

## 4. Peak Power Spectral Density

### 4.1. Test Equipment

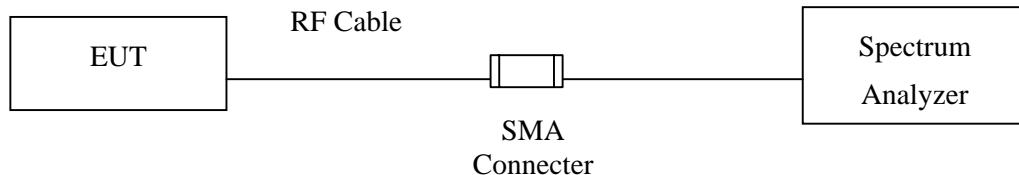
The following test equipments are used during the radiated emission tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008
X Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2008

Note: 1. All equipments are calibrated every one year.

2. The test instruments marked by “X” are used to measure the final test results.

### 4.2. Test Setup



### 4.3. Limits

- (4) For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (5) For the band 5.25-5.35 GHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (6) For the band 5.725-5.825 GHz, the peak power spectral density shall not exceed 17 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

### 4.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Aug 2002 DA 02-2138 for compliance to FCC 47CFR Subpart E requirements.

### 4.5. Uncertainty

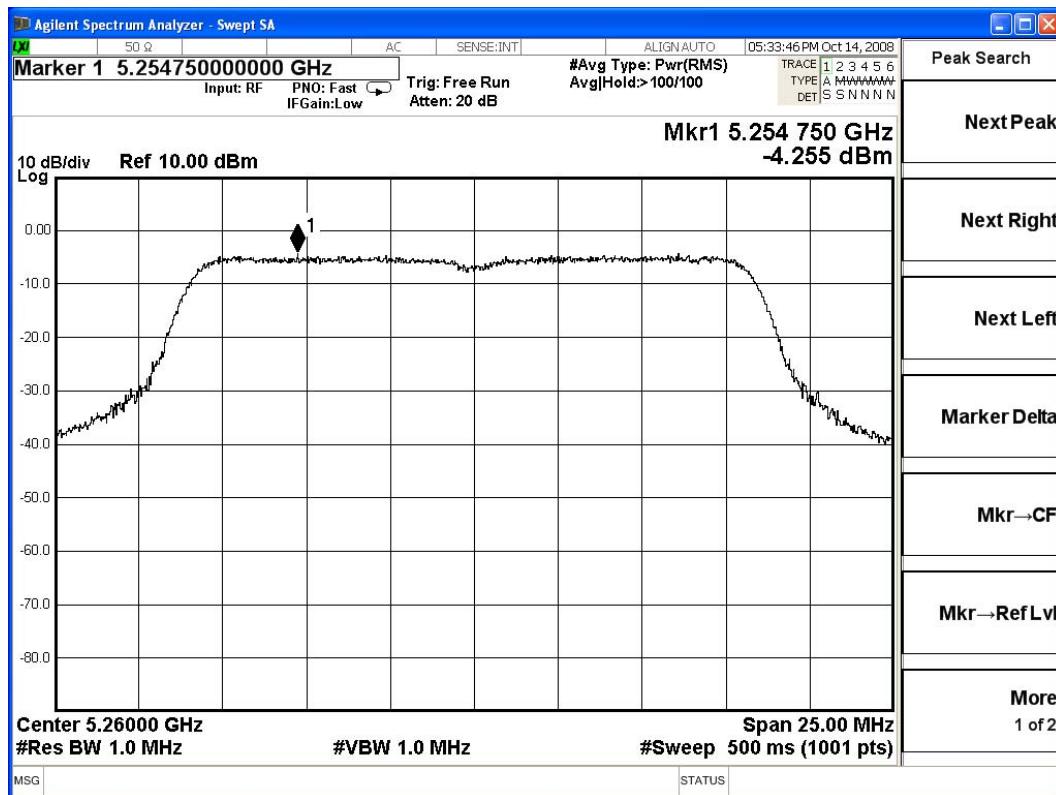
± 1.27 dB

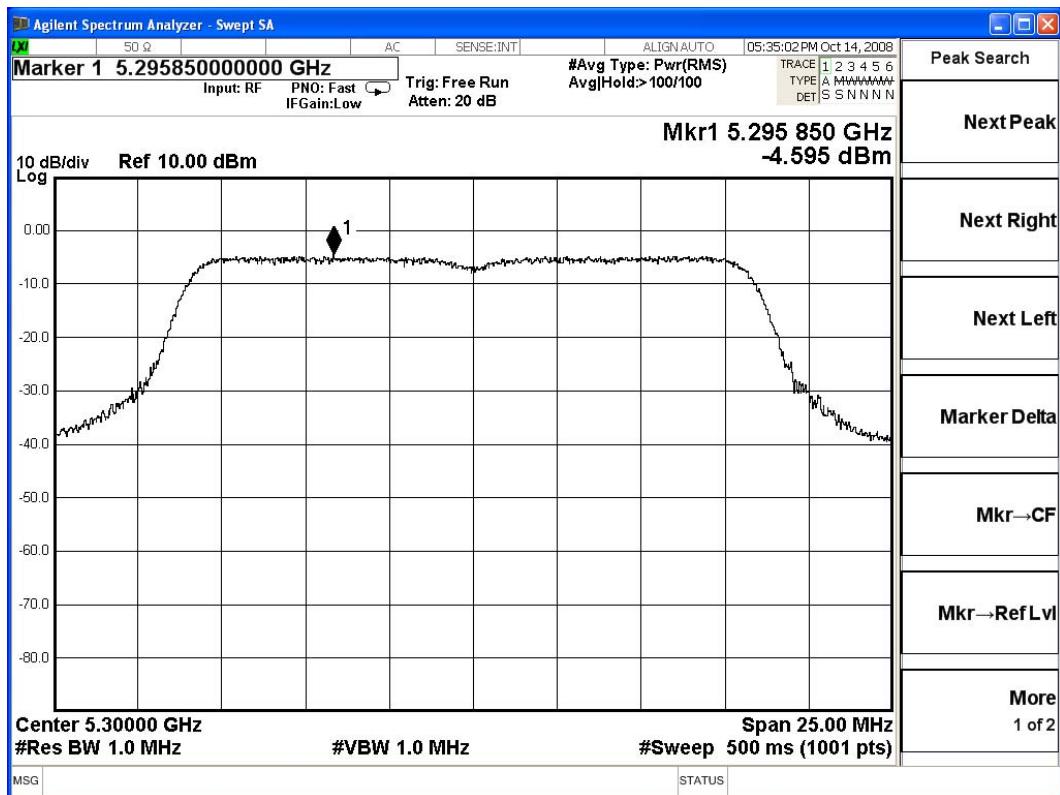
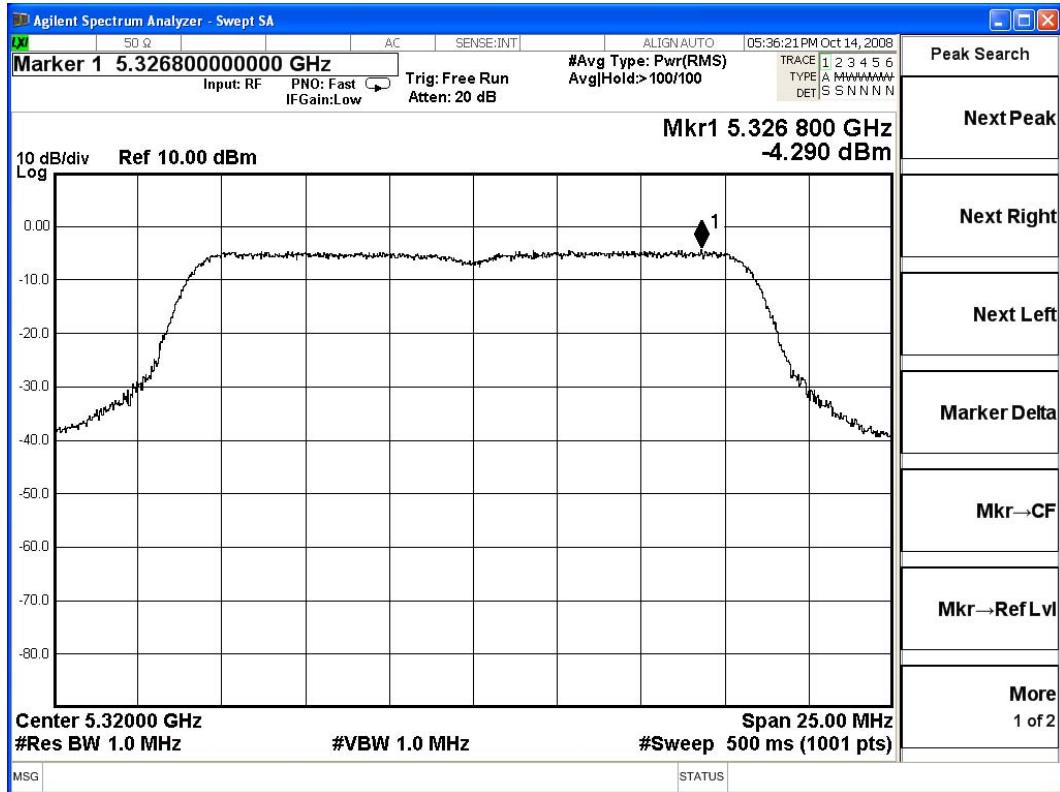
## 4.6. Test Result of Peak Power Spectral Density

Product : ROS Home Center  
 Test Item : Peak Power Spectral Density  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11a

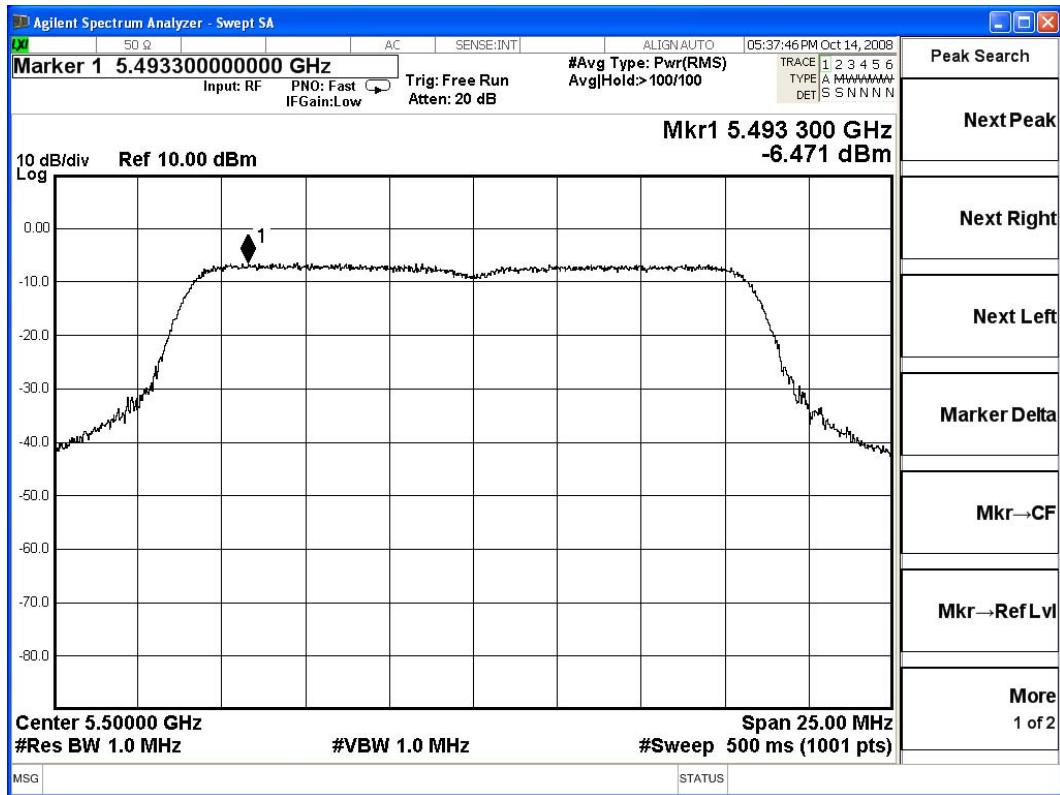
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
01	5260.00	-4.255	< 11	Pass
03	5300.00	-4.595	< 11	Pass
04	5320.00	-4.290	< 11	Pass
05	5500.00	-6.471	< 11	Pass
10	5600.00	-7.054	< 11	Pass
15	5700.00	-6.303	< 11	Pass

### Channel 01:

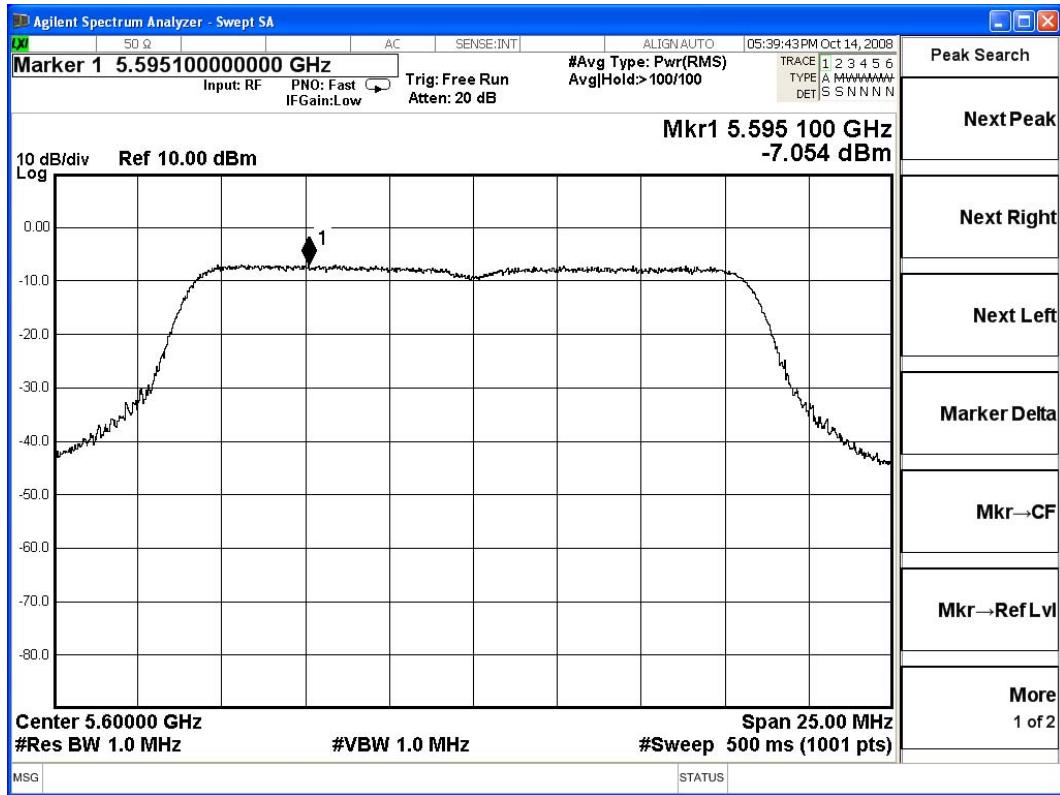


**Channel 03:**

**Channel 04:**


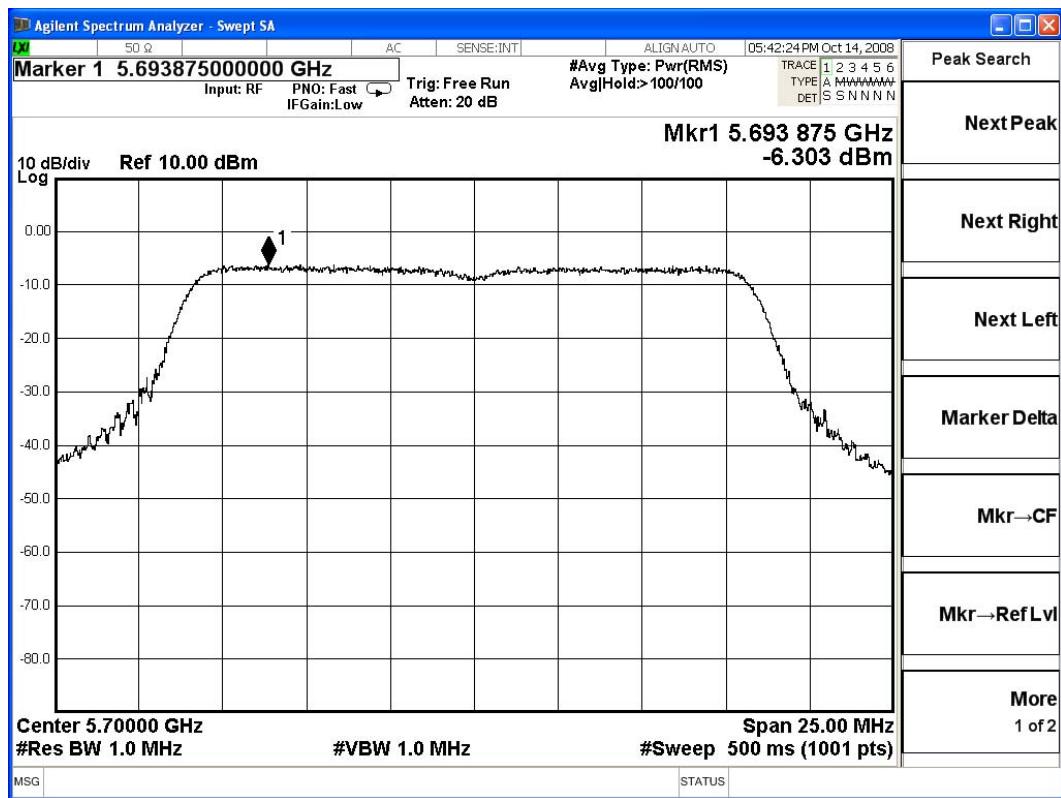
**Channel 05:**



**Channel 10:**



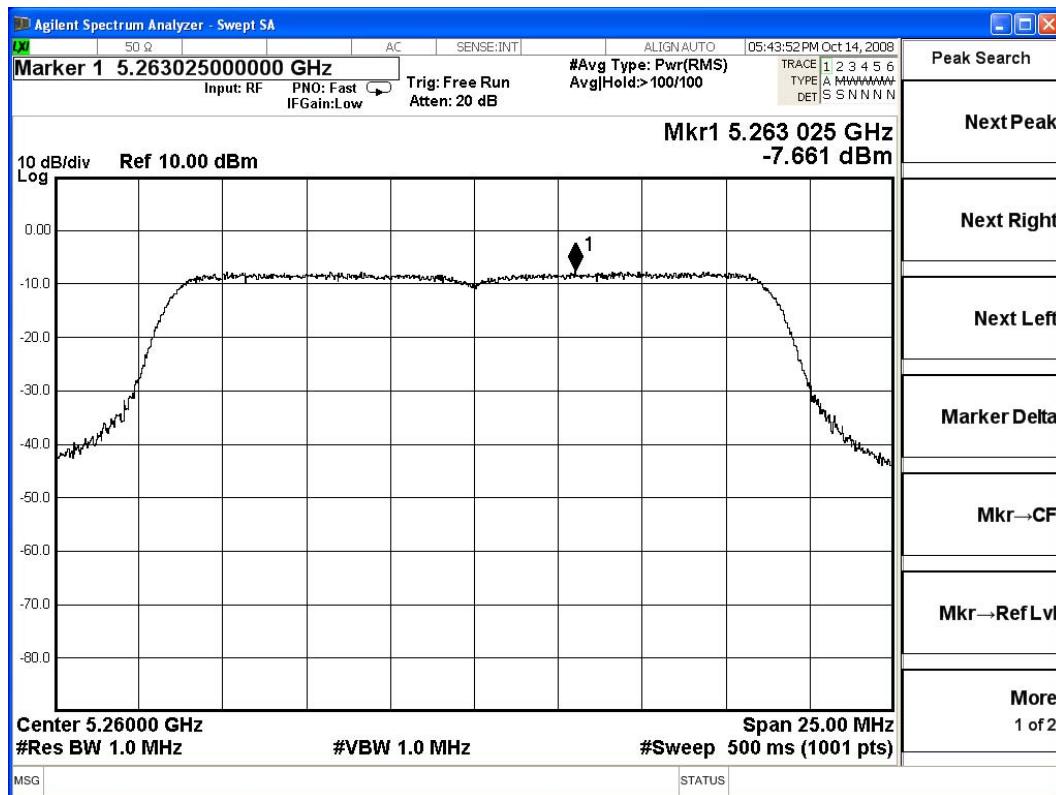
**Channel 15:**



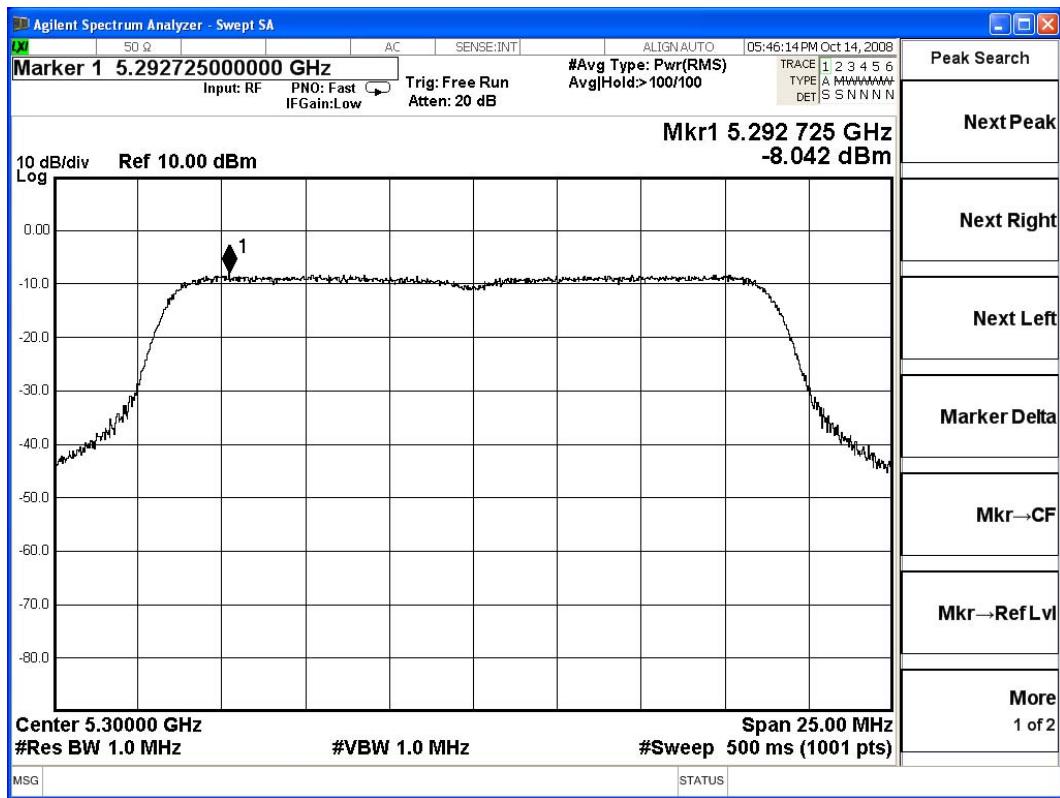
Product : ROS Home Center  
 Test Item : Peak Power Spectral Density  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11n-20BW\_13.5Mbps(5G Band)-Antenna A

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
01	5260.00	-7.661	< 11	Pass
03	5300.00	-8.042	< 11	Pass
04	5320.00	-7.978	< 11	Pass
05	5500.00	-9.580	< 11	Pass
10	5600.00	-9.837	< 11	Pass
15	5700.00	-9.871	< 11	Pass

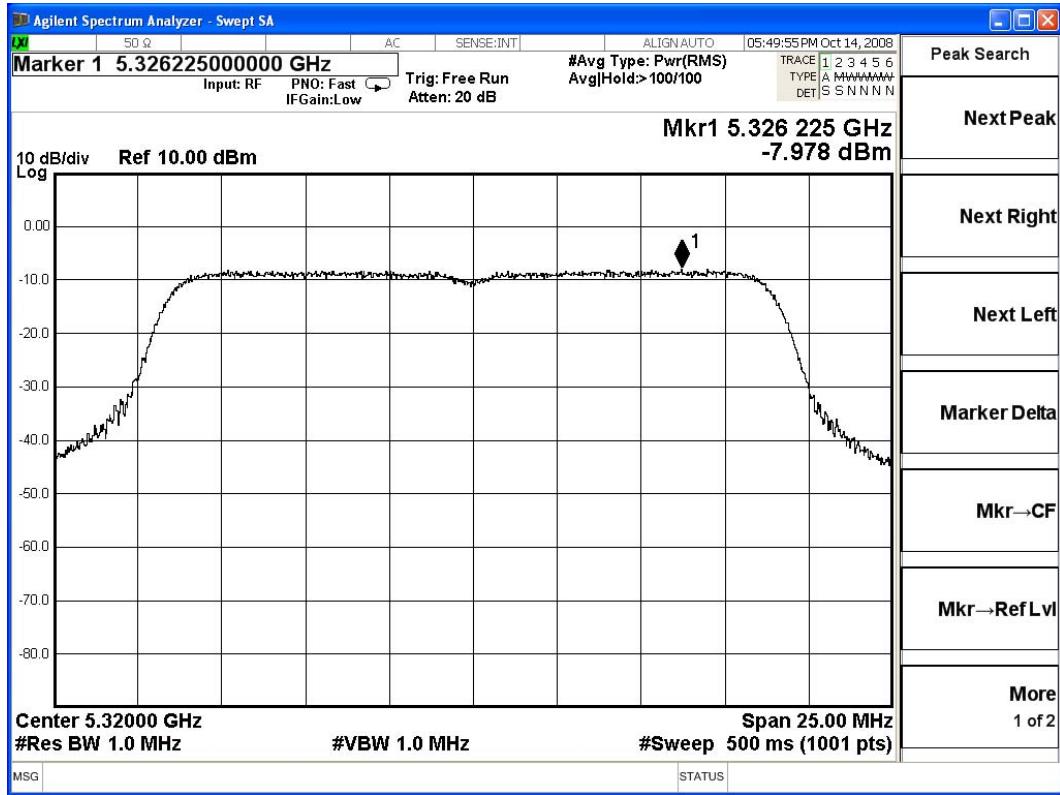
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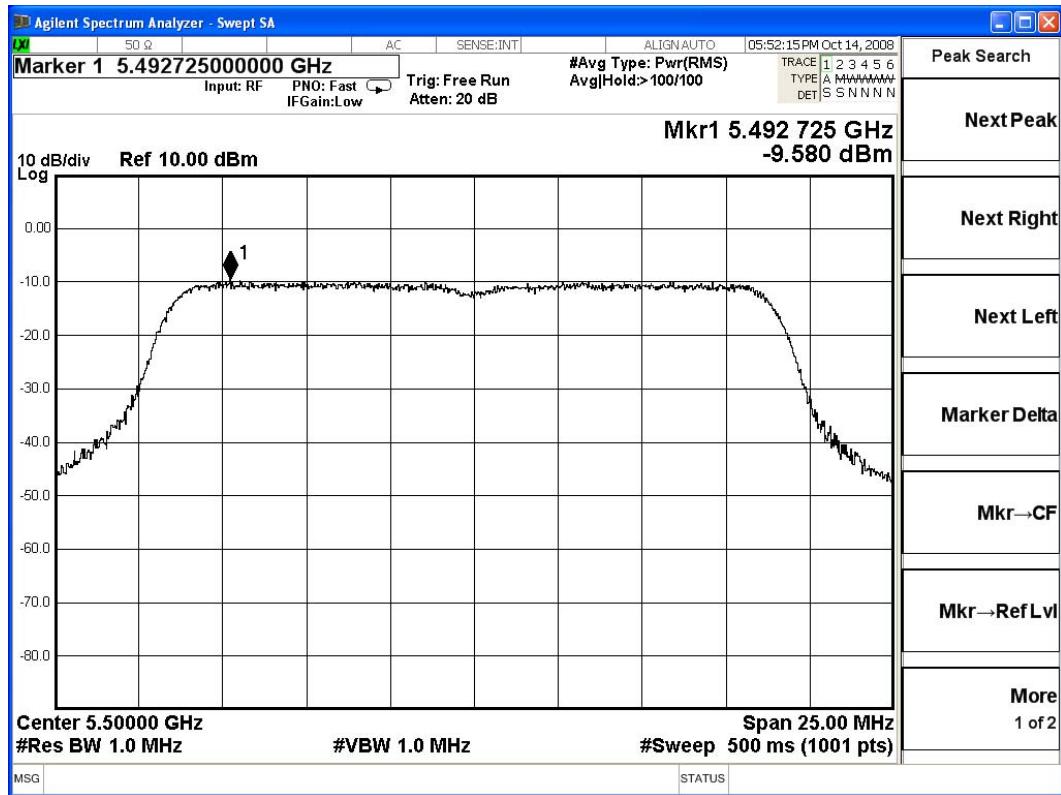
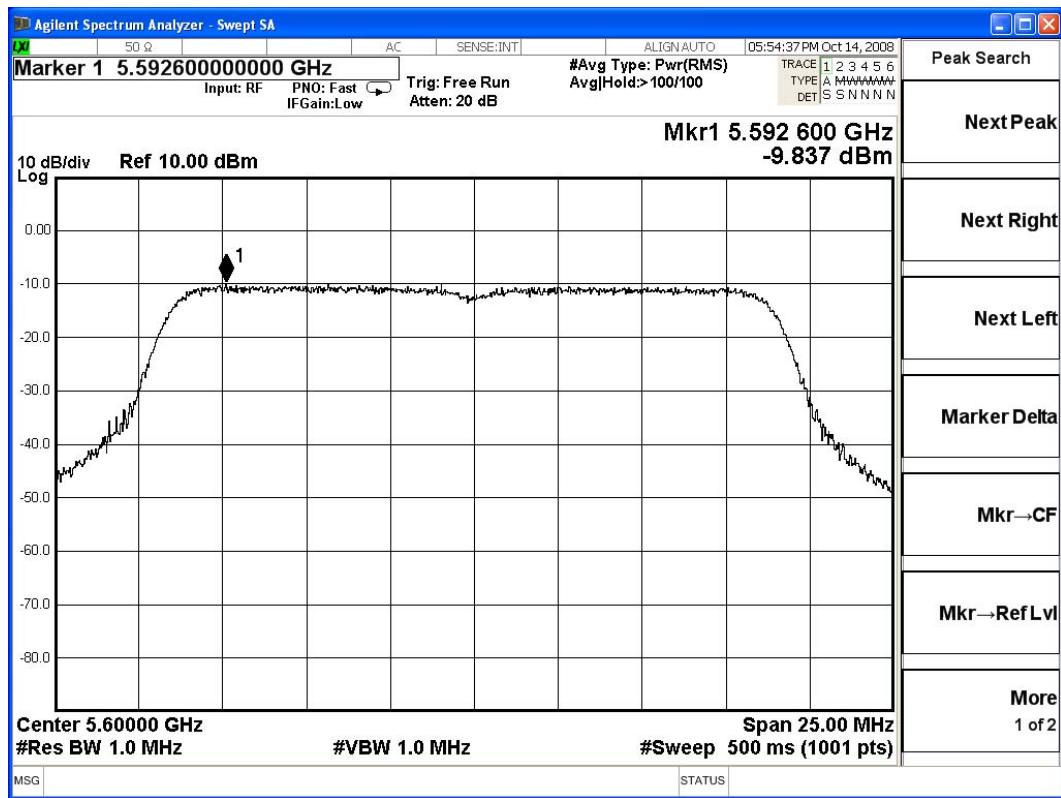


**Channel 03:**

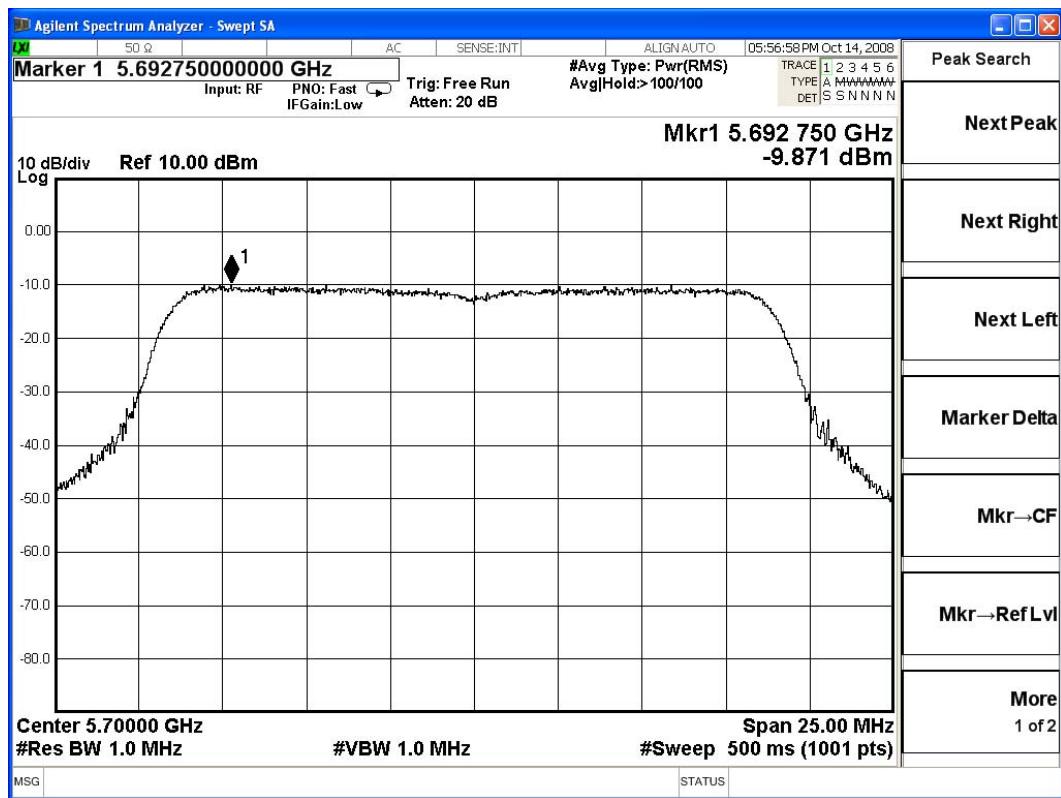


**Channel 04:**



**Channel 05:**

**Channel 10:**


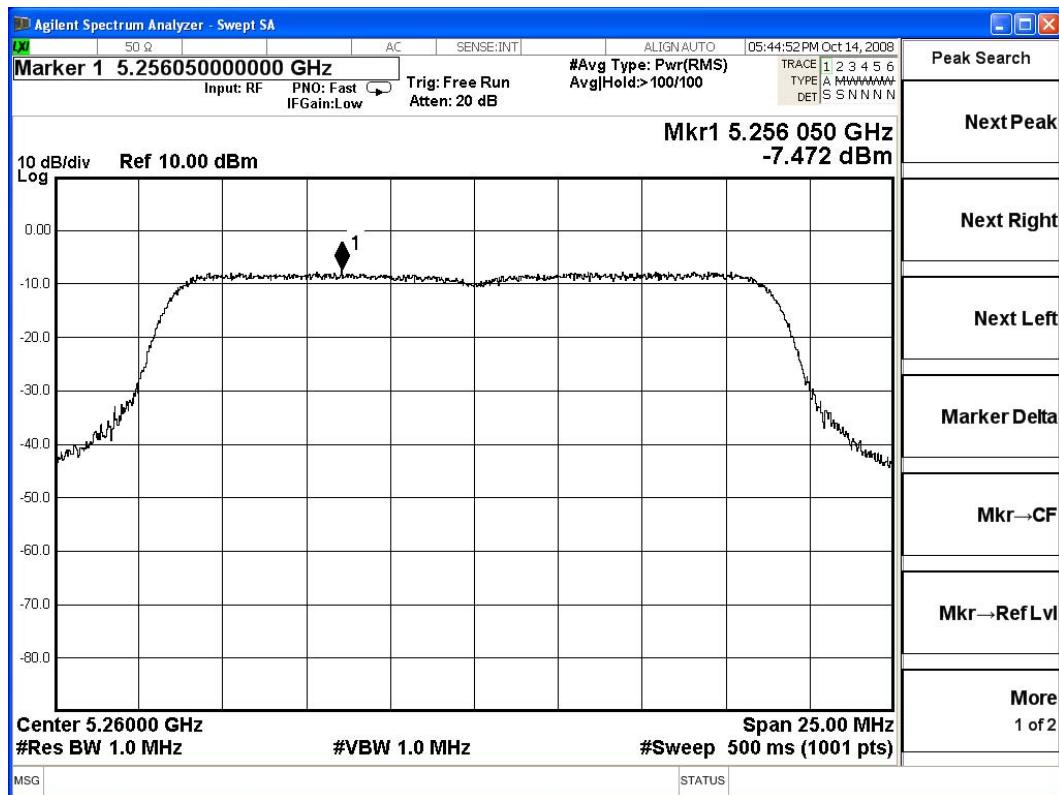
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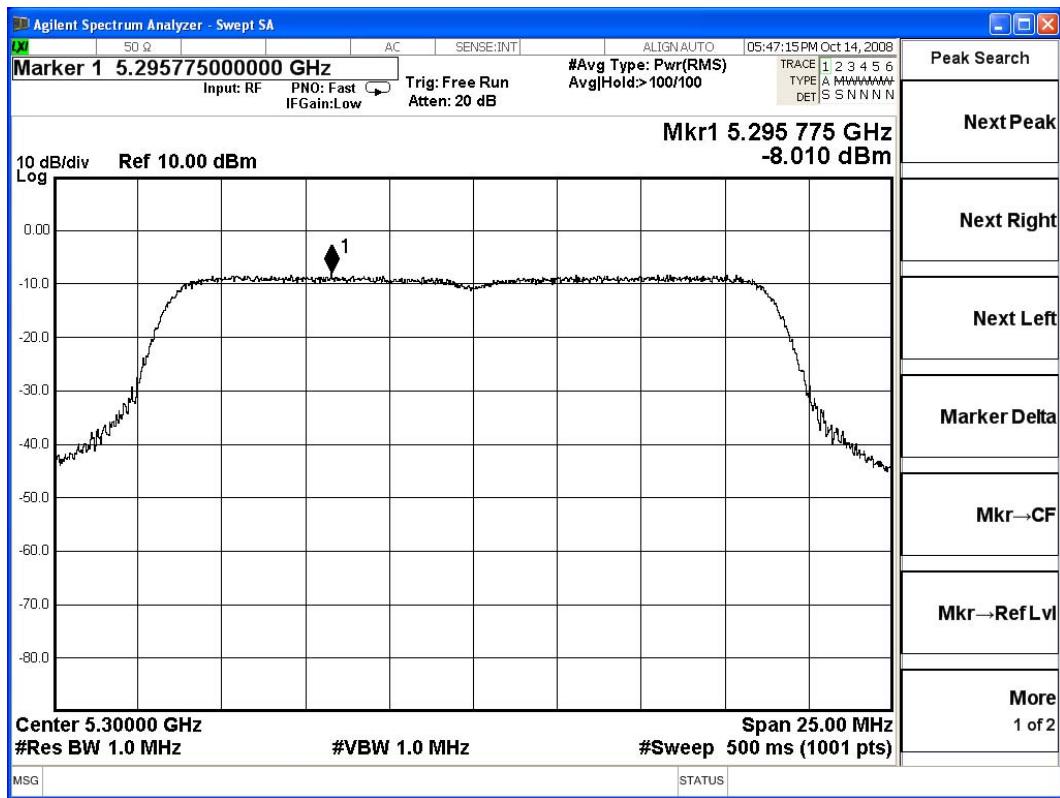
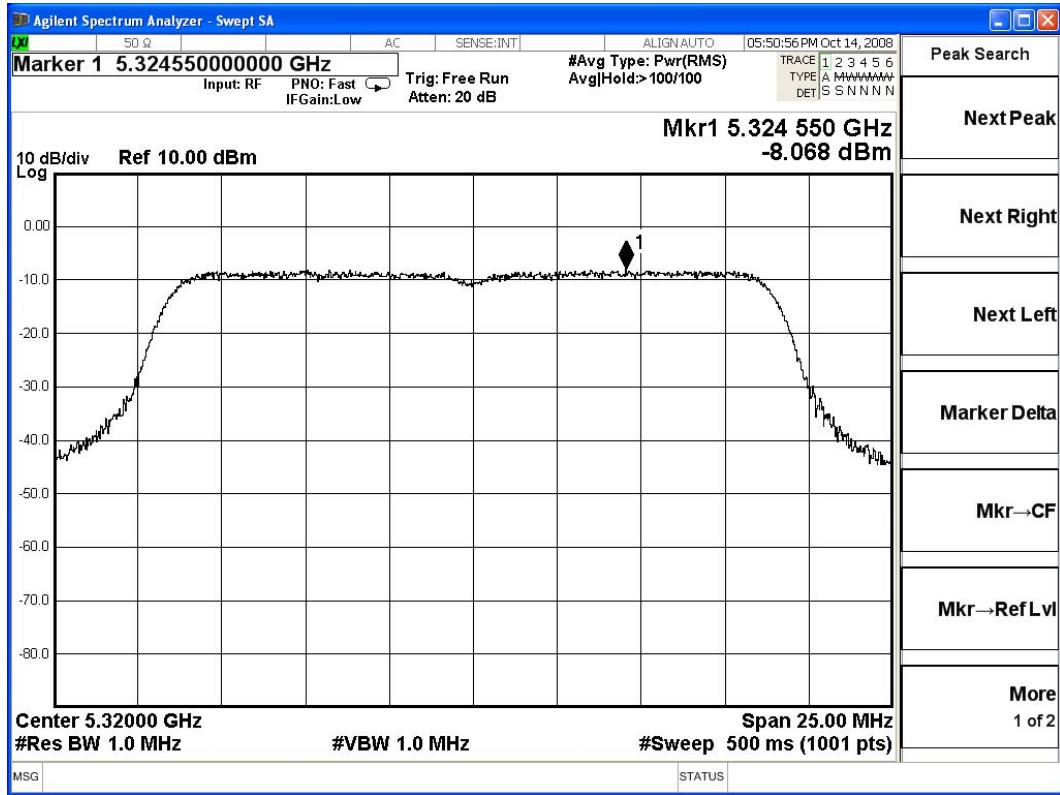


Product : ROS Home Center  
 Test Item : Peak Power Spectral Density  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11n-20BW\_13.5Mbps(5G Band)-Antenna B

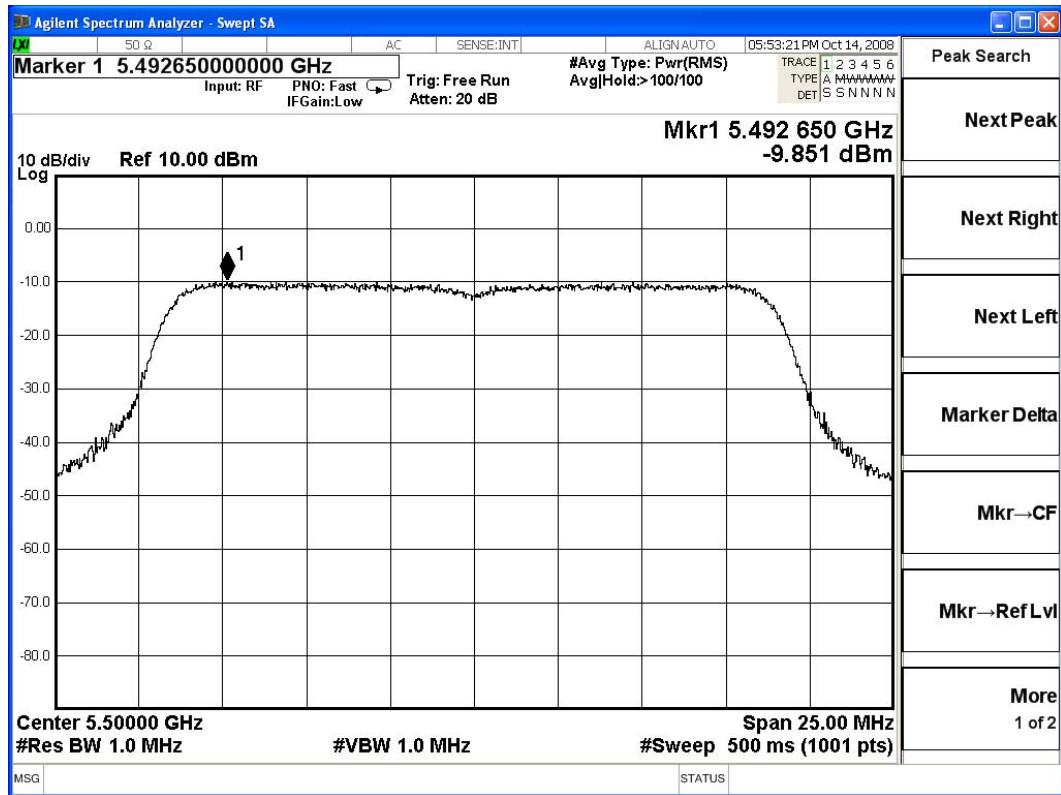
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
01	5180.00	-7.472	< 11	Pass
03	5220.00	-8.010	< 11	Pass
04	5240.00	-8.068	< 11	Pass
05	5500.00	-9.851	< 11	Pass
10	5600.00	-9.981	< 11	Pass
15	5700.00	-10.356	< 11	Pass

### Channel 01:

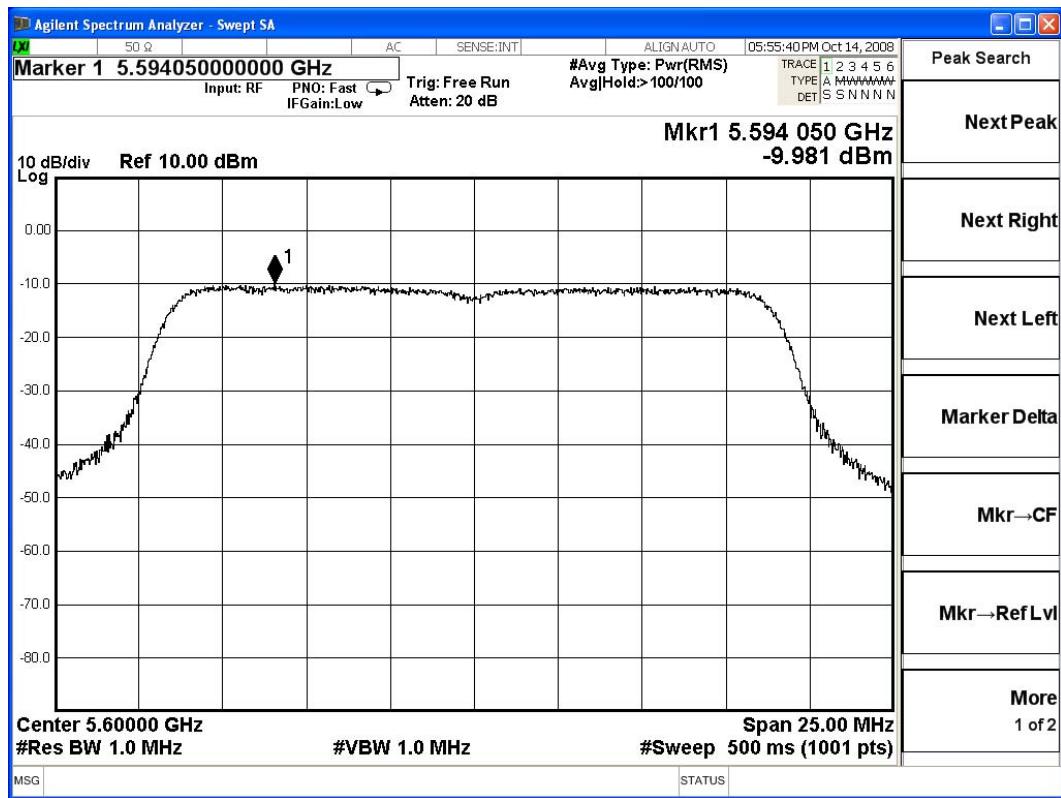


**Channel 03:**

**Channel 04:**


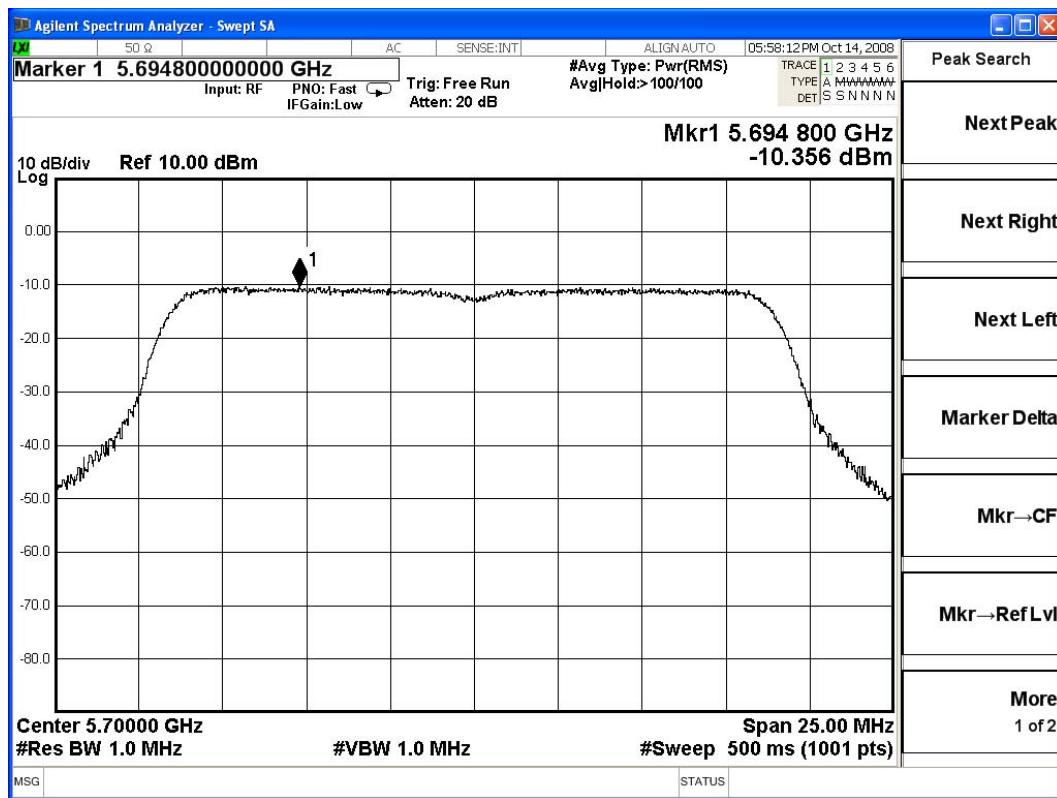
**Channel 05:**



**Channel 10:**



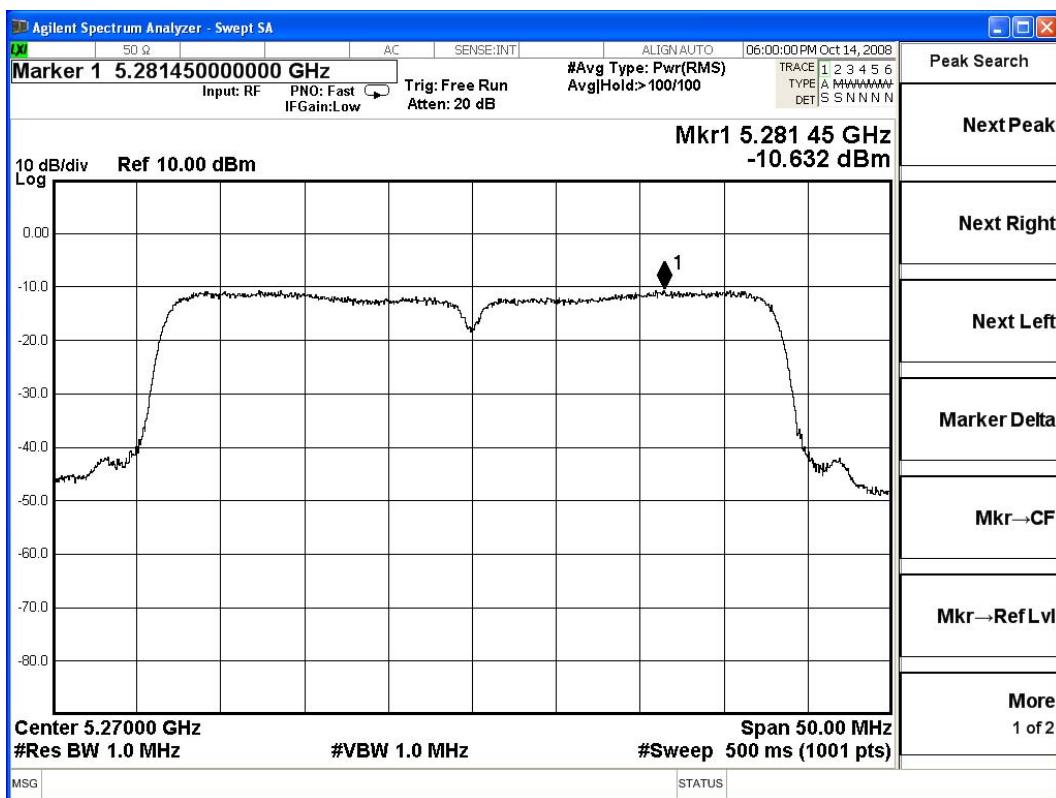
**Channel 15:**

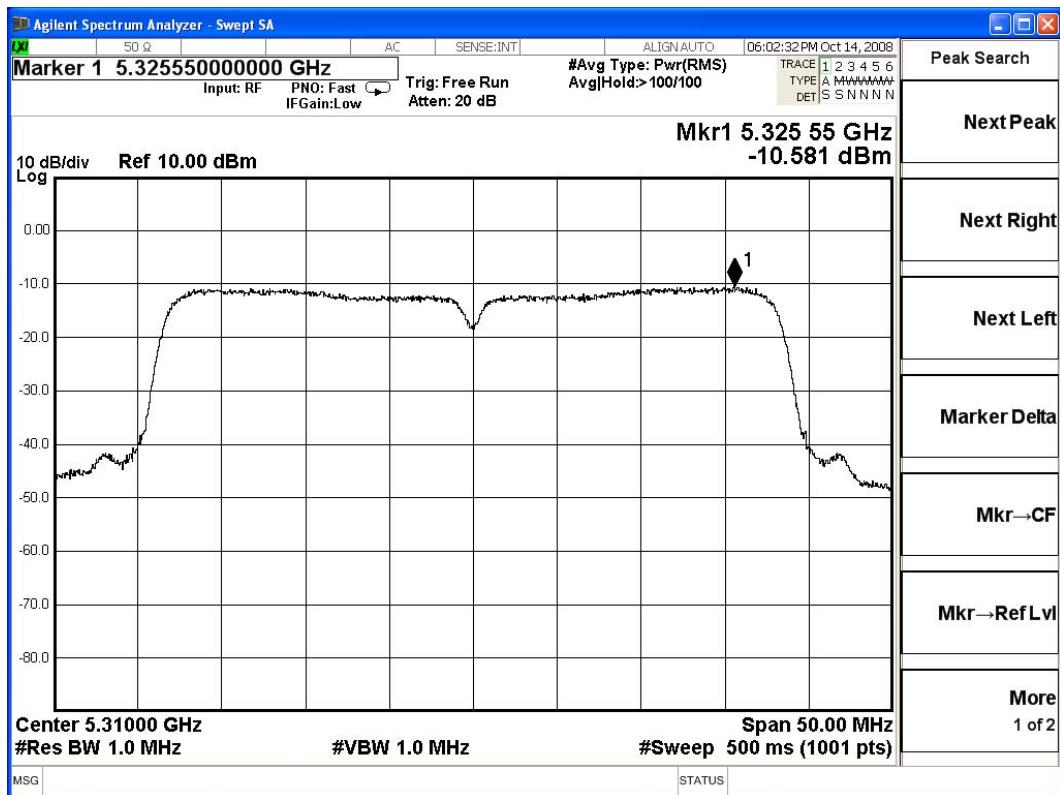
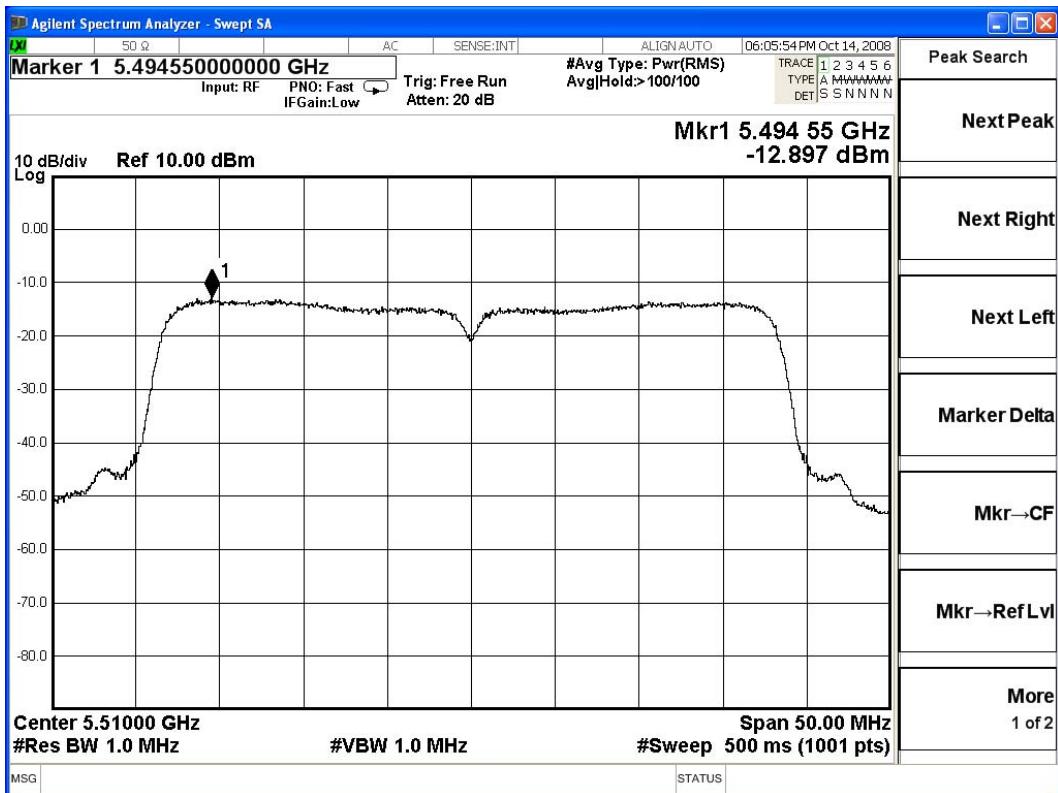


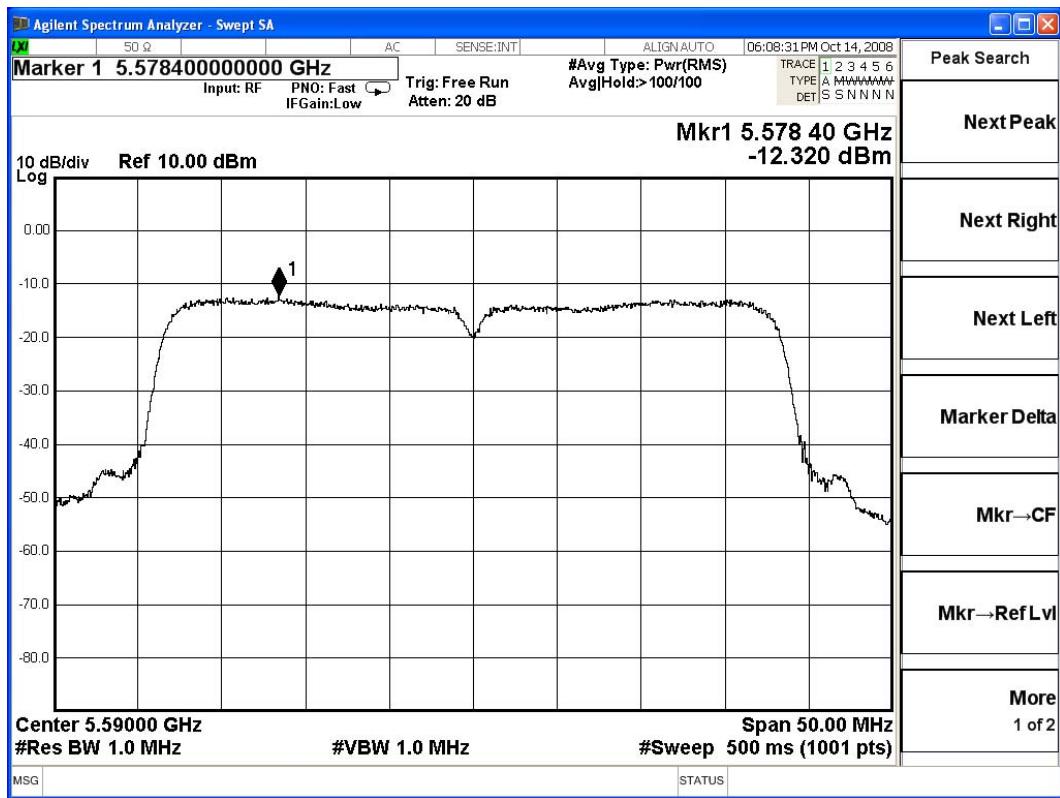
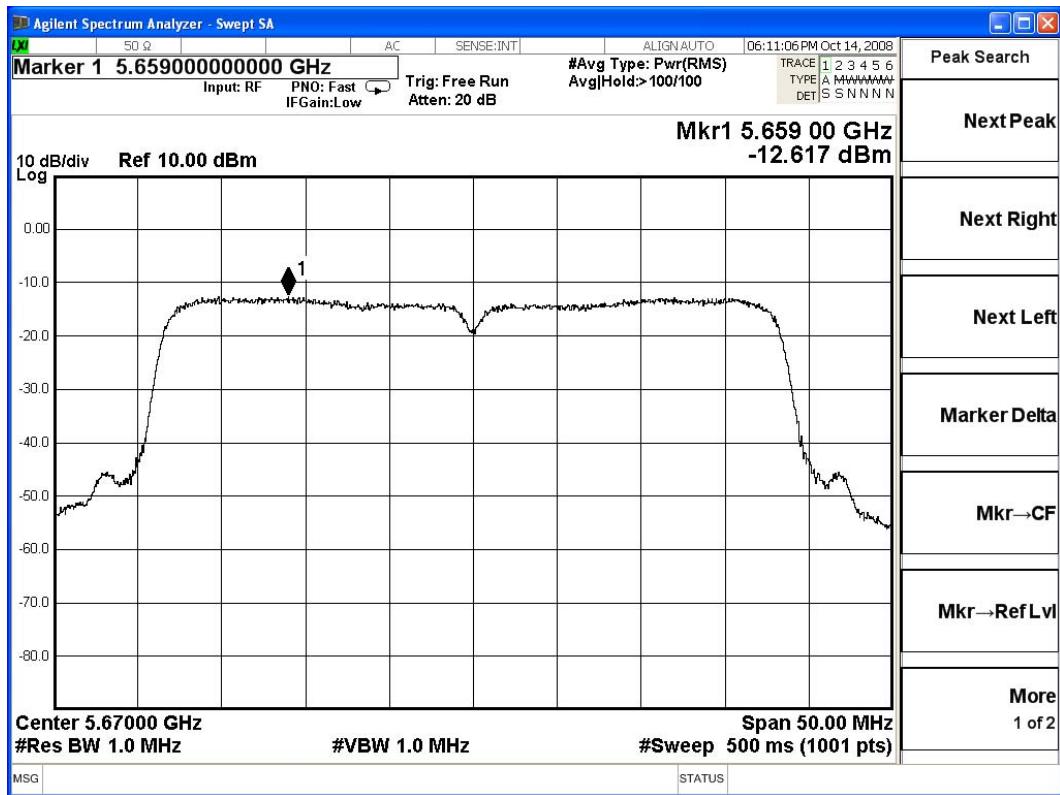
Product : ROS Home Center  
 Test Item : Peak Power Spectral Density  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter 802.11n-40BW\_27Mbps(5G Band)-Antenna A

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
01	5270.00	-10.632	< 11	Pass
02	5310.00	-10.581	< 11	Pass
03	5510.00	-12.897	< 11	Pass
05	5590.00	-12.320	< 11	Pass
07	5670.00	-12.617	< 11	Pass

### Ant A-Channel 01:



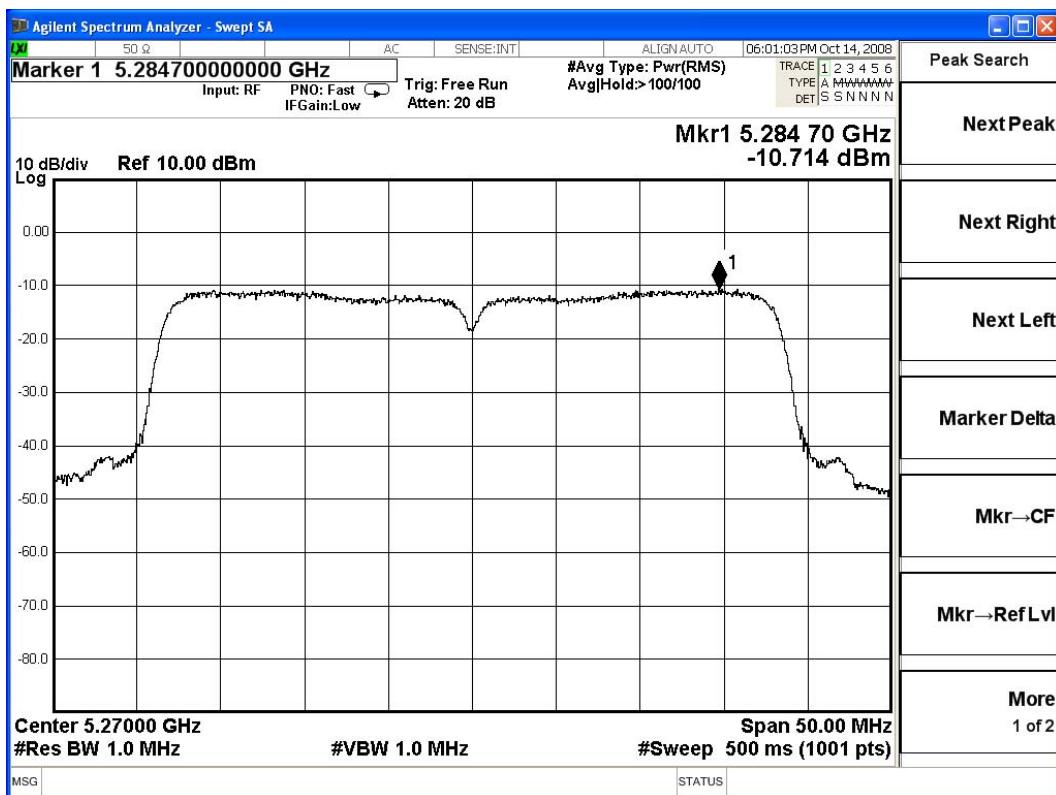
**Ant A-Channel 02:**

**Ant A-Channel 03:**


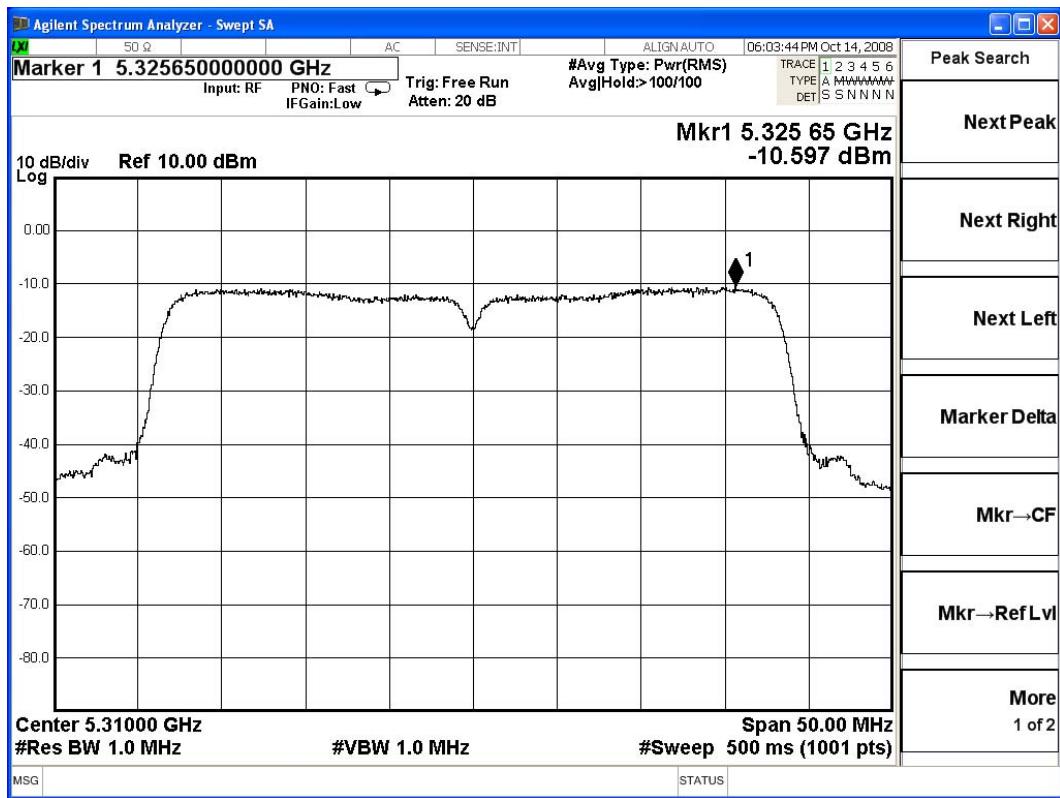
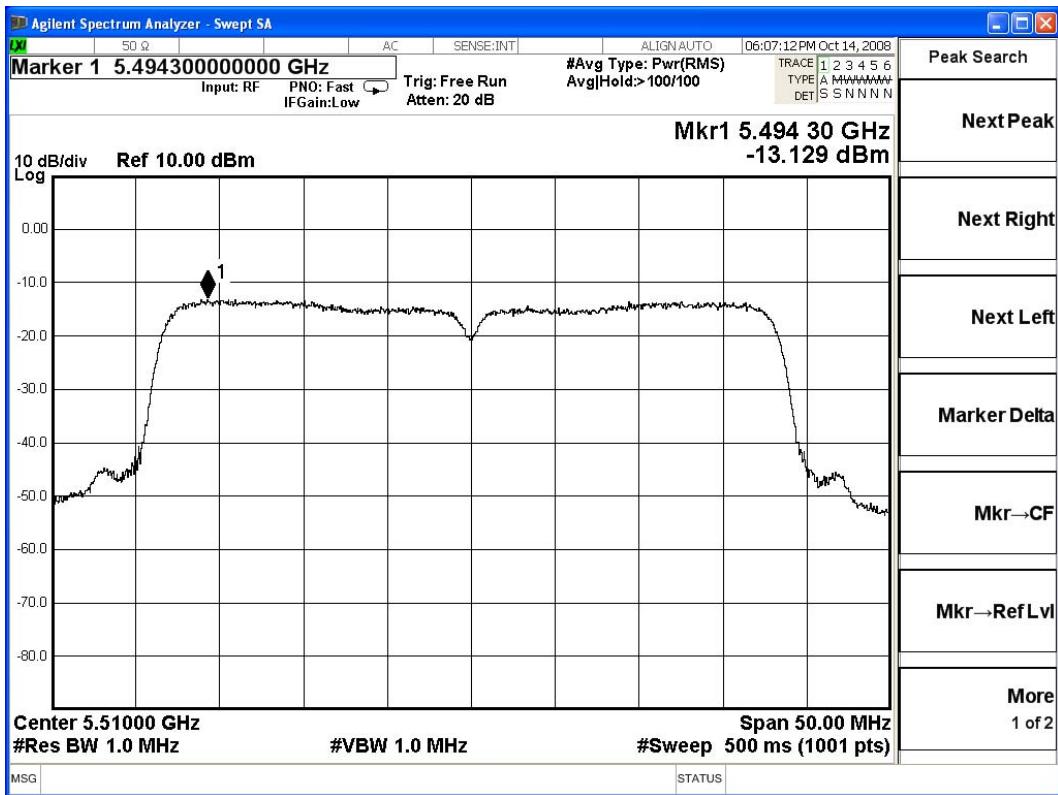
**Ant A-Channel 05:**

**Ant A-Channel 07:**


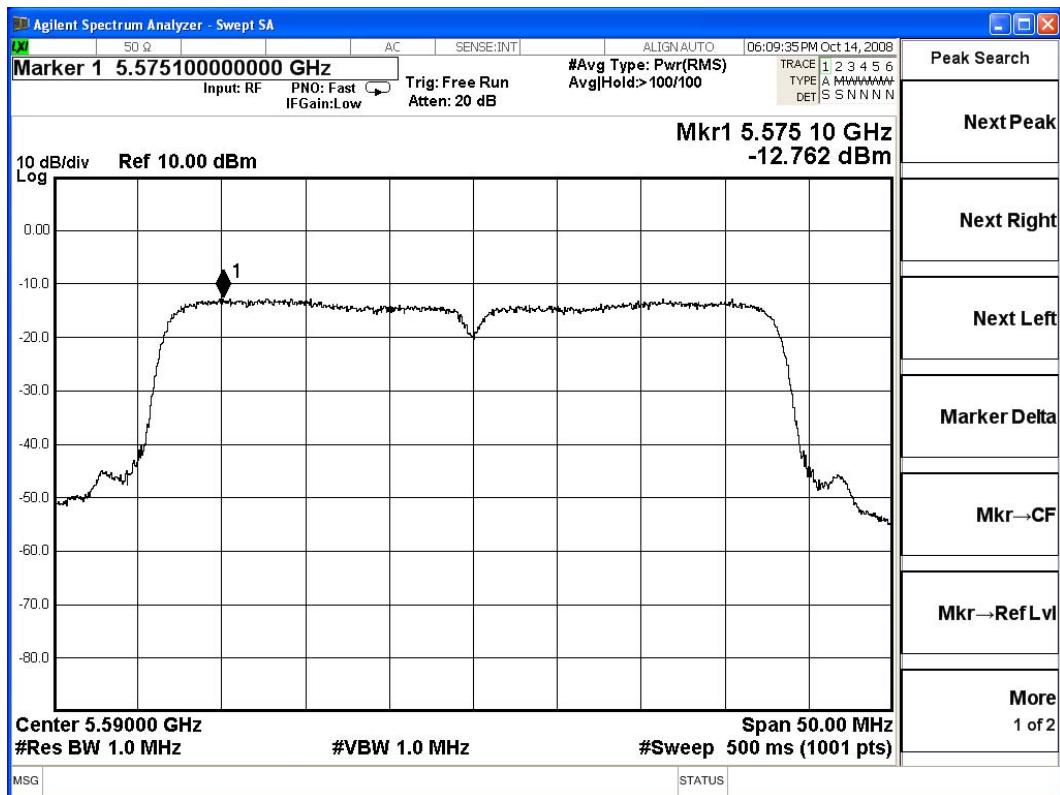
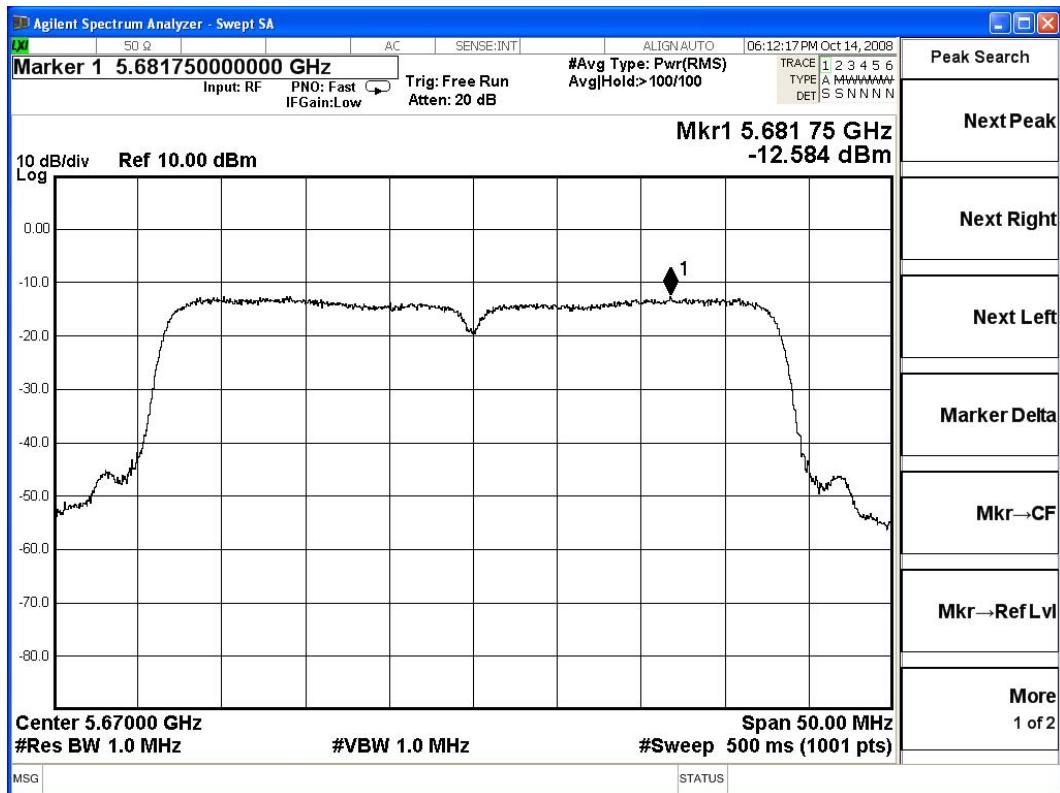
Product : ROS Home Center  
 Test Item : Peak Power Spectral Density  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmitter 802.11n-40BW\_27Mbps(5G Band)-Antenna B

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
01	5190.00	-10.714	< 11	Pass
02	5230.00	-10.597	< 11	Pass
03	5510.00	-13.129	< 11	Pass
05	5590.00	-12.762	< 11	Pass
07	5670.00	-12.584	< 11	Pass

### Ant B-Channel 01:



**Ant B-Channel 02:**

**Ant B-Channel 03:**


**Ant B-Channel 05:**

**Ant B-Channel 07:**


## 5. Peak Excursion

### 5.1. Test Equipment

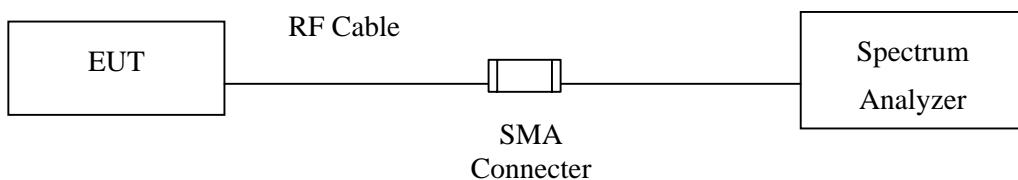
The following test equipments are used during the radiated emission tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008
X Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2008

Note: 1. All equipments are calibrated every one year.  
2. The test instruments marked by “X” are used to measure the final test results.

### 5.2. Test Setup

#### Conduction Power Measurement



### 5.3. Limits

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

### 5.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Aug 2002 DA 02-2138 for compliance to FCC 47CFR Subpart E requirements.

### 5.5. Uncertainty

± 1.27 dB