



**HYPER Taiwan Technology Inc.**

# **Bluetooth Qualification Report**

**Customer: Enzytek Technology, Inc.**

Date: 2009/1/16



CNLA/TAF Accredited Laboratory to ISO/IEC 17025

- for the scope of *Bluetooth* Testing

Certificate Number 0916



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**Job Number: 0188-2009Jan01**

**Signature**

**The below listed HYPER Taiwan Technology Inc.  
Personnel take responsibility for the contents of this Test Report.**

Date : 2009/1/16

Reviewed/Approved by :

*Paul Lee*

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## Table of Content

<b>1.</b>	<b>List of Revisions .....</b>	<b>1</b>
<b>2.</b>	<b>Disclaimer Notice .....</b>	<b>1</b>
<b>3.</b>	<b>Company Information .....</b>	<b>2</b>
<b>3.1.</b>	<b>Test Lab information .....</b>	<b>2</b>
<b>3.2.</b>	<b>Customer information .....</b>	<b>2</b>
<b>4.</b>	<b>Implementation Under Test .....</b>	<b>3</b>
<b>4.1.</b>	<b>IUT Information.....</b>	<b>3</b>
<b>4.2.</b>	<b>List of Bluetooth Core Protocols supported .....</b>	<b>3</b>
<b>4.3.</b>	<b>List of Bluetooth External to Core Protocols and Profiles supported.....</b>	<b>4</b>
<b>4.4.</b>	<b>List of Applicable Qualified Pre-tested Components .....</b>	<b>5</b>
<b>4.5.</b>	<b>PIXIT for RF Conformance Test .....</b>	<b>5</b>
<b>4.6.</b>	<b>IUT Photograph .....</b>	<b>6</b>
<b>5.</b>	<b>List of Test Equipment Used .....</b>	<b>7</b>
<b>5.1.</b>	<b>Test Equipment for RF .....</b>	<b>7</b>
<b>6.</b>	<b>Reference Test Requirement Document.....</b>	<b>8</b>
<b>7.</b>	<b>Test Summary.....</b>	<b>9</b>
<b>Appendix Part A: RF Conformance Test Report</b>		



## 1. List of Revisions

Version	Date	Author(s)	Description
001	2009/1/16	Min-Hsun Chiang	Initial Version

## 2. Disclaimer Notice

This test report applies only to the IUT (Implementation Under Test) and the results of the specifications called out in this report.

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### 3. Company Information

#### 3.1. Test Lab information

Company Detail	
Company Name	HYPER Taiwan Technology Inc., LTD
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TEL	+886-3-3961088
FAX	+886-3-3960669
URL	<a href="http://www.hypertaiwan.com.tw/">http://www.hypertaiwan.com.tw/</a>

#### 3.2. Customer information

Company Detail	
Company Name	Enzytek Technology, Inc.
Address	7F,No.35, Hsueh Fu Road, HsinChu 300, Taiwan (新竹市學府路 35 號 7F, 30068)
Contact Person	Kevin Chang
TEL	03-573-6708 EXT 301
Email	<a href="mailto:kevin.chang@enzytek.com">kevin.chang@enzytek.com</a>



## 4. Implementation Under Test

### 4.1. IUT Information

IUT Detail	
Product Name	BTM-BC4E03-2H
Product General Description	Bluetooth Class II module with CSR BC4-EXT
Product ID	BTM-BC4E03-2H
Date received	2009/01/05
Date(s) tested	2009/01/07 ~ 2009/01/13
Condition of IUT	The IUT was received in good condition.
Hardware Version	BC4-EXT
Software Version	FBTA-BC4E03-2
Specification Version	2.0
Product Type	Controller Subsystem

### 4.2. List of Bluetooth Core Protocols supported

Bluetooth Core Protocols		
<input checked="" type="checkbox"/>	RF	Radio Frequency
<input checked="" type="checkbox"/>	BB	BaseBand
<input checked="" type="checkbox"/>	LMP	Link Manager
<input type="checkbox"/>	L2CAP	Logical Link Control and Adaptation Protocol
<input type="checkbox"/>	SDP	Service Discovery Protocol
<input type="checkbox"/>	GAP	Generic Access Profile
<input checked="" type="checkbox"/>	HCI	Host Controller Interface



### 4.3. List of Bluetooth External to Core Protocols and Profiles supported

Bluetooth External to Core Protocols and Profiles		
<input type="checkbox"/>	A2DP 1.0	Advanced Audio Distribution Profile 1.0
<input type="checkbox"/>	AVCTP 1.0	Audio / Video Control Transport Protocol 1.0
<input type="checkbox"/>	AVDTP 1.0	Audio / Video Distribution Transport Protocol 1.0
<input type="checkbox"/>	AVRCP 1.0	Audio / Video Remote Control Profile 1.0
<input type="checkbox"/>	BIP	Basic Imaging Profile
<input type="checkbox"/>	BNEP	Bluetooth Network Encapsulation Protocol
<input type="checkbox"/>	BPP	Basic Printing Profile
<input type="checkbox"/>	BPP1.2	Basic Printing Profile 1.2
<input type="checkbox"/>	CTP	Cordless Telephony Profile
<input type="checkbox"/>	DUN	Dial Up Networking Profile
<input type="checkbox"/>	DID	Device ID
<input type="checkbox"/>	FAX	FAX Profile
<input type="checkbox"/>	FTP	File Transfer Profile
<input type="checkbox"/>	GAVDP 1.0	Generic Audio/Video Distribution Profile 1.0
<input type="checkbox"/>	HCRP	Hard Copy Cable Replacement Profile
<input type="checkbox"/>	HCRP1.2	Hard Copy Cable Replacement Profile 1.2
<input type="checkbox"/>	HFP1.5	Hands-Free Profile 1.5
<input type="checkbox"/>	HDP	Health Device Profile
<input type="checkbox"/>	HID	Human Interface Device Profile
<input type="checkbox"/>	HSP	Headset Profile
<input type="checkbox"/>	ICP	Intercom Profile
<input type="checkbox"/>	IOPT	Interoperability Test Specification
<input type="checkbox"/>	OPP	Object Push Profile
<input type="checkbox"/>	MCAP	Multi-Channel Adaptation Protocol
<input type="checkbox"/>	PAN	Personal Area Networking Profile
<input type="checkbox"/>	PBAP	Phone Book Access Profile
<input type="checkbox"/>	RFCOMM	RF COMM Protocol
<input type="checkbox"/>	SAP	SIM Access Profile
<input type="checkbox"/>	SDAP	Service Discovery Application Profile
<input type="checkbox"/>	SPP	Serial Port Profile
<input type="checkbox"/>	SYNC	Synchronization Profile
<input type="checkbox"/>	VDP	Video Distribution Profile



## 4.4. List of Applicable Qualified Pre-tested Components

Bluetooth QDID	Product ID	Manufacturer
B01867	BC4-Ext (BC417143B)	Cambridge Silicon Radio

## 4.5. PIXIT for RF Conformance Test

Parameter Name	Type	Test case reference	Value
Timer for TX power control	ms	TRM/CA/03 Power Control	N/A
In band Image frequency	MHz	RCV/CA/03 C/I Performance	N/A
Value n for Intermodulation test	Integer	RCV/CA/05 Intermodulation Performance	N/A
Nominal power source voltage	V	Chapter 6.3, RF Test Specification	3.3V
Operating temperature range	°C	Chapter 6.4, RF Test Specification	0-70°C
Extreme power source voltage	V	Chapter 6.4, RF Test Specification	2.7V ~ 3.6V
Antenna gain	dB	Chapter 6.4, RF Test Specification	0dB
Nominal Temperature	°C	Chapter 6.4, RF Test Specification	25-28°C
Nominal Humidity	%	Chapter 6.4, RF Test Specification	25% – 65%





## 4.6. IUT Photograph

RF





## 5. List of Test Equipment Used

### 5.1. Test Equipment for RF

Description	Manufacturer	Cal Date	Cal Due
BRITS	Hyper Taiwan Technology	2008/06/24	2009/06/23



## 6. Reference Test Requirement Document

Description	Document Version
TCRL	TCRL_2.0_EDR_2008-2
RF Test Spec	RF.TS/2.1.E.2



## 7. Test Summary

Test Item	Test Verdict	Note
RF	PASS	See detail test result in Part A

# Part A: RF Conformance Test Report

# **Part A**

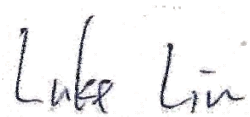
## **RF Conformance Test Report**

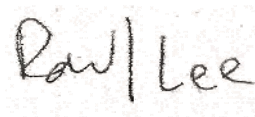
**Product Name : BTM-BC4E03-2H**

**Signature**

The below listed HYPER Taiwan Technology Inc.

Date : 2009/01/16

Test Engineer : 

Reviewed/Approved by : 

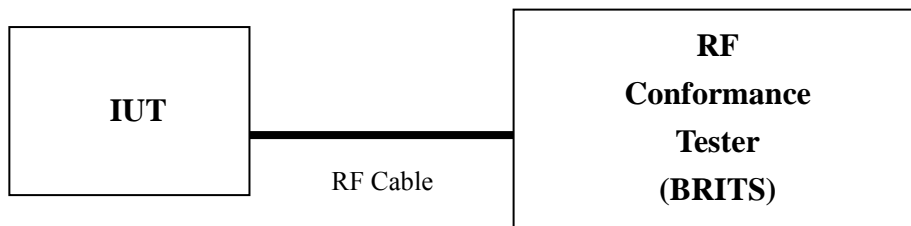
# Content

1.	RF Test Platform .....	1
2.	Test Case Result Summary .....	1
2.1.	Test Case List for Normal Condition .....	2
2.1.1.	RF Description.....	2
2.1.2.	Test Case: TRM/CA/01/C - Output Power.....	2
2.1.3.	Test Case: TRM/CA/02/C - Power Density .....	4
2.1.4.	Test Case: TRM/CA/03/C - Power Control.....	6
2.1.5.	Test Case: TRM/CA/04/C - TX Output Spectrum - Frequency Range.....	9
2.1.6.	Test Case: TRM/CA/05/C - TX Output Spectrum - 20 dB Bandwidth .....	10
2.1.7.	Test Case: TRM/CA/06/C - TX Output Spectrum - Adjacent Channel Power .....	13
2.1.8.	Test Case: TRM/CA/07/C - Modulation Characteristics .....	21
2.1.9.	Test Case: TRM/CA/08/C - Initial Carrier Frequency Tolerance .....	26
2.1.10.	Test Case: TRM/CA/09/C - Carrier Frequency Drift .....	27
2.1.11.	Test Case: RCV/CA/01/C - Sensitivity - Single Slot Packets .....	32
2.1.12.	Test Case: RCV/CA/02/C - Sensitivity - Multi-Slot Packets.....	32
2.1.13.	Test Case: RCV/CA/03/C - C/I Performance .....	33
2.1.14.	Test Case: RCV/CA/04/C - Blocking Performance .....	40
2.1.15.	Test Case: RCV/CA/05/C - Intermodulation Performance .....	41
2.1.16.	Test Case: RCV/CA/06/C - Maximum Input Level.....	41
2.2.	Test Case List for High Temperature .....	42
2.2.1.	RF Description.....	42
2.2.2.	Test Case: TRM/CA/01/C - Output Power.....	42
2.2.3.	Test Case: TRM/CA/02/C - Power Density .....	44
2.2.4.	Test Case: TRM/CA/04/C - TX Output Spectrum - Frequency Range.....	46
2.2.5.	Test Case: TRM/CA/05/C - TX Output Spectrum - 20 dB Bandwidth .....	47
2.2.6.	Test Case: TRM/CA/06/C - TX Output Spectrum - Adjacent Channel Power .....	49
2.2.7.	Test Case: TRM/CA/07/C - Modulation Characteristics .....	57
2.2.8.	Test Case: TRM/CA/08/C - Initial Carrier Frequency Tolerance .....	62
2.2.9.	Test Case: TRM/CA/09/C - Carrier Frequency Drift .....	63
2.2.10.	Test Case: RCV/CA/01/C - Sensitivity - Single Slot Packets .....	68
2.2.11.	Test Case: RCV/CA/02/C - Sensitivity - Multi-Slot Packets.....	68
2.3.	Test Case List for Low Temperature .....	69
2.3.1.	RF Description.....	69
2.3.2.	Test Case: TRM/CA/01/C - Output Power.....	69
2.3.3.	Test Case: TRM/CA/02/C - Power Density .....	71
2.3.4.	Test Case: TRM/CA/04/C - TX Output Spectrum - Frequency Range.....	73
2.3.5.	Test Case: TRM/CA/05/C - TX Output Spectrum - 20 dB Bandwidth .....	74
2.3.6.	Test Case: TRM/CA/06/C - TX Output Spectrum - Adjacent Channel Power .....	76
2.3.7.	Test Case: TRM/CA/07/C - Modulation Characteristics .....	85
2.3.8.	Test Case: TRM/CA/08/C - Initial Carrier Frequency Tolerance .....	89
2.3.9.	Test Case: TRM/CA/09/C - Carrier Frequency Drift .....	91
2.3.10.	Test Case: RCV/CA/01/C - Sensitivity - Single Slot Packets .....	96
2.3.11.	Test Case: RCV/CA/02/C - Sensitivity - Multi-Slot Packets.....	96
	Appendix: Test Data .....	97





## 1. RF Test Platform



## 2. Test Case Result Summary

Test Case	Description	Cat.	Verdict
TRM/CA/01/C	Output Power	A	Pass
TRM/CA/02/C	Power Density	B	Pass
TRM/CA/03/C	Power Control	A	Pass
TRM/CA/04/C	TX Output Spectrum - Frequency Range	A	Pass
TRM/CA/05/C	TX Output Spectrum - 20 dB Bandwidth	A	Pass
TRM/CA/06/C	TX Output Spectrum - Adjacent Channel Power	A	Pass
TRM/CA/07/C	Modulation Characteristics	A	Pass
TRM/CA/08/C	Initial Carrier Frequency Tolerance	A	Pass
TRM/CA/09/C	Carrier Frequency Drift	A	Pass
RCV/CA/01/C	Sensitivity - Single Slot Packets	A	Pass
RCV/CA/02/C	Sensitivity - Multi-Slot Packets	A	Pass
RCV/CA/03/C	C/I Performance	A	Pass
RCV/CA/04/C	Blocking Performance	A	Pass
RCV/CA/05/C	Intermodulation Performance	A	Pass
RCV/CA/06/C	Maximum Input Level	A	Pass



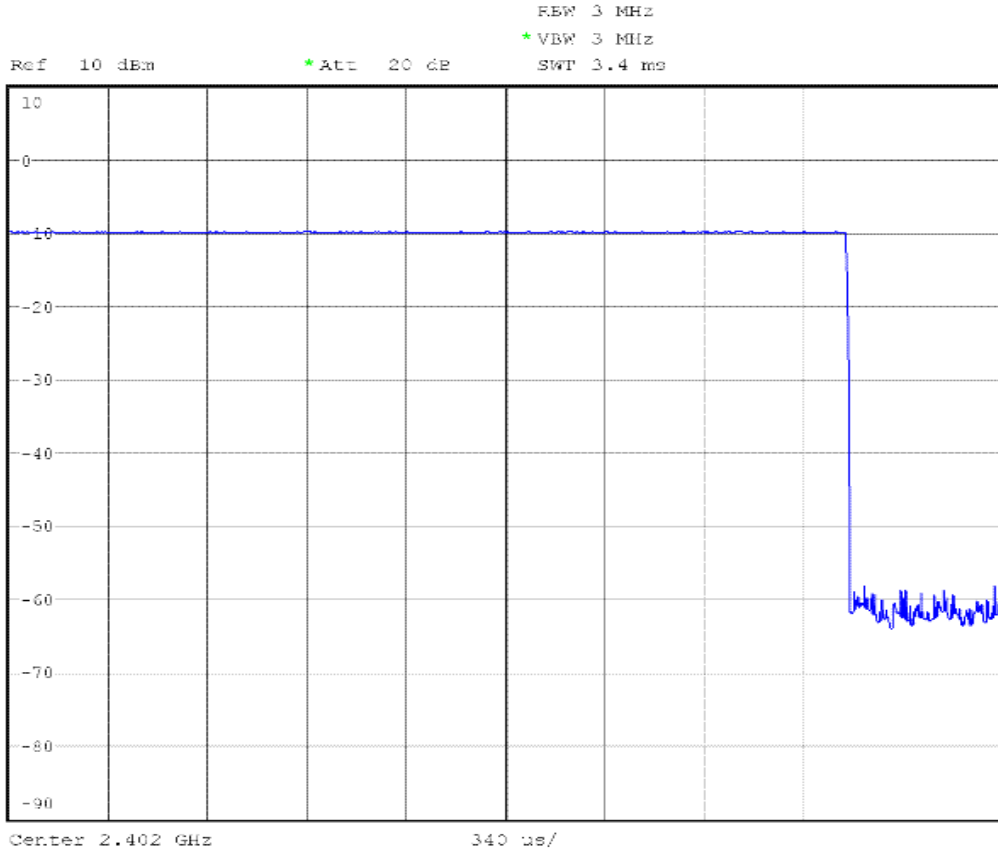
## 2.1. Test Case List for Normal Condition

### 2.1.1. RF Description

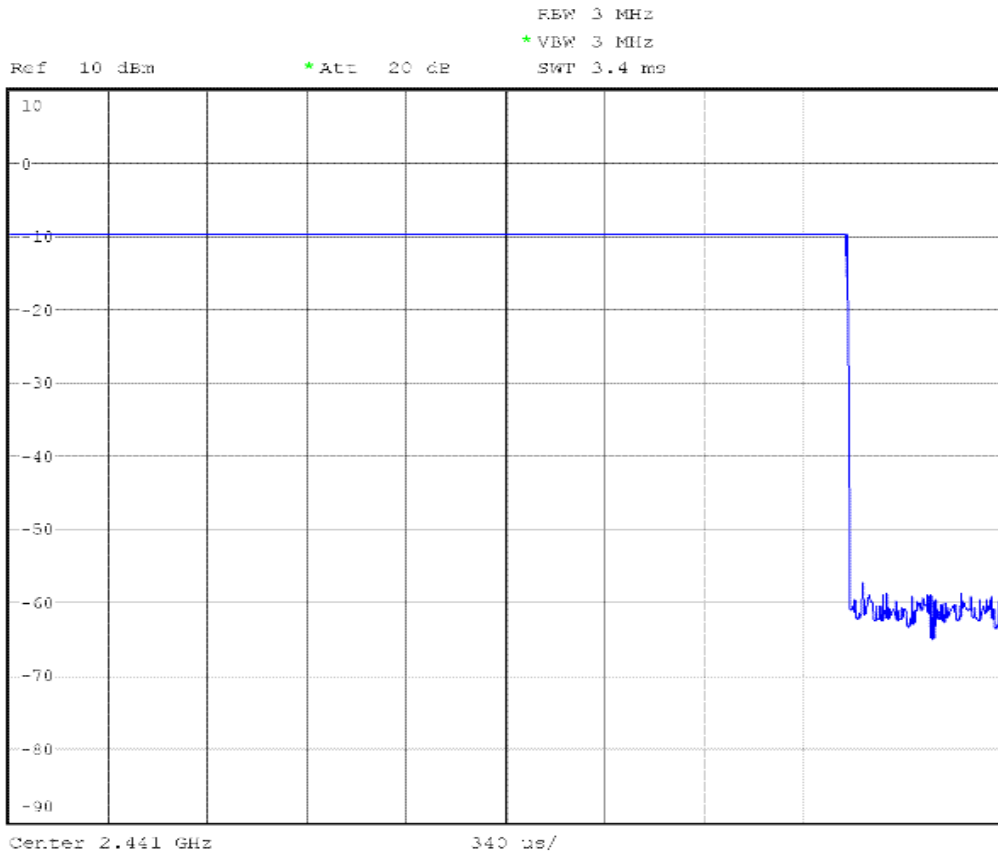
EUT Power Class	Class 2
EUT Antenna Gain	0 dBi
Test Condition	Normal Condition
EUT To Spectrum Loss (Low)	8.82
EUT To Spectrum Loss (Mid)	8.55
EUT To Spectrum Loss (High)	8.83

### 2.1.2. Test Case: TRM/CA/01/C - Output Power

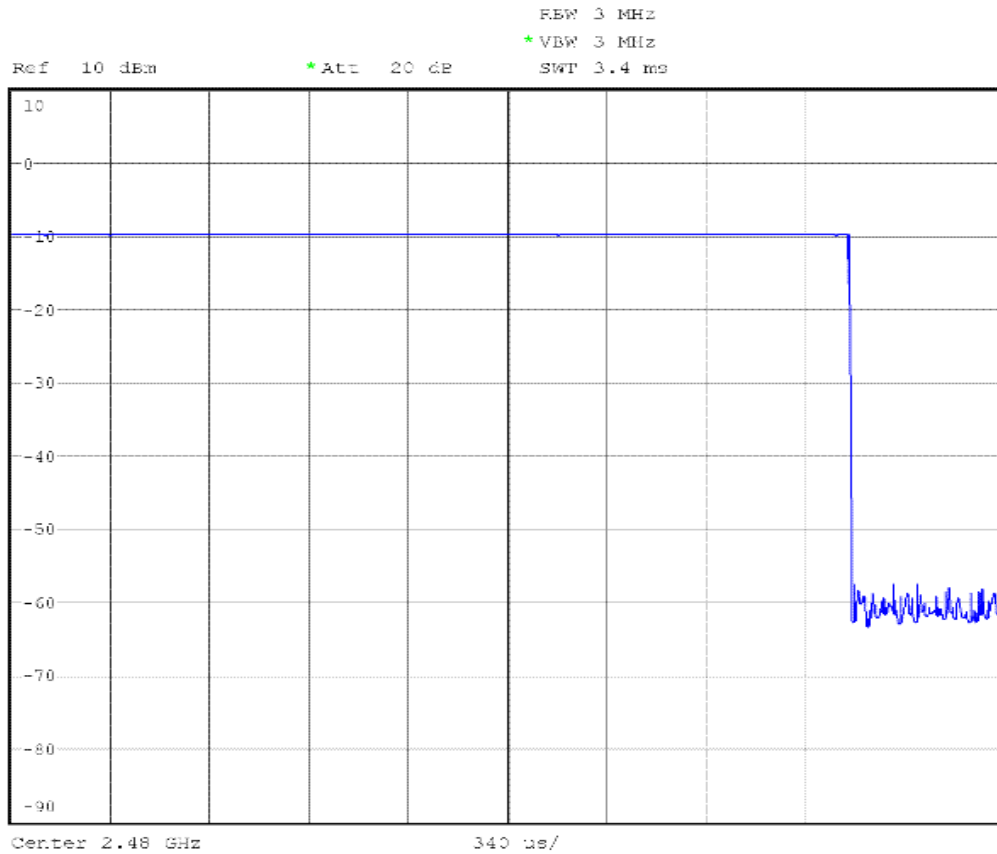
Expected Outcome:			
All values as measured must fulfill the following conditions:			
1. $P_{av} < 100\text{mW}$ (20 dBm) EIRP			
2. $P_{pk} < 200\text{mW}$ (23 dBm) EIRP			
3. If the EUT is a power class 1 equipment : $P_{av} > 1\text{mW}$ (0dBm)			
4. If the EUT is a power class 2 equipment : $0.25\text{mW}$ (-6 dBm) $< P_{av} < 2.5\text{mW}$ (4dBm)			
5. If the EUT is a power class 3 equipment : $P_{av} < 1\text{mW}$ (0dBm)			
Test Frequency	Item	Value(dBm)	Verdict
Low operating frequency (2402MHz)	Peak Power	-1.10	N/A
	Average Power	-1.15	Pass
	Peak Power (EIRP)	-1.10	Pass
	Average Power (EIRP)	-1.15	Pass
Mid operating frequency (2441MHz)	Peak Power	-1.24	N/A
	Average Power	-1.28	Pass
	Peak Power (EIRP)	-1.24	Pass
	Average Power (EIRP)	-1.28	Pass
High operating frequency (2480MHz)	Peak Power	-1.05	N/A
	Average Power	-1.09	Pass
	Peak Power (EIRP)	-1.05	Pass
	Average Power (EIRP)	-1.09	Pass



Output Power (Low operating frequency)



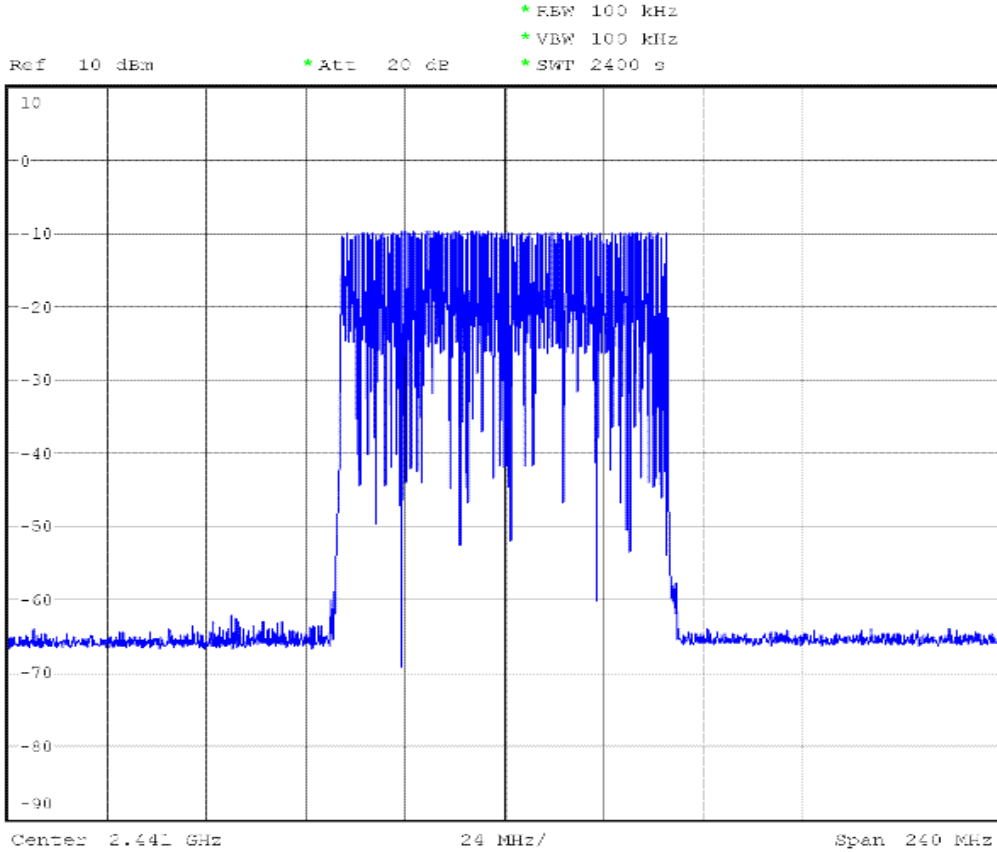
Output Power (Mid operating frequency)



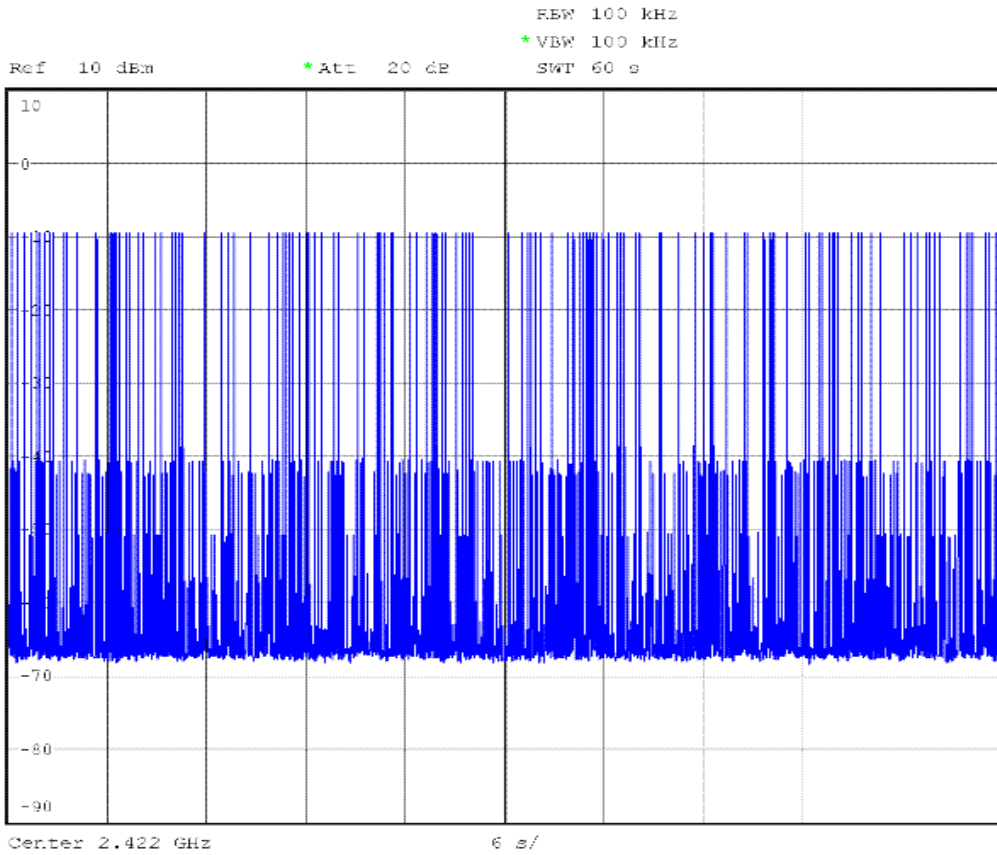
Output Power (High operating frequency)

**2.1.3. Test Case: TRM/CA/02/C - Power Density**

Expected Outcome:				
All values as measured must fulfill the following conditions:				
1. Power Density < 100 mW (20dBm) per 100 kHz EIRP				
Max Frequency (MHz)	Peak Power (dBm)	Power Density (dBm/100KHz)	Limit (dBm/100KHz)	Verdict
2422.00 MHz	-1.27	-1.04	<20	Pass



Power Density (Step1)



Power Density (Step2)



**2.1.4. Test Case: TRM/CA/03/C - Power Control**

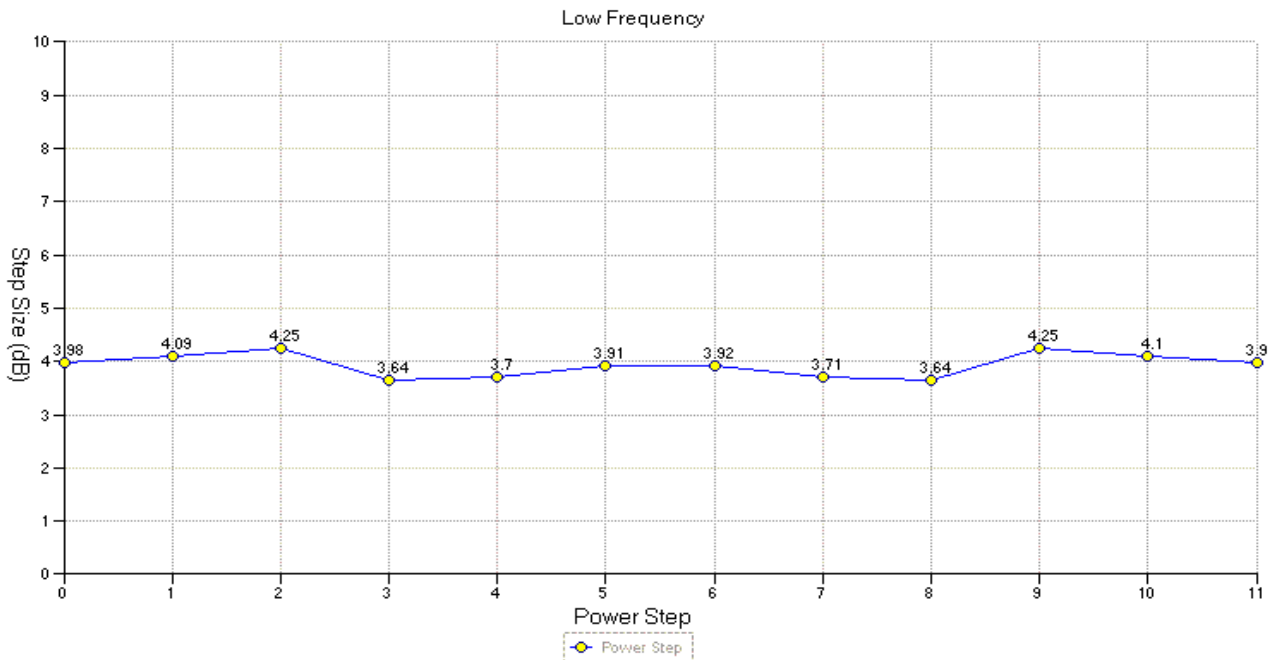
Expected Outcome:  
All values as measured must fulfill the following conditions:  
Expected Outcome refer to the step size and to the minimum output power. The latter depends on the power class of the EUT.

1. Step size of the power control:  $2\text{dB} \leq \text{step size} \leq 8\text{ dB}$ .
2. For power class 1 equipment :At minimum power step:  $P_{\text{av}} < 4\text{dBm}$

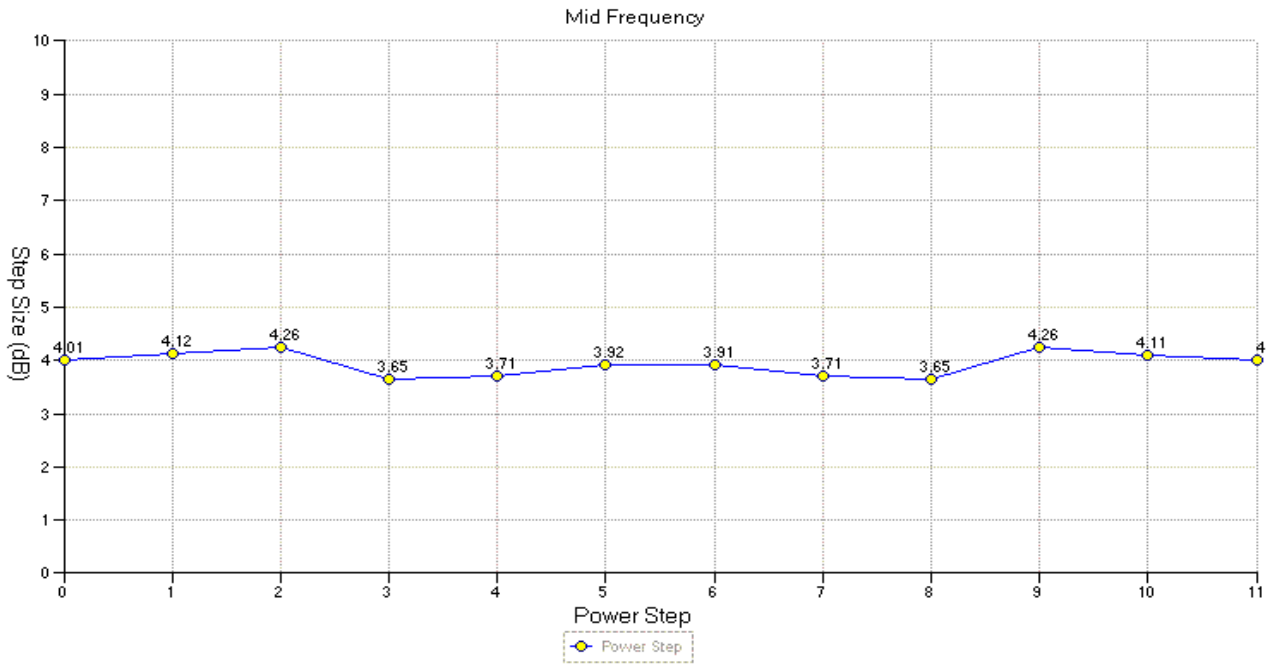
Test Frequency (MHz)	Decrement OR Increment	Step	Power Value (dBm)	$2\text{dBm} \leq \text{Step Size} \leq 8\text{dBm}$	Verdict
Low operating Frequency (2402 MHz)	Max	0	-1.11	N/A	N/A
	Decrement	1	-5.09	$2\text{dBm} \leq 3.98 \leq 8\text{dBm}$	Pass
	Decrement	2	-9.19	$2\text{dBm} \leq 4.1 \leq 8\text{dBm}$	Pass
	Decrement	3	-13.44	$2\text{dBm} \leq 4.25 \leq 8\text{dBm}$	Pass
	Decrement	4	-17.08	$2\text{dBm} \leq 3.64 \leq 8\text{dBm}$	Pass
	Decrement	5	-20.78	$2\text{dBm} \leq 3.7 \leq 8\text{dBm}$	Pass
	Decrement	6	-24.69	$2\text{dBm} \leq 3.91 \leq 8\text{dBm}$	Pass
	Min	0	-24.69	N/A	N/A
	Increment	1	-20.78	$2\text{dBm} \leq 3.91 \leq 8\text{dBm}$	Pass
	Increment	2	-17.07	$2\text{dBm} \leq 3.71 \leq 8\text{dBm}$	Pass
	Increment	3	-13.43	$2\text{dBm} \leq 3.64 \leq 8\text{dBm}$	Pass
	Increment	4	-9.18	$2\text{dBm} \leq 4.25 \leq 8\text{dBm}$	Pass
	Increment	5	-5.08	$2\text{dBm} \leq 4.1 \leq 8\text{dBm}$	Pass
	Increment	6	-1.1	$2\text{dBm} \leq 3.98 \leq 8\text{dBm}$	Pass
Mid operating Frequency (2441 MHz)	Max	0	-1.19	N/A	N/A
	Decrement	1	-5.19	$2\text{dBm} \leq 4 \leq 8\text{dBm}$	Pass
	Decrement	2	-9.31	$2\text{dBm} \leq 4.12 \leq 8\text{dBm}$	Pass
	Decrement	3	-13.57	$2\text{dBm} \leq 4.26 \leq 8\text{dBm}$	Pass
	Decrement	4	-17.22	$2\text{dBm} \leq 3.65 \leq 8\text{dBm}$	Pass
	Decrement	5	-20.93	$2\text{dBm} \leq 3.71 \leq 8\text{dBm}$	Pass
	Decrement	6	-24.85	$2\text{dBm} \leq 3.92 \leq 8\text{dBm}$	Pass
	Min	0	-24.85	N/A	N/A
	Increment	1	-20.94	$2\text{dBm} \leq 3.91 \leq 8\text{dBm}$	Pass
	Increment	2	-17.22	$2\text{dBm} \leq 3.72 \leq 8\text{dBm}$	Pass
	Increment	3	-13.57	$2\text{dBm} \leq 3.65 \leq 8\text{dBm}$	Pass



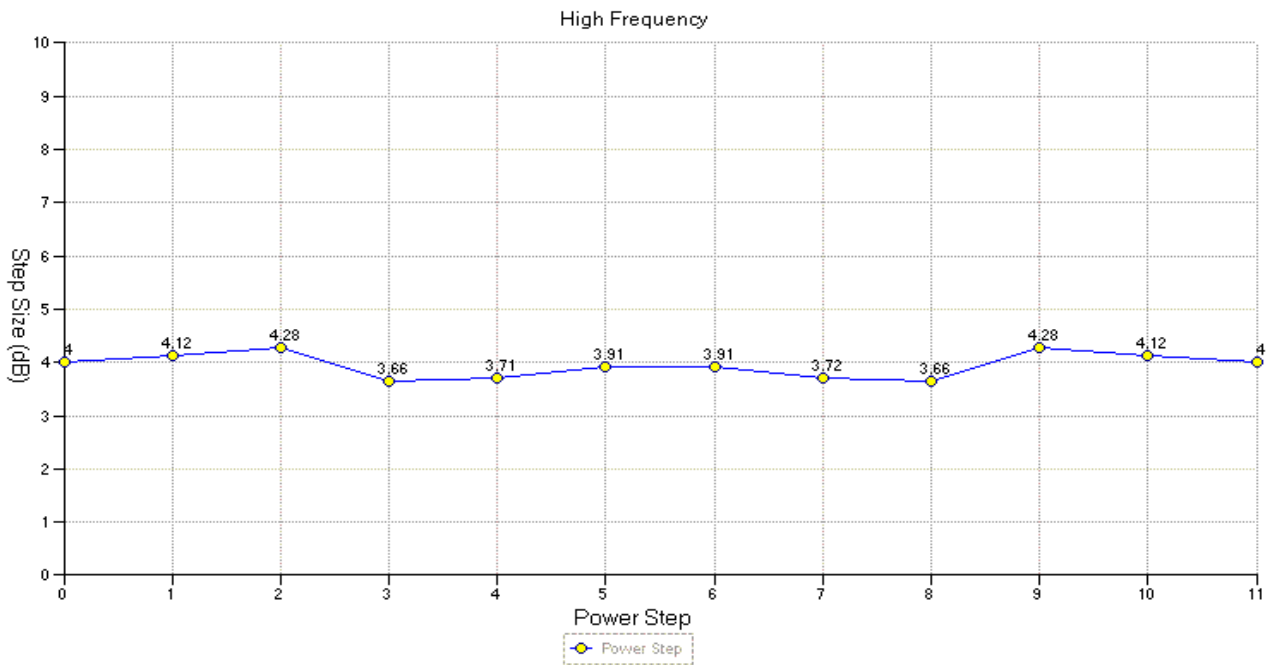
	Increment	4	-9.31	2dBm≤4.26≤8dBm	Pass
	Increment	5	-5.19	2dBm≤4.12≤8dBm	Pass
	Increment	6	-1.19	2dBm≤4≤8dBm	Pass
High operating Frequency (2480 MHz)	Max	0	-0.98	N/A	N/A
	Decrement	1	-4.98	2dBm≤4≤8dBm	Pass
	Decrement	2	-9.1	2dBm≤4.12≤8dBm	Pass
	Decrement	3	-13.38	2dBm≤4.28≤8dBm	Pass
	Decrement	4	-17.04	2dBm≤3.66≤8dBm	Pass
	Decrement	5	-20.75	2dBm≤3.71≤8dBm	Pass
	Decrement	6	-24.66	2dBm≤3.91≤8dBm	Pass
	Min	0	-24.66	N/A	N/A
	Increment	1	-20.75	2dBm≤3.91≤8dBm	Pass
	Increment	2	-17.03	2dBm≤3.72≤8dBm	Pass
	Increment	3	-13.37	2dBm≤3.66≤8dBm	Pass
	Increment	4	-9.09	2dBm≤4.28≤8dBm	Pass
	Increment	5	-4.97	2dBm≤4.12≤8dBm	Pass
	Increment	6	-0.97	2dBm≤4≤8dBm	Pass



Power Control (Low operating Frequency)



Power Control (Mid operating Frequency)



Power Control (High operating Frequency)





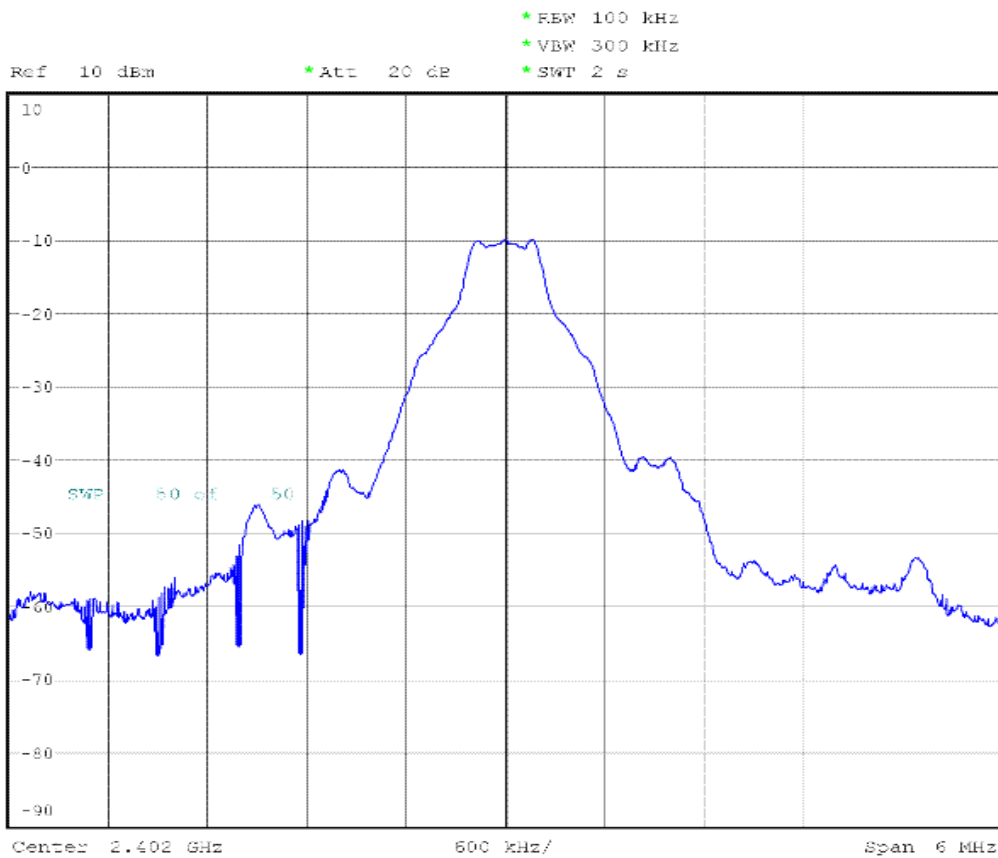
**2.1.5. Test Case: TRM/CA/04/C - TX Output Spectrum - Frequency Range**

Expected Outcome:

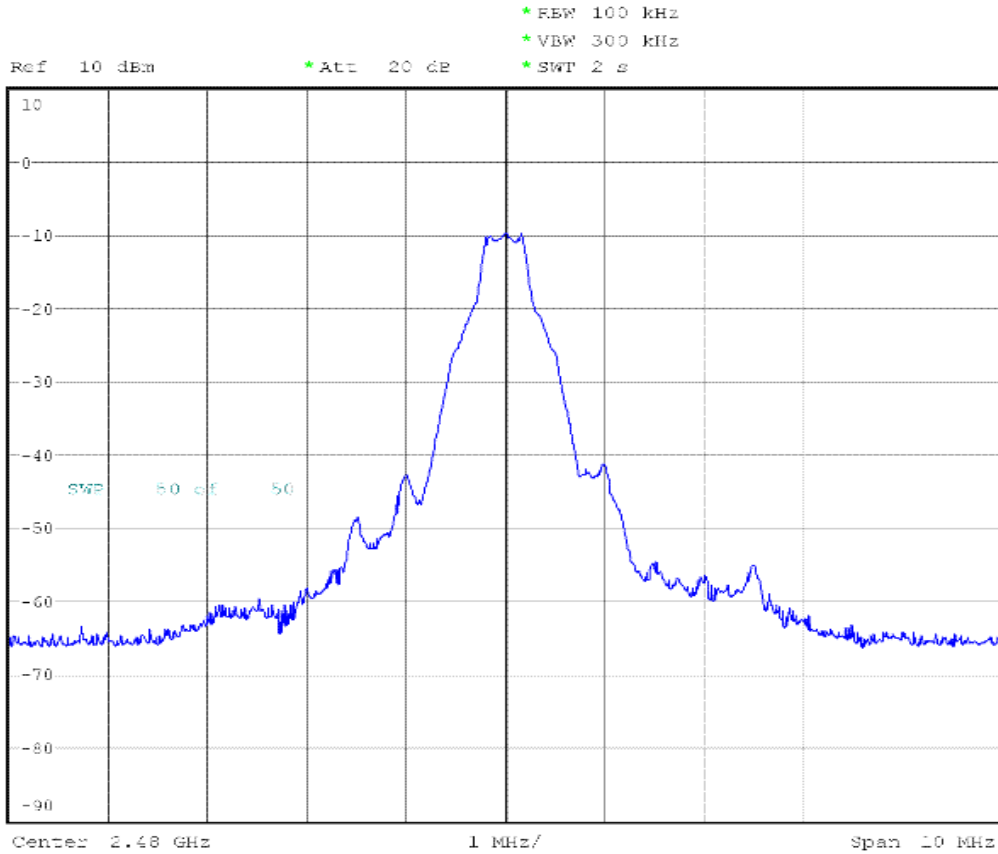
All values as measured must fulfill the following conditions:

1. fL, fH within the allowed frequency band :2.4 GHz – 2.4835 GHz

Frequency (MHz)		Limit(MHz)	Verdict
Lowest(fL)	2401.28	fL>2400.0	Pass
Highest(fH)	2478.43	fH <2483.5	Pass



TX Output Spectrum – Frequency range (fL)

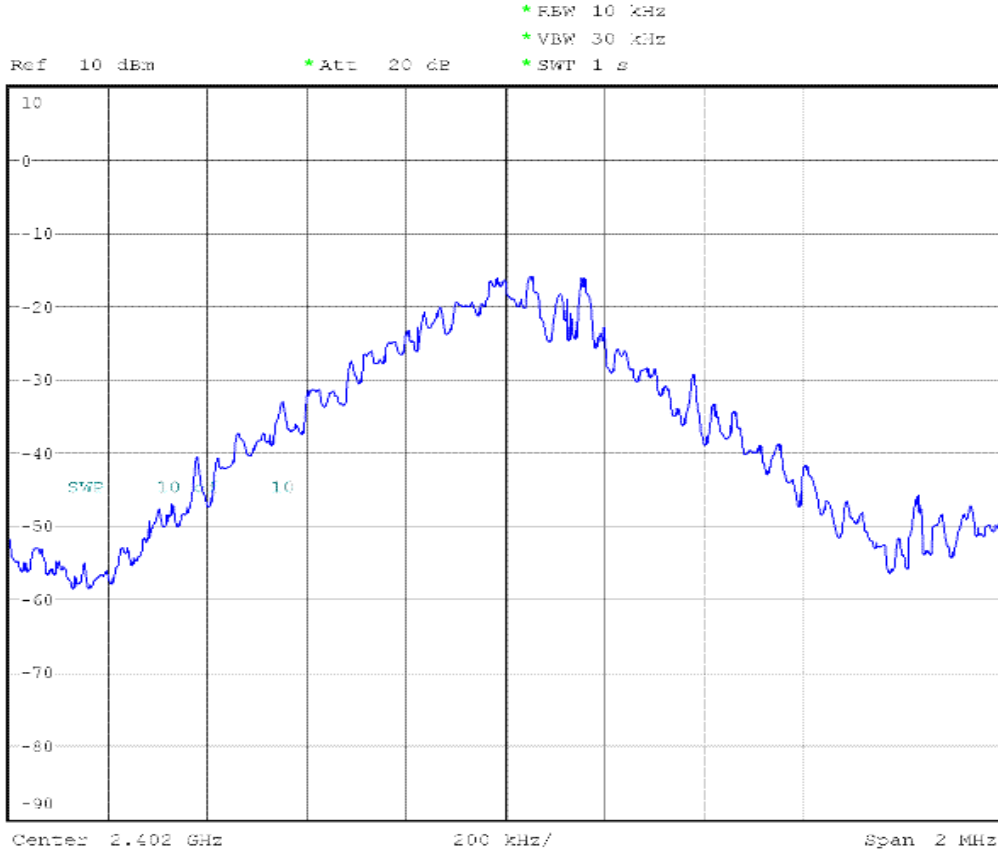


TX Output Spectrum – Frequency range (fH)

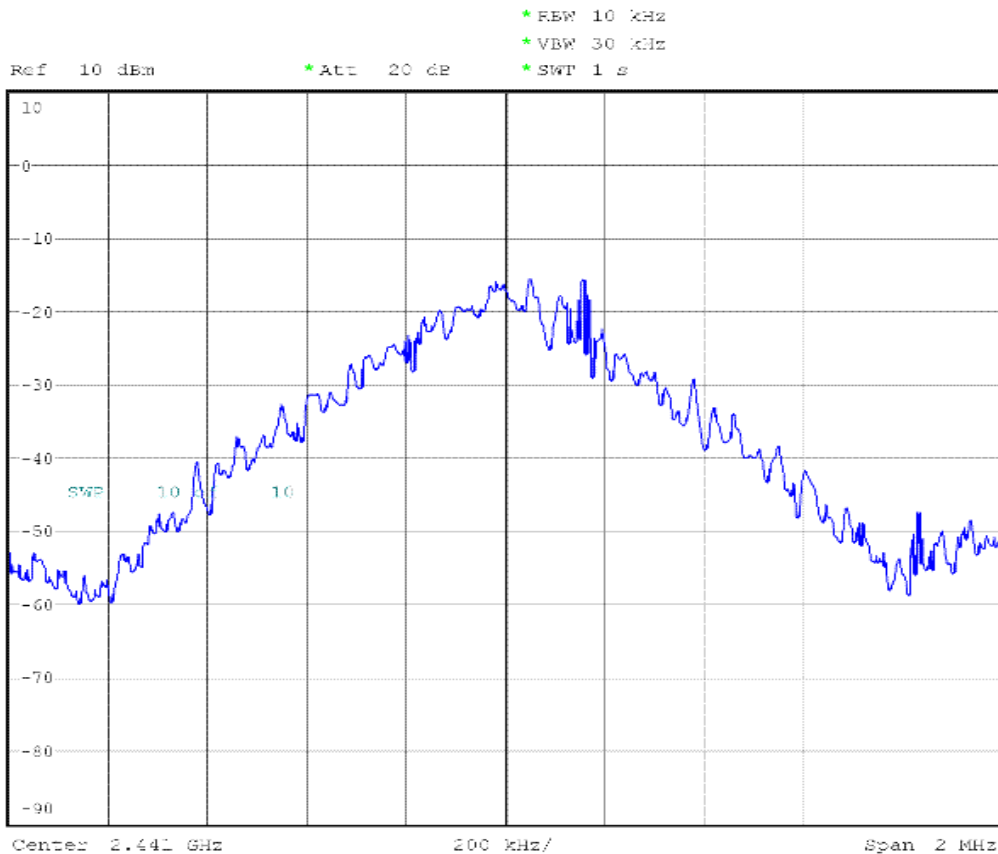
**2.1.6. Test Case: TRM/CA/05/C - TX Output Spectrum - 20 dB Bandwidth**

Expected Outcome:  
All values as measured must fulfill the following conditions:  
1. The Transmit spectrum shall fulfill the following mask :  $\Delta f = |fH - fL| \leq 1.0 \text{ MHz}$

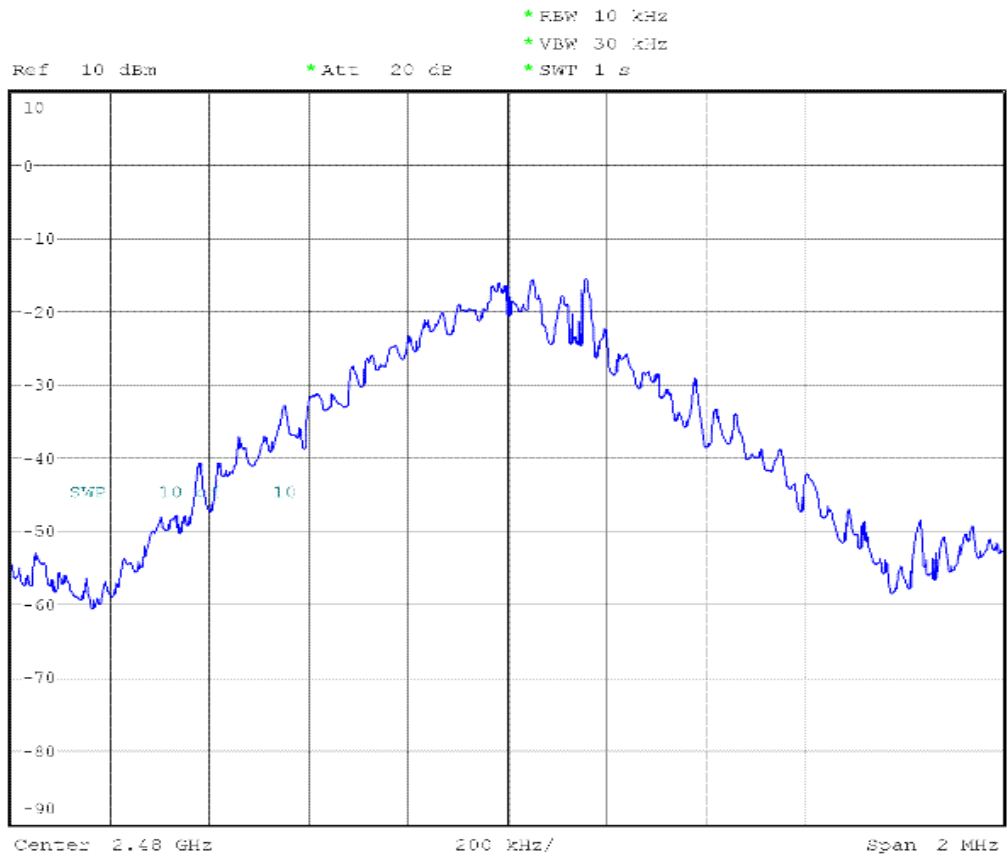
Test Frequency (MHz)	fL (MHz)	fH (MHz)	$\Delta f =  fH - fL $ (MHz)	Limit	Verdict	
Low Frequency	2402	2401.53	2402.47	0.93	$\leq 1.0$	Pass
Mid Frequency	2441	2440.59	2441.40	0.80	$\leq 1.0$	Pass
High Frequency	2480	2479.59	2480.36	0.76	$\leq 1.0$	Pass



TX Output Spectrum – 20 dB Bandwidth (Low Frequency)



TX Output Spectrum – 20 dB Bandwidth (Mid Frequency)



TX Output Spectrum – 20 dB Bandwidth (High Frequency)



### 2.1.7. Test Case: TRM/CA/06/C - TX Output Spectrum - Adjacent Channel Power

Expected Outcome:

All values as measured must fulfill the following conditions:

For each operating frequency exceptions in up to three bands of 1 MHz width centered on a frequency which is an integer multiple of 1 MHz are allowed. They must however comply with an absolute value of  $-20$  dBm.

1.  $P_{tx}(f) \leq -20$  dBm for  $|M-N| = 2$

2.  $P_{tx}(f) \leq -40$  dBm for  $|M-N| \geq 3$

Test Frequency (MHz)	Adjacent Channel Frequency (MHz)	Ptx(f) (dBm)	Limit (dBm)	Verdict
Low Frequency (2402 MHz)	2402	-52.99	$\leq -40$	Pass
	2403	-44.69	$\leq -20$	Pass
	2404	-25.84	N/A	N/A
	2405	-0.57	N/A	N/A
	2406	-26.55	N/A	N/A
	2407	-46.07	$\leq -20$	Pass
	2408	-51.98	$\leq -40$	Pass
	2409	-60.82	$\leq -40$	Pass
	2410	-62.63	$\leq -40$	Pass
	2411	-61.80	$\leq -40$	Pass
	2412	-63.49	$\leq -40$	Pass
	2413	-61.23	$\leq -40$	Pass
	2414	-63.91	$\leq -40$	Pass
	2415	-64.41	$\leq -40$	Pass
	2416	-64.66	$\leq -40$	Pass
	2417	-64.33	$\leq -40$	Pass
	2418	-64.76	$\leq -40$	Pass
	2419	-64.87	$\leq -40$	Pass
	2420	-65.02	$\leq -40$	Pass
	2421	-61.47	$\leq -40$	Pass
2422	-65.02	$\leq -40$	Pass	
2423	-64.90	$\leq -40$	Pass	
2424	-64.91	$\leq -40$	Pass	
2425	-64.76	$\leq -40$	Pass	
2426	-65.21	$\leq -40$	Pass	



2427	-65.29	≤ -40	Pass
2428	-65.36	≤ -40	Pass
2429	-65.30	≤ -40	Pass
2430	-65.47	≤ -40	Pass
2431	-62.39	≤ -40	Pass
2432	-65.53	≤ -40	Pass
2433	-65.30	≤ -40	Pass
2434	-65.69	≤ -40	Pass
2435	-65.63	≤ -40	Pass
2436	-65.80	≤ -40	Pass
2437	-64.32	≤ -40	Pass
2438	-65.86	≤ -40	Pass
2439	-65.67	≤ -40	Pass
2440	-65.79	≤ -40	Pass
2441	-65.67	≤ -40	Pass
2442	-65.87	≤ -40	Pass
2443	-65.83	≤ -40	Pass
2444	-65.78	≤ -40	Pass
2445	-65.80	≤ -40	Pass
2446	-65.90	≤ -40	Pass
2447	-65.76	≤ -40	Pass
2448	-65.83	≤ -40	Pass
2449	-65.48	≤ -40	Pass
2450	-65.75	≤ -40	Pass
2451	-65.79	≤ -40	Pass
2452	-65.77	≤ -40	Pass
2453	-65.29	≤ -40	Pass
2454	-65.98	≤ -40	Pass
2455	-65.40	≤ -40	Pass
2456	-65.58	≤ -40	Pass
2457	-65.71	≤ -40	Pass
2458	-65.86	≤ -40	Pass
2459	-65.72	≤ -40	Pass
2460	-65.79	≤ -40	Pass
2461	-65.68	≤ -40	Pass
2462	-65.73	≤ -40	Pass
2463	-65.79	≤ -40	Pass
2464	-65.68	≤ -40	Pass



	2465	-65.54	≤ -40	Pass
	2466	-65.75	≤ -40	Pass
	2467	-65.60	≤ -40	Pass
	2468	-65.72	≤ -40	Pass
	2469	-63.92	≤ -40	Pass
	2470	-65.59	≤ -40	Pass
	2471	-65.49	≤ -40	Pass
	2472	-65.50	≤ -40	Pass
	2473	-65.30	≤ -40	Pass
	2474	-65.39	≤ -40	Pass
	2475	-63.16	≤ -40	Pass
	2476	-61.94	≤ -40	Pass
	2477	-40.09	≤ -40	Pass
	2478	-63.07	≤ -40	Pass
	2479	-65.59	≤ -40	Pass
	2480	-65.62	≤ -40	Pass
Mid Frequency (2441 MHz)	2402	-65.52	≤ -40	Pass
	2403	-63.15	≤ -40	Pass
	2404	-58.49	≤ -40	Pass
	2405	-33.38	≤ -40	Fail
	2406	-59.08	≤ -40	Pass
	2407	-65.47	≤ -40	Pass
	2408	-65.39	≤ -40	Pass
	2409	-56.27	≤ -40	Pass
	2410	-65.24	≤ -40	Pass
	2411	-65.25	≤ -40	Pass
	2412	-65.30	≤ -40	Pass
	2413	-64.81	≤ -40	Pass
	2414	-65.28	≤ -40	Pass
	2415	-61.78	≤ -40	Pass
	2416	-65.02	≤ -40	Pass
	2417	-64.62	≤ -40	Pass
	2418	-65.08	≤ -40	Pass
2419	-65.00	≤ -40	Pass	
2420	-64.84	≤ -40	Pass	
2421	-64.27	≤ -40	Pass	
2422	-64.82	≤ -40	Pass	
2423	-64.93	≤ -40	Pass	



2424	-64.78	≤ -40	Pass
2425	-61.47	≤ -40	Pass
2426	-64.53	≤ -40	Pass
2427	-64.72	≤ -40	Pass
2428	-64.69	≤ -40	Pass
2429	-63.17	≤ -40	Pass
2430	-64.32	≤ -40	Pass
2431	-63.97	≤ -40	Pass
2432	-64.16	≤ -40	Pass
2433	-62.88	≤ -40	Pass
2434	-63.05	≤ -40	Pass
2435	-58.68	≤ -40	Pass
2436	-60.47	≤ -40	Pass
2437	-60.50	≤ -40	Pass
2438	-54.01	≤ -40	Pass
2439	-45.53	≤ -20	Pass
2440	-26.01	N/A	N/A
2441	-0.55	N/A	N/A
2442	-26.79	N/A	N/A
2443	-47.06	≤ -20	Pass
2444	-52.42	≤ -40	Pass
2445	-59.63	≤ -40	Pass
2446	-61.89	≤ -40	Pass
2447	-61.93	≤ -40	Pass
2448	-63.54	≤ -40	Pass
2449	-63.83	≤ -40	Pass
2450	-64.41	≤ -40	Pass
2451	-64.11	≤ -40	Pass
2452	-64.58	≤ -40	Pass
2453	-64.42	≤ -40	Pass
2454	-64.89	≤ -40	Pass
2455	-65.01	≤ -40	Pass
2456	-64.73	≤ -40	Pass
2457	-61.47	≤ -40	Pass
2458	-64.99	≤ -40	Pass
2459	-65.07	≤ -40	Pass
2460	-65.16	≤ -40	Pass
2461	-64.70	≤ -40	Pass





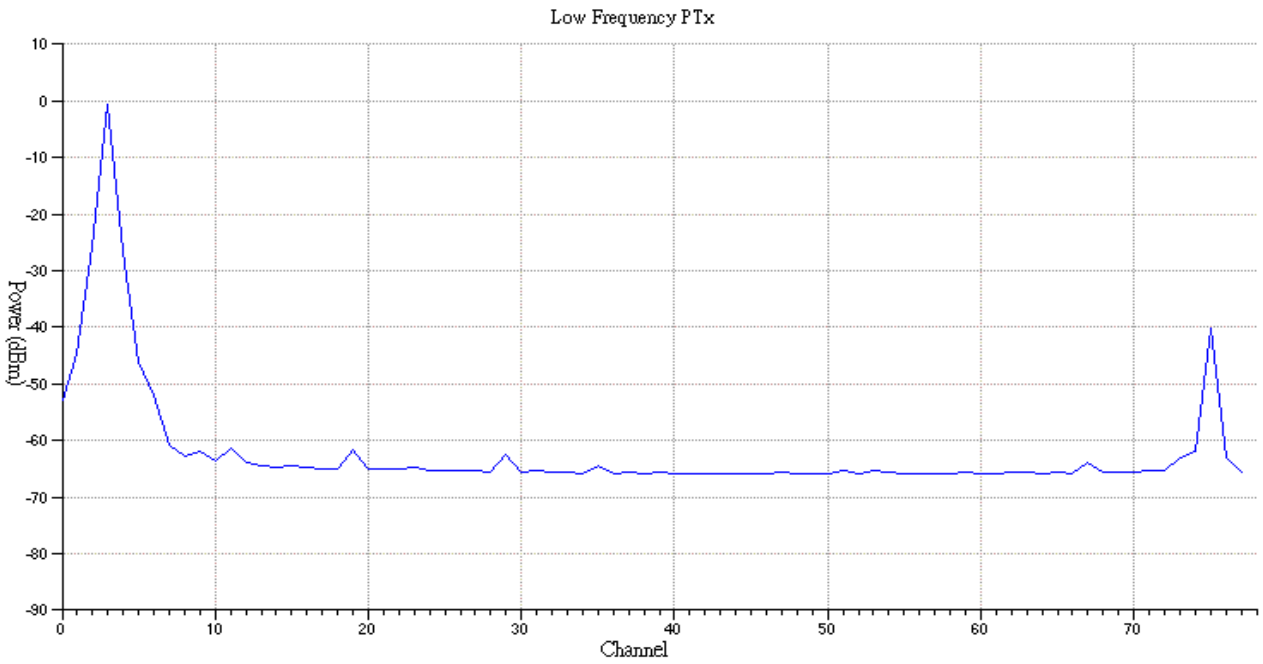
	2462	-65.15	≤ -40	Pass
	2463	-65.05	≤ -40	Pass
	2464	-65.06	≤ -40	Pass
	2465	-65.10	≤ -40	Pass
	2466	-65.23	≤ -40	Pass
	2467	-62.28	≤ -40	Pass
	2468	-65.20	≤ -40	Pass
	2469	-64.98	≤ -40	Pass
	2470	-65.26	≤ -40	Pass
	2471	-65.29	≤ -40	Pass
	2472	-65.38	≤ -40	Pass
	2473	-63.92	≤ -40	Pass
	2474	-65.32	≤ -40	Pass
	2475	-65.40	≤ -40	Pass
	2476	-65.35	≤ -40	Pass
	2477	-64.89	≤ -40	Pass
	2478	-65.29	≤ -40	Pass
	2479	-65.41	≤ -40	Pass
	2480	-65.32	≤ -40	Pass
High Frequency (2480 MHz)	2402	-65.92	≤ -40	Pass
	2403	-63.19	≤ -40	Pass
	2404	-60.27	≤ -40	Pass
	2405	-36.15	≤ -40	Fail
	2406	-61.11	≤ -40	Pass
	2407	-65.73	≤ -40	Pass
	2408	-65.91	≤ -40	Pass
	2409	-65.75	≤ -40	Pass
	2410	-65.89	≤ -40	Pass
	2411	-65.77	≤ -40	Pass
	2412	-65.69	≤ -40	Pass
	2413	-61.38	≤ -40	Pass
	2414	-65.79	≤ -40	Pass
2415	-65.67	≤ -40	Pass	
2416	-65.75	≤ -40	Pass	
2417	-65.80	≤ -40	Pass	
2418	-65.86	≤ -40	Pass	
2419	-65.74	≤ -40	Pass	
2420	-65.99	≤ -40	Pass	



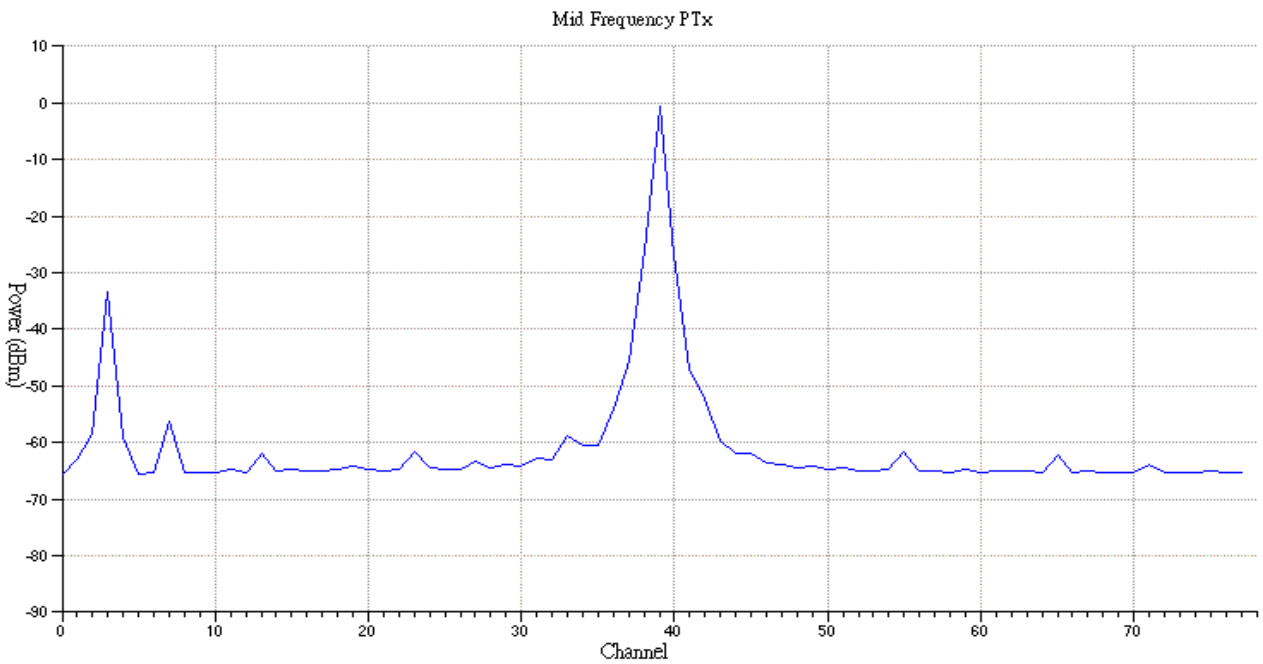
2421	-65.82	≤ -40	Pass
2422	-65.85	≤ -40	Pass
2423	-65.87	≤ -40	Pass
2424	-65.78	≤ -40	Pass
2425	-65.03	≤ -40	Pass
2426	-65.75	≤ -40	Pass
2427	-65.83	≤ -40	Pass
2428	-65.82	≤ -40	Pass
2429	-64.69	≤ -40	Pass
2430	-65.85	≤ -40	Pass
2431	-65.88	≤ -40	Pass
2432	-65.84	≤ -40	Pass
2433	-65.73	≤ -40	Pass
2434	-65.89	≤ -40	Pass
2435	-66.00	≤ -40	Pass
2436	-65.83	≤ -40	Pass
2437	-65.00	≤ -40	Pass
2438	-65.70	≤ -40	Pass
2439	-65.61	≤ -40	Pass
2440	-65.66	≤ -40	Pass
2441	-65.64	≤ -40	Pass
2442	-65.63	≤ -40	Pass
2443	-65.72	≤ -40	Pass
2444	-65.55	≤ -40	Pass
2445	-56.49	≤ -40	Pass
2446	-65.60	≤ -40	Pass
2447	-65.46	≤ -40	Pass
2448	-65.49	≤ -40	Pass
2449	-64.88	≤ -40	Pass
2450	-65.32	≤ -40	Pass
2451	-61.89	≤ -40	Pass
2452	-65.24	≤ -40	Pass
2453	-64.78	≤ -40	Pass
2454	-65.03	≤ -40	Pass
2455	-64.98	≤ -40	Pass
2456	-64.94	≤ -40	Pass
2457	-64.36	≤ -40	Pass
2458	-64.91	≤ -40	Pass



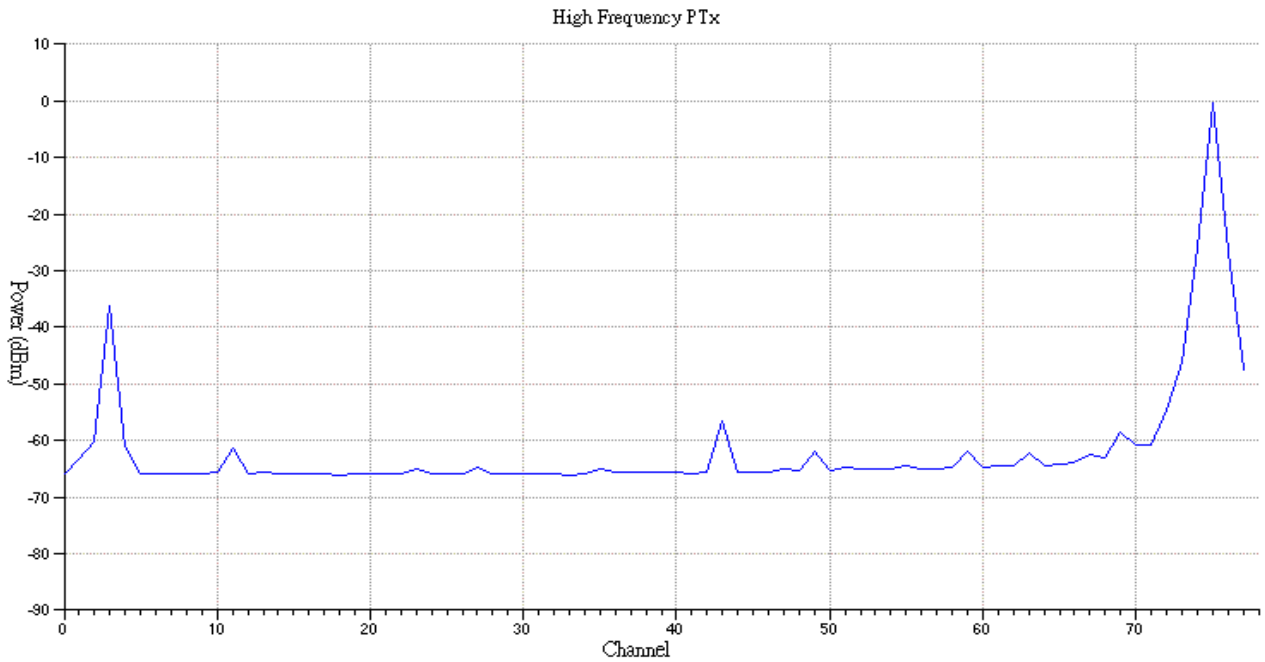
	2459	-64.86	≤ -40	Pass
	2460	-64.64	≤ -40	Pass
	2461	-62.03	≤ -40	Pass
	2462	-64.62	≤ -40	Pass
	2463	-64.36	≤ -40	Pass
	2464	-64.30	≤ -40	Pass
	2465	-62.16	≤ -40	Pass
	2466	-64.33	≤ -40	Pass
	2467	-64.16	≤ -40	Pass
	2468	-63.99	≤ -40	Pass
	2469	-62.52	≤ -40	Pass
	2470	-62.98	≤ -40	Pass
	2471	-58.43	≤ -40	Pass
	2472	-60.83	≤ -40	Pass
	2473	-60.63	≤ -40	Pass
	2474	-54.60	≤ -40	Pass
	2475	-46.05	≤ -20	Pass
	2476	-25.80	N/A	N/A
	2477	-0.32	N/A	N/A
	2478	-26.68	N/A	N/A
	2479	-47.46	≤ -20	Pass
	2480	-52.69	≤ -40	Pass



TX Output Spectrum – Adjacent channel power (Low Frequency)



TX Output Spectrum – Adjacent channel power (Mid Frequency)



TX Output Spectrum – Adjacent channel power (High Frequency)

**2.1.8. Test Case: TRM/CA/07/C - Modulation Characteristics**

Expected Outcome:  
All values as measured must fulfill the following conditions:

1.  $140 \text{ kHz} \leq \Delta f1_{avg} \leq 175 \text{ kHz}$
2.  $\Delta f2_{max} \geq 115 \text{ kHz}$  for at least 99.9% of all  $\Delta f2_{max}$
3.  $\Delta f2_{avg} / \Delta f1_{avg} \geq 0.8$

Test Frequency (MHz)	Packet Number	Test Parameter	Result	Limit	Verdict
Low operating Frequency (2402 MHz)	1	$\Delta f1_{avg}$ (kHz)	162.53	$140 \text{ kHz} \leq \Delta f1_{avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f2_{max}$ (kHz)	176.28	$\geq 115 \text{ kHz}$	Pass
		$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f2_{avg}$ (kHz)	166.81	N/A	N/A
		$\Delta f2_{avg} / \Delta f1_{avg}$	1.03	$\geq 0.8$	Pass
	2	$\Delta f1_{avg}$ (kHz)	158.12	$140 \text{ kHz} \leq \Delta f1_{avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f2_{max}$ (kHz)	180.06	$\geq 115 \text{ kHz}$	Pass
		$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f2_{avg}$ (kHz)	166.89	N/A	N/A
		$\Delta f2_{avg} / \Delta f1_{avg}$	1.06	$\geq 0.8$	Pass
	3	$\Delta f1_{avg}$ (kHz)	162.65	$140 \text{ kHz} \leq \Delta f1_{avg} \leq 175 \text{ kHz}$	Pass



		$\Delta f_{2max}$ (kHz)	175.84	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	166.31	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.02	$\geq 0.8$	Pass
	4	$\Delta f_{1avg}$ (kHz)	157.54	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	177.03	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	166.33	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.06	$\geq 0.8$	Pass
	5	$\Delta f_{1avg}$ (kHz)	158.27	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	178.38	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	167.34	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.06	$\geq 0.8$	Pass
	6	$\Delta f_{1avg}$ (kHz)	157.85	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	175.82	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	166.18	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.05	$\geq 0.8$	Pass
	7	$\Delta f_{1avg}$ (kHz)	158.55	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
$\Delta f_{2max}$ (kHz)		175.51	$\geq 115$ kHz	Pass	
$\Delta f_{2max}$ (%)		100%	$\geq 99.9\%$	Pass	
$\Delta f_{2avg}$ (kHz)		167.32	N/A	N/A	
$\Delta f_{2avg}/\Delta f_{1avg}$		1.06	$\geq 0.8$	Pass	
8	$\Delta f_{1avg}$ (kHz)	159.79	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass	
	$\Delta f_{2max}$ (kHz)	178.19	$\geq 115$ kHz	Pass	
	$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass	
	$\Delta f_{2avg}$ (kHz)	167.57	N/A	N/A	
	$\Delta f_{2avg}/\Delta f_{1avg}$	1.05	$\geq 0.8$	Pass	
9	$\Delta f_{1avg}$ (kHz)	158.22	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass	
	$\Delta f_{2max}$ (kHz)	179.05	$\geq 115$ kHz	Pass	
	$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass	
	$\Delta f_{2avg}$ (kHz)	167.37	N/A	N/A	
	$\Delta f_{2avg}/\Delta f_{1avg}$	1.06	$\geq 0.8$	Pass	
10	$\Delta f_{1avg}$ (kHz)	158.28	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass	
	$\Delta f_{2max}$ (kHz)	176.49	$\geq 115$ kHz	Pass	
	$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass	
	$\Delta f_{2avg}$ (kHz)	166.79	N/A	N/A	



		$\Delta f_{2avg}/\Delta f_{1avg}$	1.05	$\geq 0.8$	Pass
Mid operating Frequency (2441 MHz)	1	$\Delta f_{1avg}$ (kHz)	159.23	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	180.39	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	170.21	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.07	$\geq 0.8$	Pass
	2	$\Delta f_{1avg}$ (kHz)	167.31	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	181.57	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	169.61	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.01	$\geq 0.8$	Pass
	3	$\Delta f_{1avg}$ (kHz)	160.17	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	182.70	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	170.82	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.07	$\geq 0.8$	Pass
	4	$\Delta f_{1avg}$ (kHz)	159.18	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	181.86	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	171.14	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.08	$\geq 0.8$	Pass
	5	$\Delta f_{1avg}$ (kHz)	157.18	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	183.49	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	170.47	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.08	$\geq 0.8$	Pass
	6	$\Delta f_{1avg}$ (kHz)	168.05	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	179.46	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	169.94	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.01	$\geq 0.8$	Pass
	7	$\Delta f_{1avg}$ (kHz)	156.95	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	180.46	$\geq 115\text{ kHz}$	Pass
$\Delta f_{2max}(\%)$		100%	$\geq 99.9\%$	Pass	
$\Delta f_{2avg}$ (kHz)		169.69	N/A	N/A	
$\Delta f_{2avg}/\Delta f_{1avg}$		1.08	$\geq 0.8$	Pass	
8	$\Delta f_{1avg}$ (kHz)	162.13	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass	
	$\Delta f_{2max}$ (kHz)	182.41	$\geq 115\text{ kHz}$	Pass	



		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
		$\Delta f_{2avg}(kHz)$	171.10	N/A	N/A	
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.06	$\geq 0.8$	Pass	
	9		$\Delta f_{1avg} (kHz)$	160.22	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
			$\Delta f_{2max} (kHz)$	183.14	$\geq 115 kHz$	Pass
			$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
			$\Delta f_{2avg}(kHz)$	171.22	N/A	N/A
			$\Delta f_{2avg}/\Delta f_{1avg}$	1.07	$\geq 0.8$	Pass
			10		$\Delta f_{1avg} (kHz)$	158.27
	$\Delta f_{2max} (kHz)$	179.61			$\geq 115 kHz$	Pass
		$\Delta f_{2max}(\%)$		100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}(kHz)$		169.37	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$		1.07	$\geq 0.8$	Pass
	High operating Frequency (2480 MHz)	1	$\Delta f_{1avg} (kHz)$	157.44	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
			$\Delta f_{2max} (kHz)$	181.74	$\geq 115 kHz$	Pass
			$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
			$\Delta f_{2avg}(kHz)$	172.28	N/A	N/A
			$\Delta f_{2avg}/\Delta f_{1avg}$	1.09	$\geq 0.8$	Pass
		2		$\Delta f_{1avg} (kHz)$	165.31	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$
$\Delta f_{2max} (kHz)$				180.25	$\geq 115 kHz$	Pass
			$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
			$\Delta f_{2avg}(kHz)$	171.66	N/A	N/A
			$\Delta f_{2avg}/\Delta f_{1avg}$	1.04	$\geq 0.8$	Pass
3			$\Delta f_{1avg} (kHz)$	157.10	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
			$\Delta f_{2max} (kHz)$	182.85	$\geq 115 kHz$	Pass
			$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
			$\Delta f_{2avg}(kHz)$	171.97	N/A	N/A
			$\Delta f_{2avg}/\Delta f_{1avg}$	1.09	$\geq 0.8$	Pass
4			$\Delta f_{1avg} (kHz)$	162.72	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
			$\Delta f_{2max} (kHz)$	182.71	$\geq 115 kHz$	Pass
			$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
			$\Delta f_{2avg}(kHz)$	172.36	N/A	N/A
			$\Delta f_{2avg}/\Delta f_{1avg}$	1.06	$\geq 0.8$	Pass
5			$\Delta f_{1avg} (kHz)$	156.03	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
			$\Delta f_{2max} (kHz)$	182.05	$\geq 115 kHz$	Pass
			$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
			$\Delta f_{2avg}(kHz)$	172.07	N/A	N/A
			$\Delta f_{2avg}/\Delta f_{1avg}$	1.1	$\geq 0.8$	Pass





	6	$\Delta f_{1avg}$ (kHz)	157.26	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	181.48	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	171.72	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.09	$\geq 0.8$	Pass
	7	$\Delta f_{1avg}$ (kHz)	161.04	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	182.00	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	172.10	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.07	$\geq 0.8$	Pass
	8	$\Delta f_{1avg}$ (kHz)	157.08	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	185.53	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	173.60	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.11	$\geq 0.8$	Pass
	9	$\Delta f_{1avg}$ (kHz)	165.95	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	181.57	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	172.24	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1.04	$\geq 0.8$	Pass
10	$\Delta f_{1avg}$ (kHz)	156.91	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass	
	$\Delta f_{2max}$ (kHz)	183.87	$\geq 115\text{ kHz}$	Pass	
	$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
	$\Delta f_{2avg}$ (kHz)	172.48	N/A	N/A	
	$\Delta f_{2avg}/\Delta f_{1avg}$	1.1	$\geq 0.8$	Pass	



### 2.1.9. Test Case: TRM/CA/08/C - Initial Carrier Frequency Tolerance

Expected Outcome:

All values as measured must fulfill the following conditions:

Each of the EUT's carrier frequency  $f_0$  as measured must be within  $\pm 75\text{kHz}$  from the Eut's chosen nominal carrier frequency  $f_{TX}$

$$1. f_{TX} - 75 \text{ kHz} \leq f_0 \leq f_{TX} + 75 \text{ kHz.}$$

Test Frequency (MHz)	Packets No.	Carrier Frequency (KHz)	Limit (kHz)	Verdict
Low operating Frequency (2402 MHz)	1	-3.28	$-75 \leq f_0 \leq +75$	Pass
	2	-6.03	$-75 \leq f_0 \leq +75$	Pass
	3	-3.49	$-75 \leq f_0 \leq +75$	Pass
	4	-8.16	$-75 \leq f_0 \leq +75$	Pass
	5	-9.03	$-75 \leq f_0 \leq +75$	Pass
	6	1.40	$-75 \leq f_0 \leq +75$	Pass
	7	-4.22	$-75 \leq f_0 \leq +75$	Pass
	8	0.38	$-75 \leq f_0 \leq +75$	Pass
	9	1.14	$-75 \leq f_0 \leq +75$	Pass
	10	0.71	$-75 \leq f_0 \leq +75$	Pass
Mid operating Frequency (2441 MHz)	1	-2.96	$-75 \leq f_0 \leq +75$	Pass
	2	-10.88	$-75 \leq f_0 \leq +75$	Pass
	3	-1.47	$-75 \leq f_0 \leq +75$	Pass
	4	-8.76	$-75 \leq f_0 \leq +75$	Pass
	5	0.50	$-75 \leq f_0 \leq +75$	Pass
	6	-6.32	$-75 \leq f_0 \leq +75$	Pass
	7	-3.91	$-75 \leq f_0 \leq +75$	Pass
	8	0.41	$-75 \leq f_0 \leq +75$	Pass
	9	-1.16	$-75 \leq f_0 \leq +75$	Pass
	10	-3.49	$-75 \leq f_0 \leq +75$	Pass
High operating Frequency (2480 MHz)	1	-6.02	$-75 \leq f_0 \leq +75$	Pass
	2	-1.93	$-75 \leq f_0 \leq +75$	Pass
	3	-0.37	$-75 \leq f_0 \leq +75$	Pass
	4	-5.36	$-75 \leq f_0 \leq +75$	Pass
	5	-3.02	$-75 \leq f_0 \leq +75$	Pass
	6	-3.14	$-75 \leq f_0 \leq +75$	Pass
	7	-1.92	$-75 \leq f_0 \leq +75$	Pass
	8	-3.75	$-75 \leq f_0 \leq +75$	Pass



	9	-12.41	$-75 \leq f_0 \leq +75$	Pass
	10	-7.99	$-75 \leq f_0 \leq +75$	Pass

**2.1.10. Test Case: TRM/CA/09/C - Carrier Frequency Drift**

Expected Outcome:  
All values as measured must fulfill the following conditions:  
 1. One slot packet  $-25\text{kHz} \leq \text{MAX Frequency Drift} \leq +25\text{kHz}$   
 2. Three slot packet  $-40\text{kHz} \leq \text{MAX Frequency Drift} \leq +40\text{kHz}$   
 3. Five slot packet  $-40\text{kHz} \leq \text{MAX Frequency Drift} \leq +40\text{kHz}$   
 4. The maximum drift rate is 20000 Hz / 50 $\mu$ s.

Packet Type: DH1

Test Frequency (MHz)	Packets No.	Result	Limit (%)	Verdict	
Low operating Frequency (2402 MHz)	1	MAX Frequency Drift(kHz)	-4.88	$-25 \leq f_{\text{max}} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50 $\mu$ s)	4.81	$\leq 20$	Pass
	2	MAX Frequency Drift(kHz)	-4.03	$-25 \leq f_{\text{max}} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50 $\mu$ s)	4.87	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	4.61	$-25 \leq f_{\text{max}} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50 $\mu$ s)	5.33	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	4.01	$-25 \leq f_{\text{max}} \leq +25$	Pass
	4	Maximum Drift Rate(kHz/50 $\mu$ s)	4.85	$\leq 20$	Pass
	5	MAX Frequency Drift(kHz)	-3.52	$-25 \leq f_{\text{max}} \leq +25$	Pass
	5	Maximum Drift Rate(kHz/50 $\mu$ s)	3.47	$\leq 20$	Pass
	6	MAX Frequency Drift(kHz)	3.93	$-25 \leq f_{\text{max}} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50 $\mu$ s)	4.77	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	-3.27	$-25 \leq f_{\text{max}} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50 $\mu$ s)	3.78	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	3.31	$-25 \leq f_{\text{max}} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50 $\mu$ s)	5.84	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	4.62	$-25 \leq f_{\text{max}} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50 $\mu$ s)	6.03	$\leq 20$	Pass
	10	MAX Frequency Drift(kHz)	3.78	$-25 \leq f_{\text{max}} \leq +25$	Pass
	10	Maximum Drift Rate(kHz/50 $\mu$ s)	4.25	$\leq 20$	Pass
Mid operating Frequency	1	MAX Frequency Drift(kHz)	3.10	$-25 \leq f_{\text{max}} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50 $\mu$ s)	4.45	$\leq 20$	Pass



(2441 MHz)	2	MAX Frequency Drift(kHz)	-4.88	$-25 \leq f_{max} \leq +25$	Pass	
	2	Maximum Drift Rate(kHz/50 $\mu$ s)	5.03	$\leq 20$	Pass	
	3	MAX Frequency Drift(kHz)	2.69	$-25 \leq f_{max} \leq +25$	Pass	
	3	Maximum Drift Rate(kHz/50 $\mu$ s)	3.38	$\leq 20$	Pass	
	4	MAX Frequency Drift(kHz)	5.51	$-25 \leq f_{max} \leq +25$	Pass	
	4	Maximum Drift Rate(kHz/50 $\mu$ s)	5.26	$\leq 20$	Pass	
	5	MAX Frequency Drift(kHz)	2.31	$-25 \leq f_{max} \leq +25$	Pass	
	5	Maximum Drift Rate(kHz/50 $\mu$ s)	3.63	$\leq 20$	Pass	
	6	MAX Frequency Drift(kHz)	4.84	$-25 \leq f_{max} \leq +25$	Pass	
	6	Maximum Drift Rate(kHz/50 $\mu$ s)	4.22	$\leq 20$	Pass	
	7	MAX Frequency Drift(kHz)	4.72	$-25 \leq f_{max} \leq +25$	Pass	
	7	Maximum Drift Rate(kHz/50 $\mu$ s)	4.83	$\leq 20$	Pass	
	8	MAX Frequency Drift(kHz)	4.78	$-25 \leq f_{max} \leq +25$	Pass	
	8	Maximum Drift Rate(kHz/50 $\mu$ s)	5.82	$\leq 20$	Pass	
	9	MAX Frequency Drift(kHz)	5.62	$-25 \leq f_{max} \leq +25$	Pass	
	9	Maximum Drift Rate(kHz/50 $\mu$ s)	7.91	$\leq 20$	Pass	
		10	MAX Frequency Drift(kHz)	5.91	$-25 \leq f_{max} \leq +25$	Pass
		10	Maximum Drift Rate(kHz/50 $\mu$ s)	5.29	$\leq 20$	Pass
High operating Frequency (2480 MHz)	1	MAX Frequency Drift(kHz)	-4.70	$-25 \leq f_{max} \leq +25$	Pass	
	1	Maximum Drift Rate(kHz/50 $\mu$ s)	6.10	$\leq 20$	Pass	
	2	MAX Frequency Drift(kHz)	4.44	$-25 \leq f_{max} \leq +25$	Pass	
	2	Maximum Drift Rate(kHz/50 $\mu$ s)	4.76	$\leq 20$	Pass	
	3	MAX Frequency Drift(kHz)	-4.35	$-25 \leq f_{max} \leq +25$	Pass	
	3	Maximum Drift Rate(kHz/50 $\mu$ s)	5.28	$\leq 20$	Pass	
	4	MAX Frequency Drift(kHz)	-8.58	$-25 \leq f_{max} \leq +25$	Pass	
	4	Maximum Drift Rate(kHz/50 $\mu$ s)	12.67	$\leq 20$	Pass	
	5	MAX Frequency Drift(kHz)	4.89	$-25 \leq f_{max} \leq +25$	Pass	
	5	Maximum Drift Rate(kHz/50 $\mu$ s)	6.62	$\leq 20$	Pass	
	6	MAX Frequency Drift(kHz)	-6.05	$-25 \leq f_{max} \leq +25$	Pass	
	6	Maximum Drift Rate(kHz/50 $\mu$ s)	7.60	$\leq 20$	Pass	
	7	MAX Frequency Drift(kHz)	5.62	$-25 \leq f_{max} \leq +25$	Pass	
	7	Maximum Drift Rate(kHz/50 $\mu$ s)	7.56	$\leq 20$	Pass	
	8	MAX Frequency Drift(kHz)	4.55	$-25 \leq f_{max} \leq +25$	Pass	
	8	Maximum Drift Rate(kHz/50 $\mu$ s)	5.17	$\leq 20$	Pass	
	9	MAX Frequency Drift(kHz)	4.64	$-25 \leq f_{max} \leq +25$	Pass	
	9	Maximum Drift Rate(kHz/50 $\mu$ s)	3.98	$\leq 20$	Pass	
	10	MAX Frequency Drift(kHz)	5.88	$-25 \leq f_{max} \leq +25$	Pass	
	10	Maximum Drift Rate(kHz/50 $\mu$ s)	5.89	$\leq 20$	Pass	



Packet Type: DH3					
Test Frequency (MHz)	Packets No.	Result		Limit (%)	Verdict
Low operating Frequency (2402 MHz)	1	MAX Frequency Drift(kHz)	5.59	-25 ≤ fmax ≤ +25	Pass
	1	Maximum Drift Rate(kHz/50μs)	6.39	≤ 20	Pass
	2	MAX Frequency Drift(kHz)	4.97	-25 ≤ fmax ≤ +25	Pass
	2	Maximum Drift Rate(kHz/50μs)	5.94	≤ 20	Pass
	3	MAX Frequency Drift(kHz)	4.34	-25 ≤ fmax ≤ +25	Pass
	3	Maximum Drift Rate(kHz/50μs)	5.46	≤ 20	Pass
	4	MAX Frequency Drift(kHz)	5.26	-25 ≤ fmax ≤ +25	Pass
	4	Maximum Drift Rate(kHz/50μs)	7.65	≤ 20	Pass
	5	MAX Frequency Drift(kHz)	3.78	-25 ≤ fmax ≤ +25	Pass
	5	Maximum Drift Rate(kHz/50μs)	4.66	≤ 20	Pass
	6	MAX Frequency Drift(kHz)	4.24	-25 ≤ fmax ≤ +25	Pass
	6	Maximum Drift Rate(kHz/50μs)	8.05	≤ 20	Pass
	7	MAX Frequency Drift(kHz)	3.76	-25 ≤ fmax ≤ +25	Pass
	7	Maximum Drift Rate(kHz/50μs)	5.63	≤ 20	Pass
	8	MAX Frequency Drift(kHz)	-5.41	-25 ≤ fmax ≤ +25	Pass
	8	Maximum Drift Rate(kHz/50μs)	5.17	≤ 20	Pass
	9	MAX Frequency Drift(kHz)	-4.44	-25 ≤ fmax ≤ +25	Pass
	9	Maximum Drift Rate(kHz/50μs)	5.32	≤ 20	Pass
	10	MAX Frequency Drift(kHz)	5.07	-25 ≤ fmax ≤ +25	Pass
	10	Maximum Drift Rate(kHz/50μs)	6.02	≤ 20	Pass
Mid operating Frequency (2441 MHz)	1	MAX Frequency Drift(kHz)	-5.12	-25 ≤ fmax ≤ +25	Pass
	1	Maximum Drift Rate(kHz/50μs)	7.60	≤ 20	Pass
	2	MAX Frequency Drift(kHz)	5.30	-25 ≤ fmax ≤ +25	Pass
	2	Maximum Drift Rate(kHz/50μs)	5.28	≤ 20	Pass
	3	MAX Frequency Drift(kHz)	4.89	-25 ≤ fmax ≤ +25	Pass
	3	Maximum Drift Rate(kHz/50μs)	7.02	≤ 20	Pass
	4	MAX Frequency Drift(kHz)	-8.45	-25 ≤ fmax ≤ +25	Pass
	4	Maximum Drift Rate(kHz/50μs)	8.94	≤ 20	Pass
	5	MAX Frequency Drift(kHz)	5.35	-25 ≤ fmax ≤ +25	Pass
	5	Maximum Drift Rate(kHz/50μs)	7.59	≤ 20	Pass
	6	MAX Frequency Drift(kHz)	6.98	-25 ≤ fmax ≤ +25	Pass
	6	Maximum Drift Rate(kHz/50μs)	7.62	≤ 20	Pass
	7	MAX Frequency Drift(kHz)	-7.17	-25 ≤ fmax ≤ +25	Pass
	7	Maximum Drift Rate(kHz/50μs)	9.36	≤ 20	Pass
	8	MAX Frequency Drift(kHz)	-8.79	-25 ≤ fmax ≤ +25	Pass



	8	Maximum Drift Rate(kHz/50µs)	11.78	≤ 20	Pass
	9	MAX Frequency Drift(kHz)	-7.55	-25 ≤ fmax ≤ +25	Pass
	9	Maximum Drift Rate(kHz/50µs)	8.29	≤ 20	Pass
	10	MAX Frequency Drift(kHz)	-5.10	-25 ≤ fmax ≤ +25	Pass
	10	Maximum Drift Rate(kHz/50µs)	6.32	≤ 20	Pass
High operating Frequency (2480 MHz)	1	MAX Frequency Drift(kHz)	4.29	-25 ≤ fmax ≤ +25	Pass
	1	Maximum Drift Rate(kHz/50µs)	6.41	≤ 20	Pass
	2	MAX Frequency Drift(kHz)	5.38	-25 ≤ fmax ≤ +25	Pass
	2	Maximum Drift Rate(kHz/50µs)	7.03	≤ 20	Pass
	3	MAX Frequency Drift(kHz)	-6.46	-25 ≤ fmax ≤ +25	Pass
	3	Maximum Drift Rate(kHz/50µs)	6.46	≤ 20	Pass
	4	MAX Frequency Drift(kHz)	-5.52	-25 ≤ fmax ≤ +25	Pass
	4	Maximum Drift Rate(kHz/50µs)	6.86	≤ 20	Pass
	5	MAX Frequency Drift(kHz)	5.09	-25 ≤ fmax ≤ +25	Pass
	5	Maximum Drift Rate(kHz/50µs)	6.98	≤ 20	Pass
	6	MAX Frequency Drift(kHz)	3.93	-25 ≤ fmax ≤ +25	Pass
	6	Maximum Drift Rate(kHz/50µs)	6.34	≤ 20	Pass
	7	MAX Frequency Drift(kHz)	-5.11	-25 ≤ fmax ≤ +25	Pass
	7	Maximum Drift Rate(kHz/50µs)	6.69	≤ 20	Pass
	8	MAX Frequency Drift(kHz)	6.04	-25 ≤ fmax ≤ +25	Pass
	8	Maximum Drift Rate(kHz/50µs)	6.57	≤ 20	Pass
	9	MAX Frequency Drift(kHz)	-5.09	-25 ≤ fmax ≤ +25	Pass
	9	Maximum Drift Rate(kHz/50µs)	5.71	≤ 20	Pass
	10	MAX Frequency Drift(kHz)	-8.15	-25 ≤ fmax ≤ +25	Pass
	10	Maximum Drift Rate(kHz/50µs)	12.04	≤ 20	Pass
Packet Type: DH5					
Test Frequency (MHz)	Packets No.	Result		Limit (%)	Verdict
Low operating Frequency (2402 MHz)	1	MAX Frequency Drift(kHz)	4.24	-25 ≤ fmax ≤ +25	Pass
	1	Maximum Drift Rate(kHz/50µs)	6.08	≤ 20	Pass
	2	MAX Frequency Drift(kHz)	-6.47	-25 ≤ fmax ≤ +25	Pass
	2	Maximum Drift Rate(kHz/50µs)	6.41	≤ 20	Pass
	3	MAX Frequency Drift(kHz)	-4.74	-25 ≤ fmax ≤ +25	Pass
	3	Maximum Drift Rate(kHz/50µs)	7.79	≤ 20	Pass
	4	MAX Frequency Drift(kHz)	-4.85	-25 ≤ fmax ≤ +25	Pass
	4	Maximum Drift Rate(kHz/50µs)	5.82	≤ 20	Pass
	5	MAX Frequency Drift(kHz)	5.08	-25 ≤ fmax ≤ +25	Pass
5	Maximum Drift Rate(kHz/50µs)	6.42	≤ 20	Pass	



	6	MAX Frequency Drift(kHz)	4.72	$-25 \leq f_{max} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50 $\mu$ s)	6.73	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	4.44	$-25 \leq f_{max} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50 $\mu$ s)	5.75	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	-5.00	$-25 \leq f_{max} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50 $\mu$ s)	7.03	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	4.66	$-25 \leq f_{max} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50 $\mu$ s)	7.71	$\leq 20$	Pass
	10	MAX Frequency Drift(kHz)	6.01	$-25 \leq f_{max} \leq +25$	Pass
	10	Maximum Drift Rate(kHz/50 $\mu$ s)	8.57	$\leq 20$	Pass
Mid operating Frequency (2441 MHz)	1	MAX Frequency Drift(kHz)	6.76	$-25 \leq f_{max} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50 $\mu$ s)	6.07	$\leq 20$	Pass
	2	MAX Frequency Drift(kHz)	-6.18	$-25 \leq f_{max} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50 $\mu$ s)	7.03	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	-11.11	$-25 \leq f_{max} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50 $\mu$ s)	11.10	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	-5.49	$-25 \leq f_{max} \leq +25$	Pass
	4	Maximum Drift Rate(kHz/50 $\mu$ s)	6.42	$\leq 20$	Pass
	5	MAX Frequency Drift(kHz)	7.07	$-25 \leq f_{max} \leq +25$	Pass
	5	Maximum Drift Rate(kHz/50 $\mu$ s)	7.92	$\leq 20$	Pass
	6	MAX Frequency Drift(kHz)	5.45	$-25 \leq f_{max} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50 $\mu$ s)	5.66	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	6.57	$-25 \leq f_{max} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50 $\mu$ s)	7.51	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	5.56	$-25 \leq f_{max} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50 $\mu$ s)	8.37	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	-5.87	$-25 \leq f_{max} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50 $\mu$ s)	6.63	$\leq 20$	Pass
	10	MAX Frequency Drift(kHz)	5.94	$-25 \leq f_{max} \leq +25$	Pass
	10	Maximum Drift Rate(kHz/50 $\mu$ s)	7.09	$\leq 20$	Pass
High operating Frequency (2480 MHz)	1	MAX Frequency Drift(kHz)	5.69	$-25 \leq f_{max} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50 $\mu$ s)	6.39	$\leq 20$	Pass
	2	MAX Frequency Drift(kHz)	5.06	$-25 \leq f_{max} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50 $\mu$ s)	6.89	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	-11.27	$-25 \leq f_{max} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50 $\mu$ s)	13.44	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	-4.73	$-25 \leq f_{max} \leq +25$	Pass
	4	Maximum Drift Rate(kHz/50 $\mu$ s)	6.13	$\leq 20$	Pass





	5	MAX Frequency Drift(kHz)	6.70	$-25 \leq f_{max} \leq +25$	Pass
	5	Maximum Drift Rate(kHz/50 $\mu$ s)	8.00	$\leq 20$	Pass
	6	MAX Frequency Drift(kHz)	5.67	$-25 \leq f_{max} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50 $\mu$ s)	6.65	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	-6.49	$-25 \leq f_{max} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50 $\mu$ s)	9.11	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	4.92	$-25 \leq f_{max} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50 $\mu$ s)	7.02	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	-9.06	$-25 \leq f_{max} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50 $\mu$ s)	9.53	$\leq 20$	Pass
	10	MAX Frequency Drift(kHz)	-5.12	$-25 \leq f_{max} \leq +25$	Pass
	10	Maximum Drift Rate(kHz/50 $\mu$ s)	7.41	$\leq 20$	Pass

**2.1.11. Test Case: RCV/CA/01/C - Sensitivity - Single Slot Packets**

Expected Outcome:			
All values as measured must fulfill the following conditions.			
1. BER $\leq$ 0.1% (minimum number of samples, 1,600,000 returned payload bits.)			
Test Frequency (MHz)	BER (%)	Limit (%)	Verdict
2402	0.00	$\leq 0.1$	Pass
2441	0.00	$\leq 0.1$	Pass
2480	0.00	$\leq 0.1$	Pass

**2.1.12. Test Case: RCV/CA/02/C - Sensitivity - Multi-Slot Packets**

Expected Outcome:			
All values as measured must fulfill the following conditions.			
1. BER $\leq$ 0.1% (minimum number of samples, 1,600,000 returned payload bits.)			
Test Frequency (MHz)	BER (%)	Limit (%)	Verdict
2402	0.00	$\leq 0.1$	Pass
2441	0.00	$\leq 0.1$	Pass
2480	0.00	$\leq 0.1$	Pass





**2.1.13. Test Case: RCV/CA/03/C - C/I Performance**

Expected Outcome:

All values as measured must fulfill the following conditions:

$BER \leq 0.1 \%$

Frequencies where the requirements are not met are called spurious response frequencies. For each RX frequency five spurious response frequencies are allowed at frequencies with a distance of  $\geq 2$  MHz from the wanted signal. On these spurious response frequencies a relaxed interference requirement  $C/I = -17$  dB must be met.

The image frequency = -3 MHz

Test Frequency (MHz)	Wanted Level (dBm)	Interference Frequency (MHz)	Interference Level (dBm)	C/I (dB)	BER (%)	Limit (%)	Verdict
2405	-67	2402	-27	-40	0.00	$\leq 0.1$	Pass
2405	-60	2403	-30	-30	5.16	$\leq 0.1$	Fail
2405	-60	2404	-60	0	0.00	$\leq 0.1$	Pass
2405	-60	2405	-71	11	0.00	$\leq 0.1$	Pass
2405	-60	2406	-60	0	0.00	$\leq 0.1$	Pass
2405	-67	2407	-47	-20	0.00	$\leq 0.1$	Pass
2405	-67	2408	-58	-9	0.00	$\leq 0.1$	Pass
2405	-67	2409	-47	-20	0.00	$\leq 0.1$	Pass
2405	-67	2410	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2411	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2412	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2413	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2414	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2415	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2416	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2417	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2418	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2419	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2420	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2421	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2422	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2423	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2424	-27	-40	0.00	$\leq 0.1$	Pass
2405	-67	2425	-27	-40	0.00	$\leq 0.1$	Pass



2405	-67	2426	-27	-40	0.00	≤0.1	Pass
2405	-67	2427	-27	-40	0.00	≤0.1	Pass
2405	-67	2428	-27	-40	0.00	≤0.1	Pass
2405	-67	2429	-27	-40	0.00	≤0.1	Pass
2405	-67	2430	-27	-40	0.00	≤0.1	Pass
2405	-67	2431	-27	-40	0.00	≤0.1	Pass
2405	-67	2432	-27	-40	0.00	≤0.1	Pass
2405	-67	2433	-27	-40	0.00	≤0.1	Pass
2405	-67	2434	-27	-40	0.00	≤0.1	Pass
2405	-67	2435	-27	-40	0.00	≤0.1	Pass
2405	-67	2436	-27	-40	0.00	≤0.1	Pass
2405	-67	2437	-27	-40	0.00	≤0.1	Pass
2405	-67	2438	-27	-40	0.00	≤0.1	Pass
2405	-67	2439	-27	-40	0.00	≤0.1	Pass
2405	-67	2440	-27	-40	0.00	≤0.1	Pass
2405	-67	2441	-27	-40	0.00	≤0.1	Pass
2405	-67	2442	-27	-40	0.00	≤0.1	Pass
2405	-67	2443	-27	-40	0.00	≤0.1	Pass
2405	-67	2444	-27	-40	0.00	≤0.1	Pass
2405	-67	2445	-27	-40	0.00	≤0.1	Pass
2405	-67	2446	-27	-40	0.00	≤0.1	Pass
2405	-67	2447	-27	-40	0.00	≤0.1	Pass
2405	-67	2448	-27	-40	0.00	≤0.1	Pass
2405	-67	2449	-27	-40	0.00	≤0.1	Pass
2405	-67	2450	-27	-40	0.00	≤0.1	Pass
2405	-67	2451	-27	-40	0.00	≤0.1	Pass
2405	-67	2452	-27	-40	0.00	≤0.1	Pass
2405	-67	2453	-27	-40	0.00	≤0.1	Pass
2405	-67	2454	-27	-40	0.00	≤0.1	Pass
2405	-67	2455	-27	-40	0.00	≤0.1	Pass
2405	-67	2456	-27	-40	0.00	≤0.1	Pass
2405	-67	2457	-27	-40	0.00	≤0.1	Pass
2405	-67	2458	-27	-40	0.00	≤0.1	Pass
2405	-67	2459	-27	-40	0.00	≤0.1	Pass
2405	-67	2460	-27	-40	0.00	≤0.1	Pass
2405	-67	2461	-27	-40	0.00	≤0.1	Pass
2405	-67	2462	-27	-40	0.00	≤0.1	Pass
2405	-67	2463	-27	-40	0.00	≤0.1	Pass



2405	-67	2464	-27	-40	0.00	≤0.1	Pass
2405	-67	2465	-27	-40	0.00	≤0.1	Pass
2405	-67	2466	-27	-40	0.00	≤0.1	Pass
2405	-67	2467	-27	-40	0.00	≤0.1	Pass
2405	-67	2468	-27	-40	0.00	≤0.1	Pass
2405	-67	2469	-27	-40	0.00	≤0.1	Pass
2405	-67	2470	-27	-40	0.00	≤0.1	Pass
2405	-67	2471	-27	-40	0.00	≤0.1	Pass
2405	-67	2472	-27	-40	0.00	≤0.1	Pass
2405	-67	2473	-27	-40	0.00	≤0.1	Pass
2405	-67	2474	-27	-40	0.00	≤0.1	Pass
2405	-67	2475	-27	-40	0.00	≤0.1	Pass
2405	-67	2476	-27	-40	0.00	≤0.1	Pass
2405	-67	2477	-27	-40	0.00	≤0.1	Pass
2405	-67	2478	-27	-40	0.00	≤0.1	Pass
2405	-67	2479	-27	-40	0.00	≤0.1	Pass
2405	-67	2480	-27	-40	0.00	≤0.1	Pass
2441	-67	2402	-27	-40	0.00	≤0.1	Pass
2441	-67	2403	-27	-40	0.00	≤0.1	Pass
2441	-67	2404	-27	-40	0.00	≤0.1	Pass
2441	-67	2405	-27	-40	0.00	≤0.1	Pass
2441	-67	2406	-27	-40	0.00	≤0.1	Pass
2441	-67	2407	-27	-40	0.00	≤0.1	Pass
2441	-67	2408	-27	-40	0.00	≤0.1	Pass
2441	-67	2409	-27	-40	0.00	≤0.1	Pass
2441	-67	2410	-27	-40	0.00	≤0.1	Pass
2441	-67	2411	-27	-40	0.00	≤0.1	Pass
2441	-67	2412	-27	-40	0.00	≤0.1	Pass
2441	-67	2413	-27	-40	0.00	≤0.1	Pass
2441	-67	2414	-27	-40	0.00	≤0.1	Pass
2441	-67	2415	-27	-40	0.00	≤0.1	Pass
2441	-67	2416	-27	-40	0.00	≤0.1	Pass
2441	-67	2417	-27	-40	0.00	≤0.1	Pass
2441	-67	2418	-27	-40	0.00	≤0.1	Pass
2441	-67	2419	-27	-40	0.00	≤0.1	Pass
2441	-67	2420	-27	-40	0.00	≤0.1	Pass
2441	-67	2421	-27	-40	0.00	≤0.1	Pass
2441	-67	2422	-27	-40	0.00	≤0.1	Pass



2441	-67	2423	-27	-40	0.00	≤0.1	Pass
2441	-67	2424	-27	-40	0.00	≤0.1	Pass
2441	-67	2425	-27	-40	0.00	≤0.1	Pass
2441	-67	2426	-27	-40	0.00	≤0.1	Pass
2441	-67	2427	-27	-40	0.00	≤0.1	Pass
2441	-67	2428	-27	-40	0.00	≤0.1	Pass
2441	-67	2429	-27	-40	0.00	≤0.1	Pass
2441	-67	2430	-27	-40	0.00	≤0.1	Pass
2441	-67	2431	-27	-40	0.00	≤0.1	Pass
2441	-67	2432	-27	-40	0.00	≤0.1	Pass
2441	-67	2433	-27	-40	0.00	≤0.1	Pass
2441	-67	2434	-27	-40	0.00	≤0.1	Pass
2441	-67	2435	-27	-40	0.00	≤0.1	Pass
2441	-67	2436	-27	-40	0.00	≤0.1	Pass
2441	-67	2437	-27	-40	0.14	≤0.1	Fail
2441	-67	2438	-27	-40	100.00	≤0.1	Fail
2441	-60	2439	-30	-30	7.66	≤0.1	Fail
2441	-60	2440	-60	0	0.00	≤0.1	Pass
2441	-60	2441	-71	11	0.00	≤0.1	Pass
2441	-60	2442	-60	0	0.00	≤0.1	Pass
2441	-67	2443	-47	-20	0.00	≤0.1	Pass
2441	-67	2444	-58	-9	0.00	≤0.1	Pass
2441	-67	2445	-47	-20	0.00	≤0.1	Pass
2441	-67	2446	-27	-40	0.00	≤0.1	Pass
2441	-67	2447	-27	-40	0.00	≤0.1	Pass
2441	-67	2448	-27	-40	0.00	≤0.1	Pass
2441	-67	2449	-27	-40	0.00	≤0.1	Pass
2441	-67	2450	-27	-40	0.00	≤0.1	Pass
2441	-67	2451	-27	-40	0.00	≤0.1	Pass
2441	-67	2452	-27	-40	0.00	≤0.1	Pass
2441	-67	2453	-27	-40	0.00	≤0.1	Pass
2441	-67	2454	-27	-40	0.00	≤0.1	Pass
2441	-67	2455	-27	-40	0.00	≤0.1	Pass
2441	-67	2456	-27	-40	0.00	≤0.1	Pass
2441	-67	2457	-27	-40	0.00	≤0.1	Pass
2441	-67	2458	-27	-40	0.00	≤0.1	Pass
2441	-67	2459	-27	-40	0.00	≤0.1	Pass
2441	-67	2460	-27	-40	0.00	≤0.1	Pass



2441	-67	2461	-27	-40	0.00	≤0.1	Pass
2441	-67	2462	-27	-40	0.00	≤0.1	Pass
2441	-67	2463	-27	-40	0.00	≤0.1	Pass
2441	-67	2464	-27	-40	0.00	≤0.1	Pass
2441	-67	2465	-27	-40	0.00	≤0.1	Pass
2441	-67	2466	-27	-40	0.00	≤0.1	Pass
2441	-67	2467	-27	-40	0.00	≤0.1	Pass
2441	-67	2468	-27	-40	0.00	≤0.1	Pass
2441	-67	2469	-27	-40	0.00	≤0.1	Pass
2441	-67	2470	-27	-40	0.00	≤0.1	Pass
2441	-67	2471	-27	-40	0.00	≤0.1	Pass
2441	-67	2472	-27	-40	0.00	≤0.1	Pass
2441	-67	2473	-27	-40	0.00	≤0.1	Pass
2441	-67	2474	-27	-40	0.00	≤0.1	Pass
2441	-67	2475	-27	-40	0.00	≤0.1	Pass
2441	-67	2476	-27	-40	0.00	≤0.1	Pass
2441	-67	2477	-27	-40	0.00	≤0.1	Pass
2441	-67	2478	-27	-40	0.00	≤0.1	Pass
2441	-67	2479	-27	-40	0.00	≤0.1	Pass
2441	-67	2480	-27	-40	0.00	≤0.1	Pass
2477	-67	2402	-27	-40	0.00	≤0.1	Pass
2477	-67	2403	-27	-40	0.00	≤0.1	Pass
2477	-67	2404	-27	-40	0.00	≤0.1	Pass
2477	-67	2405	-27	-40	0.00	≤0.1	Pass
2477	-67	2406	-27	-40	0.00	≤0.1	Pass
2477	-67	2407	-27	-40	0.00	≤0.1	Pass
2477	-67	2408	-27	-40	0.00	≤0.1	Pass
2477	-67	2409	-27	-40	0.00	≤0.1	Pass
2477	-67	2410	-27	-40	0.00	≤0.1	Pass
2477	-67	2411	-27	-40	0.00	≤0.1	Pass
2477	-67	2412	-27	-40	0.00	≤0.1	Pass
2477	-67	2413	-27	-40	0.00	≤0.1	Pass
2477	-67	2414	-27	-40	0.00	≤0.1	Pass
2477	-67	2415	-27	-40	0.00	≤0.1	Pass
2477	-67	2416	-27	-40	0.00	≤0.1	Pass
2477	-67	2417	-27	-40	0.00	≤0.1	Pass
2477	-67	2418	-27	-40	0.00	≤0.1	Pass
2477	-67	2419	-27	-40	0.00	≤0.1	Pass



2477	-67	2420	-27	-40	0.00	≤0.1	Pass
2477	-67	2421	-27	-40	0.00	≤0.1	Pass
2477	-67	2422	-27	-40	0.00	≤0.1	Pass
2477	-67	2423	-27	-40	0.00	≤0.1	Pass
2477	-67	2424	-27	-40	0.00	≤0.1	Pass
2477	-67	2425	-27	-40	0.00	≤0.1	Pass
2477	-67	2426	-27	-40	0.00	≤0.1	Pass
2477	-67	2427	-27	-40	0.00	≤0.1	Pass
2477	-67	2428	-27	-40	0.00	≤0.1	Pass
2477	-67	2429	-27	-40	0.00	≤0.1	Pass
2477	-67	2430	-27	-40	0.00	≤0.1	Pass
2477	-67	2431	-27	-40	0.00	≤0.1	Pass
2477	-67	2432	-27	-40	0.00	≤0.1	Pass
2477	-67	2433	-27	-40	0.00	≤0.1	Pass
2477	-67	2434	-27	-40	0.00	≤0.1	Pass
2477	-67	2435	-27	-40	0.00	≤0.1	Pass
2477	-67	2436	-27	-40	0.00	≤0.1	Pass
2477	-67	2437	-27	-40	0.00	≤0.1	Pass
2477	-67	2438	-27	-40	0.00	≤0.1	Pass
2477	-67	2439	-27	-40	0.00	≤0.1	Pass
2477	-67	2440	-27	-40	0.00	≤0.1	Pass
2477	-67	2441	-27	-40	0.00	≤0.1	Pass
2477	-67	2442	-27	-40	0.00	≤0.1	Pass
2477	-67	2443	-27	-40	0.00	≤0.1	Pass
2477	-67	2444	-27	-40	0.00	≤0.1	Pass
2477	-67	2445	-27	-40	0.00	≤0.1	Pass
2477	-67	2446	-27	-40	0.00	≤0.1	Pass
2477	-67	2447	-27	-40	0.00	≤0.1	Pass
2477	-67	2448	-27	-40	0.00	≤0.1	Pass
2477	-67	2449	-27	-40	0.00	≤0.1	Pass
2477	-67	2450	-27	-40	0.00	≤0.1	Pass
2477	-67	2451	-27	-40	0.00	≤0.1	Pass
2477	-67	2452	-27	-40	0.00	≤0.1	Pass
2477	-67	2453	-27	-40	0.00	≤0.1	Pass
2477	-67	2454	-27	-40	0.00	≤0.1	Pass
2477	-67	2455	-27	-40	0.00	≤0.1	Pass
2477	-67	2456	-27	-40	0.00	≤0.1	Pass
2477	-67	2457	-27	-40	0.00	≤0.1	Pass



2477	-67	2458	-27	-40	0.00	≤0.1	Pass
2477	-67	2459	-27	-40	0.00	≤0.1	Pass
2477	-67	2460	-27	-40	0.00	≤0.1	Pass
2477	-67	2461	-27	-40	0.00	≤0.1	Pass
2477	-67	2462	-27	-40	0.00	≤0.1	Pass
2477	-67	2463	-27	-40	0.00	≤0.1	Pass
2477	-67	2464	-27	-40	0.00	≤0.1	Pass
2477	-67	2465	-27	-40	0.00	≤0.1	Pass
2477	-67	2466	-27	-40	0.00	≤0.1	Pass
2477	-67	2467	-27	-40	0.00	≤0.1	Pass
2477	-67	2468	-27	-40	0.00	≤0.1	Pass
2477	-67	2469	-27	-40	0.00	≤0.1	Pass
2477	-67	2470	-27	-40	0.00	≤0.1	Pass
2477	-67	2471	-27	-40	0.00	≤0.1	Pass
2477	-67	2472	-27	-40	0.00	≤0.1	Pass
2477	-67	2473	-27	-40	0.14	≤0.1	Fail
2477	-67	2474	-27	-40	100.00	≤0.1	Fail
2477	-60	2475	-30	-30	2.11	≤0.1	Fail
2477	-60	2476	-60	0	0.00	≤0.1	Pass
2477	-60	2477	-71	11	0.00	≤0.1	Pass
2477	-60	2478	-60	0	0.00	≤0.1	Pass
2477	-67	2479	-47	-20	0.00	≤0.1	Pass
2477	-67	2480	-58	-9	0.00	≤0.1	Pass
Relaxed							
2441	-67	2437	-50	-17	0.00	≤0.1	Pass
2441	-67	2438	-50	-17	0.00	≤0.1	Pass
2441	-67	2439	-50	-17	0.00	≤0.1	Pass
2477	-67	2473	-50	-17	0.00	≤0.1	Pass
2477	-67	2474	-50	-17	0.00	≤0.1	Pass
2477	-67	2475	-50	-17	0.00	≤0.1	Pass



**2.1.14. Test Case: RCV/CA/04/C - Blocking Performance**

Expected Outcome:

All values as measured must fulfill the following conditions:

1. At step1 BER  $\leq 0.1\%$  (Minimum number of samples, 100,000 returned payload bits.)  
If BER is measured to be  $>0.1\%$  the frequency of the blocking signal is recorded.
2. At step2 BER  $\leq 0.1\%$  (Minimum number of samples, 1,600,000 returned payload bits.)  
If BER is measured to be  $>0.1\%$  the frequency of the blocking signal is recorded.
3. At step3 BER  $\leq 0.1\%$  (Minimum number of samples, 1,600,000 returned payload bits.)  
If BER is measured to be  $>0.1\%$  the frequency of the blocking signal is recorded.

The number of frequencies recorded in step 2 must not exceed 24 and the number of frequencies recorded in step 3 must not exceed 5 .

Step 1

Test Frequency (MHz)	Wanted (dBm)	Interfering (dBm)	BER (%)	Limit (%)	Verdict
1230	-67	-8	100.00	$\leq 0.1$	Fail

Step 2

Test Frequency (MHz)	Wanted (dBm)	Interfering (dBm)	BER (%)	Limit (%)	Verdict
1230	-67	-10	100.00	$\leq 0.1$	Fail

Step 3

30 MHz ~ 12750 MHz Over all Verdict is Pass





**2.1.15. Test Case: RCV/CA/05/C - Intermodulation Performance**

Expected Outcome:  
All values as measured must fulfill the following conditions.  
1. BER ≤ 0.1%

TX=RX Frequency (MHz)	Wanted (dBm)	f1 Frequency (MHz)	CW (dBm)	f2 Frequency (MHz)	BT (dBm)	BER (%)	Limit (%)	Verdict
2402	-64	2407	-39	2412	-39	0.00	≤0.1	Pass
2441		2436		2431		0.00	≤0.1	Pass
2441		2446		2451		0.00	≤0.1	Pass
2480		2475		2470		0.00	≤0.1	Pass

**2.1.16. Test Case: RCV/CA/06/C - Maximum Input Level**

Expected Outcome:  
All values as measured must fulfill the following conditions.  
1. BER ≤ 0.1% (minimum number of samples, 1,600,000 returned payload bits.)

Test Frequency (MHz)	BER (%)	Limit (%)	Verdict
2402	0.00	≤0.1	Pass
2441	0.00	≤0.1	Pass
2480	0.00	≤0.1	Pass



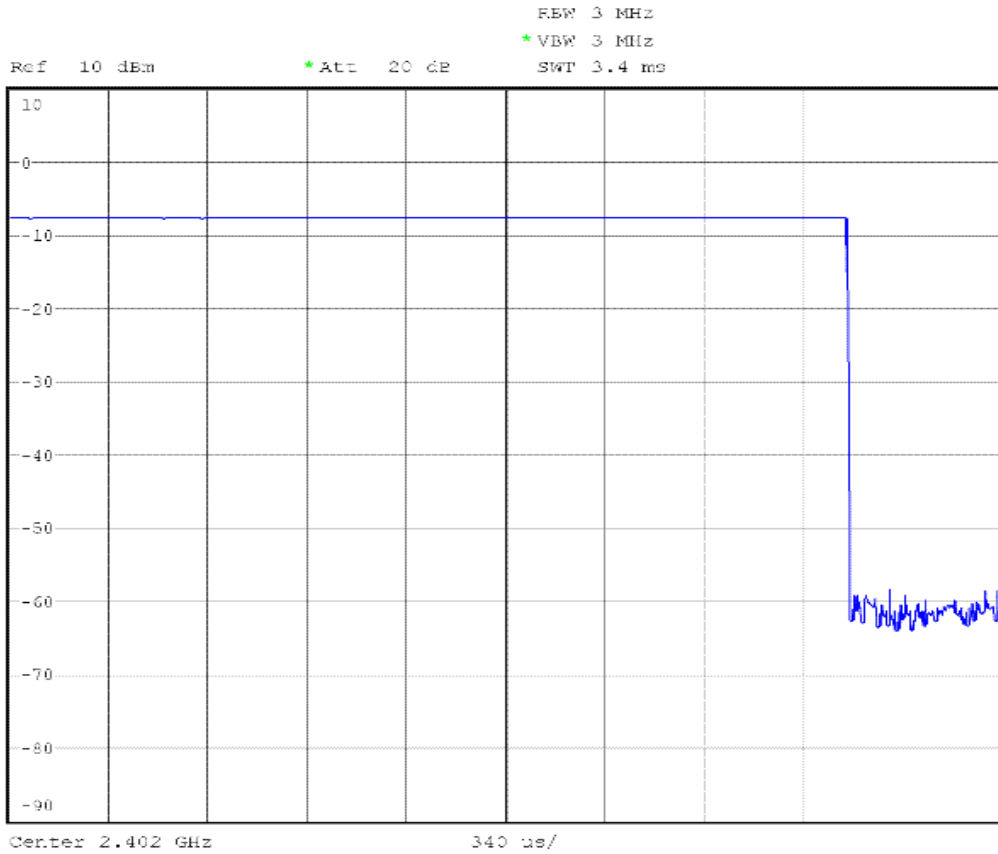
## 2.2. Test Case List for High Temperature

### 2.2.1. RF Description

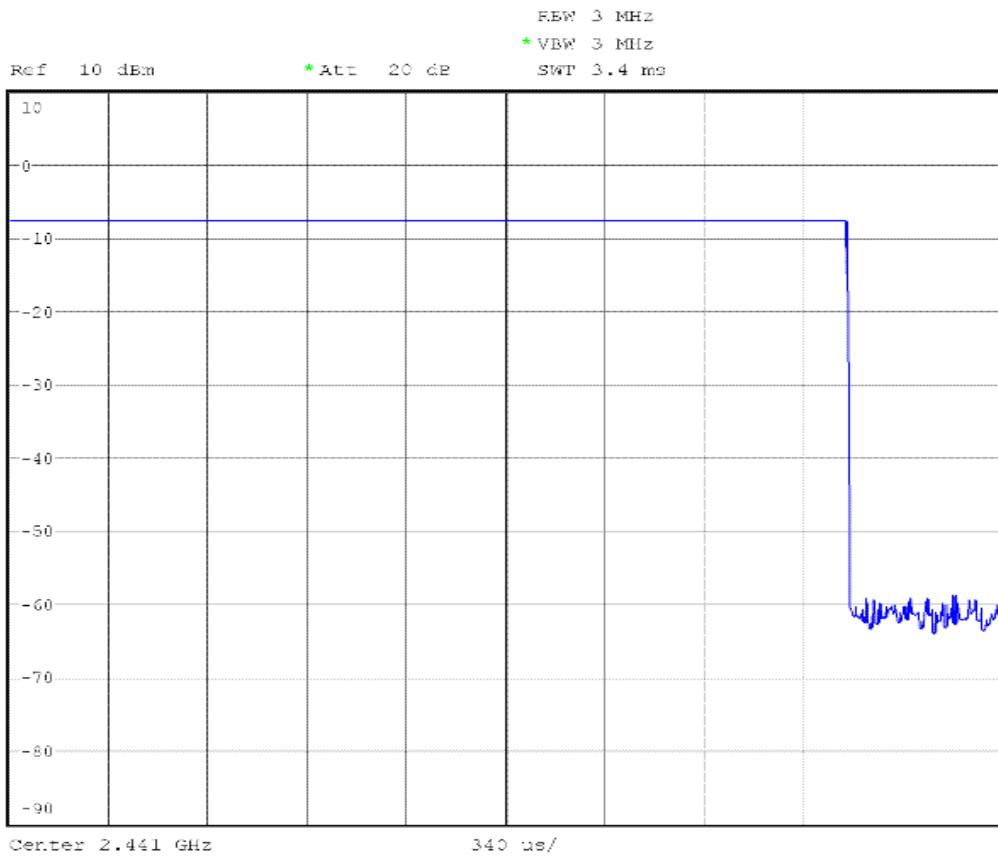
EUT Power Class	Class 2
EUT Antenna Gain	0 dBi
Test Condition	High Temperature
EUT To Spectrum Loss (Low)	8.82
EUT To Spectrum Loss (Mid)	8.55
EUT To Spectrum Loss (High)	8.83

### 2.2.2. Test Case: TRM/CA/01/C - Output Power

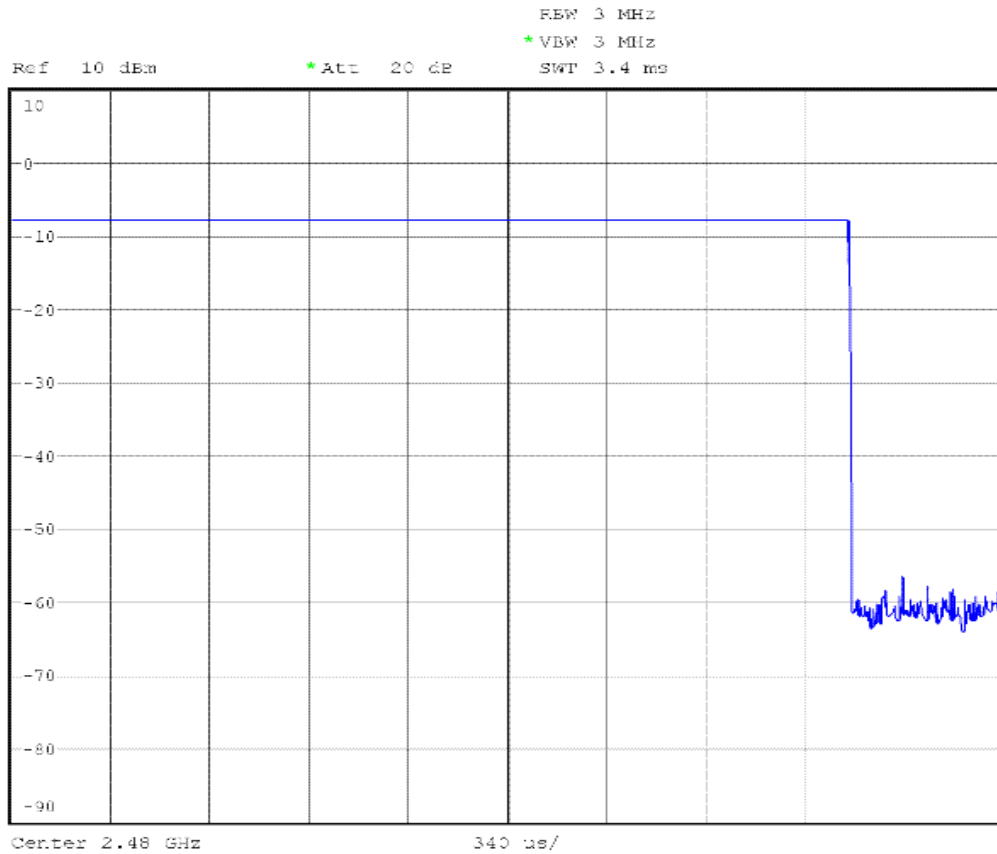
Expected Outcome:			
All values as measured must fulfill the following conditions:			
1. $P_{av} < 100\text{mW}$ (20 dBm) EIRP			
2. $P_{pk} < 200\text{mW}$ (23 dBm) EIRP			
3. If the EUT is a power class 1 equipment : $P_{av} > 1\text{mW}$ (0dBm)			
4. If the EUT is a power class 2 equipment : $0.25\text{mW}$ (-6 dBm) $< P_{av} < 2.5\text{mW}$ (4dBm)			
5. If the EUT is a power class 3 equipment : $P_{av} < 1\text{mW}$ (0dBm)			
Test Frequency	Item	Value(dBm)	Verdict
Low operating frequency (2402MHz)	Peak Power	1.05	N/A
	Average Power	1.02	Pass
	Peak Power (EIRP)	1.05	Pass
	Average Power (EIRP)	1.02	Pass
Mid operating frequency (2441MHz)	Peak Power	0.87	N/A
	Average Power	0.83	Pass
	Peak Power (EIRP)	0.87	Pass
	Average Power (EIRP)	0.83	Pass
High operating frequency (2480MHz)	Peak Power	0.88	N/A
	Average Power	0.84	Pass
	Peak Power (EIRP)	0.88	Pass
	Average Power (EIRP)	0.84	Pass



Output Power (Low operating frequency)



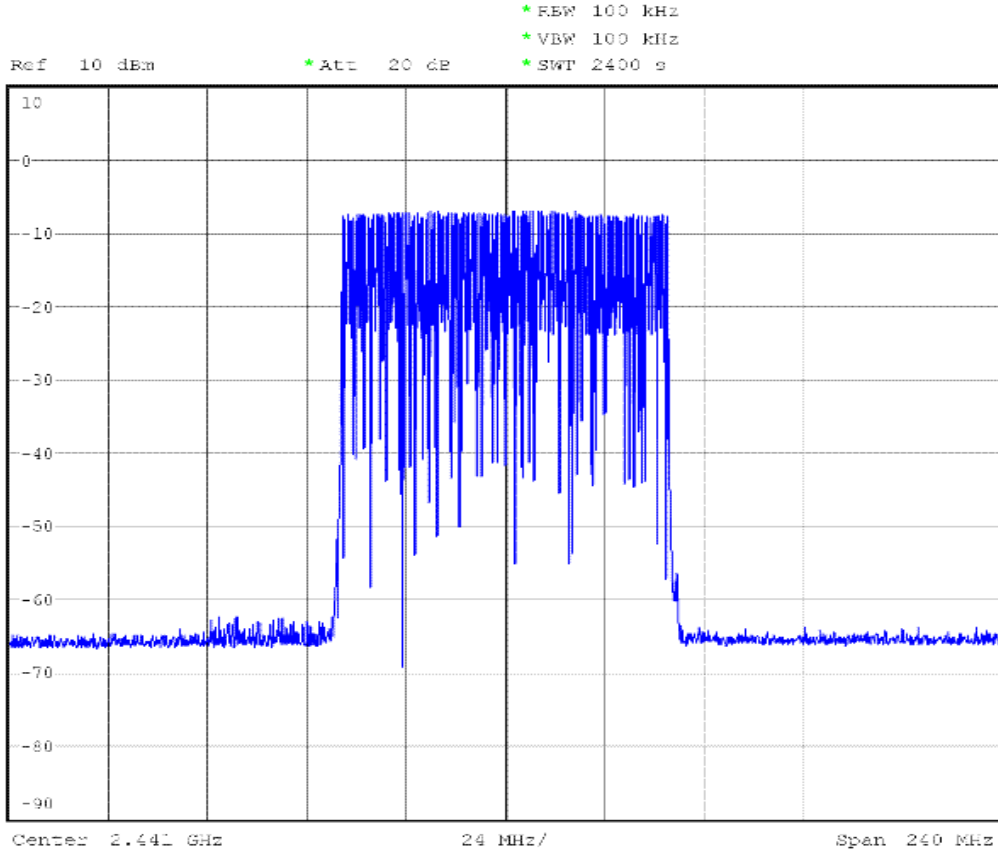
Output Power (Mid operating frequency)



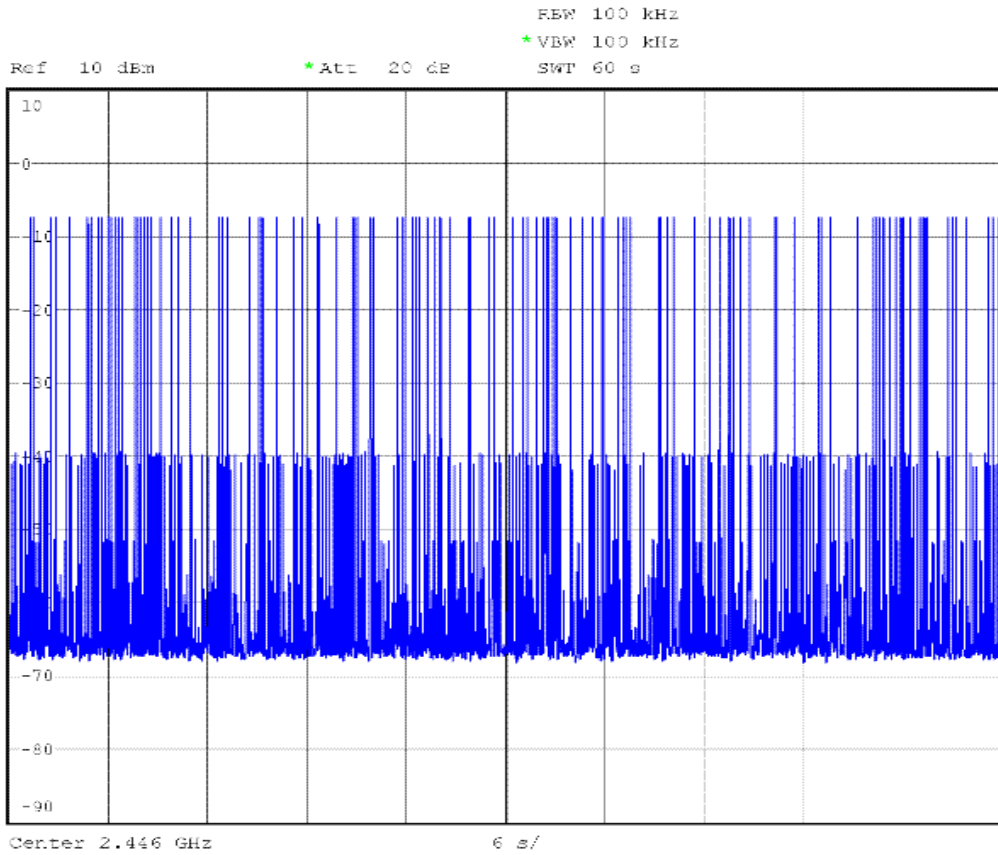
Output Power (High operating frequency)

**2.2.3. Test Case: TRM/CA/02/C - Power Density**

Expected Outcome:				
All values as measured must fulfill the following conditions:				
1. Power Density < 100 mW (20dBm) per 100 kHz EIRP				
Max Frequency (MHz)	Peak Power (dBm)	Power Density (dBm/100KHz)	Limit (dBm/100KHz)	Verdict
2446.00 MHz	1.53	1.10	<20	Pass



Power Density (Step1)



Power Density (Step2)



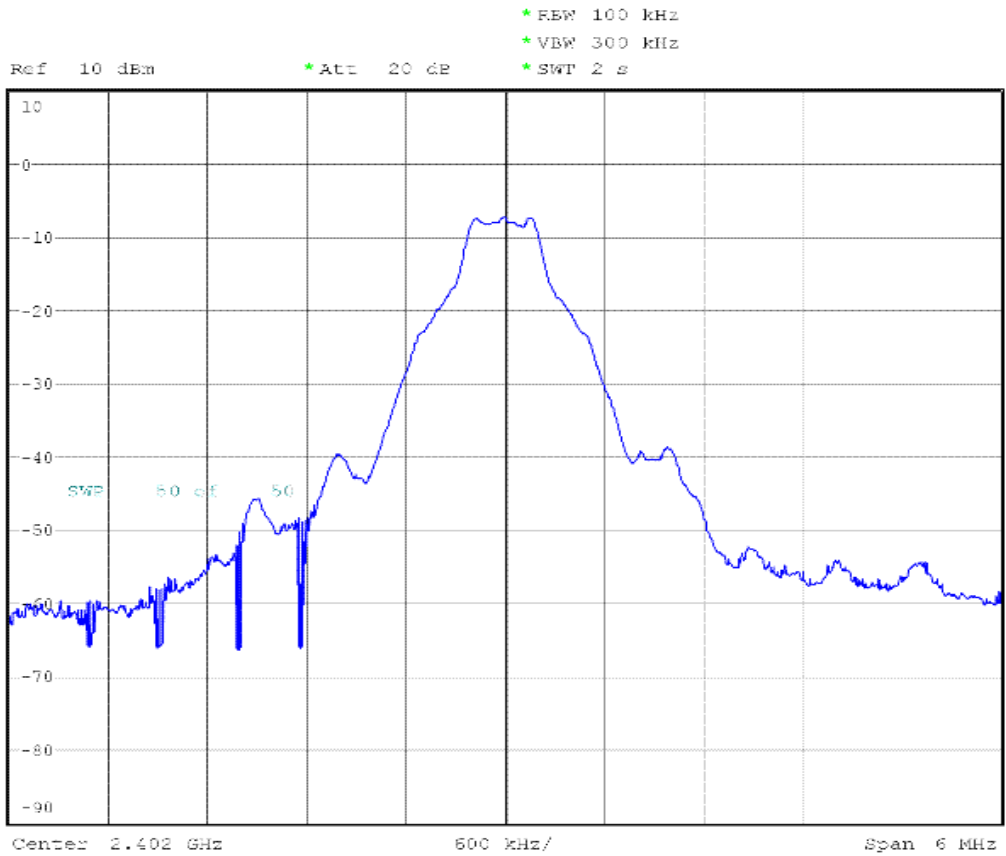
**2.2.4. Test Case: TRM/CA/04/C - TX Output Spectrum - Frequency Range**

Expected Outcome:

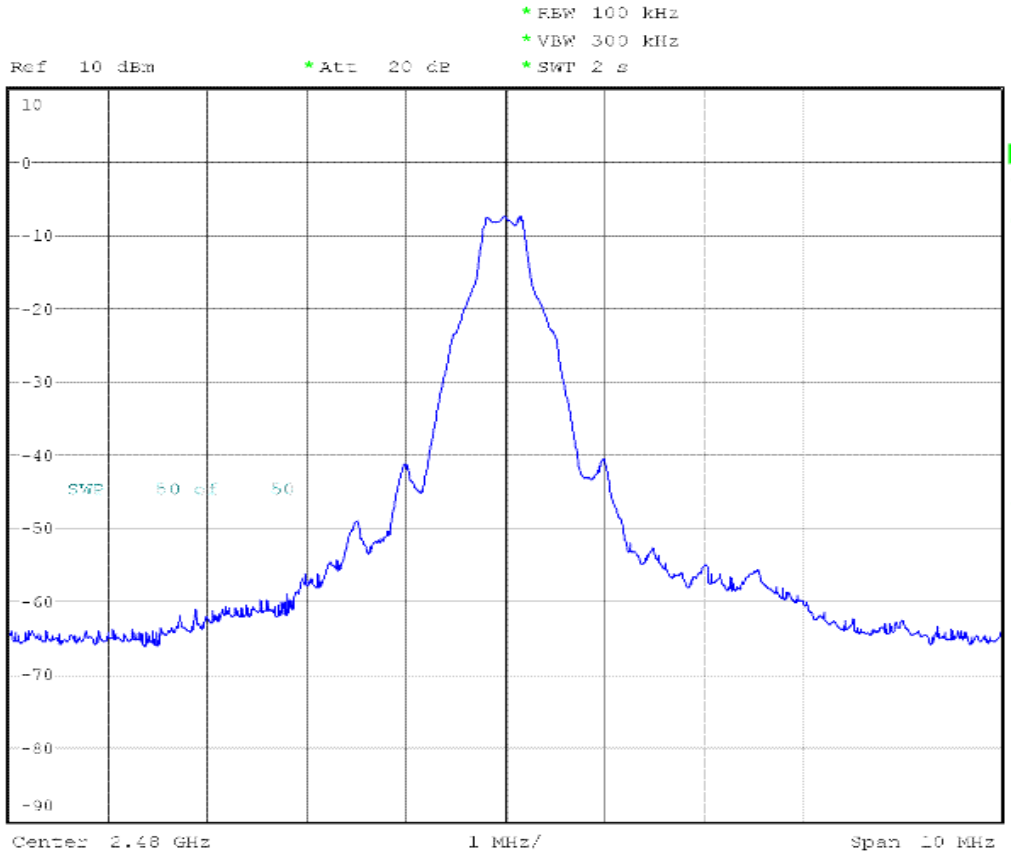
All values as measured must fulfill the following conditions:

- fL, fH within the allowed frequency band :2.4 GHz – 2.4835 GHz

Frequency (MHz)		Limit(MHz)	Verdict
Lowest(fL)	2401.24	fL>2400.0	Pass
Highest(fH)	2478.43	fH <2483.5	Pass



TX Output Spectrum – Frequency range (fL)

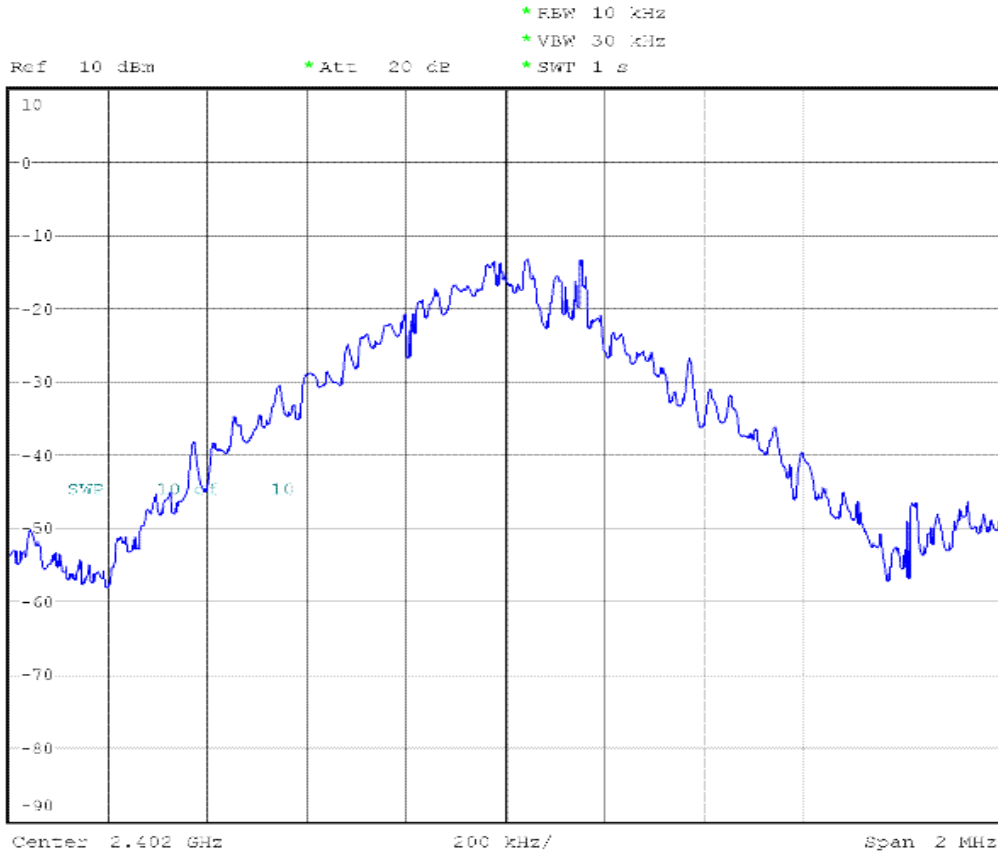


TX Output Spectrum – Frequency range (fH)

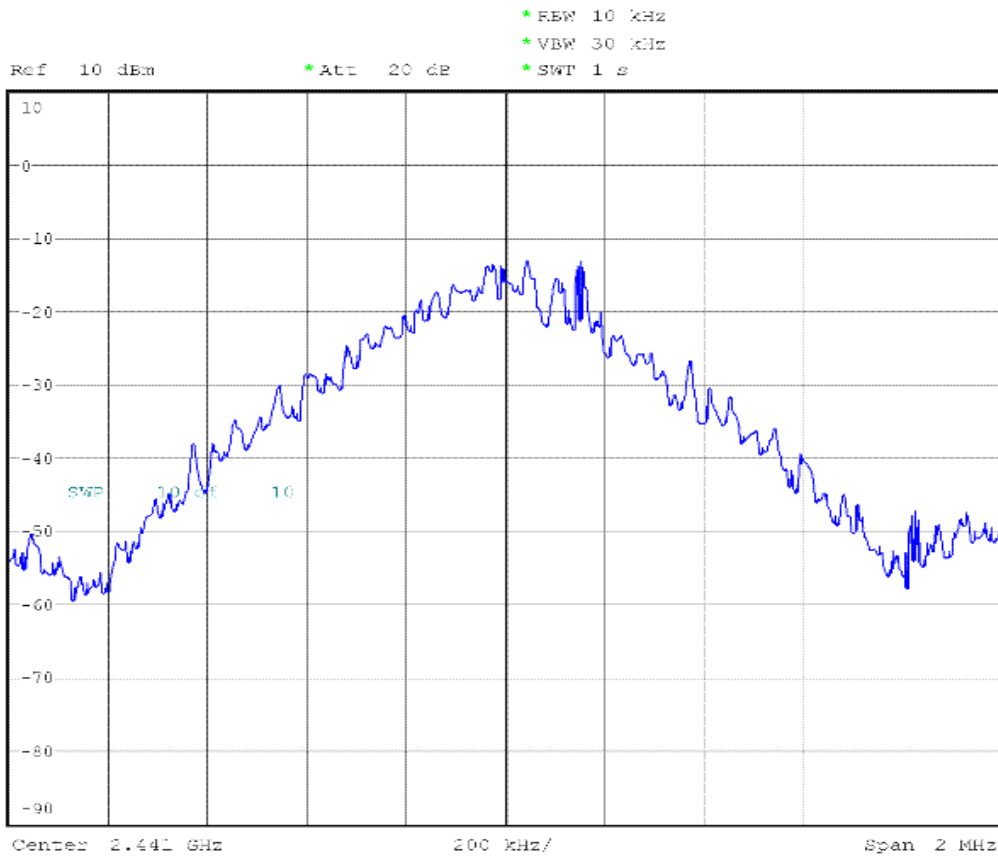
**2.2.5. Test Case: TRM/CA/05/C - TX Output Spectrum - 20 dB Bandwidth**

Expected Outcome:  
All values as measured must fulfill the following conditions:  
1. The Transmit spectrum shall fulfill the following mask :  $\Delta f = |fH - fL| \leq 1.0 \text{ MHz}$

Test Frequency (MHz)	fL (MHz)	fH (MHz)	$\Delta f =  fH - fL $ (MHz)	Limit	Verdict	
Low Frequency	2402	2401.53	2402.46	0.93	$\leq 1.0$	Pass
Mid Frequency	2441	2440.58	2441.35	0.77	$\leq 1.0$	Pass
High Frequency	2480	2479.59	2480.35	0.76	$\leq 1.0$	Pass

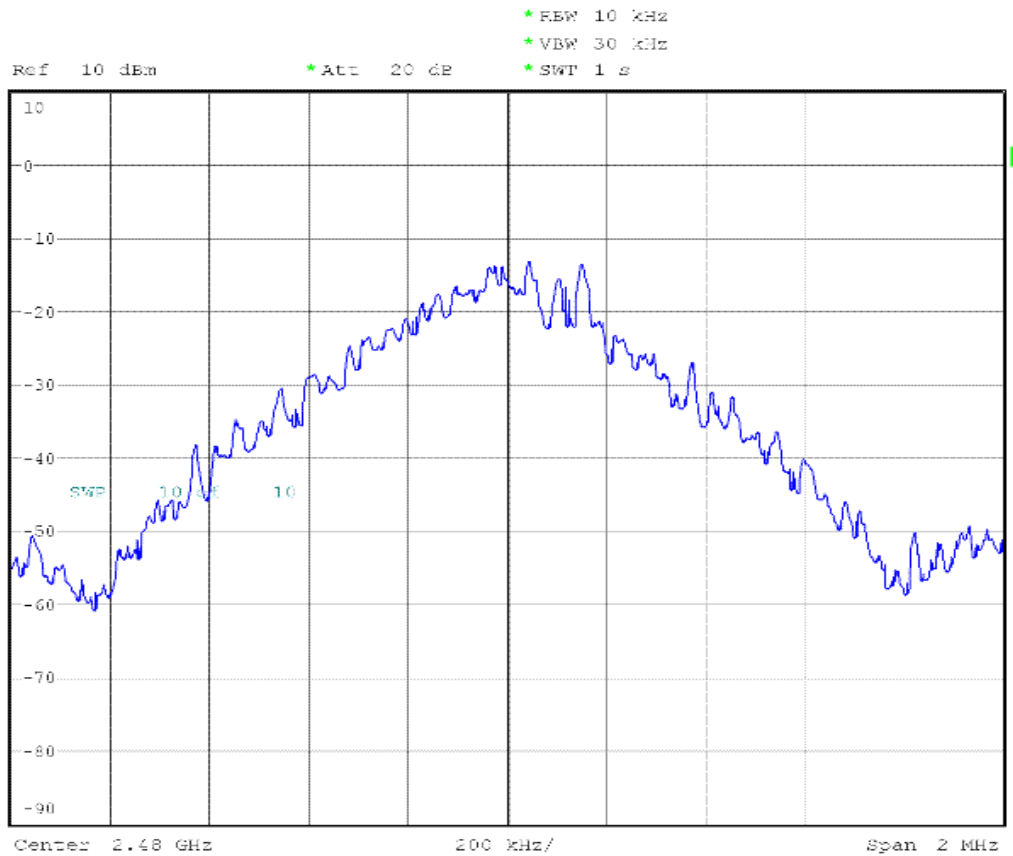


TX Output Spectrum – 20 dB Bandwidth (Low Frequency)



TX Output Spectrum – 20 dB Bandwidth (Mid Frequency)





TX Output Spectrum – 20 dB Bandwidth (High Frequency)

**2.2.6. Test Case: TRM/CA/06/C - TX Output Spectrum - Adjacent Channel Power**

Expected Outcome:

All values as measured must fulfill the following conditions:

For each operating frequency exceptions in up to three bands of 1 MHz width centered on a frequency which is an integer multiple of 1 MHz are allowed. They must however comply with an absolute value of -20 dBm.

1.  $P_{tx}(f) \leq -20 \text{ dBm}$  for  $|M-N| = 2$
2.  $P_{tx}(f) \leq -40 \text{ dBm}$  for  $|M-N| \geq 3$

Test Frequency (MHz)	Adjacent Channel Frequency (MHz)	Ptx(f) (dBm)	Limit (dBm)	Verdict
Low Frequency (2402 MHz)	2402	-54.20	$\leq -40$	Pass
	2403	-42.05	$\leq -20$	Pass
	2404	-23.15	N/A	N/A
	2405	1.97	N/A	N/A



2406	-24.36	N/A	N/A
2407	-46.35	≤ -20	Pass
2408	-50.93	≤ -40	Pass
2409	-57.96	≤ -40	Pass
2410	-60.48	≤ -40	Pass
2411	-60.43	≤ -40	Pass
2412	-62.57	≤ -40	Pass
2413	-61.22	≤ -40	Pass
2414	-63.09	≤ -40	Pass
2415	-63.71	≤ -40	Pass
2416	-63.73	≤ -40	Pass
2417	-62.82	≤ -40	Pass
2418	-63.78	≤ -40	Pass
2419	-63.91	≤ -40	Pass
2420	-64.06	≤ -40	Pass
2421	-61.78	≤ -40	Pass
2422	-64.07	≤ -40	Pass
2423	-63.02	≤ -40	Pass
2424	-64.32	≤ -40	Pass
2425	-63.66	≤ -40	Pass
2426	-64.37	≤ -40	Pass
2427	-64.71	≤ -40	Pass
2428	-64.70	≤ -40	Pass
2429	-64.61	≤ -40	Pass
2430	-64.81	≤ -40	Pass
2431	-60.87	≤ -40	Pass
2432	-64.91	≤ -40	Pass
2433	-64.34	≤ -40	Pass
2434	-65.17	≤ -40	Pass
2435	-65.28	≤ -40	Pass
2436	-65.33	≤ -40	Pass
2437	-63.78	≤ -40	Pass
2438	-65.36	≤ -40	Pass
2439	-65.22	≤ -40	Pass
2440	-65.38	≤ -40	Pass
2441	-65.26	≤ -40	Pass
2442	-65.66	≤ -40	Pass
2443	-65.78	≤ -40	Pass



	2444	-65.71	≤ -40	Pass
	2445	-65.59	≤ -40	Pass
	2446	-65.69	≤ -40	Pass
	2447	-65.63	≤ -40	Pass
	2448	-65.58	≤ -40	Pass
	2449	-65.52	≤ -40	Pass
	2450	-65.60	≤ -40	Pass
	2451	-65.72	≤ -40	Pass
	2452	-65.45	≤ -40	Pass
	2453	-65.26	≤ -40	Pass
	2454	-65.58	≤ -40	Pass
	2455	-64.10	≤ -40	Pass
	2456	-65.56	≤ -40	Pass
	2457	-65.50	≤ -40	Pass
	2458	-65.74	≤ -40	Pass
	2459	-65.68	≤ -40	Pass
	2460	-65.73	≤ -40	Pass
	2461	-65.71	≤ -40	Pass
	2462	-65.70	≤ -40	Pass
	2463	-65.75	≤ -40	Pass
	2464	-65.75	≤ -40	Pass
	2465	-65.50	≤ -40	Pass
	2466	-65.73	≤ -40	Pass
	2467	-65.46	≤ -40	Pass
	2468	-65.74	≤ -40	Pass
	2469	-63.81	≤ -40	Pass
	2470	-65.47	≤ -40	Pass
	2471	-65.69	≤ -40	Pass
	2472	-65.65	≤ -40	Pass
	2473	-65.46	≤ -40	Pass
	2474	-65.62	≤ -40	Pass
	2475	-63.27	≤ -40	Pass
	2476	-61.04	≤ -40	Pass
	2477	-39.58	≤ -40	Fail
	2478	-63.98	≤ -40	Pass
	2479	-65.53	≤ -40	Pass
	2480	-65.54	≤ -40	Pass
	2402	-65.39	≤ -40	Pass



Mid Frequency (2441 MHz)	2403	-63.24	≤ -40	Pass
	2404	-57.20	≤ -40	Pass
	2405	-33.42	≤ -40	Fail
	2406	-61.01	≤ -40	Pass
	2407	-65.29	≤ -40	Pass
	2408	-65.06	≤ -40	Pass
	2409	-55.90	≤ -40	Pass
	2410	-64.91	≤ -40	Pass
	2411	-65.04	≤ -40	Pass
	2412	-64.92	≤ -40	Pass
	2413	-64.55	≤ -40	Pass
	2414	-64.74	≤ -40	Pass
	2415	-60.53	≤ -40	Pass
	2416	-64.33	≤ -40	Pass
	2417	-63.87	≤ -40	Pass
	2418	-64.31	≤ -40	Pass
	2419	-64.16	≤ -40	Pass
	2420	-63.93	≤ -40	Pass
	2421	-62.80	≤ -40	Pass
	2422	-64.09	≤ -40	Pass
	2423	-64.00	≤ -40	Pass
	2424	-63.96	≤ -40	Pass
	2425	-61.68	≤ -40	Pass
	2426	-64.03	≤ -40	Pass
	2427	-64.06	≤ -40	Pass
	2428	-63.64	≤ -40	Pass
	2429	-62.14	≤ -40	Pass
	2430	-62.94	≤ -40	Pass
	2431	-61.63	≤ -40	Pass
	2432	-63.27	≤ -40	Pass
	2433	-62.16	≤ -40	Pass
	2434	-61.97	≤ -40	Pass
2435	-57.35	≤ -40	Pass	
2436	-58.08	≤ -40	Pass	
2437	-57.89	≤ -40	Pass	
2438	-54.53	≤ -40	Pass	
2439	-44.43	≤ -20	Pass	
2440	-23.61	N/A	N/A	



2441	1.70	N/A	N/A
2442	-25.21	N/A	N/A
2443	-46.98	≤ -20	Pass
2444	-51.18	≤ -40	Pass
2445	-56.39	≤ -40	Pass
2446	-59.34	≤ -40	Pass
2447	-60.69	≤ -40	Pass
2448	-62.56	≤ -40	Pass
2449	-63.29	≤ -40	Pass
2450	-63.71	≤ -40	Pass
2451	-61.75	≤ -40	Pass
2452	-63.48	≤ -40	Pass
2453	-63.05	≤ -40	Pass
2454	-64.17	≤ -40	Pass
2455	-64.26	≤ -40	Pass
2456	-64.03	≤ -40	Pass
2457	-61.54	≤ -40	Pass
2458	-64.19	≤ -40	Pass
2459	-64.47	≤ -40	Pass
2460	-64.39	≤ -40	Pass
2461	-63.63	≤ -40	Pass
2462	-64.48	≤ -40	Pass
2463	-64.66	≤ -40	Pass
2464	-64.60	≤ -40	Pass
2465	-64.65	≤ -40	Pass
2466	-64.66	≤ -40	Pass
2467	-60.88	≤ -40	Pass
2468	-64.76	≤ -40	Pass
2469	-64.54	≤ -40	Pass
2470	-64.74	≤ -40	Pass
2471	-64.97	≤ -40	Pass
2472	-65.03	≤ -40	Pass
2473	-63.77	≤ -40	Pass
2474	-65.17	≤ -40	Pass
2475	-65.08	≤ -40	Pass
2476	-65.18	≤ -40	Pass
2477	-64.53	≤ -40	Pass
2478	-65.17	≤ -40	Pass



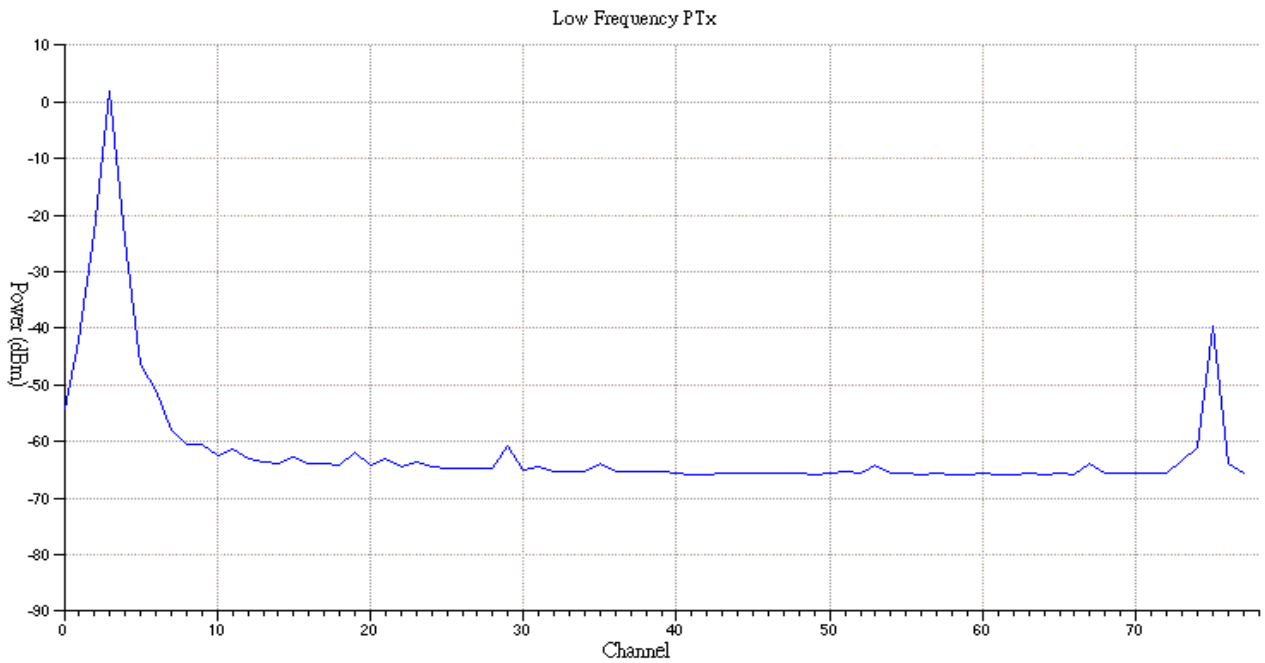
	2479	-65.21	≤ -40	Pass
	2480	-65.23	≤ -40	Pass
High Frequency (2480 MHz)	2402	-65.75	≤ -40	Pass
	2403	-63.46	≤ -40	Pass
	2404	-59.28	≤ -40	Pass
	2405	-36.29	≤ -40	Fail
	2406	-62.82	≤ -40	Pass
	2407	-65.76	≤ -40	Pass
	2408	-65.74	≤ -40	Pass
	2409	-65.66	≤ -40	Pass
	2410	-65.80	≤ -40	Pass
	2411	-65.48	≤ -40	Pass
	2412	-65.78	≤ -40	Pass
	2413	-61.07	≤ -40	Pass
	2414	-65.70	≤ -40	Pass
	2415	-65.76	≤ -40	Pass
	2416	-65.61	≤ -40	Pass
	2417	-65.80	≤ -40	Pass
	2418	-65.87	≤ -40	Pass
	2419	-65.71	≤ -40	Pass
	2420	-65.86	≤ -40	Pass
	2421	-65.85	≤ -40	Pass
	2422	-65.78	≤ -40	Pass
	2423	-65.79	≤ -40	Pass
	2424	-65.74	≤ -40	Pass
	2425	-64.14	≤ -40	Pass
2426	-65.53	≤ -40	Pass	
2427	-65.81	≤ -40	Pass	
2428	-65.71	≤ -40	Pass	
2429	-64.50	≤ -40	Pass	
2430	-65.75	≤ -40	Pass	
2431	-65.68	≤ -40	Pass	
2432	-65.60	≤ -40	Pass	
2433	-65.57	≤ -40	Pass	
2434	-65.54	≤ -40	Pass	
2435	-65.64	≤ -40	Pass	
2436	-65.71	≤ -40	Pass	
2437	-65.27	≤ -40	Pass	



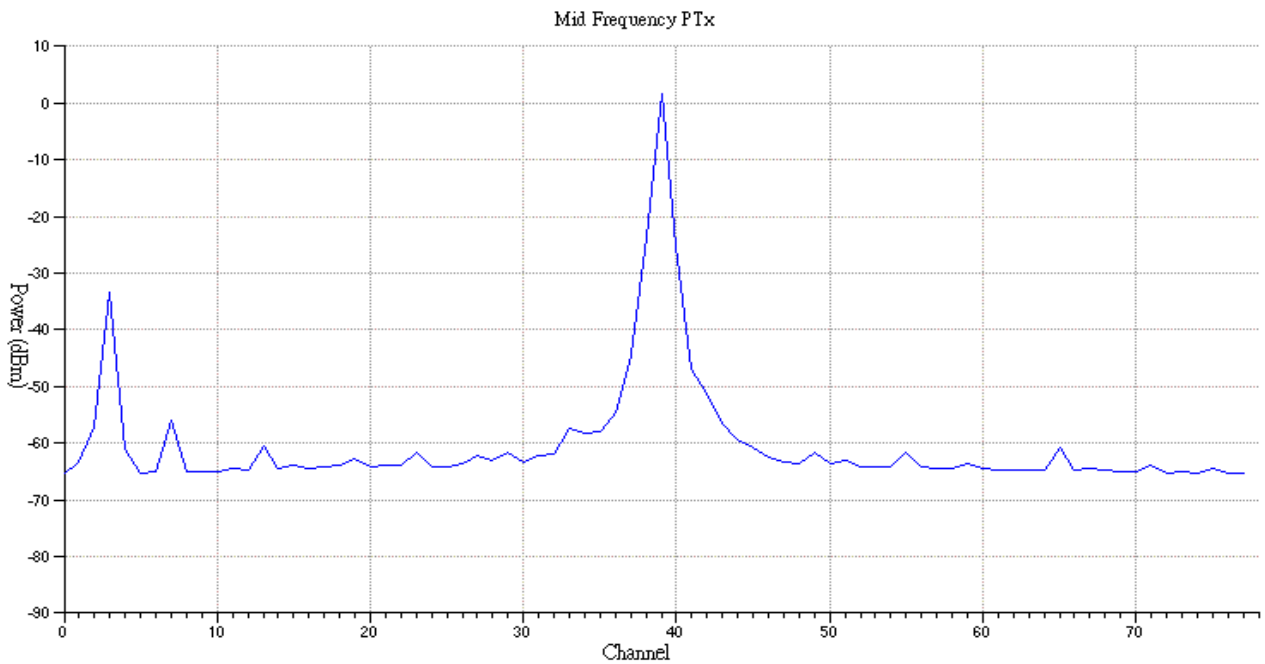
2438	-65.61	≤ -40	Pass
2439	-65.33	≤ -40	Pass
2440	-65.55	≤ -40	Pass
2441	-64.81	≤ -40	Pass
2442	-65.28	≤ -40	Pass
2443	-65.41	≤ -40	Pass
2444	-65.36	≤ -40	Pass
2445	-56.18	≤ -40	Pass
2446	-65.19	≤ -40	Pass
2447	-65.17	≤ -40	Pass
2448	-64.99	≤ -40	Pass
2449	-64.69	≤ -40	Pass
2450	-64.75	≤ -40	Pass
2451	-60.86	≤ -40	Pass
2452	-64.56	≤ -40	Pass
2453	-63.99	≤ -40	Pass
2454	-64.55	≤ -40	Pass
2455	-64.45	≤ -40	Pass
2456	-64.26	≤ -40	Pass
2457	-62.82	≤ -40	Pass
2458	-63.97	≤ -40	Pass
2459	-64.16	≤ -40	Pass
2460	-64.13	≤ -40	Pass
2461	-62.47	≤ -40	Pass
2462	-64.01	≤ -40	Pass
2463	-62.53	≤ -40	Pass
2464	-63.37	≤ -40	Pass
2465	-61.14	≤ -40	Pass
2466	-63.48	≤ -40	Pass
2467	-63.32	≤ -40	Pass
2468	-63.08	≤ -40	Pass
2469	-62.00	≤ -40	Pass
2470	-61.94	≤ -40	Pass
2471	-57.30	≤ -40	Pass
2472	-58.86	≤ -40	Pass
2473	-58.32	≤ -40	Pass
2474	-54.26	≤ -40	Pass
2475	-46.36	≤ -20	Pass



	2476	-23.60	N/A	N/A
	2477	1.79	N/A	N/A
	2478	-25.64	N/A	N/A
	2479	-47.39	≤ -20	Pass
	2480	-51.04	≤ -40	Pass

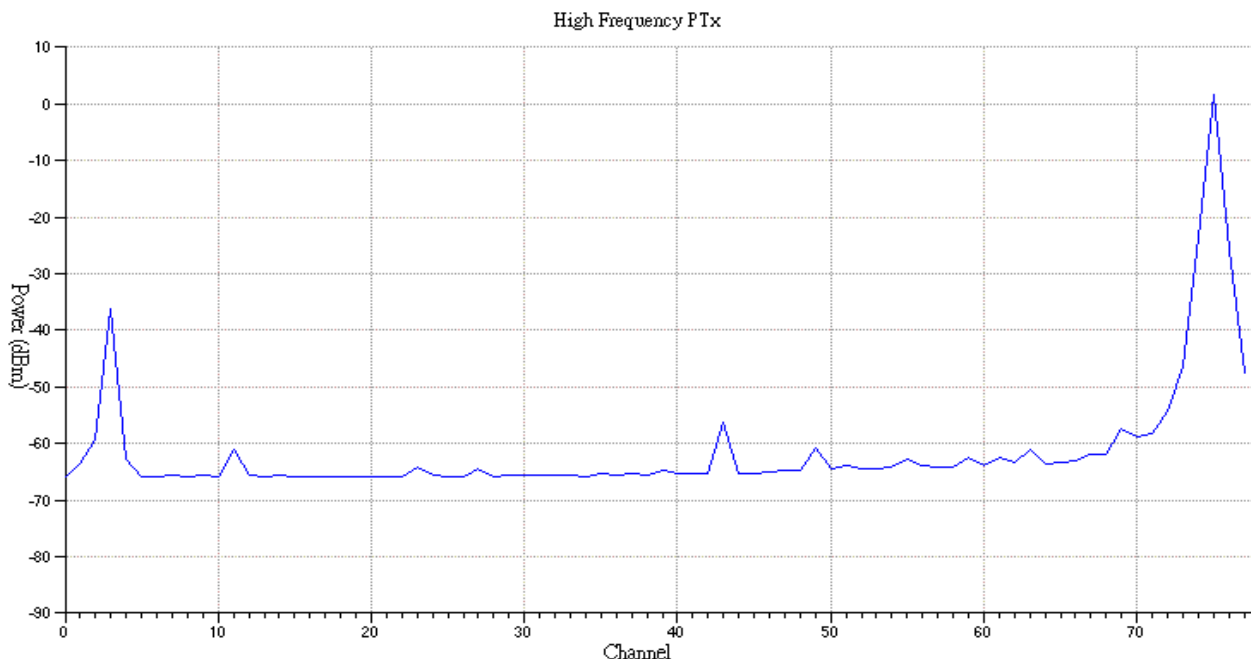


TX Output Spectrum – Adjacent channel power (Low Frequency)



TX Output Spectrum – Adjacent channel power (Mid Frequency)





TX Output Spectrum – Adjacent channel power (High Frequency)

**2.2.7. Test Case: TRM/CA/07/C - Modulation Characteristics**

Expected Outcome:  
All values as measured must fulfill the following conditions:

1.  $140 \text{ kHz} \leq \Delta f1_{avg} \leq 175 \text{ kHz}$
2.  $\Delta f2_{max} \geq 115 \text{ kHz}$  for at least 99.9% of all  $\Delta f2_{max}$
3.  $\Delta f2_{avg}/\Delta f1_{avg} \geq 0.8$

Test Frequency (MHz)	Packet Number	Test Parameter	Result	Limit	Verdict
Low operating Frequency (2402 MHz)	1	$\Delta f1_{avg}$ (kHz)	162.67	$140 \text{ kHz} \leq \Delta f1_{avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f2_{max}$ (kHz)	172.52	$\geq 115 \text{ kHz}$	Pass
		$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f2_{avg}$ (kHz)	156.77	N/A	N/A
		$\Delta f2_{avg}/\Delta f1_{avg}$	0.96	$\geq 0.8$	Pass
	2	$\Delta f1_{avg}$ (kHz)	168.20	$140 \text{ kHz} \leq \Delta f1_{avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f2_{max}$ (kHz)	165.82	$\geq 115 \text{ kHz}$	Pass
		$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f2_{avg}$ (kHz)	155.31	N/A	N/A
		$\Delta f2_{avg}/\Delta f1_{avg}$	0.92	$\geq 0.8$	Pass
	3	$\Delta f1_{avg}$ (kHz)	159.80	$140 \text{ kHz} \leq \Delta f1_{avg} \leq 175 \text{ kHz}$	Pass



		$\Delta f_{2max}$ (kHz)	167.58	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	156.16	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass
4		$\Delta f_{1avg}$ (kHz)	160.99	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	168.77	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	157.03	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass
5		$\Delta f_{1avg}$ (kHz)	160.91	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	170.28	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	157.57	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass
6		$\Delta f_{1avg}$ (kHz)	161.52	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	168.35	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	156.68	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.97	$\geq 0.8$	Pass
7		$\Delta f_{1avg}$ (kHz)	160.71	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	164.83	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	155.77	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.97	$\geq 0.8$	Pass
8		$\Delta f_{1avg}$ (kHz)	162.50	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	168.03	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	156.59	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.96	$\geq 0.8$	Pass
9		$\Delta f_{1avg}$ (kHz)	164.65	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	164.65	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	155.44	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.94	$\geq 0.8$	Pass
10		$\Delta f_{1avg}$ (kHz)	163.35	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	167.13	$\geq 115$ kHz	Pass
		$\Delta f_{2max}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	155.45	N/A	N/A



		$\Delta f_{2avg}/\Delta f_{1avg}$	0.95	$\geq 0.8$	Pass
Mid operating Frequency (2441 MHz)	1	$\Delta f_{1avg}$ (kHz)	160.86	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	168.14	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	157.79	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass
	2	$\Delta f_{1avg}$ (kHz)	166.67	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	170.77	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	157.30	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.94	$\geq 0.8$	Pass
	3	$\Delta f_{1avg}$ (kHz)	160.87	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	166.49	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	157.04	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass
	4	$\Delta f_{1avg}$ (kHz)	164.70	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	169.24	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	156.98	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.95	$\geq 0.8$	Pass
	5	$\Delta f_{1avg}$ (kHz)	168.78	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	168.09	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	157.21	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.93	$\geq 0.8$	Pass
	6	$\Delta f_{1avg}$ (kHz)	163.92	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	169.41	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
$\Delta f_{2avg}$ (kHz)		157.13	N/A	N/A	
$\Delta f_{2avg}/\Delta f_{1avg}$		0.96	$\geq 0.8$	Pass	
7	$\Delta f_{1avg}$ (kHz)	165.48	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass	
	$\Delta f_{2max}$ (kHz)	171.13	$\geq 115 \text{ kHz}$	Pass	
	$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
	$\Delta f_{2avg}$ (kHz)	157.50	N/A	N/A	
	$\Delta f_{2avg}/\Delta f_{1avg}$	0.95	$\geq 0.8$	Pass	
8	$\Delta f_{1avg}$ (kHz)	161.75	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass	
	$\Delta f_{2max}$ (kHz)	170.19	$\geq 115 \text{ kHz}$	Pass	



		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
		$\Delta f_{2avg}(kHz)$	157.50	N/A	N/A	
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.97	$\geq 0.8$	Pass	
	9	$\Delta f_{1avg} (kHz)$	160.16	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass	
		$\Delta f_{2max} (kHz)$	170.09	$\geq 115 kHz$	Pass	
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
		$\Delta f_{2avg}(kHz)$	157.03	N/A	N/A	
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass	
		10	$\Delta f_{1avg} (kHz)$	160.63	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
	$\Delta f_{2max} (kHz)$		172.09	$\geq 115 kHz$	Pass	
	$\Delta f_{2max}(\%)$		100%	$\geq 99.9\%$	Pass	
	$\Delta f_{2avg}(kHz)$		159.01	N/A	N/A	
	$\Delta f_{2avg}/\Delta f_{1avg}$		0.99	$\geq 0.8$	Pass	
	High operating Frequency (2480 MHz)	1	$\Delta f_{1avg} (kHz)$	161.80	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
			$\Delta f_{2max} (kHz)$	173.07	$\geq 115 kHz$	Pass
$\Delta f_{2max}(\%)$			100%	$\geq 99.9\%$	Pass	
$\Delta f_{2avg}(kHz)$			160.89	N/A	N/A	
$\Delta f_{2avg}/\Delta f_{1avg}$			0.99	$\geq 0.8$	Pass	
2		$\Delta f_{1avg} (kHz)$	168.26	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass	
		$\Delta f_{2max} (kHz)$	172.00	$\geq 115 kHz$	Pass	
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
		$\Delta f_{2avg}(kHz)$	158.58	N/A	N/A	
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.94	$\geq 0.8$	Pass	
3		$\Delta f_{1avg} (kHz)$	160.66	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass	
		$\Delta f_{2max} (kHz)$	171.39	$\geq 115 kHz$	Pass	
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
		$\Delta f_{2avg}(kHz)$	160.07	N/A	N/A	
		$\Delta f_{2avg}/\Delta f_{1avg}$	1	$\geq 0.8$	Pass	
4		$\Delta f_{1avg} (kHz)$	160.98	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass	
		$\Delta f_{2max} (kHz)$	172.80	$\geq 115 kHz$	Pass	
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
		$\Delta f_{2avg}(kHz)$	160.02	N/A	N/A	
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.99	$\geq 0.8$	Pass	
5		$\Delta f_{1avg} (kHz)$	161.59	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass	
		$\Delta f_{2max} (kHz)$	171.99	$\geq 115 kHz$	Pass	
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
		$\Delta f_{2avg}(kHz)$	159.47	N/A	N/A	
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.99	$\geq 0.8$	Pass	



	6	$\Delta f_{1avg}$ (kHz)	162.11	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	173.11	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	159.21	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass
	7	$\Delta f_{1avg}$ (kHz)	160.33	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	172.25	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	160.58	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1	$\geq 0.8$	Pass
	8	$\Delta f_{1avg}$ (kHz)	160.94	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	172.89	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	158.88	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.99	$\geq 0.8$	Pass
	9	$\Delta f_{1avg}$ (kHz)	162.03	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	170.37	$\geq 115\text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	159.28	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass
10	$\Delta f_{1avg}$ (kHz)	164.91	$140\text{ kHz} \leq \Delta f_{1avg} \leq 175\text{ kHz}$	Pass	
	$\Delta f_{2max}$ (kHz)	173.36	$\geq 115\text{ kHz}$	Pass	
	$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
	$\Delta f_{2avg}$ (kHz)	159.21	N/A	N/A	
	$\Delta f_{2avg}/\Delta f_{1avg}$	0.97	$\geq 0.8$	Pass	



**2.2.8. Test Case: TRM/CA/08/C - Initial Carrier Frequency Tolerance**

<p>Expected Outcome:                  All values as measured must fulfill the following conditions:                  Each of the EUT’s carrier frequency <math>f_0</math> as measured must be within <math>\pm 75\text{kHz}</math> from the Eut’s chosen nominal carrier frequency <math>f_{TX}</math>                  1. <math>f_{TX} - 75 \text{ kHz} \leq f_0 \leq f_{TX} + 75 \text{ kHz}</math>.</p>				
Test Frequency (MHz)	Packets No.	Carrier Frequency (KHz)	Limit (kHz)	Verdict
Low operating Frequency (2402 MHz)	1	-4.11	$-75 \leq f_0 \leq +75$	Pass
	2	-6.87	$-75 \leq f_0 \leq +75$	Pass
	3	-1.83	$-75 \leq f_0 \leq +75$	Pass
	4	-4.76	$-75 \leq f_0 \leq +75$	Pass
	5	-1.08	$-75 \leq f_0 \leq +75$	Pass
	6	-1.52	$-75 \leq f_0 \leq +75$	Pass
	7	-3.37	$-75 \leq f_0 \leq +75$	Pass
	8	-0.56	$-75 \leq f_0 \leq +75$	Pass
	9	-4.43	$-75 \leq f_0 \leq +75$	Pass
	10	-1.17	$-75 \leq f_0 \leq +75$	Pass
Mid operating Frequency (2441 MHz)	1	-1.29	$-75 \leq f_0 \leq +75$	Pass
	2	-4.29	$-75 \leq f_0 \leq +75$	Pass
	3	1.28	$-75 \leq f_0 \leq +75$	Pass
	4	-7.27	$-75 \leq f_0 \leq +75$	Pass
	5	-6.81	$-75 \leq f_0 \leq +75$	Pass
	6	-0.76	$-75 \leq f_0 \leq +75$	Pass
	7	-2.52	$-75 \leq f_0 \leq +75$	Pass
	8	-0.99	$-75 \leq f_0 \leq +75$	Pass
	9	-7.60	$-75 \leq f_0 \leq +75$	Pass
	10	-3.77	$-75 \leq f_0 \leq +75$	Pass
High operating Frequency (2480 MHz)	1	-2.93	$-75 \leq f_0 \leq +75$	Pass
	2	3.57	$-75 \leq f_0 \leq +75$	Pass
	3	-0.61	$-75 \leq f_0 \leq +75$	Pass
	4	-0.19	$-75 \leq f_0 \leq +75$	Pass
	5	-5.71	$-75 \leq f_0 \leq +75$	Pass
	6	-9.62	$-75 \leq f_0 \leq +75$	Pass
	7	-1.76	$-75 \leq f_0 \leq +75$	Pass
	8	-8.65	$-75 \leq f_0 \leq +75$	Pass



	9	0.73	$-75 \leq f_0 \leq +75$	Pass
	10	-8.59	$-75 \leq f_0 \leq +75$	Pass

### 2.2.9. Test Case: TRM/CA/09/C - Carrier Frequency Drift

Expected Outcome:

All values as measured must fulfill the following conditions:

1. One slot packet  $-25\text{kHz} \leq \text{MAX Frequency Drift} \leq +25\text{kHz}$
2. Three slot packet  $-40\text{kHz} \leq \text{MAX Frequency Drift} \leq +40\text{kHz}$
3. Five slot packet  $-40\text{kHz} \leq \text{MAX Frequency Drift} \leq +40\text{kHz}$
4. The maximum drift rate is  $20000 \text{ Hz} / 50\mu\text{s}$ .

Packet Type: DH1

Test Frequency (MHz)	Packets No.	Result	Limit (%)	Verdict	
Low operating Frequency (2402 MHz)	1	MAX Frequency Drift(kHz)	4.95	$-25 \leq f_{\text{max}} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50 $\mu\text{s}$ )	5.63	$\leq 20$	Pass
	2	MAX Frequency Drift(kHz)	-4.41	$-25 \leq f_{\text{max}} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50 $\mu\text{s}$ )	4.94	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	-5.03	$-25 \leq f_{\text{max}} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50 $\mu\text{s}$ )	7.16	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	-5.71	$-25 \leq f_{\text{max}} \leq +25$	Pass
	4	Maximum Drift Rate(kHz/50 $\mu\text{s}$ )	8.84	$\leq 20$	Pass
	5	MAX Frequency Drift(kHz)	-3.16	$-25 \leq f_{\text{max}} \leq +25$	Pass
	5	Maximum Drift Rate(kHz/50 $\mu\text{s}$ )	3.03	$\leq 20$	Pass
	6	MAX Frequency Drift(kHz)	4.82	$-25 \leq f_{\text{max}} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50 $\mu\text{s}$ )	3.65	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	-3.55	$-25 \leq f_{\text{max}} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50 $\mu\text{s}$ )	3.68	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	-6.90	$-25 \leq f_{\text{max}} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50 $\mu\text{s}$ )	6.11	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	4.32	$-25 \leq f_{\text{max}} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50 $\mu\text{s}$ )	5.91	$\leq 20$	Pass
	10	MAX Frequency Drift(kHz)	-4.82	$-25 \leq f_{\text{max}} \leq +25$	Pass
	10	Maximum Drift Rate(kHz/50 $\mu\text{s}$ )	5.90	$\leq 20$	Pass
	1	MAX Frequency Drift(kHz)	-4.87	$-25 \leq f_{\text{max}} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50 $\mu\text{s}$ )	4.43	$\leq 20$	Pass



Mid operating Frequency (2441 MHz)	2	MAX Frequency Drift(kHz)	-4.69	$-25 \leq f_{max} \leq +25$	Pass	
	2	Maximum Drift Rate(kHz/50μs)	7.10	$\leq 20$	Pass	
	3	MAX Frequency Drift(kHz)	-4.35	$-25 \leq f_{max} \leq +25$	Pass	
	3	Maximum Drift Rate(kHz/50μs)	3.83	$\leq 20$	Pass	
	4	MAX Frequency Drift(kHz)	6.19	$-25 \leq f_{max} \leq +25$	Pass	
	4	Maximum Drift Rate(kHz/50μs)	9.91	$\leq 20$	Pass	
	5	MAX Frequency Drift(kHz)	-3.84	$-25 \leq f_{max} \leq +25$	Pass	
	5	Maximum Drift Rate(kHz/50μs)	5.93	$\leq 20$	Pass	
	6	MAX Frequency Drift(kHz)	4.11	$-25 \leq f_{max} \leq +25$	Pass	
	6	Maximum Drift Rate(kHz/50μs)	5.44	$\leq 20$	Pass	
	7	MAX Frequency Drift(kHz)	-6.85	$-25 \leq f_{max} \leq +25$	Pass	
	7	Maximum Drift Rate(kHz/50μs)	6.40	$\leq 20$	Pass	
	8	MAX Frequency Drift(kHz)	-5.11	$-25 \leq f_{max} \leq +25$	Pass	
	8	Maximum Drift Rate(kHz/50μs)	4.51	$\leq 20$	Pass	
	9	MAX Frequency Drift(kHz)	5.72	$-25 \leq f_{max} \leq +25$	Pass	
	9	Maximum Drift Rate(kHz/50μs)	4.97	$\leq 20$	Pass	
	High operating Frequency (2480 MHz)	10	MAX Frequency Drift(kHz)	4.98	$-25 \leq f_{max} \leq +25$	Pass
		10	Maximum Drift Rate(kHz/50μs)	3.70	$\leq 20$	Pass
1		MAX Frequency Drift(kHz)	6.77	$-25 \leq f_{max} \leq +25$	Pass	
1		Maximum Drift Rate(kHz/50μs)	7.42	$\leq 20$	Pass	
2		MAX Frequency Drift(kHz)	-4.27	$-25 \leq f_{max} \leq +25$	Pass	
2		Maximum Drift Rate(kHz/50μs)	4.25	$\leq 20$	Pass	
3		MAX Frequency Drift(kHz)	-4.38	$-25 \leq f_{max} \leq +25$	Pass	
3		Maximum Drift Rate(kHz/50μs)	8.03	$\leq 20$	Pass	
4		MAX Frequency Drift(kHz)	-5.33	$-25 \leq f_{max} \leq +25$	Pass	
4		Maximum Drift Rate(kHz/50μs)	3.97	$\leq 20$	Pass	
5		MAX Frequency Drift(kHz)	-4.19	$-25 \leq f_{max} \leq +25$	Pass	
5		Maximum Drift Rate(kHz/50μs)	7.98	$\leq 20$	Pass	
6		MAX Frequency Drift(kHz)	-8.98	$-25 \leq f_{max} \leq +25$	Pass	
6		Maximum Drift Rate(kHz/50μs)	11.27	$\leq 20$	Pass	
7		MAX Frequency Drift(kHz)	5.65	$-25 \leq f_{max} \leq +25$	Pass	
7		Maximum Drift Rate(kHz/50μs)	5.43	$\leq 20$	Pass	
8		MAX Frequency Drift(kHz)	-3.96	$-25 \leq f_{max} \leq +25$	Pass	
8		Maximum Drift Rate(kHz/50μs)	4.49	$\leq 20$	Pass	
9		MAX Frequency Drift(kHz)	6.49	$-25 \leq f_{max} \leq +25$	Pass	
9		Maximum Drift Rate(kHz/50μs)	5.88	$\leq 20$	Pass	
10	MAX Frequency Drift(kHz)	4.69	$-25 \leq f_{max} \leq +25$	Pass		
10	Maximum Drift Rate(kHz/50μs)	5.96	$\leq 20$	Pass		





Packet Type: DH3					
Test Frequency (MHz)	Packets No.	Result		Limit (%)	Verdict
Low operating Frequency (2402 MHz)	1	MAX Frequency Drift(kHz)	6.70	-25 ≤ fmax ≤ +25	Pass
	1	Maximum Drift Rate(kHz/50µs)	7.36	≤ 20	Pass
	2	MAX Frequency Drift(kHz)	-5.80	-25 ≤ fmax ≤ +25	Pass
	2	Maximum Drift Rate(kHz/50µs)	7.38	≤ 20	Pass
	3	MAX Frequency Drift(kHz)	7.88	-25 ≤ fmax ≤ +25	Pass
	3	Maximum Drift Rate(kHz/50µs)	8.38	≤ 20	Pass
	4	MAX Frequency Drift(kHz)	6.63	-25 ≤ fmax ≤ +25	Pass
	4	Maximum Drift Rate(kHz/50µs)	6.74	≤ 20	Pass
	5	MAX Frequency Drift(kHz)	5.97	-25 ≤ fmax ≤ +25	Pass
	5	Maximum Drift Rate(kHz/50µs)	7.37	≤ 20	Pass
	6	MAX Frequency Drift(kHz)	6.82	-25 ≤ fmax ≤ +25	Pass
	6	Maximum Drift Rate(kHz/50µs)	9.75	≤ 20	Pass
	7	MAX Frequency Drift(kHz)	5.08	-25 ≤ fmax ≤ +25	Pass
	7	Maximum Drift Rate(kHz/50µs)	6.48	≤ 20	Pass
	8	MAX Frequency Drift(kHz)	-5.41	-25 ≤ fmax ≤ +25	Pass
	8	Maximum Drift Rate(kHz/50µs)	8.48	≤ 20	Pass
	9	MAX Frequency Drift(kHz)	-7.21	-25 ≤ fmax ≤ +25	Pass
	9	Maximum Drift Rate(kHz/50µs)	10.45	≤ 20	Pass
	10	MAX Frequency Drift(kHz)	6.27	-25 ≤ fmax ≤ +25	Pass
	10	Maximum Drift Rate(kHz/50µs)	7.01	≤ 20	Pass
Mid operating Frequency (2441 MHz)	1	MAX Frequency Drift(kHz)	5.93	-25 ≤ fmax ≤ +25	Pass
	1	Maximum Drift Rate(kHz/50µs)	6.74	≤ 20	Pass
	2	MAX Frequency Drift(kHz)	5.27	-25 ≤ fmax ≤ +25	Pass
	2	Maximum Drift Rate(kHz/50µs)	7.21	≤ 20	Pass
	3	MAX Frequency Drift(kHz)	5.97	-25 ≤ fmax ≤ +25	Pass
	3	Maximum Drift Rate(kHz/50µs)	6.57	≤ 20	Pass
	4	MAX Frequency Drift(kHz)	5.98	-25 ≤ fmax ≤ +25	Pass
	4	Maximum Drift Rate(kHz/50µs)	5.96	≤ 20	Pass
	5	MAX Frequency Drift(kHz)	8.59	-25 ≤ fmax ≤ +25	Pass
	5	Maximum Drift Rate(kHz/50µs)	11.74	≤ 20	Pass
	6	MAX Frequency Drift(kHz)	5.06	-25 ≤ fmax ≤ +25	Pass
	6	Maximum Drift Rate(kHz/50µs)	7.34	≤ 20	Pass
	7	MAX Frequency Drift(kHz)	-4.76	-25 ≤ fmax ≤ +25	Pass
	7	Maximum Drift Rate(kHz/50µs)	6.85	≤ 20	Pass
	8	MAX Frequency Drift(kHz)	5.38	-25 ≤ fmax ≤ +25	Pass



	8	Maximum Drift Rate(kHz/50μs)	5.52	≤ 20	Pass
	9	MAX Frequency Drift(kHz)	-5.72	-25 ≤ fmax ≤ +25	Pass
	9	Maximum Drift Rate(kHz/50μs)	7.02	≤ 20	Pass
	10	MAX Frequency Drift(kHz)	-6.64	-25 ≤ fmax ≤ +25	Pass
	10	Maximum Drift Rate(kHz/50μs)	7.31	≤ 20	Pass
High operating Frequency (2480 MHz)	1	MAX Frequency Drift(kHz)	-6.24	-25 ≤ fmax ≤ +25	Pass
	1	Maximum Drift Rate(kHz/50μs)	9.55	≤ 20	Pass
	2	MAX Frequency Drift(kHz)	6.80	-25 ≤ fmax ≤ +25	Pass
	2	Maximum Drift Rate(kHz/50μs)	7.44	≤ 20	Pass
	3	MAX Frequency Drift(kHz)	-5.57	-25 ≤ fmax ≤ +25	Pass
	3	Maximum Drift Rate(kHz/50μs)	7.82	≤ 20	Pass
	4	MAX Frequency Drift(kHz)	-6.50	-25 ≤ fmax ≤ +25	Pass
	4	Maximum Drift Rate(kHz/50μs)	8.05	≤ 20	Pass
	5	MAX Frequency Drift(kHz)	5.70	-25 ≤ fmax ≤ +25	Pass
	5	Maximum Drift Rate(kHz/50μs)	8.14	≤ 20	Pass
	6	MAX Frequency Drift(kHz)	6.14	-25 ≤ fmax ≤ +25	Pass
	6	Maximum Drift Rate(kHz/50μs)	6.35	≤ 20	Pass
	7	MAX Frequency Drift(kHz)	-10.09	-25 ≤ fmax ≤ +25	Pass
	7	Maximum Drift Rate(kHz/50μs)	8.07	≤ 20	Pass
	8	MAX Frequency Drift(kHz)	-5.28	-25 ≤ fmax ≤ +25	Pass
	8	Maximum Drift Rate(kHz/50μs)	8.34	≤ 20	Pass
	9	MAX Frequency Drift(kHz)	-5.34	-25 ≤ fmax ≤ +25	Pass
	9	Maximum Drift Rate(kHz/50μs)	6.78	≤ 20	Pass
	10	MAX Frequency Drift(kHz)	6.97	-25 ≤ fmax ≤ +25	Pass
	10	Maximum Drift Rate(kHz/50μs)	9.06	≤ 20	Pass
Packet Type: DH5					
Test Frequency (MHz)	Packets No.	Result		Limit (%)	Verdict
Low operating Frequency (2402 MHz)	1	MAX Frequency Drift(kHz)	5.35	-25 ≤ fmax ≤ +25	Pass
	1	Maximum Drift Rate(kHz/50μs)	6.30	≤ 20	Pass
	2	MAX Frequency Drift(kHz)	5.75	-25 ≤ fmax ≤ +25	Pass
	2	Maximum Drift Rate(kHz/50μs)	5.94	≤ 20	Pass
	3	MAX Frequency Drift(kHz)	6.37	-25 ≤ fmax ≤ +25	Pass
	3	Maximum Drift Rate(kHz/50μs)	8.45	≤ 20	Pass
	4	MAX Frequency Drift(kHz)	-5.20	-25 ≤ fmax ≤ +25	Pass
	4	Maximum Drift Rate(kHz/50μs)	6.22	≤ 20	Pass
	5	MAX Frequency Drift(kHz)	6.81	-25 ≤ fmax ≤ +25	Pass
5	Maximum Drift Rate(kHz/50μs)	8.43	≤ 20	Pass	



	6	MAX Frequency Drift(kHz)	-5.68	$-25 \leq f_{max} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50μs)	7.14	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	-5.80	$-25 \leq f_{max} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50μs)	6.71	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	5.30	$-25 \leq f_{max} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50μs)	5.86	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	-5.16	$-25 \leq f_{max} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50μs)	6.54	$\leq 20$	Pass
	10	MAX Frequency Drift(kHz)	-5.59	$-25 \leq f_{max} \leq +25$	Pass
	10	Maximum Drift Rate(kHz/50μs)	6.31	$\leq 20$	Pass
Mid operating Frequency (2441 MHz)	1	MAX Frequency Drift(kHz)	4.76	$-25 \leq f_{max} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50μs)	6.99	$\leq 20$	Pass
	2	MAX Frequency Drift(kHz)	4.76	$-25 \leq f_{max} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50μs)	7.33	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	5.86	$-25 \leq f_{max} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50μs)	7.23	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	5.31	$-25 \leq f_{max} \leq +25$	Pass
	4	Maximum Drift Rate(kHz/50μs)	6.78	$\leq 20$	Pass
	5	MAX Frequency Drift(kHz)	5.22	$-25 \leq f_{max} \leq +25$	Pass
	5	Maximum Drift Rate(kHz/50μs)	6.63	$\leq 20$	Pass
	6	MAX Frequency Drift(kHz)	6.06	$-25 \leq f_{max} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50μs)	7.47	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	6.87	$-25 \leq f_{max} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50μs)	7.62	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	7.59	$-25 \leq f_{max} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50μs)	7.30	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	-5.57	$-25 \leq f_{max} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50μs)	6.62	$\leq 20$	Pass
	10	MAX Frequency Drift(kHz)	5.89	$-25 \leq f_{max} \leq +25$	Pass
	10	Maximum Drift Rate(kHz/50μs)	5.79	$\leq 20$	Pass
High operating Frequency (2480 MHz)	1	MAX Frequency Drift(kHz)	-6.44	$-25 \leq f_{max} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50μs)	8.99	$\leq 20$	Pass
	2	MAX Frequency Drift(kHz)	6.44	$-25 \leq f_{max} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50μs)	6.81	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	-7.32	$-25 \leq f_{max} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50μs)	8.34	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	6.37	$-25 \leq f_{max} \leq +25$	Pass
	4	Maximum Drift Rate(kHz/50μs)	7.11	$\leq 20$	Pass



	5	MAX Frequency Drift(kHz)	6.29	$-25 \leq f_{max} \leq +25$	Pass
	5	Maximum Drift Rate(kHz/50μs)	8.26	$\leq 20$	Pass
	6	MAX Frequency Drift(kHz)	6.19	$-25 \leq f_{max} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50μs)	7.58	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	5.55	$-25 \leq f_{max} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50μs)	8.57	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	6.83	$-25 \leq f_{max} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50μs)	6.90	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	6.82	$-25 \leq f_{max} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50μs)	9.57	$\leq 20$	Pass
	10	MAX Frequency Drift(kHz)	-5.80	$-25 \leq f_{max} \leq +25$	Pass
	10	Maximum Drift Rate(kHz/50μs)	8.15	$\leq 20$	Pass

**2.2.10. Test Case: RCV/CA/01/C - Sensitivity - Single Slot Packets**

Expected Outcome:			
All values as measured must fulfill the following conditions.			
1. BER $\leq 0.1\%$ (minimum number of samples, 1,600,000 returned payload bits.)			
Test Frequency (MHz)	BER (%)	Limit (%)	Verdict
2402	0.00	$\leq 0.1$	Pass
2441	0.00	$\leq 0.1$	Pass
2480	0.00	$\leq 0.1$	Pass

**2.2.11. Test Case: RCV/CA/02/C - Sensitivity - Multi-Slot Packets**

Expected Outcome:			
All values as measured must fulfill the following conditions.			
1. BER $\leq 0.1\%$ (minimum number of samples, 1,600,000 returned payload bits.)			
Test Frequency (MHz)	BER (%)	Limit (%)	Verdict
2402	0.00	$\leq 0.1$	Pass
2441	0.00	$\leq 0.1$	Pass
2480	0.00	$\leq 0.1$	Pass



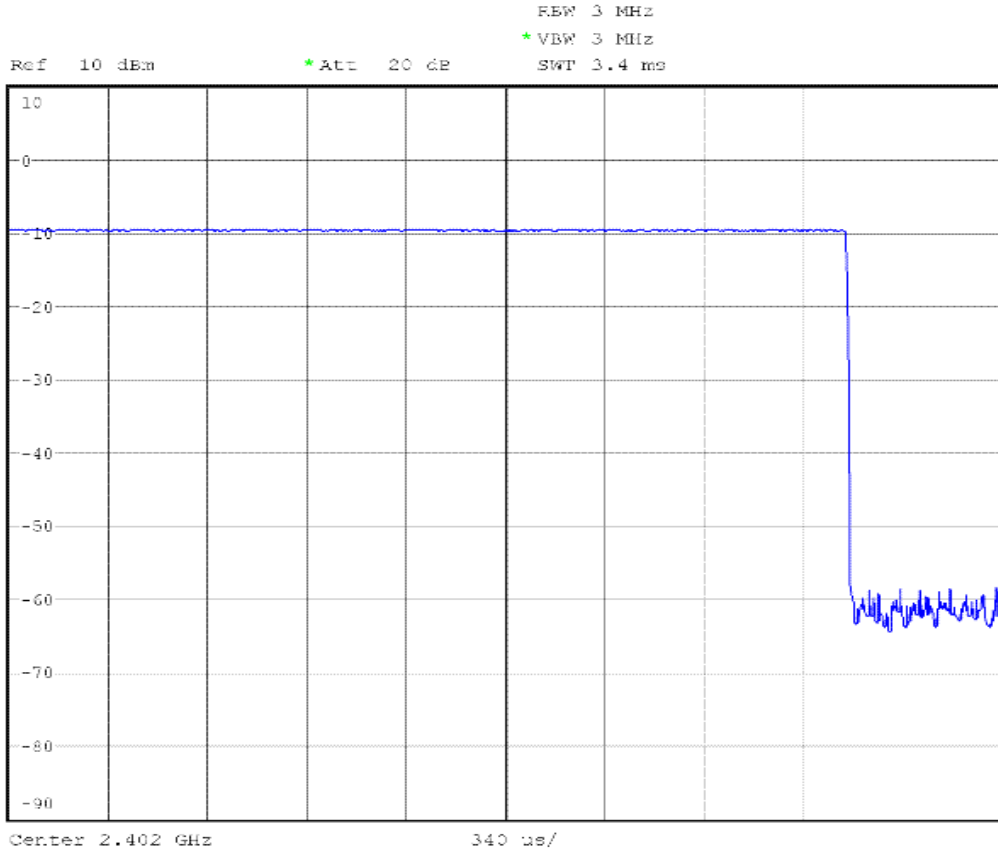
## 2.3. Test Case List for Low Temperature

### 2.3.1. RF Description

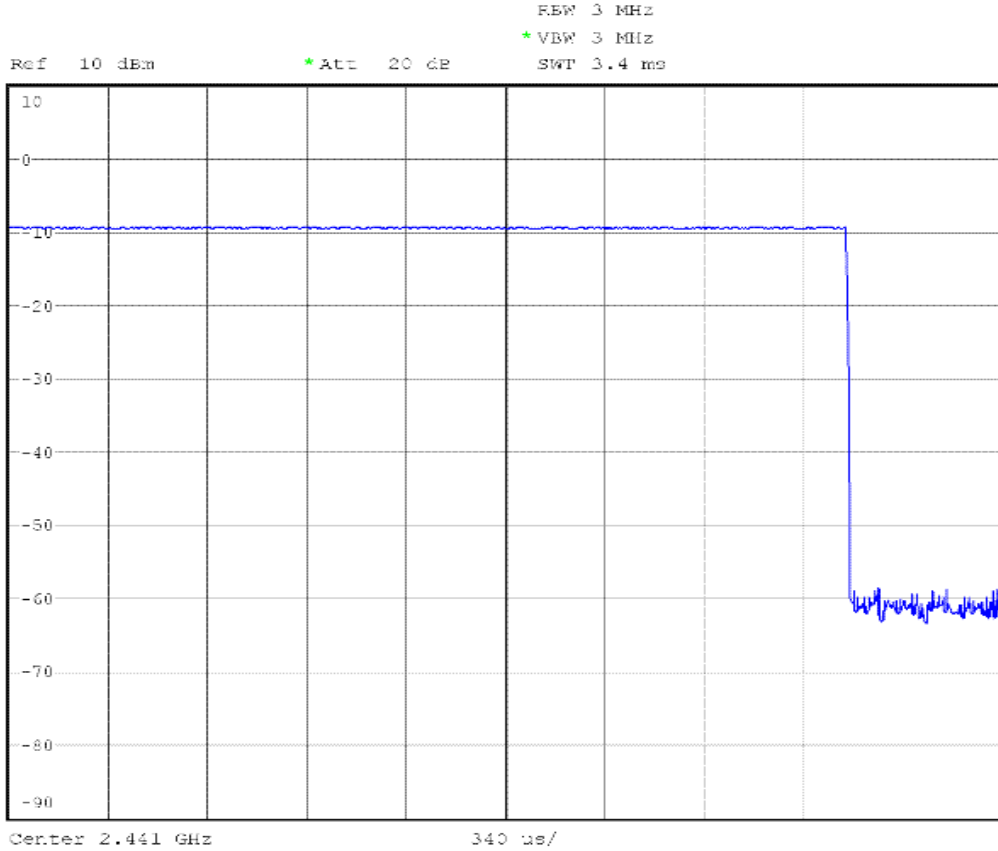
EUT Power Class	Class 2
EUT Antenna Gain	0 dBi
Test Condition	Low Temperature
EUT To Spectrum Loss (Low)	8.82
EUT To Spectrum Loss (Mid)	8.55
EUT To Spectrum Loss (High)	8.83

### 2.3.2. Test Case: TRM/CA/01/C - Output Power

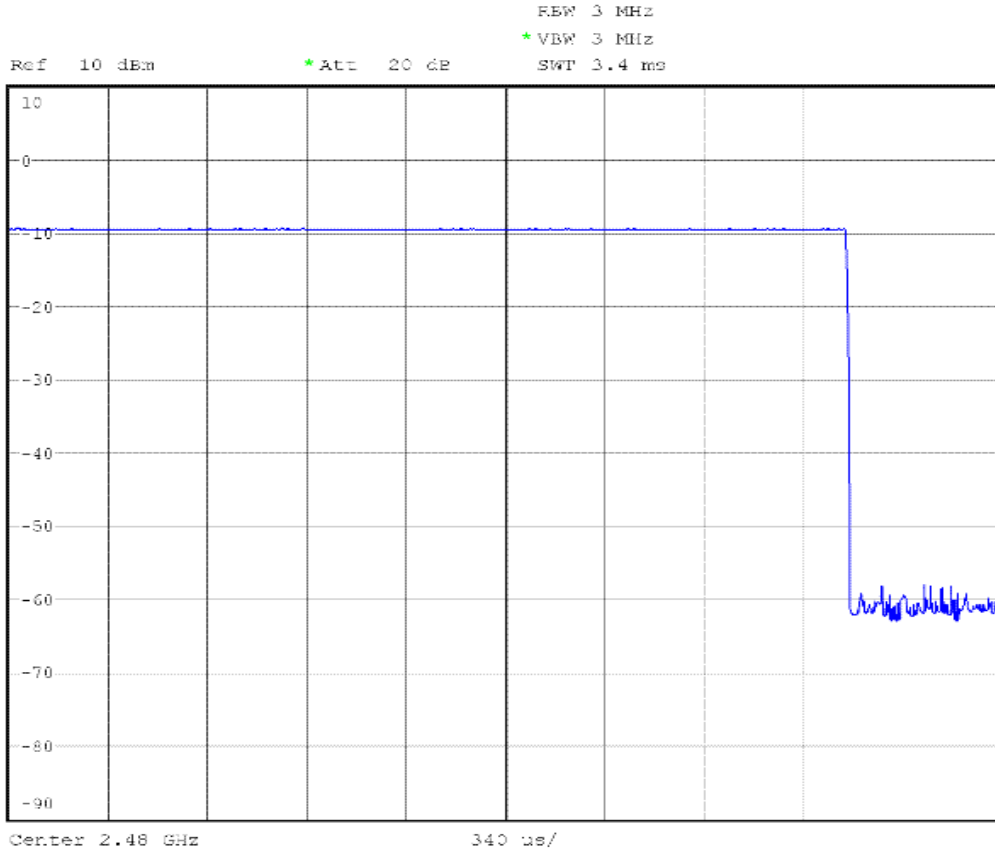
Expected Outcome:			
All values as measured must fulfill the following conditions:			
1. $P_{av} < 100\text{mW}$ (20 dBm) EIRP			
2. $P_{pk} < 200\text{mW}$ (23 dBm) EIRP			
3. If the EUT is a power class 1 equipment : $P_{av} > 1\text{mW}$ (0dBm)			
4. If the EUT is a power class 2 equipment : $0.25\text{mW}$ (-6 dBm) $< P_{av} < 2.5\text{mW}$ (4dBm)			
5. If the EUT is a power class 3 equipment : $P_{av} < 1\text{mW}$ (0dBm)			
Test Frequency	Item	Value(dBm)	Verdict
Low operating frequency (2402MHz)	Peak Power	-0.86	N/A
	Average Power	-0.92	Pass
	Peak Power (EIRP)	-0.86	Pass
	Average Power (EIRP)	-0.92	Pass
Mid operating frequency (2441MHz)	Peak Power	-0.94	N/A
	Average Power	-0.98	Pass
	Peak Power (EIRP)	-0.94	Pass
	Average Power (EIRP)	-0.98	Pass
High operating frequency (2480MHz)	Peak Power	-0.68	N/A
	Average Power	-0.73	Pass
	Peak Power (EIRP)	-0.68	Pass
	Average Power (EIRP)	-0.73	Pass



Output Power (Low operating frequency)



Output Power (Mid operating frequency)

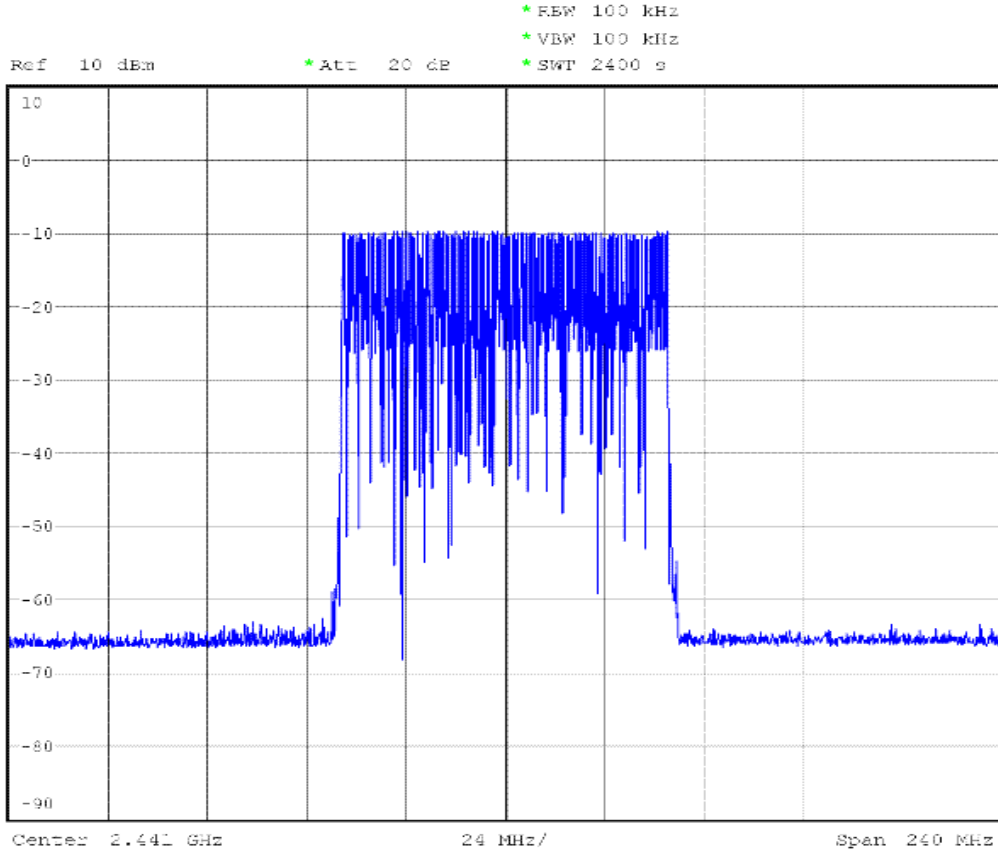


Output Power (High operating frequency)

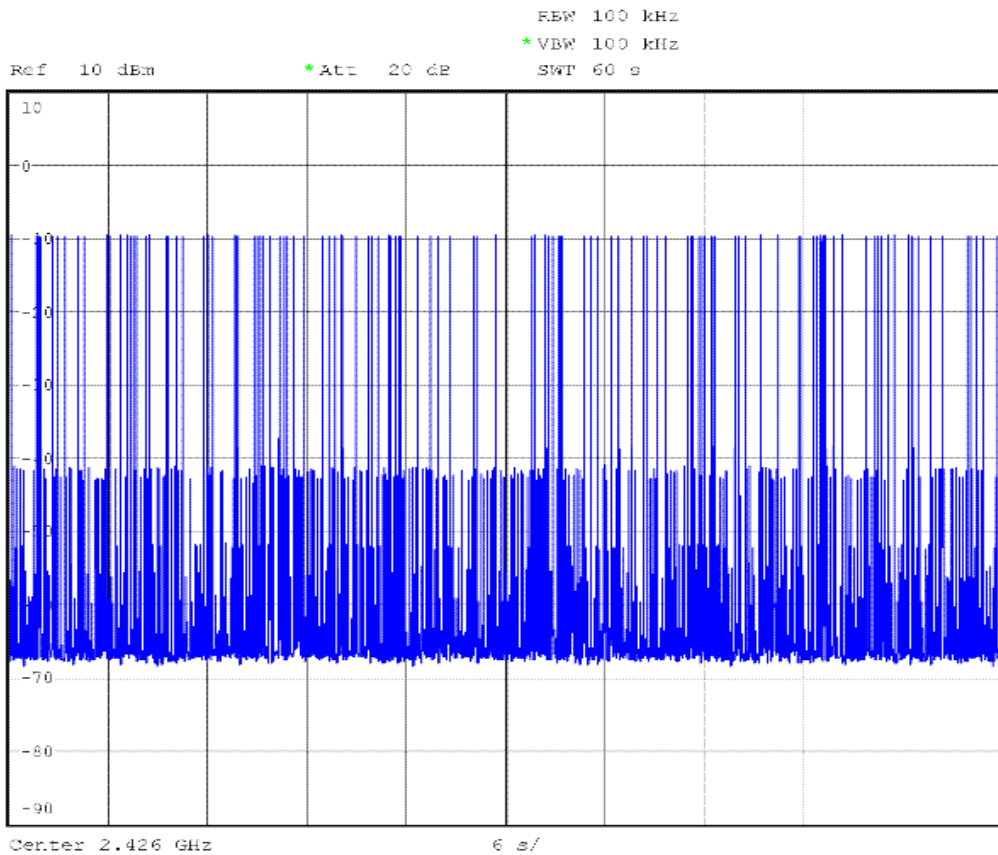
**2.3.3. Test Case: TRM/CA/02/C - Power Density**

Expected Outcome:  
 All values as measured must fulfill the following conditions:  
 1. Power Density < 100 mW (20dBm) per 100 kHz EIRP

Max Frequency (MHz)	Peak Power (dBm)	Power Density (dBm/100KHz)	Limit (dBm/100KHz)	Verdict
2426.00 MHz	-1.24	-1.09	<20	Pass



Power Density (Step1)



Power Density (Step2)





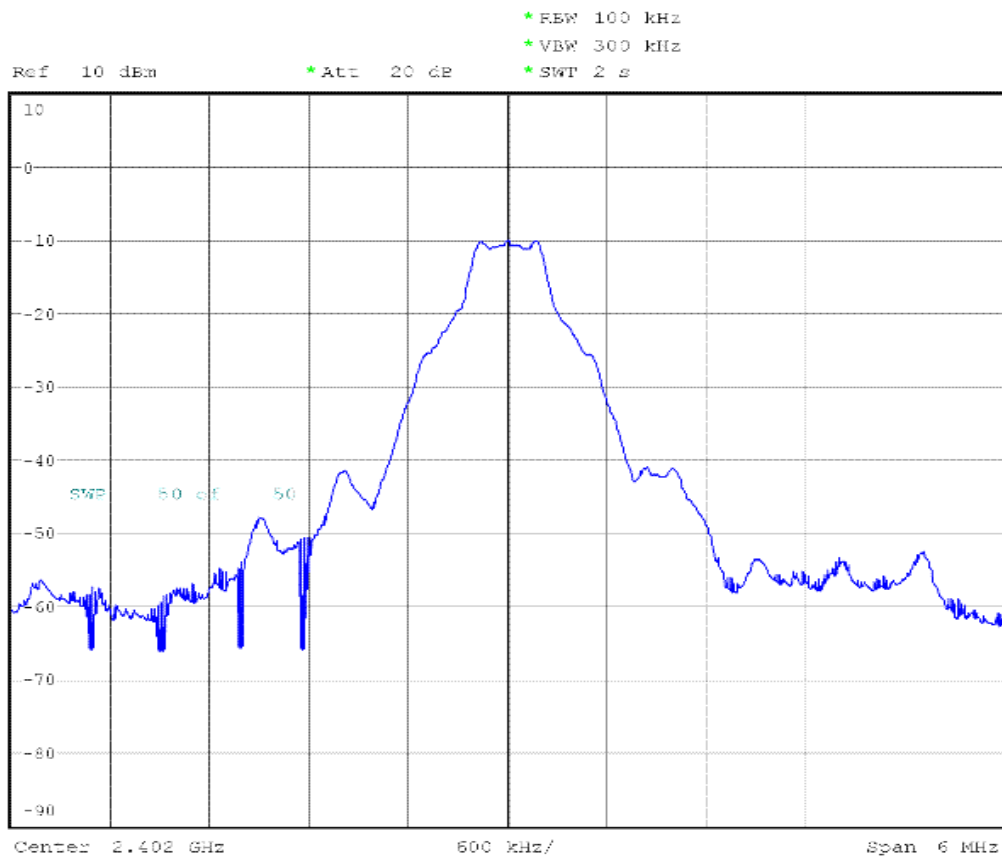
### 2.3.4. Test Case: TRM/CA/04/C - TX Output Spectrum - Frequency Range

Expected Outcome:

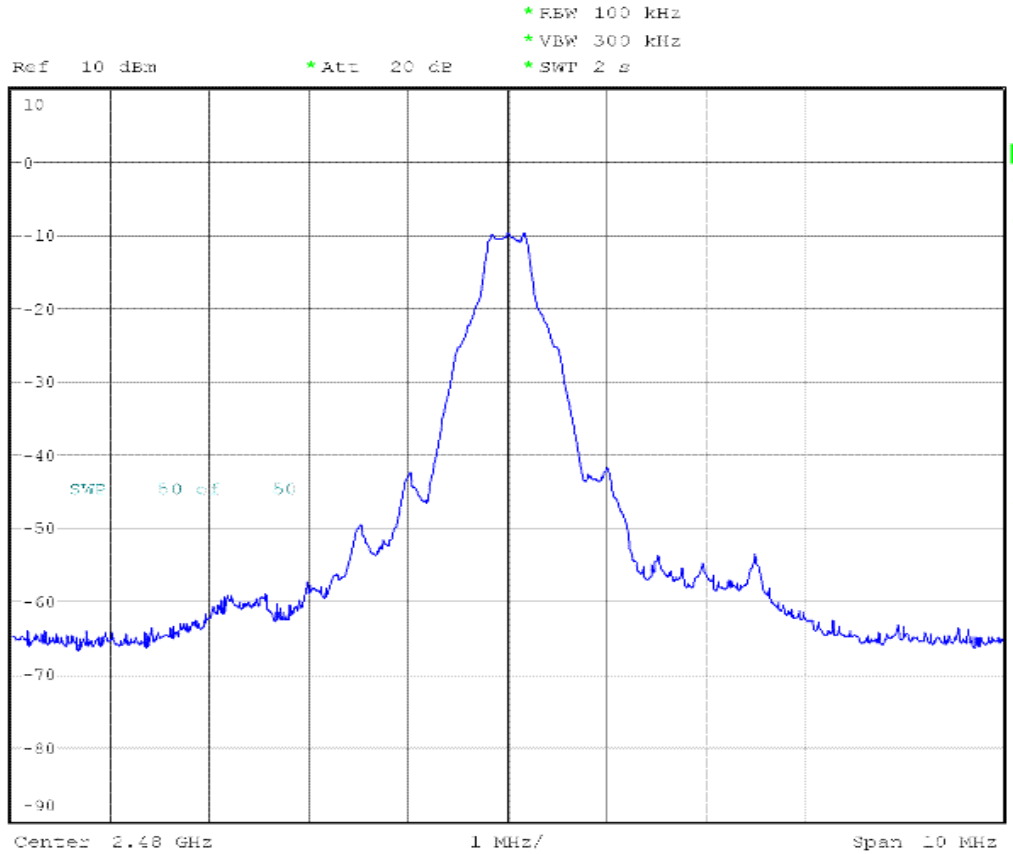
All values as measured must fulfill the following conditions:

- fL, fH within the allowed frequency band :2.4 GHz – 2.4835 GHz

Frequency (MHz)		Limit(MHz)	Verdict
Lowest(fL)	2401.29	fL>2400.0	Pass
Highest(fH)	2478.43	fH <2483.5	Pass



TX Output Spectrum – Frequency range (fL)



TX Output Spectrum – Frequency range (fH)

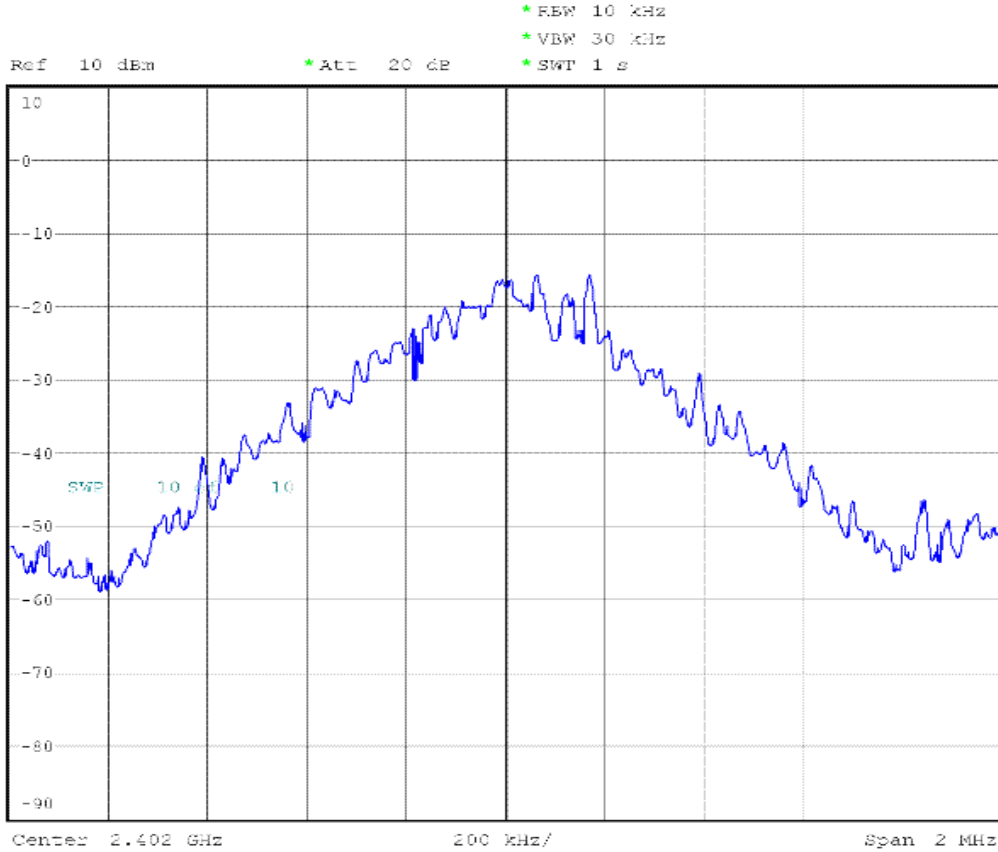
**2.3.5. Test Case: TRM/CA/05/C - TX Output Spectrum - 20 dB Bandwidth**

Expected Outcome:

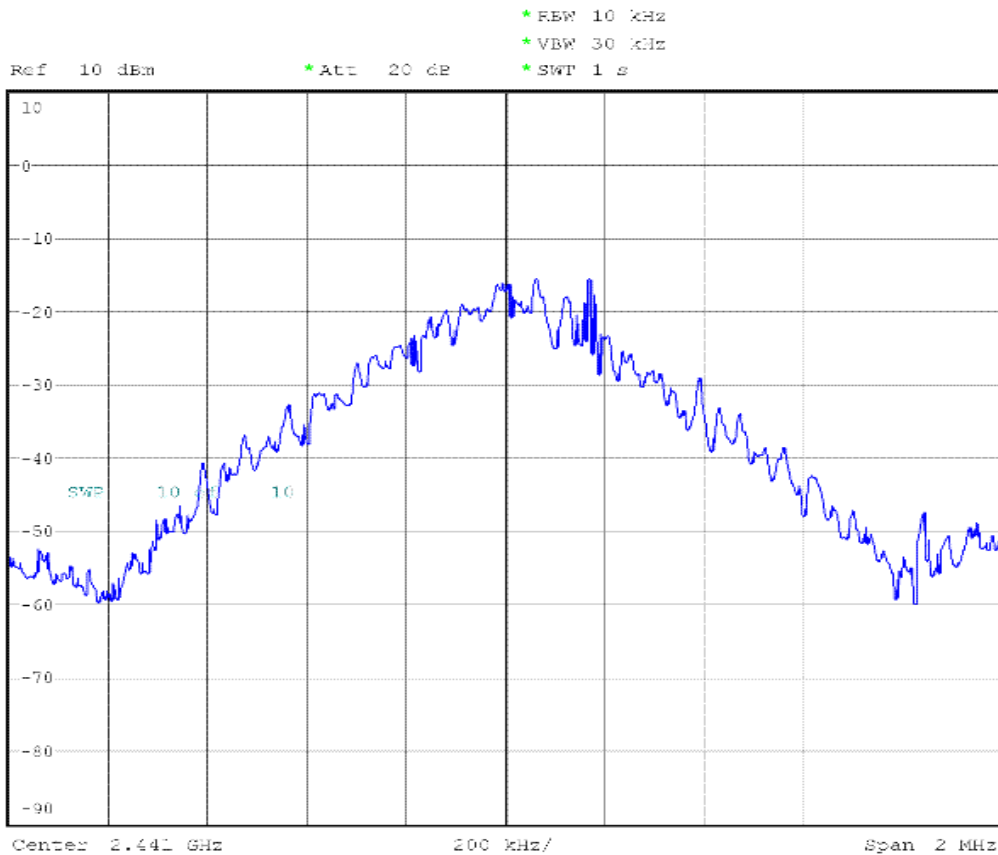
All values as measured must fulfill the following conditions:

1. The Transmit spectrum shall fulfill the following mask :  $\Delta f = |fH - fL| \leq 1.0 \text{ MHz}$

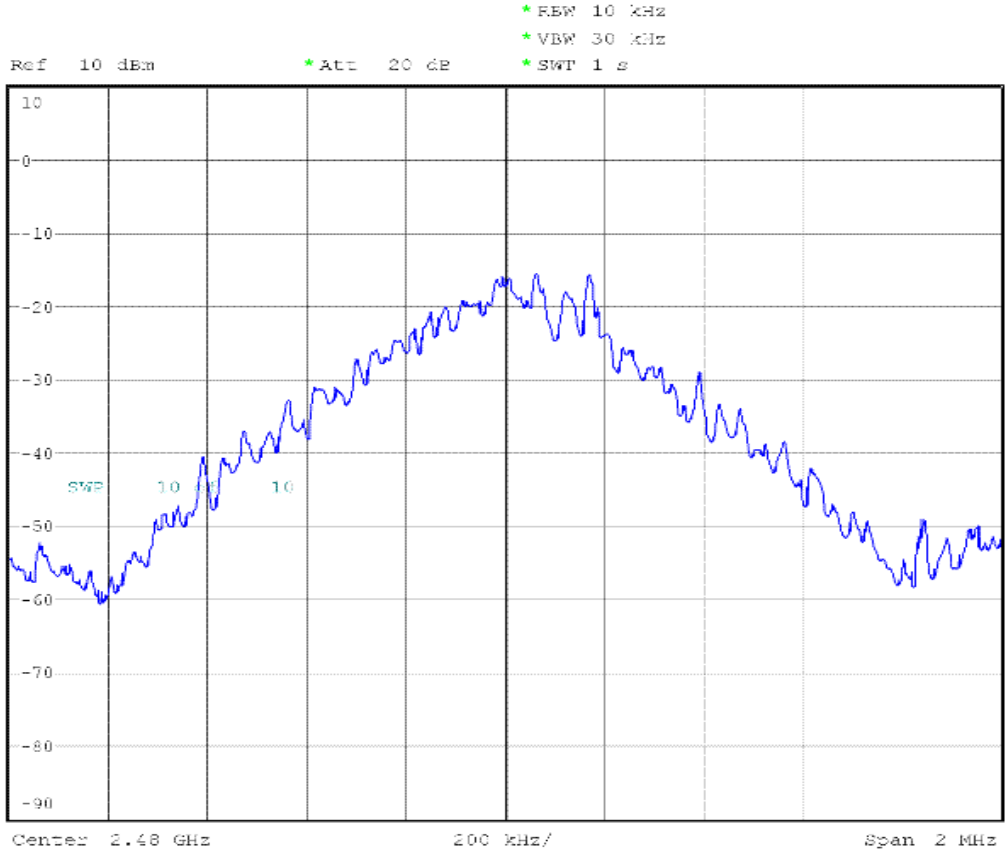
Test Frequency (MHz)	fL (MHz)	fH (MHz)	$\Delta f =  fH - fL $ (MHz)	Limit	Verdict	
Low Frequency	2402	2401.55	2402.48	0.93	$\leq 1.0$	Pass
Mid Frequency	2441	2440.60	2441.37	0.76	$\leq 1.0$	Pass
High Frequency	2480	2479.60	2480.37	0.76	$\leq 1.0$	Pass



TX Output Spectrum – 20 dB Bandwidth (Low Frequency)



TX Output Spectrum – 20 dB Bandwidth (Mid Frequency)



TX Output Spectrum – 20 dB Bandwidth (High Frequency)

**2.3.6. Test Case: TRM/CA/06/C - TX Output Spectrum - Adjacent Channel Power**

Expected Outcome:

All values as measured must fulfill the following conditions:

For each operating frequency exceptions in up to three bands of 1 MHz width centered on a frequency which is an integer multiple of 1 MHz are allowed. They must however comply with an absolute value of -20 dBm.

1.  $P_{tx}(f) \leq -20 \text{ dBm}$  for  $|M-N| = 2$
2.  $P_{tx}(f) \leq -40 \text{ dBm}$  for  $|M-N| \geq 3$

Test Frequency (MHz)	Adjacent Channel Frequency (MHz)	Ptx(f) (dBm)	Limit (dBm)	Verdict
Low Frequency (2402 MHz)	2402	-51.60	$\leq -40$	Pass
	2403	-45.90	$\leq -20$	Pass
	2404	-26.69	N/A	N/A
	2405	-0.53	N/A	N/A
	2406	-25.94	N/A	N/A



2407	-45.70	≤ -20	Pass
2408	-50.38	≤ -40	Pass
2409	-61.00	≤ -40	Pass
2410	-62.62	≤ -40	Pass
2411	-61.45	≤ -40	Pass
2412	-63.33	≤ -40	Pass
2413	-61.88	≤ -40	Pass
2414	-63.83	≤ -40	Pass
2415	-64.22	≤ -40	Pass
2416	-64.51	≤ -40	Pass
2417	-63.93	≤ -40	Pass
2418	-64.64	≤ -40	Pass
2419	-64.74	≤ -40	Pass
2420	-64.85	≤ -40	Pass
2421	-61.02	≤ -40	Pass
2422	-64.96	≤ -40	Pass
2423	-64.43	≤ -40	Pass
2424	-65.13	≤ -40	Pass
2425	-64.77	≤ -40	Pass
2426	-65.28	≤ -40	Pass
2427	-65.25	≤ -40	Pass
2428	-65.31	≤ -40	Pass
2429	-65.24	≤ -40	Pass
2430	-65.60	≤ -40	Pass
2431	-62.36	≤ -40	Pass
2432	-65.39	≤ -40	Pass
2433	-65.32	≤ -40	Pass
2434	-65.59	≤ -40	Pass
2435	-65.73	≤ -40	Pass
2436	-65.64	≤ -40	Pass
2437	-65.01	≤ -40	Pass
2438	-65.90	≤ -40	Pass
2439	-65.58	≤ -40	Pass
2440	-65.66	≤ -40	Pass
2441	-65.79	≤ -40	Pass
2442	-65.88	≤ -40	Pass
2443	-65.95	≤ -40	Pass
2444	-65.86	≤ -40	Pass



	2445	-65.69	≤ -40	Pass
	2446	-65.83	≤ -40	Pass
	2447	-65.77	≤ -40	Pass
	2448	-65.89	≤ -40	Pass
	2449	-65.54	≤ -40	Pass
	2450	-65.72	≤ -40	Pass
	2451	-65.90	≤ -40	Pass
	2452	-65.91	≤ -40	Pass
	2453	-65.44	≤ -40	Pass
	2454	-65.84	≤ -40	Pass
	2455	-65.62	≤ -40	Pass
	2456	-65.79	≤ -40	Pass
	2457	-65.79	≤ -40	Pass
	2458	-65.93	≤ -40	Pass
	2459	-65.78	≤ -40	Pass
	2460	-65.75	≤ -40	Pass
	2461	-65.74	≤ -40	Pass
	2462	-65.88	≤ -40	Pass
	2463	-65.77	≤ -40	Pass
	2464	-65.78	≤ -40	Pass
	2465	-65.54	≤ -40	Pass
	2466	-65.56	≤ -40	Pass
	2467	-65.70	≤ -40	Pass
	2468	-65.71	≤ -40	Pass
	2469	-64.47	≤ -40	Pass
	2470	-65.60	≤ -40	Pass
	2471	-65.52	≤ -40	Pass
	2472	-65.58	≤ -40	Pass
	2473	-65.48	≤ -40	Pass
	2474	-65.55	≤ -40	Pass
	2475	-64.25	≤ -40	Pass
	2476	-60.86	≤ -40	Pass
	2477	-40.27	≤ -40	Pass
	2478	-64.18	≤ -40	Pass
	2479	-65.69	≤ -40	Pass
	2480	-65.69	≤ -40	Pass
Mid Frequency (2441 MHz)	2402	-65.50	≤ -40	Pass
	2403	-64.11	≤ -40	Pass



2404	-56.75	≤ -40	Pass
2405	-33.07	≤ -40	Fail
2406	-60.78	≤ -40	Pass
2407	-65.58	≤ -40	Pass
2408	-65.42	≤ -40	Pass
2409	-56.89	≤ -40	Pass
2410	-65.40	≤ -40	Pass
2411	-65.45	≤ -40	Pass
2412	-65.23	≤ -40	Pass
2413	-64.63	≤ -40	Pass
2414	-65.42	≤ -40	Pass
2415	-61.40	≤ -40	Pass
2416	-65.06	≤ -40	Pass
2417	-64.79	≤ -40	Pass
2418	-65.04	≤ -40	Pass
2419	-64.95	≤ -40	Pass
2420	-64.78	≤ -40	Pass
2421	-63.78	≤ -40	Pass
2422	-64.88	≤ -40	Pass
2423	-64.79	≤ -40	Pass
2424	-64.75	≤ -40	Pass
2425	-61.11	≤ -40	Pass
2426	-64.58	≤ -40	Pass
2427	-64.56	≤ -40	Pass
2428	-64.62	≤ -40	Pass
2429	-63.54	≤ -40	Pass
2430	-63.78	≤ -40	Pass
2431	-62.75	≤ -40	Pass
2432	-63.78	≤ -40	Pass
2433	-62.72	≤ -40	Pass
2434	-62.82	≤ -40	Pass
2435	-59.15	≤ -40	Pass
2436	-60.72	≤ -40	Pass
2437	-60.09	≤ -40	Pass
2438	-53.00	≤ -40	Pass
2439	-46.74	≤ -20	Pass
2440	-26.79	N/A	N/A
2441	-0.55	N/A	N/A



2442	-26.21	N/A	N/A
2443	-46.74	≤ -20	Pass
2444	-51.23	≤ -40	Pass
2445	-59.50	≤ -40	Pass
2446	-61.79	≤ -40	Pass
2447	-61.80	≤ -40	Pass
2448	-63.44	≤ -40	Pass
2449	-63.50	≤ -40	Pass
2450	-64.15	≤ -40	Pass
2451	-62.97	≤ -40	Pass
2452	-64.18	≤ -40	Pass
2453	-64.07	≤ -40	Pass
2454	-64.96	≤ -40	Pass
2455	-64.92	≤ -40	Pass
2456	-64.86	≤ -40	Pass
2457	-60.94	≤ -40	Pass
2458	-65.12	≤ -40	Pass
2459	-65.32	≤ -40	Pass
2460	-64.92	≤ -40	Pass
2461	-64.74	≤ -40	Pass
2462	-64.92	≤ -40	Pass
2463	-65.17	≤ -40	Pass
2464	-65.16	≤ -40	Pass
2465	-65.22	≤ -40	Pass
2466	-65.22	≤ -40	Pass
2467	-62.13	≤ -40	Pass
2468	-65.32	≤ -40	Pass
2469	-65.07	≤ -40	Pass
2470	-65.26	≤ -40	Pass
2471	-65.24	≤ -40	Pass
2472	-65.30	≤ -40	Pass
2473	-64.32	≤ -40	Pass
2474	-65.43	≤ -40	Pass
2475	-65.25	≤ -40	Pass
2476	-65.29	≤ -40	Pass
2477	-65.25	≤ -40	Pass
2478	-65.36	≤ -40	Pass
2479	-65.39	≤ -40	Pass





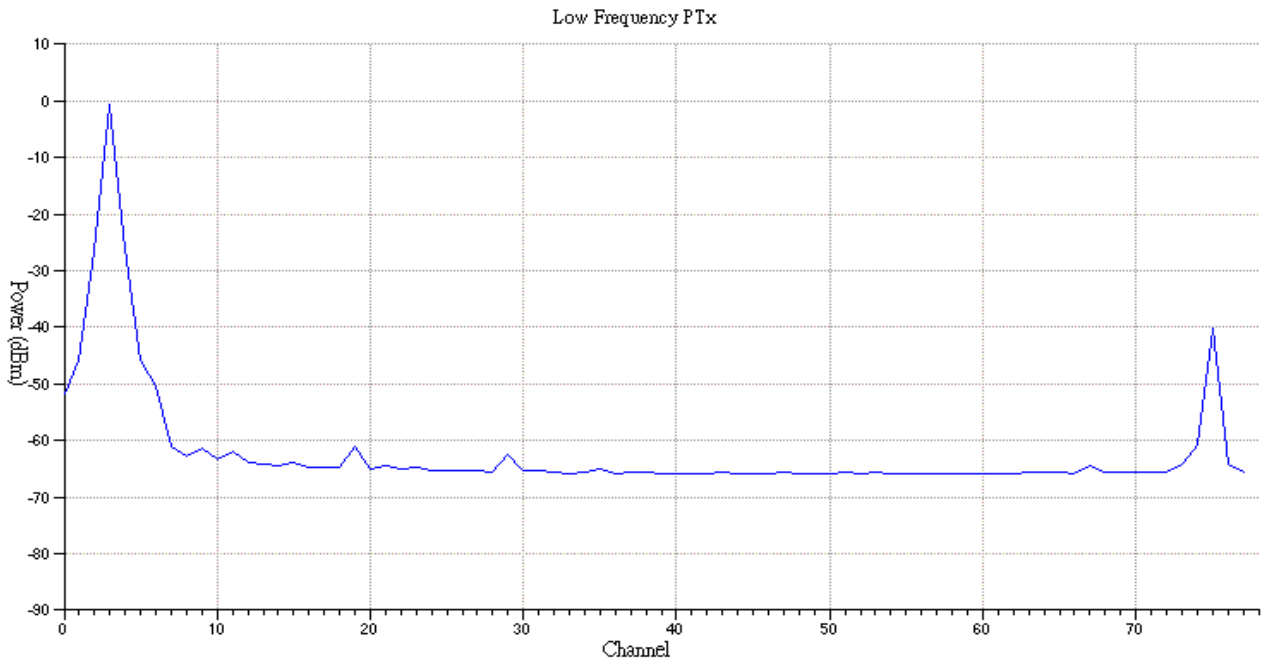
	2480	-65.40	≤ -40	Pass
High Frequency (2480 MHz)	2402	-65.80	≤ -40	Pass
	2403	-64.19	≤ -40	Pass
	2404	-58.81	≤ -40	Pass
	2405	-35.85	≤ -40	Fail
	2406	-62.71	≤ -40	Pass
	2407	-65.77	≤ -40	Pass
	2408	-65.96	≤ -40	Pass
	2409	-65.73	≤ -40	Pass
	2410	-65.87	≤ -40	Pass
	2411	-65.93	≤ -40	Pass
	2412	-65.80	≤ -40	Pass
	2413	-61.61	≤ -40	Pass
	2414	-65.99	≤ -40	Pass
	2415	-65.84	≤ -40	Pass
	2416	-65.76	≤ -40	Pass
	2417	-65.71	≤ -40	Pass
	2418	-65.86	≤ -40	Pass
	2419	-65.82	≤ -40	Pass
	2420	-66.03	≤ -40	Pass
	2421	-65.82	≤ -40	Pass
	2422	-65.77	≤ -40	Pass
	2423	-66.01	≤ -40	Pass
	2424	-65.88	≤ -40	Pass
	2425	-65.47	≤ -40	Pass
	2426	-65.87	≤ -40	Pass
	2427	-65.90	≤ -40	Pass
	2428	-65.85	≤ -40	Pass
	2429	-64.19	≤ -40	Pass
	2430	-65.78	≤ -40	Pass
	2431	-65.91	≤ -40	Pass
2432	-65.86	≤ -40	Pass	
2433	-65.57	≤ -40	Pass	
2434	-65.90	≤ -40	Pass	
2435	-65.72	≤ -40	Pass	
2436	-65.90	≤ -40	Pass	
2437	-65.08	≤ -40	Pass	
2438	-65.78	≤ -40	Pass	



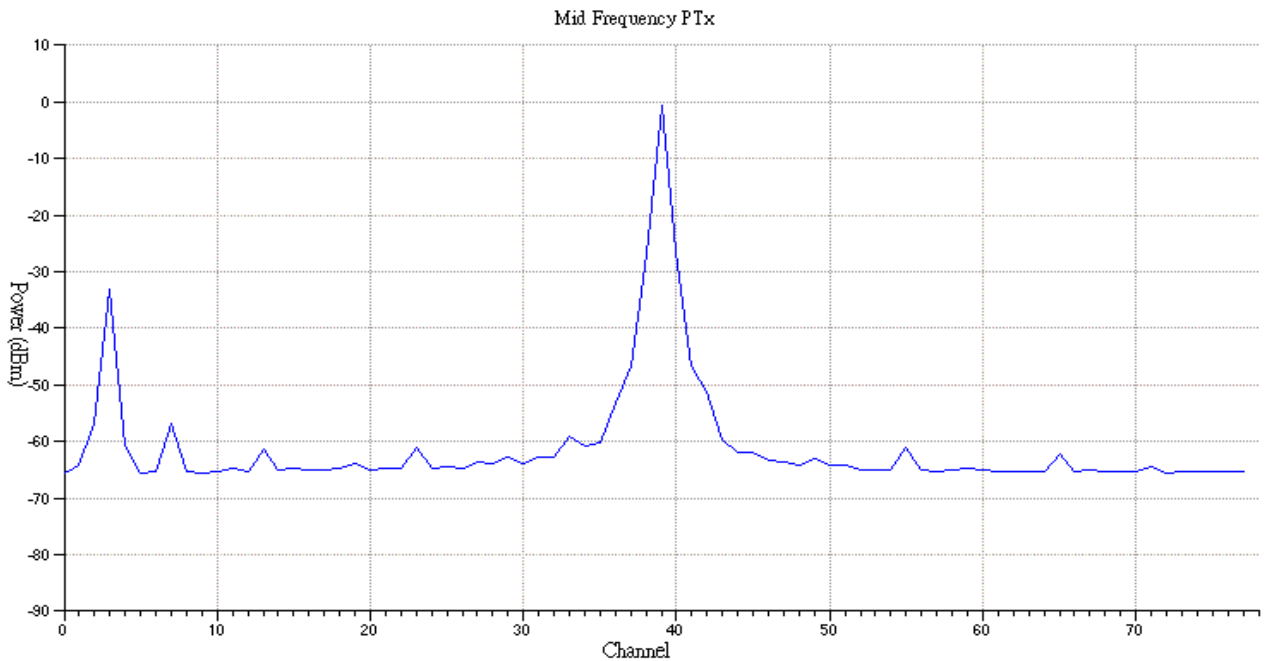
2439	-65.63	≤ -40	Pass
2440	-65.69	≤ -40	Pass
2441	-64.94	≤ -40	Pass
2442	-65.57	≤ -40	Pass
2443	-65.55	≤ -40	Pass
2444	-65.58	≤ -40	Pass
2445	-56.77	≤ -40	Pass
2446	-65.63	≤ -40	Pass
2447	-65.58	≤ -40	Pass
2448	-65.38	≤ -40	Pass
2449	-64.63	≤ -40	Pass
2450	-65.16	≤ -40	Pass
2451	-61.73	≤ -40	Pass
2452	-65.15	≤ -40	Pass
2453	-65.04	≤ -40	Pass
2454	-65.17	≤ -40	Pass
2455	-64.79	≤ -40	Pass
2456	-64.88	≤ -40	Pass
2457	-63.80	≤ -40	Pass
2458	-64.80	≤ -40	Pass
2459	-64.87	≤ -40	Pass
2460	-64.81	≤ -40	Pass
2461	-61.49	≤ -40	Pass
2462	-64.52	≤ -40	Pass
2463	-63.72	≤ -40	Pass
2464	-64.39	≤ -40	Pass
2465	-63.03	≤ -40	Pass
2466	-64.22	≤ -40	Pass
2467	-64.11	≤ -40	Pass
2468	-63.66	≤ -40	Pass
2469	-62.20	≤ -40	Pass
2470	-62.60	≤ -40	Pass
2471	-59.16	≤ -40	Pass
2472	-61.10	≤ -40	Pass
2473	-60.12	≤ -40	Pass
2474	-53.25	≤ -40	Pass
2475	-47.44	≤ -20	Pass
2476	-26.63	N/A	N/A



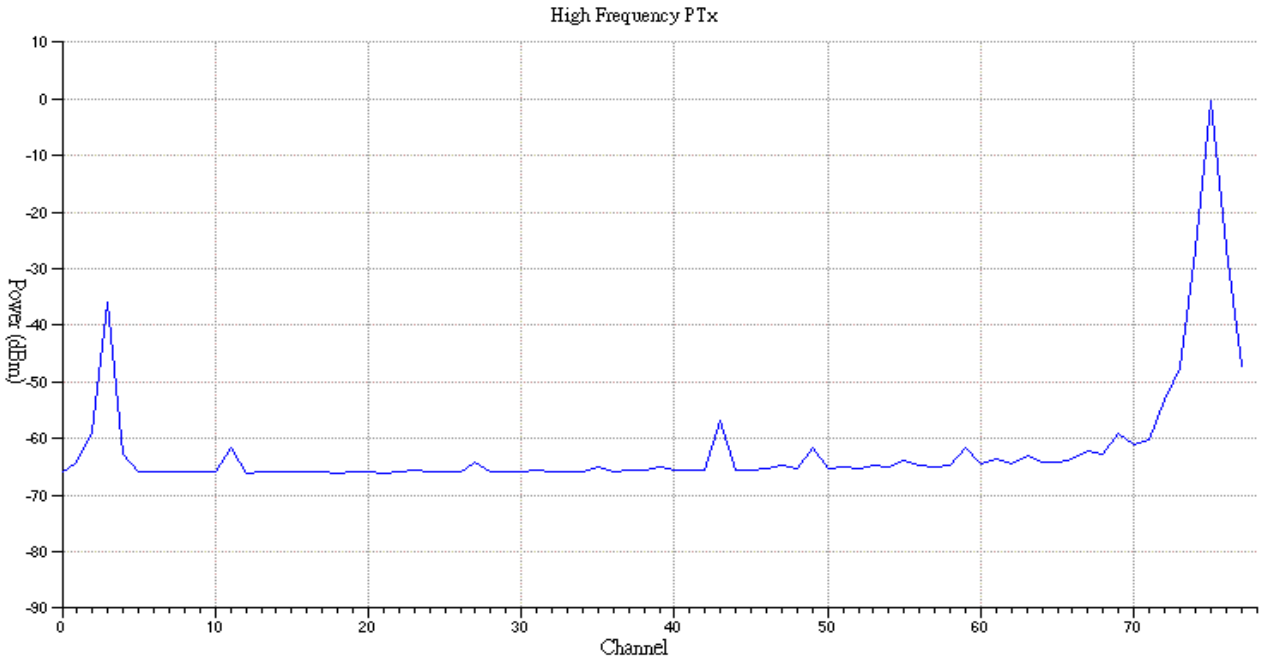
	2477	-0.37	N/A	N/A
	2478	-26.21	N/A	N/A
	2479	-47.17	≤ -20	Pass
	2480	-51.60	≤ -40	Pass



TX Output Spectrum – Adjacent channel power (Low Frequency)



TX Output Spectrum – Adjacent channel power (Mid Frequency)



TX Output Spectrum – Adjacent channel power (High Frequency)



**2.3.7. Test Case: TRM/CA/07/C - Modulation Characteristics**

Expected Outcome:					
All values as measured must fulfill the following conditions:					
1. $140 \text{ kHz} \leq \Delta f_{1\text{avg}} \leq 175 \text{ kHz}$					
2. $\Delta f_{2\text{max}} \geq 115 \text{ kHz}$ for at least 99.9% of all $\Delta f_{2\text{max}}$					
3. $\Delta f_{2\text{avg}}/\Delta f_{1\text{avg}} \geq 0.8$					
Test Frequency (MHz)	Packet Number	Test Parameter	Result	Limit	Verdict
Low operating Frequency (2402 MHz)	1	$\Delta f_{1\text{avg}}$ (kHz)	157.21	$140 \text{ kHz} \leq \Delta f_{1\text{avg}} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2\text{max}}$ (kHz)	174.97	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2\text{max}}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2\text{avg}}$ (kHz)	166.95	N/A	N/A
		$\Delta f_{2\text{avg}}/\Delta f_{1\text{avg}}$	1.06	$\geq 0.8$	Pass
	2	$\Delta f_{1\text{avg}}$ (kHz)	161.17	$140 \text{ kHz} \leq \Delta f_{1\text{avg}} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2\text{max}}$ (kHz)	178.15	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2\text{max}}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2\text{avg}}$ (kHz)	168.09	N/A	N/A
		$\Delta f_{2\text{avg}}/\Delta f_{1\text{avg}}$	1.04	$\geq 0.8$	Pass
	3	$\Delta f_{1\text{avg}}$ (kHz)	157.97	$140 \text{ kHz} \leq \Delta f_{1\text{avg}} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2\text{max}}$ (kHz)	175.25	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2\text{max}}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2\text{avg}}$ (kHz)	167.20	N/A	N/A
		$\Delta f_{2\text{avg}}/\Delta f_{1\text{avg}}$	1.06	$\geq 0.8$	Pass
	4	$\Delta f_{1\text{avg}}$ (kHz)	157.76	$140 \text{ kHz} \leq \Delta f_{1\text{avg}} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2\text{max}}$ (kHz)	183.95	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2\text{max}}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2\text{avg}}$ (kHz)	168.55	N/A	N/A
		$\Delta f_{2\text{avg}}/\Delta f_{1\text{avg}}$	1.07	$\geq 0.8$	Pass
	5	$\Delta f_{1\text{avg}}$ (kHz)	157.93	$140 \text{ kHz} \leq \Delta f_{1\text{avg}} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2\text{max}}$ (kHz)	175.96	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2\text{max}}$ (%)	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2\text{avg}}$ (kHz)	166.73	N/A	N/A
$\Delta f_{2\text{avg}}/\Delta f_{1\text{avg}}$		1.06	$\geq 0.8$	Pass	
6	$\Delta f_{1\text{avg}}$ (kHz)	157.32	$140 \text{ kHz} \leq \Delta f_{1\text{avg}} \leq 175 \text{ kHz}$	Pass	
	$\Delta f_{2\text{max}}$ (kHz)	178.34	$\geq 115 \text{ kHz}$	Pass	
	$\Delta f_{2\text{max}}$ (%)	100%	$\geq 99.9\%$	Pass	
	$\Delta f_{2\text{avg}}$ (kHz)	167.47	N/A	N/A	



		$\Delta f_{2avg}/\Delta f_{1avg}$	1.06	$\geq 0.8$	Pass
	7	$\Delta f_{1avg}$ (kHz)	157.27	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	165.32	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	157.60	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	1	$\geq 0.8$	Pass
		8	$\Delta f_{1avg}$ (kHz)	167.38	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$
	$\Delta f_{2max}$ (kHz)		166.18	$\geq 115 \text{ kHz}$	Pass
	$\Delta f_{2max}(\%)$		100%	$\geq 99.9\%$	Pass
	$\Delta f_{2avg}$ (kHz)		157.23	N/A	N/A
	$\Delta f_{2avg}/\Delta f_{1avg}$		0.94	$\geq 0.8$	Pass
	9	$\Delta f_{1avg}$ (kHz)	164.94	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	167.30	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	157.88	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.96	$\geq 0.8$	Pass
	10	$\Delta f_{1avg}$ (kHz)	161.05	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	167.77	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	156.65	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.97	$\geq 0.8$	Pass
Mid operating Frequency (2441 MHz)	1	$\Delta f_{1avg}$ (kHz)	161.50	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	170.21	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	157.43	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.97	$\geq 0.8$	Pass
	2	$\Delta f_{1avg}$ (kHz)	160.86	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	166.82	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	156.77	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.97	$\geq 0.8$	Pass
	3	$\Delta f_{1avg}$ (kHz)	169.90	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	169.53	$\geq 115 \text{ kHz}$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}$ (kHz)	156.97	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.92	$\geq 0.8$	Pass
	4	$\Delta f_{1avg}$ (kHz)	160.35	$140 \text{ kHz} \leq \Delta f_{1avg} \leq 175 \text{ kHz}$	Pass
		$\Delta f_{2max}$ (kHz)	166.55	$\geq 115 \text{ kHz}$	Pass



		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}(kHz)$	157.37	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass
	5	$\Delta f_{1avg} (kHz)$	160.55	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
		$\Delta f_{2max} (kHz)$	168.95	$\geq 115 kHz$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}(kHz)$	157.04	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass
	6	$\Delta f_{1avg} (kHz)$	164.91	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
		$\Delta f_{2max} (kHz)$	167.00	$\geq 115 kHz$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}(kHz)$	157.07	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.95	$\geq 0.8$	Pass
	7	$\Delta f_{1avg} (kHz)$	160.84	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
		$\Delta f_{2max} (kHz)$	167.98	$\geq 115 kHz$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}(kHz)$	157.29	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass
	8	$\Delta f_{1avg} (kHz)$	163.22	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
		$\Delta f_{2max} (kHz)$	168.08	$\geq 115 kHz$	Pass
$\Delta f_{2max}(\%)$		100%	$\geq 99.9\%$	Pass	
$\Delta f_{2avg}(kHz)$		156.24	N/A	N/A	
$\Delta f_{2avg}/\Delta f_{1avg}$		0.96	$\geq 0.8$	Pass	
9	$\Delta f_{1avg} (kHz)$	161.49	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass	
	$\Delta f_{2max} (kHz)$	164.99	$\geq 115 kHz$	Pass	
	$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
	$\Delta f_{2avg}(kHz)$	157.47	N/A	N/A	
	$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass	
10	$\Delta f_{1avg} (kHz)$	161.34	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass	
	$\Delta f_{2max} (kHz)$	164.94	$\geq 115 kHz$	Pass	
	$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass	
	$\Delta f_{2avg}(kHz)$	157.31	N/A	N/A	
	$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass	
High operating Frequency (2480 MHz)	1	$\Delta f_{1avg} (kHz)$	161.43	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
		$\Delta f_{2max} (kHz)$	167.98	$\geq 115 kHz$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}(kHz)$	157.96	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.98	$\geq 0.8$	Pass



	2	$\Delta f1_{avg}$ (kHz)	164.49	$140\text{ kHz} \leq \Delta f1_{avg} \leq 175\text{ kHz}$	Pass
		$\Delta f2_{max}$ (kHz)	167.49	$\geq 115\text{ kHz}$	Pass
		$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f2_{avg}$ (kHz)	157.62	N/A	N/A
		$\Delta f2_{avg}/\Delta f1_{avg}$	0.96	$\geq 0.8$	Pass
	3	$\Delta f1_{avg}$ (kHz)	166.20	$140\text{ kHz} \leq \Delta f1_{avg} \leq 175\text{ kHz}$	Pass
		$\Delta f2_{max}$ (kHz)	166.74	$\geq 115\text{ kHz}$	Pass
		$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f2_{avg}$ (kHz)	157.86	N/A	N/A
		$\Delta f2_{avg}/\Delta f1_{avg}$	0.95	$\geq 0.8$	Pass
	4	$\Delta f1_{avg}$ (kHz)	161.24	$140\text{ kHz} \leq \Delta f1_{avg} \leq 175\text{ kHz}$	Pass
		$\Delta f2_{max}$ (kHz)	164.98	$\geq 115\text{ kHz}$	Pass
		$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f2_{avg}$ (kHz)	158.14	N/A	N/A
		$\Delta f2_{avg}/\Delta f1_{avg}$	0.98	$\geq 0.8$	Pass
	5	$\Delta f1_{avg}$ (kHz)	161.09	$140\text{ kHz} \leq \Delta f1_{avg} \leq 175\text{ kHz}$	Pass
		$\Delta f2_{max}$ (kHz)	169.40	$\geq 115\text{ kHz}$	Pass
		$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f2_{avg}$ (kHz)	158.90	N/A	N/A
		$\Delta f2_{avg}/\Delta f1_{avg}$	0.99	$\geq 0.8$	Pass
6	$\Delta f1_{avg}$ (kHz)	168.32	$140\text{ kHz} \leq \Delta f1_{avg} \leq 175\text{ kHz}$	Pass	
	$\Delta f2_{max}$ (kHz)	172.55	$\geq 115\text{ kHz}$	Pass	
	$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass	
	$\Delta f2_{avg}$ (kHz)	158.32	N/A	N/A	
	$\Delta f2_{avg}/\Delta f1_{avg}$	0.94	$\geq 0.8$	Pass	
7	$\Delta f1_{avg}$ (kHz)	163.62	$140\text{ kHz} \leq \Delta f1_{avg} \leq 175\text{ kHz}$	Pass	
	$\Delta f2_{max}$ (kHz)	168.18	$\geq 115\text{ kHz}$	Pass	
	$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass	
	$\Delta f2_{avg}$ (kHz)	158.07	N/A	N/A	
	$\Delta f2_{avg}/\Delta f1_{avg}$	0.97	$\geq 0.8$	Pass	
8	$\Delta f1_{avg}$ (kHz)	162.34	$140\text{ kHz} \leq \Delta f1_{avg} \leq 175\text{ kHz}$	Pass	
	$\Delta f2_{max}$ (kHz)	167.18	$\geq 115\text{ kHz}$	Pass	
	$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass	
	$\Delta f2_{avg}$ (kHz)	157.76	N/A	N/A	
	$\Delta f2_{avg}/\Delta f1_{avg}$	0.97	$\geq 0.8$	Pass	
9	$\Delta f1_{avg}$ (kHz)	165.30	$140\text{ kHz} \leq \Delta f1_{avg} \leq 175\text{ kHz}$	Pass	
	$\Delta f2_{max}$ (kHz)	170.24	$\geq 115\text{ kHz}$	Pass	
	$\Delta f2_{max}(\%)$	100%	$\geq 99.9\%$	Pass	





		$\Delta f_{2avg}(kHz)$	157.78	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.95	$\geq 0.8$	Pass
	10	$\Delta f_{1avg} (kHz)$	161.17	$140 kHz \leq \Delta f_{1avg} \leq 175 kHz$	Pass
		$\Delta f_{2max} (kHz)$	173.11	$\geq 115 kHz$	Pass
		$\Delta f_{2max}(\%)$	100%	$\geq 99.9\%$	Pass
		$\Delta f_{2avg}(kHz)$	158.87	N/A	N/A
		$\Delta f_{2avg}/\Delta f_{1avg}$	0.99	$\geq 0.8$	Pass

### 2.3.8. Test Case: TRM/CA/08/C - Initial Carrier Frequency Tolerance

<p>Expected Outcome:                  All values as measured must fulfill the following conditions:                  Each of the EUT's carrier frequency <math>f_0</math> as measured must be within <math>\pm 75kHz</math> from the Eut's chosen nominal carrier frequency <math>f_{TX}</math>                  1. <math>f_{TX} - 75 kHz \leq f_0 \leq f_{TX} + 75 kHz</math>.</p>				
Test Frequency (MHz)	Packets No.	Carrier Frequency (KHz)	Limit (kHz)	Verdict
Low operating Frequency (2402 MHz)	1	-2.98	$-75 \leq f_0 \leq +75$	Pass
	2	-0.64	$-75 \leq f_0 \leq +75$	Pass
	3	-3.25	$-75 \leq f_0 \leq +75$	Pass
	4	4.57	$-75 \leq f_0 \leq +75$	Pass
	5	-5.78	$-75 \leq f_0 \leq +75$	Pass
	6	1.36	$-75 \leq f_0 \leq +75$	Pass
	7	5.95	$-75 \leq f_0 \leq +75$	Pass
	8	5.92	$-75 \leq f_0 \leq +75$	Pass
	9	-1.35	$-75 \leq f_0 \leq +75$	Pass
	10	-2.86	$-75 \leq f_0 \leq +75$	Pass
Mid operating Frequency (2441 MHz)	1	-2.57	$-75 \leq f_0 \leq +75$	Pass
	2	-4.20	$-75 \leq f_0 \leq +75$	Pass
	3	-13.18	$-75 \leq f_0 \leq +75$	Pass
	4	-1.26	$-75 \leq f_0 \leq +75$	Pass
	5	-1.80	$-75 \leq f_0 \leq +75$	Pass
	6	-2.94	$-75 \leq f_0 \leq +75$	Pass
	7	-3.79	$-75 \leq f_0 \leq +75$	Pass
	8	-5.45	$-75 \leq f_0 \leq +75$	Pass
	9	-1.63	$-75 \leq f_0 \leq +75$	Pass
	10	-4.43	$-75 \leq f_0 \leq +75$	Pass
High operating	1	-5.53	$-75 \leq f_0 \leq +75$	Pass



Frequency (2480 MHz)	2	-12.64	$-75 \leq f_0 \leq +75$	Pass
	3	-10.97	$-75 \leq f_0 \leq +75$	Pass
	4	-1.84	$-75 \leq f_0 \leq +75$	Pass
	5	-9.43	$-75 \leq f_0 \leq +75$	Pass
	6	-6.94	$-75 \leq f_0 \leq +75$	Pass
	7	-6.47	$-75 \leq f_0 \leq +75$	Pass
	8	-7.73	$-75 \leq f_0 \leq +75$	Pass
	9	-6.08	$-75 \leq f_0 \leq +75$	Pass
	10	0.00	$-75 \leq f_0 \leq +75$	Pass



### 2.3.9. Test Case: TRM/CA/09/C - Carrier Frequency Drift

Expected Outcome:

All values as measured must fulfill the following conditions:

1. One slot packet  $-25\text{kHz} \leq \text{MAX Frequency Drift} \leq +25\text{kHz}$
2. Three slot packet  $-40\text{kHz} \leq \text{MAX Frequency Drift} \leq +40\text{kHz}$
3. Five slot packet  $-40\text{kHz} \leq \text{MAX Frequency Drift} \leq +40\text{kHz}$
4. The maximum drift rate is  $20000 \text{ Hz} / 50\mu\text{s}$ .

Packet Type: DH1

Test Frequency (MHz)	Packets No.	Result	Limit (%)	Verdict	
Low operating Frequency (2402 MHz)	1	MAX Frequency Drift(kHz)	2.80	$-25 \leq f_{\text{max}} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50 $\mu$ s)	4.77	$\leq 20$	Pass
	2	MAX Frequency Drift(kHz)	3.95	$-25 \leq f_{\text{max}} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50 $\mu$ s)	4.74	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	-4.82	$-25 \leq f_{\text{max}} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50 $\mu$ s)	6.98	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	-6.50	$-25 \leq f_{\text{max}} \leq +25$	Pass
	4	Maximum Drift Rate(kHz/50 $\mu$ s)	7.83	$\leq 20$	Pass
	5	MAX Frequency Drift(kHz)	-2.98	$-25 \leq f_{\text{max}} \leq +25$	Pass
	5	Maximum Drift Rate(kHz/50 $\mu$ s)	3.42	$\leq 20$	Pass
	6	MAX Frequency Drift(kHz)	-4.59	$-25 \leq f_{\text{max}} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50 $\mu$ s)	3.78	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	5.43	$-25 \leq f_{\text{max}} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50 $\mu$ s)	4.82	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	-3.83	$-25 \leq f_{\text{max}} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50 $\mu$ s)	4.21	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	3.42	$-25 \leq f_{\text{max}} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50 $\mu$ s)	3.34	$\leq 20$	Pass
	10	MAX Frequency Drift(kHz)	3.91	$-25 \leq f_{\text{max}} \leq +25$	Pass
	10	Maximum Drift Rate(kHz/50 $\mu$ s)	3.61	$\leq 20$	Pass
Mid operating Frequency (2441 MHz)	1	MAX Frequency Drift(kHz)	-3.43	$-25 \leq f_{\text{max}} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50 $\mu$ s)	2.67	$\leq 20$	Pass
	2	MAX Frequency Drift(kHz)	4.55	$-25 \leq f_{\text{max}} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50 $\mu$ s)	4.68	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	-7.74	$-25 \leq f_{\text{max}} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50 $\mu$ s)	7.93	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	-4.27	$-25 \leq f_{\text{max}} \leq +25$	Pass



	4	Maximum Drift Rate(kHz/50μs)	3.45	$\leq 20$	Pass	
	5	MAX Frequency Drift(kHz)	5.16	$-25 \leq f_{max} \leq +25$	Pass	
	5	Maximum Drift Rate(kHz/50μs)	4.11	$\leq 20$	Pass	
	6	MAX Frequency Drift(kHz)	-11.55	$-25 \leq f_{max} \leq +25$	Pass	
	6	Maximum Drift Rate(kHz/50μs)	12.22	$\leq 20$	Pass	
	7	MAX Frequency Drift(kHz)	5.10	$-25 \leq f_{max} \leq +25$	Pass	
	7	Maximum Drift Rate(kHz/50μs)	6.36	$\leq 20$	Pass	
	8	MAX Frequency Drift(kHz)	4.44	$-25 \leq f_{max} \leq +25$	Pass	
	8	Maximum Drift Rate(kHz/50μs)	2.96	$\leq 20$	Pass	
	9	MAX Frequency Drift(kHz)	4.55	$-25 \leq f_{max} \leq +25$	Pass	
	9	Maximum Drift Rate(kHz/50μs)	6.83	$\leq 20$	Pass	
	10	MAX Frequency Drift(kHz)	-7.07	$-25 \leq f_{max} \leq +25$	Pass	
	10	Maximum Drift Rate(kHz/50μs)	9.03	$\leq 20$	Pass	
High operating Frequency (2480 MHz)	1	MAX Frequency Drift(kHz)	-3.86	$-25 \leq f_{max} \leq +25$	Pass	
	1	Maximum Drift Rate(kHz/50μs)	4.34	$\leq 20$	Pass	
	2	MAX Frequency Drift(kHz)	5.07	$-25 \leq f_{max} \leq +25$	Pass	
	2	Maximum Drift Rate(kHz/50μs)	6.28	$\leq 20$	Pass	
	3	MAX Frequency Drift(kHz)	4.41	$-25 \leq f_{max} \leq +25$	Pass	
	3	Maximum Drift Rate(kHz/50μs)	5.86	$\leq 20$	Pass	
	4	MAX Frequency Drift(kHz)	-7.08	$-25 \leq f_{max} \leq +25$	Pass	
	4	Maximum Drift Rate(kHz/50μs)	10.58	$\leq 20$	Pass	
	5	MAX Frequency Drift(kHz)	-9.18	$-25 \leq f_{max} \leq +25$	Pass	
	5	Maximum Drift Rate(kHz/50μs)	8.70	$\leq 20$	Pass	
	6	MAX Frequency Drift(kHz)	4.35	$-25 \leq f_{max} \leq +25$	Pass	
	6	Maximum Drift Rate(kHz/50μs)	4.38	$\leq 20$	Pass	
	7	MAX Frequency Drift(kHz)	-12.83	$-25 \leq f_{max} \leq +25$	Pass	
	7	Maximum Drift Rate(kHz/50μs)	16.15	$\leq 20$	Pass	
	8	MAX Frequency Drift(kHz)	-5.52	$-25 \leq f_{max} \leq +25$	Pass	
	8	Maximum Drift Rate(kHz/50μs)	8.94	$\leq 20$	Pass	
	9	MAX Frequency Drift(kHz)	-6.84	$-25 \leq f_{max} \leq +25$	Pass	
	9	Maximum Drift Rate(kHz/50μs)	9.29	$\leq 20$	Pass	
		10	MAX Frequency Drift(kHz)	-3.75	$-25 \leq f_{max} \leq +25$	Pass
		10	Maximum Drift Rate(kHz/50μs)	3.69	$\leq 20$	Pass
Packet Type: DH3						
Test Frequency (MHz)	Packets No.	Result		Limit (%)	Verdict	
Low operating Frequency	1	MAX Frequency Drift(kHz)	4.21	$-25 \leq f_{max} \leq +25$	Pass	
	1	Maximum Drift Rate(kHz/50μs)	6.51	$\leq 20$	Pass	



(2402 MHz)	2	MAX Frequency Drift(kHz)	-5.24	$-25 \leq f_{max} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50μs)	7.47	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	-5.44	$-25 \leq f_{max} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50μs)	4.70	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	-4.23	$-25 \leq f_{max} \leq +25$	Pass
	4	Maximum Drift Rate(kHz/50μs)	6.27	$\leq 20$	Pass
	5	MAX Frequency Drift(kHz)	4.20	$-25 \leq f_{max} \leq +25$	Pass
	5	Maximum Drift Rate(kHz/50μs)	4.39	$\leq 20$	Pass
	6	MAX Frequency Drift(kHz)	-4.66	$-25 \leq f_{max} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50μs)	5.09	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	6.34	$-25 \leq f_{max} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50μs)	7.14	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	-5.92	$-25 \leq f_{max} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50μs)	5.54	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	4.43	$-25 \leq f_{max} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50μs)	6.57	$\leq 20$	Pass
	10	MAX Frequency Drift(kHz)	6.93	$-25 \leq f_{max} \leq +25$	Pass
	10	Maximum Drift Rate(kHz/50μs)	7.95	$\leq 20$	Pass
Mid operating Frequency (2441 MHz)	1	MAX Frequency Drift(kHz)	7.01	$-25 \leq f_{max} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50μs)	7.01	$\leq 20$	Pass
	2	MAX Frequency Drift(kHz)	-6.08	$-25 \leq f_{max} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50μs)	7.08	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	-5.60	$-25 \leq f_{max} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50μs)	5.96	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	-9.27	$-25 \leq f_{max} \leq +25$	Pass
	4	Maximum Drift Rate(kHz/50μs)	7.25	$\leq 20$	Pass
	5	MAX Frequency Drift(kHz)	-9.44	$-25 \leq f_{max} \leq +25$	Pass
	5	Maximum Drift Rate(kHz/50μs)	10.79	$\leq 20$	Pass
	6	MAX Frequency Drift(kHz)	-4.83	$-25 \leq f_{max} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50μs)	7.71	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	5.74	$-25 \leq f_{max} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50μs)	8.03	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	3.99	$-25 \leq f_{max} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50μs)	5.98	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	4.52	$-25 \leq f_{max} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50μs)	6.00	$\leq 20$	Pass
10	MAX Frequency Drift(kHz)	-5.19	$-25 \leq f_{max} \leq +25$	Pass	
10	Maximum Drift Rate(kHz/50μs)	4.86	$\leq 20$	Pass	



High operating Frequency (2480 MHz)	1	MAX Frequency Drift(kHz)	-10.45	$-25 \leq f_{max} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50 $\mu$ s)	9.53	$\leq 20$	Pass
	2	MAX Frequency Drift(kHz)	-9.42	$-25 \leq f_{max} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50 $\mu$ s)	9.32	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	-7.28	$-25 \leq f_{max} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50 $\mu$ s)	7.32	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	-4.76	$-25 \leq f_{max} \leq +25$	Pass
	4	Maximum Drift Rate(kHz/50 $\mu$ s)	6.74	$\leq 20$	Pass
	5	MAX Frequency Drift(kHz)	5.75	$-25 \leq f_{max} \leq +25$	Pass
	5	Maximum Drift Rate(kHz/50 $\mu$ s)	5.79	$\leq 20$	Pass
	6	MAX Frequency Drift(kHz)	-9.94	$-25 \leq f_{max} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50 $\mu$ s)	10.42	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	-5.56	$-25 \leq f_{max} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50 $\mu$ s)	6.54	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	-6.35	$-25 \leq f_{max} \leq +25$	Pass
	8	Maximum Drift Rate(kHz/50 $\mu$ s)	7.17	$\leq 20$	Pass
	9	MAX Frequency Drift(kHz)	-9.88	$-25 \leq f_{max} \leq +25$	Pass
	9	Maximum Drift Rate(kHz/50 $\mu$ s)	11.72	$\leq 20$	Pass
	10	MAX Frequency Drift(kHz)	-6.15	$-25 \leq f_{max} \leq +25$	Pass
	10	Maximum Drift Rate(kHz/50 $\mu$ s)	6.65	$\leq 20$	Pass
Packet Type: DH5					
Test Frequency (MHz)	Packets No.	Result		Limit (%)	Verdict
Low operating Frequency (2402 MHz)	1	MAX Frequency Drift(kHz)	4.67	$-25 \leq f_{max} \leq +25$	Pass
	1	Maximum Drift Rate(kHz/50 $\mu$ s)	5.63	$\leq 20$	Pass
	2	MAX Frequency Drift(kHz)	5.83	$-25 \leq f_{max} \leq +25$	Pass
	2	Maximum Drift Rate(kHz/50 $\mu$ s)	5.95	$\leq 20$	Pass
	3	MAX Frequency Drift(kHz)	5.26	$-25 \leq f_{max} \leq +25$	Pass
	3	Maximum Drift Rate(kHz/50 $\mu$ s)	8.41	$\leq 20$	Pass
	4	MAX Frequency Drift(kHz)	4.63	$-25 \leq f_{max} \leq +25$	Pass
	4	Maximum Drift Rate(kHz/50 $\mu$ s)	5.26	$\leq 20$	Pass
	5	MAX Frequency Drift(kHz)	4.83	$-25 \leq f_{max} \leq +25$	Pass
	5	Maximum Drift Rate(kHz/50 $\mu$ s)	6.62	$\leq 20$	Pass
	6	MAX Frequency Drift(kHz)	5.52	$-25 \leq f_{max} \leq +25$	Pass
	6	Maximum Drift Rate(kHz/50 $\mu$ s)	6.03	$\leq 20$	Pass
	7	MAX Frequency Drift(kHz)	5.54	$-25 \leq f_{max} \leq +25$	Pass
	7	Maximum Drift Rate(kHz/50 $\mu$ s)	5.90	$\leq 20$	Pass
	8	MAX Frequency Drift(kHz)	-4.97	$-25 \leq f_{max} \leq +25$	Pass



	8	Maximum Drift Rate(kHz/50μs)	8.37	≤ 20	Pass
	9	MAX Frequency Drift(kHz)	5.11	-25≤ fmax≤+25	Pass
	9	Maximum Drift Rate(kHz/50μs)	6.62	≤ 20	Pass
	10	MAX Frequency Drift(kHz)	4.85	-25≤ fmax≤+25	Pass
	10	Maximum Drift Rate(kHz/50μs)	5.13	≤ 20	Pass
Mid operating Frequency (2441 MHz)	1	MAX Frequency Drift(kHz)	4.37	-25≤ fmax≤+25	Pass
	1	Maximum Drift Rate(kHz/50μs)	6.53	≤ 20	Pass
	2	MAX Frequency Drift(kHz)	5.39	-25≤ fmax≤+25	Pass
	2	Maximum Drift Rate(kHz/50μs)	9.09	≤ 20	Pass
	3	MAX Frequency Drift(kHz)	4.39	-25≤ fmax≤+25	Pass
	3	Maximum Drift Rate(kHz/50μs)	6.03	≤ 20	Pass
	4	MAX Frequency Drift(kHz)	-7.82	-25≤ fmax≤+25	Pass
	4	Maximum Drift Rate(kHz/50μs)	9.98	≤ 20	Pass
	5	MAX Frequency Drift(kHz)	5.54	-25≤ fmax≤+25	Pass
	5	Maximum Drift Rate(kHz/50μs)	5.24	≤ 20	Pass
	6	MAX Frequency Drift(kHz)	-5.99	-25≤ fmax≤+25	Pass
	6	Maximum Drift Rate(kHz/50μs)	8.30	≤ 20	Pass
	7	MAX Frequency Drift(kHz)	-8.18	-25≤ fmax≤+25	Pass
	7	Maximum Drift Rate(kHz/50μs)	11.41	≤ 20	Pass
	8	MAX Frequency Drift(kHz)	5.95	-25≤ fmax≤+25	Pass
	8	Maximum Drift Rate(kHz/50μs)	7.67	≤ 20	Pass
	9	MAX Frequency Drift(kHz)	-10.68	-25≤ fmax≤+25	Pass
	9	Maximum Drift Rate(kHz/50μs)	13.14	≤ 20	Pass
	10	MAX Frequency Drift(kHz)	6.18	-25≤ fmax≤+25	Pass
	10	Maximum Drift Rate(kHz/50μs)	6.12	≤ 20	Pass
High operating Frequency (2480 MHz)	1	MAX Frequency Drift(kHz)	-6.70	-25≤ fmax≤+25	Pass
	1	Maximum Drift Rate(kHz/50μs)	6.18	≤ 20	Pass
	2	MAX Frequency Drift(kHz)	-5.72	-25≤ fmax≤+25	Pass
	2	Maximum Drift Rate(kHz/50μs)	7.20	≤ 20	Pass
	3	MAX Frequency Drift(kHz)	5.26	-25≤ fmax≤+25	Pass
	3	Maximum Drift Rate(kHz/50μs)	6.54	≤ 20	Pass
	4	MAX Frequency Drift(kHz)	-7.70	-25≤ fmax≤+25	Pass
	4	Maximum Drift Rate(kHz/50μs)	9.68	≤ 20	Pass
	5	MAX Frequency Drift(kHz)	-4.97	-25≤ fmax≤+25	Pass
	5	Maximum Drift Rate(kHz/50μs)	6.70	≤ 20	Pass
	6	MAX Frequency Drift(kHz)	-6.90	-25≤ fmax≤+25	Pass
	6	Maximum Drift Rate(kHz/50μs)	6.94	≤ 20	Pass
	7	MAX Frequency Drift(kHz)	-10.46	-25≤ fmax≤+25	Pass





	7	Maximum Drift Rate(kHz/50μs)	11.08	≤ 20	Pass
	8	MAX Frequency Drift(kHz)	5.17	-25 ≤ fmax ≤ +25	Pass
	8	Maximum Drift Rate(kHz/50μs)	5.43	≤ 20	Pass
	9	MAX Frequency Drift(kHz)	-4.74	-25 ≤ fmax ≤ +25	Pass
	9	Maximum Drift Rate(kHz/50μs)	6.63	≤ 20	Pass
	10	MAX Frequency Drift(kHz)	5.16	-25 ≤ fmax ≤ +25	Pass
	10	Maximum Drift Rate(kHz/50μs)	6.68	≤ 20	Pass

**2.3.10. Test Case: RCV/CA/01/C - Sensitivity - Single Slot Packets**

<p>Expected Outcome: All values as measured must fulfill the following conditions. 1. BER ≤ 0.1% (minimum number of samples, 1,600,000 returned payload bits.)</p>			
Test Frequency (MHz)	BER (%)	Limit (%)	Verdict
2402	0.00	≤0.1	Pass
2441	0.00	≤0.1	Pass
2480	0.00	≤0.1	Pass

**2.3.11. Test Case: RCV/CA/02/C - Sensitivity - Multi-Slot Packets**

<p>Expected Outcome: All values as measured must fulfill the following conditions. 1. BER ≤ 0.1% (minimum number of samples, 1,600,000 returned payload bits.)</p>			
Test Frequency (MHz)	BER (%)	Limit (%)	Verdict
2402	0.00	≤0.1	Pass
2441	0.00	≤0.1	Pass
2480	0.00	≤0.1	Pass





## Appendix: Test Data

Test Data for RF Testing : [Test Evidence for RF Test.zip](#)