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RADIO COMPLIANCE REPORT

Certification Test Report – Bluetooth Classic

In accordance with:
CFR47 FCC Part 15, Subpart C, 15.247

Tait International Limited

TAHP2A

TCH8 Control Head

FCC ID: CASTAHP2A

REPORT: E2510-1902-2
DATE: November, 2025



Accreditation Number: 18553
Accredited for compliance with ISO/IEC 17025 - Testing

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Certificate of Compliance
Certification Compliance Report
EMC Bayswater Test Report: E2510-1902-2
Issue Date: November, 2025

Test Sample(s): TCH8 Control Head
Model No: TAHP2A
Serial No: 21771802 (Sample 1), 21771803 (Sample 2)
FCC ID: CASTAHP2A
Customer Details: Ms. Rayna Zhang
Tait International Limited
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New Zealand

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e-mail: rayna.zhang@taitcommunications.com

Test Specification: CFR47 FCC Part 15, Subpart C, 15.247

Results Summary:	15.203 - Antenna requirement	Complied
	15.247 (b)(1) - Maximum Output Power	Complied
	15.247 (a)(1) - 20dB Bandwidth	Complied
	15.247 (d) - Out-of-Band Emissions - - 100kHz, -20dBc	Complied
	15.247 (d) - Emissions on the Band edge	Complied
	15.247 (d), 15.209 - Radiated emissions in Restricted bands	Complied
	15.247 (a)(1) - Channel Separation	Complied
	15.247 (a)(1)(iii) - Channel Occupancy time	Complied
	15.247 (a)(1)(iii) - Number of Hopping frequencies	Complied

Test Date(s): 7th to 17th October, 2025

**Test House
(Issued By):** EMC Bayswater Pty Ltd
18/88 Merrindale Drive
Croydon South
Victoria, 3136, Australia

FCC Accredited Test Firm Registration number: 527798
FCC Accredited Test Firm Designation number: AU0004

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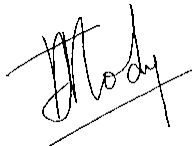
This is to certify that the necessary measurements were made by EMC Bayswater Pty Ltd, and that the Tait International Limited, TAHP2A, TCH8 Control Head, has been tested in accordance with requirements contained in the appropriate commission regulations.

Tested and prepared by: Tested by:

Approved by:



Adnan Zaman
(EMC Test Engineer)



Jignesh Moody
(EMC Test Engineer)



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10/11/2025 12:11

Date

Radio Compliance Report for Tait International Limited

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1. Introduction

Radio tests were performed on a Tait International Limited, TAHP2A, TCH8 Control Head in accordance with the requirements of Title 47 of the standard CFR47 FCC Part 15, Subpart C, 15.247.

2. Test Report Revision History

None

3. Report Information

EMC Bayswater Pty Ltd reports apply only to the specific samples tested under the stated test conditions. All samples tested were in good operating condition throughout the entire test program unless otherwise stated. EMC Bayswater Pty Ltd does not in any way guarantee the later performance of the product/equipment. It is the manufacturer's responsibility to ensure that additional production units of the tested model are manufactured with identical electrical and mechanical components. EMC Bayswater Pty Ltd shall have no liability for any deductions, inference or generalisations drawn by the clients or others from EMC Bayswater Pty Ltd issued reports. This report shall not be used to claim, constitute or imply product endorsement by EMC Bayswater Pty Ltd. This report shall not be reproduced except in full (with the exception of the certificate on page 2) without the written approval of EMC Bayswater Pty Ltd. This document may be altered or revised by EMC Bayswater Pty Ltd personnel only, and shall be noted in the revision section of the document. Any alteration of this document not carried out by EMC Bayswater Pty Ltd will nullify the document.

4. Summary of Results

The EUT complied with applicable requirements of CFR47 FCC Part 15, Subpart C, 15.247. Worst-case results are tabled as follows:

FCC Part 15 sections	Test	Result
15.203	Antenna Requirement	Complied ^{#1}
15.247 (a)(1)	20dB Bandwidth	1227kHz ^{#2}
15.247 (b)(1)	Maximum conducted output power	Complied by 20.9dB
15.247 (d)	Out-of-Band Emissions – 100kHz, -20dBc	Complied by at least > 6dB
15.247 (d)	Emissions on the Band edge	Complied by > 15dB
15.247 (d), 15.209	Radiated emissions in Restricted bands	Complied by 17.7dB
15.247 (a)(1)(iii)	Number of Hopping Frequencies	Complied
15.247 (a)(1)(iii)	Channel Occupancy Time	Complied
15.247 (a)(1)	Channel Separation	Complied
	Occupied Bandwidth (99% Emission Bandwidth)	1147kHz ^{#2}

^{#1}The Antenna is permanently attached, internal to the device

^{#2}Informative only

Table 1: Summary of test results

5. Product Sample Details

5.1. EUT Description

The EUT (Equipment Under Test), as supplied by the client, is described as follows:

Product:	TCH8 Control Head	
Model No:	TAHP2A	
Serial No:	21771802 (Sample 1), 21771803 (Sample 2)	
Firmware:	QIDMR_FC_TCH8BTCompl.0004	
Software:	N/A	
Power Specifications 1:	Remote: 10.8V -16V dc, maximum current 2 Amps	
Power Specifications 2:	Local: Radio powered	
Transmitter 1 details:	Description:	Bluetooth Classic
	Type:	Murata 2DL (NXP IW611)
	Modulation:	GFSK, $\pi/4$ -DQPSK, 8-DPSK
	Channels:	79 channels spanning from 2.402GHz to 2.48GHz
	Max power:	BR: +16dBm EDR: +8dBm
	Antenna:	AANI-NI-0013
	Antenna Gain:	+3.2 dBi
Transmitter 2 details:	Description:	Bluetooth Low Energy
	Type:	Murata 2DL (NXP IW611)
	Modulation:	GFSK
	Channels:	40 channels spanning from 2.402GHz to 2.48GHz (Spacing 2MHz)
	Max power:	+16dBm
	Antenna:	AANI-NI-0013
	Antenna Gain:	+3.2 dBi
Transmitter 3 details:	Description:	NFC
	Type:	STM ST25R3916B
	Modulation:	Not supplied
	Channels:	N/A
	Max power:	1.6W
	Antenna:	Tait PN 220-01998
	Antenna Gain:	Not supplied
Dimensions:	178x62x52mm (Length x Width x Height)	
Weight:	Local Head = 236g, Remote Head = 292g	
EUT Type:	Tested as tabletop.	

(Customer supplied product information)

(Refer to photographs in Annex A & B for views of the EUT)

5.2. Product description

The EUT (Equipment Under Test) has been described by the customer as follows:

“TCH8 is a control head for Tait TM9000 series mobile radio. It features two rotary controls (volume/channel) and Bluetooth connectivity for wireless PTT and audio accessories. TCH8 is available in local or remote mount configurations. The remote configuration includes an audio PA which is powered by a dedicated DC power connector on the rear of the control head.”

(Customer supplied product description information)

The highest fundamental frequency generated or used within the EUT, or the highest frequency at which it operates as specified by the customer is 2.48 GHz (Bluetooth).

5.3. Support Equipment

Support Equipment: 1	Description:	Laptop
	Manufacturer:	Toshiba
	Model:	PORTÉGÉ
	Serial number:	WS3958
Support Equipment: 2	Description:	Mobile Body
	Manufacturer:	Tait International
	Model:	Demo Model
	Serial number:	21730970

5.4. Product operating modes

The customer described the product normal operation modes as the following:

“3 Modes – Idle, Receive and Transmit.”

5.5. Product operating mode for testing

“Bluetooth: RF test mode”

(Customer supplied product operating mode for testing information)

5.6. Configuration

The EUT was either configured by the customer or configured using the customer's instructions.

The device was connected and powered by the Mobile Body. The device was also connected to a 12V battery/13.8VDC laboratory power supply.

Customer supplied a sample (SN: 21771803) with a temporary SMA connector for the conducted method testing.

As per customer instructions, the Bluetooth Classic module was configured for a maximum output power of +16 dBm for Basic Data Rate (BR) and +8 dBm for Enhanced Data Rate (EDR).

Pre-scan testing was performed on all possible configurations (Modulations, Data types) to determine the worst-case configuration.

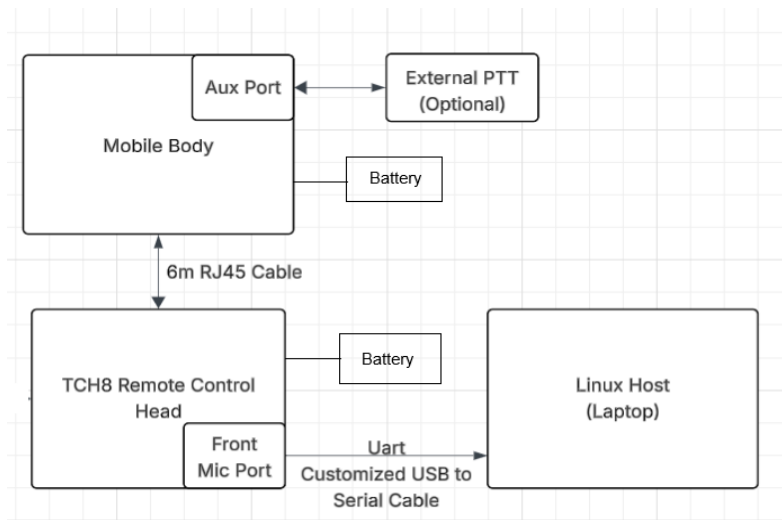


Figure 1: Block diagram of EUT test configuration – Radiated Method

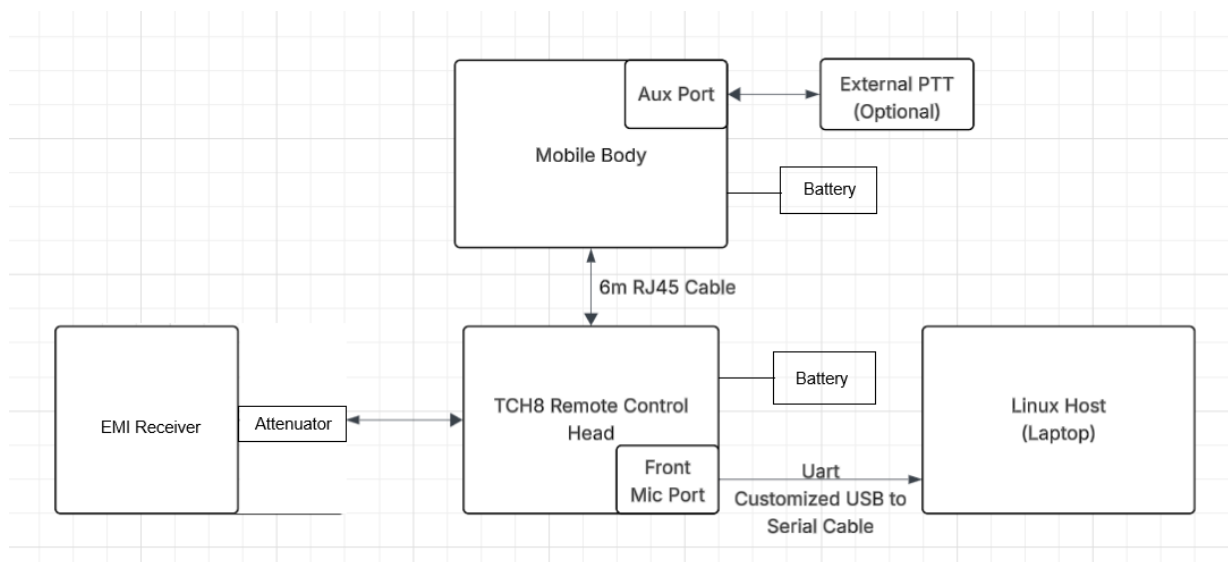


Figure 2: Block diagram of EUT test configuration – Conducted Method

Port	Cable type	Shielded cable	Cable Brand	Cable Model	Length (m)	Termination
Interface	RJ45	Yes	Chuanlian	CL0E1289	6m	Mobile body
Remote Control head Power Supply	Twin Flex Auto cable 14 AWG	No	DSQ	Not stated	5m	12V Battery
Front Mic Port	Custom USB to Serial	Yes	Not stated	Not stated	1m	Laptop

Table 2: List of ports and associated cables/terminations used for testing.

5.7. Modifications

EMC Bayswater Pty Ltd did not modify the EUT.

6. Test Facility & Equipment

6.1. Test Facility

Tests were performed at the indoor Open Area Test Site (iOATS) at EMC Bayswater Pty Ltd, located at 18/88 Merrindale Drive, Croydon South, Victoria, 3136, Australia.

EMC Bayswater Pty Ltd FCC Test Firm registration number is 527798.

EMC Bayswater Pty Ltd FCC Test Firm Designation number is AU0004.

6.2. Test Equipment

Refer to Appendix A for the measurement instrument list.

7. Referenced Standards

CFR47 FCC Part 15, Subpart C, 15.247

CFR47 FCC Part 15, Subpart B

ANSI C63.10 - 2020

American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

ANSI C63.4 - 2014

American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

FCC KDB - 558074 D01 15.247 Meas Guidance v05r02

8. Referenced Documents

Test Plan

None supplied

Tait International Limited - BT & NFC Compliance Test Commands Guide

AN14114 - RF Test Mode on Linux OS - Rev. 4.0 — 24 September 2024

9. Antenna Requirement – FCC Part 15.203

9.1. Requirements

As per section 15.203 of CFR47 FCC Part 15, Subpart C, 15.247:

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

9.2. Result

The EUT uses permanent, internally attached antenna which is soldered onto the PCB. Therefore, the EUT complied with the antenna requirements of CFR47 FCC Part 15, Subpart C, Section 15.203.

10.20dB Bandwidth – FCC 15.247 (a)(1)

10.1.Test Procedure

The 20dB Bandwidth measurement was performed in accordance with the section 6.9.2 of ANSI C63.10 - 2020.

20dB Bandwidth measurements were performed at the antenna port (Conducted method). The transmitter output was connected to a spectrum analyzer through a suitable attenuator. The spectrum analyser was tuned to the fundamental (transmit frequency) of the transmitter bottom, centre and top channels with 30kHz RBW and 100kHz VBW using the peak detector and a suitable span to allow accurate measurements whilst capturing the full intentional transmission including side lobes. The resultant bandwidth measurement was recorded.

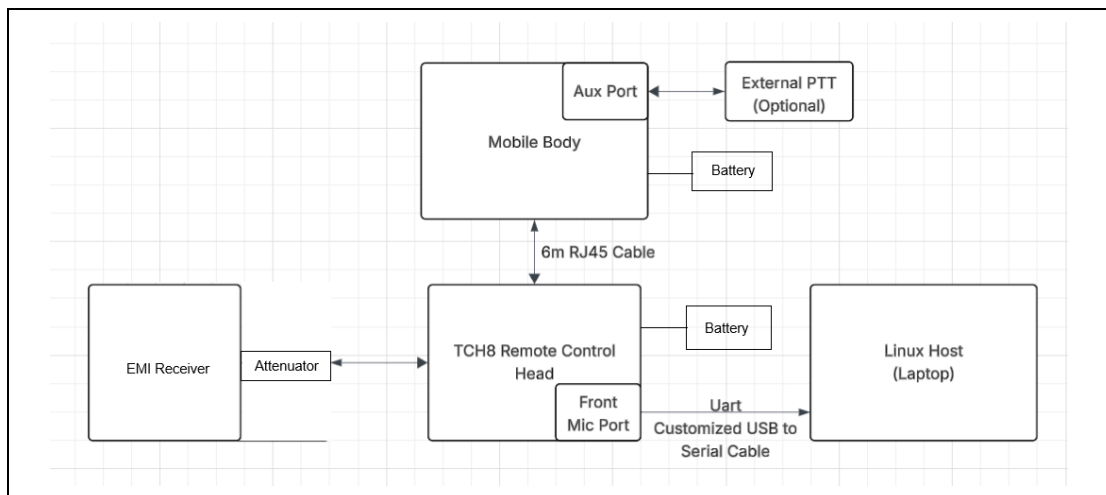


Figure 3: Test setup

(Refer to photographs in Annex C for views of the test configuration)

10.2.Limits

No limits are defined in CFR47 FCC Part 15, Subpart C, 15.247.

10.3. Test Results

20dB Bandwidth measurements are tabulated below:

(Refer to graphs in Appendix C.1)

Transmit Packet Type	Transmit Operating Frequency (MHz)	-20dBc Lower Frequency (MHz)	-20dBc Upper Frequency (MHz)	20dB Channel Bandwidth (kHz)
DH5	Bottom Channel - 2402	2401.525	2402.461	936
	Middle Channel - 2441	2440.589	2441.427	838
	Top Channel - 2480	2479.589	2480.427	838
2-DH5	Bottom Channel - 2402	2401.363	2402.590	1227
	Middle Channel - 2441	2440.370	2441.589	1219
	Top Channel - 2480	2479.373	2480.588	1215
3-DH5	Bottom Channel - 2402	2401.420	2402.593	1173
	Middle Channel - 2441	2440.419	2441.592	1173
	Top Channel - 2480	2479.418	2480.590	1172

Table 3: 20dB Bandwidth

The measurement uncertainty was calculated as follows:

Measurement Parameter	Calculated measurement uncertainty
Operating Frequency	$\pm 10.5\text{kHz}$
Bandwidth	$\pm 14.96\text{kHz}$

The reported uncertainty is an expanded uncertainty calculated using a coverage factor of $k=2$ which gives a level of confidence of approximately 95%.

Climatic Conditions	
Temperature:	17.9 to 21.9°C
Humidity:	40.8 to 47.7%
Atmospheric pressure:	1008.0 to 1014.5hPa

Table 4: Climatic conditions

Notes: The transmitter was continuously transmitting with modulation.

Assessment: The measured 20dB Bandwidth is 1227kHz (informative only).

11. Occupied Channel Bandwidth (99% Emission Bandwidth)

11.1. Test Procedure

The 99% emission Bandwidth was performed in accordance with the section 6.9.3 of ANSI C63.10 - 2020.

99% Emission Bandwidth measurements were performed at the antenna port (Conducted method). The transmitter output was connected to a spectrum analyzer through a suitable attenuator. The spectrum analyzer centre frequency was tuned to the fundamental (transmit frequency) of the transmitter with the span of the analyzer was set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth (RBW) was set to 1% to 5% of the occupied bandwidth and video bandwidth (VBW) was set to three times the RBW.

A peak detector, maxhold function (worst case) was used to measure the occupied bandwidth, using the built-in 99% occupied bandwidth measurement function of the receiver. The resultant bandwidth measurement was recorded.

(Refer to photographs in Annex C for views of the test configuration)

11.2. Requirements

No limits are defined in CFR47 FCC Part 15, Subpart C, 15.247.

11.3. Test Results

Occupied Bandwidth measurements are tabulated below:

(Refer to graph in Appendix C.5)

Transmit Packet Type	Transmit Operating Frequency (MHz)	99%BW Lower Frequency (MHz)	99%BW Upper Frequency (MHz)	Occupied Channel Bandwidth (kHz)
DH5	Bottom Channel - 2402	2401.558	2402.414	856
	Middle Channel - 2441	2440.564	2441.410	846
	Top Channel - 2480	2479.563	2480.409	846
2-DH5	Bottom Channel - 2402	2401.406	2402.553	1147
	Middle Channel - 2441	2440.408	2441.543	1135
	Top Channel - 2480	2479.408	2480.541	1133
3-DH5	Bottom Channel - 2402	2401.444	2402.575	1131
	Middle Channel - 2441	2440.446	2441.573	1127
	Top Channel - 2480	2479.445	2480.572	1127

Table 5: Occupied Bandwidth

The measurement uncertainty was calculated as follows:

Measurement Parameter	Calculated measurement uncertainty
Operating Frequency	$\pm 10.5\text{kHz}$
Bandwidth	$\pm 14.96\text{kHz}$

The reported uncertainty is an expanded uncertainty calculated using a coverage factor of $k=2$ which gives a level of confidence of approximately 95%.

Climatic Conditions	
Temperature:	17.9 to 21.9°C
Humidity:	40.8 to 47.7%
Atmospheric pressure:	1008.0 to 1014.5hPa

Table 6: Climatic conditions

Notes: The transmitter was continuously transmitting with modulation.

Assessment: The measured Occupied bandwidth (99% Emission Bandwidth) is 1147kHz (informative only).

12. Maximum peak output power– FCC 15.247 (b)(1)

12.1. Test Procedure

The Maximum peak output power measurements were performed in accordance with the section 7.8.5 of ANSI C63.10 - 2020.

The transmitter output was connected to a spectrum analyzer through a suitable attenuator. The Maximum Peak Conducted Output Power of the fundamental transmit frequency was measured using a spectrum analyzer with RBW > 20dB BW and VBW > RBW using the peak detector and a suitable span to allow accurate measurement whilst capturing the full intentional transmission including side lobes. An offset for the measurement path insertion loss (attenuators and cables) was used to get a true measurement.

The EUT was tested on the top, middle and bottom channels.

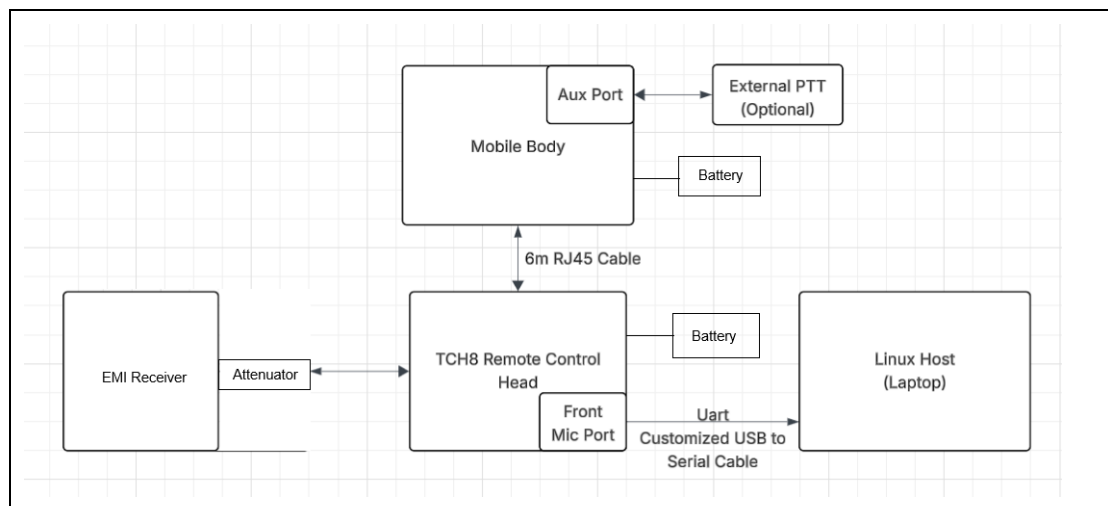


Figure 4: Test setup

(Refer to photographs in Annex C for views of the test configuration)

12.2. Limits

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels:

Transmit operating frequency (MHz)	Output Power (W)	Output Power (dBm)	e.i.r.p (W)	e.i.r.p (dBm)
2400 – 2483.5	1	30	4	36

Table 7: Limits – Transmitter maximum peak output power

12.3. Test Results

The worst-case maximum output power measurements are tabulated below:

Transmit Packet Type	Channel	Frequency (MHz)	Peak Conducted Power (dBm)	Limit (dBm)	Margin (dB)	Customer declared antenna gain (dBi)	e.i.r.p (dBm)	Limit e.i.r.p (dBm)	Margin (dB)	Result
DH5	Bottom	2402.074	+7.5	30.0	-22.5	+3.2	+10.7	36.0	-25.3	Complied
	Middle	2441.040	+8.2	30.0	-21.8	+3.2	+11.4	36.0	-24.6	Complied
	Top	2480.040	+9.1	30.0	-20.9*	+3.2	+12.3	36.0	-23.7*	Complied
2-DH5	Bottom	2402.156	-6.2	30.0	-36.2	+3.2	-3.0	36.0	-39.0	Complied
	Middle	2441.057	-5.3	30.0	-35.3	+3.2	-2.1	36.0	-38.1	Complied
	Top	2480.051	-4.6	30.0	-34.6	+3.2	-1.4	36.0	-37.4	Complied
3-DH5	Bottom	2401.913	-5.9	30.0	-35.9	+3.2	-2.7	36.0	-38.7	Complied
	Middle	2440.976	-4.9	30.0	-34.9	+3.2	-1.7	36.0	-37.7	Complied
	Top	2479.925	-4.3	30.0	-34.3	+3.2	-1.1	36.0	-37.1	Complied

**Worst-case emission*

Table 8: Results for Maximum peak output power

The measurement uncertainty was calculated at ± 1.4 dB. The reported uncertainty is an expanded uncertainty calculated using a coverage factor of approximately $k=2$ which gives a level of confidence of approximately 95%.

Climatic Conditions	
Temperature:	17.9 to 21.9°C
Humidity:	40.8 to 47.7%
Atmospheric pressure:	1008.0 to 1014.5hPa

Table 9: Climatic Conditions

Notes: The transmitter maximum output power was below the specified limit for the specified operating frequency.

The transmitter was continuously transmitting with modulation.

Calculation for e.i.r.p

$$e.i.r.p \text{ (dBm)} = \text{Conducted Power at antenna terminal (dBm)} + \text{Antenna Gain (dBi)}$$

Assessment: The EUT complied with the Maximum conducted output power requirements of CFR47 FCC Part 15, Subpart C, 15.247 (b)(1).

13. Radiated emissions in Restricted bands – 15.247 (d), 15.209

13.1. Requirements

As per section 15.247(d) of 47 CFR Part 15 Subpart C:

- Radiated emissions which fall in the restricted bands, as defined in section 15.205(a) of 47 CFR Part 15 Subpart C, must also comply with the radiated emission limits specified in section 15.209(a) of 47 CFR Part 15 Subpart C (see §15.205(c) of 47 CFR Part 15 Subpart C).

As per section 47 CFR Part 15 Subpart C section 15.209 (Radiated emissions, general requirements) the EUT is required to meet the limits that permit the highest field strength of the following table for the radiated emissions which fall in the restricted bands, as defined in section 15.205(a) of 47 CFR Part 15 Subpart C:

Frequency Range (MHz)	Limits at 3m (dBµV/m)
0.009 to 0.490	128.5 to 93.8
0.490 to 1.705	73.8 to 62.9
1.705 to 30.0	69.5
30.0 to 88	40.0
88.0 to 216.0	43.5
216.0 to 960.0	46.0
Above 960	54.0
NOTE: The lower limit shall apply at the transition frequency.	

Note 1: as per CFR FCC Part 15 section 15.209 (d) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector

Note 2: as per CFR FCC Part 15.35 (b) Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1 MHz. When average radiated emission measurements are specified in this part, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. Unless otherwise specified, e.g., see §§15.250, 15.252, 15.253(d), 15.255, 15.256, and 15.509 through 15.519 of this part, the limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device, e.g., the total peak power level. Note that the use of a pulse desensitization correction factor may be needed to determine the total peak emission level. The instruction manual or application note for the measurement instrument should be consulted for determining pulse desensitization factors, as necessary.

Table 10: Limits for Radiated Spurious Emissions at distance of 3m – Restricted Bands

13.2. Test Procedure

The Radiated Emissions were performed in accordance with ANSI C63.10 - 2020.

Radiated Emissions were measured 3 metres (from 9kHz to 25GHz) away from the EUT in the iOATS (indoor Open Area Test Site) facility, which is an ANSI C63.4 compliant semi-anechoic chamber with ground plane. The EUT was placed on a non-conductive support at a height of 0.8m (9kHz to 1GHz) and 1.5m (1GHz to 25GHz) above the ground plane.

In the frequency range of 9kHz to 30MHz, an Active loop antenna was used. For X (Parallel), Y (Perpendicular) and Z (Ground-Parallel) antenna polarizations, the peak detector was set to MAX-HOLD and the range selected continuously scanned. The measuring antenna was positioned at 1m fixed height, and the turntable slowly rotated. The peak preview measurements were performed with a resolution bandwidth of 200Hz (9kHz to 150kHz), 9kHz (150kHz to 30MHz) and a video bandwidth of 30kHz. Peak emissions that exceeded the limit or were close to the applicable limit were investigated further. The frequency of each emission was then accurately determined. Each emission of interest was then in-turn maximised by using the turntable to rotate the EUT through 360 degrees to find the worst-case emission arrangement. Quasi peak measurements were then performed using a measuring time of no less than 15 seconds. The final quasi-peak measurements were performed using a receiver bandwidth of 6dB and a resolution bandwidth of 200Hz (9kHz to 150kHz) and 9kHz (150kHz to 30MHz).

In the frequency range of 30MHz to 1GHz, a Biconilog antenna was used. For both horizontal and vertical antenna polarizations, the peak detector was set to MAX-HOLD and the range selected continuously scanned. The measuring antenna was positioned at 4 different fixed height positions and the turntable slowly rotated. The peak preview measurements were performed with a resolution bandwidth of 120kHz and a video bandwidth of 300kHz. Peak emissions that exceeded the limit or were close to the applicable limit were investigated further. The frequency of each emission was then accurately determined. Each emission of interest was then in-turn maximised by using the turntable to rotate the EUT through 360 degrees and varying the height of the antenna between 1 and 4 metres to find the worst-case emission arrangement. Quasi peak measurements were then performed using a measuring time of no less than 15 seconds. The final quasi-peak measurements were performed using a receiver bandwidth of 6dB and a resolution bandwidth of 120kHz.

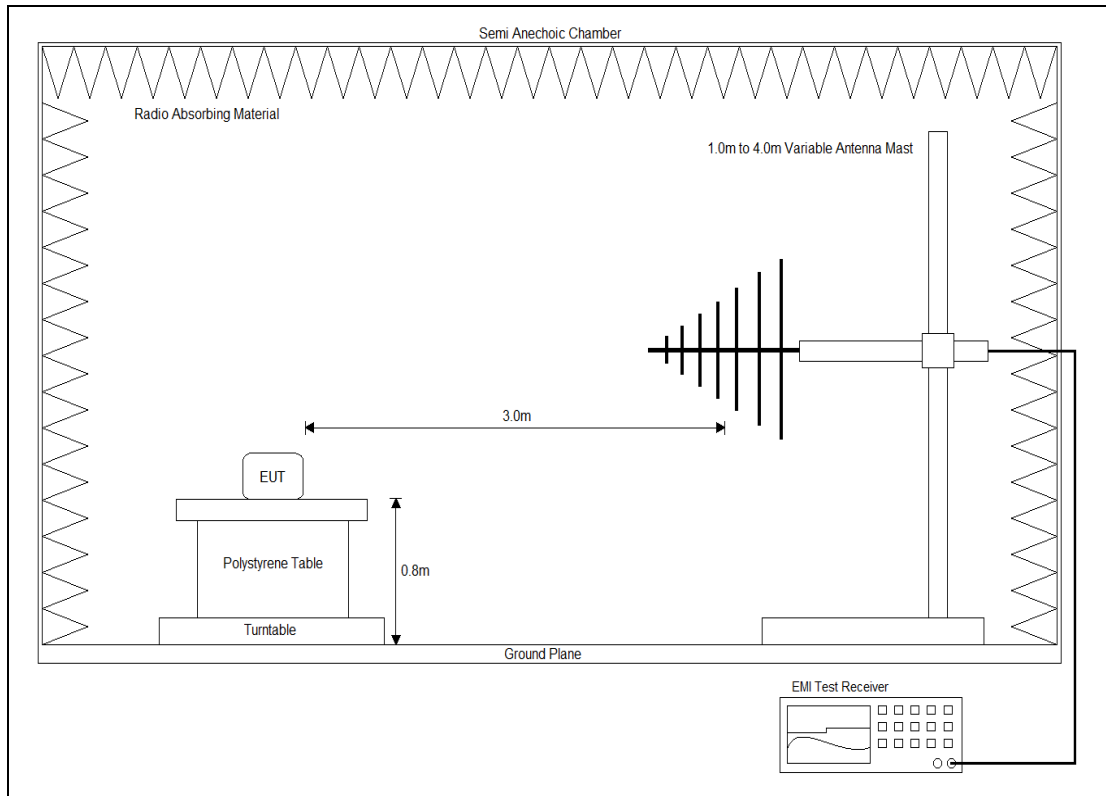


Figure 5: Test setup – 30MHz to 1GHz

In the frequency range 1.0GHz to 25GHz a Horn antenna was used and an area of 3m x 3.6m was covered between the antenna and the EUT using RF absorbing material with a rated attenuation more than 20dB over the frequency range. The height of the horn antenna was varied using the antenna bore-sighting technique and the turntable slowly rotated to maximise the emissions. For both horizontal and vertical antenna polarizations, the Peak and Average preview measurements were performed with a resolution bandwidth of 1 MHz and a video bandwidth of 3MHz. Peak and average emissions that exceeded the applicable limit or were close to the applicable limit were investigated further. Each emission of interest was then in-turn maximised by using the turntable to rotate the EUT through 360 degrees and the antenna height varied (if applicable, using the antenna bore-sighting technique) to find the worst-case emission arrangement. Peak and CISPR Average measurements were then performed using a measuring time of no less than 15 seconds, the maximum emission level in the observed duration was recorded as the final result. The final peak and CISPR Average measurements were performed using a receiver bandwidth of 6dB and a resolution bandwidth of 1 MHz. Peak and Average measurements were performed at spot frequencies where the peak or average emission was close to, or exceeded the applicable limit line with the EUT rotation and antenna height varied (if applicable, using the antenna bore-sighting technique) to produce the highest emission.

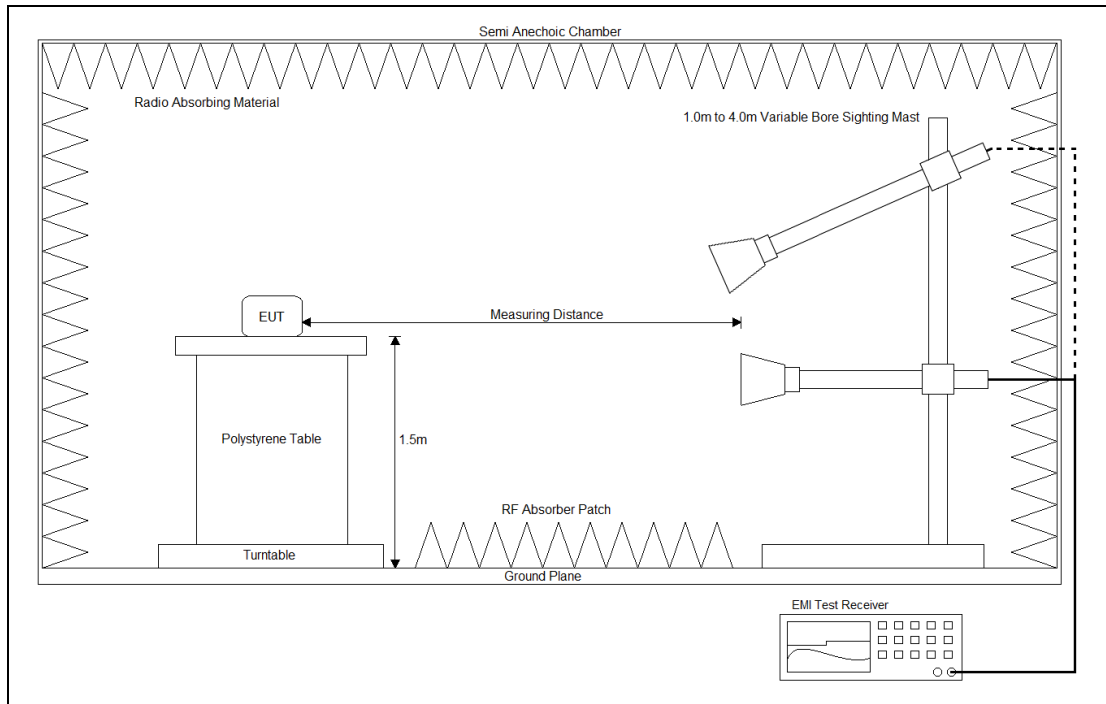


Figure 6: Test setup – above 1GHz

Plots of the accumulated measurement data for both horizontal and vertical antenna polarizations, including all transducer and other measuring system correction factors were produced using commercially available compliant software (as listed in the test equipment list of this report).

(Refer to photographs in Annex C for views of the test configuration)

13.3. Test Results

DH5 data type (Worst-case) Transmitter Spurious Emissions measurements are detailed as follows:

(Refer to graphs in Appendix C.3)

Operating Channel: Middle				
Measurement Antenna Polarisation	Frequency (MHz)	Result peak (dB μ V/m)	Limit Quasi-peak/ Average (dB μ V/m)	Delta limit (dB)
X	Peak preview emissions >20dB below limit or no significant emissions above the noise floor observed			
Y	Peak preview emissions >20dB below limit or no significant emissions above the noise floor observed			
Z	Peak preview emissions >20dB below limit or no significant emissions above the noise floor observed			

Table 11: Transmitter Spurious Emissions – 9kHz to 30MHz

Operating Channel: Bottom and Top				
Measurement Antenna Polarisation	Frequency (MHz)	Result Quasi-peak (dB μ V/m)	Limit Quasi-peak (dB μ V/m)	Delta limit (dB)
Horizontal	Peak preview emissions >20dB below limit or no significant emissions above the noise floor observed			
Vertical				

Table 12: Transmitter Spurious Emissions – 30MHz to 1GHz

Operating Channel: Middle				
Measurement Antenna Polarisation	Frequency (MHz)	Result Quasi-peak (dB μ V/m)	Limit Quasi-peak (dB μ V/m)	Delta limit (dB)
Horizontal	38.003	20.0	40.0	-20.0
	124.624	18.5	43.5	-25.0
	610.060	28.2	46.0	-17.8
Vertical	37.760	20.4	40.0	-19.6
	129.377	18.3	43.5	-25.2
	611.612	28.3	46.0	-17.7*

**Worst-case emissions*

Table 13: Transmitter Spurious Emissions – 30MHz to 1GHz

Operating Channel: Bottom (2402MHz)								
Measurement Antenna Polarisation	Peak Measurements				Average Measurements			
	Frequency (MHz)	Result (dB μ V/m)	Limit (dB μ V/m)	Delta Limit (dB)	Frequency (MHz)	Result (dB μ V/m)	Limit (dB μ V/m)	Delta Limit (dB)
Horizontal	4804.080	42.4	74.0	-31.6	4804.080	29.1	54.0	-24.9
Vertical	4804.080	42.8	74.0	-31.2*	4804.080	29.3	54.0	-24.7*

**Worst-case emissions*

Table 14: Transmitter Spurious Emissions – 1GHz to 25GHz

Operating Channel: Middle (2441MHz)								
Measurement Antenna Polarisation	Peak Measurements				Average Measurements			
	Frequency (MHz)	Result (dB μ V/m)	Limit (dB μ V/m)	Delta Limit (dB)	Frequency (MHz)	Result (dB μ V/m)	Limit (dB μ V/m)	Delta Limit (dB)
Horizontal	4882.080	42.0	74.0	-32.0	4882.080	28.7	54.0	-25.3
Vertical	4882.080	42.2	74.0	-31.8*	4882.080	29.0	54.0	-25.0*

**Worst-case emissions*

Table 15: Transmitter Spurious Emissions – 1GHz to 25GHz

Operating Channel: Top (2480MHz)								
Measurement Antenna Polarisation	Peak Measurements				Average Measurements			
	Frequency (MHz)	Result (dBμV/m)	Limit (dBμV/m)	Delta Limit (dB)	Frequency (MHz)	Result (dBμV/m)	Limit (dBμV/m)	Delta Limit (dB)
Horizontal	4960.080	43.3	74.0	-30.7	4960.080	29.7	54.0	-24.3
Vertical	4960.080	43.5	74.0	-30.5*	4960.080	30.0	54.0	-24.0*

**Worst-case emissions*

Table 16: Transmitter Spurious Emissions – 1GHz to 25GHz

The measurement uncertainty was calculated as follows:

Measurement frequency range	Calculated measurement uncertainty
30MHz to 1GHz	±4.65dB
1GHz to 6GHz	±4.83dB
6GHz to 18GHz	±4.49dB
18GHz to 26.5GHz	±4.46dB

The reported uncertainty is an expanded uncertainty calculated using a coverage factor of $k=2$ which gives a level of confidence of approximately 95%.

Climatic Conditions	
Temperature:	15.8 to 18.2°C
Humidity:	41 to 47%
Atmospheric pressure:	1008.0 to 1020.8hPa

Table 17: Climatic conditions

Calculation: The above results are based upon the following calculation:

$$E = V_{QP/PK/AV} + AF - G_{Amp} + L_C$$

Where:

$$\begin{aligned}
 E &= \text{E-field in dB}\mu\text{V/m} \\
 V_{QP/PK/AV} &= \text{Measured Voltage (Quasi Peak, Peak or Average) in dB}\mu\text{V} \\
 AF &= \text{Antenna Factor in dB(/m)} \\
 L_C &= \text{Cable and attenuator Loss in dB} \\
 G_{Amp} &= \text{Pre Amplifier Voltage Gain in dB}
 \end{aligned}$$

Example calculation:

$$\begin{aligned}
 E &= V_{PK} + AF - G_{Amp} + L_C \\
 E &= 30\text{dB}\mu\text{V} + 12\text{dB/m} - 0\text{dB} + 2.3\text{dB} \\
 E &= 44.3 \text{ dB}\mu\text{V/m}
 \end{aligned}$$

Notes: All Transmitter Radiated spurious emissions in restricted bands measurements were below the specified limits.

Radiated Emissions measurements were made up to the 10th harmonic. Worst-case graphs are included in Appendix C.3.

The transmitter was continuously transmitting with modulation.

Assessment: The EUT complied with the Radiated emissions in Restricted bands requirements of CFR47 FCC Part 15, Subpart C, 15.247 (d).

14. Out of Band emissions (100kHz, -20dBc) - FCC 15.247 (d)

14.1. Test Procedure

The Out of band emissions in non-restricted bands were performed in accordance with ANSI C63.10 - 2020..

Measurements were performed at the antenna port.

The transmitter output was connected to a spectrum analyzer through a suitable attenuator (Conducted method). The out of band emissions were measured by spectrum analyzer with 100kHz RBW and 300kHz VBW using the peak detector. All measuring system correction factors (attenuators and cables) were used to get a true measurement.

Reference and emission level measurements were performed as per ANSI C63.10 - 2020.

(Refer to photographs in Annex C for views of the test configuration)

14.2. Limits

As per section 15.247(d) of 47 CFR Part 15 Subpart C:

- In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of section 15.247 of 47 CFR Part 15 Subpart C, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in section 15.209(a) of 47 CFR Part 15 Subpart C is not required. In addition, radiated emissions which fall in the restricted bands, as defined in section 15.205(a) of 47 CFR Part 15 Subpart C, must also comply with the radiated emission limits specified in section 15.209(a) of 47 CFR Part 15 Subpart C (see §15.205(c) of 47 CFR Part 15 Subpart C).

Transmit Packet Type	Highest PSD measured in 100kHz	Frequency Range (MHz)	Limits (dBm)
DH5	+8.3	30MHz and 25GHz	-11.7
2-DH5	-7.5		-27.5
3-DH5	-7.4		-27.4

Table 18: Limits for Unwanted Emissions - -20dBc (Non-restricted bands)

14.3. Test Results

Unwanted emissions measurements are detailed as follows:

(Refer to graphs in Appendix C.4)

Transmit Packet Type	Channel	Frequency (MHz)	Measured Level (dBm)	Limit (dBm)	Delta limit (dB)
DH5	Bottom	Peak preview emissions >20dB below the limit or no significant emissions above the noise floor observed.			
	Middle				
	Top				
2-DH5	Bottom	Peak preview emissions >20dB below the limit or no significant emissions above the noise floor observed.			
	Middle				
	Top				
3-DH5	Bottom	Peak preview emissions >20dB below the limit or no significant emissions above the noise floor observed.			
	Middle				
	Top				

Table 19: Transmitter Out of Band emissions - -20dBc/100kHz

The measurement uncertainty was calculated as follows:

Measurement frequency range	Calculated measurement uncertainty
30MHz to 25GHz	±1.4dB

The reported uncertainty is an expanded uncertainty calculated using a coverage factor of $k=2$ which gives a level of confidence of approximately 95%.

Notes: All Transmitter Out of Band emissions measurements were below the specified limits (-20dBc).

Conducted measurements were made up to the 10th harmonic.

The transmitter was continuously transmitting with modulation.

Assessment: The EUT complied with the Out of Band emissions (100kHz, -20dBc) requirements of CFR47 FCC Part 15, Subpart C, 15.247 (d).

15. Emissions on the Band edge – FCC 15.247 (d)

15.1. Test Procedure

The Band edge Measurement (100kHz, -20dB from fc & Restricted bands) was performed in accordance with ANSI C63.10 - 2020.

Conducted measurements were performed within 2 MHz of the authorised lower band-edge.

At the lowest channel, 99% Occupied Band Width of the fundamental channel emission was within 2 MHz of the authorised Lower band edge therefore Marker-delta method was used. Unwanted emission at the lower band-edge were performed as per section 6.10.4 of ANSI C63.10 - 2020. At authorised-band band edge where the requiring band-edge emission attenuation is -20dB in a 100kHz bandwidth relative to the highest fundamental channel PSD in 100kHz. Radiated peak measurements were performed as per as section 6.10.4 of ANSI C63.10 - 2020.

The higher end of the band-edge was in restricted-band therefore measurements were performed as per section 6.10.5 of ANSI C63.10 - 2020. The FCC 15.209 limits are applicable to emission in restricted-band band-edge.

(Refer to photographs in Annex C for views of the test configuration)

15.2. Limits

Band edge in Non-restricted Bands

As per CFR47 FCC Part 15, Subpart C, 15.247 (d) the EUT shall meet the requirements that in any given 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

Transmit Packet Type	Highest PSD measured in 100kHz	Frequency Range (MHz)	Limits (dBm)
DH5	+8.3	30MHz and 25GHz	-11.7
2-DH5	-7.5		-27.5
3-DH5	-7.4		-27.4

Table 20: Limits for Band edge - -20dBc (Non-restricted bands)

Band edge in Restricted Bands

As per CFR47 FCC Part 15, Subpart C, 15.247 (d) and 15.209 (Transmitter emission limits) the EUT is required to meet the limits that permit the highest field strength of the following table for the radiated emissions which fall in the restricted bands, as defined in section 15.205(a) of 47 CFR Part 15 Subpart C :

Band edge Frequencies	Limits at 3m (dB μ V/m)
2483.5MHz to 2485.5	54.0

Note 1: as per CFR FCC Part 15.35 (b), The emission limits shown in the above table are based on measurements employing an average detector.

Table 21: Limits for Radiated Spurious Emissions at distance of 3m – Restricted Bands.

15.3.Test Results

Band edge measurements are detailed as follows:

(Refer to graphs in Appendix C.2)

Operating Channel: Bottom (2402MHz)				
Transmit Packet Type	Frequency (MHz)	Result Peak Power Spectral Density (dBm/100kHz)	Limit Peak Power Spectral Density (dBm/100kHz)	Delta limit (dB)
DH5	2399.863	-51.3	-11.7	-39.6
2-DH5	2399.959	-55.6	-27.5	-28.1*
3-DH5	2399.872	-55.8	-27.4	-28.4

*Worst-case emissions

Table 22: Transmitter Emissions on the Band edge – Low end – Hopping disabled – Non-restricted Band

Operating Channel: Top (2480MHz)									
Transmit Packet Type	Measurement Antenna Polarisation	Peak Measurements				Average Measurements			
		Frequency (MHz)	Result (dB μ V/m)	Limit (dB μ V/m)	Delta Limit (dB)	Frequency (MHz)	Result (dB μ V/m)	Limit (dB μ V/m)	Delta Limit (dB)
DH5	Horizontal	2483.820	44.1	74.0	-29.9	2484.860	35.1	54.0	-18.9
	Vertical	2484.600	46.2	74.0	-27.8	2483.560	38.5	54.0	-15.5*
2-DH5	Horizontal	2485.380	44.8	74.0	-29.2	2483.560	35.4	54.0	-18.6
	Vertical	2484.080	44.4	74.0	-29.6	2484.600	35.2	54.0	-18.8
3-DH5	Horizontal	2484.340	44.7	74.0	-29.3	2484.080	35.8	54.0	-18.2
	Vertical	2485.380	45.2	74.0	-28.8	2483.820	35.1	54.0	-18.9

*Worst-case emissions

Table 23: Transmitter Emissions on the Band edge – High end – Hopping disabled – Restricted band

Operating Channel: Top (2480MHz)				
Transmit Packet Type	Frequency (MHz)	Result Peak Power Spectral Density (dBm/100kHz)	Limit Peak Power Spectral Density (dBm/100kHz)	Delta limit (dB)
DH5	2483.506	-57.2	-11.7	-45.5
	2483.606	-55.5		-43.8
2-DH5	2483.506	-58.5	-27.5	-31.0
	2483.948	-56.0		-28.5*
3-DH5	2483.506	-59.6	-27.4	-32.2
	2483.791	-56.5		-29.1

**Worst-case emissions*

Table 24: Transmitter Emissions on the Band edge – High end – Hopping disabled – Non-restricted Band

Bottom end (2402MHz)				
Transmit Packet Type	Frequency (MHz)	Result Peak Power Spectral Density (dBm/100kHz)	Limit Peak Power Spectral Density (dBm/100kHz)	Delta limit (dB)
DH5	2399.854	-53.5	-11.7	-41.8
	2399.993	-53.6		-41.9
2-DH5	2399.874	-57.7	-27.5	-30.2
	2399.993	-58.5		-31.0
3-DH5	2399.727	-57.0	-27.4	-29.6*
	2399.993	-58.3		-30.9

**Worst-case emissions*

Table 25: Transmitter Emissions on the Band edge – Low end – Hopping enabled – Non-restricted Band

Top end (2480MHz)									
Transmit Packet Type	Measurement Antenna Polarisation	Peak Measurements				Average Measurements			
		Frequency (MHz)	Result (dBμV/m)	Limit (dBμV/m)	Delta Limit (dB)	Frequency (MHz)	Result (dBμV/m)	Limit (dBμV/m)	Delta Limit (dB)
DH5	Horizontal	2485.120	45.4	74.0	-28.6	2483.820	36.1	54.0	-17.9
	Vertical	2484.080	47.7	74.0	-26.3*	2484.080	37.5	54.0	-16.5*
2-DH5	Horizontal	2484.080	46.3	74.0	-27.7	2484.860	36.5	54.0	-17.5
	Vertical	2484.340	46.5	74.0	-27.5	2485.120	36.2	54.0	-17.8
3-DH5	Horizontal	2485.380	45.6	74.0	-28.4	2484.600	35.7	54.0	-18.3
	Vertical	2484.860	46.5	74.0	-27.5	2484.080	35.8	54.0	-18.2

**Worst-case emissions*

Table 26: Transmitter Emissions on the Band edge – High end – Hopping enabled – Restricted band

Top end (2480MHz)				
Transmit Packet Type	Frequency (MHz)	Result Peak Power Spectral Density (dBm/100kHz)	Limit Peak Power Spectral Density (dBm/100kHz)	Delta limit (dB)
DH5	2483.506	-58.7	-11.7	-47.0
	2484.924	-55.3		-43.6
2-DH5	2483.506	-59.5	-27.5	-32.0
	2483.676	-58.0		-30.5
3-DH5	2483.506	-58.6	-27.4	-31.2
	2483.700	-57.7		-30.3*

**Worst-case emissions*

Table 27: Transmitter Emissions on the Band edge – High end – Hopping enabled – Non-restricted Band

The measurement uncertainty was calculated as follows:

Measurement frequency range	Calculated measurement uncertainty
30MHz to 25GHz	±1.4dB

The reported uncertainty is an expanded uncertainty calculated using a coverage factor of $k=2$ which gives a level of confidence of approximately 95%.

Climatic Conditions	
Temperature:	15.8 to 22.6°C
Humidity:	39 to 47.7%
Atmospheric pressure:	1006.0 to 1020.8hPa

Table 28: Climatic conditions

Calculation: The above results are based upon the following calculation:

$$E = V_{QP/PK/AV} + AF - G_{Amp} + L_C$$

Where:

$$E = \text{E-field in dB}\mu\text{V/m}$$

$$V_{QP/PK/AV} = \text{Measured Voltage (Quasi Peak, Peak or Average) in dB}\mu\text{V}$$

$$AF = \text{Antenna Factor in dB/(m)}$$

$$L_C = \text{Cable and attenuator Loss in dB}$$

$$G_{Amp} = \text{Pre Amplifier Voltage Gain in dB}$$

Example calculation:

$$E = V_{PK} + AF - G_{Amp} + L_C$$

$$E = 30\text{dB}\mu\text{V} + 12\text{dB/m} - 0\text{dB} + 2.3\text{dB}$$

$$E = 44.3 \text{ dB}\mu\text{V/m}$$

Notes: All Band edge measurements were below the specified limits.

The transmitter was continuously transmitting in modulated transmit mode.

Assessment: The EUT complied with the Transmitter Unwanted Emissions requirements of CFR47 FCC Part 15, Subpart C, 15.247(d).

16. Number of Hopping Frequencies – FCC 15.247 (a)(1)(iii)

16.1. Limits

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

16.2. Test Procedure

The Number of Hopping Frequencies measurement was performed in accordance with the section 7.8.3 of ANSI C63.10 - 2020.

The Number of Hopping Frequencies measurements were performed at the antenna port (Conducted method). The transmitter output was connected to a spectrum analyzer through a suitable attenuator. The spectrum analyser was tuned to the fundamental (transmit frequency) of the transmitter centre channel with 300kHz RBW and 1MHz VBW using the peak detector and a suitable span to allow accurate measurements.

(Refer to photographs in Annex C for views of the test configuration)

16.3. Test Results

Number of hopping frequencies measured is tabulated below:

(Refer to graphs in Appendix C.6)

Transmit Packet Type	Frequency (MHz)	Measured number of channels	Requirement	Result
DH5	2400-2483.5	79	Minimum 15 channels	Complied
2-DH5		79		Complied
3-DH5		79		Complied

Table 29: Measurement results of the Number of Hopping channels

The measurement uncertainty was calculated as follows:

Measurement Parameter	Calculated measurement uncertainty
Operating Frequency	±10.5kHz
Bandwidth	±14.96kHz

The reported uncertainty is an expanded uncertainty calculated using a coverage factor of $k=2$ which gives a level of confidence of approximately 95%.

Climatic Conditions	
Temperature:	19.2 to 21.9°C
Humidity:	42.3 to 47.7%
Atmospheric pressure:	1008.0 to 1008.9hPa

Table 30: Climatic conditions

Notes: The transmitter was continuously transmitting with modulation and hopping.

Assessment: The number of hopping frequencies measured is 79.

The EUT complied with the minimum number of hopping frequency channel requirements of CFR47 FCC Part 15, Subpart C, 15.247 (a)(1)(iii).

17. Channel Occupancy Time – FCC 15.247 (a)(1)(iii)

17.1. Limits

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

17.2. Test Procedure

The Channel Occupancy Time measurement was performed in accordance with the section 7.8.4 of ANSI C63.10 – 2013.

The Channel Occupancy Time measurements were performed at the antenna port (Conducted method). The transmitter output was connected to a spectrum analyzer through a suitable attenuator. The spectrum analyser was tuned to the fundamental (transmit frequency) of the transmitter middle channel with zero span, 1MHz RBW and 3MHz VBW using the peak detector. The marker delta function was used to measure the occupancy time.

(Refer to photographs in Annex C for views of the test configuration)

17.3. Test Results

Channel occupancy time measurements are tabulated below:

(Refer to graphs in Appendix C.6)

Transmit frequency (MHz)	Transmit Packet Type	Pulse Time (ms)	Dwell Time (s)	Limit – Maximum duration (s)	Result
2441MHz	DH1	0.382	0.122	0.4*	Complied
	DH3	1.640	0.262		Complied
	DH5	2.887	0.308		Complied
	2DH1	0.385	0.123		Complied
	2DH3	1.637	0.262		Complied
	2DH5	2.885	0.308		Complied
	3DH1	0.385	0.123		Complied
	3DH3	1.636	0.262		Complied
	3DH5	2.887	0.308		Complied

*maximum 0.4 second average occupancy time in 31.6seconds (79 channels x 0.4second)

Tale 31: Measurement results of channel occupation time

The measurement uncertainty was calculated as follows:

Measurement Parameter	Calculated measurement uncertainty
Operating Frequency	±10.5kHz
Bandwidth	±14.96kHz

The reported uncertainty is an expanded uncertainty calculated using a coverage factor of $k=2$ which gives a level of confidence of approximately 95%.

Climatic Conditions	
Temperature:	19.2 to 22.6°C
Humidity:	42.3 to 47.7%
Atmospheric pressure:	1008.0 to 1015.1hPa

Table 32: Climatic conditions

Notes: The transmitter was continuously transmitting with modulation and hopping.

Calculations:

Number of channels: 79

Measurement Periods: 31.6 sec (0.4s x number of channels)

Standard hopping rate: 1600 hops/sec

DH1 time Slots: 2 (1 RX time slot, 1 TX time slot)

DH3 time Slots: 4 (3 RX time slots, 1 TX time slot)

DH5 time Slots: 6 (5 RX time slots, 1 TX time slot)

DH1 packet permits a maximum of $(1600/79/2)$ hops/second in each channel

DH3 packet permits a maximum of $(1600/79/4)$ hops/second in each channel

DH5 packet permits a maximum of $(1600/79/6)$ hops/second in each channel

The Dwell time can be calculated as follows:

DH1 Dwell time = measured pulse time x $(1600/79/2)$ x 31.6 sec

DH3 Dwell time = measured pulse time x $(1600/79/4)$ x 31.6 sec

DH5 Dwell time = measured pulse time x $(1600/79/6)$ x 31.6 sec

Assessment: The EUT complied with the Channel Occupancy Time requirements of CFR47 FCC Part 15, Subpart C, 15.247 (a)(1)(iii).

18. Channel Separation – FCC 15.247 (a)(1)

18.1. Limits

Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

18.2. Test Procedure

The Channel Separation measurement was performed in accordance with the section 7.8.2 of ANSI C63.10 – 2013.

The Channel Occupancy measurements were performed at the antenna port (Conducted method). The transmitter output was connected to a spectrum analyzer through a suitable attenuator. The marker delta function of the analyser was used to measure the frequency separation between two adjacent channels.

(Refer to photographs in Annex C for views of the test configuration)

18.3. Test Results

Channel separation measurements are tabulated below:

(Refer to graph in Appendix C.6)

Transmit Packet Type	Transmit Operating Frequency (MHz)	Measured Channel Separation (kHz)	Limit $\frac{2}{3}$ of 20dB BW (kHz)	Requirements	Result
DH5	Band Bottom end - 2402	1005	624	Limit > 25kHz or $\frac{2}{3}$ of 20dB BW (kHz), whichever is greater	Complied
	Band Middle - 2441	1000	559		Complied
	Band Top end - 2480	1005	559		Complied
2-DH5	Band Bottom end - 2402	1010	567		Complied
	Band Middle - 2441	1000	567		Complied
	Band Top end - 2480	1000	565		Complied
3-DH5	Band Bottom end - 2402	1000	818		Complied
	Band Middle - 2441	1000	813		Complied
	Band Top end - 2480	1000	810		Complied

Table 33: Measurement results of channel separation

Climatic Conditions	
Temperature:	19.2 to 21.9°C
Humidity:	42.3 to 47.7%
Atmospheric pressure:	1008.0 to 1008.9hPa

Table 34: Climatic conditions

The measurement uncertainty was calculated as follows:

Measurement Parameter	Calculated measurement uncertainty
Operating Frequency	$\pm 10.5\text{kHz}$
Bandwidth	$\pm 14.96\text{kHz}$

The reported uncertainty is an expanded uncertainty calculated using a coverage factor of $k=2$ which gives a level of confidence of approximately 95%.

Notes: The transmitter was continuously transmitting with modulation and hopping.

Assessment: The EUT complied with the Channel Separation requirements of CFR47 FCC Part 15, Subpart C, 15.247 (a)(1).

19. Conclusion

The Tait International Limited, TAHP2A, TCH8 Control Head complied with the applicable requirements of CFR47 FCC Part 15, Subpart C, 15.247.

Appendix A – Test Equipment

Inv.	Equipment	Make	Model No.	Serial No.	Calibration		
					Interval	Due	Type
Maximum Peak Output Power, Bandwidth, Out of Band emissions and Band-edge – Conducted Method							
1217	ANALYSER, EMI Receiver	Rohde & Schwarz	ESU40	100182	1 year	Aug-26	E
1093	ATTENUATOR, 6dB, 2W	Fairview Microwave	SA26B-06	1093	2 years	Mar-26	E
1155	Hygrometer, Temp, Humidity	DigiTech	QM7312	-	2 years	Jul-27	I
0666	Enclosure, Semi-Anechoic, No 1	RFI Industries	S800 iOATS	1229	3 years	Jul-28	I
Radiated Spurious Emissions							
1217	ANALYSER, EMI Receiver	Rohde & Schwarz	ESU40	100182	1 year	Aug-26	E
0932	CONTROLLER, Position	Sunol Sciences	SC104V-3	081006-1	N/A	N/A	V
0933	TURNTABLE	Sunol Sciences	SM46C	081006-2	N/A	N/A	V
0934	MAST, Antenna	Sunol Sciences	TLT2	081006-5	N/A	N/A	V
0935	ANTENNA, Biconilog	Sunol Sciences	JB5	A071106	2 years	Jun-27	E
0718	ATTENUATOR, 6dB	JFW	50FPE-006	N/A	1 year	Jan-26	I
1145	CABLE, Coax, Sucoflex 104PA	Huber + Suhner	84279564	SN MY056/4PA	1 year	Jan-26	I
1238	CABLE, Coax, Sucoflex 126 E	Huber + Suhner	10422876	SN 8000495/126E	1 year	Jan-26	I
0989	CABLE, Coax, Sucoflex 104A	Huber+Suhner	44454/4A	C357	1 year	Jan-26	I
0559	PRE-AMP, Microwave, 18GHz	Miteq	AFS8	605305	1 year	May-26	I
0633	ANTENNA, Double Ridge Horn	EMCO	3115	9712-5369	3 years	Aug-27	I
1193	Standard Gain Horn Antenna - 5.85GHz to 8.2GHz	A.H. Systems, inc	SAS-584	186	1 year	May-26	E
1194	Standard Gain Horn Antenna - 8.2GHz to 12.4GHz	A.H. Systems, inc	SAS-585	224	1 year	May-26	E
1195	Standard Gain Horn Antenna - 12.4GHz to 18.0GHz	A.H. Systems, inc	SAS-586	195	1 year	May-26	E
1196	Standard Gain Horn Antenna - 18.0GHz to 26.5GHz	A.H. Systems, inc	SAS-587	181	1 year	May-26	E
0024	ANTENNA, Active Loop	EMCO	6502	2620	2 years	Feb-26	I
1064	PRE-AMP, Microwave, 26GHz	Miteq	AFS33	1696371	1 year	May-26	I
1010	CABLE, Coax, Sucoflex 104B	Huber+Suhner	00078/4B	C406	2 years	Aug-26	I
1009	CABLE, Coax, Sucoflex 104B	Huber+Suhner	00065/4B	C405	2 years	Aug-26	I
0710	ATTENUATOR, 10dB	JFW	50HF-010N	N/A	3 years	Dec-27	I
1259	High Pass filter	Micro-Tronics	HPM50111	G237	2 years	May-27	I
1155	Hygrometer, Temp, Humidity	DigiTech	QM7312	-	2 years	Jul-27	I
0666	Enclosure, Semi-Anechoic, No 1	RFI Industries	S800 iOATS	1229	3 years	Jul-28	I
SW007	EMC Measurement Software	Rohde & Schwarz	EMC 32	Version 8.53.0	N/A	N/A	N/A

V: Verification of operation against an internal reference

I: Internal calibration against a traceable standard

E: External calibration by a NATA or MRA equivalent endorsed facility

N/A: Not Applicable

Appendix B – Photographs

Annex	Number	Photograph Description
A	1 to 8	EUT (sample 1) – External views
	9 to 16	EUT (sample 2) – External views – Sample with temporary external antenna connection for testing
B	1 to 52	EUT (sample 1) – Internal views
	53 to 65	EUT (sample 2) – View of the sample with temporary SMA antenna port connector for Conducted method testing
C	1	Radiated measurements – EUT X Orientation
	2	Radiated measurements – EUT Y Orientation
	3	Radiated measurements – 9kHz to 30MHz – X Antenna orientation
	4	Radiated measurements – 9kHz to 30MHz – Y Antenna orientation
	5	Radiated measurements – 9kHz to 30MHz – Z Antenna orientation
	6	Radiated measurements – below 1GHz
	7	Radiated measurements – above 1GHz
	8	Conducted measurements
	9	Support Equipment - Laptop
	10	
	11	
	12	Support Equipment – Mobile Body
	13	
	14	

EUT External Photographs	EMC Bayswater Test Report E2510-1902-2 Annex A
EUT Internal Photographs	EMC Bayswater Test Report E2510-1902-2 Annex B
EUT Orientations & Test Configurations Photographs	EMC Bayswater Test Report E2510-1902-2 Annex C

Appendix C.1 – Measurement Graphs – 20dB Bandwidth - 15.247 (a)(1)

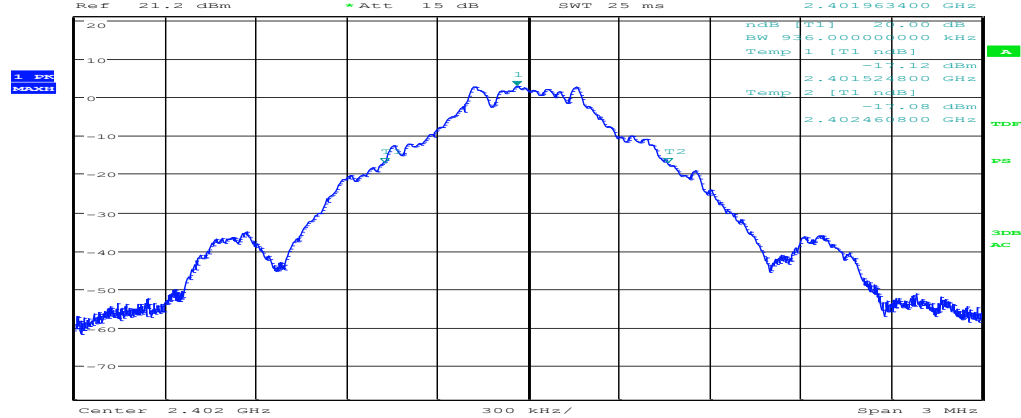
No.	Test	Graph Description
1	20dB Bandwidth	DH5 - 2402MHz Channel
2		DH5 - 2441MHz Channel
3		DH5 - 2480MHz Channel
4		2-DH5 - 2402MHz Channel
5		2-DH5 - 2441MHz Channel
6		2-DH5 - 2480MHz Channel
7		3-DH5 - 2402MHz Channel
8		3-DH5 - 2441MHz Channel
9		3-DH5 - 2480MHz Channel



EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - 20dB Bandwidth
Tait International Limited - TAHP2A - TCH8 Control Head
DH5 - 2402MHz Channel

Job Number: E2510-1902-2
Test Engineer: NL/JM



Date: 8.OCT.2025 10:50:16

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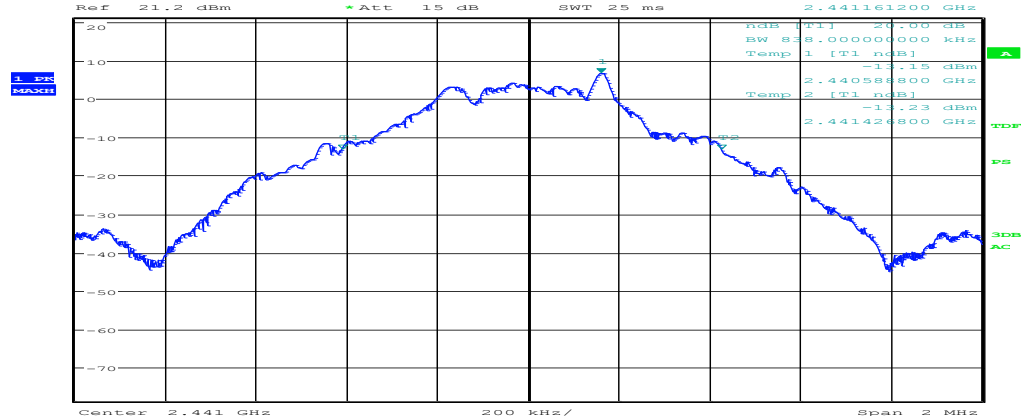
Graph 1



EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - 20dB Bandwidth
Tait International Limited - TAHP2A - TCH8 Control Head
DH5 - 2441MHz Channel

Job Number: E2510-1902-2
Test Engineer: AZ



Date: 7.OCT.2025 16:55:22

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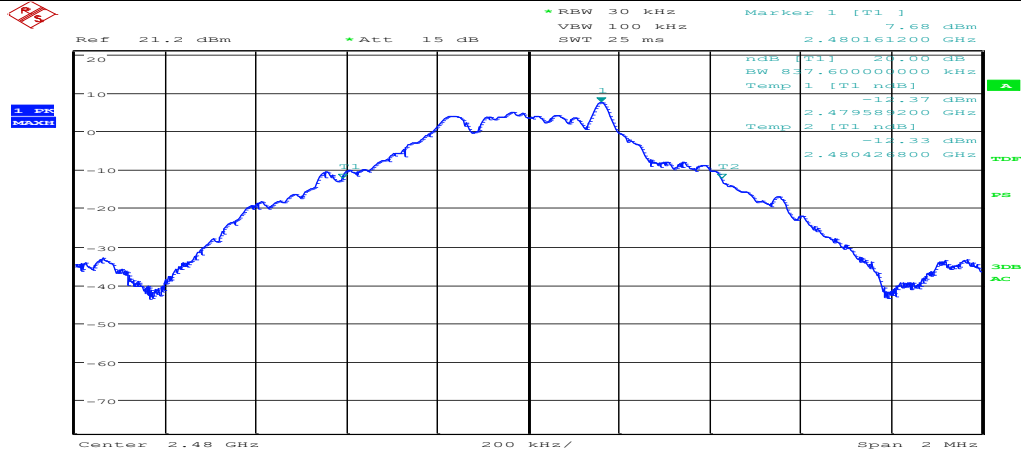
Graph 2



EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - 20dB Bandwidth
Tait International Limited - TAHP2A - TCH8 Control Head
DH5 - 2480MHz Channel

Job Number: E2510-1902-2
Test Engineer: AZ



Date: 7.OCT.2025 16:24:27

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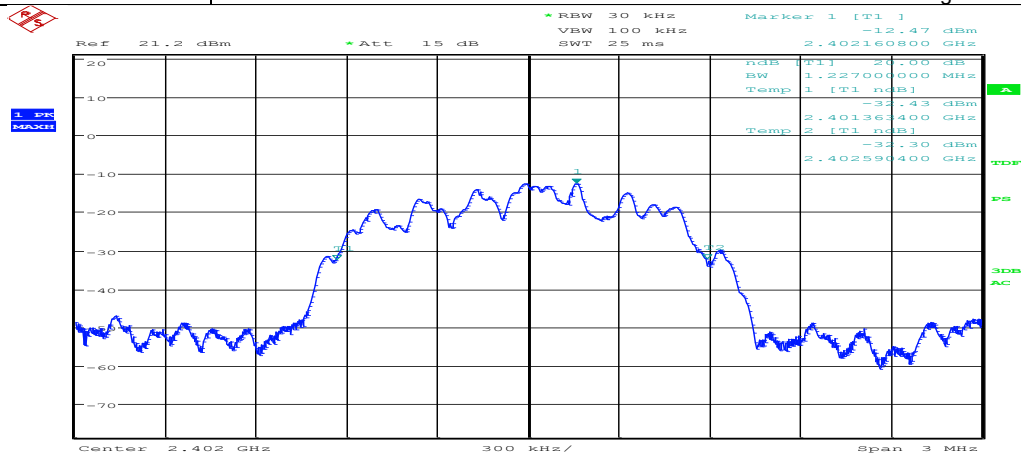
Graph 3



EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - 20dB Bandwidth
Tait International Limited - TAHP2A - TCH8 Control Head
2-DH5 - 2402MHz Channel

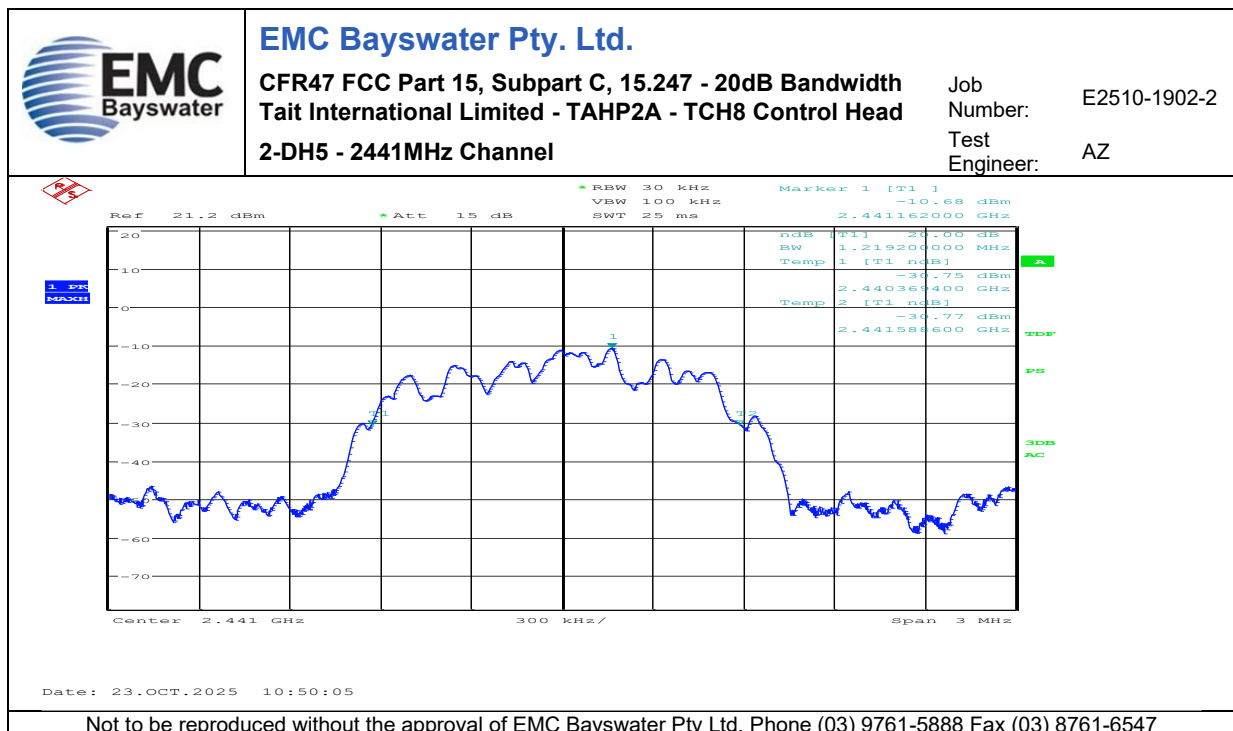
Job Number: E2510-1902-2
Test Engineer: NL/JM



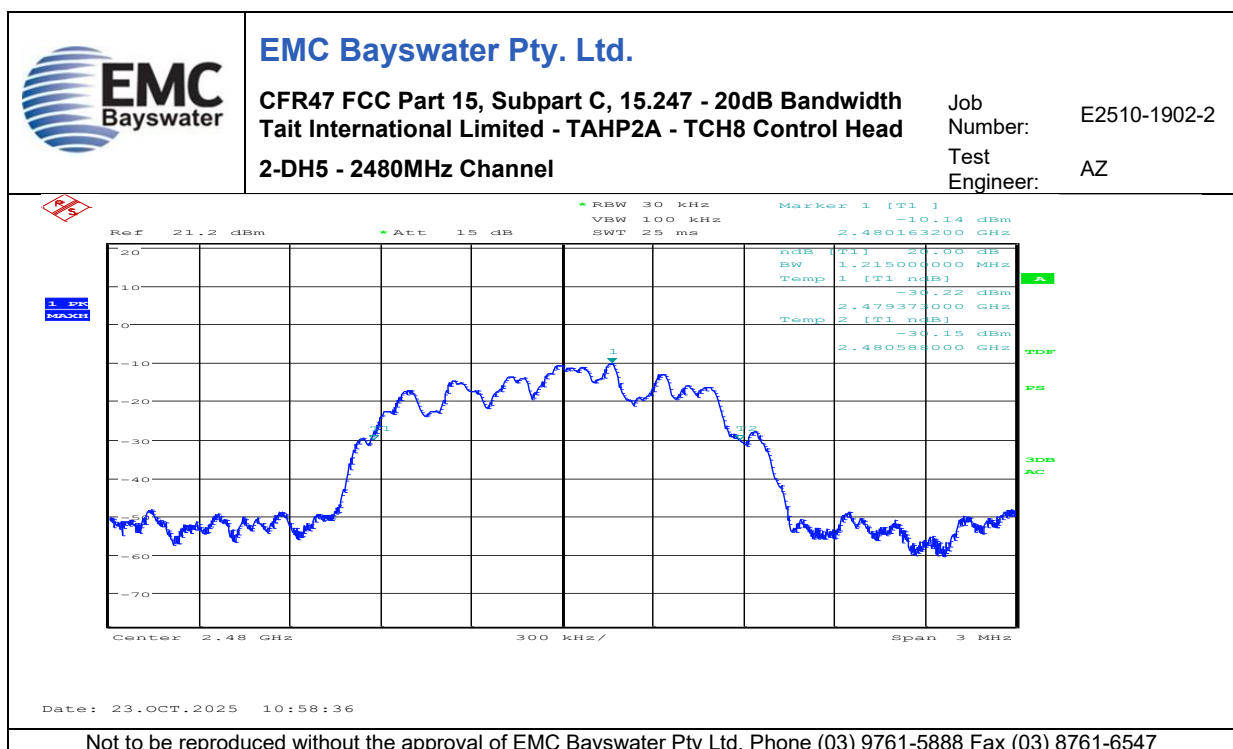
Date: 8.OCT.2025 10:59:54

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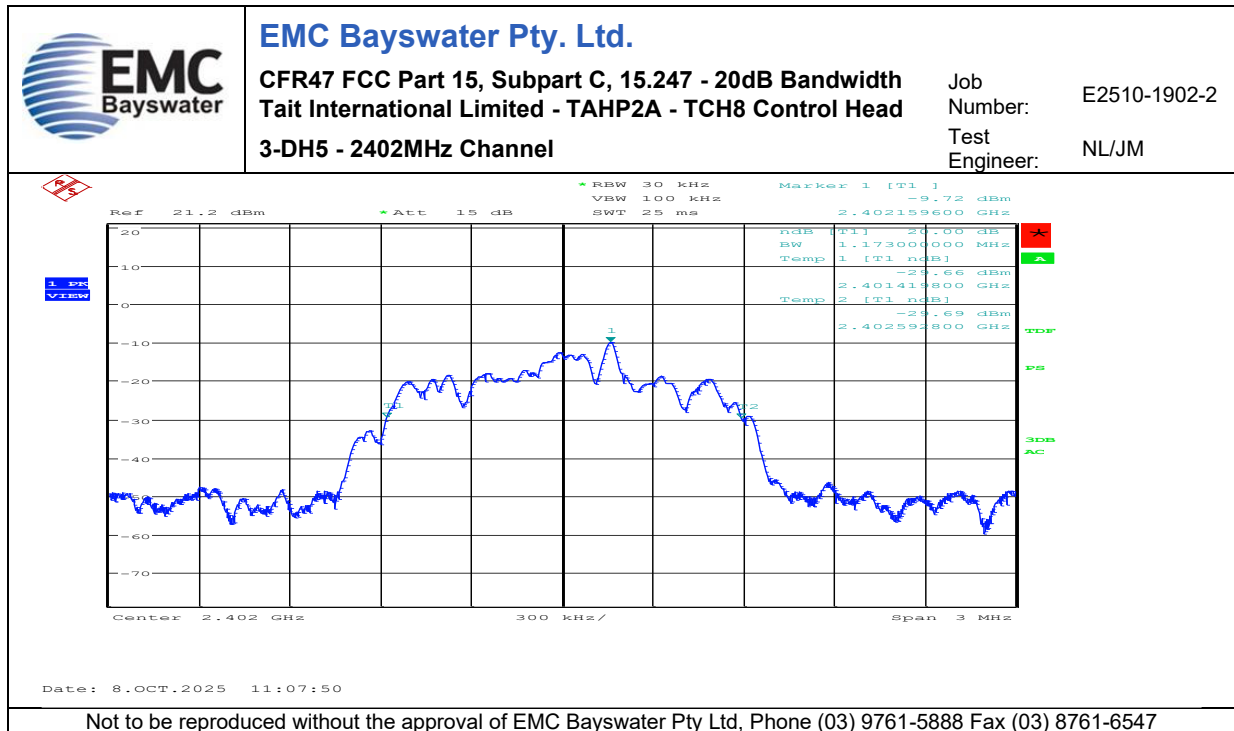
Graph 4



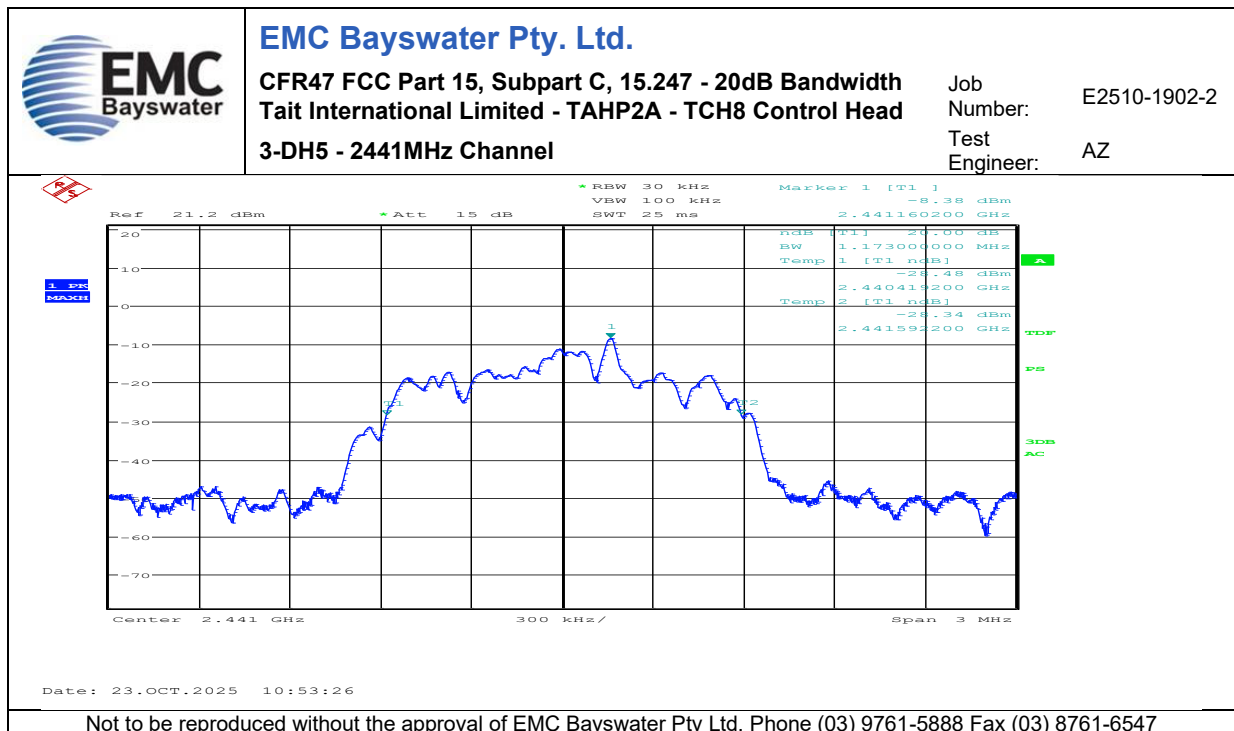
Graph 5



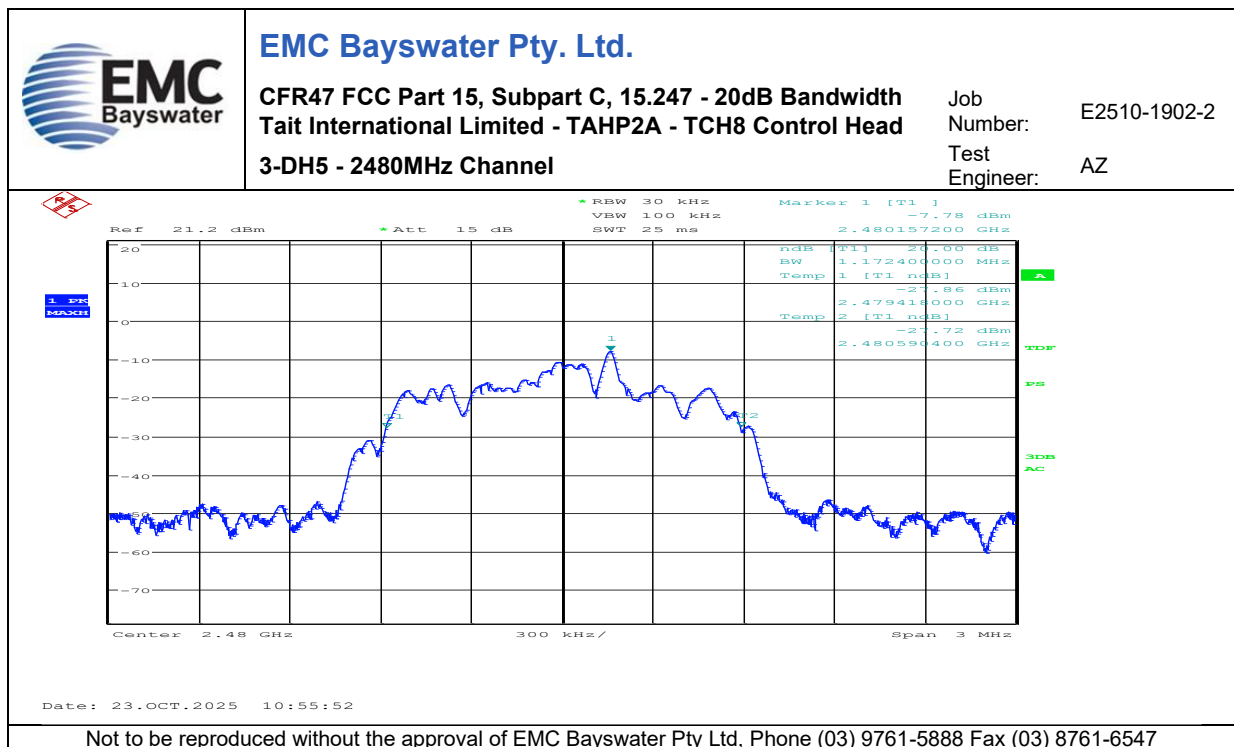
Graph 6



Graph 7



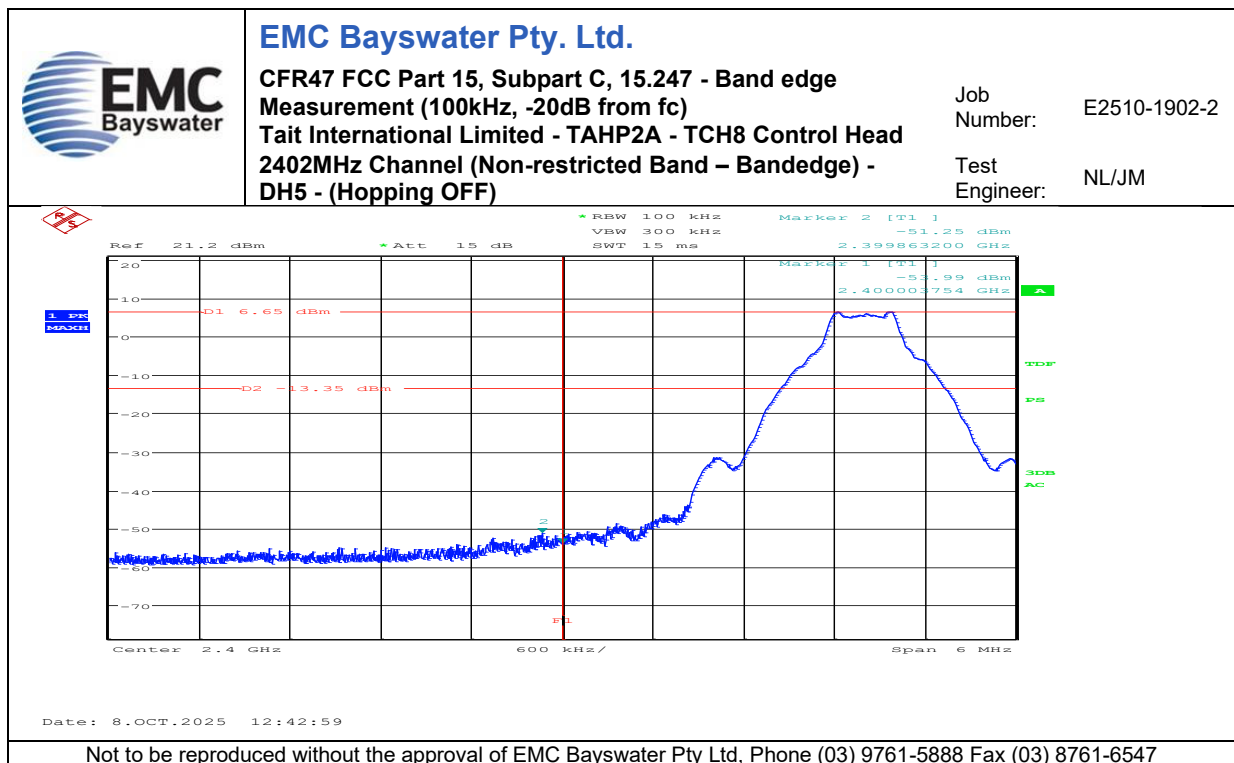
Graph 8



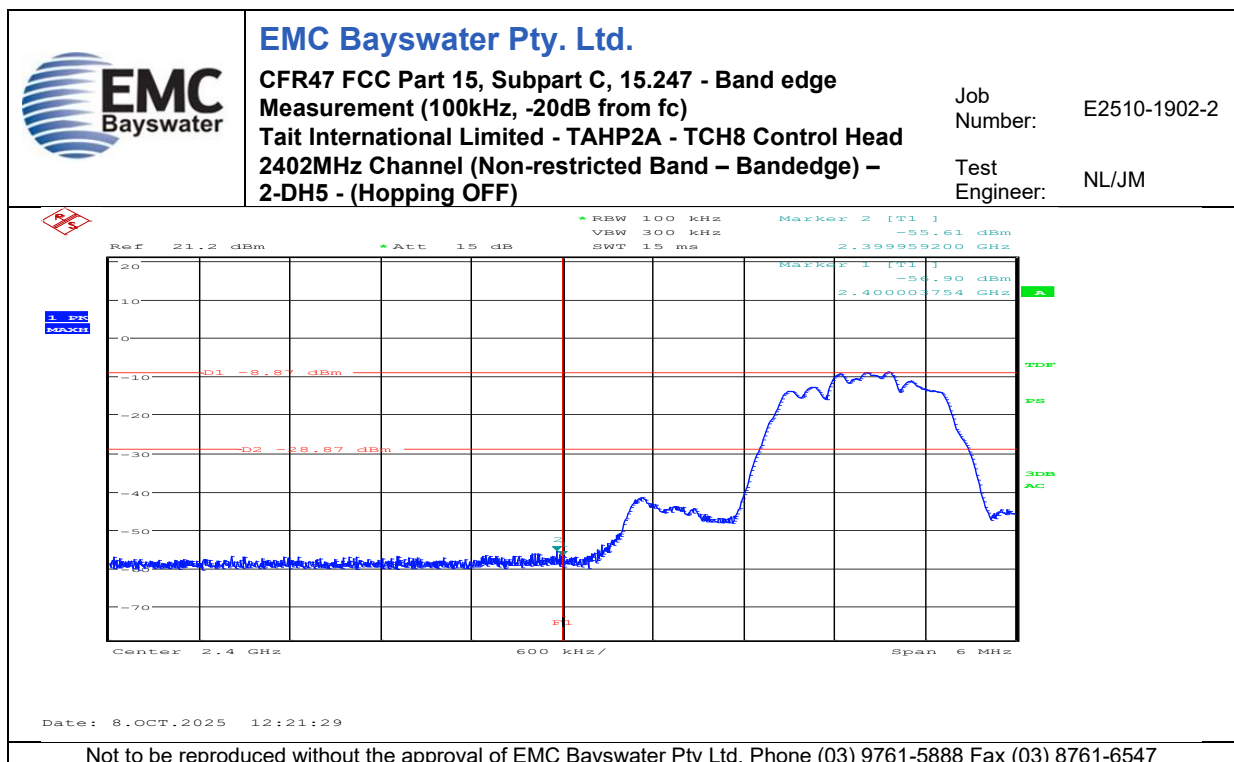
Graph 9

Appendix C.2 – Measurement Graphs – Band Edge - 15.247 (d)

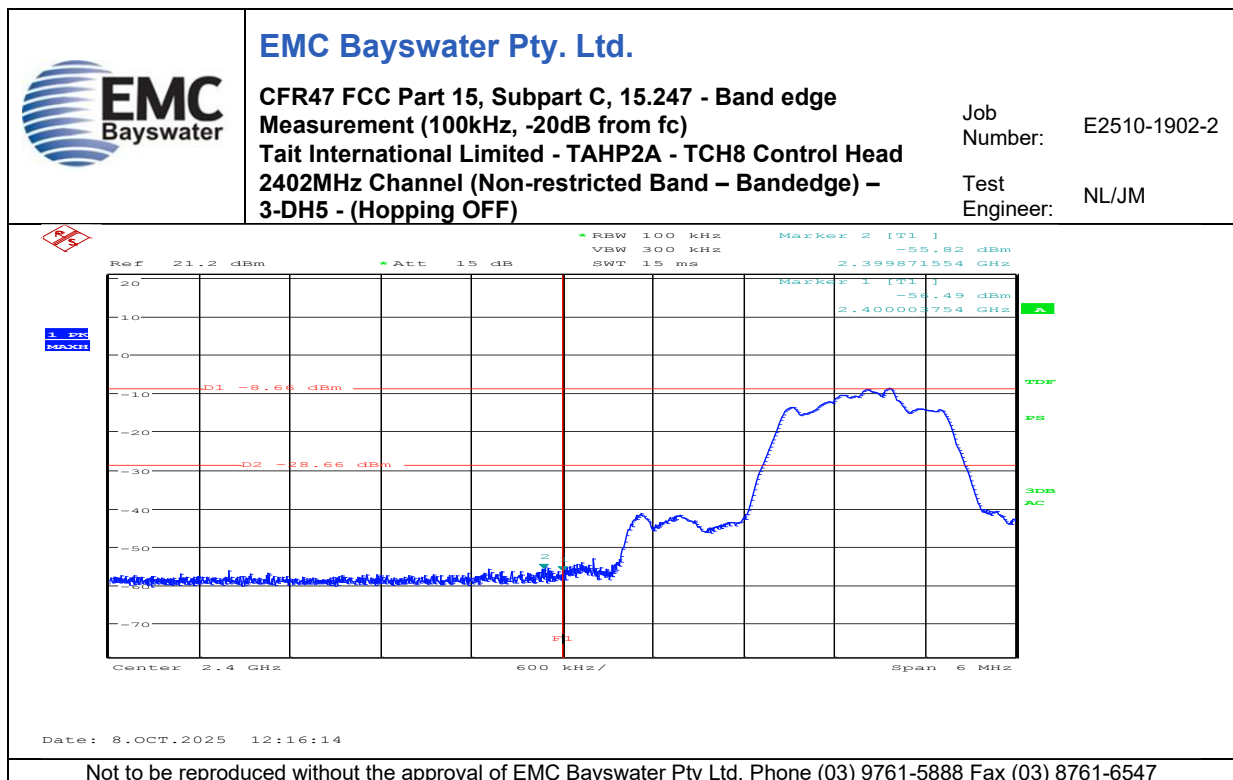
No.	Test	Graph Description
10	Band edge Measurement – Hopping Disabled	2402MHz Channel (Non-restricted Band – Bandedge) – DH5
11		2402MHz Channel (Non-restricted Band – Bandedge) – 2-DH5
12		2402MHz Channel (Non-restricted Band – Bandedge) – 3-DH5
13		2480MHz Channel (Non-restricted Band – Bandedge) – DH5
14		2480MHz Channel (Non-restricted Band – Bandedge) – 2-DH5
15		2480MHz Channel (Non-restricted Band – Bandedge) – 3-DH5
16		2480MHz Channel (Restricted Bands) – Horizontal measurement Antenna – DH5
17		2480MHz Channel (Restricted Bands) – Vertical measurement Antenna – DH5
18		2480MHz Channel (Restricted Bands) – Horizontal measurement Antenna – 2-DH5
19		2480MHz Channel (Restricted Bands) – Vertical measurement Antenna – 2-DH5
20		2480MHz Channel (Restricted Bands) – Horizontal measurement Antenna – 3-DH5
21		2480MHz Channel (Restricted Bands) – Vertical measurement Antenna – 3-DH5
22	Band edge Measurement – Hopping enabled	2402MHz Channel (Non-restricted Band – Bandedge) – DH5
23		2402MHz Channel (Non-restricted Band – Bandedge) – 2-DH5
24		2402MHz Channel (Non-restricted Band – Bandedge) – 3-DH5
25		2480MHz Channel (Non-restricted Band – Bandedge) – DH5
26		2480MHz Channel (Non-restricted Band – Bandedge) – 2-DH5
27		2480MHz Channel (Non-restricted Band – Bandedge) – 3-DH5
28		2480MHz Channel (Restricted Bands) – Horizontal measurement Antenna – DH5
29		2480MHz Channel (Restricted Bands) – Vertical measurement Antenna – DH5
30		2480MHz Channel (Restricted Bands) – Horizontal measurement Antenna – 2-DH5
31		2480MHz Channel (Restricted Bands) – Vertical measurement Antenna – 2-DH5
32		2480MHz Channel (Restricted Bands) – Horizontal measurement Antenna – 3-DH5
33		2480MHz Channel (Restricted Bands) – Vertical measurement Antenna – 3-DH5



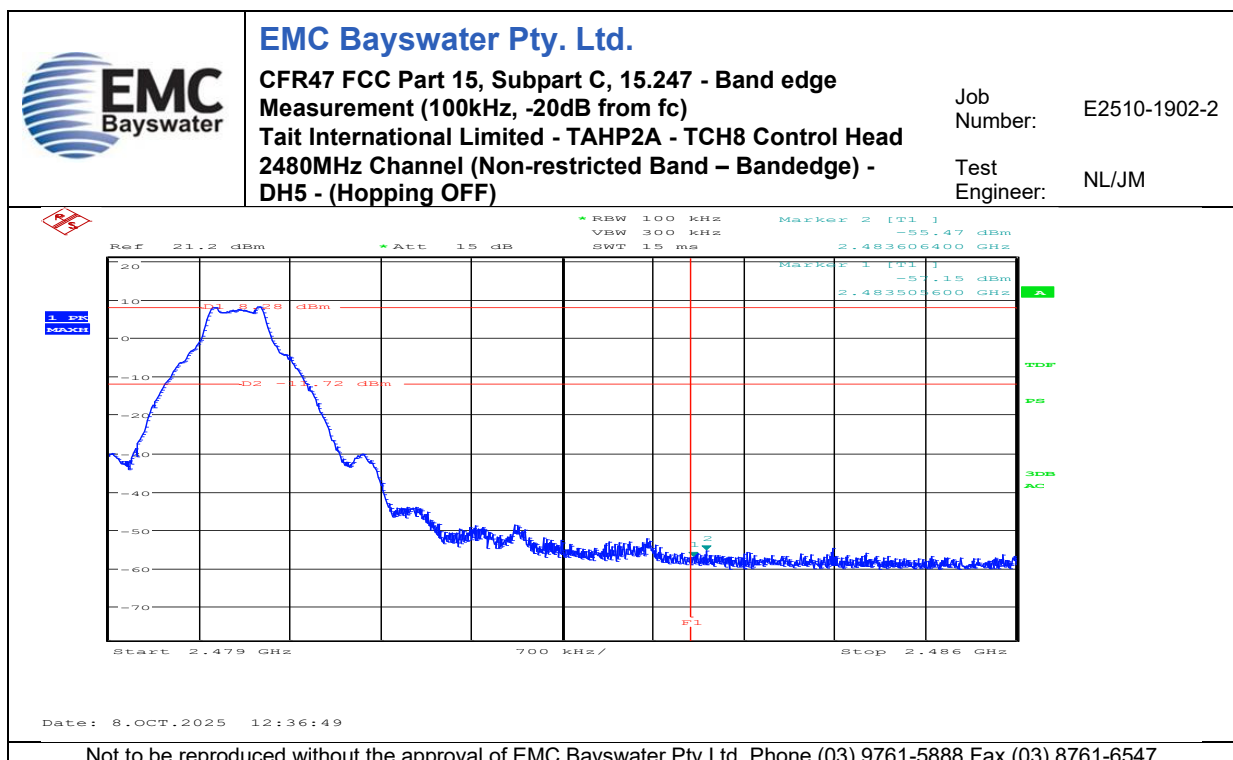
Graph 10



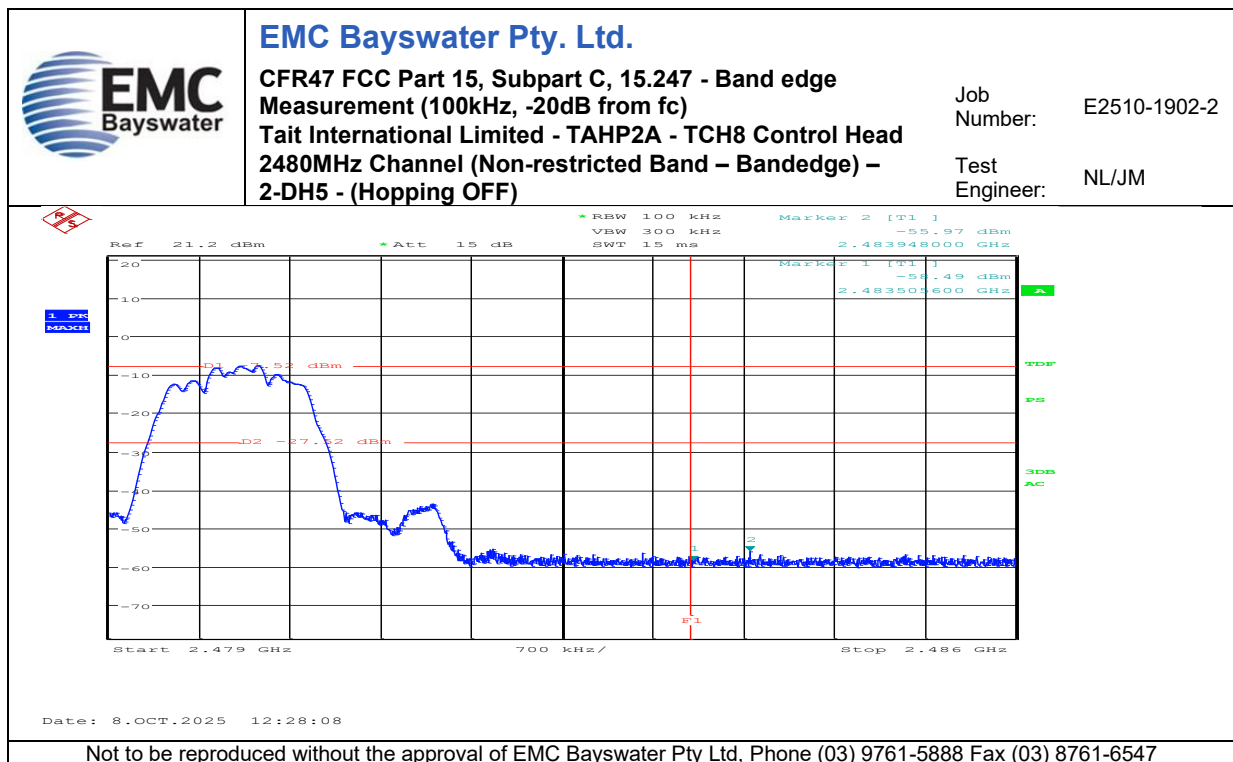
Graph 11



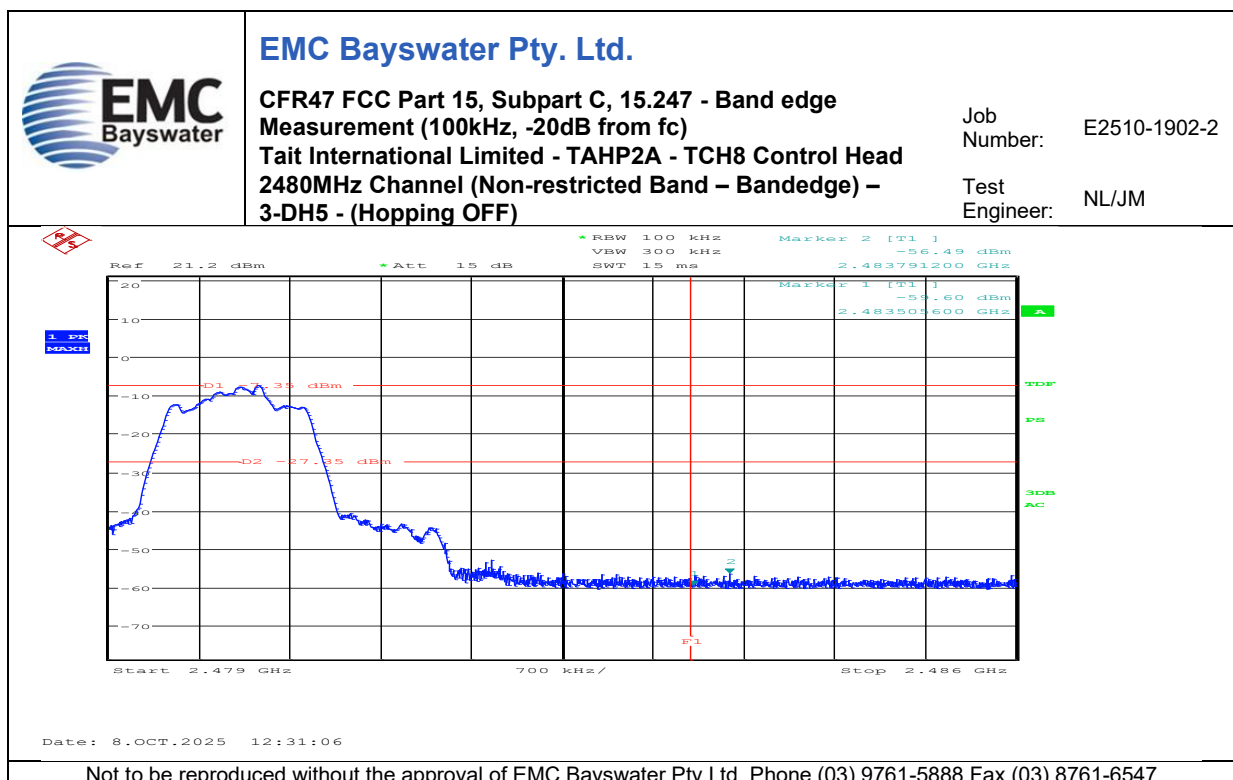
Graph 12



Graph 13



Graph 14



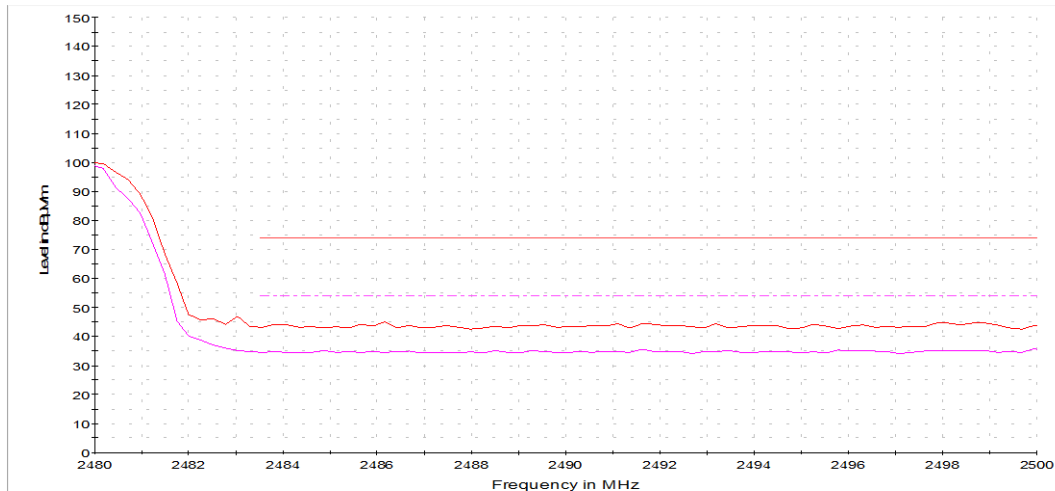
Graph 15



EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Band edge Measurement
Tait International Limited - TAHP2A - TCH8 Control Head
2480MHz Channel (Restricted Bands) – Horizontal measurement Antenna – DH5 – (Hopping OFF)

Job Number: E2510-1902-2
Test Engineer: AZ



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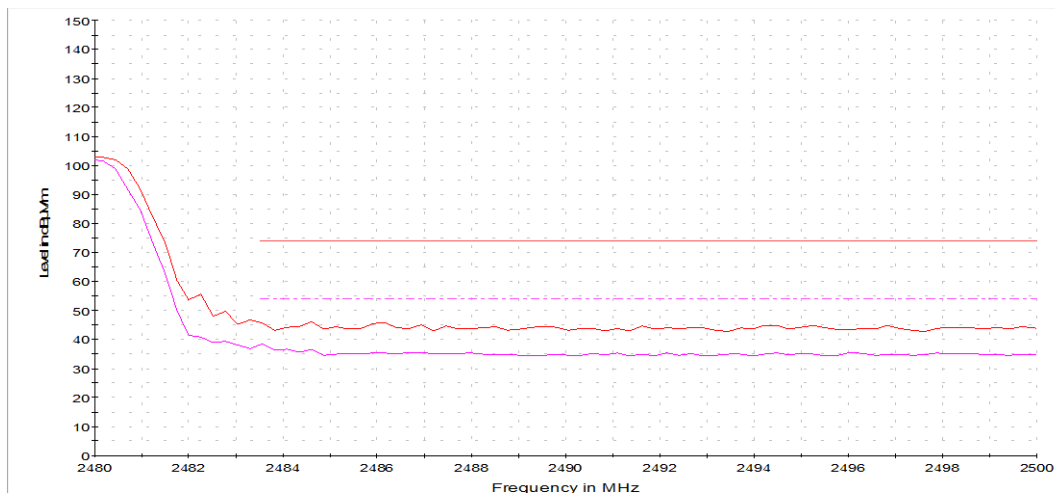
Graph 16



EMC Bayswater Pty. Ltd.

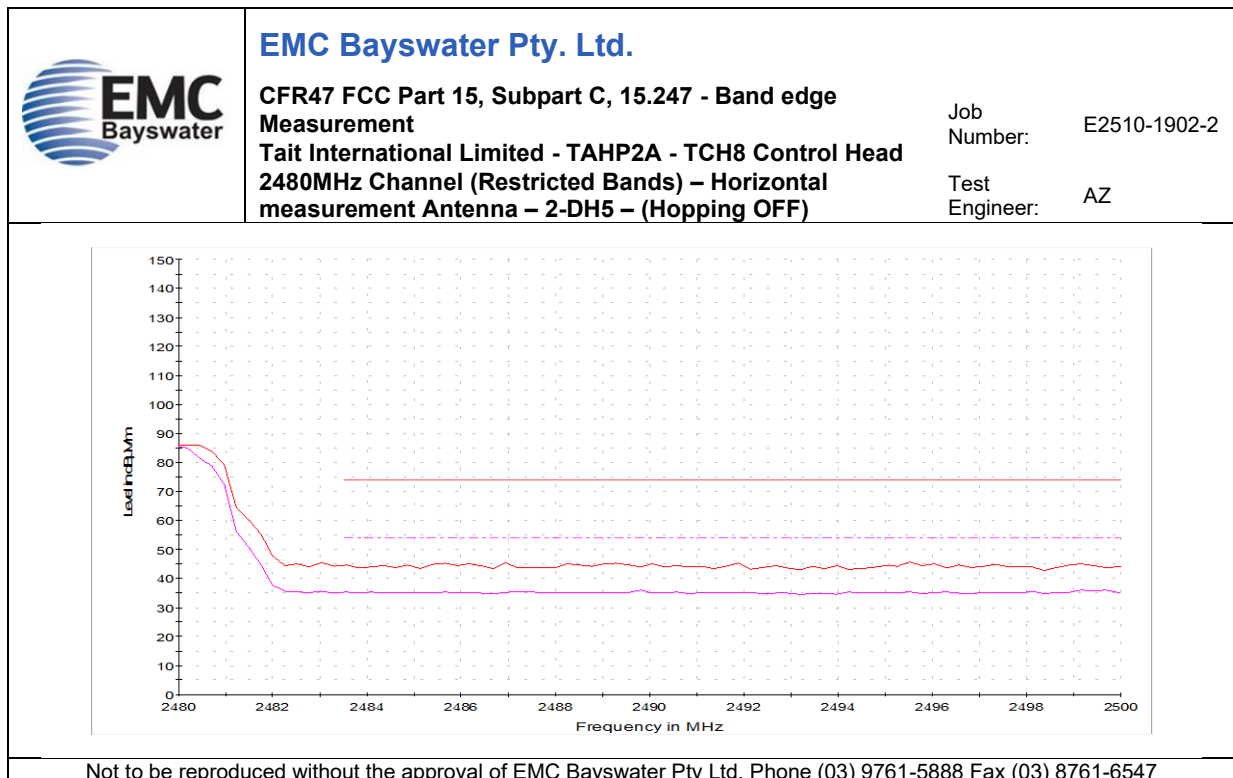
CFR47 FCC Part 15, Subpart C, 15.247 - Band edge Measurement
Tait International Limited - TAHP2A - TCH8 Control Head
2480MHz Channel (Restricted Bands) – Vertical measurement Antenna – DH5 – (Hopping OFF)

Job Number: E2510-1902-2
Test Engineer: AZ

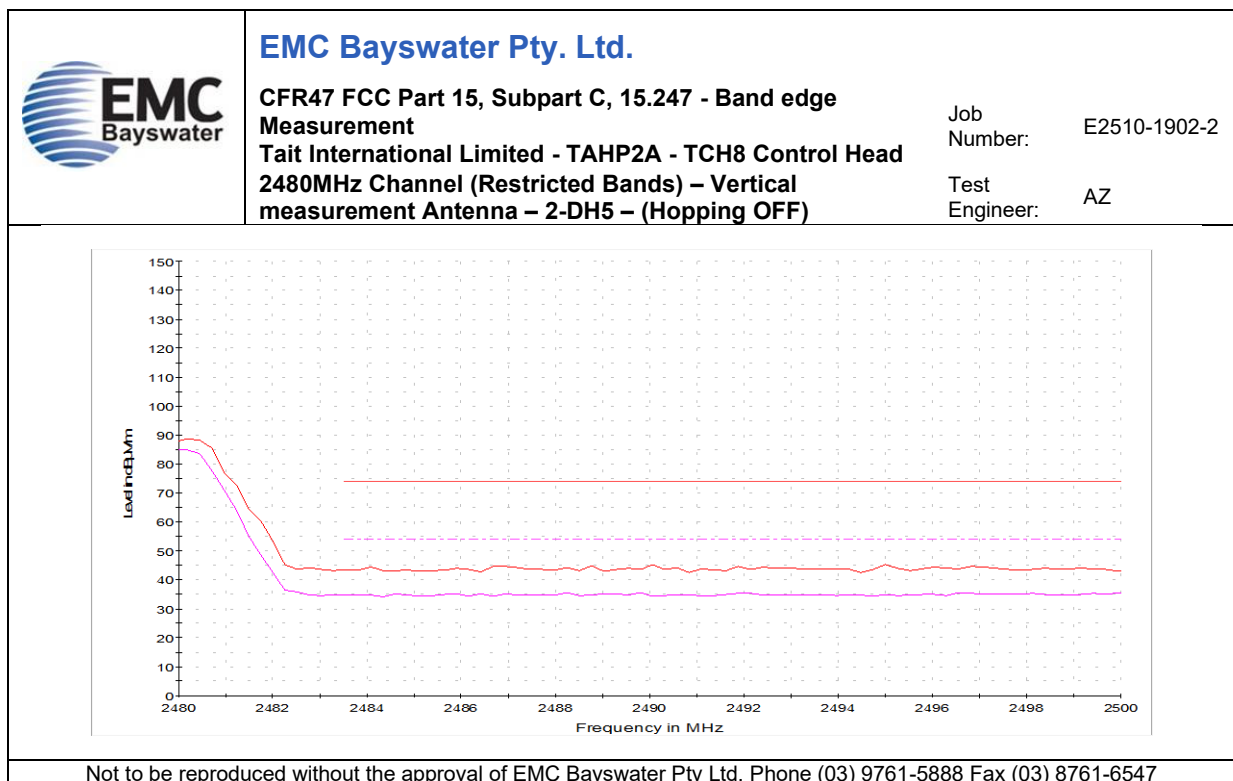


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Graph 17



Graph 18



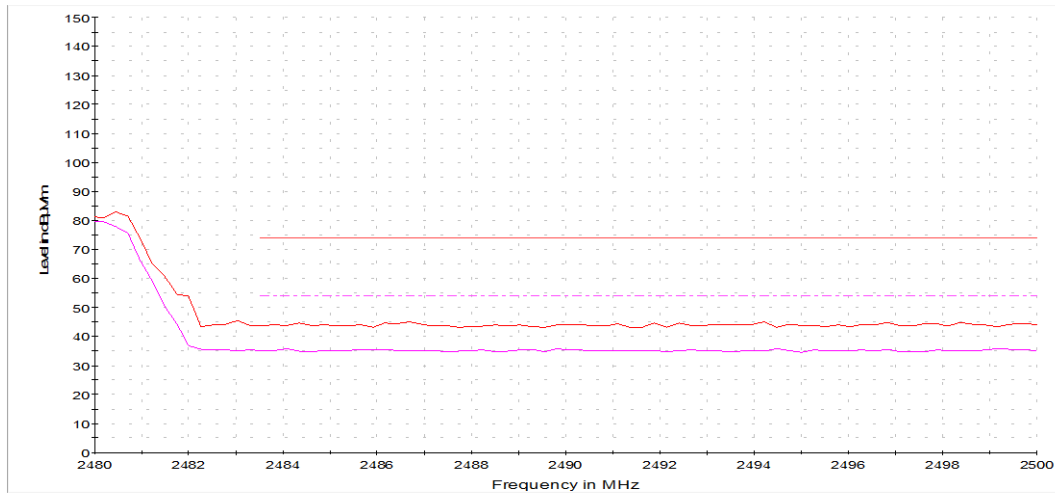
Graph 19



EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Band edge Measurement
Tait International Limited - TAHP2A - TCH8 Control Head
2480MHz Channel (Restricted Bands) – Horizontal measurement Antenna – 3-DH5 – (Hopping OFF)

Job Number: E2510-1902-2
Test Engineer: AZ



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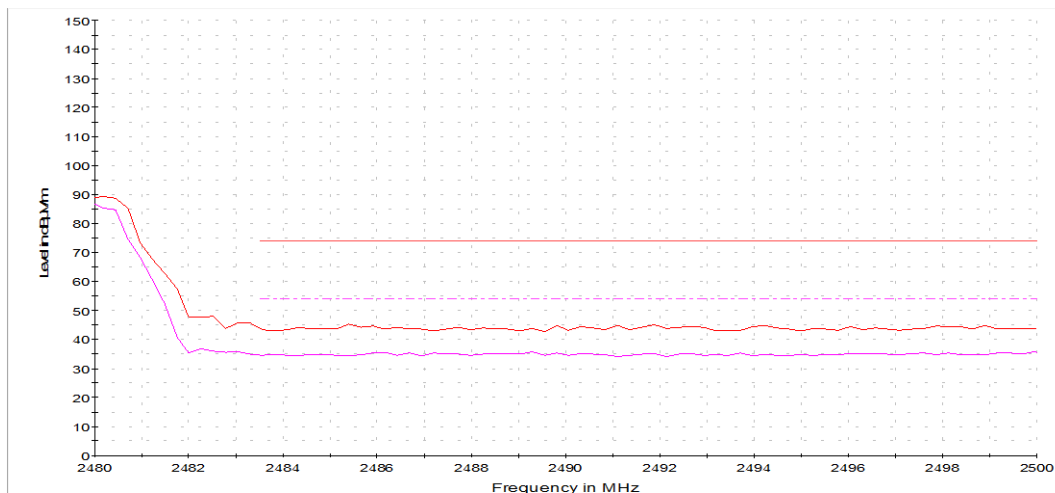
Graph 20



EMC Bayswater Pty. Ltd.

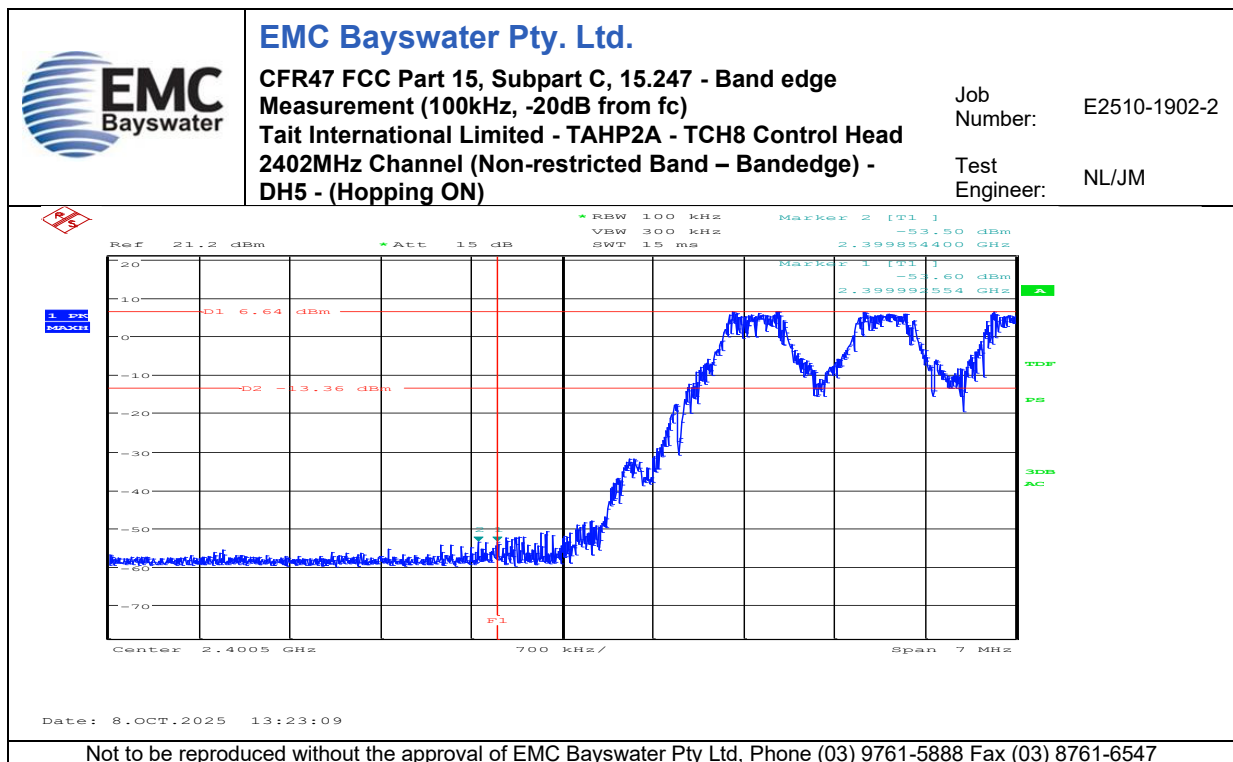
CFR47 FCC Part 15, Subpart C, 15.247 - Band edge Measurement
Tait International Limited - TAHP2A - TCH8 Control Head
2480MHz Channel (Restricted Bands) – Vertical measurement Antenna – 3-DH5 – (Hopping OFF)

Job Number: E2510-1902-2
Test Engineer: AZ

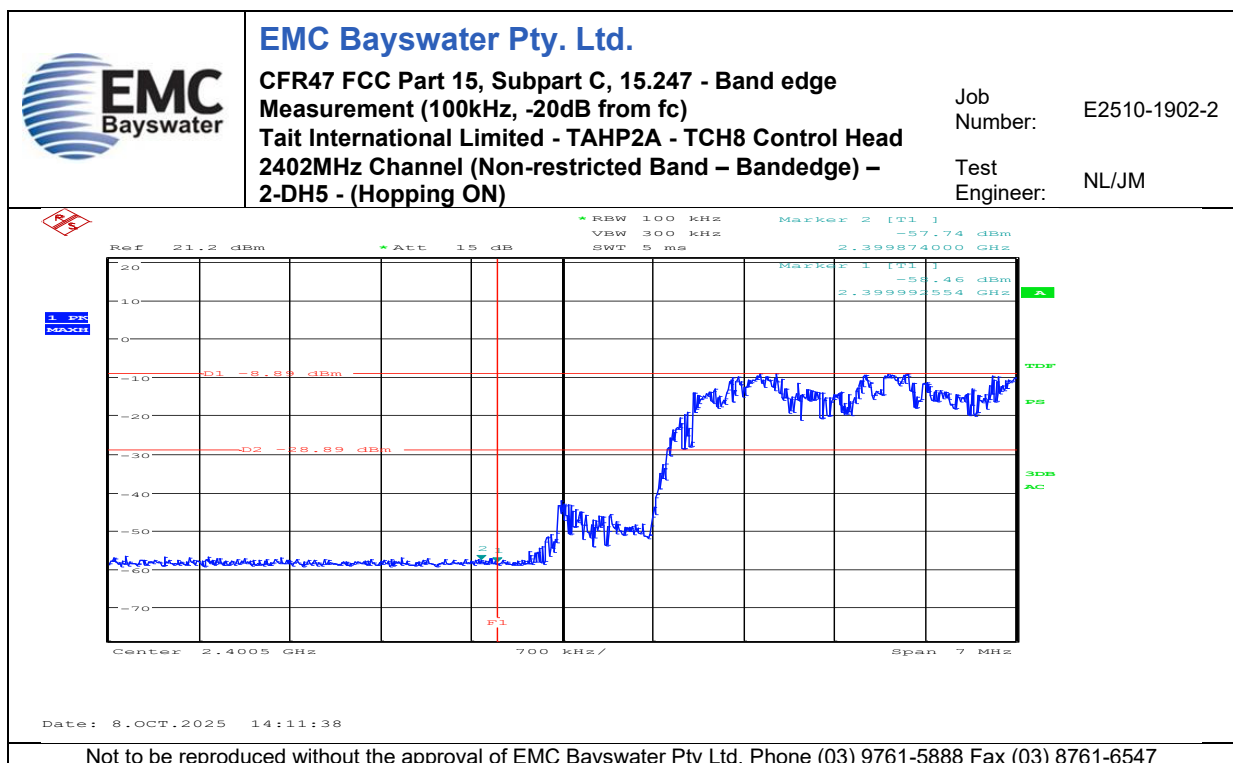


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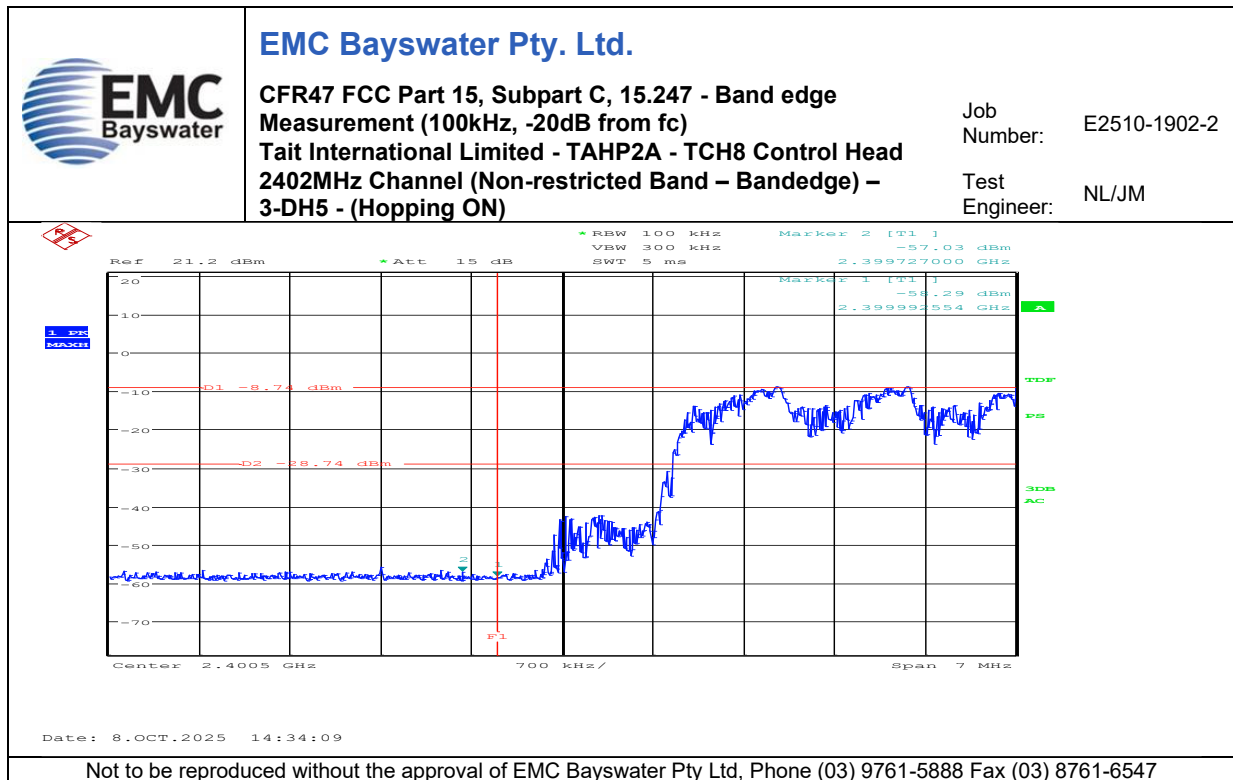
Graph 21



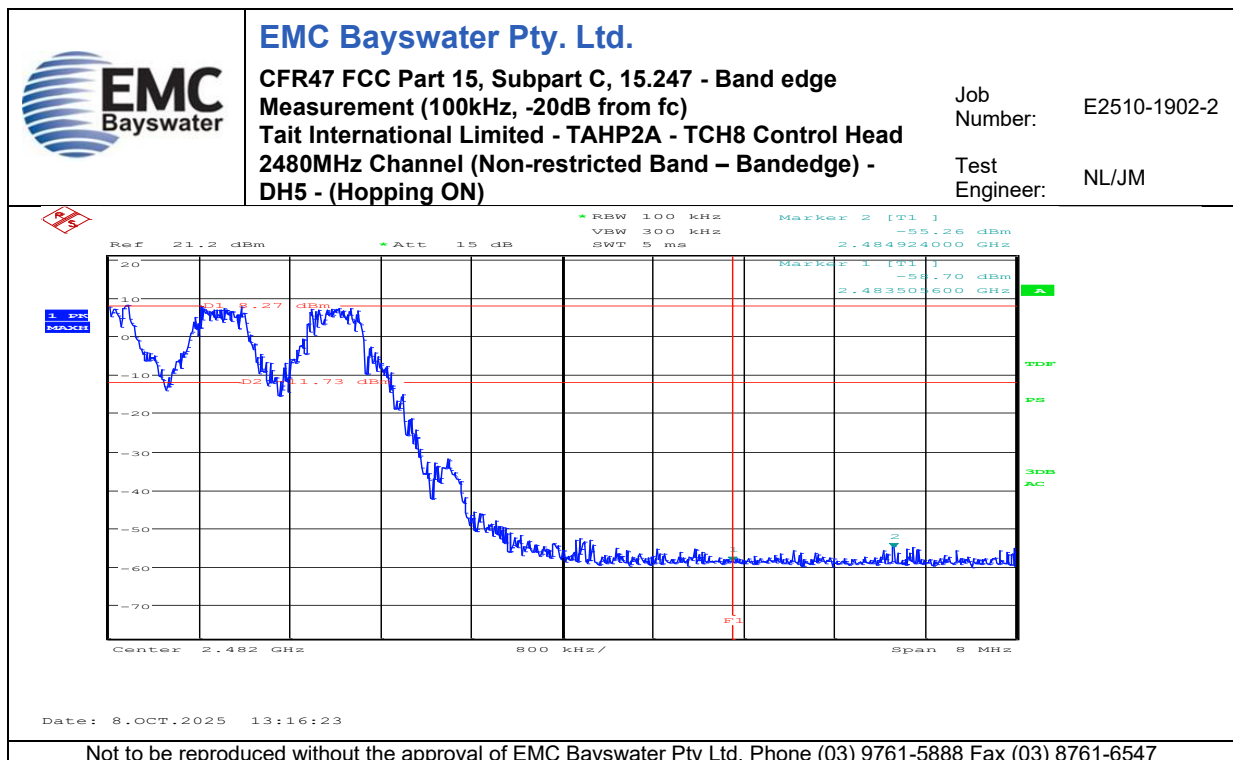
Graph 22



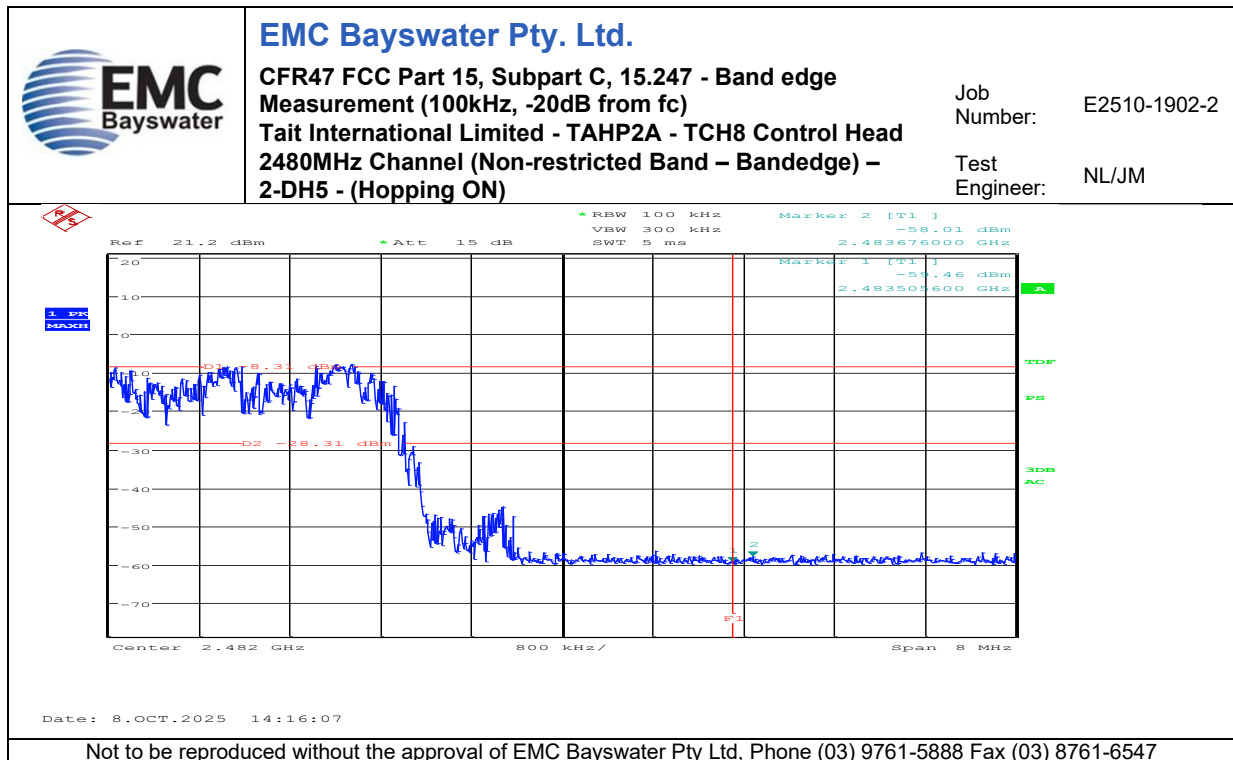
Graph 23



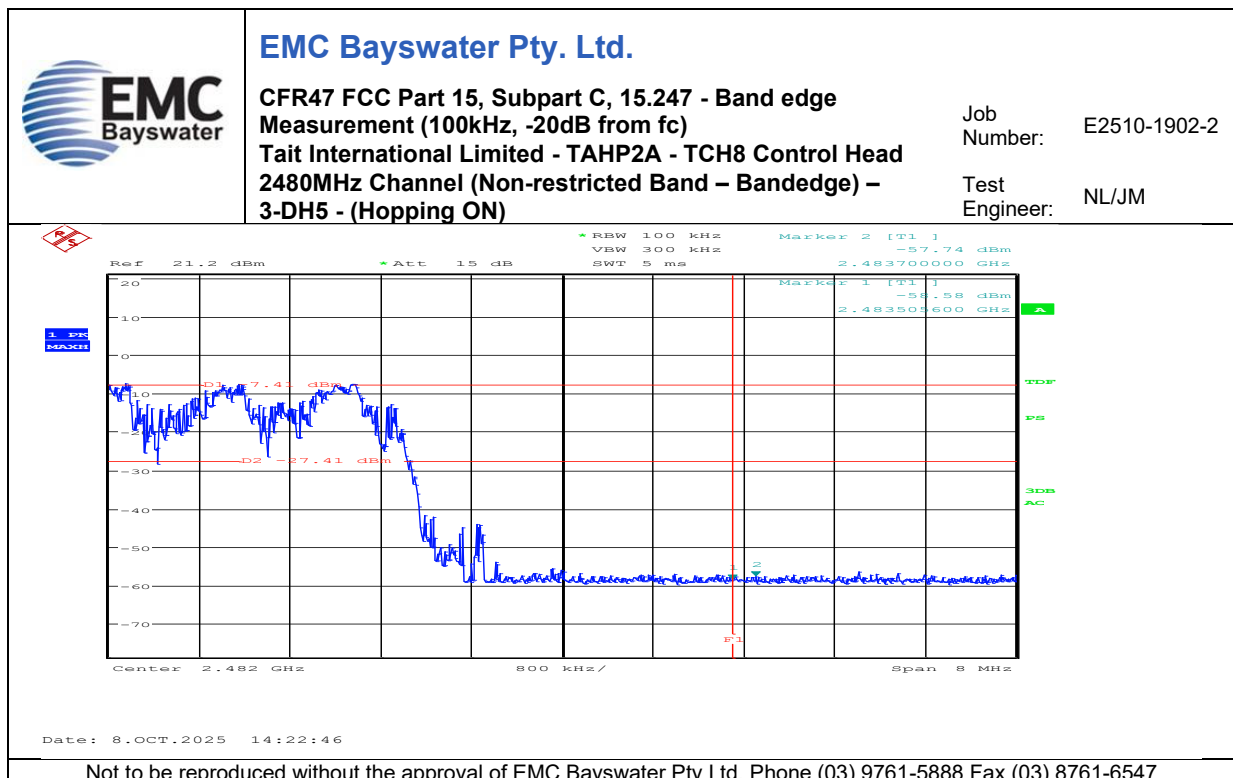
Graph 24



Graph 25



Graph 26



Graph 27

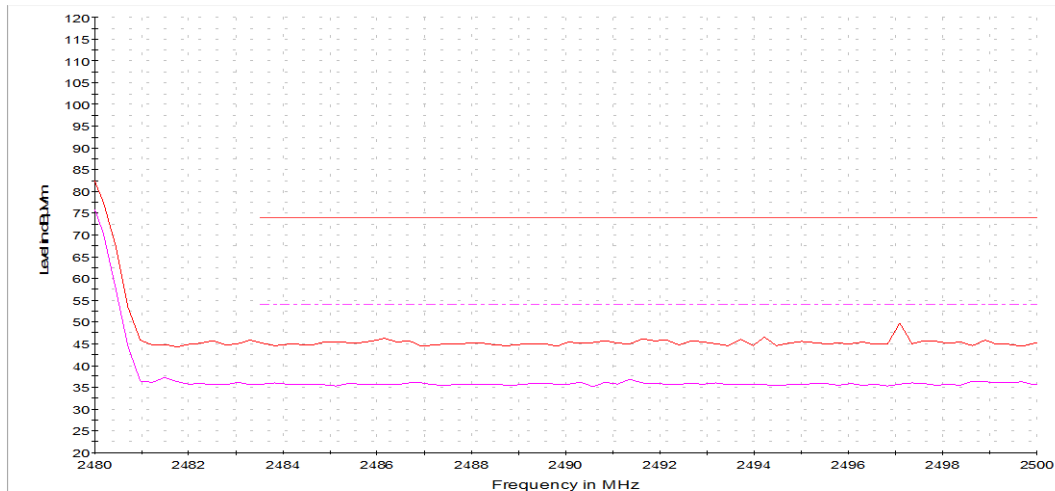


EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Band edge Measurement
Tait International Limited - TAHP2A - TCH8 Control Head
2480MHz Channel (Restricted Bands) – Horizontal measurement Antenna – DH5 – (Hopping ON)

Job Number: E2510-1902-2

Test Engineer: AZ



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Graph 28

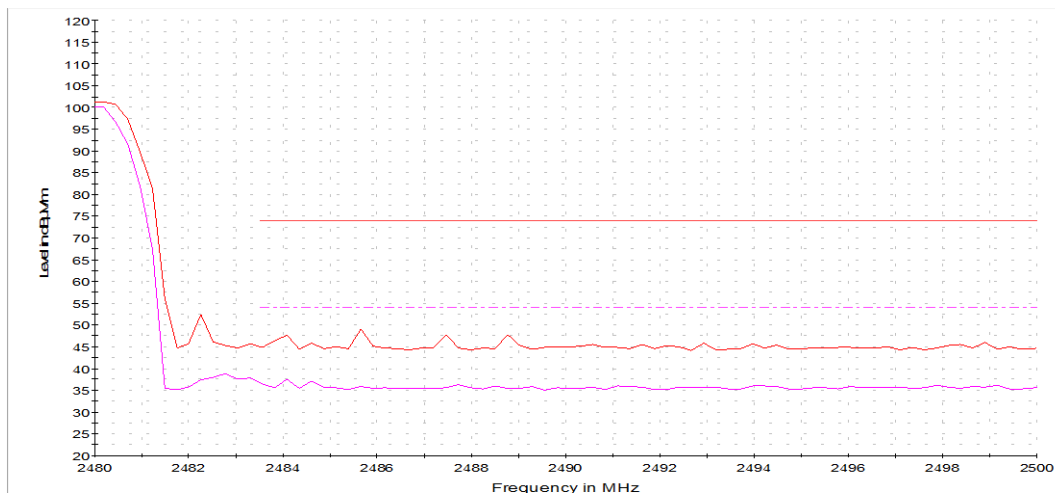


EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Band edge Measurement
Tait International Limited - TAHP2A - TCH8 Control Head
2480MHz Channel (Restricted Bands) – Vertical measurement Antenna – DH5 – (Hopping ON)

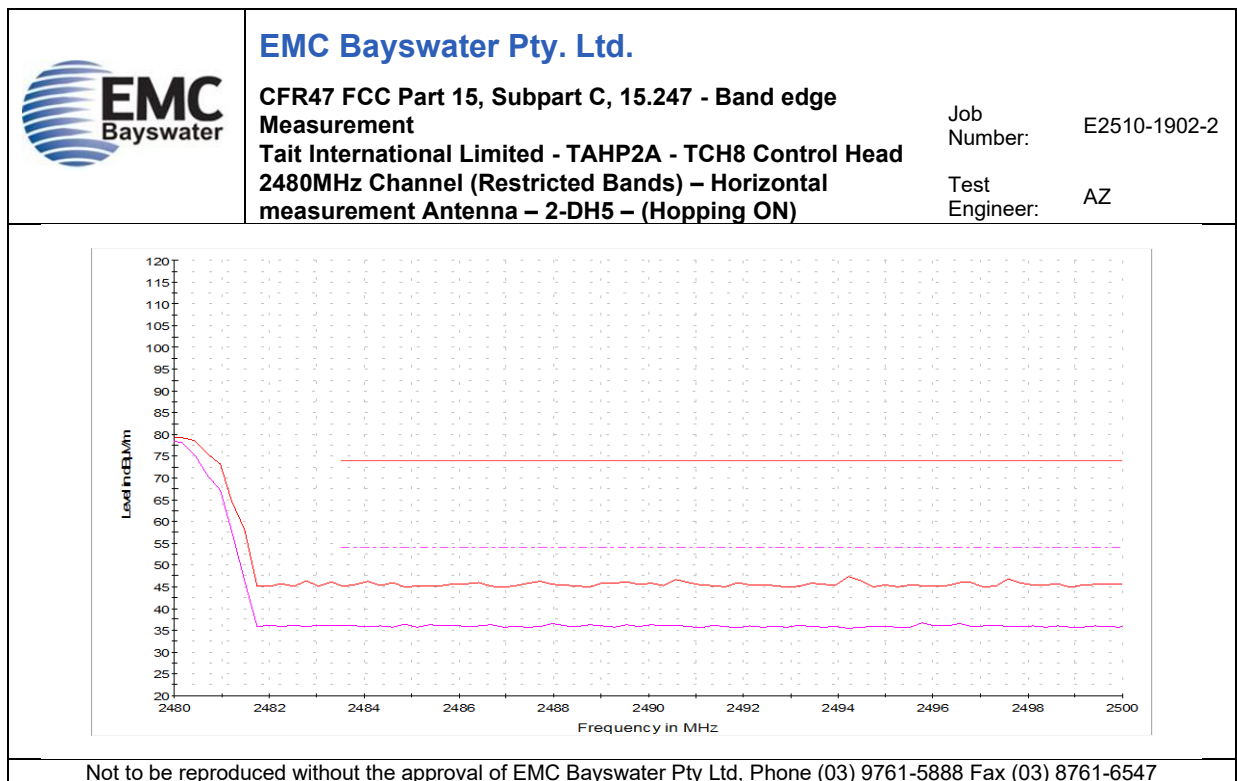
Job Number: E2510-1902-2

Test Engineer: AZ

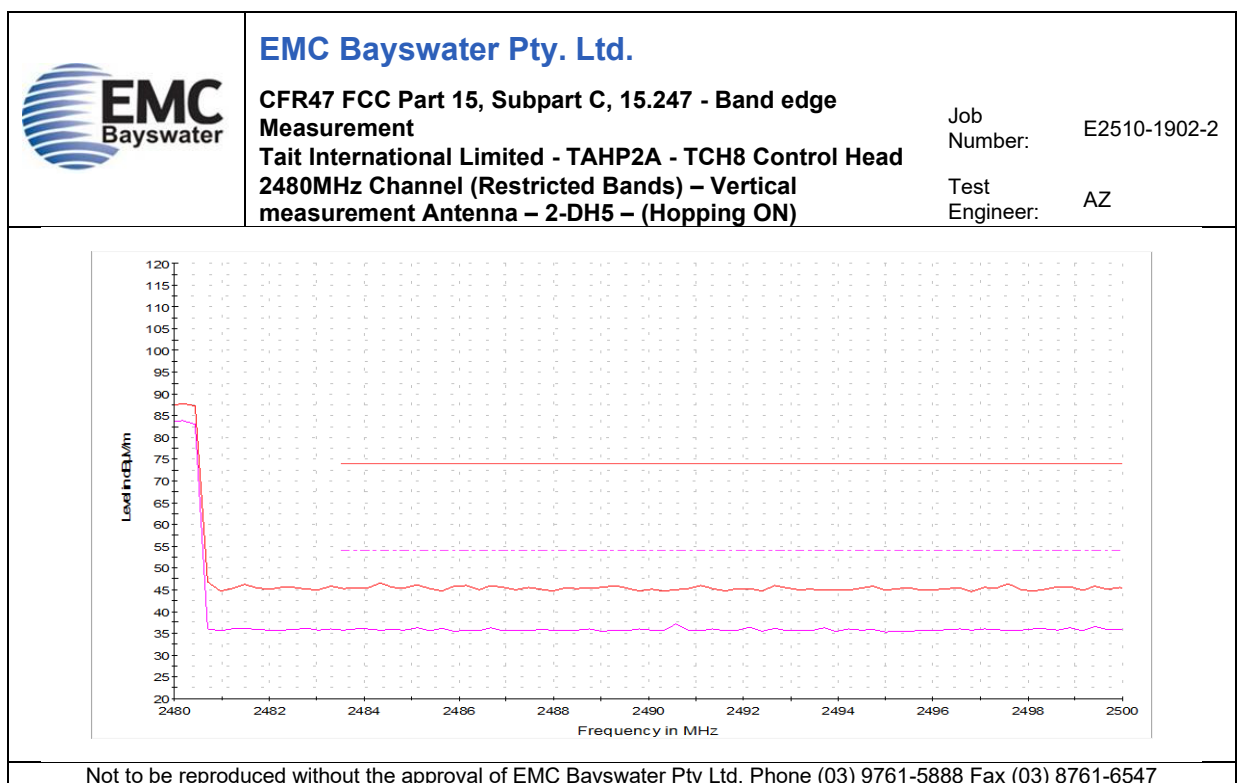


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Graph 29



Graph 30



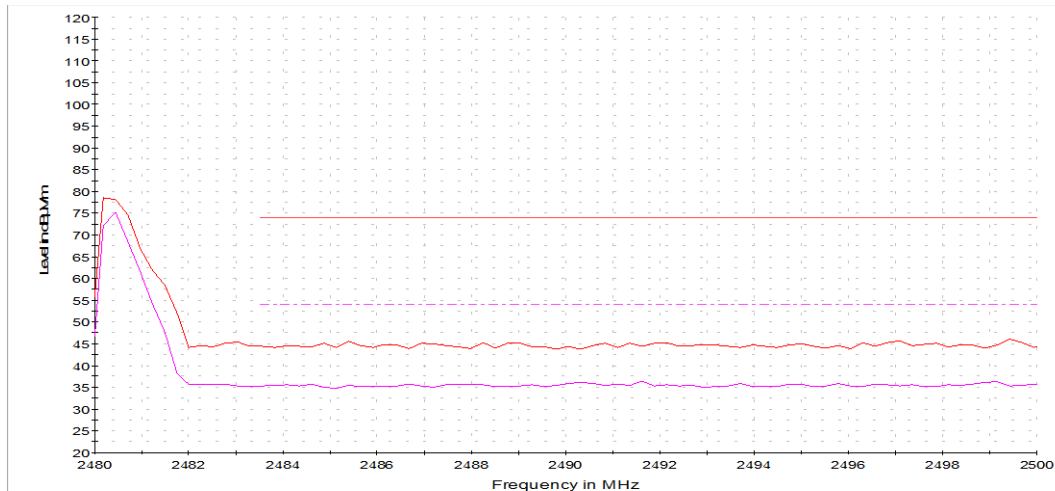
Graph 31



EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Band edge Measurement
Tait International Limited - TAHP2A - TCH8 Control Head
2480MHz Channel (Restricted Bands) – Horizontal measurement Antenna – 3-DH5 – (Hopping ON)

Job Number: E2510-1902-2
Test Engineer: AZ



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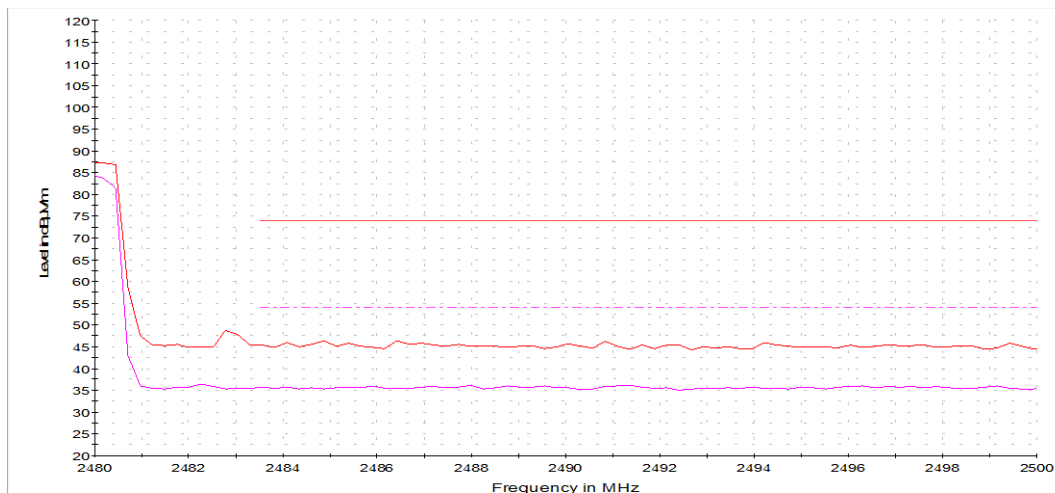
Graph 32



EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Band edge Measurement
Tait International Limited - TAHP2A - TCH8 Control Head
2480MHz Channel (Restricted Bands) – Vertical measurement Antenna – 3-DH5 – (Hopping ON)

Job Number: E2510-1902-2
Test Engineer: AZ



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Graph 33

Appendix C.3 – Measurement Graphs – Transmitter Spurious – FCC 15.247 (d), 15.209

No.	Test	Graph Description
34	9kHz to 30MHz	2441MHz Channel, Antenna X
35		2441MHz Channel, Antenna Y
36		2441MHz Channel, Antenna Z
37	30MHz to 1GHz	2402MHz Channel, Antenna Horizontal
38		2402MHz Channel, Antenna Vertical
39		2441MHz Channel, Antenna Horizontal
40		2441MHz Channel, Antenna Vertical
41		2480MHz Channel, Antenna Horizontal
42		2480MHz Channel, Antenna Vertical
43	1GHz to 3.6GHz	2402MHz Channel, Antenna Horizontal
44		2402MHz Channel, Antenna Vertical
45		2441MHz Channel, Antenna Horizontal
46		2441MHz Channel, Antenna Vertical
47		2480MHz Channel, Antenna Horizontal
48		2480MHz Channel, Antenna Vertical
49	3.6GHz to 6GHz	2402MHz Channel, Antenna Horizontal
50		2402MHz Channel, Antenna Vertical
51		2441MHz Channel, Antenna Horizontal
52		2441MHz Channel, Antenna Vertical
53		2480MHz Channel, Antenna Horizontal
54		2480MHz Channel, Antenna Vertical
55	5.8GHz to 8.2GHz	2402MHz Channel, Antenna Horizontal
56		2402MHz Channel, Antenna Vertical
57		2441MHz Channel, Antenna Horizontal
58		2441MHz Channel, Antenna Vertical
59		2480MHz Channel, Antenna Horizontal
60		2480MHz Channel, Antenna Vertical
61	8.2GHz to 12.4GHz	2402MHz Channel, Antenna Horizontal
62		2402MHz Channel, Antenna Vertical
63		2441MHz Channel, Antenna Horizontal
64		2441MHz Channel, Antenna Vertical
65		2480MHz Channel, Antenna Horizontal
66		2480MHz Channel, Antenna Vertical
67	12.4GHz to 18GHz	2402MHz Channel, Antenna Horizontal
68		2402MHz Channel, Antenna Vertical
69		2441MHz Channel, Antenna Horizontal
70		2441MHz Channel, Antenna Vertical
71		2480MHz Channel, Antenna Horizontal
72		2480MHz Channel, Antenna Vertical
73	18GHz to 25GHz	2402MHz Channel, Antenna Horizontal
74		2402MHz Channel, Antenna Vertical
75		2441MHz Channel, Antenna Horizontal
76		2441MHz Channel, Antenna Vertical
77		2480MHz Channel, Antenna Horizontal
78		2480MHz Channel, Antenna Vertical

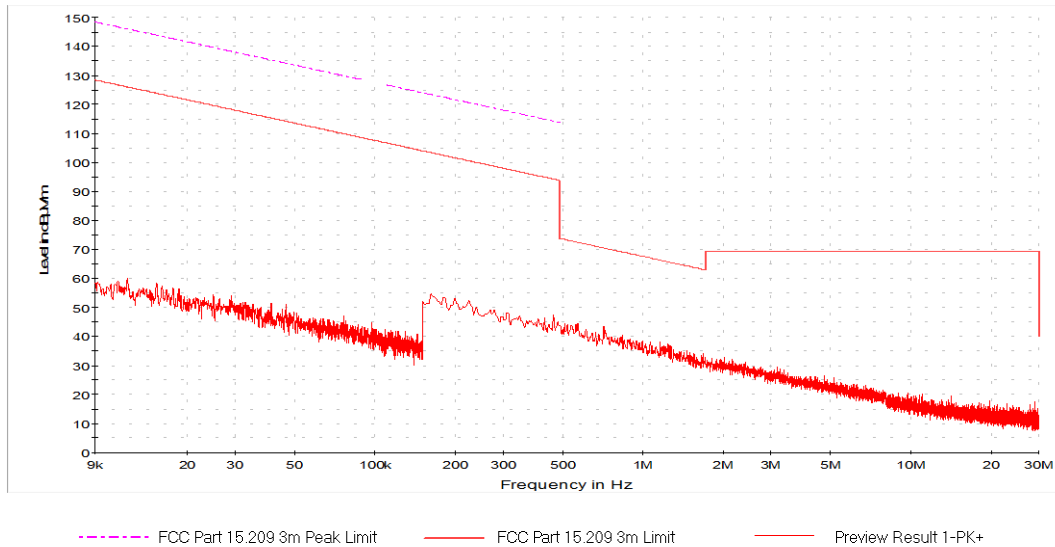


EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Radiated
emissions in Restricted bands
Tait International Limited - TAHP2A - TCH8 Control Head
2441MHz Channel - 9kHz to 30MHz
X Antenna Orientation – DH5

Job
Number: E2510-1902-2

Test
Engineer: AZ



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Graph 34

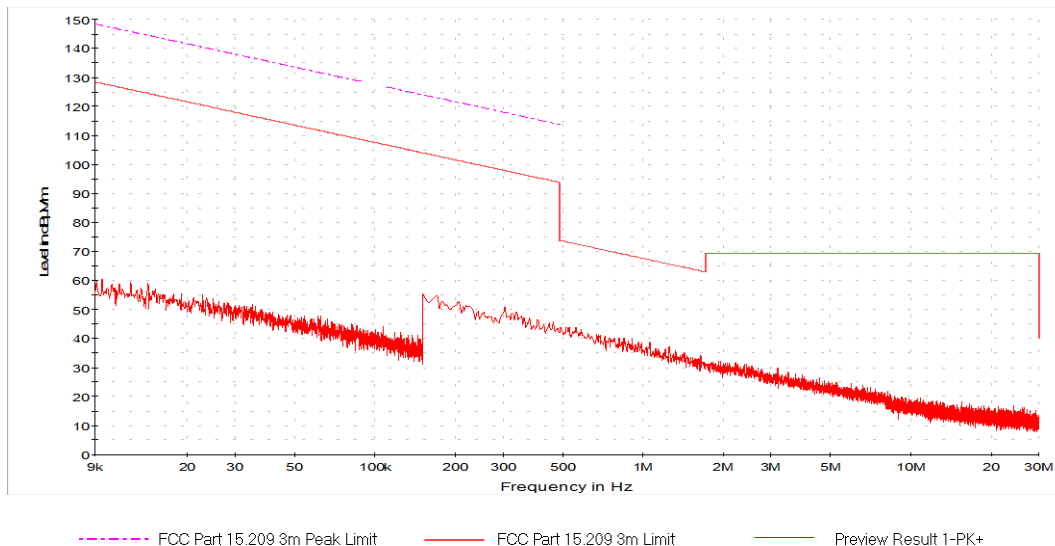


EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Radiated
emissions in Restricted bands
Tait International Limited - TAHP2A - TCH8 Control Head
2441MHz Channel - 9kHz to 30MHz
Y Antenna Orientation – DH5

Job
Number: E2510-1902-2

Test
Engineer: AZ



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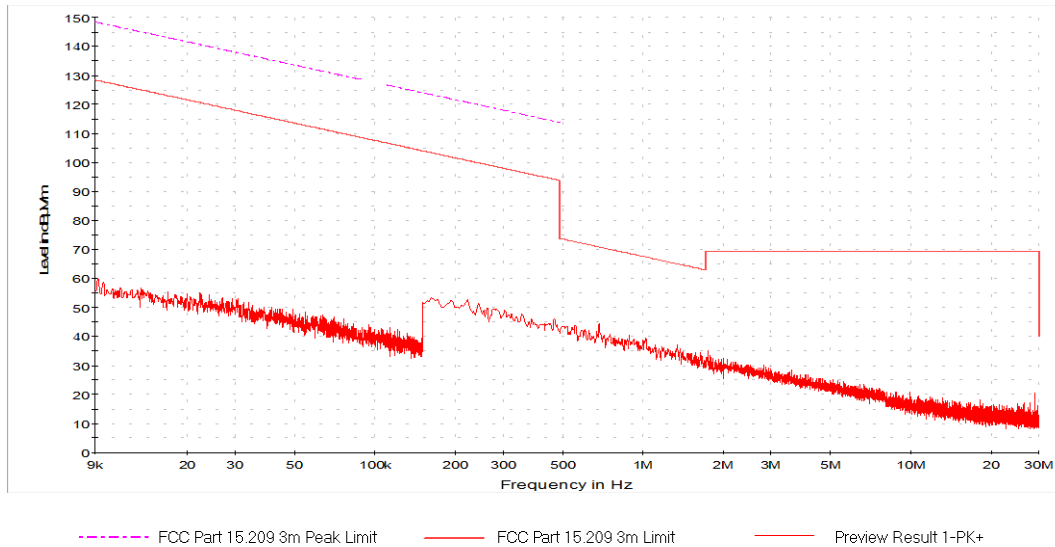
Graph 35



EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Radiated
emissions in Restricted bands
Tait International Limited - TAHP2A - TCH8 Control Head
2441MHz Channel - 9kHz to 30MHz
Z Antenna Orientation – DH5

Job Number: E2510-1902-2
Test Engineer: AZ



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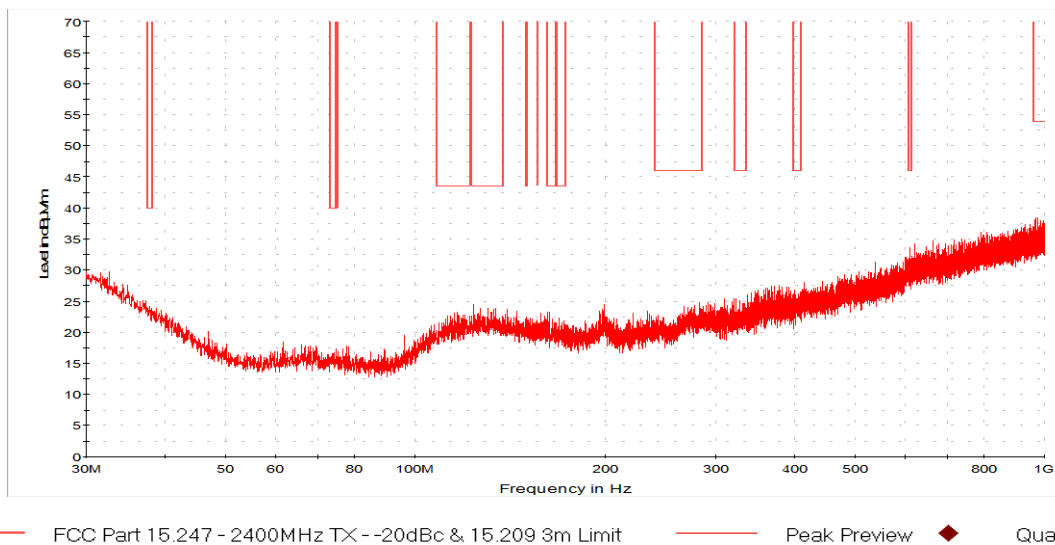
Graph 36



EMC Bayswater Pty. Ltd.

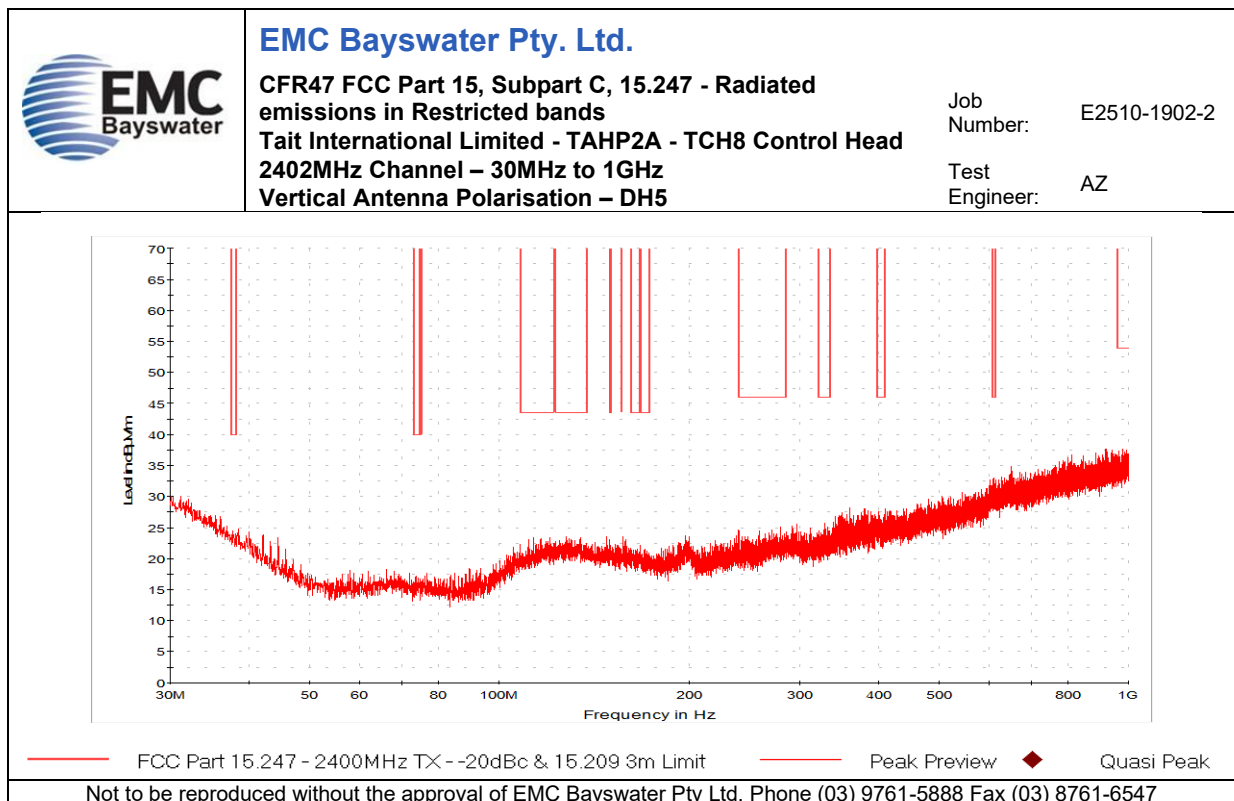
CFR47 FCC Part 15, Subpart C, 15.247 - Radiated
emissions in Restricted bands
Tait International Limited - TAHP2A - TCH8 Control Head
2402MHz Channel – 30MHz to 1GHz
Horizontal Antenna Polarisation – DH5

Job Number: E2510-1902-2
Test Engineer: AZ

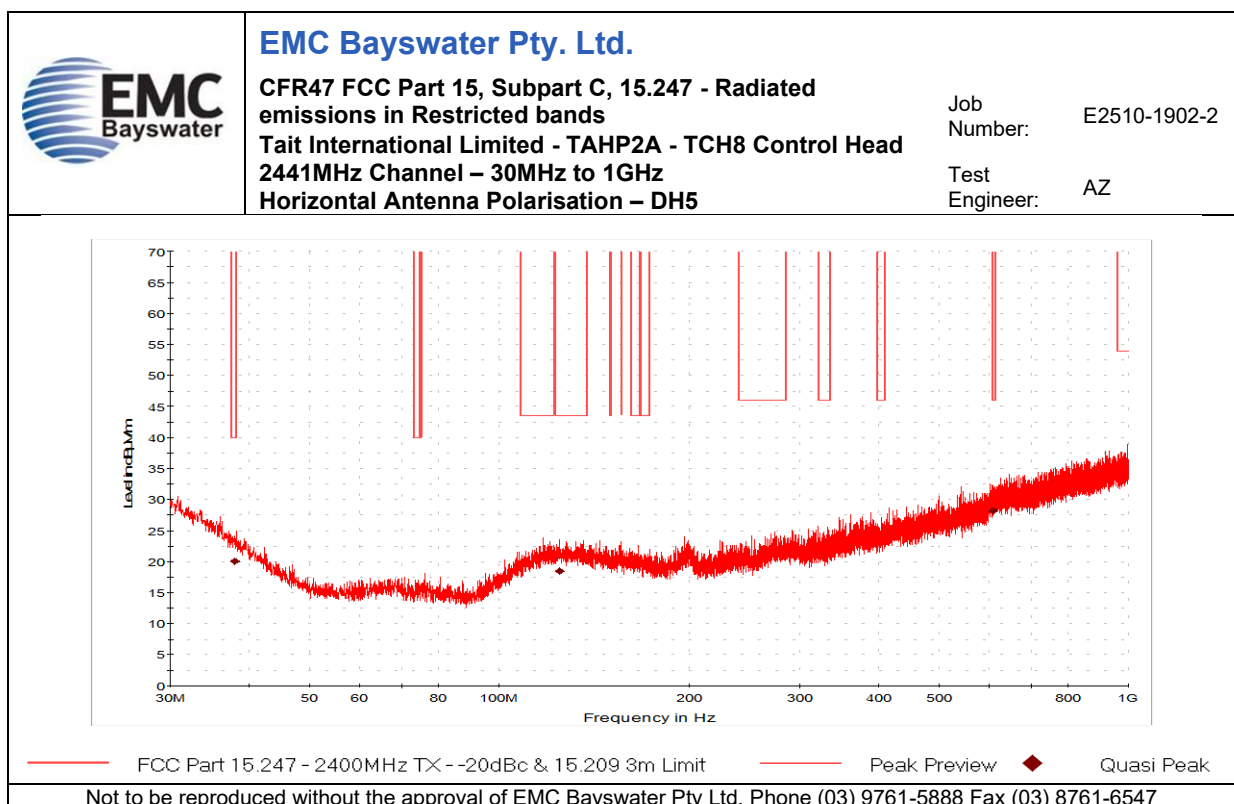


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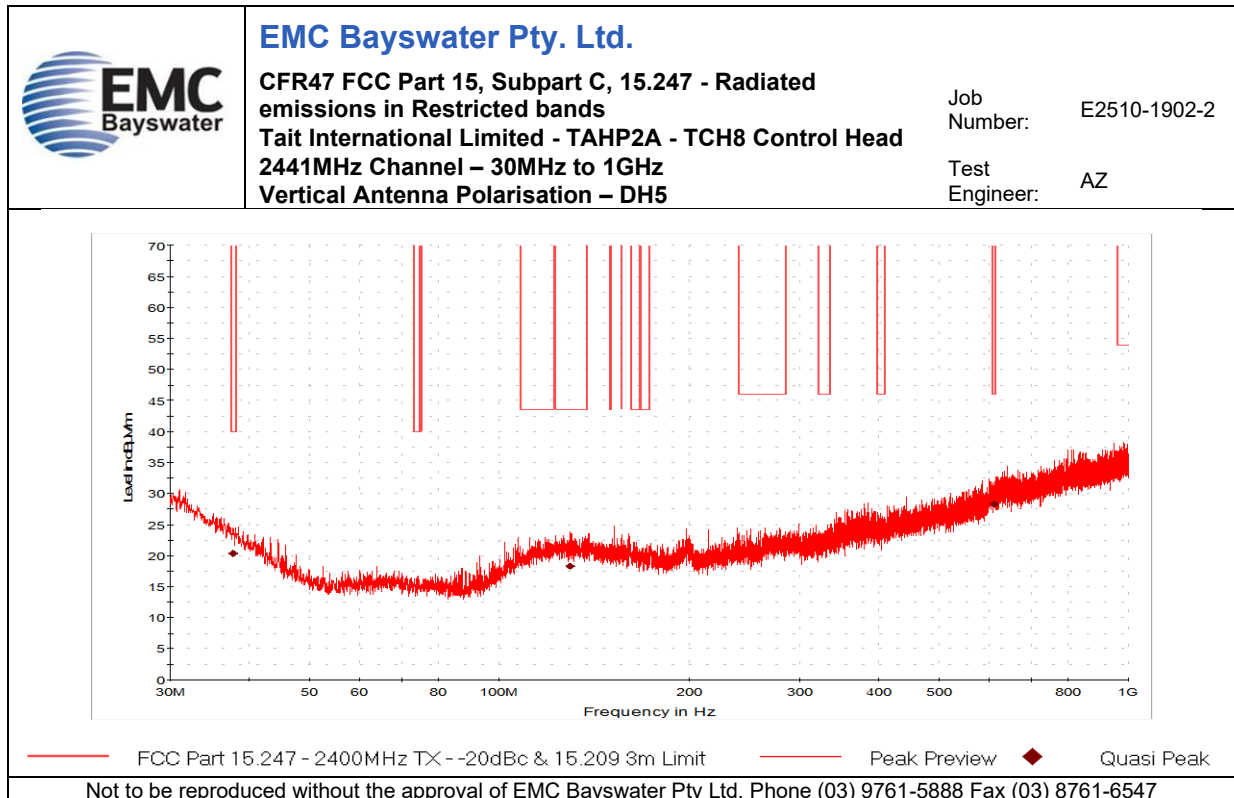
Graph 37



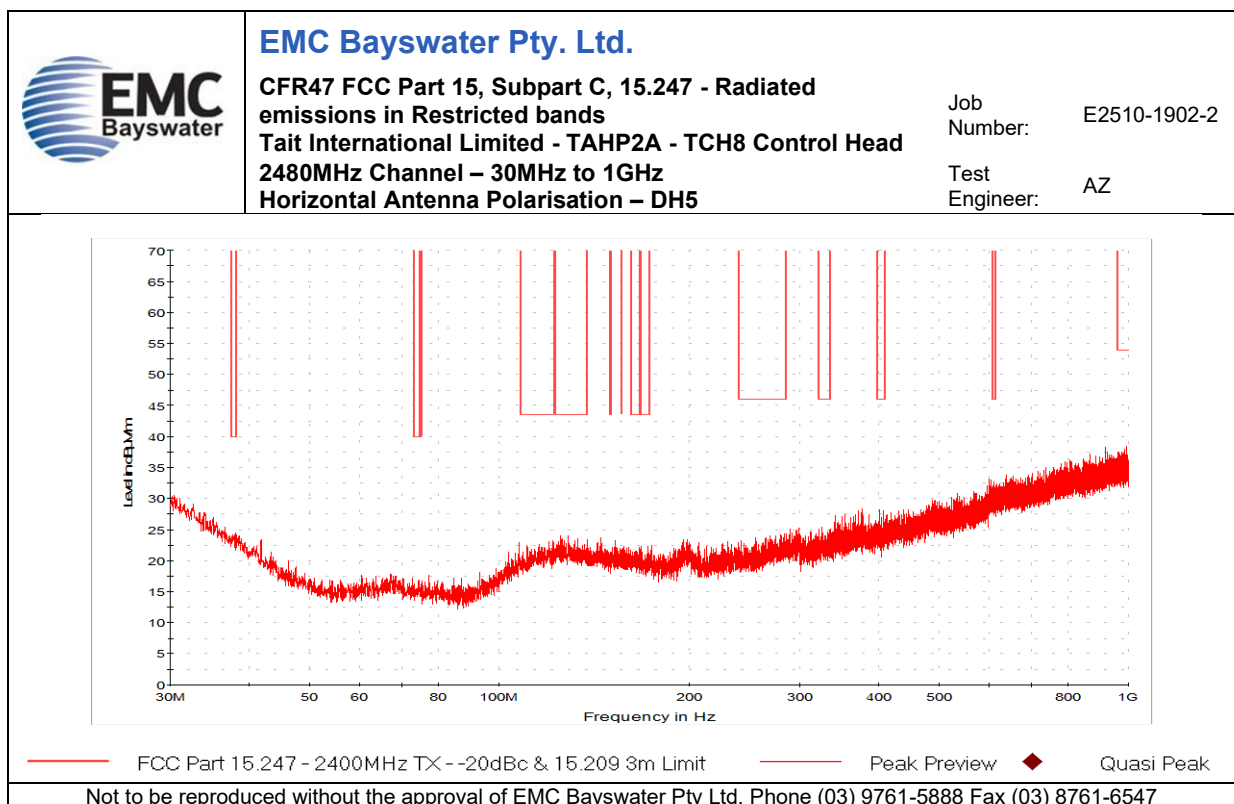
Graph 38



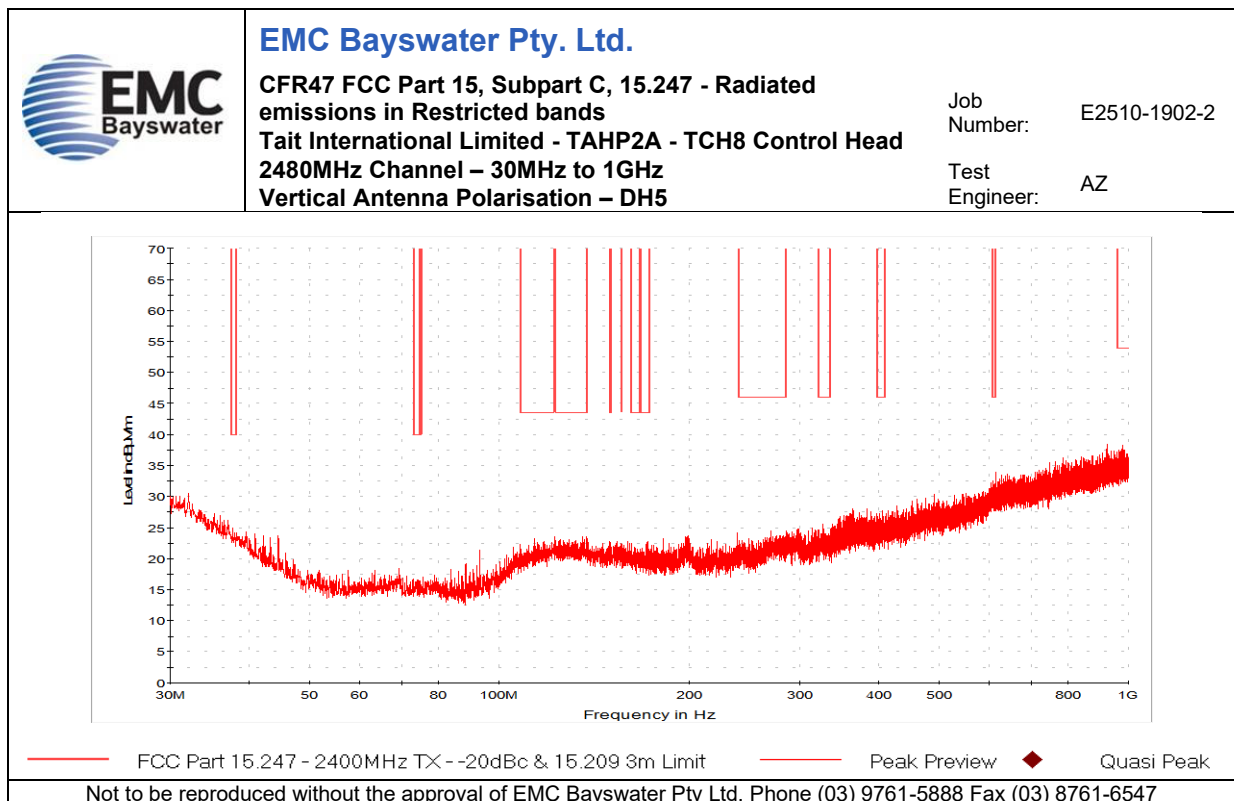
Graph 39



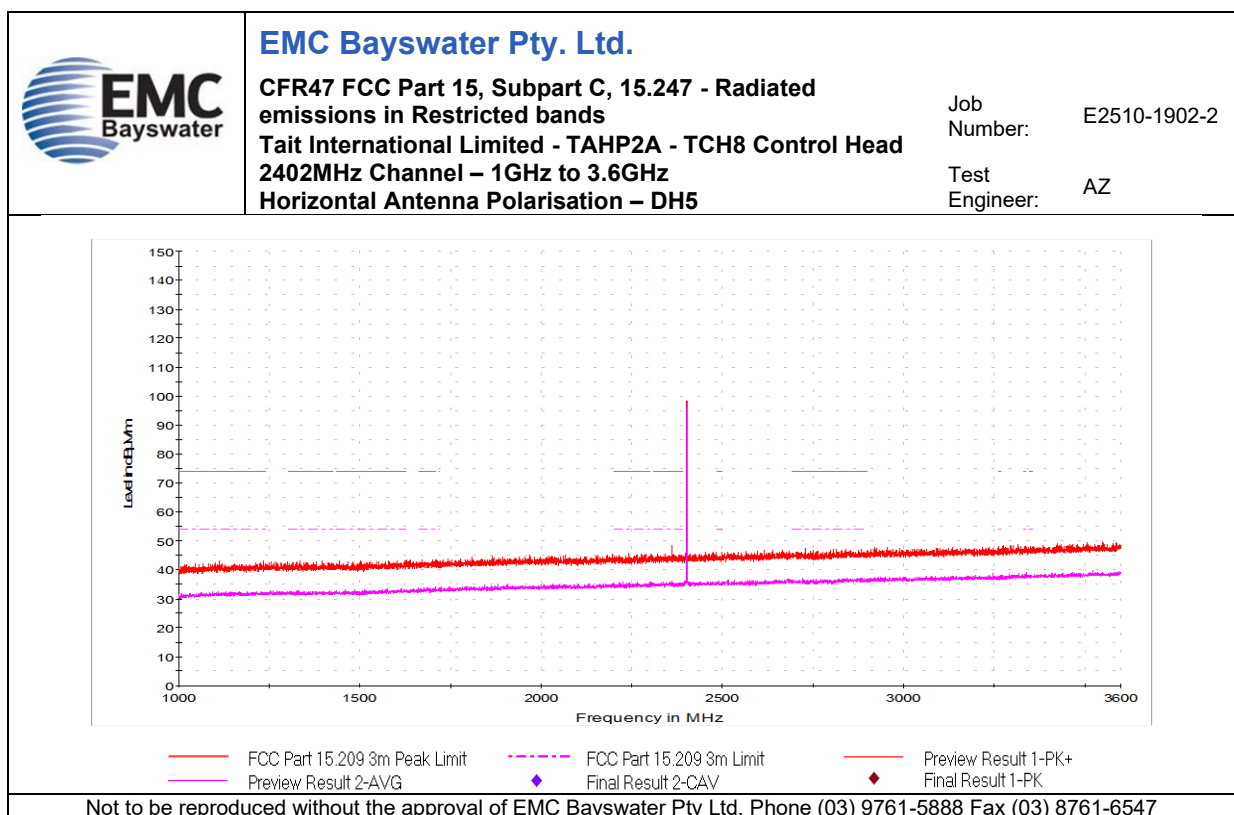
Graph 40



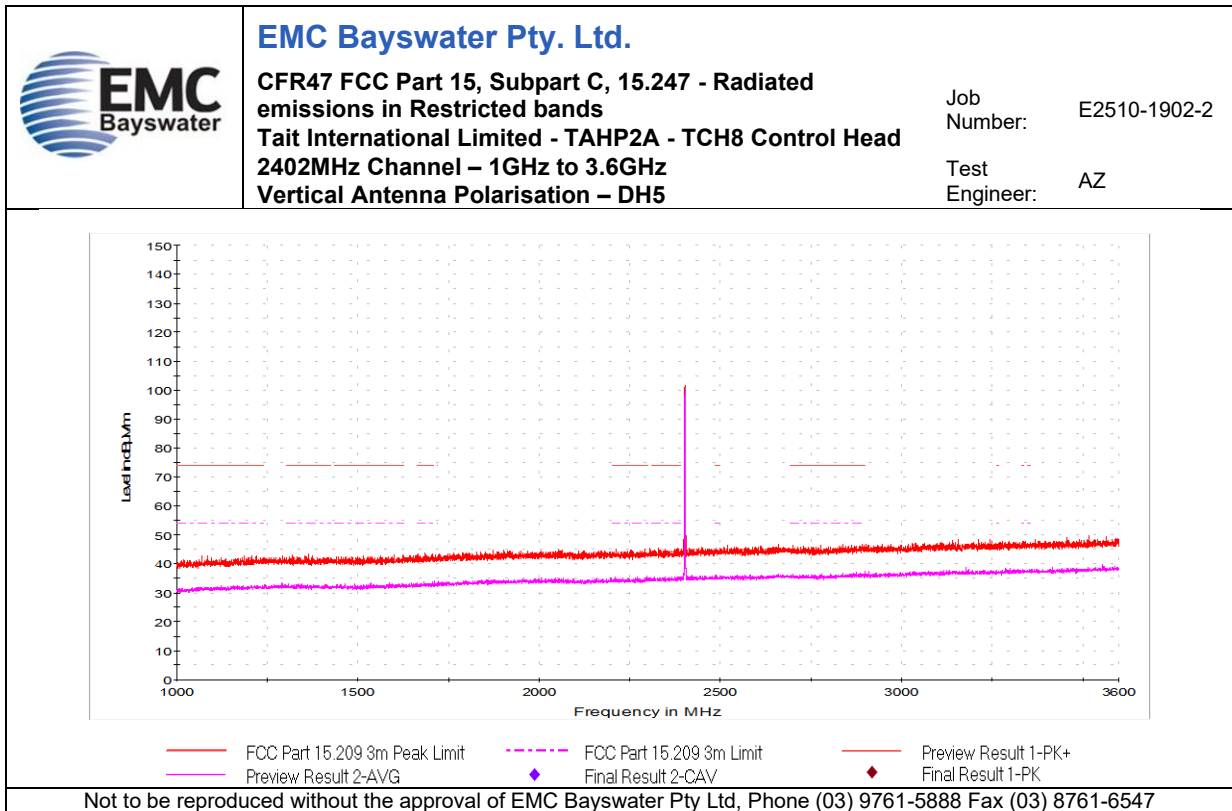
Graph 41



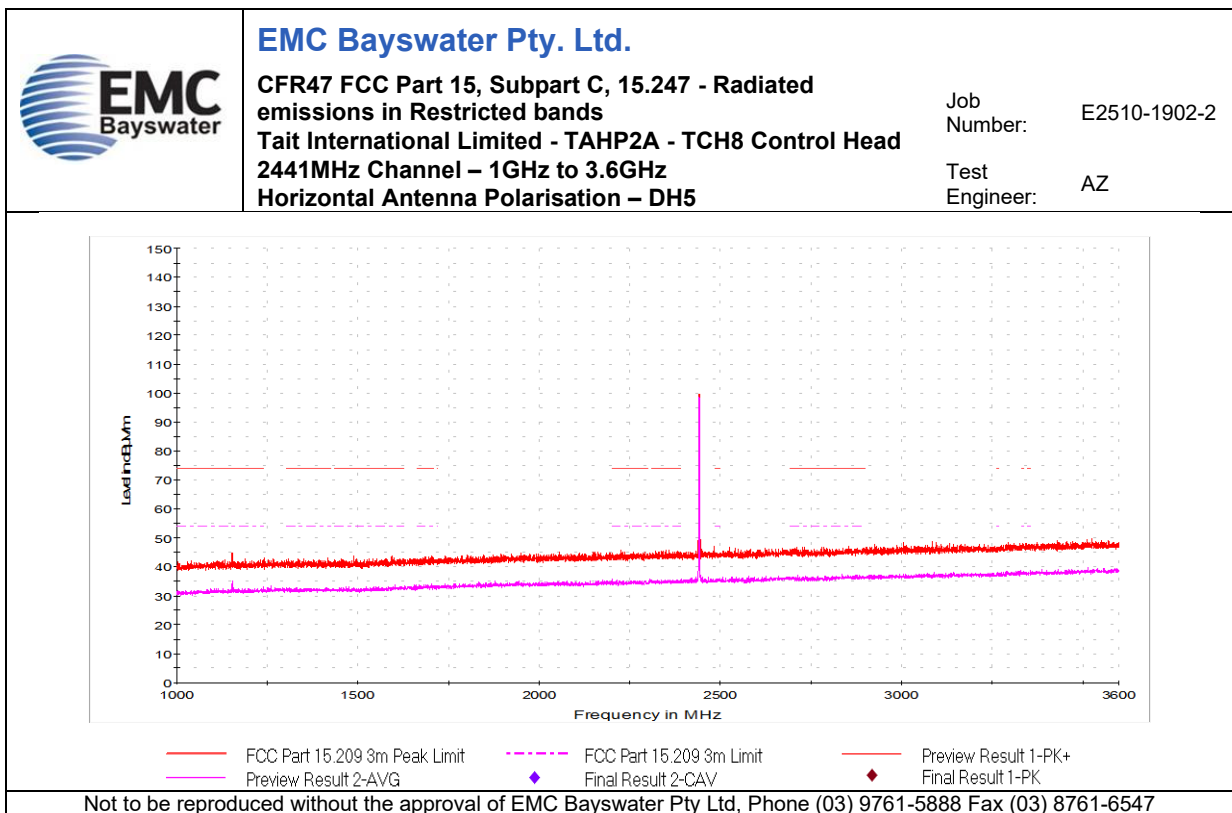
Graph 42



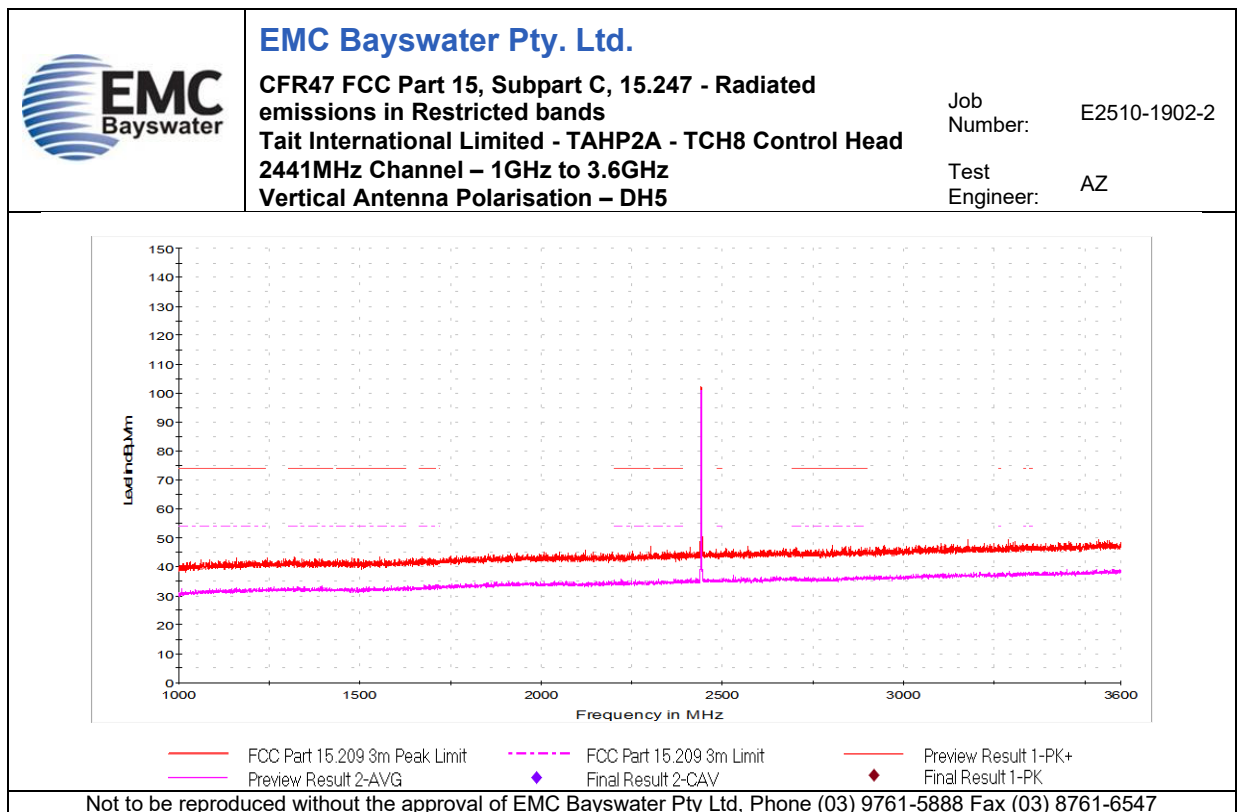
Graph 43



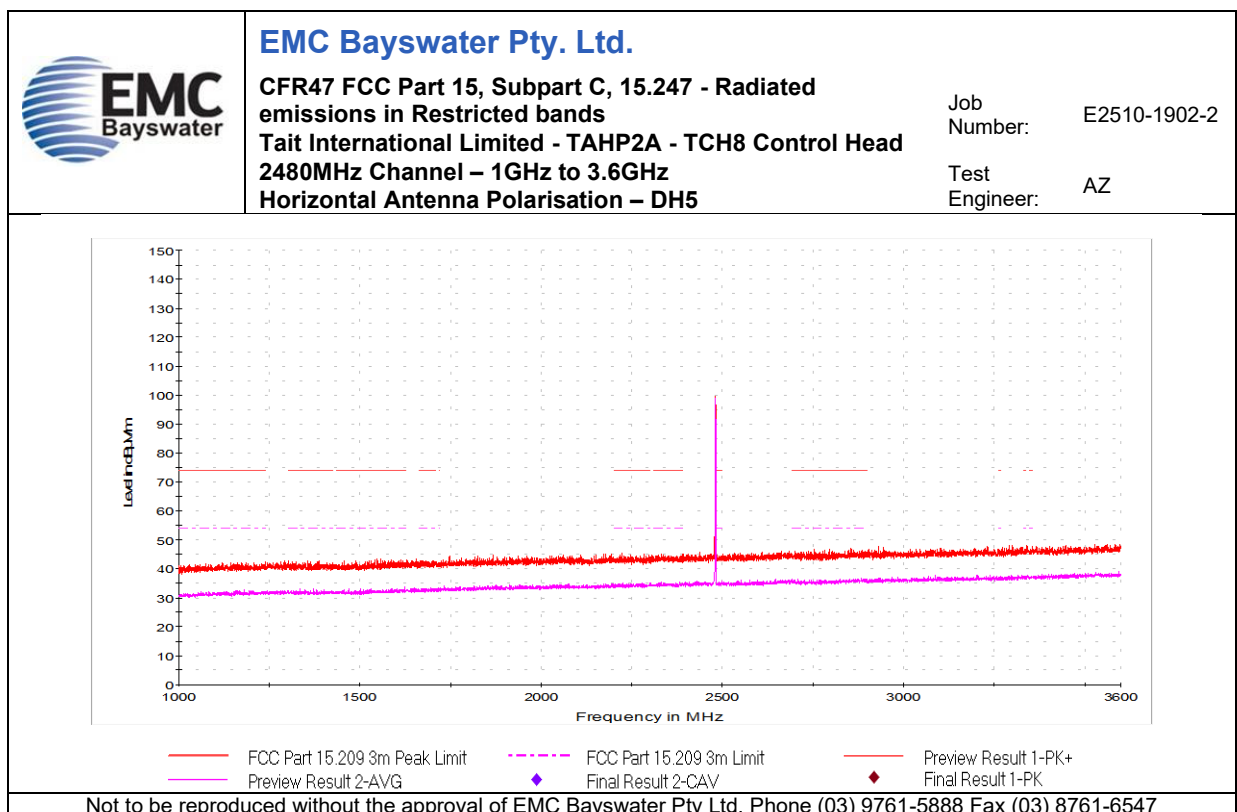
Graph 44



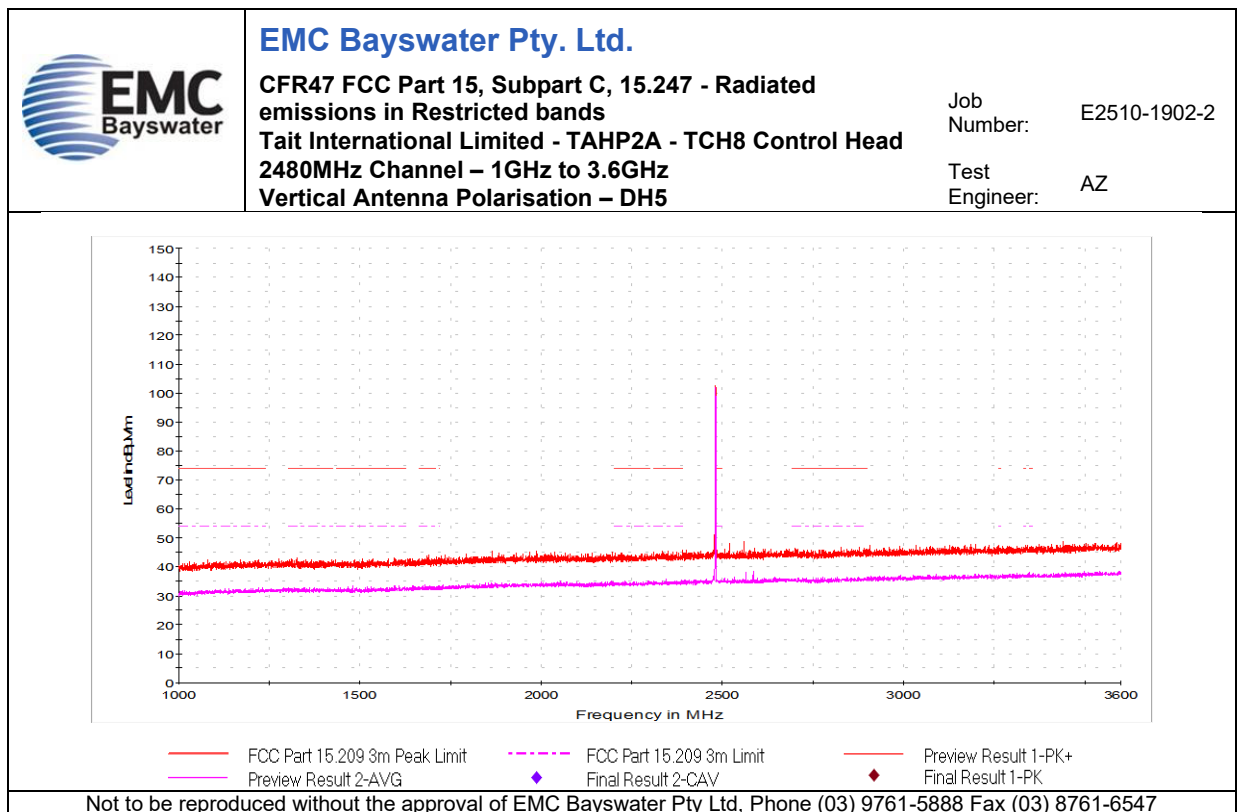
Graph 45



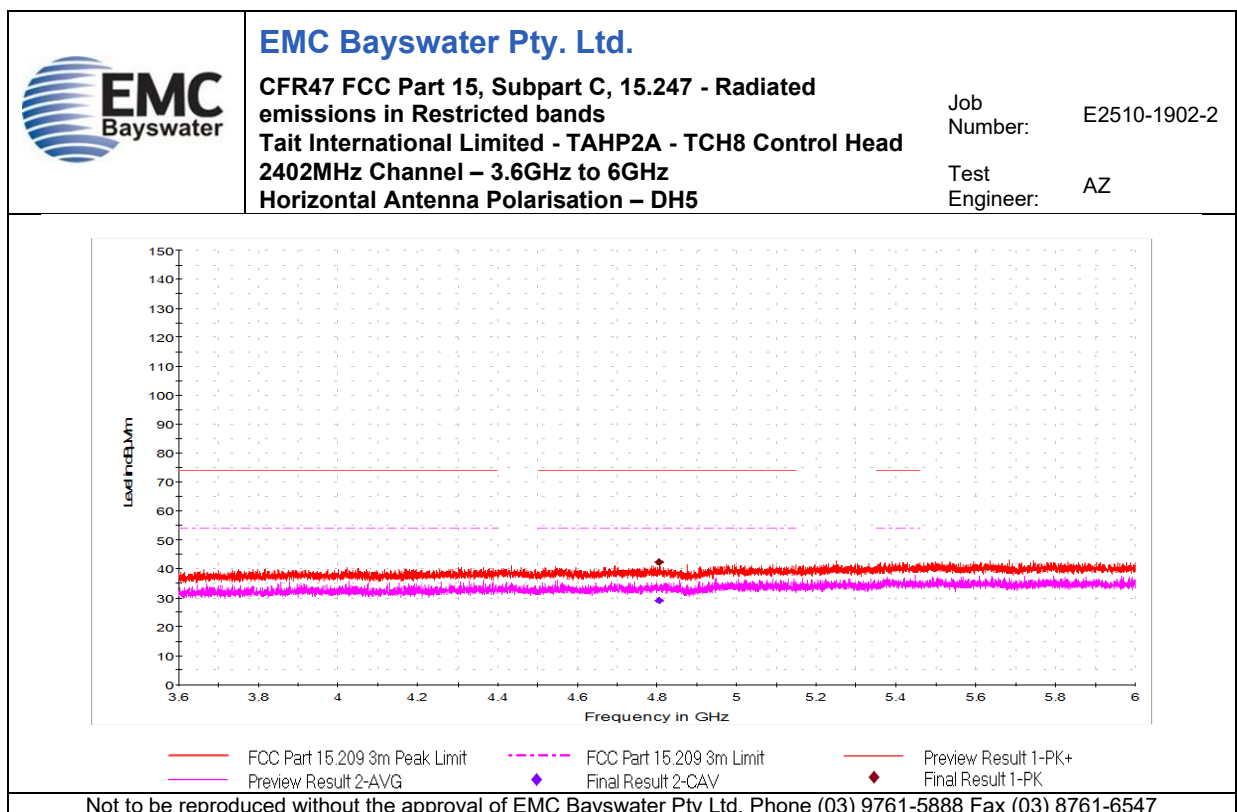
Graph 46



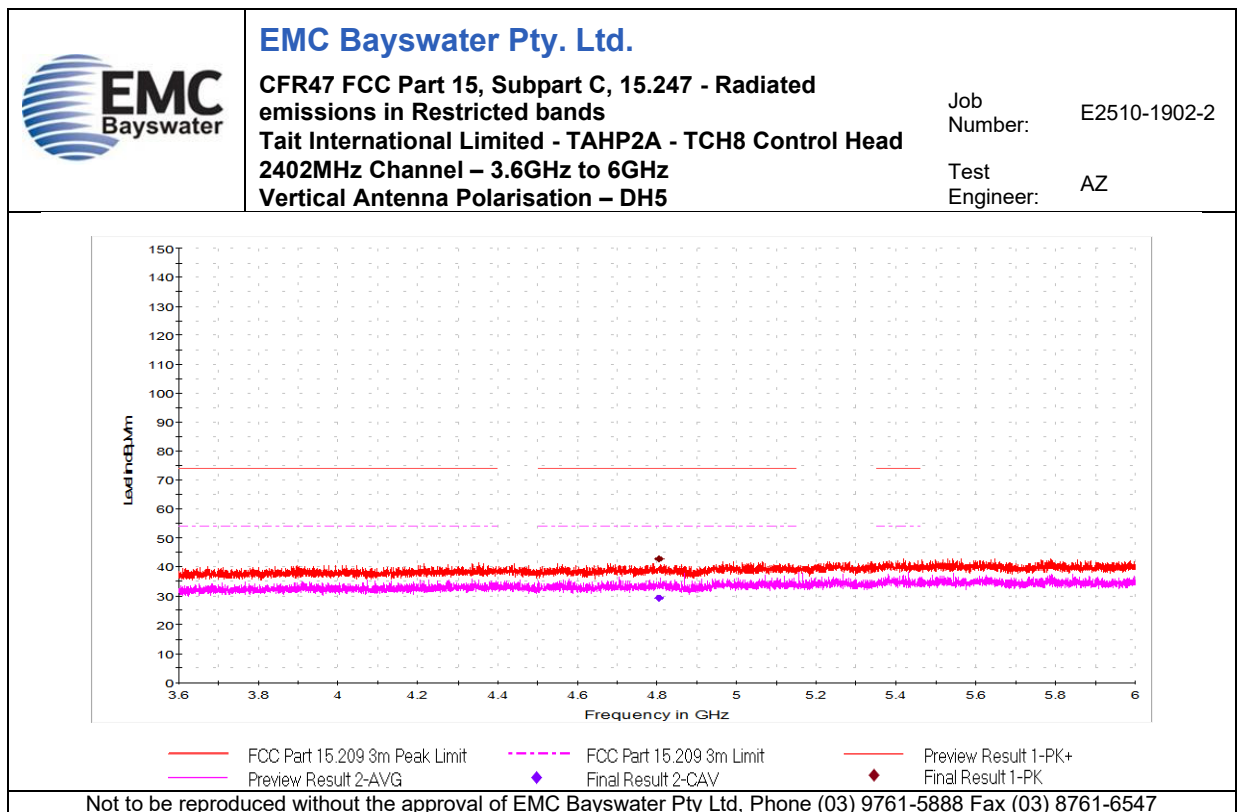
Graph 47



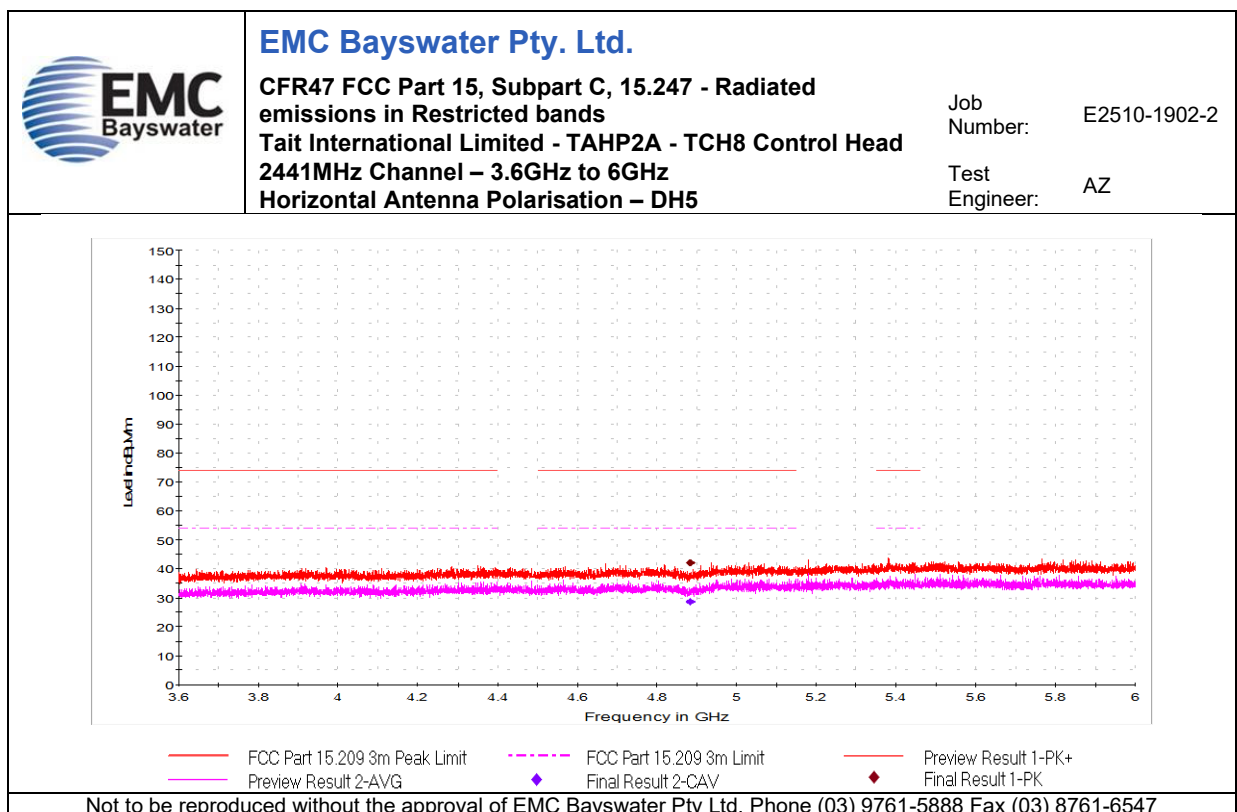
Graph 48



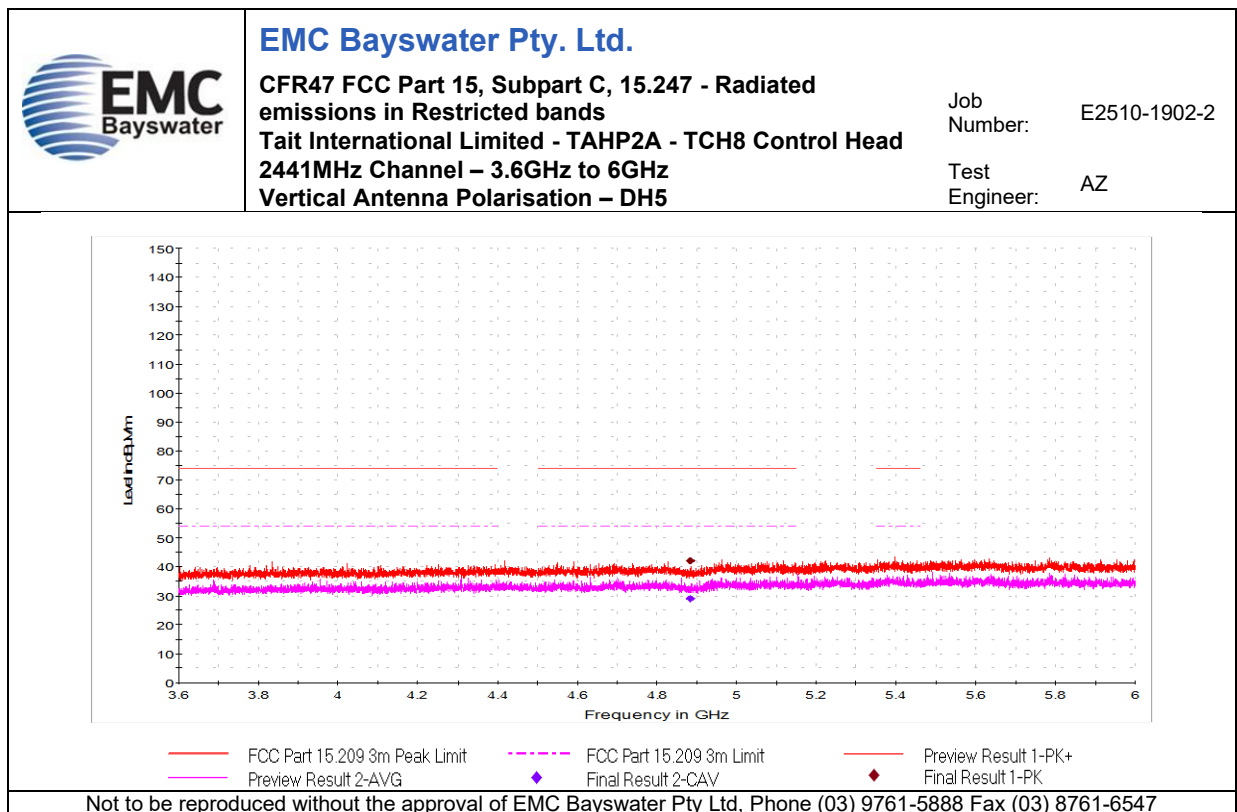
Graph 49



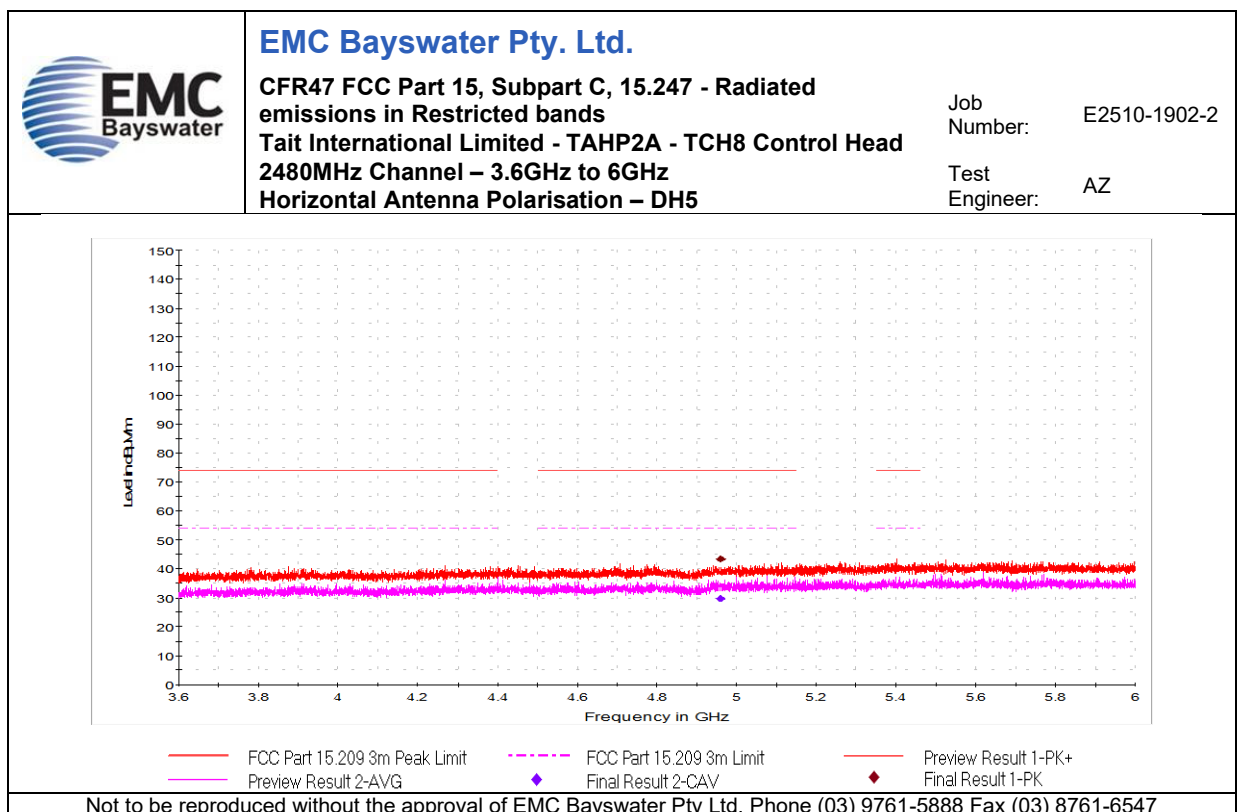
Graph 50



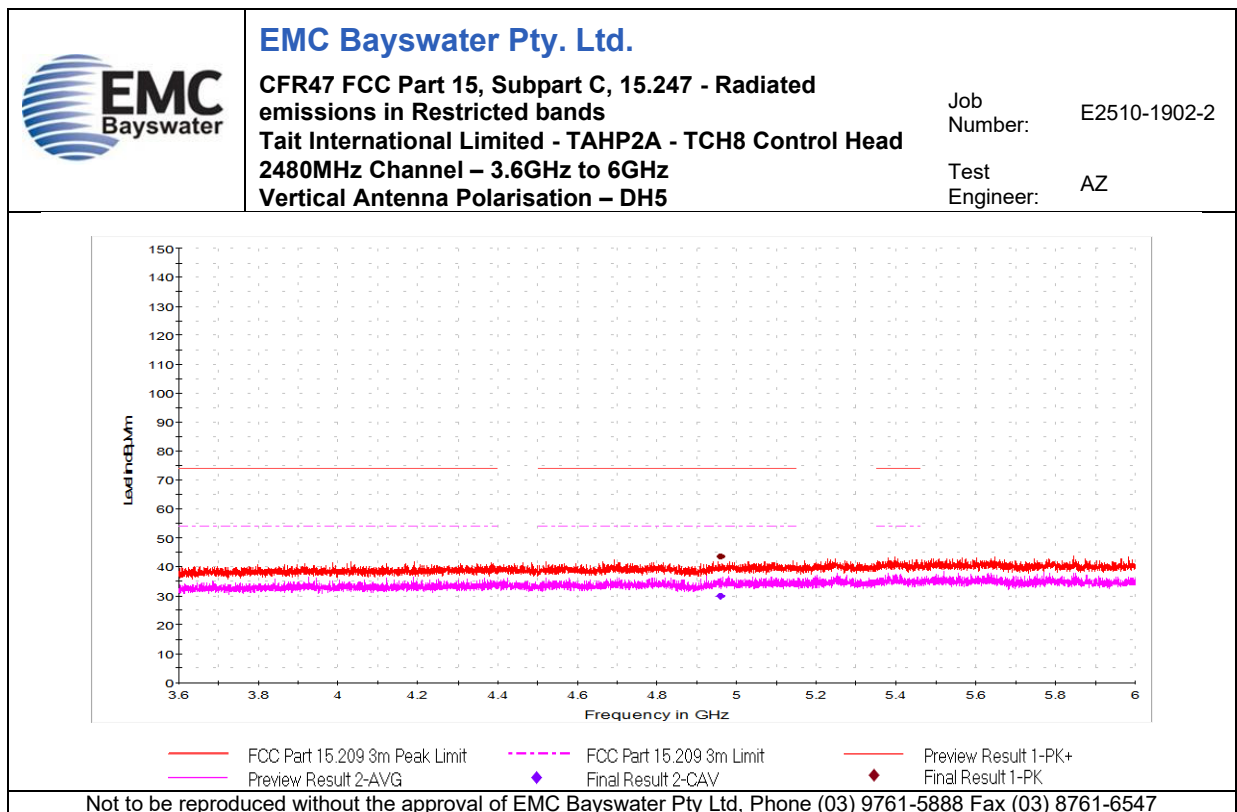
Graph 51



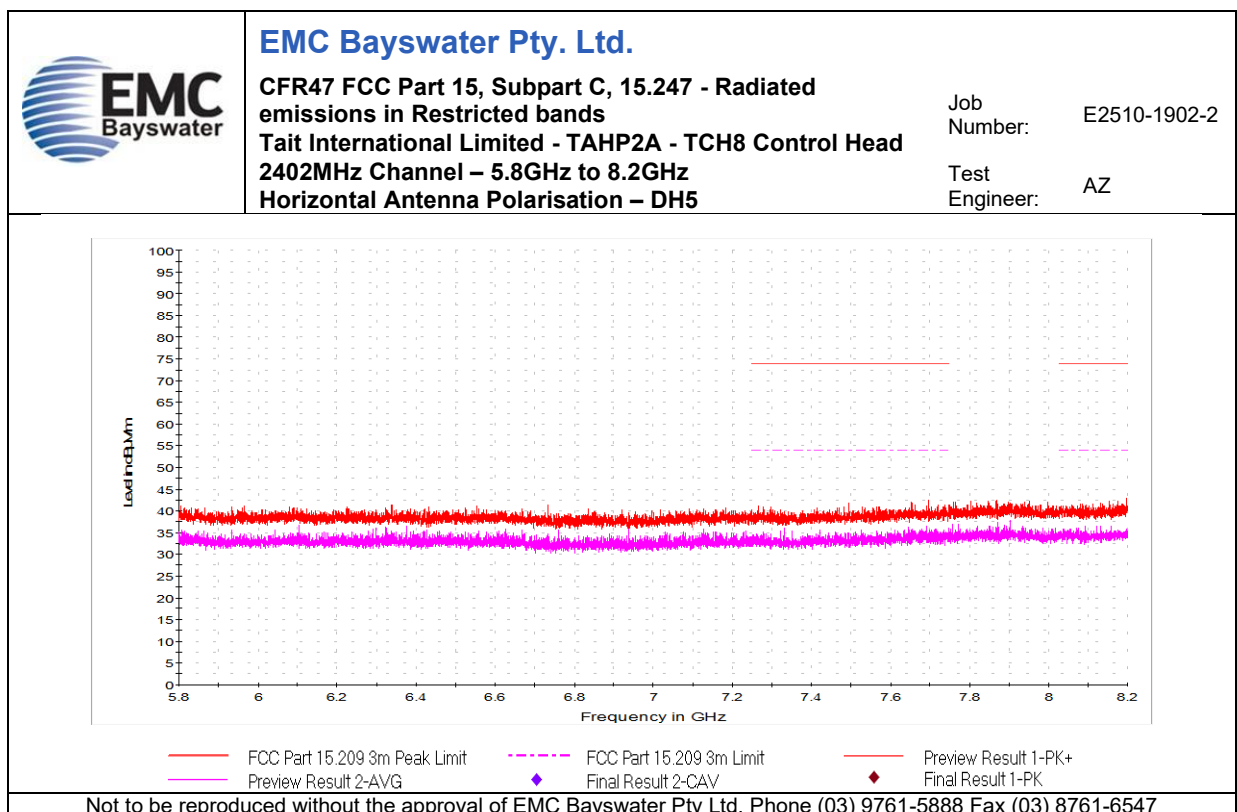
Graph 52



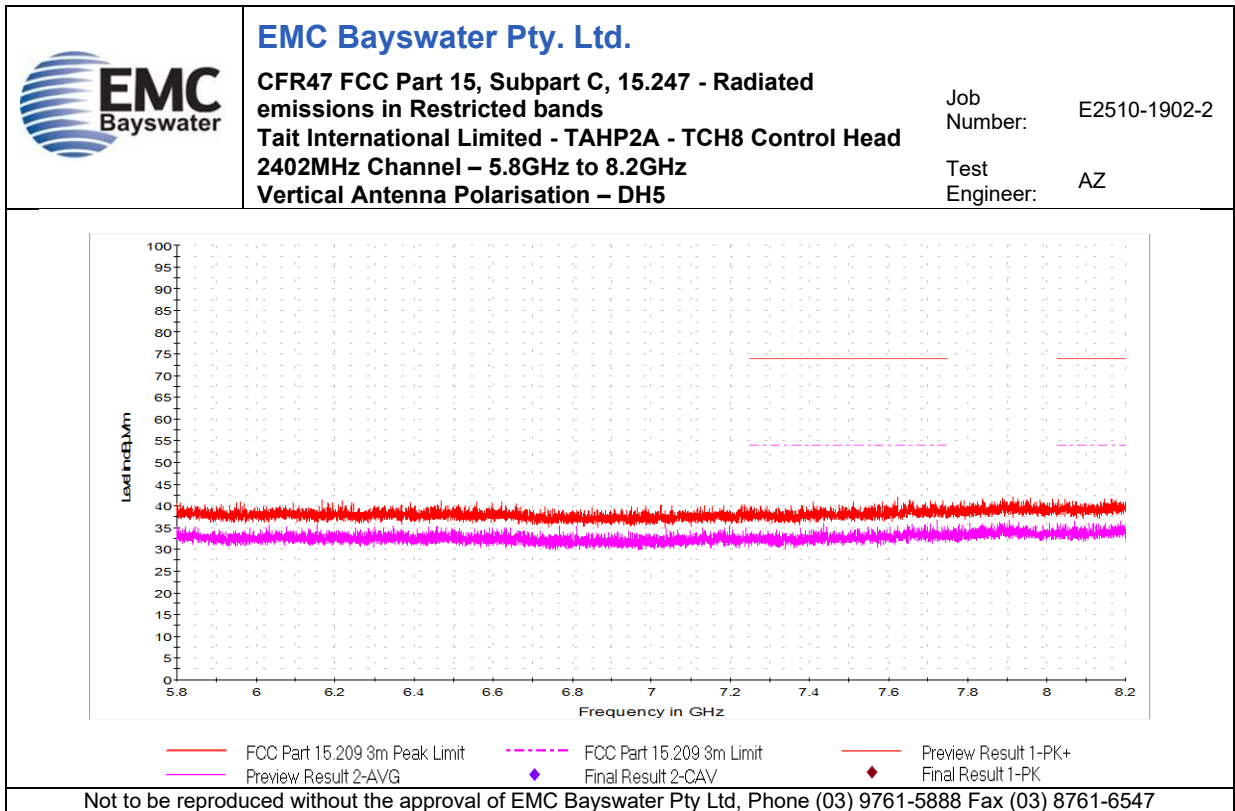
Graph 53



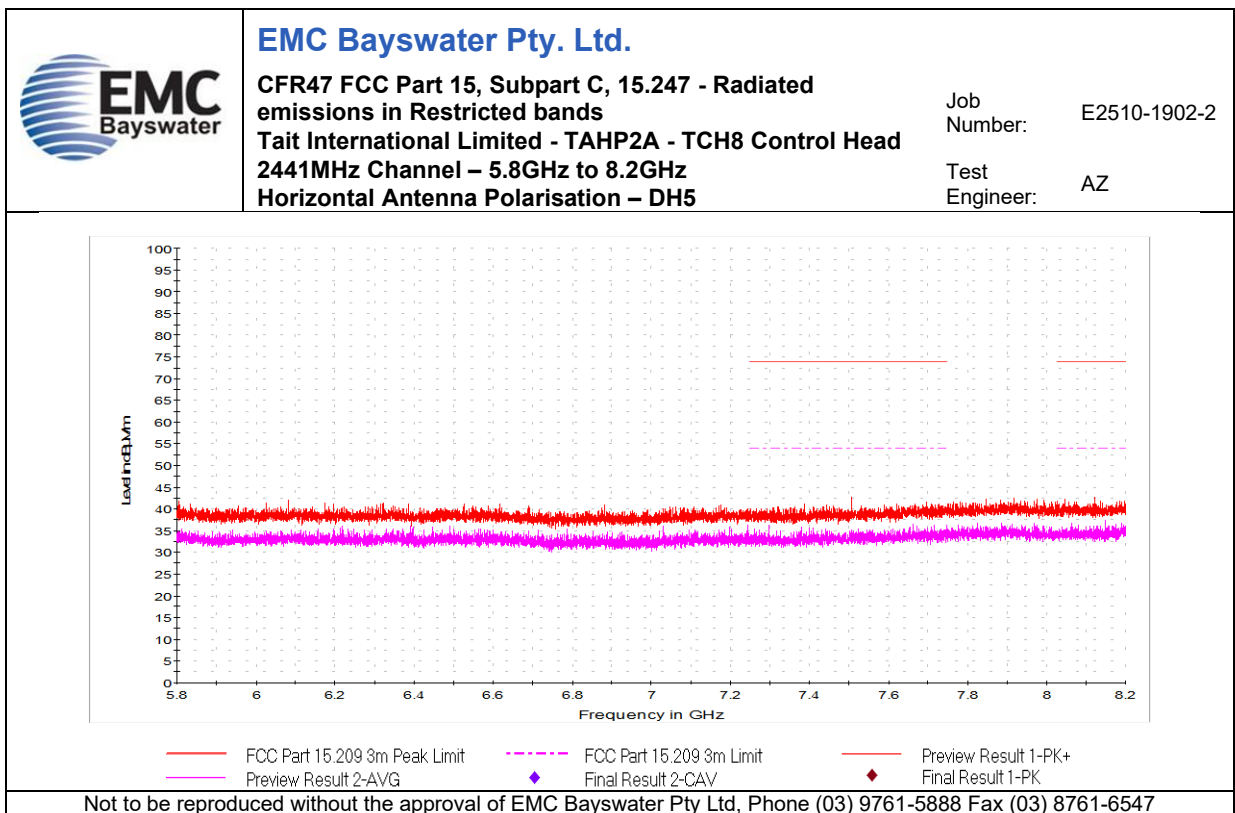
Graph 54



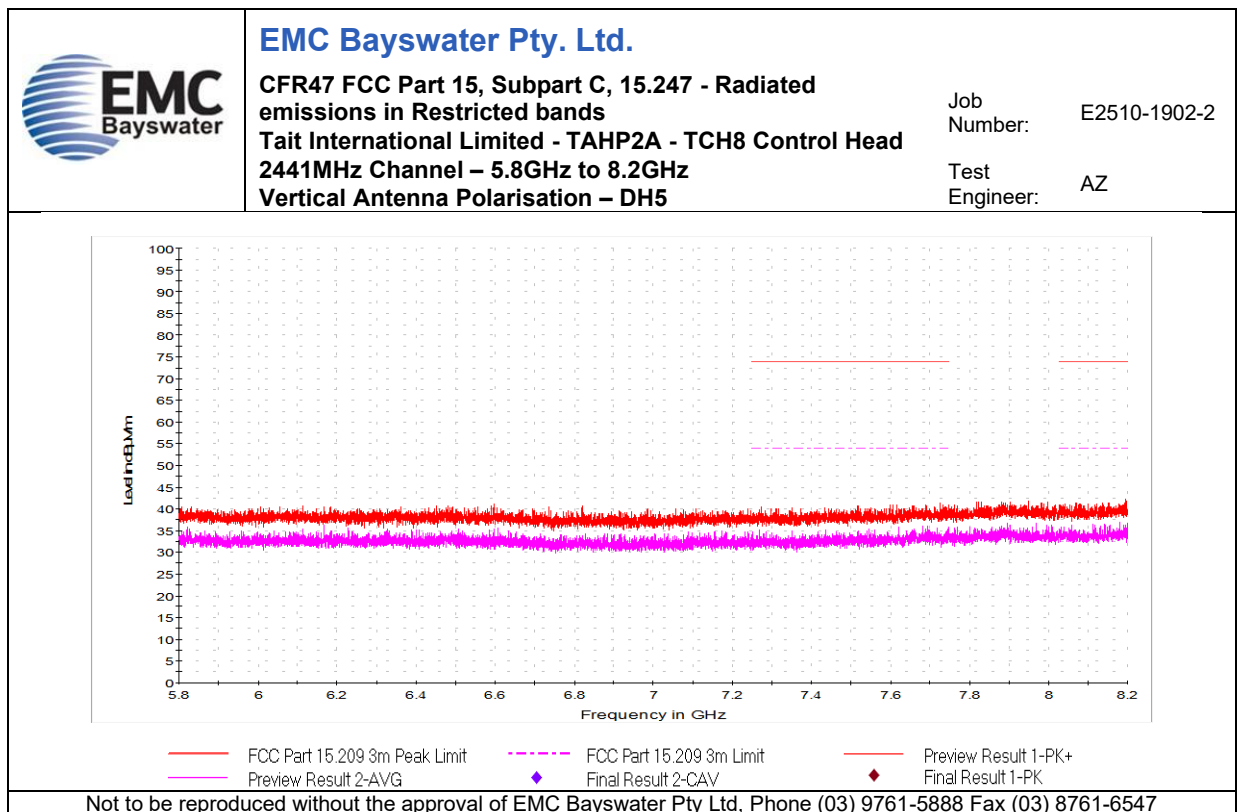
Graph 55



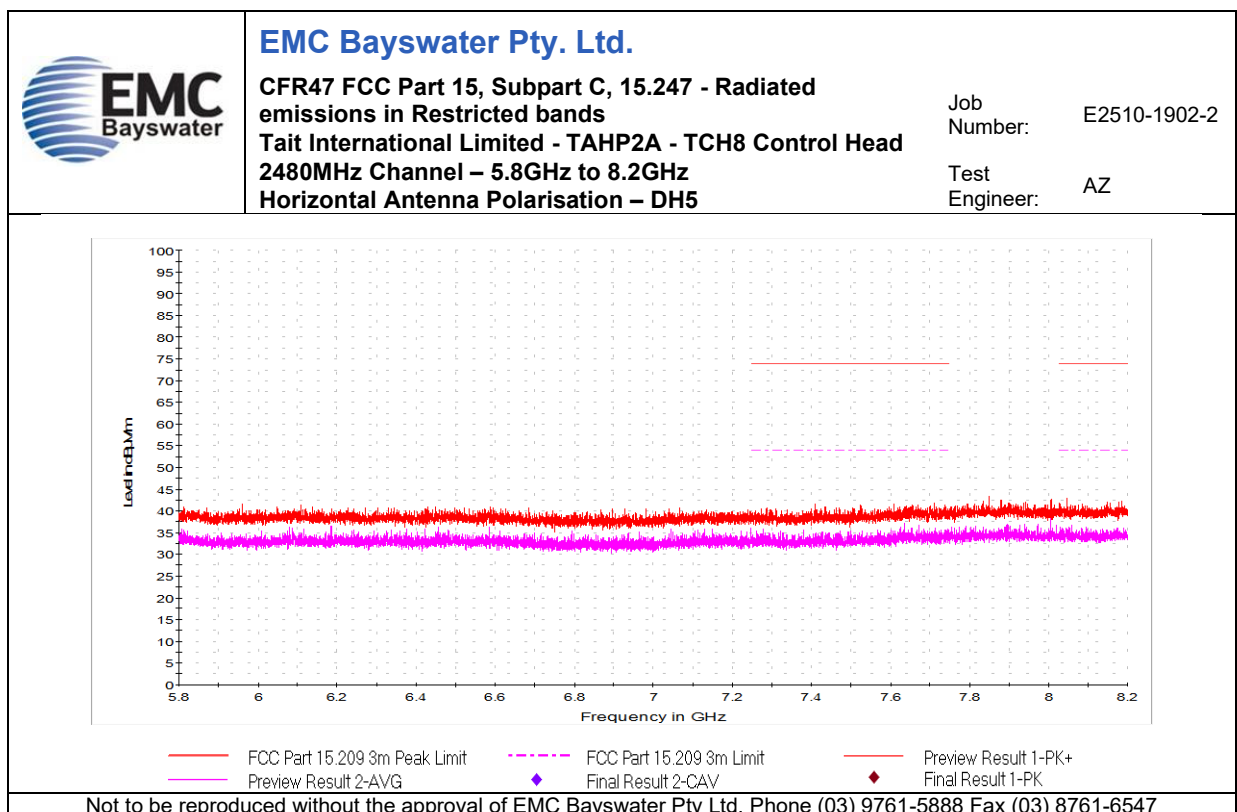
Graph 56



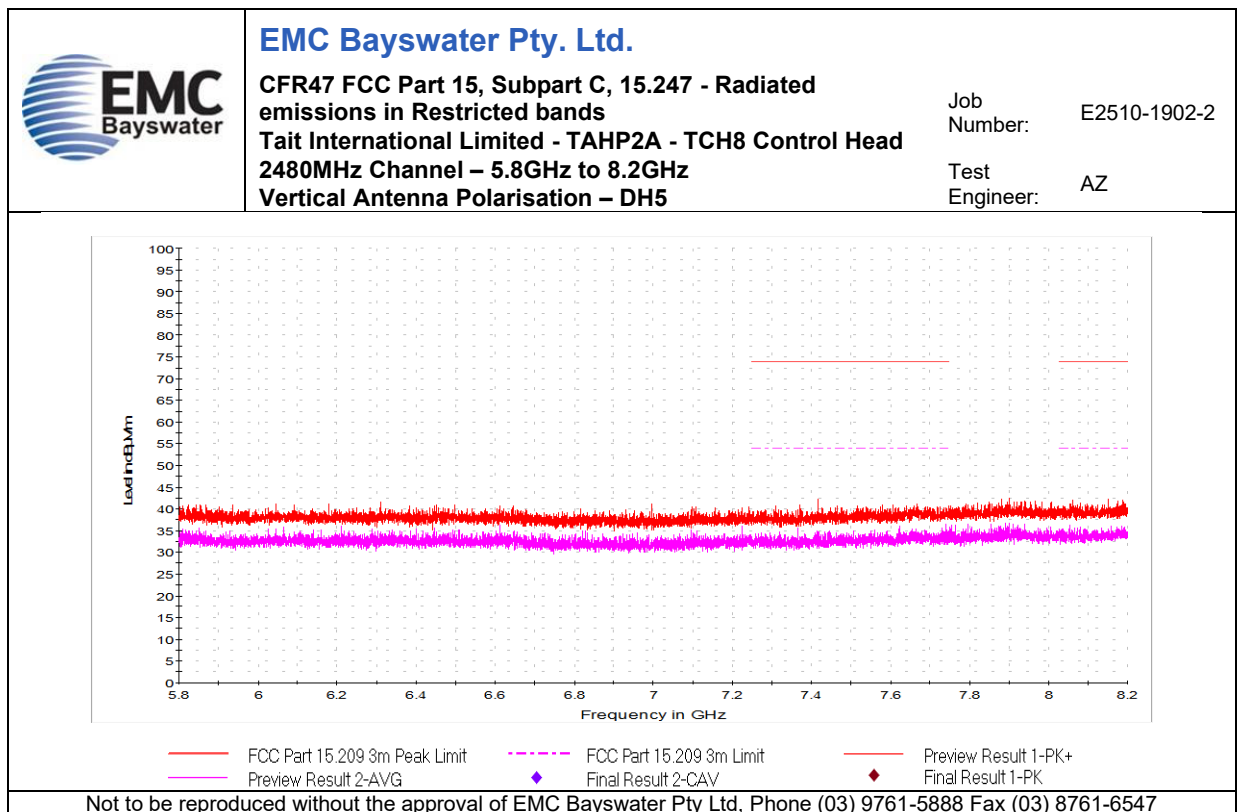
Graph 57



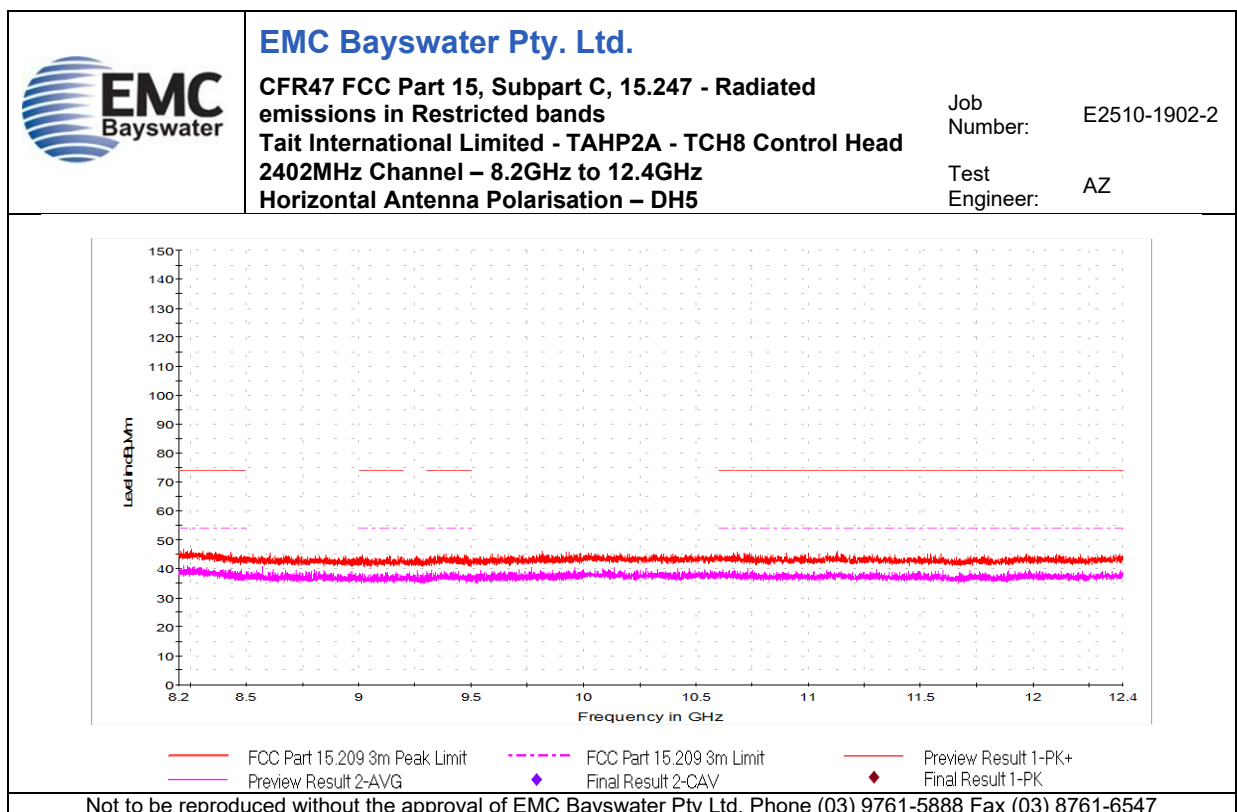
Graph 58



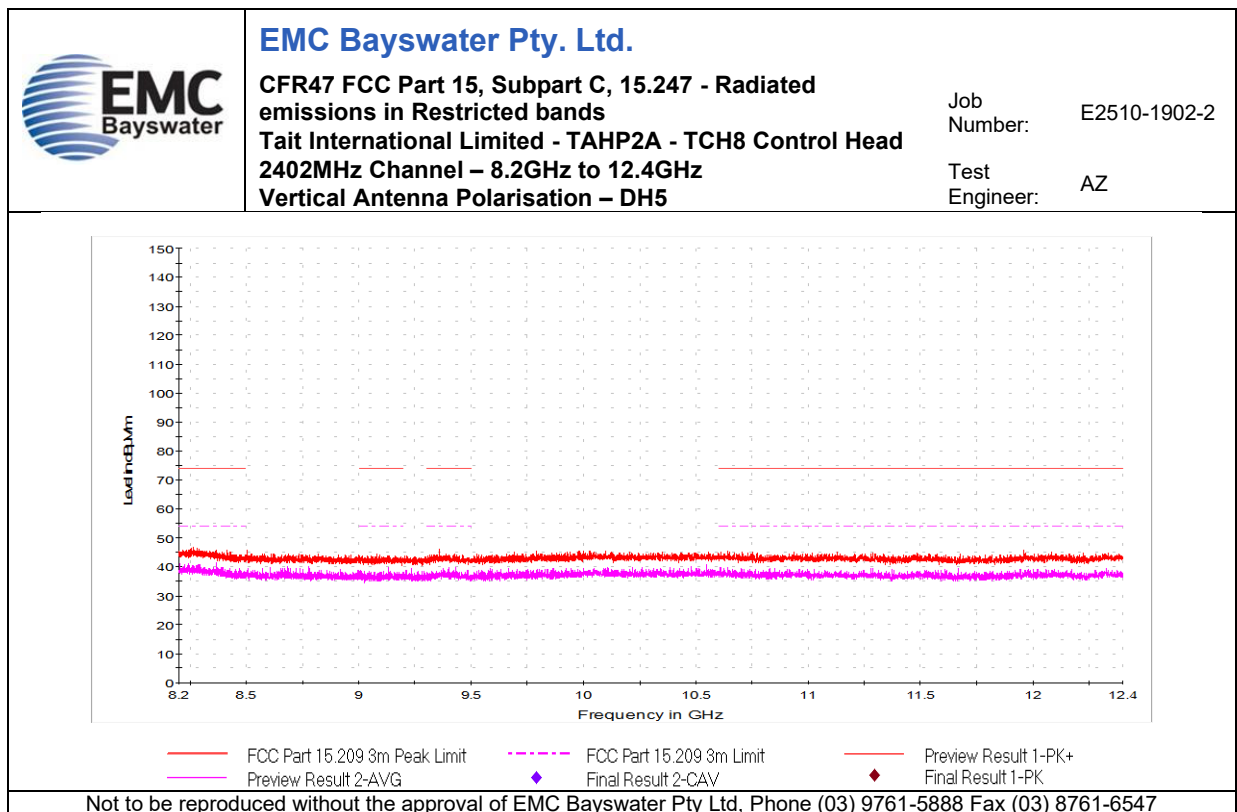
Graph 59



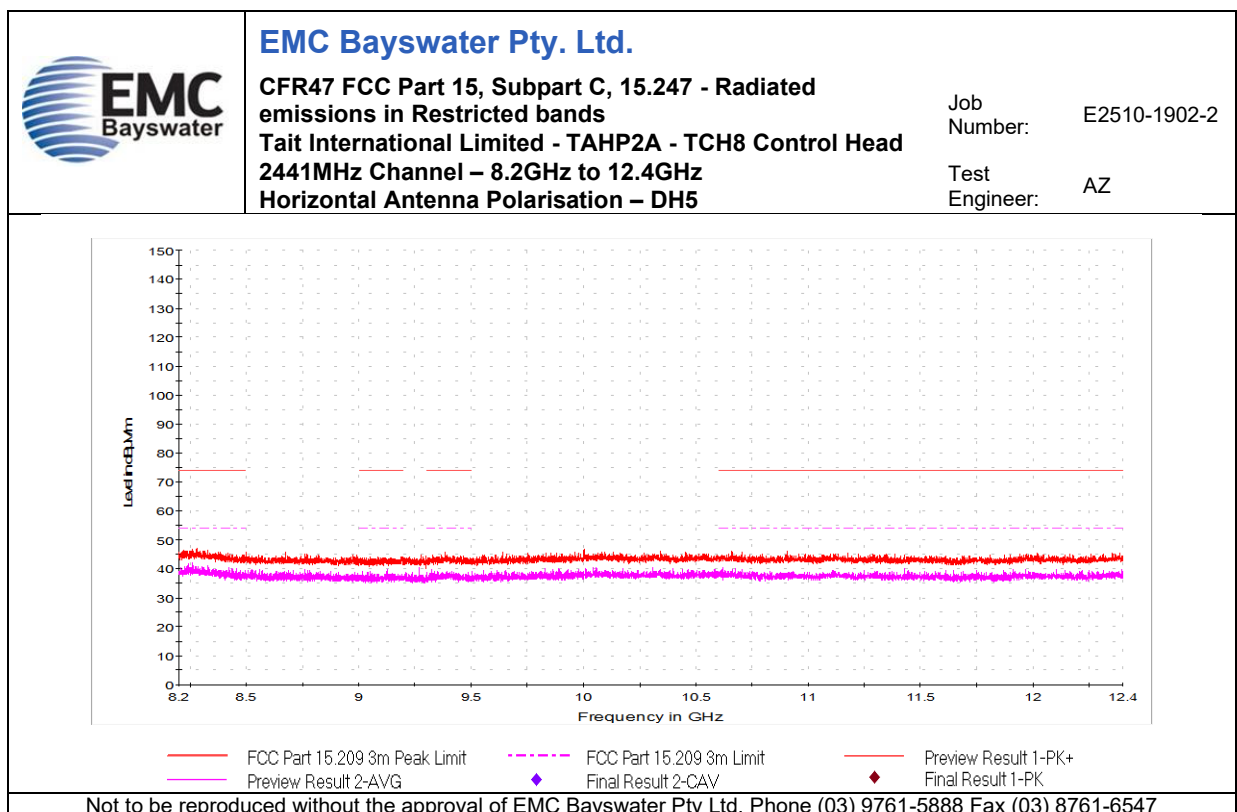
Graph 60



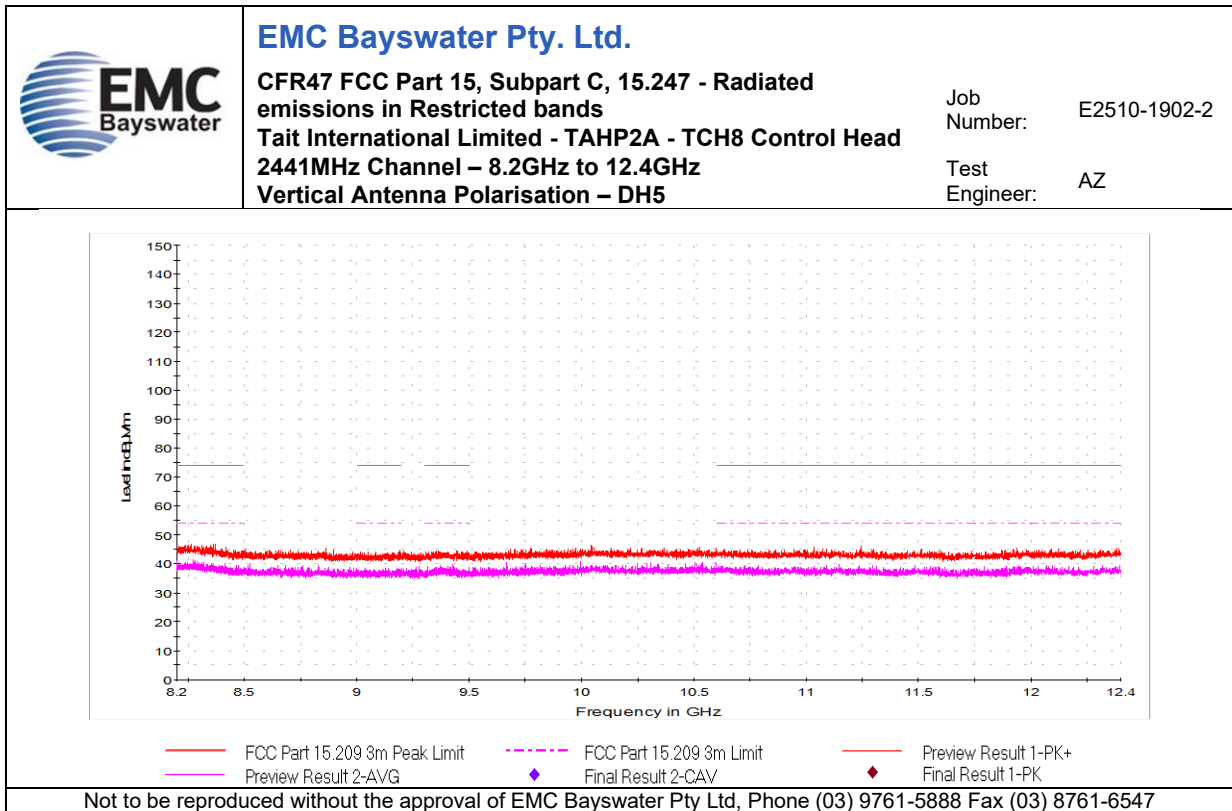
Graph 61



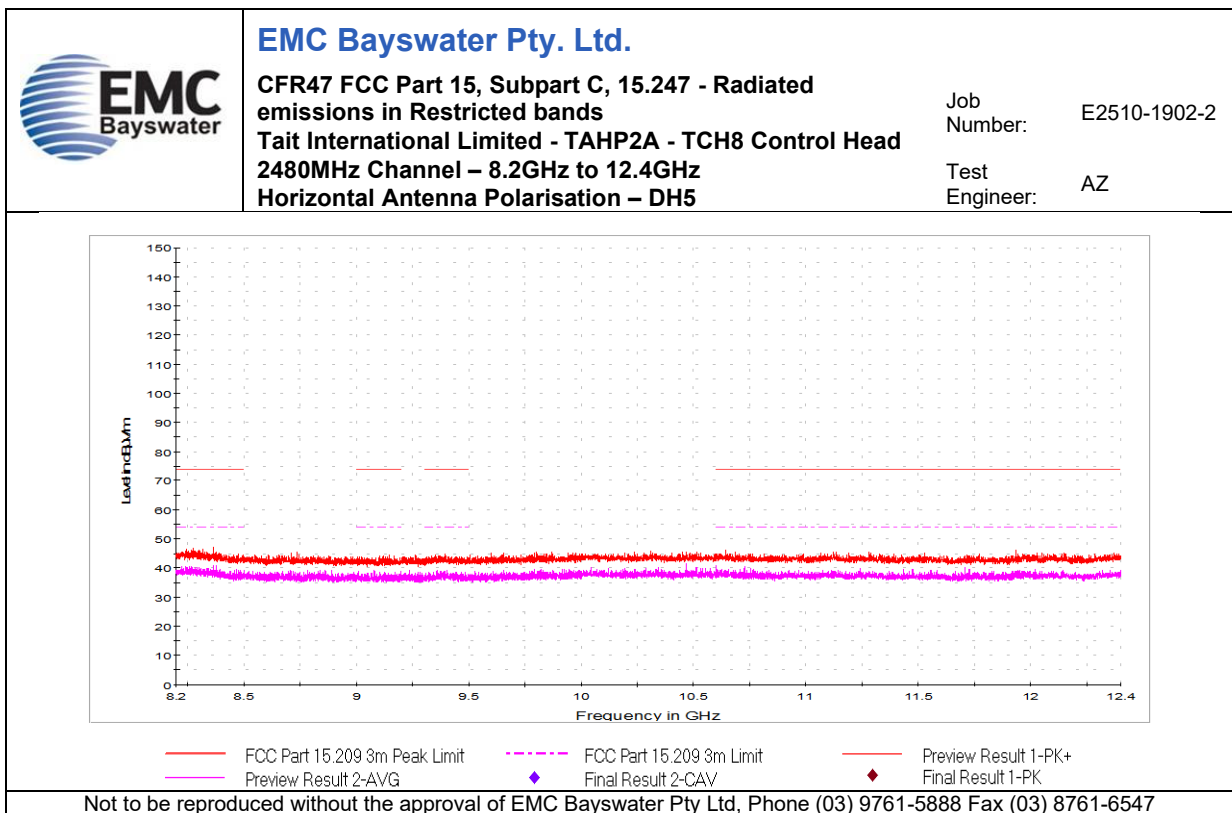
Graph 62



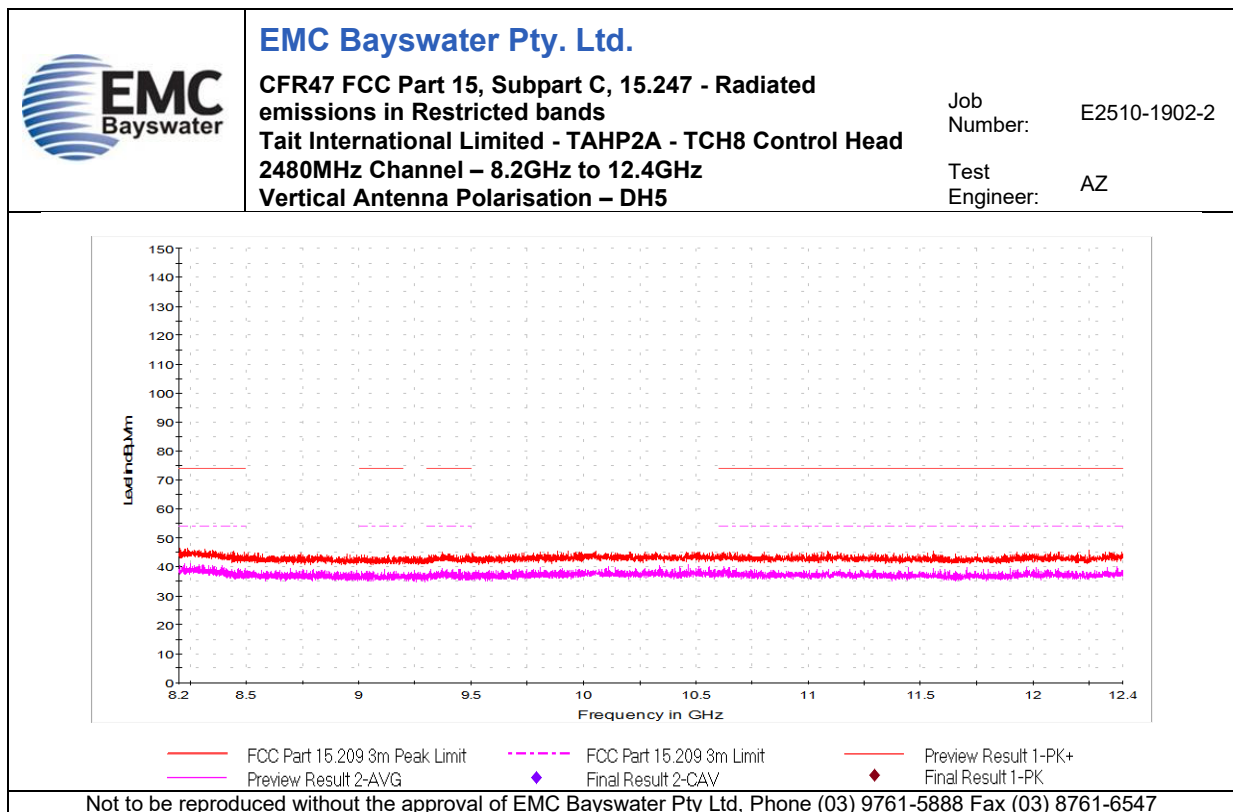
Graph 63



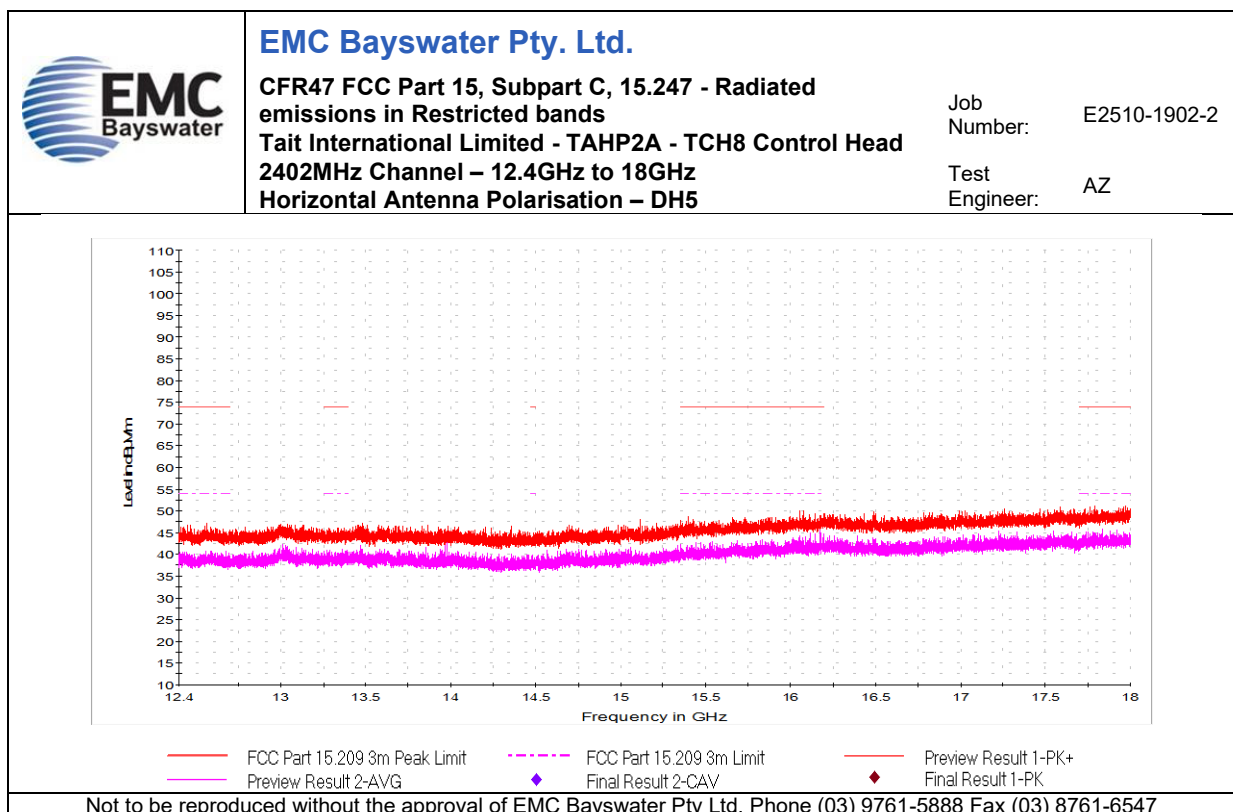
Graph 64



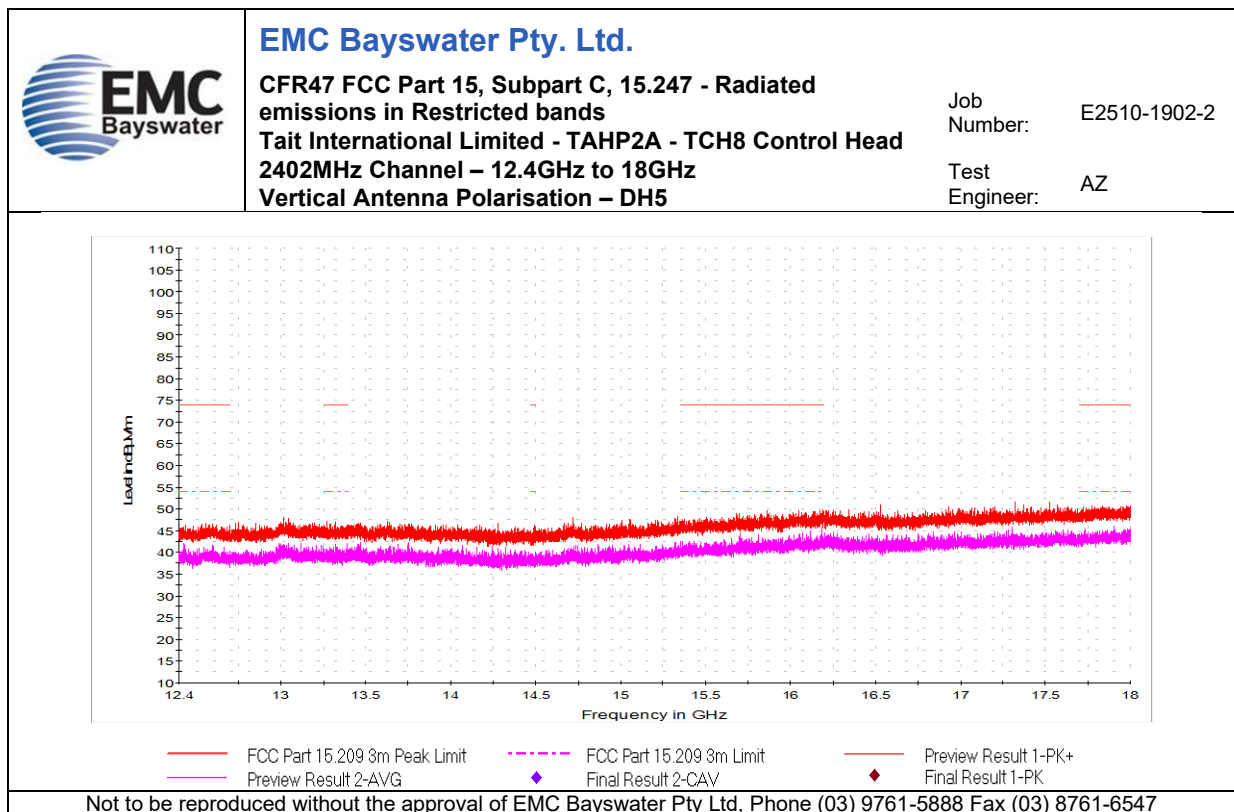
Graph 65



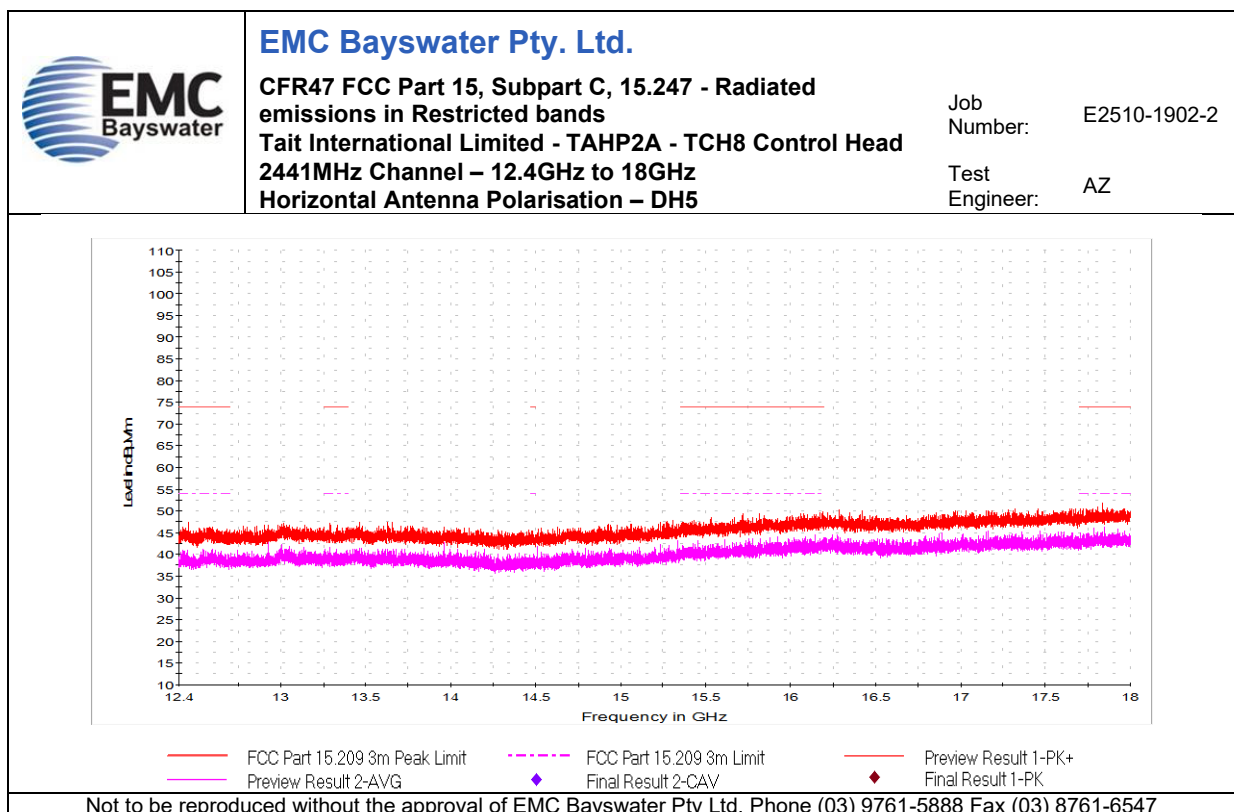
Graph 66



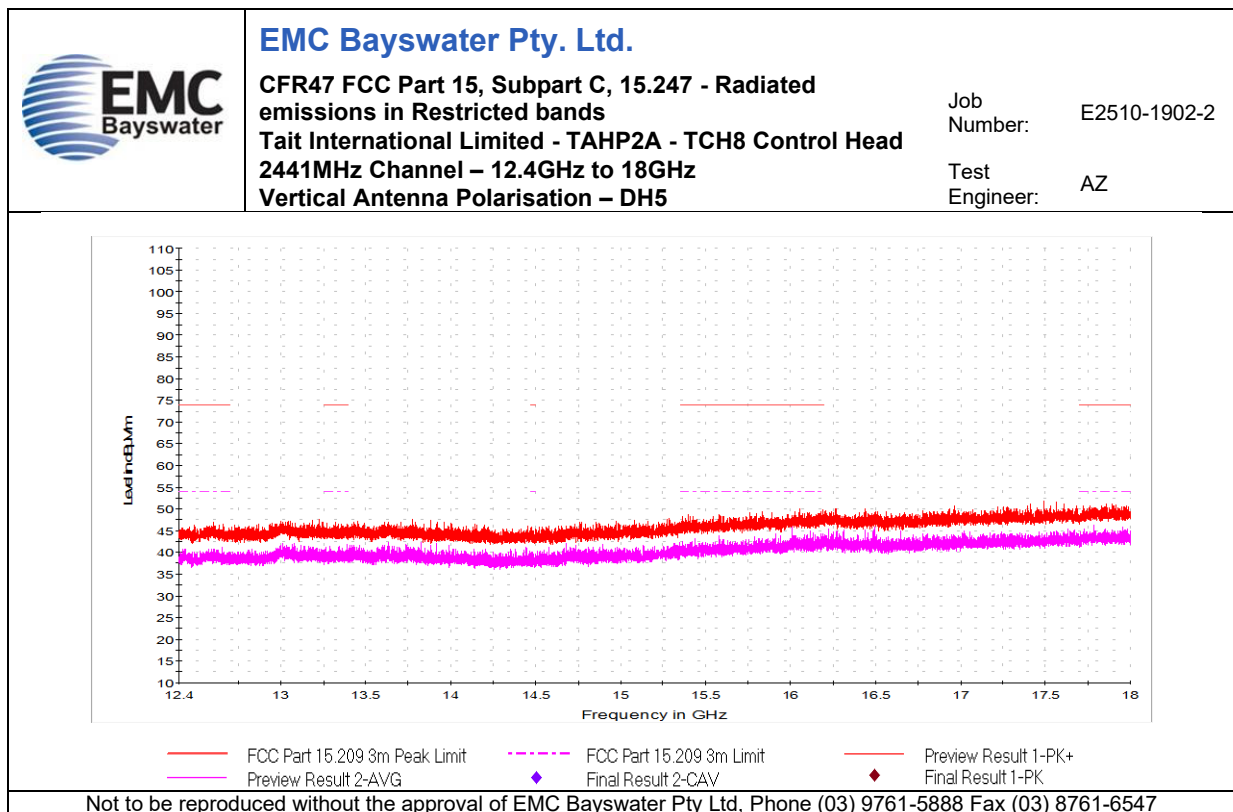
Graph 67



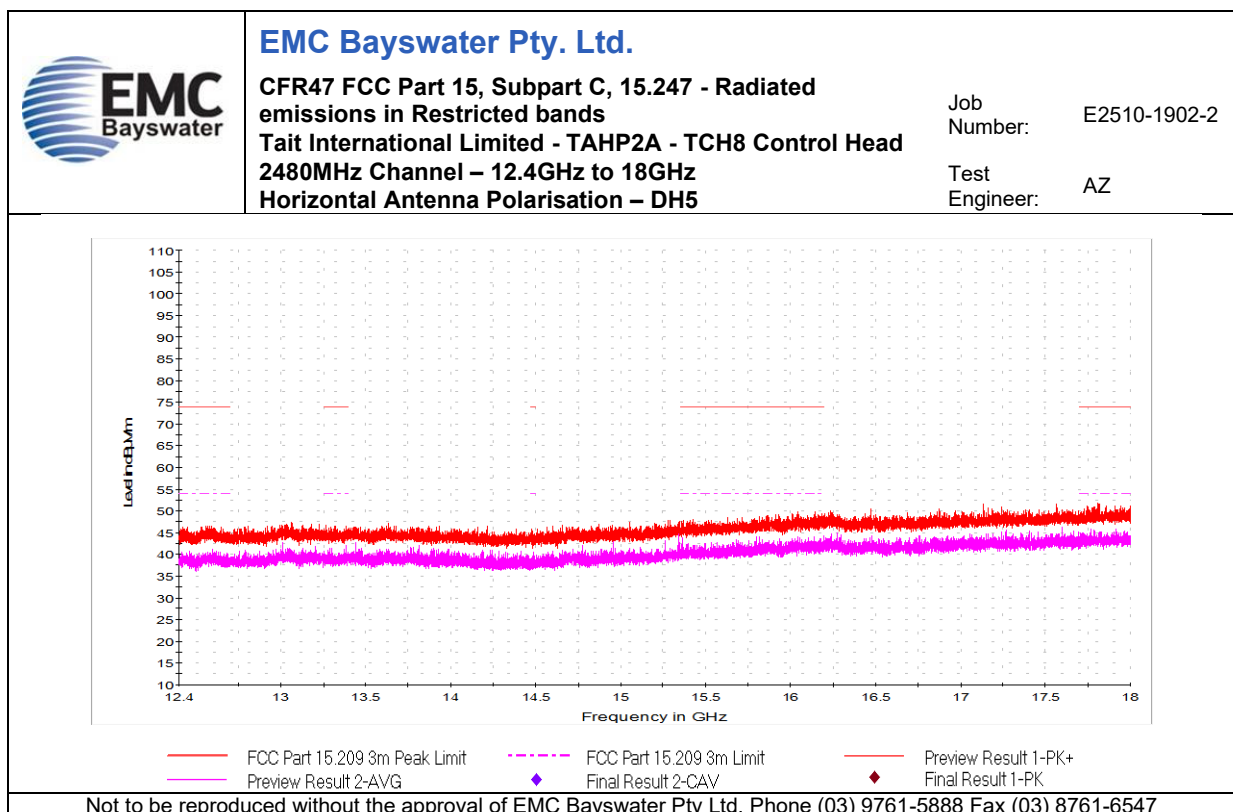
Graph 68



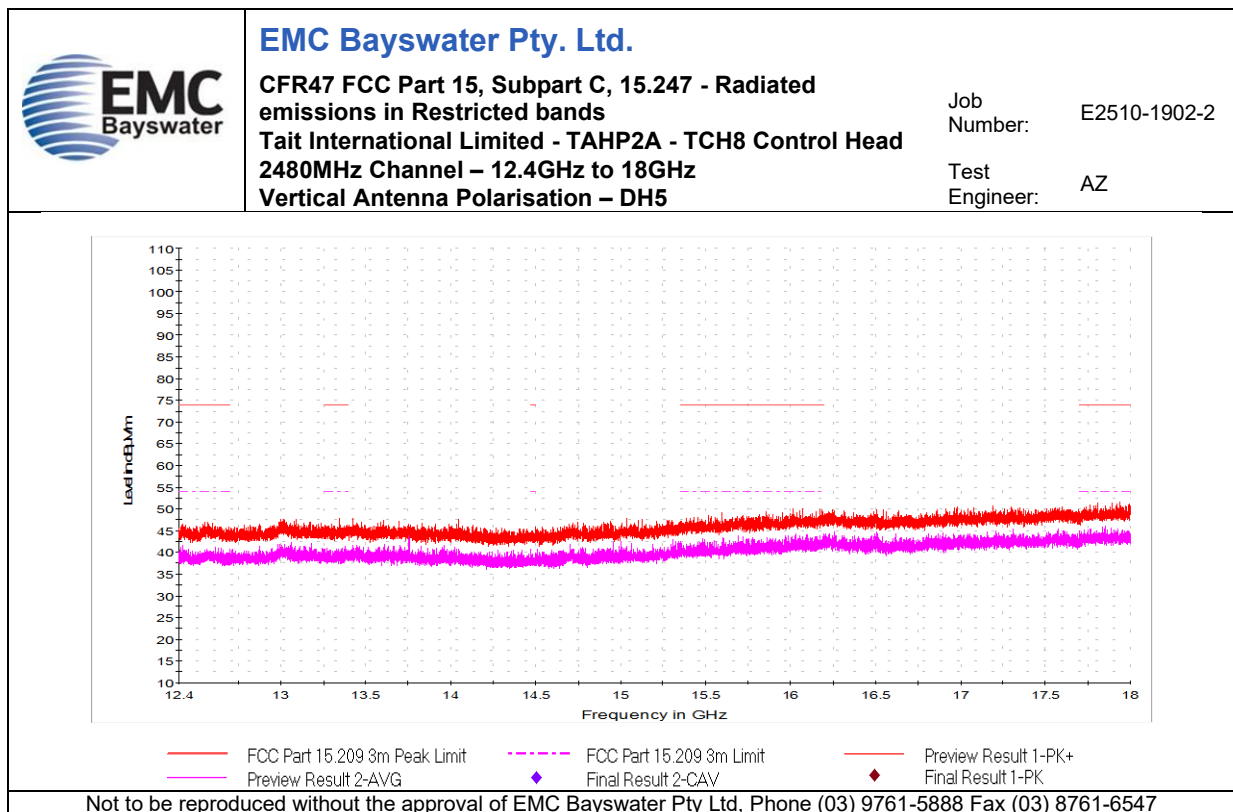
Graph 69



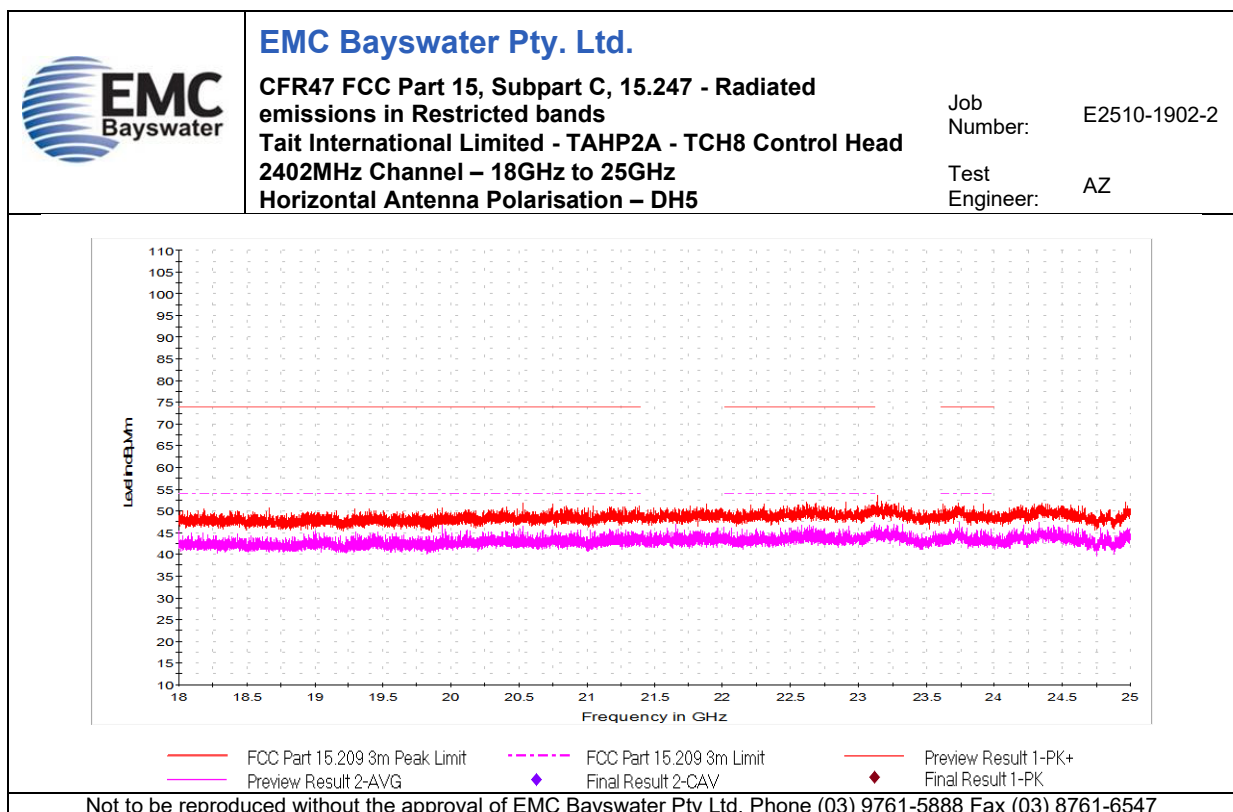
Graph 70



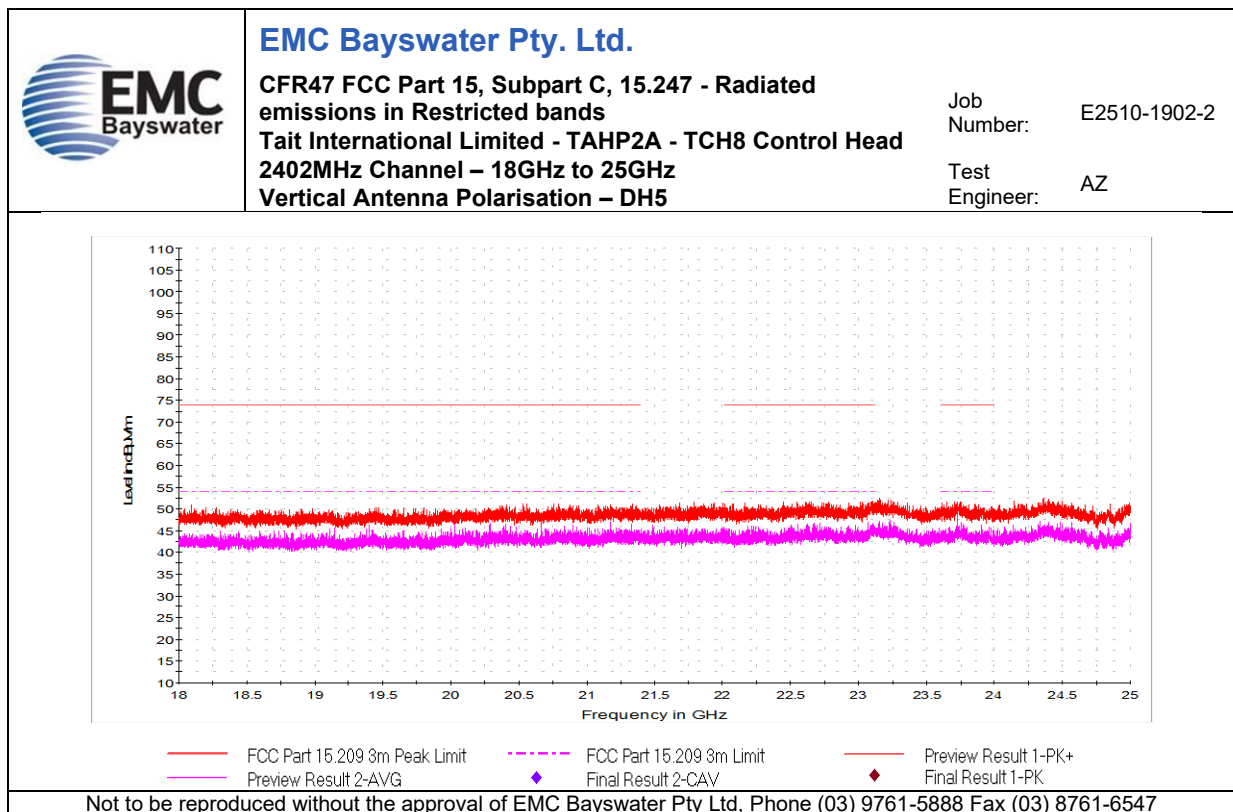
Graph 71



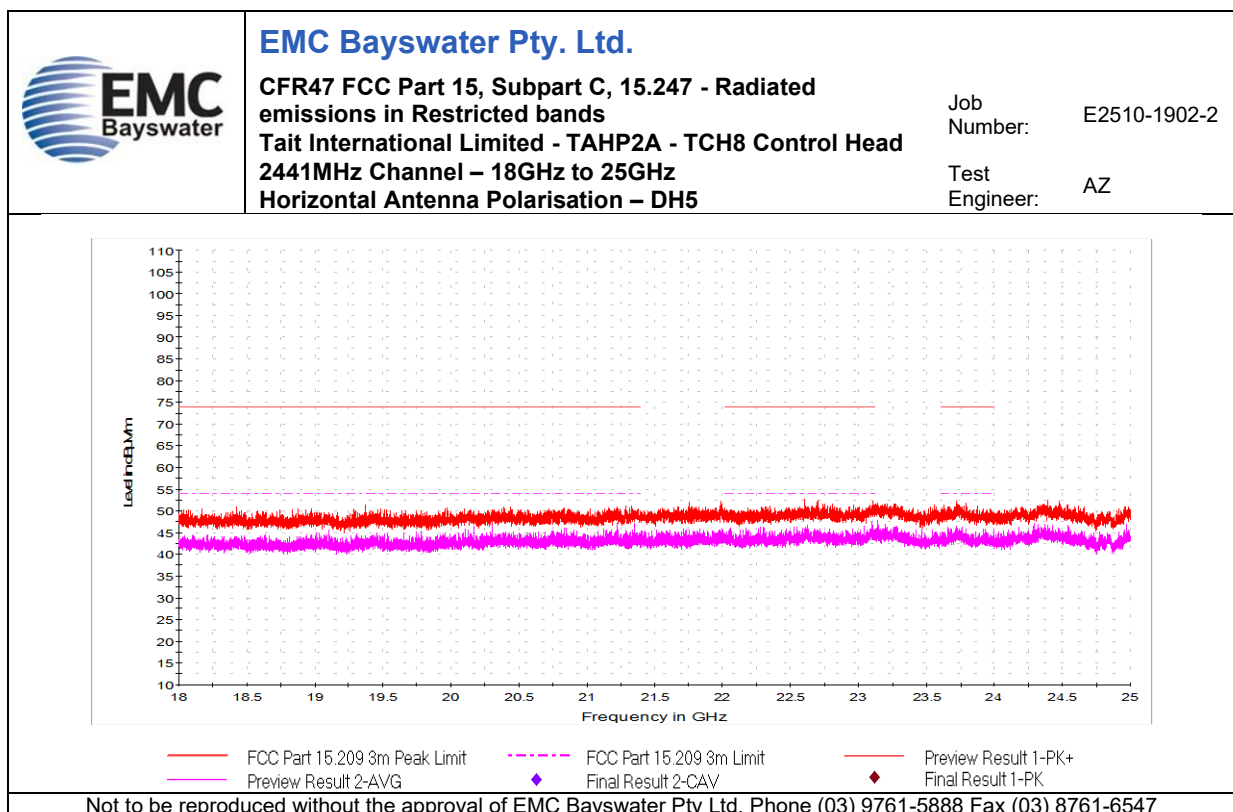
Graph 72



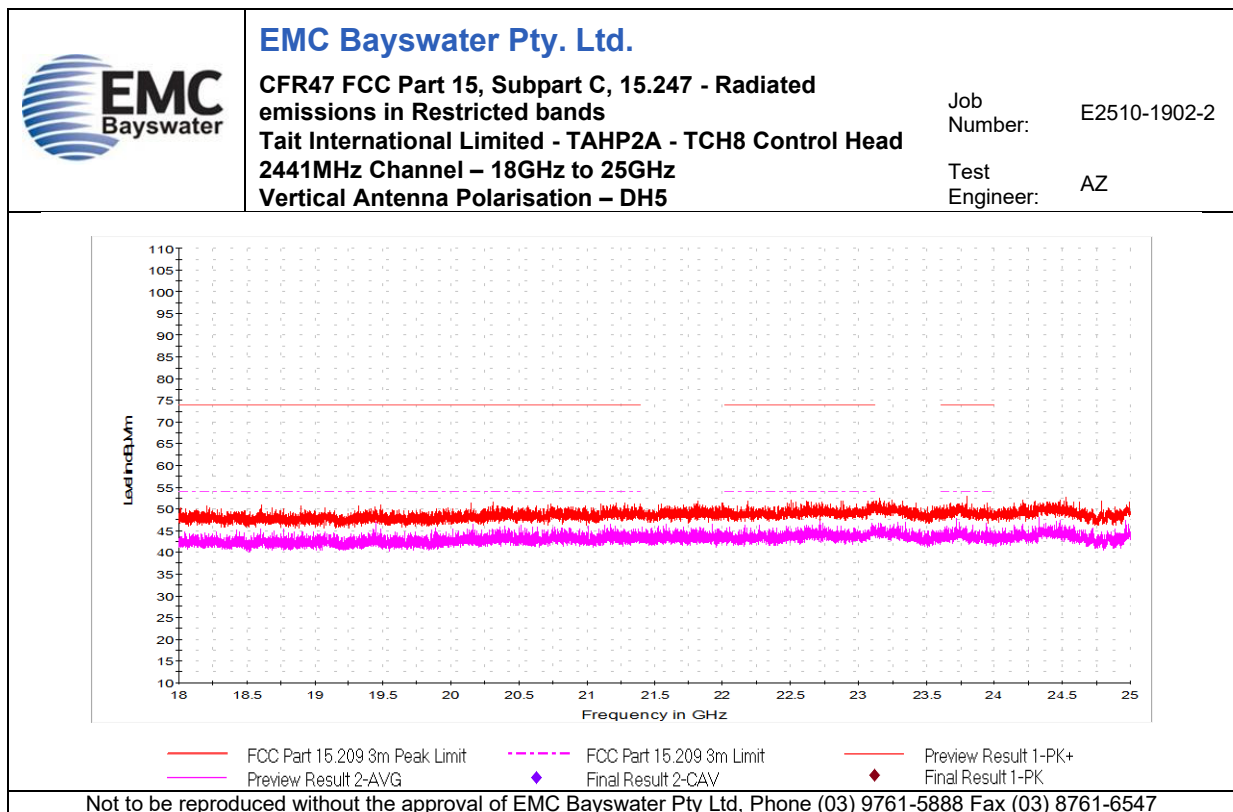
Graph 73



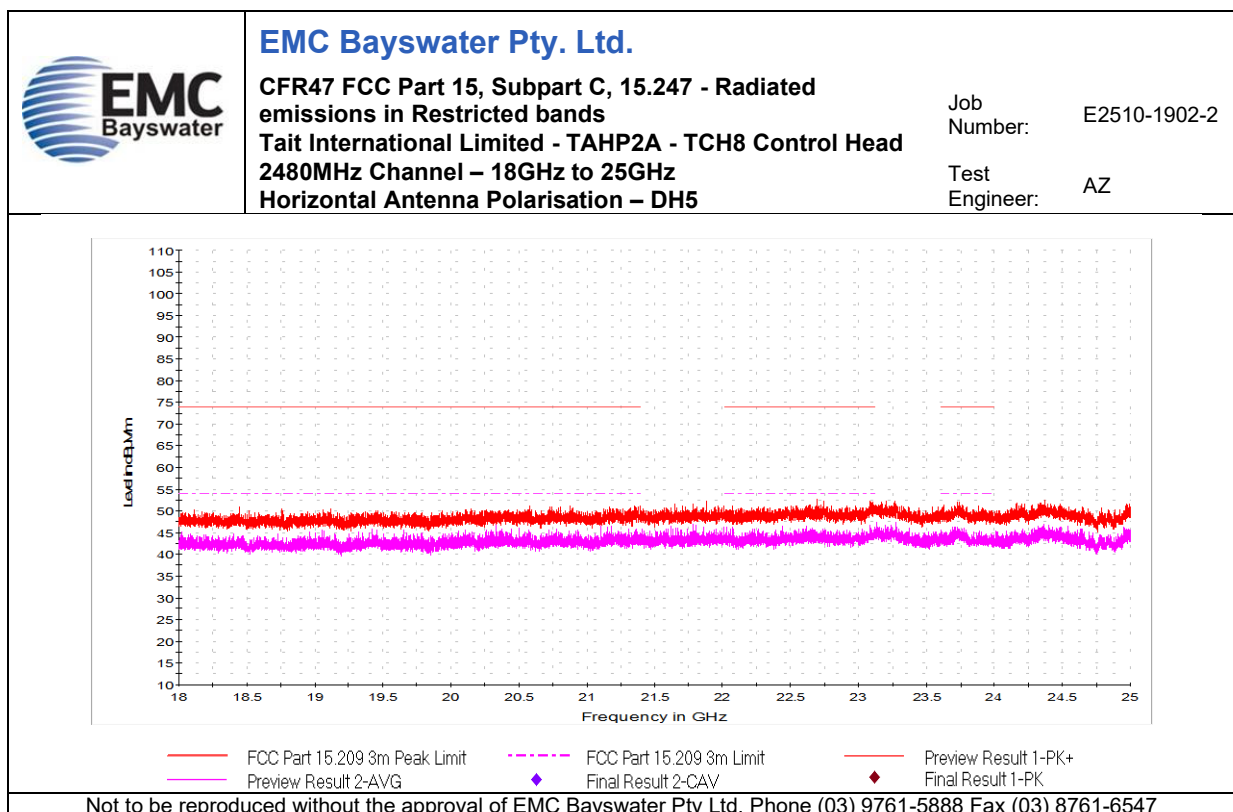
Graph 74



Graph 75



Graph 76



Graph 77

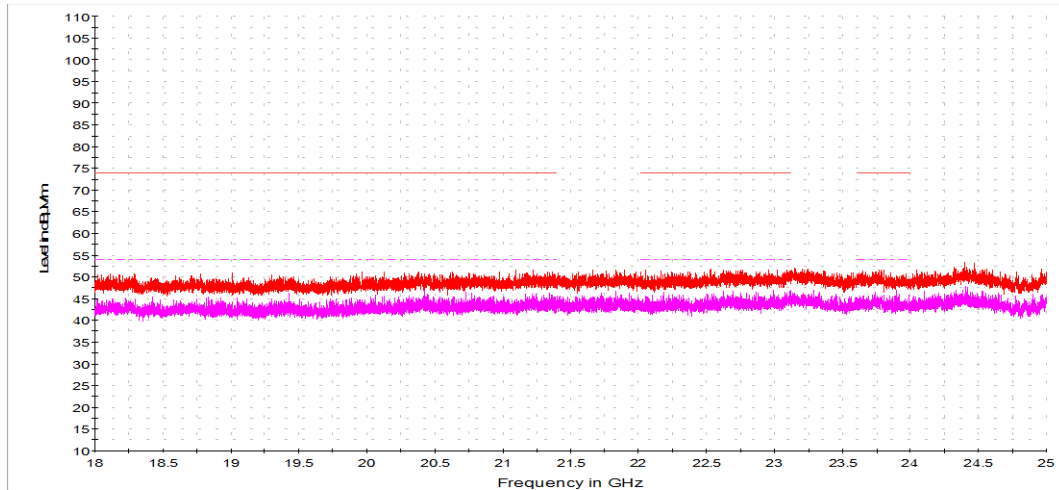


EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Radiated emissions in Restricted bands
Tait International Limited - TAHP2A - TCH8 Control Head
2480MHz Channel – 18GHz to 25GHz
Vertical Antenna Polarisation – DH5

Job Number: E2510-1902-2

Test Engineer: AZ



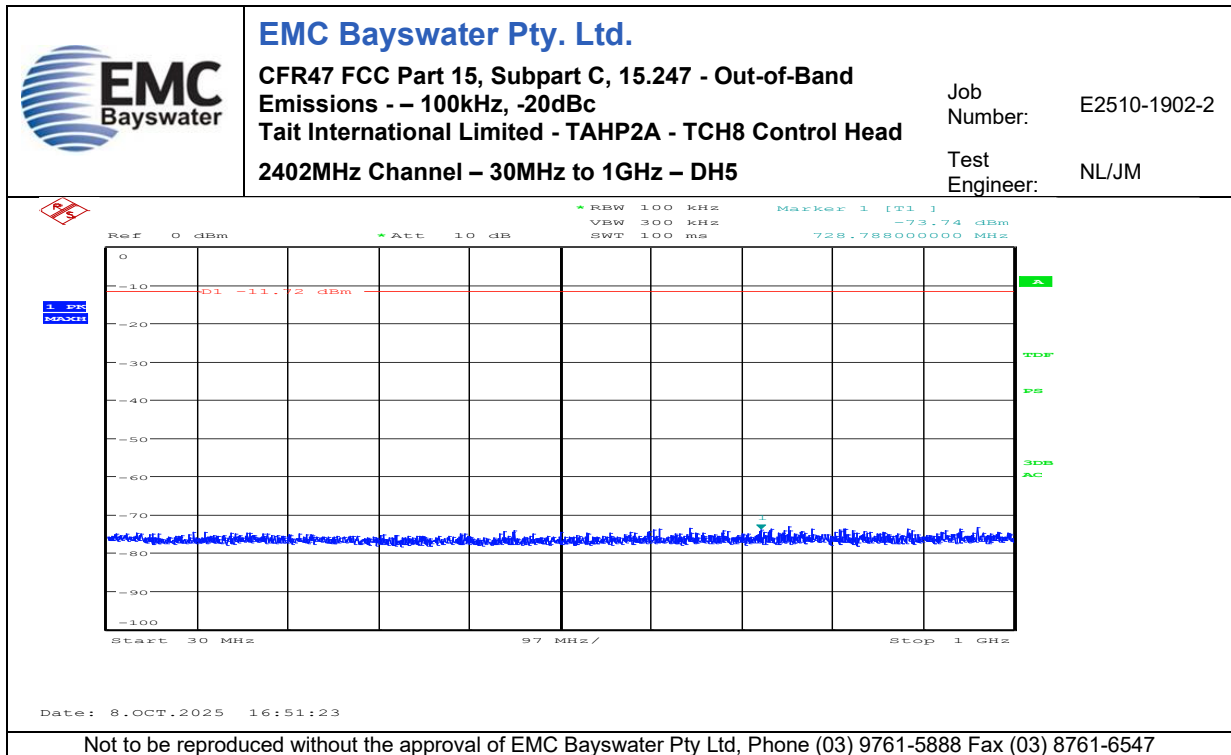
— FCC Part 15.209.3m Peak Limit - - - FCC Part 15.209.3m Limit — Preview Result 1-PK+
— Preview Result 2-AVG ◆ Final Result 2-CAV ◆ Final Result 1-PK

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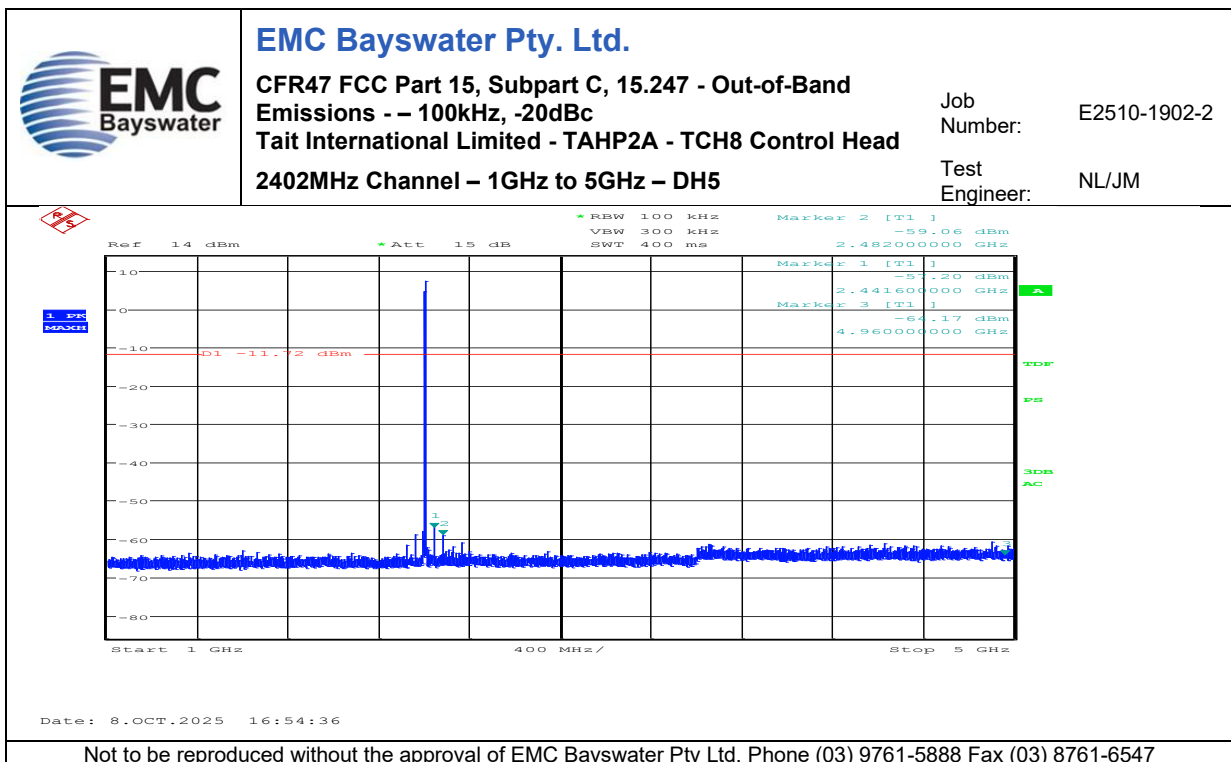
Graph 78

Appendix C.4 – Out-of-Band Emissions – 100kHz, -20dBc – FCC 15.247(d)

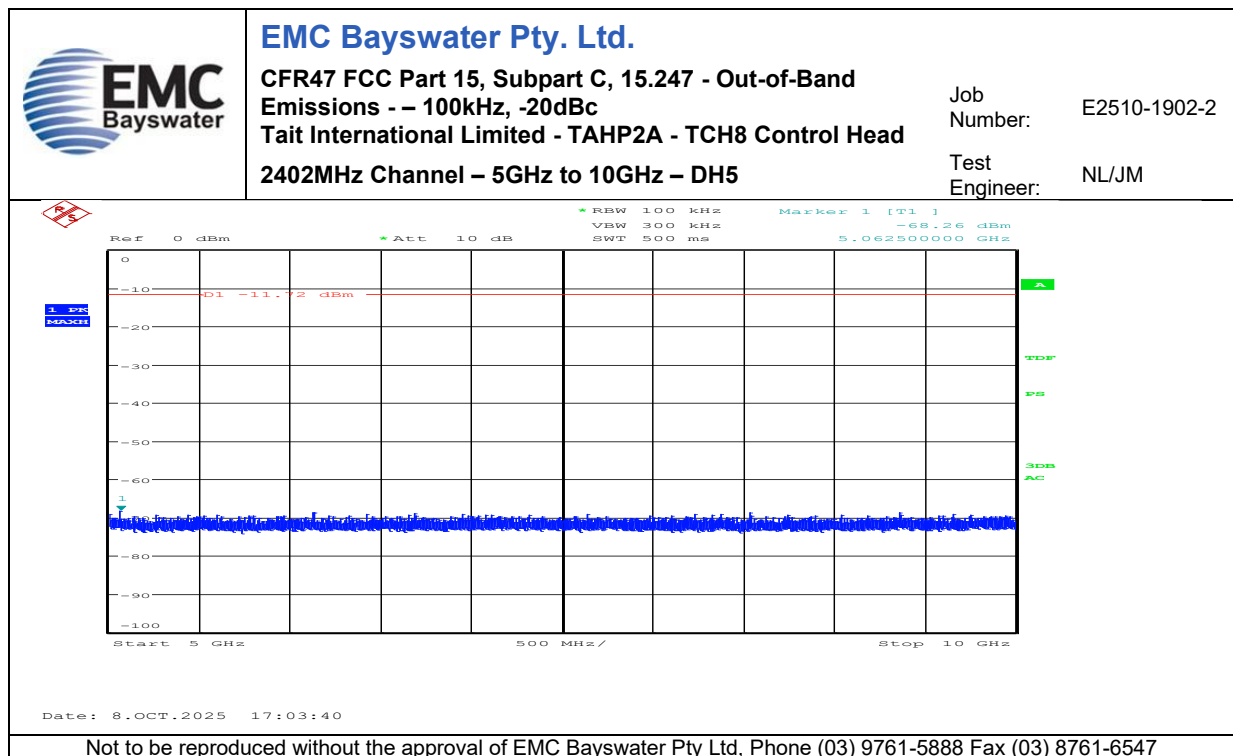
No.	Test	Graph Description
79	Out-of-Band Emissions – 100kHz, -20dBc 2402MHz Channel – DH5	30MHz to 1GHz
80		1GHz to 5GHz
81		5GHz to 10GHz
82		10GHz to 15GHz
83		15GHz to 25GHz
84	Out-of-Band Emissions – 100kHz, -20dBc 2441MHz Channel – DH5	30MHz to 1GHz
85		1GHz to 5GHz
86		5GHz to 10GHz
87		10GHz to 15GHz
88		15GHz to 25GHz
89	Out-of-Band Emissions – 100kHz, -20dBc 2480MHz Channel – DH5	30MHz to 1GHz
90		1GHz to 5GHz
91		5GHz to 10GHz
92		10GHz to 15GHz
93		15GHz to 25GHz
94	Out-of-Band Emissions – 100kHz, -20dBc 2402MHz Channel – 2-DH5	30MHz to 1GHz
95		1GHz to 5GHz
96		5GHz to 10GHz
97		10GHz to 15GHz
98		15GHz to 25GHz
99	Out-of-Band Emissions – 100kHz, -20dBc 2441MHz Channel – 2-DH5	30MHz to 1GHz
100		1GHz to 5GHz
101		5GHz to 10GHz
102		10GHz to 15GHz
103		15GHz to 25GHz
104	Out-of-Band Emissions – 100kHz, -20dBc 2480MHz Channel – 2-DH5	30MHz to 1GHz
105		1GHz to 5GHz
106		5GHz to 10GHz
107		10GHz to 15GHz
108		15GHz to 25GHz
109	Out-of-Band Emissions – 100kHz, -20dBc 2402MHz Channel – 3-DH5	30MHz to 1GHz
110		1GHz to 5GHz
111		5GHz to 10GHz
112		10GHz to 15GHz
113		15GHz to 25GHz
114	Out-of-Band Emissions – 100kHz, -20dBc 2441MHz Channel – 3-DH5	30MHz to 1GHz
115		1GHz to 5GHz
116		5GHz to 10GHz
117		10GHz to 15GHz
118		15GHz to 25GHz
119	Out-of-Band Emissions – 100kHz, -20dBc 2480MHz Channel – 3-DH5	30MHz to 1GHz
120		1GHz to 5GHz
121		5GHz to 10GHz
122		10GHz to 15GHz
123		15GHz to 25GHz



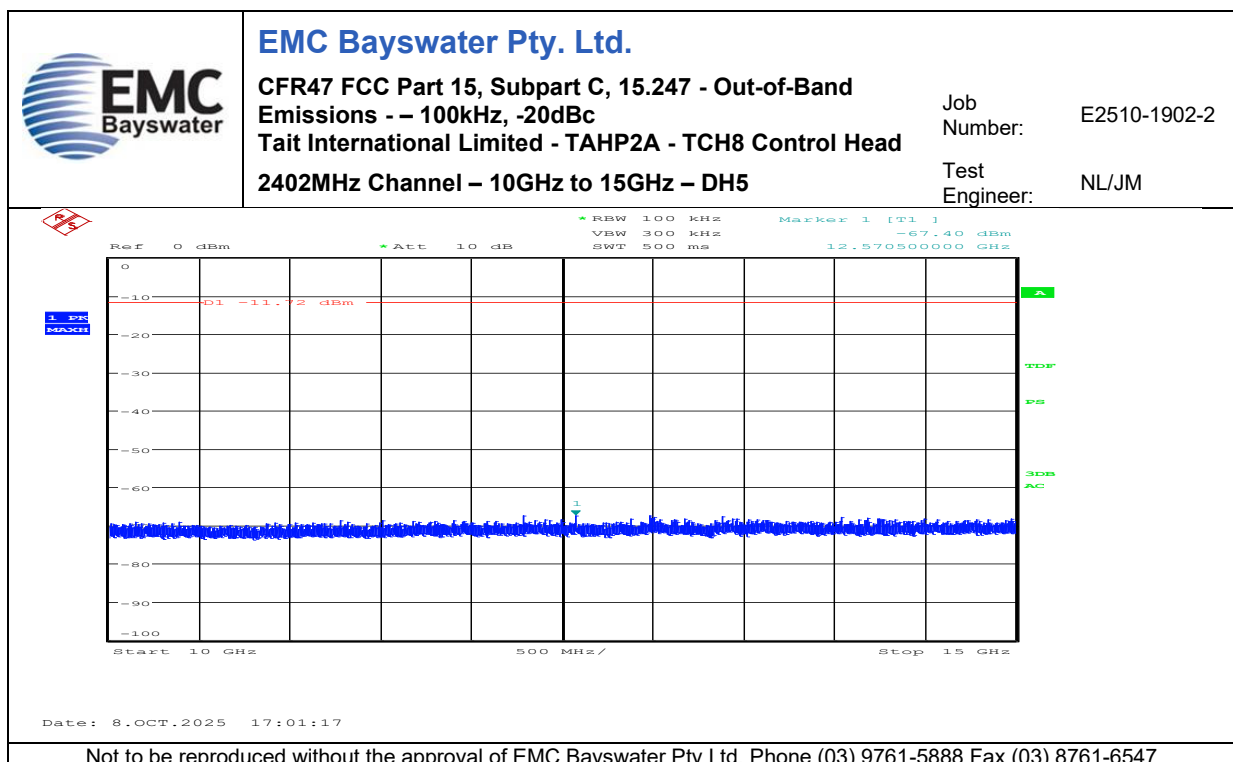
Graph 79



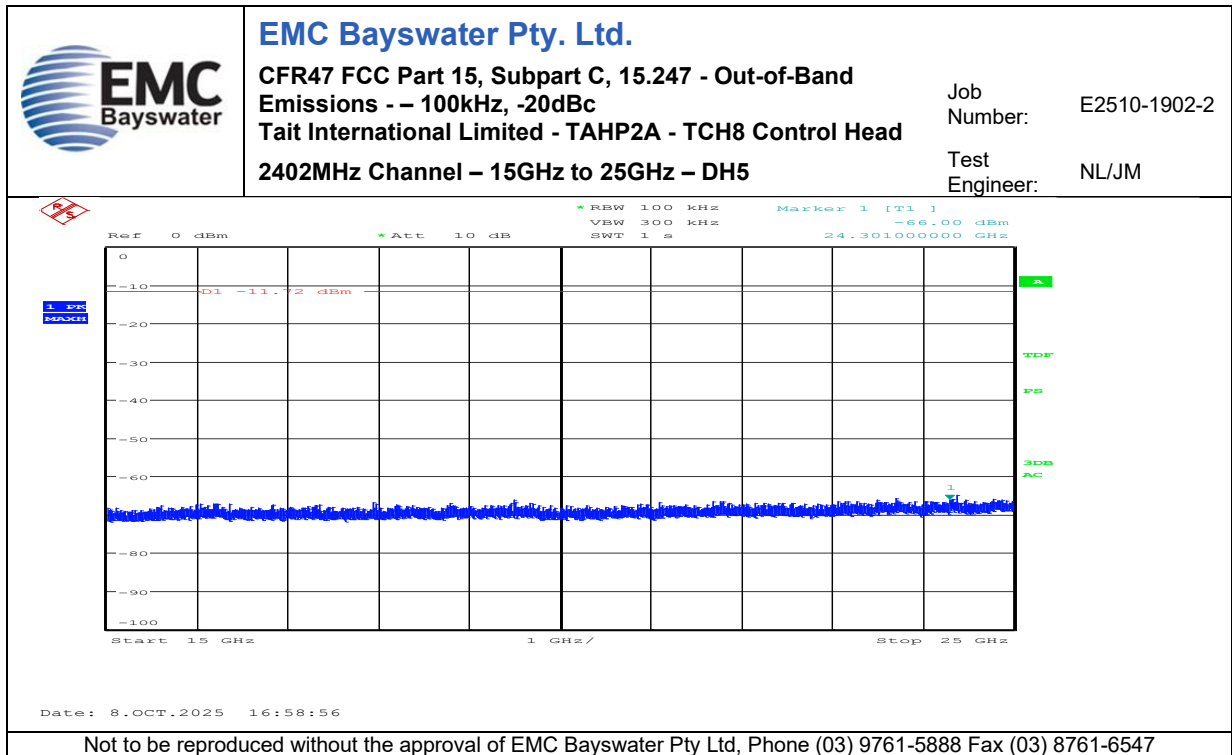
Graph 80



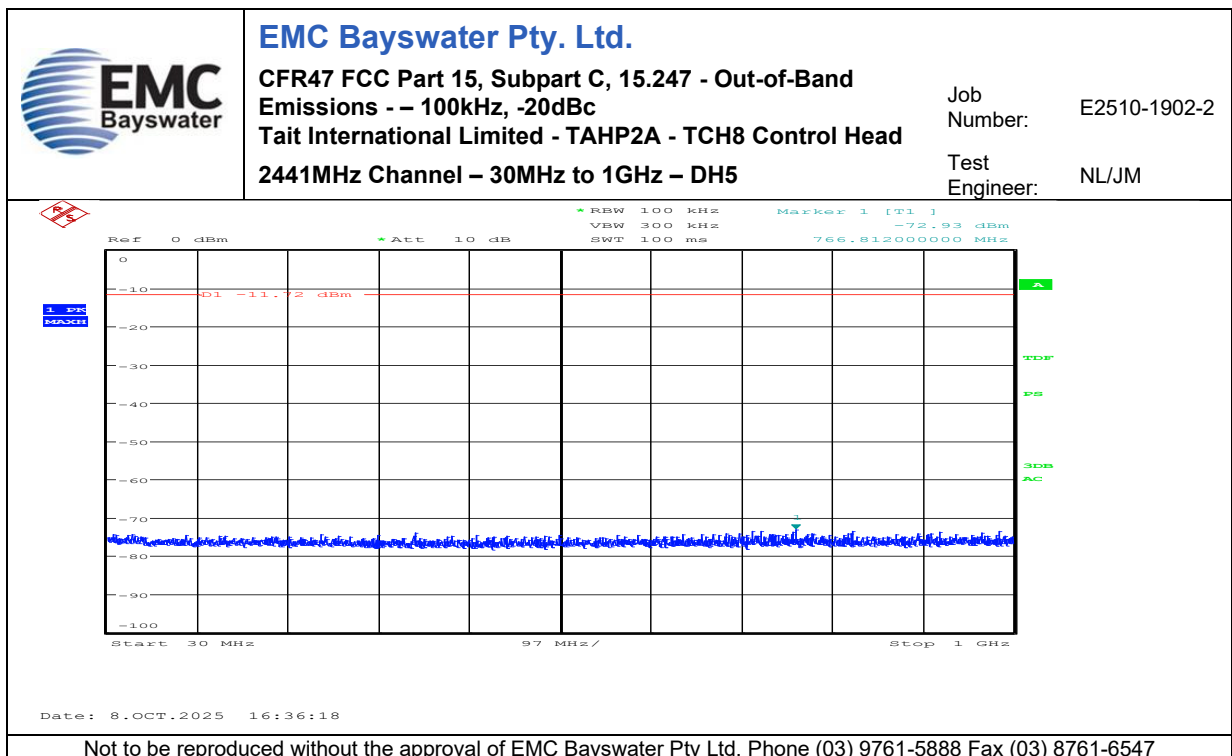
Graph 81



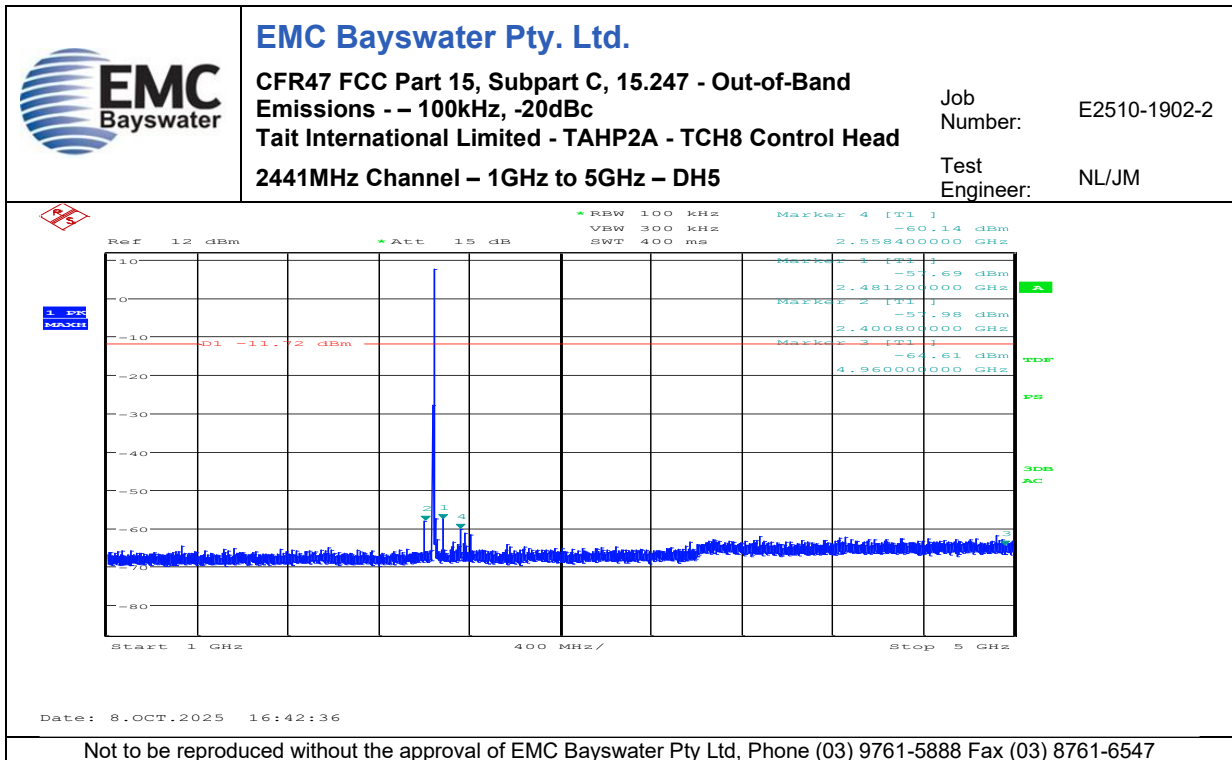
Graph 82



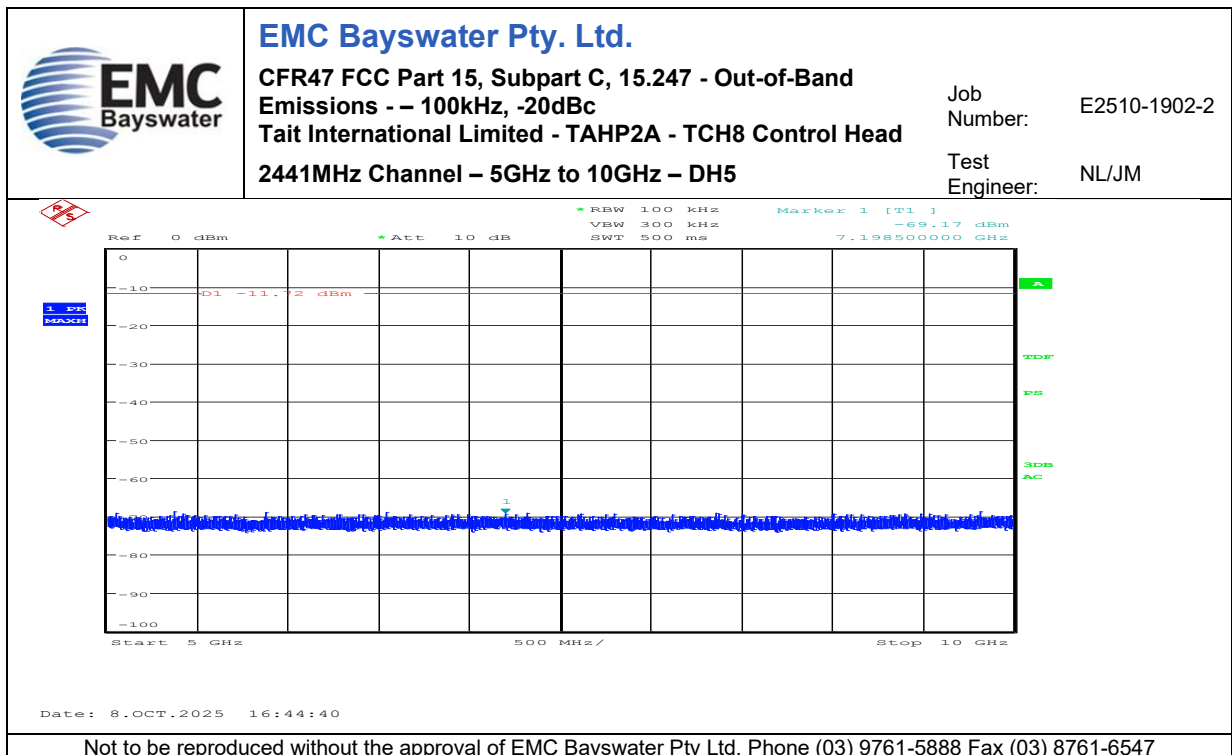
Graph 83



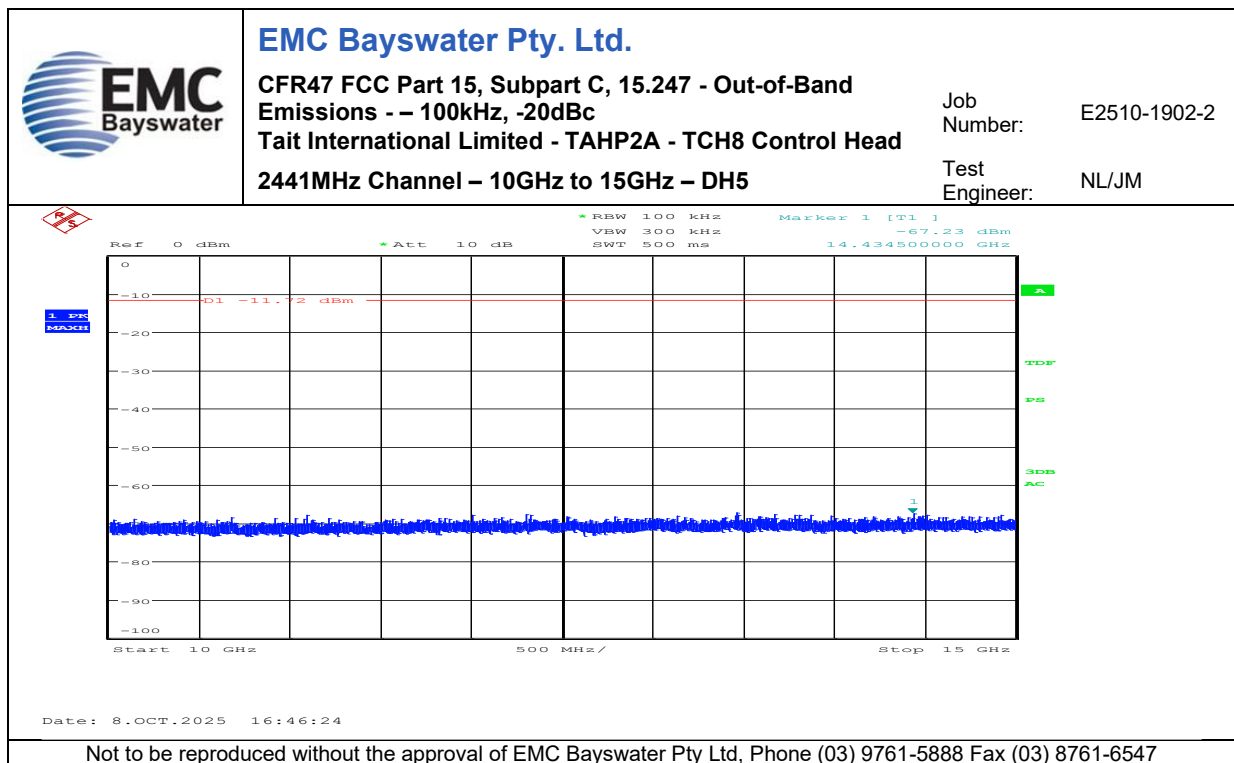
Graph 84



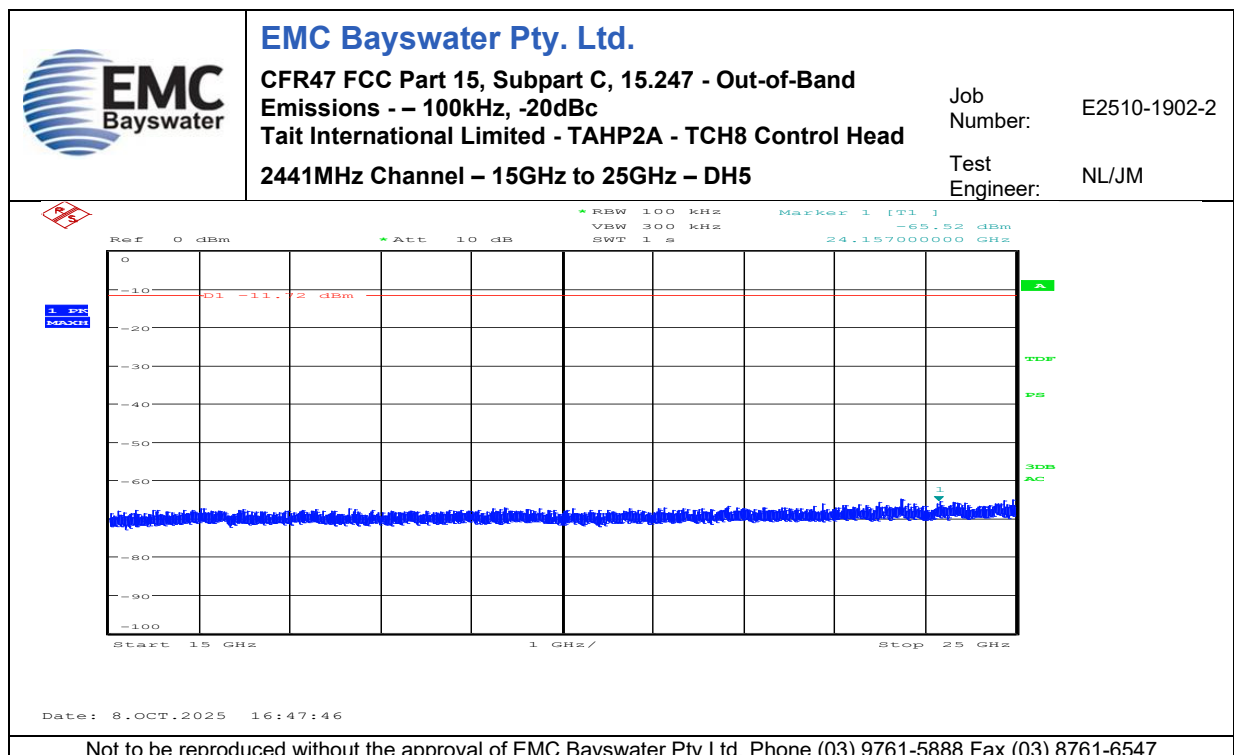
Graph 85



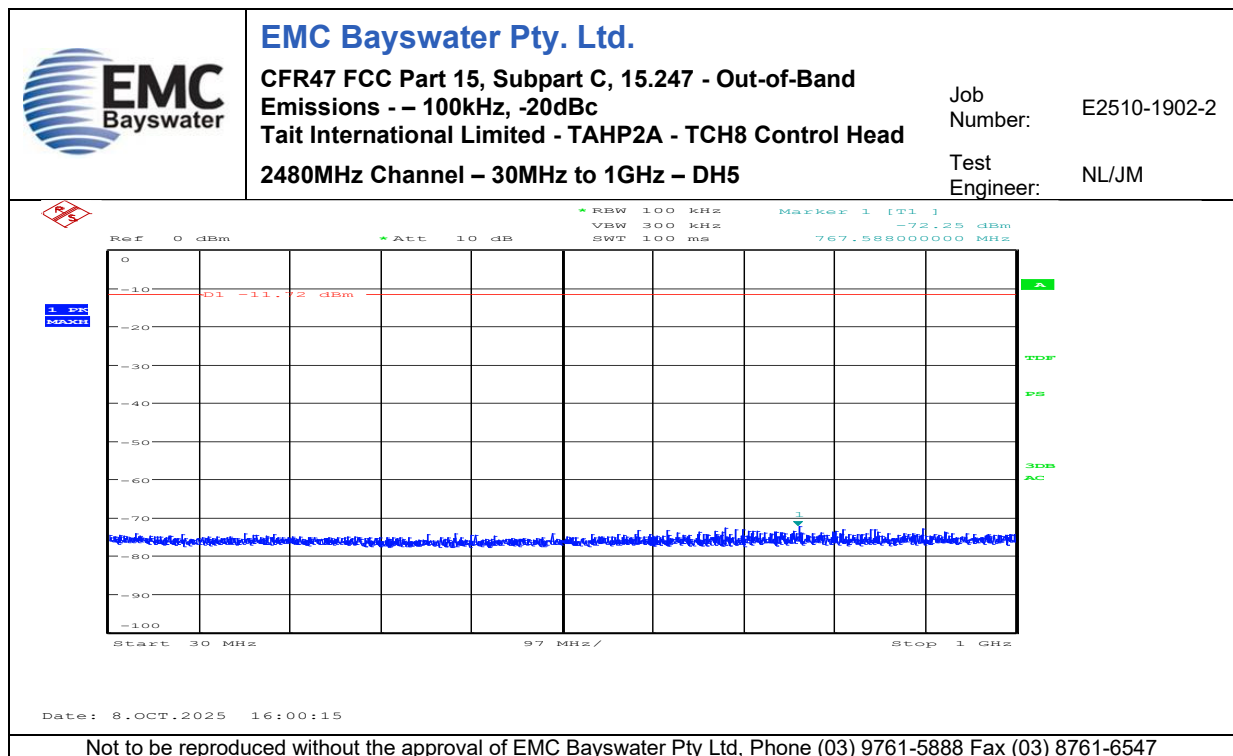
Graph 86



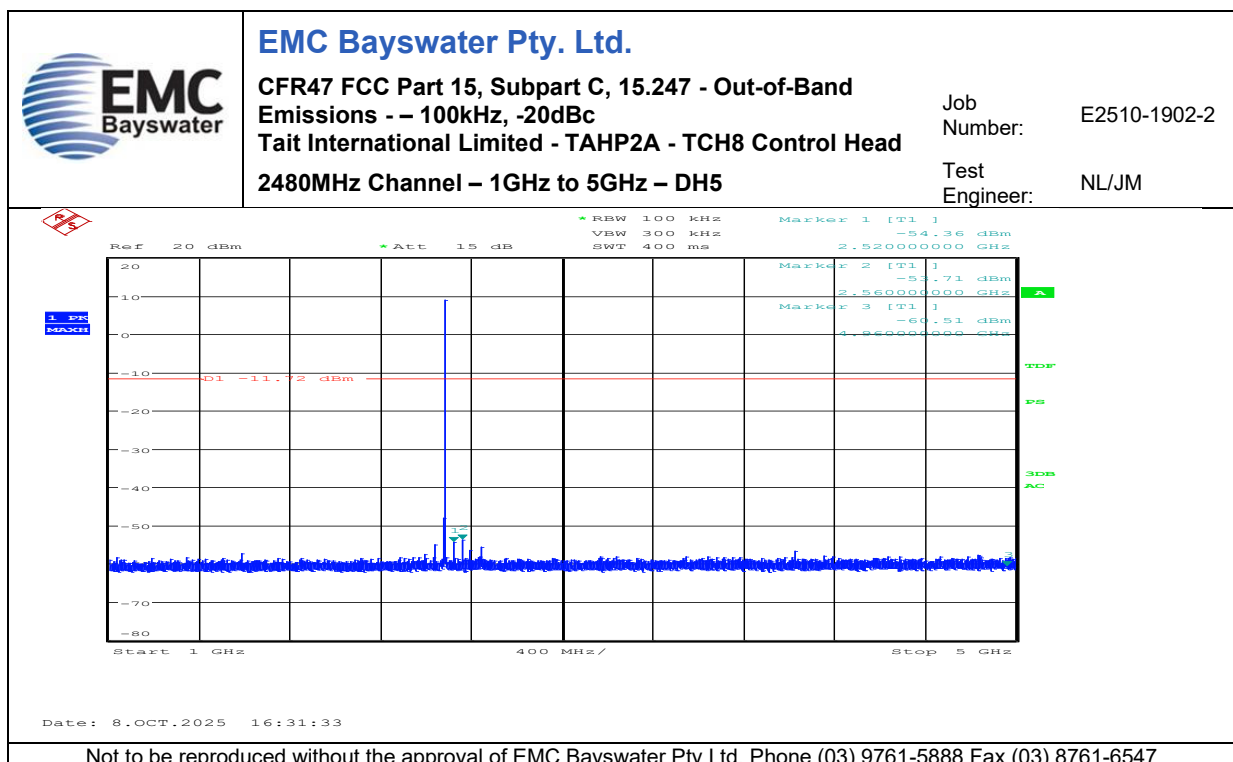
Graph 87



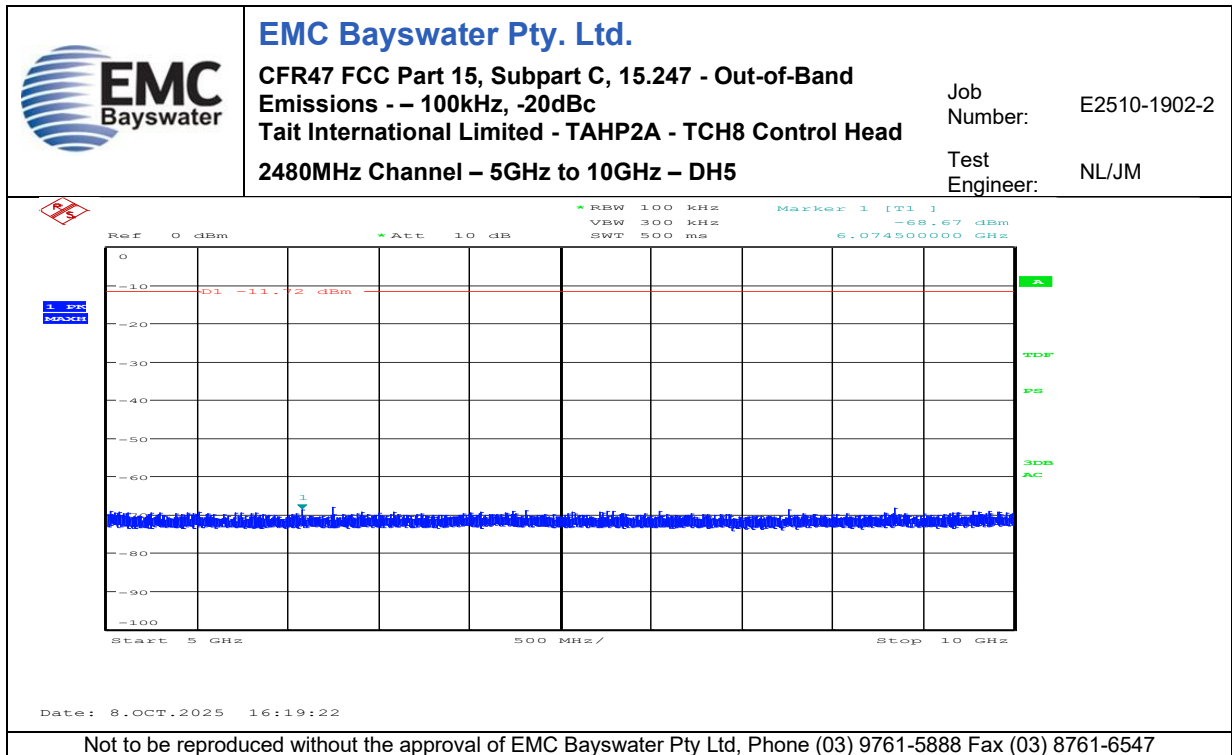
Graph 88



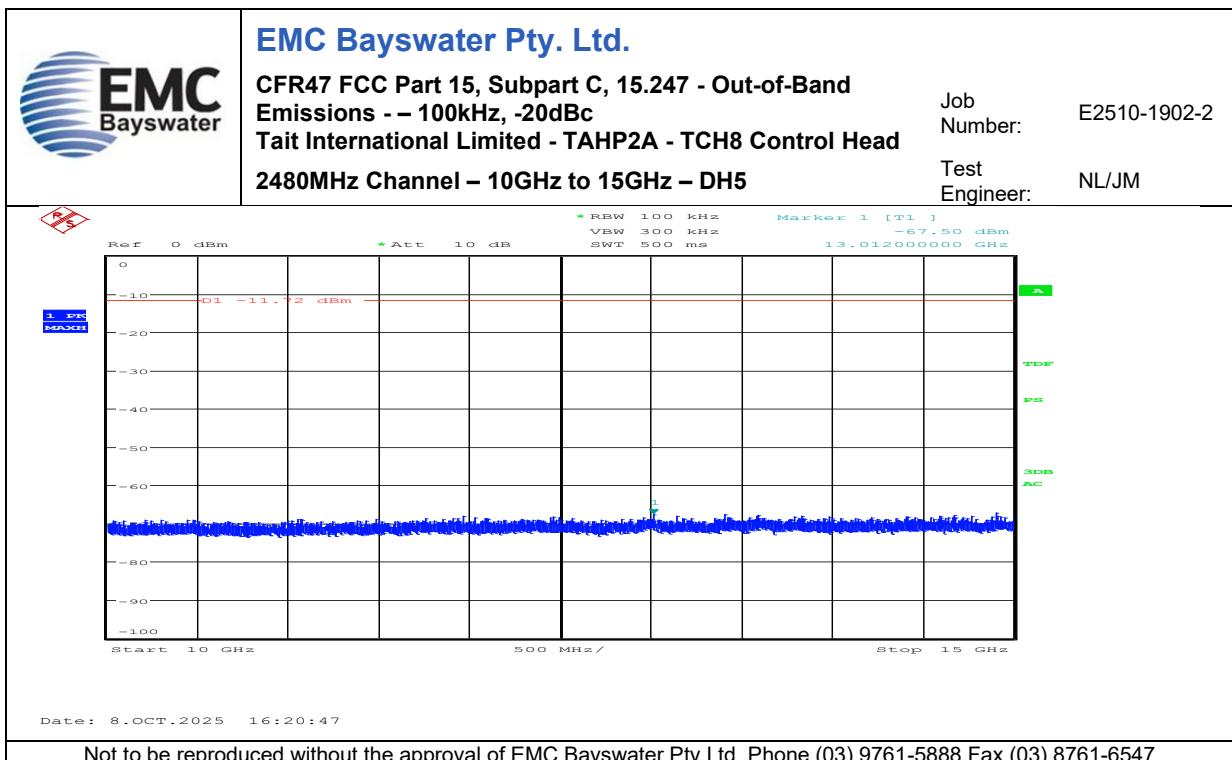
Graph 89



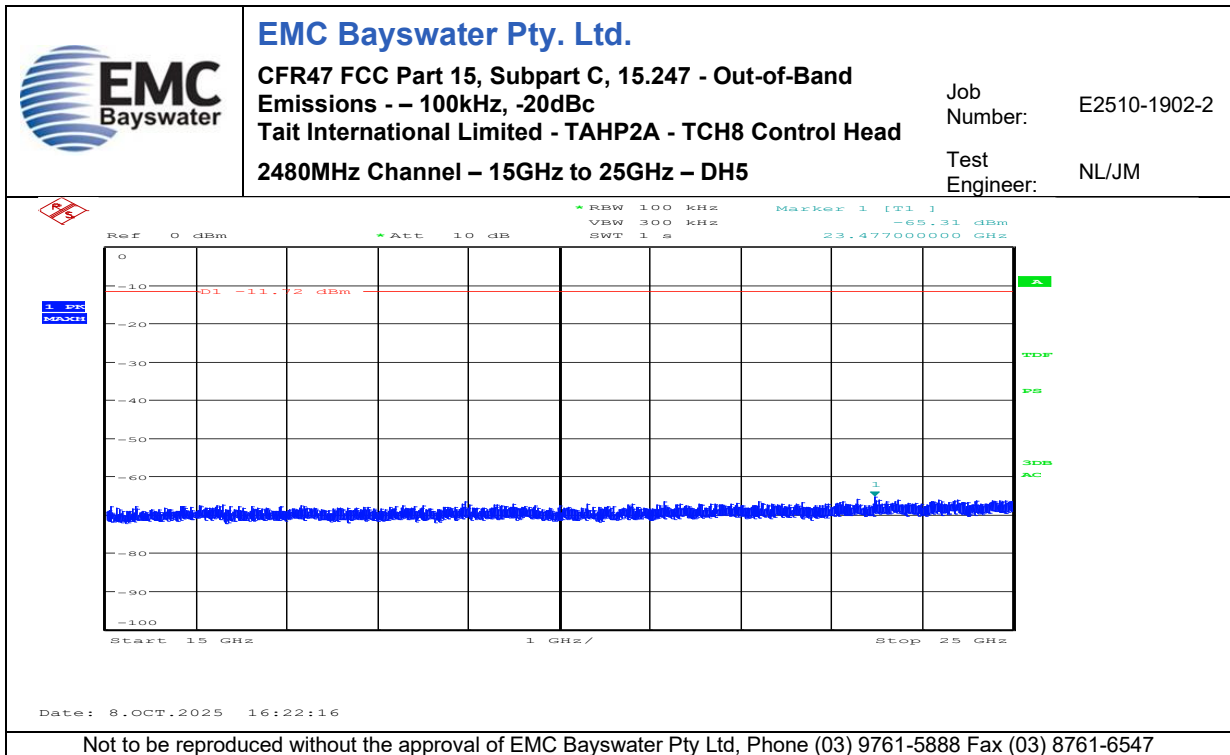
Graph 90



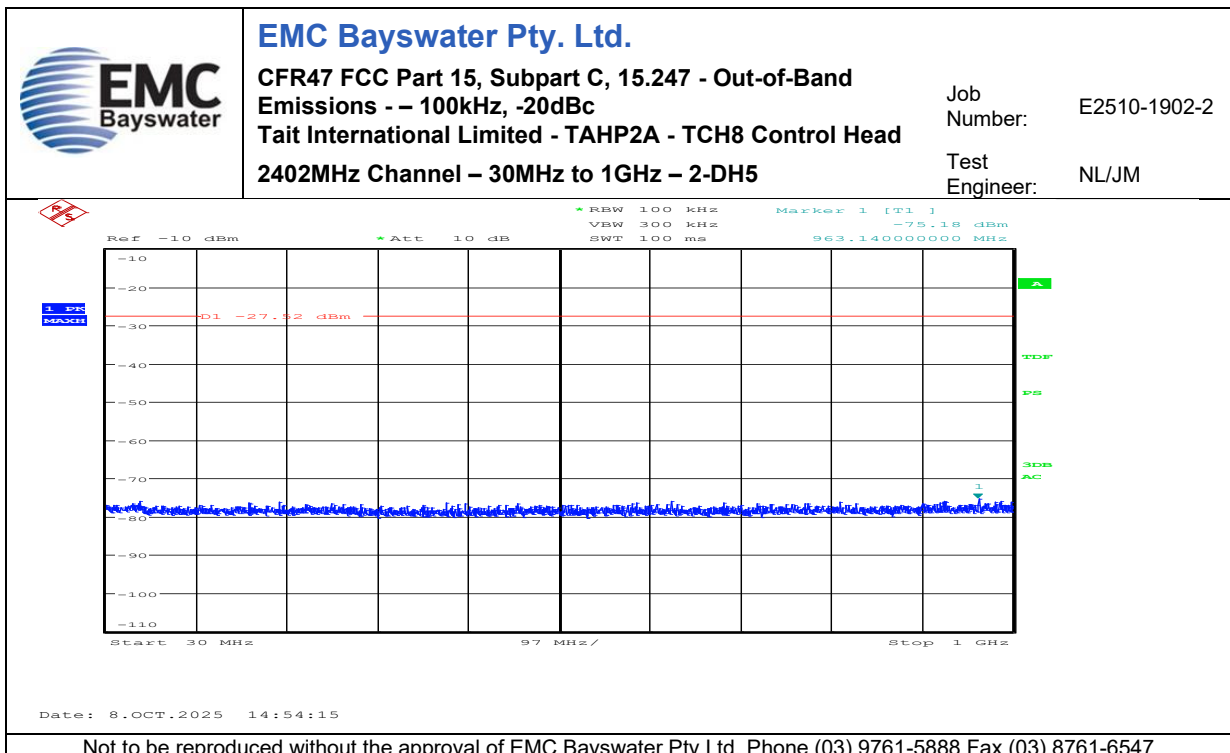
Graph 91



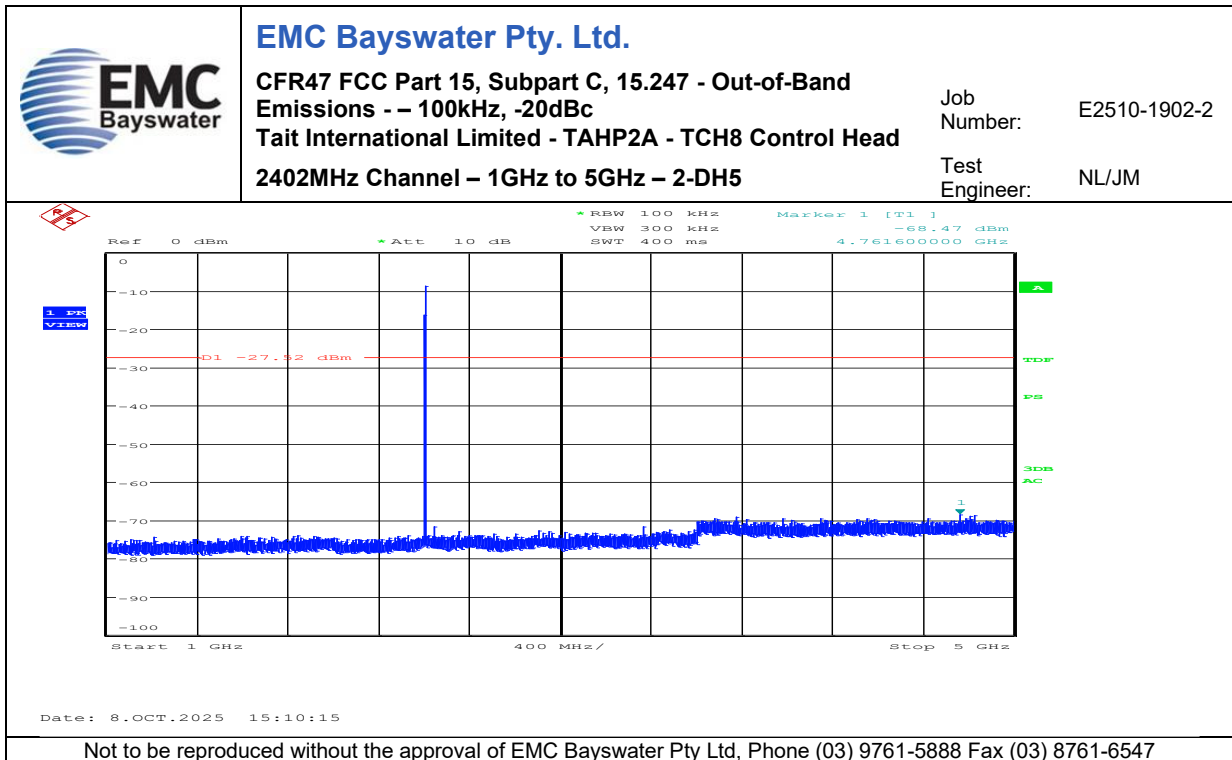
Graph 92



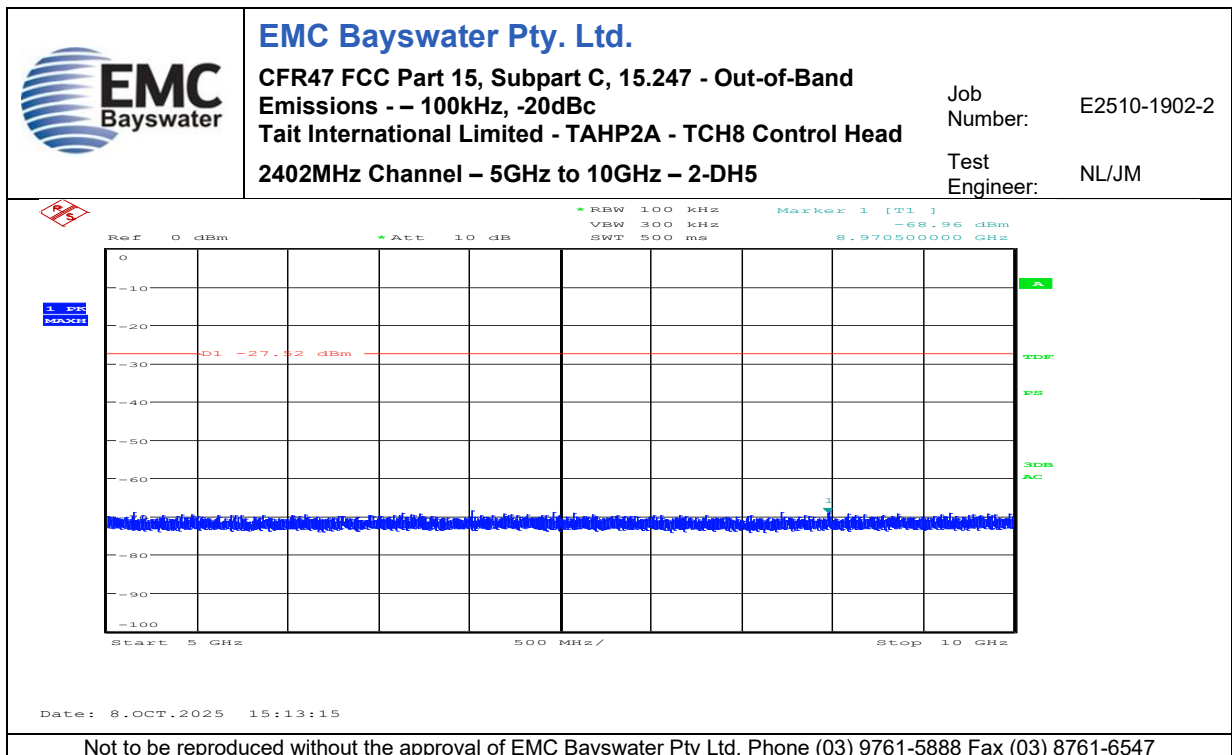
Graph 93



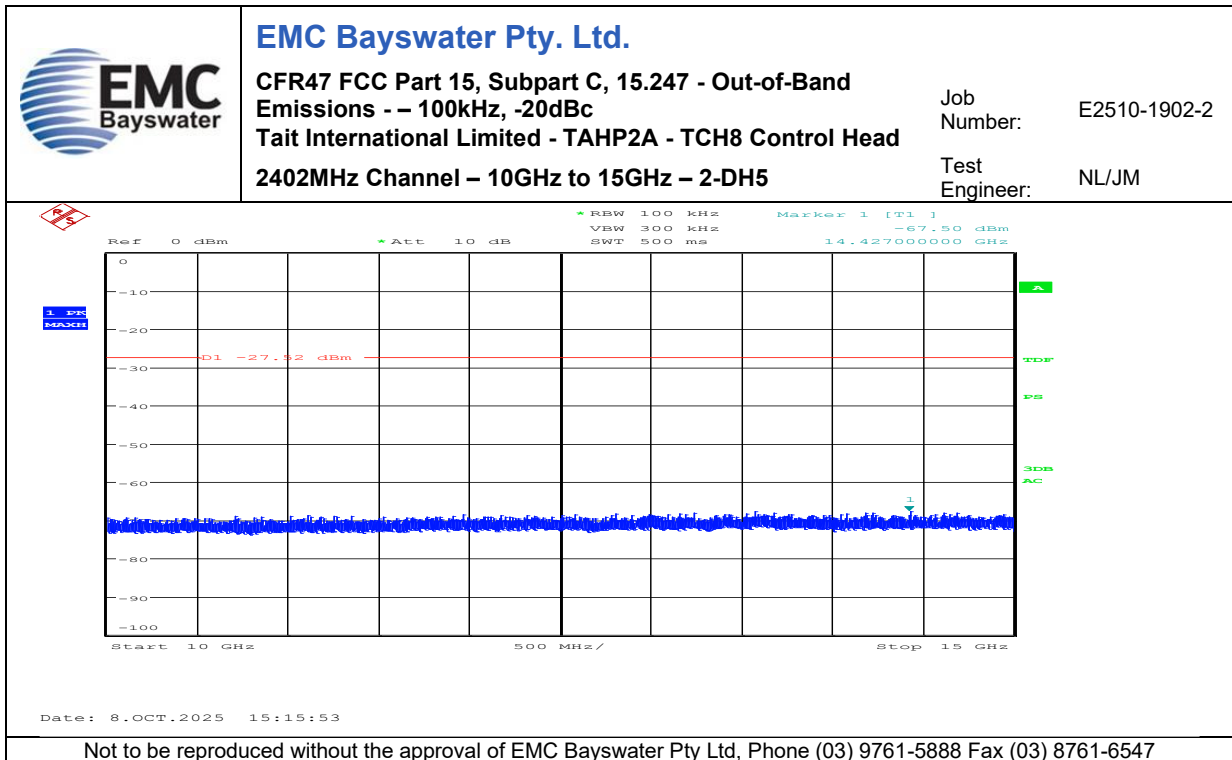
Graph 94



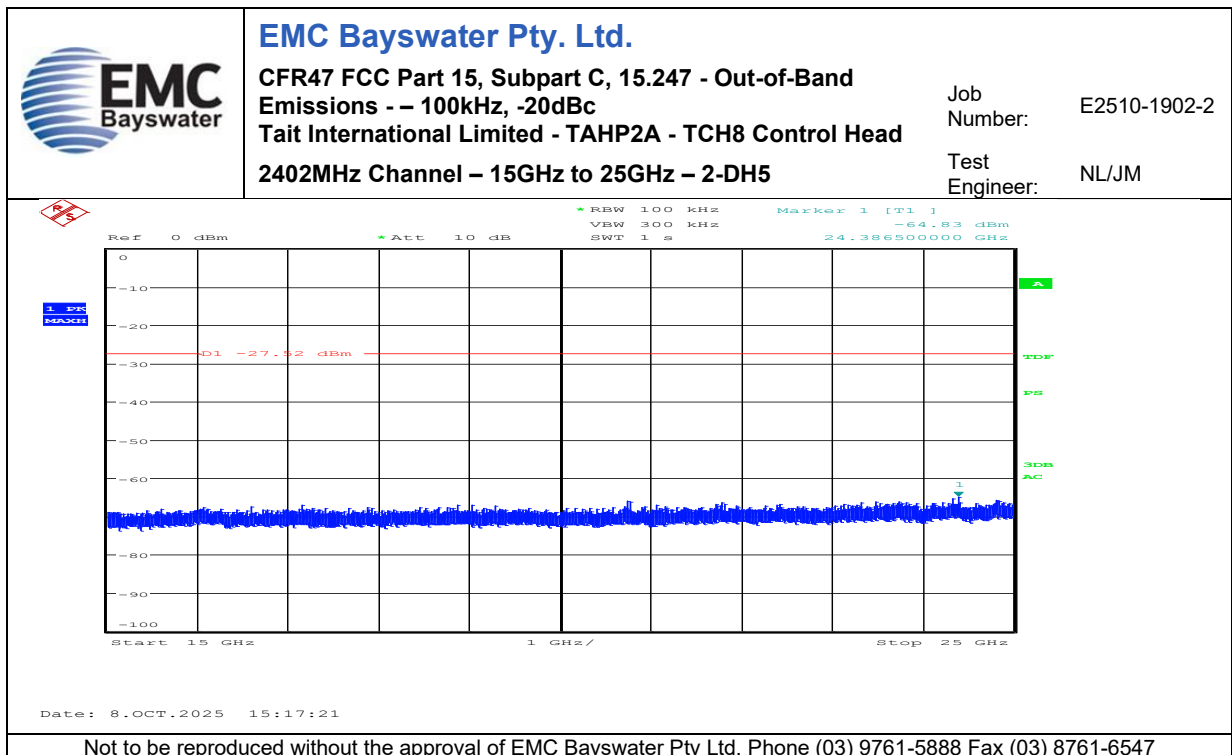
Graph 95



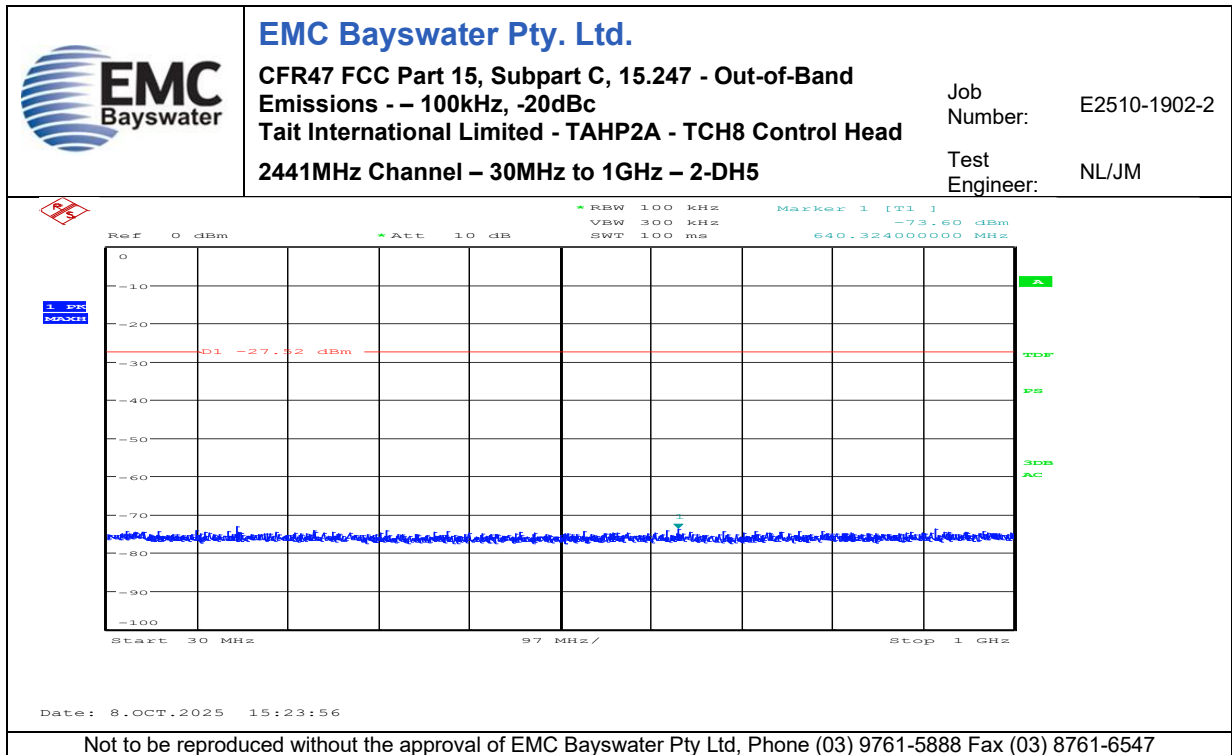
Graph 96



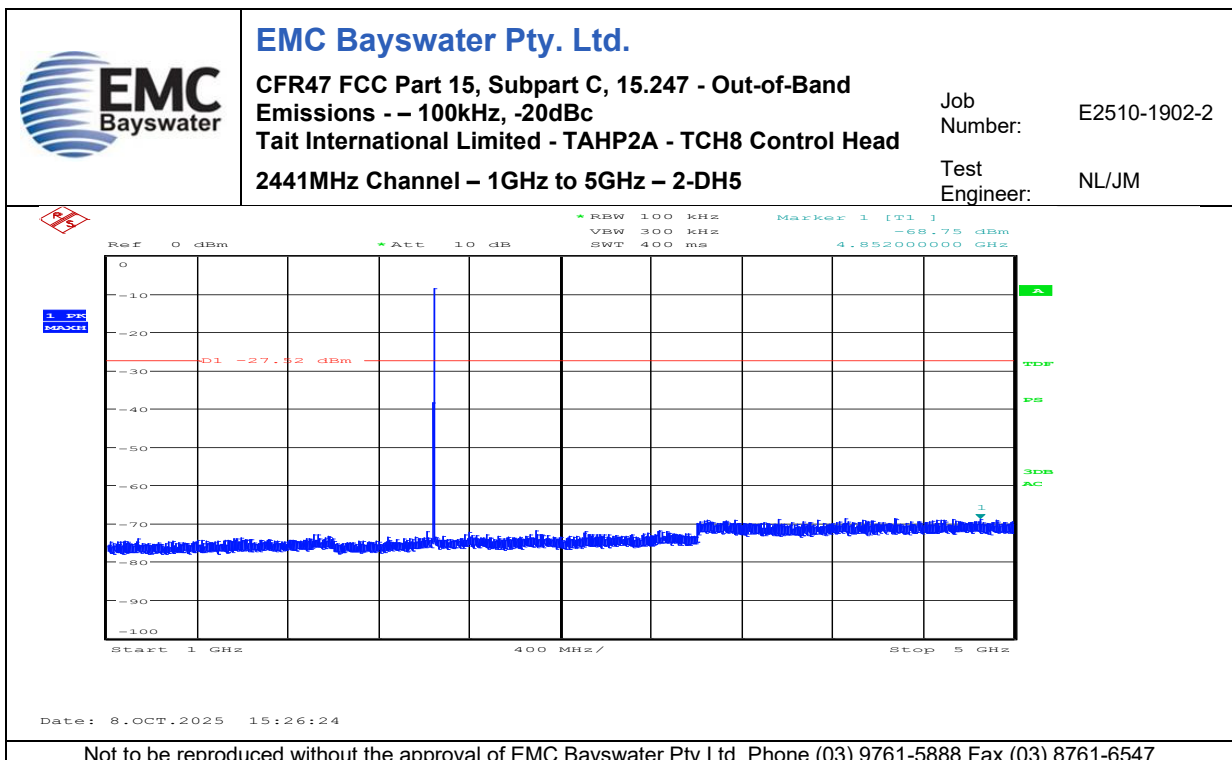
Graph 97



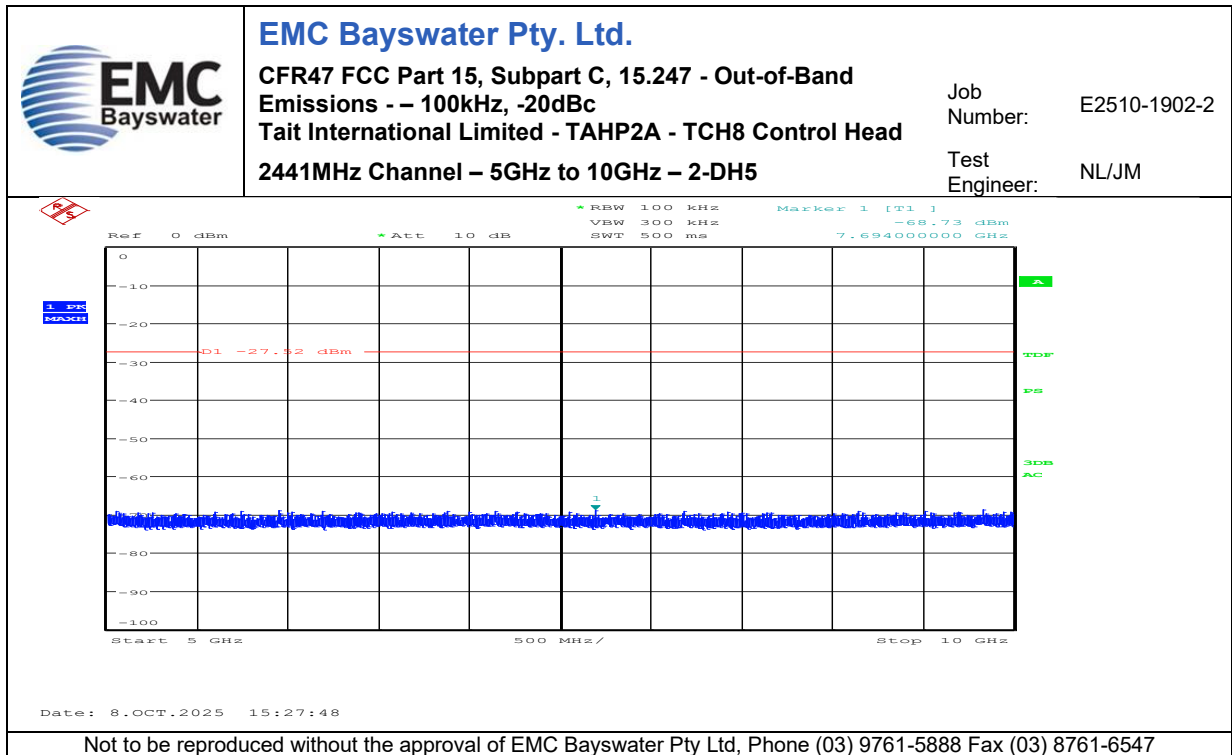
Graph 98



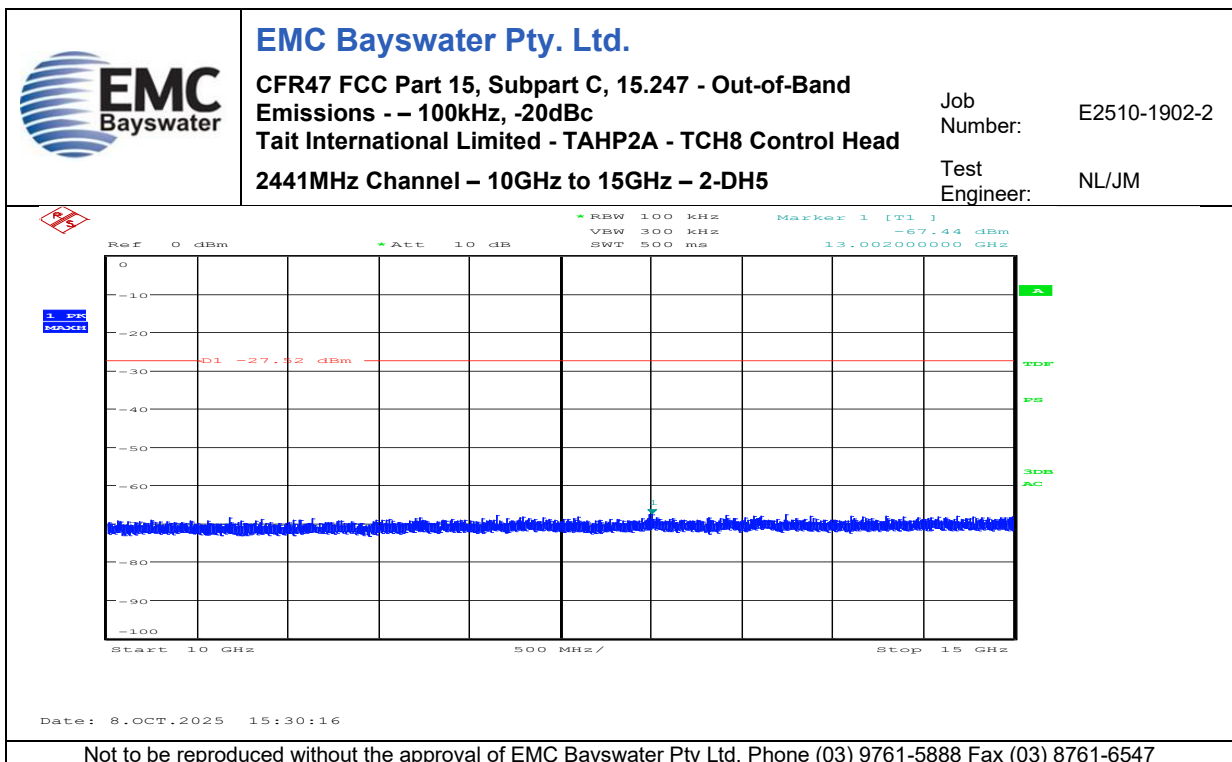
Graph 99



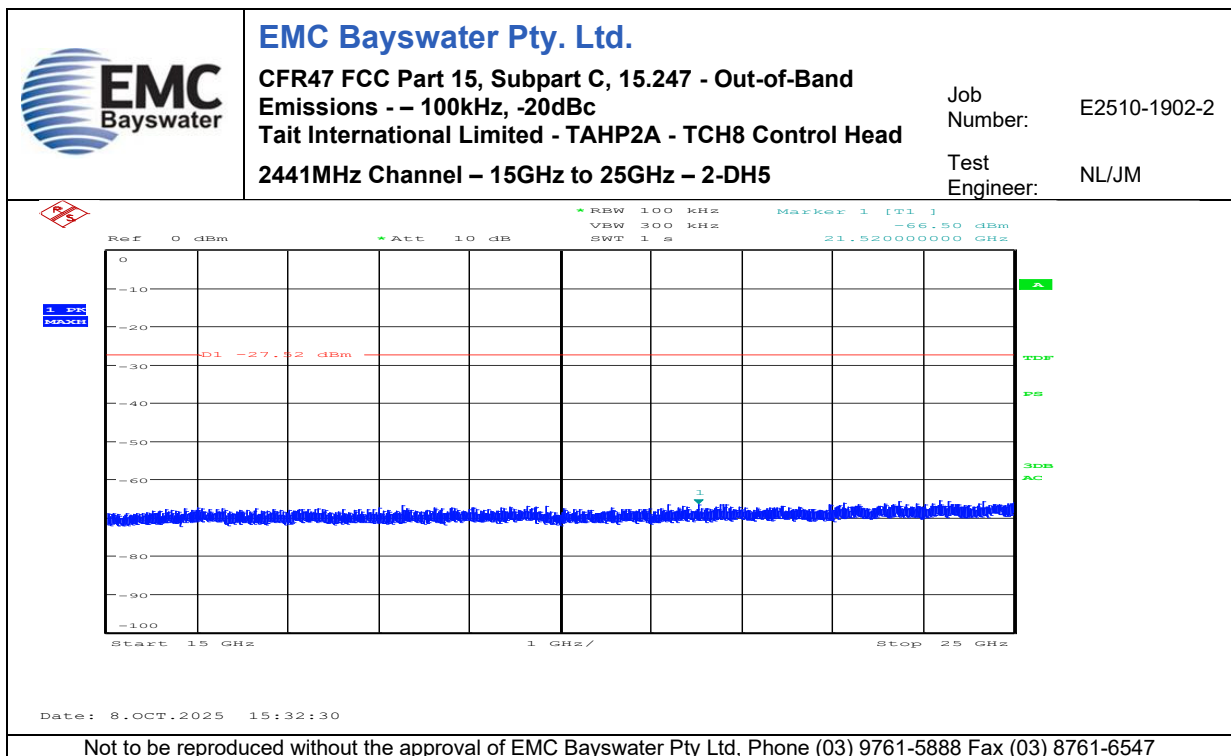
Graph 100



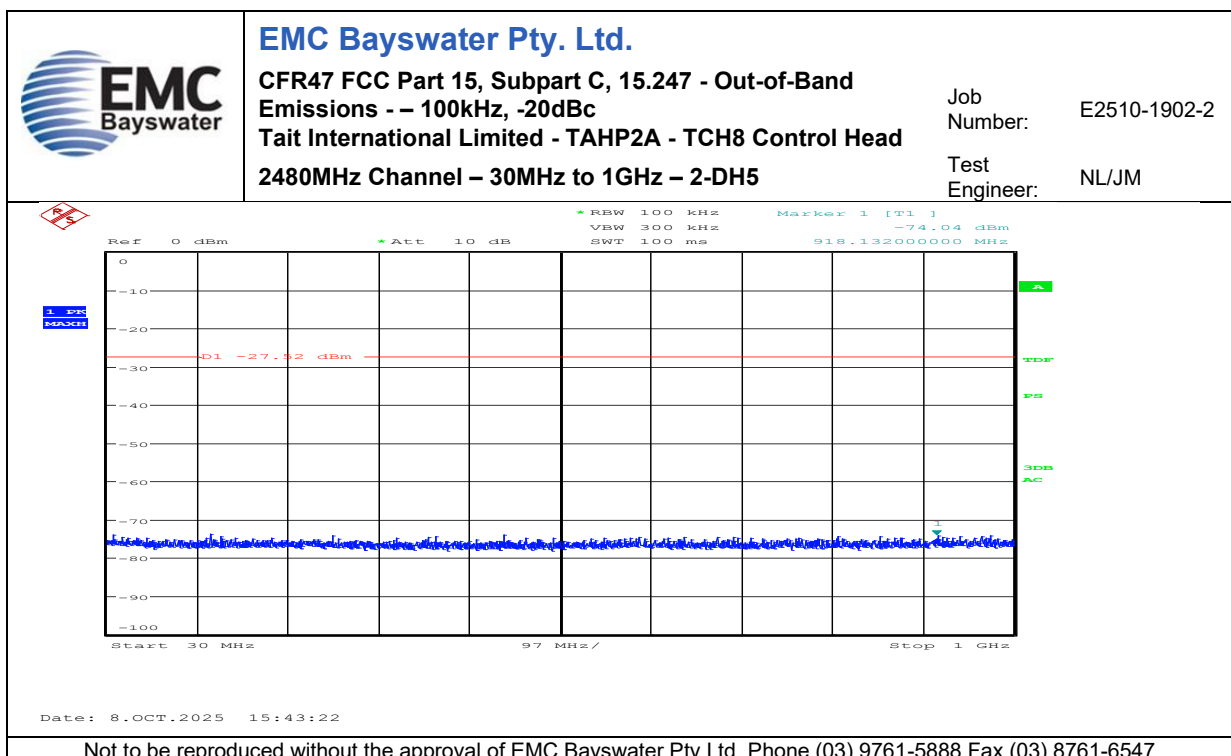
Graph 101



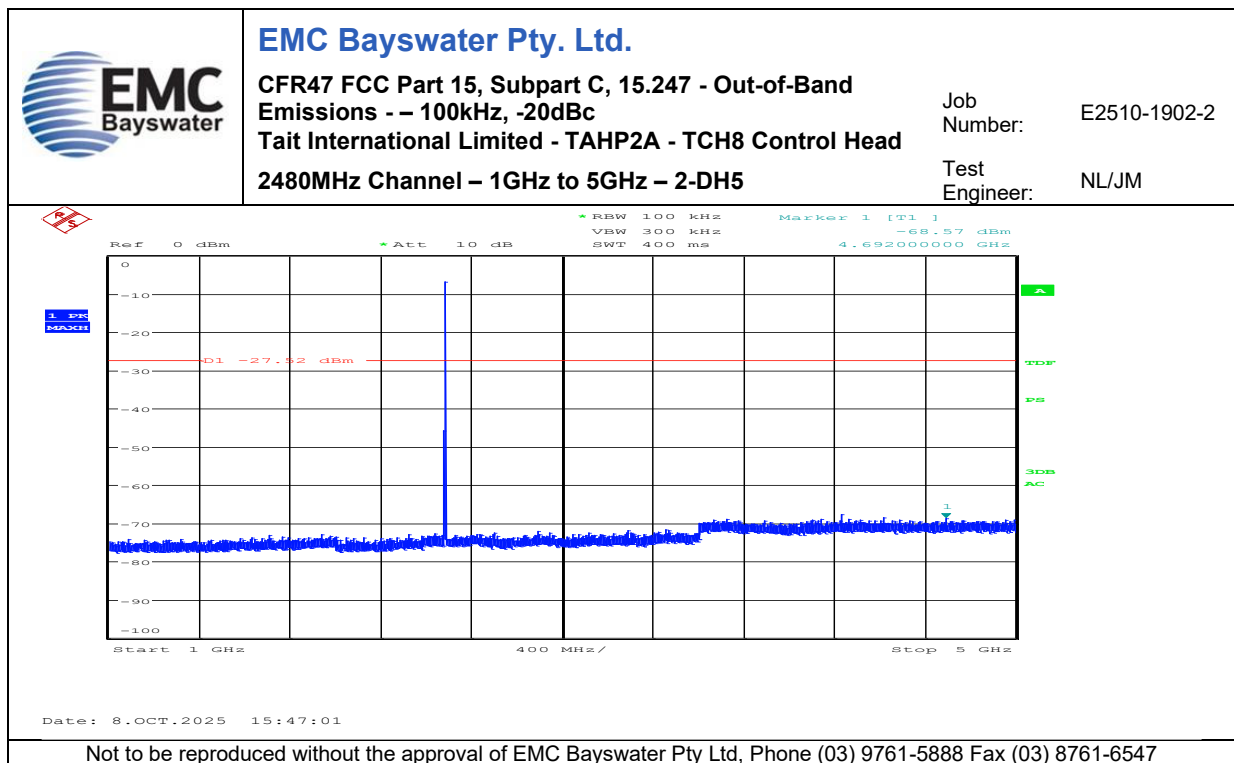
Graph 102



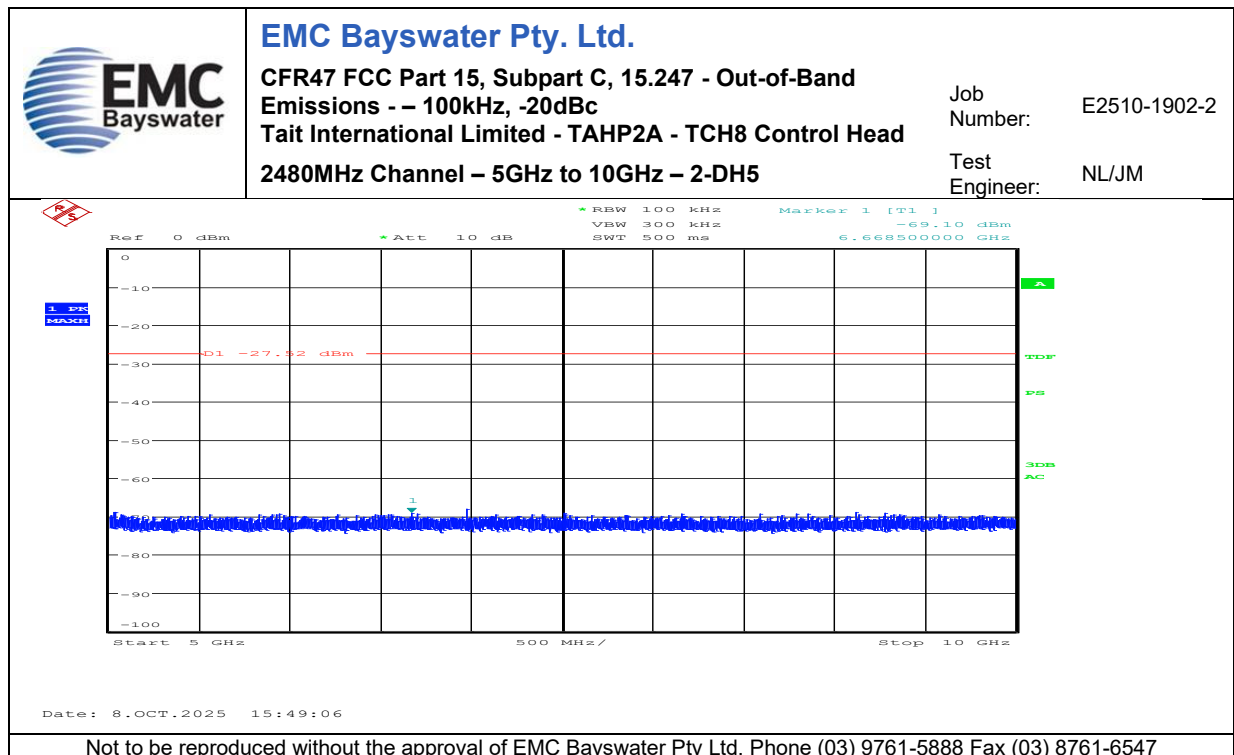
Graph 103



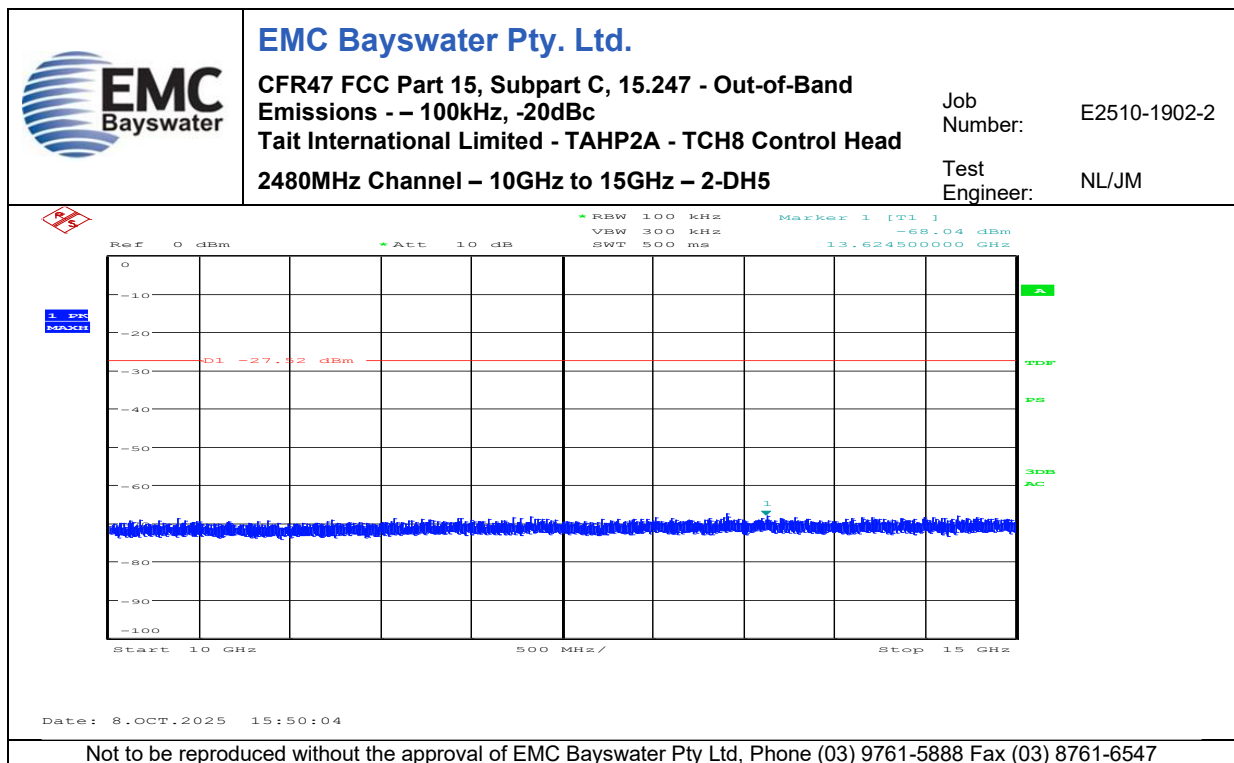
Graph 104



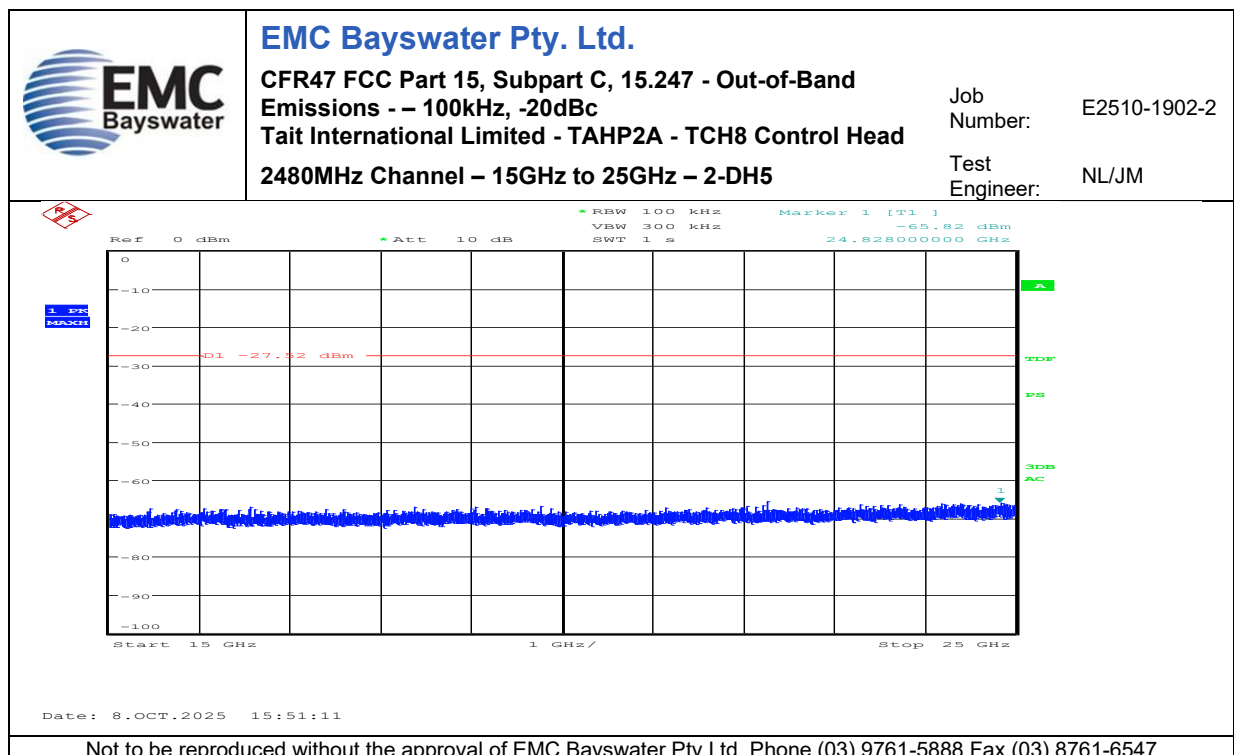
Graph 105



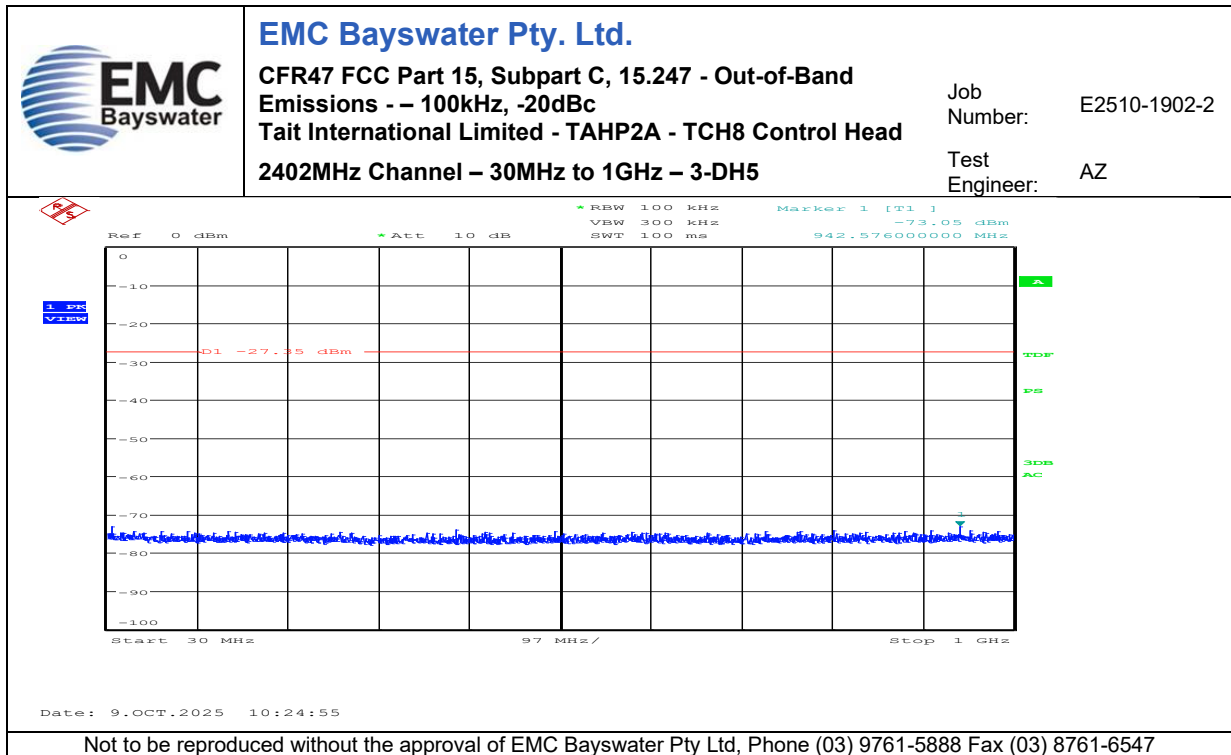
Graph 106



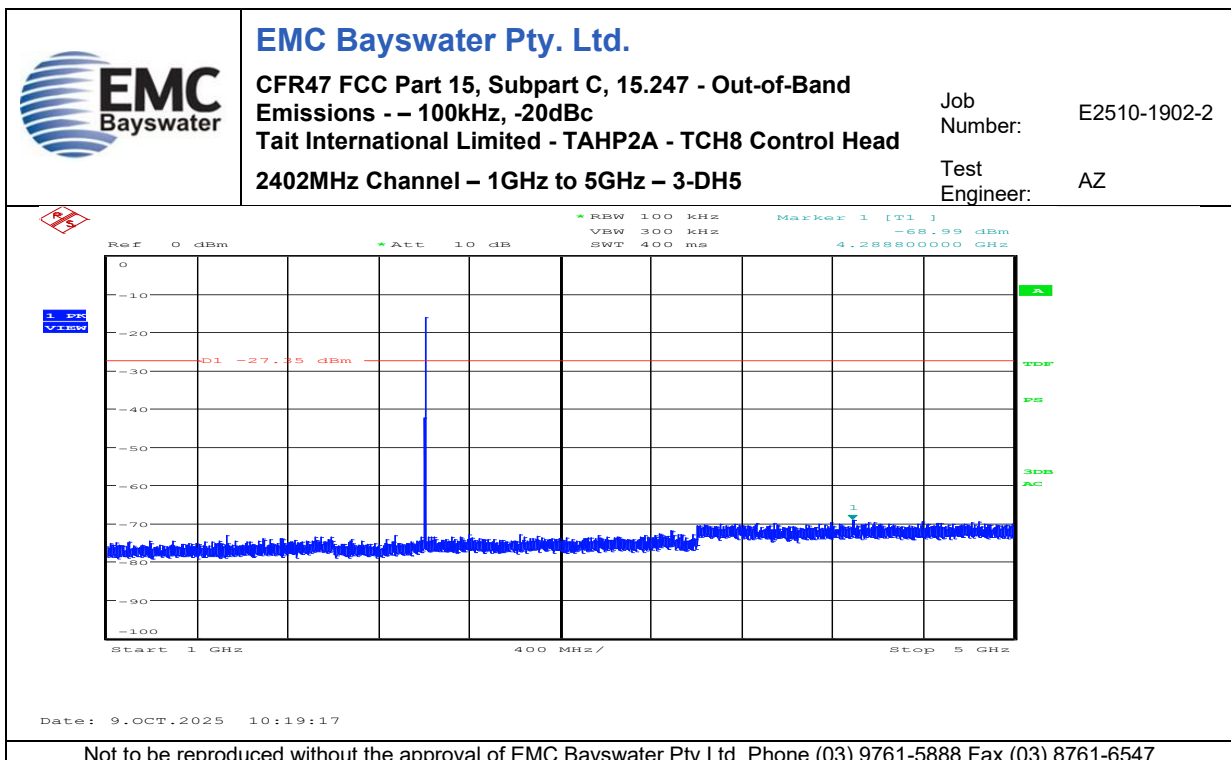
Graph 107



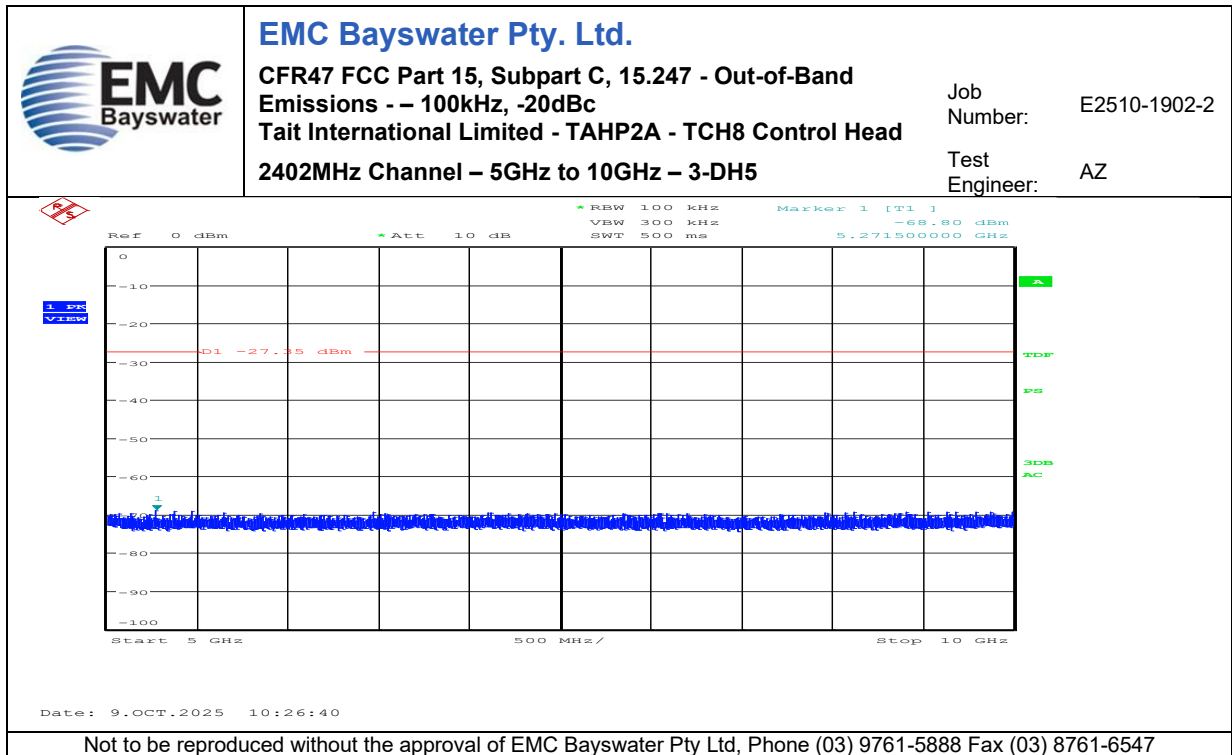
Graph 108



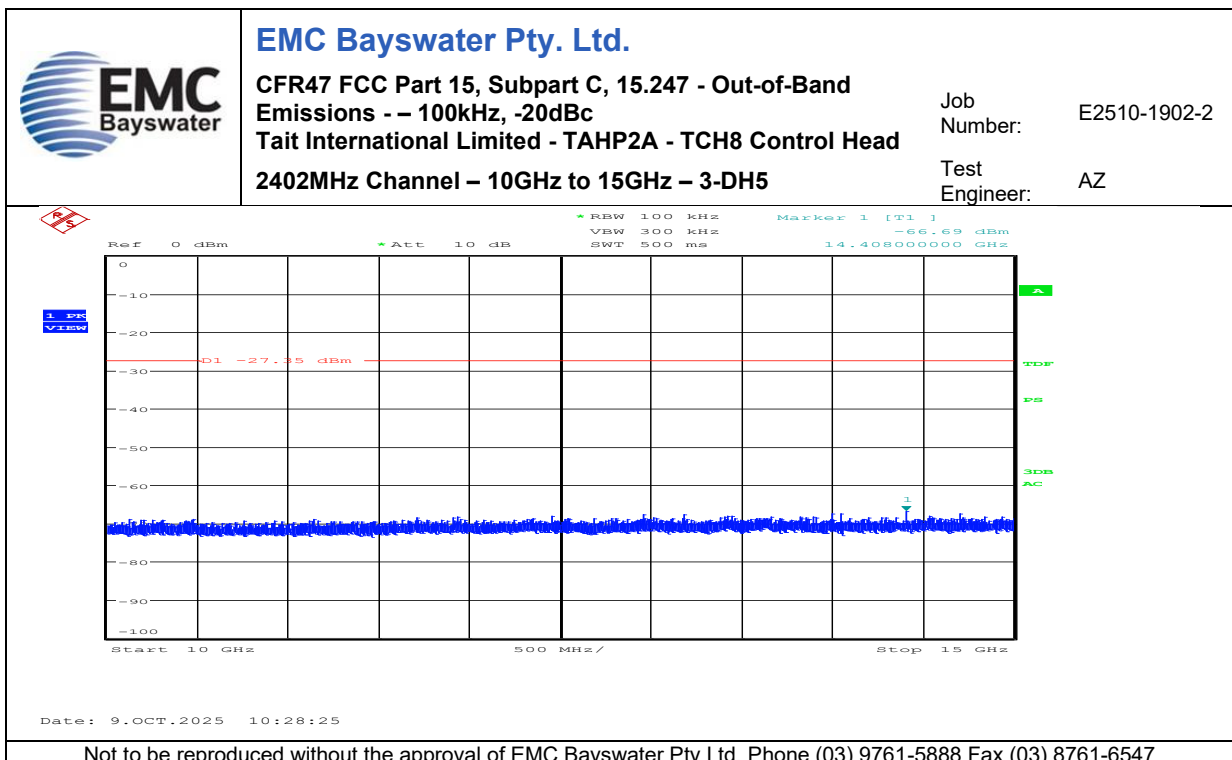
Graph 109



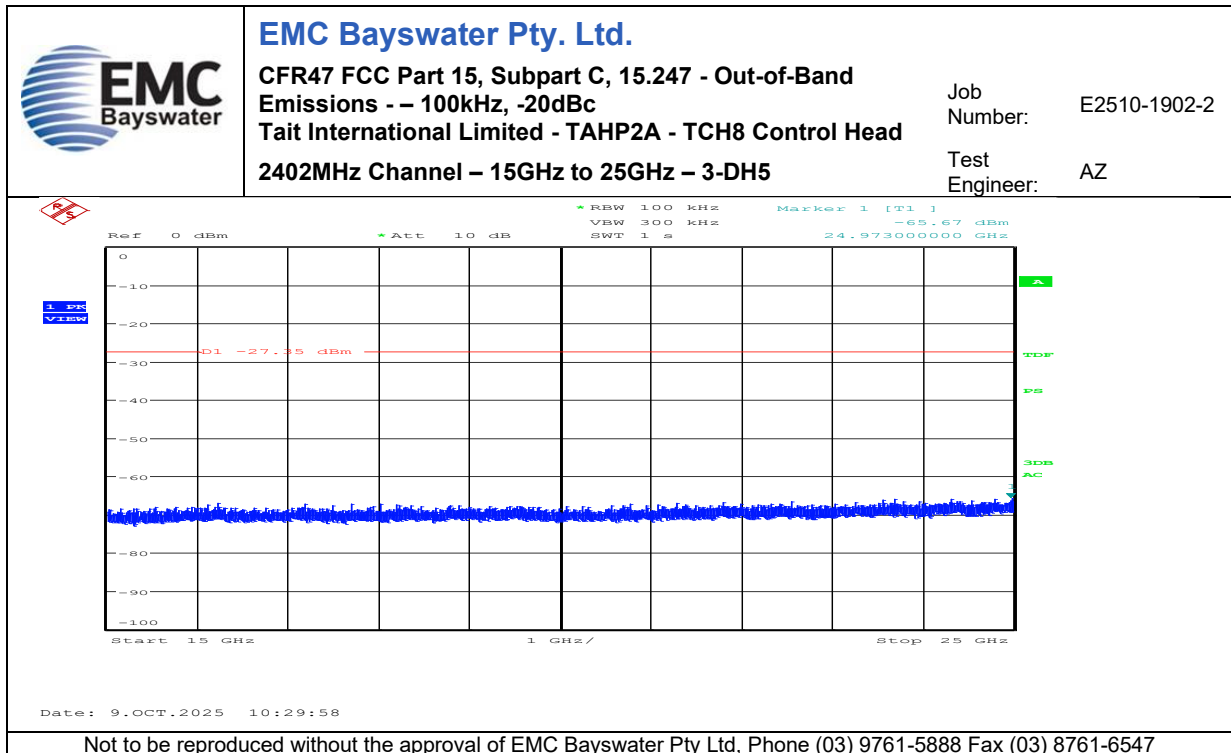
Graph 110



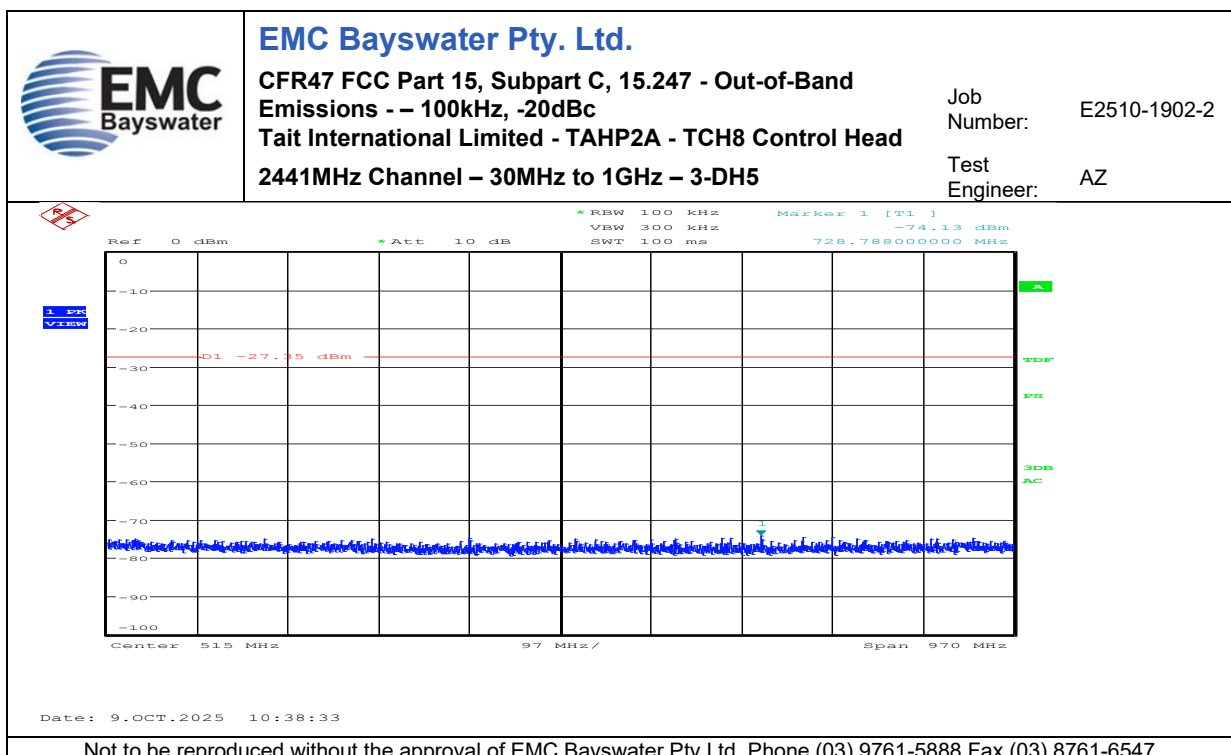
Graph 111



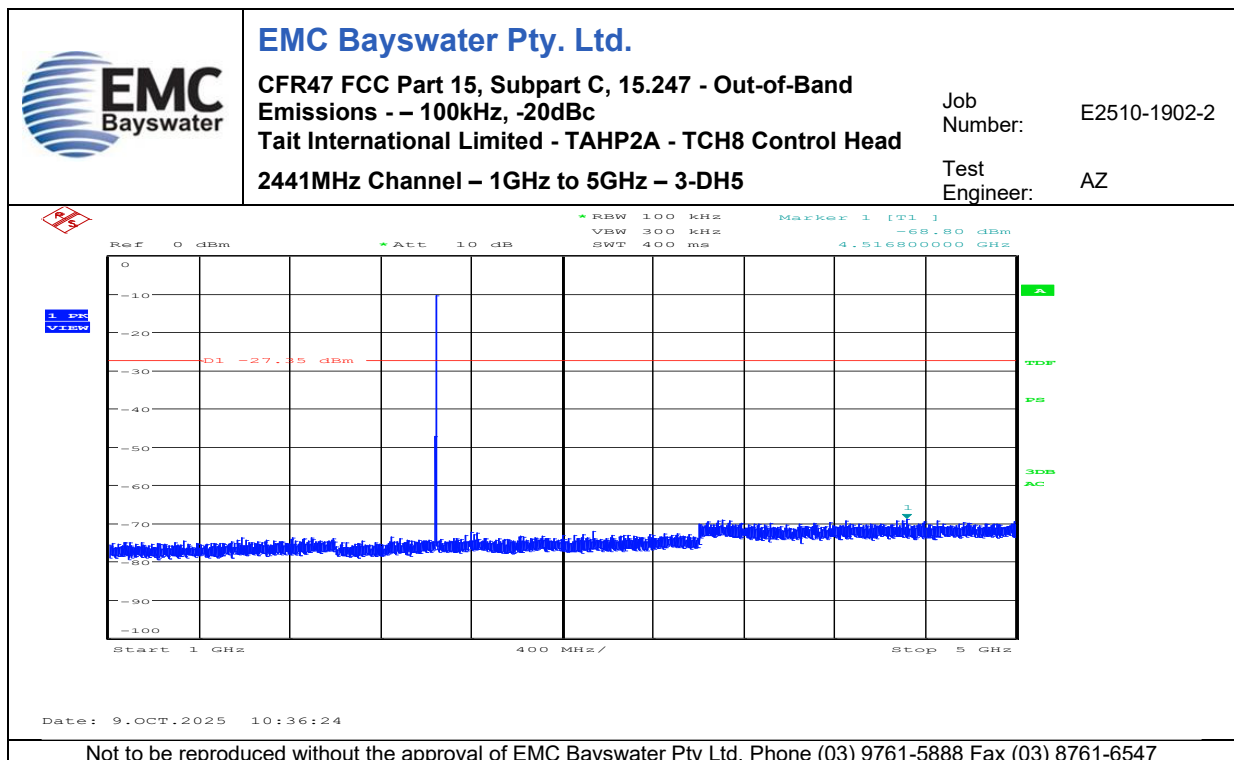
Graph 112



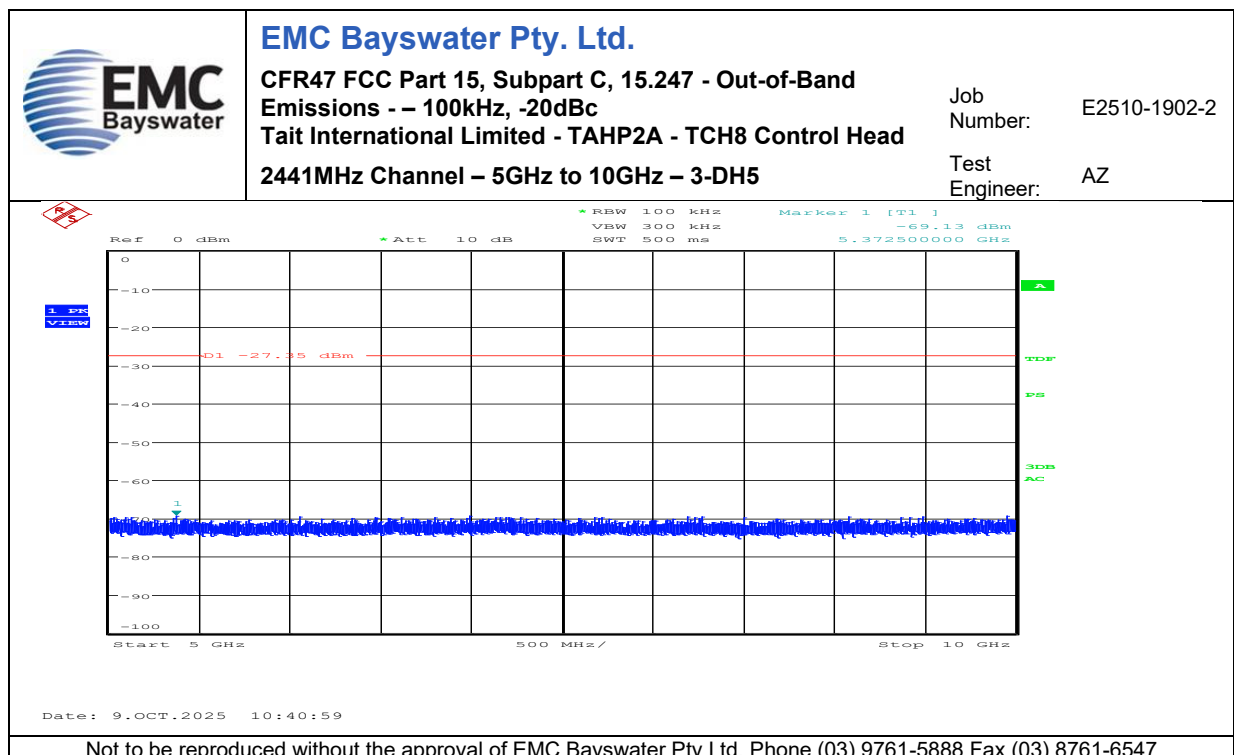
Graph 113



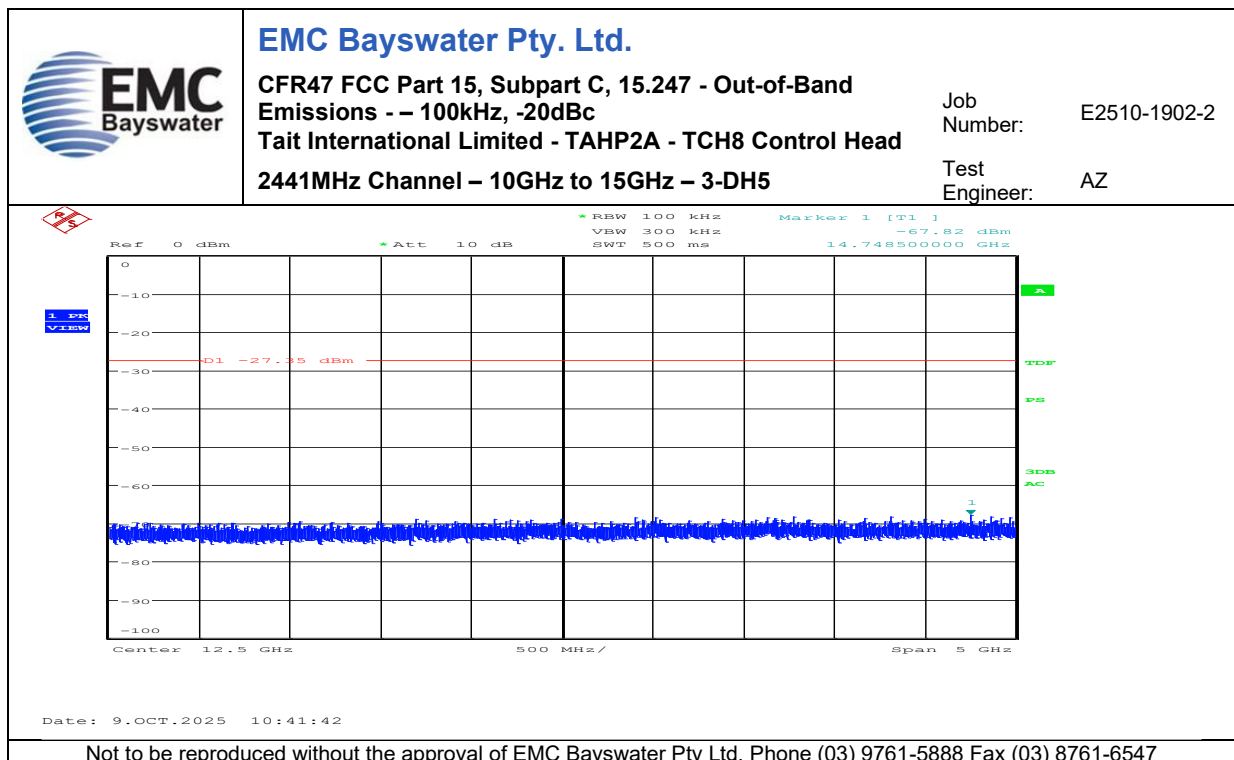
Graph 114



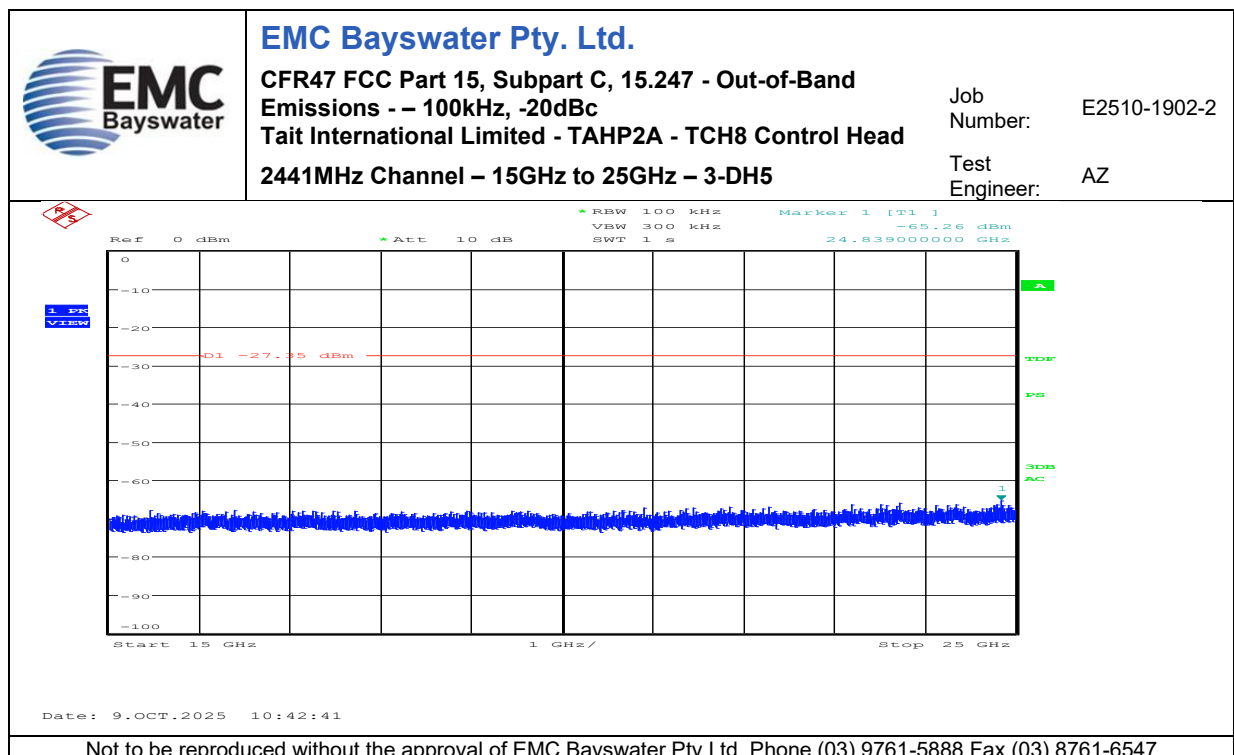
Graph 115



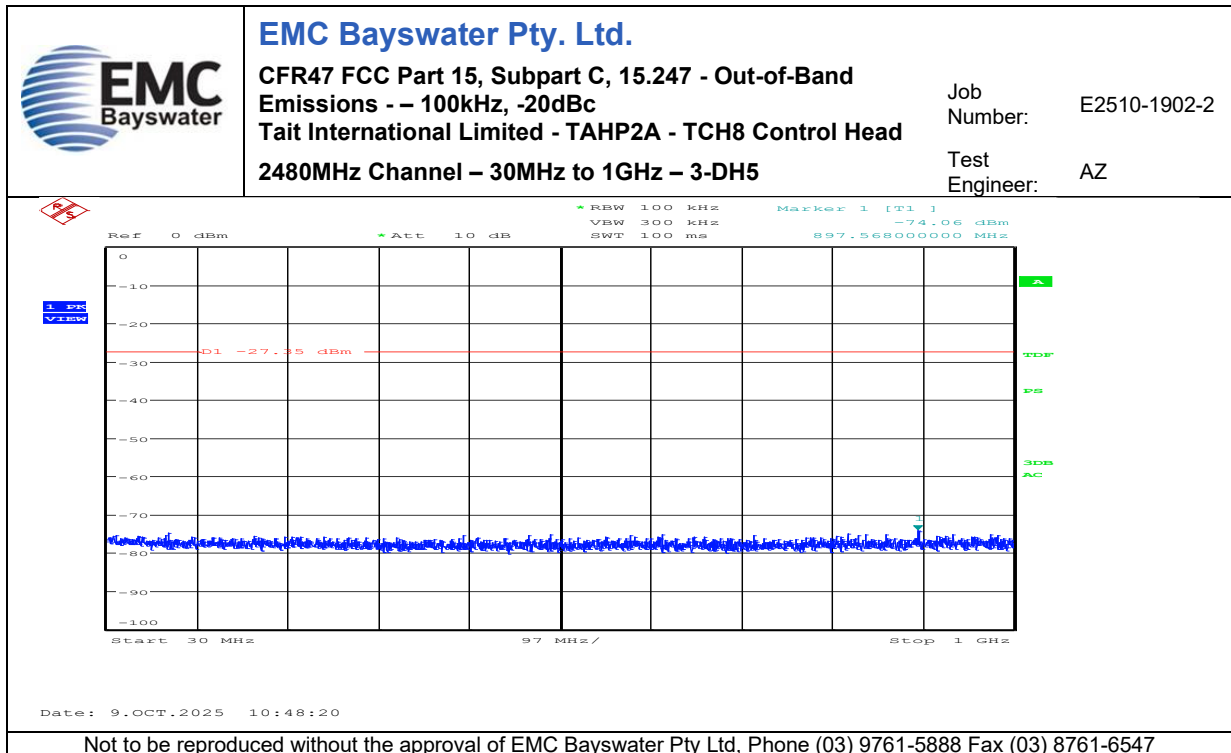
Graph 116



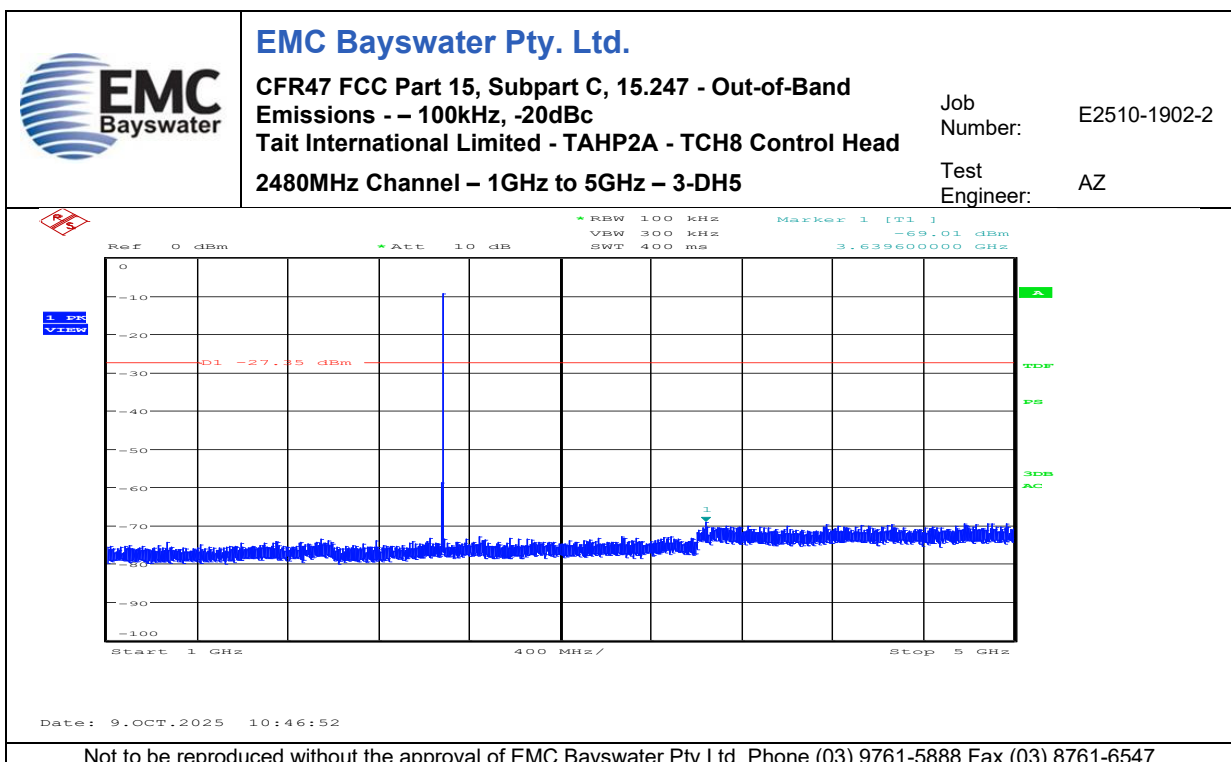
Graph 117



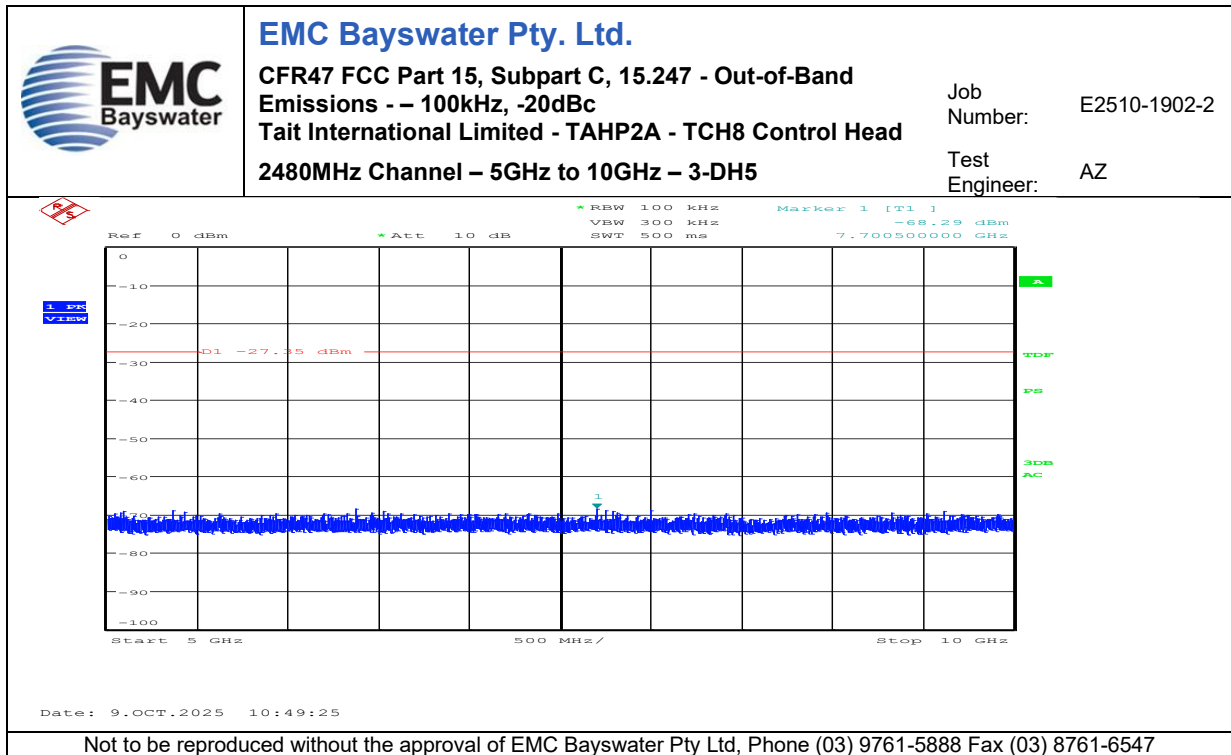
Graph 118



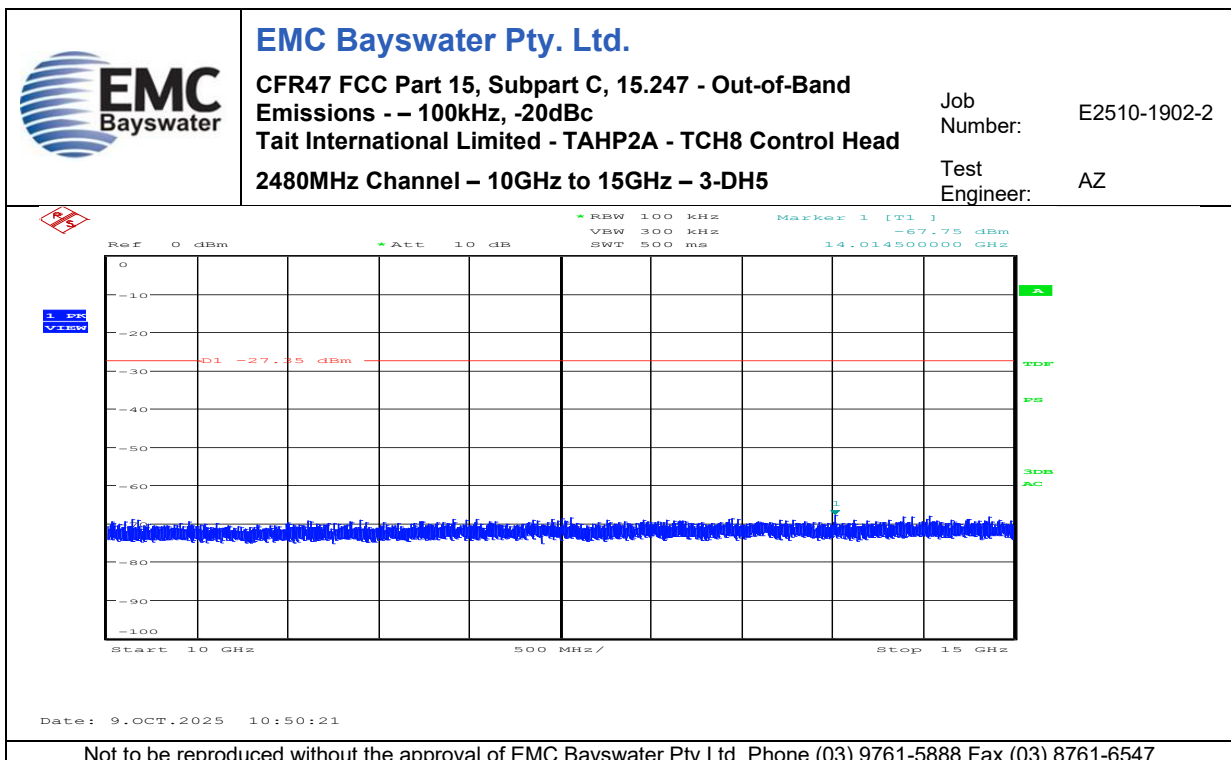
Graph 119



Graph 120



Graph 121



Graph 122

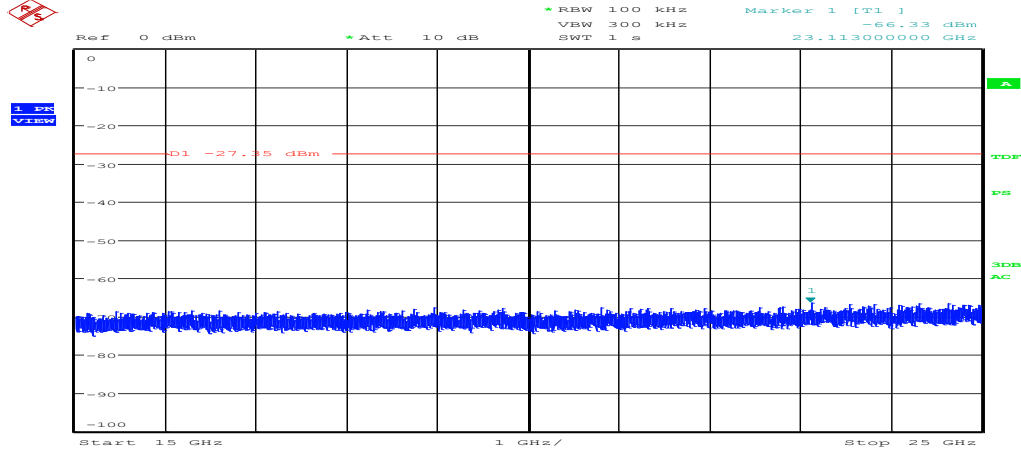


EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Out-of-Band
Emissions - - 100kHz, -20dBc
Tait International Limited - TAHP2A - TCH8 Control Head
2480MHz Channel - 15GHz to 25GHz - 3-DH5

Job Number: E2510-1902-2

Test Engineer: AZ



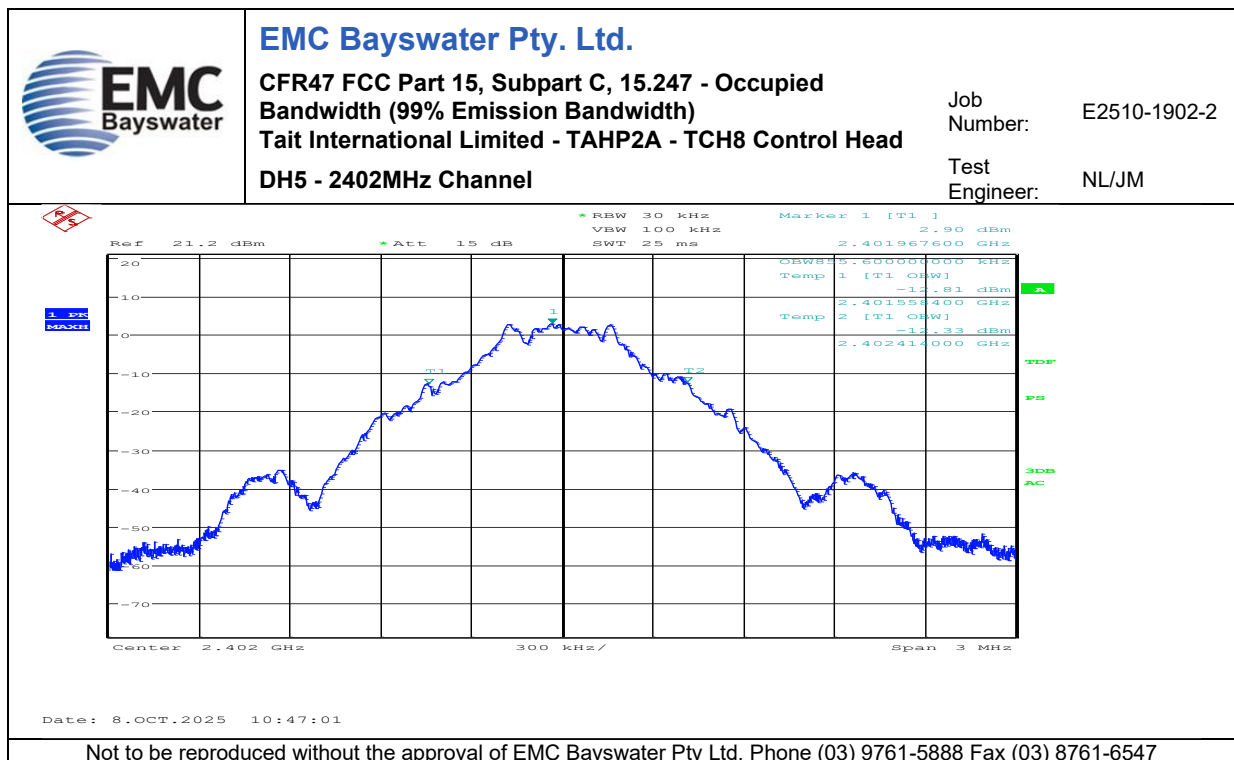
Date: 9.OCT.2025 10:51:12

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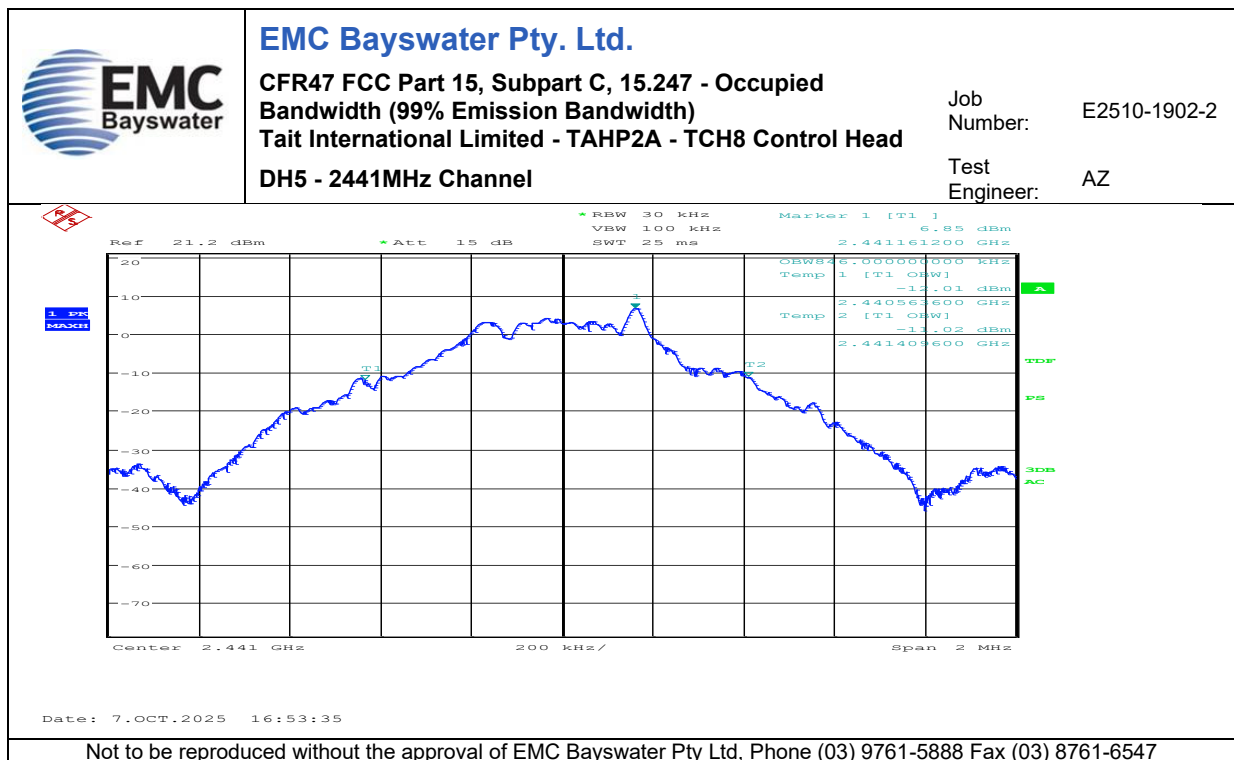
Graph 123

Appendix C.5 – Occupied Bandwidth (99% Emission Bandwidth)

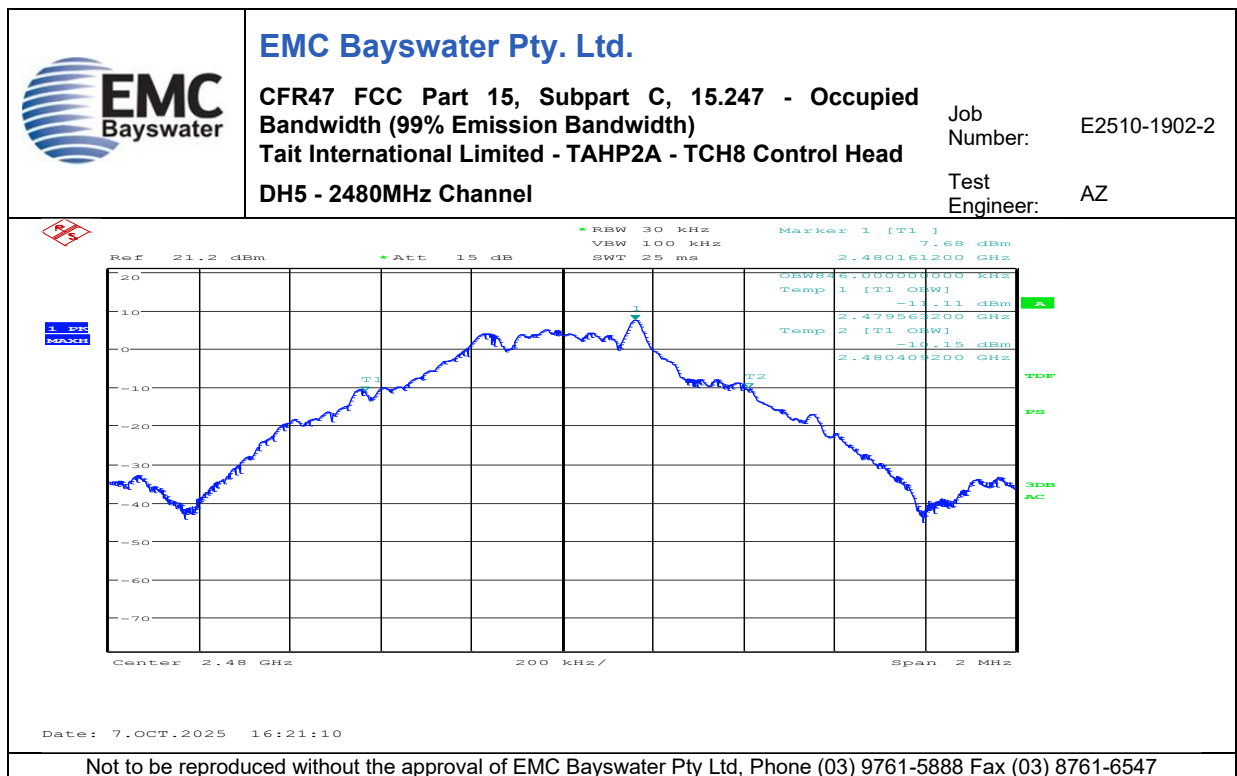
No.	Test	Graph Description
124	Occupied Bandwidth (99% Emission Bandwidth)	DH5 - 2402MHz Channel
125		DH5 - 2441MHz Channel
126		DH5 - 2480MHz Channel
127		2-DH5 - 2402MHz Channel
128		2-DH5 - 2441MHz Channel
129		2-DH5 - 2480MHz Channel
130		3-DH5 - 2402MHz Channel
131		3-DH5 - 2441MHz Channel
132		3-DH5 - 2480MHz Channel



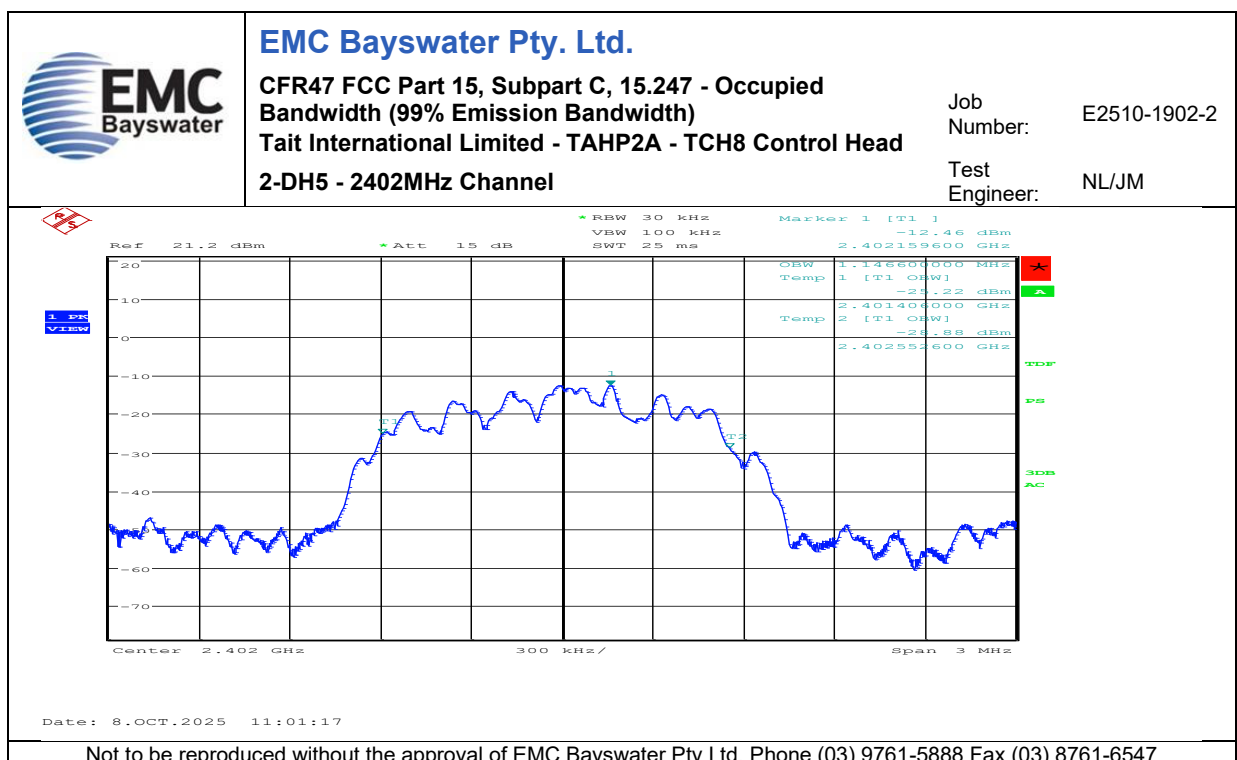
Graph 124



Graph 125



Graph 126



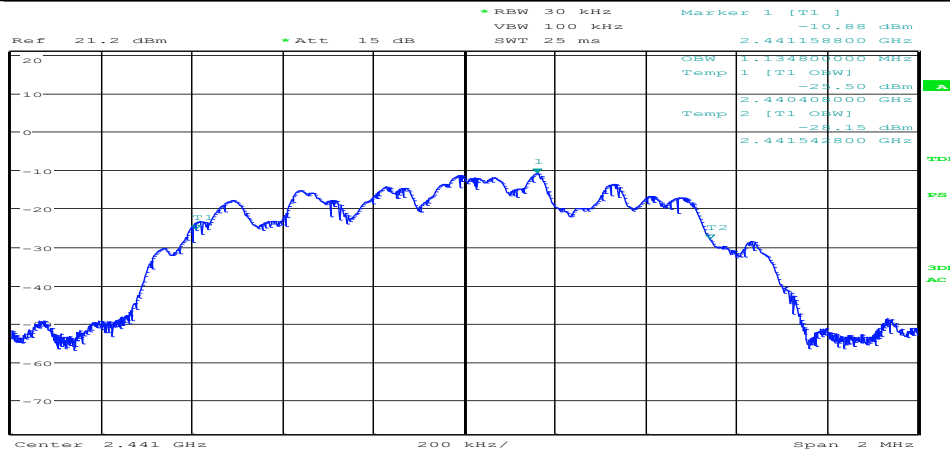
Graph 127

EMC Bayswater Pty. Ltd.



CFR47 FCC Part 15, Subpart C, 15.247 - Occupied Bandwidth (99% Emission Bandwidth)
Tait International Limited - TAHP2A - TCH8 Control Head
2-DH5 - 2441MHz Channel

Job Number: E2510-1902-2
Test Engineer: AZ



Date: 7.OCT.2025 16:42:53

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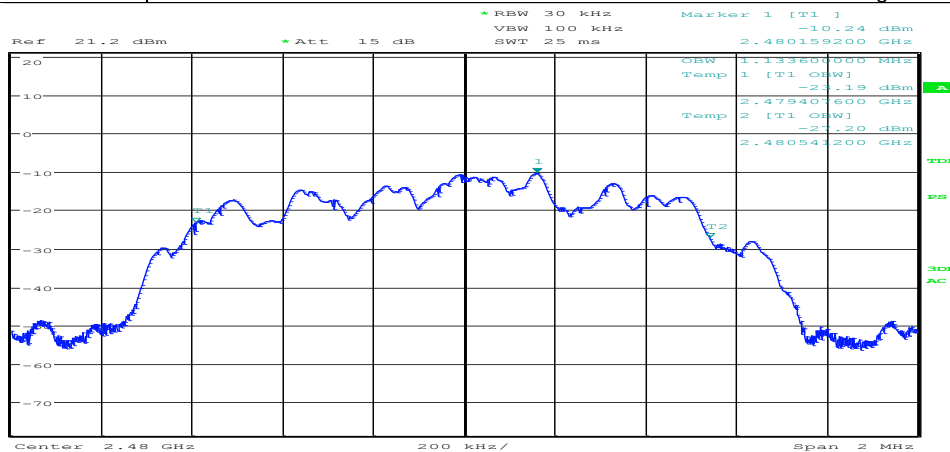
Graph 128



EMC Bayswater Pty. Ltd.

CFR47 FCC Part 15, Subpart C, 15.247 - Occupied Bandwidth (99% Emission Bandwidth)
Tait International Limited - TAHP2A - TCH8 Control Head
2-DH5 - 2480MHz Channel

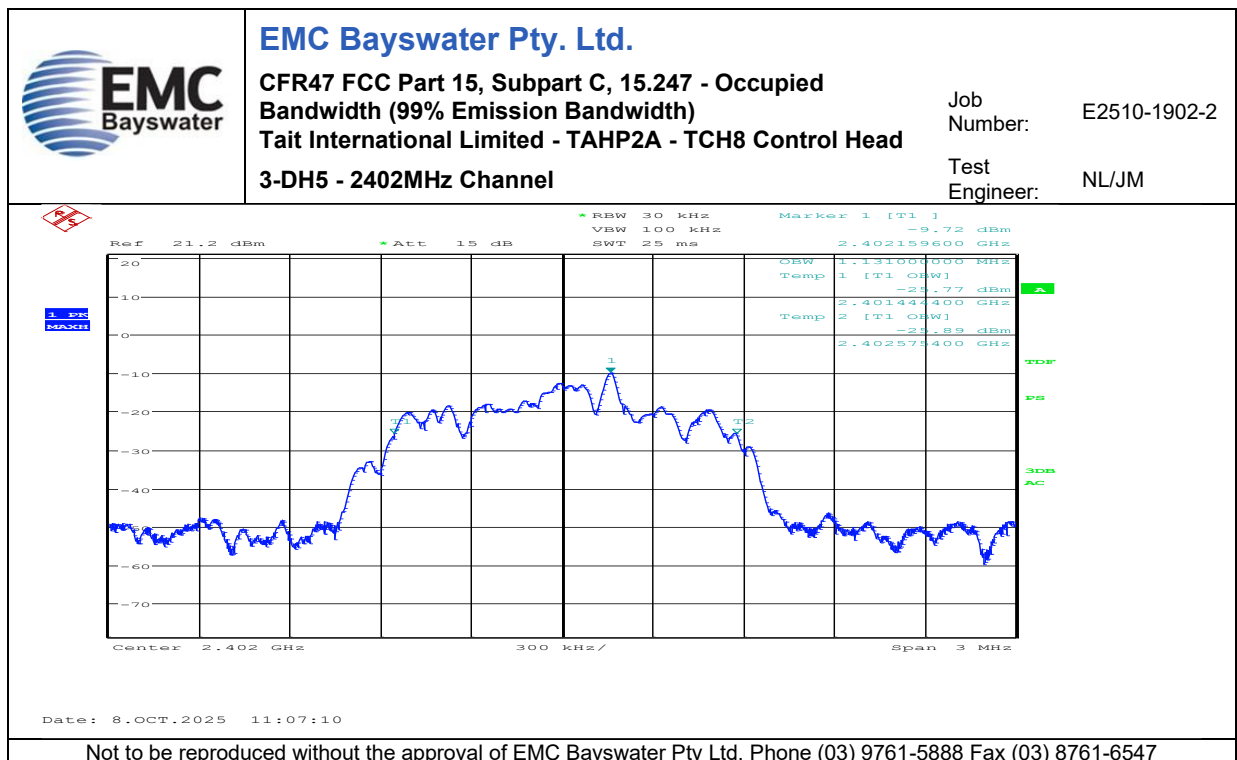
Job Number: E2510-1902-2
Test Engineer: AZ



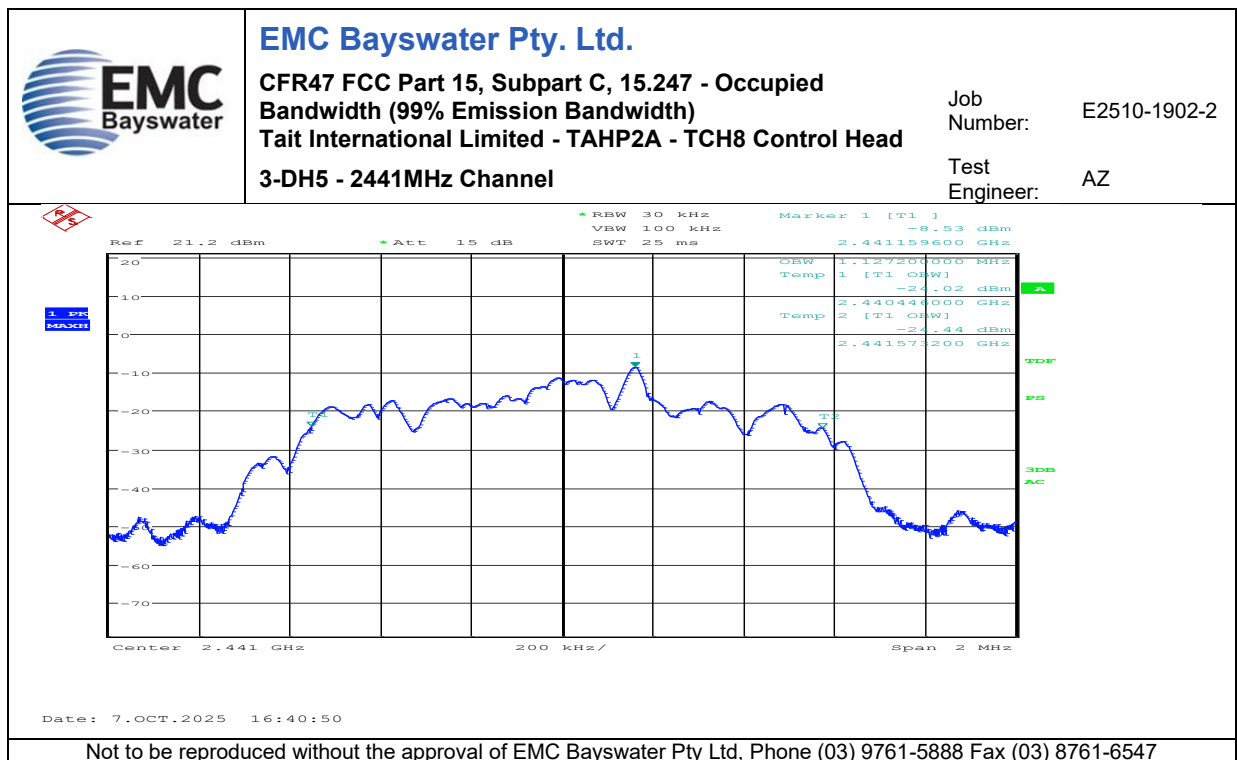
Date: 7.OCT.2025 16:15:27

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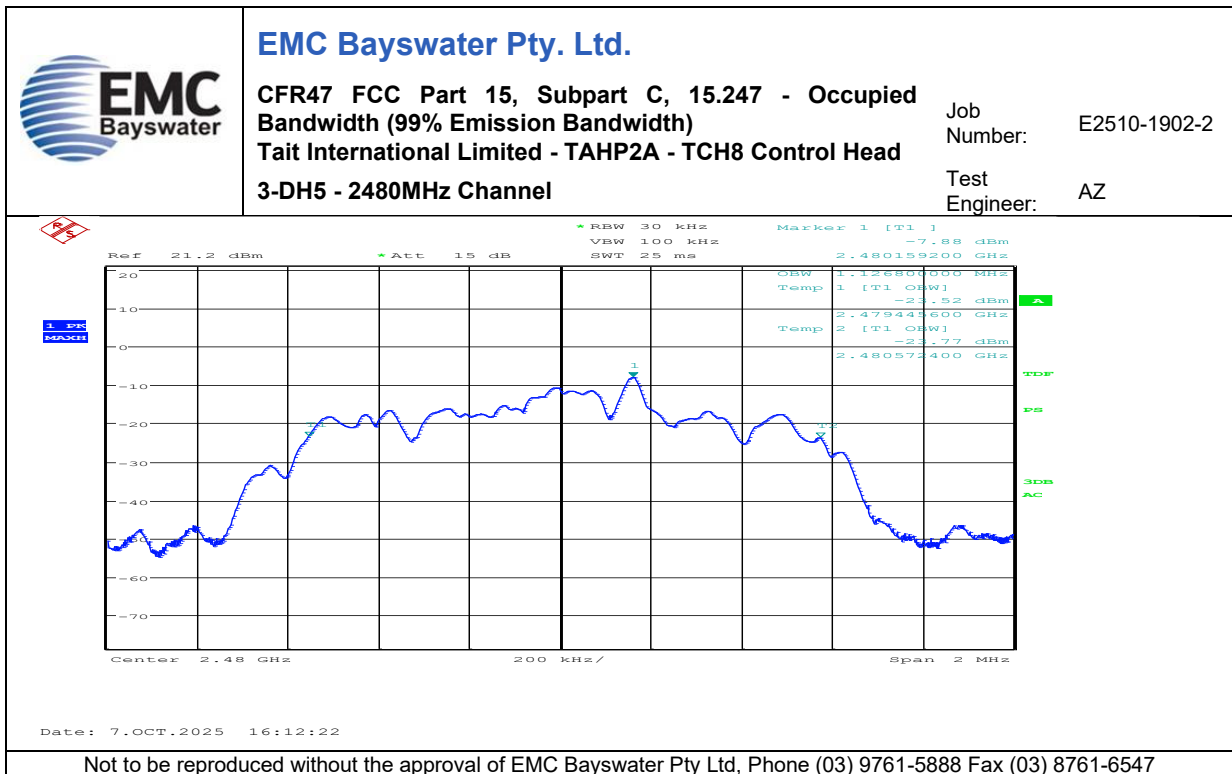
Graph 129



Graph 130



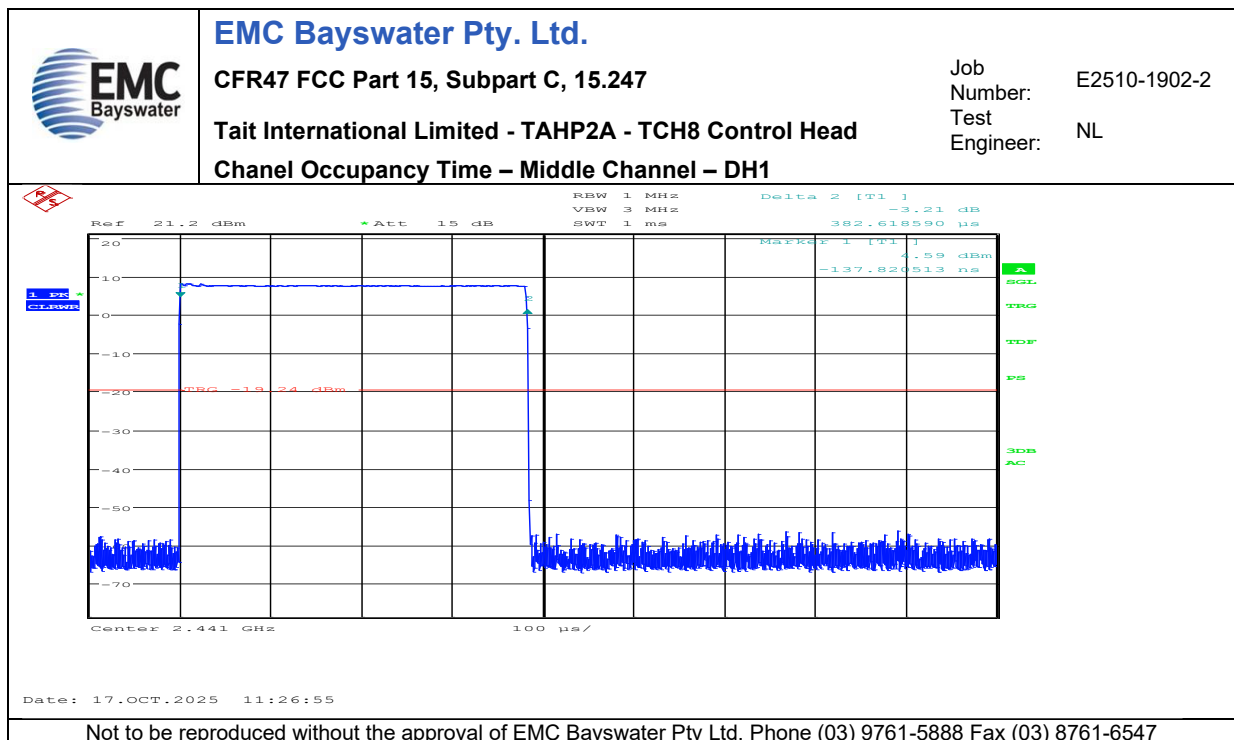
Graph 131



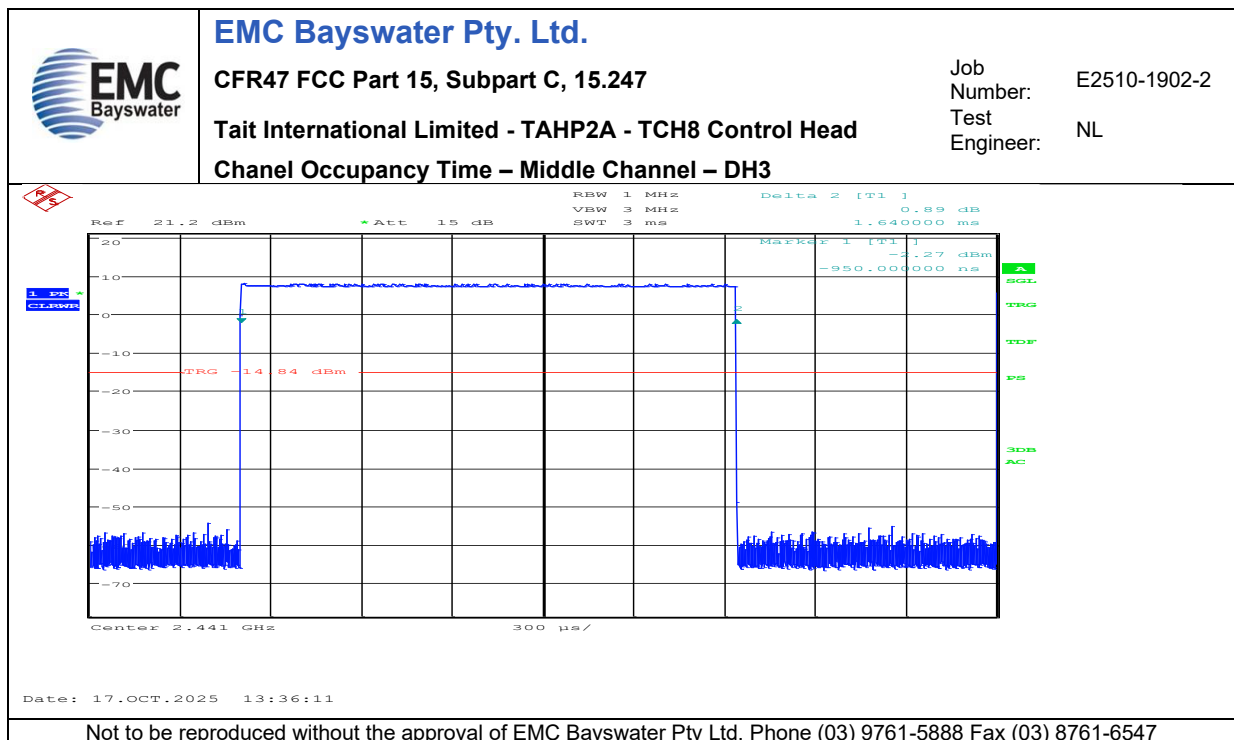
Graph 132

Appendix C.6 – Frequency Hopping Parameters

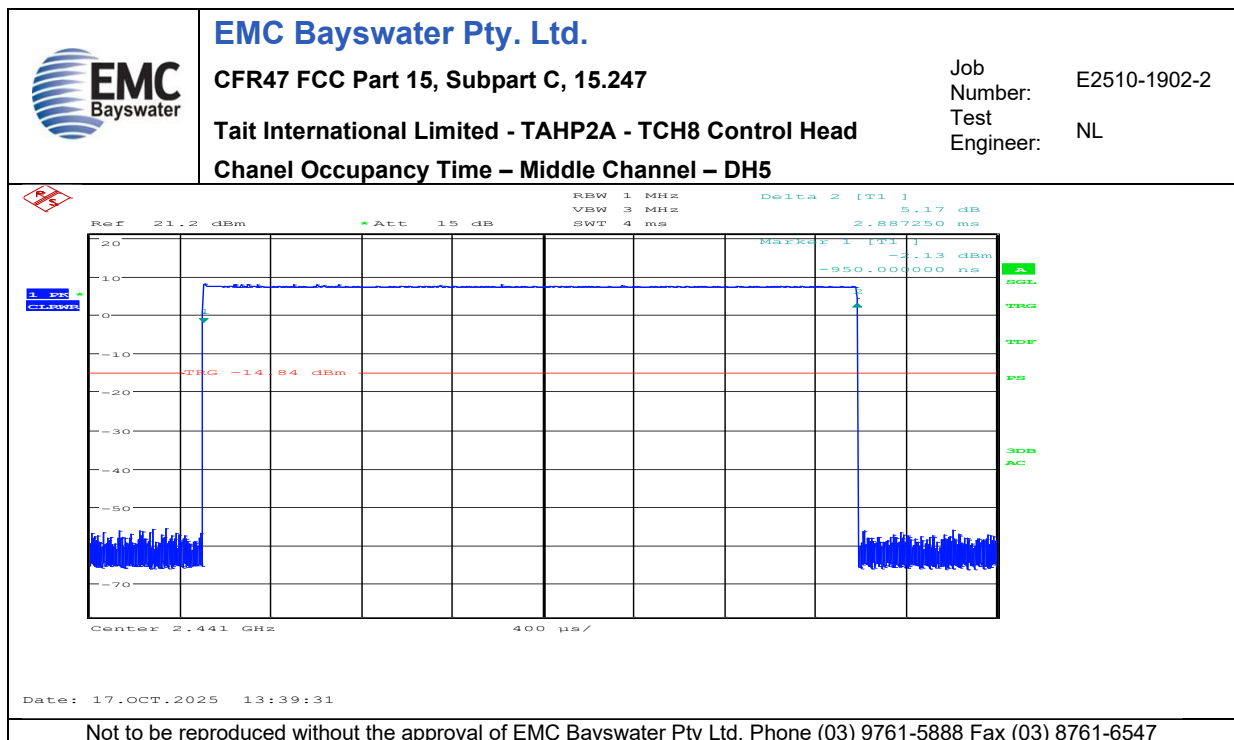
No.	Test / Graph Description
133	Chanel Occupancy Time – Middle Channel – DH1
134	Chanel Occupancy Time – Middle Channel – DH3
135	Chanel Occupancy Time – Middle Channel – DH5
136	Chanel Occupancy Time – Middle Channel – 2-DH1
137	Chanel Occupancy Time – Middle Channel – 2-DH3
138	Chanel Occupancy Time – Middle Channel – 2-DH5
139	Chanel Occupancy Time – Middle Channel – 3-DH1
140	Chanel Occupancy Time – Middle Channel – 3-DH3
141	Chanel Occupancy Time – Middle Channel – 3-DH5
142	Channel Separation – Bottom end – DH5
143	Channel Separation – Band Middle – DH5
144	Channel Separation – Top end – DH5
145	Channel Separation – Bottom end – 2-DH5
146	Channel Separation – Band Middle – 2-DH5
147	Channel Separation – Top end – 2-DH5
148	Channel Separation – Bottom end – 3-DH5
149	Channel Separation – Band Middle – 3-DH5
150	Channel Separation – Top end – 3-DH5
151	Number of Hopping Frequencies – DH5
152	
153	Number of Hopping Frequencies – 2-DH5
154	
155	Number of Hopping Frequencies – 3-DH5
156	



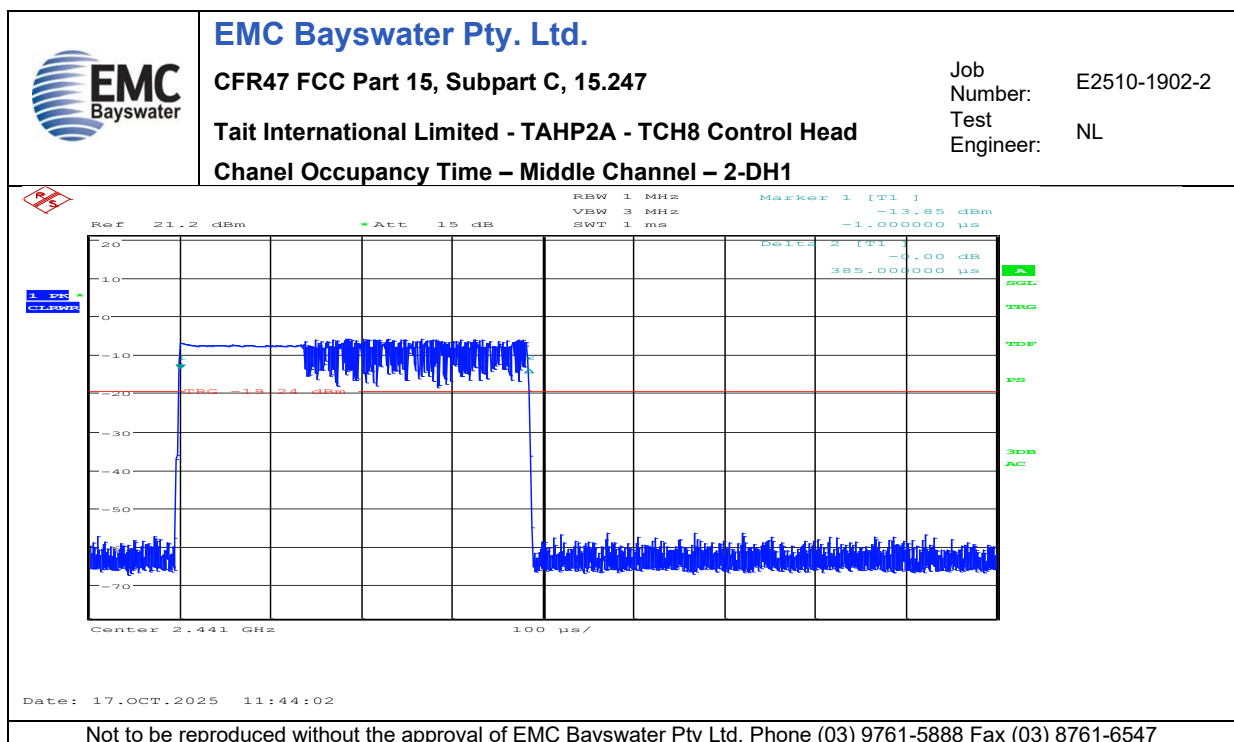
Graph 133



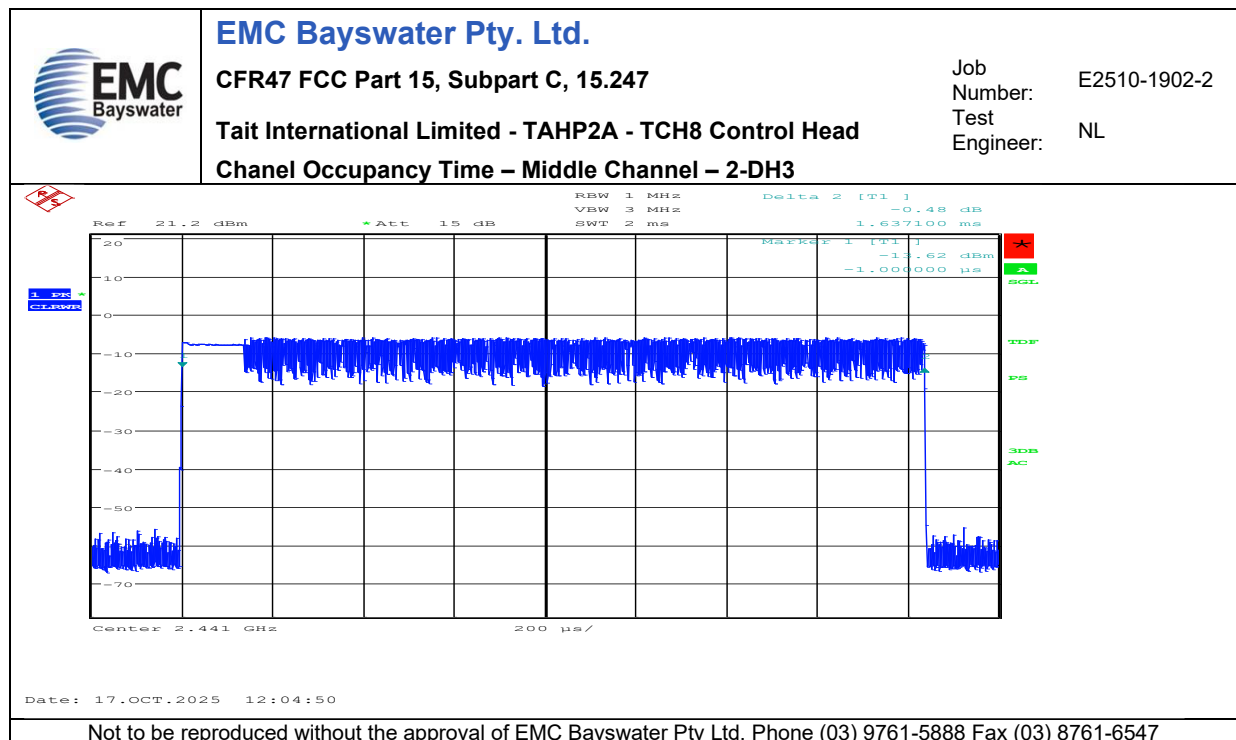
Graph 134



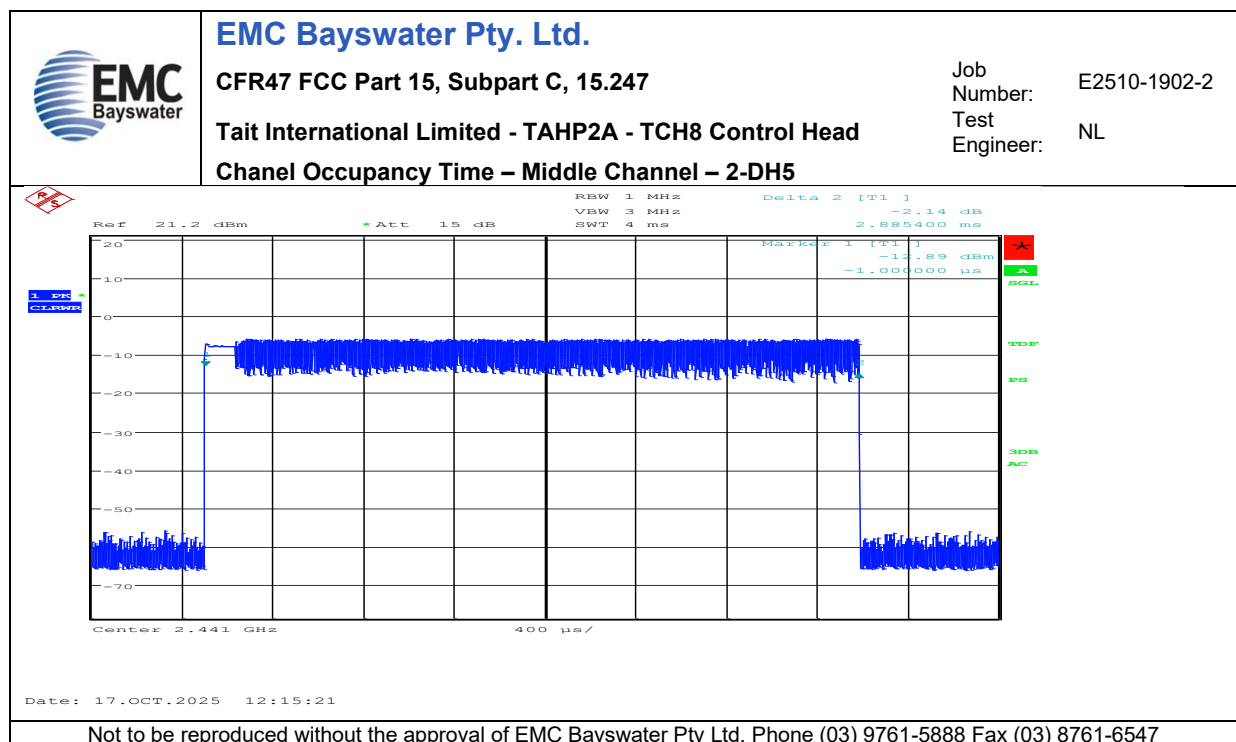
Graph 135



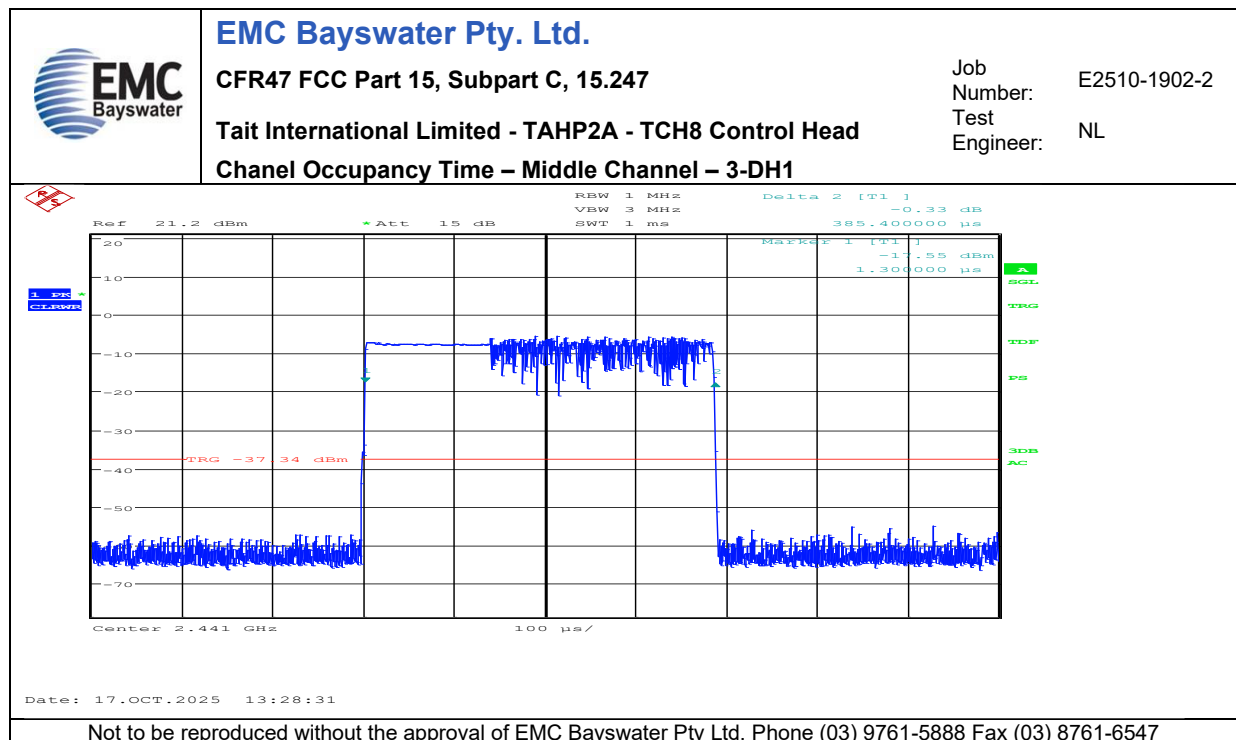
Graph 136



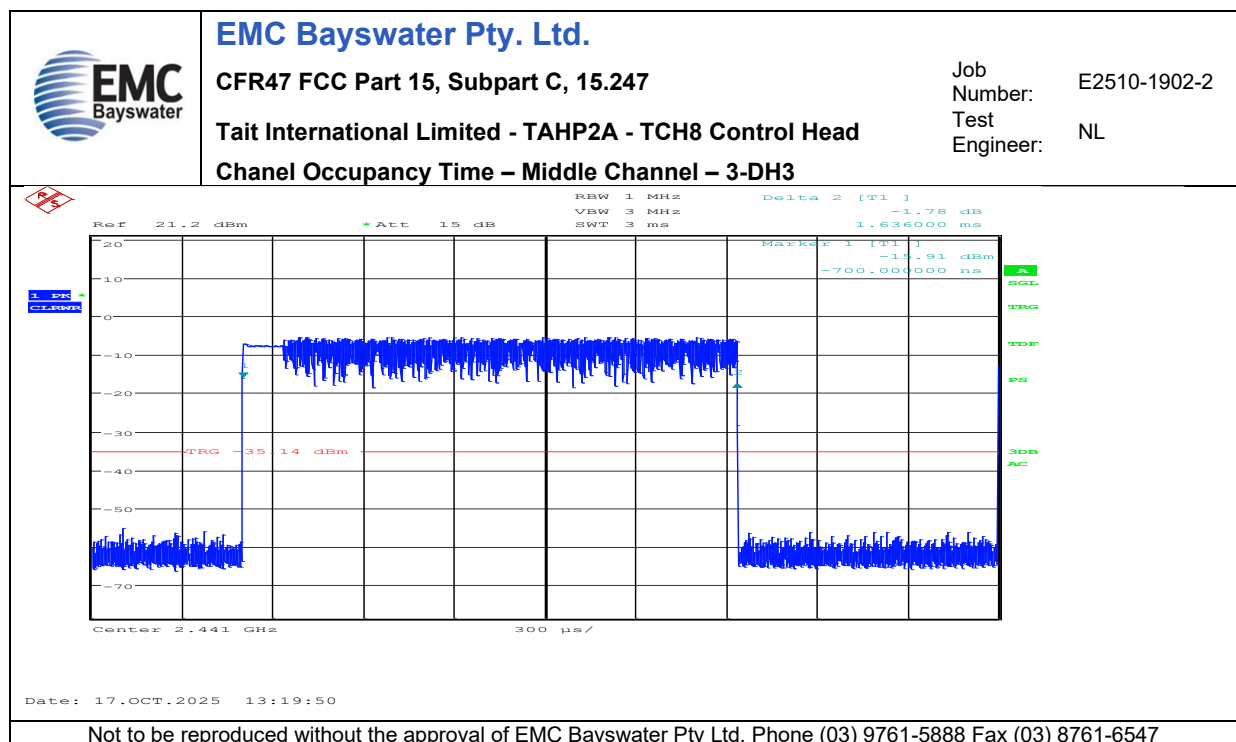
Graph 137



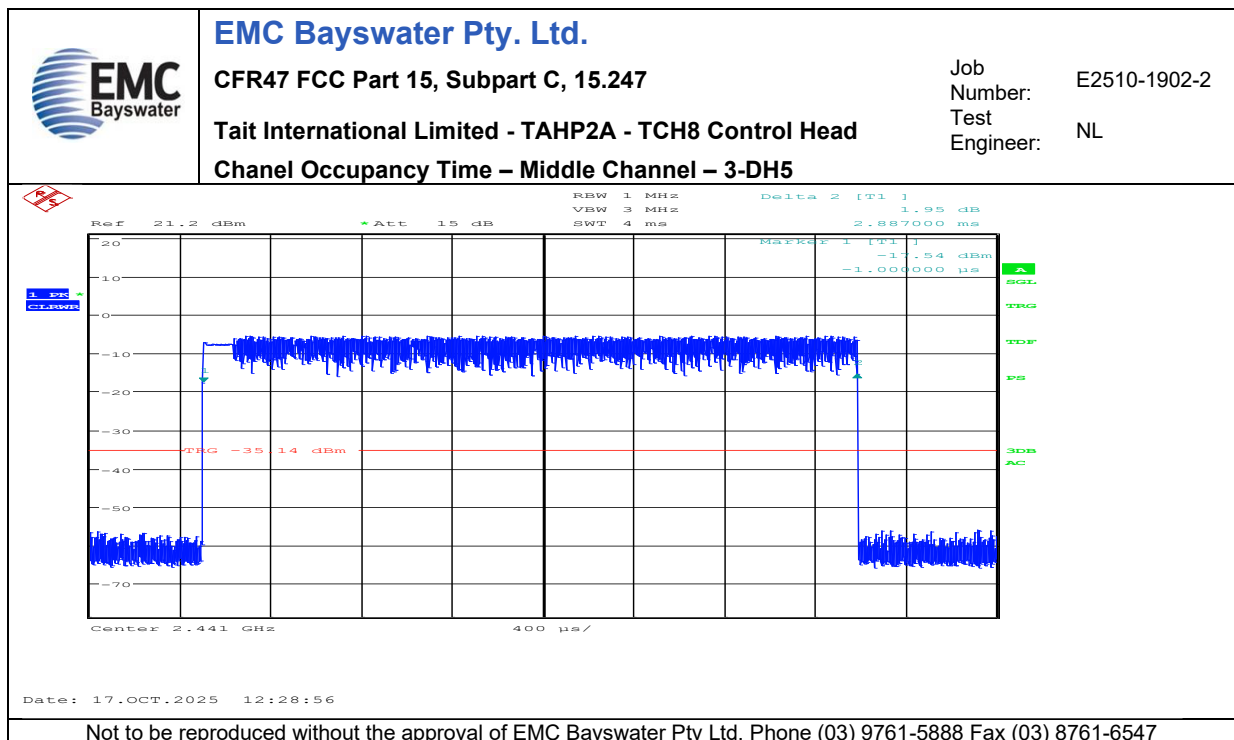
Graph 138



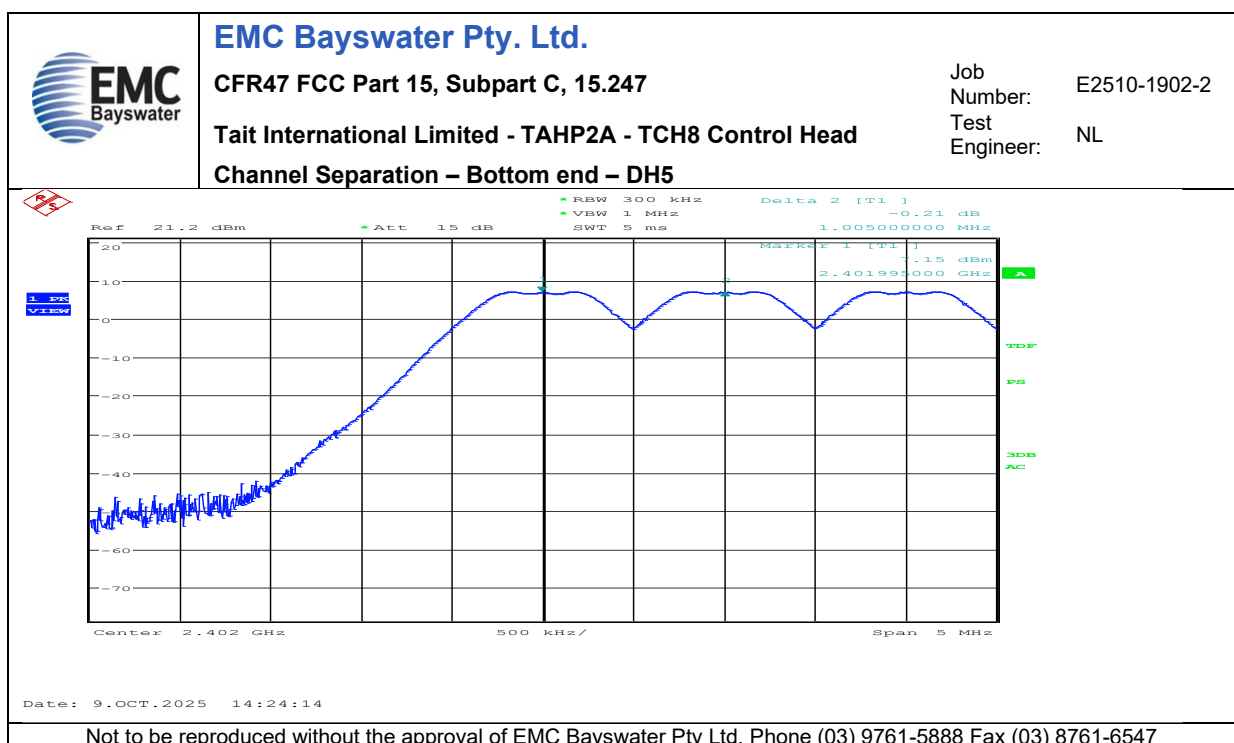
Graph 139



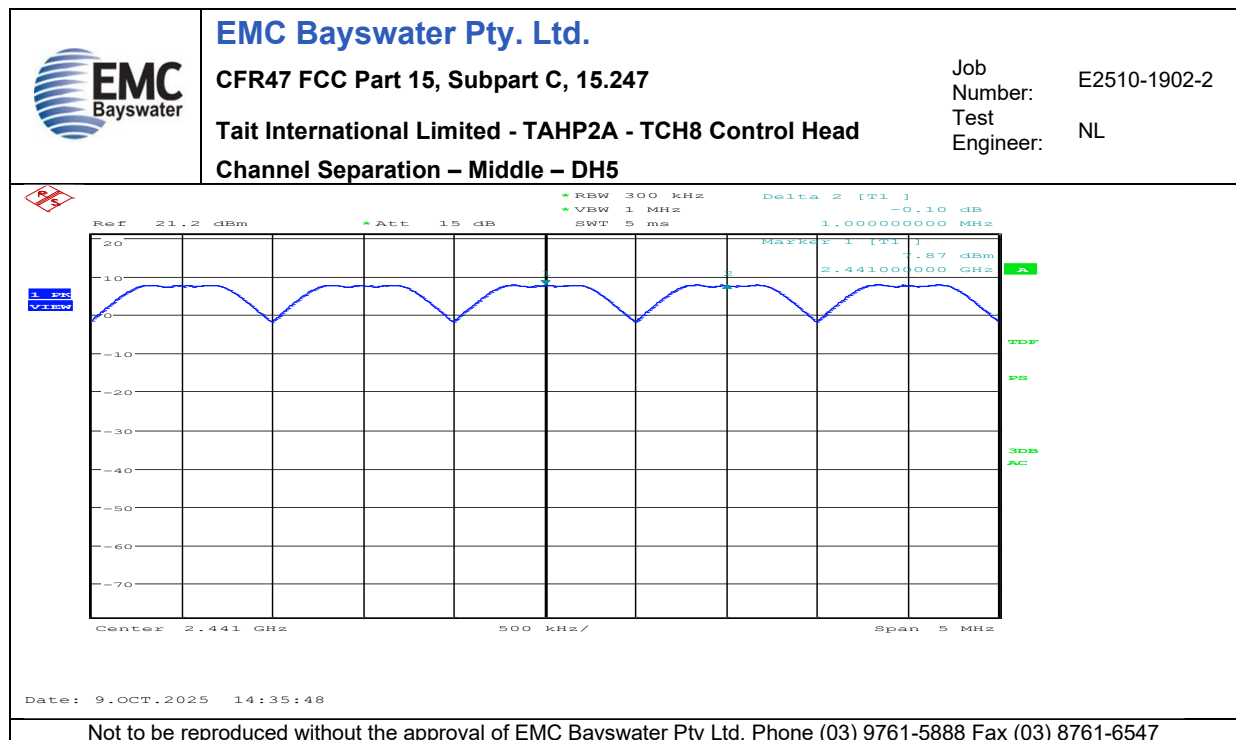
Graph 140



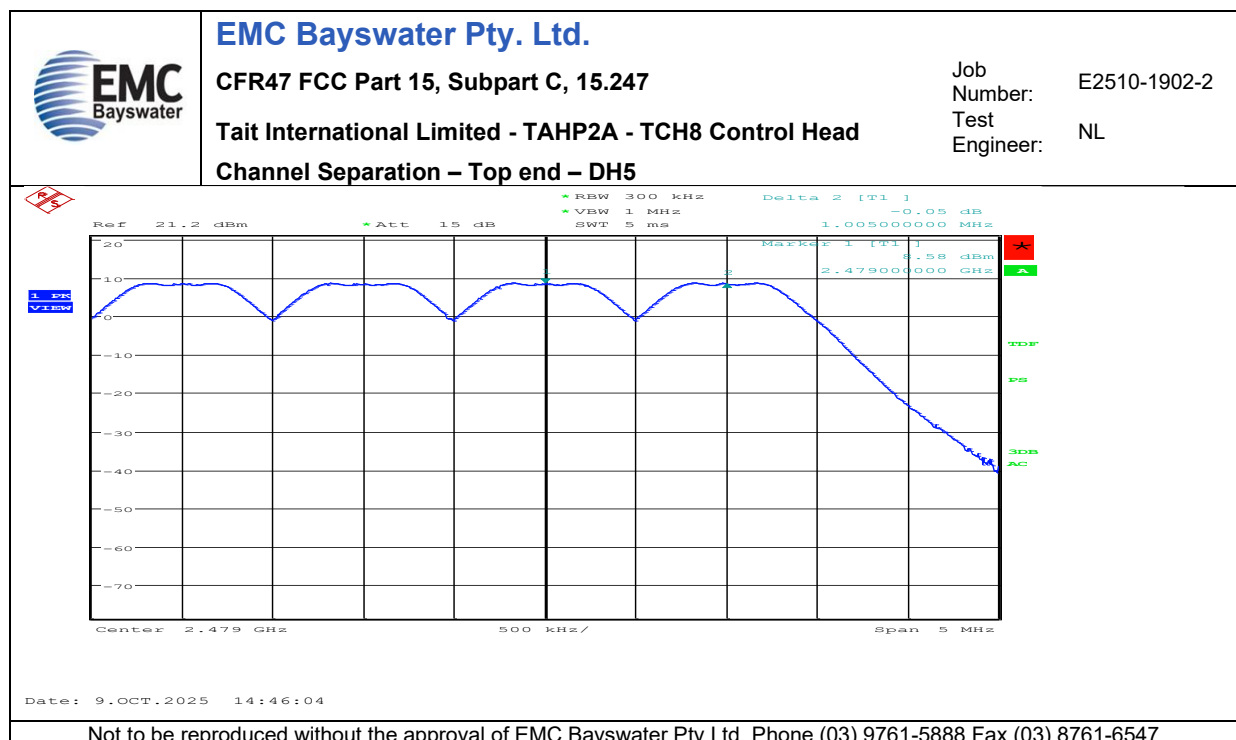
Graph 141



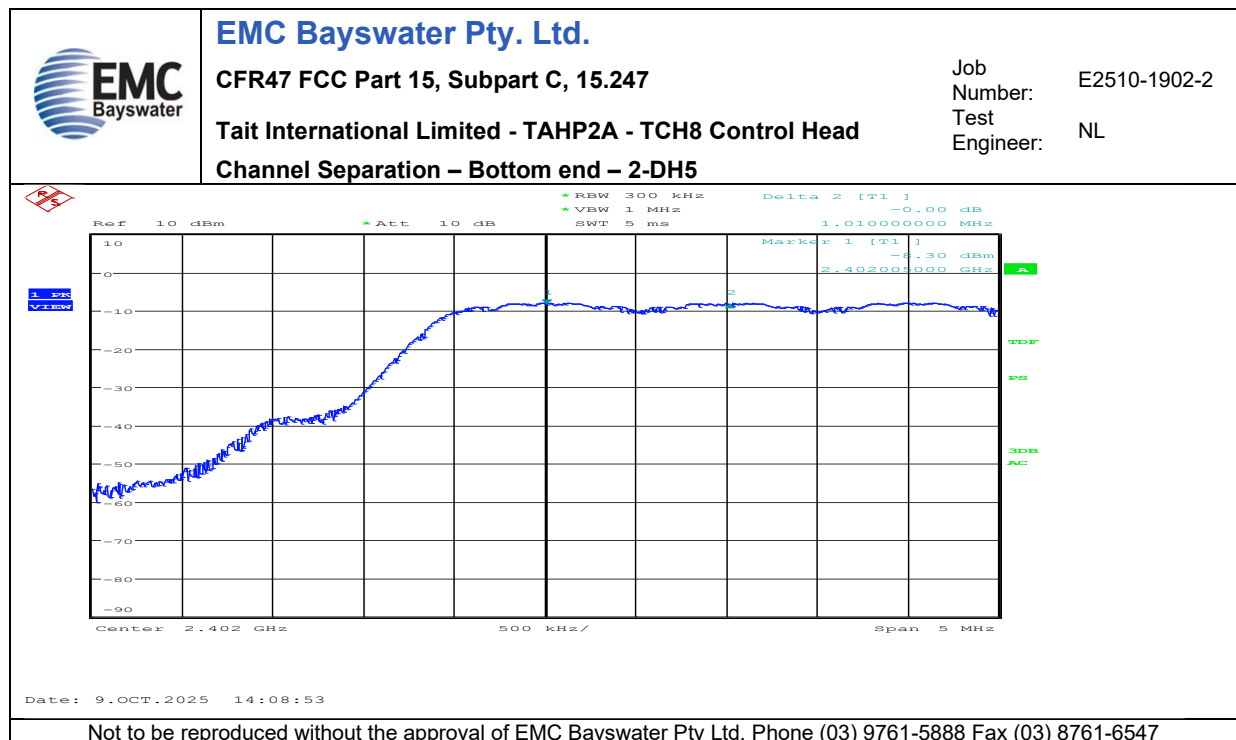
Graph 142



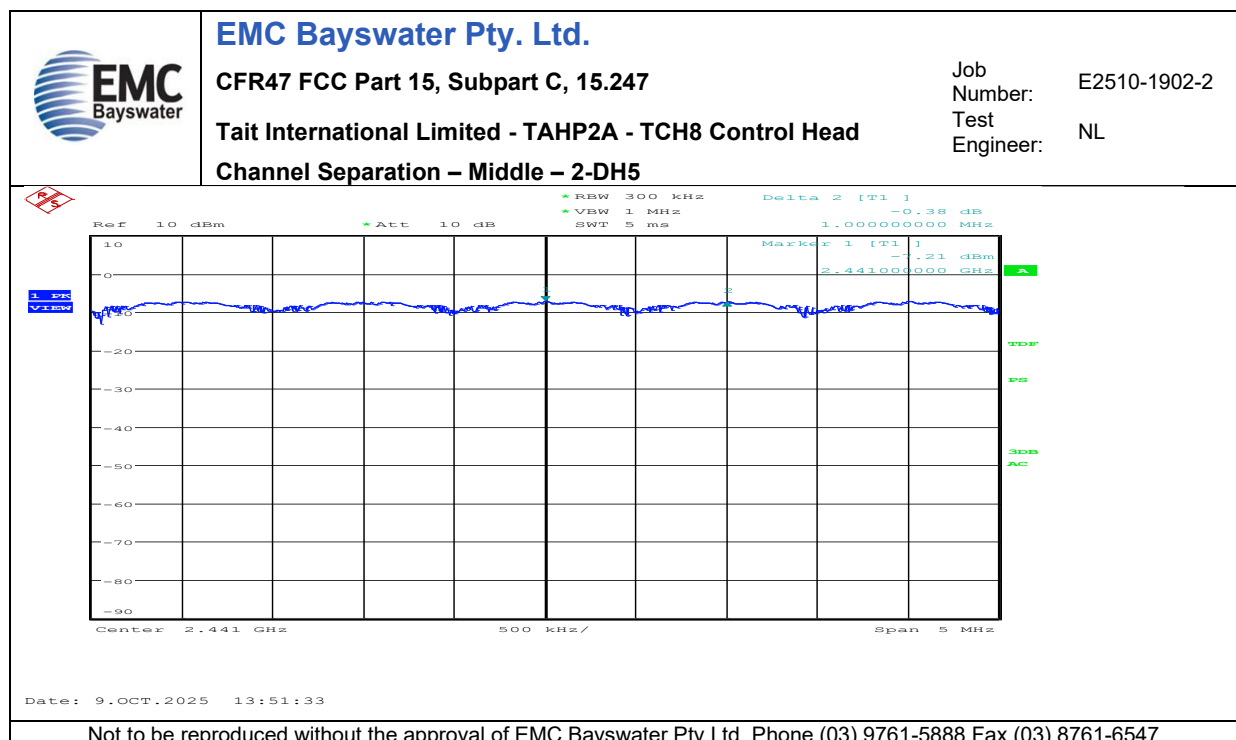
Graph 143



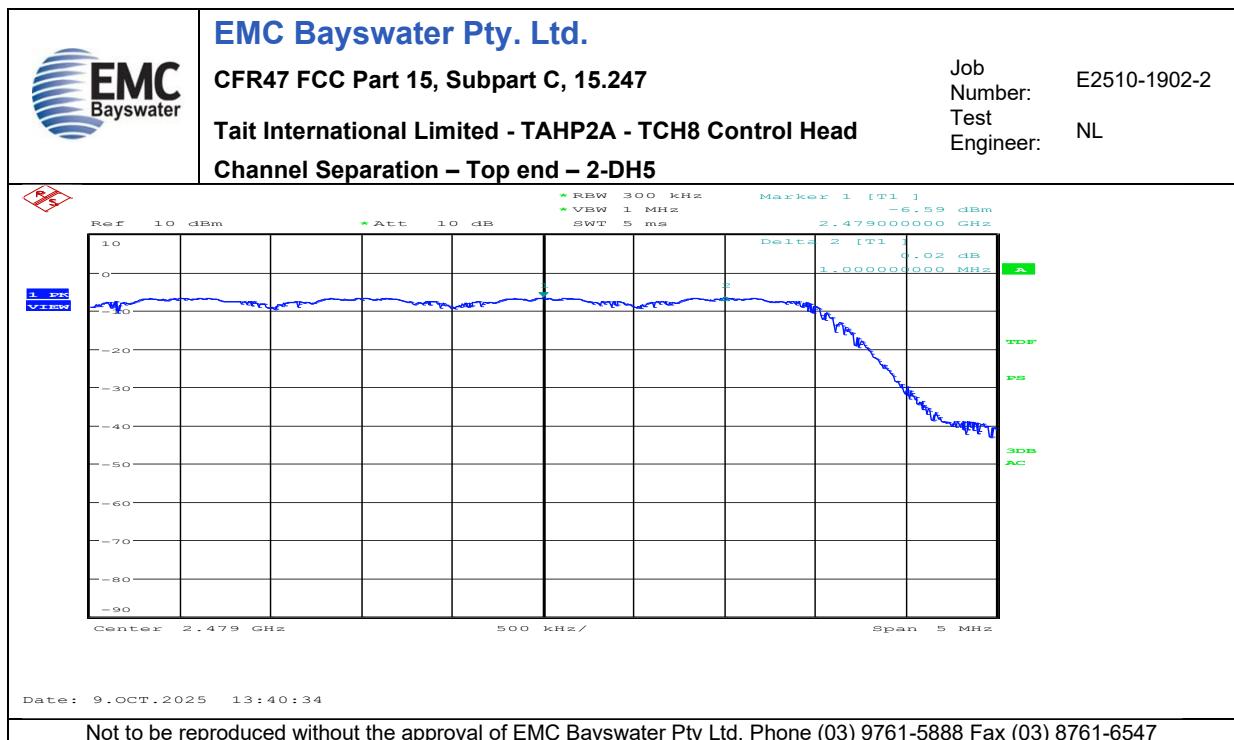
Graph 144



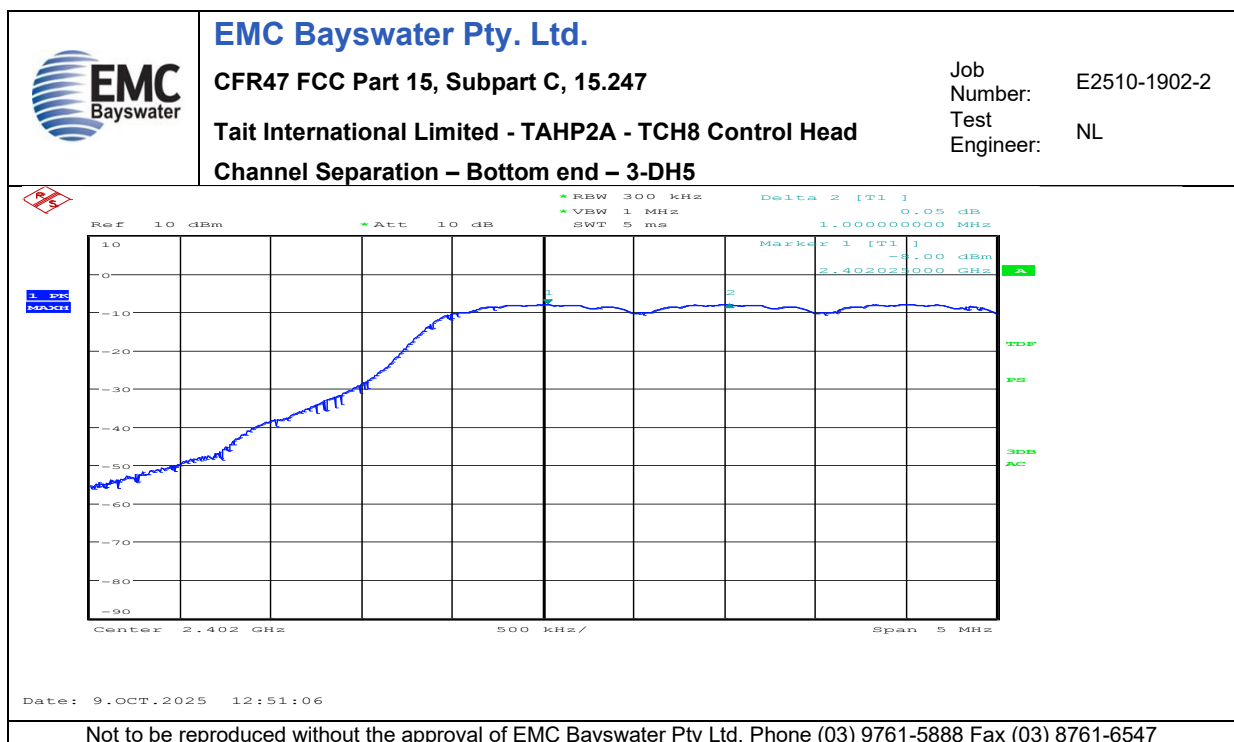
Graph 145



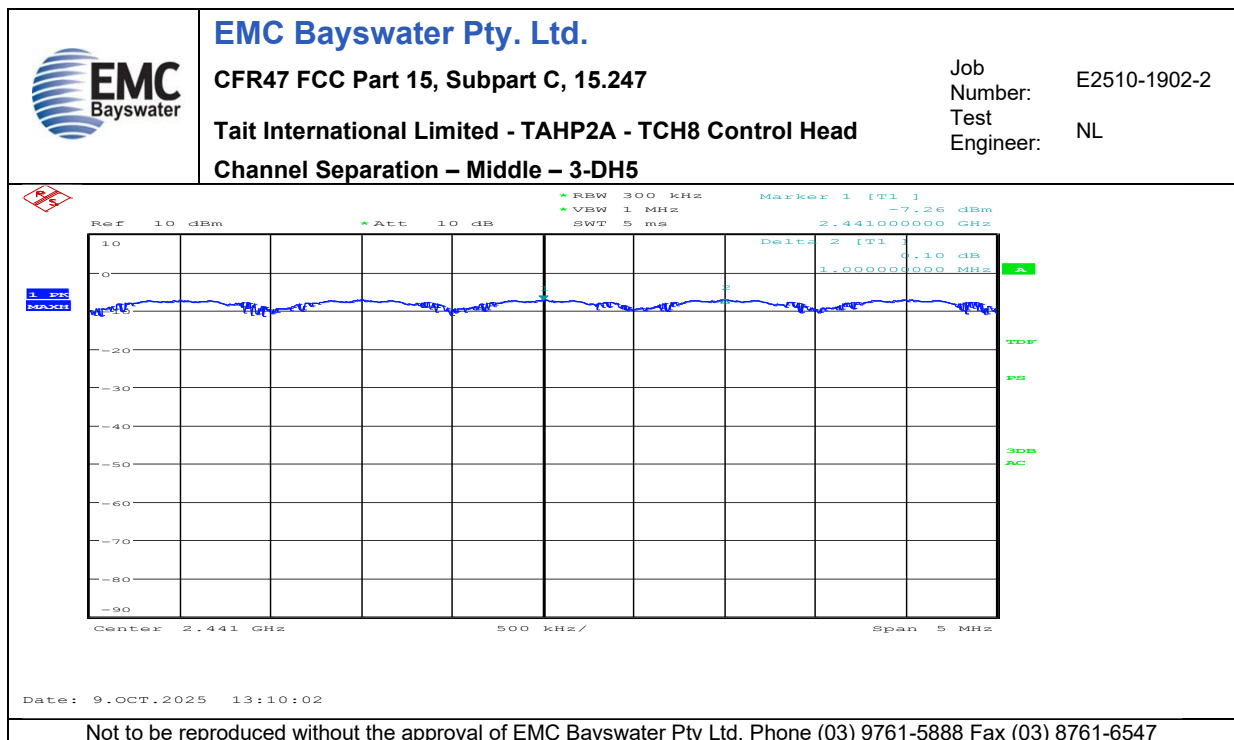
Graph 146



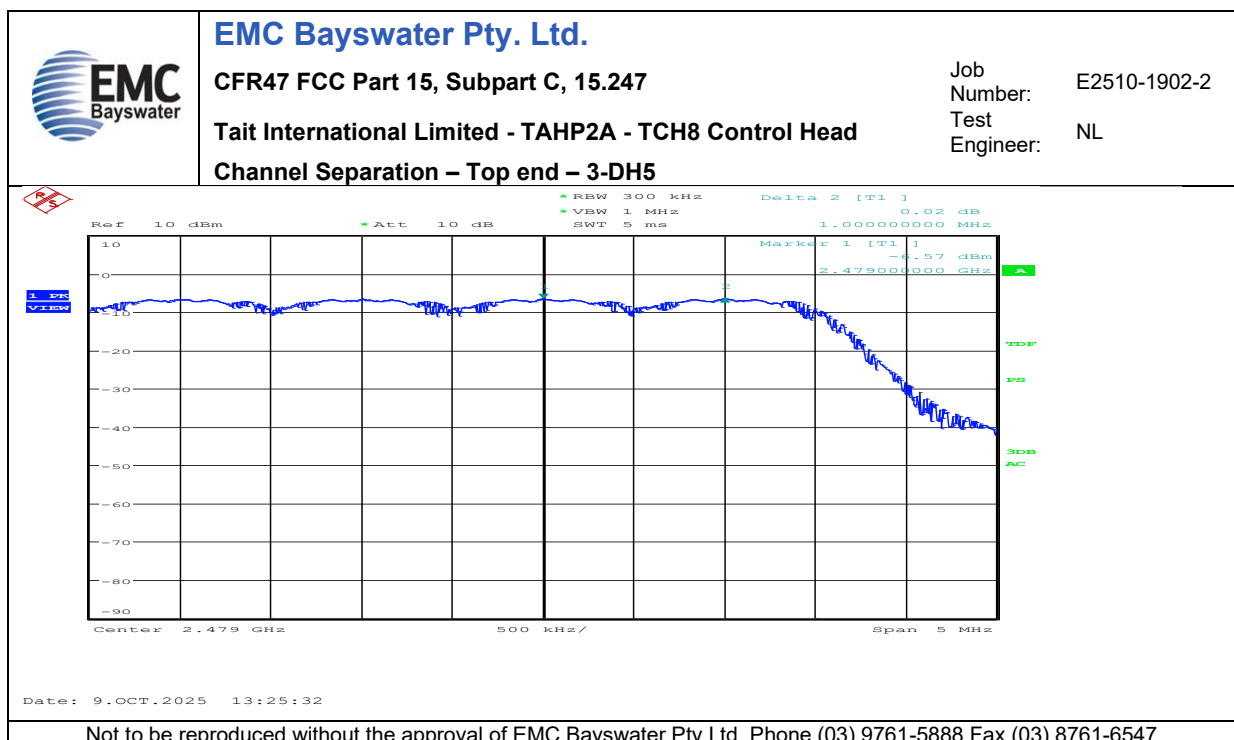
Graph 147



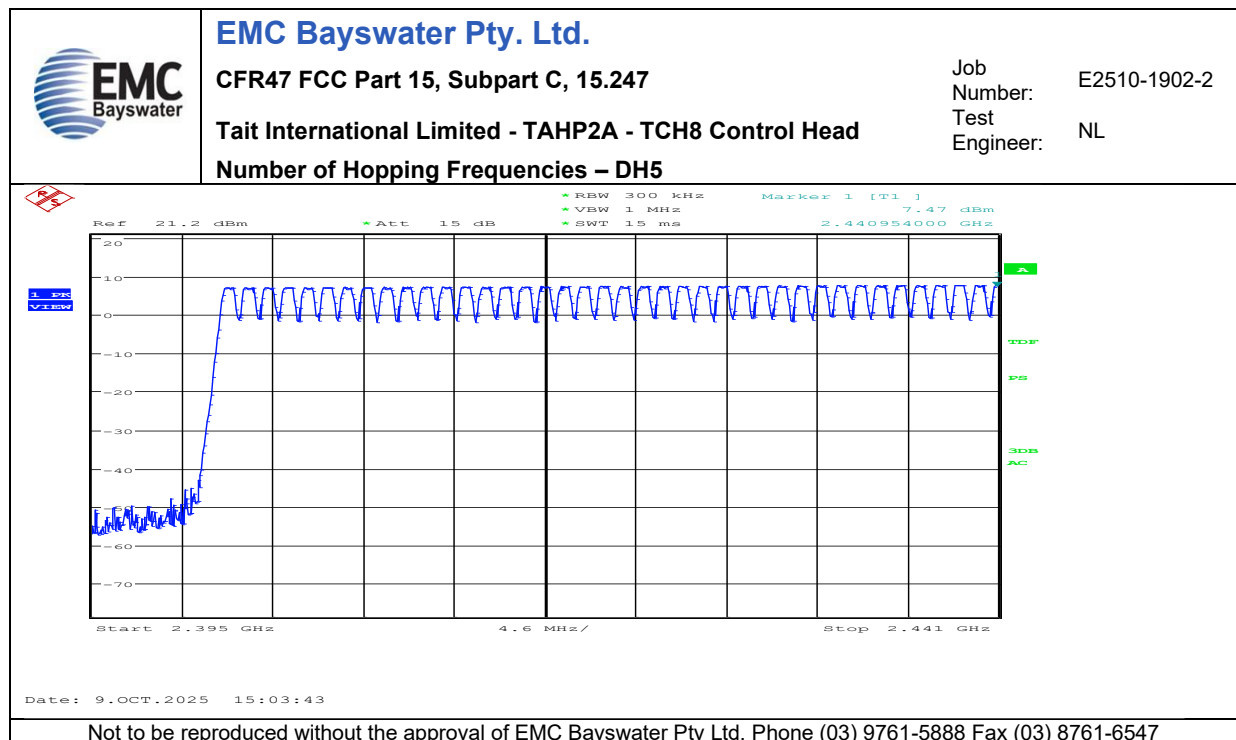
Graph 148



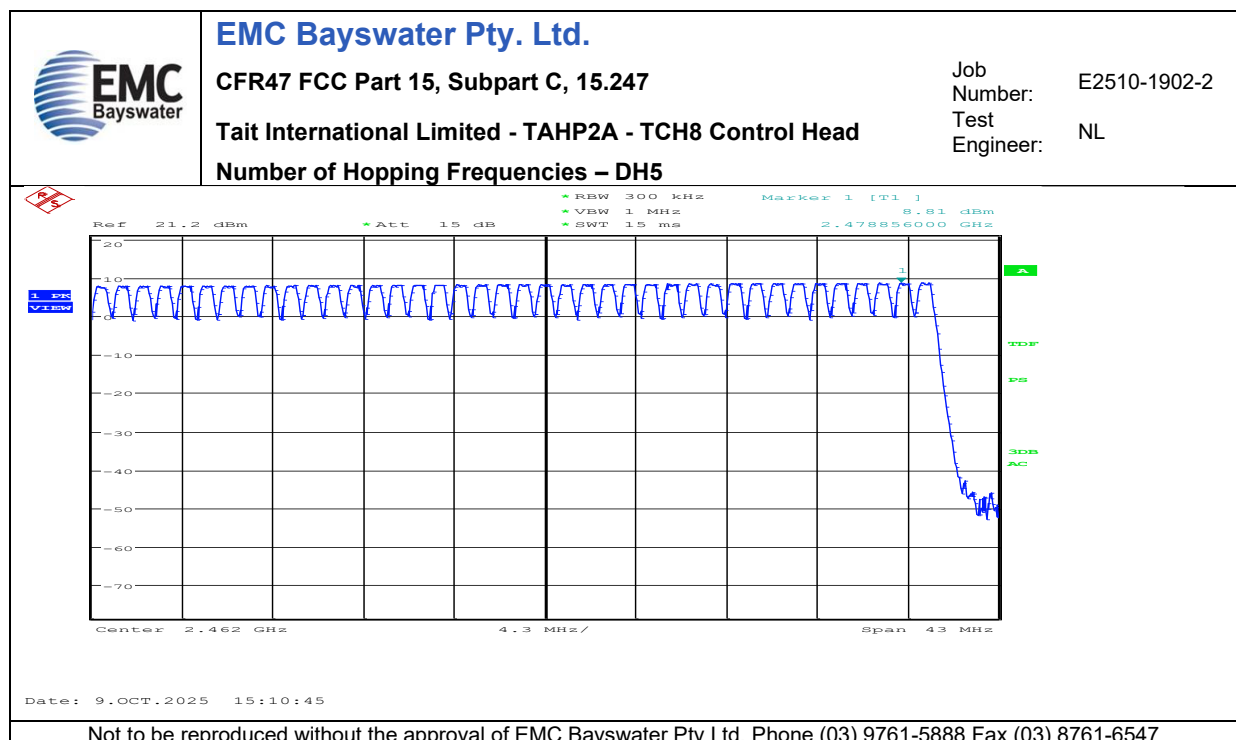
Graph 149



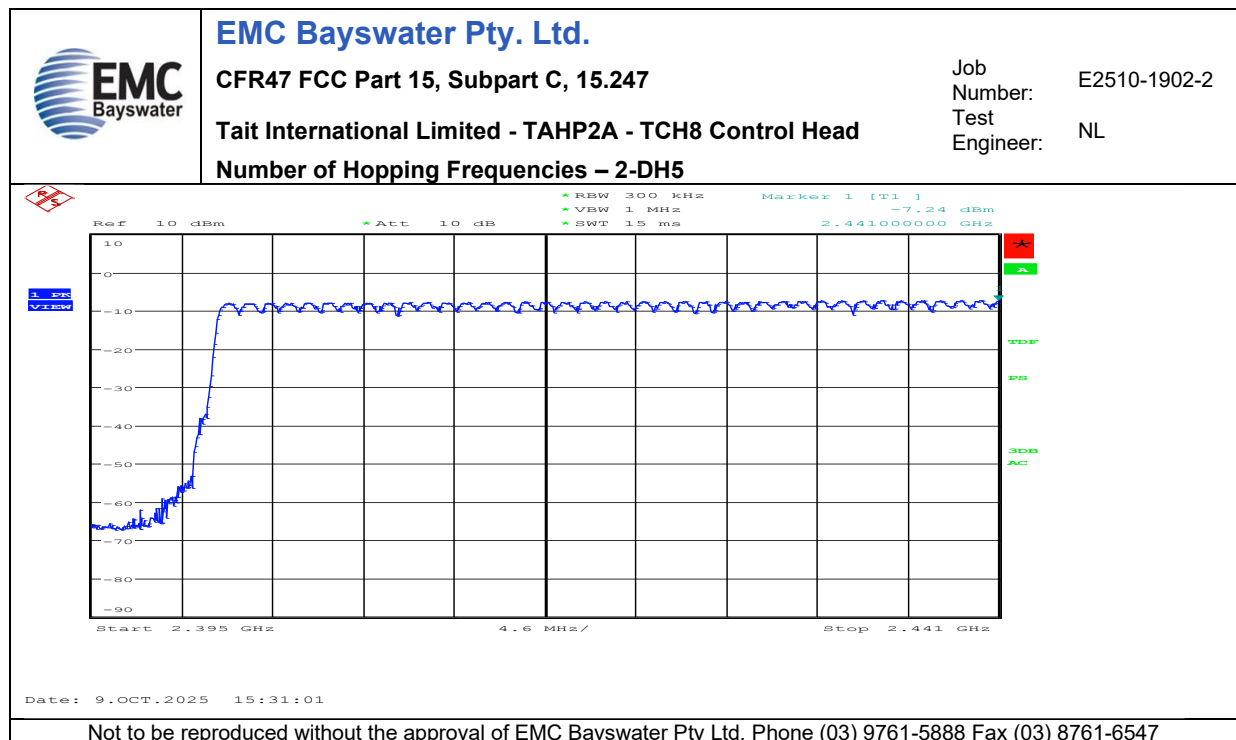
Graph 150



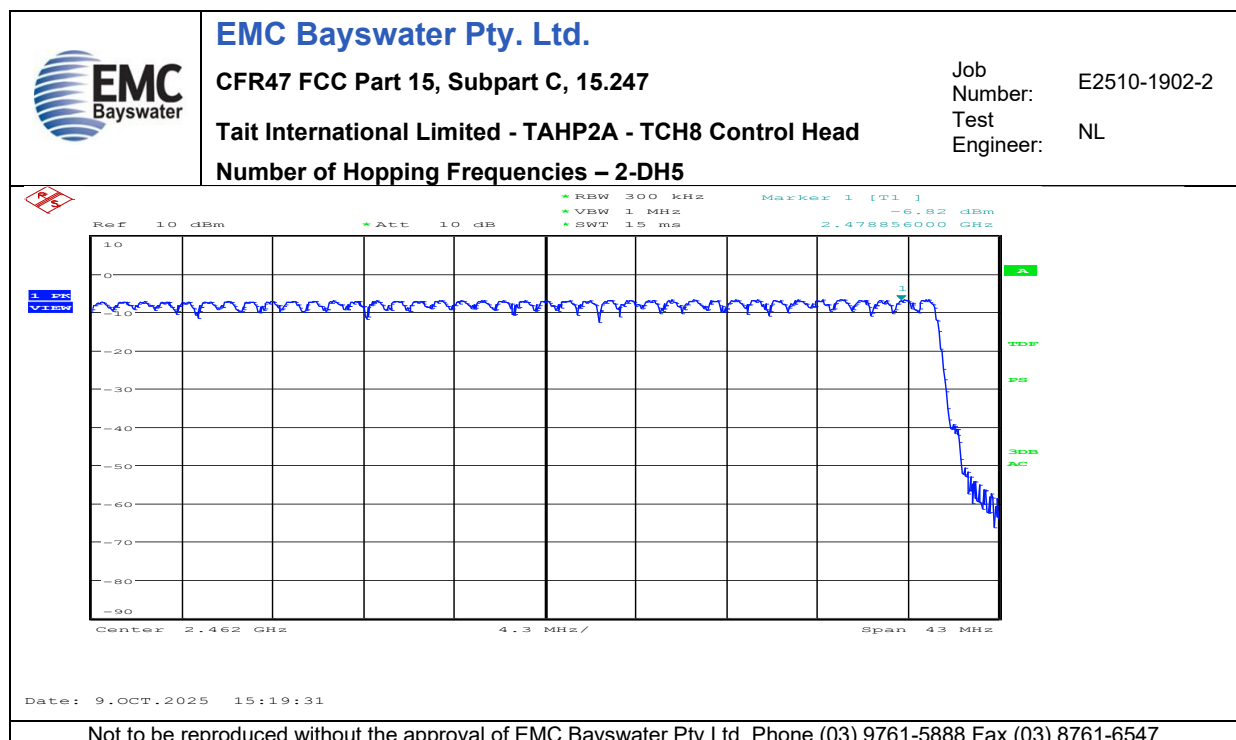
Graph 151



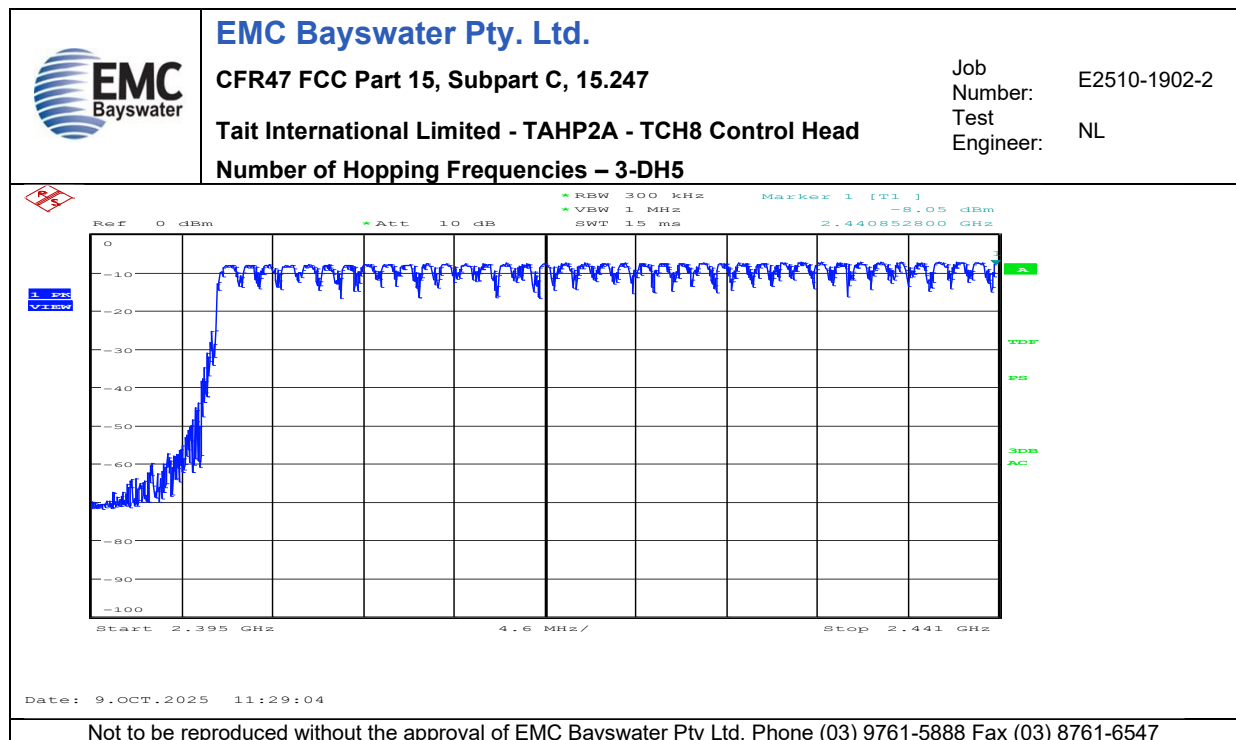
Graph 152



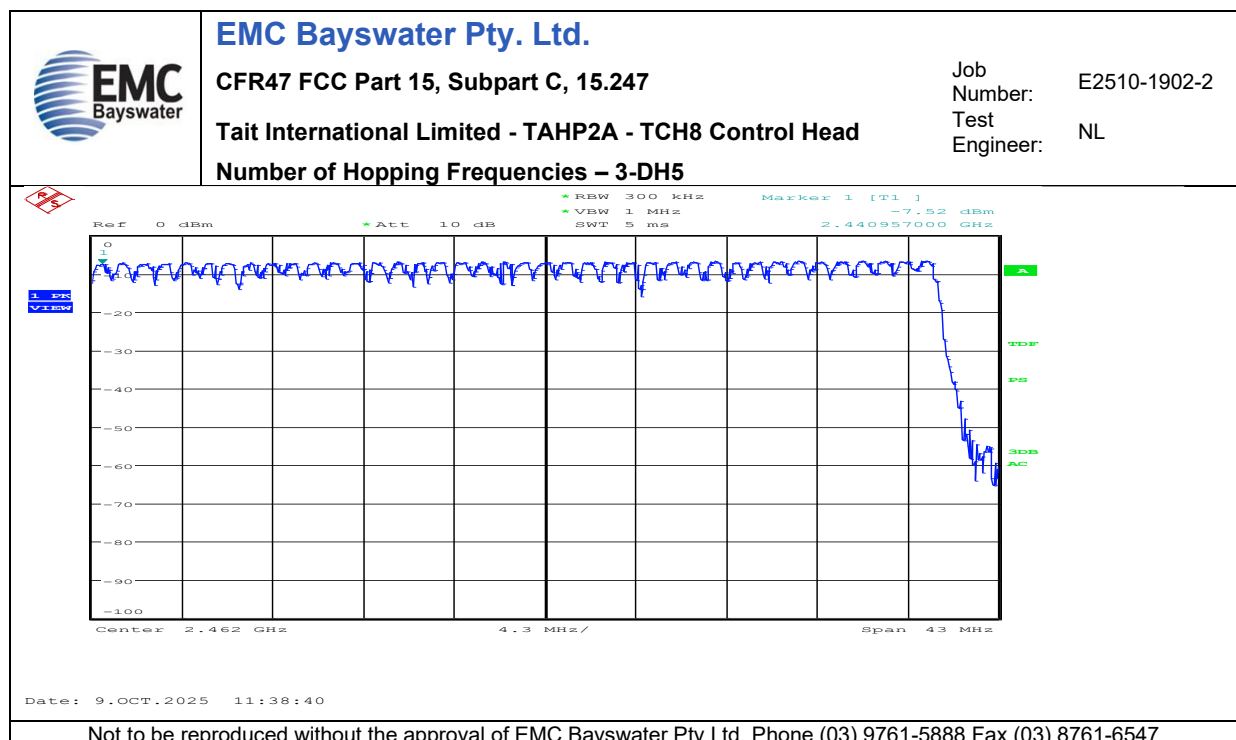
Graph 153



Graph 154



Graph 155



Graph 156