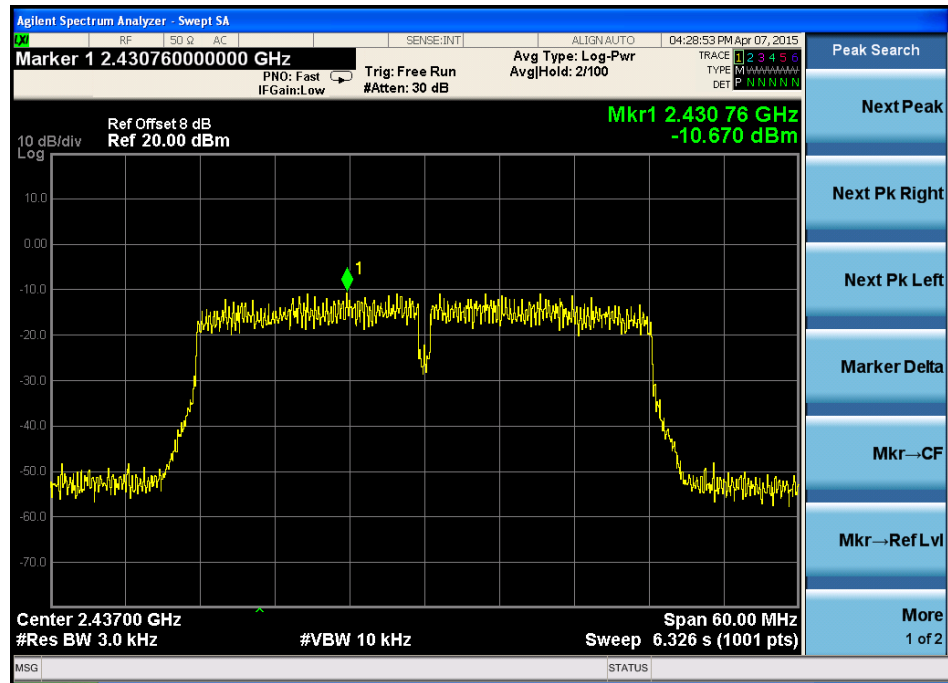
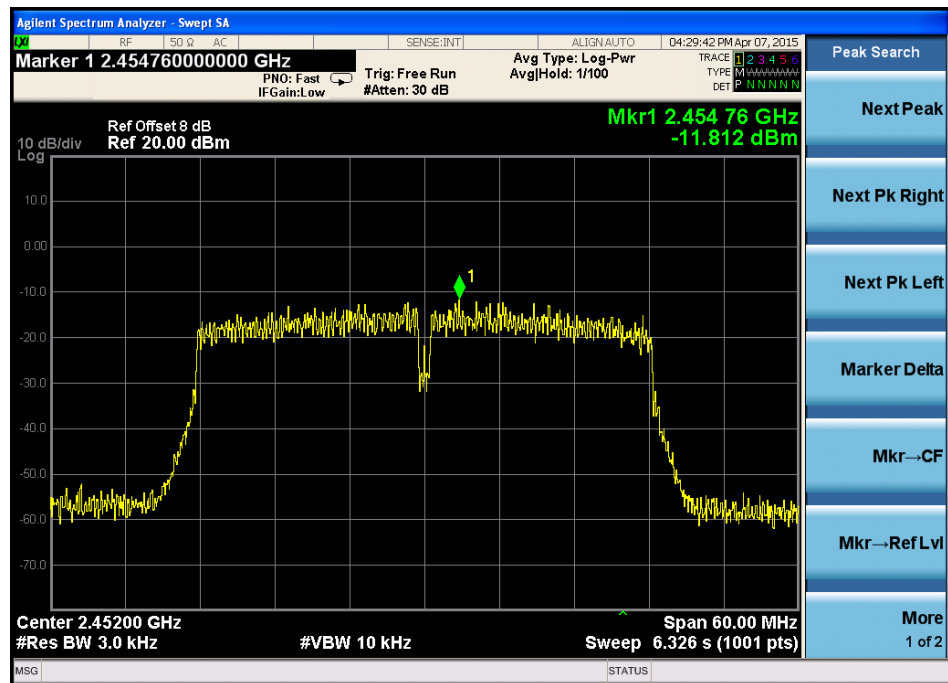


CH Mid:



CH Hig:



## 9 Bandwidth

### 9.1 Test limit

Please refer section 15.247

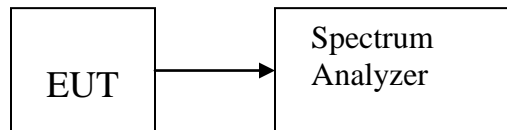
For direct sequence systems, the minimum 6dB bandwidth shall be at least 500 kHz.

### 9.2 Method of measurement

Details see the KDB558074 D01 Meas Guidance

- a) The bandwidth is measured at an amplitude level reduced 20dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.
- b) The test receiver set  $RBW = 1-5\%$  EBW,  $VBW \geq 3RBW$ , Sweep time set auto, detail see the test plot.

### 9.3 Test Setup



### 9.4 Test Results

PASS.

Antenna 0 and Antenna 1 port all have been tested ,  
only worse case is reported

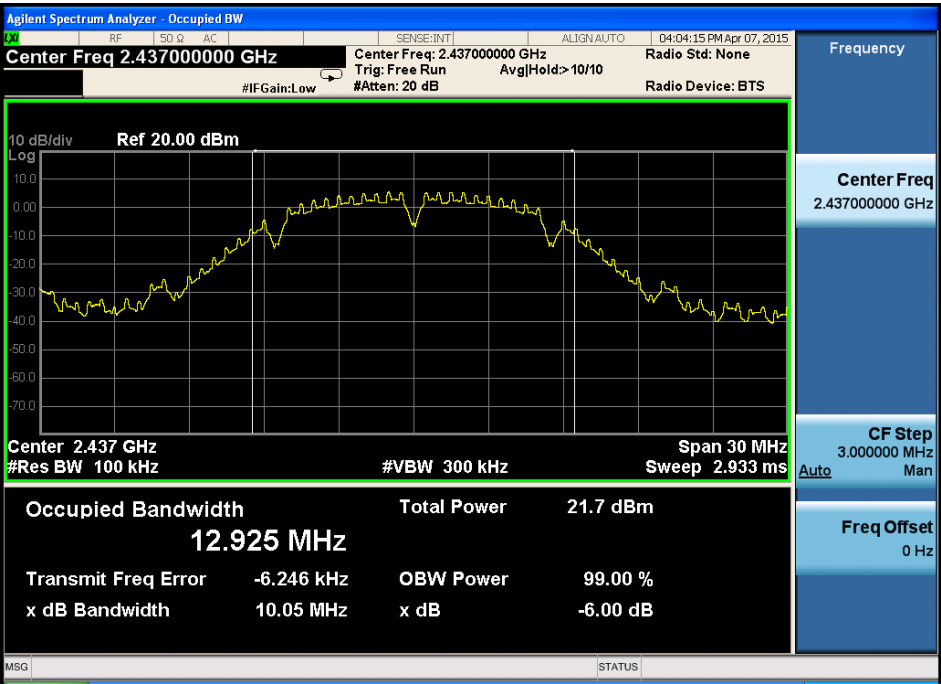
Detailed information please see the following page.

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
IEEE 802.11b:					
Low	2412	10.05	12.962	0.5	PASS
Mid	2437	10.05	12.925	0.5	PASS
High	2462	9.588	12.887	0.5	PASS
IEEE 802.11g					
Low	2412	15.11	16.381	0.5	PASS
Mid	2437	15.45	16.397	0.5	PASS
High	2462	15.16	16.378	0.5	PASS
IEEE 802.11n/HT20:					
Low	2412	15.16	17.544	0.5	PASS
Mid	2437	15.16	17.568	0.5	PASS
High	2462	15.16	17.532	0.5	PASS
IEEE 802.11n/HT40:					
Low	2422	35.24	35.775	0.5	PASS
Mid	2437	35.22	35.795	0.5	PASS
High	2452	35.14	35.773	0.5	PASS

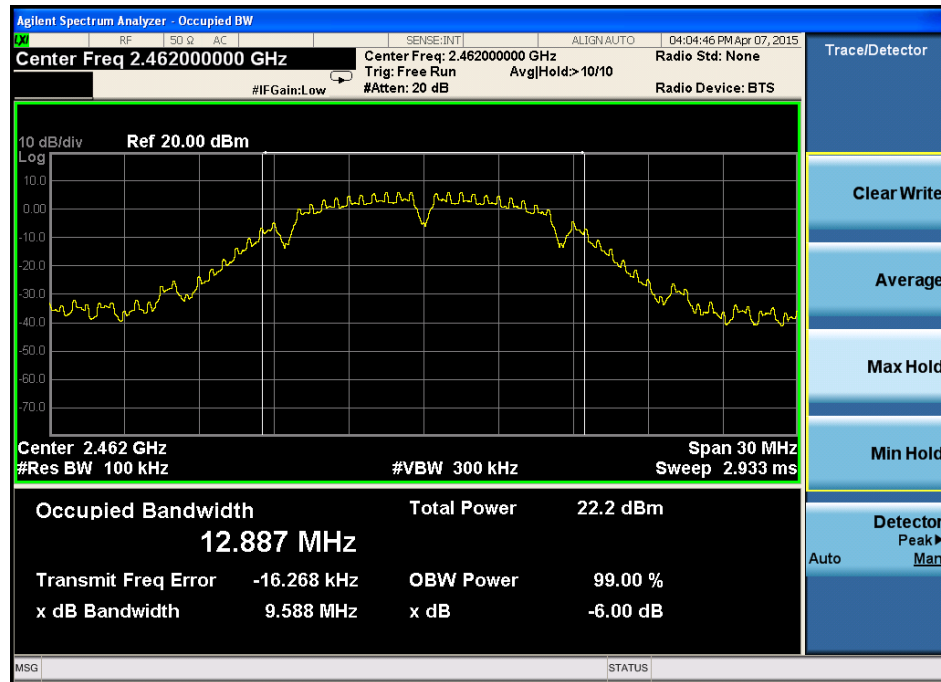
IEEE 802.11b:  
CH Low :



CH Mid :

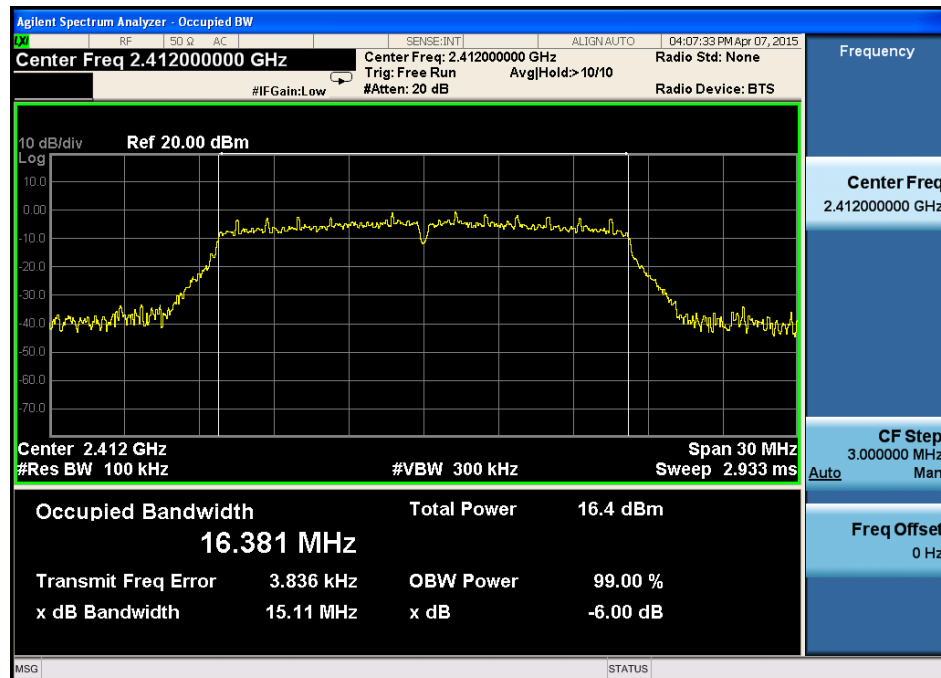


CH High :

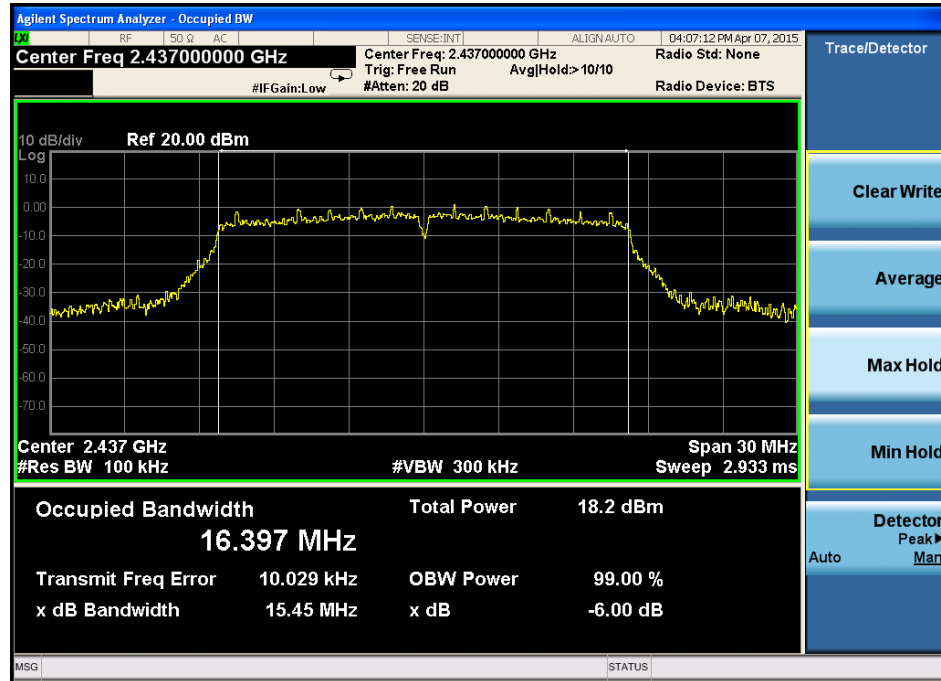


IEEE 802.11g:

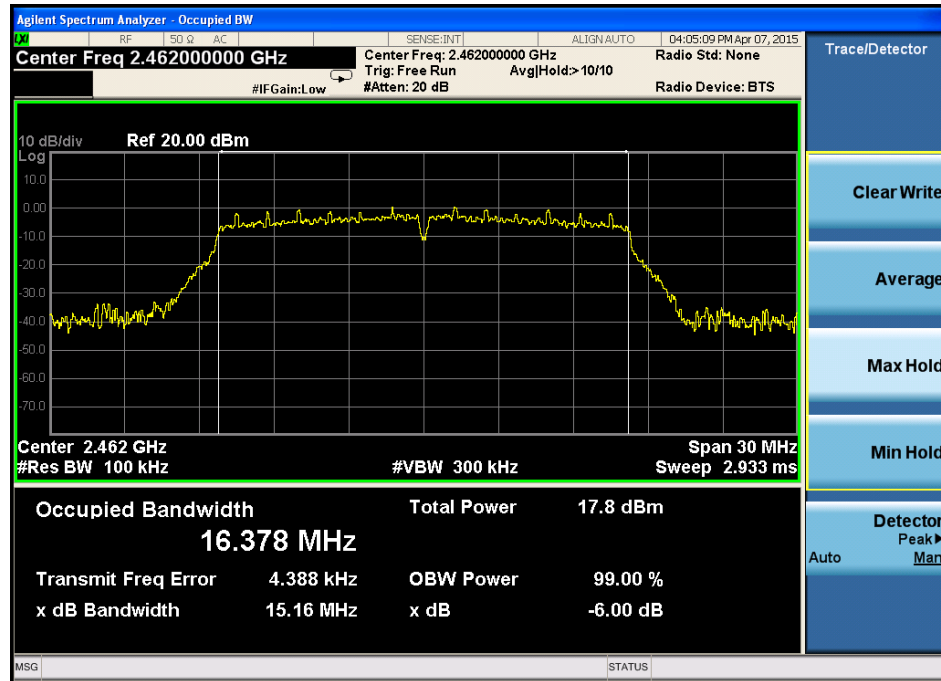
CH Low :



CH Mid:

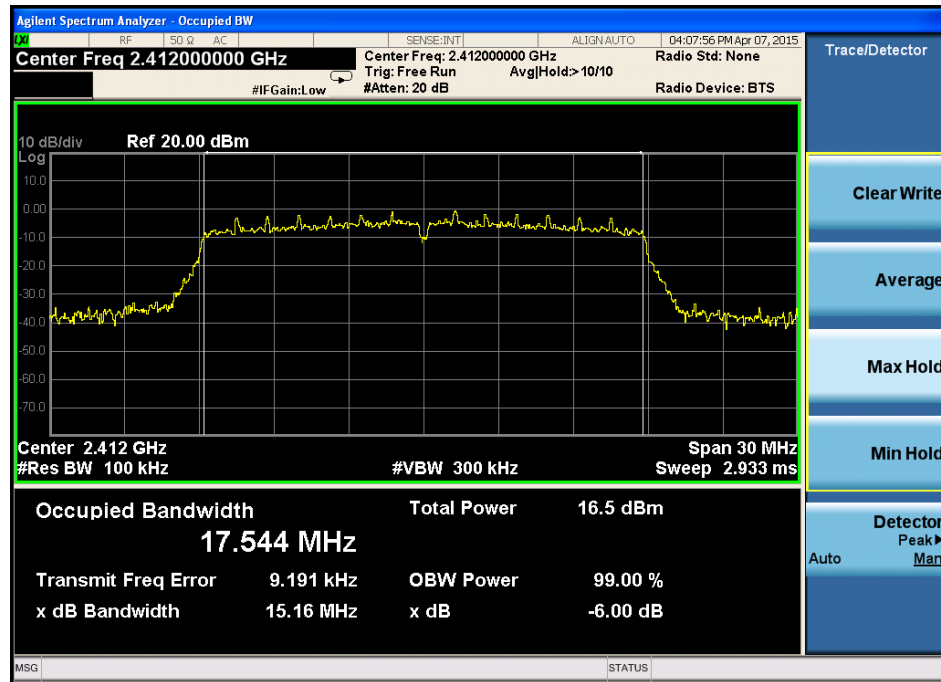


CH Hig:

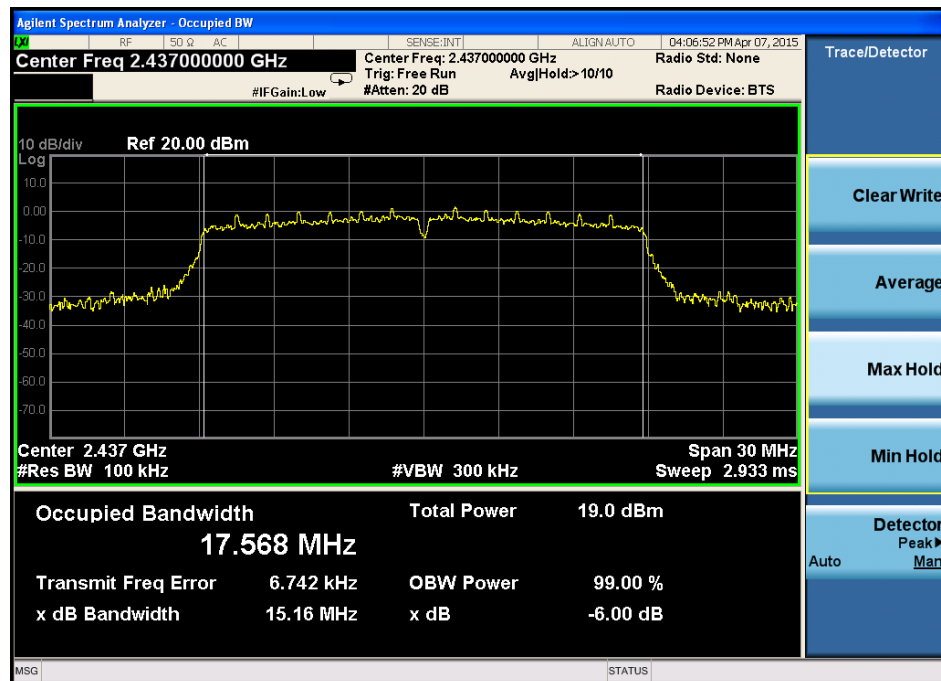


IEEE 802.11n HT20:

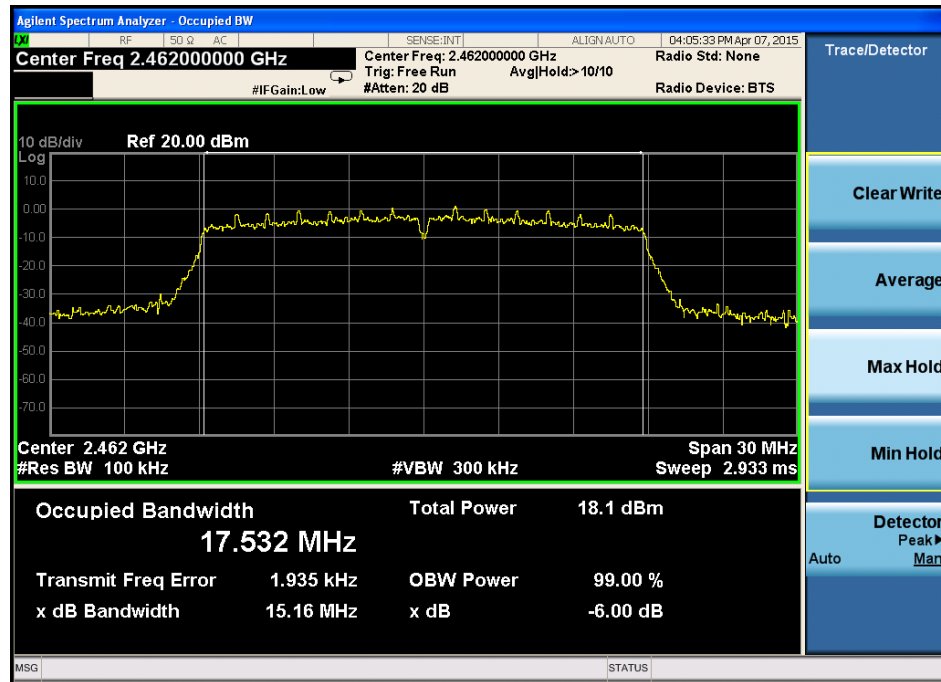
CH Low :



CH Mid :

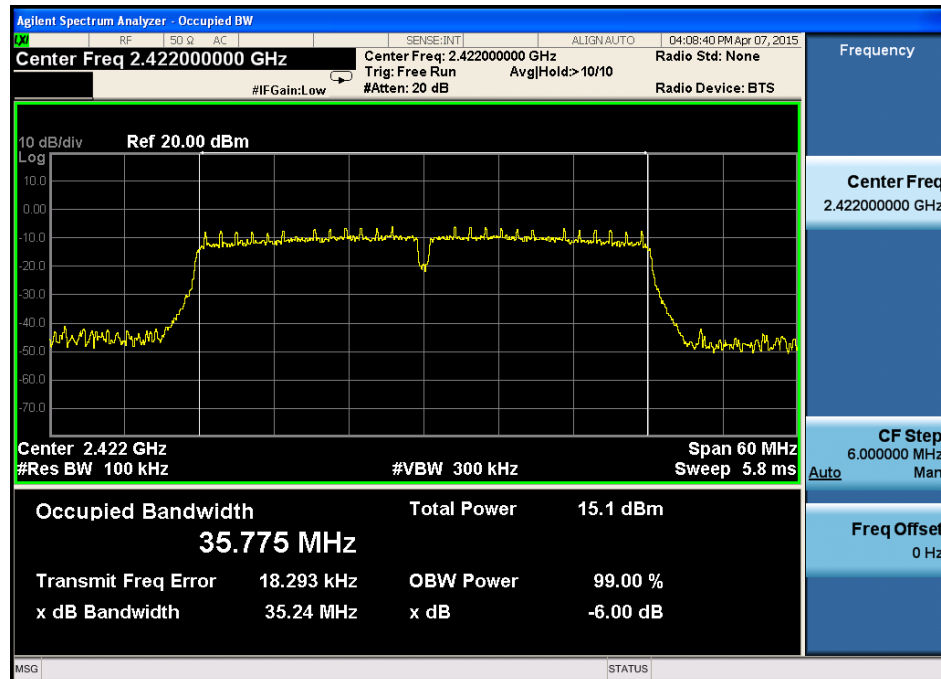


CH High :

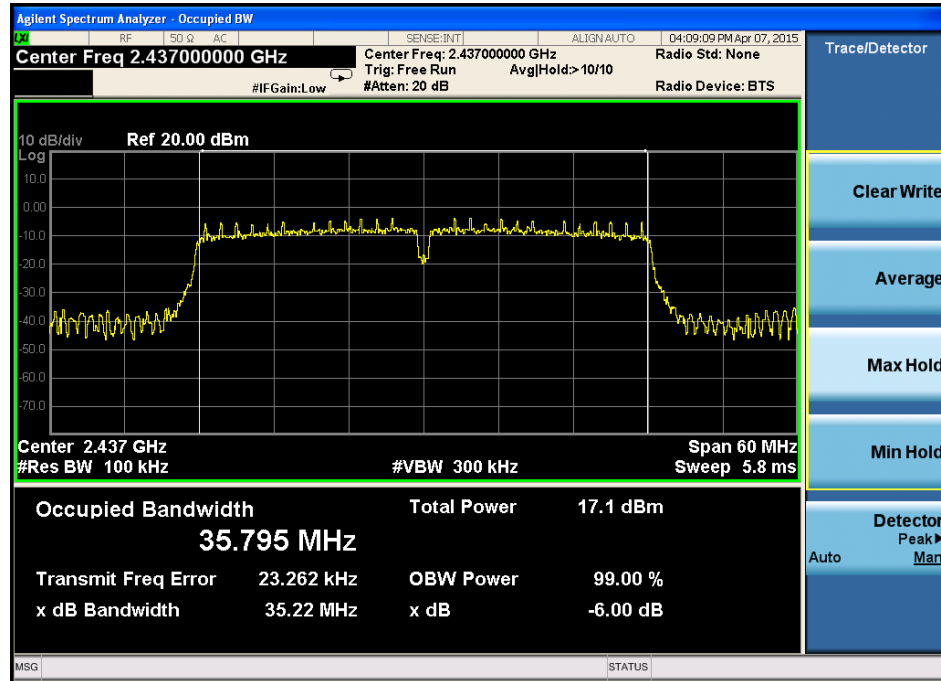


IEEE 802.11n/HT40:

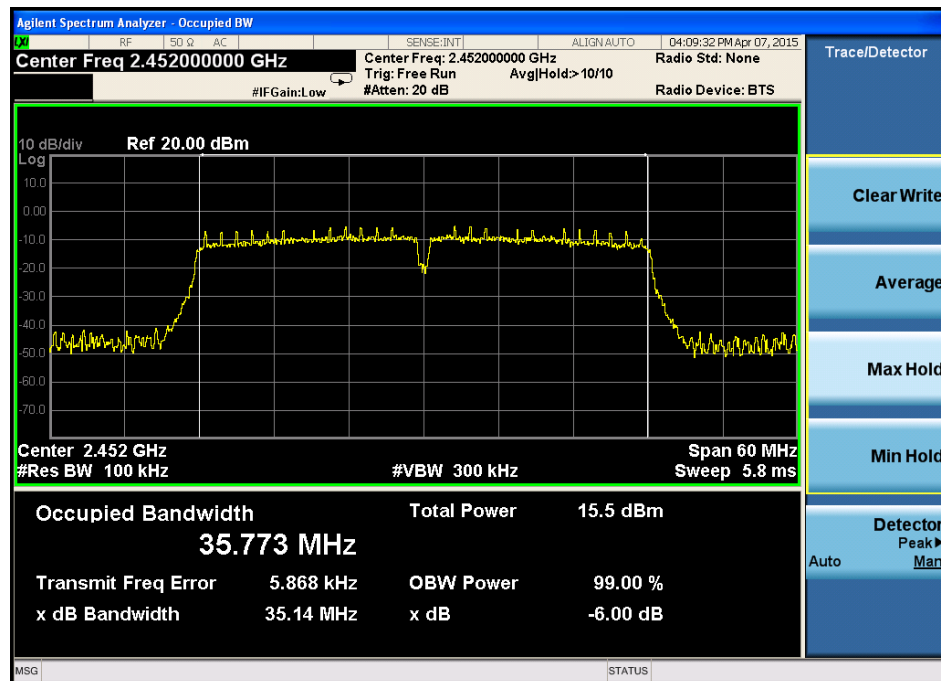
CH Low :



CH Mid:



CH High :



## 10 Band Edge Check

### 10.1 Test limit

Please refer section 15.247

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz and 5725MHz to 5850MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

### 10.2 Test Procedure

- 12.2.1 Put the EUT on a 0.8m high table, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission
- 12.2.2 Check the spurious emissions out of band.
- 12.2.3 RBW 1MHz ,VBW 3MHz ,peak detector for peak value , RBW 1MHz ,VBW 10Hz ,peak detector for AV value.

### 10.3 Test Setup

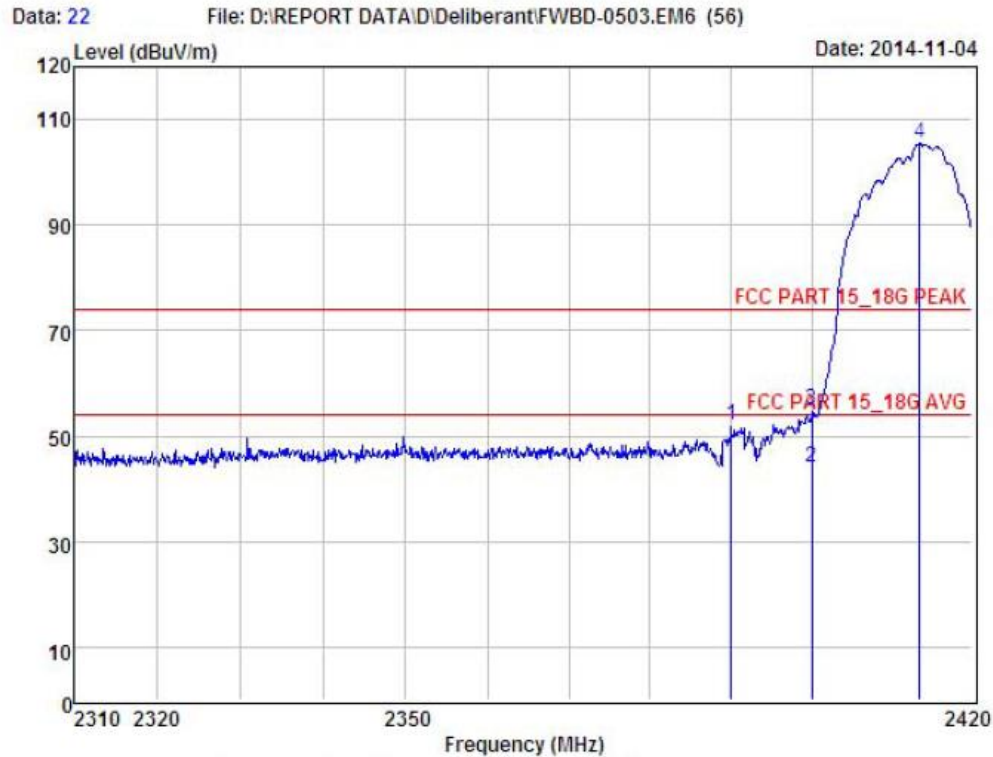
Same as 5.2.2.

### 10.4 Test Result

PASS.

Detailed information please see the following page.

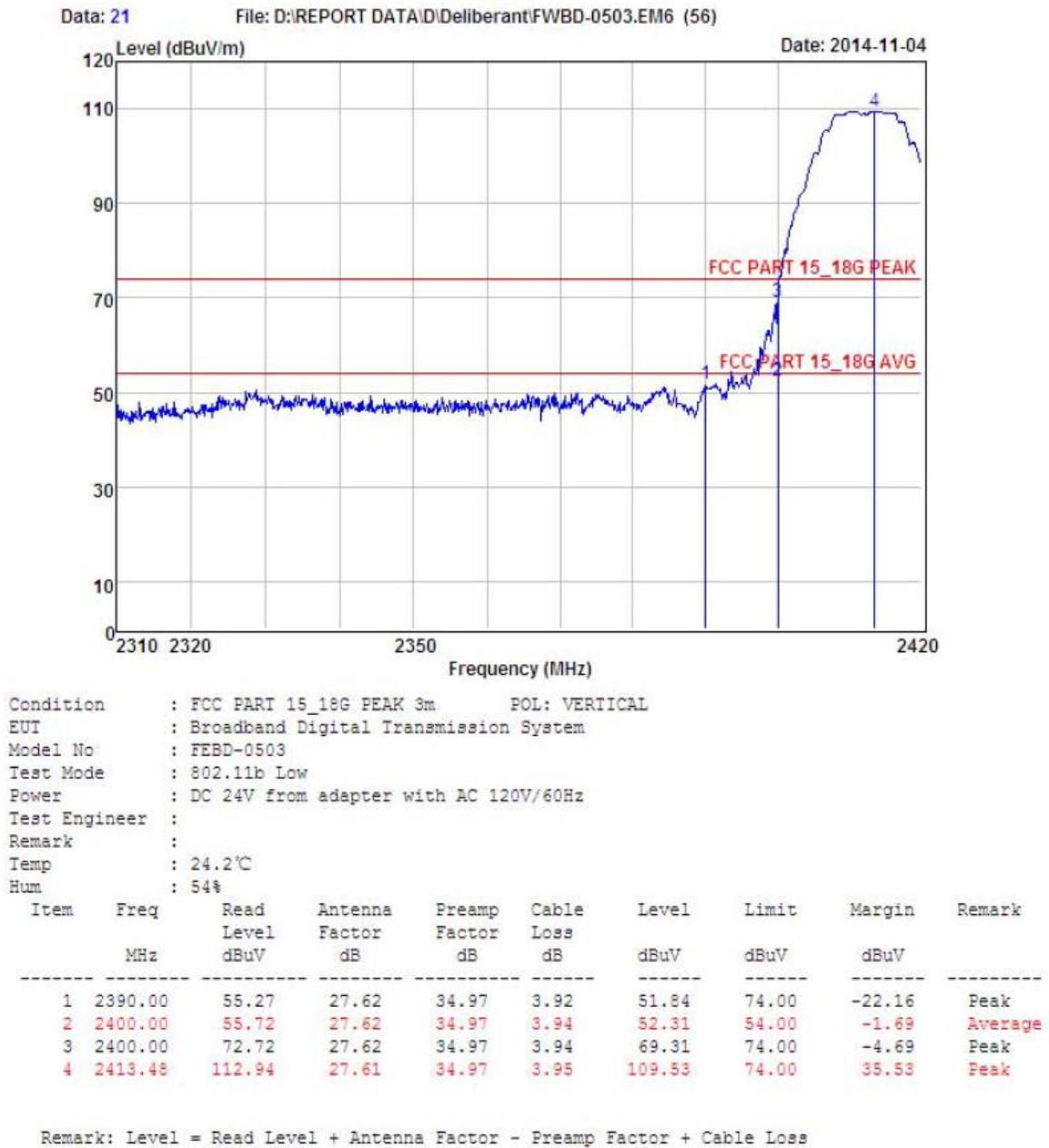
Radiated Method:  
3dBi antenna  
IEEE 802.11b  
CH LOW



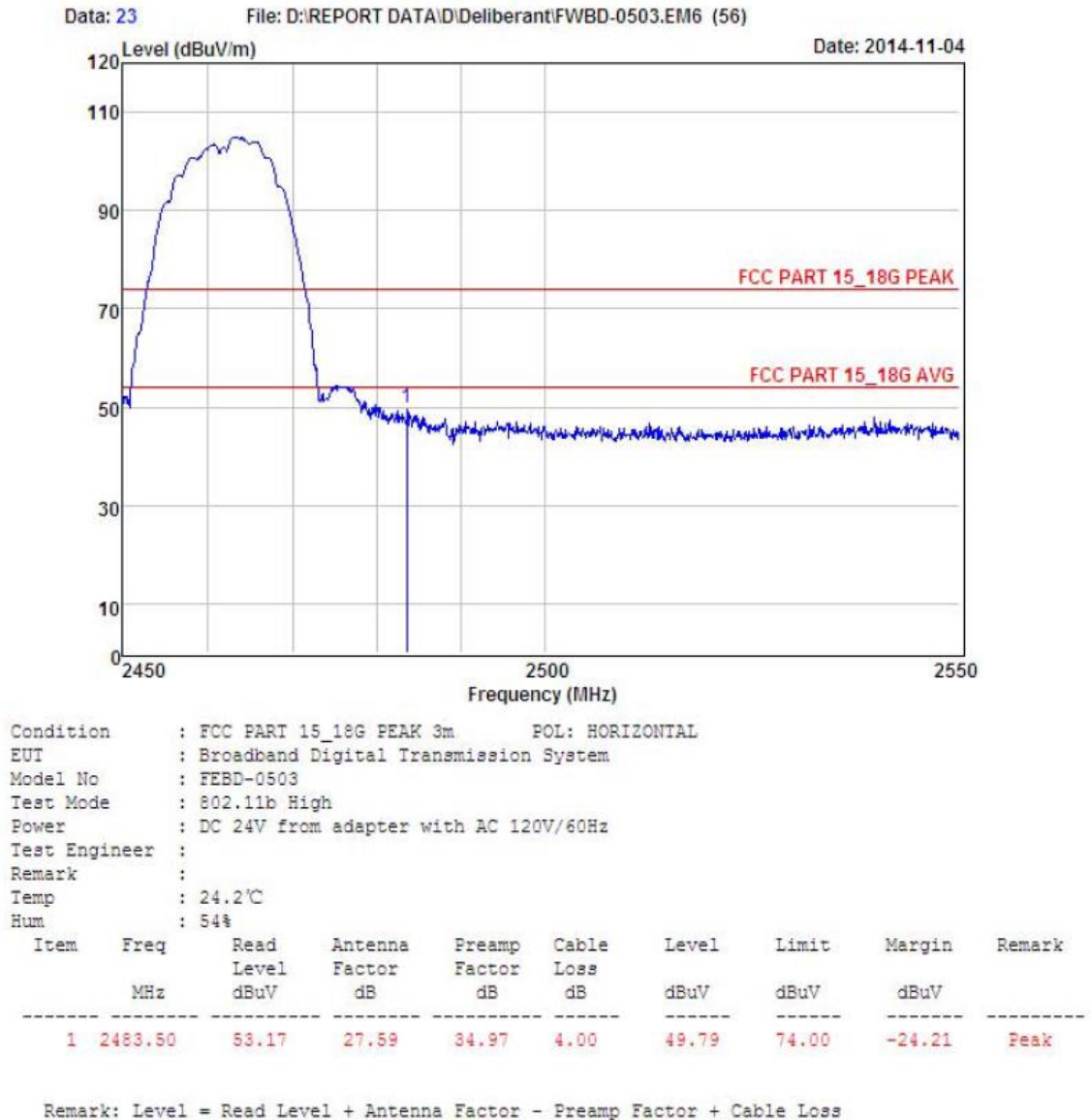
Condition : FCC PART 15\_18G PEAK 3m POL: HORIZONTAL  
EUT : Broadband Digital Transmission System  
Model No : FEED-0503  
Test Mode : 802.11b Low  
Power : DC 24V from adapter with AC 120V/60Hz  
Test Engineer :  
Remark :  
Temp : 24.2°C  
Hum : 54%

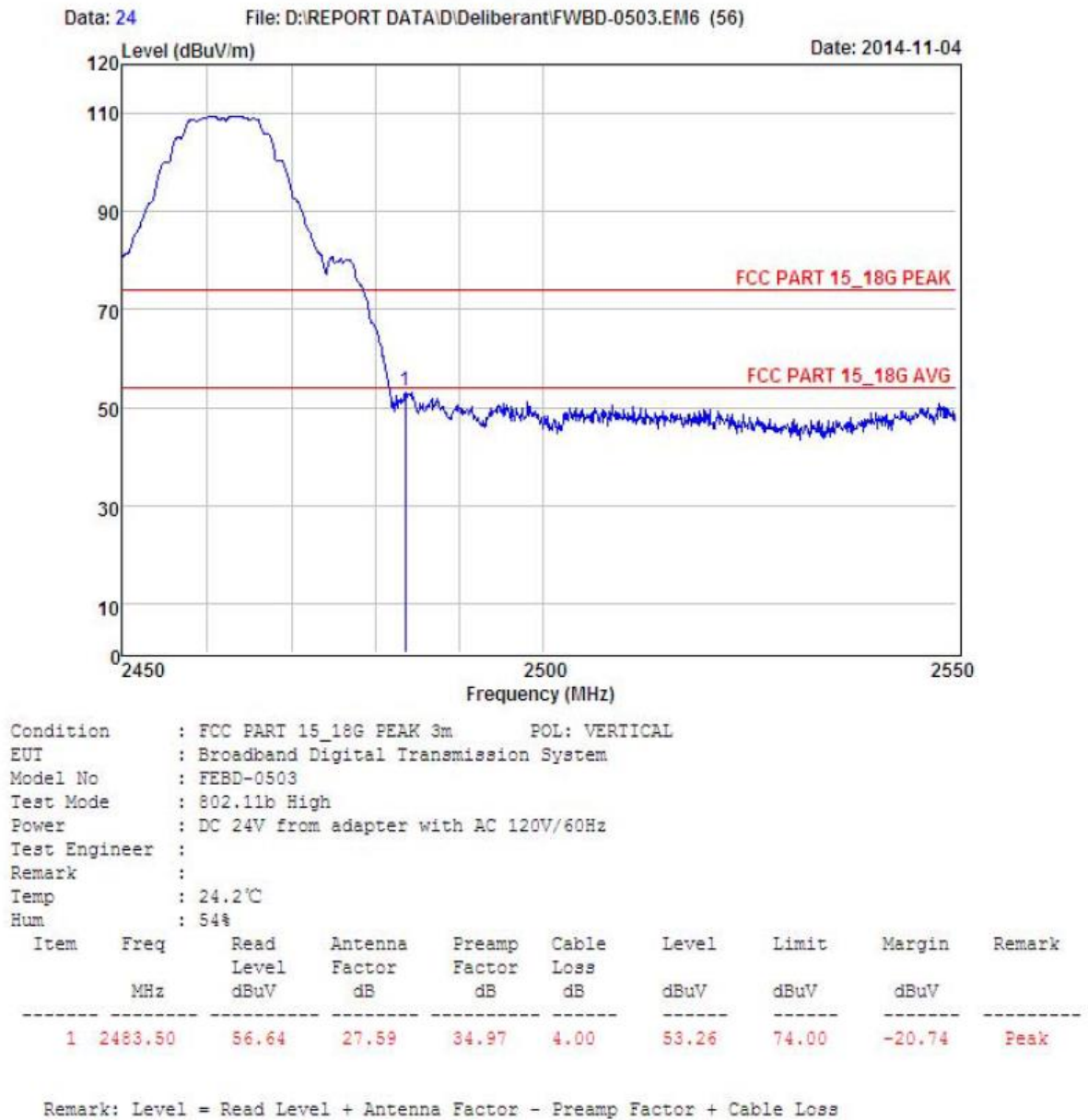
Item	Freq MHz	Read Level dBuV	Antenna Factor dB	Preamp Factor dB	Cable Loss dB	Level dBuV	Limit dBuV	Margin dBuV	Remark
1	2390.00	55.43	27.62	34.97	3.92	52.00	74.00	-22.00	Peak
2	2400.00	47.52	27.62	34.97	3.94	44.11	54.00	-9.89	Average
3	2400.00	58.58	27.62	34.97	3.94	55.17	74.00	-18.83	Peak
4	2413.48	108.93	27.61	34.97	3.95	105.52	74.00	31.52	Peak

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

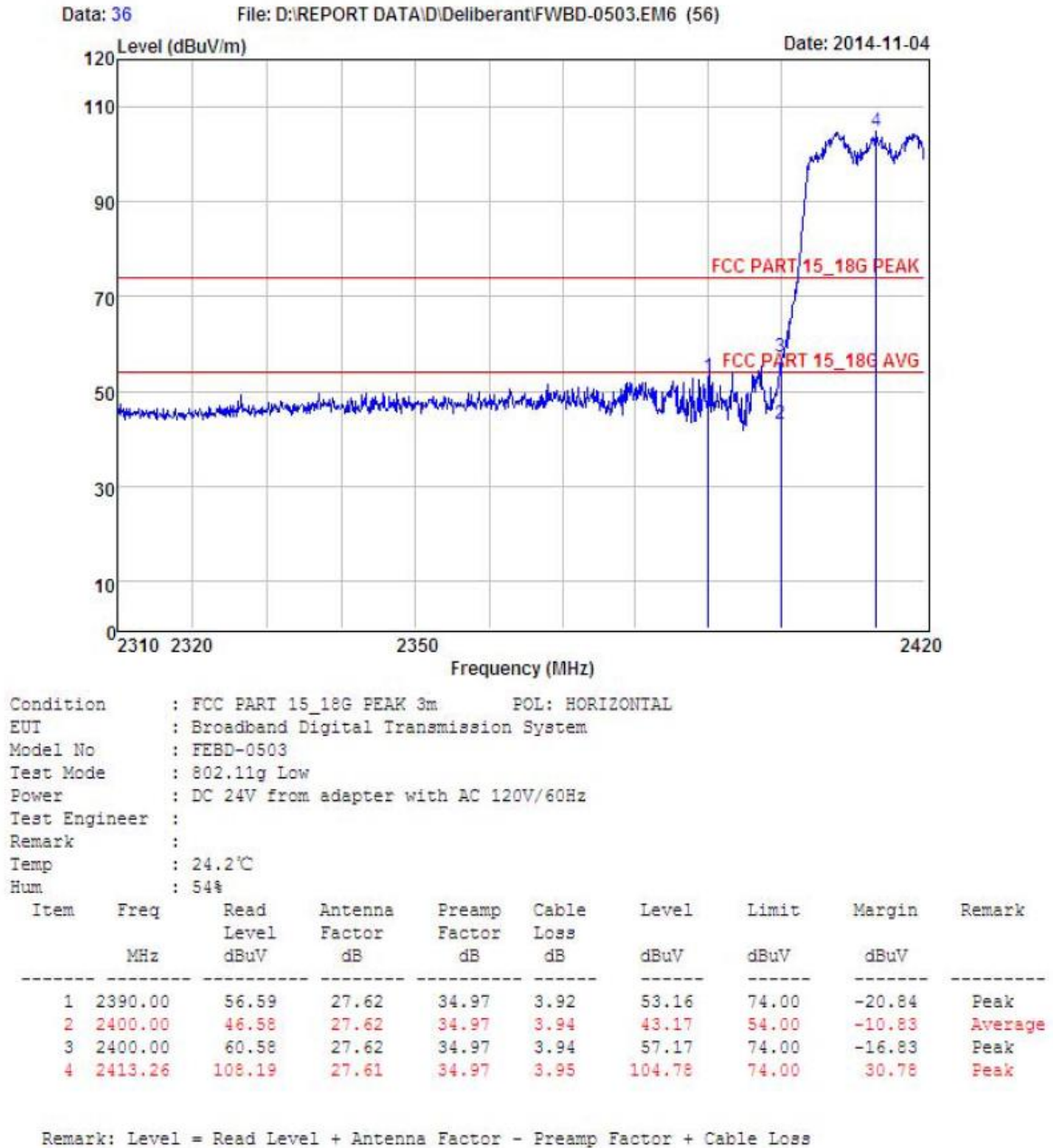


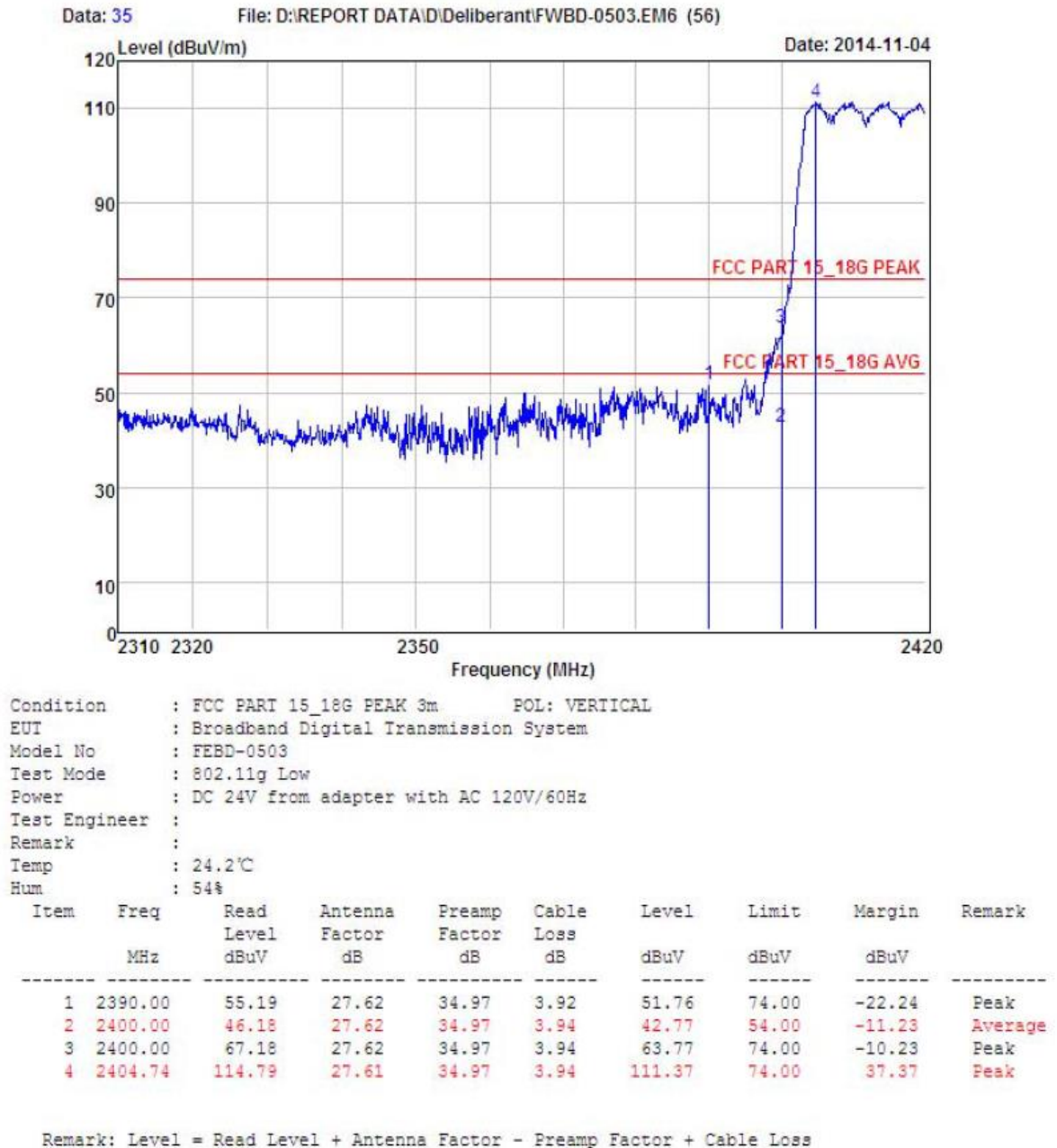
CH High :



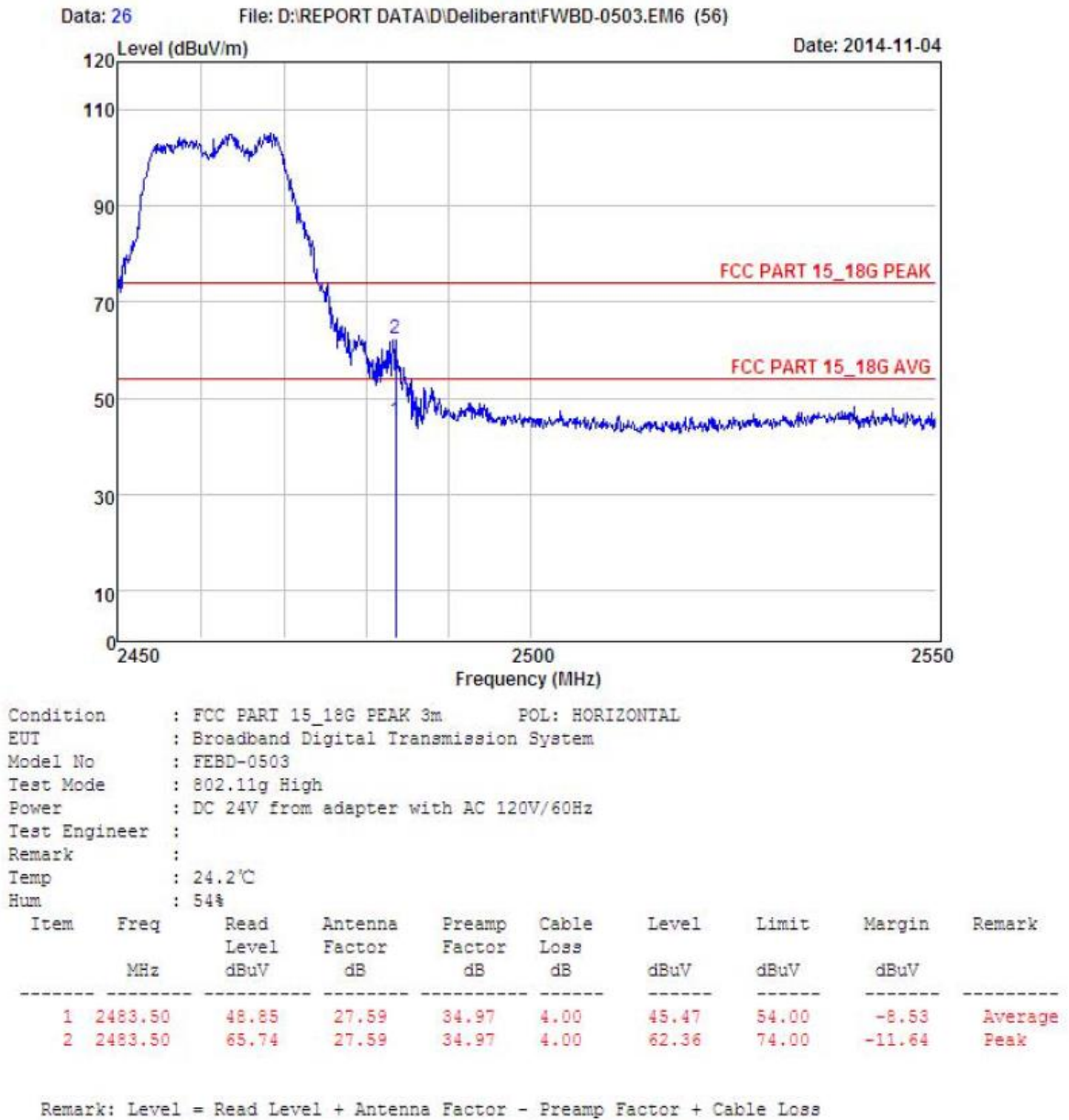


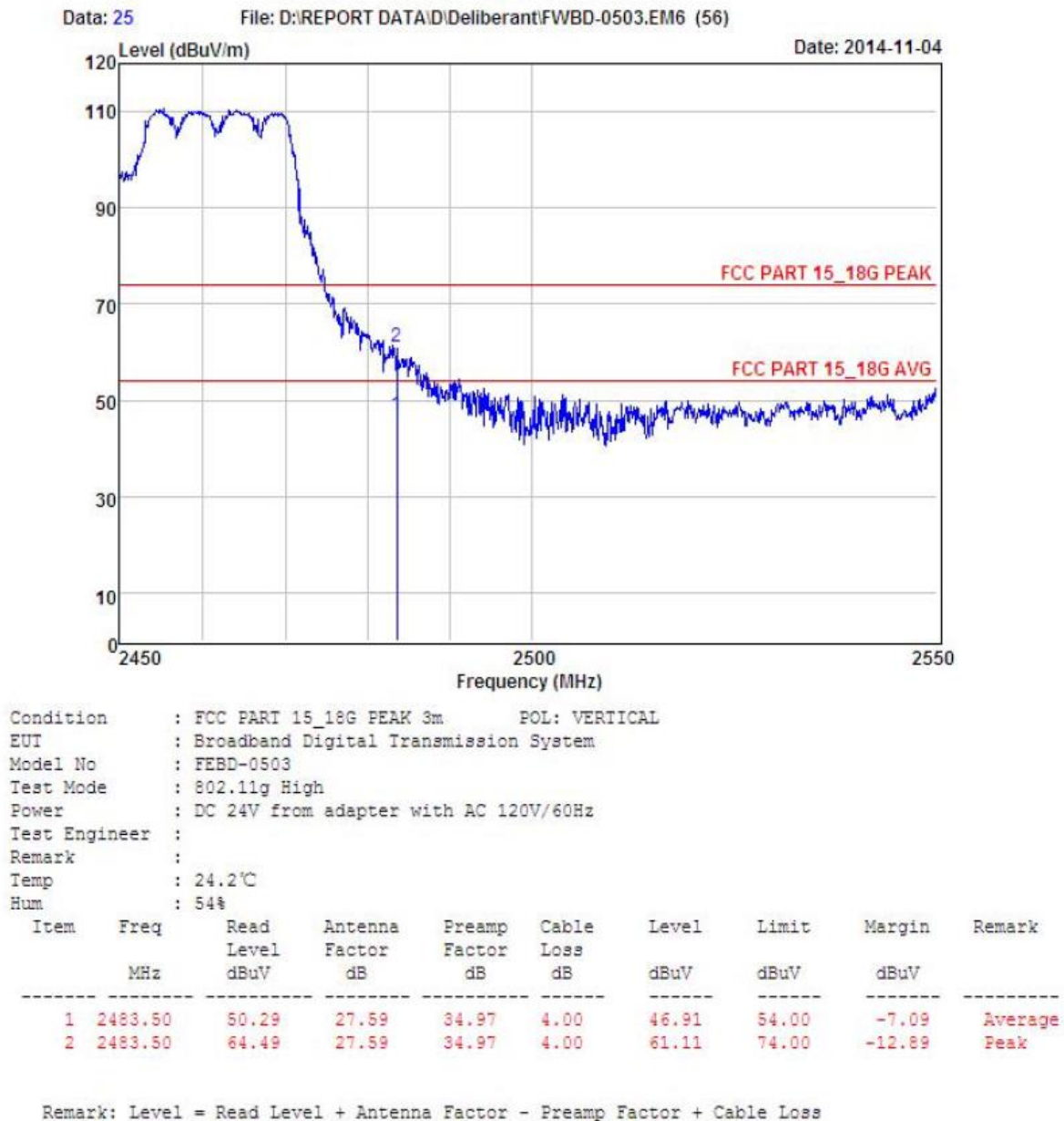
IEEE 802.11g:  
CH LOW :





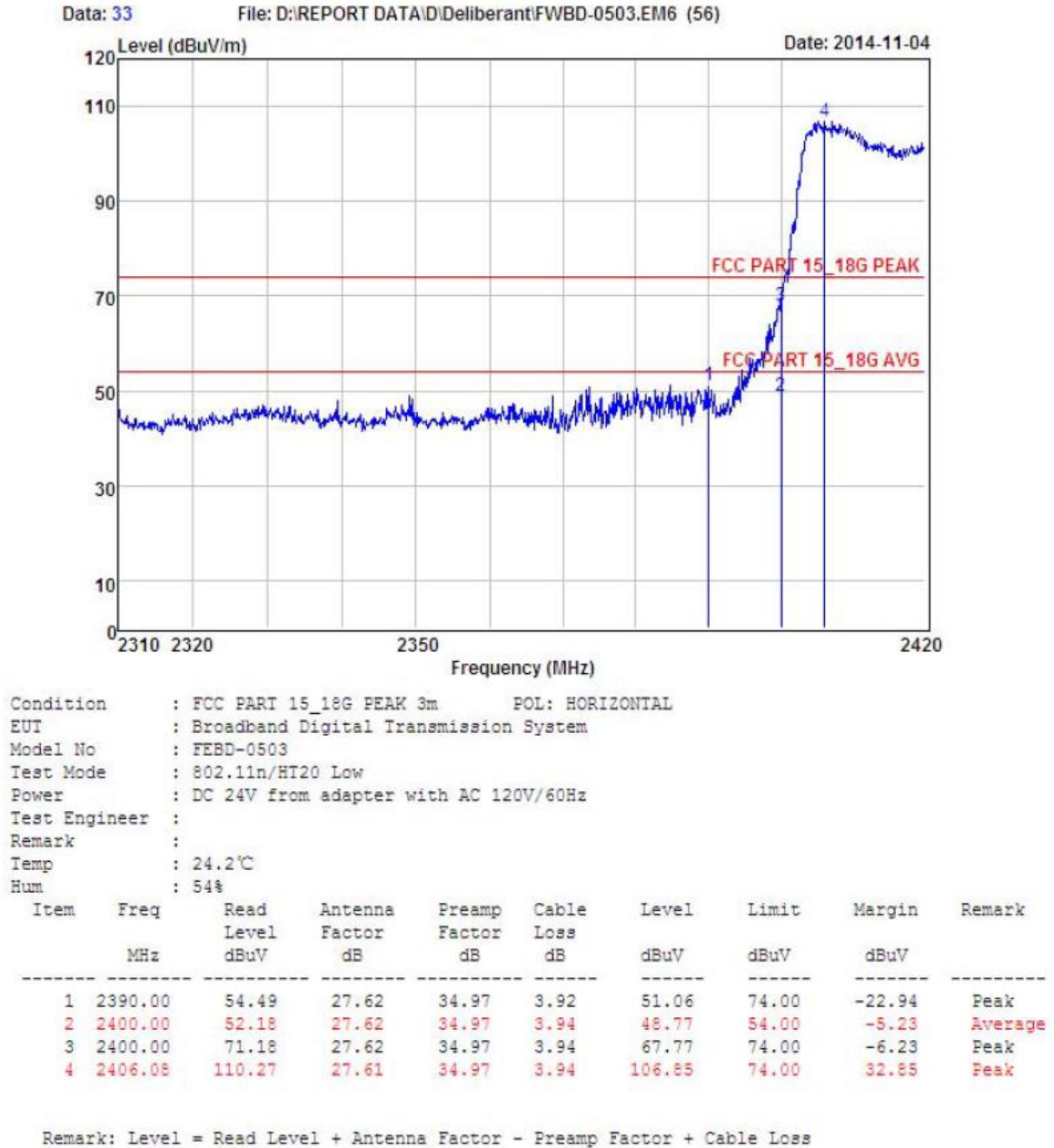
CH Hig:

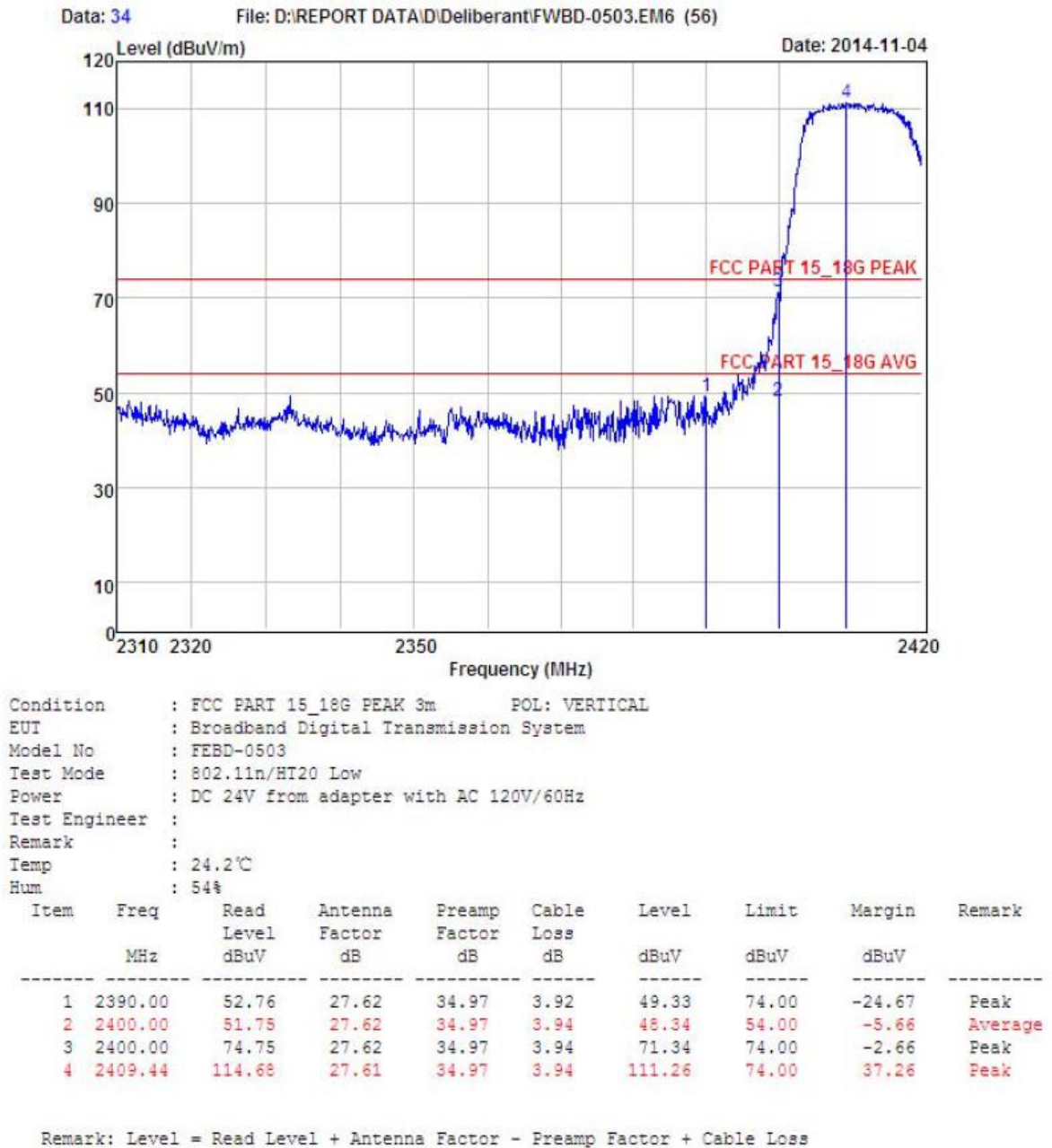




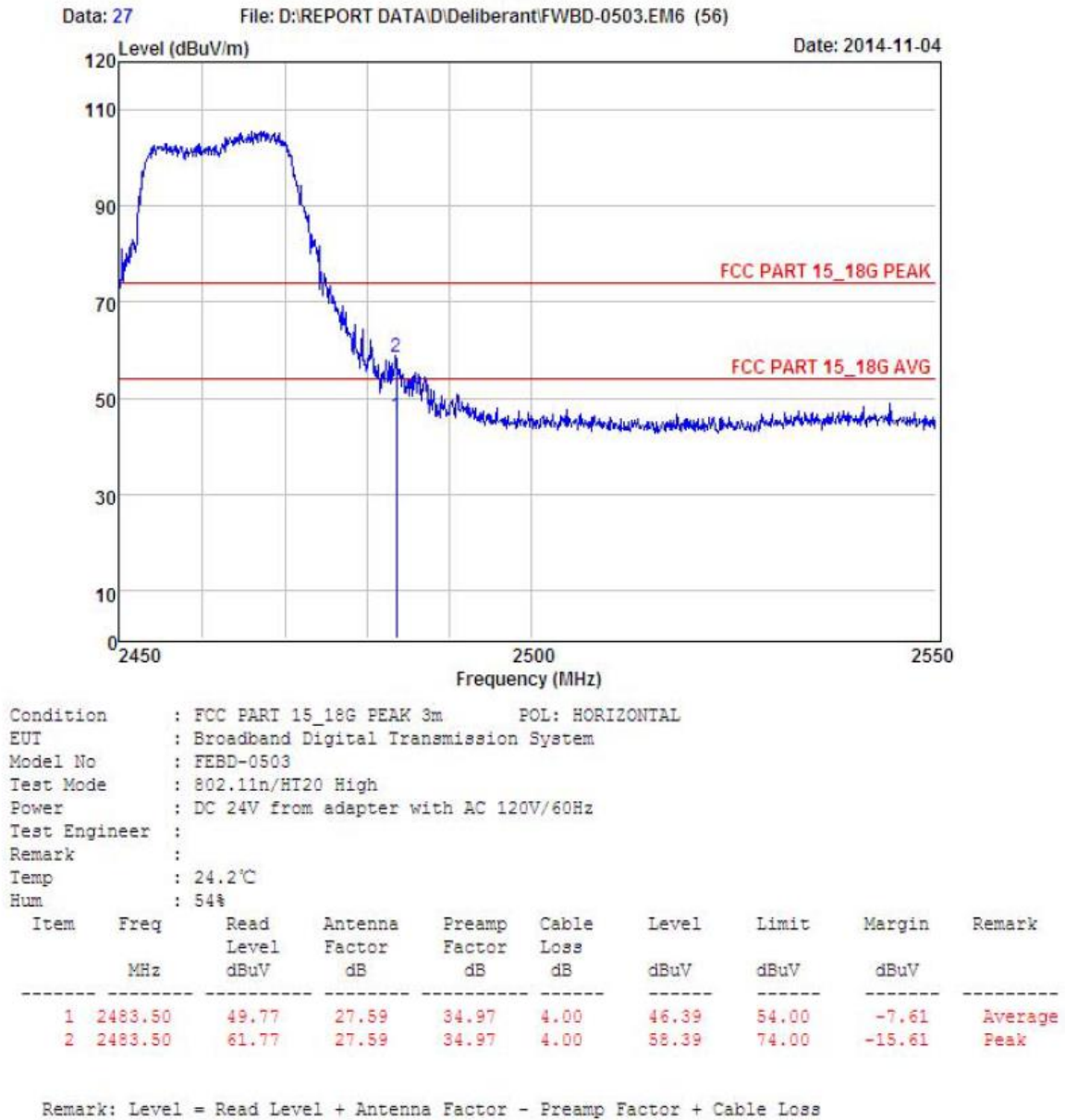
IEEE 802.11n HT20:

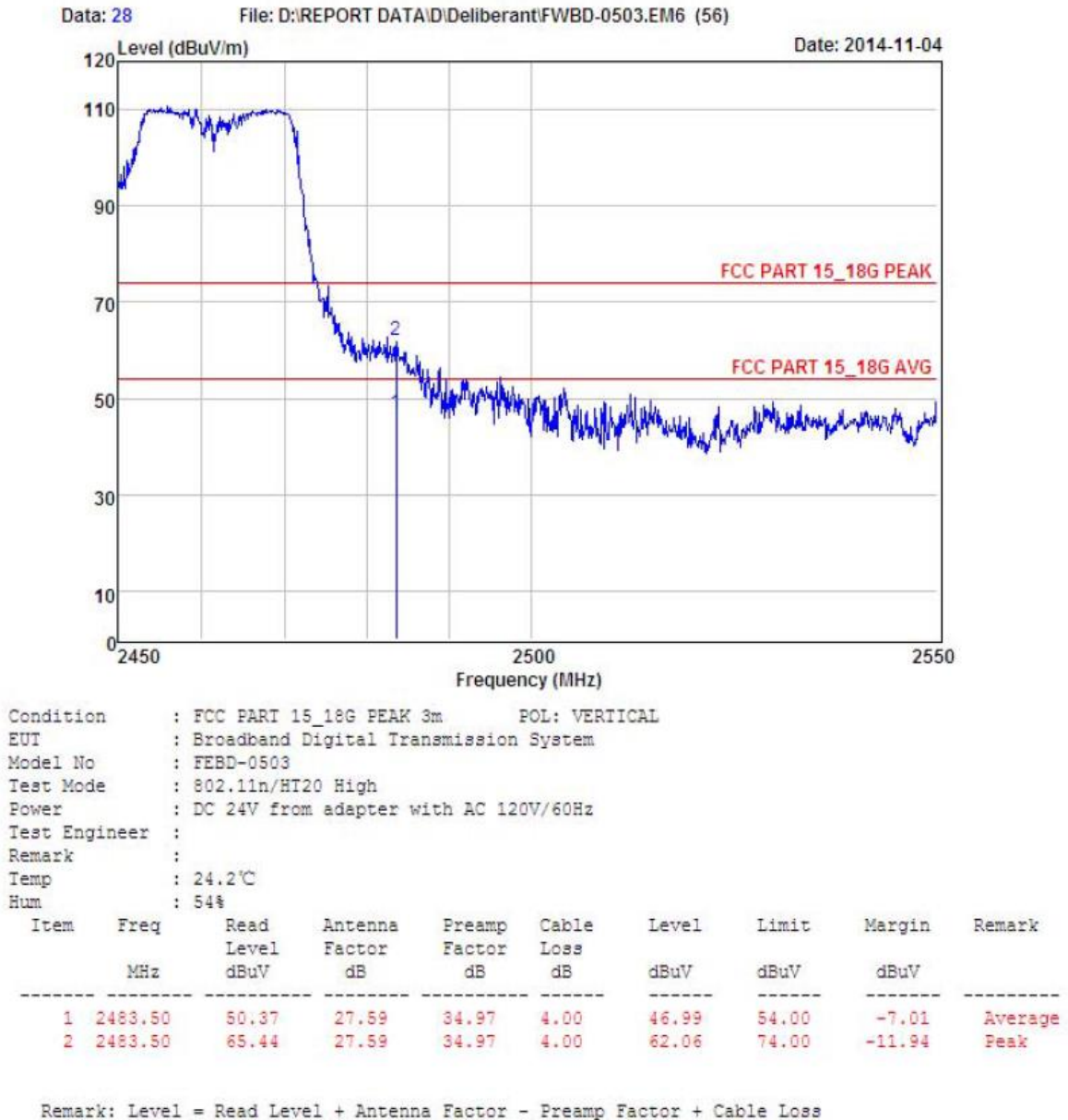
CH LOW :





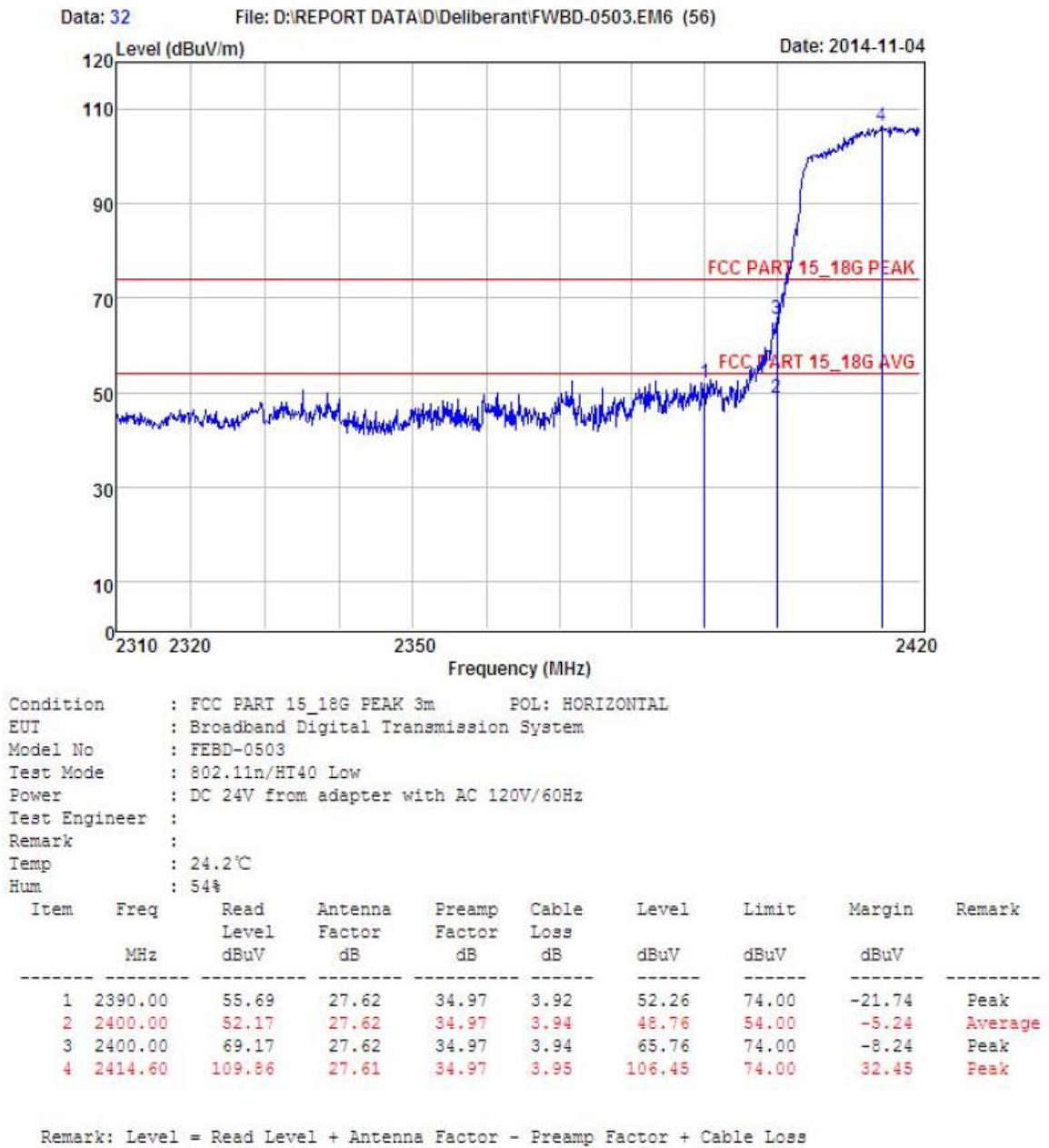
CH High :

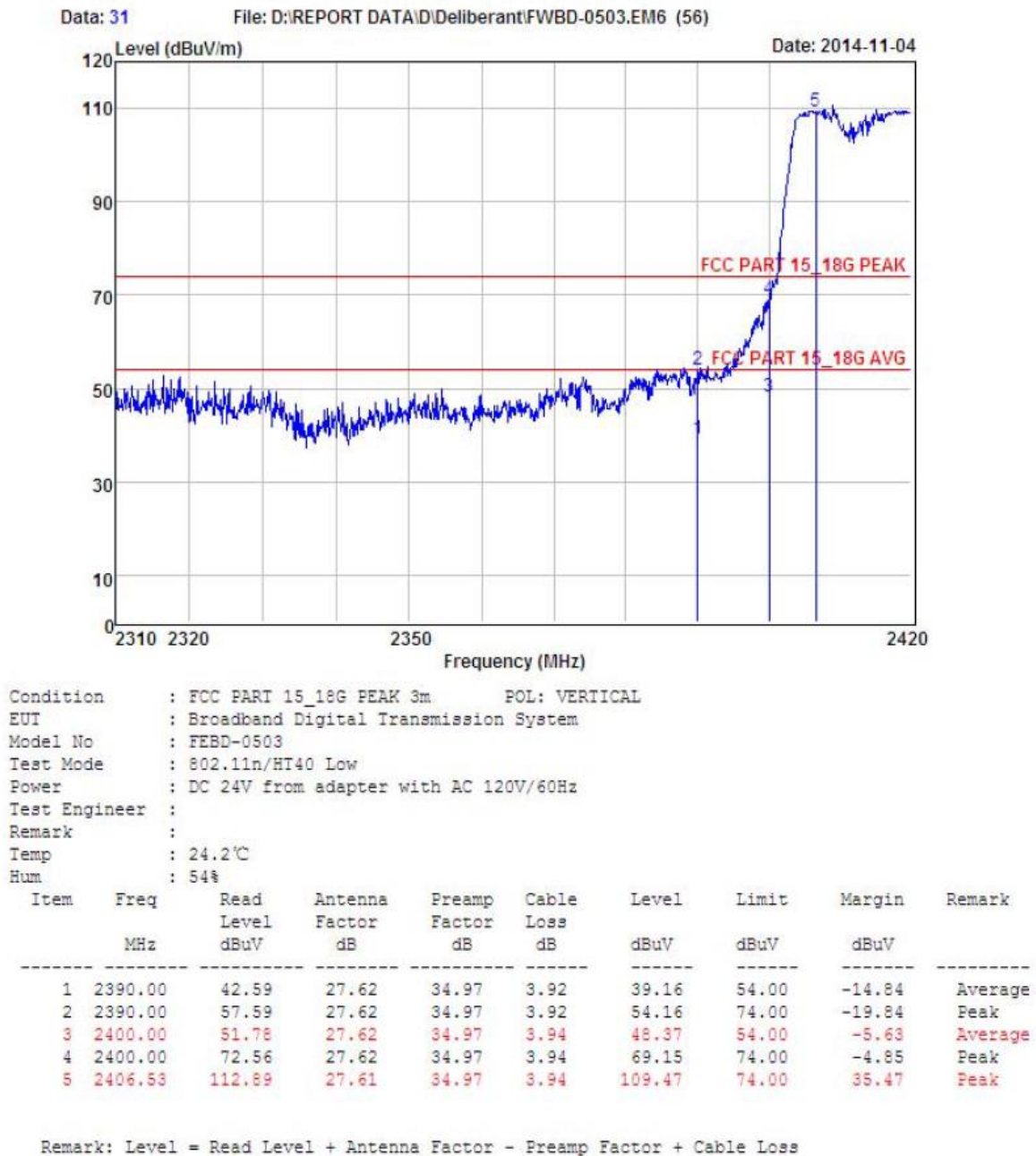




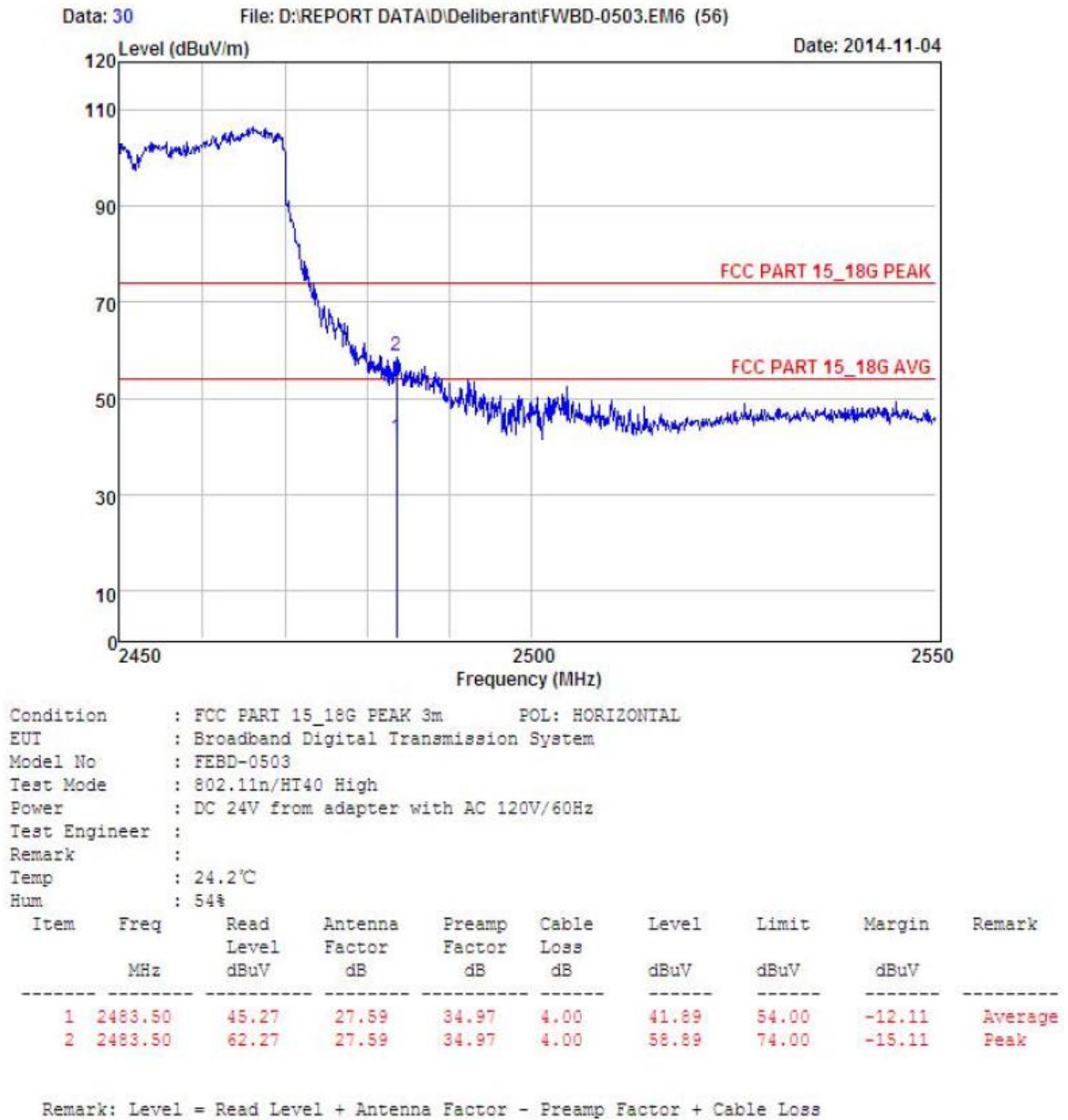
IEEE 802.11n/HT40:

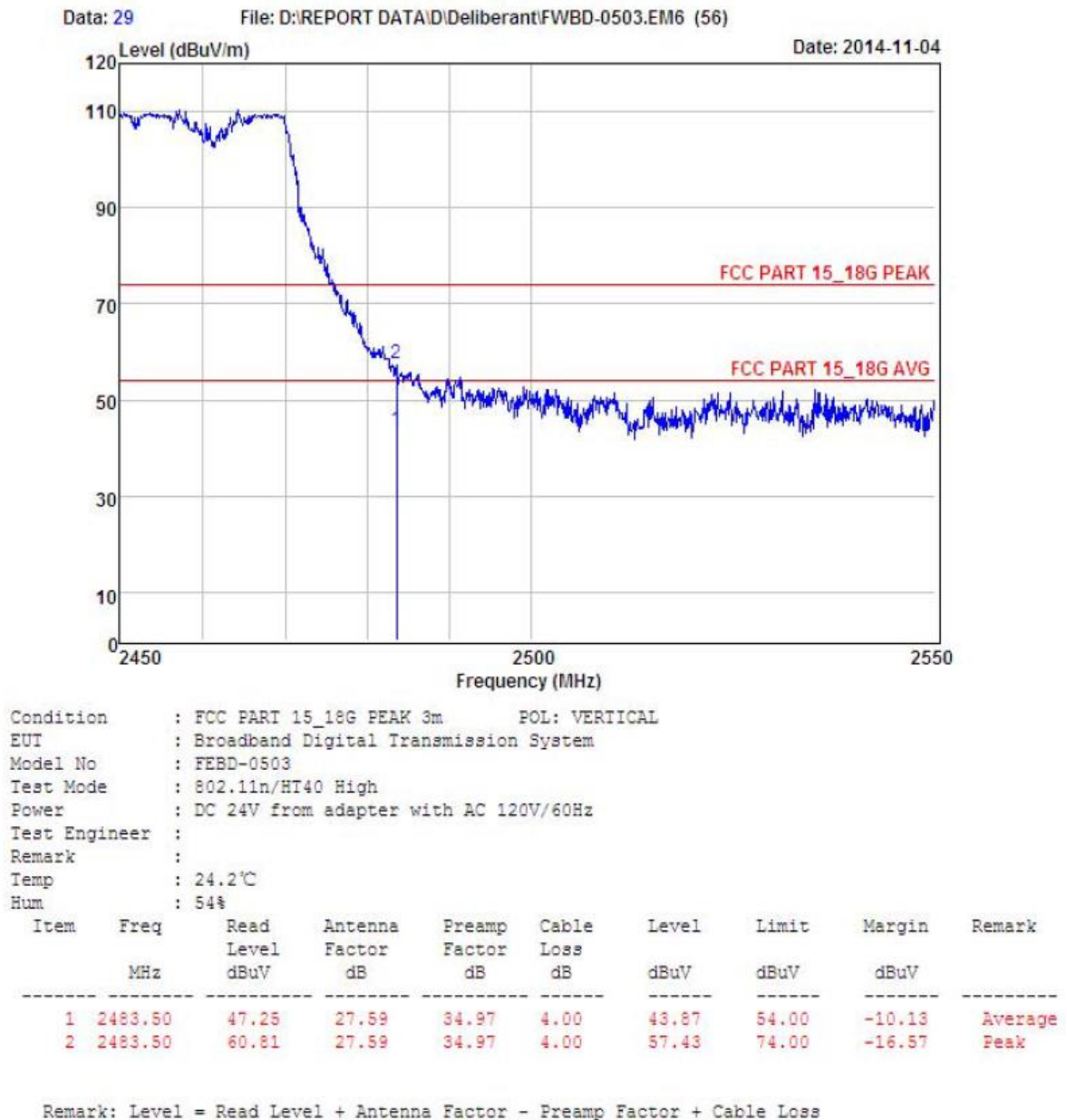
CH LOW :



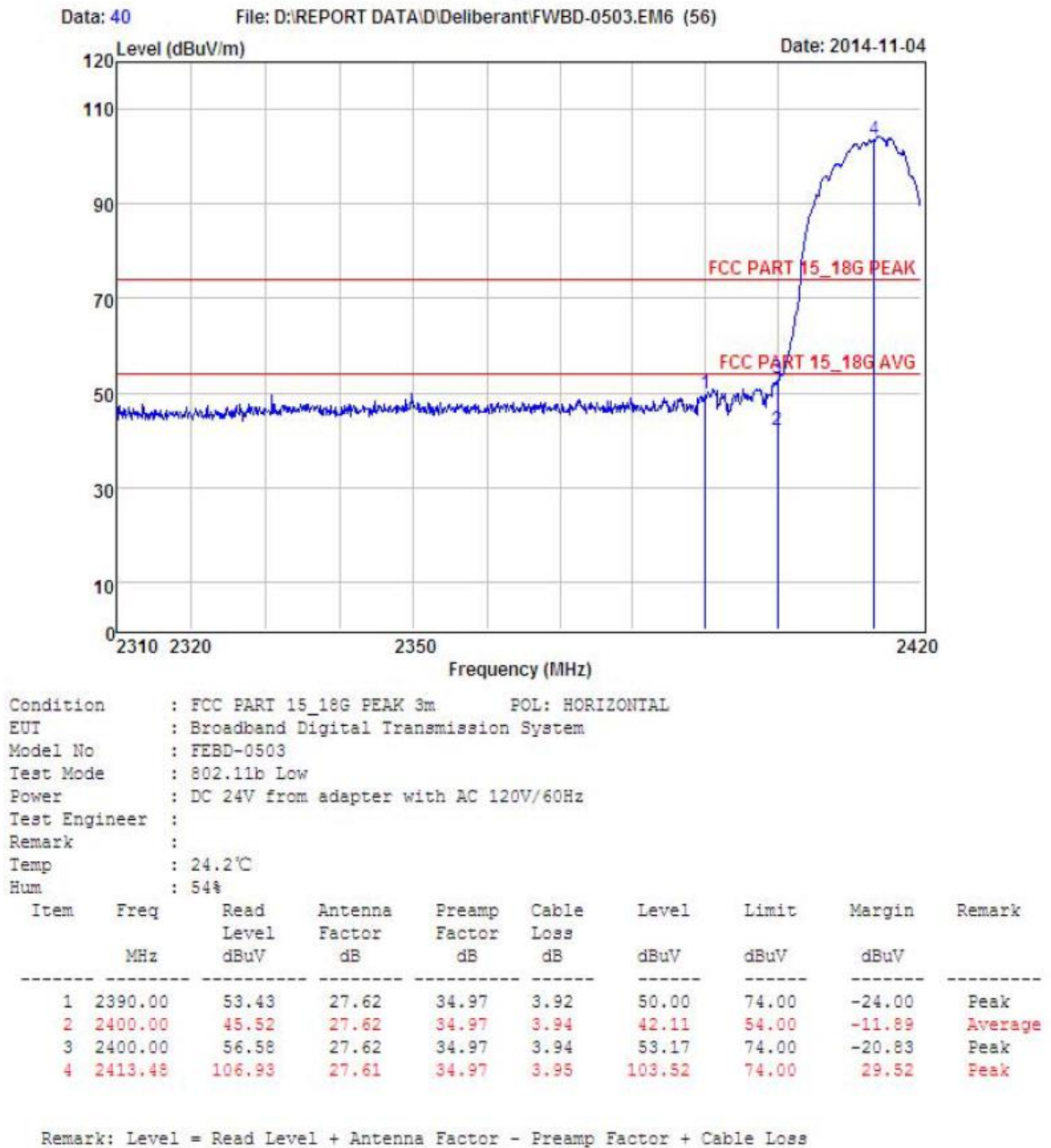


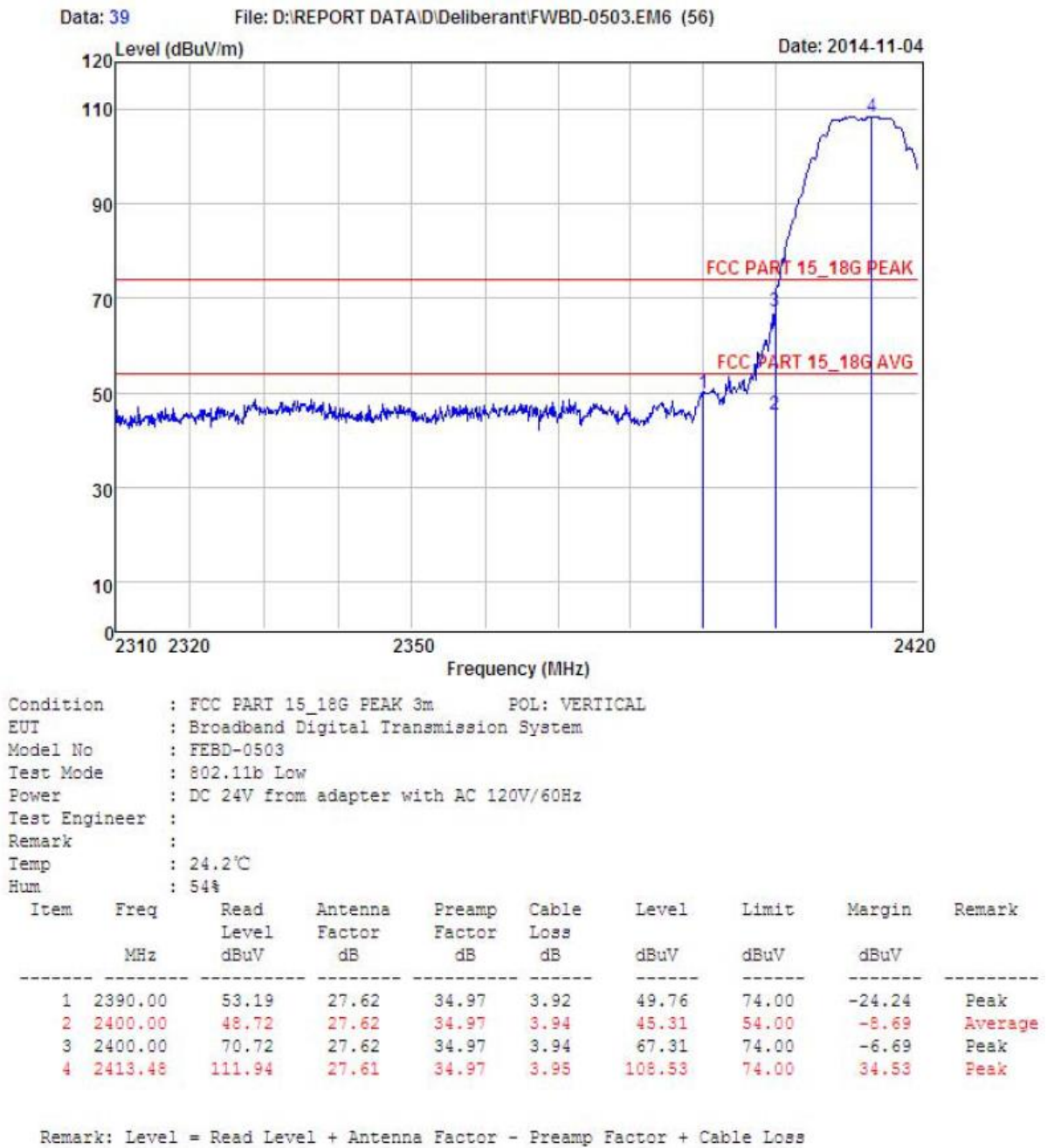
CH High :



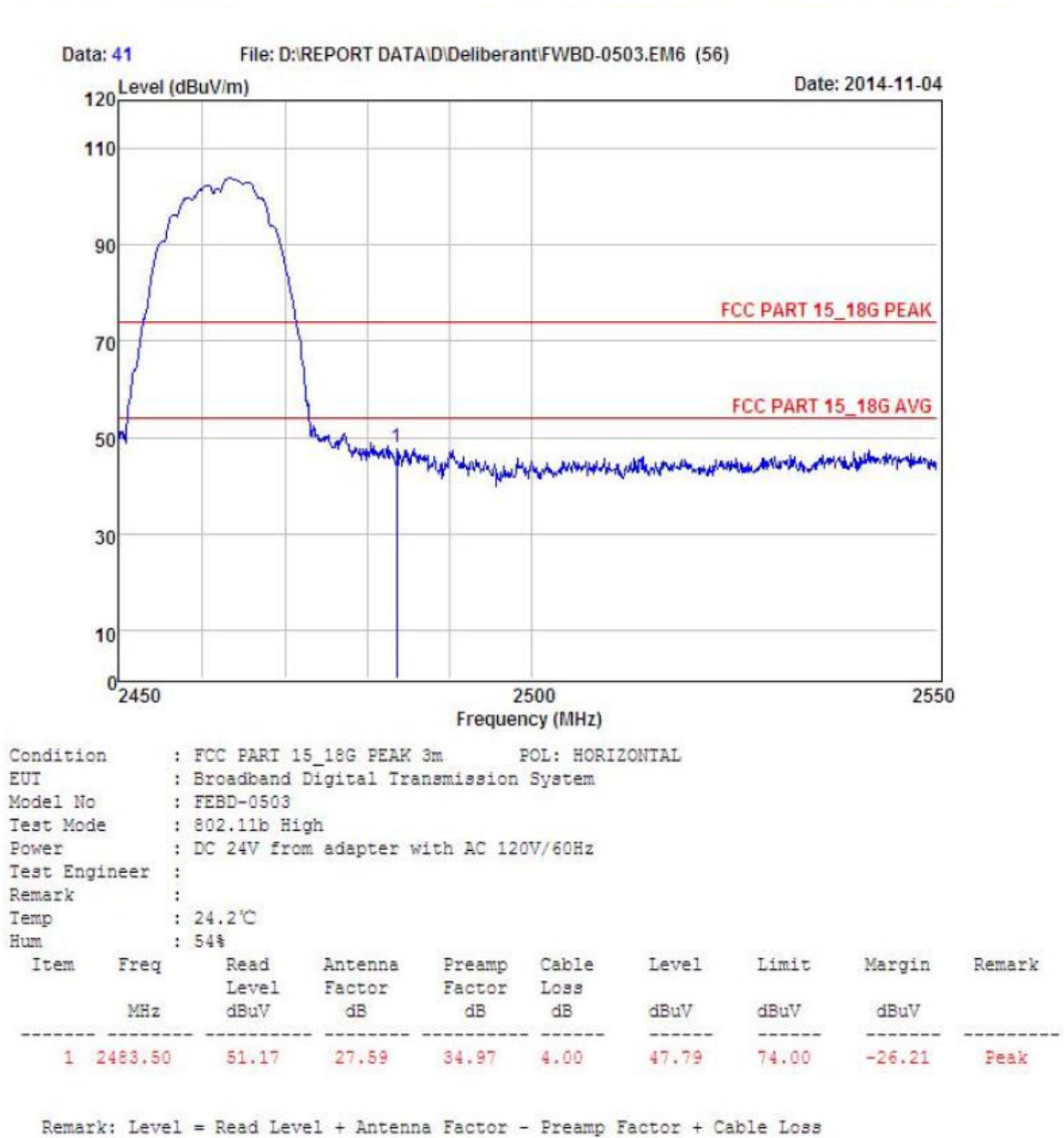


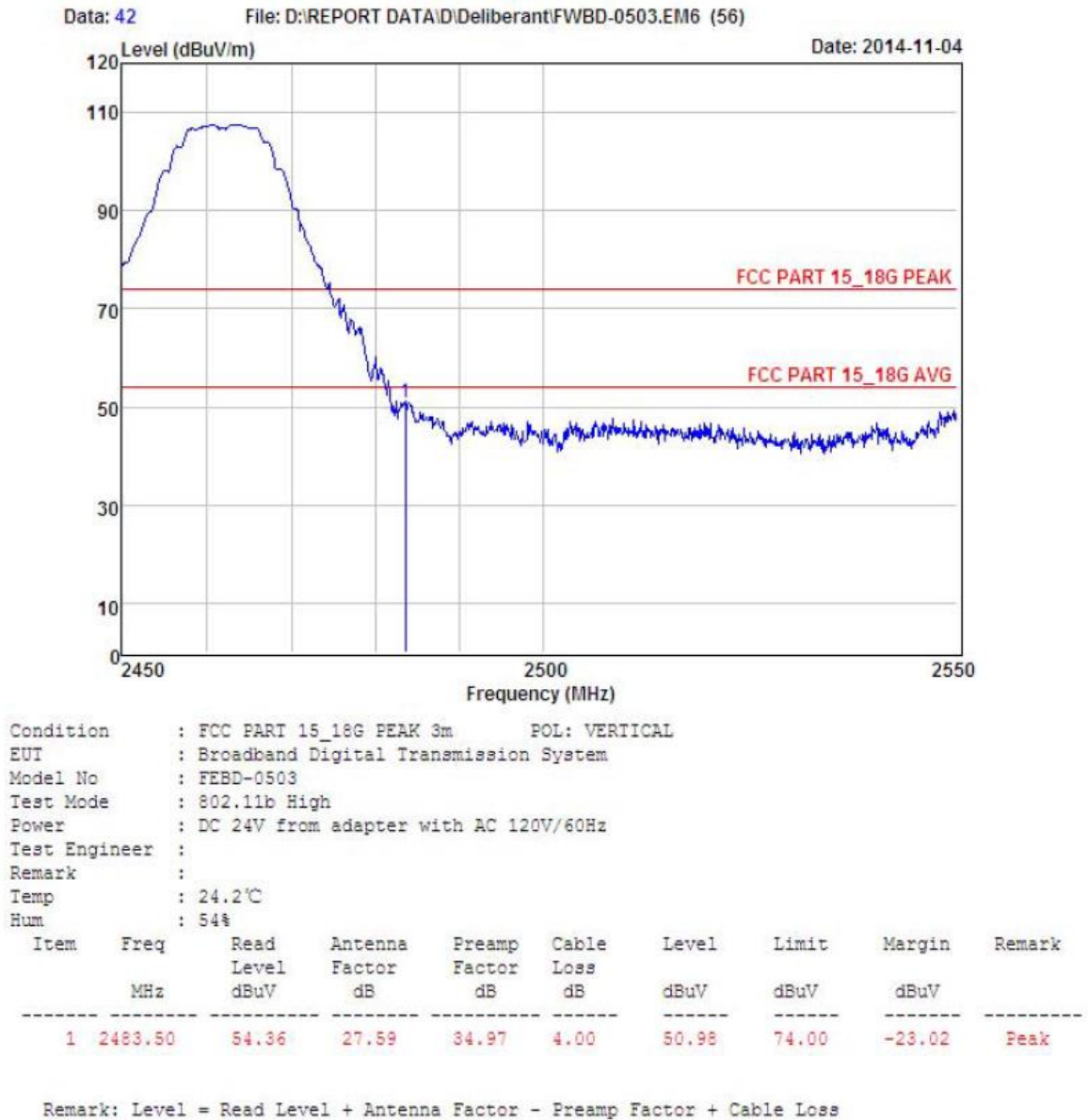
12dBi antenna :  
IEEE 802.11b:  
CH Low :





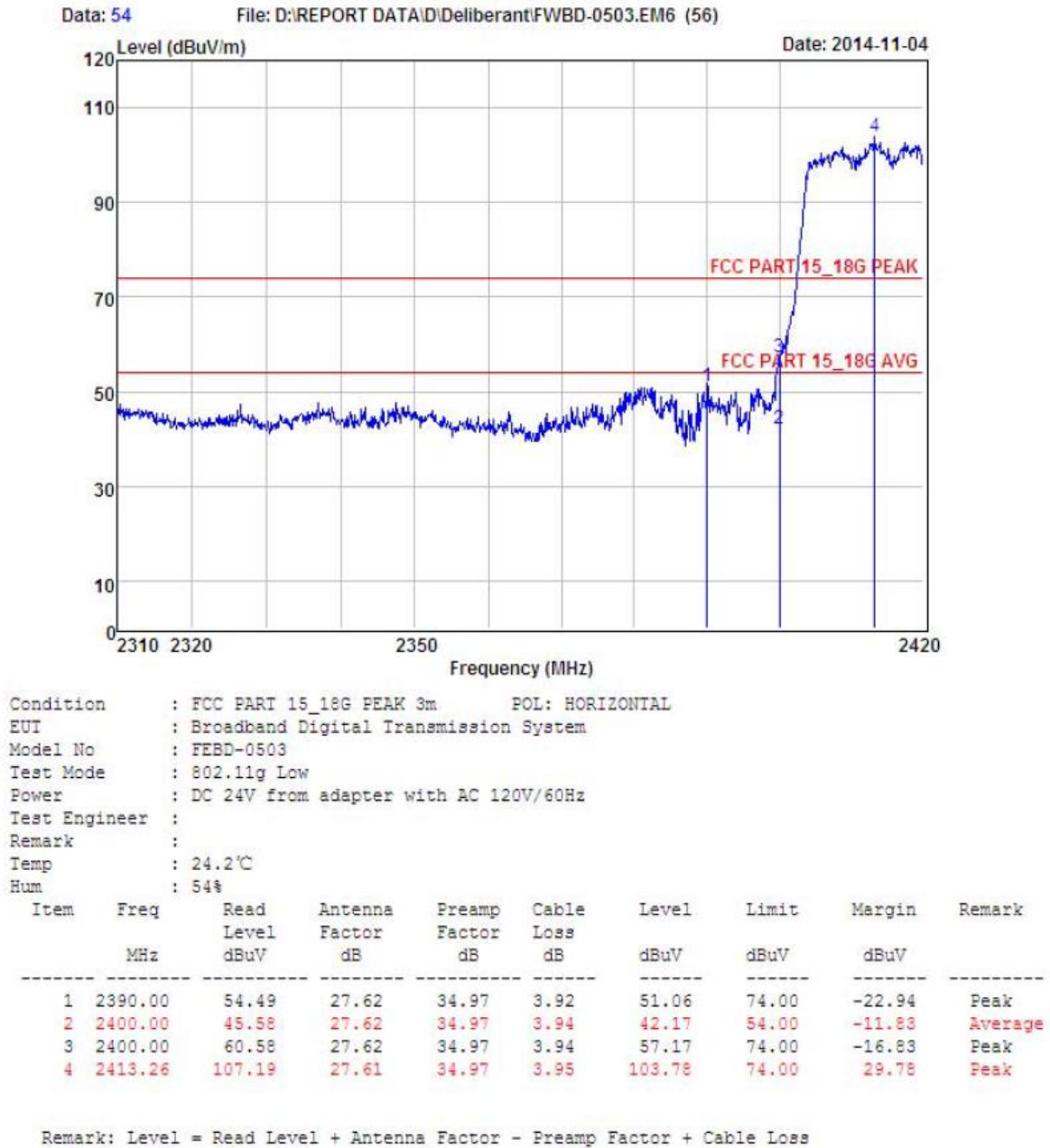
IEEE 802.11b:  
CH High :

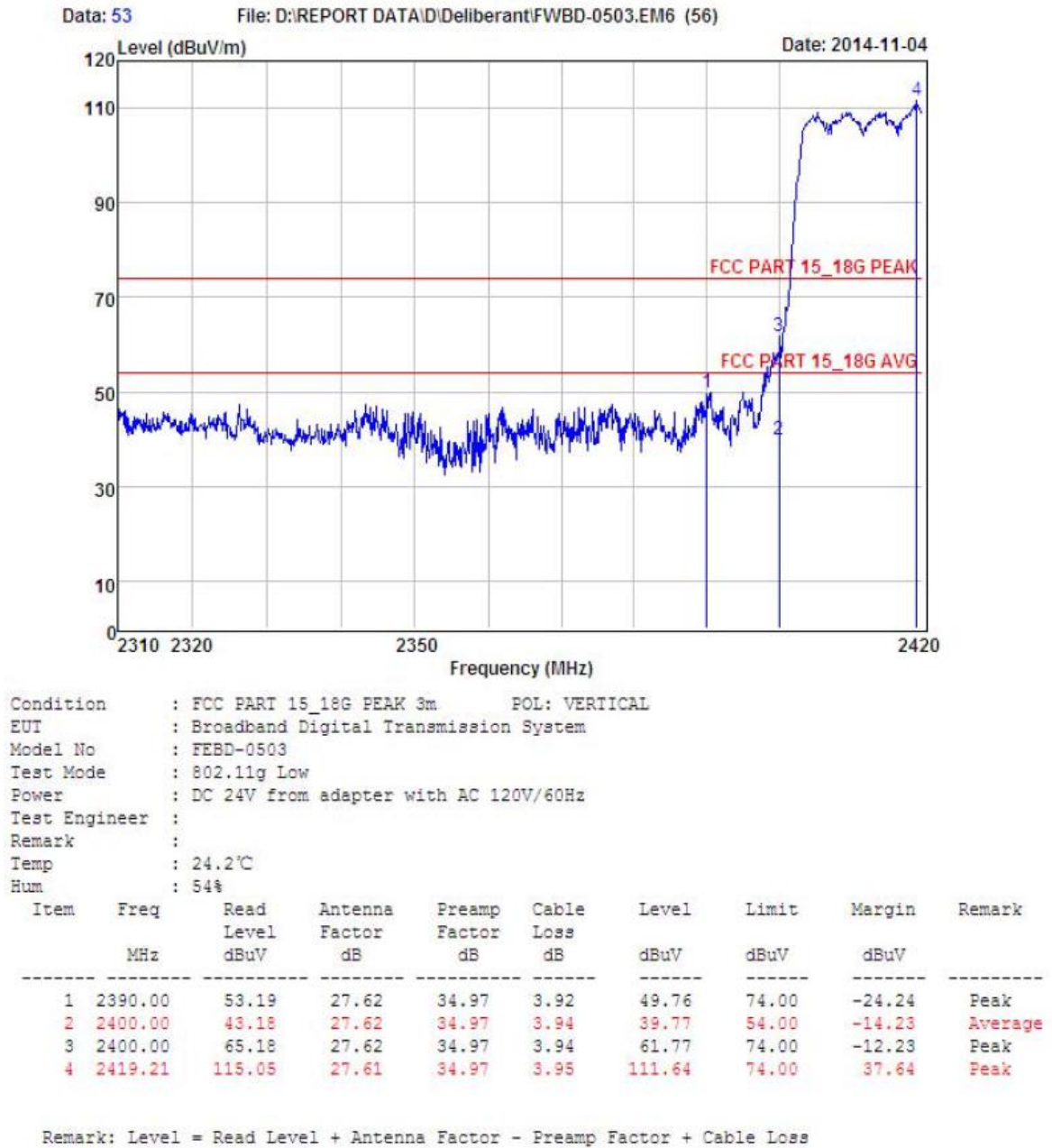




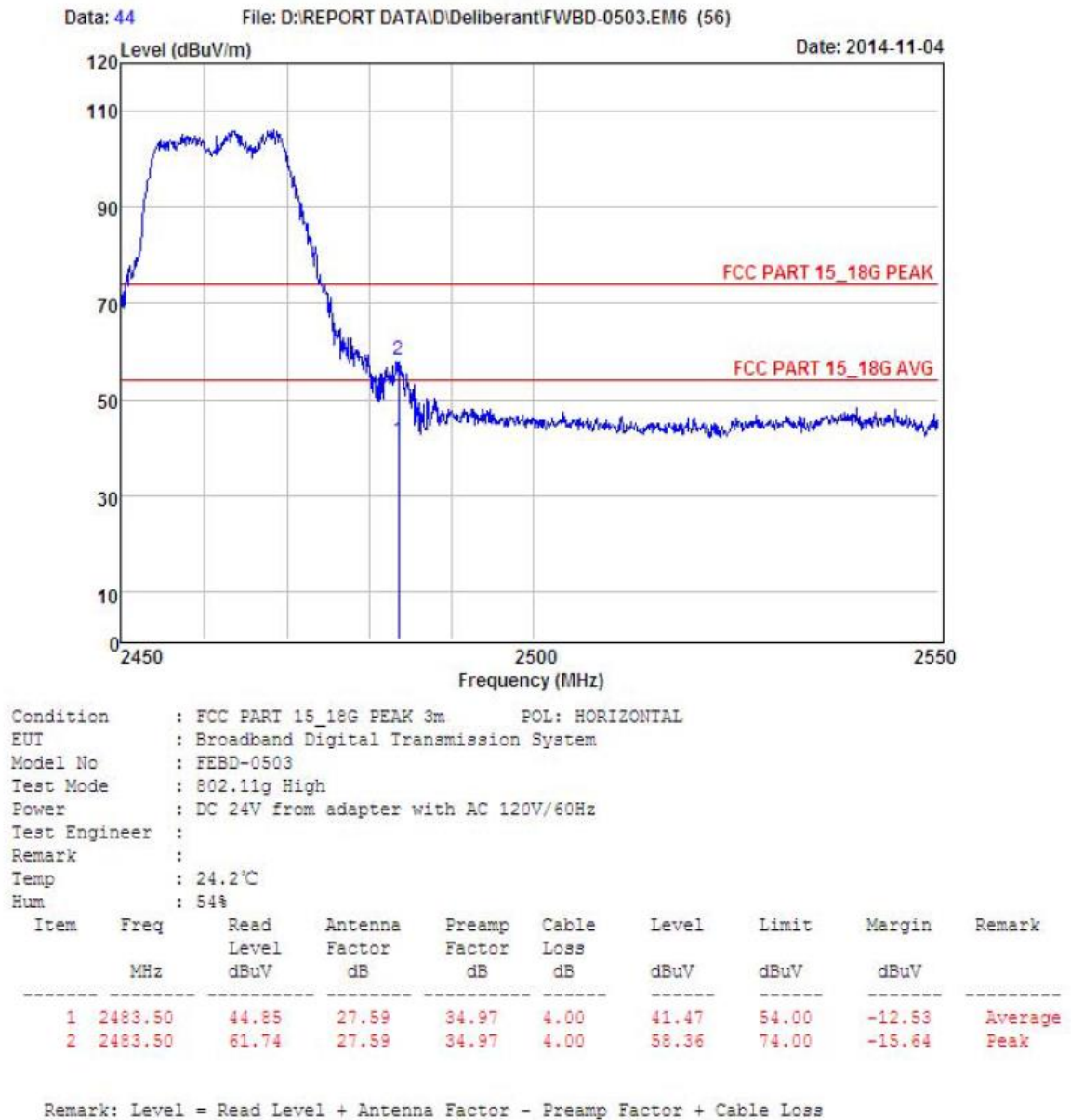
IEEE 802.11g:

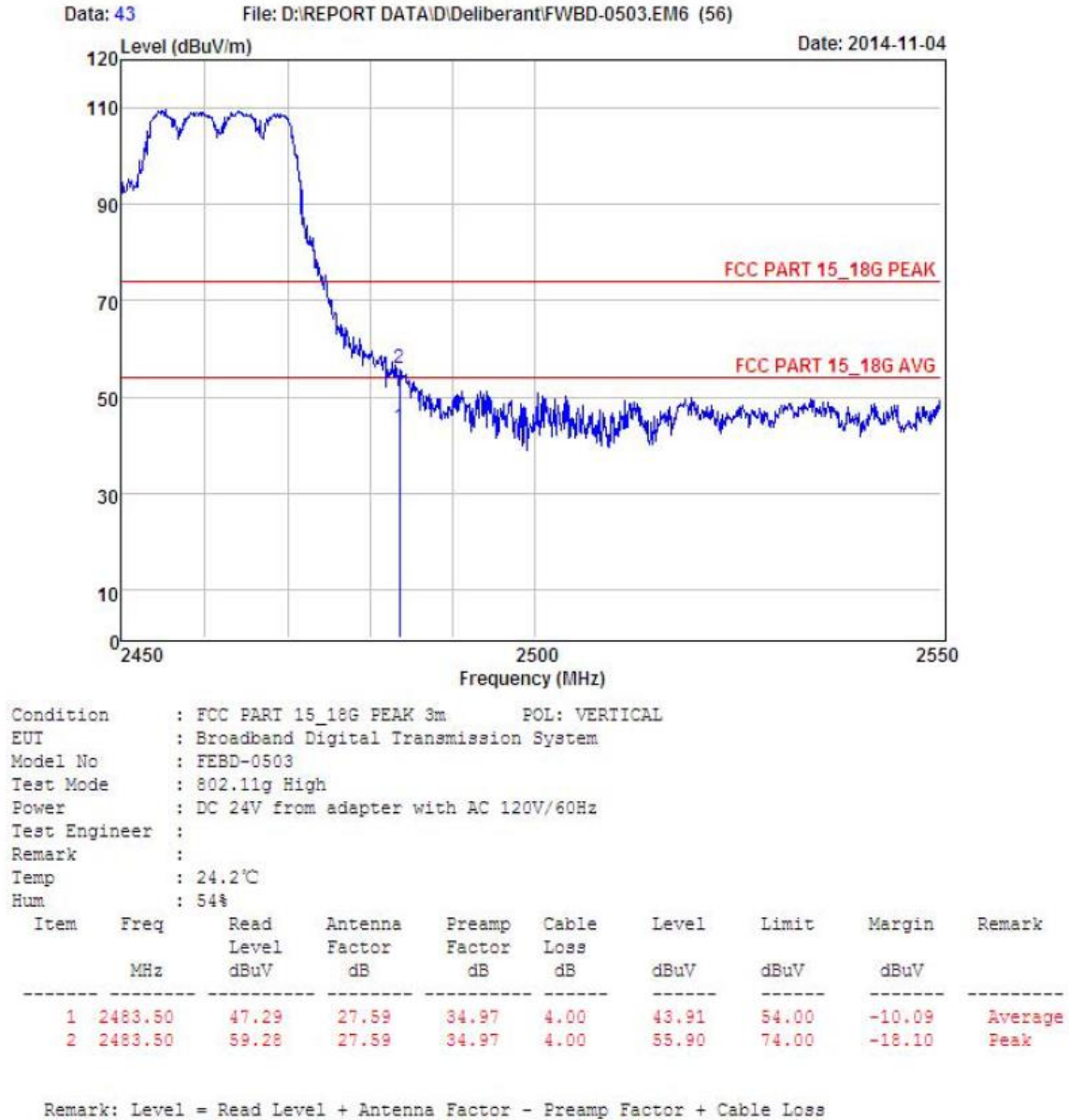
CH Low :





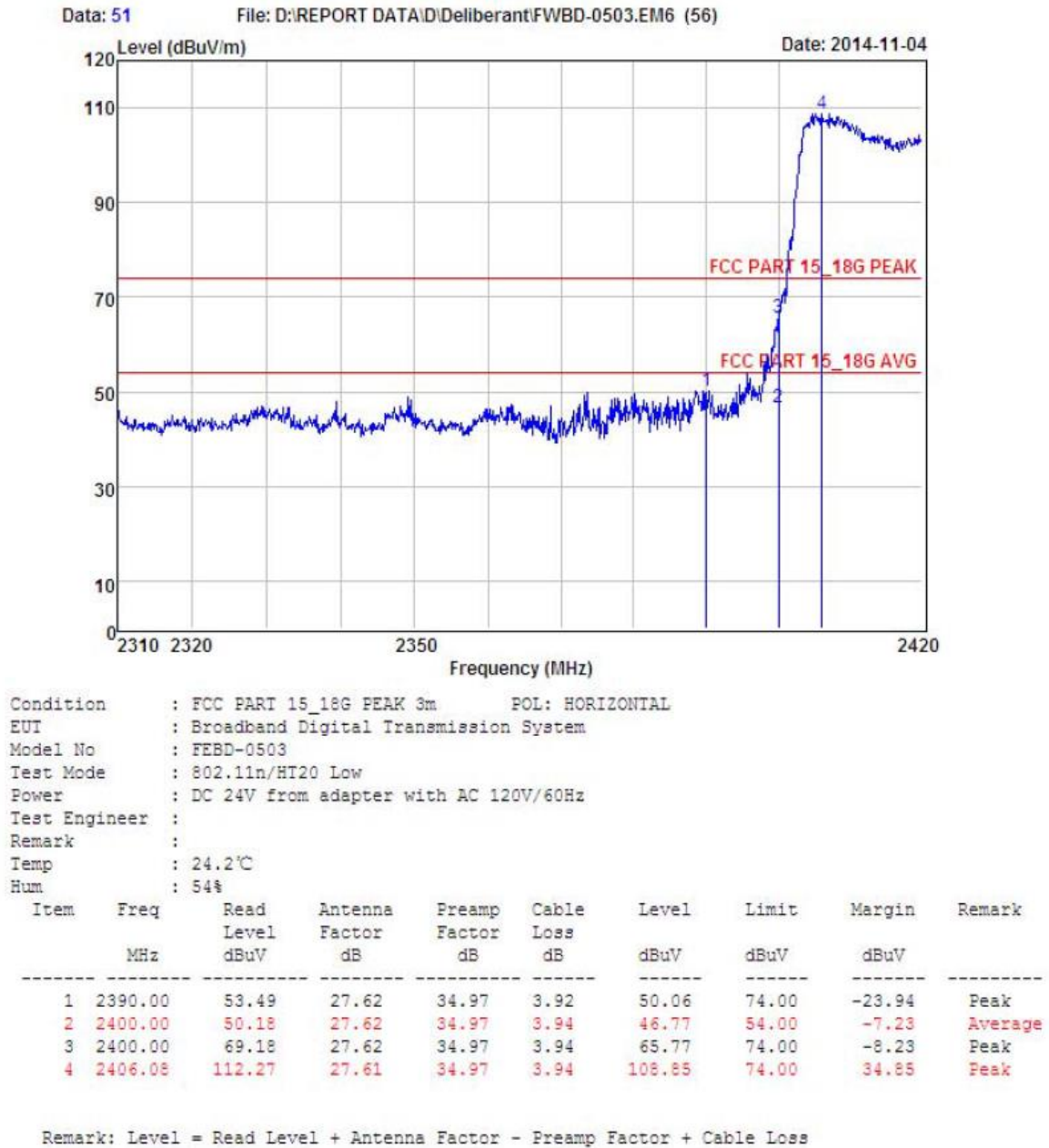
CH Hig:

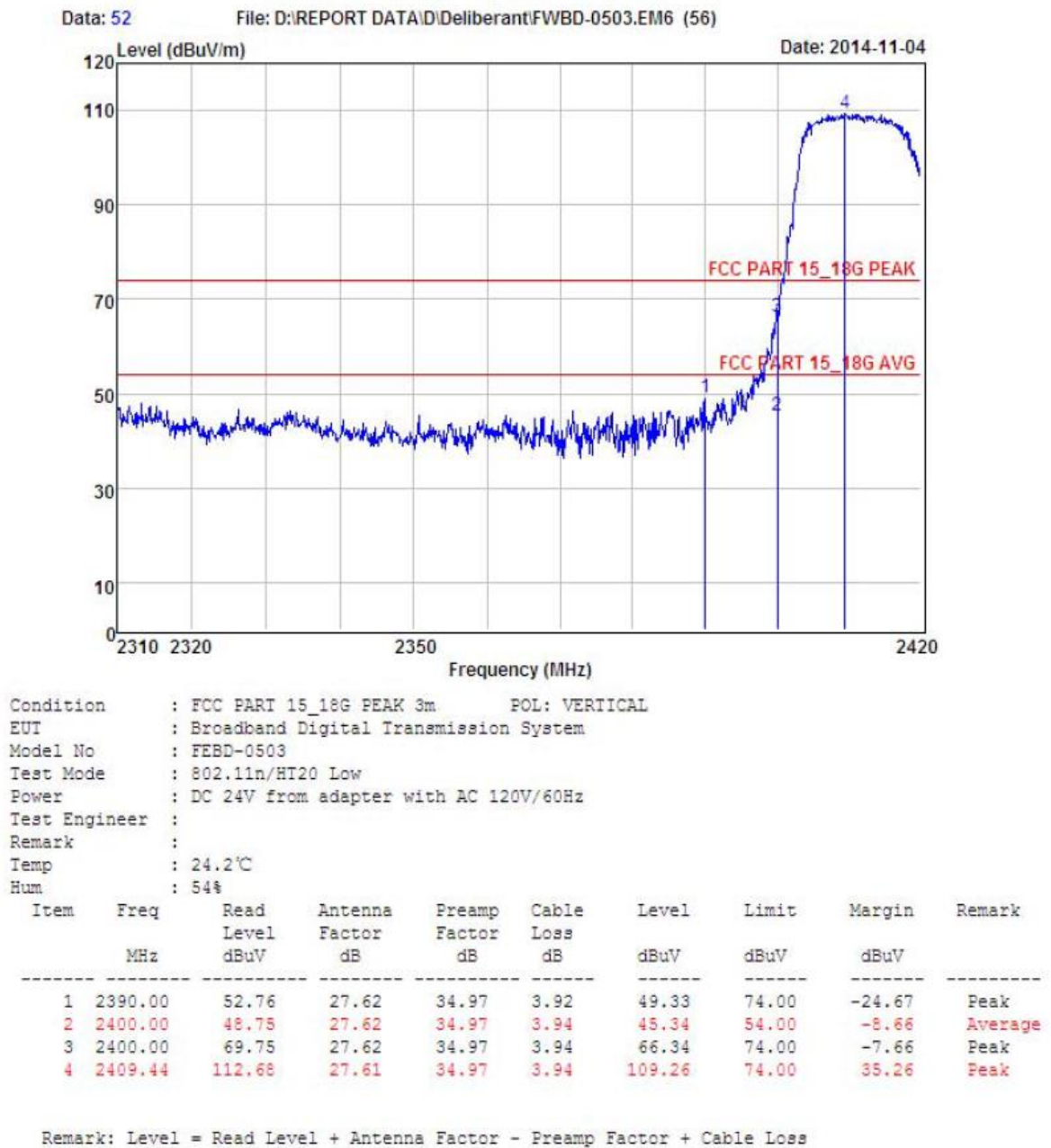




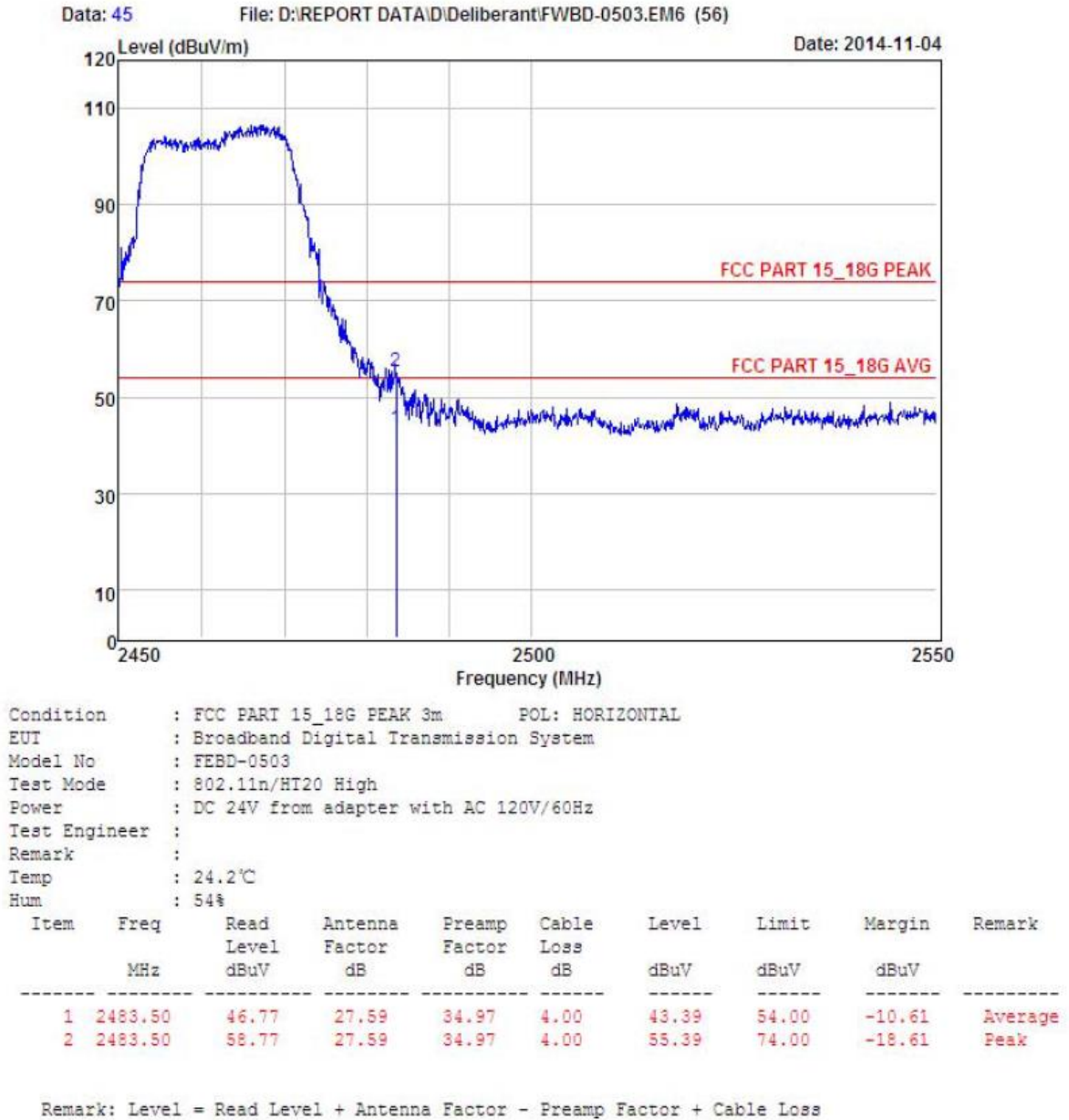
IEEE 802.11n HT20:

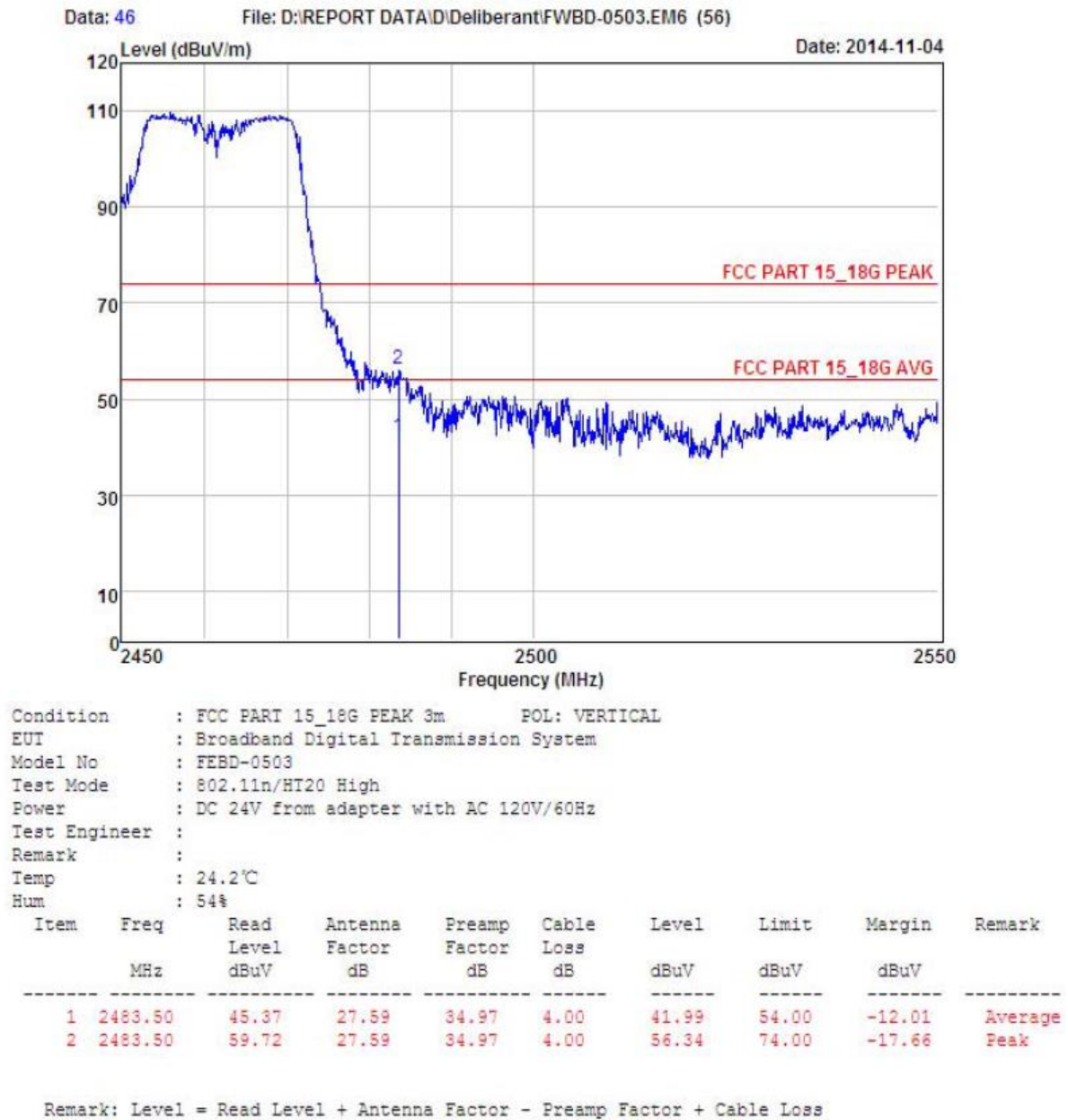
CH Low :





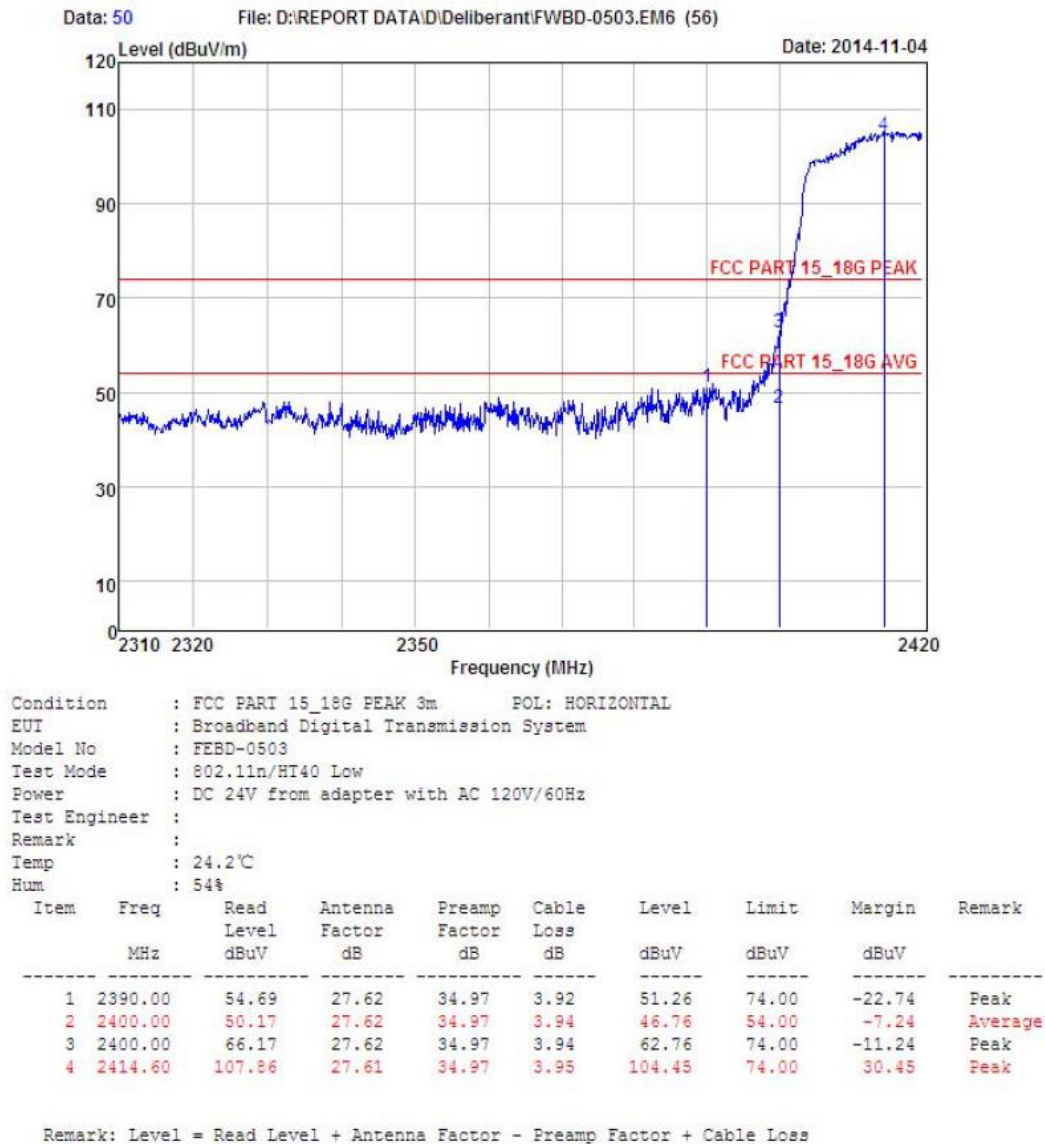
IEEE 802.11n HT20:  
CH High :

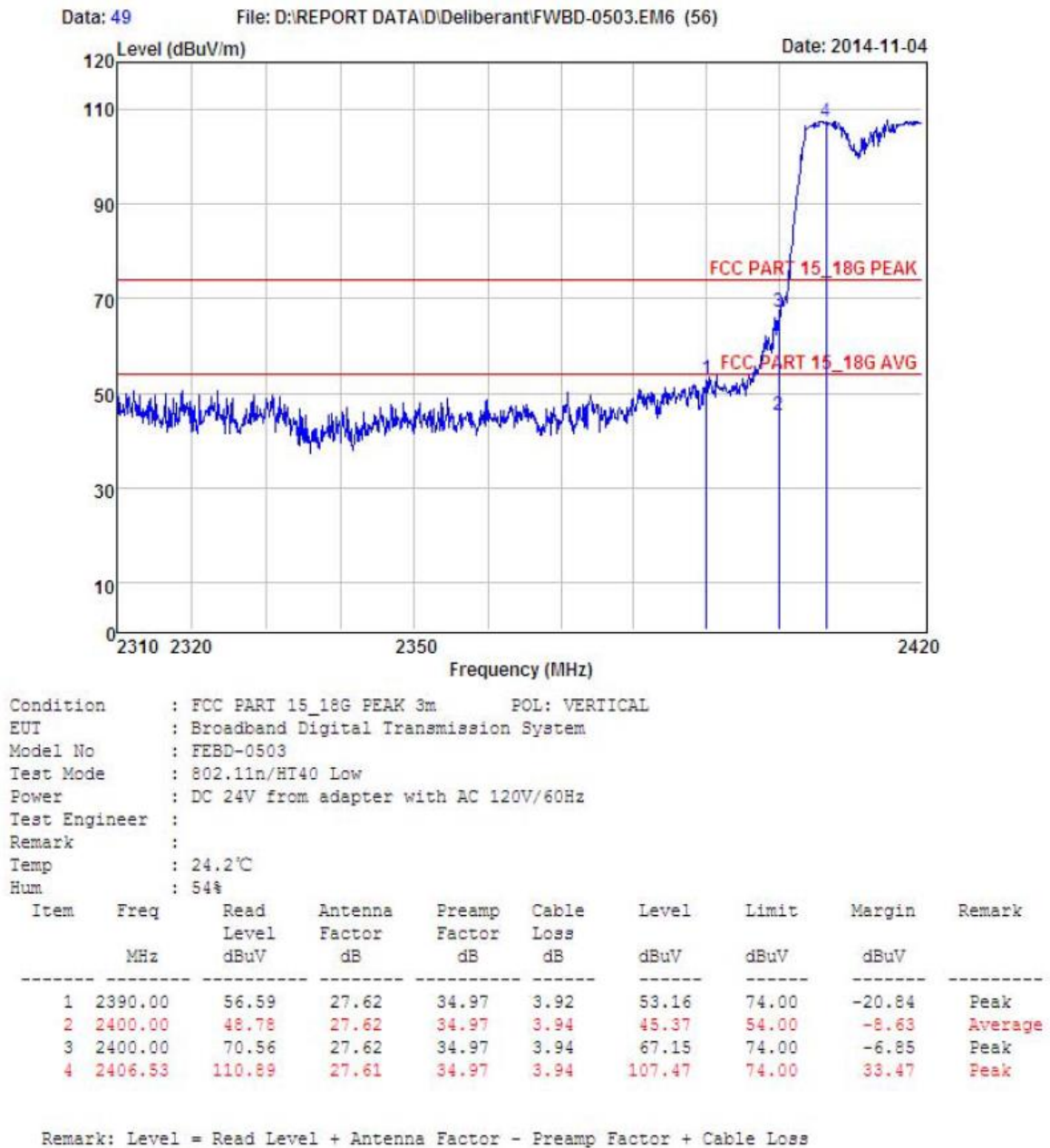




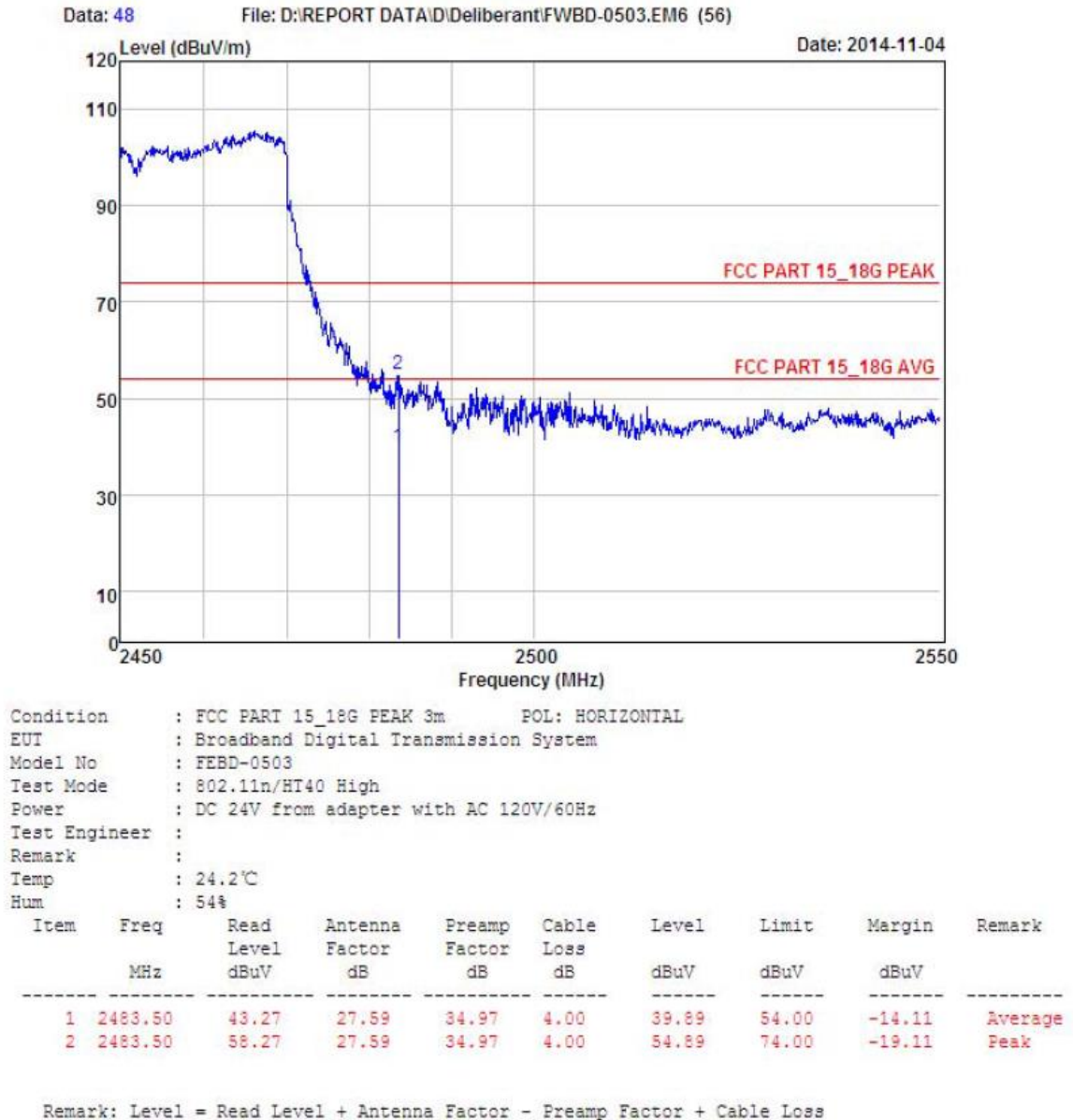
IEEE 802.11n HT40:

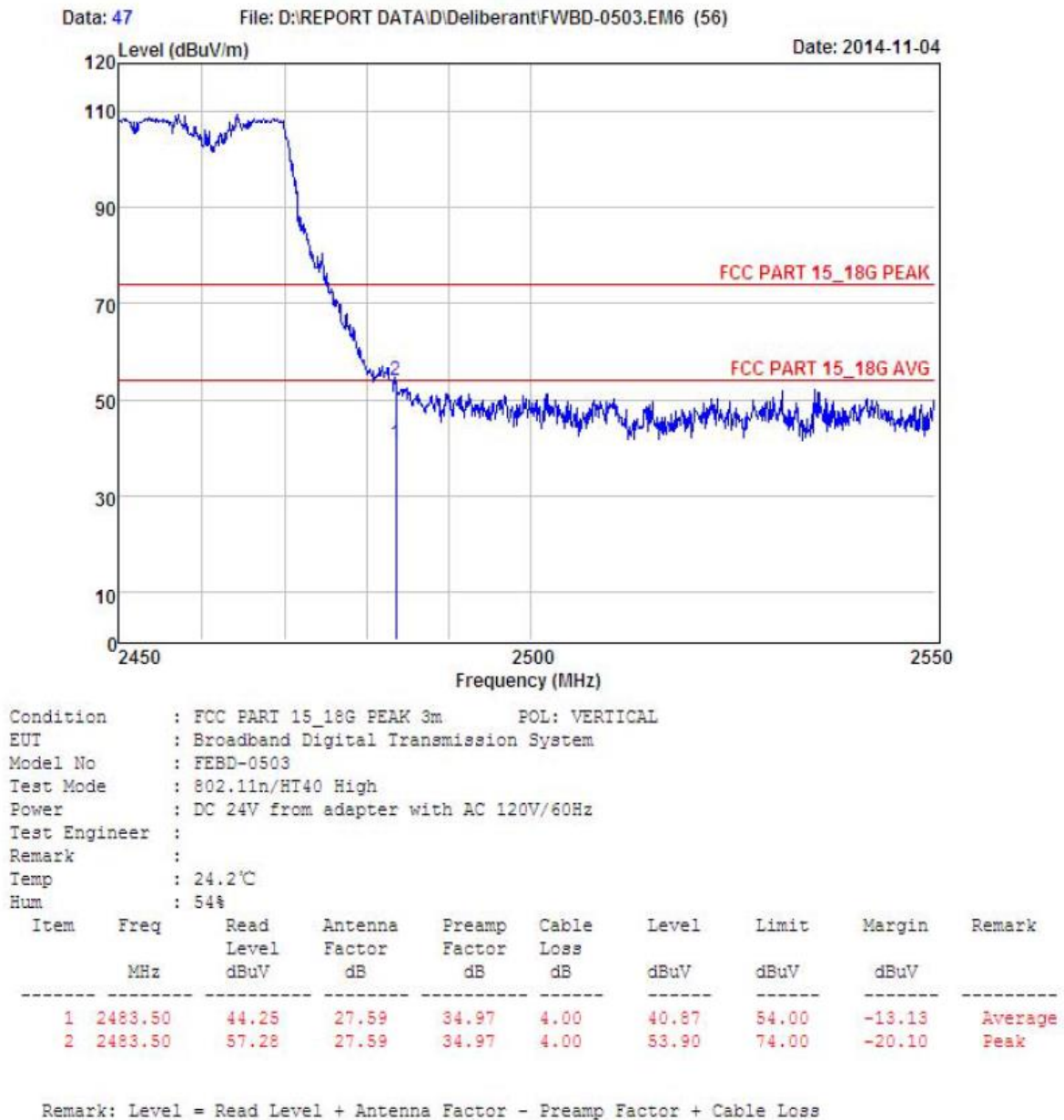
CH Low :



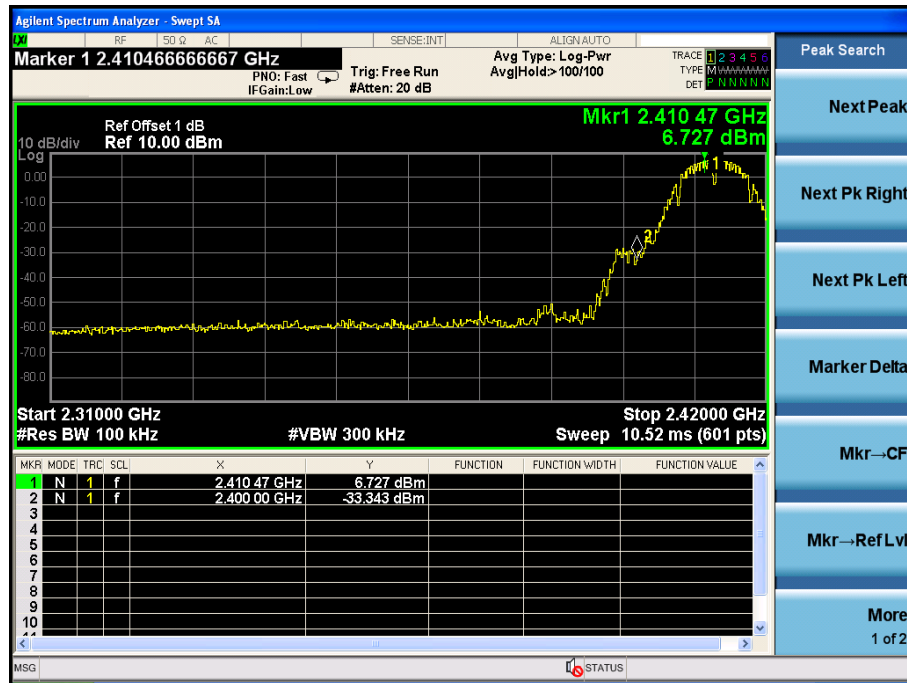


IEEE 802.11n HT40:  
CH High :





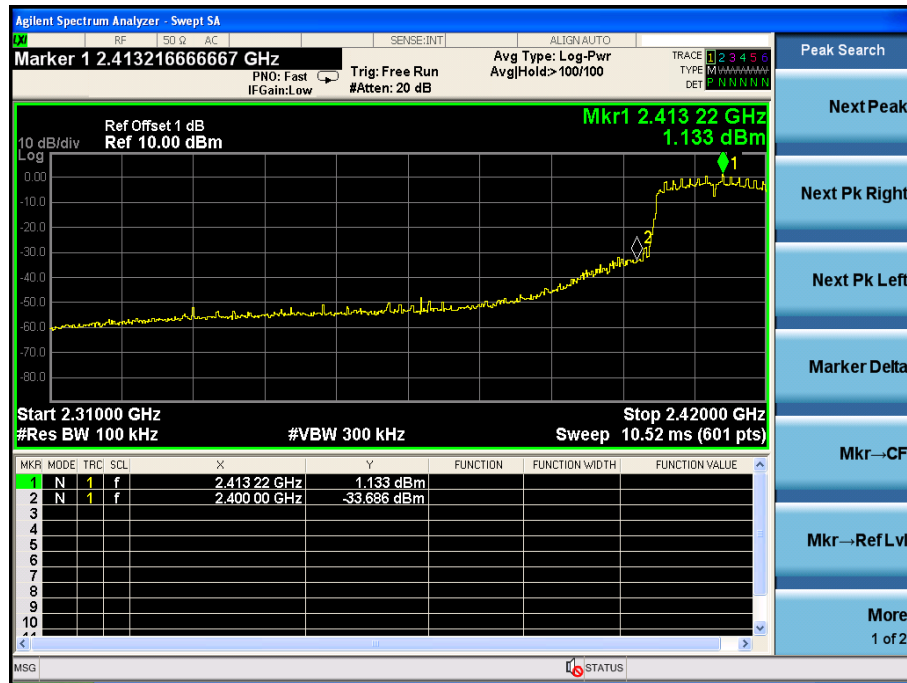
Conducted Method: ANT PORT 0 and 1 all have been tested ,only report worse case



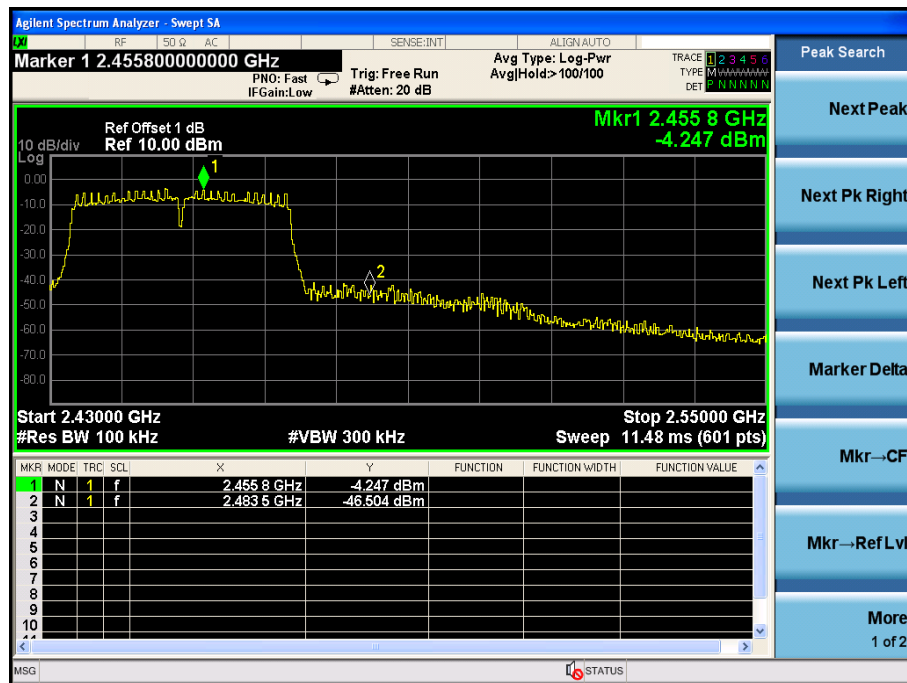
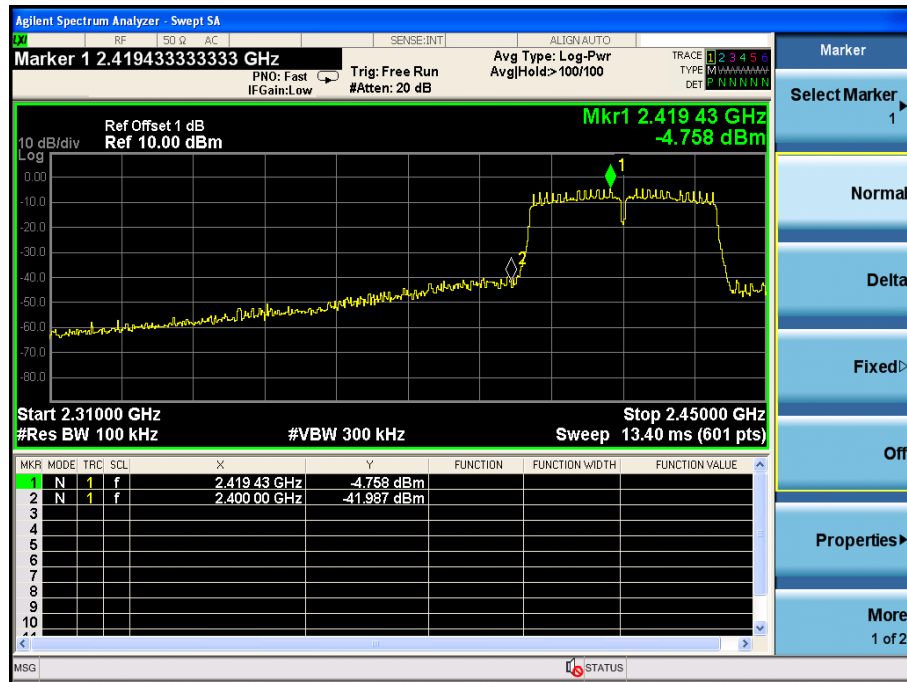
802.11g



802.11n HT20



802.11n HT40



## 11 Antenna Requirement

### 11.1 Standard Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

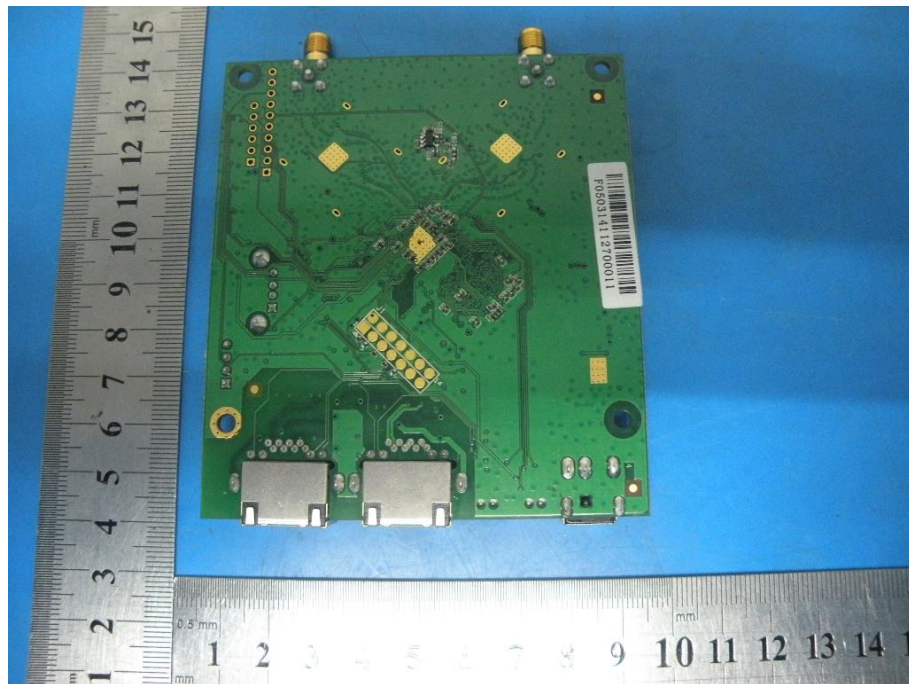
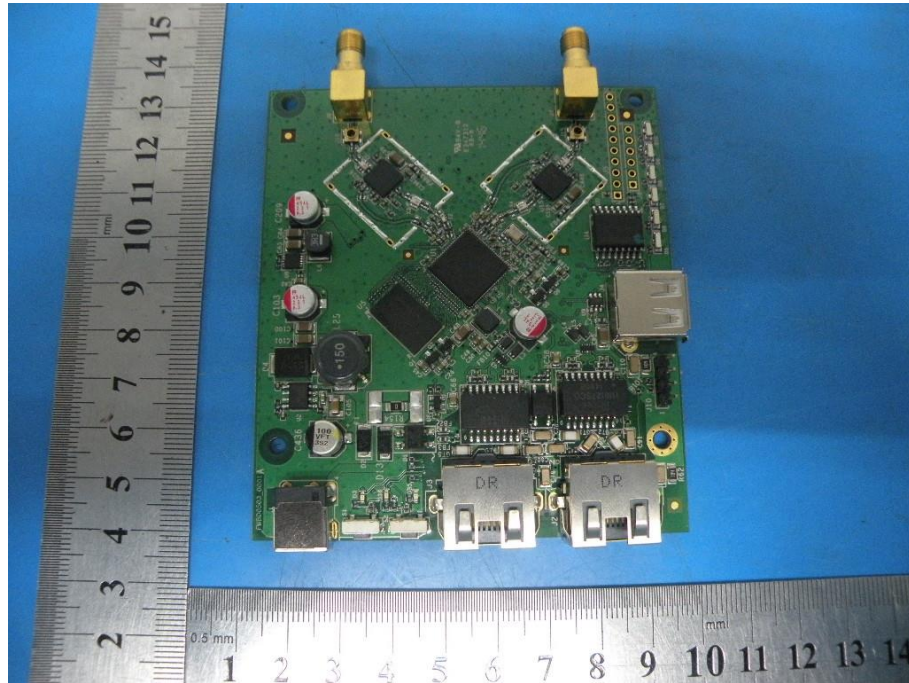
### 11.2 Antenna Connected Construction

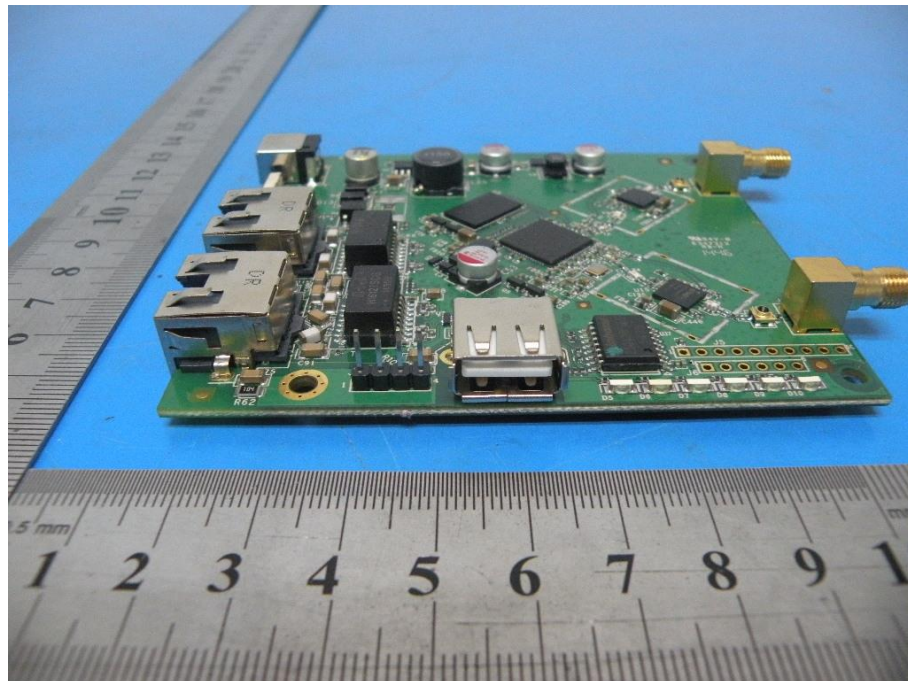
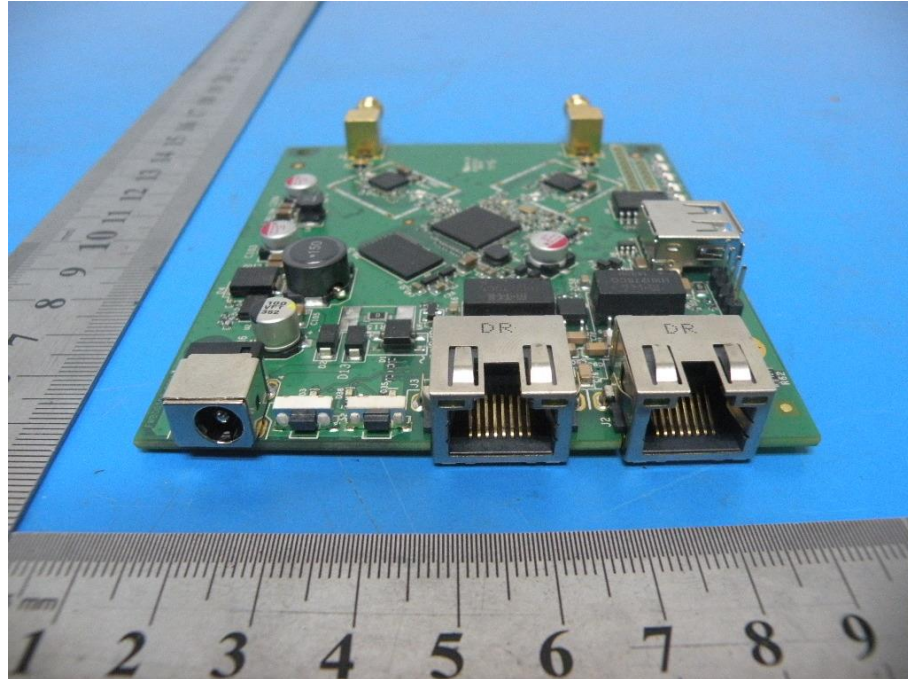
The antenna connector is unique antenna and no consideration of replacement. Please see EUT photo for details.

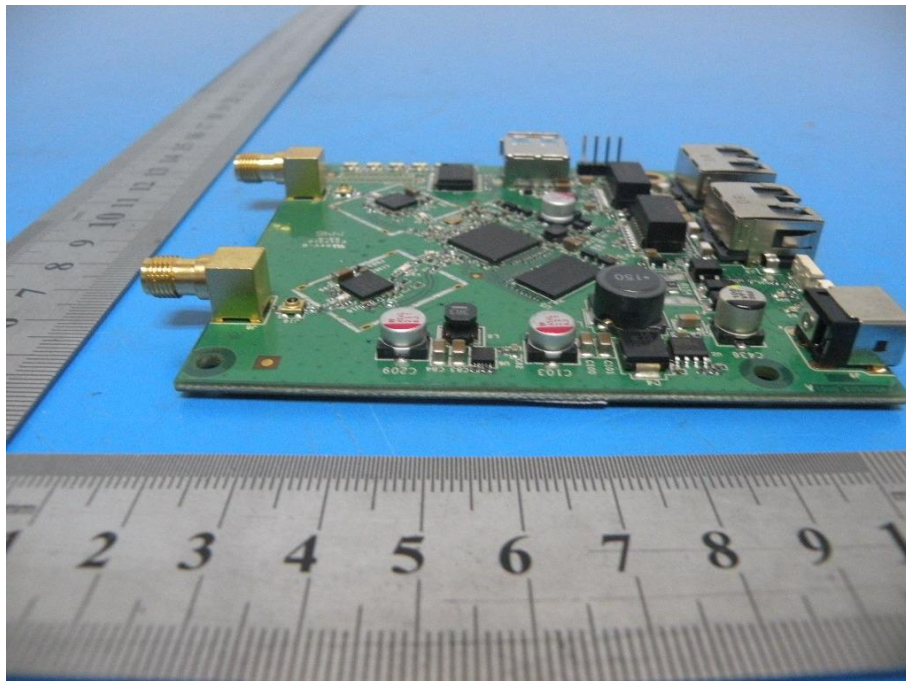
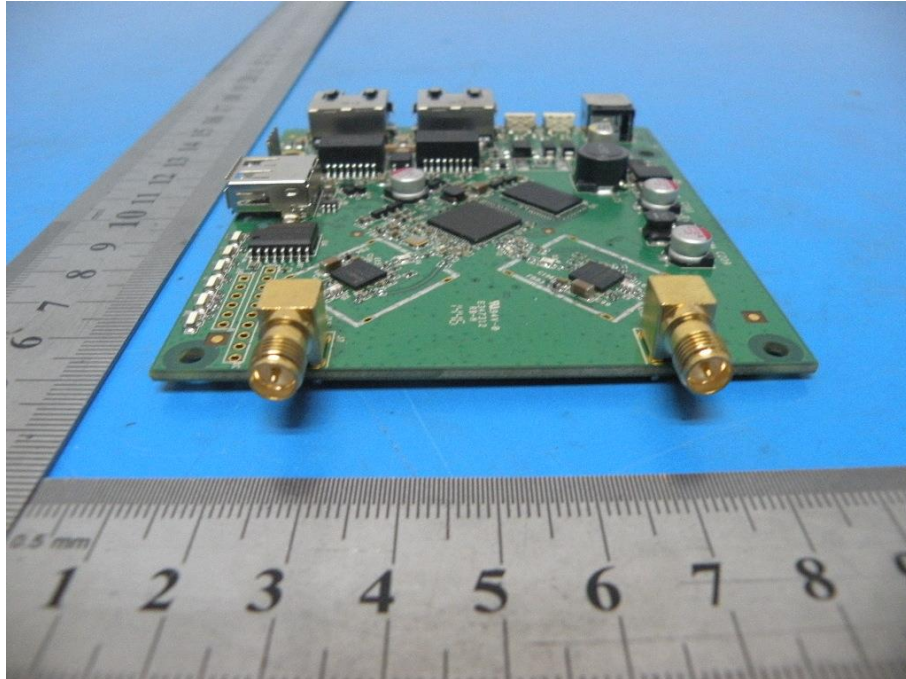
### 11.3 Result

The EUT antenna is external Antenna. It comply with the standard requirement.

## 12 Photographs of EUT











-----END OF THE REPORT-----