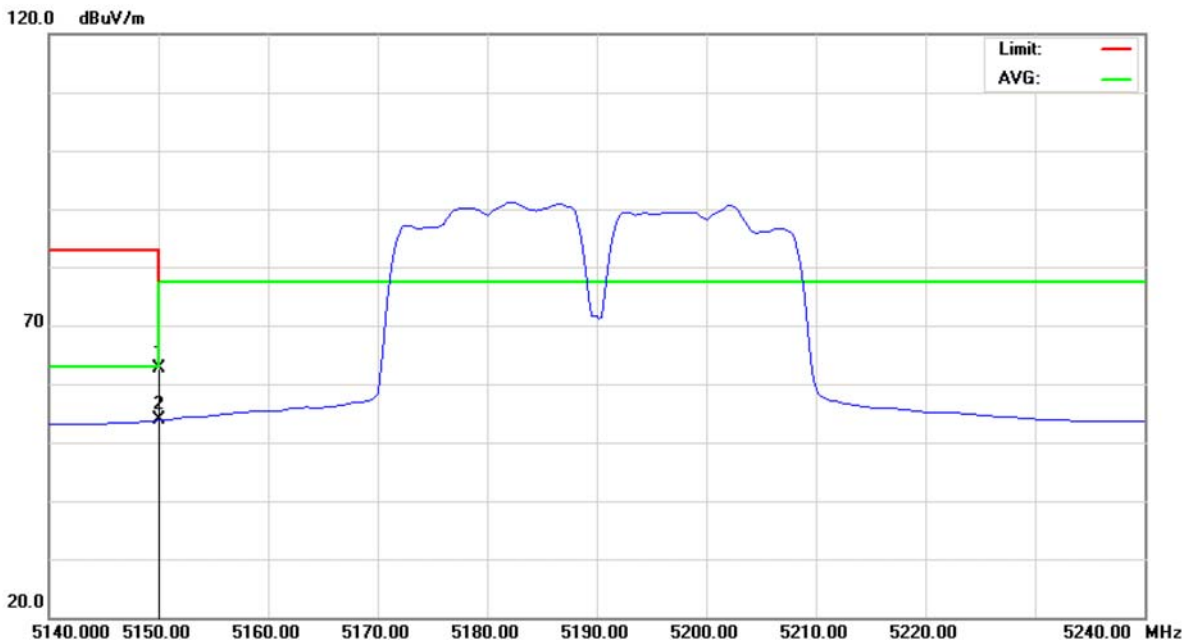




E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/5190 MHz		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 4500-5150 MHz.		

**Polarization: Vertical**

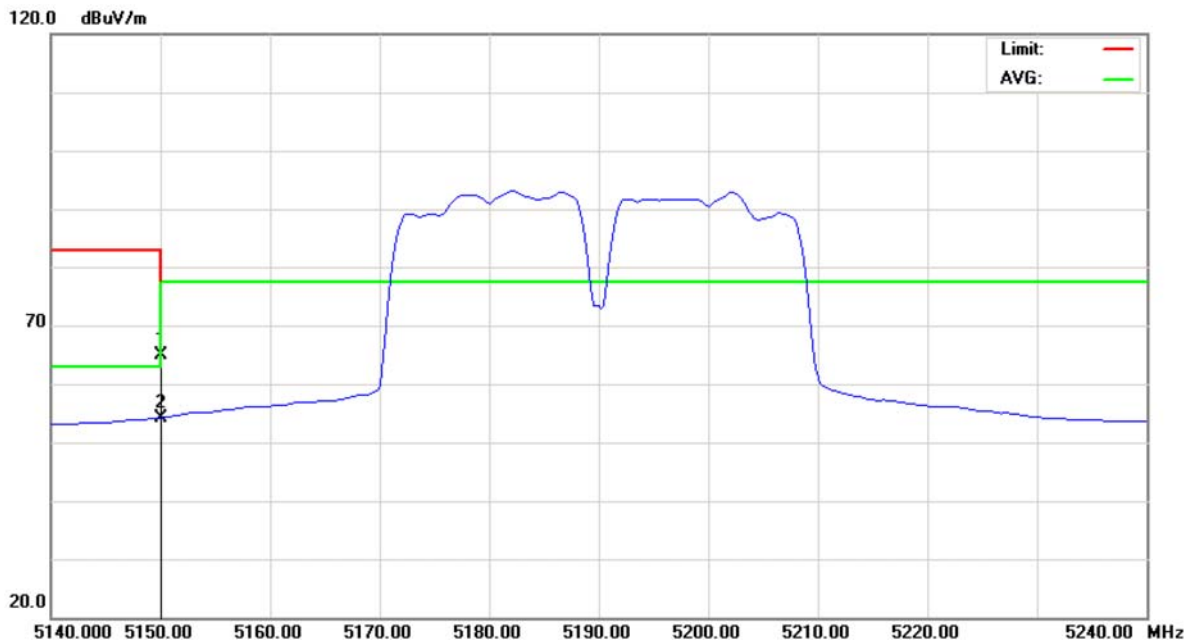


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	5150.000	21.83	40.92	62.75	77.30	-14.55	peak	
2 *	5150.000	12.87	40.92	53.79	63.00	-9.21	AVG	



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/5190 MHz		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 4500-5150 MHz.		

**Polarization: Horizontal**

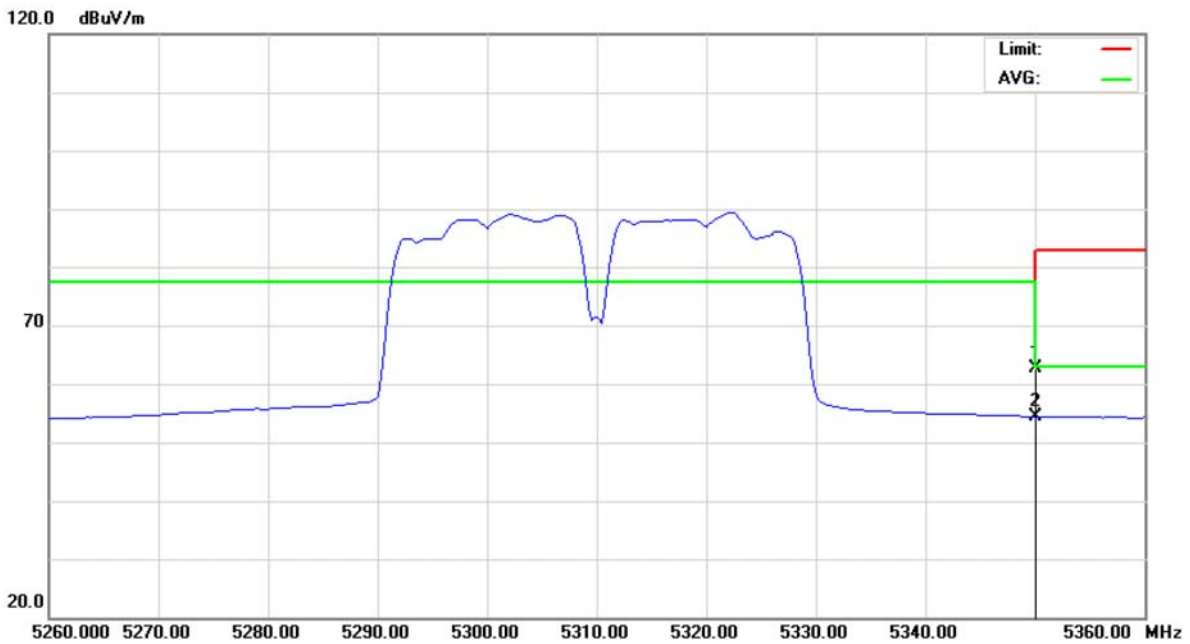


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	5150.000	24.03	40.92	64.95	77.30	-12.35	peak	
2 *	5150.000	13.31	40.92	54.23	63.00	-8.77	AVG	



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/5310 MHz		
NOTE	The transmitter was setup to transmit at the highest channel and the field strength was measured at 5350-5460 MHz.		

**Polarization: Horizontal**

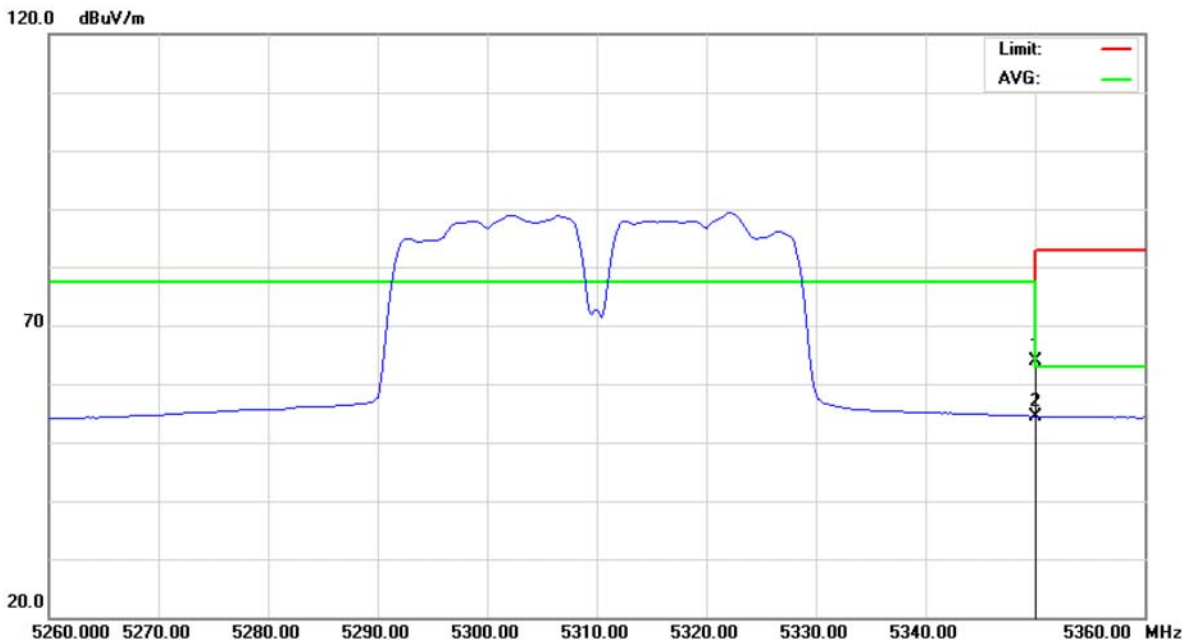


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	5350.000	21.36	41.24	62.60	77.30	-14.70	peak	
2 *	5350.000	13.25	41.24	54.49	63.00	-8.51	AVG	



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/5310 MHz		
NOTE	The transmitter was setup to transmit at the highest channel and the field strength was measured at 5350-5460 MHz.		

**Polarization: Horizontal**

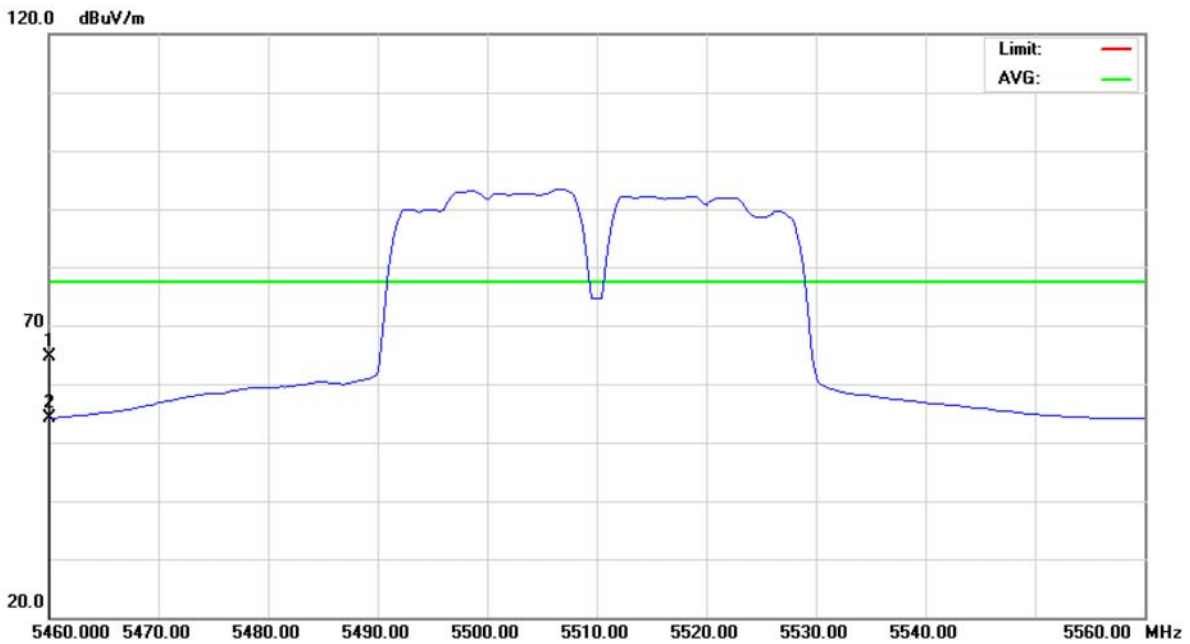


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	5350.000	22.57	41.24	63.81	77.30	-13.49	peak	
2 *	5350.000	13.24	41.24	54.48	63.00	-8.52	AVG	



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/5510 MHz		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 5350-5460 MHz.		

**Polarization: Horizontal**

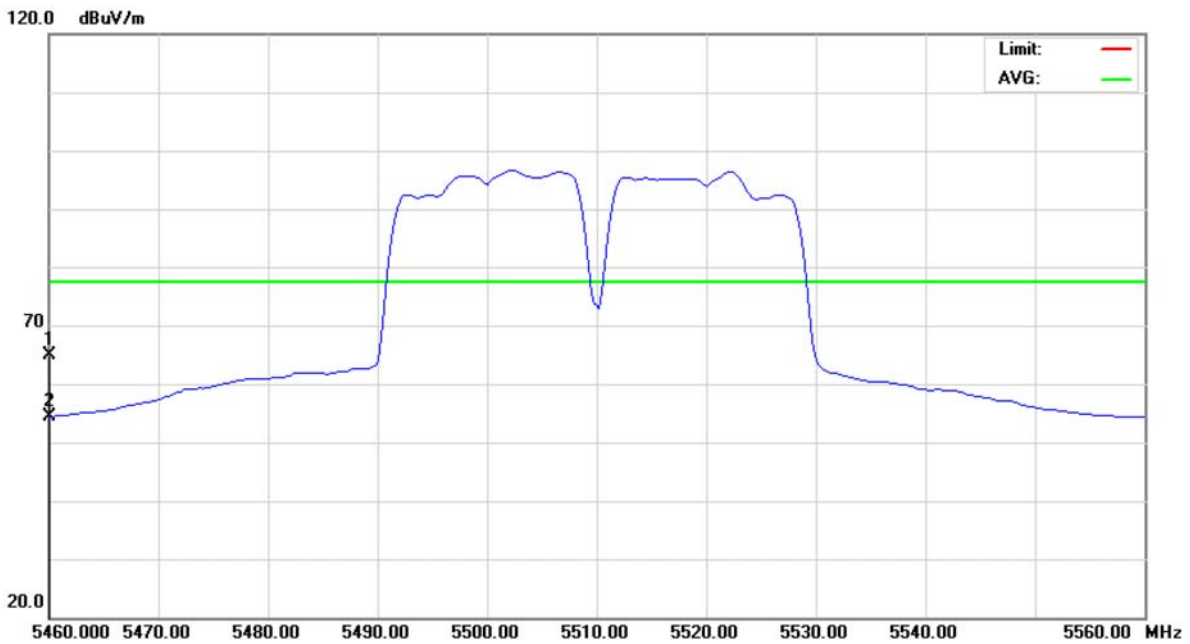


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		5460.000	23.11	41.41	64.52	77.30	-12.78	peak	
2	*	5460.000	12.75	41.41	54.16	63.00	-8.84	AVG	



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	24°C	Relative Humidity	46%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/5510 MHz		
NOTE	The transmitter was setup to transmit at the lowest channel and the field strength was measured at 5350-5460 MHz.		

**Polarization: Horizontal**



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1		5460.000	23.51	41.41	64.92	77.30	-12.38	peak	
2	*	5460.000	12.94	41.41	54.35	63.00	-8.65	AVG	



**10 POWER SPECTRAL DENSITY**

**10.1 LIMIT**

Test Item	Frequency Range (MHz)	Limit
Power Spectral Density	5150 - 5250	4 dBm
	5250 - 5350	11 dBm
	5470 - 5725	11 dBm
	5725 - 5825	17 dBm

**10.2 MEASUREMENT INSTRUMENTS LIST**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 06, 2012

NOTE: **N/A**: denotes No Model Name, No Serial No. or No Calibration specified.

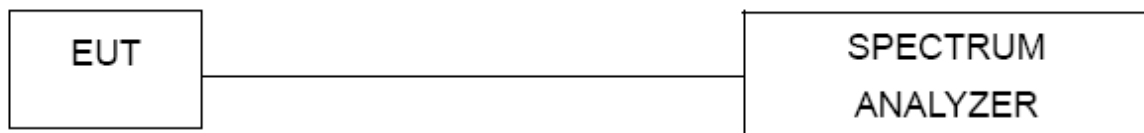
**10.3 MEASURING INSTRUMENTS SETTING**

Spectrum Analyzer	Parameter Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	1000 kHz
VB	3000 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

**10.4 TEST PROCEDURES**

The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.

**10.5 TEST SETUP LAYOUT**



**10.6 DEVIATION FROM TEST STANDARD**

No deviation



### **10.7 EUT OPERATING CONDITIONS**

The EUT tested system was configured as the statements of 5.6 Unless otherwise a special operating condition is specified in the follows during the testing.



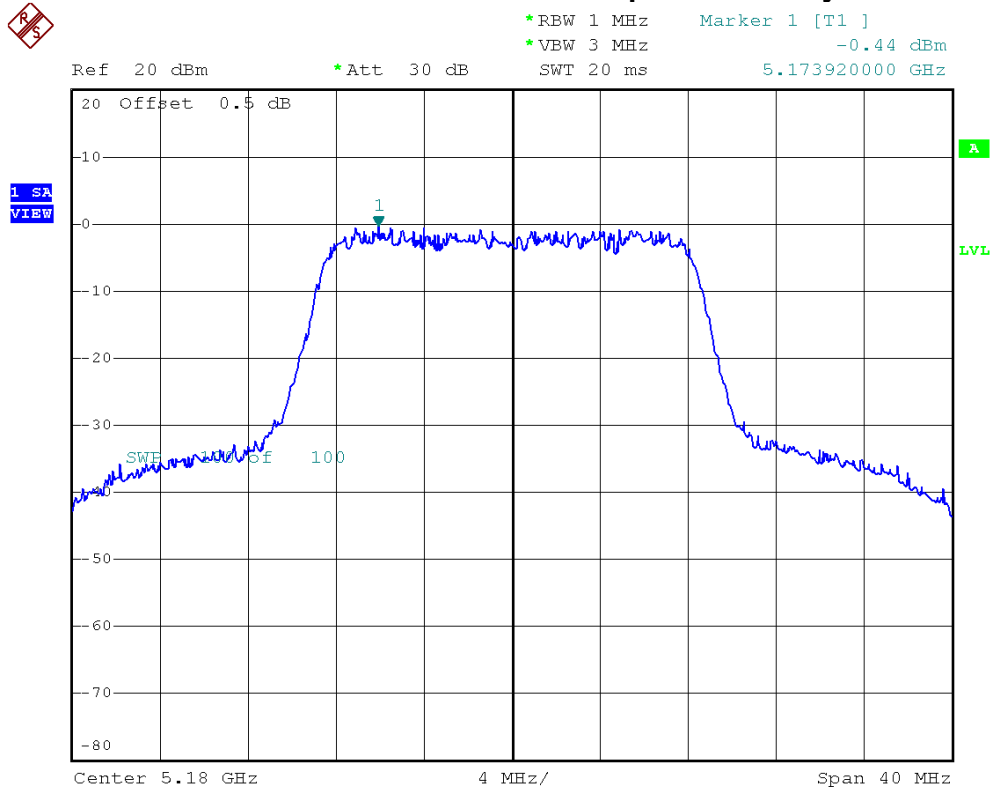


**10.8 TEST RESULTS - 5150-5250 MHZ**

E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11a/5180 MHz, 5200 MHz, 5240 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5180 MHz	-0.44	4.00	PASS
5200 MHz	-1.14	4.00	PASS
5240 MHz	0.35	4.00	PASS

**IEEE 802.11a/5180 MHz/Power Spectral Density**





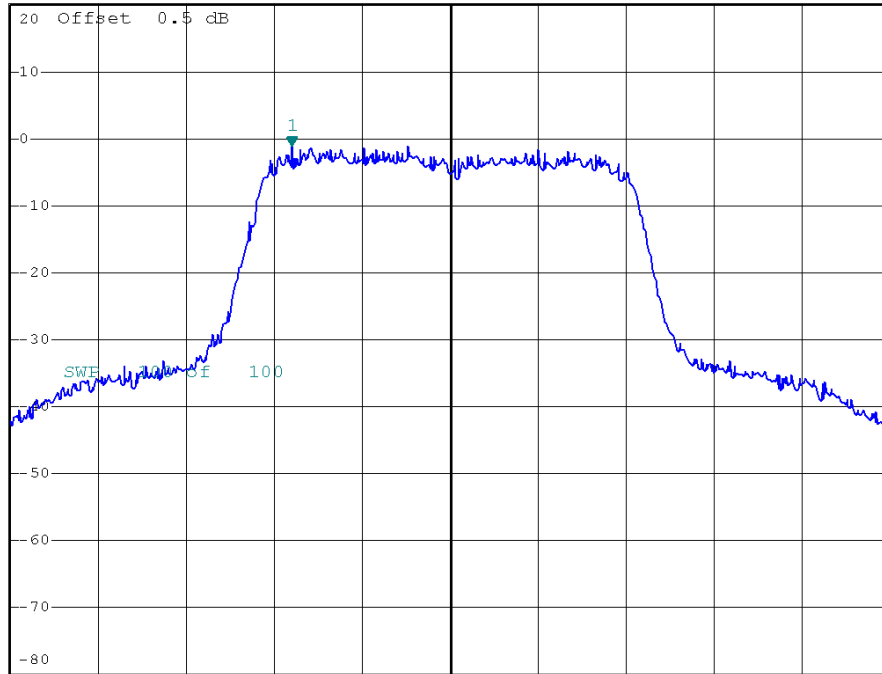
### IEEE 802.11a/5200 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -1.14 dBm  
SWT 20 ms    5.192800000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



Center 5.2 GHz    4 MHz/    Span 40 MHz

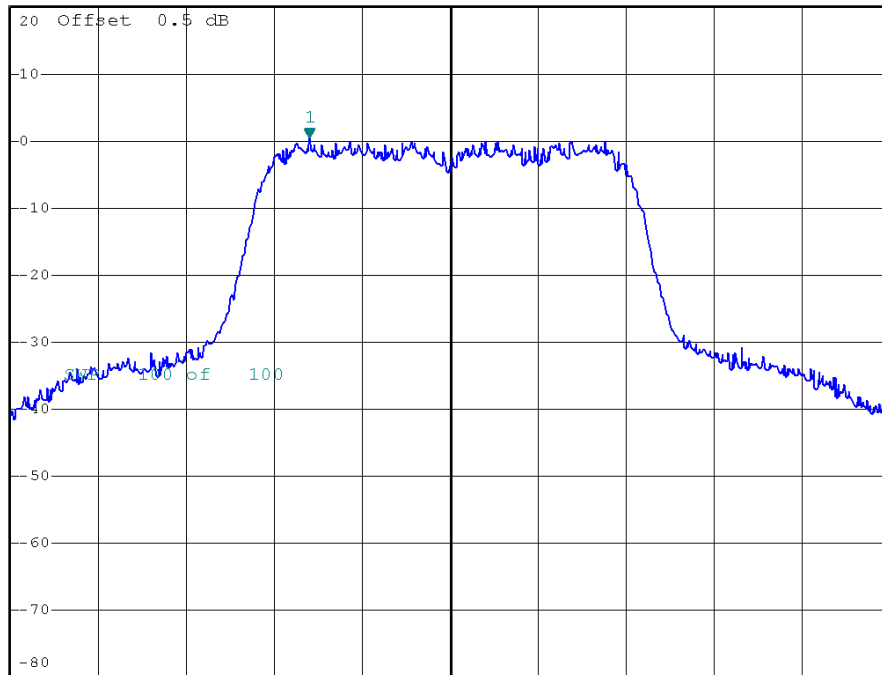
### IEEE 802.11a/5240 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    0.35 dBm  
SWT 20 ms    5.233600000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



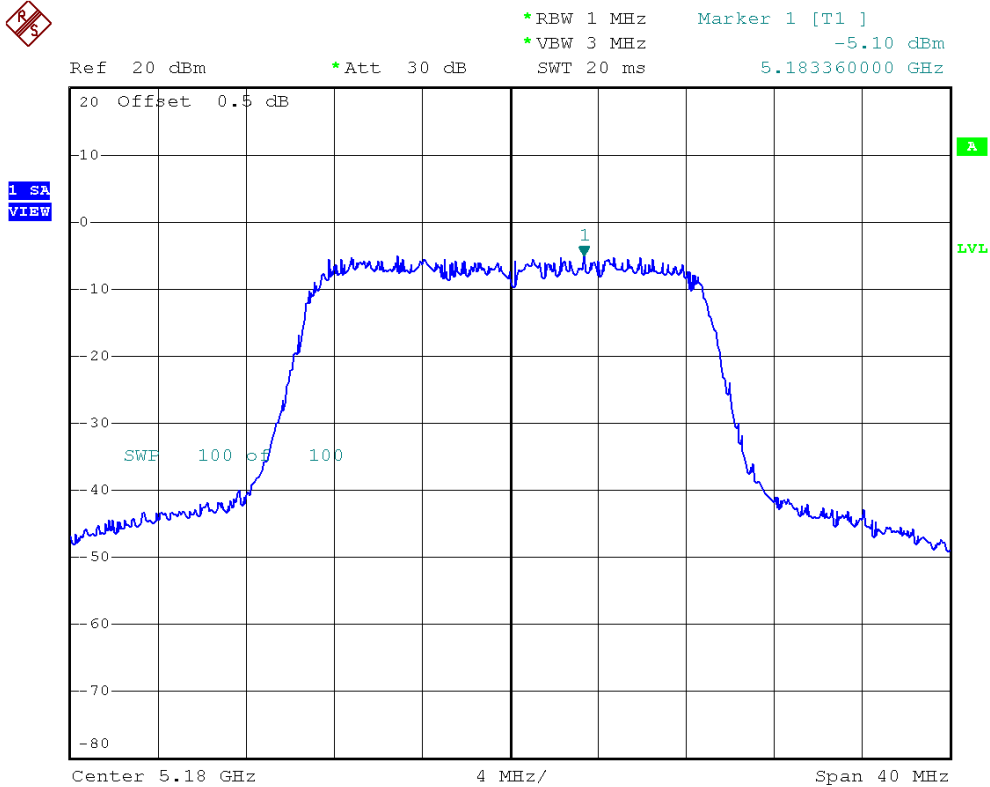
Center 5.24 GHz    4 MHz/    Span 40 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.1/5180 MHz, 5200 MHz, 5240 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5180 MHz	-5.10	4.00	PASS
5200 MHz	-5.61	4.00	PASS
5240 MHz	-4.83	4.00	PASS

**IEEE 802.11n (20 MHz)/ANT.1/5180 MHz/Power Spectral Density**





### IEEE 802.11n (20 MHz)/ANT.1/5200 MHz/Power Spectral Density

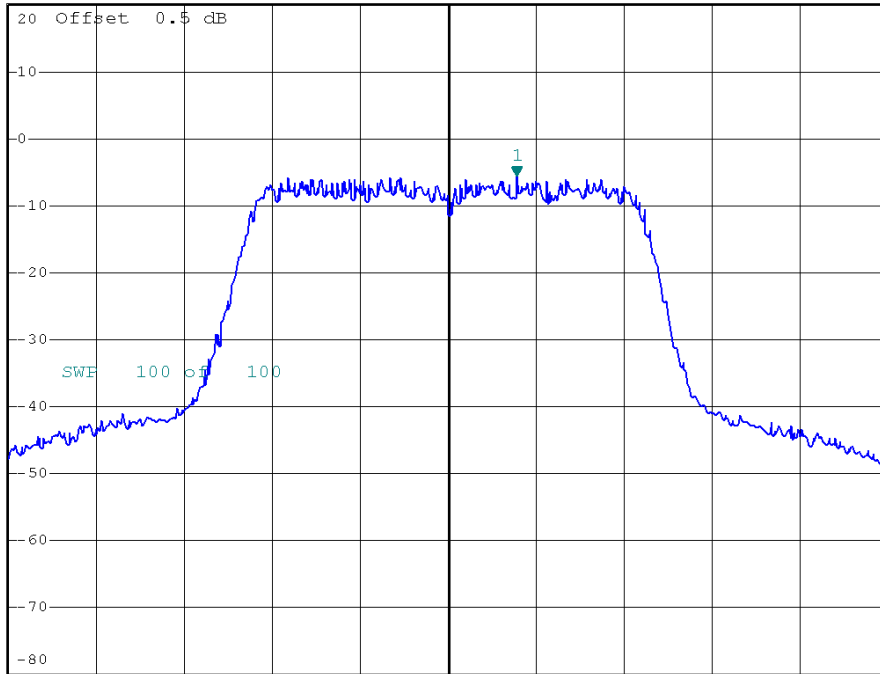


\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -5.61 dBm  
SWT 20 ms    5.203120000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.2 GHz

4 MHz/

Span 40 MHz

### IEEE 802.11n (20 MHz)/ANT.1/5240 MHz/Power Spectral Density

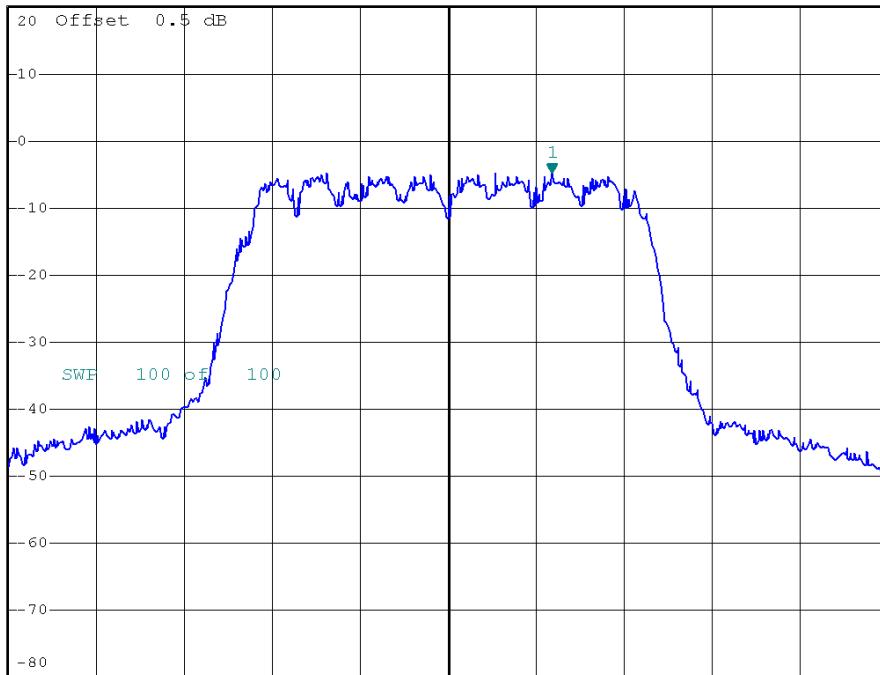


\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -4.83 dBm  
SWT 20 ms    5.244720000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.24 GHz

4 MHz/

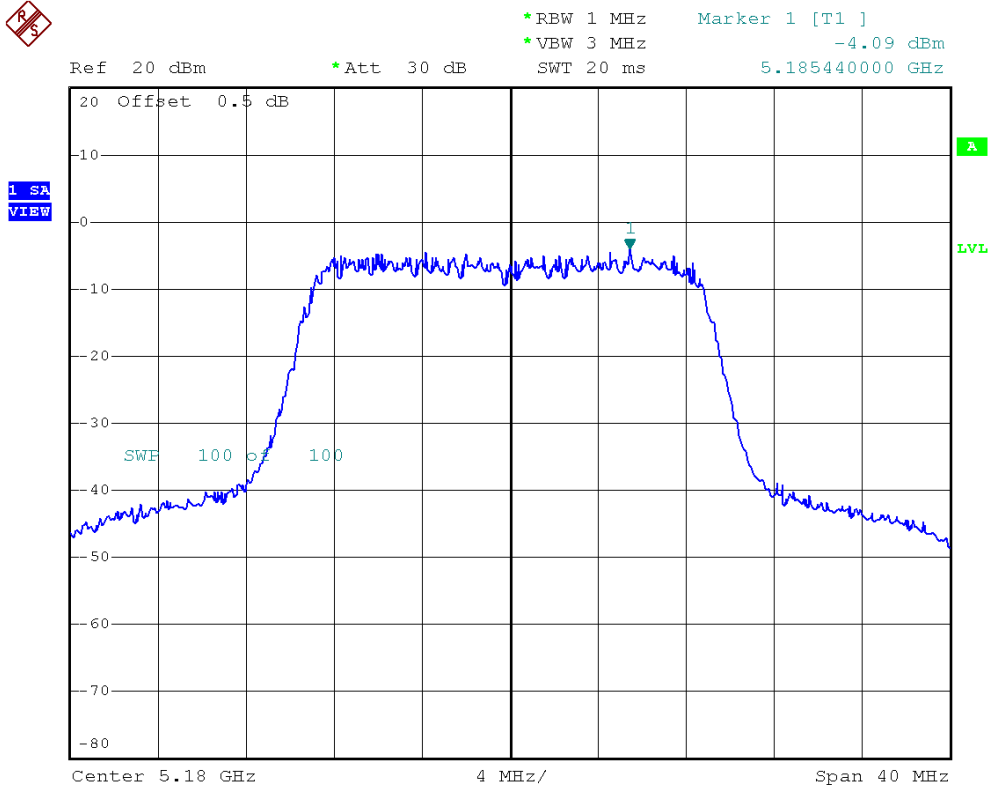
Span 40 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.2/5180 MHz, 5200 MHz, 5240 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5180 MHz	-4.09	4.00	PASS
5200 MHz	-4.62	4.00	PASS
5240 MHz	-4.76	4.00	PASS

**IEEE 802.11n (20 MHz)/ANT.2/5180 MHz/Power Spectral Density**

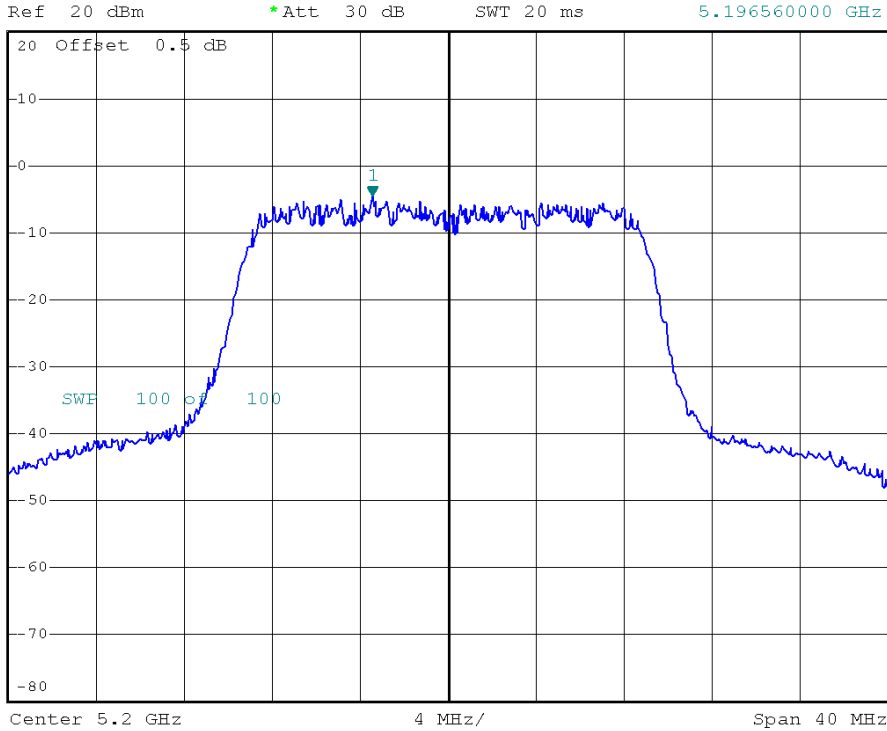




### IEEE 802.11n (20 MHz)/ANT.2/5200 MHz/Power Spectral Density



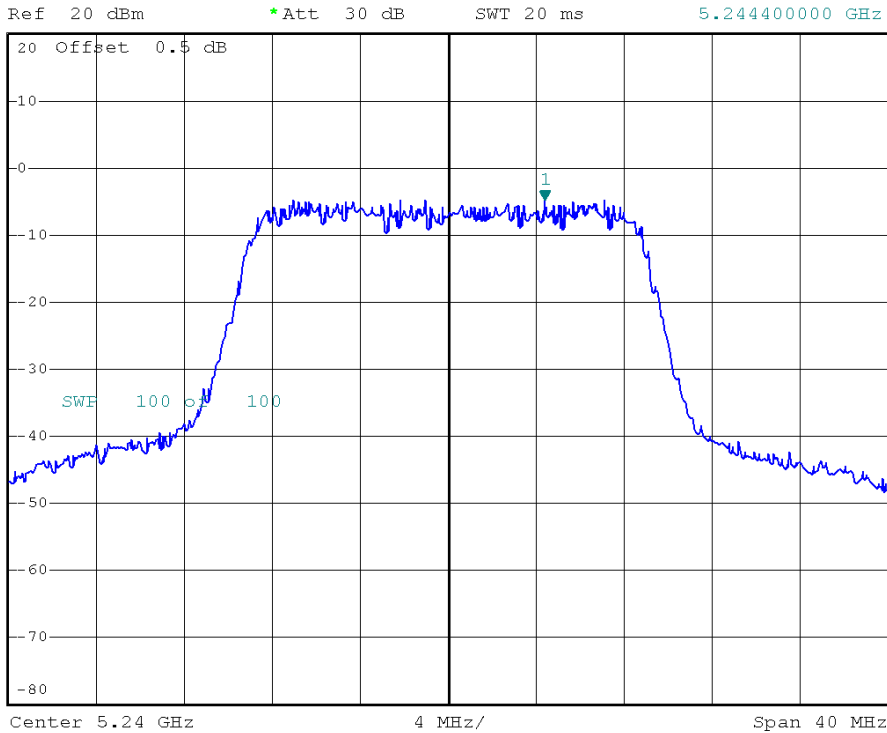
\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -4.62 dBm  
SWT 20 ms    5.196560000 GHz



### IEEE 802.11n (20 MHz)/ANT.2/5240 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -4.76 dBm  
SWT 20 ms    5.244400000 GHz





E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.Total/5180 MHz, 5200 MHz, 5240 MHz		

Frequency	Power Spectral Density		Limit (dBm)	Result
	(dBm)	(mW)		
5180 MHz	-1.56	0.70	4.00	PASS
5200 MHz	-2.08	0.62	4.00	PASS
5240 MHz	-1.78	0.66	4.00	PASS

**NOTE:**

- The MIMO test requirement, RF conducted output power shall measure each transmitter chain by using channel power method.  
And after obtain each individual transmitter chain power, then sum the output power by using the following formula:  

$$((\text{dBm}/\text{Chain 1})/10^{\text{Log}}) + ((\text{dBm}/\text{Chain 2})/10^{\text{Log}}) + ((\text{dBm}/\text{Chain N})/10^{\text{Log}}) = \text{Combined peak output power in mW.}$$



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.1/5190 MHz, 5230 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5190 MHz	-8.46	4.00	PASS
5230 MHz	-7.54	4.00	PASS





IEEE 802.11n (40 MHz)/ANT.1/5190 MHz/Power Spectral Density

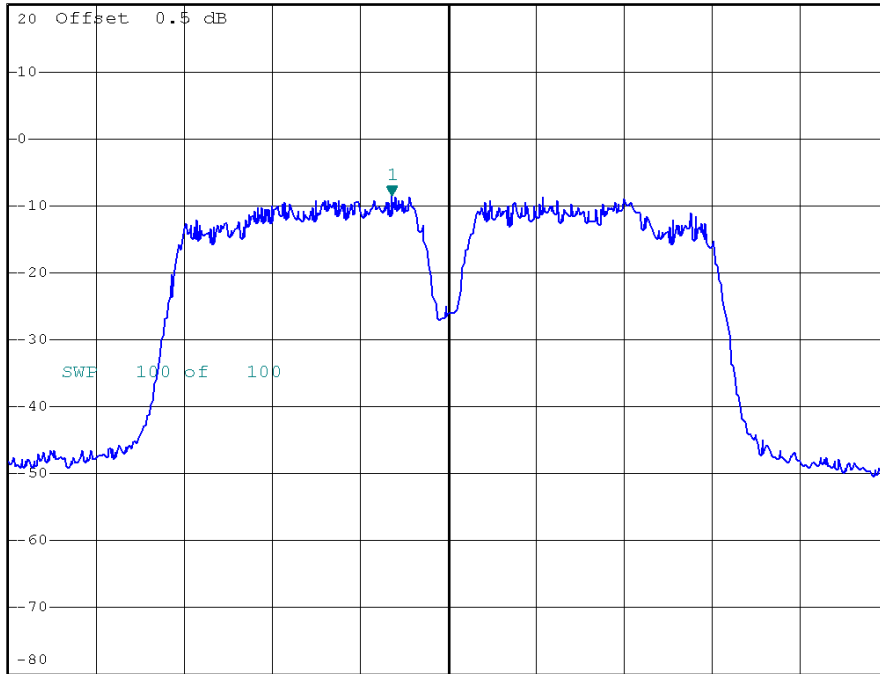


\*RBW 1 MHz Marker 1 [T1 ]  
\*VBW 3 MHz -8.46 dBm  
SWT 20 ms 5.186160000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.19 GHz

6 MHz/

Span 60 MHz

IEEE 802.11n (40 MHz)/ANT.1/5230 MHz/Power Spectral Density

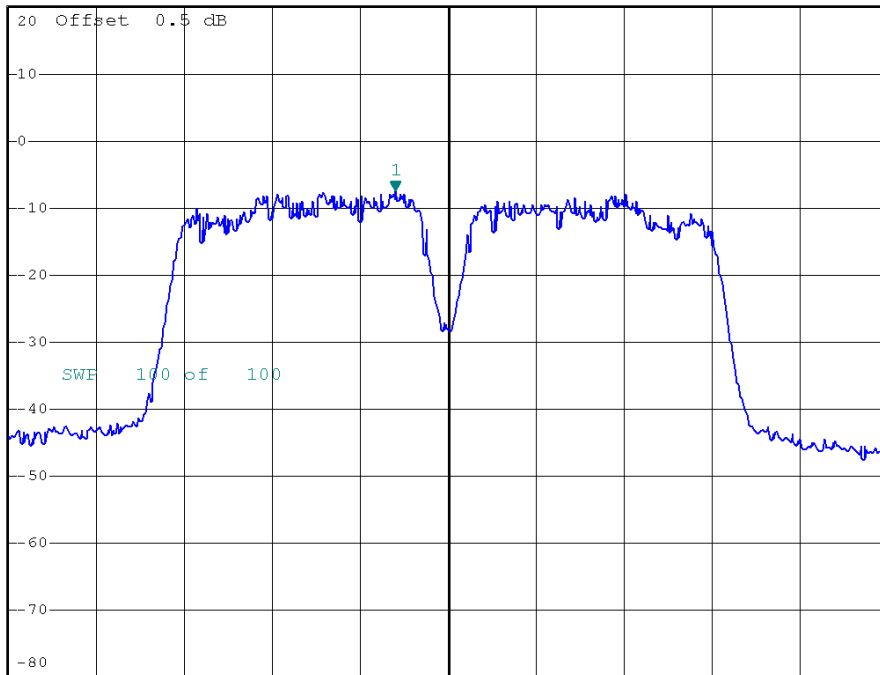


\*RBW 1 MHz Marker 1 [T1 ]  
\*VBW 3 MHz -7.54 dBm  
SWT 20 ms 5.226400000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.23 GHz

6 MHz/

Span 60 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.2/5190 MHz, 5230 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5190 MHz	-7.99	4.00	PASS
5230 MHz	-5.96	4.00	PASS



### IEEE 802.11n (40 MHz)/ANT.2/5190 MHz/Power Spectral Density

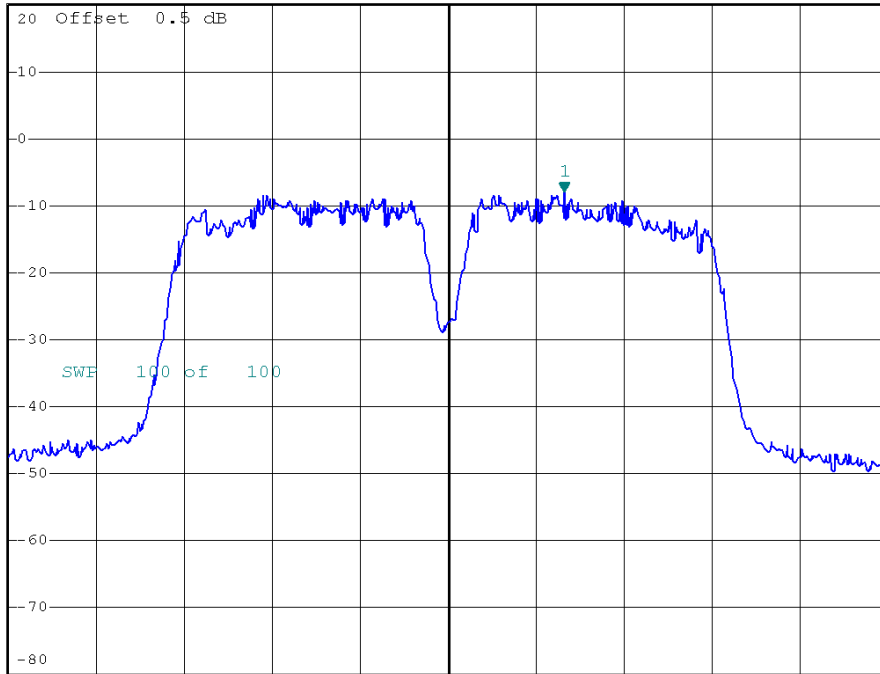


\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -7.99 dBm  
SWT 20 ms    5.197920000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.19 GHz

6 MHz/

Span 60 MHz

### IEEE 802.11n (40 MHz)/ANT.2/5230 MHz/Power Spectral Density

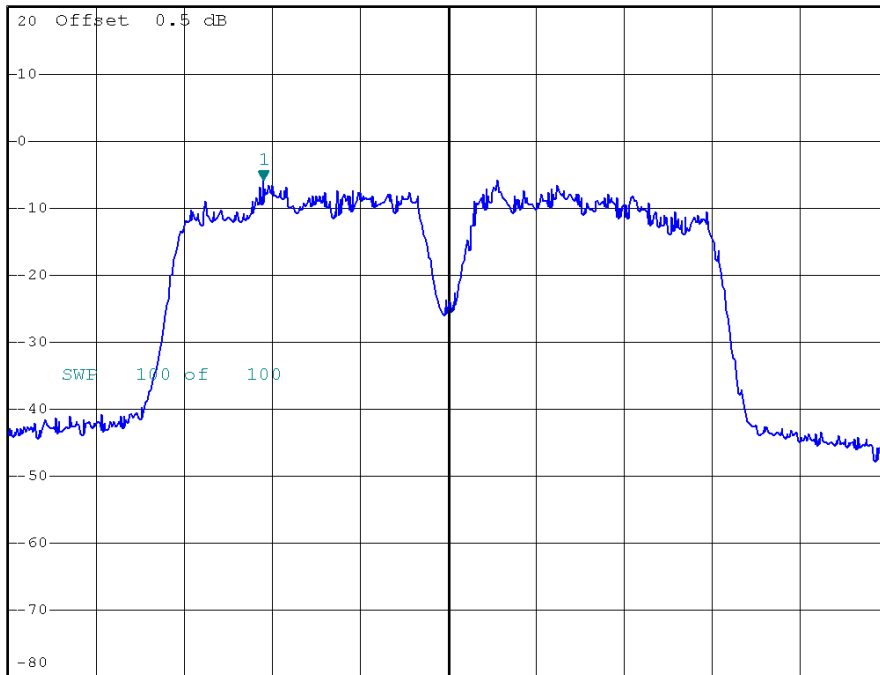


\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -5.96 dBm  
SWT 20 ms    5.217400000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.23 GHz

6 MHz/

Span 60 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.Total/5190 MHz, 5230 MHz		

Frequency	Power Spectral Density		Limit (dBm)	Result
	(dBm)	(mW)		
5190 MHz	-5.21	0.3014	4.00	PASS
5230 MHz	-3.67	0.4297	4.00	PASS

**NOTE:**

- The MIMO test requirement, RF conducted output power shall measure each transmitter chain by using channel power method.  
 And after obtain each individual transmitter chain power, then sum the output power by using the following formula:  
 $((\text{dBm}/\text{Chain 1})/10^{\text{Log}}) + ((\text{dBm}/\text{Chain 2})/10^{\text{log}}) + ((\text{dBm}/\text{ChainN})/10^{\text{log}}) = \text{Combined peak output power in mW.}$

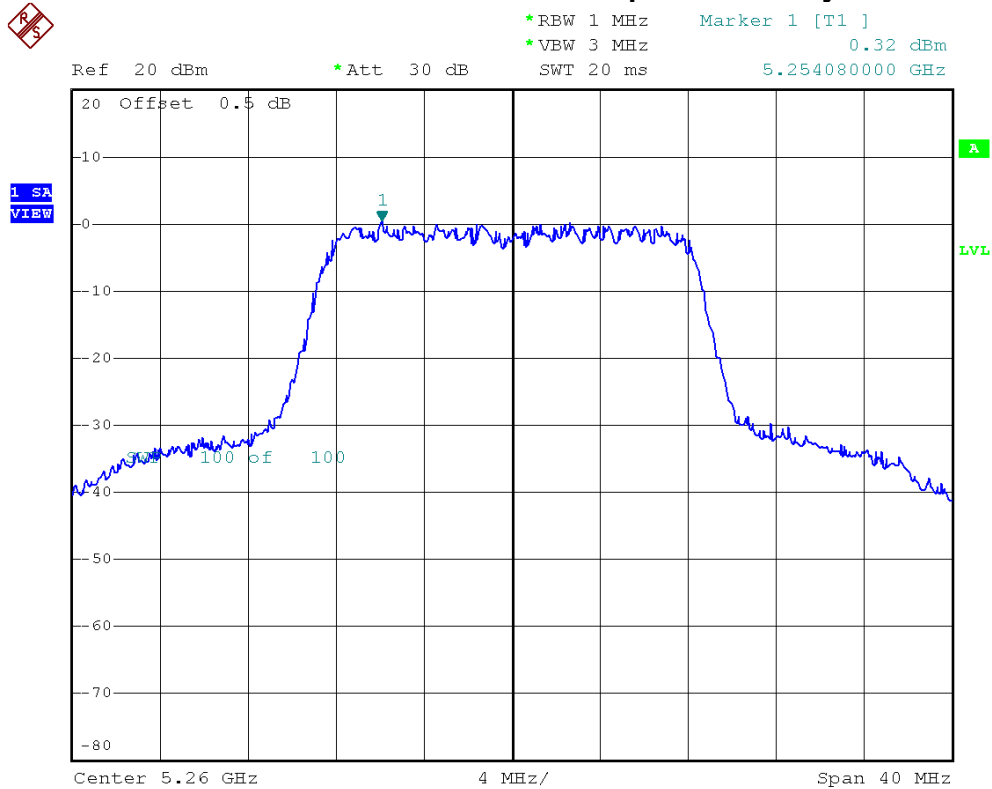


**10.9 TEST RESULTS - 5250-5350 MHz**

E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11a/5260 MHz, 5300 MHz, 5320 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5260 MHz	0.32	11.00	PASS
5300 MHz	0.26	11.00	PASS
5320 MHz	0.91	11.00	PASS

**IEEE 802.11a/5260 MHz/Power Spectral Density**

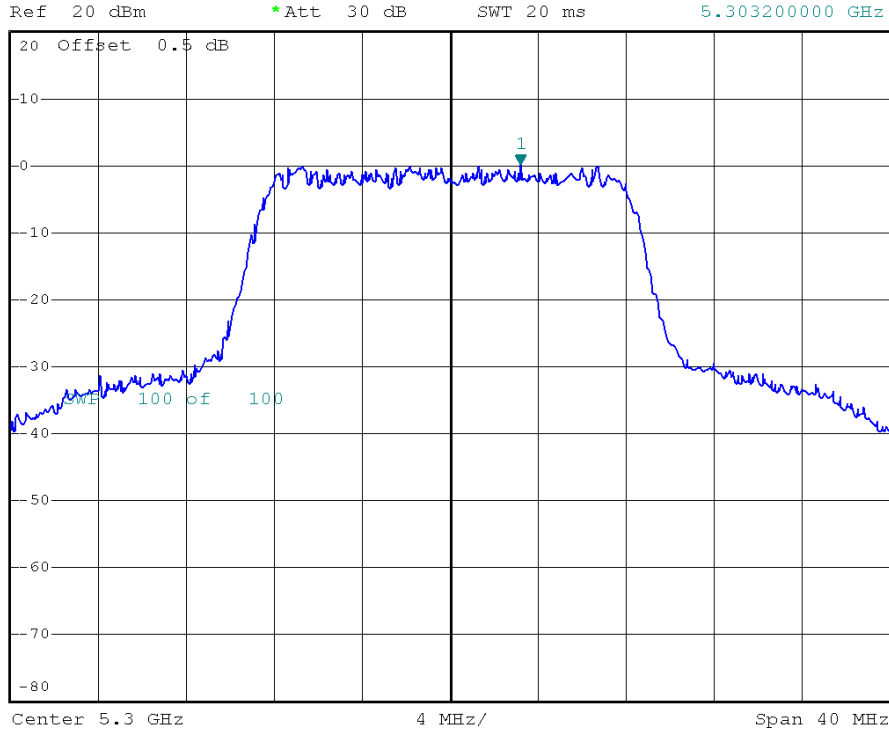




### IEEE 802.11a/5300 MHz/Power Spectral Density



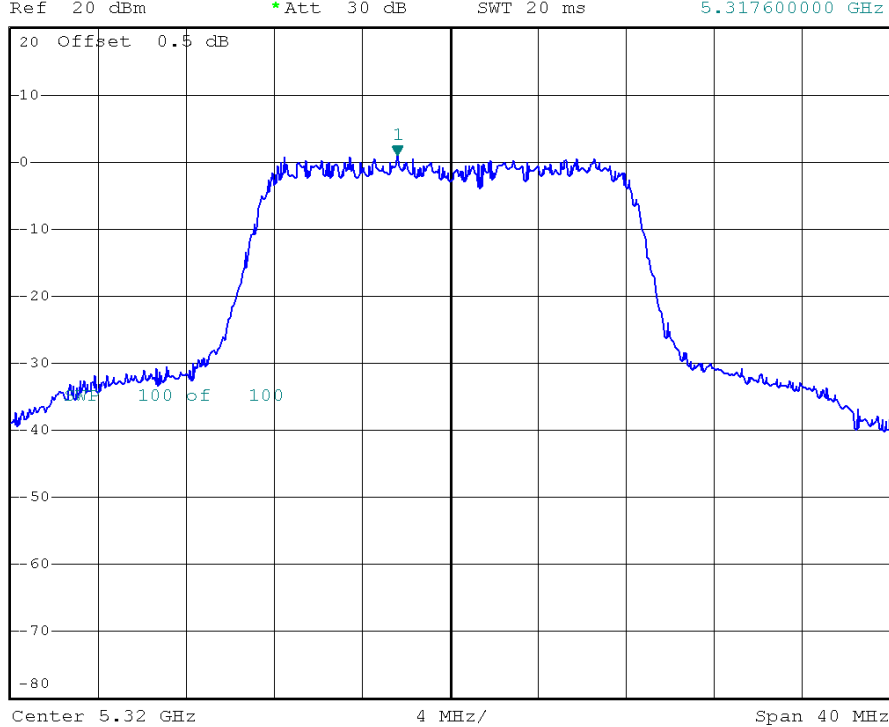
\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    0.26 dBm  
SWT 20 ms    5.303200000 GHz



### IEEE 802.11a/5320 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    0.91 dBm  
SWT 20 ms    5.317600000 GHz

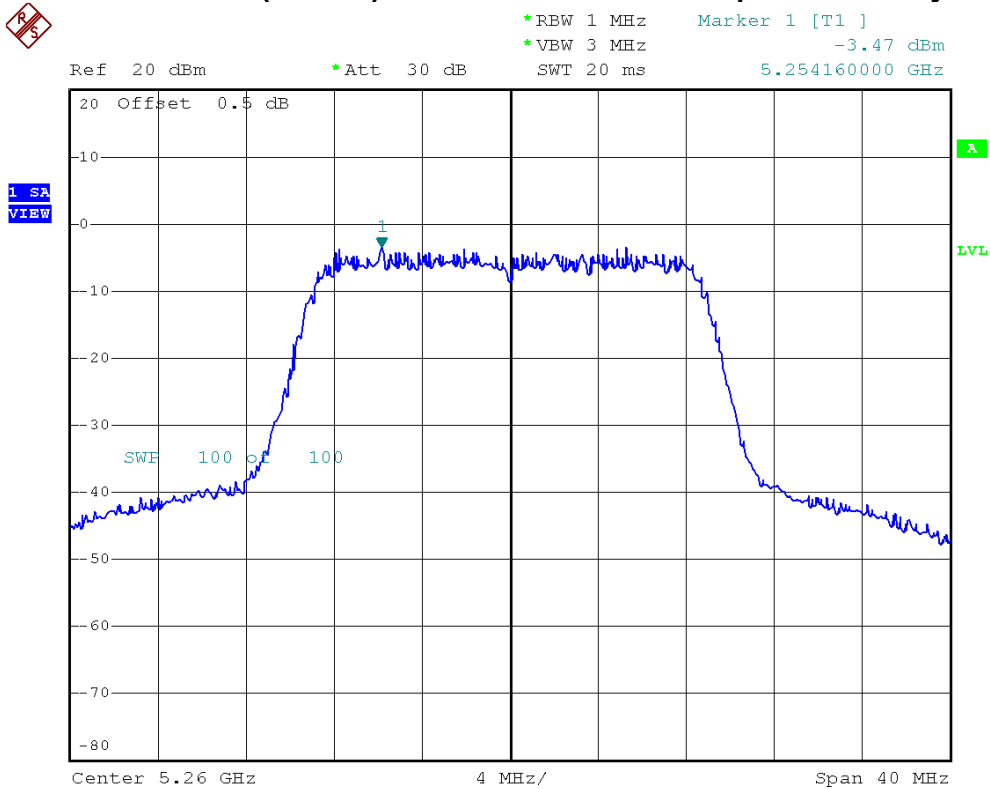




E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.1/5260 MHz, 5300 MHz, 5320 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5260 MHz	-3.47	11.00	PASS
5300 MHz	-2.64	11.00	PASS
5320 MHz	-3.27	11.00	PASS

**IEEE 802.11n (20 MHz)/ANT.1/5260 MHz/Power Spectral Density**





### IEEE 802.11n (20 MHz)/ANT.1/5300 MHz/Power Spectral Density

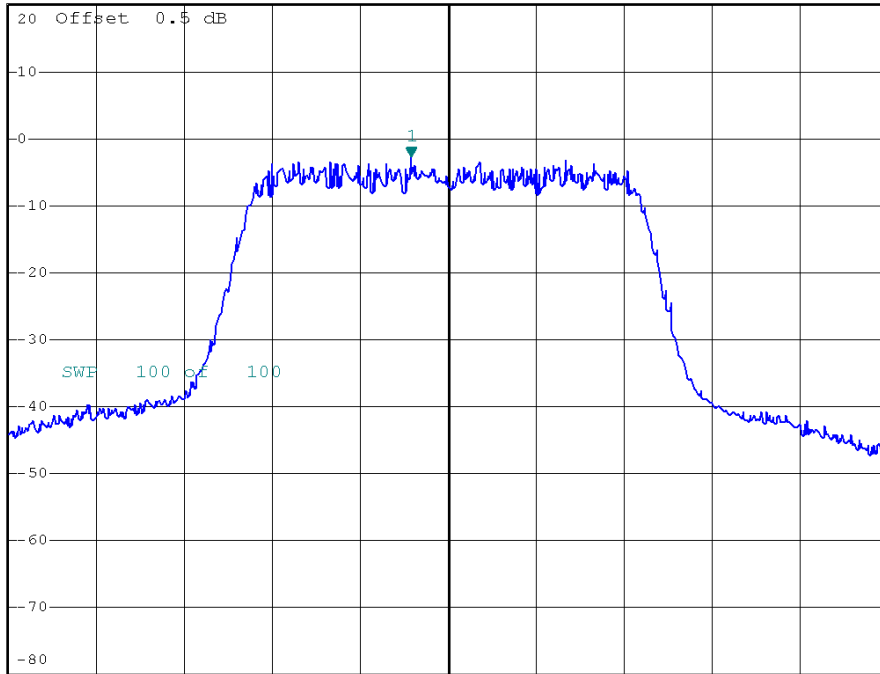


\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -2.64 dBm  
SWT 20 ms    5.298320000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.3 GHz

4 MHz/

Span 40 MHz

### IEEE 802.11n (20 MHz)/ANT.1/5320 MHz/Power Spectral Density

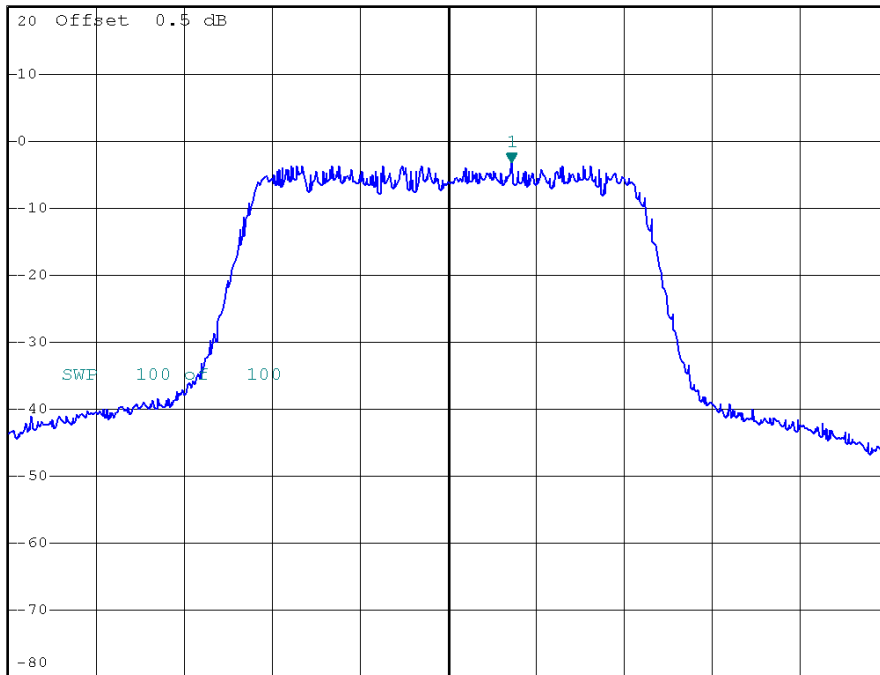


\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -3.27 dBm  
SWT 20 ms    5.322880000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.32 GHz

4 MHz/

Span 40 MHz

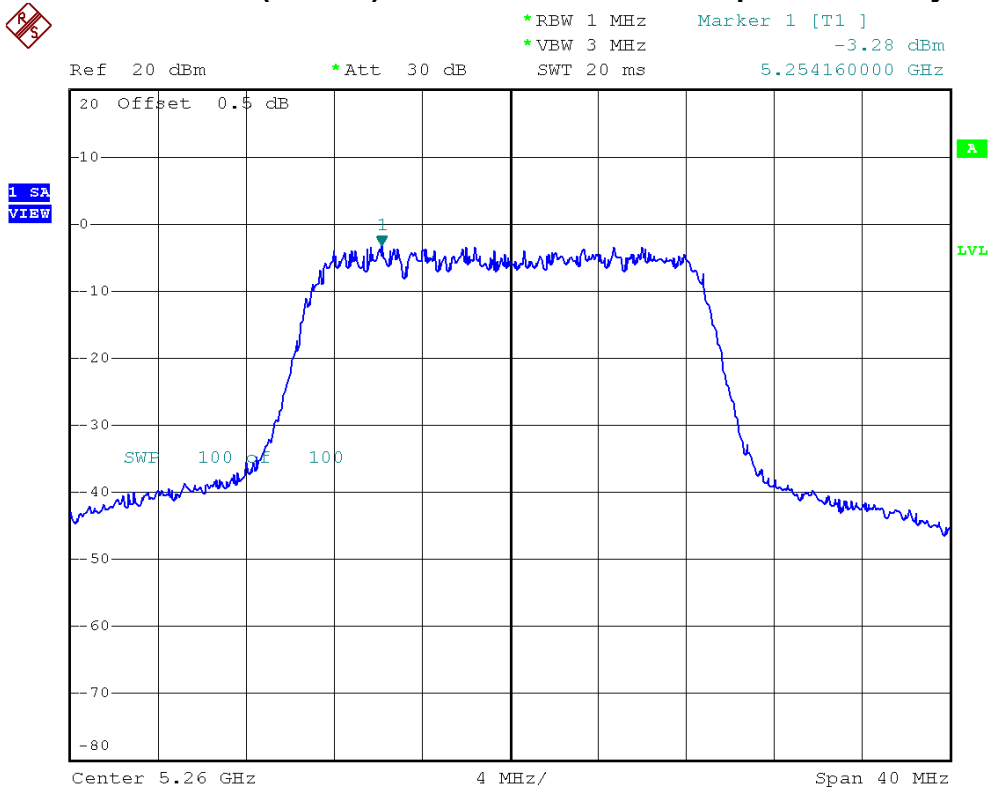




E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.2/5260 MHz, 5300 MHz, 5320 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5260 MHz	-3.28	11.00	PASS
5300 MHz	-2.07	11.00	PASS
5320 MHz	-2.34	11.00	PASS

**IEEE 802.11n (20 MHz)/ANT.2/5260 MHz/Power Spectral Density**



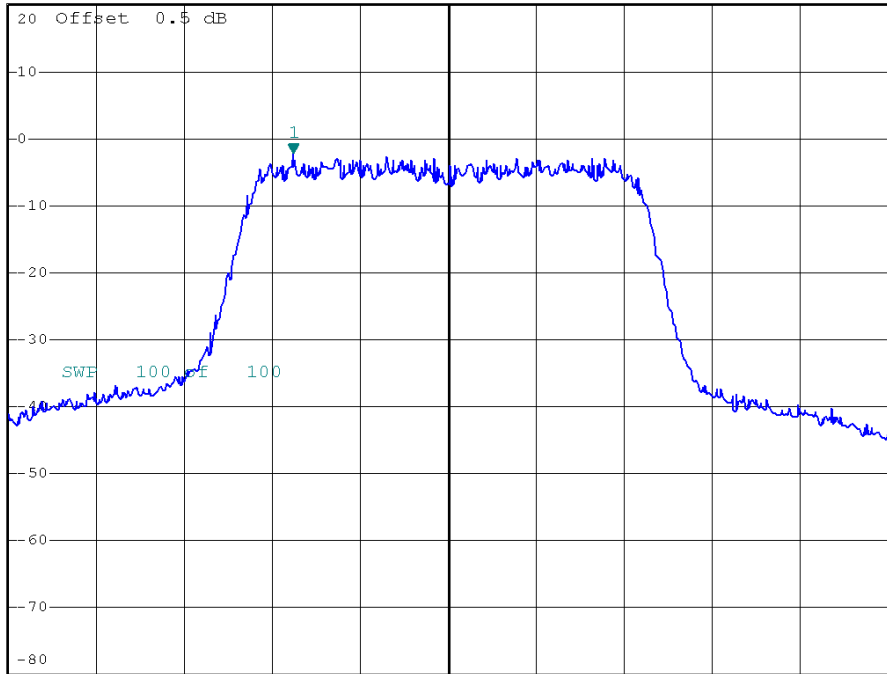


### IEEE 802.11n (20 MHz)/ANT.2/5300 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -2.07 dBm  
SWT 20 ms    5.292960000 GHz

Ref 20 dBm    \*Att 30 dB

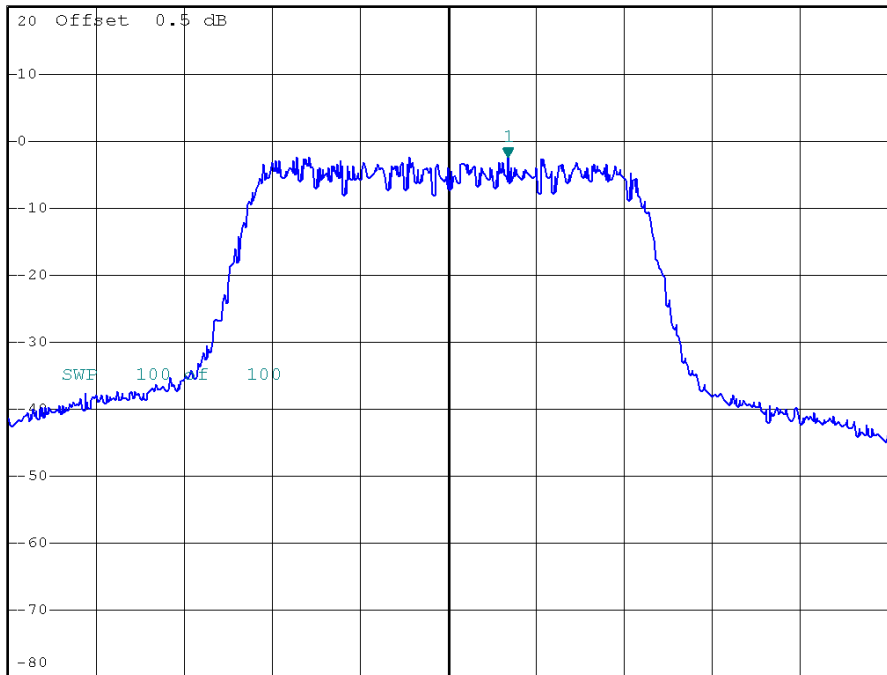


### IEEE 802.11n (20 MHz)/ANT.2/5320 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -2.34 dBm  
SWT 20 ms    5.322720000 GHz

Ref 20 dBm    \*Att 30 dB





E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.Total/5260 MHz, 5300 MHz, 5320 MHz		

Frequency	Power Spectral Density		Limit (dBm)	Result
	(dBm)	(mW)		
5260 MHz	-0.36	0.92	11.00	PASS
5300 MHz	0.66	1.17	11.00	PASS
5320 MHz	0.23	1.05	11.00	PASS

**NOTE:**

- The MIMO test requirement, RF conducted output power shall measure each transmitter chain by using channel power method.  
 And after obtain each individual transmitter chain power, then sum the output power by using the following formula:  
 $((\text{dBm}/\text{Chain 1})/10^{\text{Log}}) + ((\text{dBm}/\text{Chain 2})/10^{\text{Log}}) + ((\text{dBm}/\text{Chain N})/10^{\text{Log}}) = \text{Combined peak output power in mW.}$



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.1/5270 MHz, 5310 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5270 MHz	-4.31	11.00	PASS
5310 MHz	-8.97	11.00	PASS



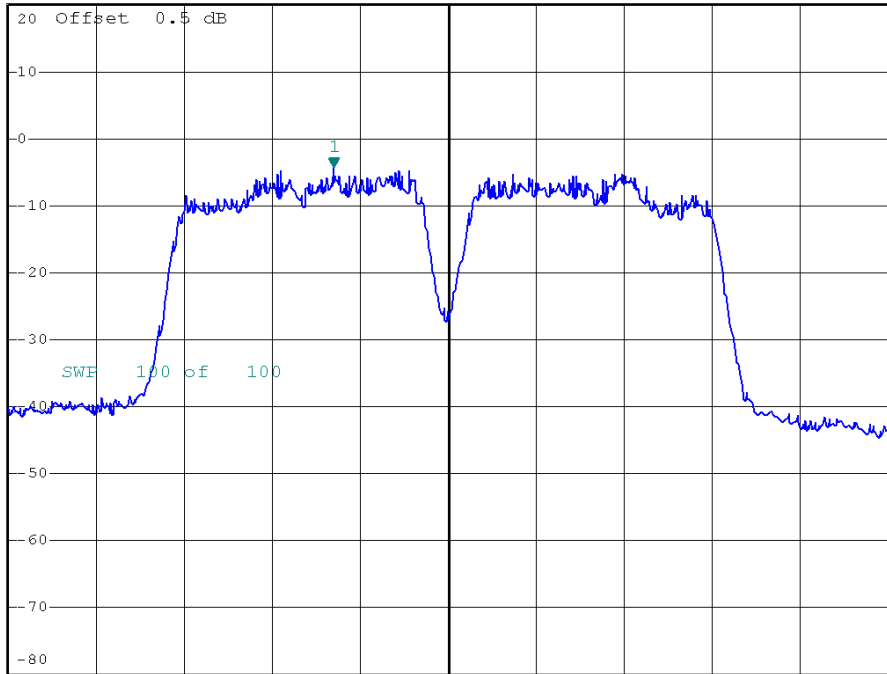
### IEEE 802.11n (40 MHz)/ANT.1/5270 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -4.31 dBm  
SWT 20 ms    5.262200000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



Center 5.27 GHz    6 MHz/    Span 60 MHz

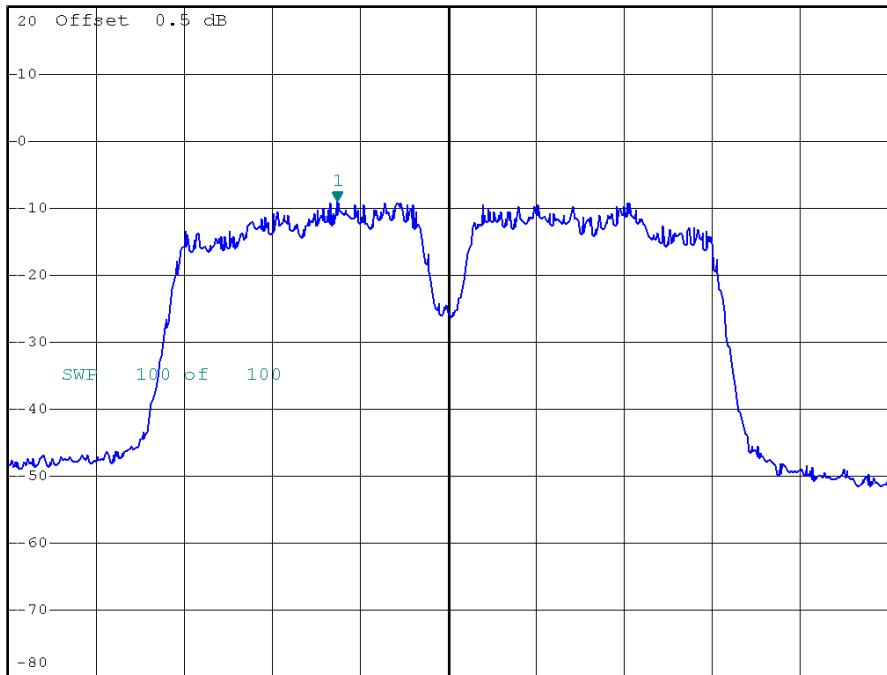
### IEEE 802.11n (40 MHz)/ANT.1/5310 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -8.97 dBm  
SWT 20 ms    5.302440000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



Center 5.31 GHz    6 MHz/    Span 60 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.2/5270 MHz, 5310 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5270 MHz	-4.61	11.00	PASS
5310 MHz	-9.22	11.00	PASS



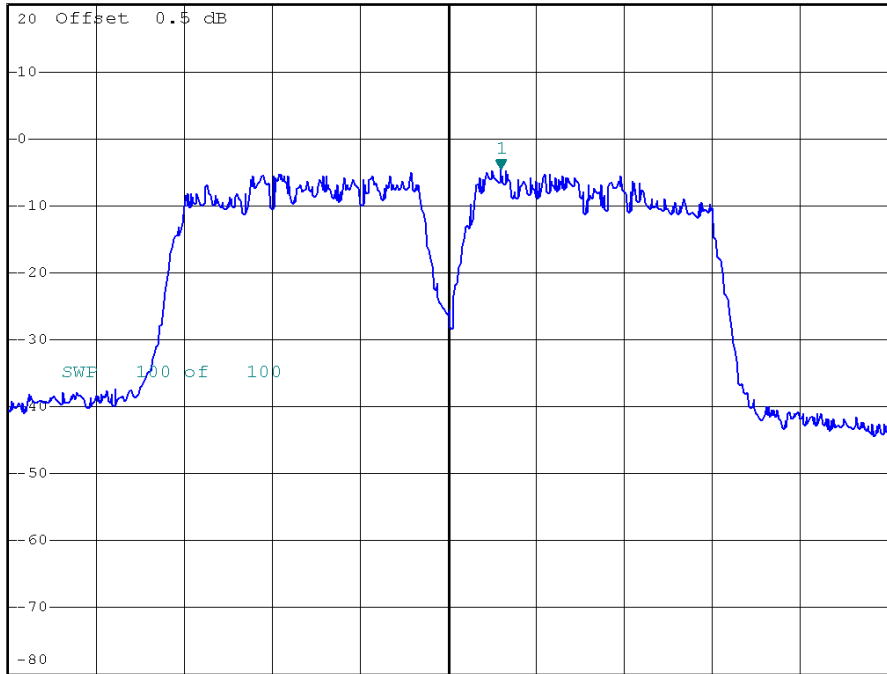
### IEEE 802.11n (40 MHz)/ANT.2/5270 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -4.61 dBm  
SWT 20 ms    5.273600000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



Center 5.27 GHz    6 MHz/    Span 60 MHz

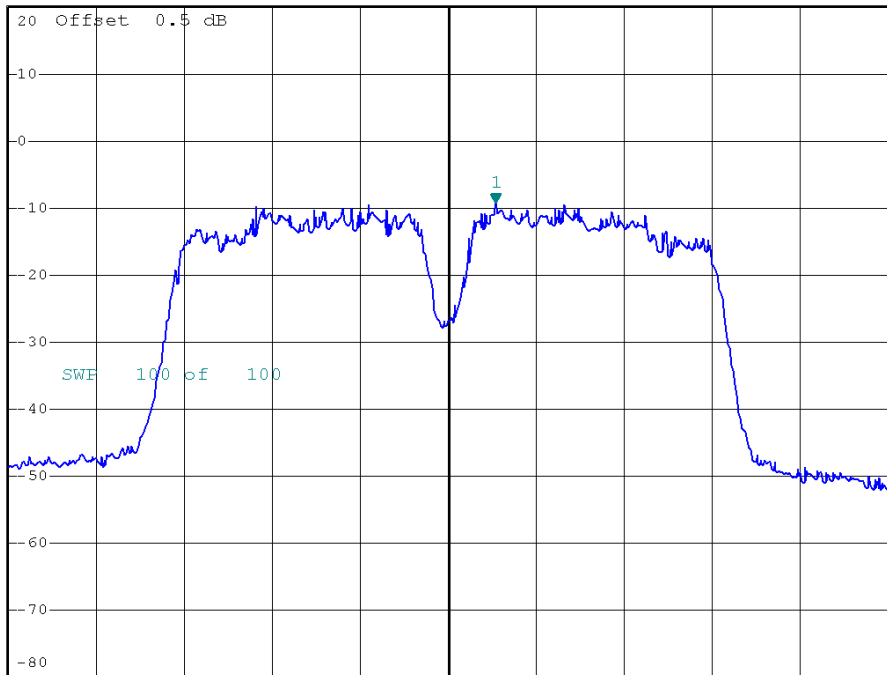
### IEEE 802.11n (40 MHz)/ANT.2/5310 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -9.22 dBm  
SWT 20 ms    5.313240000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



Center 5.31 GHz    6 MHz/    Span 60 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.Total/5270 MHz, 5310 MHz		

Frequency	Power Spectral Density		Limit (dBm)	Result
	(dBm)	(mW)		
5270 MHz	-1.45	0.7166	11.00	PASS
5310 MHz	-6.08	0.2464	11.00	PASS

**NOTE:**

- The MIMO test requirement, RF conducted output power shall measure each transmitter chain by using channel power method.  
 And after obtain each individual transmitter chain power, then sum the output power by using the following formula:  
 $((\text{dBm}/\text{Chain 1})/10^{\text{Log}}) + ((\text{dBm}/\text{Chain 2})/10^{\text{log}}) + ((\text{dBm}/\text{ChainN})/10^{\text{log}}) = \text{Combined peak output power in mW.}$



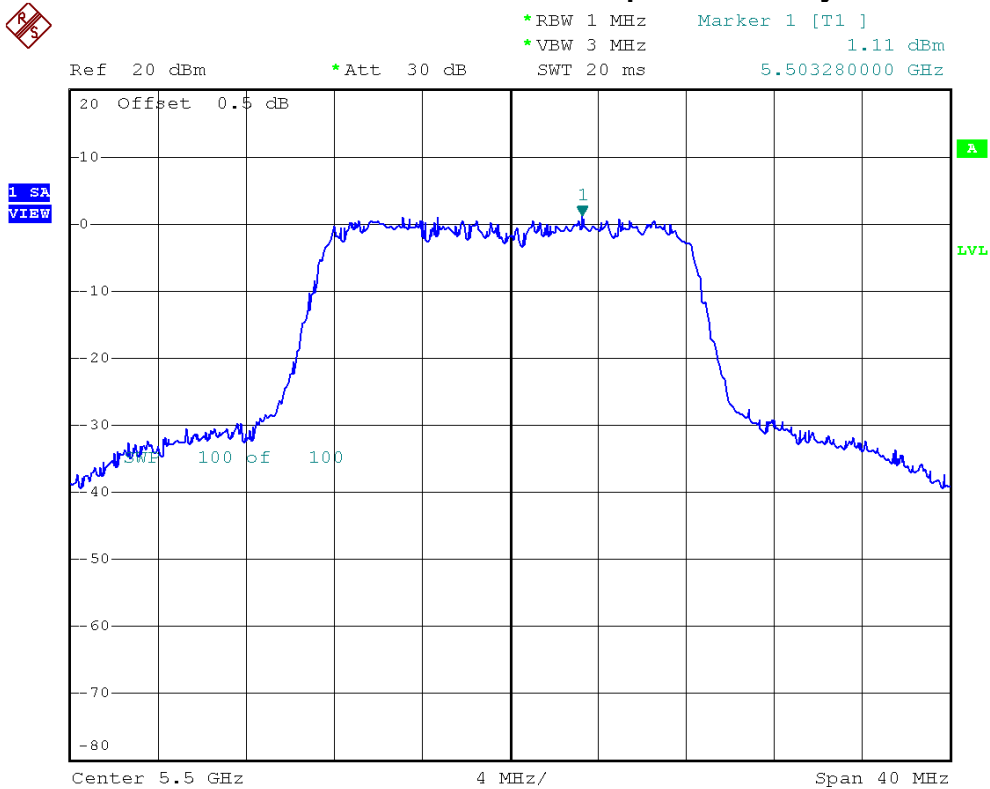


**10.10 TEST RESULTS - 5470-5725 MHZ**

E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11a/5500 MHz, 5580 MHz, 5700 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5500 MHz	1.11	11.00	PASS
5580 MHz	1.00	11.00	PASS
5700 MHz	-0.07	11.00	PASS

**IEEE 802.11a/5500 MHz/Power Spectral Density**





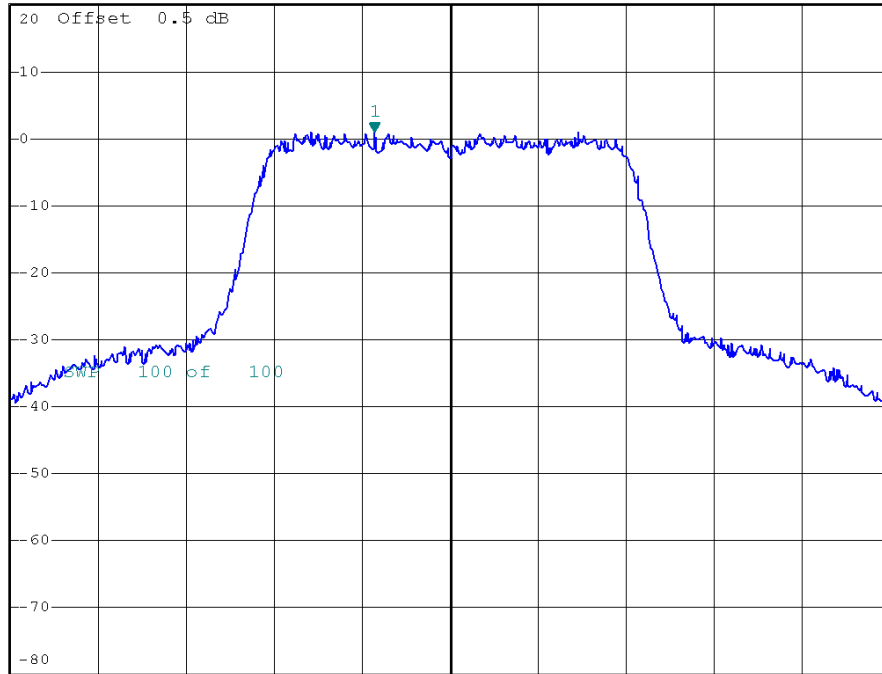
### IEEE 802.11a/5580 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    1.00 dBm  
SWT 20 ms    5.576560000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



Center 5.58 GHz

4 MHz/

Span 40 MHz

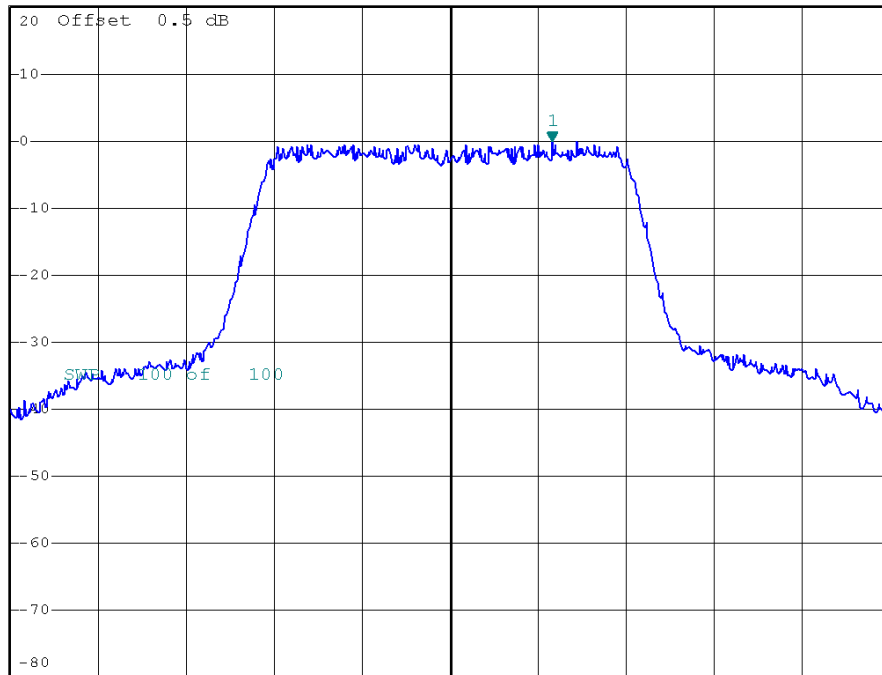
### IEEE 802.11a/5700 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -0.07 dBm  
SWT 20 ms    5.704640000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



Center 5.7 GHz

4 MHz/

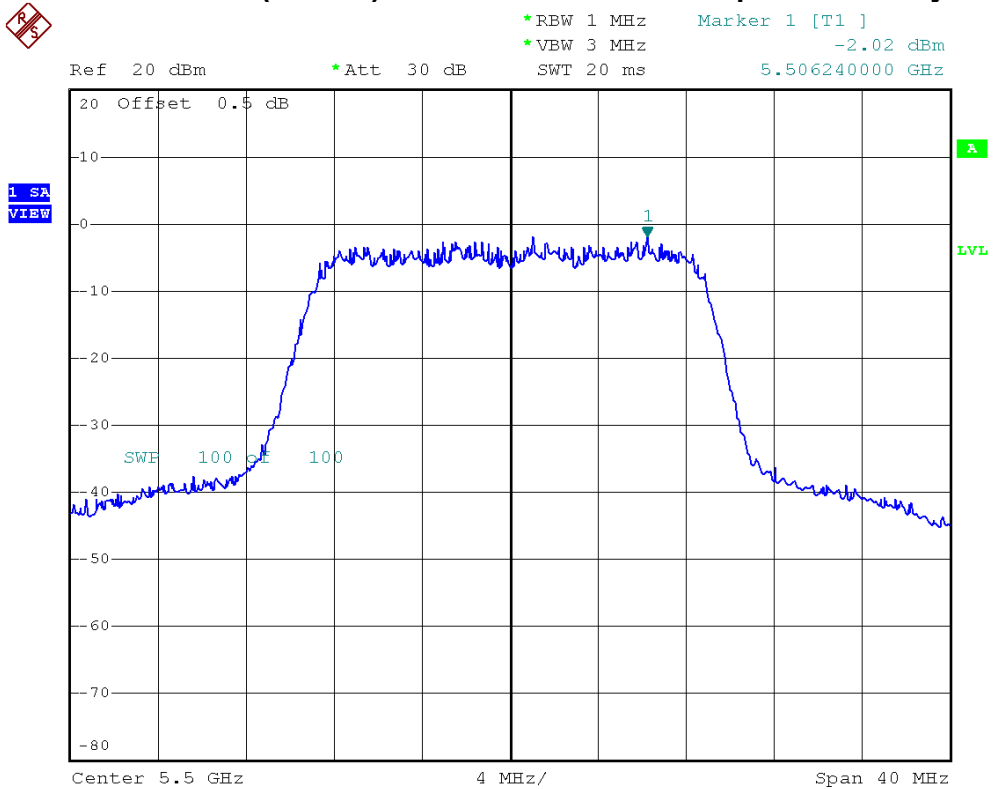
Span 40 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.1/5500 MHz, 5580 MHz, 5700 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5500 MHz	-2.02	11.00	PASS
5580 MHz	-2.14	11.00	PASS
5700 MHz	-3.13	11.00	PASS

**IEEE 802.11n (20 MHz)/ANT.1/5500 MHz/Power Spectral Density**





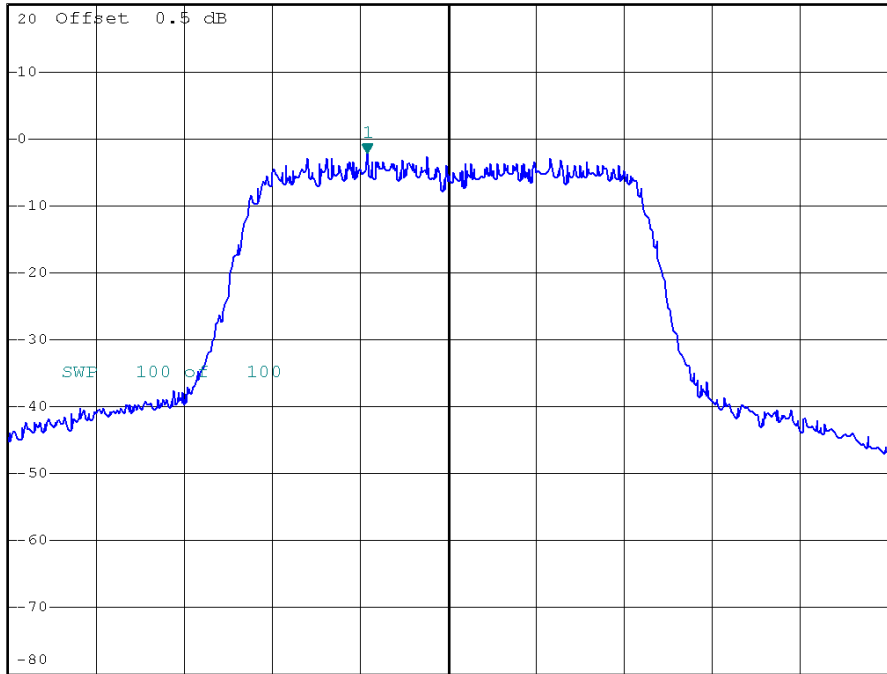
### IEEE 802.11n (20 MHz)/ANT.1/5580 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -2.14 dBm  
SWT 20 ms    5.576320000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



Center 5.58 GHz    4 MHz/    Span 40 MHz

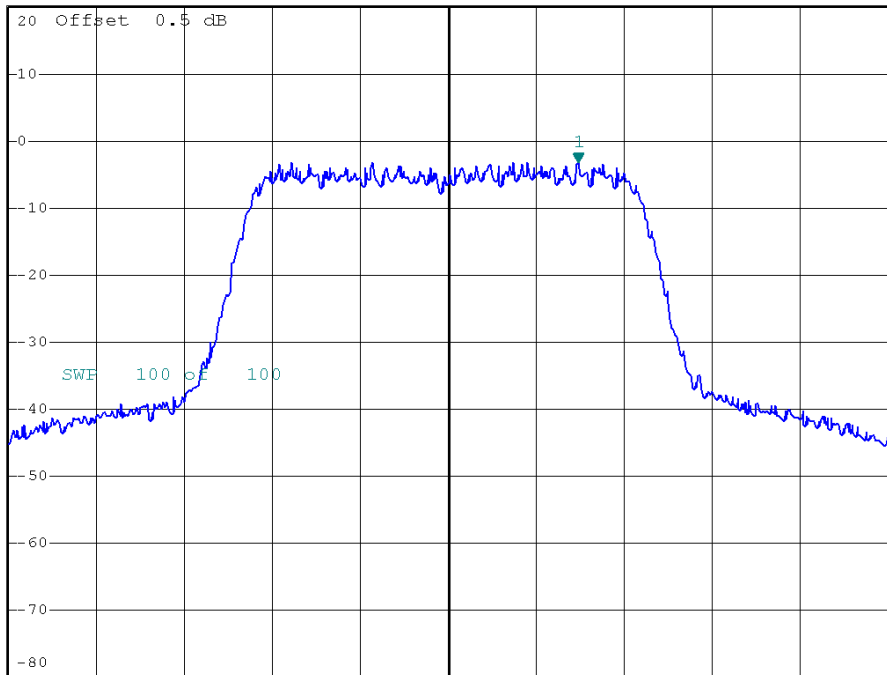
### IEEE 802.11n (20 MHz)/ANT.1/5700 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -3.13 dBm  
SWT 20 ms    5.705920000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



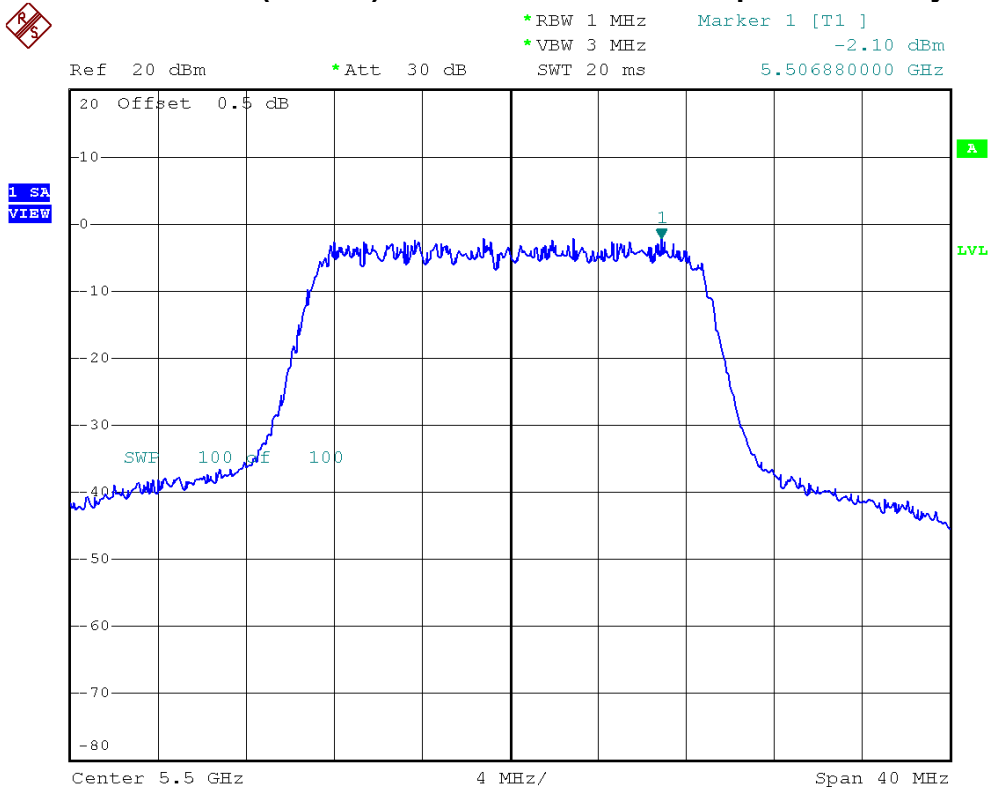
Center 5.7 GHz    4 MHz/    Span 40 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.2/5500 MHz, 5580 MHz, 5700 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5500 MHz	-2.10	11.00	PASS
5580 MHz	-2.60	11.00	PASS
5700 MHz	-2.97	11.00	PASS

**IEEE 802.11n (20 MHz)/ANT.2/5500 MHz/Power Spectral Density**





### IEEE 802.11n (20 MHz)/ANT.2/5580 MHz/Power Spectral Density

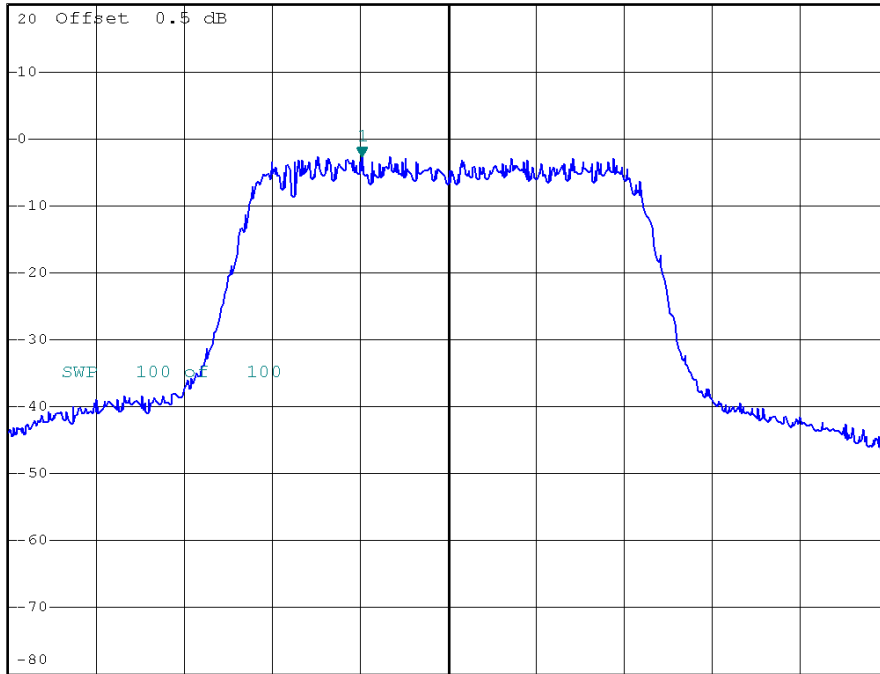


\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -2.60 dBm  
SWT 20 ms    5.576080000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.58 GHz

4 MHz/

Span 40 MHz

### IEEE 802.11n (20 MHz)/ANT.2/5700 MHz/Power Spectral Density

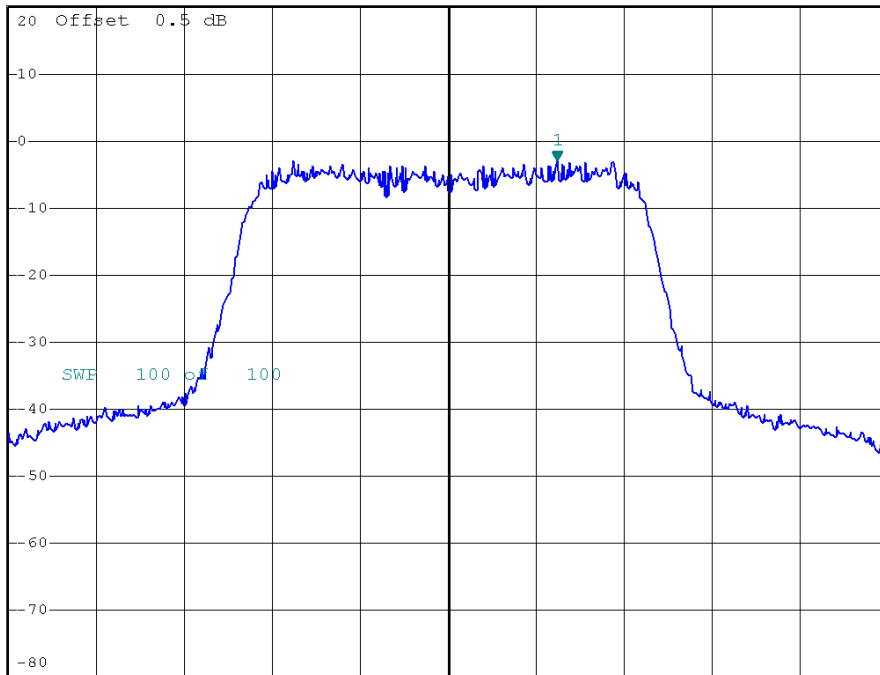


\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -2.97 dBm  
SWT 20 ms    5.704960000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.7 GHz

4 MHz/

Span 40 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.Total/5500 MHz, 5580 MHz, 5700 MHz		

Frequency	Power Spectral Density		Limit (dBm)	Result
	(dBm)	(mW)		
5500 MHz	0.95	1.24	11.00	PASS
5580 MHz	0.65	1.16	11.00	PASS
5700 MHz	-0.04	0.99	11.00	PASS

**NOTE:**

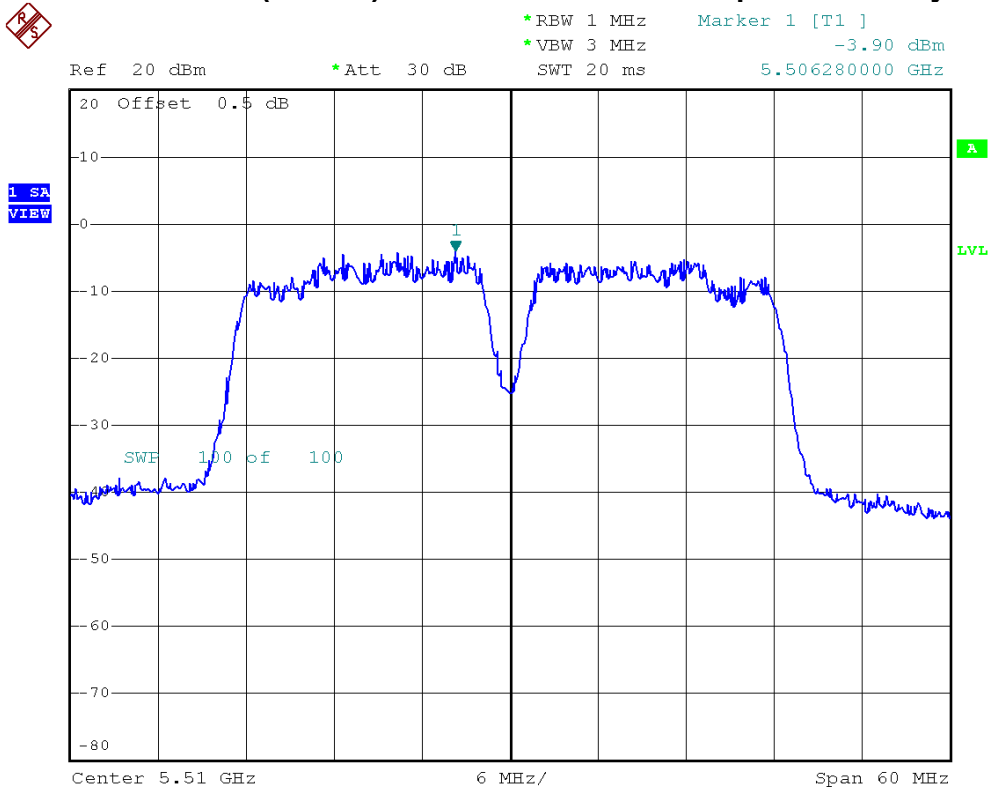
- The MIMO test requirement, RF conducted output power shall measure each transmitter chain by using channel power method.  
 And after obtain each individual transmitter chain power, then sum the output power by using the following formula:  
 $((\text{dBm}/\text{Chain 1})/10^{\wedge}\text{Log}) + ((\text{dBm}/\text{Chain 2})/10^{\wedge}\text{log}) + ((\text{dBm}/\text{ChainN})/10^{\wedge}\text{log}) = \text{Combined peak output power in mW.}$



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.1/5510 MHz, 5550 MHz, 5670 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5510 MHz	-3.90	11.00	PASS
5550 MHz	-4.02	11.00	PASS
5670 MHz	-3.96	11.00	PASS

**IEEE 802.11n (40 MHz)/ANT.1/5510 MHz/Power Spectral Density**







### IEEE 802.11n (40 MHz)/ANT.1/5550 MHz/Power Spectral Density

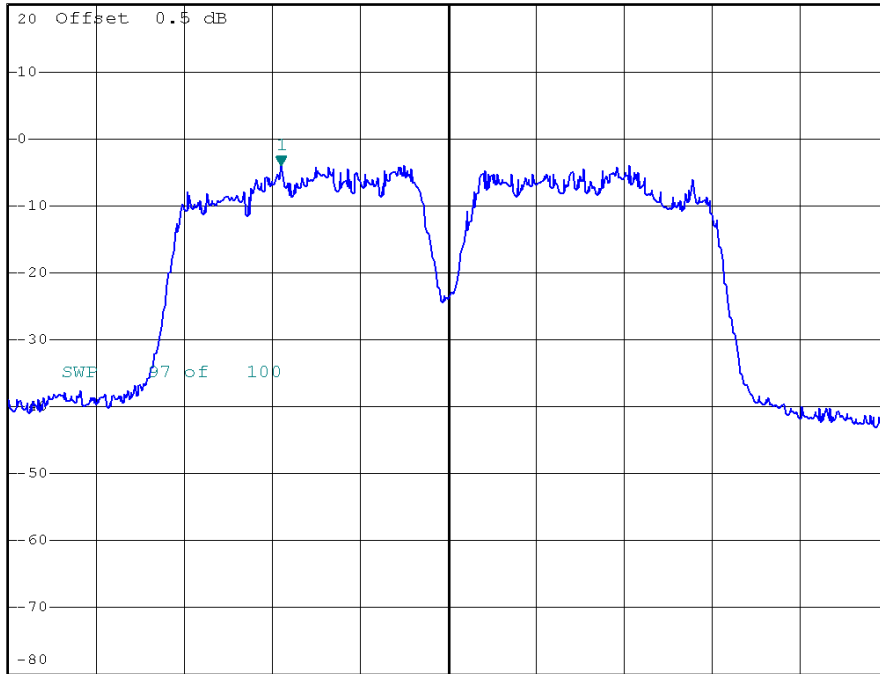


\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -4.02 dBm  
SWT 20 ms    5.538600000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.55 GHz

6 MHz/

Span 60 MHz

### IEEE 802.11n (40 MHz)/ANT.1/5670 MHz/Power Spectral Density

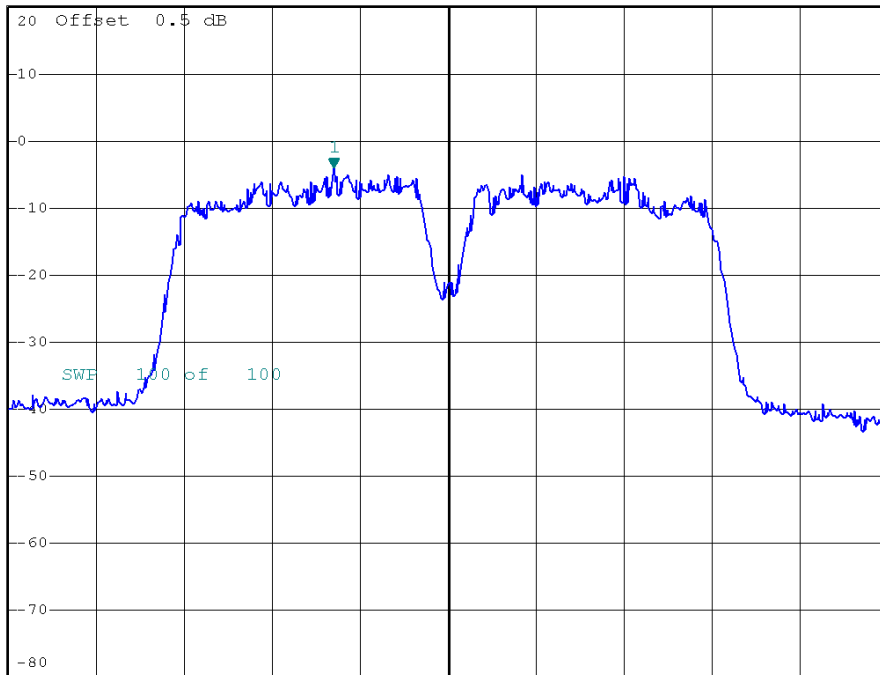


\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -3.96 dBm  
SWT 20 ms    5.662200000 GHz

Ref 20 dBm

\*Att 30 dB

1 SA  
VIEW



Center 5.67 GHz

6 MHz/

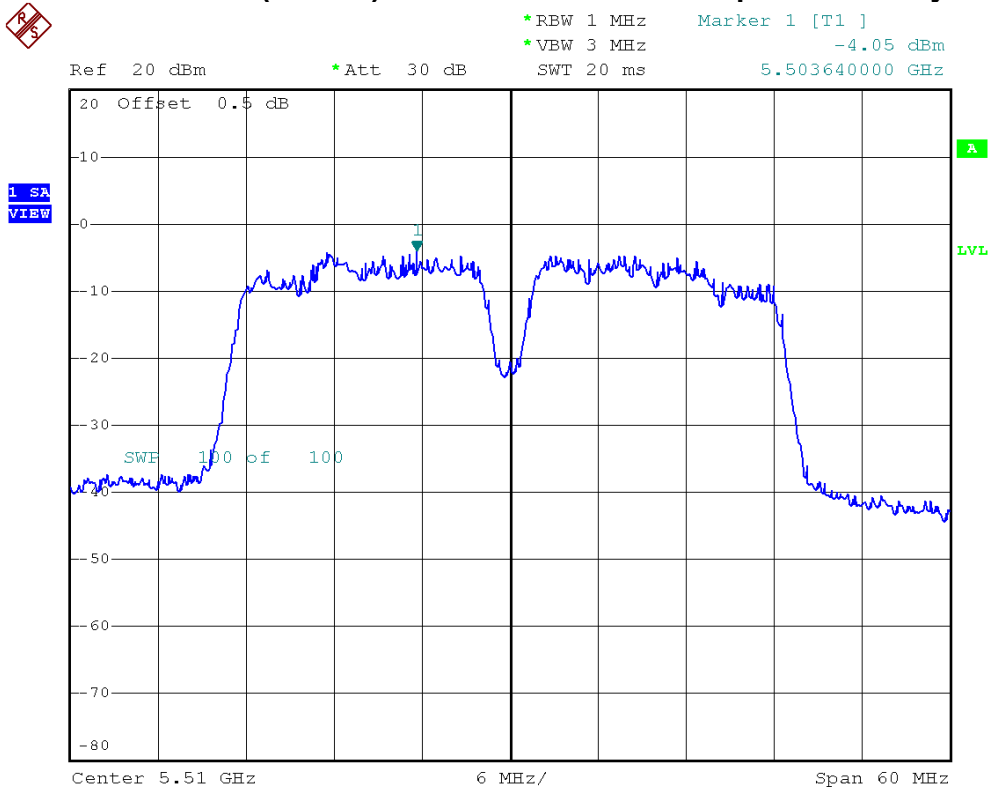
Span 60 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.2/5510 MHz, 5550 MHz, 5670 MHz		

Frequency	Power Spectral Density (dBm)	Limit (dBm)	Result
5510 MHz	-4.05	11.00	PASS
5550 MHz	-3.43	11.00	PASS
5670 MHz	-4.67	11.00	PASS

**IEEE 802.11n (40 MHz)/ANT.2/5510 MHz/Power Spectral Density**





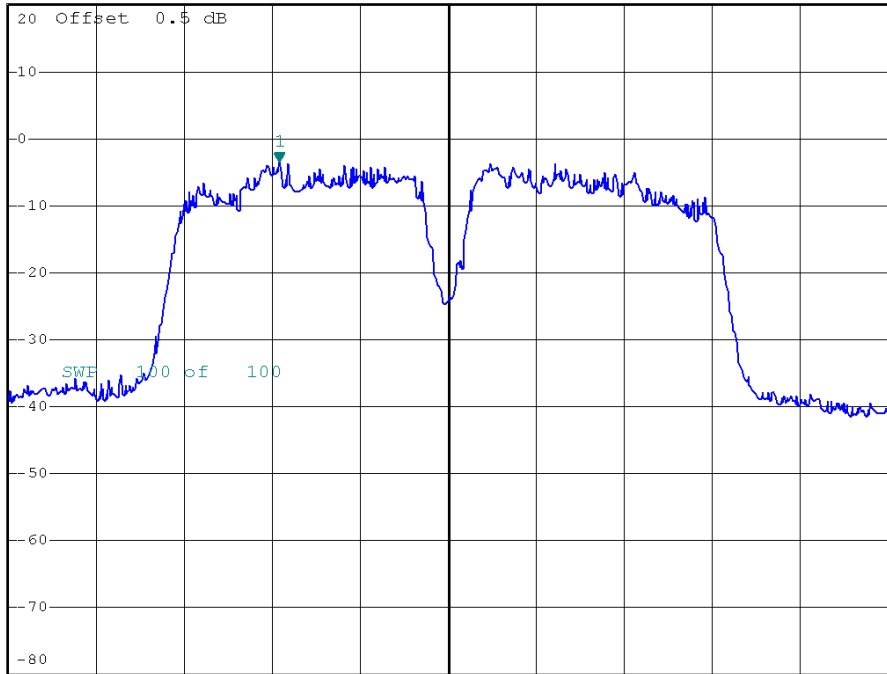
### IEEE 802.11n (40 MHz)/ANT.2/5550 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -3.43 dBm  
SWT 20 ms    5.538480000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



Center 5.55 GHz

6 MHz/

Span 60 MHz

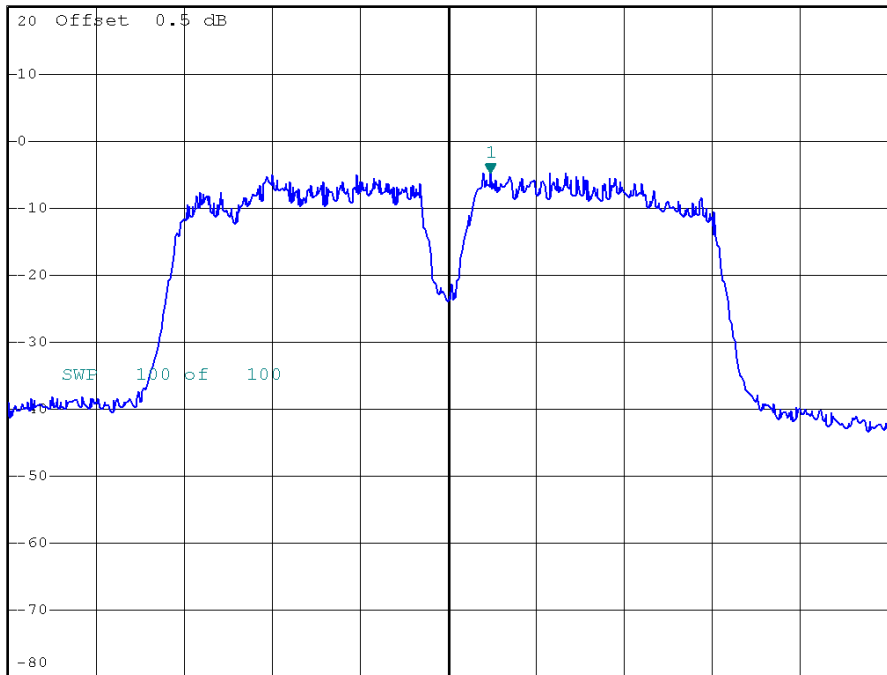
### IEEE 802.11n (40 MHz)/ANT.2/5670 MHz/Power Spectral Density



\*RBW 1 MHz    Marker 1 [T1 ]  
\*VBW 3 MHz    -4.67 dBm  
SWT 20 ms    5.672880000 GHz

Ref 20 dBm    \*Att 30 dB

1 SA  
VIEW



Center 5.67 GHz

6 MHz/

Span 60 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.Total/5510 MHz, 5550 MHz, 5670 MHz		

Frequency	Power Spectral Density		Limit (dBm)	Result
	(dBm)	(mW)		
5510 MHz	-0.96	0.8009	11.00	PASS
5550 MHz	-0.70	0.8502	11.00	PASS
5670 MHz	-1.29	0.7430	11.00	PASS

**NOTE:**

- The MIMO test requirement, RF conducted output power shall measure each transmitter chain by using channel power method.  
 And after obtain each individual transmitter chain power, then sum the output power by using the following formula:  
 $((\text{dBm}/\text{Chain 1})/10^{\wedge}\text{Log}) + ((\text{dBm}/\text{Chain 2})/10^{\wedge}\text{log}) + ((\text{dBm}/\text{ChainN})/10^{\wedge}\text{log}) = \text{Combined peak output power in mW.}$



**11 PEAK EXCURSION**

**11.1 LIMIT**

Test Item	Frequency Range (MHz)	Limit
Peak Excursion	5150 - 5250	13 dB
	5250 - 5350	
	5470 - 5725	
	5725 - 5825	

**11.2 MEASUREMENT INSTRUMENTS LIST**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 06, 2012

NOTE: **N/A**: denotes No Model Name, No Serial No. or No Calibration specified.

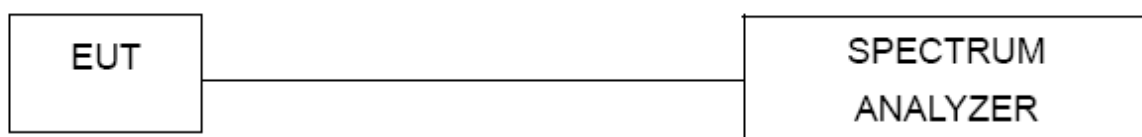
**11.3 MEASURING INSTRUMENTS SETTING**

Spectrum Analyzer	Parameter Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RB	1000 kHz (Peak Trace) / 1000 kHz (Average Trace)
VB	3000 kHz (Peak Trace) / 300 kHz (Average Trace)
Detector	Peak (Peak Trace) / Sample (Average Trace)
Trace	Max Hold
Sweep Time	60s

**11.4 TEST PROCEDURES**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. Peak Trace: Set RBW = 1 MHz, VBW ≥ 3 MHz with peak detector and maxhold settings.
- c. Average Trace: Method #3—video averaging with max hold--and sum power across the band. Set span to encompass the entire emissions bandwidth (EBW) of the signal. Set sweep trigger to “free run”. Set RBW = 1 MHz. Set VBW ≥ 1/T (IEEE 802.11a VBW = 300kHz ≥ 1/4μs). Use sample detector mode if bin width (i.e., span/number of points in spectrum) < 0.5 RBW. Otherwise use peak detector mode. Set max hold. Allow max hold to run for 60 seconds.

**11.5 TEST SETUP LAYOUT**





**11.6 DEVIATION FROM TEST STANDARD**

No deviation

**11.7 EUT OPERATING CONDITIONS**

The EUT tested system was configured as the statements of 5.6 Unless otherwise a special operating condition is specified in the follows during the testing.

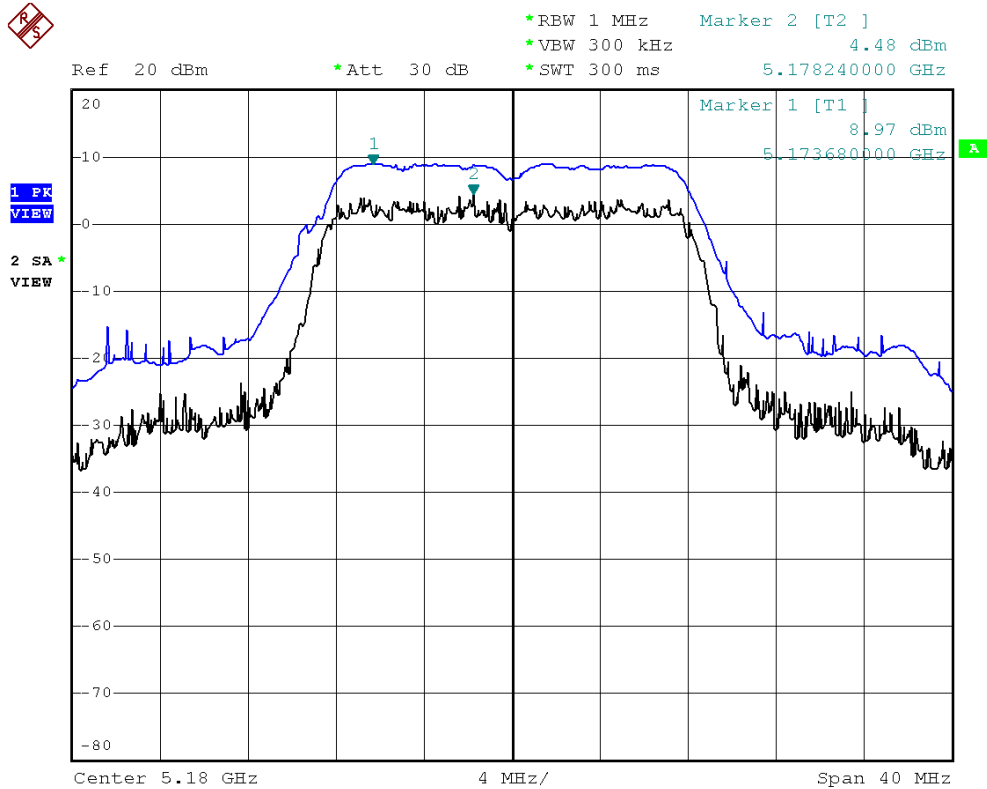


**11.8 TEST RESULTS - 5150-5250 MHZ**

E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11a/5180 MHz, 5200 MHz, 5240 MHz		

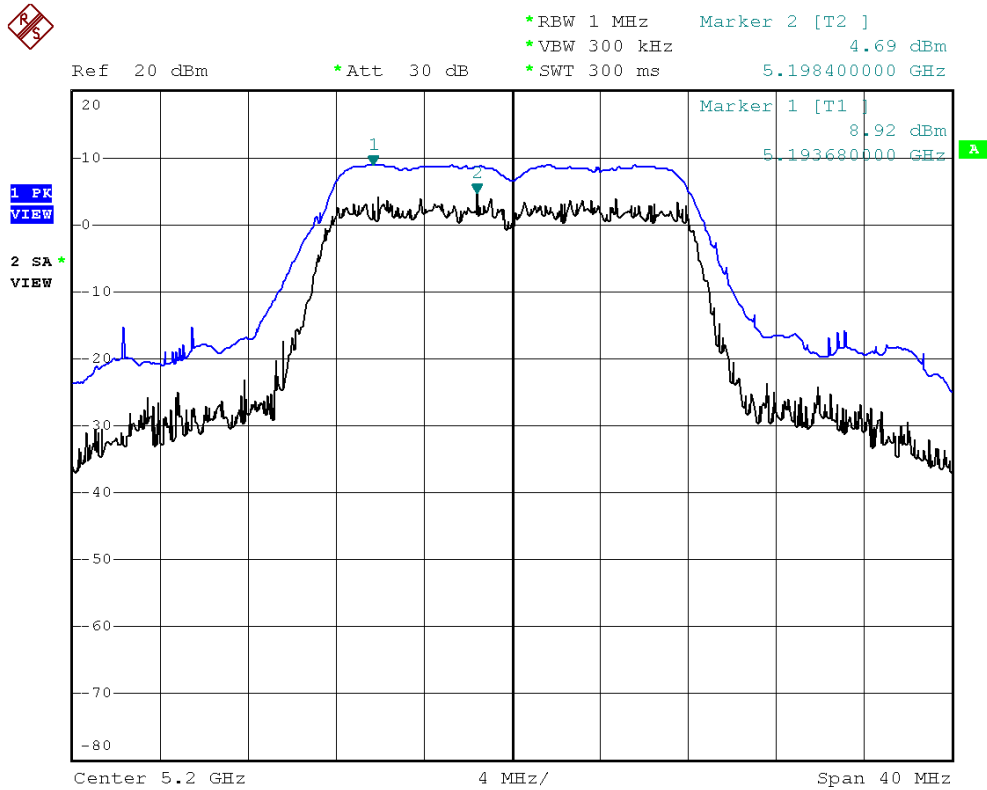
Frequency	Peak Excursion (dB)	Limit (dB)	Result
5180 MHz	4.49	13	PASS
5200 MHz	4.23	13	PASS
5240 MHz	4.51	13	PASS

**IEEE 802.11a/5180 MHz/Peak Excursion**

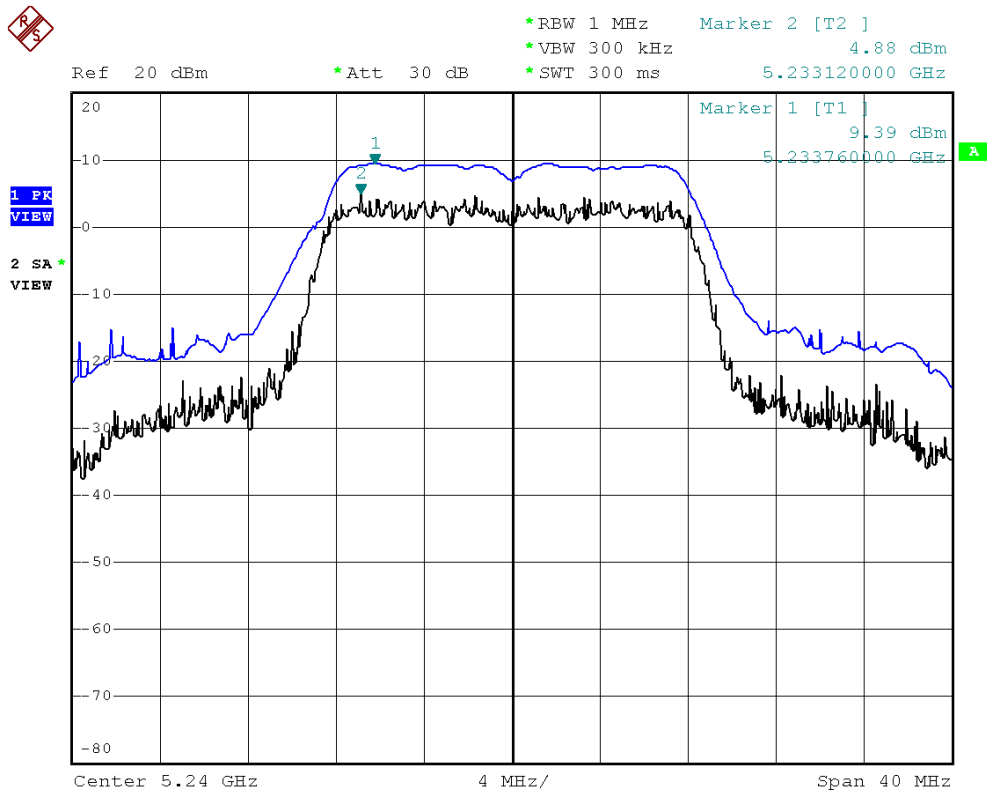




### IEEE 802.11a/5200 MHz/Peak Excursion



### IEEE 802.11a/5240 MHz/Peak Excursion



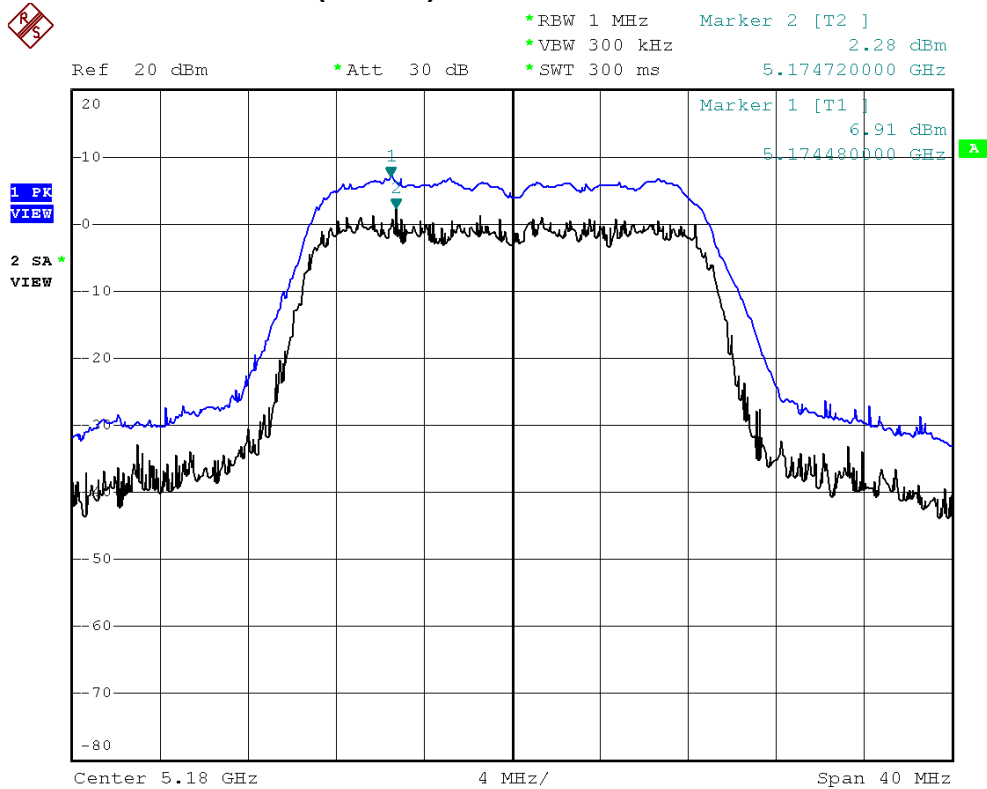




E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.1/5180 MHz, 5200 MHz, 5240 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5180 MHz	4.63	13	PASS
5200 MHz	5.04	13	PASS
5240 MHz	5.86	13	PASS

**IEEE 802.11n (20 MHz)/ANT.1/5180 MHz/Peak Excursion**





### IEEE 802.11n (20 MHz)/ANT.1/5200 MHz/Peak Excursion



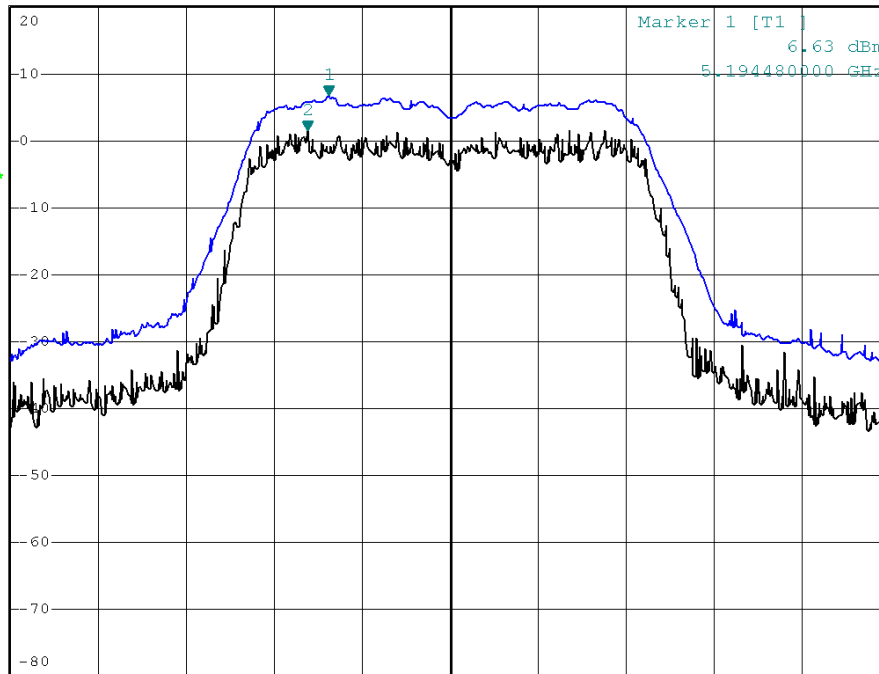
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    1.59 dBm  
\*SWT 300 ms    5.193520000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.2 GHz

4 MHz/

Span 40 MHz

### IEEE 802.11n (20 MHz)/ANT.1/5240 MHz/Peak Excursion



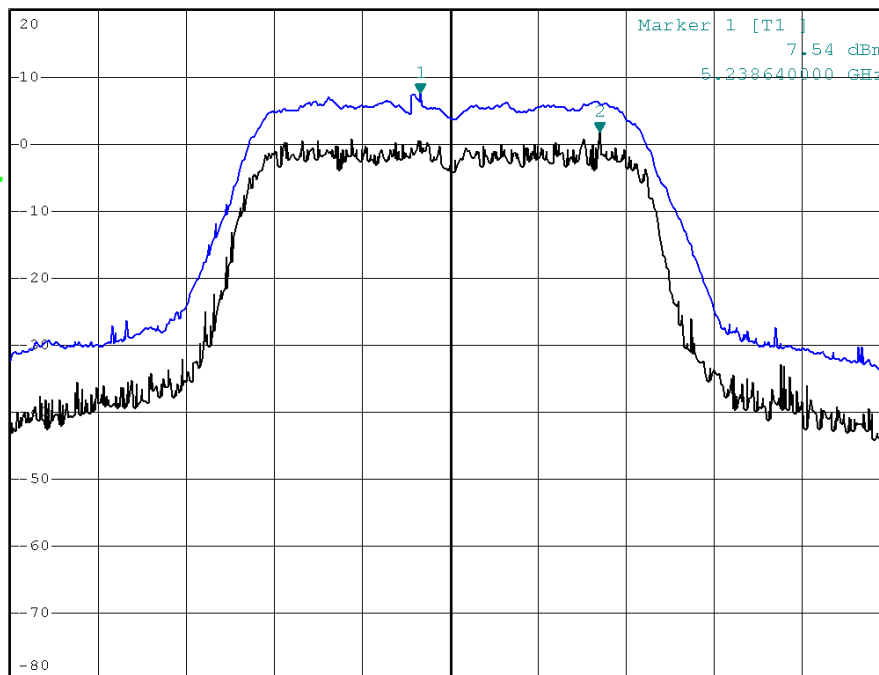
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    1.68 dBm  
\*SWT 300 ms    5.246800000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.24 GHz

4 MHz/

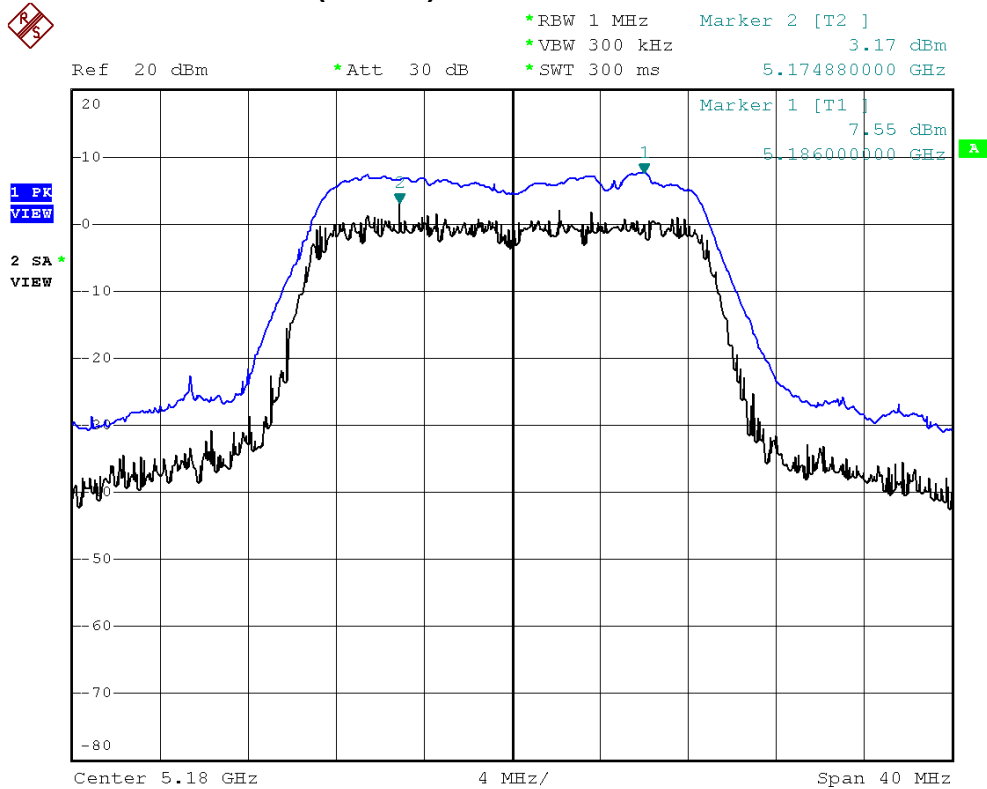
Span 40 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.2/5180 MHz, 5200 MHz, 5240 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5180 MHz	4.38	13	PASS
5200 MHz	5.91	13	PASS
5240 MHz	5.55	13	PASS

**IEEE 802.11n (20 MHz)/ANT.2/5180 MHz/Peak Excursion**





### IEEE 802.11n (20 MHz)/ANT.2/5200 MHz/Peak Excursion



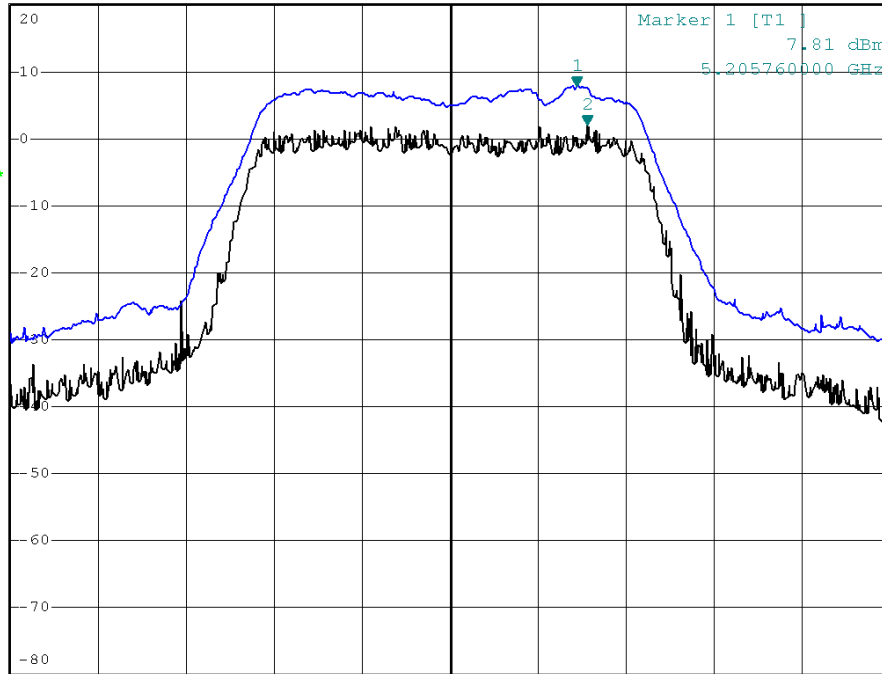
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    1.90 dBm  
\*SWT 300 ms    5.206240000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.2 GHz

4 MHz/

Span 40 MHz

### IEEE 802.11n (20 MHz)/ANT.2/5240 MHz/Peak Excursion



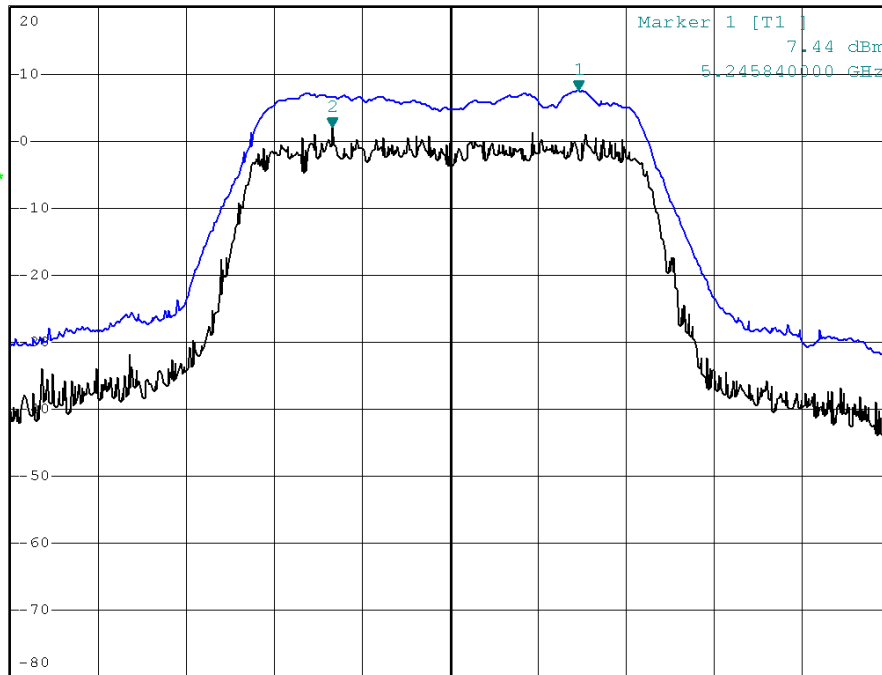
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    1.89 dBm  
\*SWT 300 ms    5.234640000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.24 GHz

4 MHz/

Span 40 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.1/5190 MHz, 5230 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5190 MHz	4.58	13	PASS
5230 MHz	4.11	13	PASS



### IEEE 802.11n (40 MHz)/ANT.1/5190 MHz/Peak Excursion

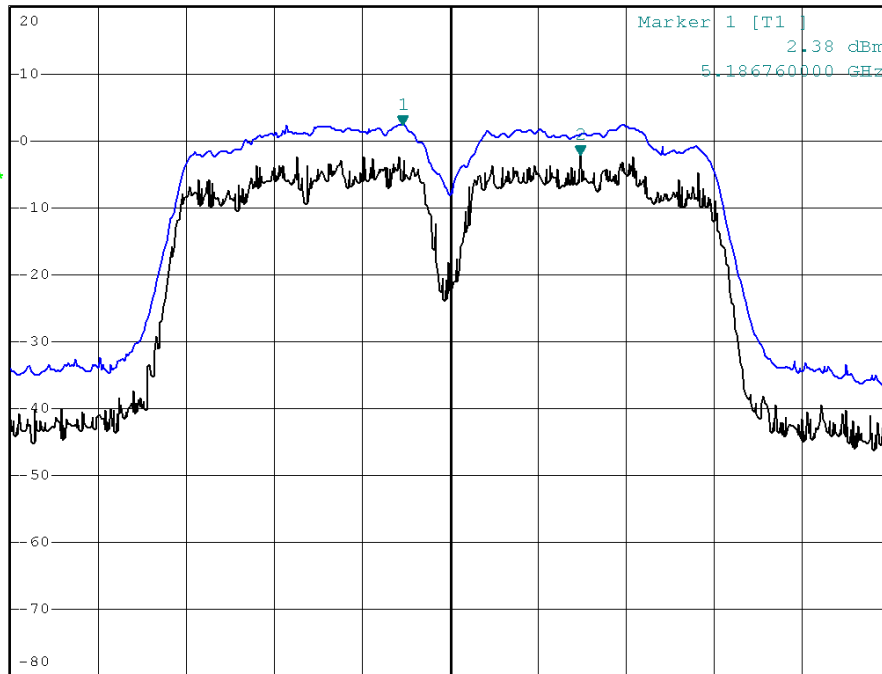


\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    -2.20 dBm  
\*SWT 300 ms    5.198880000 GHz

Ref 20 dBm    \*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.19 GHz

6 MHz/

Span 60 MHz

### IEEE 802.11n (40 MHz)/ANT.1/5230 MHz/Peak Excursion

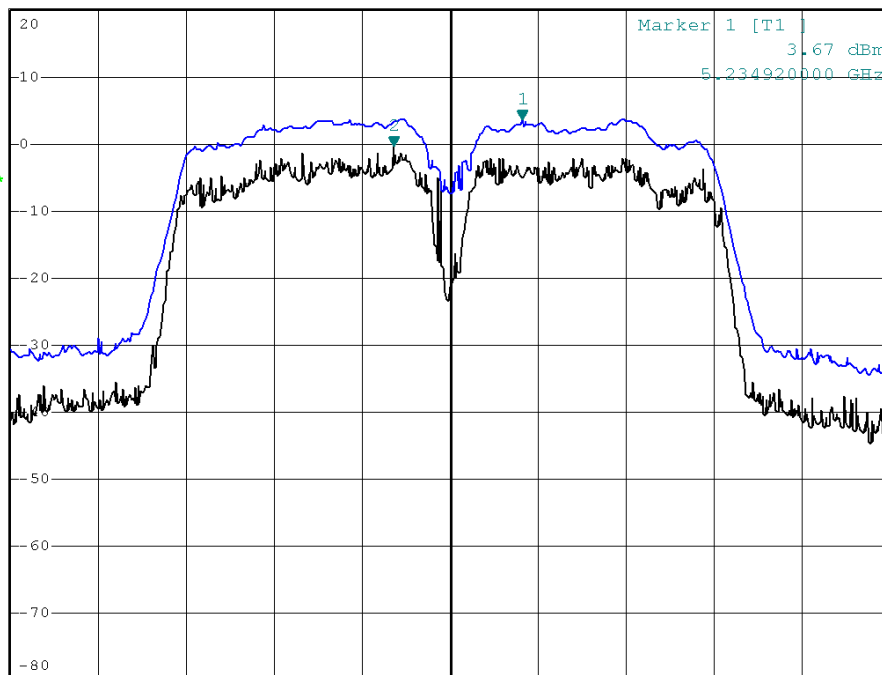


\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    -0.44 dBm  
\*SWT 300 ms    5.226160000 GHz

Ref 20 dBm    \*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.23 GHz

6 MHz/

Span 60 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.2/5190 MHz, 5230 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5190 MHz	5.89	13	PASS
5230 MHz	5.00	13	PASS



### IEEE 802.11n (40 MHz)/ANT.2/5190 MHz/Peak Excursion



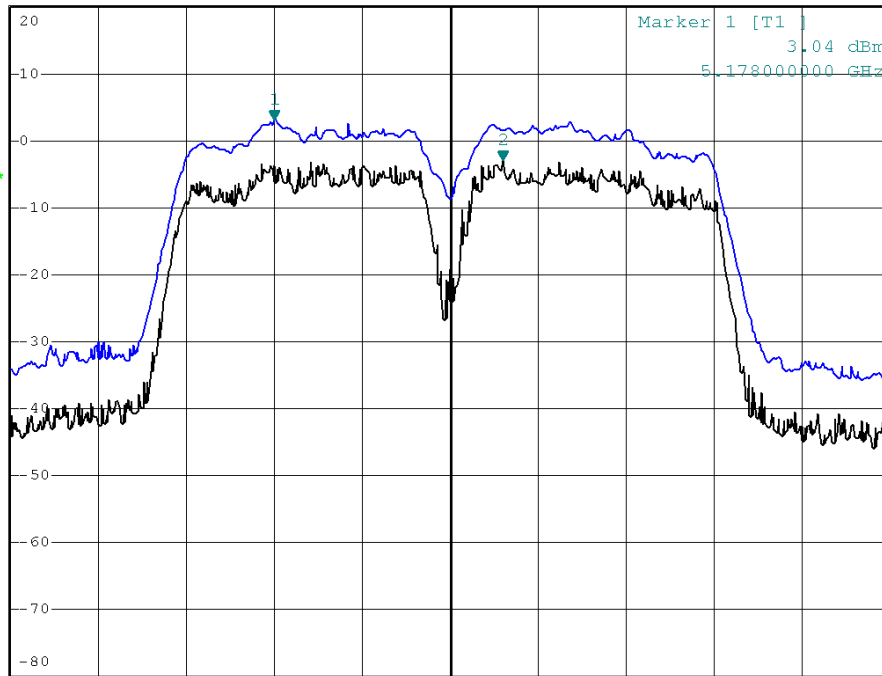
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    -2.85 dBm  
\*SWT 300 ms    5.193600000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.19 GHz

6 MHz/

Span 60 MHz

### IEEE 802.11n (40 MHz)/ANT.2/5230 MHz/Peak Excursion



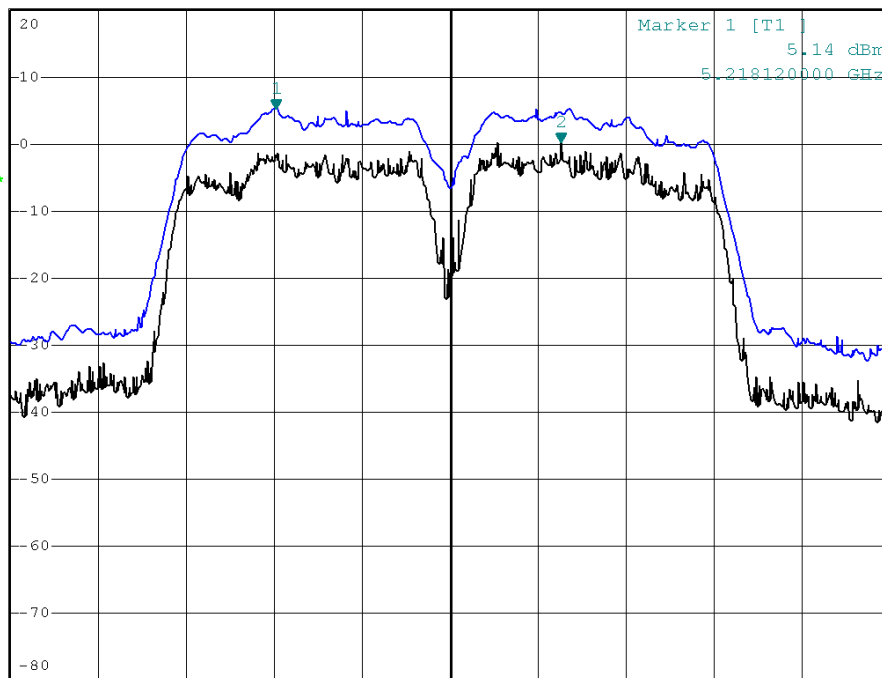
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    0.14 dBm  
\*SWT 300 ms    5.237560000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.23 GHz

6 MHz/

Span 60 MHz



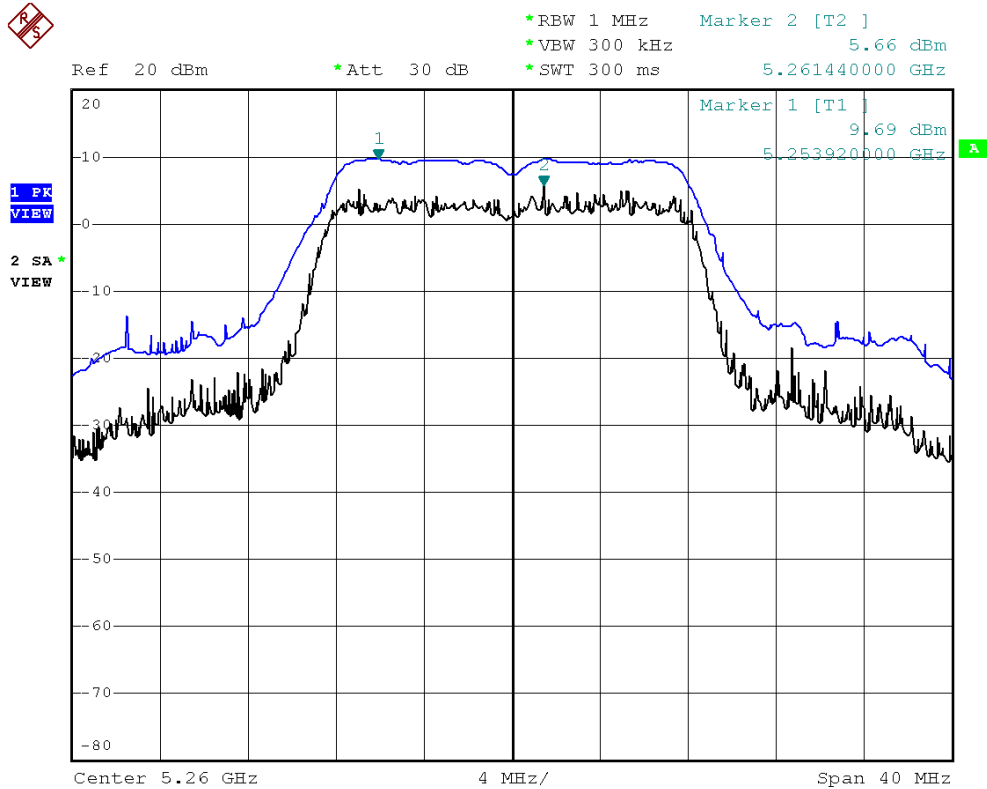


**11.9 TEST RESULTS - 5250-5350 MHZ**

E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11a/5260 MHz, 5300 MHz, 5320 MHz		

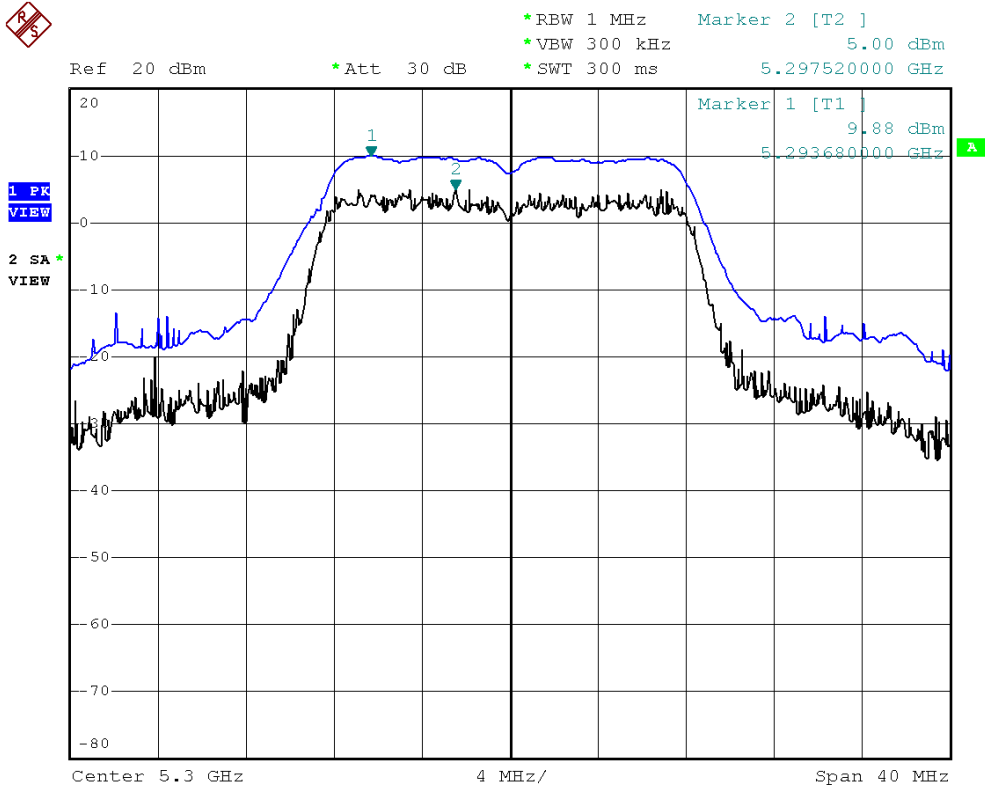
Frequency	Peak Excursion (dB)	Limit (dB)	Result
5260 MHz	4.03	13	PASS
5300 MHz	4.88	13	PASS
5320 MHz	4.42	13	PASS

**IEEE 802.11a/5260 MHz/Peak Excursion**

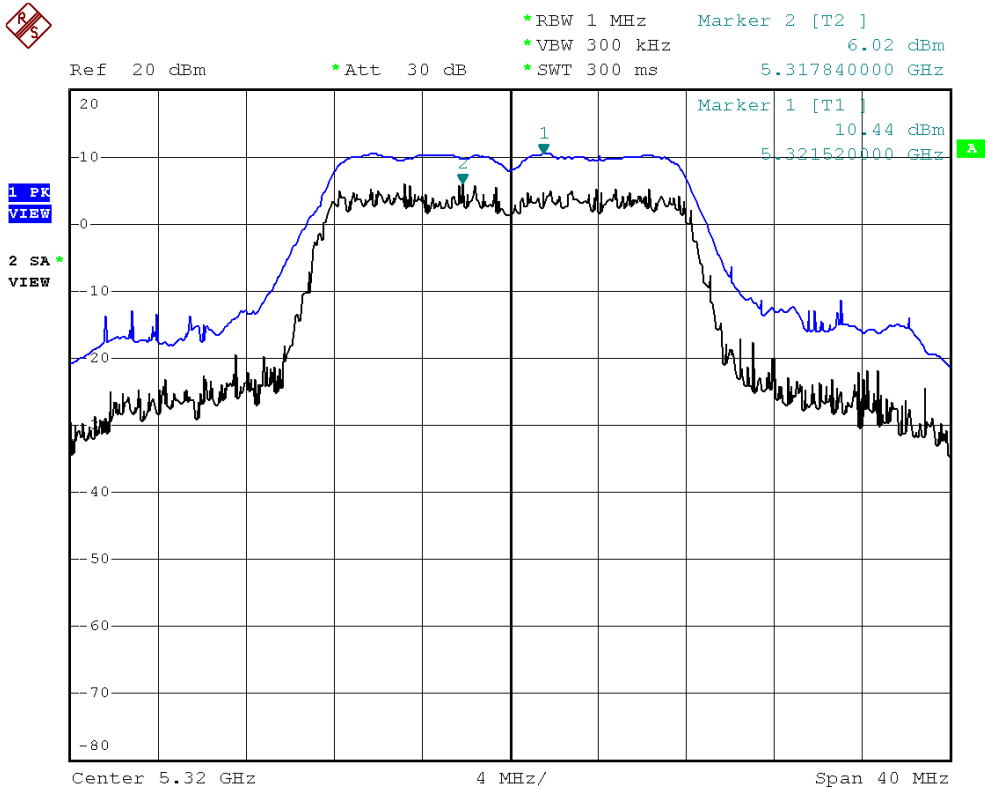




### IEEE 802.11a/5300 MHz/Peak Excursion



### IEEE 802.11a/5320 MHz/Peak Excursion

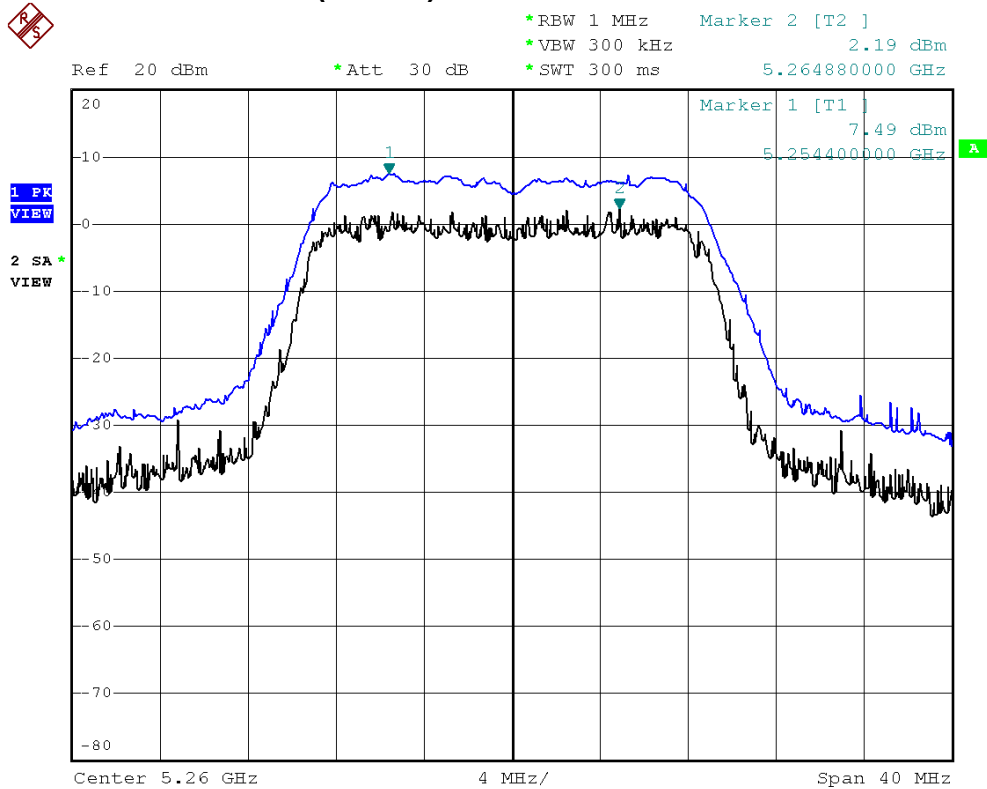




E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.1/5260 MHz, 5300 MHz, 5320 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5260 MHz	5.30	13	PASS
5300 MHz	4.20	13	PASS
5320 MHz	5.45	13	PASS

**IEEE 802.11n (20 MHz)/ANT.1/5260 MHz/Peak Excursion**





### IEEE 802.11n (20 MHz)/ANT.1/5300 MHz/Peak Excursion



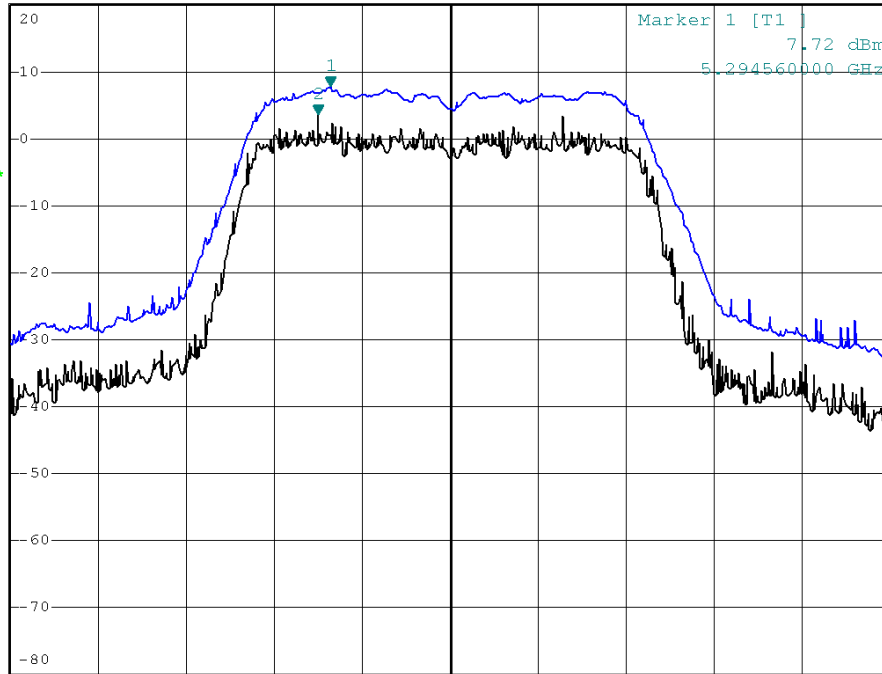
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    3.52 dBm  
\*SWT 300 ms    5.294000000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.3 GHz

4 MHz/

Span 40 MHz

### IEEE 802.11n (20 MHz)/ANT.1/5320 MHz/Peak Excursion



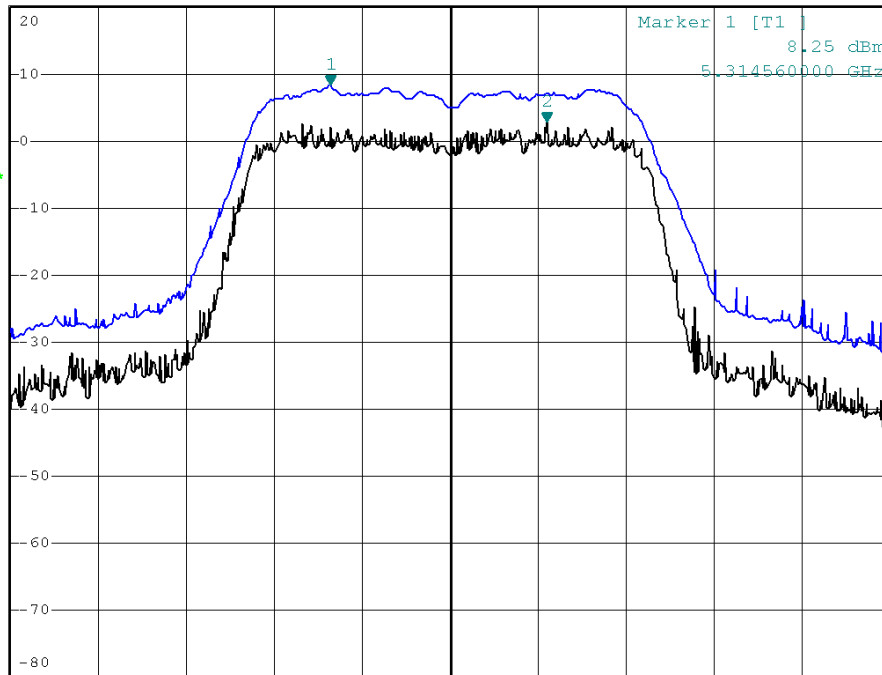
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    2.80 dBm  
\*SWT 300 ms    5.324400000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.32 GHz

4 MHz/

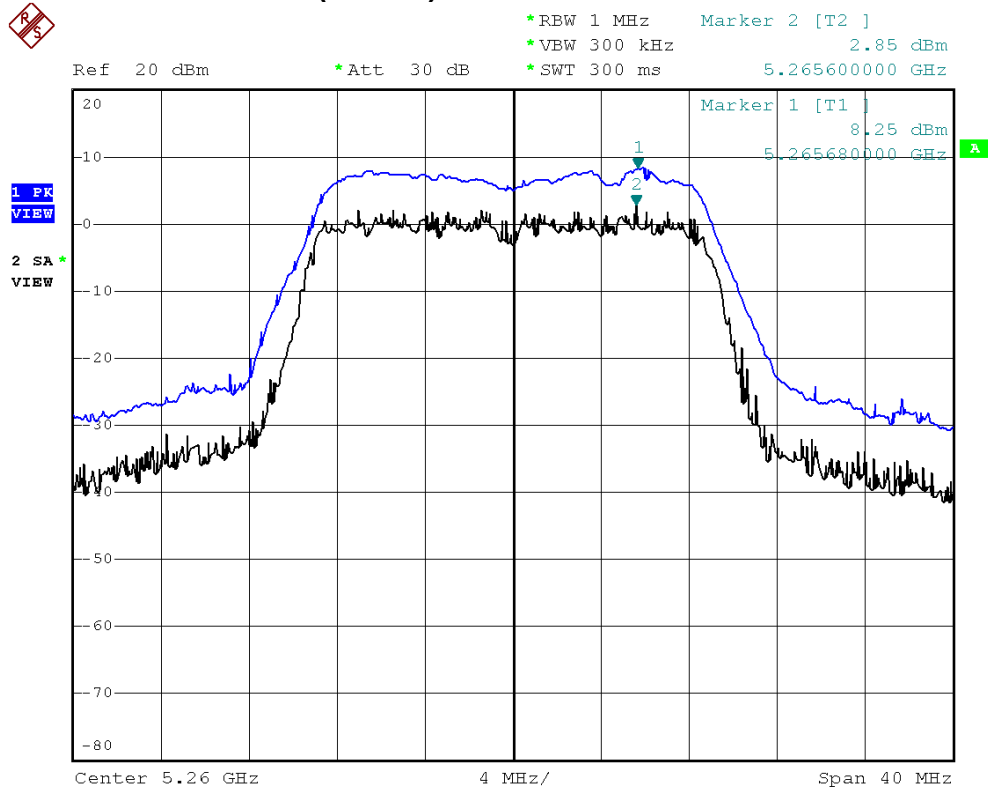
Span 40 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.2/5260 MHz, 5300 MHz, 5320 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5260 MHz	5.40	13	PASS
5300 MHz	6.17	13	PASS
5320 MHz	5.19	13	PASS

**IEEE 802.11n (20 MHz)/ANT.2/5260 MHz/Peak Excursion**





### IEEE 802.11n (20 MHz)/ANT.2/5300 MHz/Peak Excursion



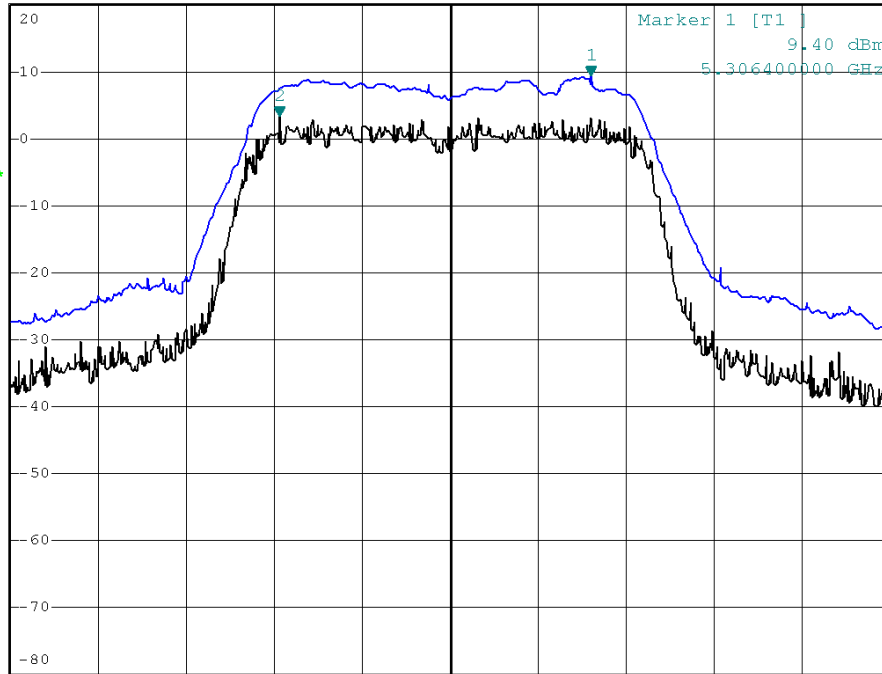
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    3.23 dBm  
\*SWT 300 ms    5.292240000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.3 GHz

4 MHz/

Span 40 MHz

### IEEE 802.11n (20 MHz)/ANT.2/5320 MHz/Peak Excursion



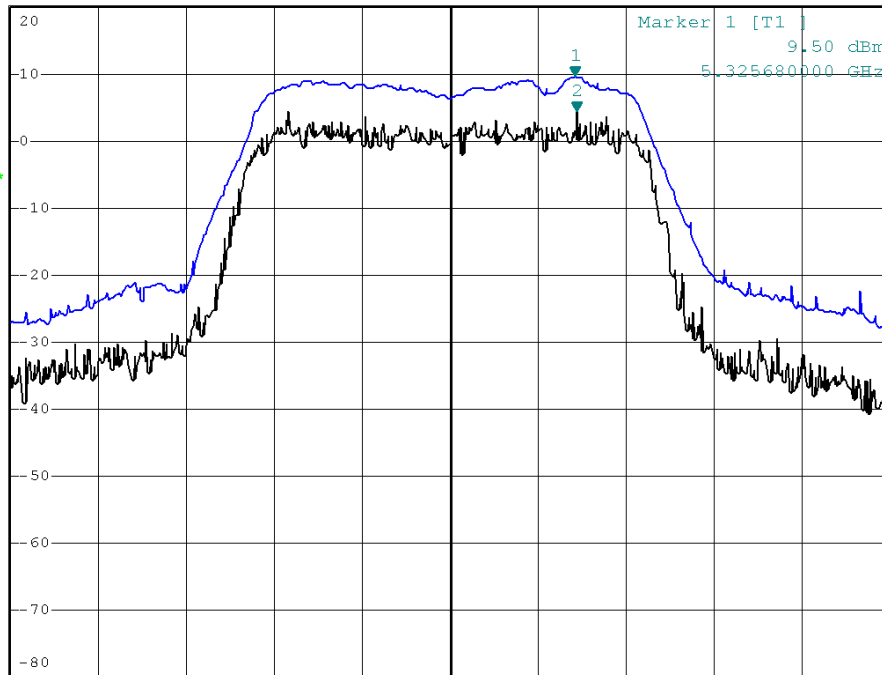
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    4.31 dBm  
\*SWT 300 ms    5.325760000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.32 GHz

4 MHz/

Span 40 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.1/5270 MHz, 5310 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5270 MHz	3.74	13	PASS
5310 MHz	5.24	13	PASS



### IEEE 802.11n (40 MHz)/ANT.1/5270 MHz/Peak Excursion



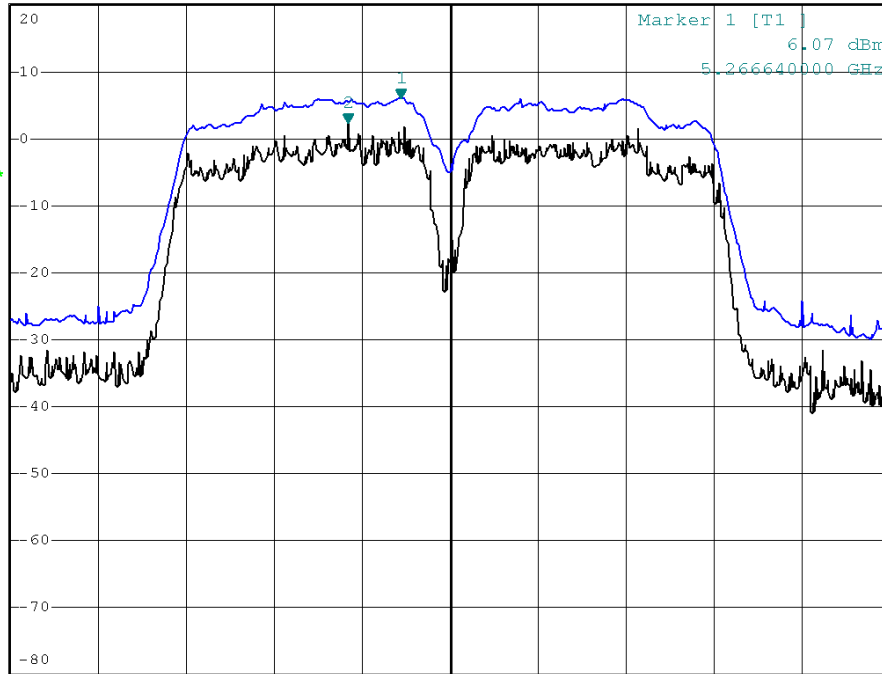
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    2.33 dBm  
\*SWT 300 ms    5.263040000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.27 GHz

6 MHz/

Span 60 MHz

### IEEE 802.11n (40 MHz)/ANT.1/5310 MHz/Peak Excursion



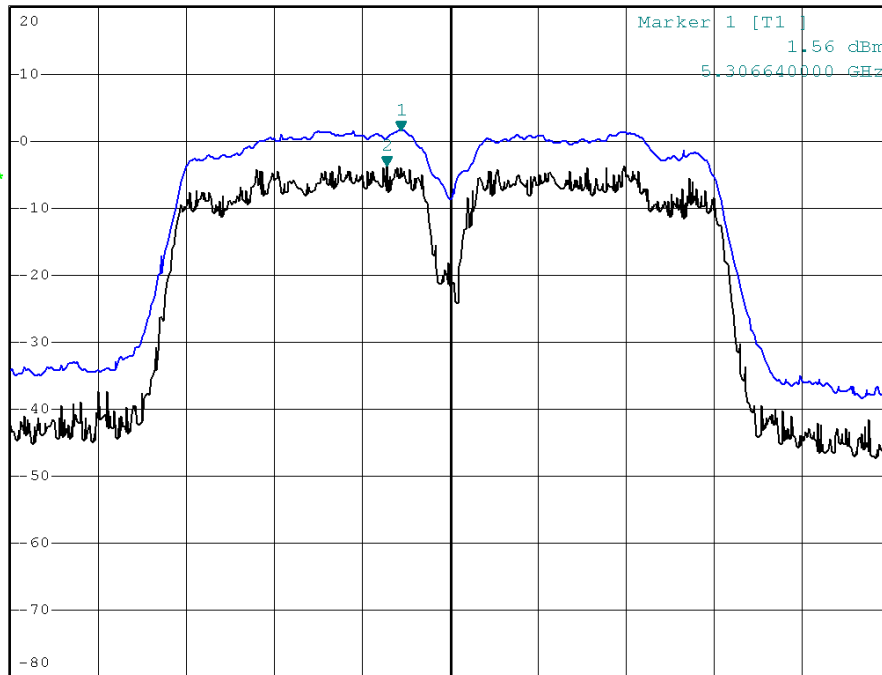
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    -3.68 dBm  
\*SWT 300 ms    5.305680000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.31 GHz

6 MHz/

Span 60 MHz





E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.2/5270 MHz, 5310 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5270 MHz	5.29	13	PASS
5310 MHz	4.43	13	PASS



### IEEE 802.11n (40 MHz)/ANT.2/5270 MHz/Peak Excursion



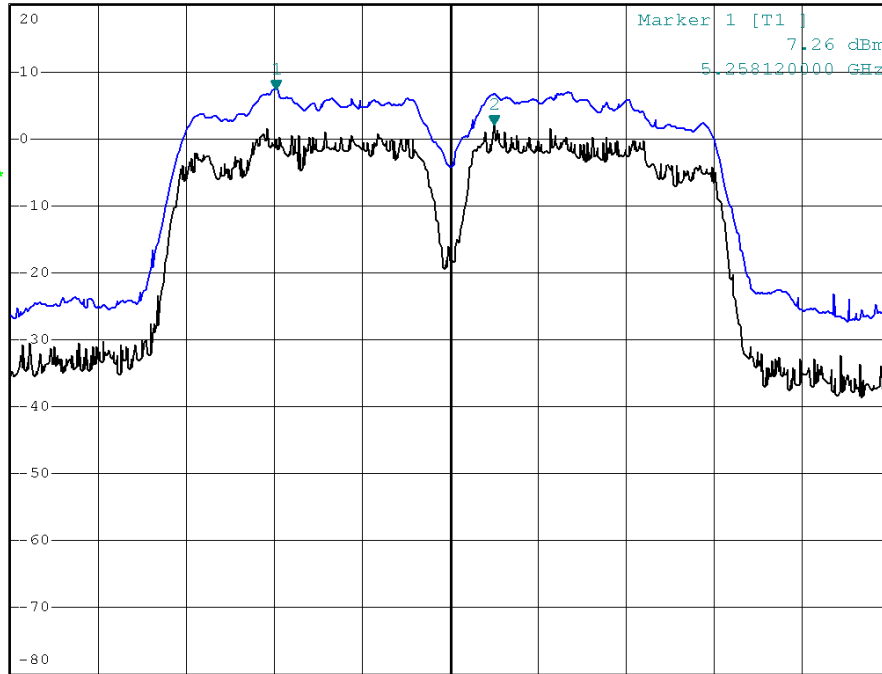
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    1.97 dBm  
\*SWT 300 ms    5.273000000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.27 GHz

6 MHz/

Span 60 MHz

### IEEE 802.11n (40 MHz)/ANT.2/5310 MHz/Peak Excursion



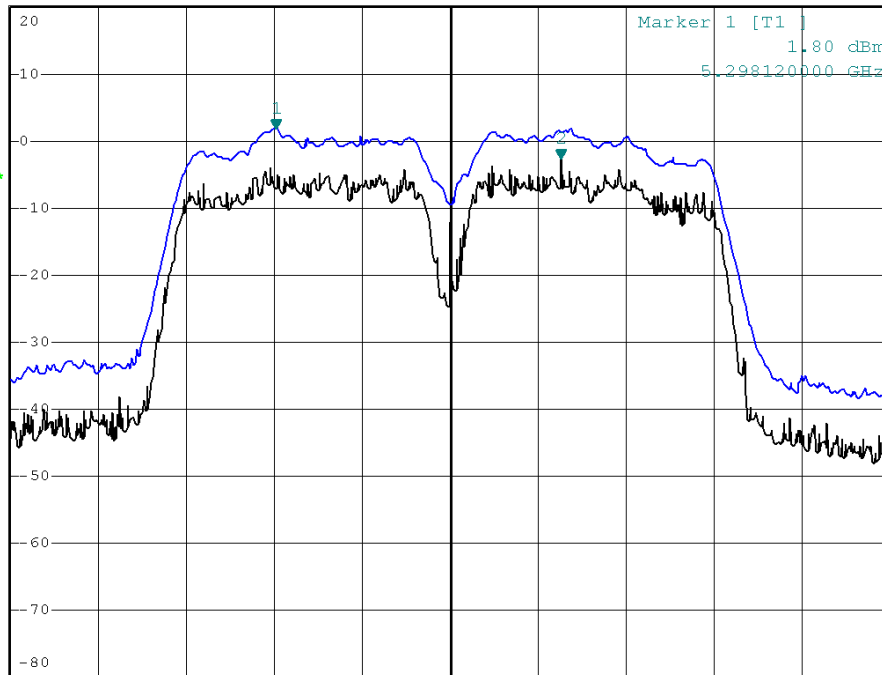
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    -2.63 dBm  
\*SWT 300 ms    5.317560000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.31 GHz

6 MHz/

Span 60 MHz

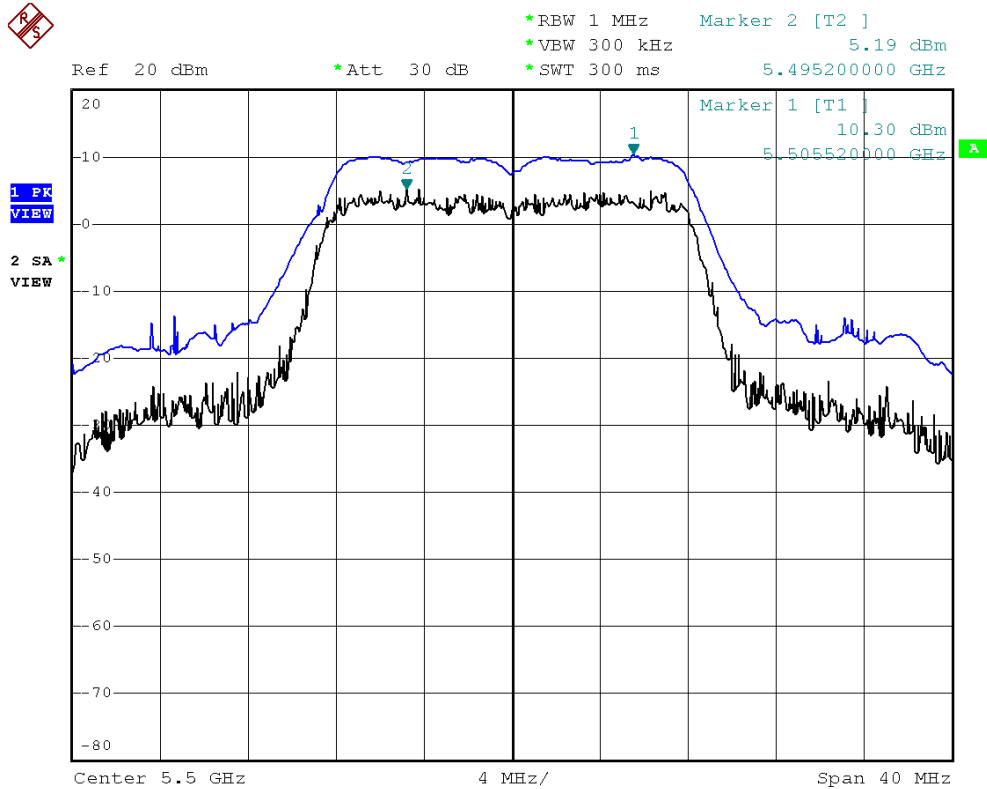


**11.10 TEST RESULTS - 5470-5725 MHZ**

E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11a/5500 MHz, 5580 MHz, 5700 MHz		

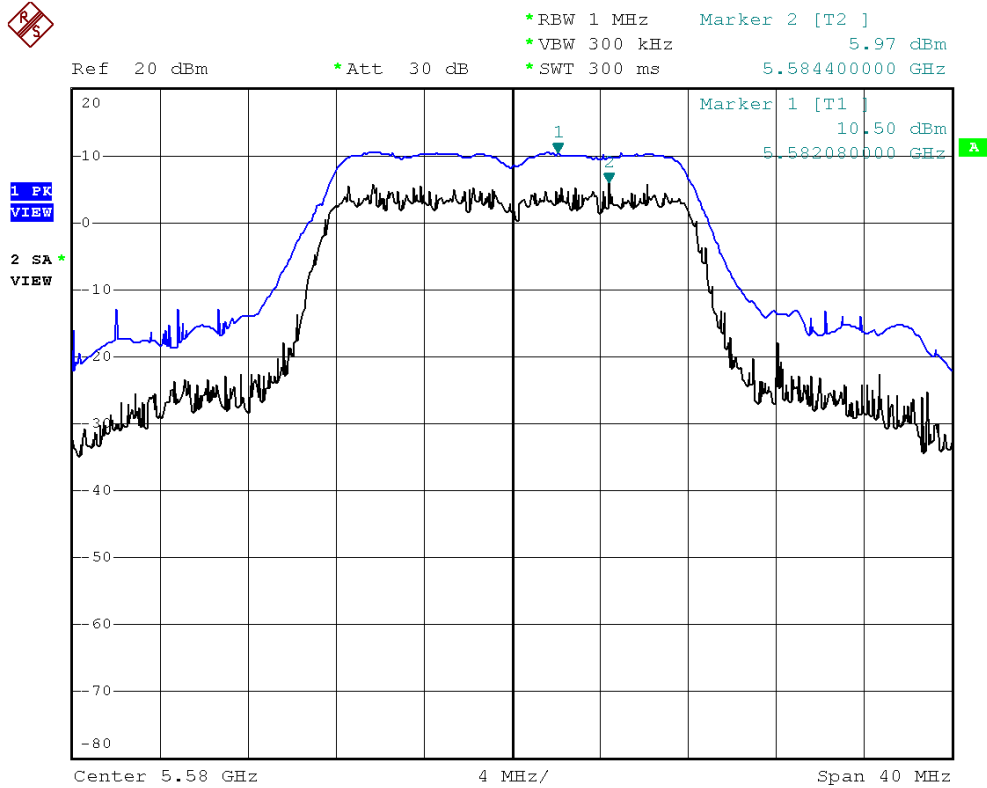
Frequency	Peak Excursion (dB)	Limit (dB)	Result
5500 MHz	5.11	13	PASS
5580 MHz	4.53	13	PASS
5700 MHz	4.63	13	PASS

**IEEE 802.11a/5500 MHz/Peak Excursion**

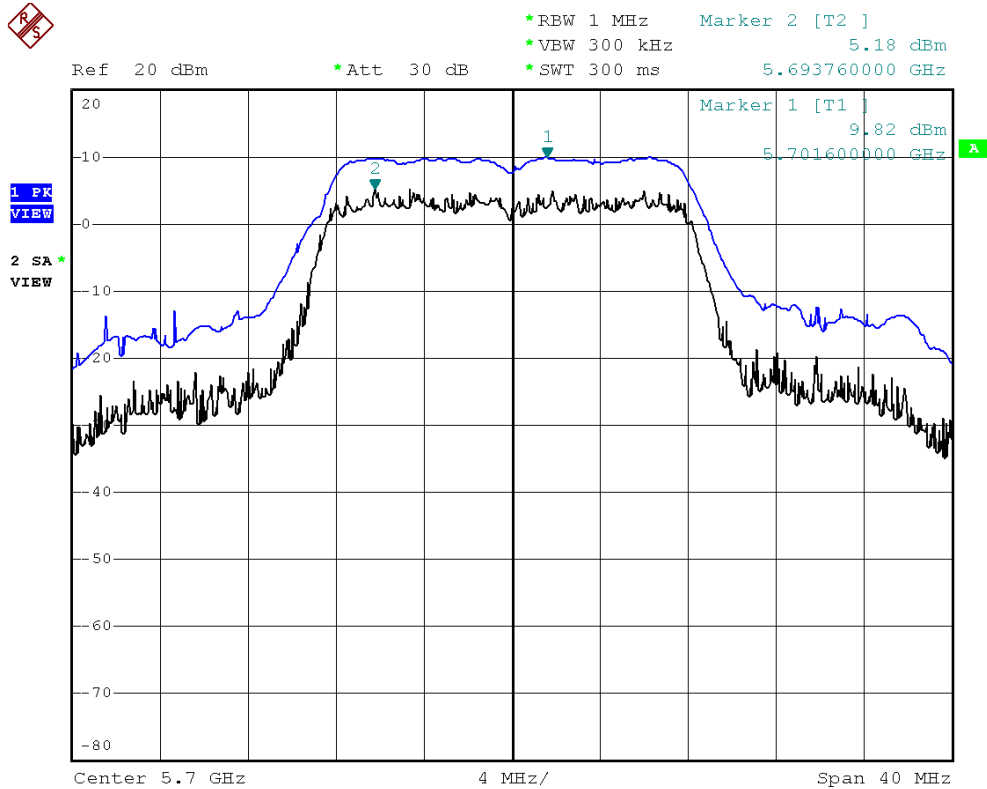




### IEEE 802.11a/5580 MHz/Peak Excursion



### IEEE 802.11a/5700 MHz/Peak Excursion

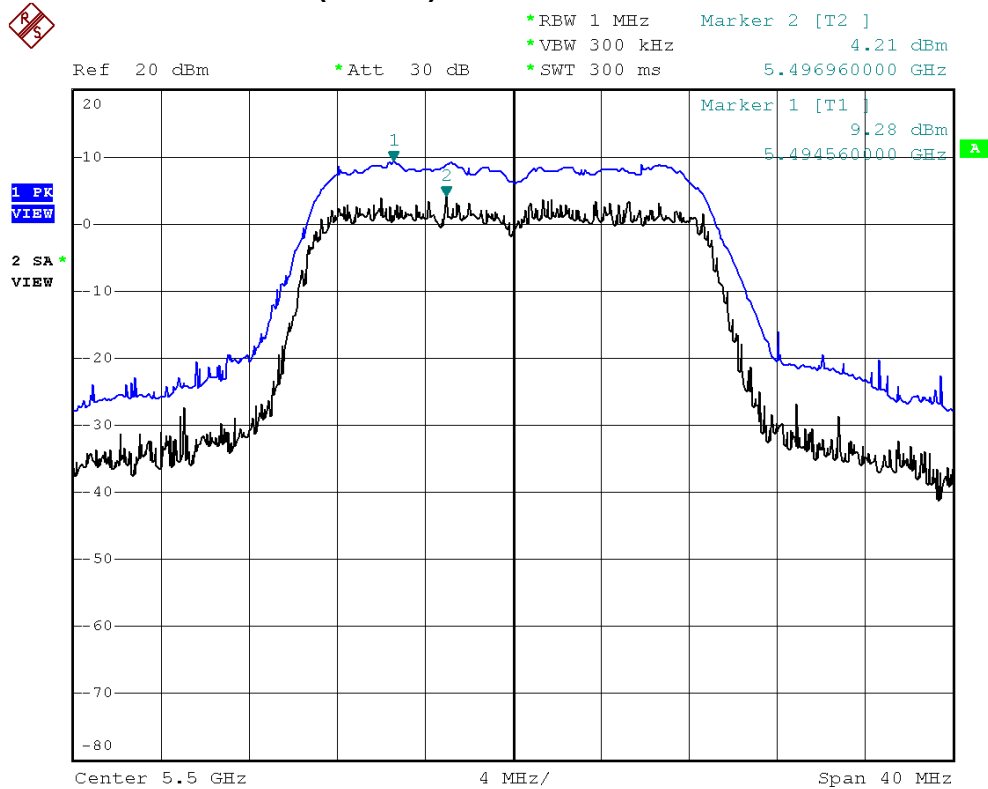




E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.1/5500 MHz, 5580 MHz, 5700 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5500 MHz	5.07	13	PASS
5580 MHz	5.08	13	PASS
5700 MHz	5.31	13	PASS

**IEEE 802.11n (20 MHz)/ANT.1/5500 MHz/Peak Excursion**





### IEEE 802.11n (20 MHz)/ANT.1/5580 MHz/Peak Excursion



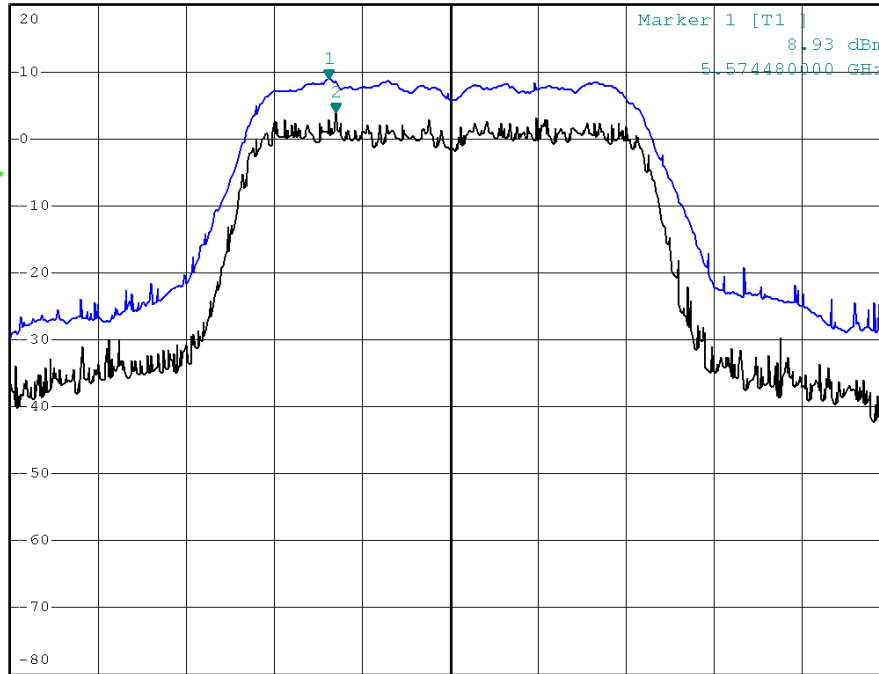
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    3.85 dBm  
\*SWT 300 ms    5.574800000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.58 GHz

4 MHz/

Span 40 MHz

### IEEE 802.11n (20 MHz)/ANT.1/5700 MHz/Peak Excursion



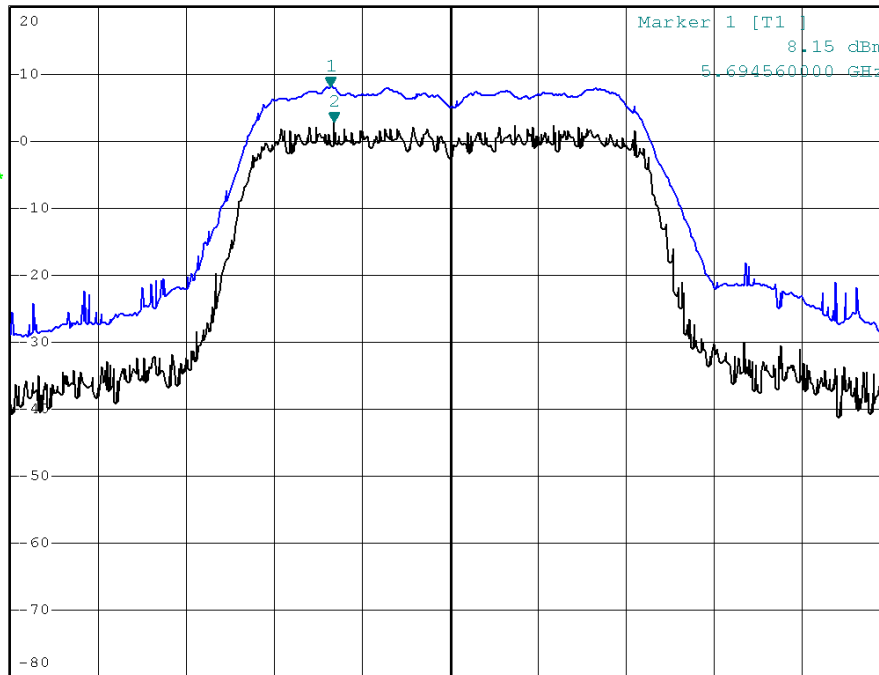
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    2.84 dBm  
\*SWT 300 ms    5.694720000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA \*  
VIEW



Center 5.7 GHz

4 MHz/

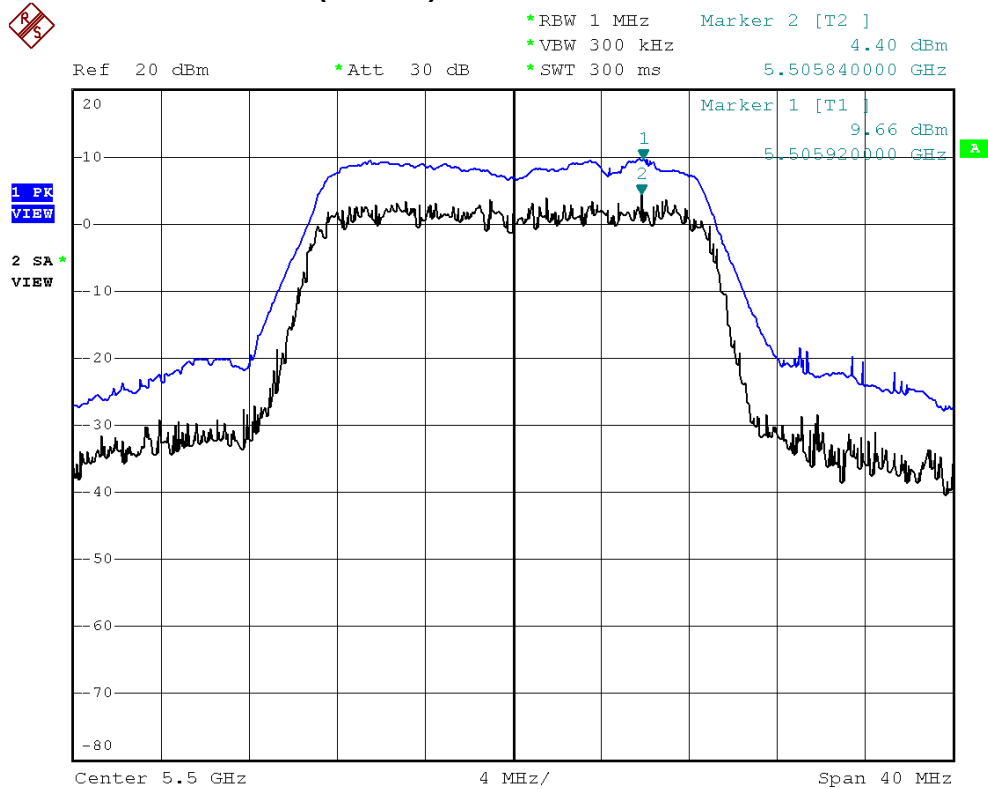
Span 40 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (20 MHz)/ANT.2/5500 MHz, 5580 MHz, 5700 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5500 MHz	5.26	13	PASS
5580 MHz	6.19	13	PASS
5700 MHz	5.66	13	PASS

**IEEE 802.11n (20 MHz)/ANT.2/5500 MHz/Peak Excursion**





### IEEE 802.11n (20 MHz)/ANT.2/5580 MHz/Peak Excursion



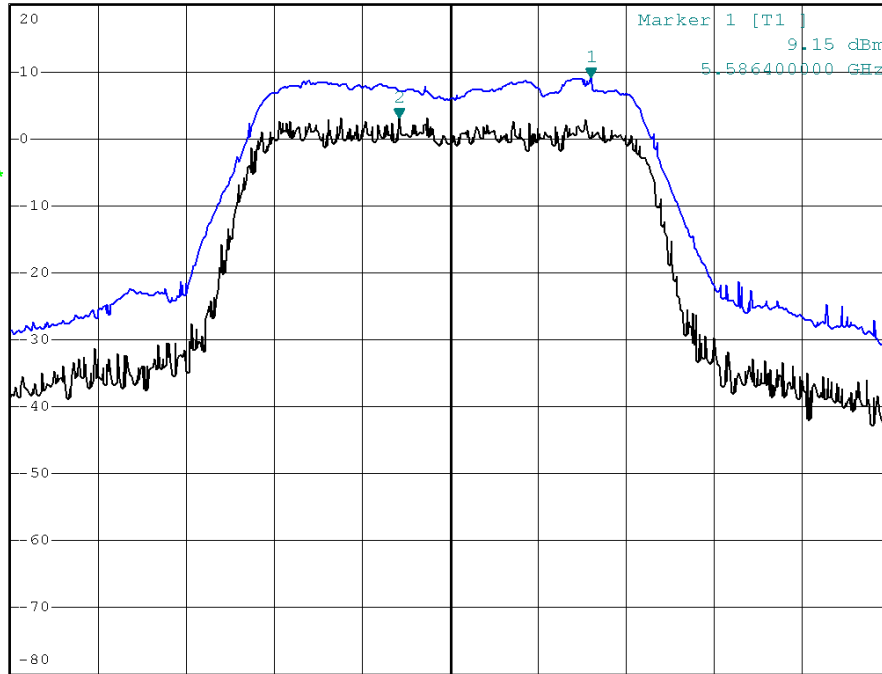
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    2.96 dBm  
\*SWT 300 ms    5.577680000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.58 GHz

4 MHz/

Span 40 MHz

### IEEE 802.11n (20 MHz)/ANT.2/5700 MHz/Peak Excursion



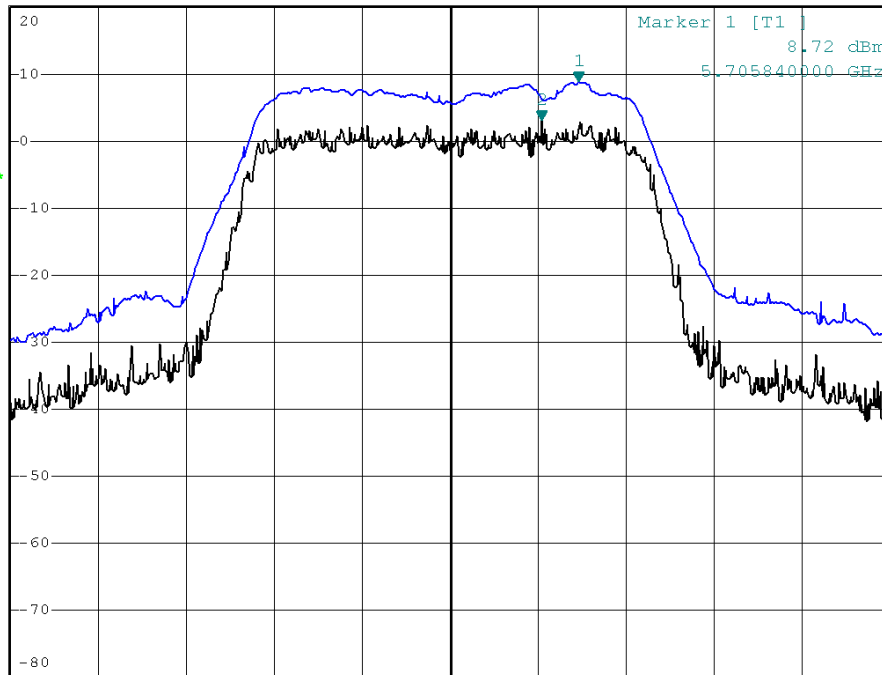
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    3.06 dBm  
\*SWT 300 ms    5.704160000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.7 GHz

4 MHz/

Span 40 MHz

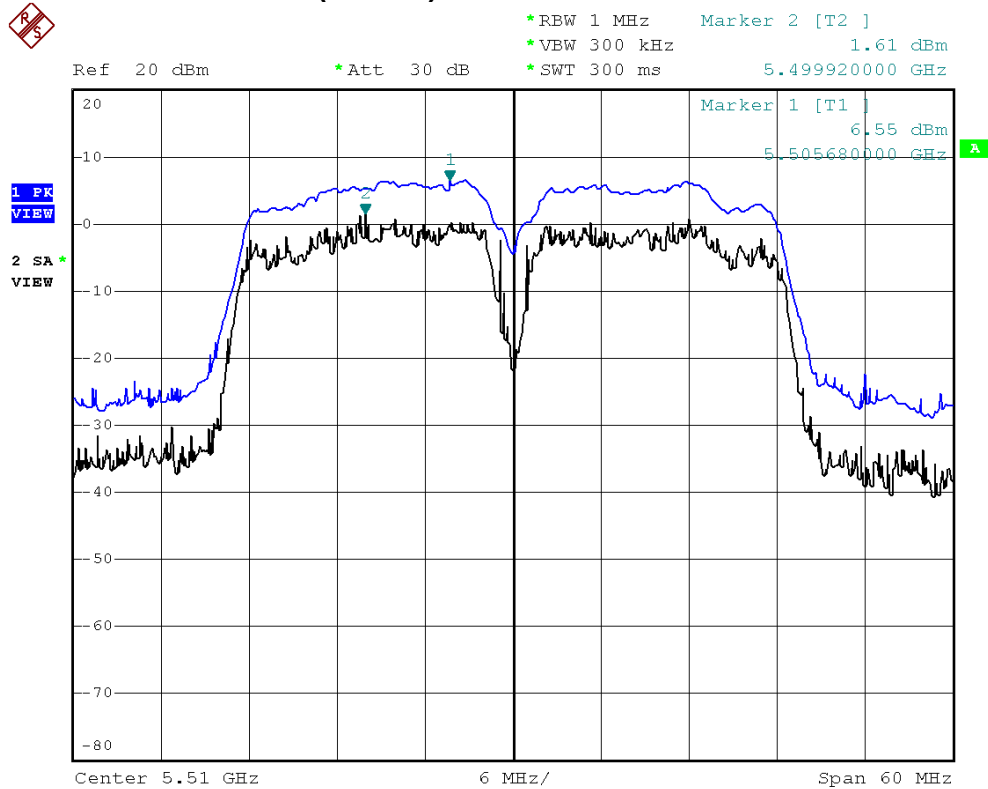




E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.1/5510 MHz, 5550 MHz, 5670 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5510 MHz	3.96	13	PASS
5550 MHz	5.00	13	PASS
5670 MHz	4.94	13	PASS

**IEEE 802.11n (40 MHz)/ANT.1/5510 MHz/Peak Excursion**





### IEEE 802.11n (40 MHz)/ANT.1/5550 MHz/Peak Excursion



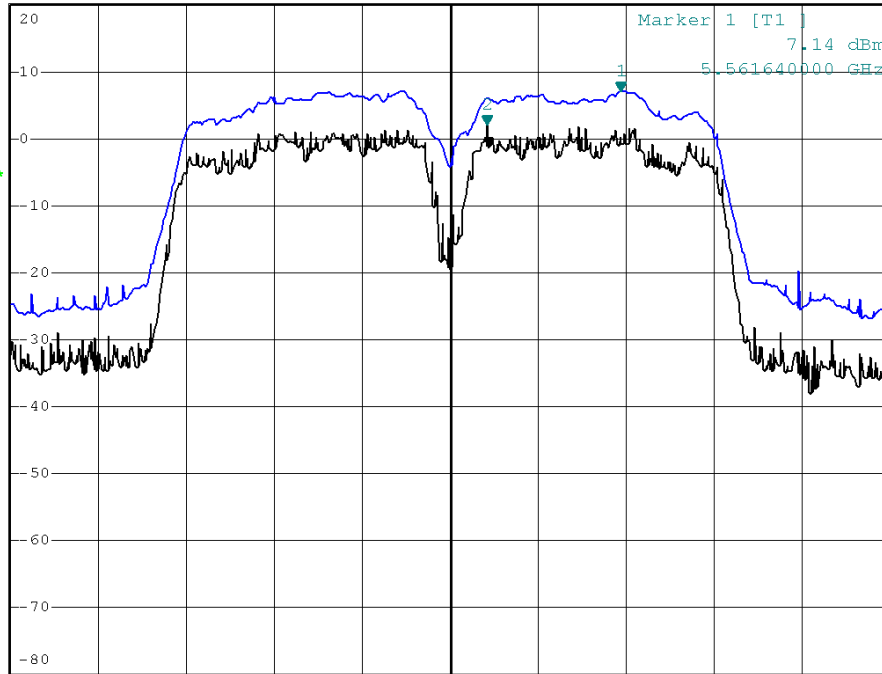
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    2.14 dBm  
\*SWT 300 ms    5.552520000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.55 GHz

6 MHz/

Span 60 MHz

### IEEE 802.11n (40 MHz)/ANT.1/5670 MHz/Peak Excursion



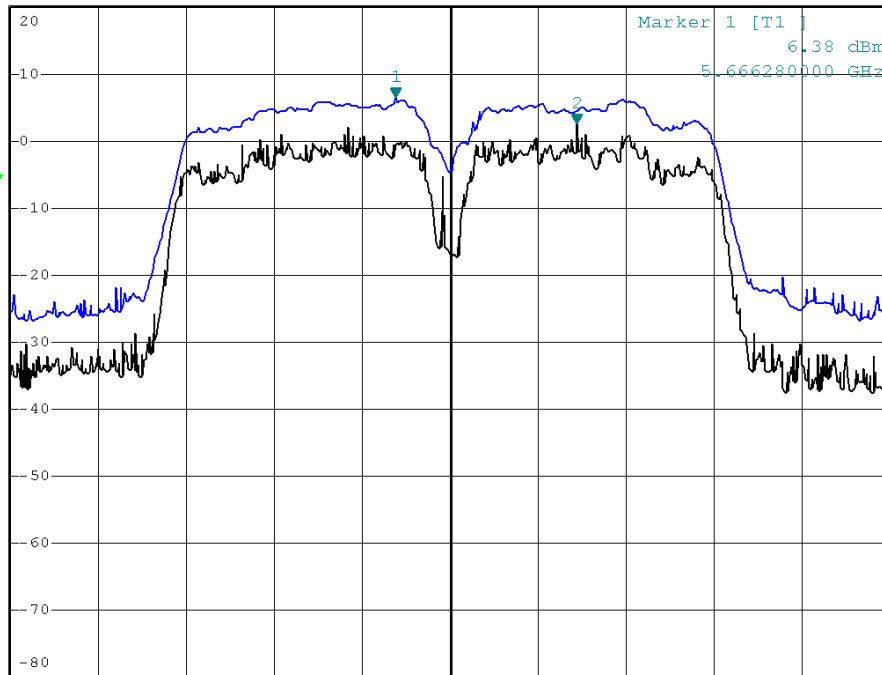
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    2.42 dBm  
\*SWT 300 ms    5.678640000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.67 GHz

6 MHz/

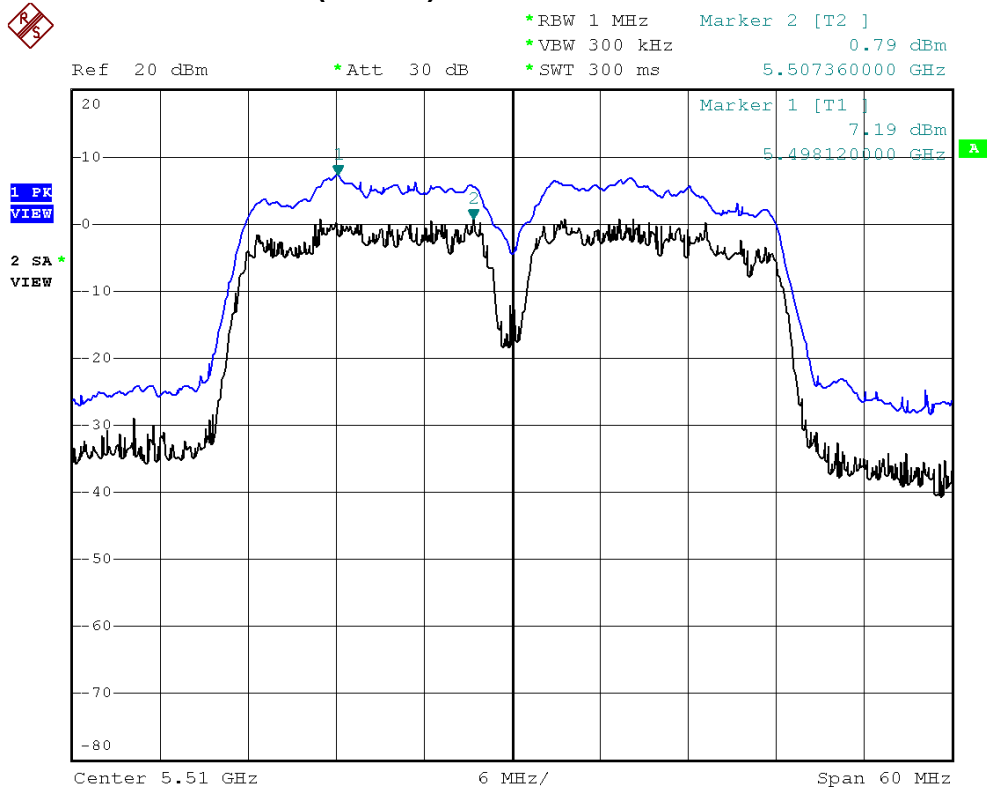
Span 60 MHz



E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11n (40 MHz)/ANT.2/5510 MHz, 5550 MHz, 5670 MHz		

Frequency	Peak Excursion (dB)	Limit (dB)	Result
5510 MHz	6.40	13	PASS
5550 MHz	5.31	13	PASS
5670 MHz	5.36	13	PASS

**IEEE 802.11n (40 MHz)/ANT.2/5510 MHz/Peak Excursion**





### IEEE 802.11n (40 MHz)/ANT.2/5550 MHz/Peak Excursion



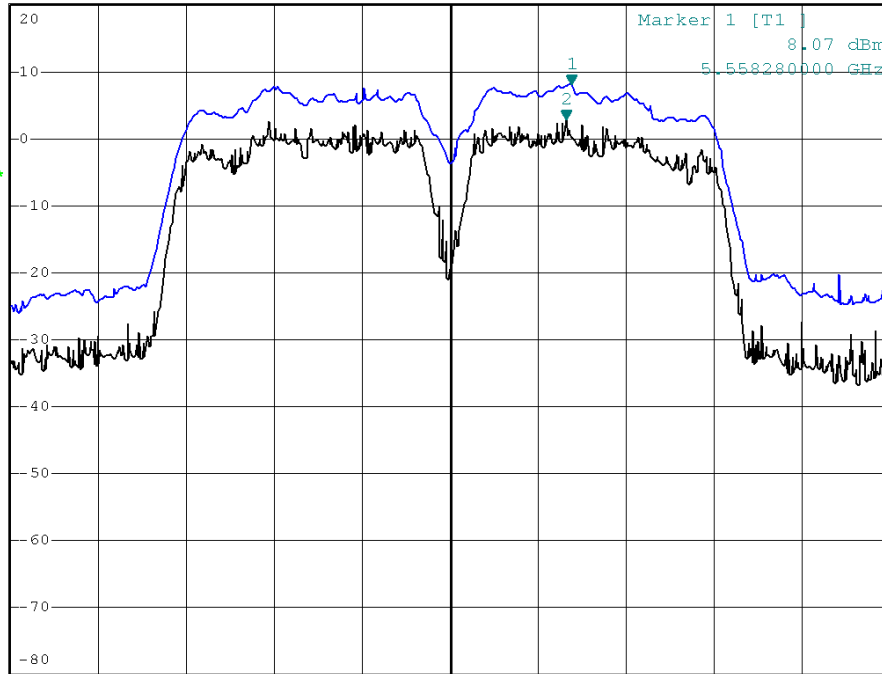
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    2.76 dBm  
\*SWT 300 ms    5.557920000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.55 GHz

6 MHz/

Span 60 MHz

### IEEE 802.11n (40 MHz)/ANT.2/5670 MHz/Peak Excursion



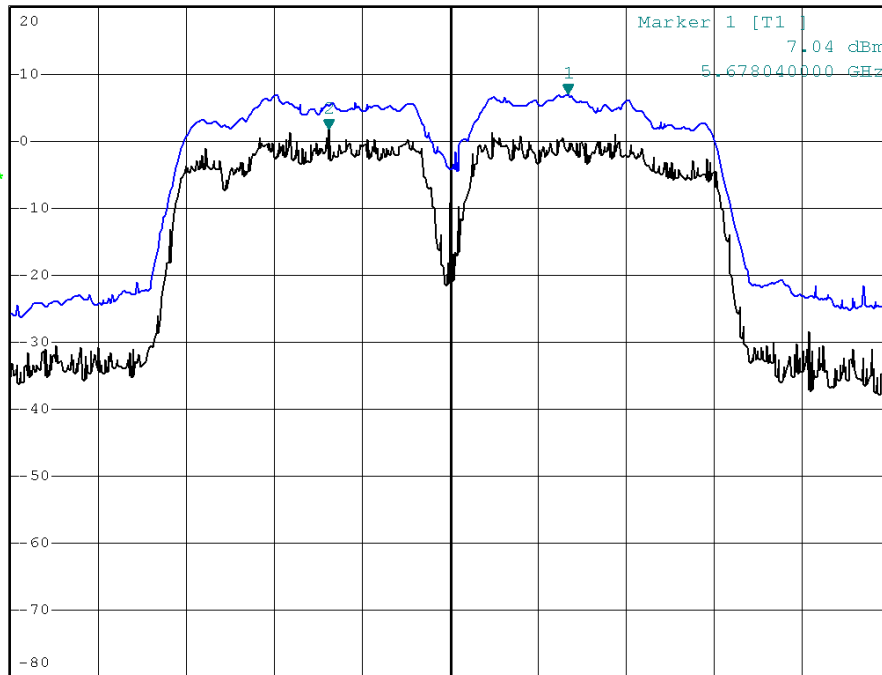
\*RBW 1 MHz    Marker 2 [T2 ]  
\*VBW 300 kHz    1.68 dBm  
\*SWT 300 ms    5.661720000 GHz

Ref 20 dBm

\*Att 30 dB

1 PK  
VIEW

2 SA  
VIEW



Center 5.67 GHz

6 MHz/

Span 60 MHz



**12 FREQUENCY STABILITY**

**12.1 LIMIT**

Test Item	Frequency Range (MHz)	Limit
Frequency Stability	5150 - 5250	specified in the user's manual or ±20ppm (IEEE 802.11a specification)
	5250 - 5350	
	5470 - 5725	
	5725 - 5825	

**12.2 MEASUREMENT INSTRUMENTS LIST**

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	TEMPERAURE AND HUMIDITY CHAMBER	HOLINK	CHOLINK/H-T-1F-D	BA03101701	May. 20, 2013
2	Spectrum Analyzer	R&S	FSP-40	100129	Oct. 06, 2012

NOTE: **N/A**: denotes No Model Name, No Serial No. or No Calibration specified.

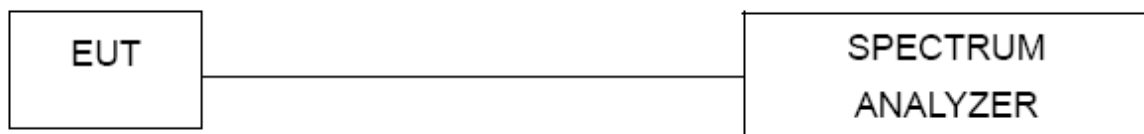
**12.3 MEASURING INSTRUMENTS SETTING**

Spectrum Analyzer	Parameter Setting
Attenuation	Auto
Span Frequency	Entire absence of modulation emissions bandwidth
RB	10 kHz
VB	10 kHz
Sweep Time	Auto

**12.4 TEST PROCEDURES**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below.
- b. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.
- c. Extreme temperature rule is -30°C~50°C.

**12.5 TEST SETUP LAYOUT**



**12.6 DEVIATION FROM TEST STANDARD**

No deviation



## **12.7 EUT OPERATING CONDITIONS**

The EUT tested system was configured as the statements of 5.6 Unless otherwise a special operating condition is specified in the follows during the testing.



**12.8 TEST RESULTS**

E.U.T	MONDOCENTER	Model Name	INF-MCENTER
Temperature	26°C	Relative Humidity	60%
Test Voltage	AC 120V/60Hz		
Test Mode	IEEE 802.11a/5200 MHz		

<b>Voltage vs. Frequency Stability</b>		
<b>Voltage</b>	<b>Measurement Frequency (MHz)</b>	
(V)	5200	-
126.5	5199.937600	
110	5199.940600	
93.5	5199.941200	
Max. Deviation (MHz)	0.062400	
Max. Deviation (ppm)	12.00	

<b>Temperature vs. Frequency Stability</b>		
<b>Temperature</b>	<b>Measurement Frequency (MHz)</b>	
(°C)	5200	-
-30	5199.910000	
-20	5199.923000	
-10	5199.925600	
0	5199.928200	
10	5199.932400	
20	5199.937600	
30	5199.943000	
40	5199.949200	
50	5199.951000	
Max. Deviation (MHz)	0.090000	
Max. Deviation (ppm)	17.31	