





# TEST REPORT

<p><b>Eurofins KCTL Co.,Ltd.</b>                  65, Sinwon-ro, Yeongtong-gu,                  Suwon-si, Gyeonggi-do, 16677, Korea                  TEL: 82-70-5008-1021 FAX: 82-505-299-8311  <a href="http://www.kctl.co.kr">www.kctl.co.kr</a></p>	<p>Report No.:                  KR23-SRF0269-B                  Page (1) of (19)</p>	 
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**1. Client**

- Name : Samsung Electronics Co., Ltd.
- Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677 Rep. of Korea
- Date of Receipt : 2023-10-11

**2. Use of Report** : Class II Permissive Change

**3. Name of Product / Model** : WLAN and BT, 2X2 PCIe M.2 1216 SD adapter card / AX211D2W

**4. Manufacturer / Country of Origin** : Intel Corporation SAS / FRANCE

**5. Host Name of Product / Model** : Notebook PC / NP750QGK

**6. Host Manufacturer:** Samsung Electronics Co., Ltd.

**7. FCC ID** : A3LAX211D



**8. IC Certificate No.** : 649E-AX211D

**9. Date of Test** : 2023-11-07 to 2023-11-09

**10. Location of Test** :  Permanent Testing Lab  On Site Testing  
 (Address: 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea)

**11. Test method used:** FCC Part 15 Subpart E, 15.407  
 RSS-248 Issue 2 December 2022  
 RSS-Gen Issue 5 February 2021


**12. Test Result** : Refer to the test result in the test report

Affirmation	Tested by	Technical Manager
	Name : Hyesom Shin 	Name : Harim Lee 

2024-01-10

**Eurofins KCTL Co.,Ltd.**

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## REPORT REVISION HISTORY

Date	Revision	Page No
2023-11-24	Originally issued	-
2023-12-11	Updated	12, 13
2024-01-10	Updated	7

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Note. The report No. KR23-SRF0269-A is superseded by the report No. KR23-SRF0269-B.

## General remarks for test reports

### Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:

#### Procedure number, issue date and title:

Calculations leading to the reported values are on file with the testing laboratory that conducted the testing.

Statement not required by the standard or client used for type testing

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## 1. General information

Client : Samsung Electronics Co., Ltd.  
 Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea  
 Manufacturer : Samsung Electronics Co., Ltd.  
 Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea  
 Factory : Samsung Electronics Co., Ltd.  
 Address : Khu Cong nghiep Yen Phong 1, Yen Trung, Yen Phong, Bac Ninh, Viet Nam  
 Laboratory : Eurofins KCTL Co.,Ltd.  
 Address : 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea  
 Accreditations : FCC Site Designation No: KR0040, FCC Site Registration No: 687132  
 VCCI Registration No. : R-20080, G-20078, C-20059, T-20056  
 CAB Identifier: KR0040  
 ISED Number: 8035A  
 KOLAS No.: KT231

## 2. Device information

Equipment under test : WLAN and BT, 2X2 PCIe M.2 1216 SD adapter card  
 Model : AX211D2W  
 Host Product Name : Notebook PC  
 Host Model Name : NP750QGK  
 Derivative model : NP754QGK  
 Modulation technique : WIFI (802.11ax) : OFDM, OFDMA  
 Number of channels : UNII-5 : 24 ch (20 MHz), 12 ch (40 MHz), 6 ch (80 MHz), 3 ch (160 MHz)  
 UNII-6 : 5 ch (20 MHz), 3 ch (40 MHz), 1 ch (80 MHz), 1 ch (160 MHz)  
 UNII-7 : 18 ch (20 MHz), 8 ch (40 MHz), 5 ch (80 MHz), 2 ch (160 MHz)  
 UNII-8 : 12 ch (20 MHz), 6 ch (40 MHz), 2 ch (80 MHz), 1 ch (160 MHz)  
 Power source : DC 15.44 V  
 Antenna specification : PIFA Antenna  
 Antenna gain :  

	Antenna 1_Aux	Antenna 2_Main
UNII-5	: 0.19 dBi	UNII-5 : 1.01 dBi
UNII-6	: 4.00 dBi	UNII-6 : 2.86 dBi
UNII-7	: 2.85 dBi	UNII-7 : 3.97 dBi
UNII-8	: 3.23 dBi	UNII-8 : 2.94 dBi

 Frequency range : UNII-5 : 5 955 MHz ~ 6 415 MHz (802.11ax\_HE20)  
 UNII-5 : 5 965 MHz ~ 6 405 MHz (802.11ax\_HE40)  
 UNII-5 : 5 985 MHz ~ 6 385 MHz (802.11ax\_HE80)  
 UNII-5 : 6 025 MHz ~ 6 345 MHz (802.11ax\_HE160)  
 UNII-6 : 6 435 MHz ~ 6 515 MHz (802.11ax\_HE20)  
 UNII-6 : 6 445 MHz ~ 6 525 MHz (802.11ax\_HE40)  
 UNII-6 : 6 465 MHz (802.11ax\_HE80)  
 UNII-6 : 6 505 MHz (802.11ax\_HE160)  
 UNII-7 : 6 535 MHz ~ 6 875 MHz (802.11ax\_HE20)  
 UNII-7 : 6 565 MHz ~ 6 845 MHz (802.11ax\_HE40)  
 UNII-7 : 6 545 MHz ~ 6 865 MHz (802.11ax\_HE80)  
 UNII-7 : 6 665 MHz ~ 6 825 MHz (802.11ax\_HE160)  
 UNII-8 : 6 895 MHz ~ 7 115 MHz (802.11ax\_HE20)  
 UNII-8 : 6 885 MHz ~ 7 085 MHz (802.11ax\_HE40)  
 UNII-8 : 6 945 MHz ~ 7 025 MHz (802.11ax\_HE80)  
 UNII-8 : 6 985 MHz (802.11ax\_HE160)  
 Software version : Windows 11  
 Hardware version : REV1.0  
 Test device serial No. : 1Q6991ZWA00019H  
 Operation temperature : 10 °C ~ 35 °C

## 2.1. Information for Derivative model

The difference between Main model and Derivative model is as below.

Main model	NP750QGK
Derivative model	NP754QGK
Differences	Marketing and logistic Difference.

## 2.2. Frequency/channel operations

### UNII-5

Ch.	Frequency (MHz)
1	5 955
⋮	⋮
45	6 175
⋮	⋮
93	6 415

### UNII-6

Ch.	Frequency (MHz)
97	6 435
⋮	⋮
105	6 475
⋮	⋮
113	6 515

### UNII-7

Ch.	Frequency (MHz)
117	6 535
⋮	⋮
149	6 695
⋮	⋮
185	6 875

### UNII-8

Ch.	Frequency (MHz)
189	6 895
⋮	⋮
209	6 995
⋮	⋮
233	7 115

Table 2.2-1. 802.11a, ax\_HE20 mode

### UNII-5

Ch.	Frequency (MHz)
3	5 965
⋮	⋮
43	6 165
⋮	⋮
91	6 405

### UNII-6

Ch.	Frequency (MHz)
99	6 445
⋮	⋮
107	6 485
⋮	⋮
115	6 525

### UNII-7

Ch.	Frequency (MHz)
123	6 565
⋮	⋮
147	6 685
⋮	⋮
179	6 845

### UNII-8

Ch.	Frequency (MHz)
187	6 885
⋮	⋮
211	7 005
⋮	⋮
227	7 085

Table 2.2-2. 802.11ax\_HE40 mode

### UNII-5

Ch.	Frequency (MHz)
7	5 985
⋮	⋮
39	6 145
⋮	⋮
87	6 385

### UNII-6

Ch.	Frequency (MHz)
103	6 465

### UNII-7

Ch.	Frequency (MHz)
119	6 545
⋮	⋮
151	6 705
⋮	⋮
183	6 865

### UNII-8

Ch.	Frequency (MHz)
199	6 945
⋮	⋮
215	7 025

Table 2.2-3. 802.11ax\_HE80 mode

### UNII-5

Ch.	Frequency (MHz)
15	6 025
⋮	⋮
47	6 185
⋮	⋮
79	6 345

### UNII-6

Ch.	Frequency (MHz)
111	6 505

### UNII-7


Ch.	Frequency (MHz)
143	6 665
⋮	⋮
175	6 825

### UNII-8

Ch.	Frequency (MHz)
207	6 985

Table 2.2-4. 802.11ax\_HE160 mode



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### **3. Antenna requirement**

#### **Requirement of FCC part section 15.203**

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

#### **Requirement of RSS-Gen Section 6.8:**

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer.

The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

- The transmitter has permanently attached PIFA Antenna (Internal antenna) on board.
- The E.U.T Complies with the requirement of §15.203, §15.247, §15.407.

#### 4. Summary of tests

FCC Part section(s)	IC Rule	Parameter	Test Condition	Test results
15.407(d)(6)	RSS-248 4.7	Contention Based Protocol	Conducted	Pass

#### Notes:

- The device does not use either channel puncturing or bandwidth reduction for the purpose of incumbent avoidance.
- The test procedure(s) in this report were performed in accordance as following.
  - ANSI C63.10-2013
  - KDB 987594 D02 v02r01

#### 5. Measurement uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.10-2013.

All measurement uncertainty values are shown with a coverage factor of  $k=2$  to indicated a 95 % level of confidence. The measurement data shown herein meets or exceeds the  $U_{CISPR}$  measurement uncertainty values specified in CISPR 16-4-2 and thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded uncertainty ( $\pm$ )
Conducted RF power	0.9 dB

## 6. Test results

### 6.1. Contention Based Protocol

#### Test Overview and Limit

According to §15.407(d)(6),  
Indoor access points, subordinate devices and client devices operating in the 5.925 – 7.125 GHz band must employ a contention-based protocol.

According to RSS-248 4.7.2,  
The minimum detection threshold power is the received power referenced to a 0 dBi antenna. Devices shall use a contention-based protocol to detect the presence of any emissions on the channel that the device intends to occupy. The device shall be able to detect, within its entire occupied bandwidth, a radio frequency power of at least –62 dBm or lower.

If an emission is detected on a channel, the device shall cease transmissions and shall not resume transmissions on this channel while the detected radio frequency power is at or above the –62 dBm threshold.

#### Test Procedure

Indoor access points, subordinate devices and client devices operating in the 5.925-7.125 GHz band (herein referred to as unlicensed devices) are required to use technologies that include a contention-based protocol to avoid co-channel interference with incumbent devices sharing the band. To ensure incumbent co-channel operations are detected in a technology-agnostic manner, unlicensed devices are required to detect co-channel radio frequency energy (energy detect) and avoid simultaneous transmission.

Unlicensed low-power indoor devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel (in which incumbent signal is transmitted) and stay off the incumbent channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm). The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain.

To ensure incumbent operations are reliably detected in the band, low power indoor devices must detect RF energy throughout their intended operating channel. For example, an 802.11 device that plans to transmit a 40 MHz-wide signal (on a primary 20 MHz channel and a secondary 20 MHz channel) must detect energy throughout the entire 40 MHz channel. Additionally, low-power indoor devices must detect co-channel energy with 90% or greater certainty.

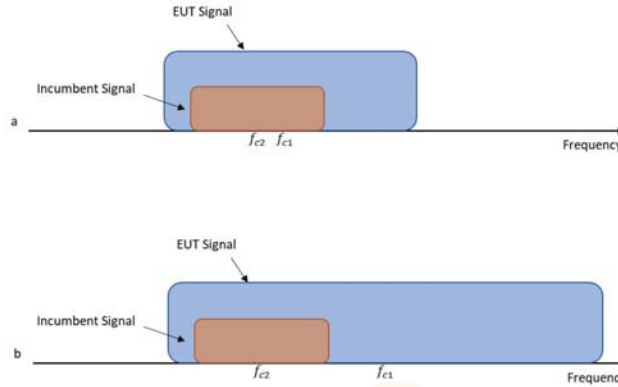
#### A. Simulating Incumbent Signal

The incumbent signal is assumed to be noise-like. One example of such transmission could be Digital Video Broadcasting (DVB) systems that use Orthogonal Frequency Division Multiplexing (OFDM). Incumbent systems may also use different bandwidths for their transmissions. A 10 MHz-wide additive white Gaussian noise (AWGN) signal is selected to simulate and represent incumbent transmission.



**B. Required number of tests**

Incumbent and EUT (access point, subordinate or client) signals may occupy different portions of the channel. Depending on the EUT transmission bandwidth and incumbent signal center frequency (simulated by a 10 MHz-wide AWGN signal), the center frequency of the EUT signal  $f_{c1}$  may fall within the incumbent's occupied bandwidth (Figure 1.a), or outside of it (Figure 1.b).



**Figure 1. Two possible scenarios where a) center frequency of EUT transmission falls within incumbent's bandwidth, or b) outside of it**

To ensure EUT reliably detects an incumbent signal in both scenarios shown in Figure 1, the detection threshold test may be repeated more than once with the incumbent signal (having center frequency  $f_{c2}$ ) tuned to different center frequencies within the UT transmission bandwidth. The criteria specified in Table 1 determines how many times the detection threshold test must be performed;

**Table 1. Criteria to determine number of times detection threshold test may be performed**

If	Number of Tests	Placement of Incumbent Transmission
$BW_{EUT} \leq BW_{Inc}$	Once	Tune incumbent and EUT transmissions ( $f_{c1} = f_{c2}$ )
$BW_{Inc} \leq BW_{EUT} \leq 2BW_{Inc}$	Once	Incumbent transmission is contained within $BW_{EUT}$
$2BW_{Inc} \leq BW_{EUT} \leq 4BW_{Inc}$	Twice. Incumbent transmission is contained within $BW_{EUT}$	Incumbent transmission is located as closely as possible to the lower edge and upper edge, respectively, of the EUT channel
$BW_{EUT} > 4BW_{Inc}$	Three times	Incumbent transmission is located as closely as possible to the lower edge of the EUT channel, in the middle of EUT channel, and as closely as possible to the upper edge of the EUT channel

where:

$BW_{EUT}$ : Transmission bandwidth of EUT signal

$BW_{Inc}$ : Transmission bandwidth of the simulated incumbent signal (10 MHz wide AWGN signal)

$f_{c1}$ : Center frequency of EUT transmission

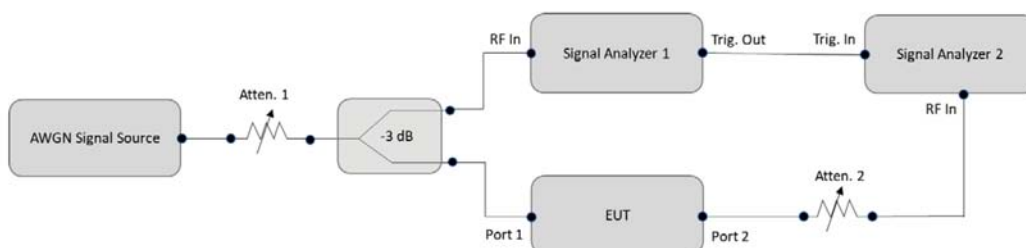
$f_{c2}$ : Center frequency of simulated incumbent signal

### C. Test Setup

To ensure the EUT is capable of detecting co-channel energy, the first step is to configure the EUT to transmit with a constant duty cycle.<sup>2</sup> To simulate an incumbent signal, a signal generator (or similar source) that is capable of generating band-limited additive white Gaussian noise (AWGN) is required. Depending on the EUT antenna configuration, the AWGN signal can be provided to the EUT receiver via a conducted method (Figure 2) or a radiated method (Figure 3). Figure 2 shows the conducted test setup where a band-limited AWGN signal is generated at a very low power level and injected into the EUT's antenna port. The AWGN signal power level is then incrementally increased while the EUT transmission is monitored on a signal analyzer <sup>2</sup> to verify if the EUT can sense the AWGN signal and can subsequently cease its transmission. A triggered measurement, as shown in Figure 2, is optional, and assists with determining the time it takes the EUT to cease transmission (or vacate the channel) upon detecting RF energy. If the EUT has only one antenna port, then an AWGN signal source can be connected to the same antenna port.

### D. Step-by-Step Procedure, conducted setup

- 1) Configure the EUT to transmit with a constant duty cycle.
- 2) Set the operating parameters of the EUT including power level, operating frequency, modulation and bandwidth.
- 3) Set the signal analyzer center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer <sup>2</sup>, as shown in Figure 2. Ensure that the attenuator <sup>2</sup> provides enough attenuation to not overload the signal analyzer <sup>2</sup> receiver.
- 4) Monitoring the signal analyzer <sup>2</sup>, verify the EUT is operating and transmitting with the parameters set at step two.
- 5) Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use Table 1 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
- 6) Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer <sup>1</sup> and the EUT as shown in Figure 2.
- 7) Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer <sup>1</sup>.
- 8) Monitor the signal analyzer <sup>2</sup> to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
- 9) (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
- 10) Refer to Table 1 to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step 5, choose a different center frequency for the AWGN signal and repeat the process.



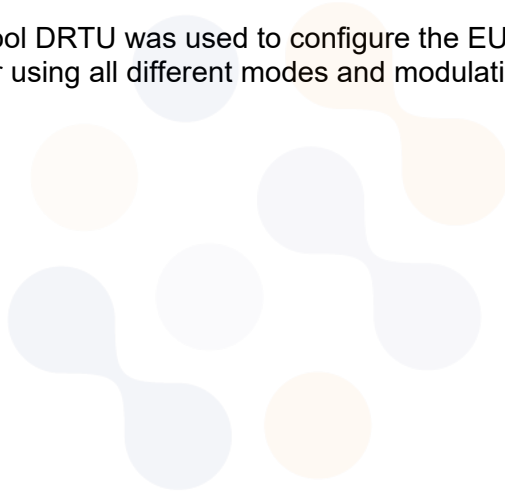
**Figure 2. Contention-based protocol test setup, conducted method**

**Note.**

- 1) KDB 987594 D02, contention based protocol was tested using an AWGN signal with a bandwidth of 10 MHz. The amplitude of the signal was increased until detected by the EUT, signaled by the ceasing of transmission, marker indicates the point at which the AWGN signal is introduced.
- 2) Lowest antenna gain information
  - Lowest antenna gain of both antennas was adjusted to injected power (AWGN signal).

Band	Lowest Gain (dBi)	
	ANT1 (Aux)	ANT2 (Main)
UNII-5	0.19	1.01
UNII-6	4.00	2.86
UNII-7	2.85	3.97
UNII-8	3.23	2.94

- 3) The Intel proprietary tool DRTU was used to configure the EUT to continuously transmit at a specified output power using all different modes and modulation schemes



**Test result**

Band	BW [MHz]	Channel Freq. [MHz]	Incumbent Freq. [MHz]	Injected (AWGN) Power (dBm)	Antenna Gain (dBi)	Path Loss (dB)	Adjusted Power (dBm)	Detection Limit (dBm)	EUT TX Status
UNII 5	20	6 175	6 175	-111.34	0.19	13.34	-98.19	-62.00	ON
				-86.34	0.19	13.34	-73.19	-62.00	Minimal
				-85.84	0.19	13.34	-72.69	-62.00	OFF
	160	6 185	6 110	-111.30	0.19	13.30	-98.19	-62.00	ON
				-85.40	0.19	13.30	-72.29	-62.00	Minimal
				-84.90	0.19	13.30	-71.79	-62.00	OFF
			6 185	-111.28	0.19	13.28	-98.19	-62.00	ON
				-82.18	0.19	13.28	-69.09	-62.00	Minimal
				-81.98	0.19	13.28	-68.89	-62.00	OFF
		6 260	-110.95	0.19	12.95	-98.19	-62.00	ON	
			-79.50	0.19	12.95	-66.74	-62.00	Minimal	
			-79.40	0.19	12.95	-66.64	-62.00	OFF	
UNII 6	20	6 475	6 475	-111.50	2.86	13.50	-100.86	-62.00	ON
				-85.80	2.86	13.50	-75.16	-62.00	Minimal
				-85.30	2.86	13.50	-74.66	-62.00	OFF
	160	6 505	6 430	-111.60	2.86	13.60	-100.86	-62.00	ON
				-85.20	2.86	13.60	-74.46	-62.00	Minimal
				-84.70	2.86	13.60	-73.96	-62.00	OFF
			6 505	-111.50	2.86	13.50	-100.86	-62.00	ON
				-84.05	2.86	13.50	-73.41	-62.00	Minimal
				-83.85	2.86	13.50	-73.21	-62.00	OFF
		6 580	-111.15	2.86	13.15	-100.86	-62.00	ON	
			-79.55	2.86	13.15	-69.26	-62.00	Minimal	
			-79.40	2.86	13.15	-69.11	-62.00	OFF	
UNII 7	20	6 695	6 695	-111.40	2.85	13.40	-100.85	-62.00	ON
				-84.30	2.85	13.40	-73.75	-62.00	Minimal
				-83.70	2.85	13.40	-73.15	-62.00	OFF
	160	6 665	6 590	-111.10	2.85	13.10	-100.85	-62.00	ON
				-84.30	2.85	13.10	-74.05	-62.00	Minimal
				-83.80	2.85	13.10	-73.55	-62.00	OFF
			6 665	-111.20	2.85	13.20	-100.85	-62.00	ON
				-80.25	2.85	13.20	-69.90	-62.00	Minimal
				-80.20	2.85	13.20	-69.85	-62.00	OFF
		6 740	-111.65	2.85	13.65	-100.85	-62.00	ON	
			-78.15	2.85	13.65	-67.35	-62.00	Minimal	
			-78.05	2.85	13.65	-67.25	-62.00	OFF	

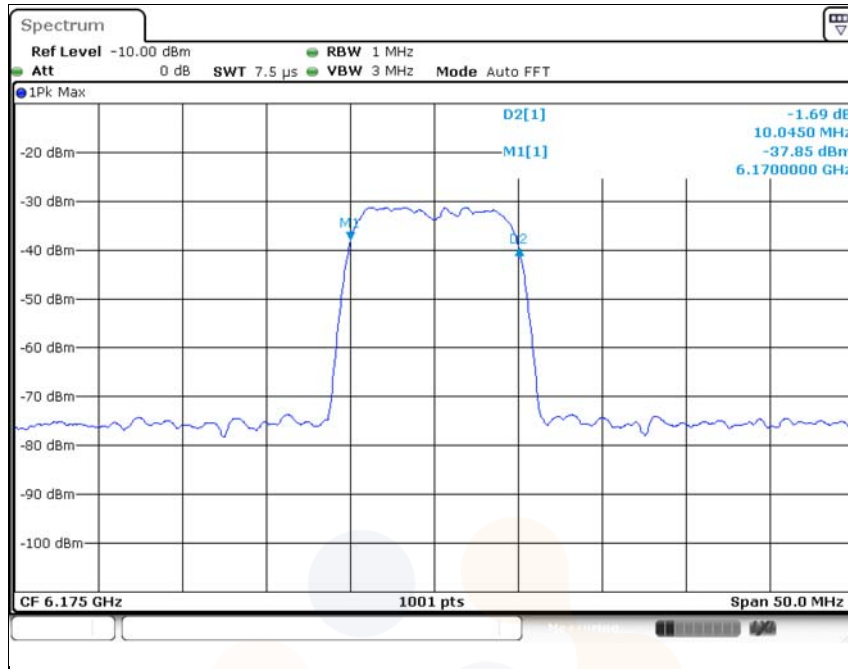
Band	BW [MHz]	Channel Freq. [MHz]	Incumbent Freq. [MHz]	Injected (AWGN) Power [dBm]	Antenna Gain [dBi]	Path Loss [dB]	Adjusted Power [dBm]	Detection Limit [dBm]	EUT TX Status
UNII 8	20	6 995	6 995	-111.86	2.94	13.86	-100.94	-62.00	ON
				-79.86	2.94	13.86	-68.94	-62.00	Minimal
				-79.36	2.94	13.86	-68.44	-62.00	OFF
	160	6 985	6 910	-107.35	2.94	13.35	-96.94	-62.00	ON
				-81.95	2.94	13.35	-71.54	-62.00	Minimal
				-81.45	2.94	13.35	-71.04	-62.00	OFF
				-111.85	2.94	13.85	-100.94	-62.00	ON
				-84.40	2.94	13.85	-73.49	-62.00	Minimal
				-84.35	2.94	13.85	-73.44	-62.00	OFF
			7 060	-111.68	2.94	13.68	-100.94	-62.00	ON
				-77.28	2.94	13.68	-66.54	-62.00	Minimal
				-77.18	2.94	13.68	-66.44	-62.00	OFF

Band	BW [MHz]	Channel Freq. [MHz]	Incumbent Freq. [MHz]	Adjusted Power [dBm]											AWGN Detection Probability (%)	Limit Probability (%)	
					1	2	3	4	5	6	7	8	9	10			
UNII 5	20	6 175	6 175	-72.69	√	√	√	√	√	√	√	√	√	√	√	100	90
	160	6 185	6 110	-71.79	√	√	√	√	√	√	√	√	√	√	√	100	90
			6 185	-68.89	√	√	√	√	√	√	√	√	√	√	√	100	90
			6 260	-66.64	√	√	√	√	√	√	√	√	√	√	√	100	90
UNII 6	20	6 475	6 475	-74.66	√	√	√	√	√	√	√	√	√	√	√	100	90
	160	6 505	6 430	-73.96	√	√	√	√	√	√	√	√	√	√	√	100	90
			6 505	-73.21	√	√	√	√	√	√	√	√	√	√	√	100	90
			6 580	-69.11	√	√	√	√	√	√	√	√	√	√	√	100	90
UNII 7	20	6 695	6 695	-73.15	√	√	√	√	√	√	√	√	√	√	√	100	90
	160	6 665	6 590	-73.55	√	√	√	√	√	√	√	√	√	√	√	100	90
			6 665	-69.85	√	√	√	√	√	√	√	√	√	√	√	100	90
			6 740	-67.25	√	√	√	√	√	√	√	√	√	√	√	100	90
UNII 8	20	6 995	6 995	-68.44	√	√	√	√	√	√	√	√	√	√	√	100	90
	160	6 985	6 910	-71.04	√	√	√	√	√	√	√	√	√	√	√	100	90
			6 985	-73.44	√	√	√	√	√	√	√	√	√	√	√	100	90
			7 060	-66.44	√	√	√	√	√	√	√	√	√	√	√	100	90

**Notes:**

1. EUT TX Status
  - 1) OFF: AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds.
  - 2) Minimal: AWGN level at which the system begins to trigger the transmission switch off, albeit not being kept off consistently.
  - 3) ON: AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds.
2. Adjusted Power [dBm] = Injected AWGN Power [dBm] - Antenna Gain [dBi] + Path Loss [dB]

**Plot of AWGN Signal**

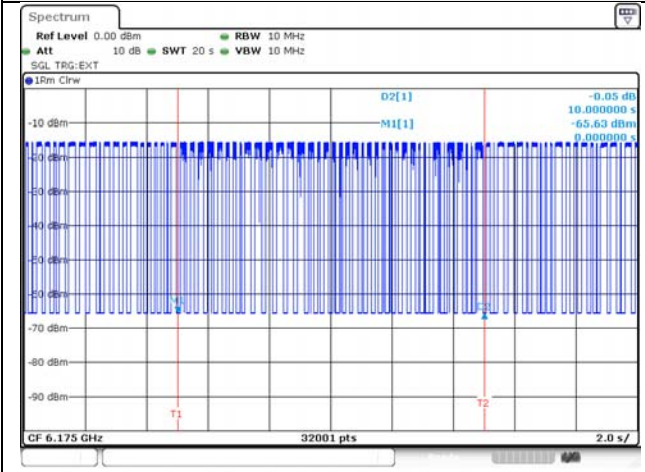




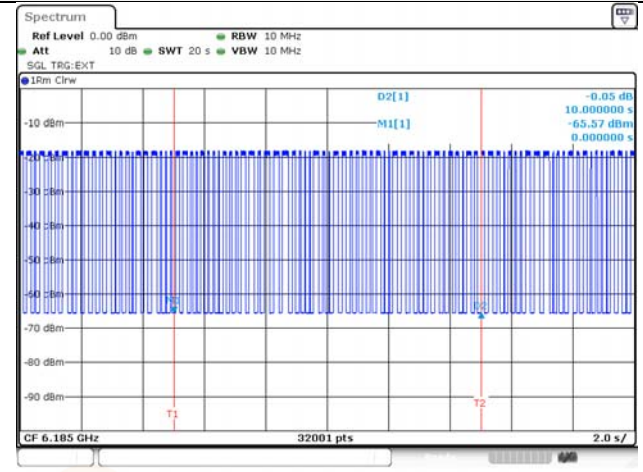
**UNII-5**

**EUT Transmission**

**6 175 MHz (20 MHz bandwidth)**

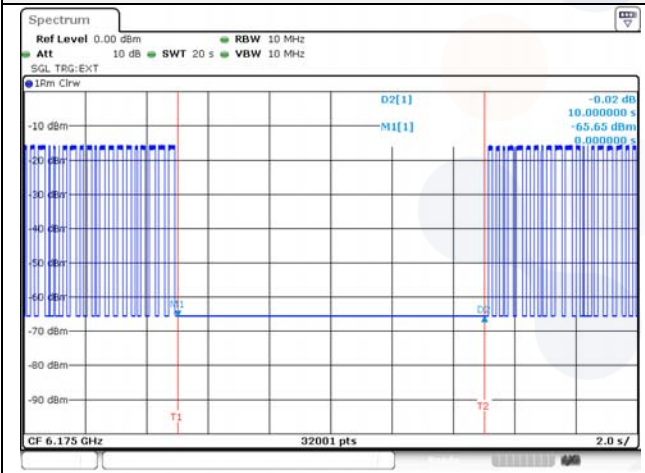


**6 185 MHz (160 MHz bandwidth)**

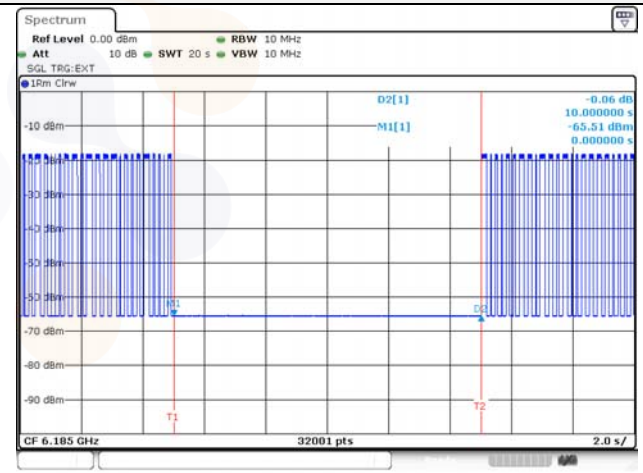


**Injected Incumbent Signal**

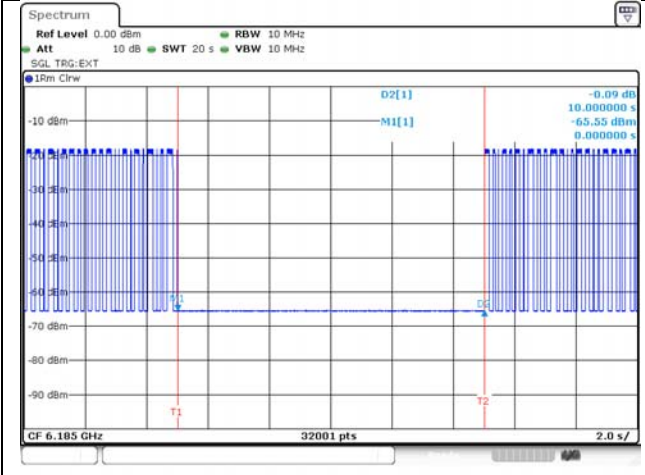
**6 175 MHz (20 MHz bandwidth)**



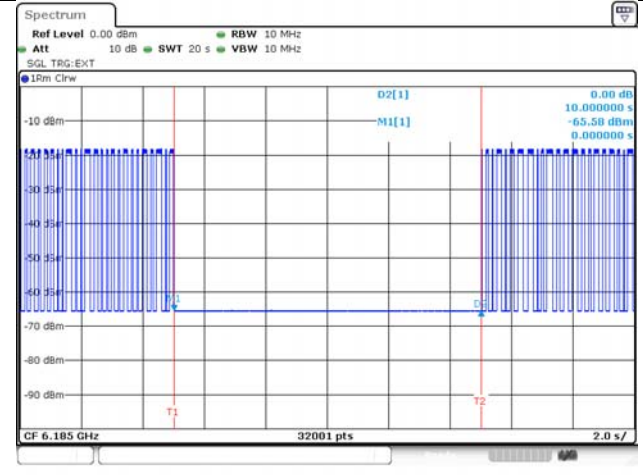
**6 110 MHz (160 MHz bandwidth)**



**6 185 MHz (160 MHz bandwidth)**



**6 260 MHz (160 MHz bandwidth)**



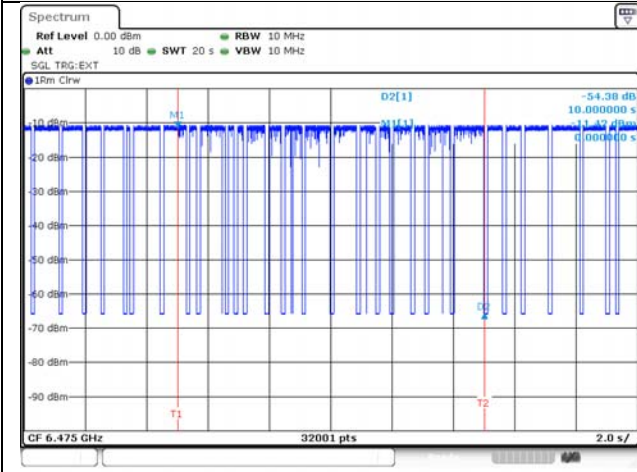
**Note.**

- M1: Injection of AWGN signal, D2: Removal of AWGN signal.

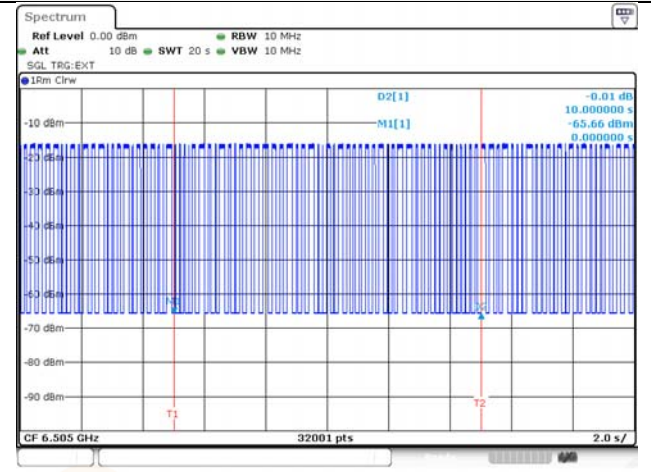
**UNII-6**

**EUT Transmission**

**6 475 Mhz (20 Mhz bandwidth)**

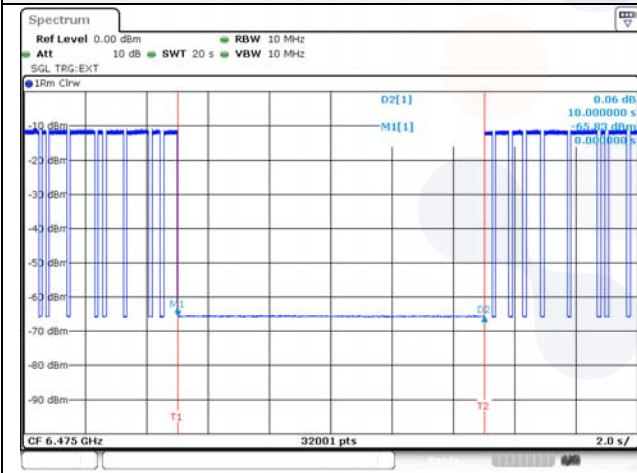


**6 505 Mhz (160 Mhz bandwidth)**

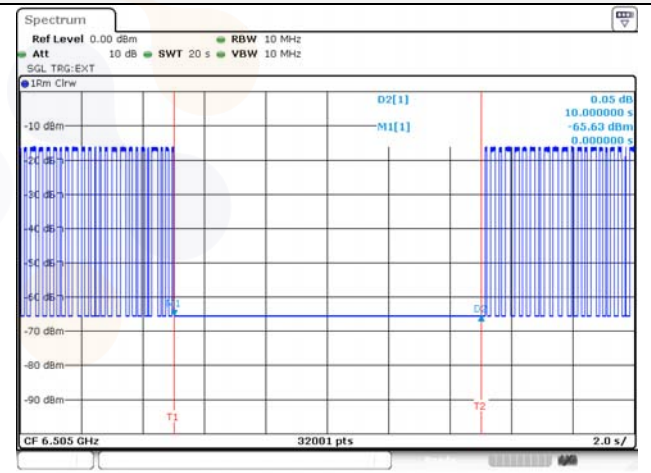


**Injected Incumbent Signal**

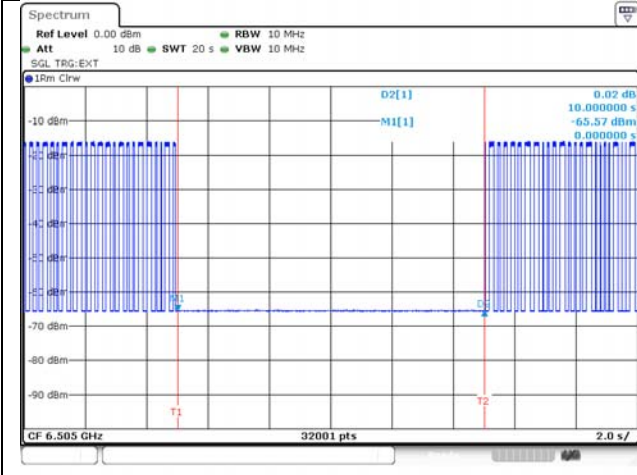
**6 475 Mhz (20 Mhz bandwidth)**



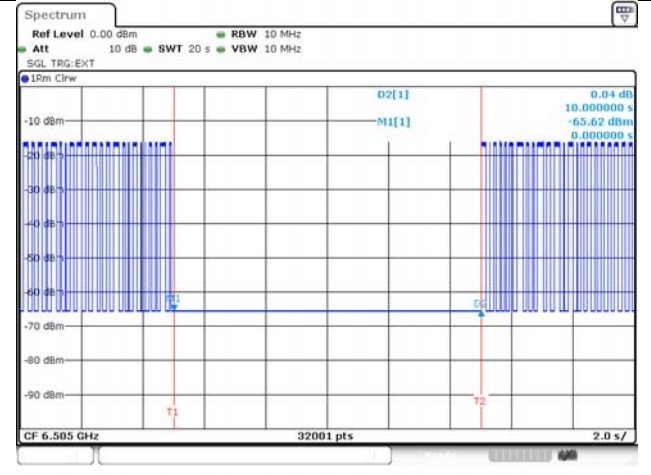
**6 430 Mhz (160 Mhz bandwidth)**



**6 505 Mhz (160 Mhz bandwidth)**



**6 580 Mhz (160 Mhz bandwidth)**



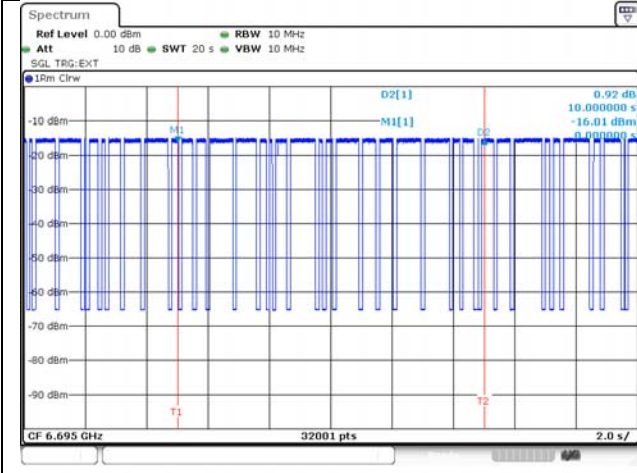
**Note.**

- M1: Injection of AWGN signal, D2: Removal of AWGN signal.

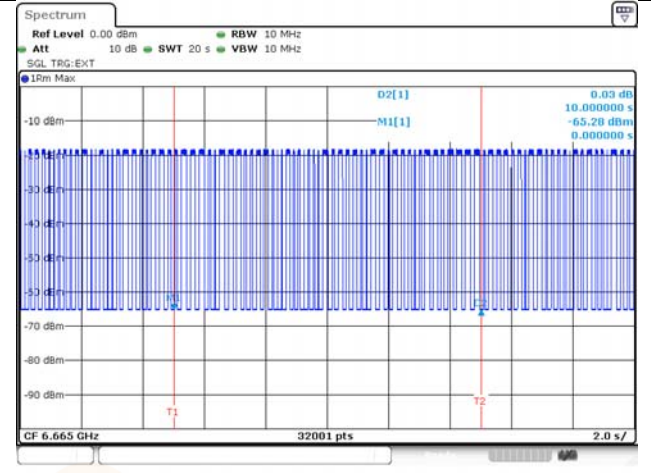
**UNII-7**

**EUT Transmission**

**6 695 Mhz (20 Mhz bandwidth)**

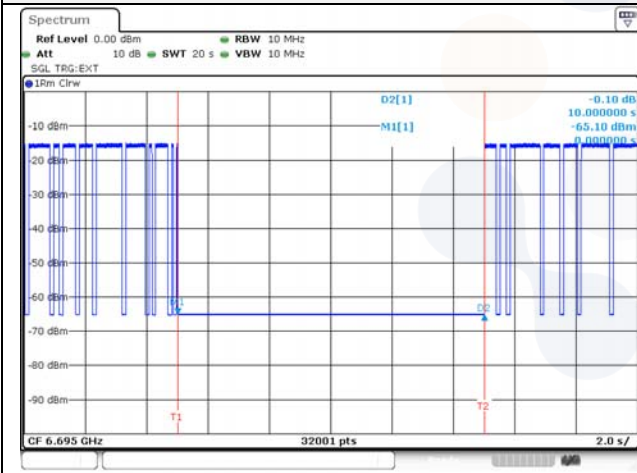


**6 665 Mhz (160 Mhz bandwidth)**

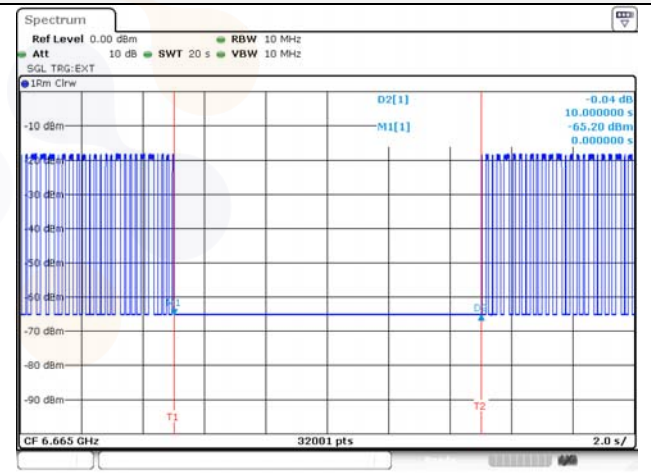


**Injected Incumbent Signal**

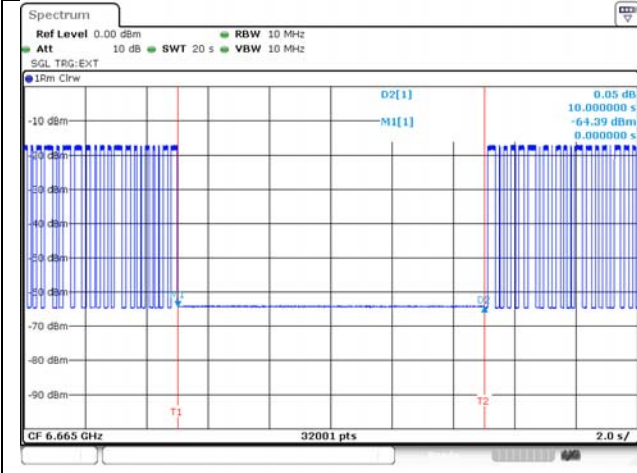
**6 695 Mhz (20 Mhz bandwidth)**



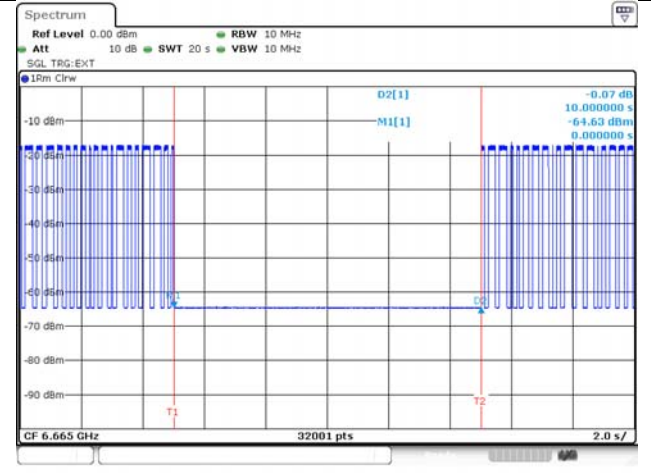
**6 590 Mhz (160 Mhz bandwidth)**



**6 665 Mhz (160 Mhz bandwidth)**



**6 740 Mhz (160 Mhz bandwidth)**



**Note.**

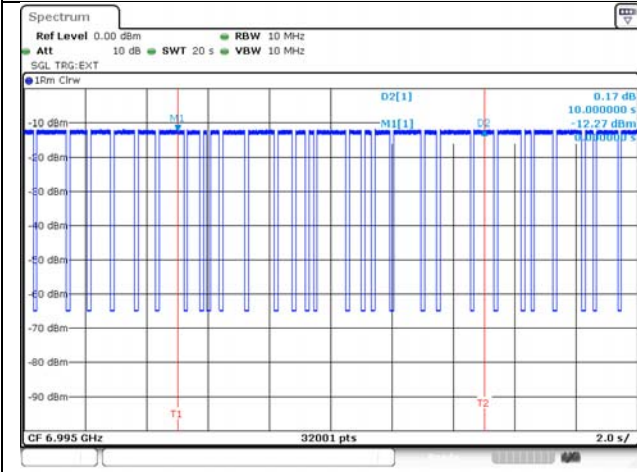
- M1: Injection of AWGN signal, D2: Removal of AWGN signal.



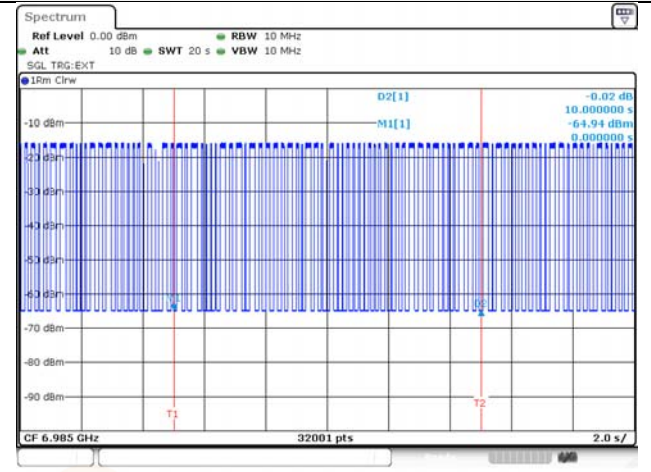
**UNII-8**

**EUT Transmission**

**6 995 Mhz (20 Mhz bandwidth)**

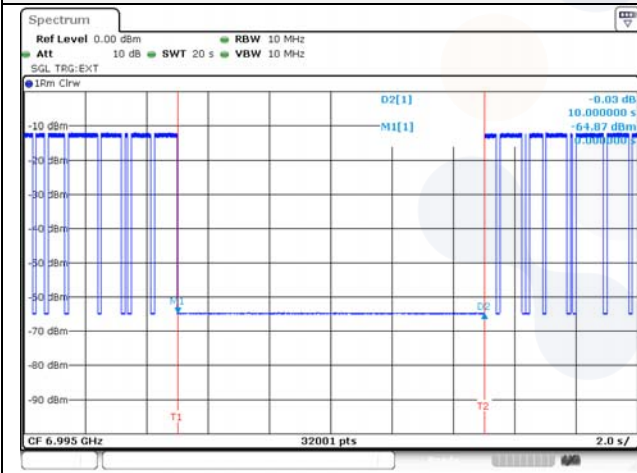


**6 985 Mhz (160 Mhz bandwidth)**

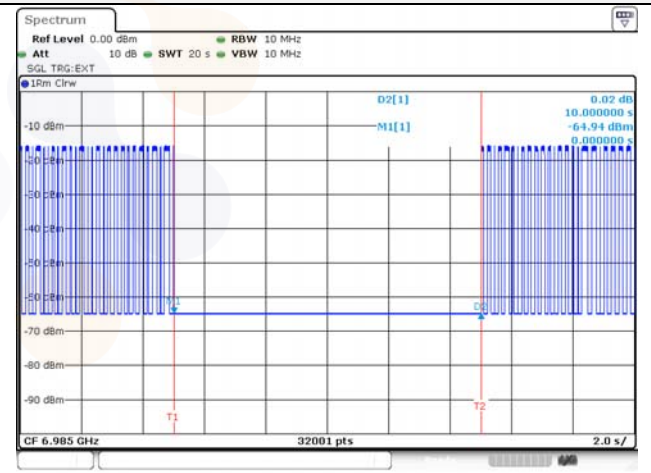


**Injected Incumbent Signal**

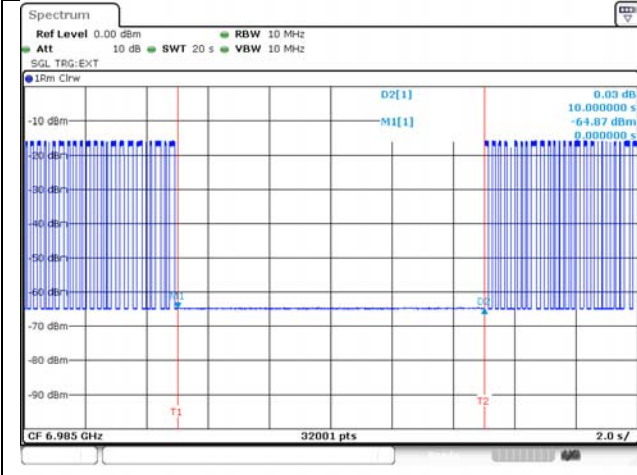
**6 995 Mhz (20 Mhz bandwidth)**



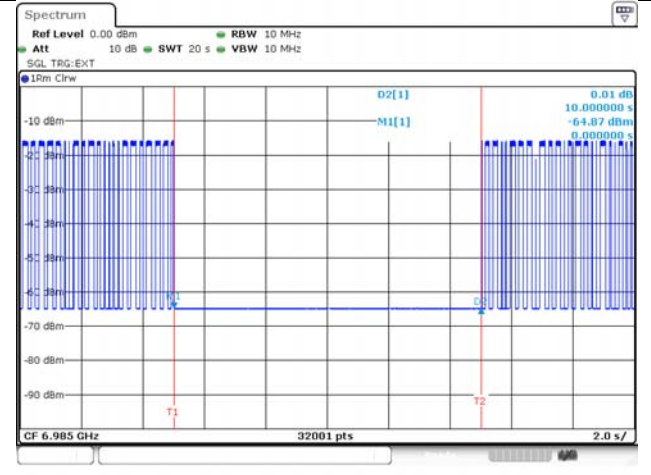
**6 910 Mhz (160 Mhz bandwidth)**



**6 985 Mhz (160 Mhz bandwidth)**



**7 060 Mhz (160 Mhz bandwidth)**



**Note.**

- M1: Injection of AWGN signal, D2: Removal of AWGN signal.

## 7. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Spectrum Analyzer	R&S	FSV30	100807	24.07.03
Power Divider	Aeroflex/ Weinschel,Inc	1580-1	NX380	24.07.04
SPLITTER	Mini-Circuits	ZX10-2-1252-S+	1633-2	24.01.19
Signal Generator	R&S	SMB100A	176206	24.01.19
Vector Signal Generator	R&S	SMW200A	109480	24.01.25

**End of test report**

