

6.2.6dB bandwidth & 99% Occupied Bandwidth

Reference standard:	FCC part 15 Radio part 15.247 RSS-247 & RSS-GEN
Test method:	ANSI C63.10
Test description: a) (2): Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz. EUT is connected to the measuring receiver via 50Ω attenuator(s). Tests are done in max-hold mode in order to capture all channels.. The occupied bandwidth (OBW) is the Frequency Range in which 99 % of the total mean power of a given emission falls. The residual part of the total power being denoted as β , which, in cases of symmetrical spectra, splits up into $\beta/2$ on each side of the spectrum. Unless otherwise specified, $\beta/2$ is taken as 0,5 %. The maximum occupied bandwidth includes all associated side bands above the appropriate emissions level and the frequency error or drift under extreme test conditions. EUT is connected to the measuring receiver via 50Ω attenuator(s).	

TESTED PARAMETER	RESULT	SEVERITY	RESULT TAB.	VERDICT
6 dB bandwidth / Wi-Fi 2.4 GHz (b) / Low channel	9058.70 kHz	≥ 500 kHz	EMI6001	PASS
6 dB bandwidth / Wi-Fi 2.4 GHz (b) / Mid channel	9061.50 kHz		EMI6002	PASS
6 dB bandwidth / Wi-Fi 2.4 GHz (b) / High channel	9070.60 kHz		EMI6003	PASS
6 dB bandwidth / Wi-Fi 2.4 GHz (gn) / Low channel	16468.90 kHz		EMI6004	PASS
6 dB bandwidth / Wi-Fi 2.4 GHz (gn) / Mid channel	16464.50 kHz		EMI6005	PASS
6 dB bandwidth / Wi-Fi 2.4 GHz (gn) / High channel	16507.00 kHz		EMI6006	PASS
99% OBW / Wi-Fi 2.4 GHz (b) / Low channel	11815.21 kHz	Within the band	EMI6007	PASS
99% OBW / Wi-Fi 2.4 GHz (b) / Mid channel	11839.27 kHz		EMI6008	PASS
99% OBW / Wi-Fi 2.4 GHz (b) / High channel	11769.26 kHz		EMI6009	PASS
99% OBW / Wi-Fi 2.4 GHz (gn) / Low channel	17213.43 kHz		EMI6010	PASS
99% OBW / Wi-Fi 2.4 GHz (gn) / Mid channel	17136.75 kHz		EMI6011	PASS
99% OBW / Wi-Fi 2.4 GHz (gn) / High channel	17495.69 kHz		EMI6012	PASS

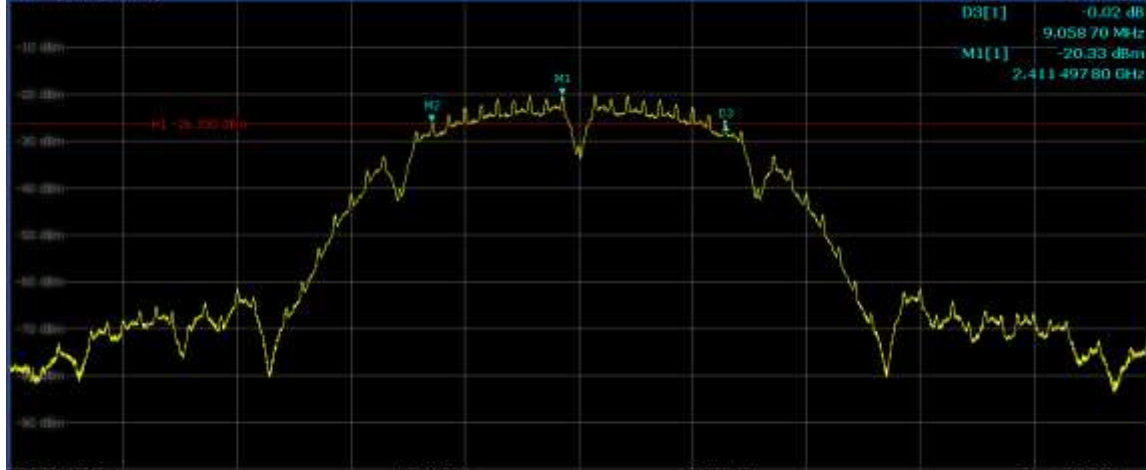
LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	See Graph(es)
Relative Humidity	20 to 75 %	See Graph(es)
Atmospheric pressure	N/A	See Graph(es)
Test method deviation: N/A		
Supplementary information: N/A		

TEST EQUIPMENT USED					
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Attenuator	Techniwave	TWSMA-10dB-18G-SMA	14673	30/01/2023	30/03/2026
Attenuator	Techniwave	TWSMA-20dB-18G-SMA	14679	07/03/2023	07/05/2026
Cable	Radiall	SMA-1m	16563	16/08/2023	16/10/2025
Spectrum analyzer	Rohde & Schwarz	FSW43	14830 ⁽¹⁾	31/08/2022	31/04/2025
Thermo-Hygromètre	Testo	608-H1	19386	08/03/2024	08/05/2026
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/09/2023	25/11/2025

BAT-EMC software version: V3.18.0.26

Blank cells = Permanent validity

(1) Under derogation EQSDER000S4100139

6dB BANDWIDTH & 99% OCCUPIED BANDWIDTH - GRAPH																															
6 dB BANDWIDTH / Wi-Fi 2.4 GHz (B) / Low CHANNEL		EMI6001																													
EUT mode:	Tx mode	T (°C):	20.6																												
Test Date:	20/02/2025	H (%):	41.6																												
Test Operator:	MPA	P (hPa):	1027																												
MultiView Spectrum Ref Level 0.00 dBm Att 10 dB SWI 10 ms VBW 300 kHz Mode Sweep Frequency Sweep 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm  D3[1] -0.02 dB 9.05870 MHz M1[1] -20.33 dBm 2.41149780 GHz CF 2.412 GHz 10000 pts 3.5 MHz/ Span 35.0 MHz 2 Marker Table <table><thead><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr></thead><tbody><tr><td>M1</td><td></td><td>1</td><td>2.4114978 GHz</td><td>-20.33 dBm</td><td></td><td></td></tr><tr><td>M2</td><td></td><td>1</td><td>2.4074685 GHz</td><td>-26.21 dBm</td><td></td><td></td></tr><tr><td>D3</td><td>M2</td><td>1</td><td>9.0587 MHz</td><td>-0.02 dB</td><td></td><td></td></tr></tbody></table> Aborted 2025-02-20 07:46:20				Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1		1	2.4114978 GHz	-20.33 dBm			M2		1	2.4074685 GHz	-26.21 dBm			D3	M2	1	9.0587 MHz	-0.02 dB		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																									
M1		1	2.4114978 GHz	-20.33 dBm																											
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D3	M2	1	9.0587 MHz	-0.02 dB																											
FREQUENCIES	RBW	VBW	DETECTOR																												
2412 MHz	100 kHz	300 kHz	Peak																												
Configuration:	N/A																														
Comments:	The 6 dB bandwidth is 9058.70 kHz																														
EUT modification(s): N/A																															

6dB BANDWIDTH & 99% OCCUPIED BANDWIDTH - GRAPH			
6 dB BANDWIDTH / Wi-Fi 2.4 GHz (B) / MID CHANNEL		EMI6002	
EUT mode:	Tx mode	T (°C):	20.6
Test Date:	20/02/2025	H (%):	41.6
Test Operator:	MPA	P (hPa):	1027



MultiView Spectrum

Ref Level 0.00 dBm RBW 100 kHz

Att 10 dB SWF 10 ms VBW 300 kHz Mode Sweep

1 Frequency Sweep

D3[1] -0.03 dB 9.06150 MHz

M1[1] -20.35 dBm 2.43649430 GHz

CF 2.437 GHz 10000 pts 3.5 MHz/ Span 35.0 MHz

2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	2.4364943 GHz	-20.35 dBm		
M2		1	2.4324658 GHz	-26.21 dBm		
D3	M2	1	9.0615 MHz	-0.03 dB		

2025-02-20 07:49:53

FREQUENCIES	RBW	VBW	DETECTOR
2437 MHz	100 kHz	300 kHz	Peak
Configuration:	N/A		
Comments:	The 6 dB bandwidth is 9061.50 kHz		
EUT modification(s): N/A			

6dB BANDWIDTH & 99% OCCUPIED BANDWIDTH - GRAPH			
99% OBW / Wi-Fi 2.4 GHz (GN) / MID CHANNEL			EMI6011
EUT mode:	Tx mode	T (°C):	20.6
Test Date:	13/02/2025	H (%):	41.6
Test Operator:	MPA	P (hPa):	1027
MultiView Spectrum Ref Level 0.00 dBm RBW 200 kHz Att 10 dB SWT 10.47 μs (~1.6 ms) VBW 500 kHz Mode Auto FFT 1 Occupied Bandwidth </			

6.3. Maximum peak power of the intentional radiator

Reference standard:	FCC 47 CFR PART 15.247 RSS-247
Test method:	ANSI C63.10
Test description: b) (3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode. For EUT without dedicated or integral antenna, EUT is connected to the measuring receiver via 50Ω attenuator(s). Radiated power limit applies to the maximum measured conducted power value adjusted by the antenna gain and beamforming gain. For EUT with integral or dedicated antenna, measurements are done on a normalized test site. EUT is set on an insulating support at 150 cm above the ground reference plane. Measurement is done on a normalized test site by the substitution method. The test antenna is oriented in the two polarizations (vertical and horizontal), and the product is rotated at 360° in the horizontal plane (See photo(s) for initial position of the EUT(0°)). If applicable the test antenna was raised and lowered through the specified range of height until a maximum signal level is detected. For portable equipments: - For frequencies < 1GHz a research of maximum level is done on 3 axes - For frequencies > 1GHz styrofoam wedges, precut to the 30°, 60°, and 90° angles, are used to support the EUT in the 6 different orientations. Only the highest levels are recorded.	

TESTED CONFIGURATION	PARAMETER	SEVERITY	RESULT TAB.	VERDICT
RF output power / Wi-Fi 2.4 GHz (b) / Low channel / Position 1	2.362GHz-2.462GHz	1 W (30 dBm)	EMI4622	PASS
RF output power / Wi-Fi 2.4 GHz (b) / Low channel / Position 2			EMI4623	PASS
RF output power / Wi-Fi 2.4 GHz (b) / Low channel / Position 3			EMI4624	PASS
RF output power / Wi-Fi 2.4 GHz (b) / Low channel / Position 4			EMI4625	PASS
RF output power / Wi-Fi 2.4 GHz (b) / Low channel / Position 5			EMI4626	PASS
RF output power / Wi-Fi 2.4 GHz (b) / Low channel / Position 6			EMI4627	PASS
RF output power / Wi-Fi 2.4 GHz (b) / Mid channel / Position 1	2.387GHz-2.487GHz		EMI4629	PASS
RF output power / Wi-Fi 2.4 GHz (b) / Mid channel / Position 2			EMI4630	PASS
RF output power / Wi-Fi 2.4 GHz (b) / Mid channel / Position 3			EMI4631	PASS
RF output power / Wi-Fi 2.4 GHz (b) / Mid channel / Position 4			EMI4632	PASS

TESTED CONFIGURATION	PARAMETER	SEVERITY	RESULT TAB.	VERDICT
RF output power / Wi-Fi 2.4 GHz (b) / Mid channel / Position 5			EMI4633	PASS
RF output power / Wi-Fi 2.4 GHz (b) / Mid channel / Position 6			EMI4634	PASS
RF output power / Wi-Fi 2.4 GHz (b) / High channel / Position 1	2.412GHz-2.512GHz		EMI4636	PASS
RF output power / Wi-Fi 2.4 GHz (b) / High channel / Position 2			EMI4637	PASS
RF output power / Wi-Fi 2.4 GHz (b) / High channel / Position 3			EMI4638	PASS
RF output power / Wi-Fi 2.4 GHz (b) / High channel / Position 4			EMI4639	PASS
RF output power / Wi-Fi 2.4 GHz (b) / High channel / Position 5			EMI4640	PASS
RF output power / Wi-Fi 2.4 GHz (b) / High channel / Position 6			EMI4641	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Low channel / Position 1			EMI4643	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Low channel / Position 2			EMI4644	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Low channel / Position 3	2.362GHz-2.462GHz		EMI4645	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Low channel / Position 4			EMI4646	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Low channel / Position 5			EMI4647	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Low channel / Position 6			EMI4648	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Mid channel / Position 1			EMI4650	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Mid channel / Position 2			EMI4651	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Mid channel / Position 3	2.387GHz-2.487GHz		EMI4652	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Mid channel / Position 4			EMI4653	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Mid channel / Position 5			EMI4654	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / Mid channel / Position 6			EMI4655	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / High channel / Position 1			EMI4657	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / High channel / Position 2			EMI4658	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / High channel / Position 3	2.412GHz-2.512GHz		EMI4659	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / High channel / Position 4			EMI4660	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / High channel / Position 5			EMI4661	PASS
RF output power / Wi-Fi 2.4 GHz (gn) / High channel / Position 6			EMI4662	PASS

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	See Graph(s)
Relative Humidity	20 to 75 %	See Graph(s)
Atmospheric pressure	N/A	See Graph(s)
Test method deviation: N/A		
Supplementary information: N/A		

TEST EQUIPMENT USED – 30 MHz TO 26 GHz					
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Antenna	AARONIA	Powerlog 70180	15306	04/01/2023	04/03/2026
Attenuator	EMITECH	SUB.V4-H	18112	03/06/2024	03/08/2025
Attenuator	EMITECH	SUB.V4-V	18111	03/06/2024	03/08/2025
Cable	/	N-1m	3625	02/05/2023	02/07/2025
Cable	Techniwave	N-2.5m	18350	17/08/2023	17/10/2025
Cable	Techniwave	N-3.5m	18352	17/08/2023	17/10/2025
Receiver	Rohde & Schwarz	FSW43	14830 ⁽¹⁾	31/08/2022	31/04/2025
Shielded enclosure	COMTEST	C.V4	18014	05/11/2024	05/01/2028
Software	Nexio	BAT EMC	0000		
Thermohygrometer	Testo	608-H1	7562	28/09/2023	28/11/2025
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/09/2023	25/11/2025

BAT-EMC software version: V3.18.0.26

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(1) Under derogation EQSDER000S4100139

TEST SETUP PHOTO(S) – EUT POSITION 1


TEST SETUP PHOTO(S) – EUT POSITION 2



TEST SETUP PHOTO(S) – EUT POSITION 3



TEST SETUP PHOTO(S) – EUT POSITION 4



TEST SETUP PHOTO(S) – EUT POSITION 5

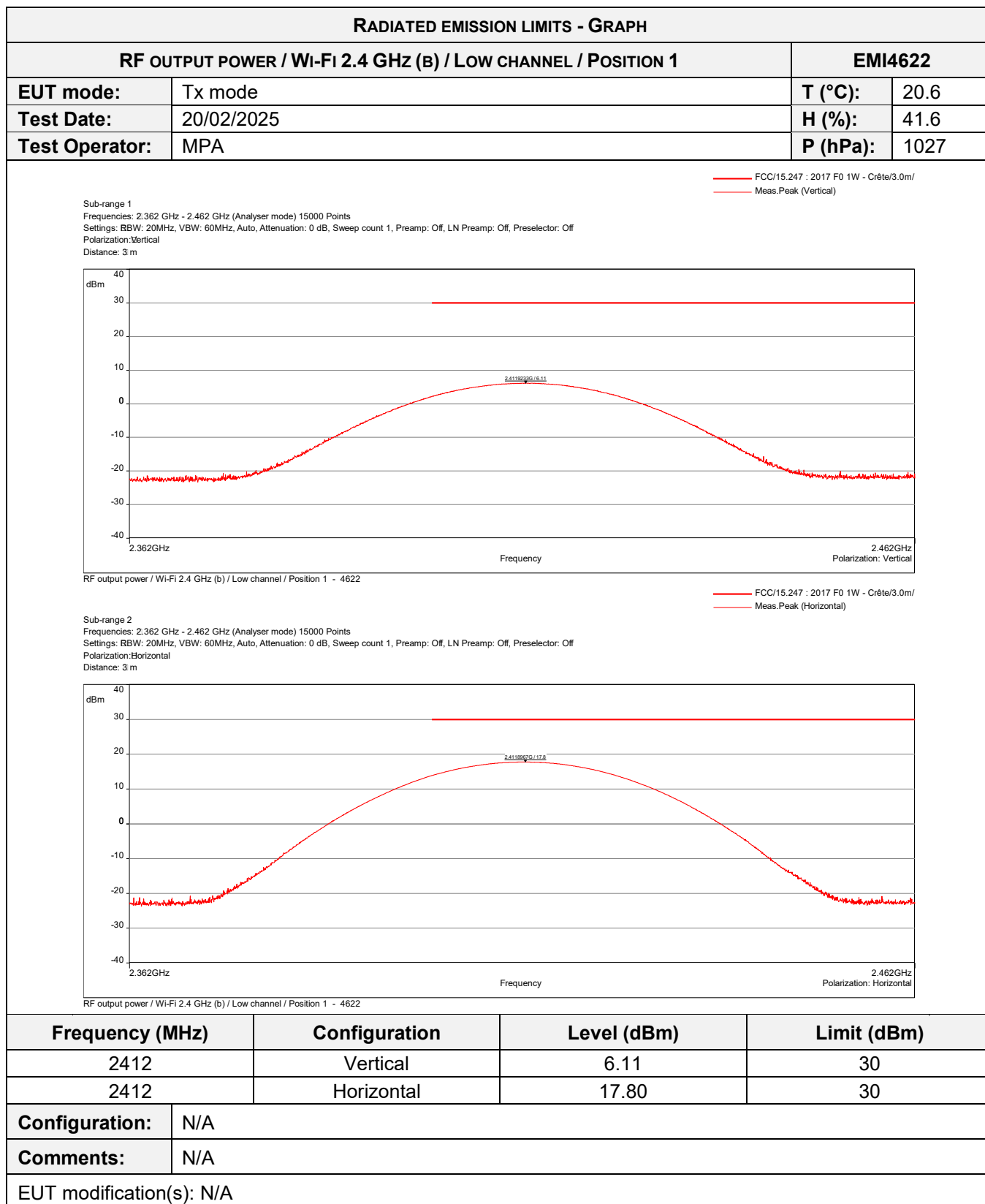


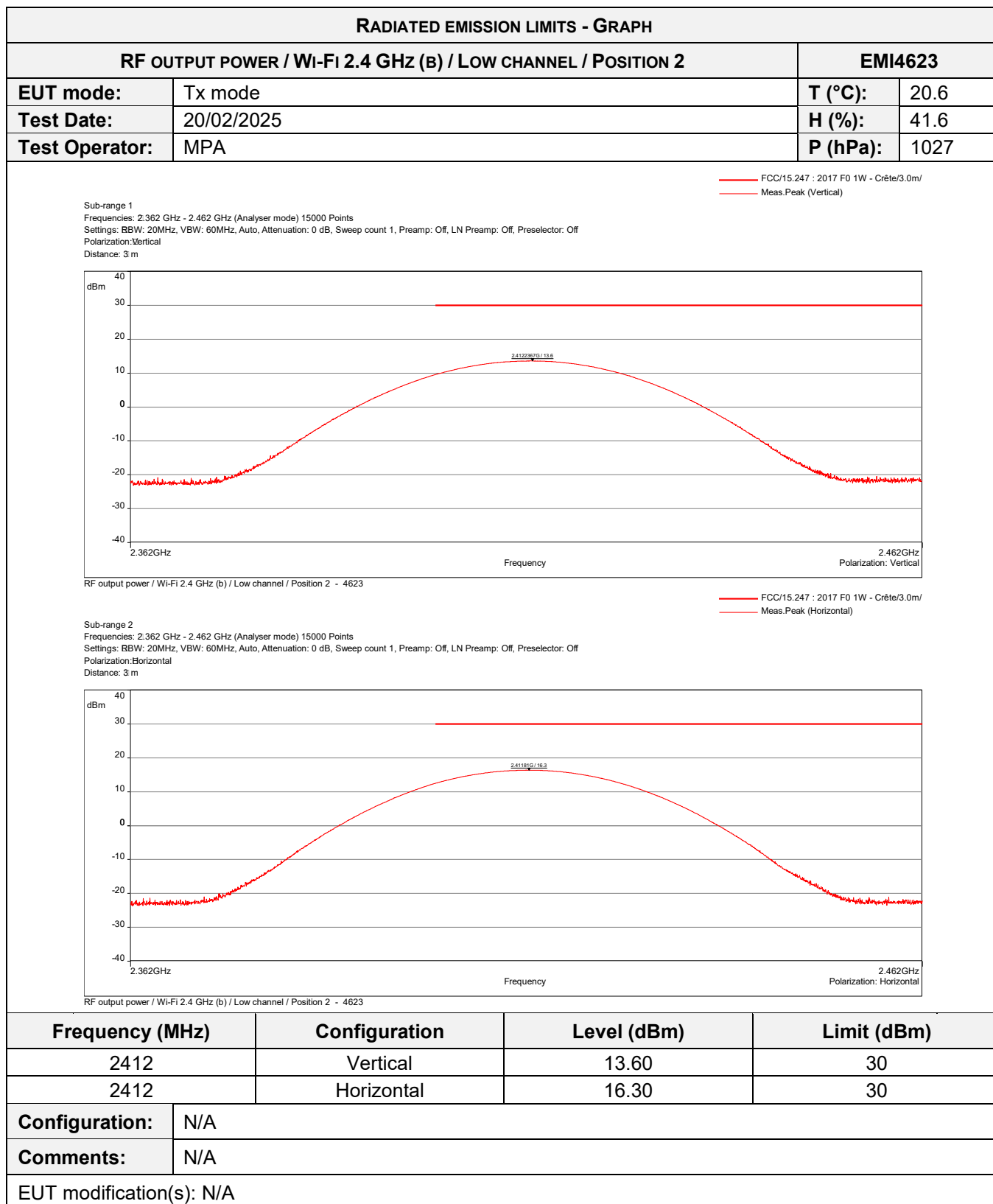
TEST SETUP PHOTO(S) – EUT POSITION 6

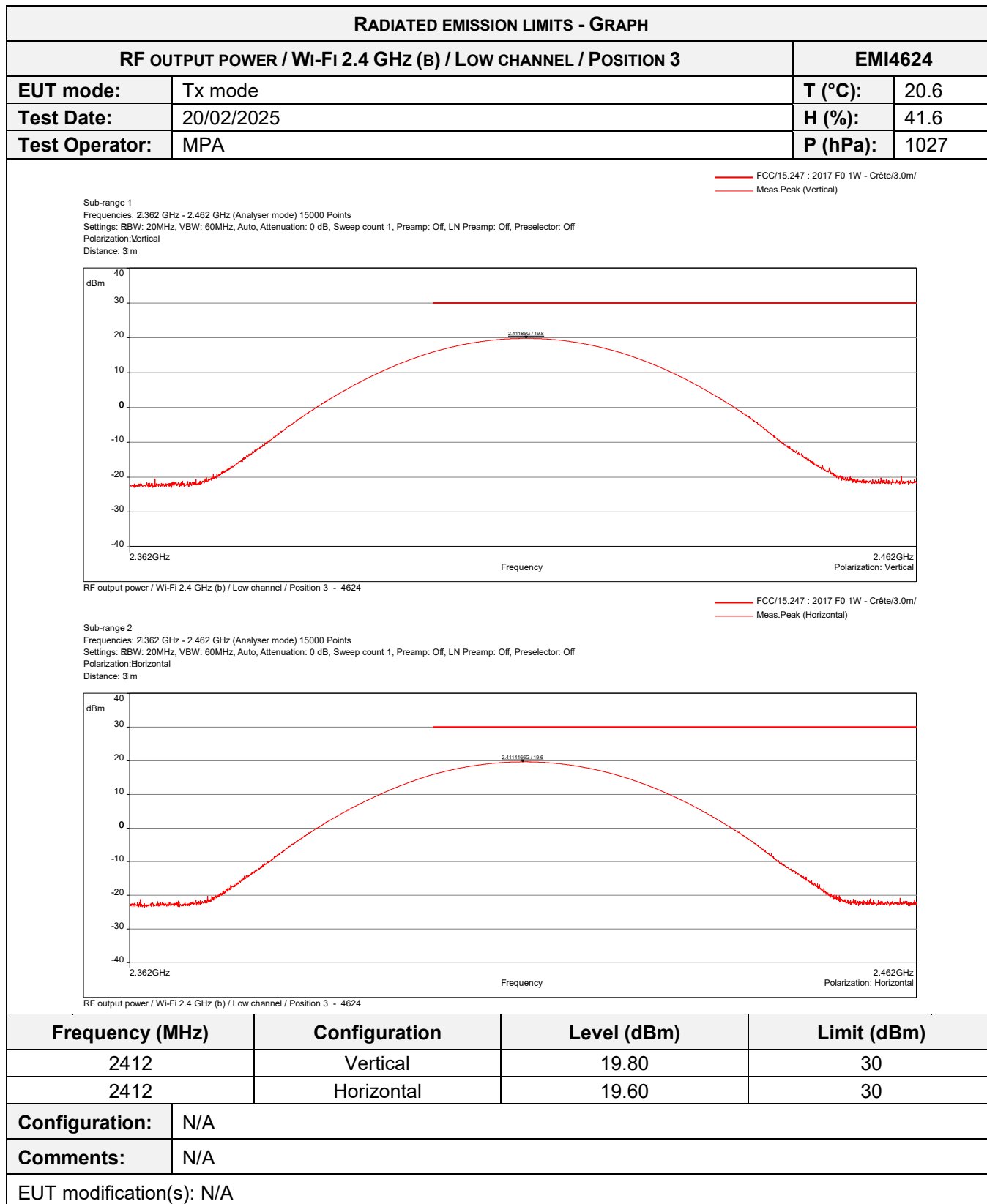


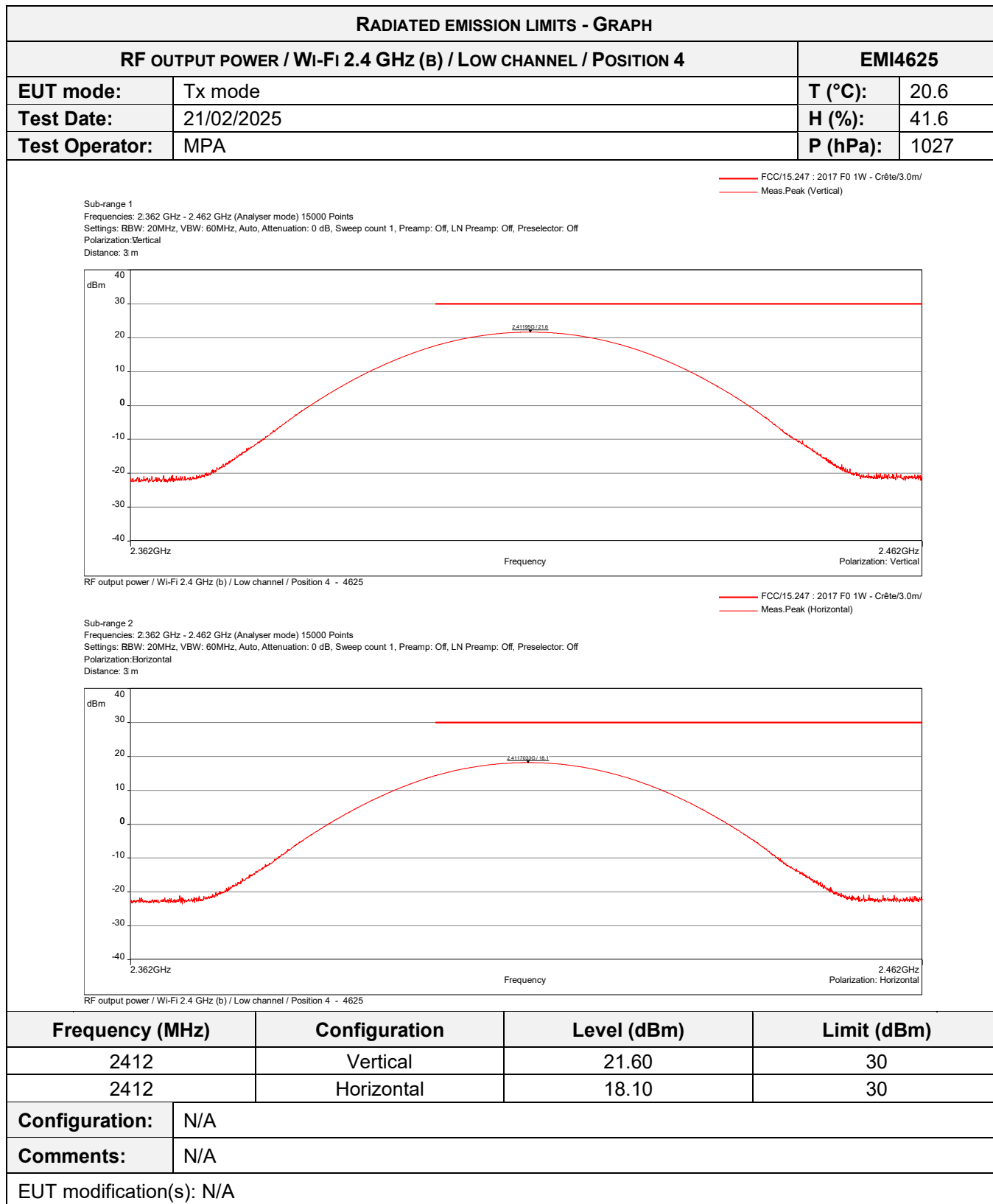
TEST SETUP PHOTO(S)

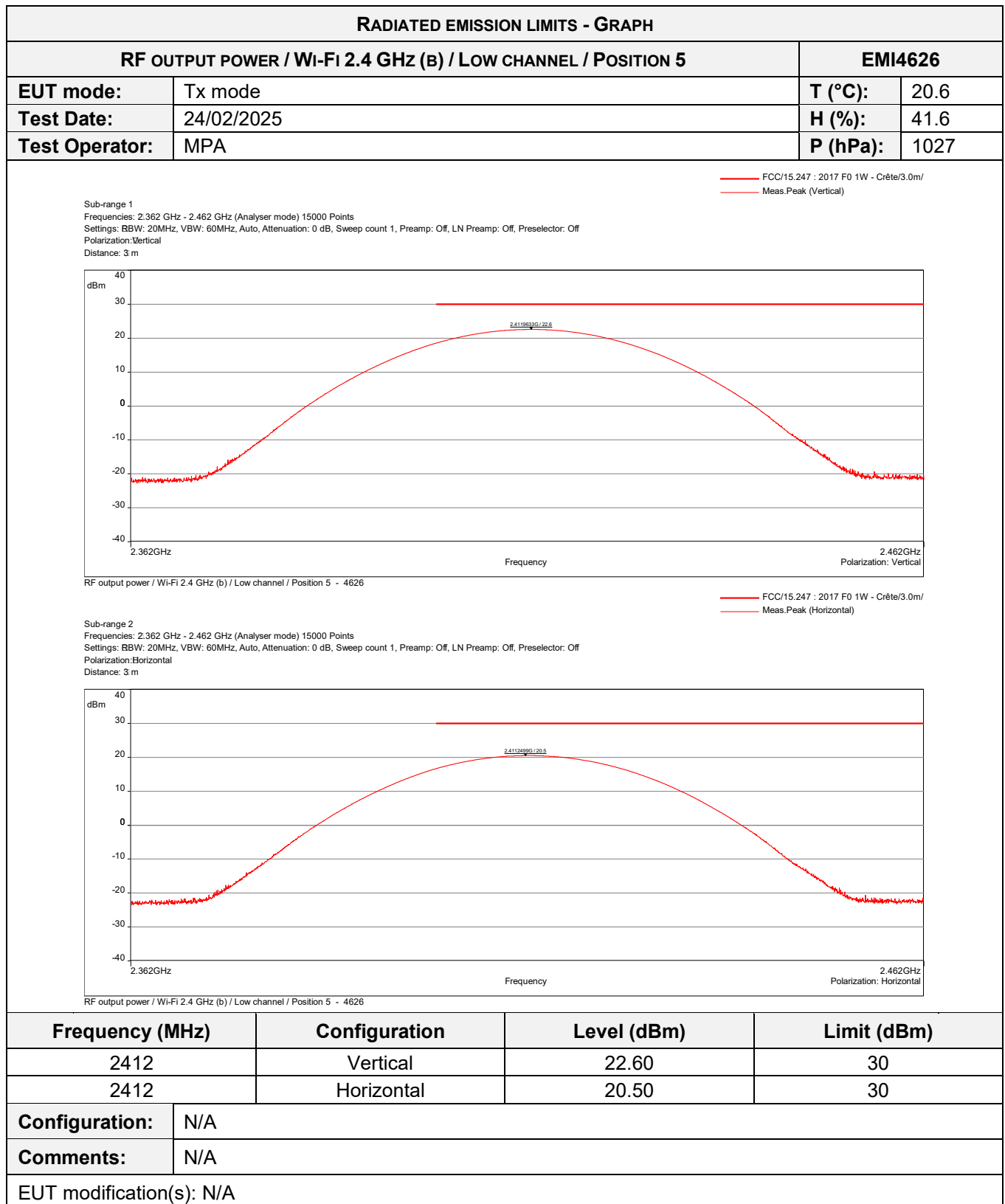


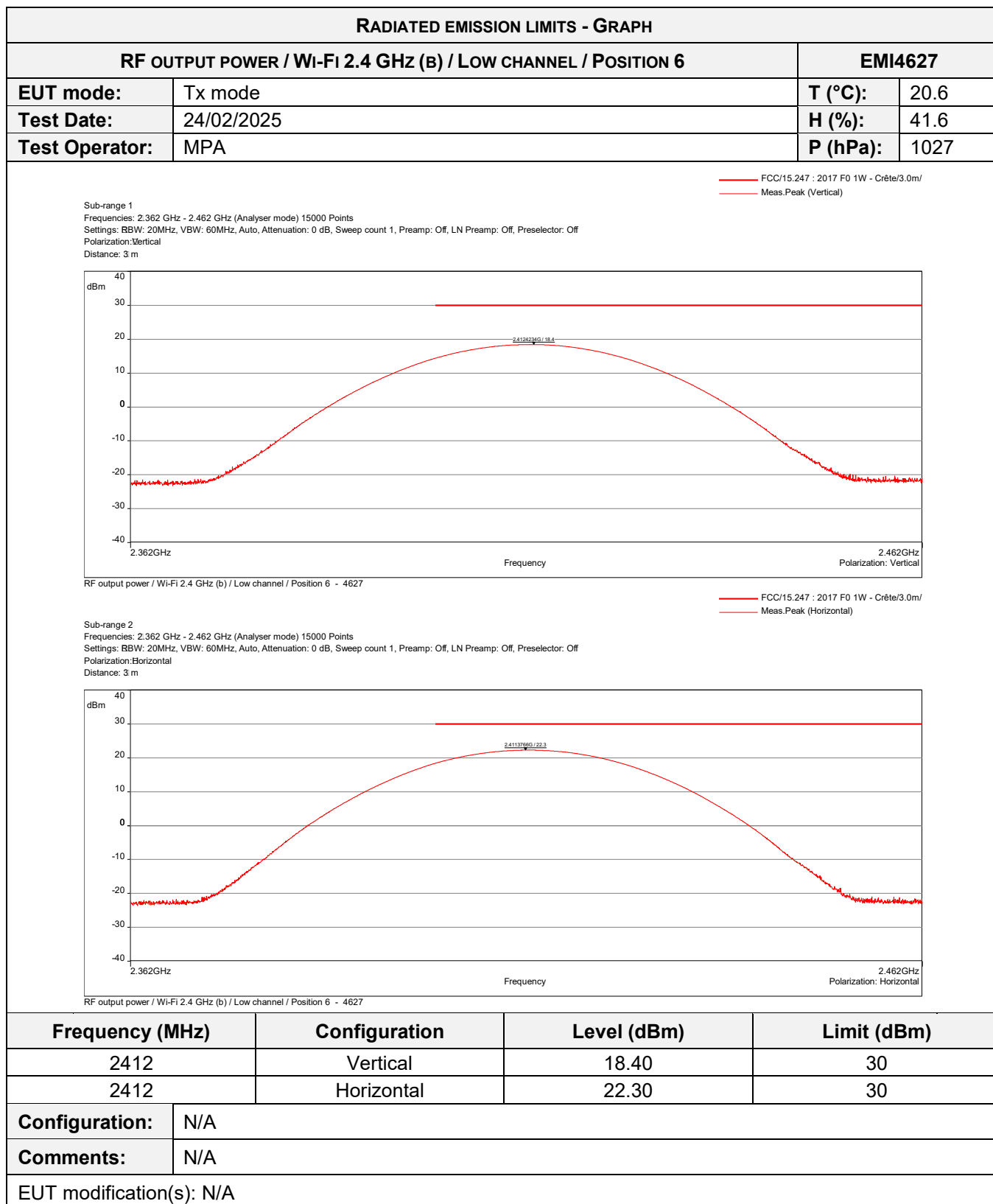


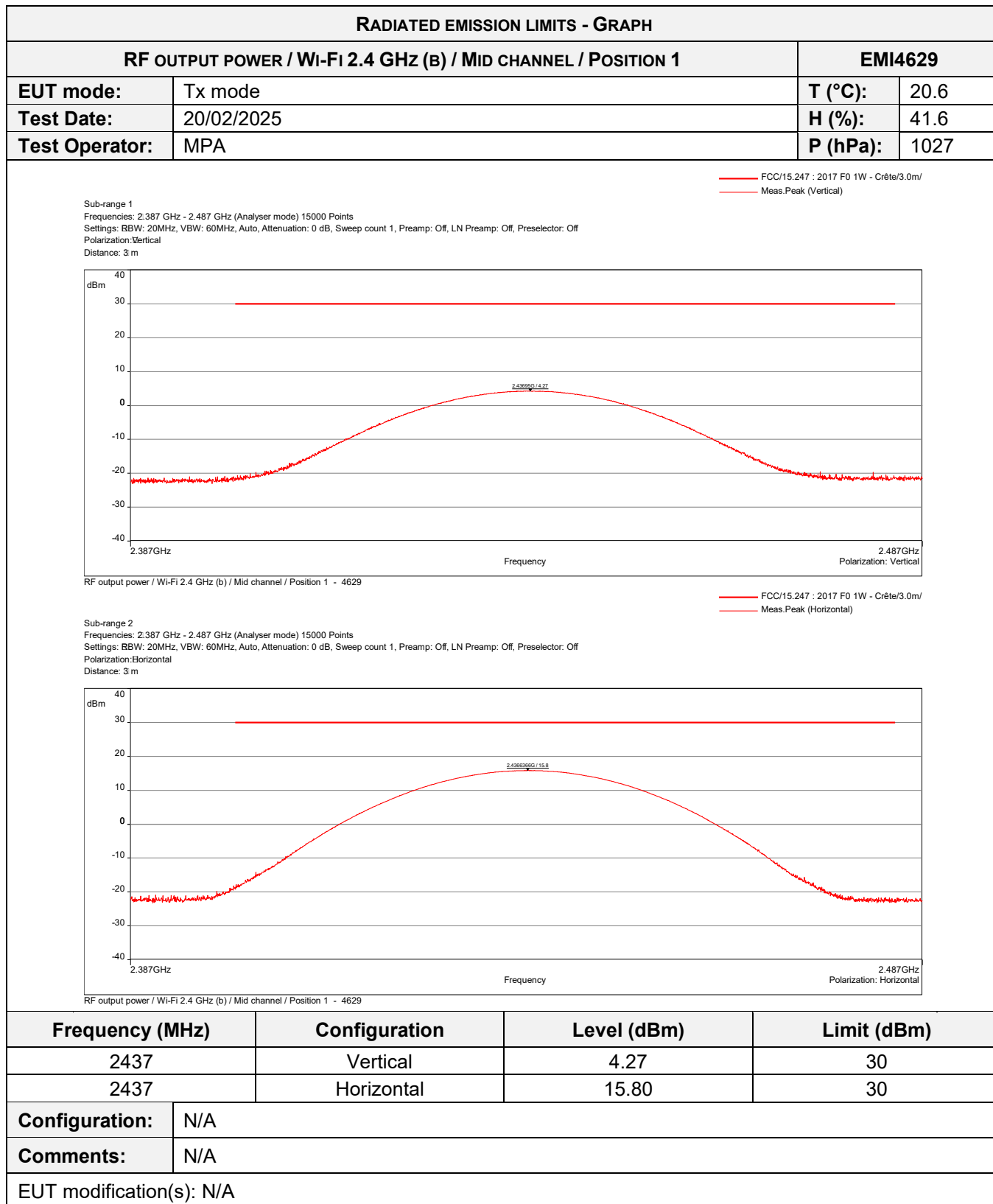


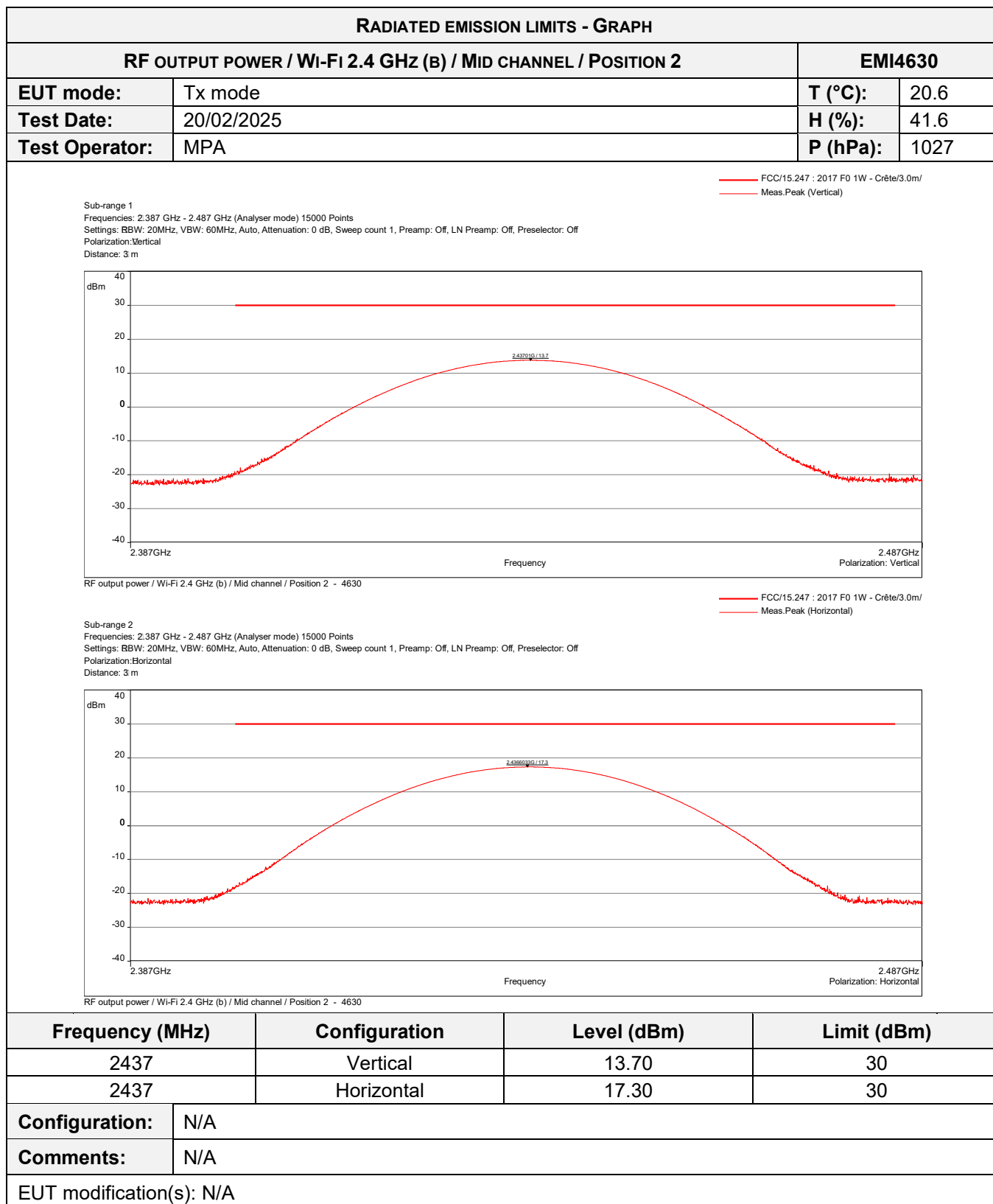


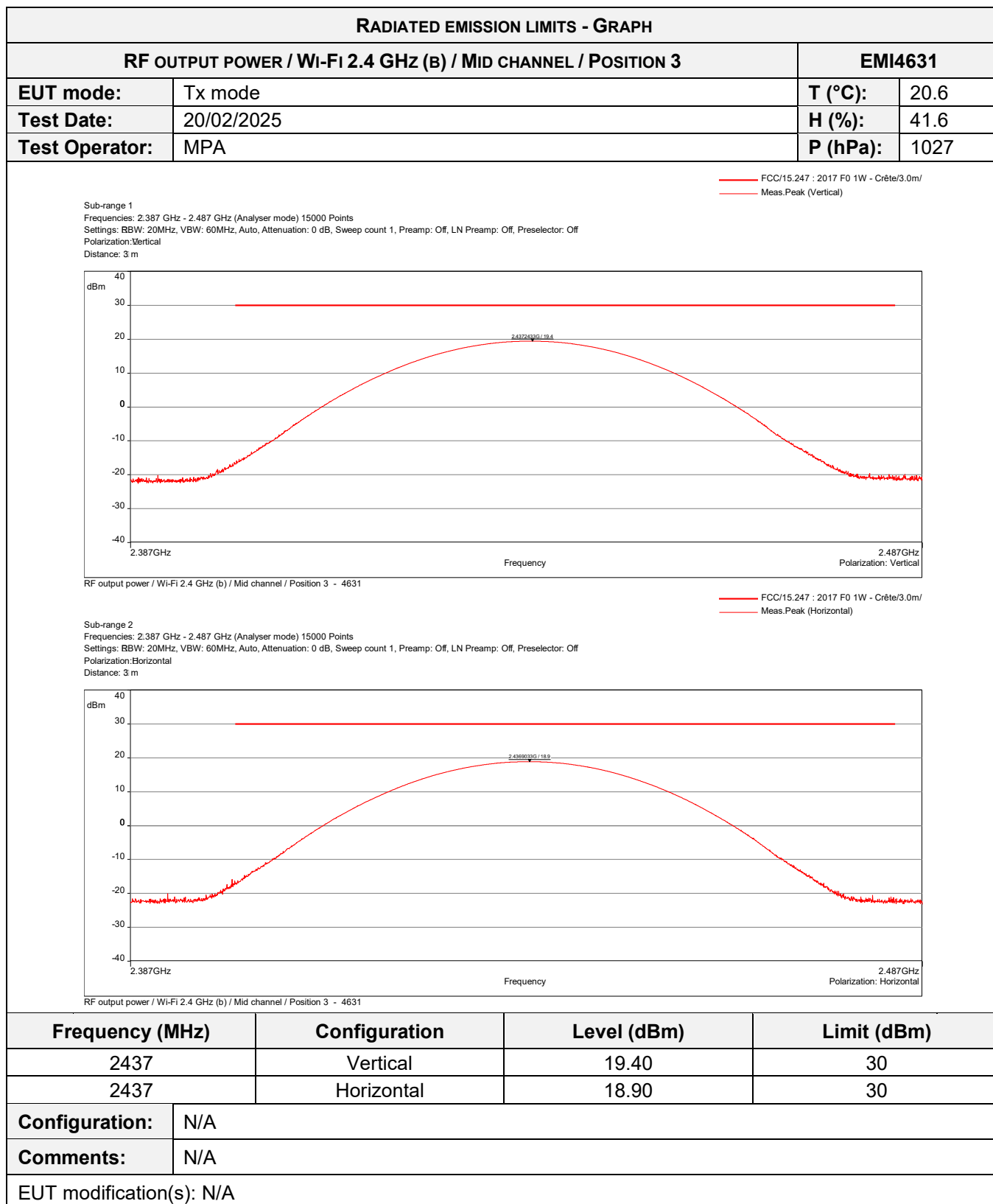


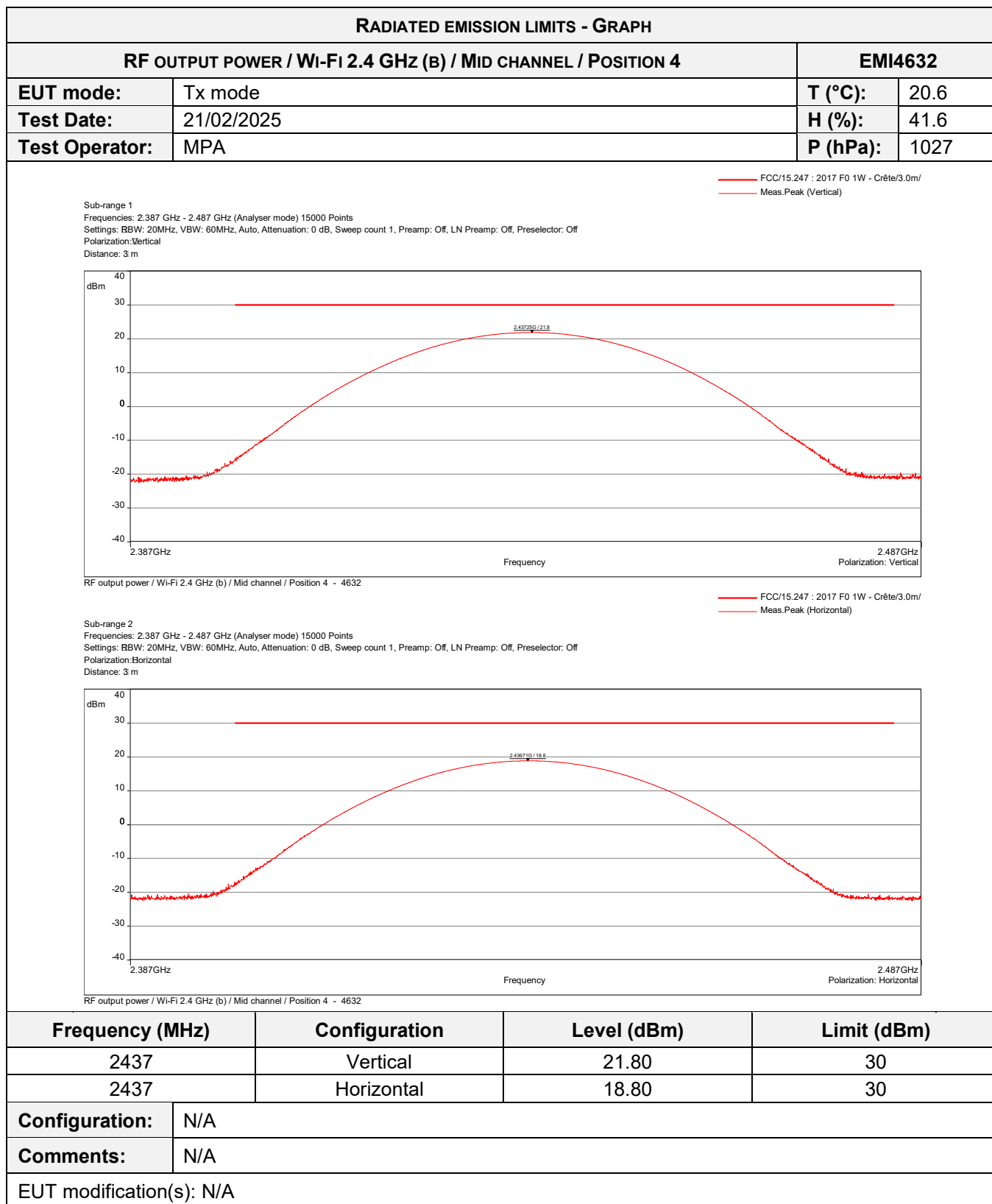


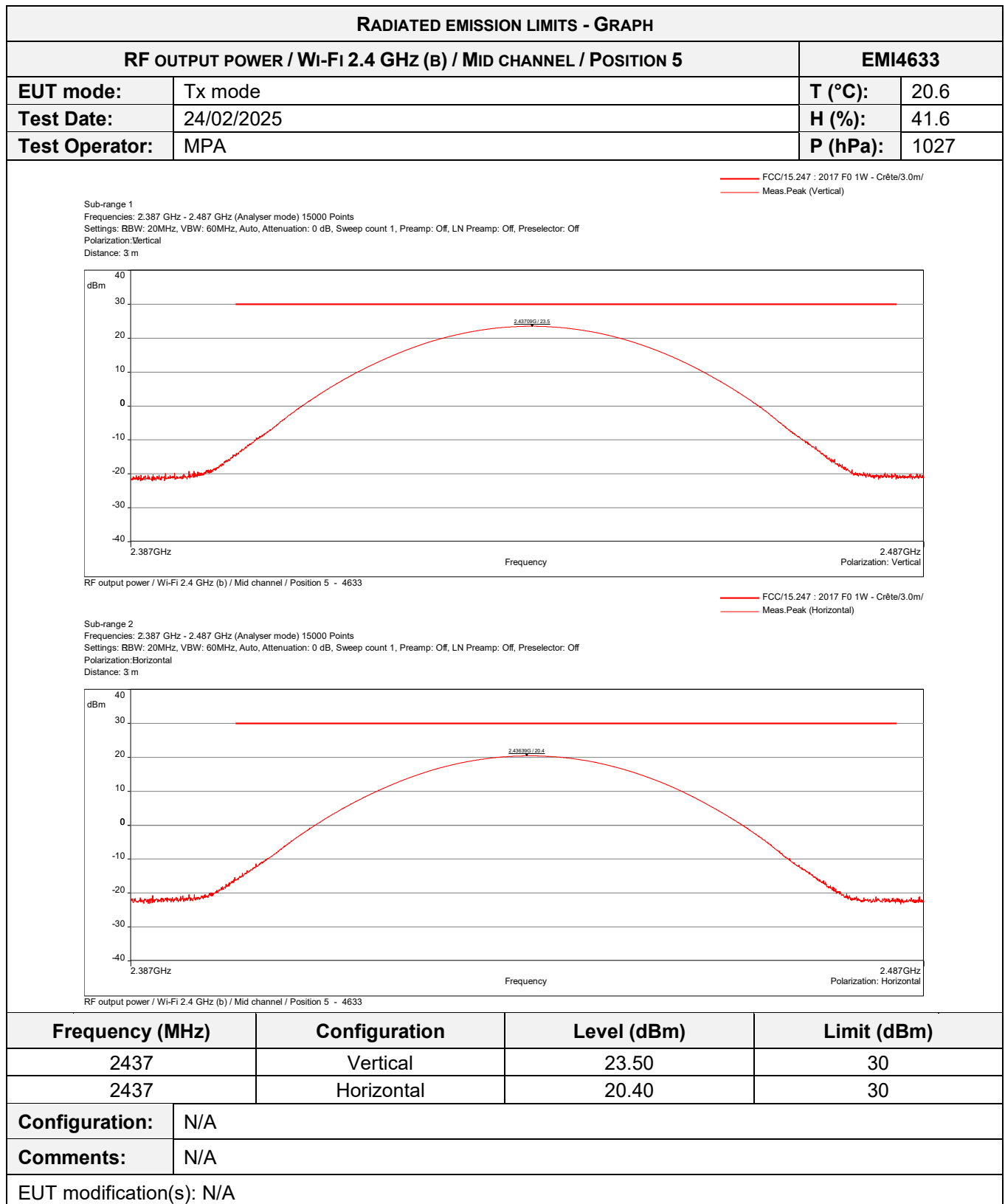


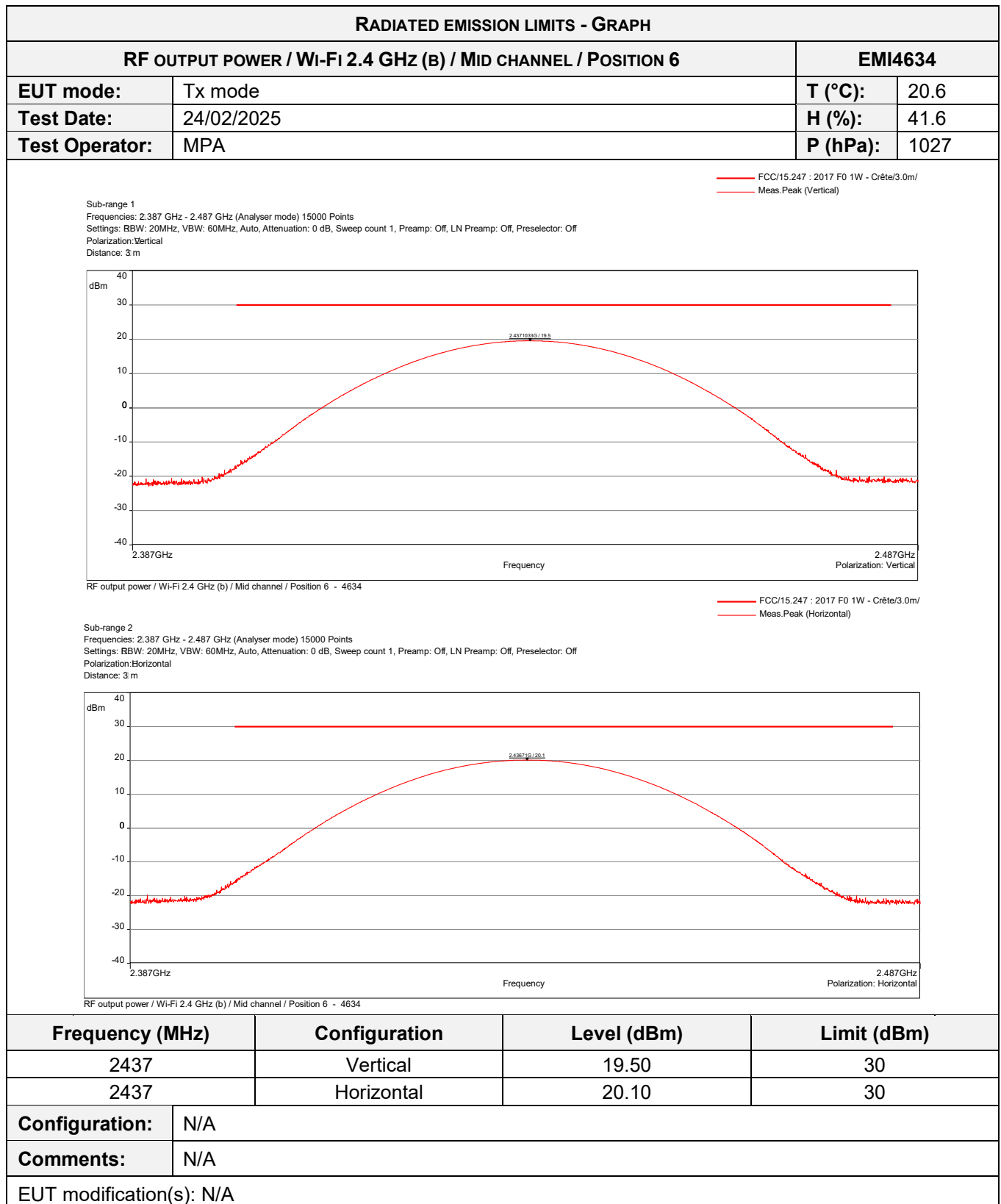


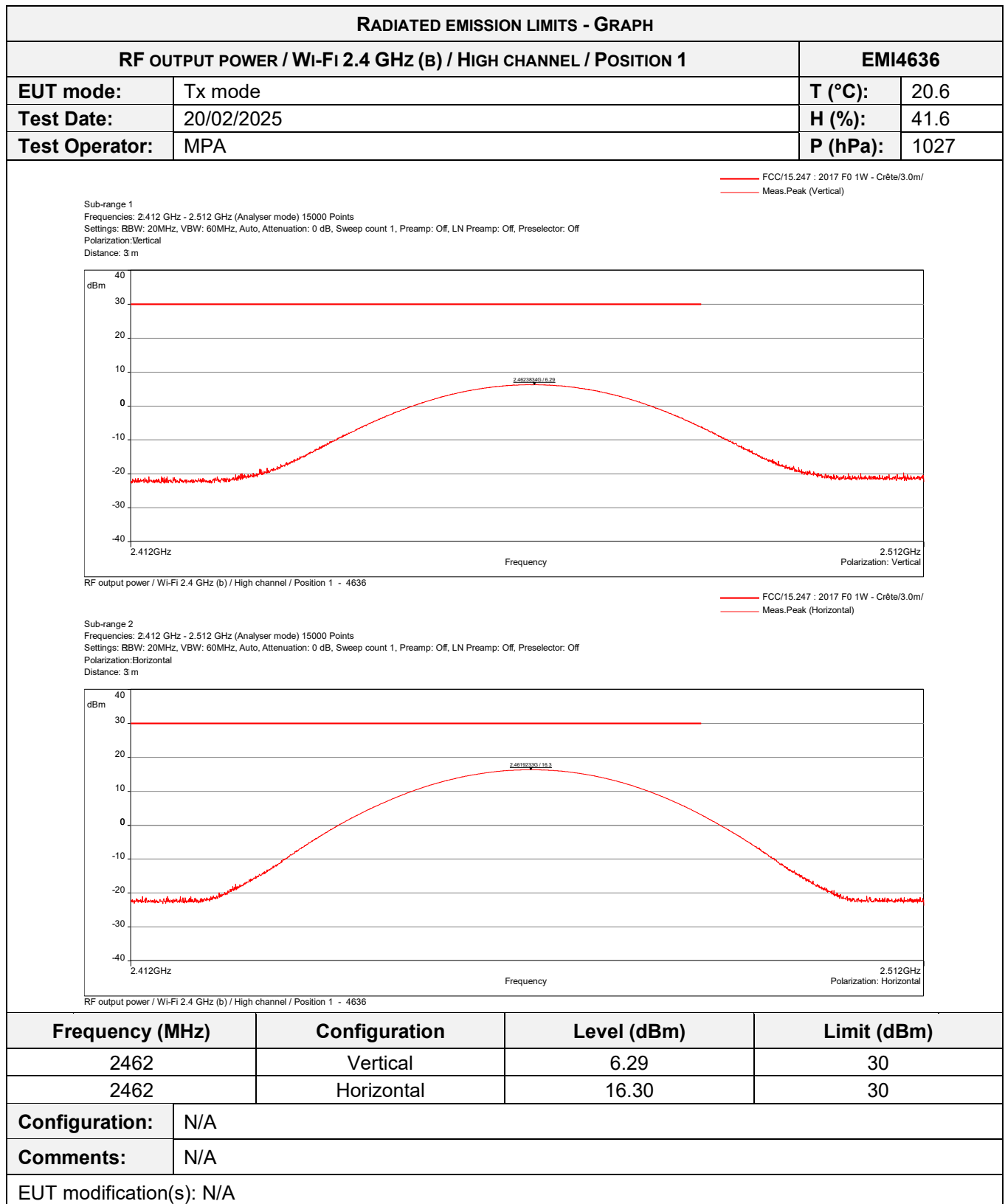


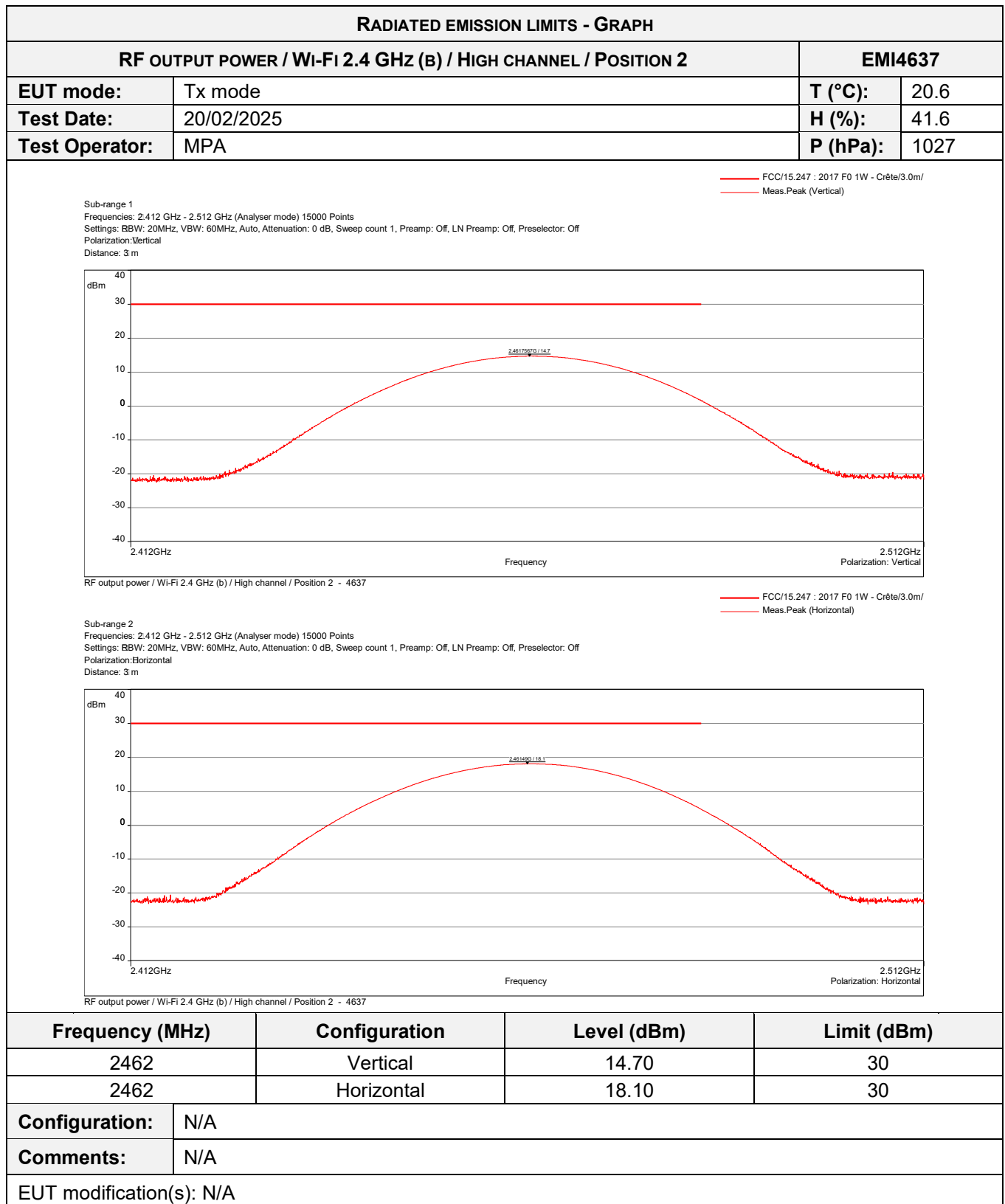


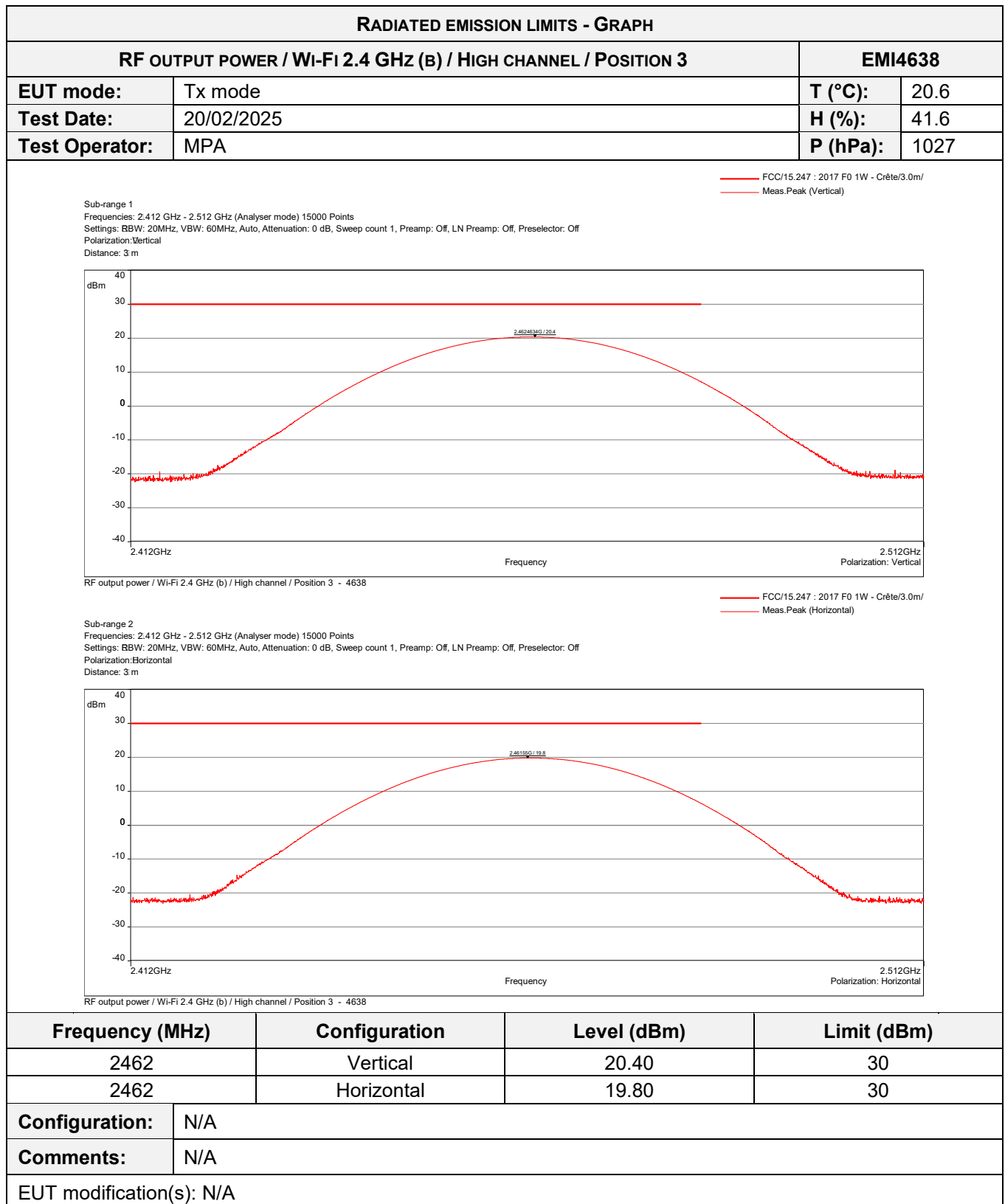


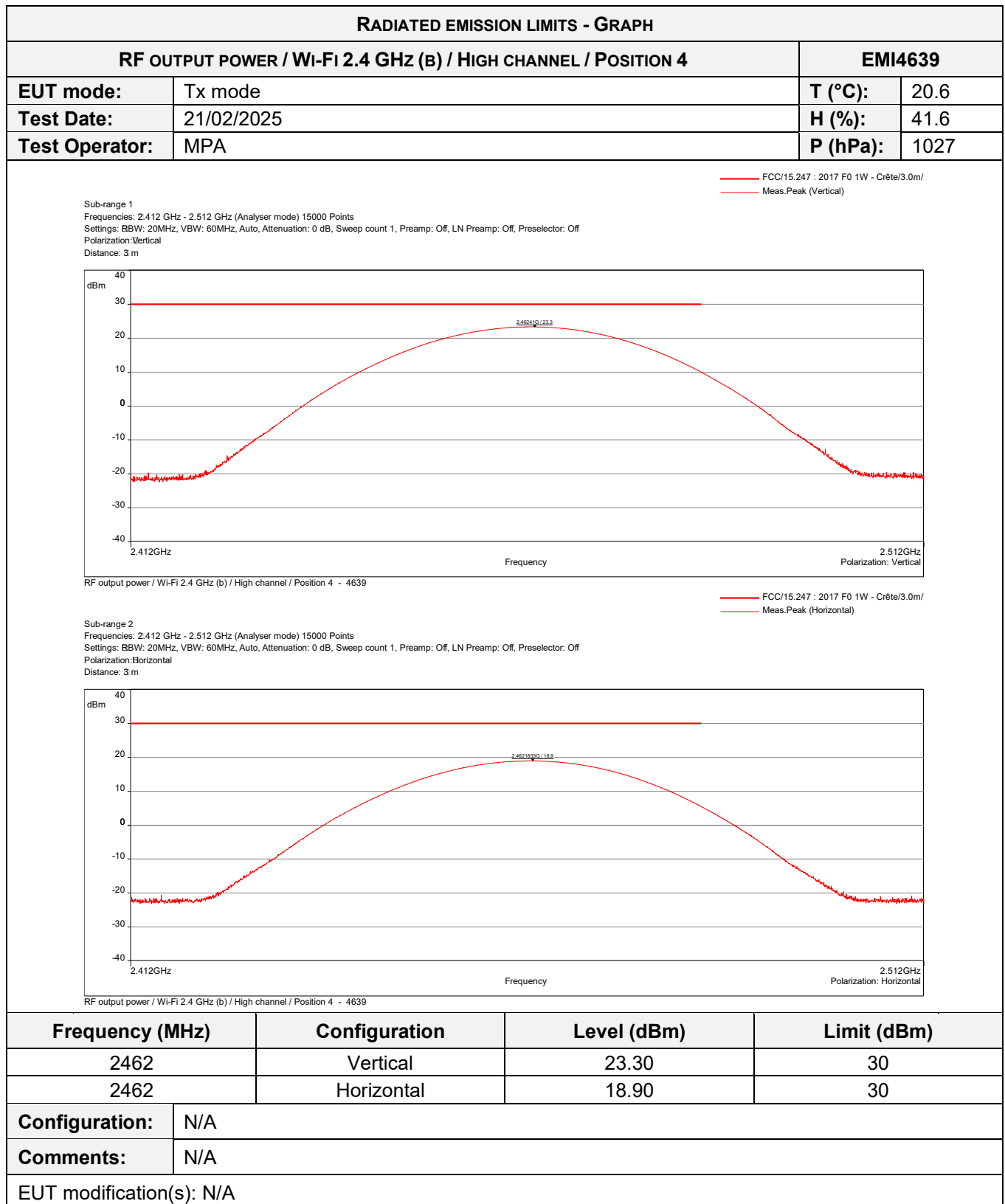


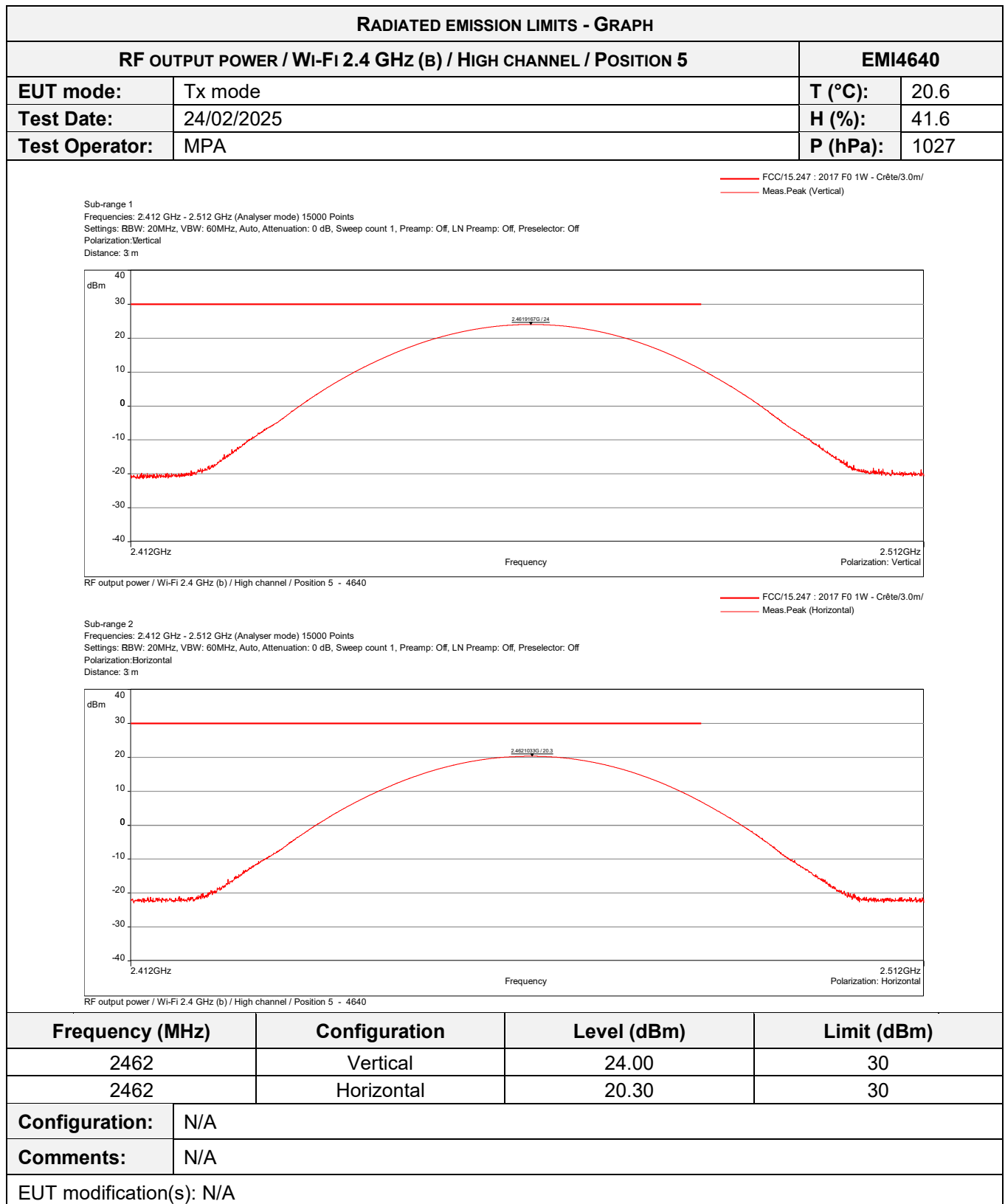


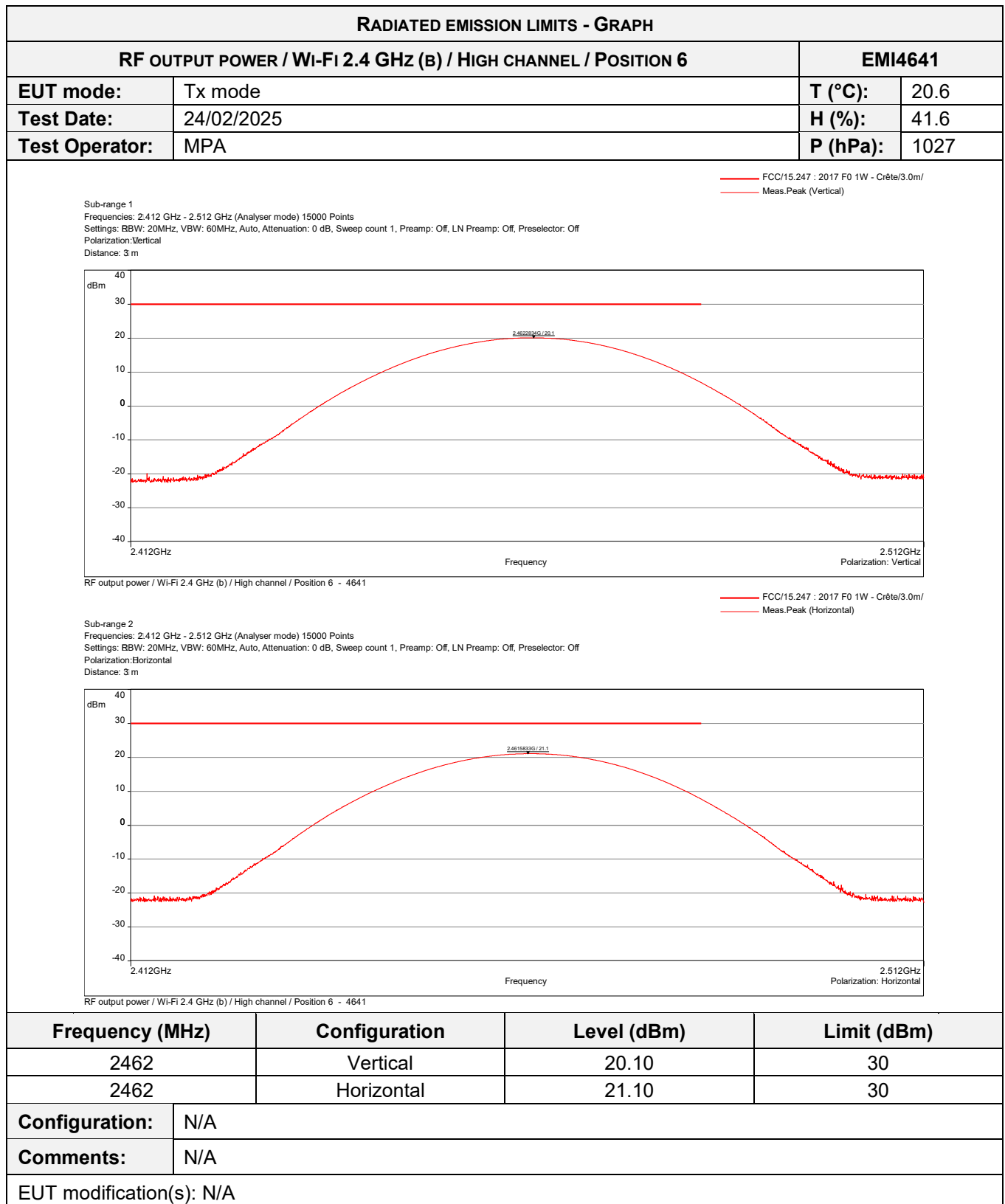


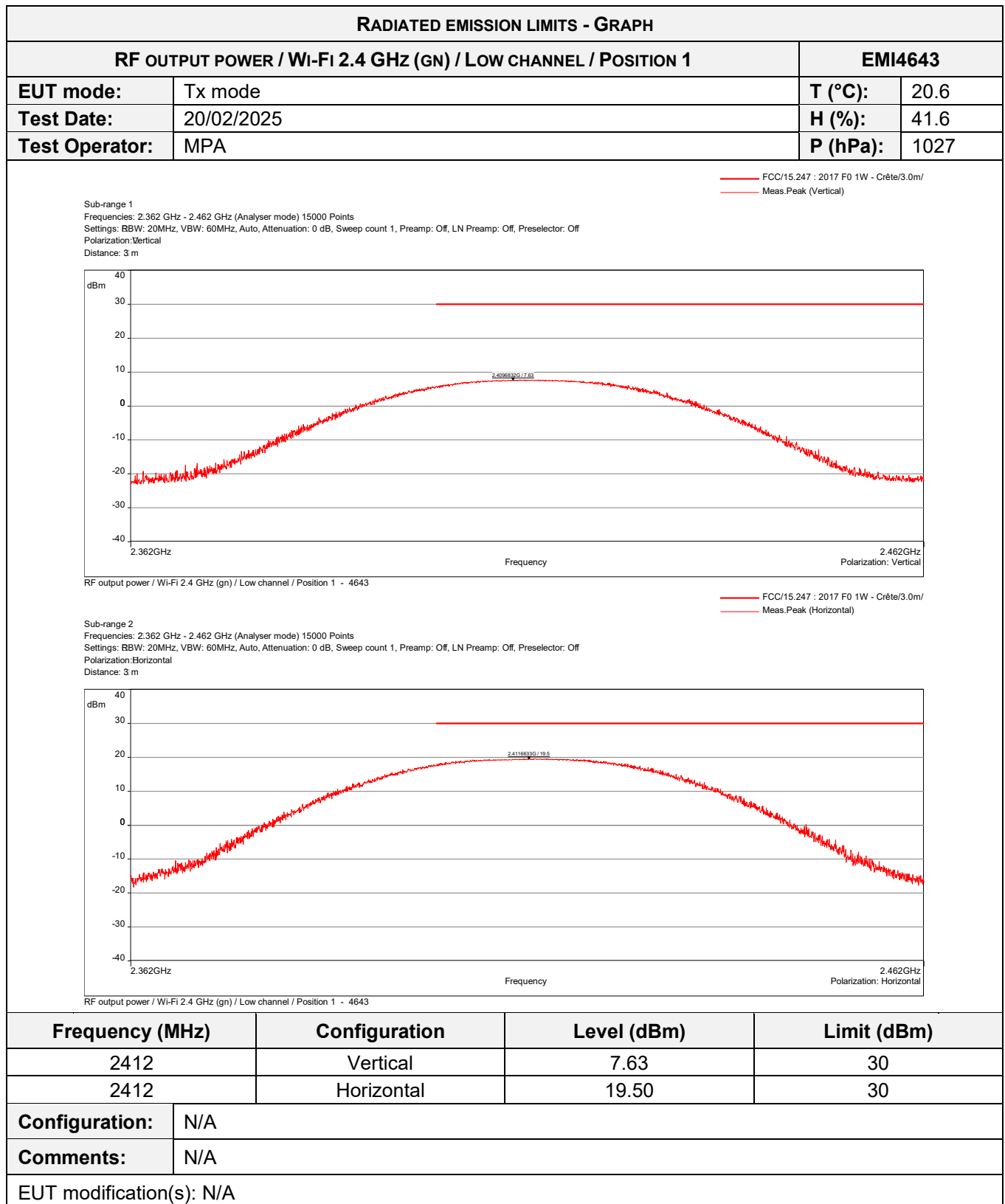


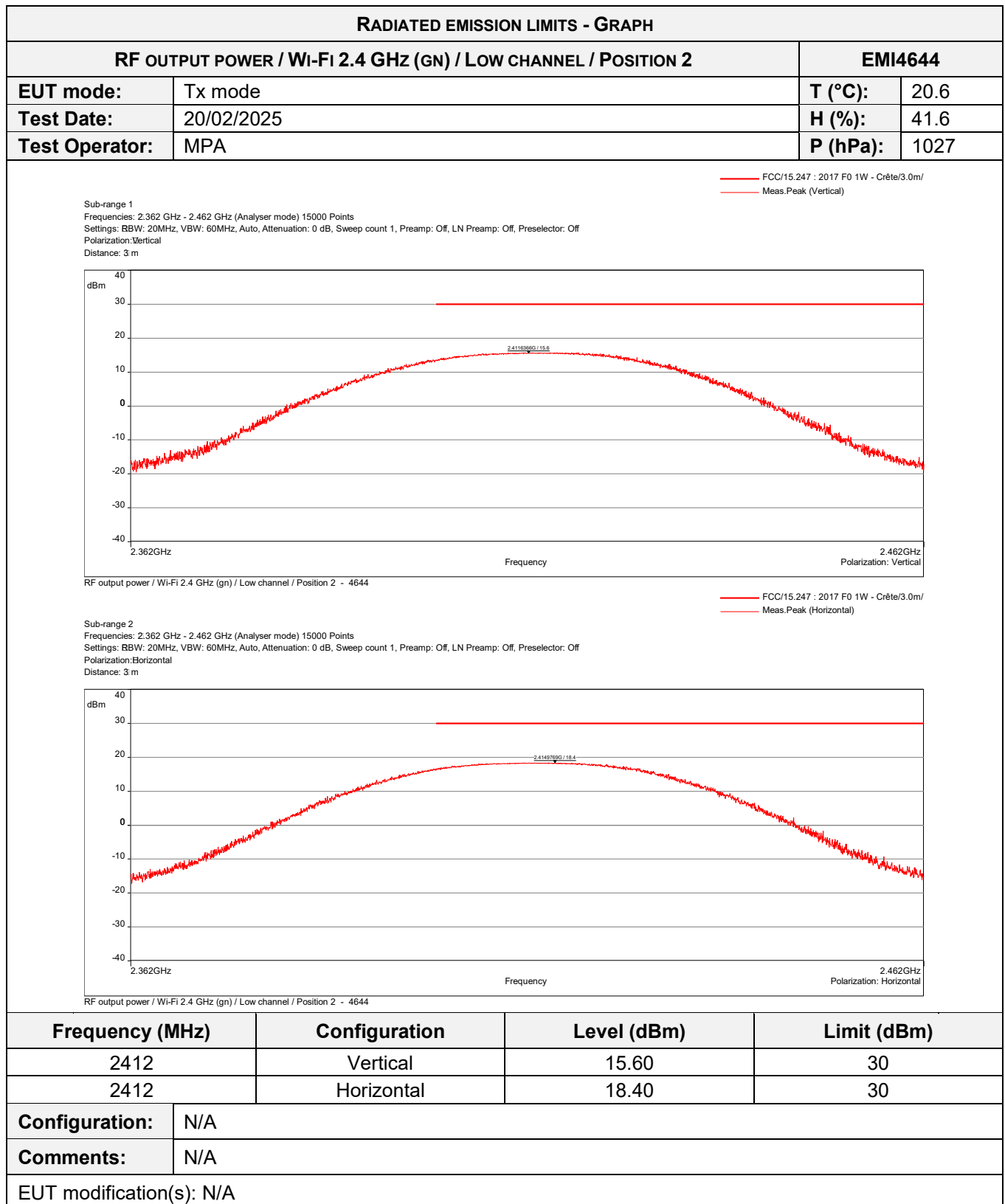


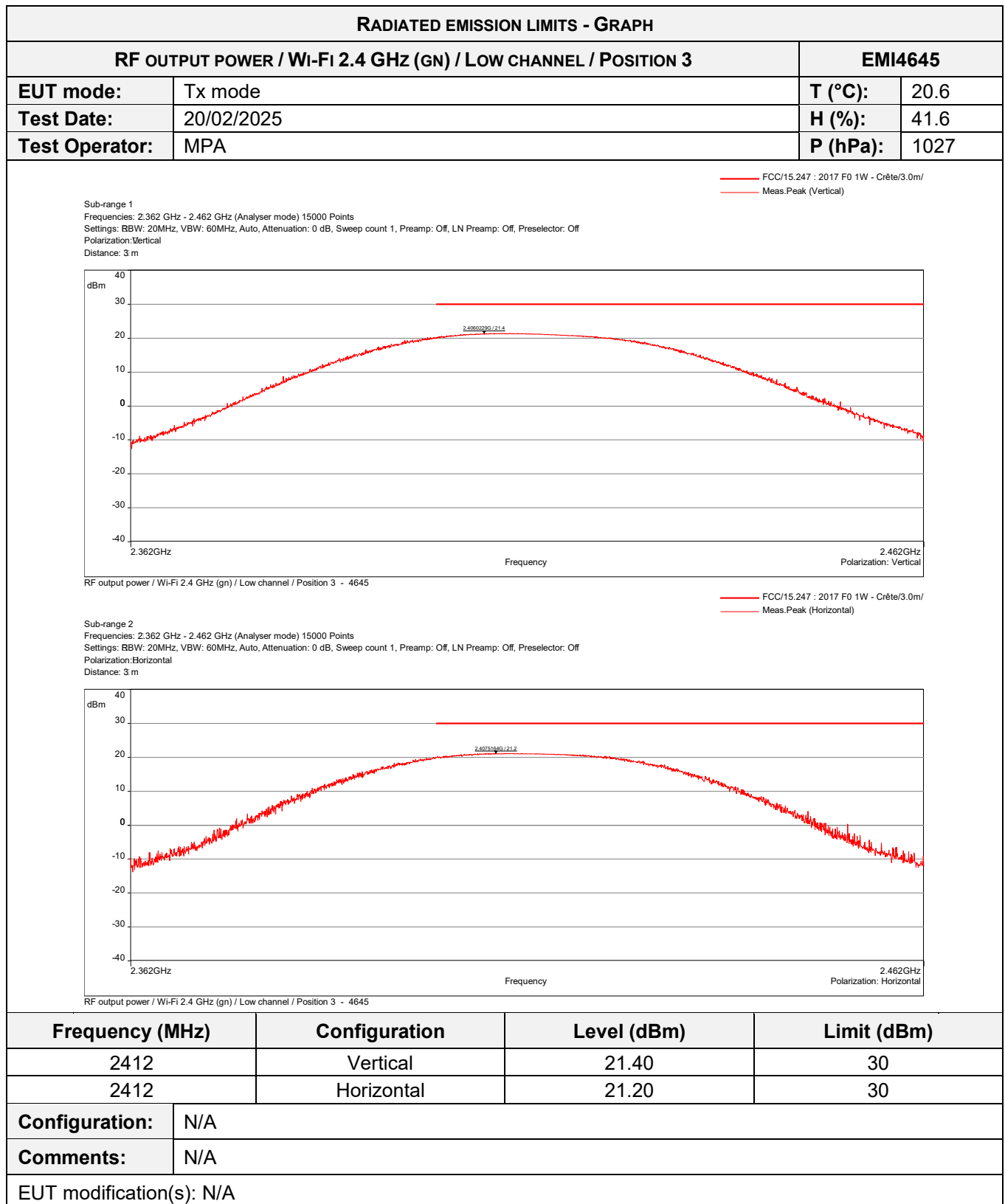


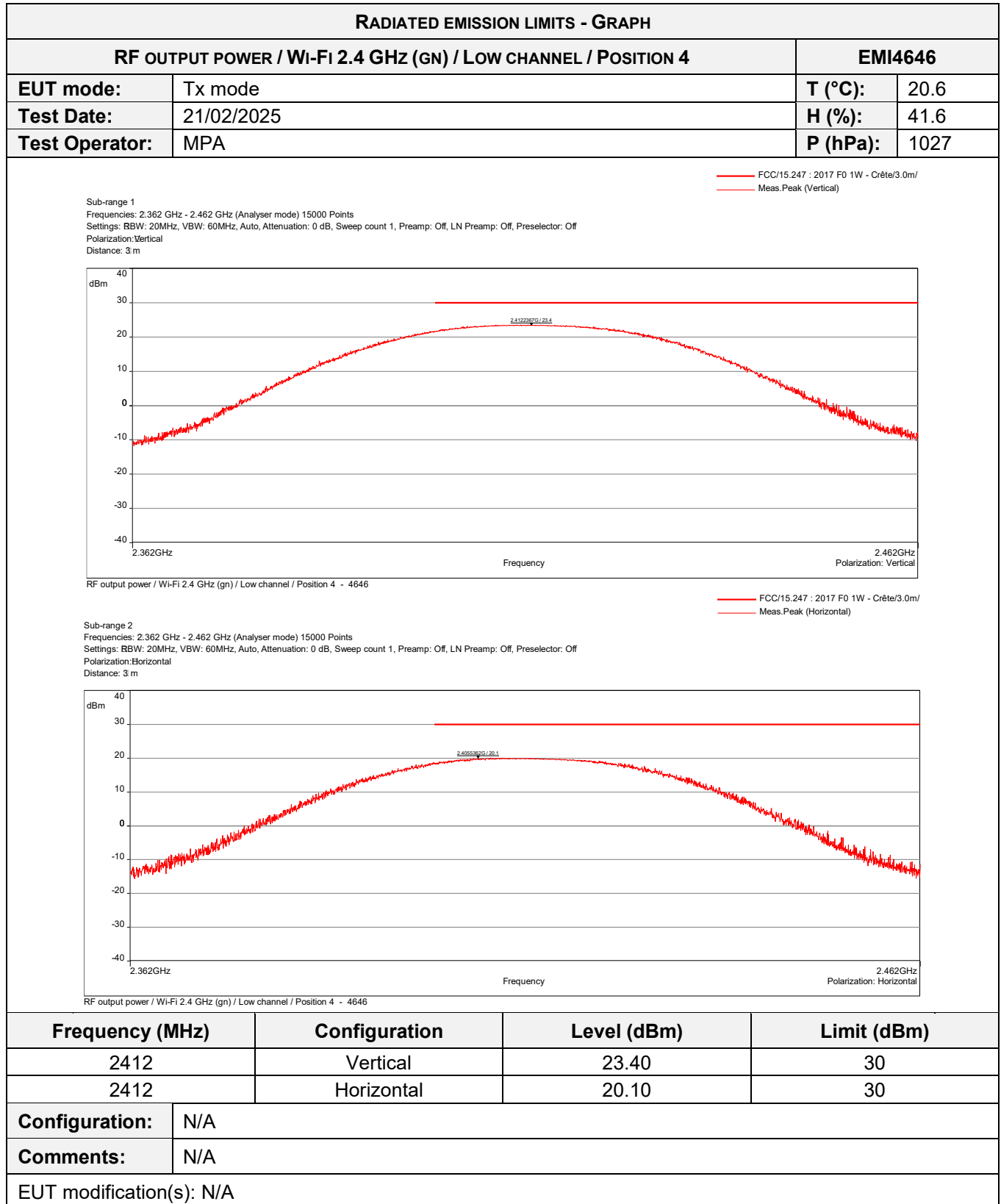


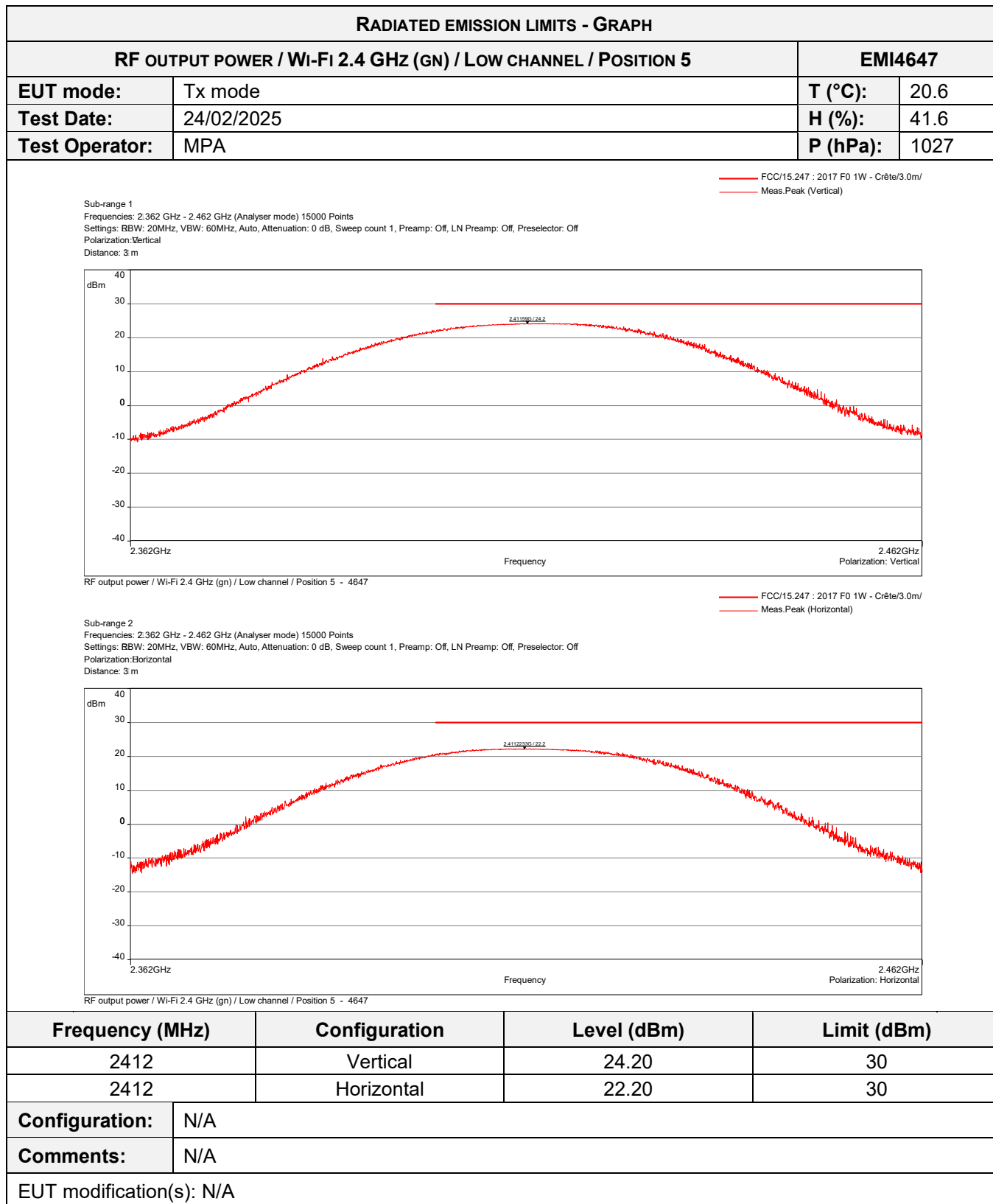


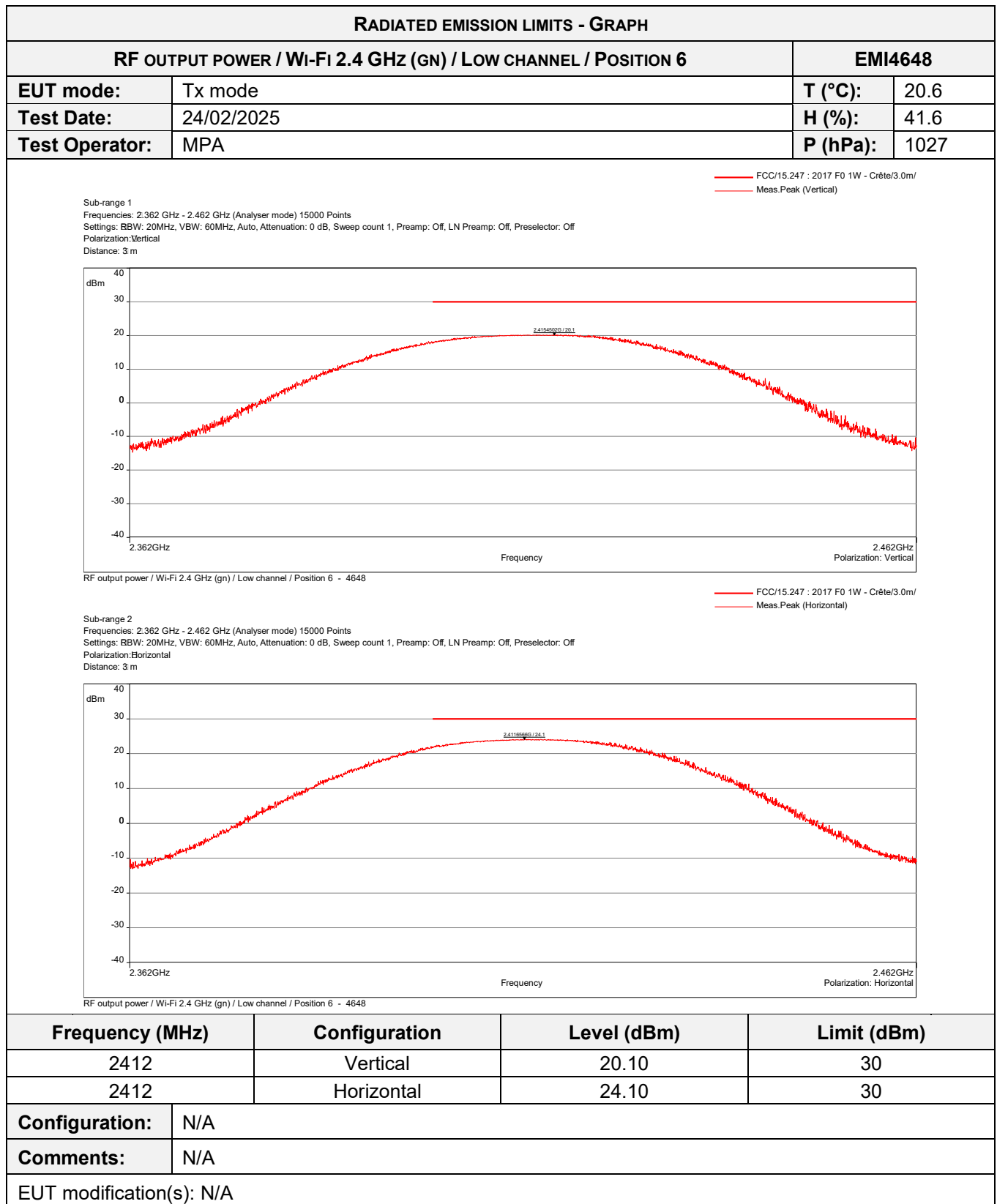


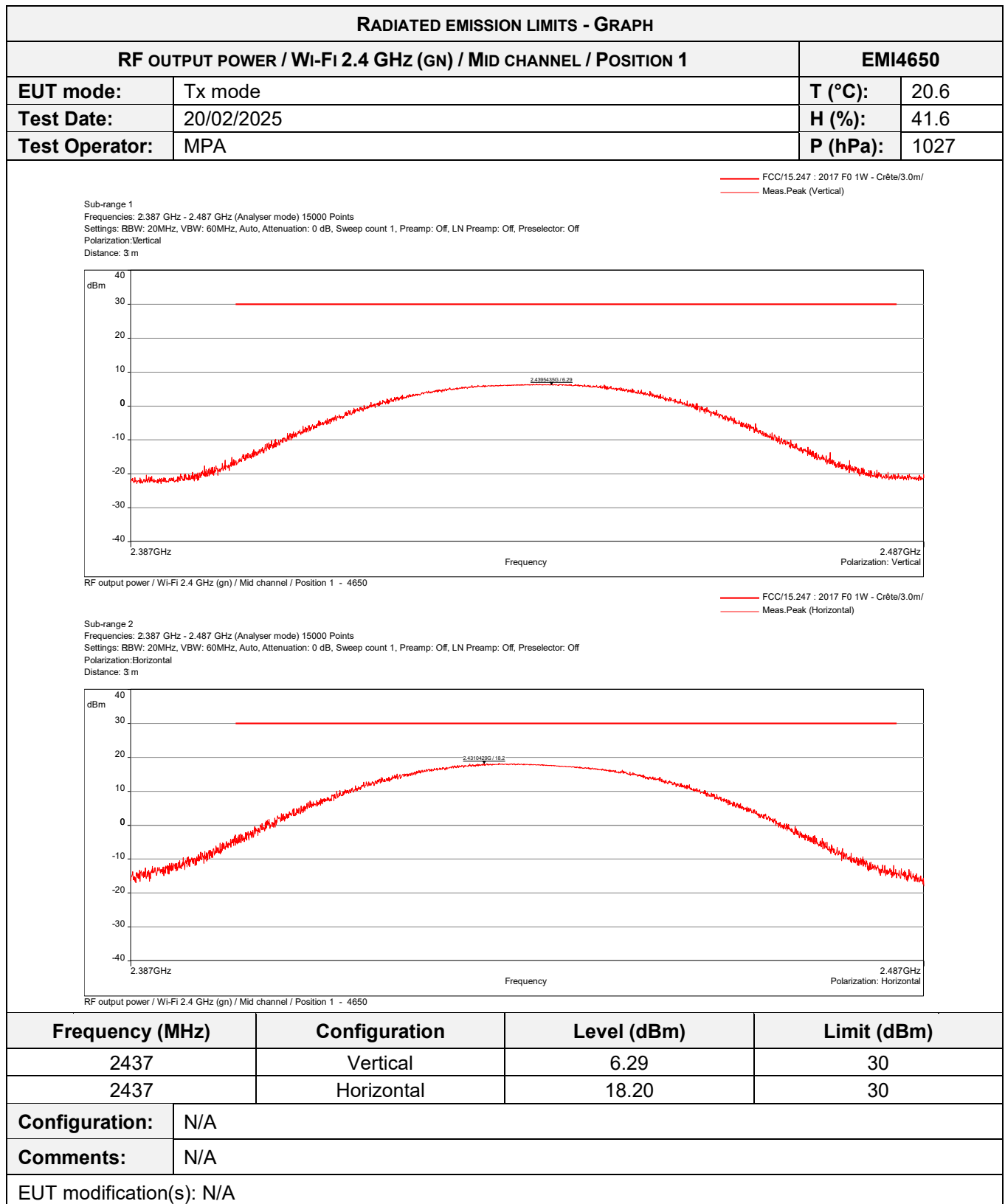


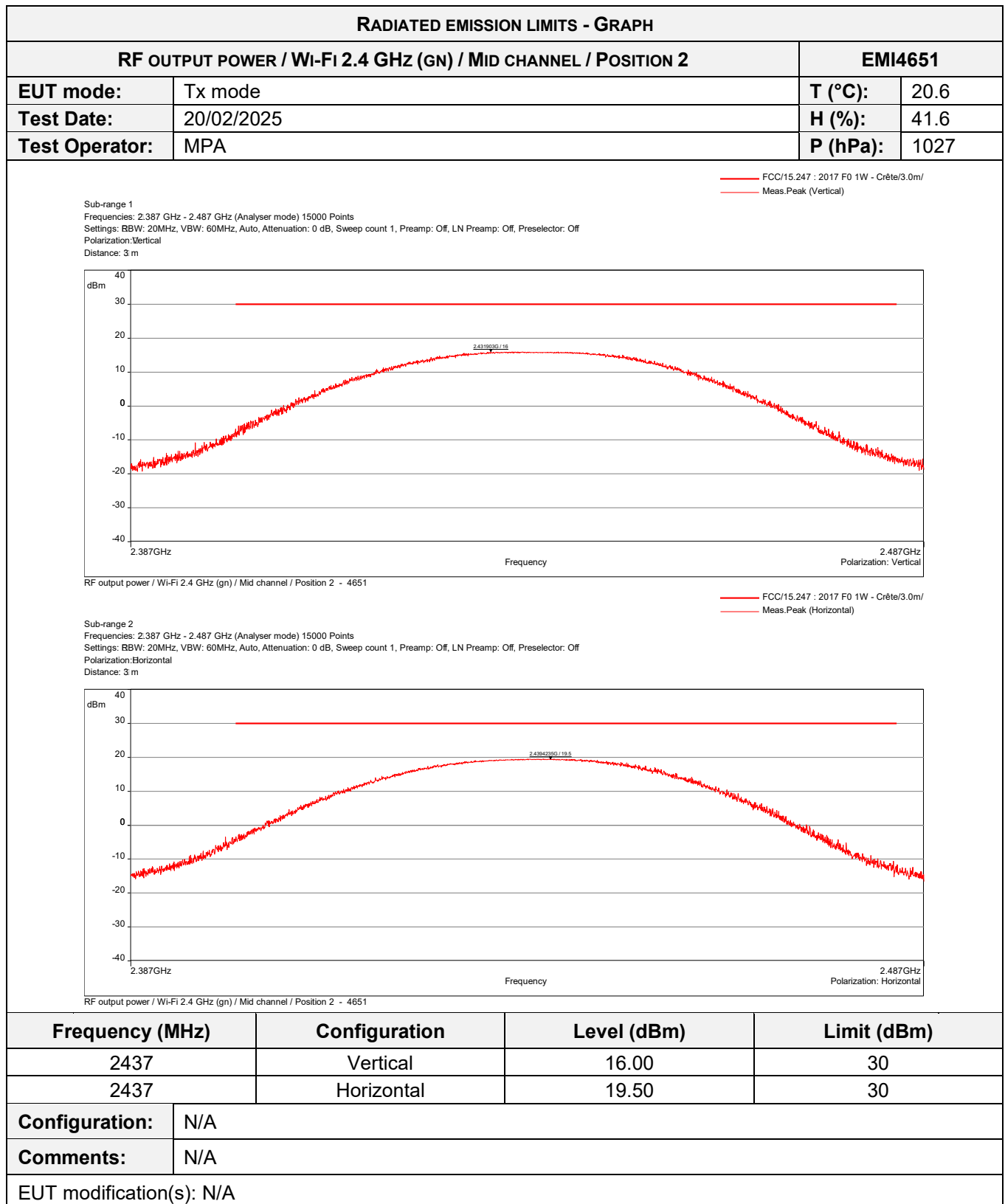


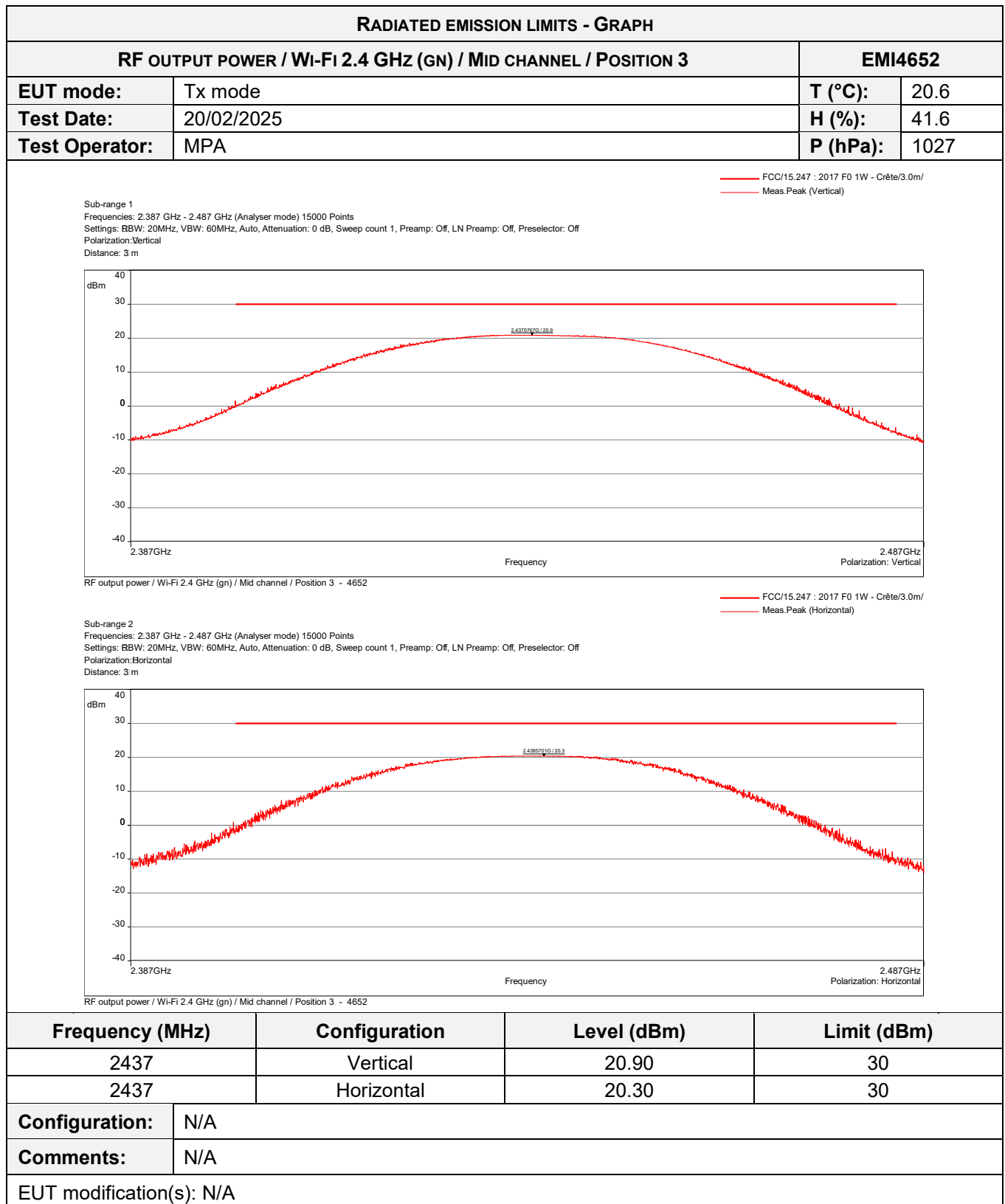


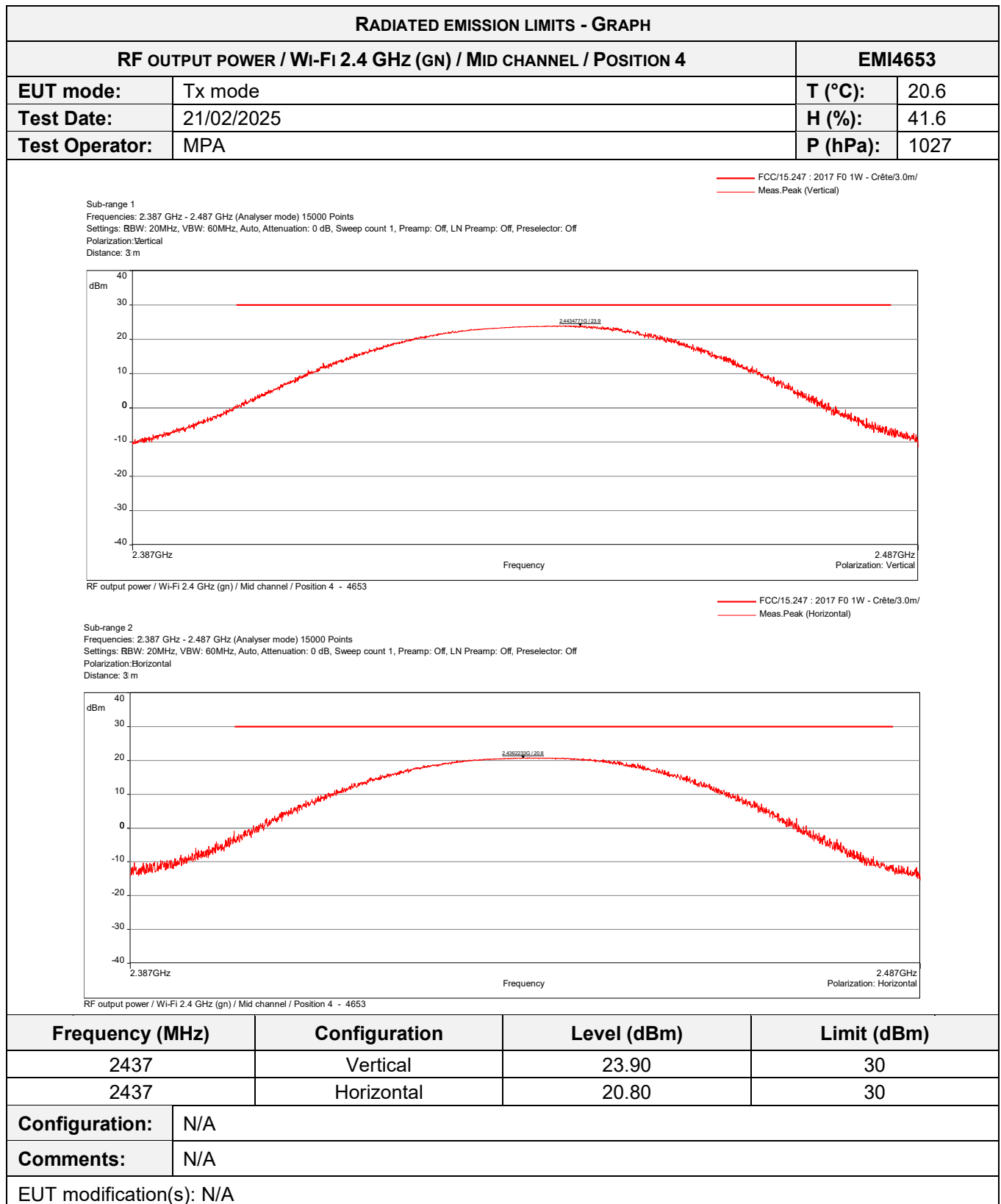


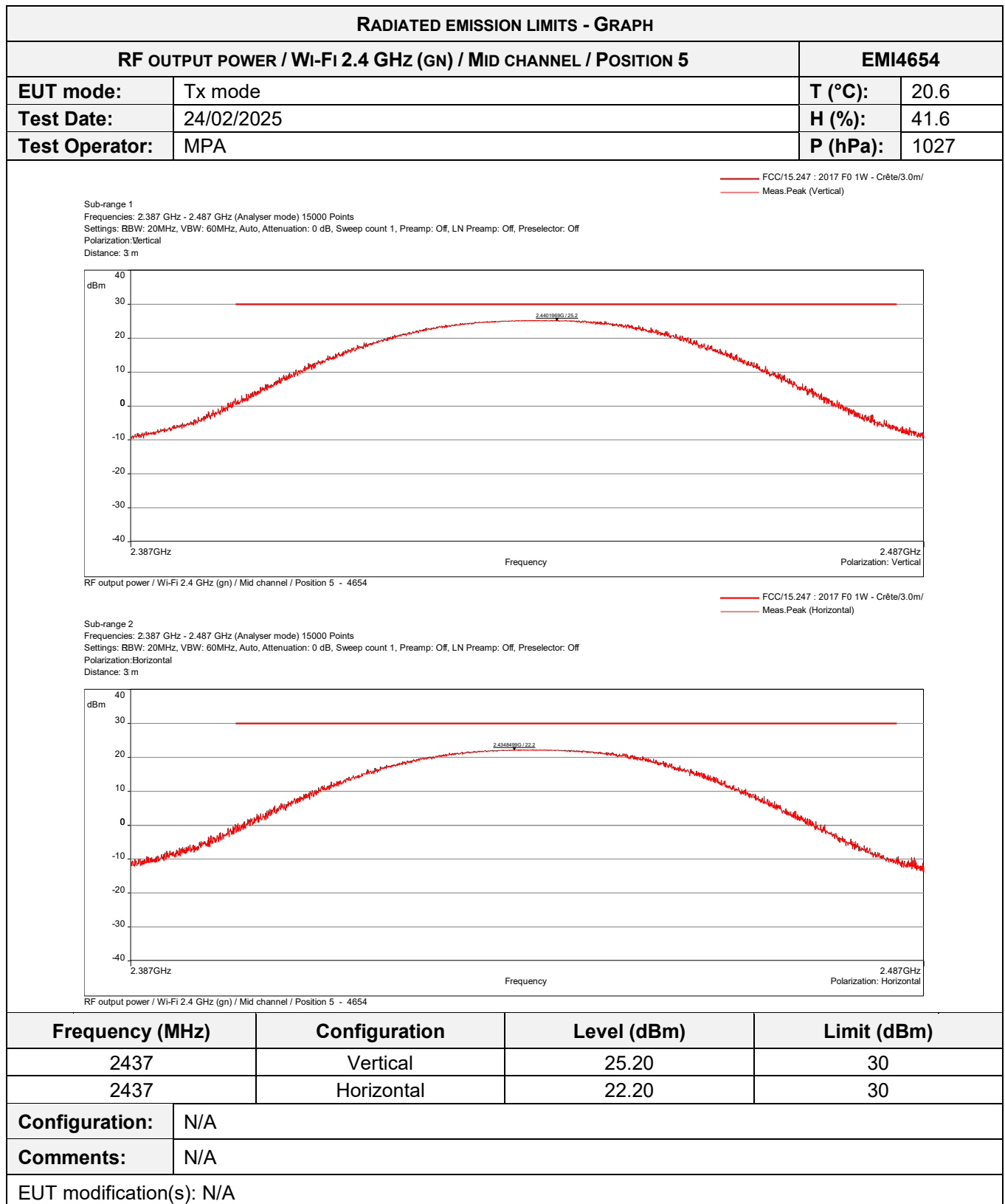


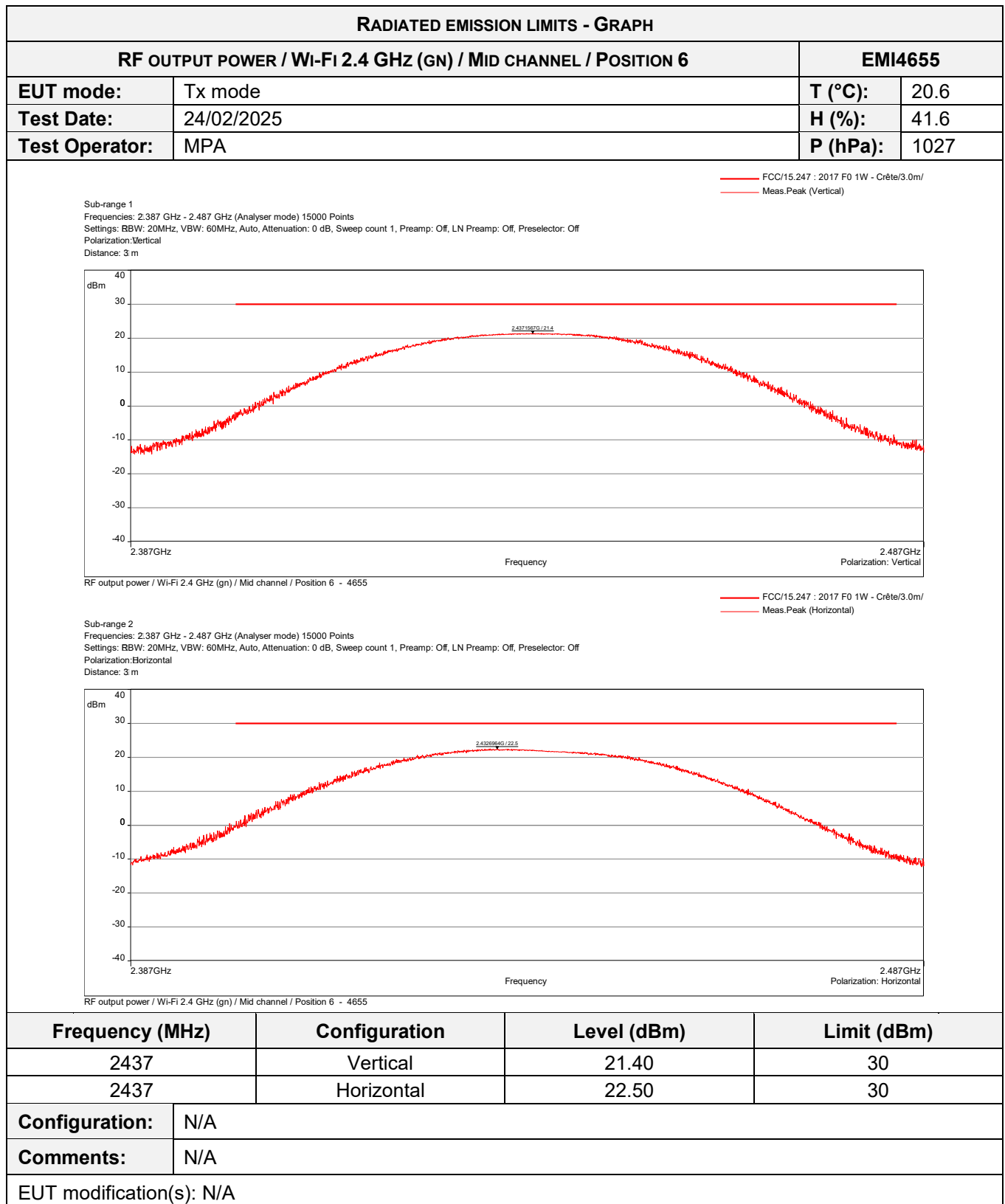


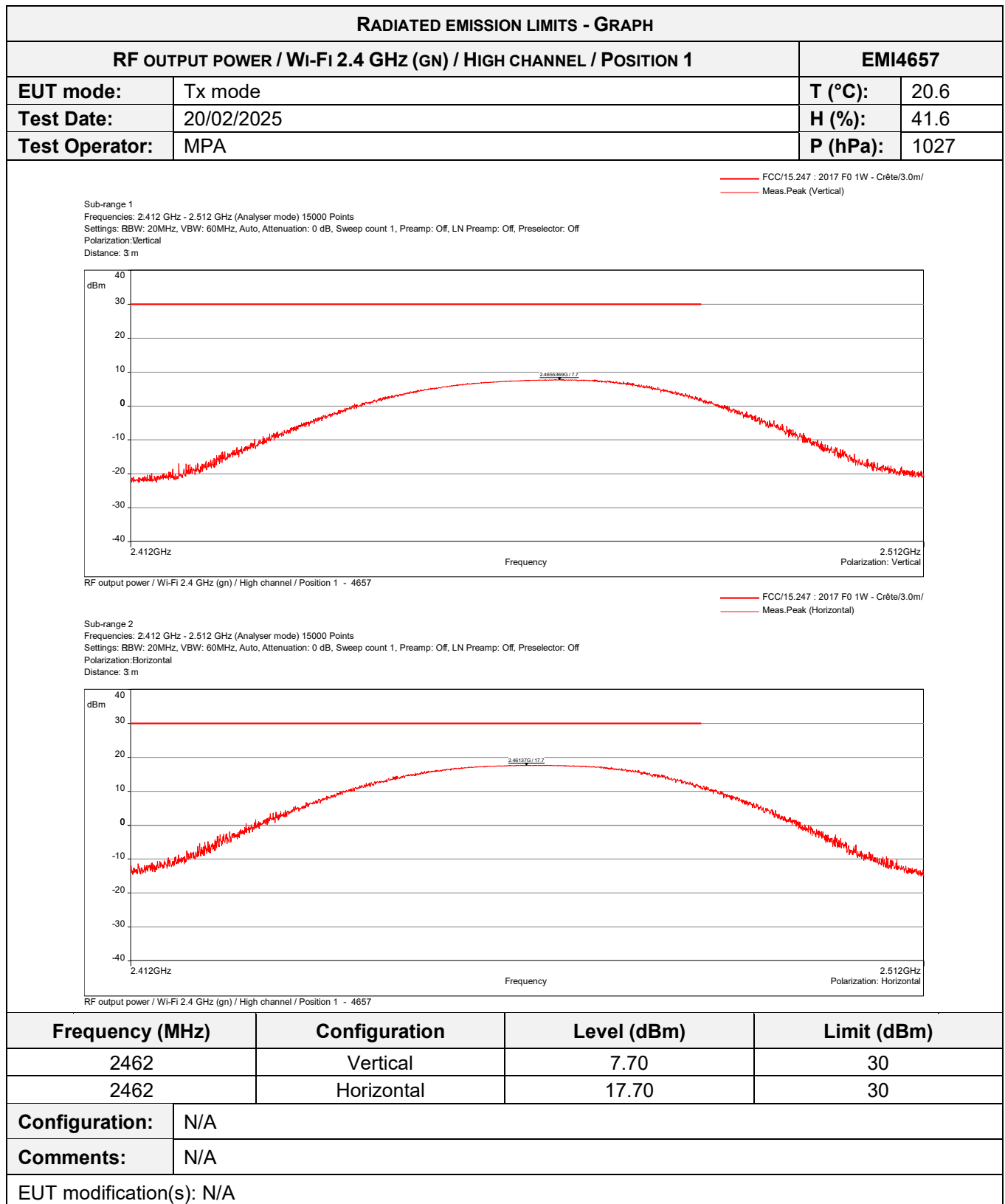


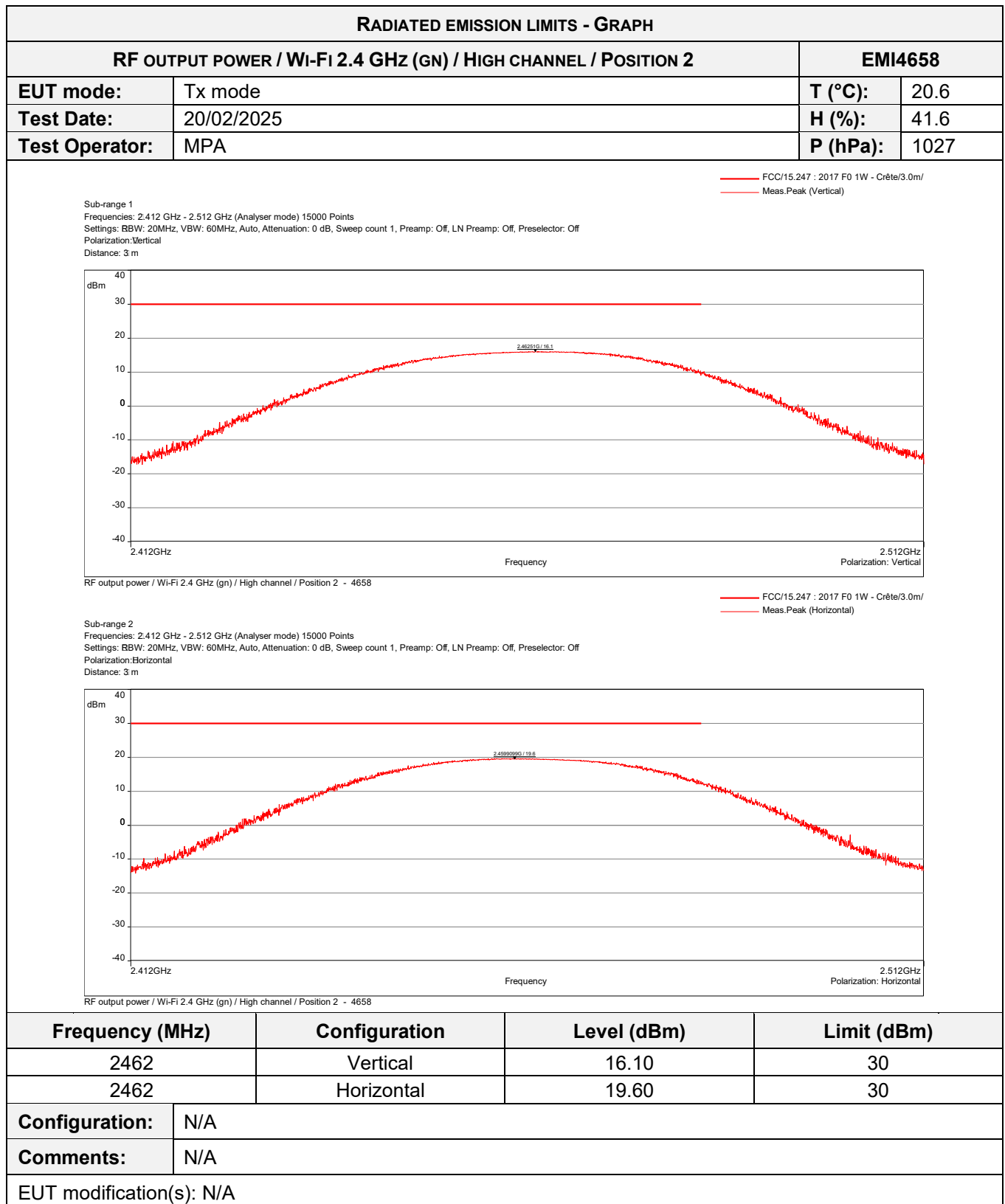


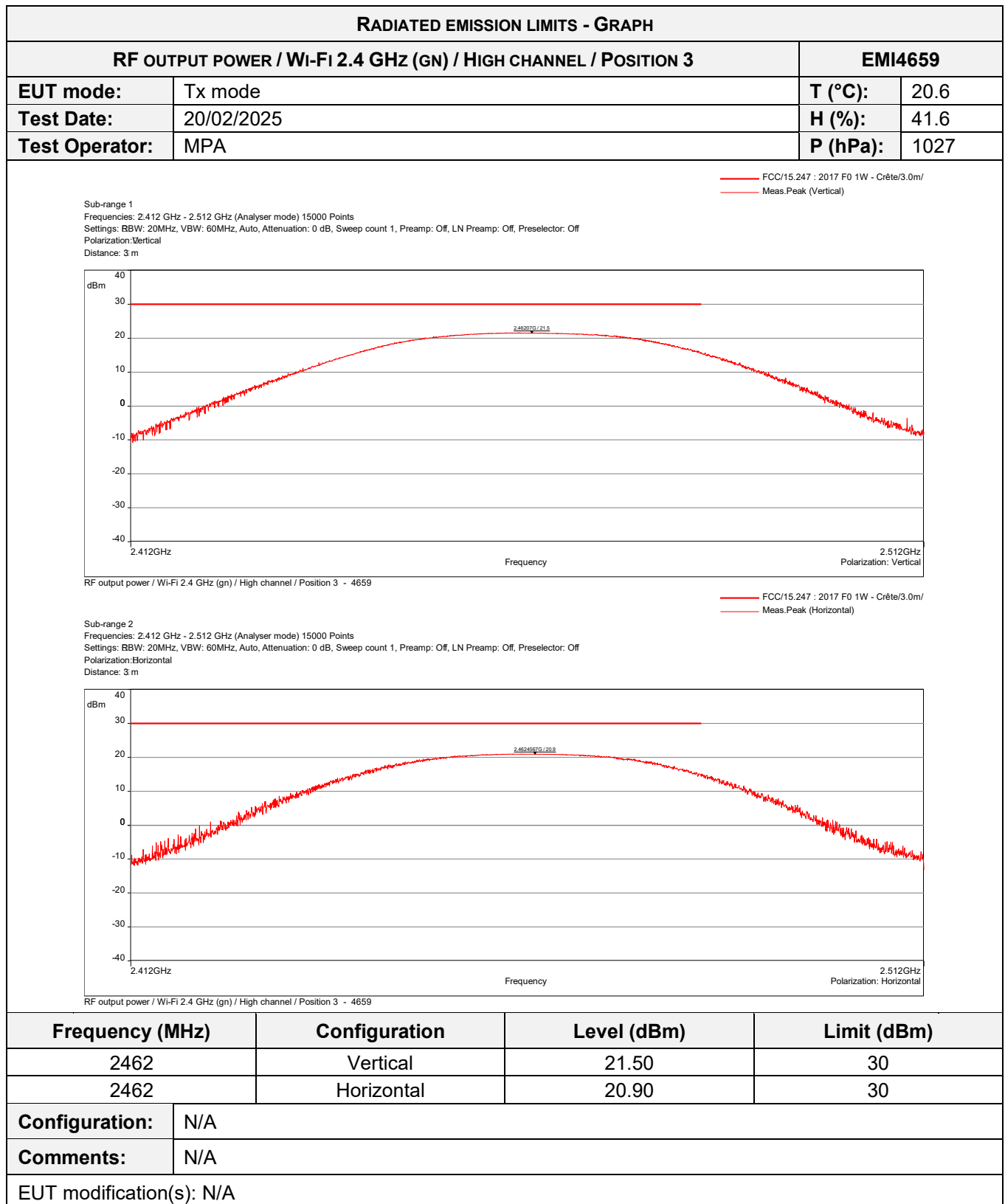


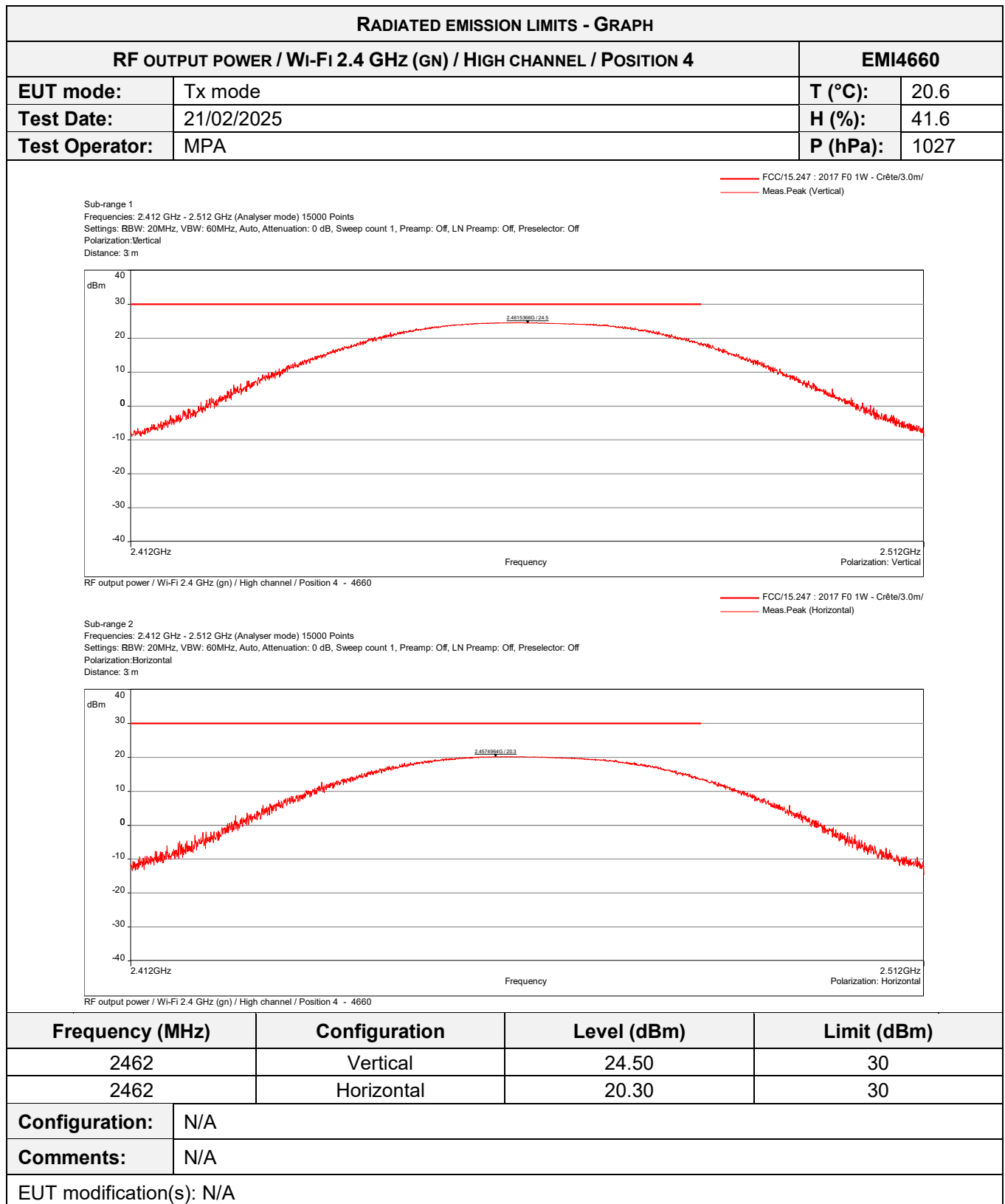


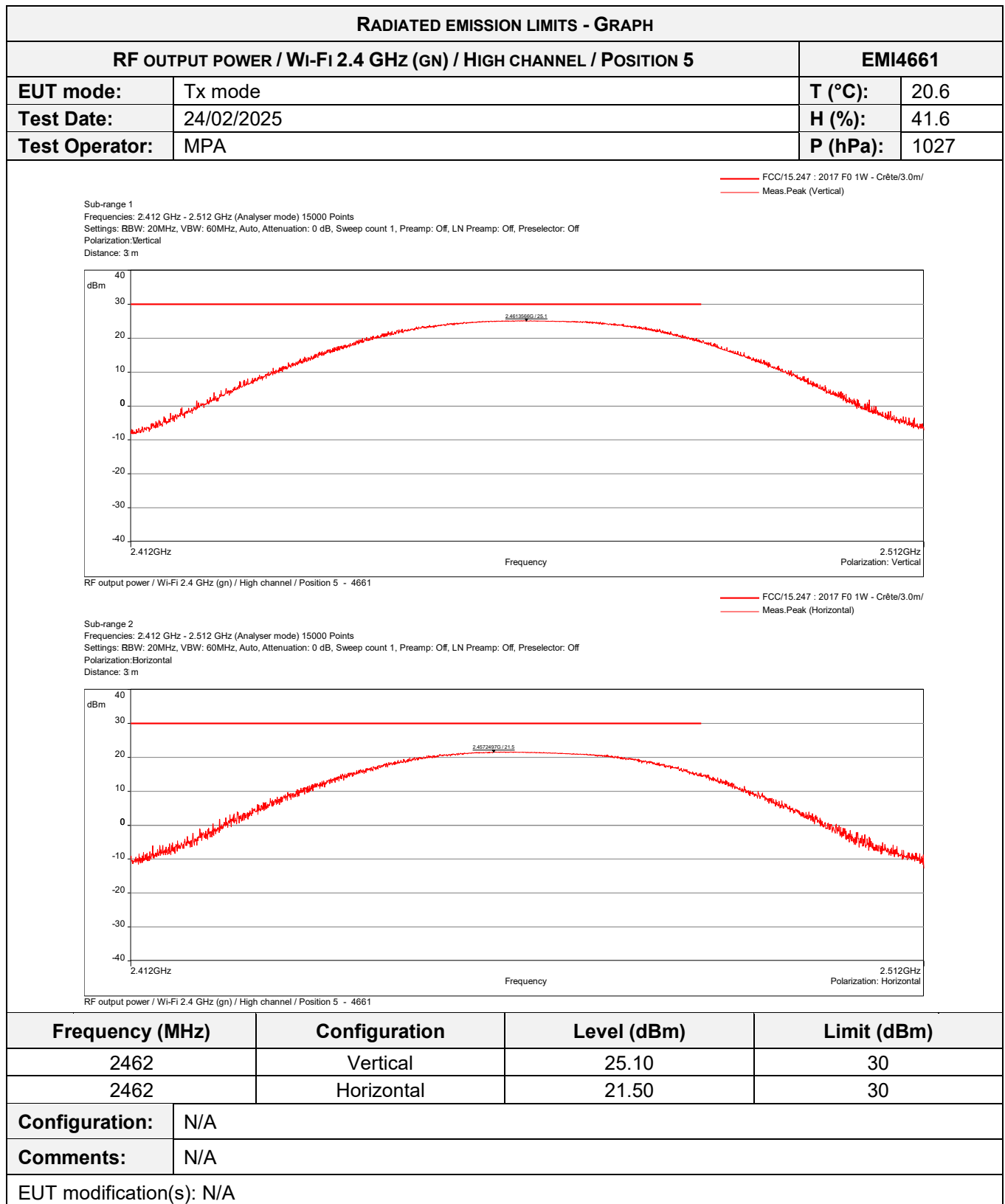


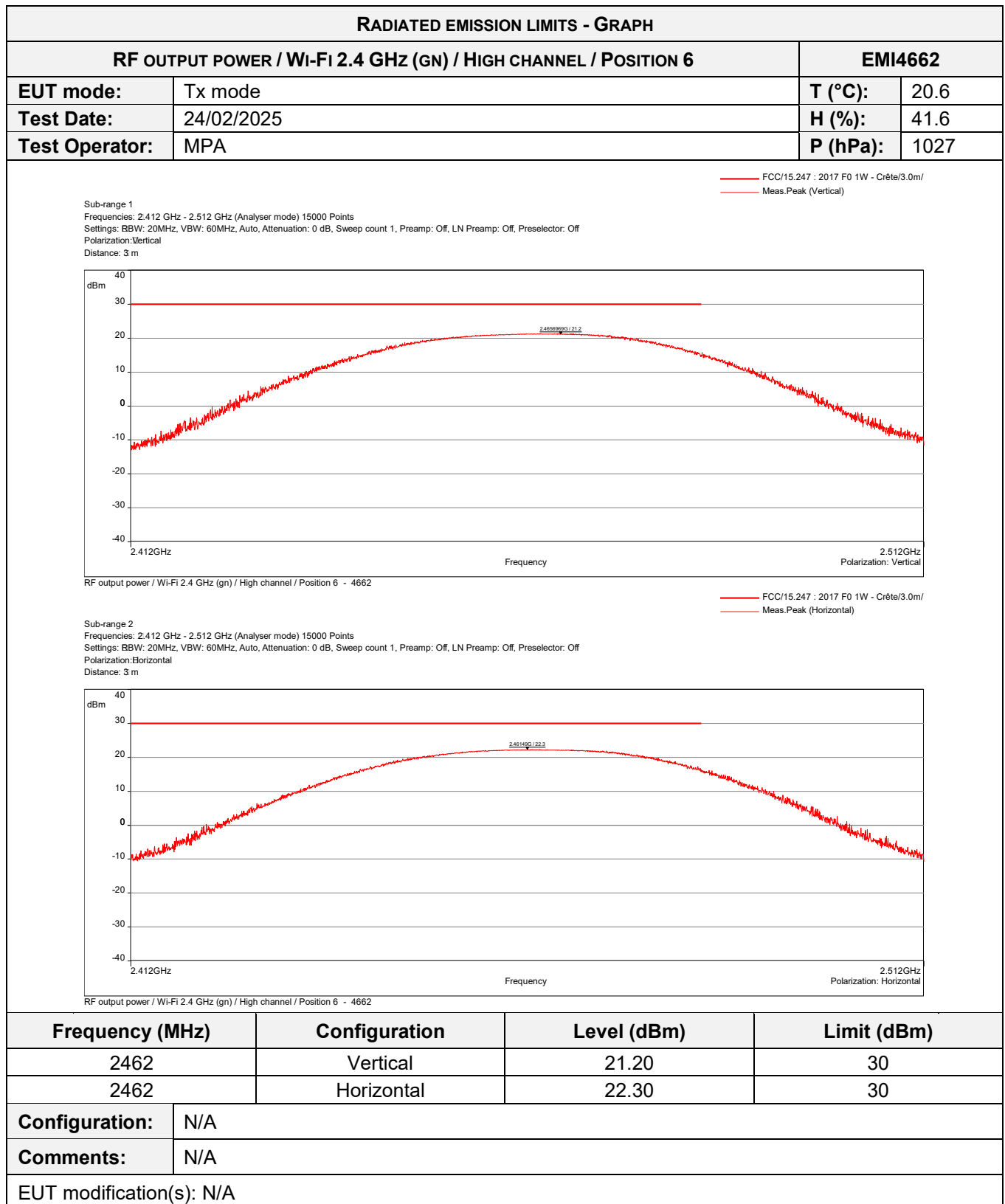












6.4. Power Spectral Density

Reference standard:	FCC part 15 Radio part 15.247 RSS-247
Test method:	ANSI C63.10
Test description: e) For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density. For EUT without dedicated or integral antenna, EUT is connected to the measuring receiver via 50Ω attenuator(s). Radiated power limit applies to the maximum measured conducted power value adjusted by the antenna gain and beamforming gain. For EUT with integral or dedicated antenna, measurements are done on a normalized test site. EUT is set on an insulating support at 150 cm above the ground reference plane. Measurement is done on a normalized test site by the substitution method. The test antenna is oriented in the two polarizations (vertical and horizontal), and the product is rotated at 360° in the horizontal plane (See photo(s) for initial position of the EUT(0°)). If applicable the test antenna was raised and lowered through the specified range of height until a maximum signal level is detected. For portable equipments: - For frequencies < 1GHz a research of maximum level is done on 3 axes - For frequencies > 1GHz styrofoam wedges, precut to the 30°, 60°, and 90° angles, are used to support the EUT in the 6 different orientations. Only the highest levels are recorded.	

TESTED CONFIGURATION	RESULT	SEVERITY	RESULT TAB.	VERDICT
PSD / Wi-Fi 2.4 GHz (b) / Low channel	-0.92 dBm/3kHz	8 dBm/3kHz	EMI4547	PASS
PSD / Wi-Fi 2.4 GHz (b) / Mid channel	-0.19 dBm/3kHz		EMI4548	PASS
PSD / Wi-Fi 2.4 GHz (b) / High channel	0.92 dBm/3kHz		EMI4549	PASS
PSD / Wi-Fi 2.4 GHz (gn) / Low channel	-6.39 dBm/3kHz		EMI4550	PASS
PSD / Wi-Fi 2.4 GHz (gn) / Mid channel	-5.51 dBm/3kHz		EMI4551	PASS
PSD / Wi-Fi 2.4 GHz (gn) / High channel	-3.99 dBm/3kHz		EMI4552	PASS

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	See Graph(s)
Relative Humidity	20 to 75 %	See Graph(s)
Atmospheric pressure	N/A	See Graph(s)
Test method deviation: N/A		
Supplementary information: N/A		

TEST EQUIPMENT USED					
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Antenna	AARONIA	Powerlog 70180	15306	04/01/2023	04/03/2026
Attenuator	EMITECH	SUB.V4-H	18112	03/06/2024	03/08/2025
Attenuator	EMITECH	SUB.V4-V	18111	03/06/2024	03/08/2025
Cable	/	N-1m	3625	02/05/2023	02/07/2025
Cable	Techniwave	N-2.5m	18350	17/08/2023	17/10/2025
Cable	Techniwave	N-3.5m	18352	17/08/2023	17/10/2025

CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Receiver	Rohde & Schwarz	FSW43	14830 ⁽¹⁾	31/08/2022	31/04/2025
Shielded enclosure	COMTEST	C.V4	18014	05/11/2024	05/01/2028
Software	Nexio	BAT EMC	0000		
Thermohygrometer	Testo	608-H1	7562	28/09/2023	28/11/2025
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/09/2023	25/11/2025

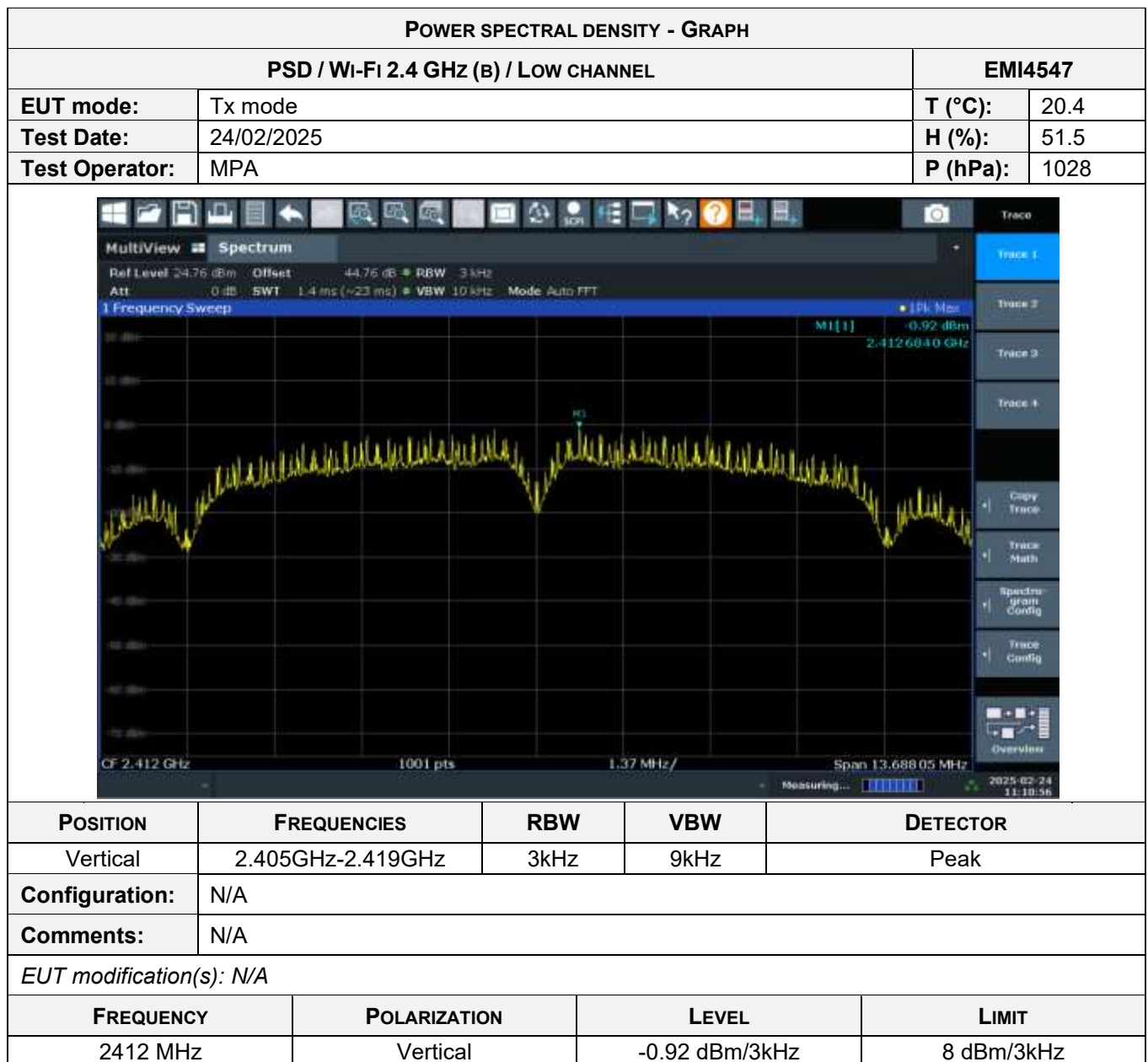
BAT-EMC software version: V3.18.0.26

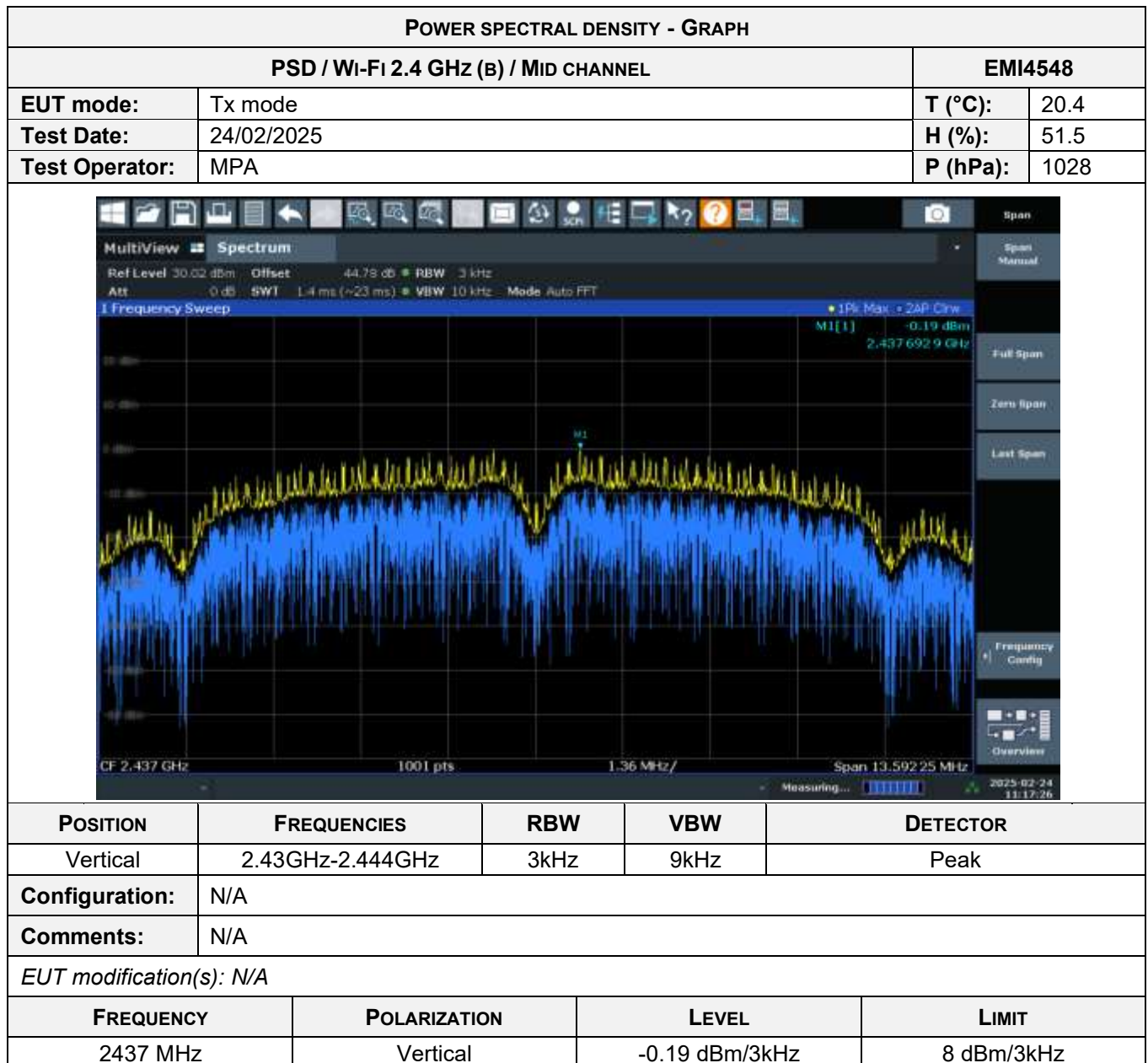
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(1) Under derogation EQSDER000S4100139

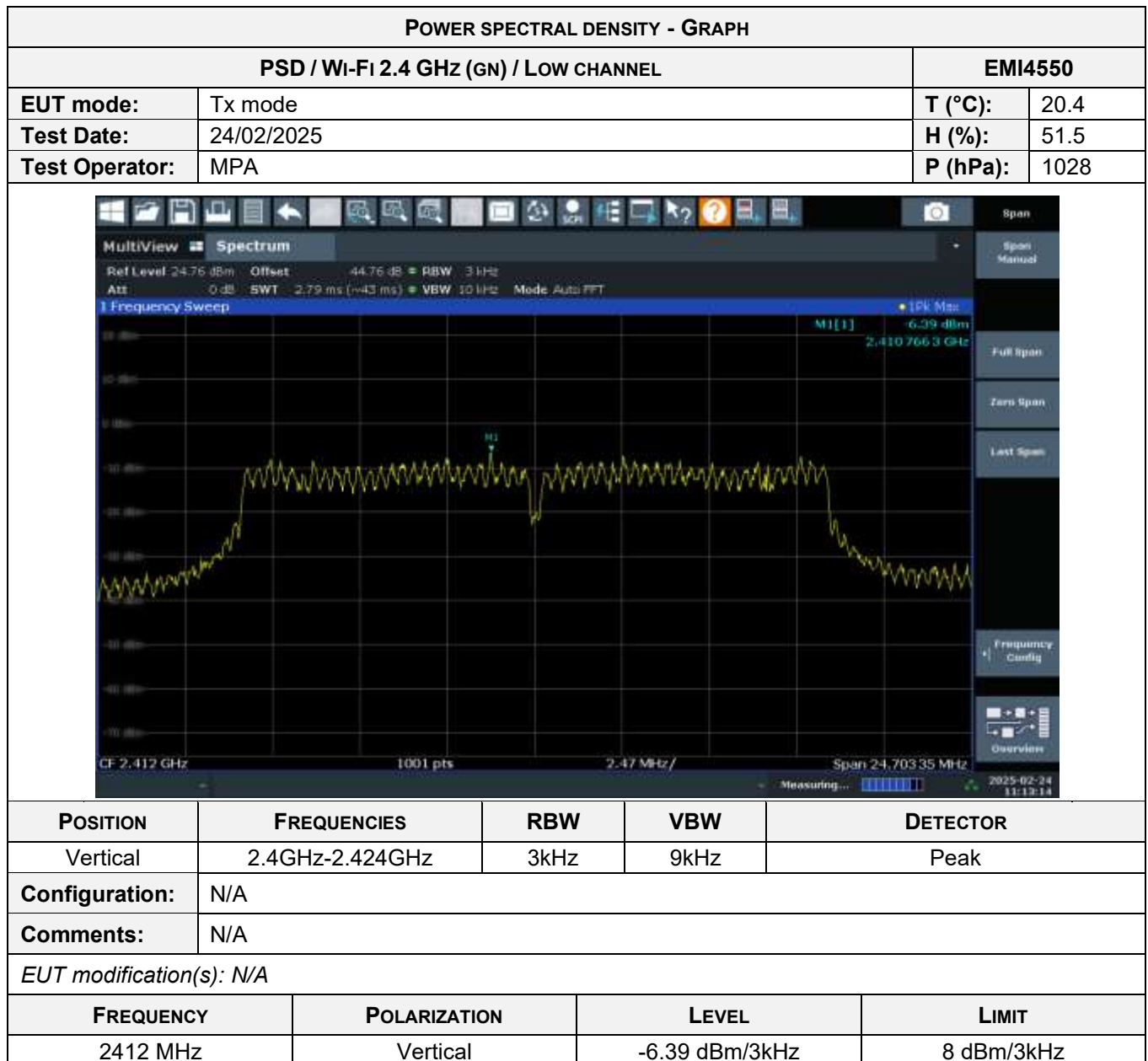
TEST SETUP PHOTO(S)

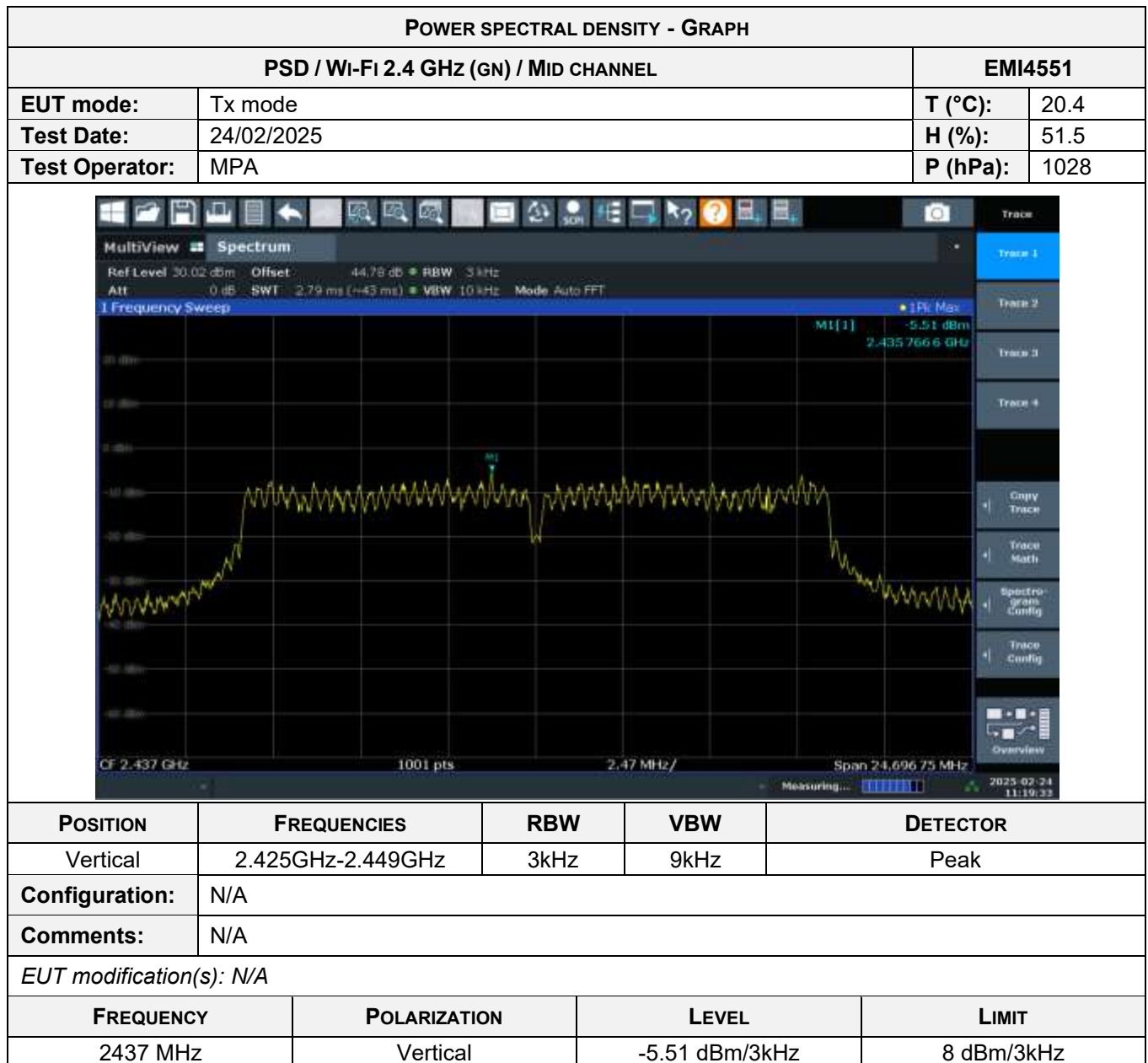


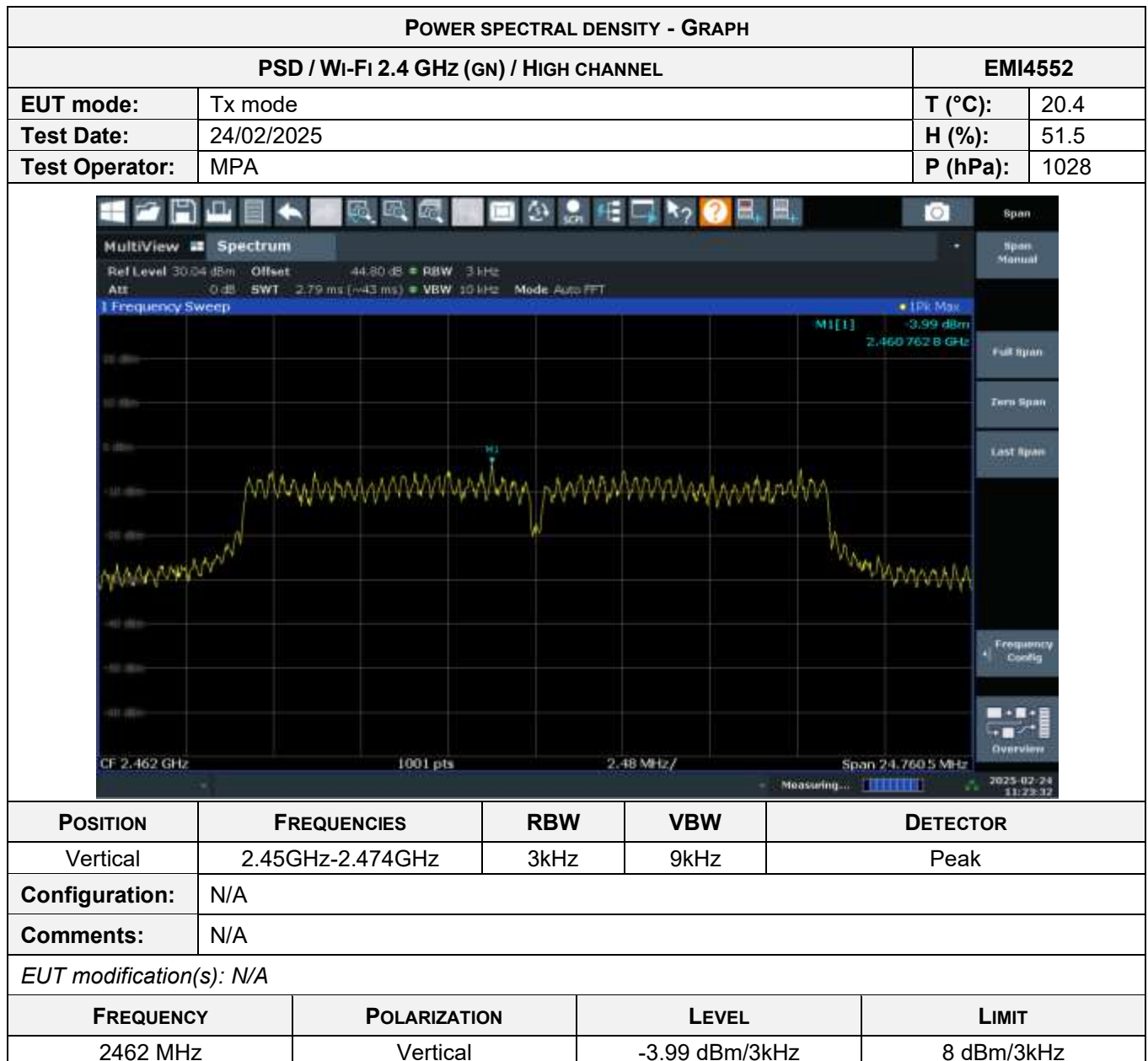




POWER SPECTRAL DENSITY - GRAPH				
PSD / Wi-Fi 2.4 GHz (B) / HIGH CHANNEL			EMI4549	
EUT mode:	Tx mode		T (°C):	20.4
Test Date:	24/02/2025		H (%):	51.5
Test Operator:	MPA		P (hPa):	1028
				
POSITION	FREQUENCIES	RBW	VBW	DETECTOR
Vertical	2.455GHz-2.469GHz	3kHz	9kHz	Peak
Configuration:	N/A			
Comments:	N/A			
EUT modification(s): N/A				
FREQUENCY	POLARIZATION	LEVEL	LIMIT	
2462 MHz	Vertical	0.92 dBm/3kHz	8 dBm/3kHz	







6.5. Band-edge compliance of emissions

Reference standard:	FCC part 15 Radio part 15.247 RSS-247
Test method:	ANSI C63.10
Test description: d) In any 100 kHz bandwidth outside the frequency band in which the 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, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. EUT is connected to the measuring receiver via 50Ω attenuator(s). Only the highest levels are recorded.	

TESTED CONFIGURATION	PARAMETER	SEVERITY	RESULT TAB.	VERDICT
Band edge / Wi-Fi 2.4 GHz (b) / Low channel	2.38GHz-2.5035GHz	20 dBc	EMI4706	PASS
Band edge / Wi-Fi 2.4 GHz (b) / Mid channel	2.38GHz-2.5035GHz	20 dBc	EMI4707	PASS
Band edge / Wi-Fi 2.4 GHz (b) / High channel	2.38GHz-2.5035GHz	20 dBc	EMI4708	PASS
Band edge / Wi-Fi 2.4 GHz (gn) / Low channel	2.38GHz-2.5035GHz	20 dBc	EMI4710	PASS
Band edge / Wi-Fi 2.4 GHz (gn) / Mid channel	2.38GHz-2.5035GHz	20 dBc	EMI4711	PASS
Band edge / Wi-Fi 2.4 GHz (gn) / High channel	2.38GHz-2.5035GHz	20 dBc	EMI4713	PASS

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	See Graph(s)
Relative Humidity	20 to 75 %	See Graph(s)
Atmospheric pressure	N/A	See Graph(s)
Test method deviation: N/A		
Supplementary information: N/A		

TEST EQUIPMENT USED					
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Antenna	AARONIA	Powerlog 70180	15306	04/01/2023	04/03/2026
Attenuator	EMITECH	SUB.V4-H	18112	03/06/2024	03/08/2025
Attenuator	EMITECH	SUB.V4-V	18111	03/06/2024	03/08/2025
Cable	/	N-1m	3625	02/05/2023	02/07/2025
Cable	Techniwave	N-2.5m	18350	17/08/2023	17/10/2025
Cable	Techniwave	N-3.5m	18352	17/08/2023	17/10/2025
Receiver	Rohde & Schwarz	FSW43	14830 ⁽¹⁾	31/08/2022	31/04/2025
Shielded enclosure	COMTEST	C.V4	18014	05/11/2024	05/01/2028
Software	Nexio	BAT EMC	0000		
Thermohygrometer	Testo	608-H1	7562	28/09/2023	28/11/2025
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/09/2023	25/11/2025

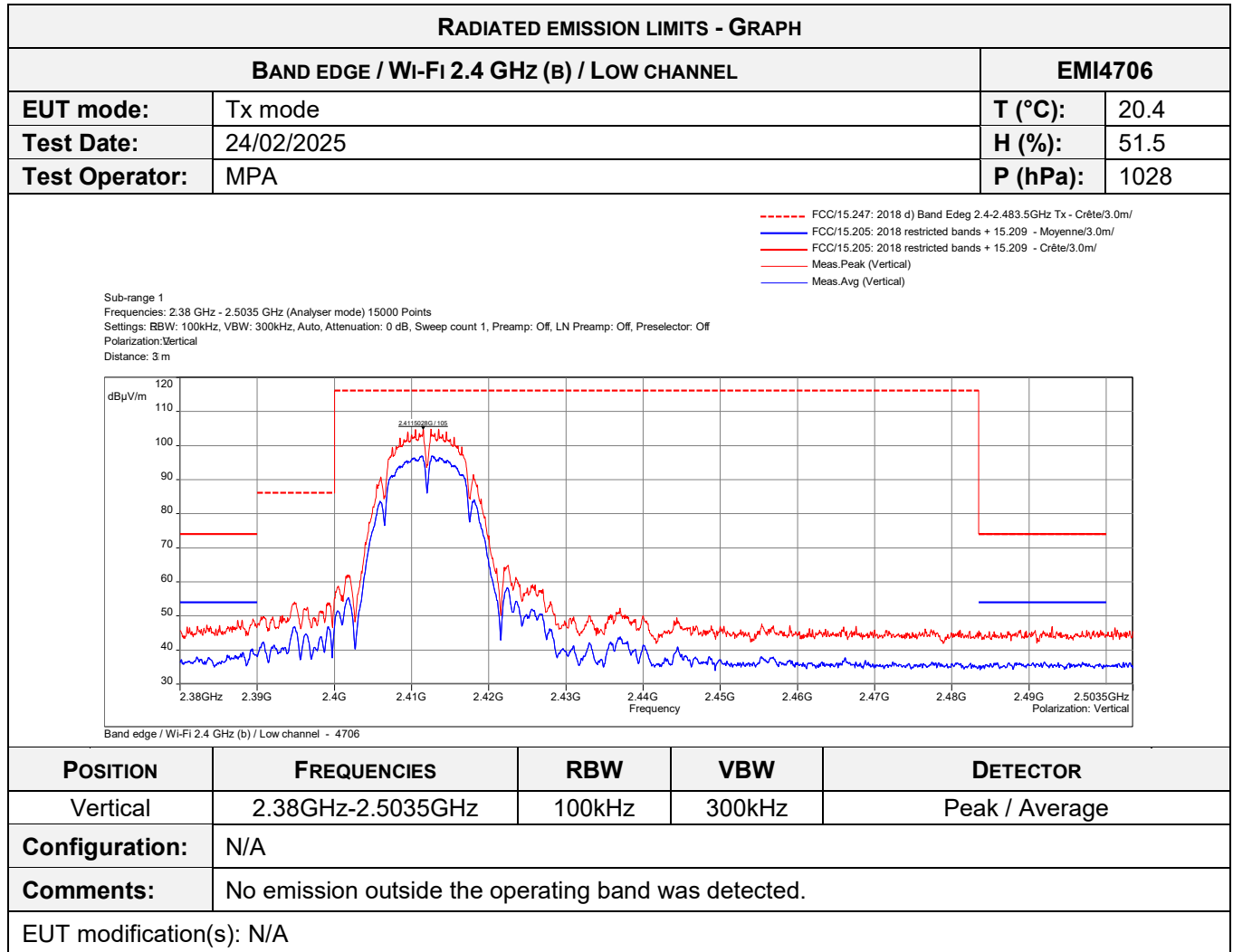
BAT-EMC software version: V3.18.0.26

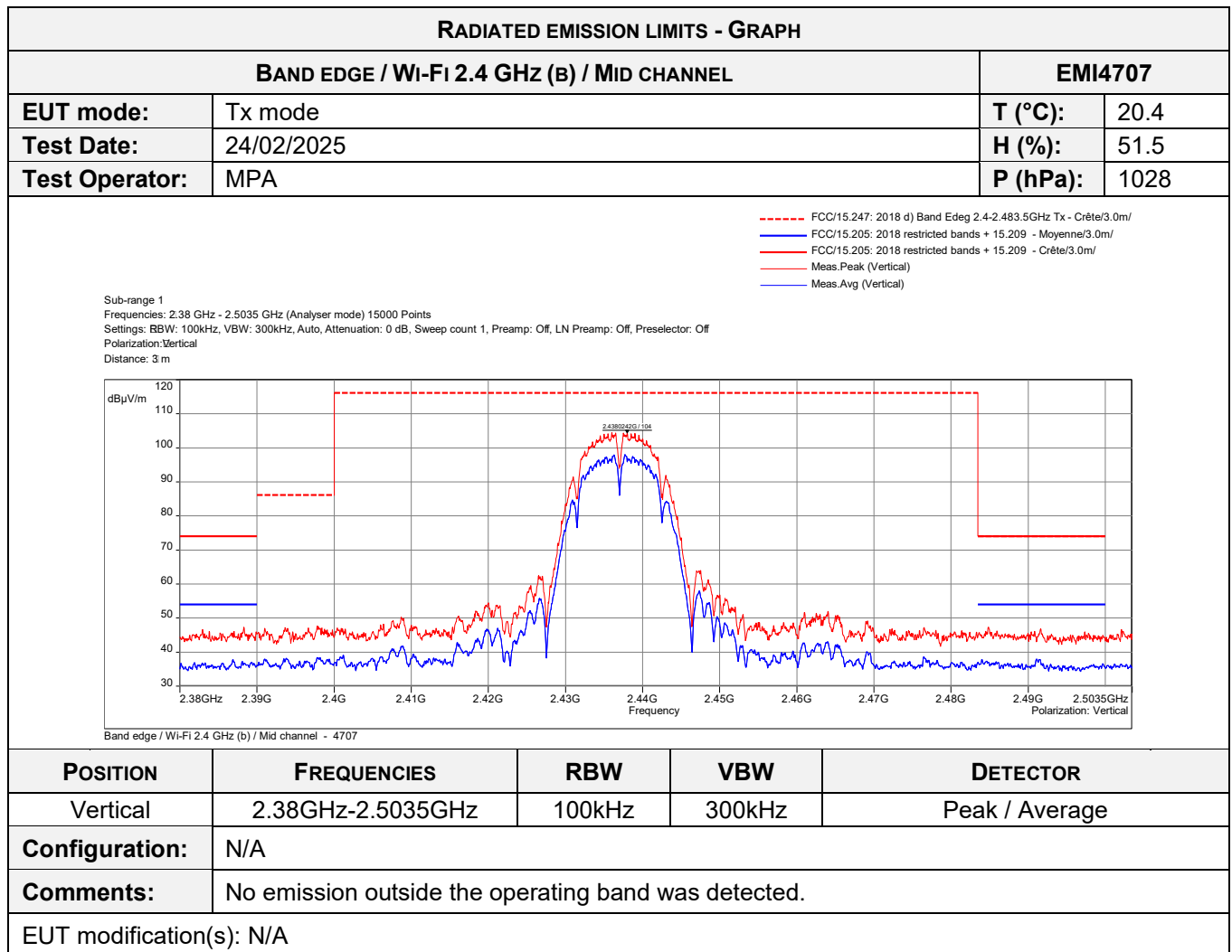
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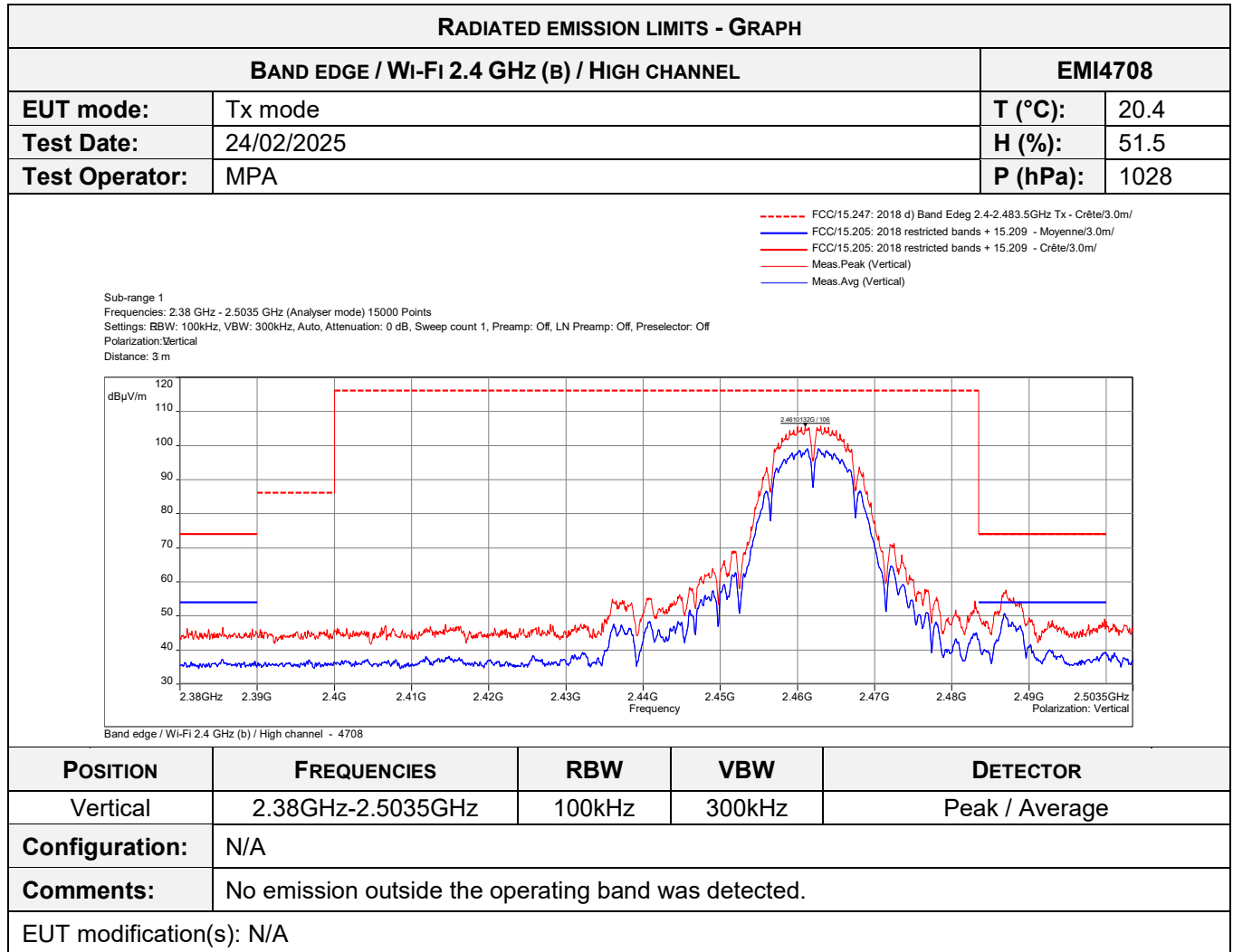
(1) Under derogation EQSDER000S4100139

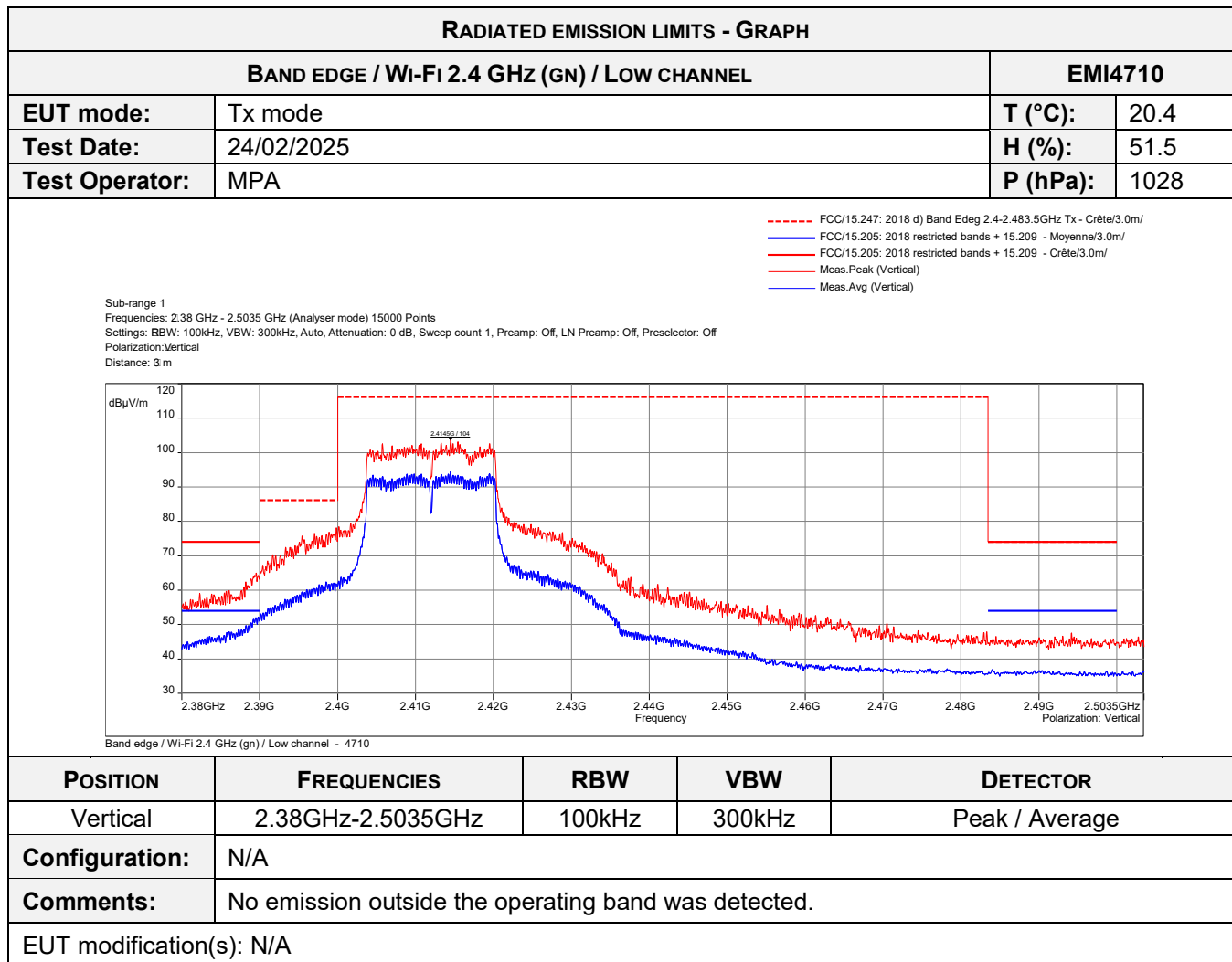
TEST SETUP PHOTO(S) – BAND EDGE

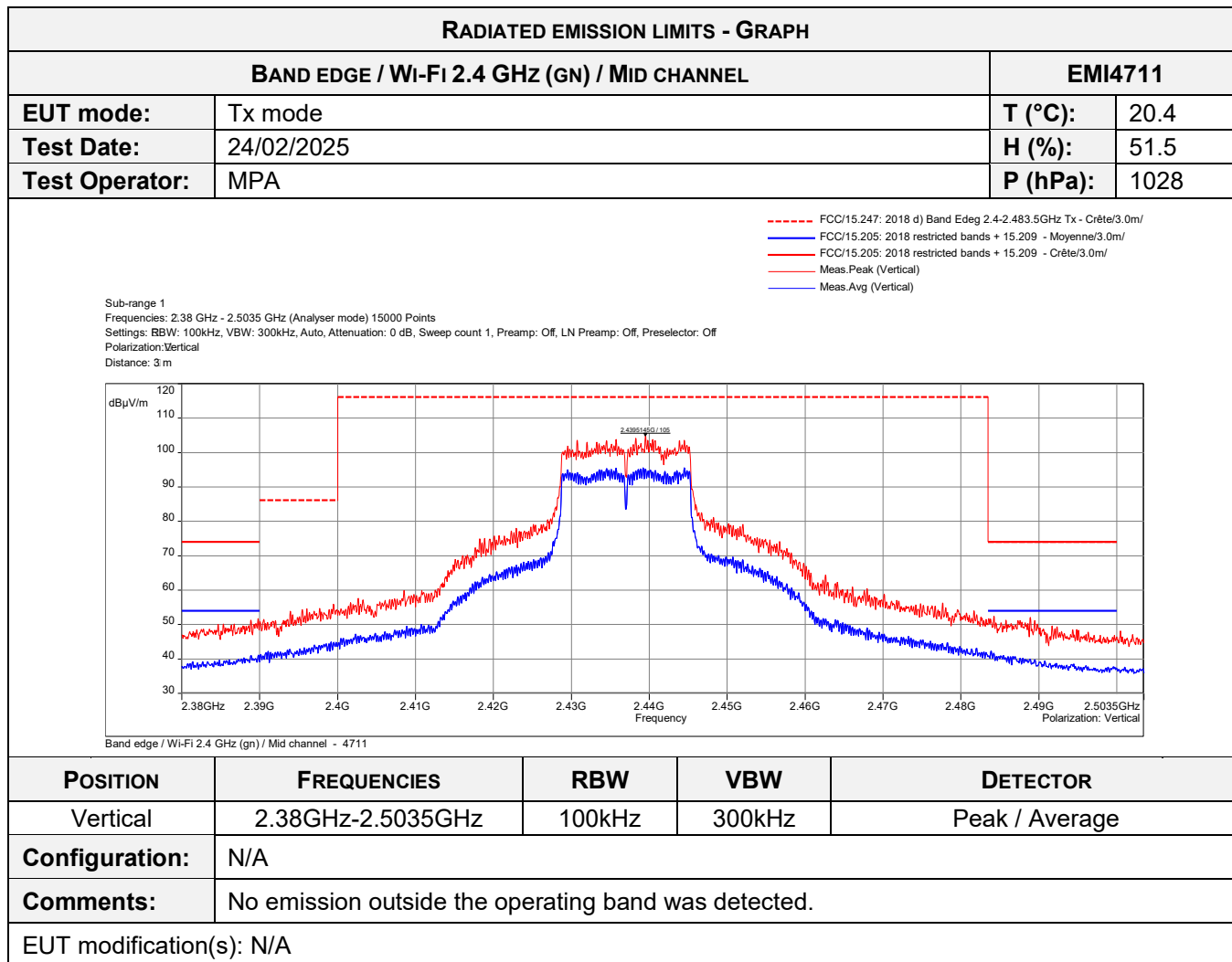


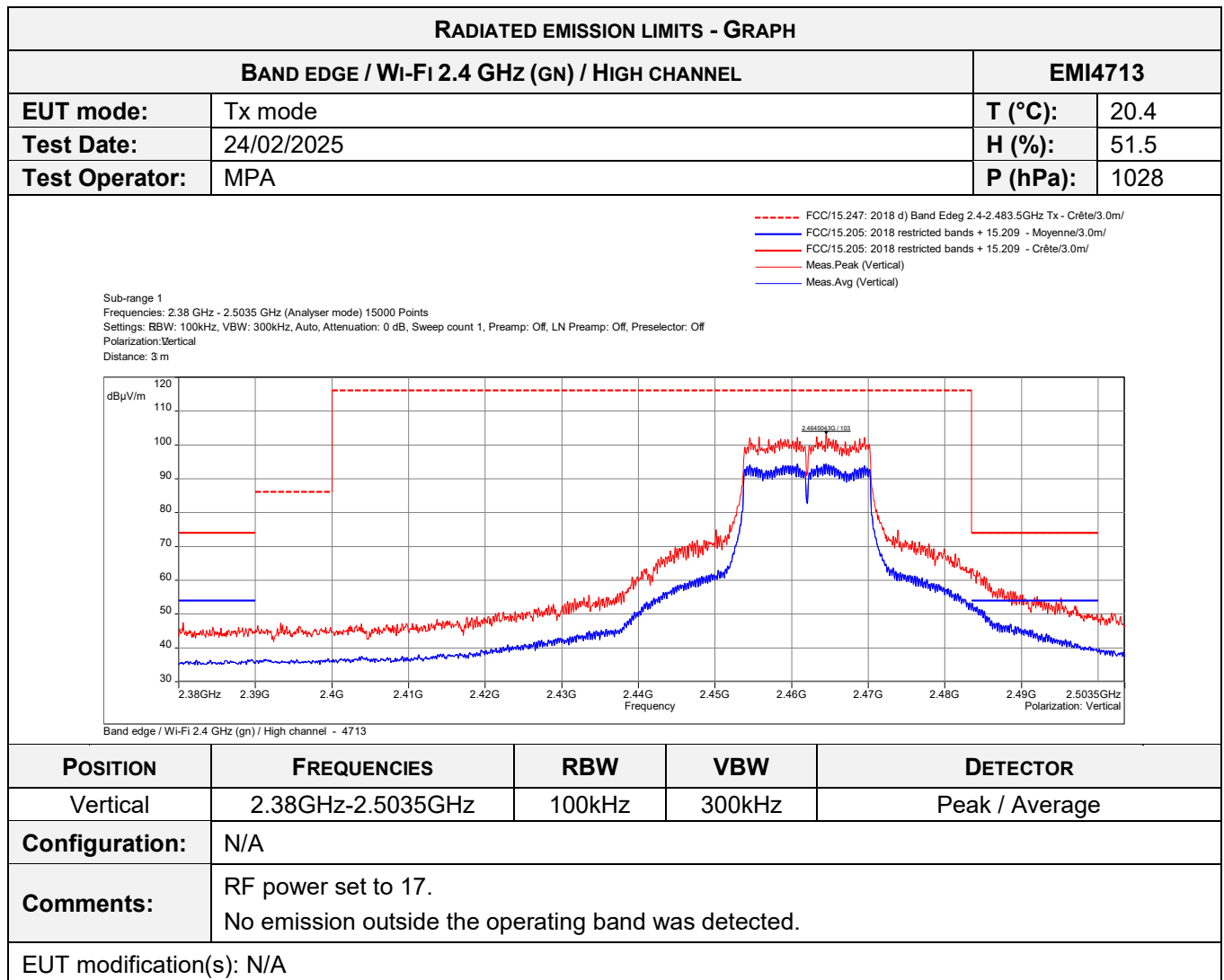












6.6. Frequency Stability

Reference standard:	FCC part 15 Radio part 15.215 RSS-Gen
Test method:	ANSI C63.10
General test setup: The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation. EUT is set inside the climatic enclosure. EUT is connected to the measuring receiver via 50Ω attenuator(s).	

TEST CASE	EUT MODE	SEVERITY	RESULT TAB.	VERDICT
Tx mode (b)	Tx mode	2400MHz-2483.5MHz	EMI5000	PASS
Tx mode (gn)	Tx mode	2400MHz-2483.5MHz	EMI5001	PASS

LABORATORY PARAMETERS:	REQUIRED PRIOR TO THE TEST	DURING THE TEST
Ambient Temperature	15 to 35 °C	22.5 °C
Relative Humidity	20 to 75 %	51.2 %
Atmospheric pressure	N/A	1012 hPa
Test method deviation: N/A		
Supplementary information: EUT power supply is replaced by a stabilized power supply.		

TEST EQUIPMENT USED					
CATEGORY	BRAND	TYPE	IDENTIFIER	CAL. DATE	CAL. DUE
Attenuator	Techniwave	TWSMA-10dB-18G-SMA	14673	30/01/2023	30/03/2026
Attenuator	Techniwave	TWSMA-20dB-18G-SMA	14679	07/03/2023	07/05/2026
Cable	SUCOFLEX	N-3m	14379	17/08/2023	17/10/2025
Cable	Radiall	SMA-1m	16563	16/08/2023	16/10/2025
Climatic enclosure	CLIMATS	EXCAL 7714-HA	14261	26/03/2024	26/05/2025
Power supply	TTI	PL303QMD	8496		
Spectrum analyzer	Rohde & Schwarz	FSW43	14830 ⁽¹⁾	31/08/2022	31/04/2025
Thermohygrometer	Bioblock Scientific	Météostar	0963	25/09/2023	25/11/2025
Thermohygrometer	Testo	608-H1	7561	17/12/2024	17/02/2026
Thermometer contactless	GHM Greisinger	GMH 3710	12968	28/02/2023	28/04/2025

Blank cells = Permanent validity

(1) Under derogation EQSDER000S4100139

TEST SETUP PHOTO(S)



FREQUENCY STABILITY - TABULATED RESULTS				
TX MODE (B)				EMI5000
Test Case	Temperature (°C)	Power supply (Vdc)	Frequency (MHz)	Frequency error (kHz)
Normal conditions	+25	3.3	2412.007208	-
			2436.995729	
			2461.989322	
Extremes voltage tests conditions		3.14	2412.003687	-3.521
			2436.995937	0.208
			2461.991191	1.859
		3.46	2412.002600	-4.593
			2436.996500	0.808
			2461.989800	0.452
Extremes temperature tests conditions	-40	3.3	2412.024031	16.823
			2436.991129	-4.600
			2461.963345	-25.977
Extremes temperature tests conditions	+85		2412.054300	47.123
			2437.055700	59.957
			2462.034600	45.284

FREQUENCY STABILITY - TABULATED RESULTS				
TX MODE (GN)				EMI5001
Test Case	Temperature (°C)	Power supply (Vdc)	Frequency (MHz)	Frequency error (kHz)
Normal conditions	+25	3.3	2412.034590	-
			2437.021027	
			2462.014964	
Extremes voltage tests conditions		3.14	2412.041538	6.948
			2437.033336	12.309
			2462.017520	2.556
		3.46	2412.008917	-25.673
			2437.032157	11.130
			2462.012501	-2.463
Extremes temperature tests conditions	-40	3.3	2412.049715	15.125
			2437.012228	-8.799
			2461.990409	-24.555
Extremes temperature tests conditions	+85		2412.012300	-22.242
			2437.042500	21.481
			2462.030200	15.274

EUT MODIFICATIONS	OPERATOR	TEST DATE	RESULT TAB.
N/A	MPA	12/02/2025	EMI5000 EMI5001

End of test report