

Dear Dennis,

Here are our answers

Ans1: Please see the [Block Diagram update.pdf](#).

Ans2:Sorry. The antenna report is not confidential.

Ans3: The previous technical specification stating that it has full 14 channels support is a overall version, not FCC version, and we have the FCC version now, please see the [WM3B2100 technical spec update.pdf](#) and [the attestation letter.pdf](#)

Ans4: The 2-condition statement has been added into the label. Please see [label update.pdf](#) & [label location update.pdf](#)

Ans5: The peak power analyzer is containing a power sensor (HP 84815A) and a power analyzer (HP8990A). The peak power analyzer is not a spectrum analyzer, and it doesn't need the resolution bandwidth filter inside. The peak power analyzer is same with the peak power meter, and it has video bandwidth filter inside. The list below is the spec.

HP 84815A:

Freq Range	50MHz to 18GHz
Power Range	-32 ~ +20dBm
Rise time	<45ns
SWR	1.25 : 1 (below 6GHz)
i/p power	200mW average, 1W peak for 1us
connector	Type N
sensor length	1.5M std 6M optional

HP 8990A: (VideoBandwidth)

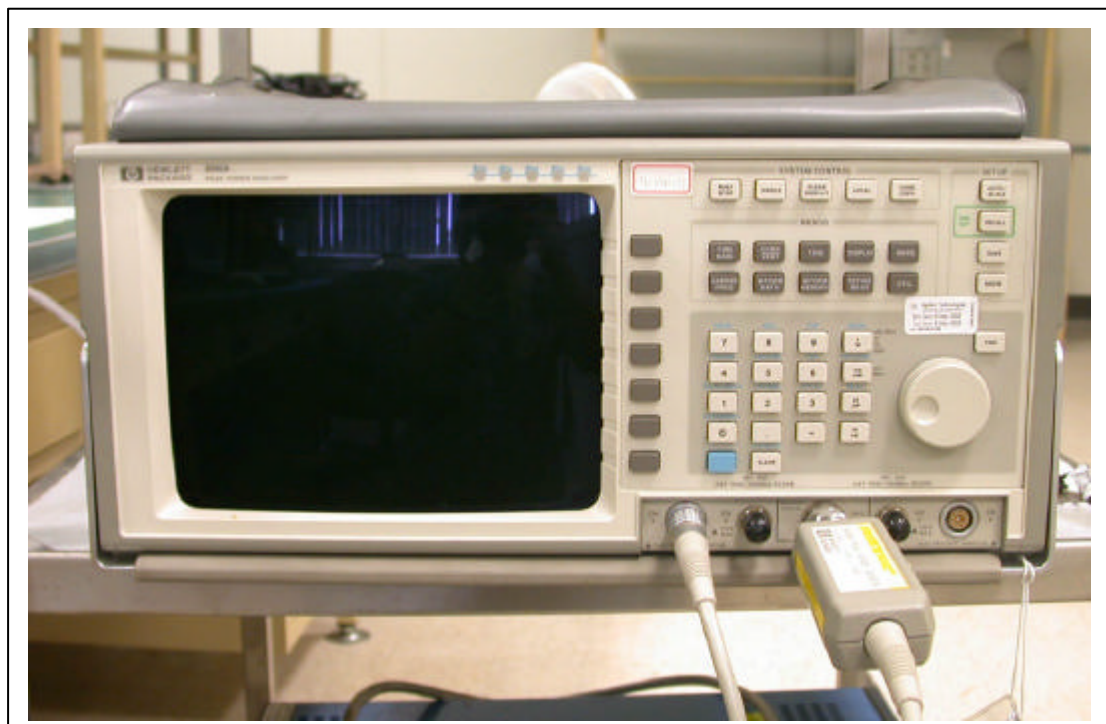
i/p signal (dBm)	VBW
-16 to +20	150MHz
-26 to -16	500KHz
-32 to -26	8KHz
-37 to -32	2.5KHz
-40 to -37	600Hz

For our measurement, the VBW is 150MHz larger than 12 MHz, no need to add the

correction factor.

Ans6: The attenuator is inside the power sensor (HP 84815A), and it prevents the over-current damaging the power analyzer. Before we test, we connect the power sensor's output- port to the sensor-check-port of the power analyzer, then the analyzer will self-calibrate the attenuator's loss by himself automatically, we didn't need to do any thing at the attenuator and didn't know the loss any more.

The photos below are the peak power analyzer & self-calibration



Ans7 & Ans 8:

In page 37 saying: “For frequency between 30 MHz and 1000MHz, the reading is recorded with peak detector or quasi-peak detector. For frequency above 1 GHz, the reading is recorded with peak detector or average detector with 1 MHz bandwidth.”

In page 17 saying: “For the test of 2nd to 10th harmonics frequencies , the equipment setup was also refer to *EMI Receiver/Spectrum Analyzer Configuration*. The frequencies were tested using Peak mode first, if the test data is higher than the emissions limit, an additional measurement using Average mode will be performed and the average reading will be compared to the limit and record in test report”. It means the frequency is above 1GHz.

In page 17, the analyzer setting is :

Frequency Range Tested:	30MHz~1000MHz
Detector Function:	Quasi-Peak Mode
Resolution Bandwidth (RBW):	120KHz
Video Bandwidth (VBW)	1MHz

Frequency Range Tested:	1GHz – 25 GHz
Detector Function:	Peak Mode
Resolution Bandwidth (RBW):	1MHz
Video Bandwidth (VBW)	1MHz

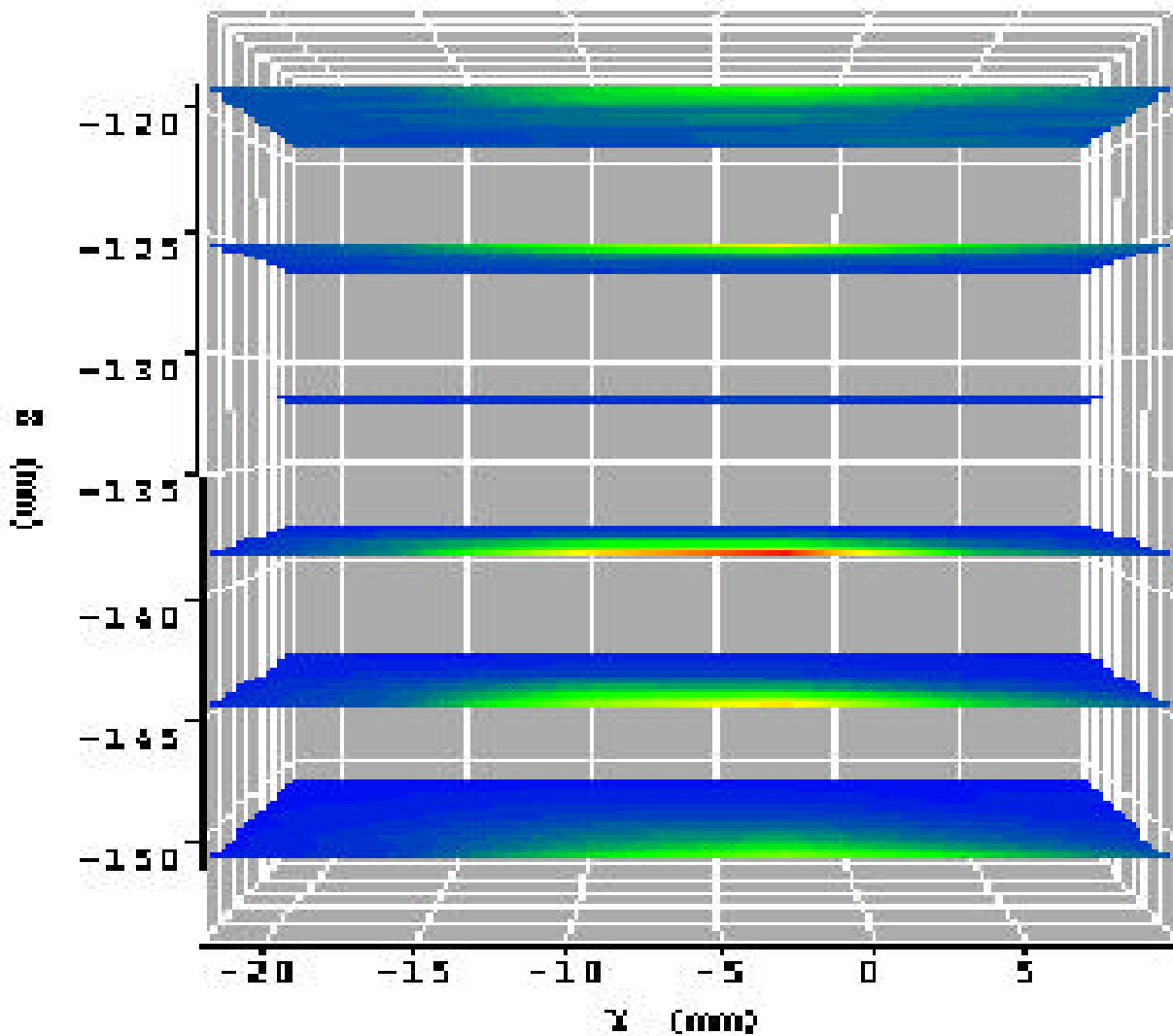
Frequency Range Tested:	1GHz – 25 GHz
Detector Function:	Average Mode
Resolution Bandwidth (RBW):	1MHz
Video Bandwidth (VBW)	10 Hz

Yes, the spurious emissions above 1GHz must meet not only the 54dBuV/m average limit but 74dBuV/m peak limit. And, for our test data in table 5.5, the analyzer setting is 1MHz(RBW), 1MHz(VBW), the test data is the peak value, but the limit in table 5.5 is 54dBuV/m (average limit). The reason is that if the peak value of spurious emission can meet 54dBuV/m (average limit), we can make sure that both the peak value of spurious emission can meet 74dBuV/m (peak limit) and the average value of spurious emission can meet 54dBuV/m (average limit) in the same time. If the peak value of spurious emission can meet 54dBuV/m (average limit), we didn't need to test the average value of spurious emission again. In our test procedure, If the peak value of spurious emission cannot meet 54dBuV/m (average limit), we will test the average value of spurious emission again.

Sorry to make you disturbance, we have updated the report in every table for the analyzer setting and highlighting the test data in “pk” meaning peak value, in “av” meaning average value.

Please refer to [03LR014FC update.pdf](#)

Ans9: Yes, the SAR report have the X,Y,Z-Axis plot. The Plot in the previous report is not clear, please see the updated report. The X-Axis is in the horizontal way, The Z-Axis is in the vertical way, The Y-Axis is in the way input the paper. Please refer to [M505B2 SAR update.pdf](#)



If there is any info needed, feel free to contact me through e-mail
Thanks

Daphne Liu