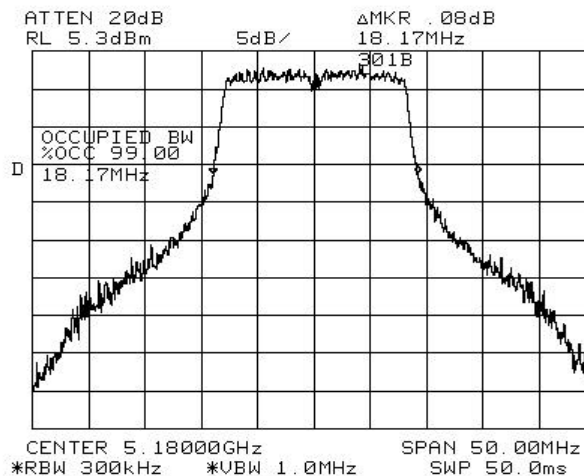
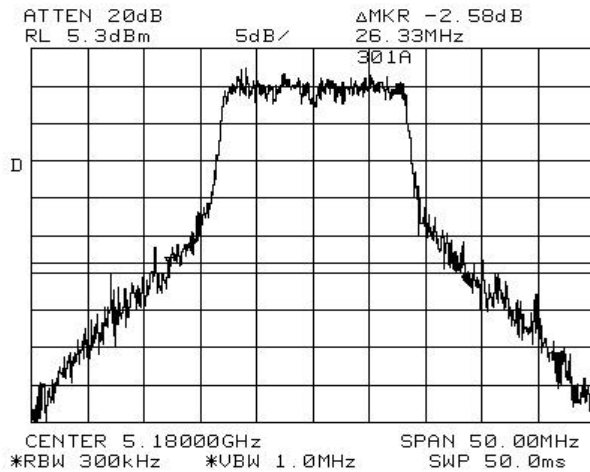
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## Run #2: Signal Bandwidth

Channel	Frequency (MHz)	Resolution Bandwidth	26 dB Signal Bandwidth (MHz)	20 dB Signal Bandwidth (MHz)	Graph reference #
low	5180	300 kHz	26.33	18.17	301A and 301B
mid	5260	300 kHz	36.25	22.00	302A and 302B
high	5320	300 kHz	28.50	19.00	303A and 303B

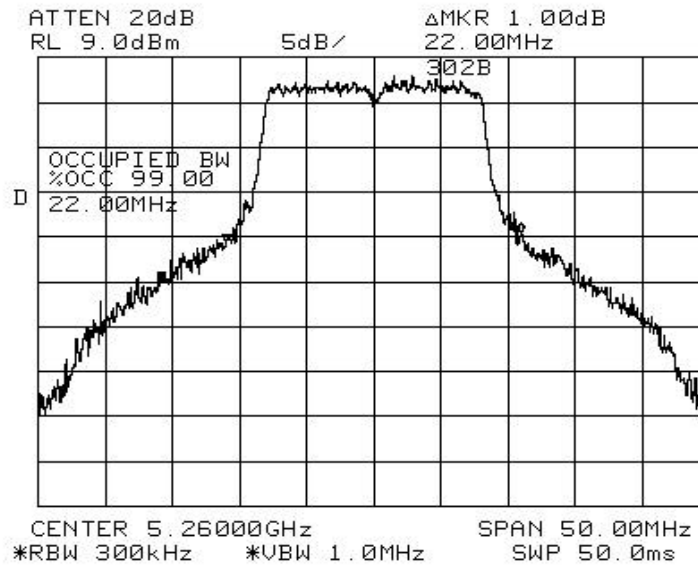
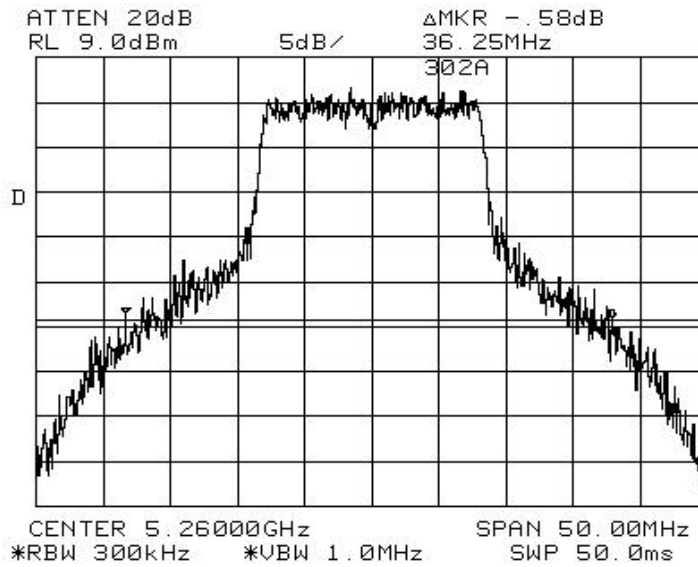
### Plots Showing Signal Bandwidth





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