



DFS Test Report

Product Name : WIRELESS-A/N 26DBM NETWORK MINI
PCI ADAPTER

Model No. : IWAVEPORT WLM200N5-26

Applicant : Compex Systems Pte Ltd

Address : 135 Joo Seng Road, #08-01 PM Industrial Building
Singapore 368363

Date of Receipt : 2009/01/20

Issued Date : 2009/02/04

Report No. : 091307S-RFCE

Version : V2.0

The test results relate only to the samples tested.

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Product Name : WIRELESS-A/N 26DBM NETWORK MINI PCI ADAPTER
 Applicant : Compex Systems Pte Ltd
 Address : 135 Joo Seng Road, #08-01 PM Industrial Building
 Singapore 368363
 Manufacturer : Compex Systems Pte Ltd
 Model No. : IWAVEPORT WLM200N5-26
 Trade Name : COMPEX
 Applicable Standard : ETSI EN 301 893 V1.4.1 (2007-07)
 Test Result : Pass

Test Item	Test Result
Dynamic Frequency Selection (DFS)	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Roy Wang

(Roy Wang / Manager)

Rita Hsu

(Rita Hsu / Engineer)

Dynamic Frequency Selection (DFS) Test

Section 4.7

General Information

The UUT operates in the following bands:

1. 5250-5350 MHz
2. 5470-5725 MHz

The UUT is a Client Device that does not have radar detection capability, and ad-hoc function. The highest gain antenna assembly utilized with the EUT has a maximum gain of 2dBi in 5GHz frequency band. The 50-ohm Tx/Rx antenna port is connected to the test system to perform conducted tests. TPC is not required since the maximum EIRP is less than 500mW (27dBm).

The UUT utilizes 802.11a/b/g/n **IP based** architecture. One nominal channel bandwidth, 20 MHz and 40MHz are implemented.

The master device is a Cisco Aironet 802.11a/g/n Access Point. The DFS software installed in the master device is Cisco IOS Releases 12.3(11) JA.

The test set-up is using **Set-up B** which UUT is a RLAN device operating in slave mode without Radar Interference Detection function.

The UUT is a client device without radar detection, therefore the interference threshold level is not required.

Test Equipment

Dynamic Frequency Selection (DFS) / SR-7

Instrument	Manufacturer	Type No.	Serial No	Cal. Date
Spectrum Analyzer	Rohde & Schwarz	FSP	100561	Jan, 21, 2009
Vector Signal Generator	Rohde & Schwarz	SUM 200A	102168	Jan, 08, 2009

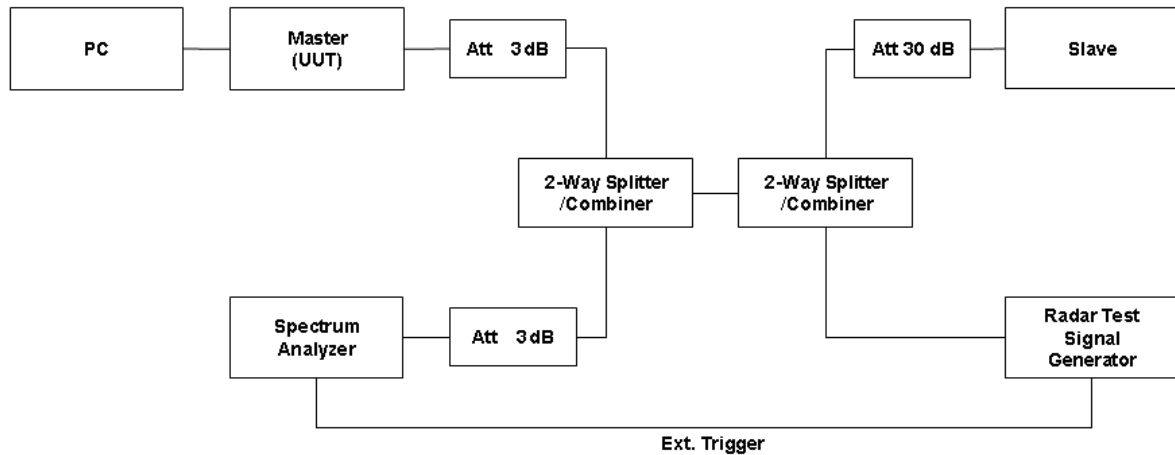
Instrument	Manufacturer	Type No.	Serial No
Splitter/Combiner (Qty: 2)	Mini-Circuits	ZAPD-50W 4.2-6.0 GHz	NN256400424
Splitter/Combiner (Qty: 2)	Mini-Circuits	ZA2PD-63-S+	SN049200828
ATT (Qty: 3)	Mini-Circuits	BW-S3W2 DC-18GHz	0025
Aironet Access Point	Cisco System	AP1252AG	FTX121090DP
Laptop PC	Dell	M65	28G9N1S
RF Cable (Qty: 4)	Schaffner		25494/6

Software	Manufacturer	Function
IOS Releases 12.3(11) JA	Cisco System	DFS Software
K6 Pulse Sequencer	Rohde & Schwarz	Radar Signal Generation Software
UTP Tool	UNICAST	Package data generator

Test Setup

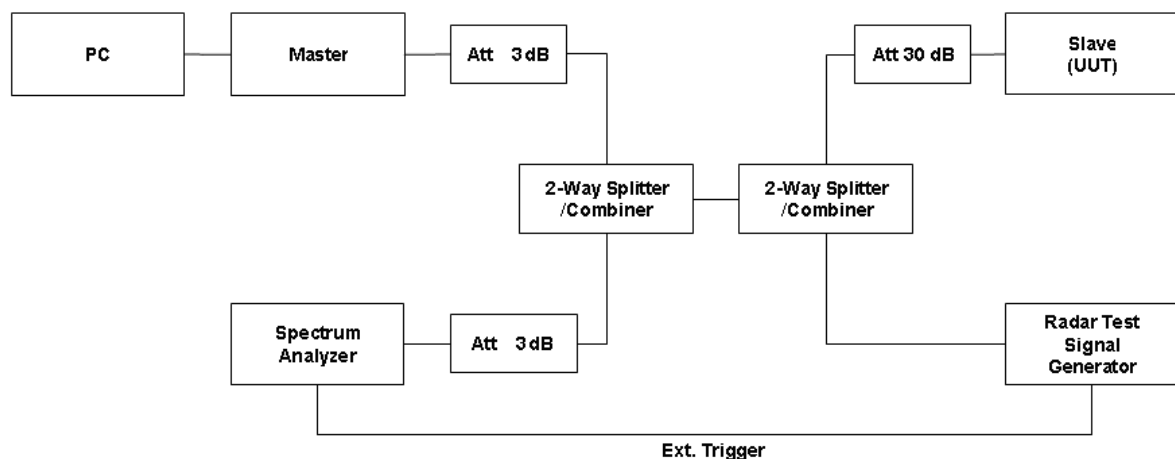
Set-up A

Set-up A is a set-up whereby the UUT is a RLAN device operating in master mode. Radar test signals are injected into the UUT. This set-up also contains a RLAN device operating in slave mode which is associated with the UUT.



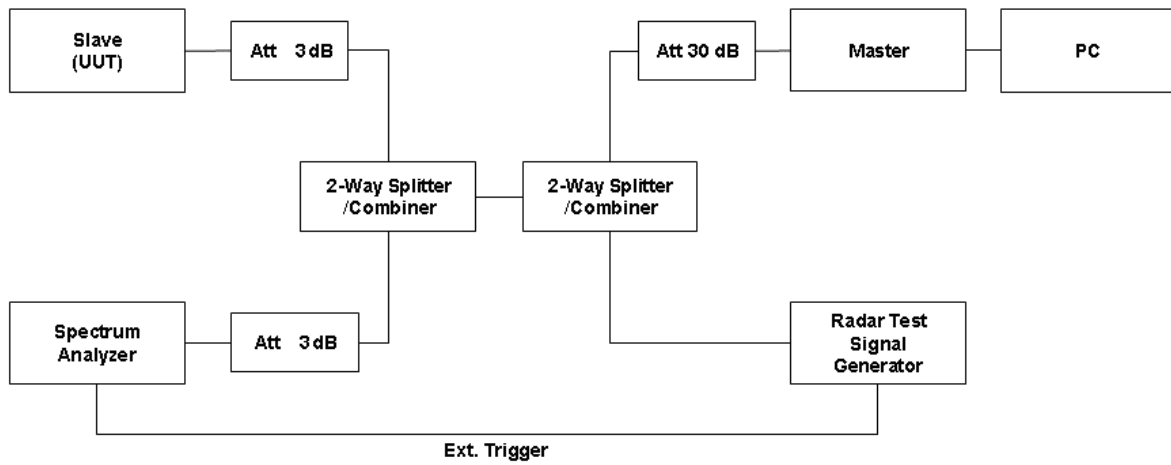
Set-up B

Set-up B is a set-up whereby the UUT is a RLAN device operating in slave mode, with or without Radar Interference Detection function. This set-up also contains a RLAN device operating in master mode. The radar test signals are injected into the master device. The UUT (slave device) is associated with the master device.

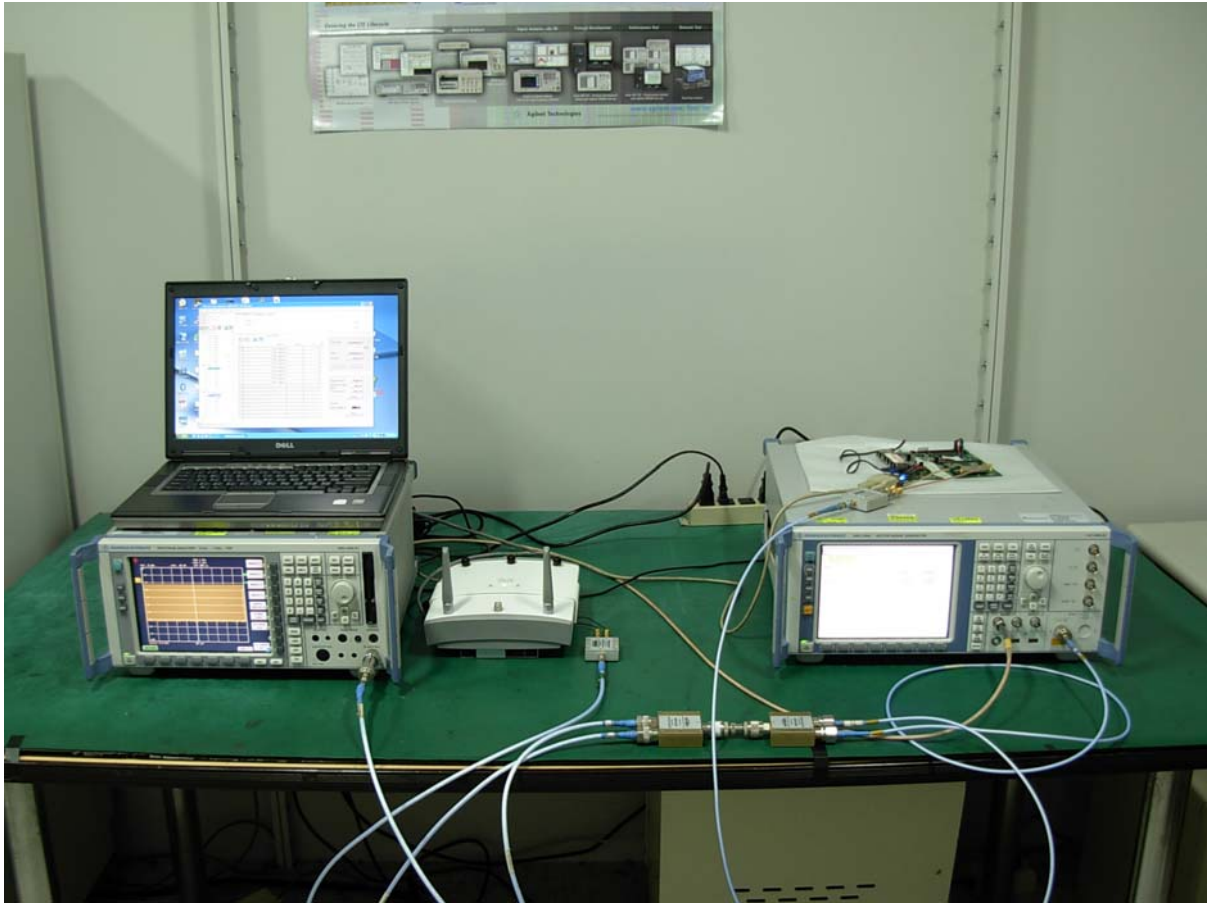


Set-up C

The UUT is a RLAN device operating in slave mode with Radar Interference Detection function. Radar test signals are injected into the slave device. This set-up also contains a RLAN device operating in master mode. The UUT (slave device) is associated with the master device.



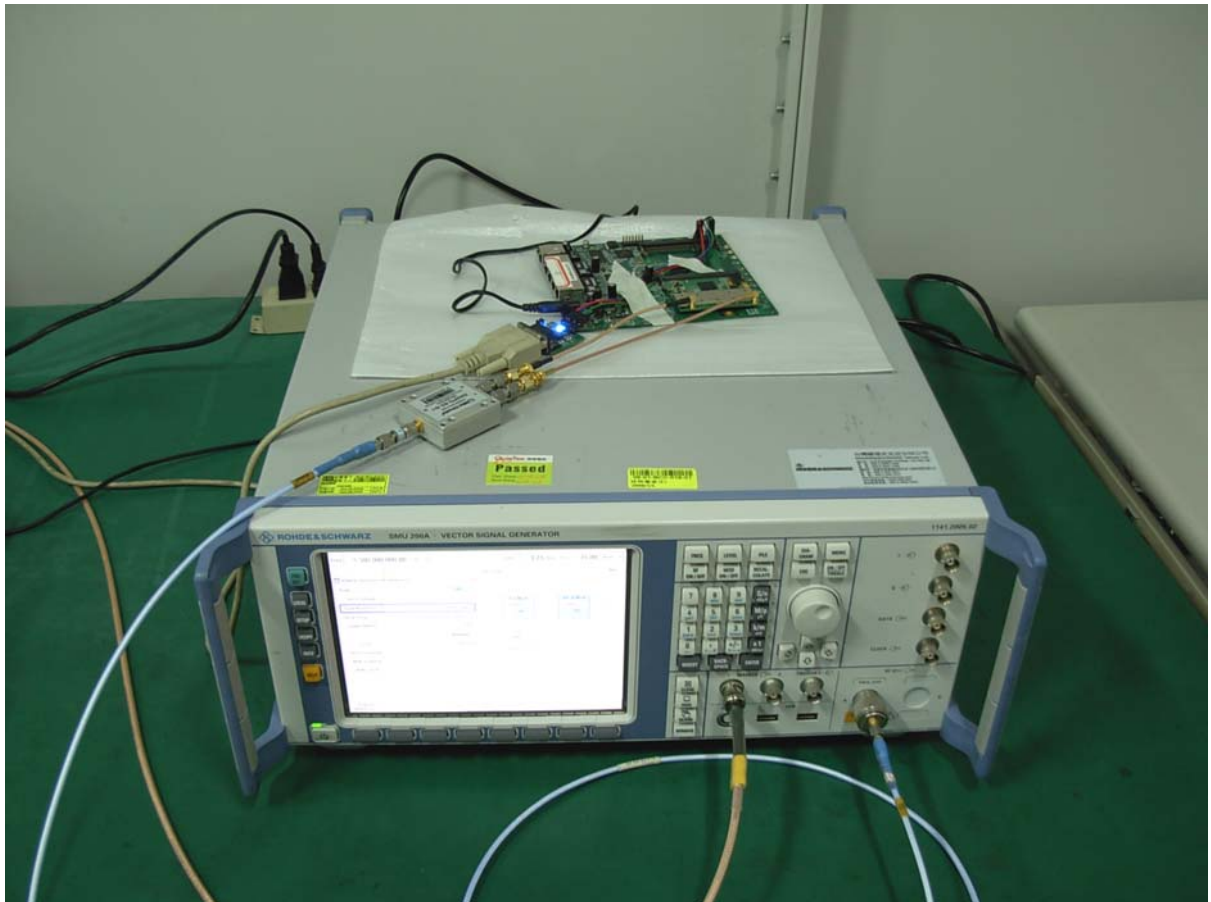
Full DFS Test Set-up Photo



DFS Set-up Photo: Master and Spectrum Analyzer



DFS Set-up Photo: Client and Radar Generator



DFS technical requirements specifications

Following Table lists the DFS related essential requirements and their applicability for each of the operational modes. If the RLAN device is capable of operating in more than one operating mode then each operating mode shall be assessed separately.

Requirement	DFS Operational mode		
	Master	Slave without radar detection (see table D.3)	Slave with radar detection (see table D.3)
Channel Availability Check	✓	Not required	Not required
In-Service Monitoring	✓	Not required	✓
Channel Shutdown	✓	✓	✓
Non-Occupancy Period	✓	Not required	✓
Uniform Spreading	✓	Not required	Not required

Channel Availability Check

The Channel Availability Check shall be performed during a continuous period in time (Channel Availability Check Time) which shall not be less than the value defined in table D.1 of standard.

During the Channel Availability Check, the RLAN shall be capable of detecting any of the radar signals that fall within the range given by table D.4 of standard with a level above the Interference Detection Threshold defined in tables D.2 and D.3 of standard.

The detection probability for a given radar signal shall be greater than the value defined in table D.4 of standard.

Available channels remain valid for a maximum period of 24 hours.

In-Service Monitoring

The In-Service Monitoring shall be used to continuously monitor an Operating Channel.

The In-Service Monitoring shall start immediately after the RLAN has started transmissions on an Operating Channel.

During the In-Service Monitoring, the RLAN shall be capable of detecting any of the radar signals that fall within the range given by table D.4 of standard with a level above the Interference Detection Threshold defined in tables D.2 and D.3 of standard.

The detection probability for a given radar signal shall be greater than the value defined in table D.4 of standard.

Channel Shutdown

The Channel Shutdown process shall start immediately after a radar signal has been detected.

The Channel Move Time shall not exceed the limit defined in table D.1 of standard.

The Channel Closing Transmission Time shall not exceed the limit defined in table D.1 of standard.

Non-Occupancy Period

The Non-Occupancy Period shall not be less than the value defined in table D.1 of standard.

Uniform Spreading

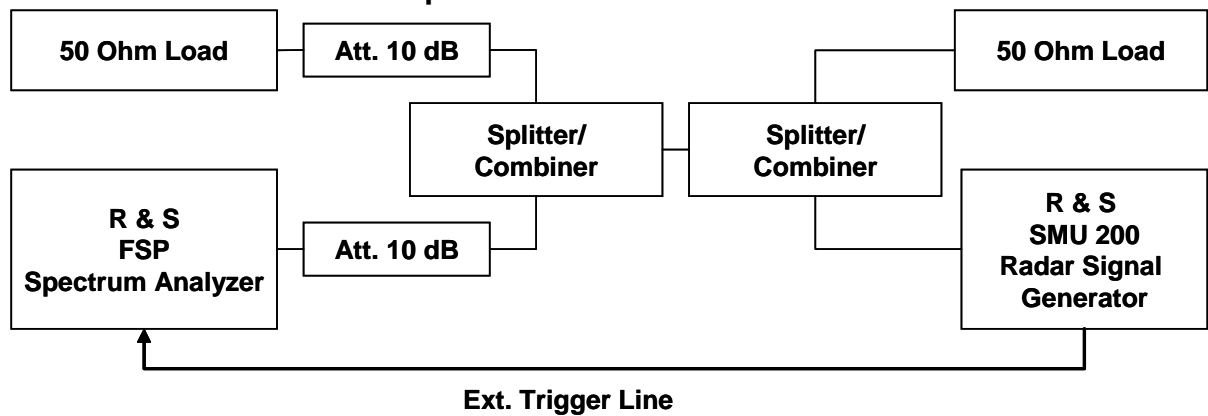
The probability of selecting each of the usable channels shall be within 10 % of the theoretical probability. For "n" channels, the theoretical probability is 1/n.

Radar Waveform Calibration

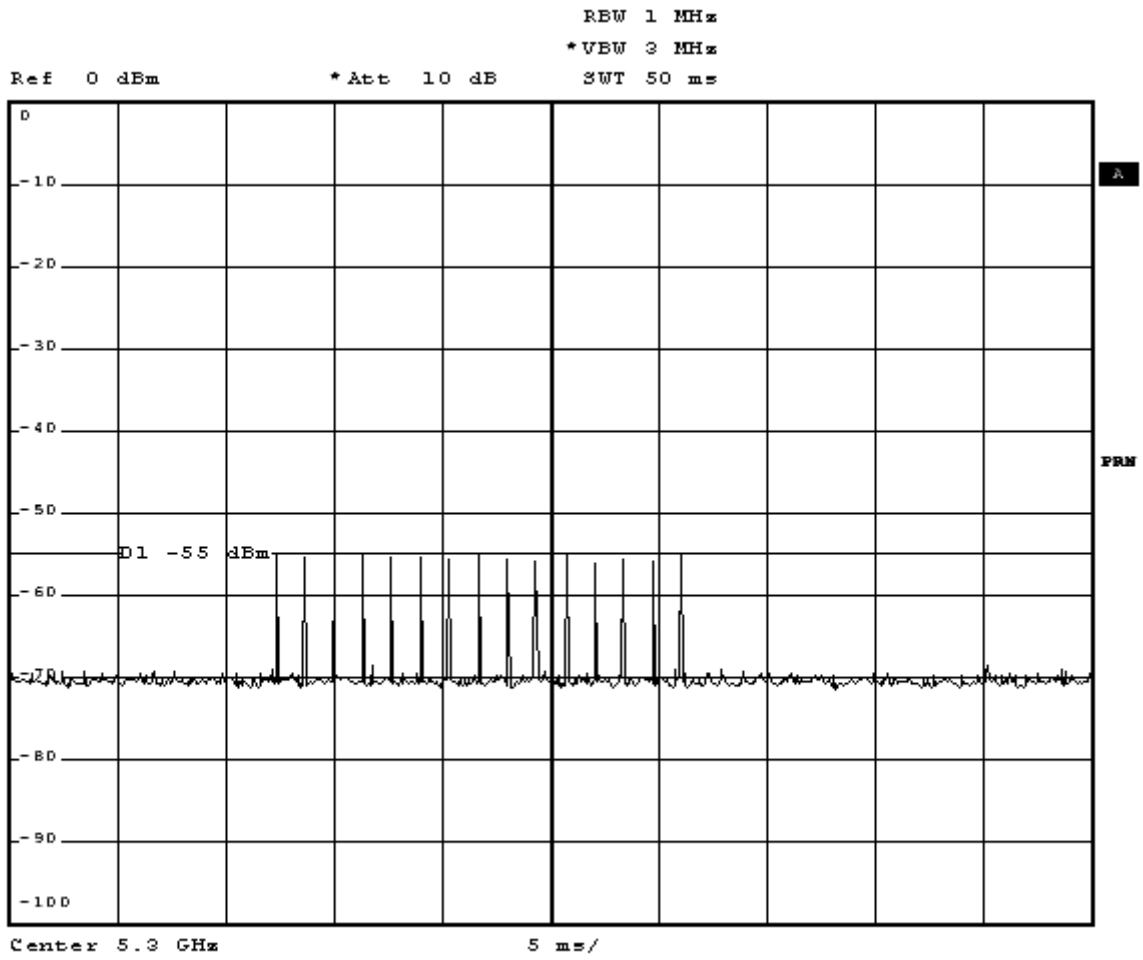
The following equipment setup was used to calibrate the conducted radar waveform. A spectrum analyzer was used to establish the test signal level for each radar type. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero span (time domain) at the frequency of the radar waveform generator. Peak detection was utilized. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 1 MHz and 3 MHz.

The signal generator amplitude was set so that the power level measured at the spectrum analyzer was -55 dBm due to the interference threshold level is not required.

Conducted Calibration Setup



Radar Type 1 Calibration Plot



Test Procedure / Results

For Conducted measurement

For a UUT with antenna connector(s) and using dedicated external antenna(s), or for a UUT with integral antenna(s) but with a temporary antenna connector provided, conducted measurements shall be used.

The UUT shall be configured to operate at the highest transmitter output power setting.

If the UUT has a Radar Interference Detection function, the output power of the signal generator producing the radar test signals, shall (unless otherwise specified) provide a received signal power at the antenna connector of the UUT with a level equal to (Interference Detection Threshold + G), see tables D.2 and D.3 of standard. Parameter G [dBi] corresponds to the gain of the antenna assembly stated by the manufacturer. If more than one antenna assembly is intended for this power setting, the gain of the antenna assembly with the lowest gain shall be used.

A channel shall be selected in accordance with clause 5.1.3 of standard. This channel is designated as Ch_r (channel occupied by radar). The UUT shall be configured to select Ch_r as the first Operating Channel.

Channel Availability Check

The clauses below define the procedure to verify the Channel Availability Check and the Channel Availability Check Time ($T_{ch_avail_check}$) by ensuring that the UUT is capable of detecting radar pulses at the beginning and at the end of the Channel Availability Check Time.

Tests with a radar burst at the beginning of the Channel Availability Check Time

The steps below define the procedure to verify the radar detection capability on the selected channel when a radar burst occurs at the beginning of the Channel Availability Check Time.

- a) The signal generator and UUT are connected using Set-up A and the power of the UUT is switched off.
- b) The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence (T_{power_up}) and is ready to start the radar detection. The Channel Availability Check is expected to commence on Ch_r at instant T_1 and is expected to end no sooner than T_1 and is expected to end no sooner than $T_1 + T_{ch_avail_check}$ unless radar is detected sooner.

NOTE: Additional verification may be needed to define T_1 in case it is not exactly known or indicated by the UUT.

- c) A radar burst is generated on Ch_r using radar test signal #1 defined in table D.4 of standard at a level of 10 dB above the level defined in standard. This single-burst radar test signal shall commence within 2 sec after time T_1 .
- d) It shall be recorded if the radar test signal was detected.
- e) A timing trace or description of the observed timing and behavior of the UUT shall be recorded.

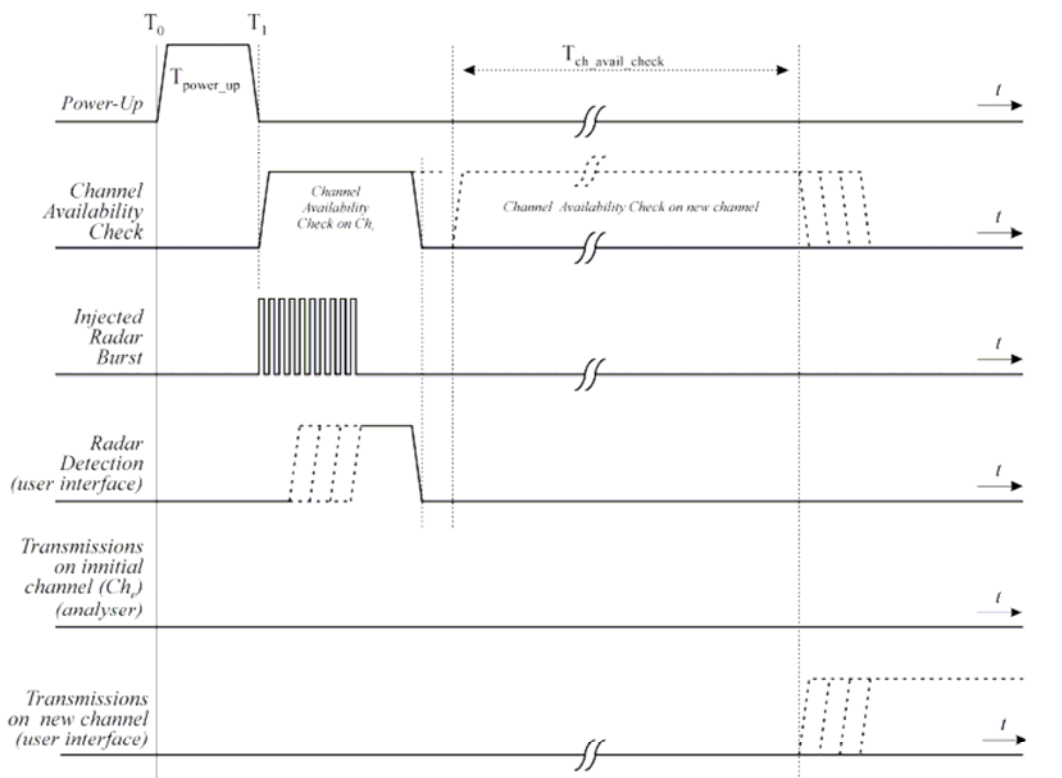


Figure 7: Example of timing for radar testing at the beginning of the Channel Availability Check Time

Tests with a radar burst at the end of the Channel Availability Check Time

The steps below define the procedure to verify the radar detection capability on the selected channel when a radar burst occurs at the end of the Channel Availability Check Time.

- a) The signal generator and UUT are connected using Set-up A and the power of the UUT is switched of.
- b) The UUT is powered up at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence (T_{power_up}) and is ready to start the radar detection. The Channel Availability Check is expected to commence on Ch_r at instant T_1 and is expected to end no sooner than $T_1 + T_{ch_avail_check}$ unless radar is detected sooner.
NOTE: Additional verification may be needed to define T_1 in case it is not exactly known or indicated by the UUT.
- c) A radar burst is generated on Ch_r Using radar test signal #1 defined in table D.4 at a level of 10 dB above the level defined in standard. This single-burst radar test signal shall commence towards the end of the minimum required Channel Availability Check Time but not before time $T_1 + T_{ch_avail_check} - 2$ [sec].
- d) It shall be recorded if the radar test signal was detected.
- e) A timing trace or description of the observed timing and behavior of the UUT shall be recorded.

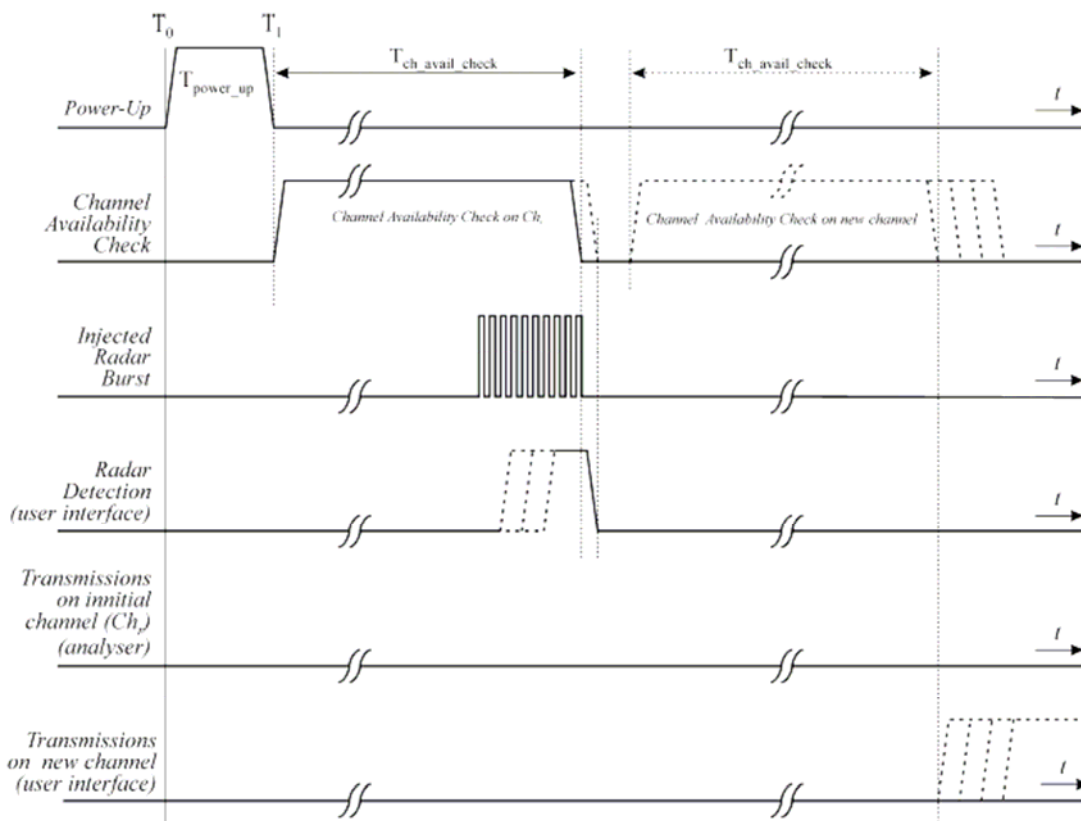


Figure 8: Example of timing for radar testing towards the end of the Channel Availability Check Time

Interference Detection Threshold (during the Channel Availability Check)

The different steps below define the procedure to verify the Interference Detection Threshold during the Channel Availability Check Time.

- a) The signal generator and UUT are connected using Set-up A and the power of the UUT is switched off.
- b) The UUT is powered on at T_0 . T_1 denotes the instant when the UUT has completed its power-up sequence (T_{power_up}) and is ready to start the radar detection. The channel Availability Check expected to commence on Ch_r at instant T_1 and is expected to end no sooner than $T_1 + T_{ch_avail_check}$ unless radar is detected sooner.
Note: Additional verification may be needed to define T_1 in case it is not exactly known or indicated by the UUT.
- c) mA radar burst is generated on Ch_r using radar test signal #1 defined in table D.4 of standard. This single-burst radar signal shall commence at approximately 10 seconds after T_1 .
- d) It shall be recorded if the radar test signal was detected.
- e) The step c) to d) shall be repeated at least 20 times in order to determine the detection probability for the selected radar test signal. The detection probability shall be compared with the limit specified the table D.4 of standard.
- f) The steps c) to e) shall be repeated for each of the radar test signals defined in table D.4.

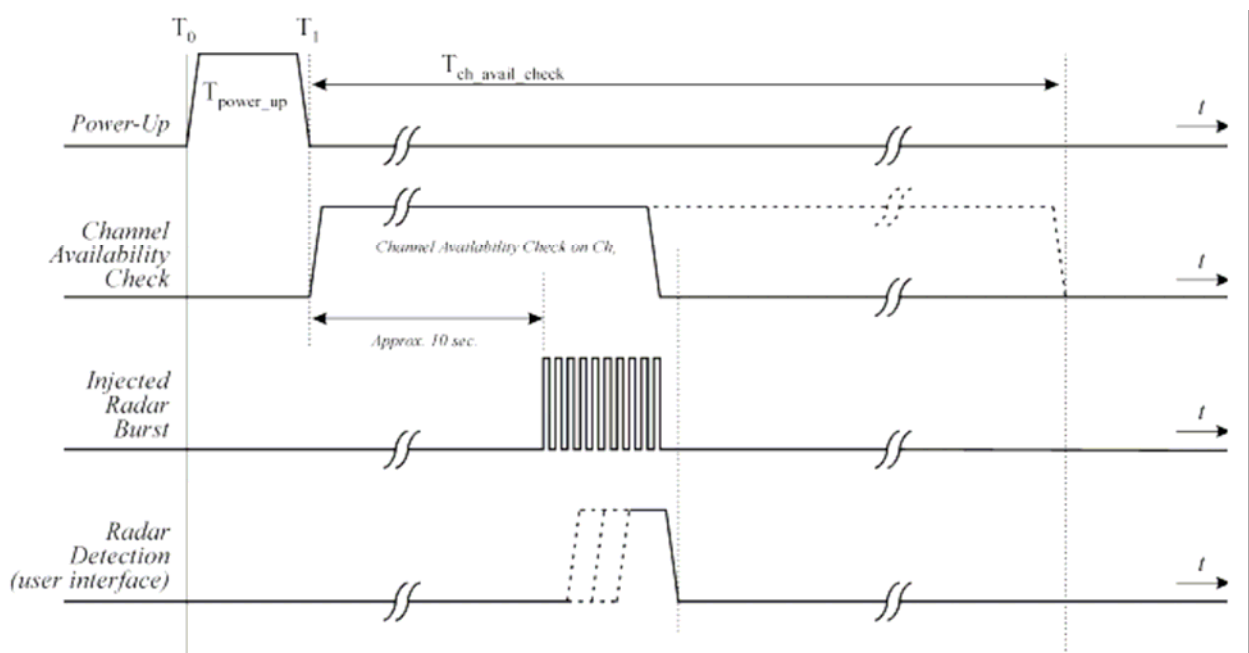


Figure 9: Example of timing for radar testing during the Channel Availability Check

In-Service Monitoring

The steps below define the procedure to verify the In-Service Monitoring and the Interference Detection Threshold during the In-Service Monitoring.

- a) When the UUT is a master device, a slave device will be used that associates with the UUT. The signal generator and the UUT are connected using Set-up A.
When the UUT is a slave device with a Radar Interference Detection function, the UUT shall associate with a master device. The signal generator and the UUT are connected using Set-up C.
- b) The UUT shall transmit a test transmission sequence in accordance with clause 5.1.2.2 of standard on the selected channel Ch_r .
- c) At a certain time T_0 , a radar burst is generated on Ch_r using radar test signal #1 defined in table D.4 of standard and at a level defined in standard T_1 denotes the end of the radar burst.
- d) It shall be recorded if the radar test signal was detected.
- e) The step b) to d) shall be repeated at least 20 times in order to determine the detection probability for the selected radar test signal. The detection probability shall be compared with the limit specified in table D.4 of standard.
- f) The steps b) to e) shall be repeated for each of the radar test signals defined in table D.4 and as described in standard.

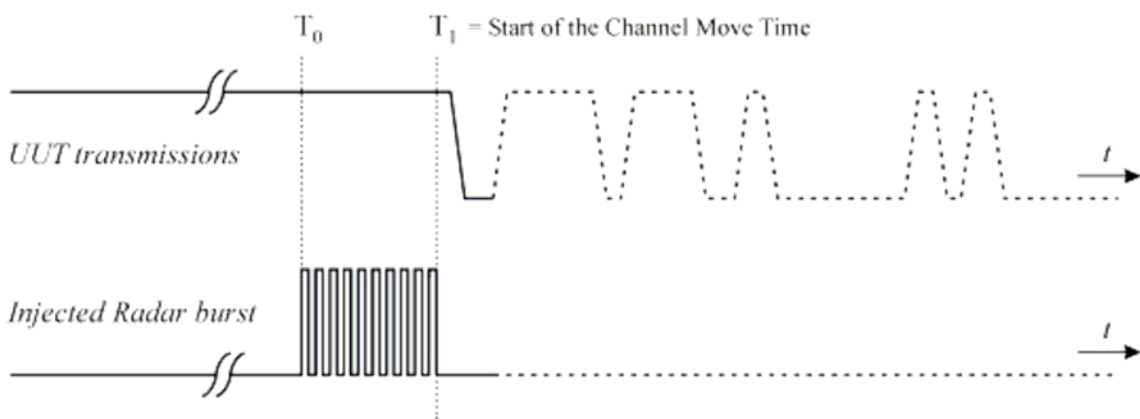
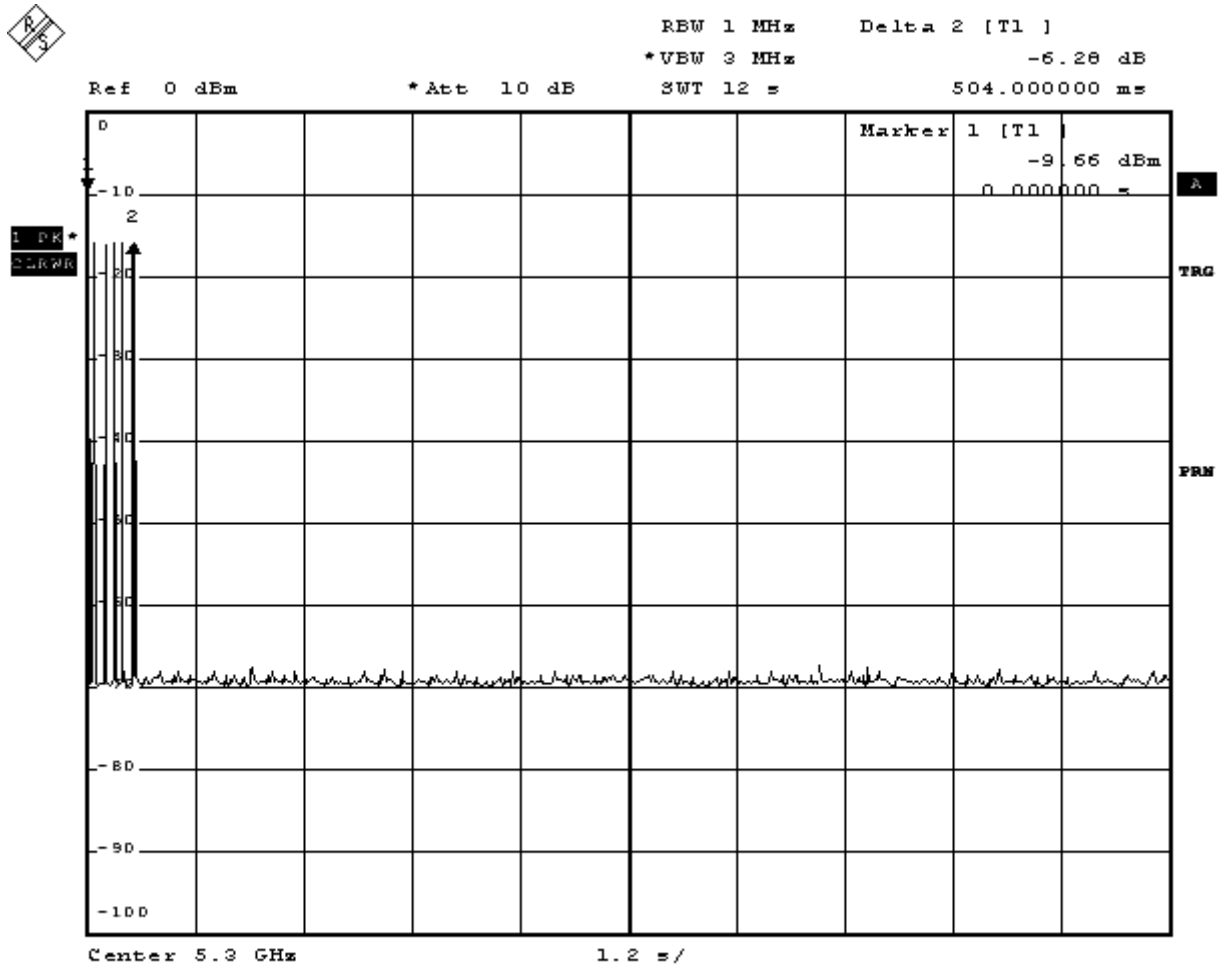


Figure 10: Example of timing for radar testing during In-Service Monitoring

20MHz Channel Mode

Channel Move Time for Radar Test Signal 1 at 5300MHz

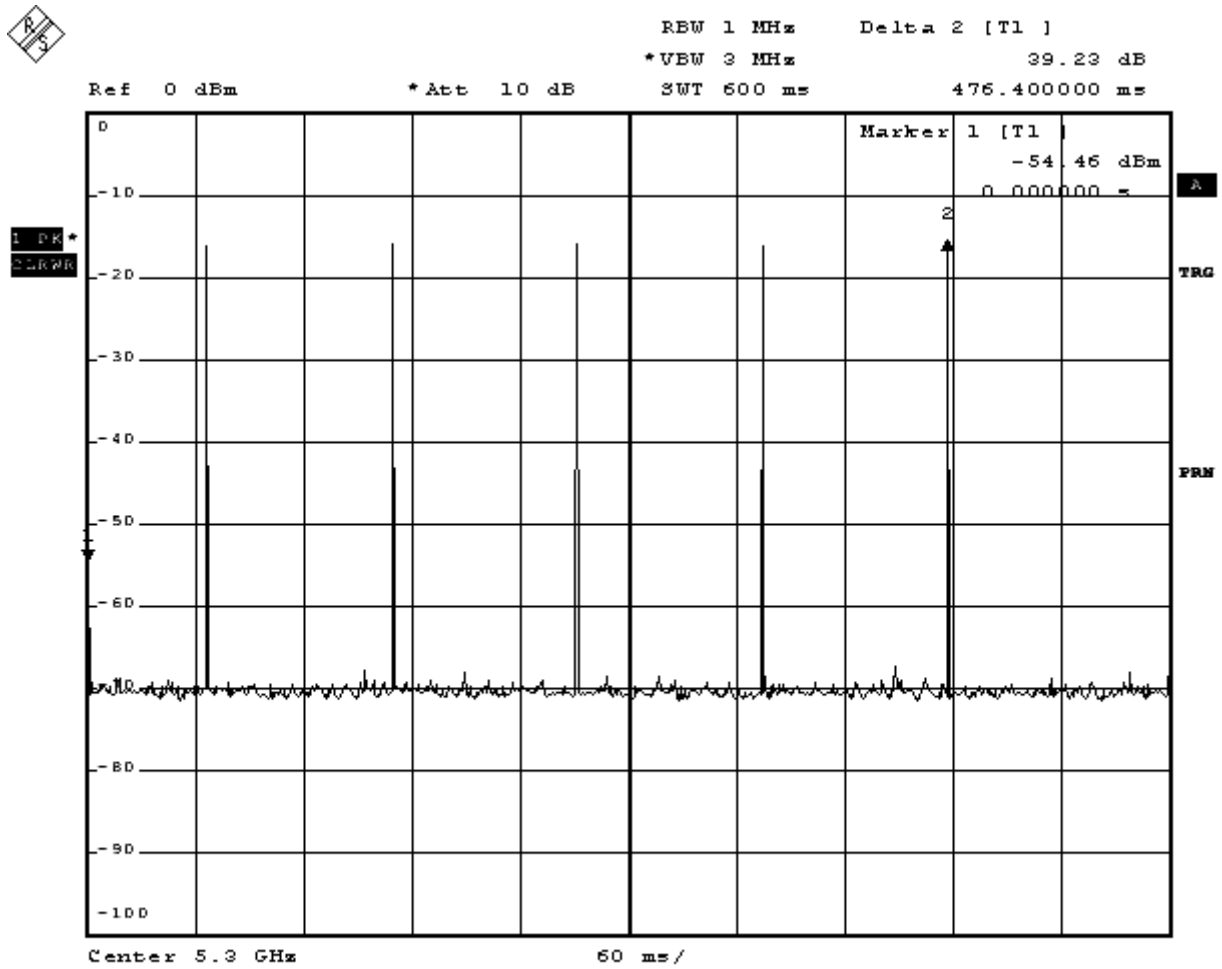


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

20MHz Channel Mode

Channel Closing Transmission Time for Radar Test Signal 1 at 5300 MHz

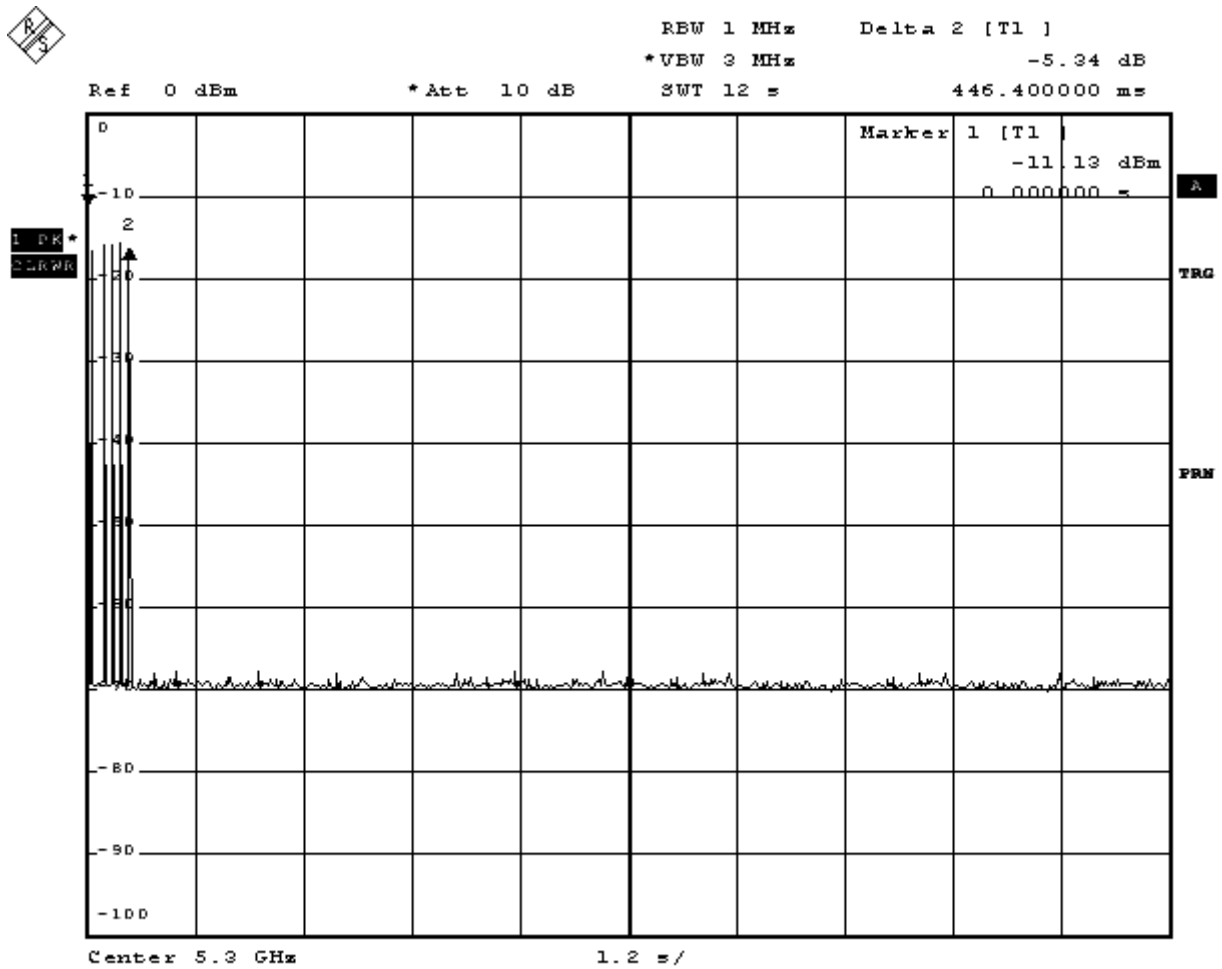


Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

20MHz Channel Mode

Channel Move Time for Radar Test Signal 5 at 5300MHz

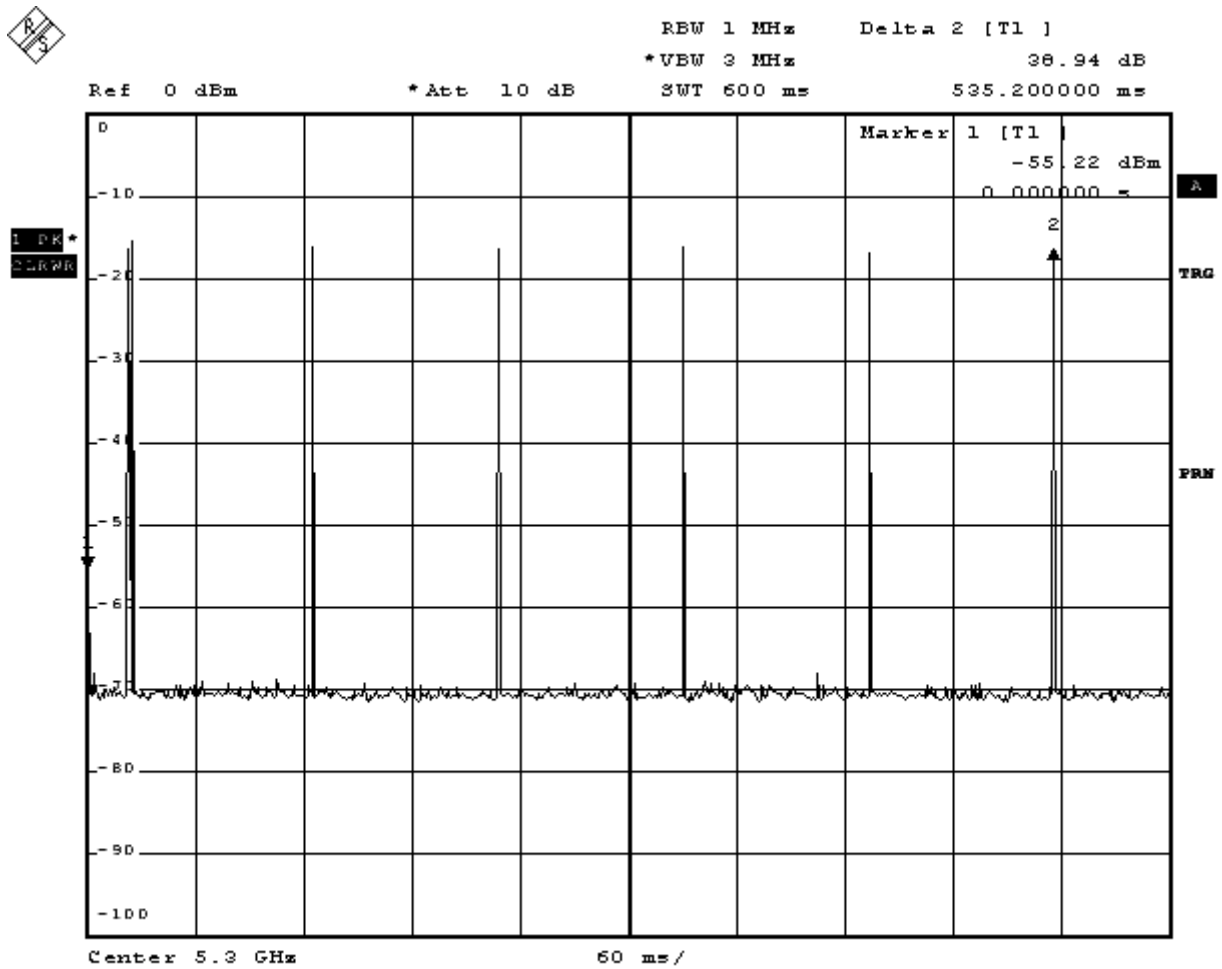


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

20MHz Channel Mode

Channel Closing Transmission Time for Radar Test Signal 5 at 5300 MHz

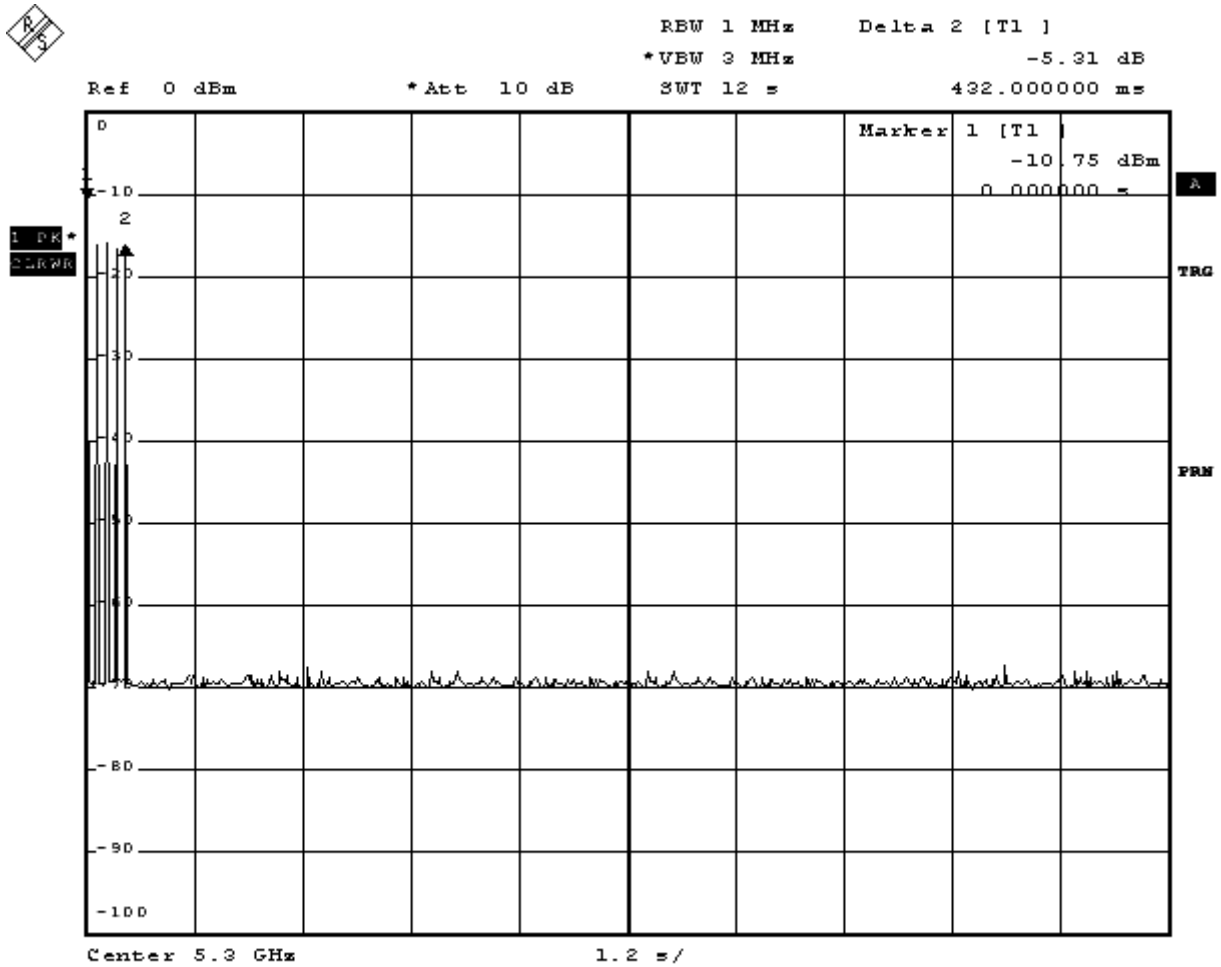


Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

20MHz Channel Mode

Channel Move Time for Radar Test Signal 6 at 5300MHz

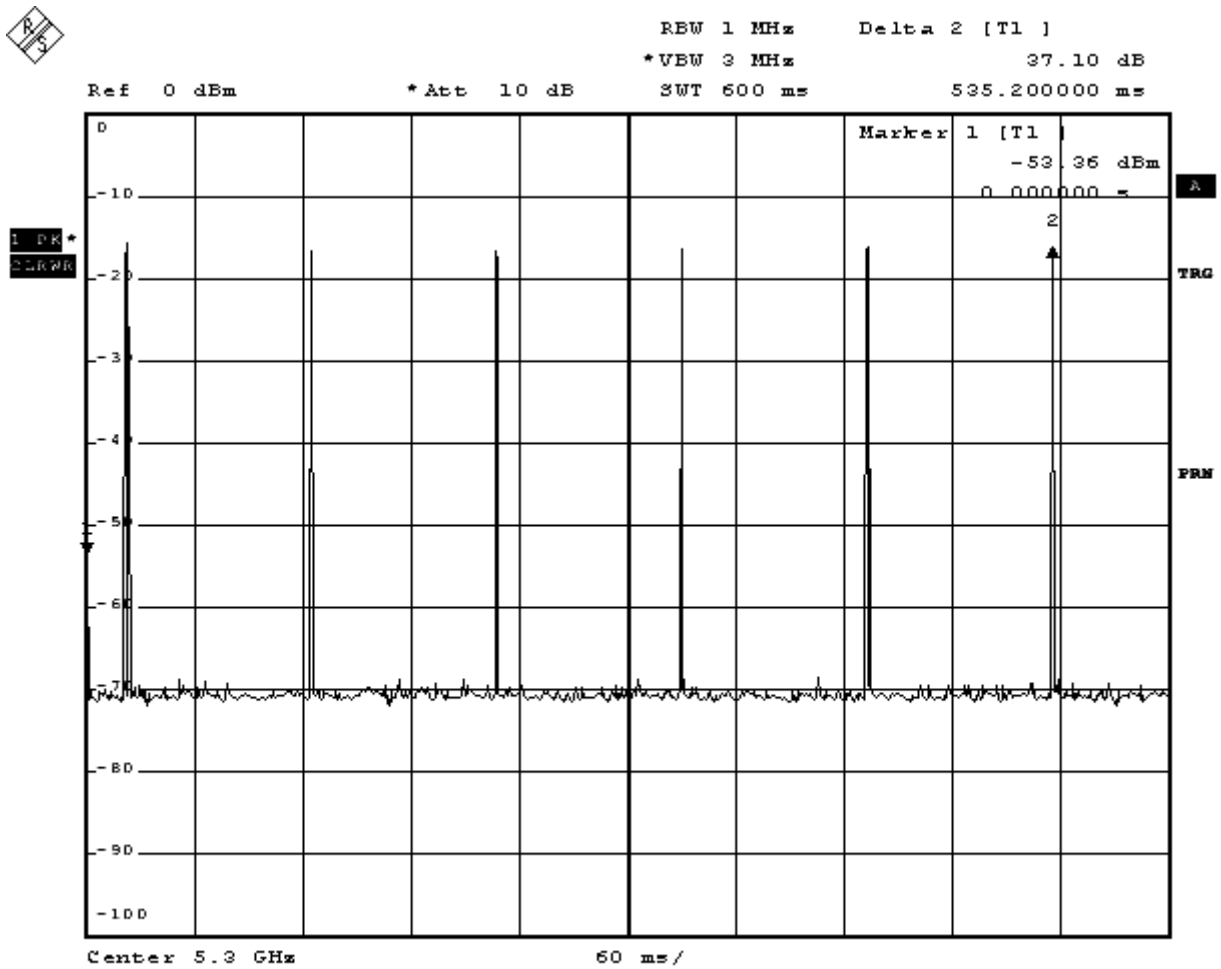


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

20MHz Channel Mode

Channel Closing Transmission Time for Radar Test Signal 6 at 5300 MHz

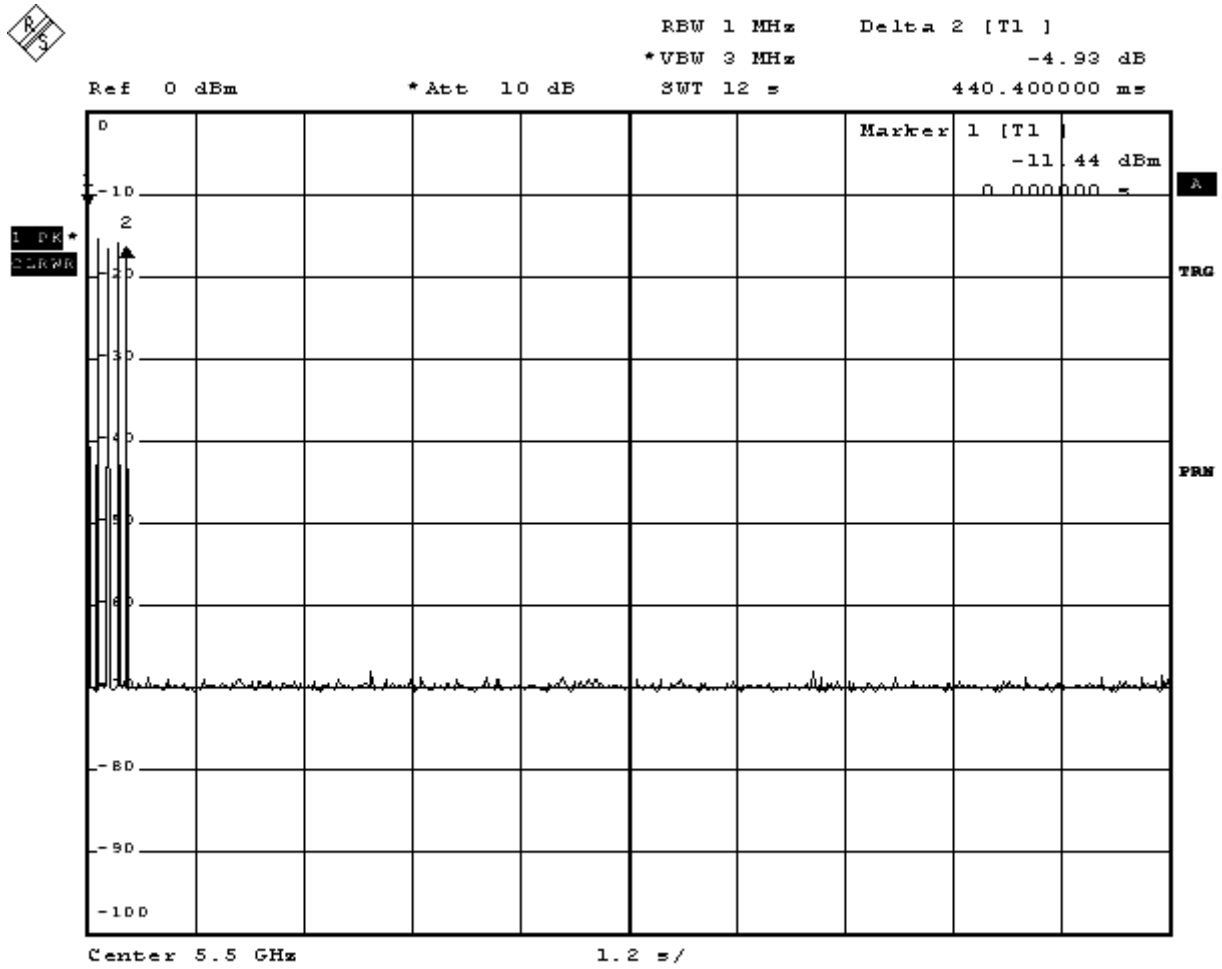


Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

20MHz Channel Mode

Channel Move Time for Radar Test Signal 1 at 5500MHz

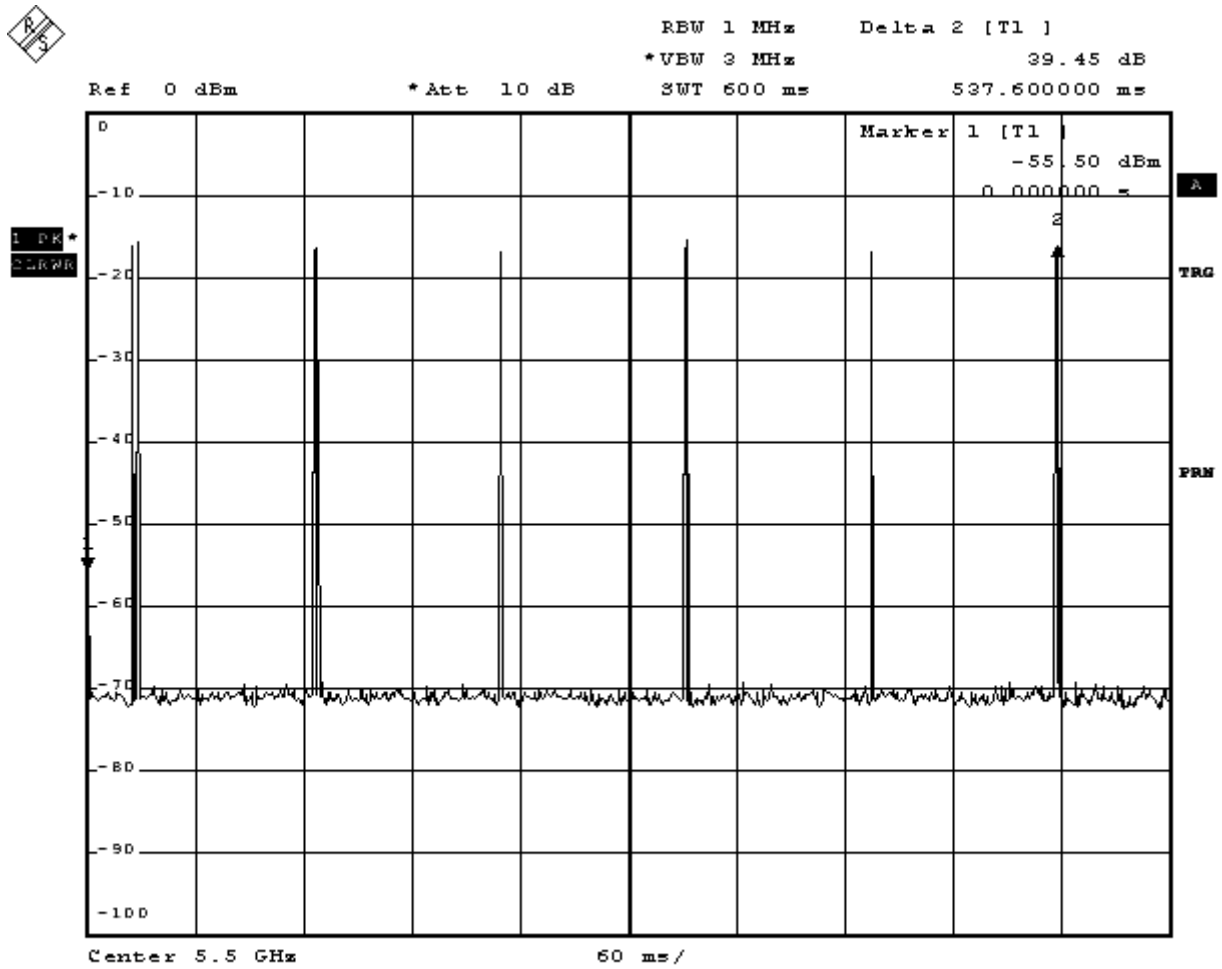


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

20MHz Channel Mode

Channel Closing Transmission Time for Radar Test Signal 1 at 5500 MHz

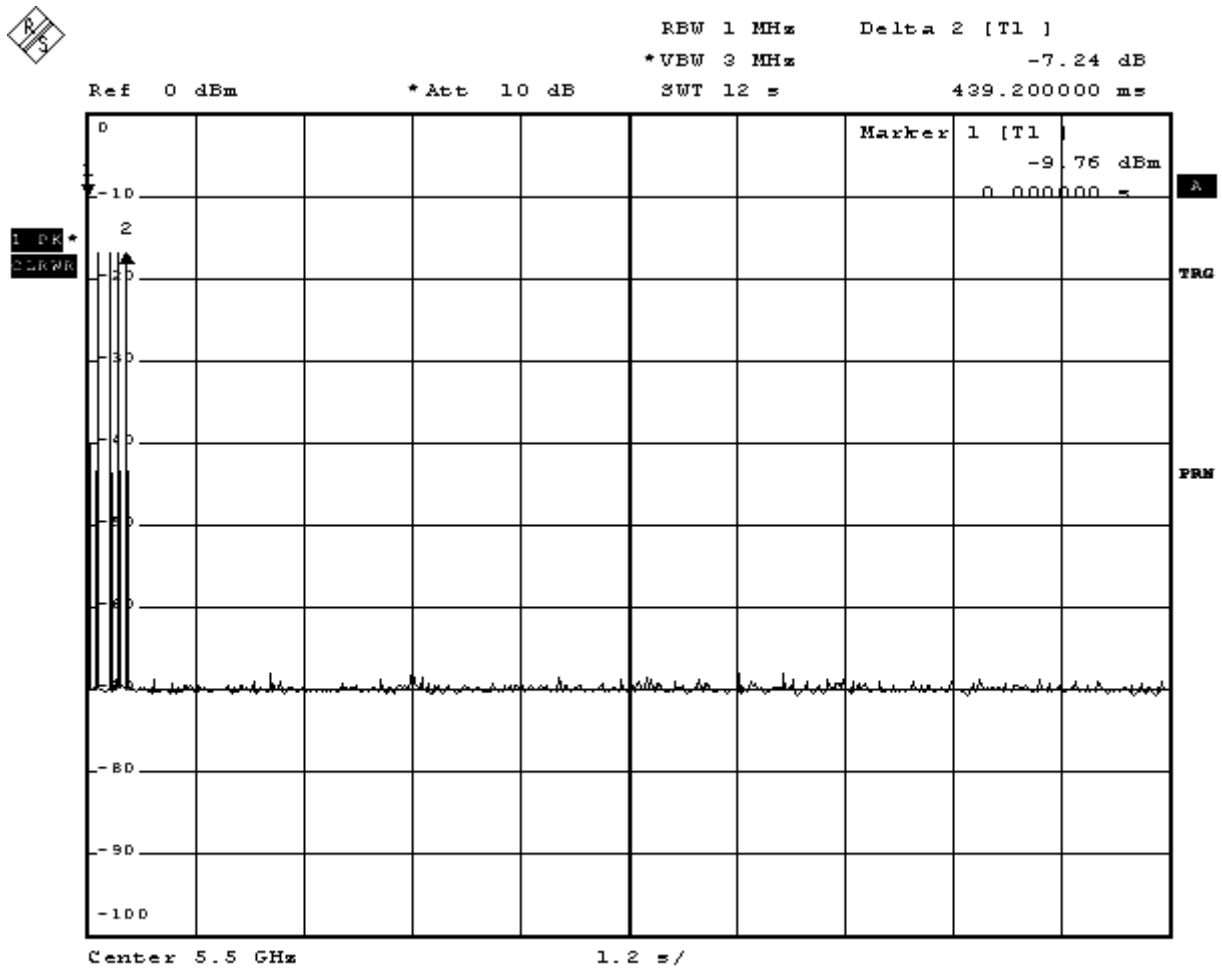


Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

20MHz Channel Mode

Channel Move Time for Radar Test Signal 5 at 5500MHz

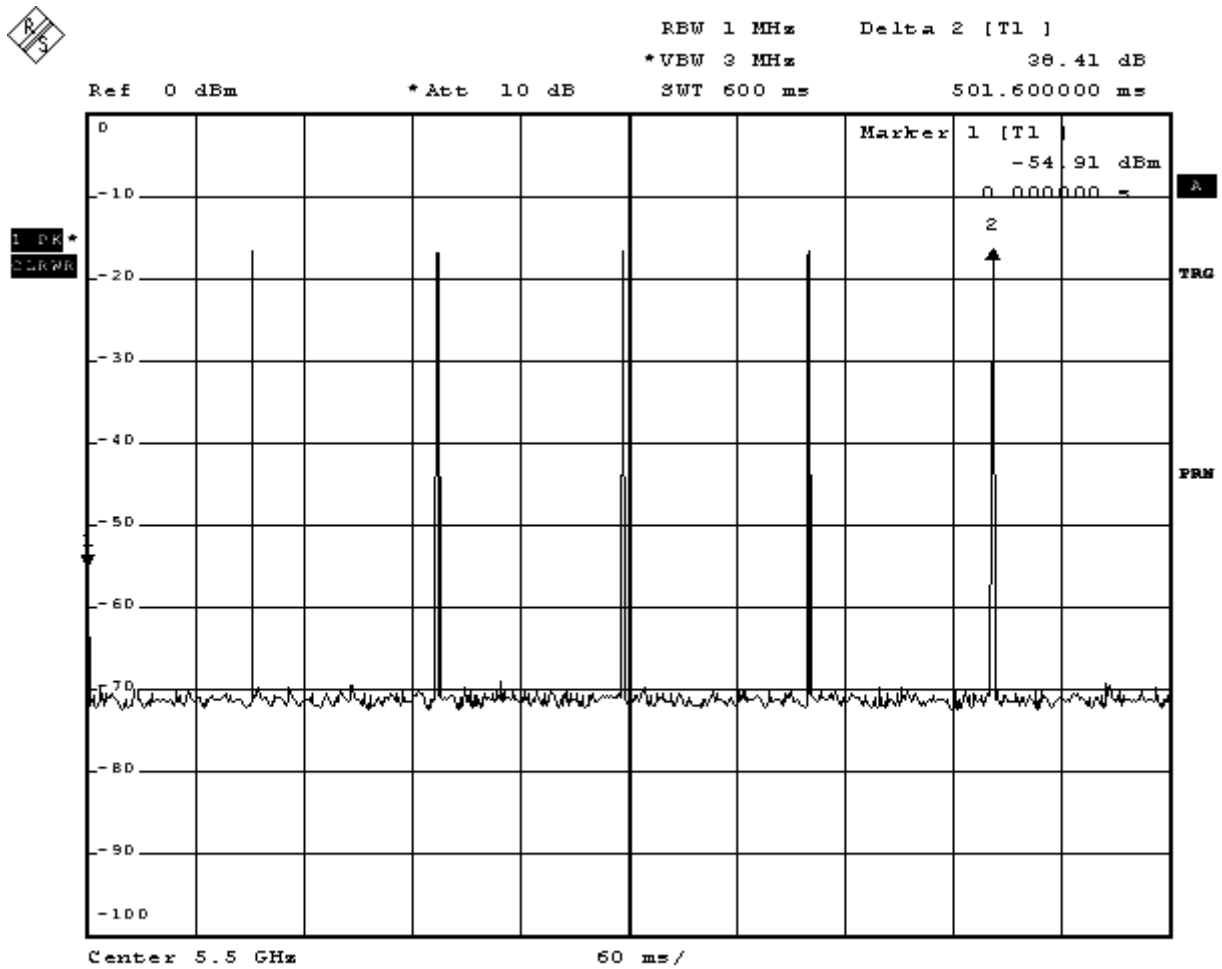


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

20MHz Channel Mode

Channel Closing Transmission Time for Radar Test Signal 5 at 5500 MHz

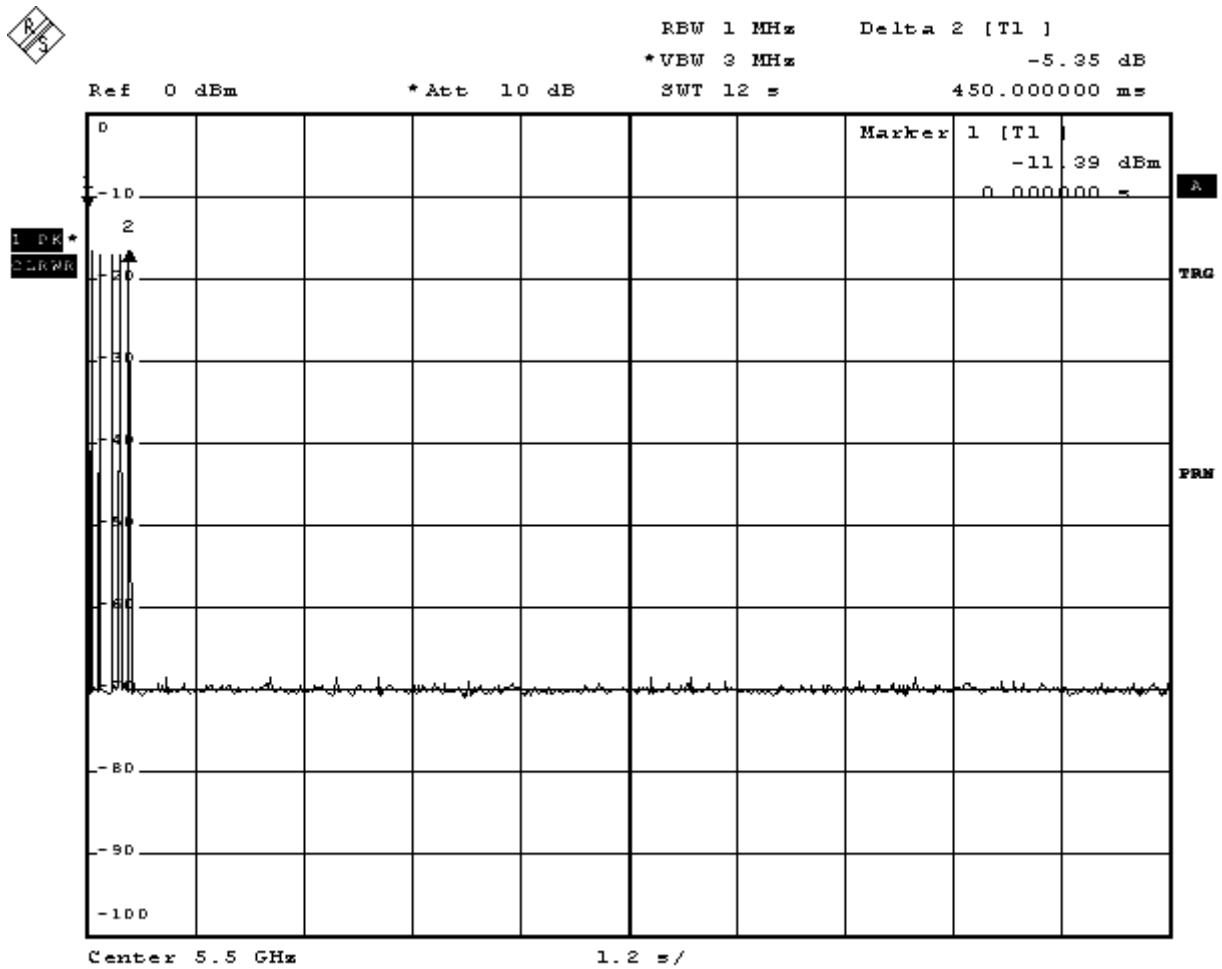


Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

20MHz Channel Mode

Channel Move Time for Radar Test Signal 6 at 5500MHz

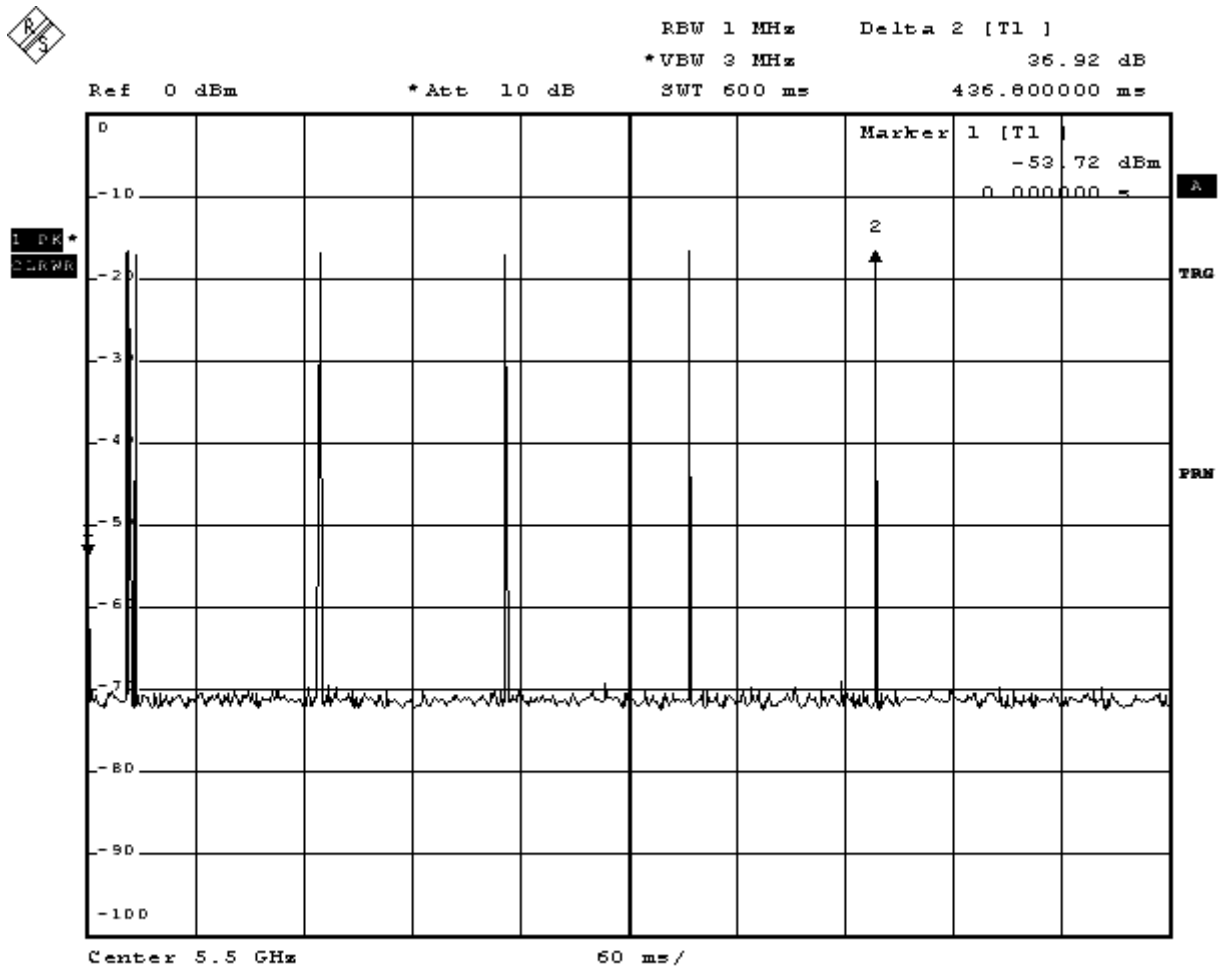


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

20MHz Channel Mode

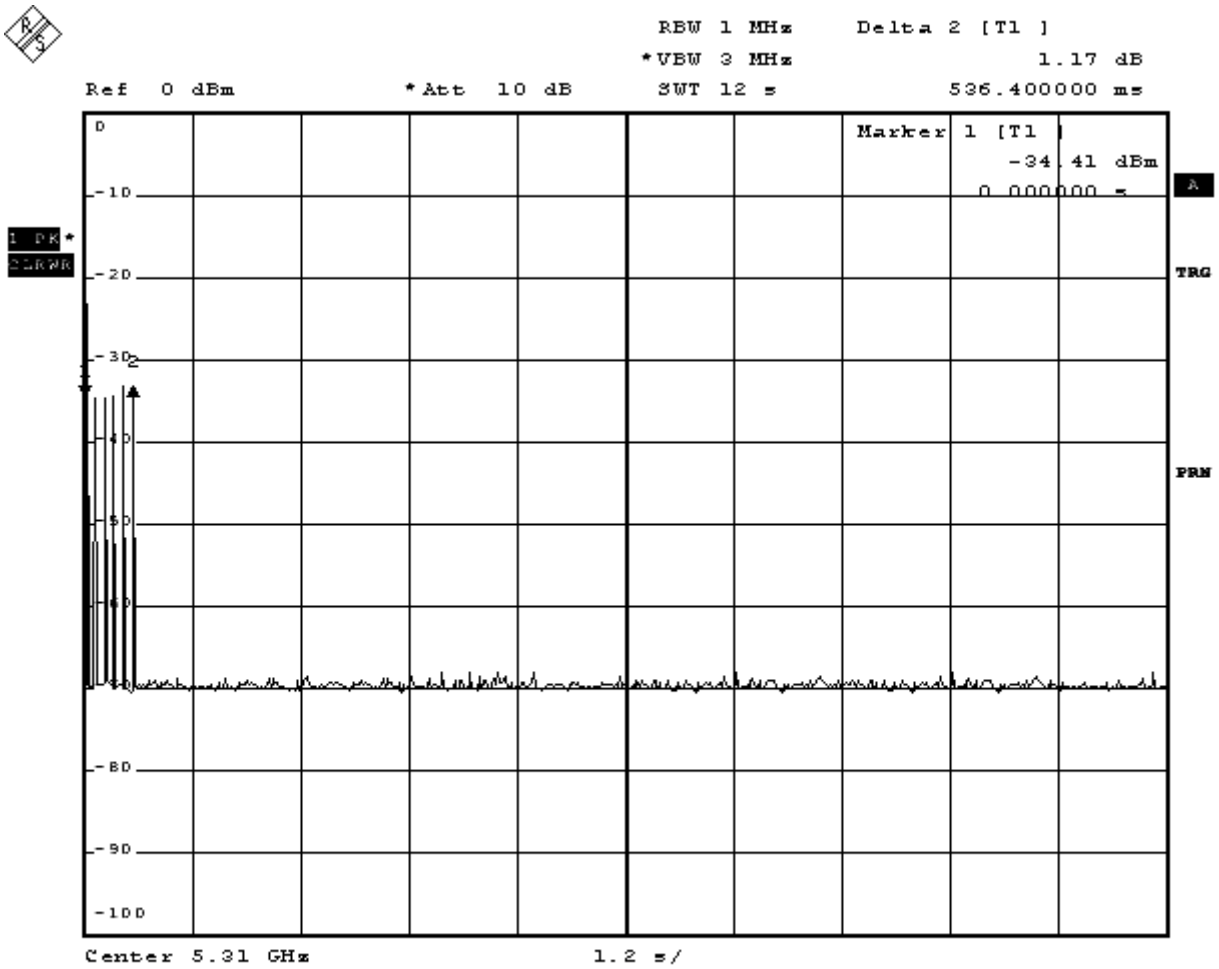
Channel Closing Transmission Time for Radar Test Signal 6 at 5500 MHz



Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

Draft 802.11n Standard – 40MHz Channel Mode Channel Move Time for Radar Test Signal 1 at 5310MHz

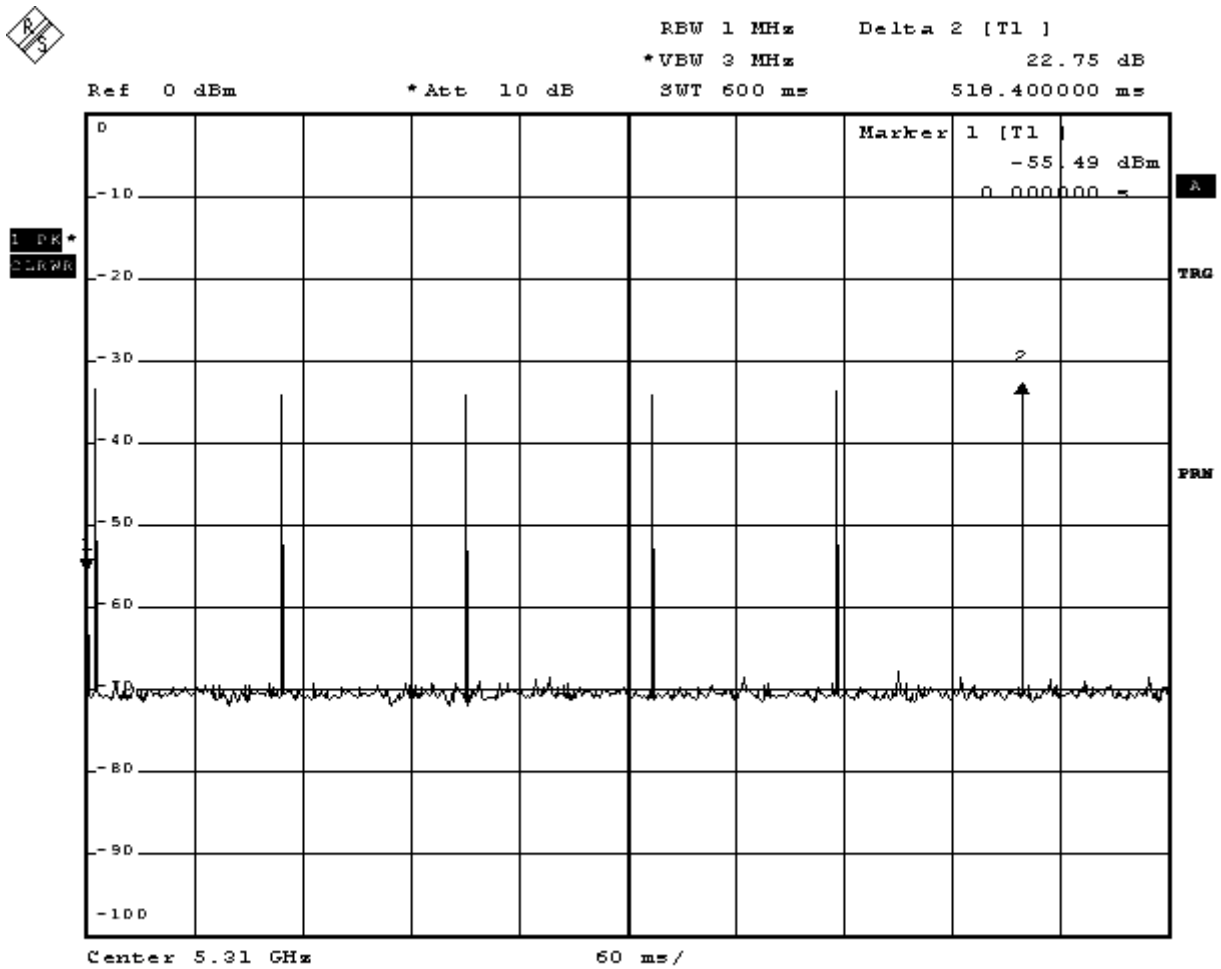


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

Draft 802.11n Standard – 40MHz Channel Mode

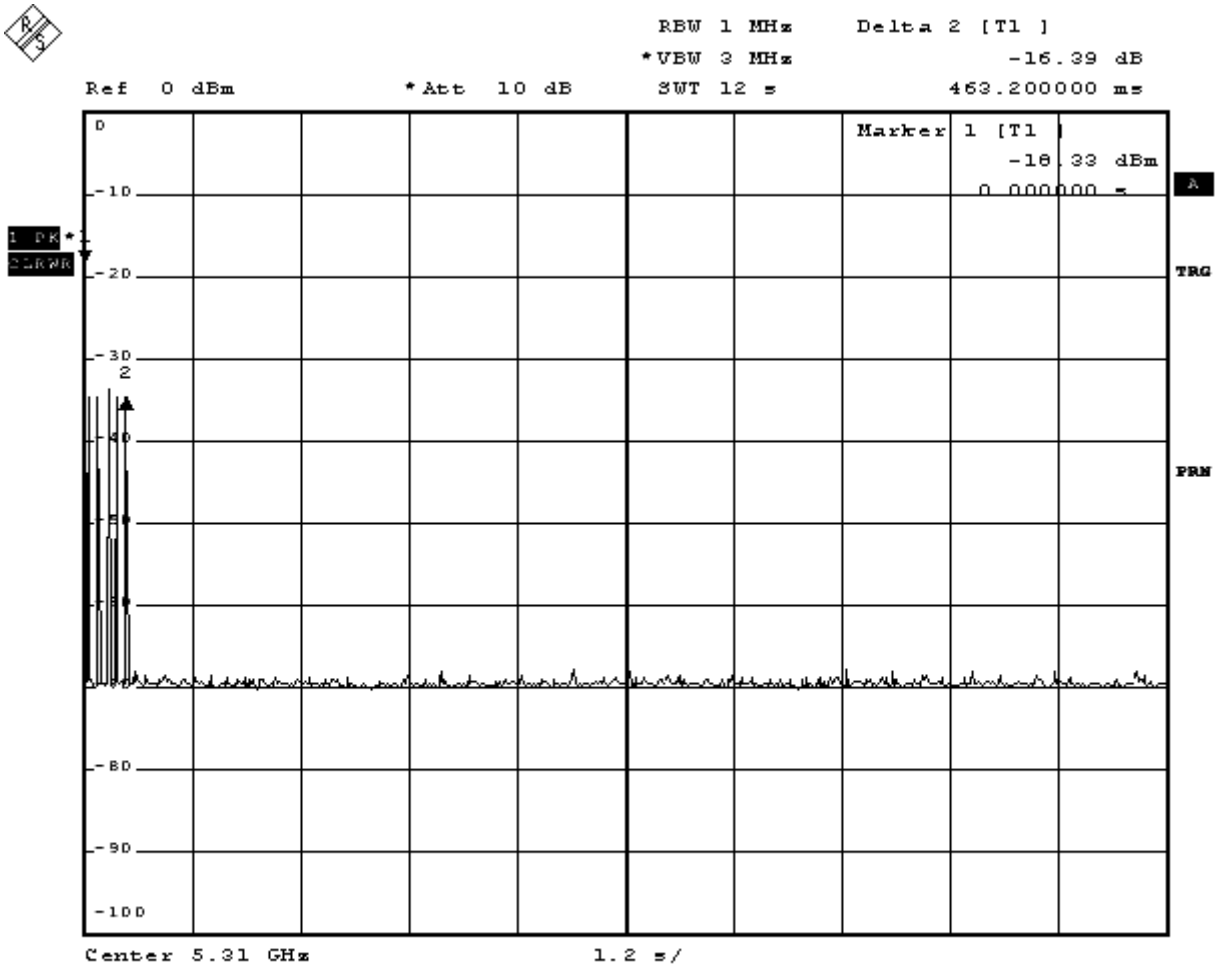
Channel Closing Transmission Time for Radar Test Signal 1 at 5310 MHz



Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

Draft 802.11n Standard – 40MHz Channel Mode Channel Move Time for Radar Test Signal 5 at 5310MHz

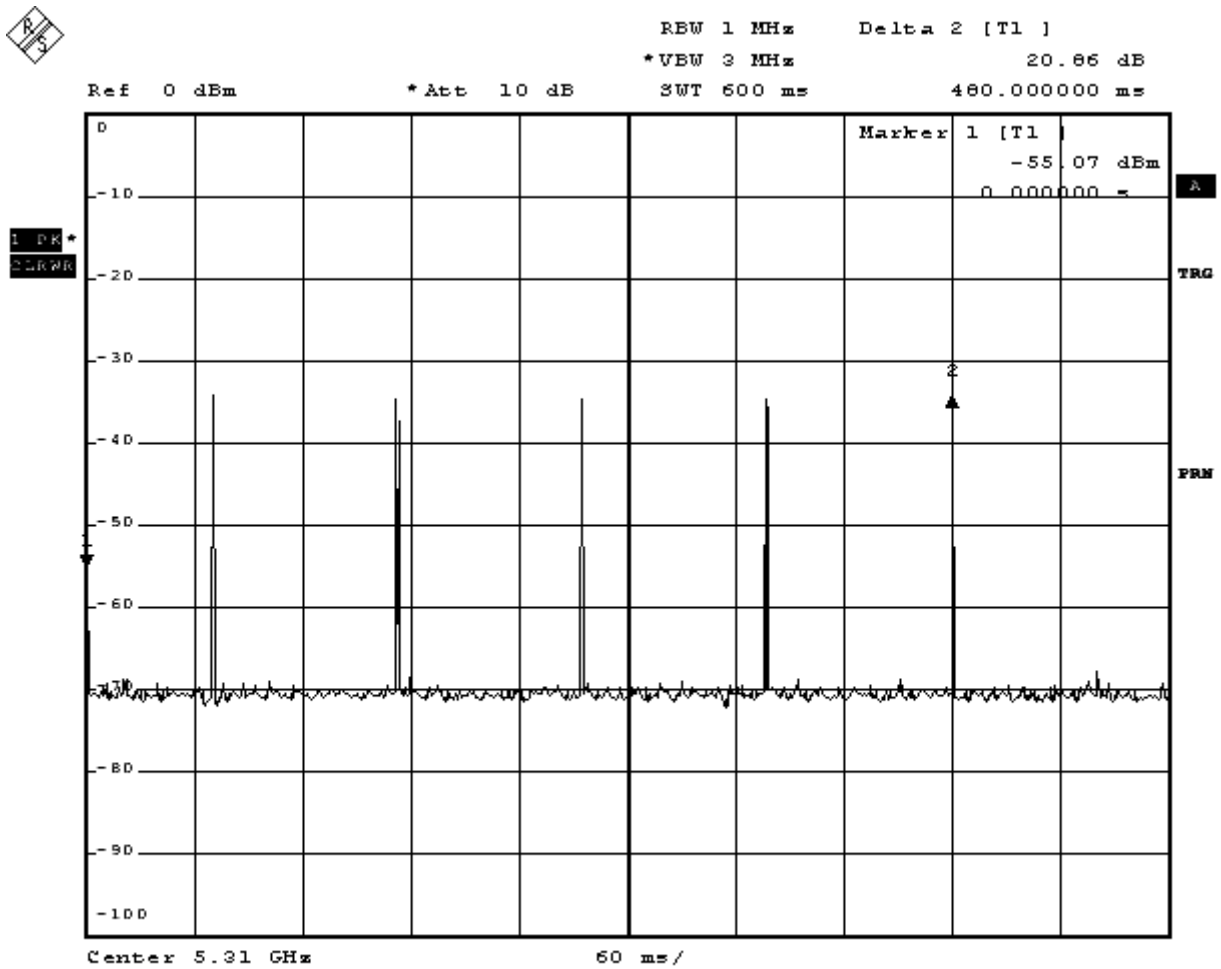


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

Draft 802.11n Standard – 40MHz Channel Mode

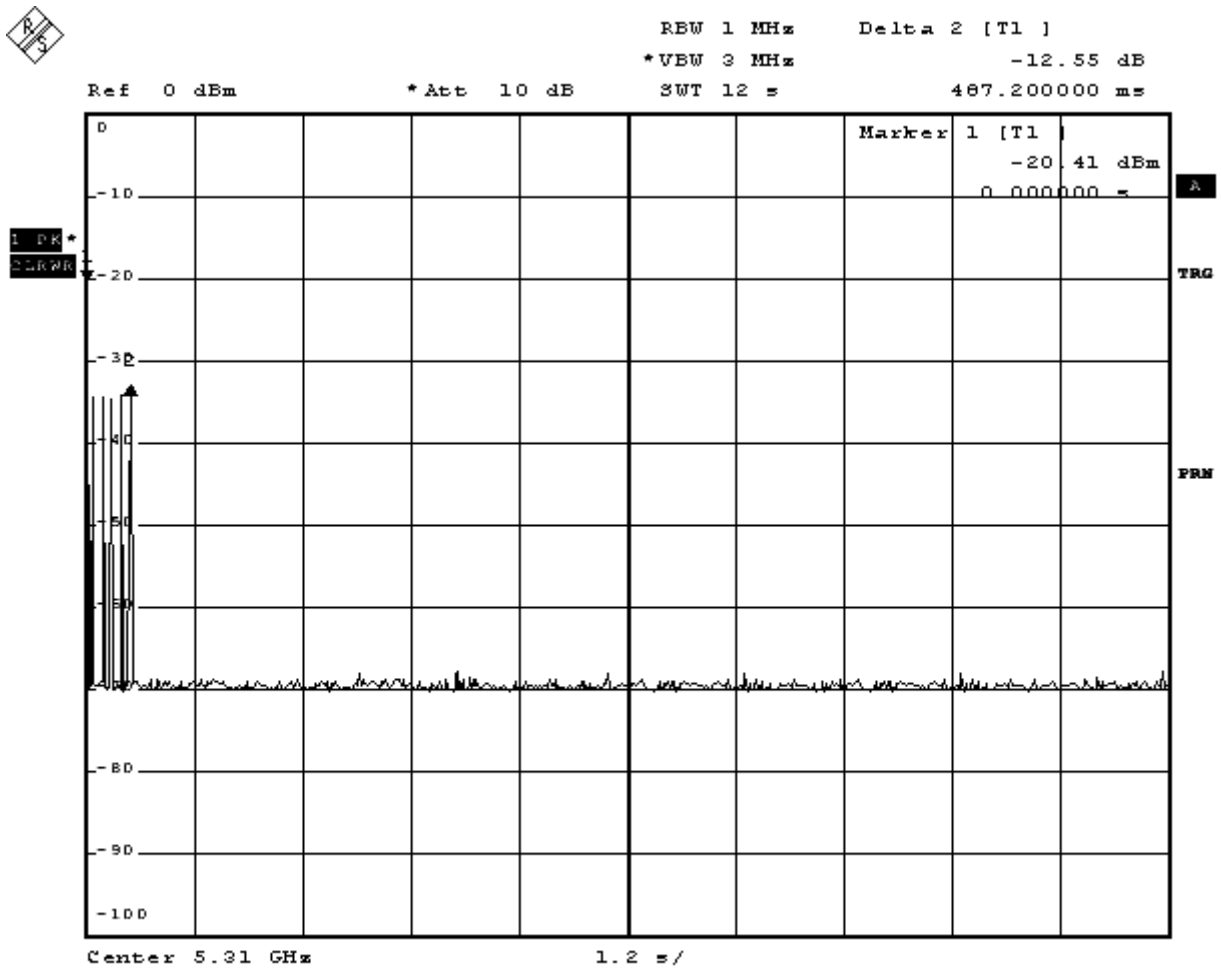
Channel Closing Transmission Time for Radar Test Signal 5 at 5310 MHz



Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

Draft 802.11n Standard – 40MHz Channel Mode
Channel Move Time for Radar Test Signal 6 at 5310MHz

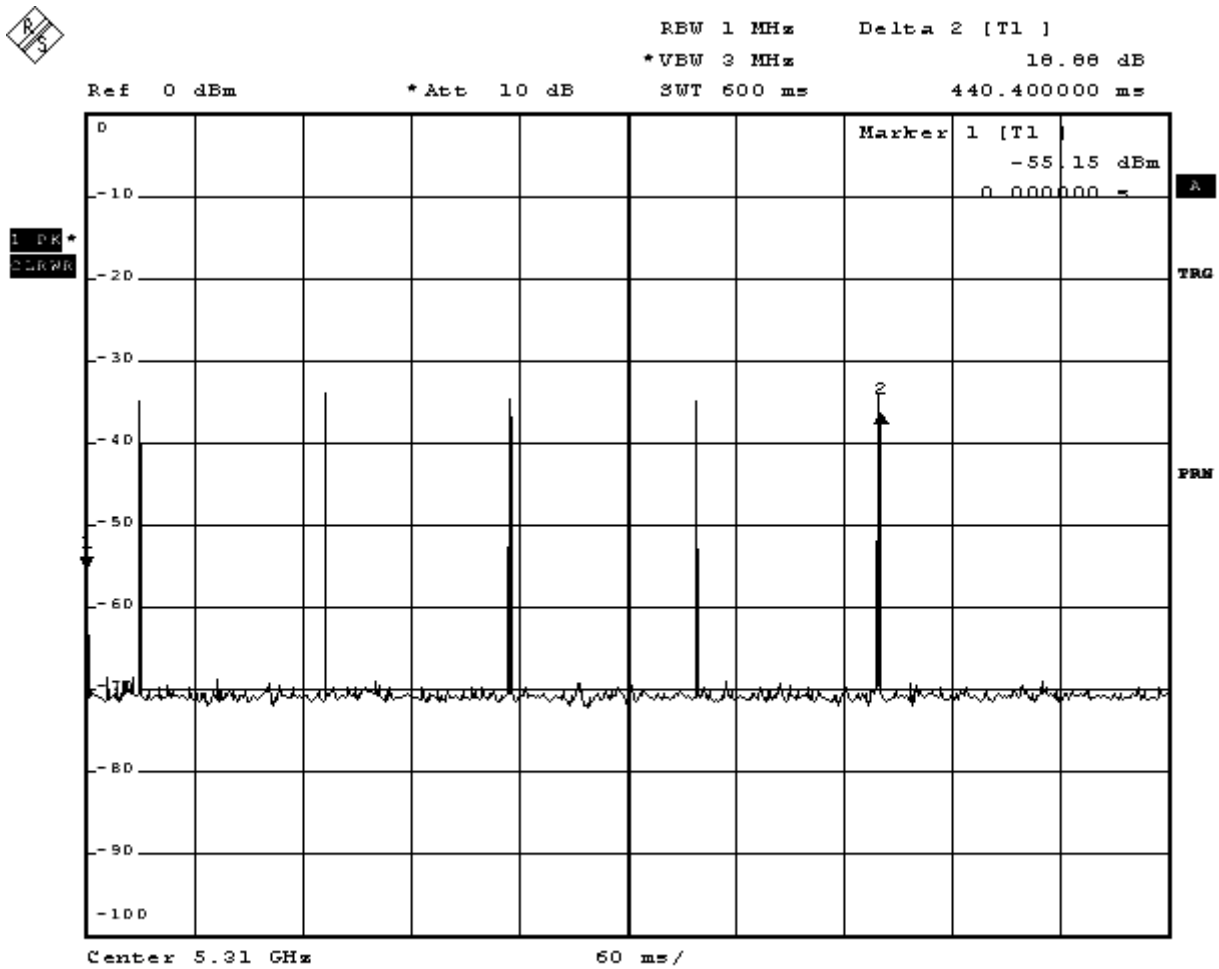


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

Draft 802.11n Standard – 40MHz Channel Mode

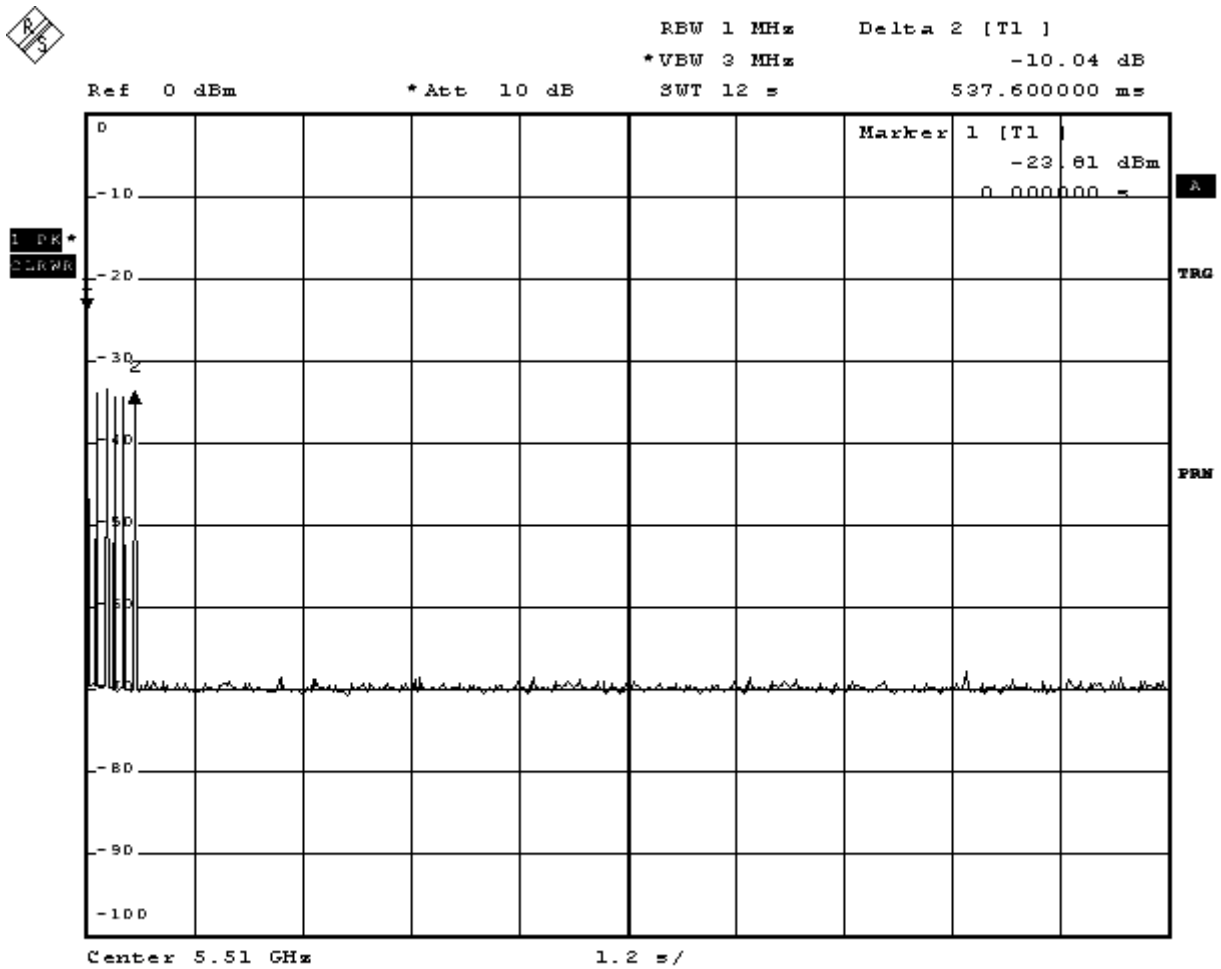
Channel Closing Transmission Time for Radar Test Signal 6 at 5310 MHz



Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

Draft 802.11n Standard – 40MHz Channel Mode
Channel Move Time for Radar Test Signal 1 at 5510MHz

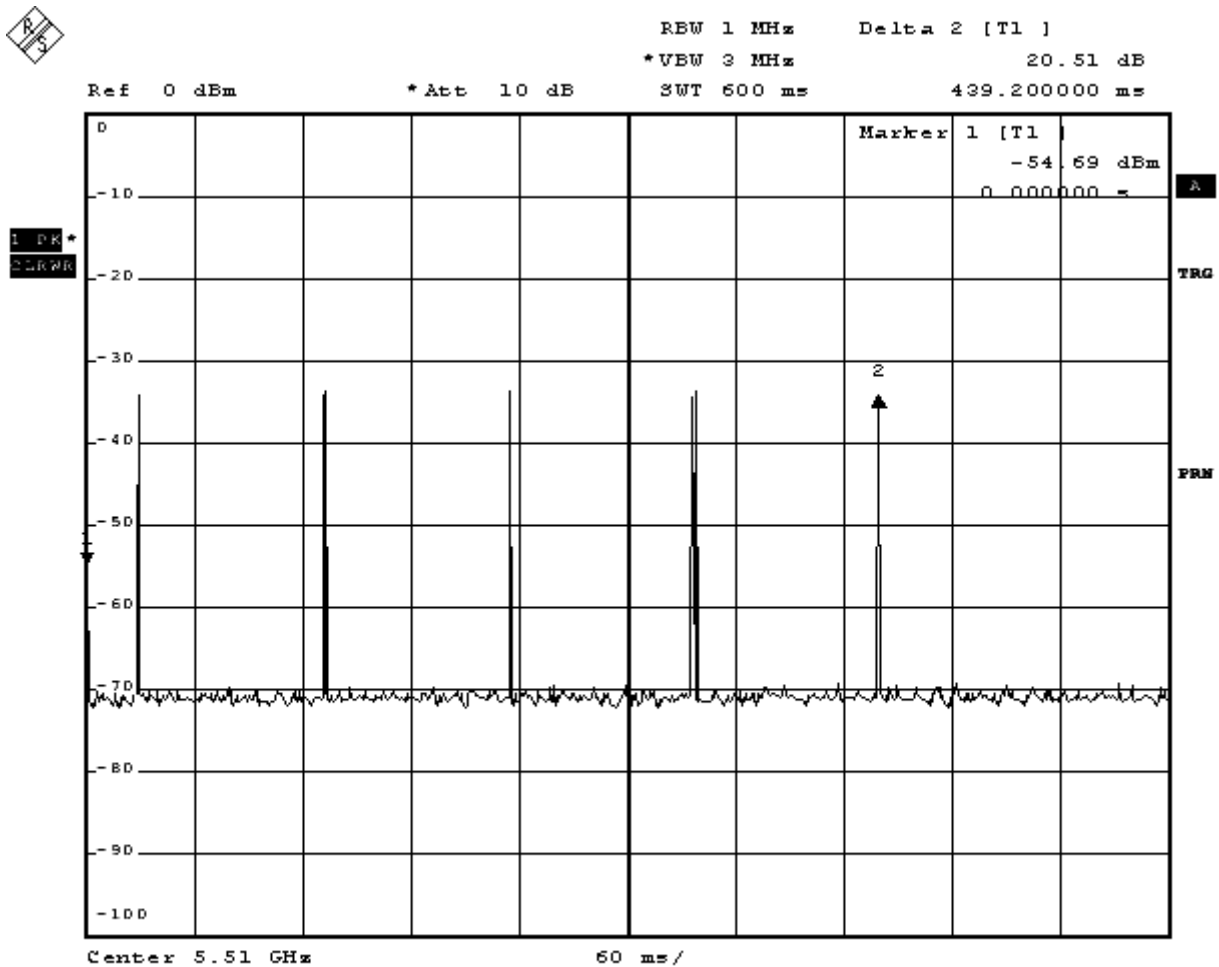


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

Draft 802.11n Standard – 40MHz Channel Mode

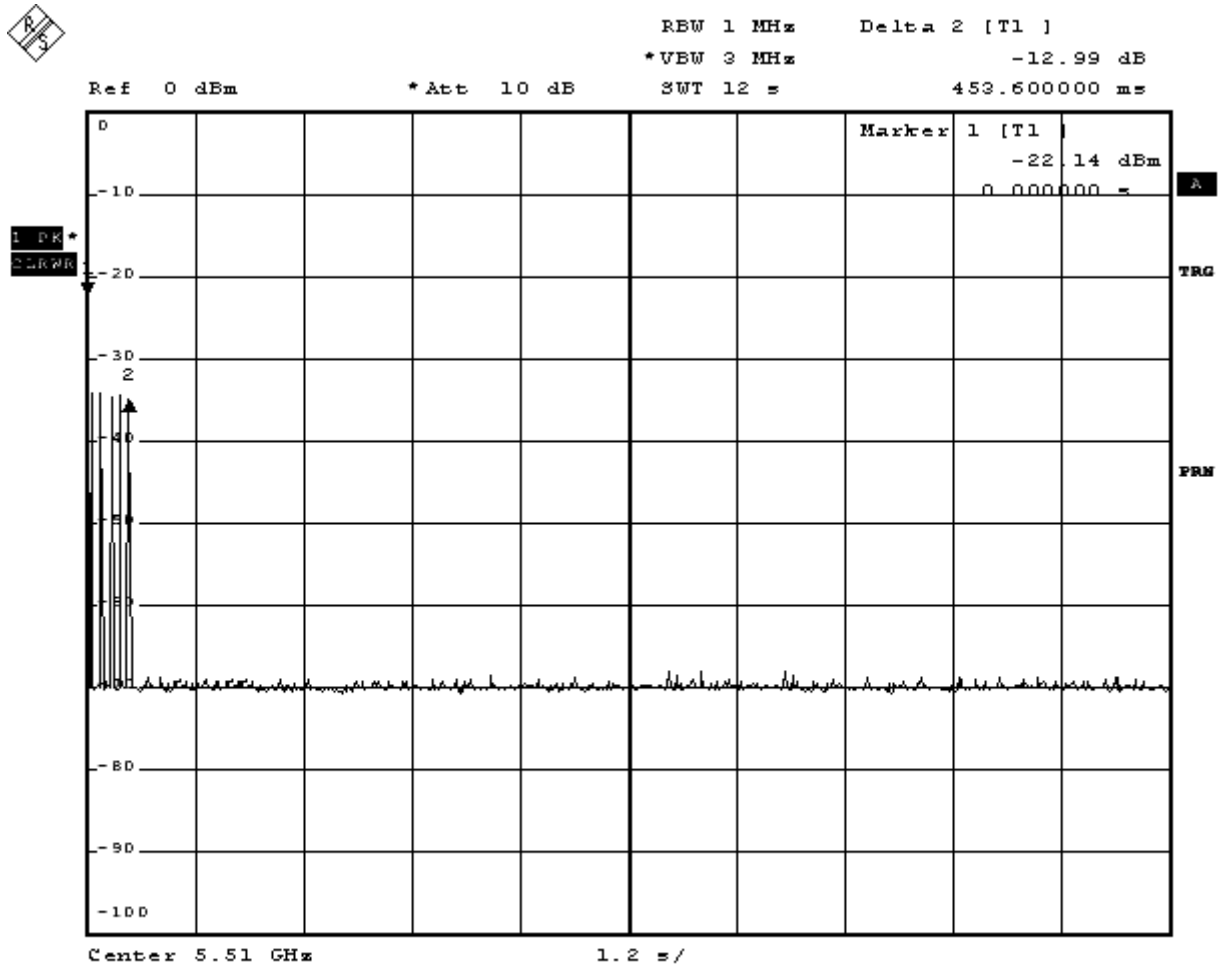
Channel Closing Transmission Time for Radar Test Signal 1 at 5510 MHz



Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

Draft 802.11n Standard – 40MHz Channel Mode Channel Move Time for Radar Test Signal 5 at 5510MHz

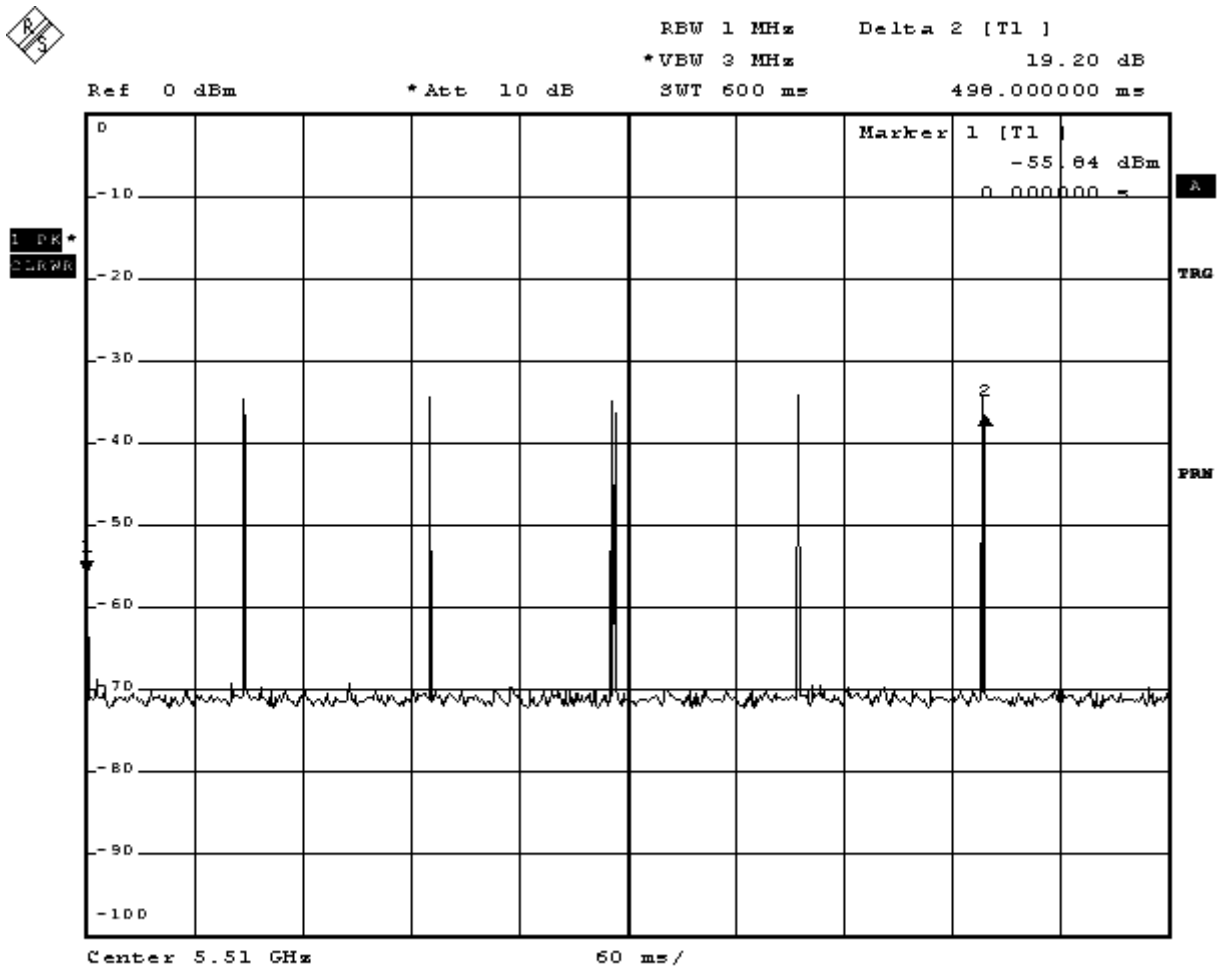


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

Draft 802.11n Standard – 40MHz Channel Mode

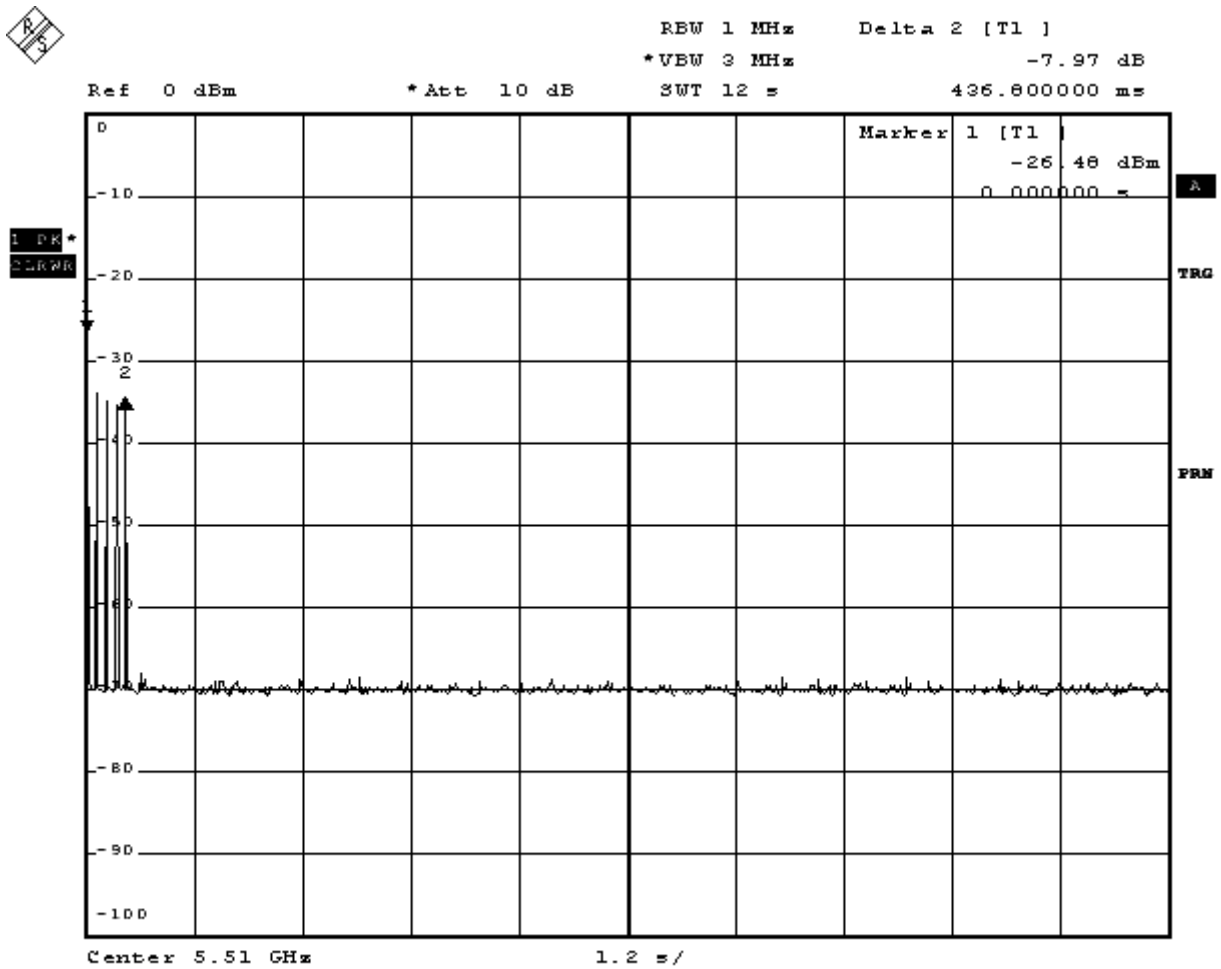
Channel Closing Transmission Time for Radar Test Signal 5 at 5510 MHz



Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

Draft 802.11n Standard – 40MHz Channel Mode
Channel Move Time for Radar Test Signal 6 at 5510MHz

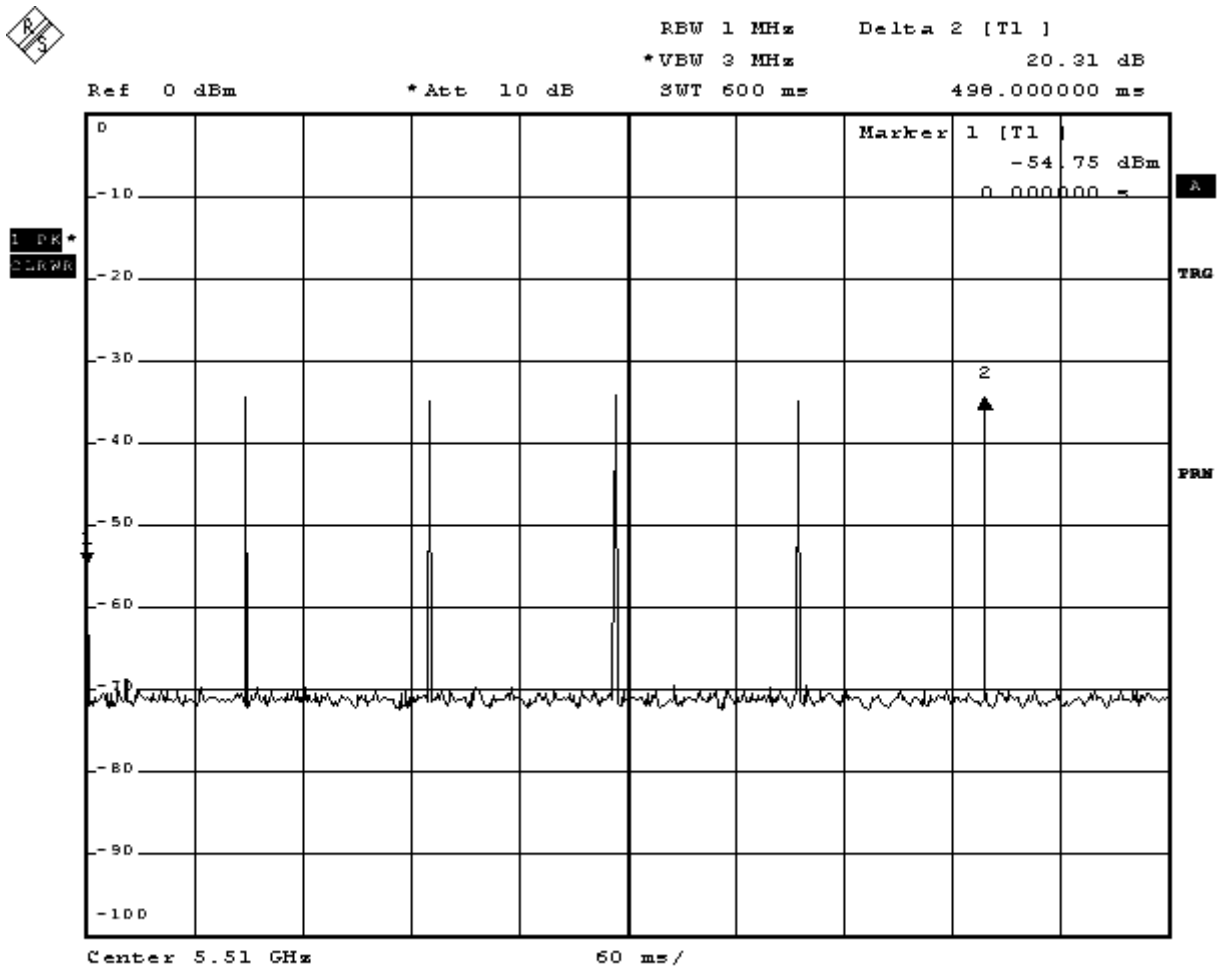


Test Item	Limit	Results
Channel Move Time	10 Seconds	Pass

The results showed that after radar signal injected the channel move time was less than 10 seconds.

Draft 802.11n Standard – 40MHz Channel Mode

Channel Closing Transmission Time for Radar Test Signal 6 at 5510 MHz



Test Item	Limit	Results
Channel Closing Transmission	260 milliseconds over remaining 10 seconds period	Pass

The results showed that after radar signal injected the transmission closing was less than 260 milliseconds.

Channel Shutdown and Non-Occupancy period

The steps below define the procedure to verify the Channel Shutdown process and to determine the Channel Closing Transmission Time, the Channel Move Time and the Non-Occupancy Period.

- a) When the UUT is a master device, a slave device will be used that associates with the UUT. The signal generator and the UUT shall be connected using Sep-up A. When the UUT is a slave device (with or without a Radar Interference Detection function), the UUT shall associate with a master device. The signal generator and the UUT shall be connected using Set-up B. In both cases, it is assumed that the channel selection mechanism for the Uniform Spreading requirement is disabled in the master.
- b) The UUT shall transmit a test transmission sequence in accordance with clause 5.1.2.2 of standard on the selected channel Ch_r .
- c) At a certain time T_0 , a radar burst is generated on Ch_r using radar test signal #1 defined in table D.4 of standard and at level of 10 dB above the level defined in standard on the selected channel. T_1 denotes the end of the radar burst.
- d) The transmissions of the UUT following instant T_1 on the selected channel shall be observed for a period greater than or equal to the Channel Move Time defined in table D.1 of standard. The aggregate duration (Channel Closing Transmission Time) of all transmissions from the UUT during the Channel Move Time shall be compared to the limit defined in table D.1 of standard.
Note: The aggregate duration of all transmissions of the UUT does not include quiet periods in between transmissions of the UUT.
- e) T_2 denotes the instant when the UUT has ceased all transmissions on the channel. The time difference between T_1 and T_2 shall be measured. This value (Channel Move Time) shall be noted and compared with the limit defined in table D.1 of standard.
- f) When the UUT is a master device, following instant T_2 , the selected channel shall be observed for a period equal to the Non-Occupancy Period (T_3-T_2) to verify that the UUT does not resume any transmissions on this channel.
- g) When the UUT is a slave device with a Radar Interference Detection function the steps b) to e) shall be repeated with the generator connected to the UUT using Set-up C. See also table D.3 of standard.

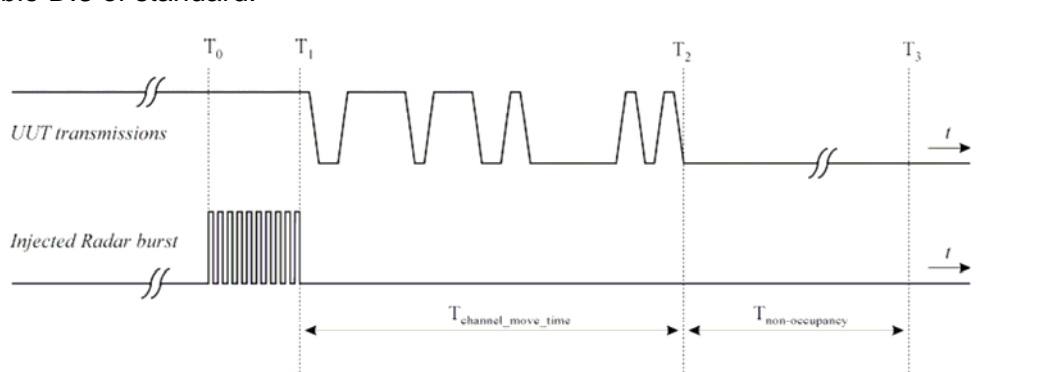
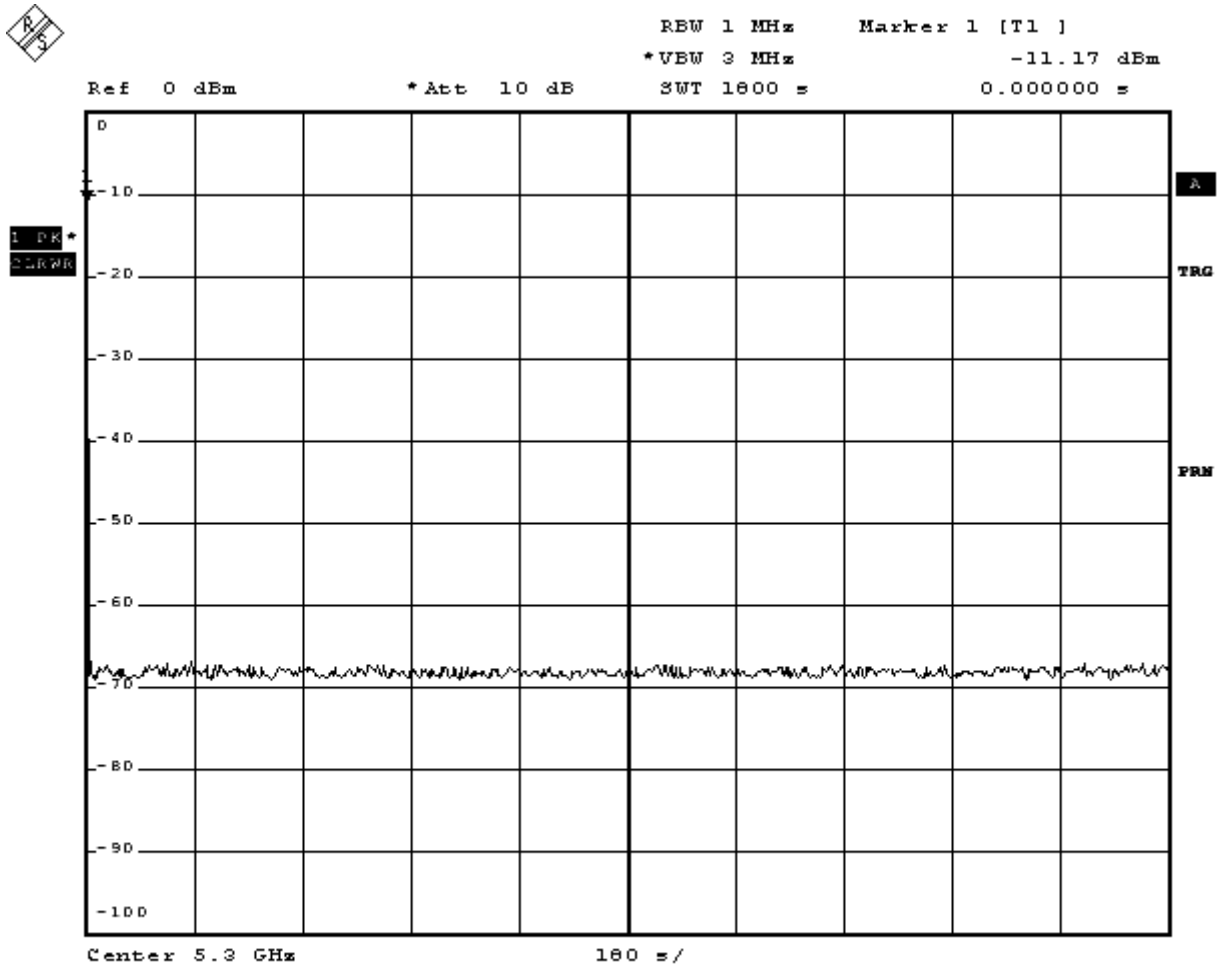


Figure 11: Channel Closing Transmission Time, Channel Move Time and Non-Occupancy Period

20MHz Channel Mode

30 Minute Non-Occupancy Period (using Type 1 Radar) at 5300 MHz

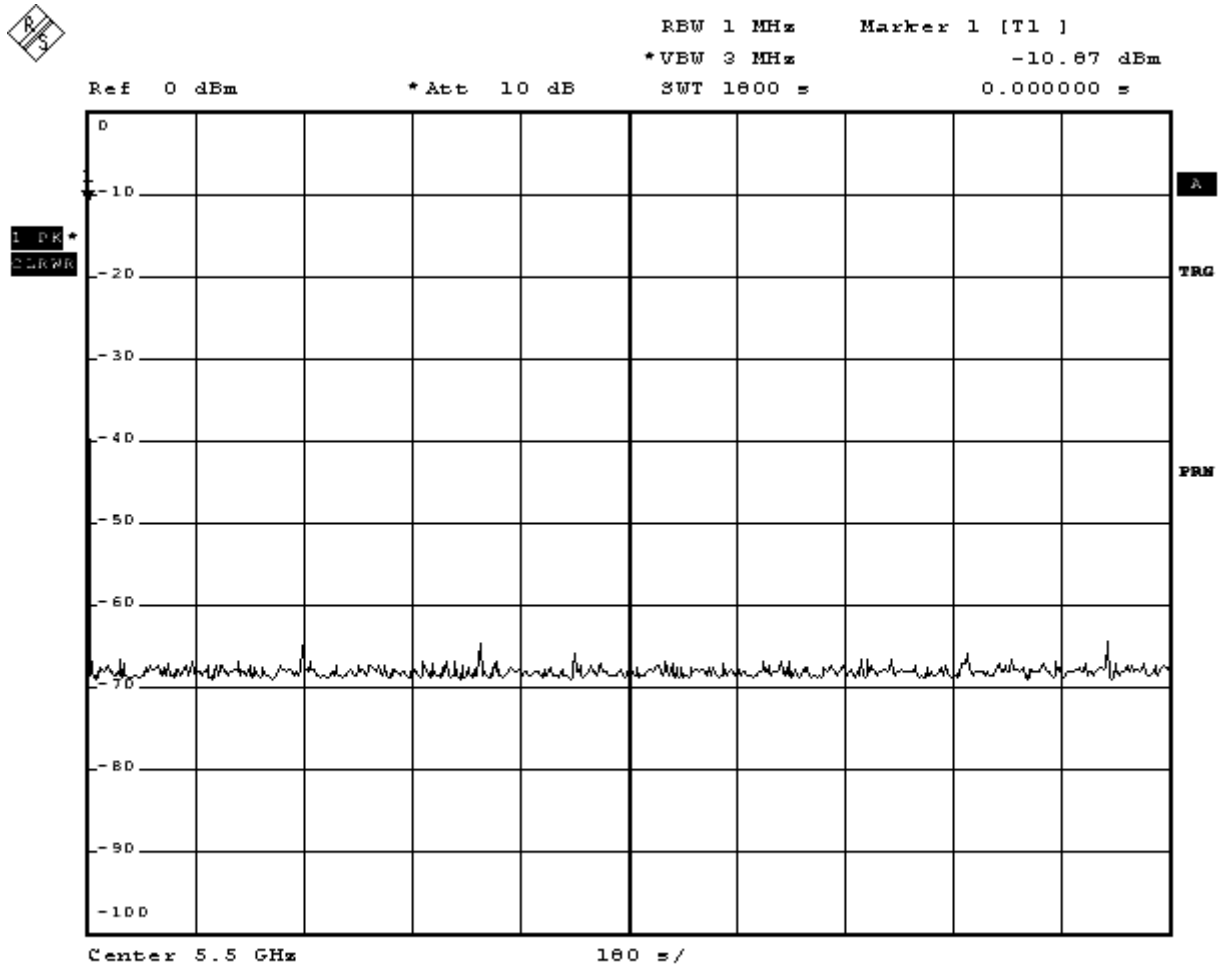


Test Item	Limit	Results
Non-Occupancy Period	30 Minutes	Pass

No EUT transmissions were observed on the test channel during 30 minutes observation time.

20MHz Channel Mode

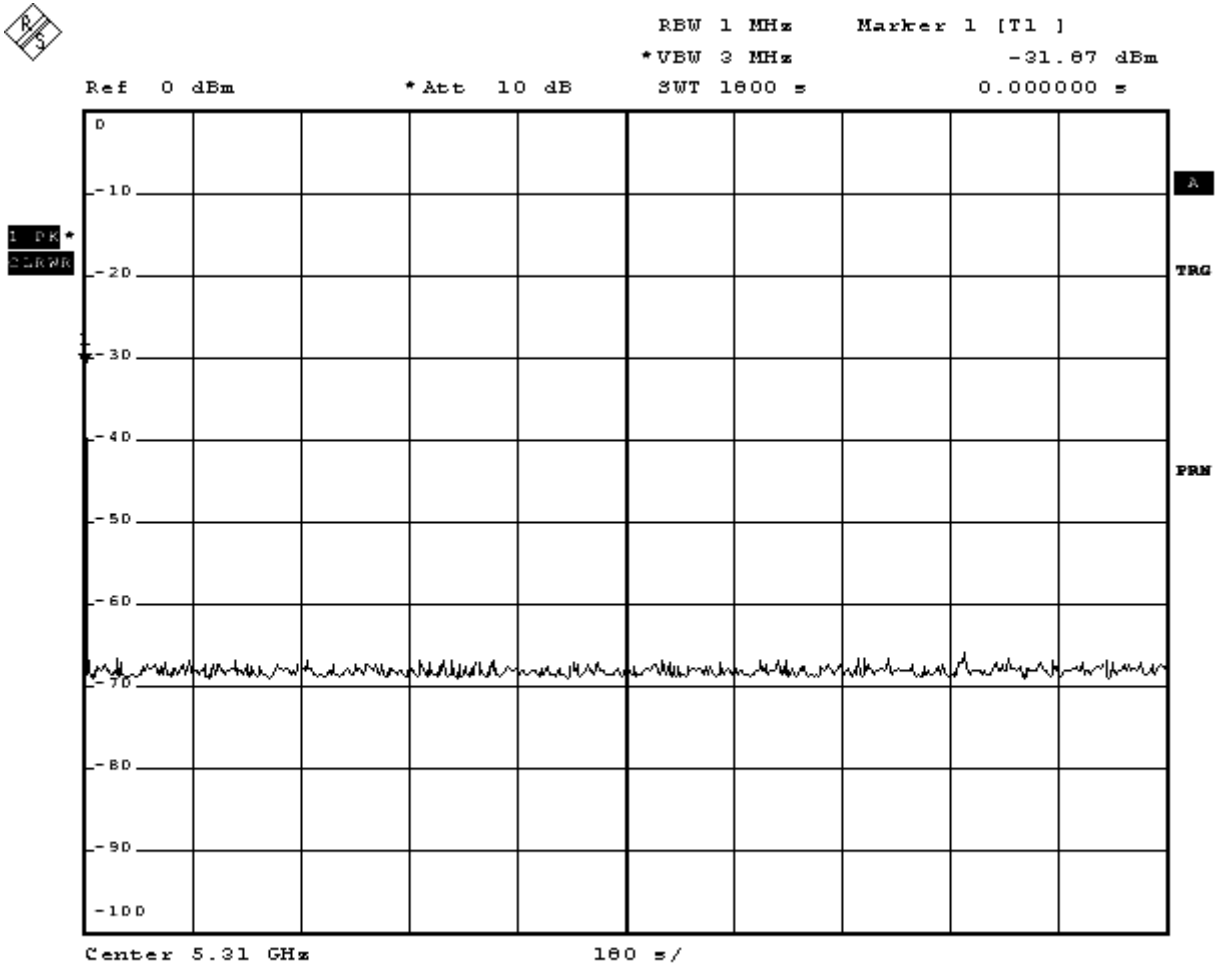
30 Minute Non-Occupancy Period (using Type 1 Radar) at 5500 MHz



Test Item	Limit	Results
Non-Occupancy Period	30 Minutes	Pass

No EUT transmissions were observed on the test channel during 30 minutes observation time.

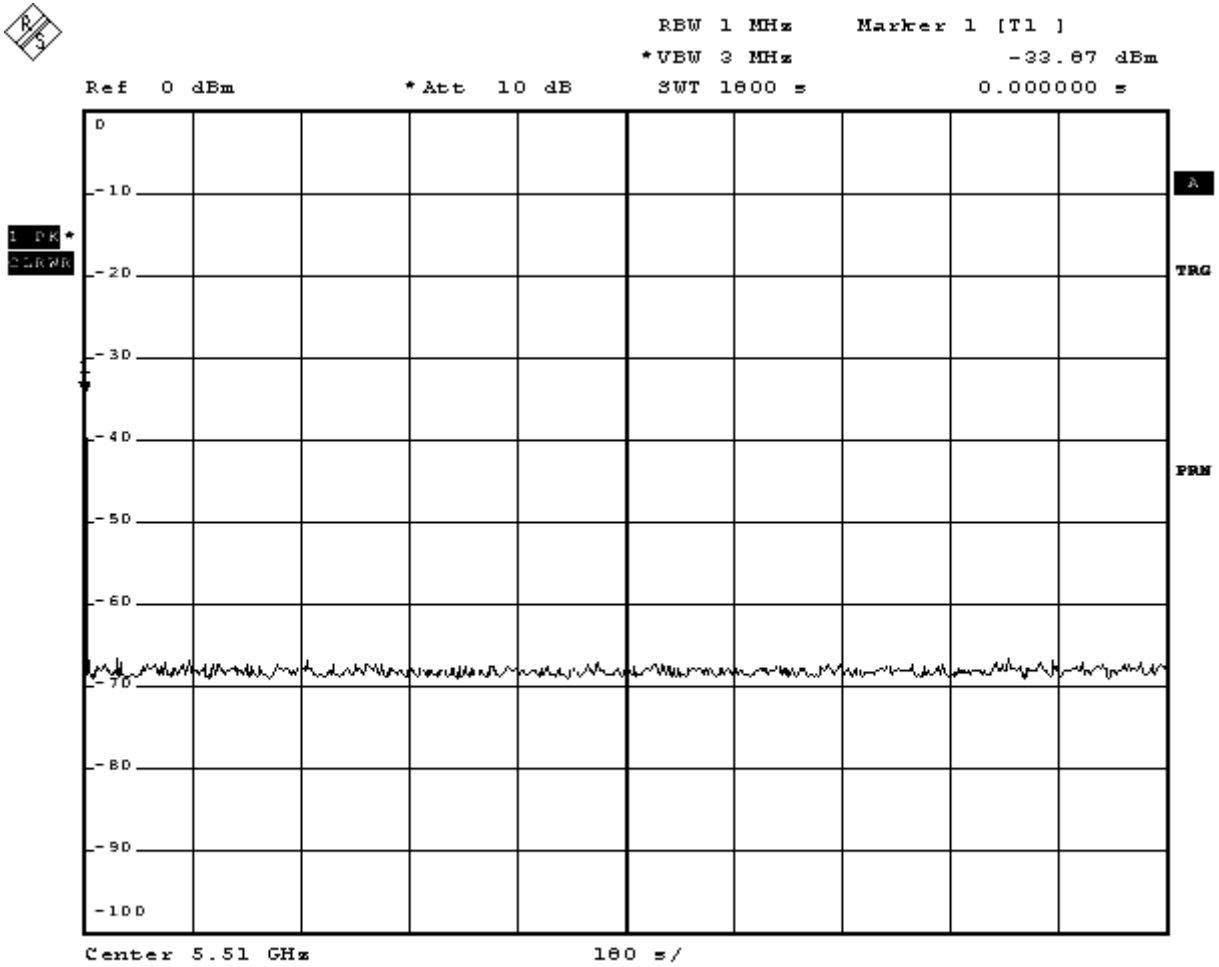
**Draft 802.11n Standard – 40MHz Channel Mode
30 Minute Non-Occupancy Period (using Type 1 Radar) at 5310 MHz**



Test Item	Limit	Results
Non-Occupancy Period	30 Minutes	Pass

No EUT transmissions were observed on the test channel during 30 minutes observation time.

**Draft 802.11n Standard – 40MHz Channel Mode
30 Minute Non-Occupancy Period (using Type 1 Radar) at 5510 MHz**



Test Item	Limit	Results
Non-Occupancy Period	30 Minutes	Pass

No EUT transmissions were observed on the test channel during 30 minutes observation time.

For Radiated measurement

For a UUT with integral antenna(s) and without temporary antenna connector, radiated measurements shall be used.

If the UUT has a Radar Interference Detection function, the output power of the signal generator shall (unless otherwise specified) provide a signal power at the antenna of the UUT with a level equal to Interference Detection Threshold (table D.2, table D.3 of standard).

The test set up as described in annex B of standard and applicable measurement procedures as described in annex C of standard shall be used to test the different DFS features of the UUT. The test procedure is further as described under clause 5.3.7.2.1 of standard.

Uncertainty

The measurement uncertainty is defined as ± 1.27 dB for conducted measurement
 ± 3.90 dB for radiated measurement

Annex D (normative)

DFS parameters

Table D.1: DFS requirement values

Parameter	Value
Channel Availability Check Time	60 s
Channel Move Time	10 s
Channel Closing Transmission Time	260 ms
Non-Occupancy Period	30 min

Table D.2: Interference threshold values, master

Maximum Transmit Power (eirp)	Value (see note)
≥ 200 mW	-64 dBm
< 200 mW	-62 dBm
NOTE: This is the level at the input of the receiver assuming a 0 dBi receive antenna	

Table D.3: Interference threshold values, slave

Maximum Transmit Power (eirp)	Value (see note)
≥ 200 mW	-64 dBm
< 200 mW	N/A
NOTE: This is the level at the input of the receiver assuming a 0 dBi receive antenna	

Table D.4: Parameters of DFS test signals

Radar Signal	Test	Pulse Width W [μs] (see note 5)	Pulse Repetition Frequency PRF [pps]	Pulses per Burst (see note 1)	Detection Probability with 30% Channel Load
1 – Fixed		1	750	15	Pd > 60%
2 – Variable		1, 2, 5	200, 300, 500, 800, 1000	10	Pd > 60%
3 – Variable		10, 15	200, 300, 500, 800, 1000	15	Pd > 60%
4 – Variable		1, 2, 5, 10, 15	1200, 1500, 1600	15	Pd > 60%
5 – Variable		1, 2, 5, 10, 15	2300, 3000, 3500, 4000	25	Pd > 60%
6 – Variable Modulated (see note 6)		20, 30	2000, 3000, 4000	20	Pd > 60%

- NOTE 1:** This represents the number of pulses seen at the RLAN per radar scan:

$$N = \frac{\{\text{antenna beam width (deg)}\} \times \{\text{pulse repetition rate (pps)}\}}{\{\text{scan rate (deg/s)}\}}$$
- NOTE 2:** The test signals above only contain a single burst of pulses.
- NOTE 3:** The number of pulses per burst given in this table simulates real radar systems and takes into account the effects of pulse repetition rate and pulse width on the detection probability for a single burst.
- NOTE 4:** Pd gives the probability of detection per simulated radar burst and represents a minimum level of detection performance under defined conditions - in this case 30 % traffic load. Therefore Pd does not represent the overall detection probability for any particular radar under real life conditions. In general 5 sequential bursts are needed to achieve a real life detection rate of better than 99 % for any radar that falls within the scope of this table.
- NOTE 5:** The pulse width used in these tests is assumed to be representative of real radar systems with different pulse widths and different modulations. The pulse width is assumed to have an accuracy of $\pm 5\%$.
- NOTE 6:** The modulation to be used for the radar test signal 6 is a chirp modulation with a $\pm 2,5\text{MHz}$ frequency deviation which is described below.