5.6 Radiated emissions in restricted bands

For test instruments and accessories used see section 6 Part **SER1**, **SER2, SER3**.

5.6.1 Description of the test location

Test location:	OATS 1	
Test location:	Anechoic Chamber 1	
Test distance:	3 m	(9 kHz – 18 GHz)
Test distance:	1 m	(18 GHz – 26 GHz)

5.6.2 Photo documentation of the test set-up

For test setup photos see T44704-00 ATTACHMENT C

5.6.3 Applicable standard

According to FCC Part 15, Section 15.205(a):
In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limit specified in Section 15.209(a).

5.6.4 Description of Measurement

The restricted bands are measured radiated. The span of the spectrum analyser is set wide enough to capture the restricted band and measure the peak level of the emission operating on the channel closest to the band edge, as well as any modulation products which fall outside of the authorized band of operation. The restricted bands are measured falling emissions into it and the nearest restricted band are checked for emissions also the restricted band for the harmonics of the carrier. The measurement has been performed at 3 m. In the frequency range 9 kHz to 30 MHz the results have been compared to the limits defined at 30 m or 300 m distances according to FCC Part 15C, Section 15.31(f)(2) using an inverse linear distance extrapolation factor of 40 dB/decade.

Test receiver settings for SER1:
RBW: 200 Hz (9kHz – 150 kHz), 9 kHz (150 kHz – 30 MHz), Detector: Quasi peak (except for the bands 9 – 90 kHz and 110 – 490 kHz, where an average detector is used), Meas. Time: 1 s,

Test receiver settings for SER2:
RBW: 120 MHz, Detector: Quasi peak, Meas. Time: 1 s,

Spectrum analyser settings for SER3:
RBW: 1 MHz, VBW: 3 MHz, Detector: Max. peak, Trace: Max. hold, Sweep: Auto

5.6.5 Test result

Frequency range: 9 kHz - 1000 MHz
Min. limit margin 19.7 dB at 874.56 MHz

Frequency range: 1 GHz - 26 GHz
Max emission (Peak Detection) 56.8 dBµV/m at 4.686 GHz
Max emission (Average Detection) 53.5 dBµV/m at 4.880 GHz
Min. limit margin (Peak Detection) 17.2 dB at 4.686 GHz
Min. limit margin (Average Detection) 13.1 dB at 4.686 GHz

Radiated limits according to FCC Part 15 Section 15.209(a) for spurious emissions which fall in restricted bands:

Frequency	Field strength of spurious emissions		Measurement distance
(MHz)	(µV/m)	dB(µV/m)	(metres)
0.009-0.490	2400/F (kHz)		300
0.490-1.705	24000/F (kHz)		30
1.705-30	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Restricted bands of operation:

The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209

MHz	MHz	MHz	GHz
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1300 – 1427	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1435 – 1626.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1645.5 – 1646.5	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1660 – 1710	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	1718.8 – 1722.2	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2200 – 2300	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2310 – 2390	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2483.5 – 2500	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	2690 – 2900	22.01 – 23.12
8.41425 – 8.41475	162.0125 – 167.17	3260 – 3267	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3332 – 3339	31.2 – 31.8
12.51975 – 12.52025	240 – 285	3345.8 – 3358	36.43 – 36.5
12.57675 – 12.57725	322 – 335.4	3600 – 4400	Above 38.6

FCC ID: 2ATBZDS02DC02 IC: 25048-DS02DC02

RSS-Gen, Table 6 – Restricted Frequency Bands

MHz	MHz	MHz	GHz
0.090 - 0.110	12.57675 - 12.57725	399.9 - 410	7.250 - 7.750
0.495 - 0.505	13.36 - 13.41	608 - 614	8.025 – 8.500
2.1735 - 2.1905	16.42 - 16.423	960 - 1427	9.0 - 9.2
3.020 - 3.026	16.69475 - 16.69525	1435 - 1626.5	9.3 - 9.5
4.125 - 4.128	16.80425 - 16.80475	1645.5 - 1646.5	10.6 - 12.7
4.17725 - 4.17775	25.5 - 25.67	1660 - 1710	13.25 - 13.4
4.20725 - 4.20775	37.5 - 38.25	1718.8 - 1722.2	14.47 - 14.5
5.677 - 5.683	73 - 74.6	2200 - 2300	15.35 - 16.2
6.215 - 6.218	74.8 - 75.2	2310 - 2390	17.7 - 21.4
6.26775 - 6.26825	108 – 138	2483.5 - 2500	22.01 - 23.12
6.31175 - 6.31225	149.9 - 150.05	2655 - 2900	23.6 - 24.0
8.291 - 8.294	156.52475 - 156.52525	3260 – 3267	31.2 - 31.8
8.362 - 8.366	156.7 - 156.9	3332 - 3339	36.43 - 36.5
8.37625 - 8.38675	162.0125 - 167.17	3345.8 - 3358	Above 38.6
8.41425 - 8.41475	167.72 - 173.2	3500 - 4400	
12.29 - 12.293	240 – 285	4500 - 5150	
12.51975 - 12.52025	322 - 335.4	5350 - 5460	

The requirements are **FULFILLED.**

Remarks: The measurement was performed up to the 10th harmonic. Pre -measurements showed that there is no influence of transmitting channel on the emissions in the frequency range 9 kHz – 1000 MHz. For final measurement, only CH17 was measured.

During the final measurements, no emissions from the EUT in the frequency range 9 kHz to 1000 MHz could have been detected. The given values only represent the noise floor.

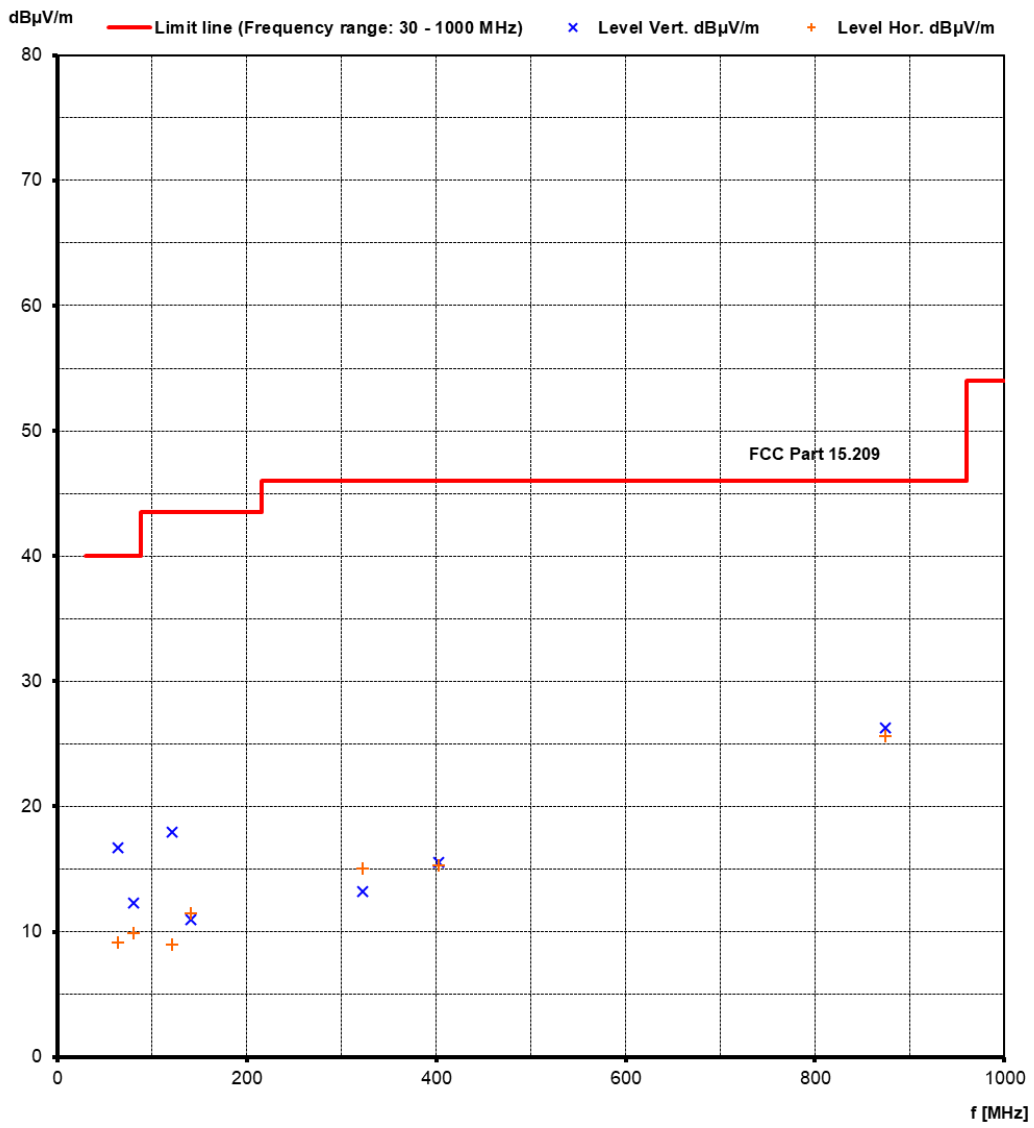
For detailed test results please see the following test protocols.

FCC ID: 2ATBZDS02DC02 IC: 25048-DS02DC02

5.6.6 Test protocols radiated emissions

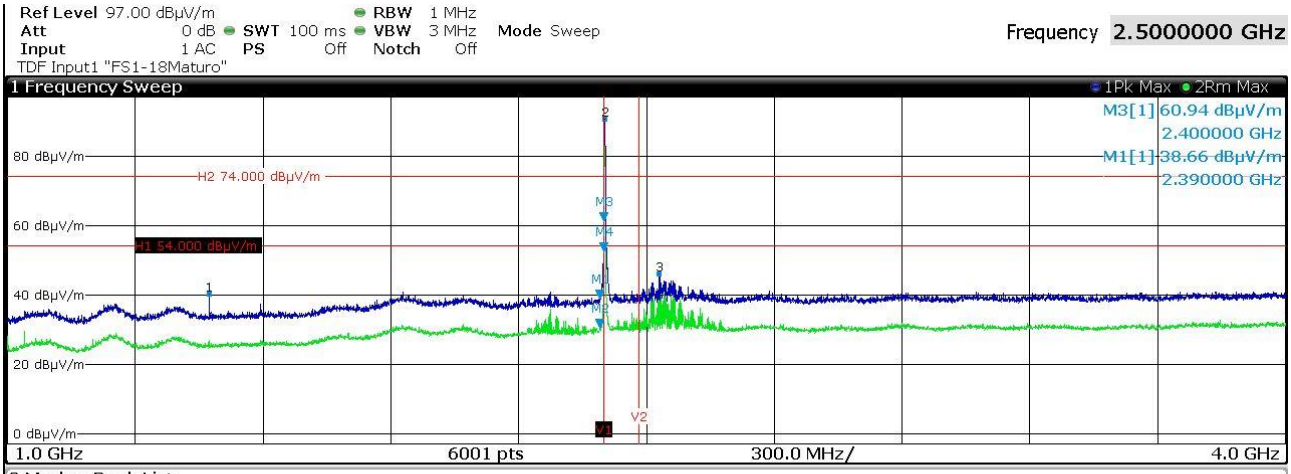
30 MHz ≤ f ≤ 1000 MHz:

Frequency (MHz)	Reading Vert. (dBµV)	Reading Hor. (dBµV)	Correct. Vert. (dB)	Correct. Hor. (dB)	Level Vert. (dBµV/m)	Level Hor. (dBµV/m)	Limit (dBµV/m)	Dlimit (dB)
63.99	3.1	-3.6	13.6	12.8	16.7	9.2	40.0	-23.3
80.48	2.0	-0.2	10.3	10.0	12.3	9.8	40.0	-27.7
120.55	6.2	-3.3	11.8	12.2	18.0	8.9	43.5	-25.5
140.82	-1.7	-2.1	12.7	13.6	11.0	11.5	43.5	-32.0
322.12	-3.3	-1.1	16.5	16.1	13.2	15.0	46.0	-31.0
402.43	-3.4	-3.4	18.9	18.7	15.5	15.3	46.0	-30.5
874.56	-2.4	-2.6	28.7	28.2	26.3	25.6	46.0	-19.7



FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

1 GHz ≤ f ≤ 26 GHz
2402 MHz, horizontal polarisation, EUT-X:

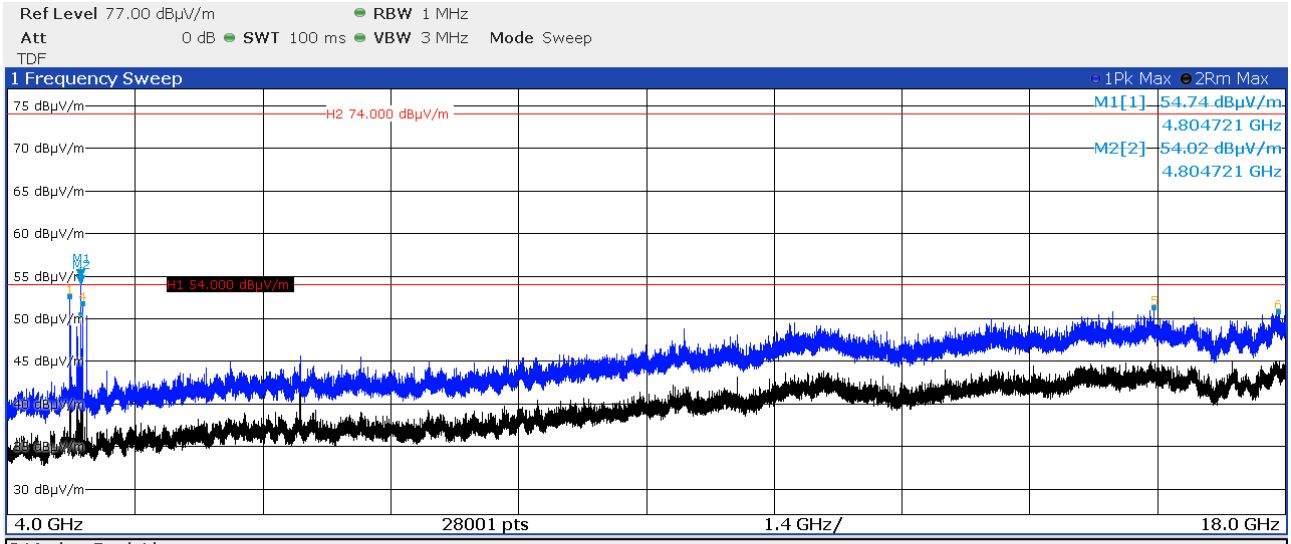


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	1.474170 GHz	40.050 dBµV/m	3	2.530490 GHz	46.081 dBµV/m
2	2.402520 GHz	90.516 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.39 GHz**	**38.66 dBµV/m**		
M2		2	**2.39 GHz**	**30.25 dBµV/m**		
M3		1	**2.4 GHz**	**60.94 dBµV/m**		
M4		2	**2.4 GHz**	**52.34 dBµV/m**		



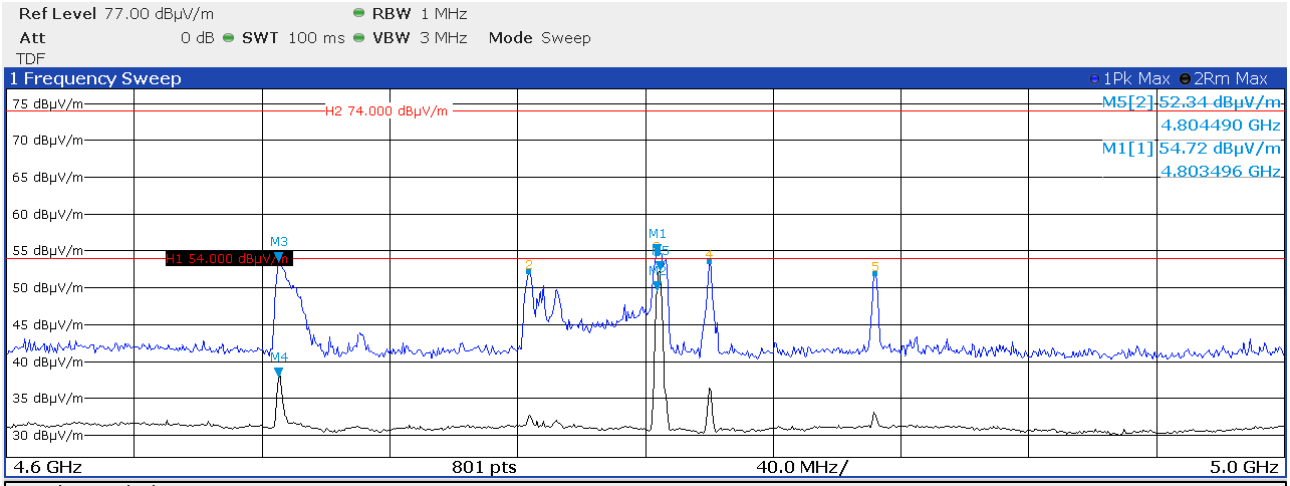
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.686230 GHz	52.610 dBµV/m	4	4.820220 GHz	51.722 dBµV/m
2	4.804720 GHz	54.738 dBµV/m	5	16.560300 GHz	51.317 dBµV/m
3	4.806720 GHz	50.431 dBµV/m	6	17.918250 GHz	50.864 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.804721 GHz**	**54.74 dBµV/m**		
M2		2	**4.804721 GHz**	**54.02 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

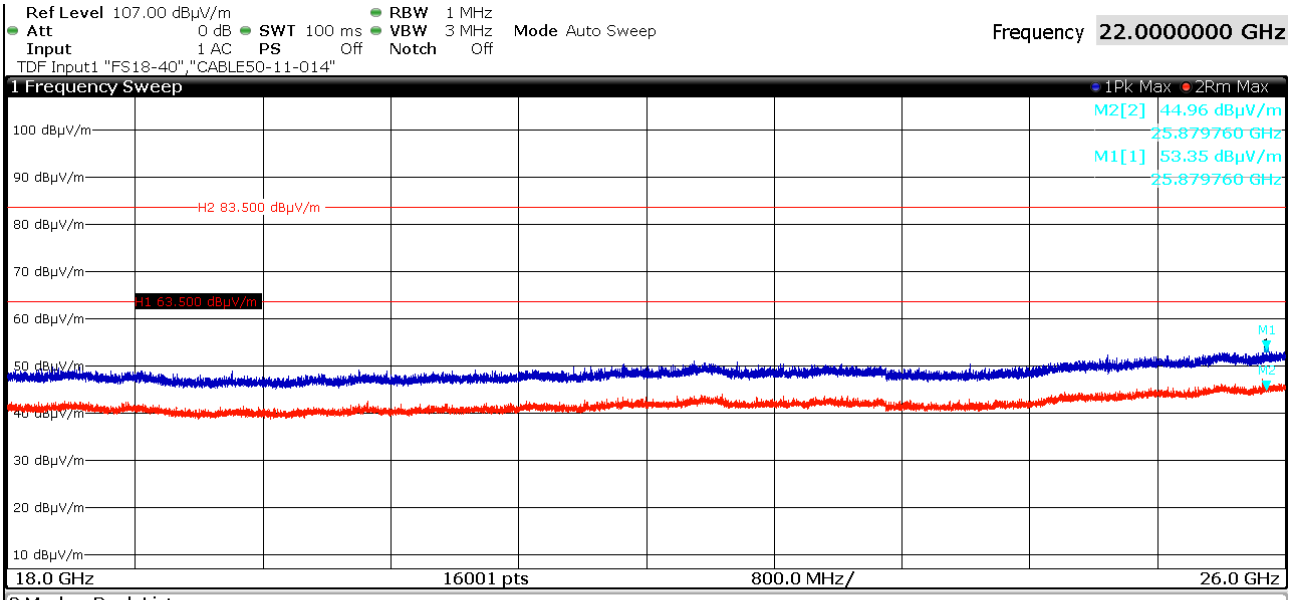


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685140 GHz	53.603 dBµV/m	4	4.819980 GHz	53.514 dBµV/m
2	4.763550 GHz	52.167 dBµV/m	5	4.871910 GHz	51.945 dBµV/m
3	4.803500 GHz	54.721 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.803496 GHz**	**54.72 dBµV/m**		
M2		2	**4.803496 GHz**	**49.56 dBµV/m**		
M3		1	**4.68514 GHz**	**53.60 dBµV/m**		
M4		2	**4.685144 GHz**	**37.89 dBµV/m**		
M5		2	**4.80449 GHz**	**52.34 dBµV/m**		

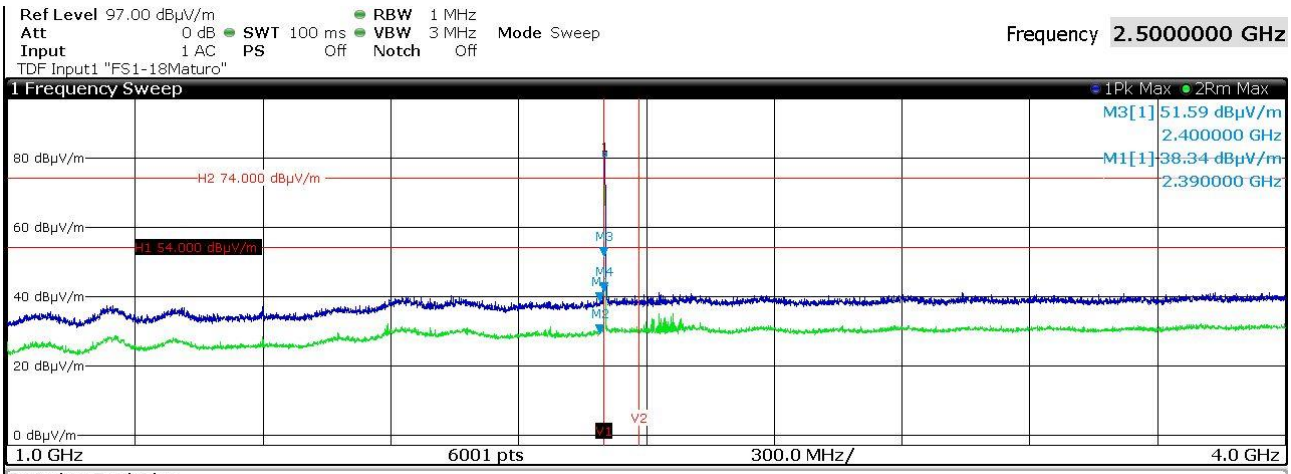


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.879760 GHz	53.349 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2402 MHz, vertical polarisation, EUT-X:

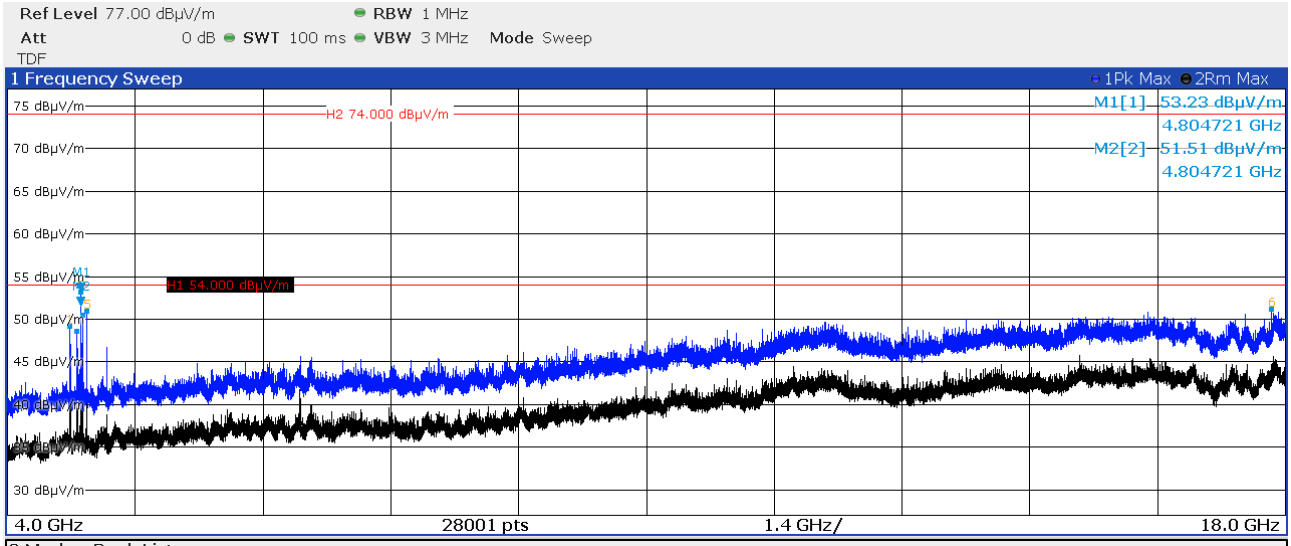


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.402020 GHz	81.115 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.39 GHz**	**38.34 dBµV/m**		
M2		2	**2.39 GHz**	**29.32 dBµV/m**		
M3		1	**2.4 GHz**	**51.59 dBµV/m**		
M4		2	**2.4 GHz**	**41.44 dBµV/m**		



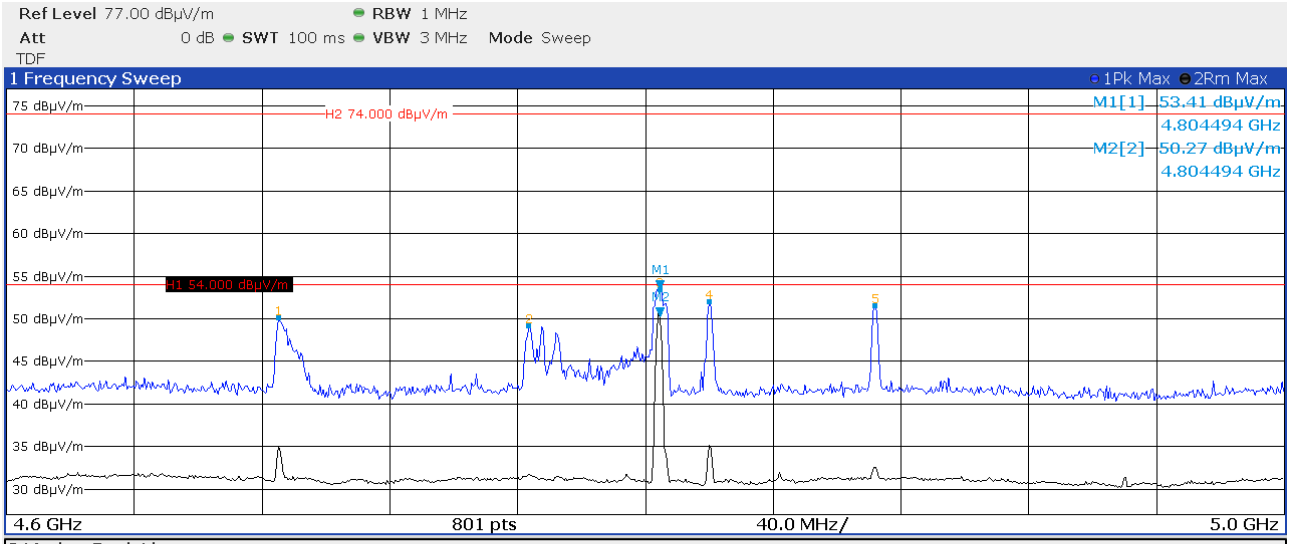
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685230 GHz	49.142 dBµV/m	4	4.820220 GHz	50.471 dBµV/m
2	4.763220 GHz	48.583 dBµV/m	5	4.871720 GHz	50.949 dBµV/m
3	4.804720 GHz	53.234 dBµV/m	6	17.847260 GHz	51.116 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.804721 GHz**	**53.23 dBµV/m**		
M2		2	**4.804721 GHz**	**51.51 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

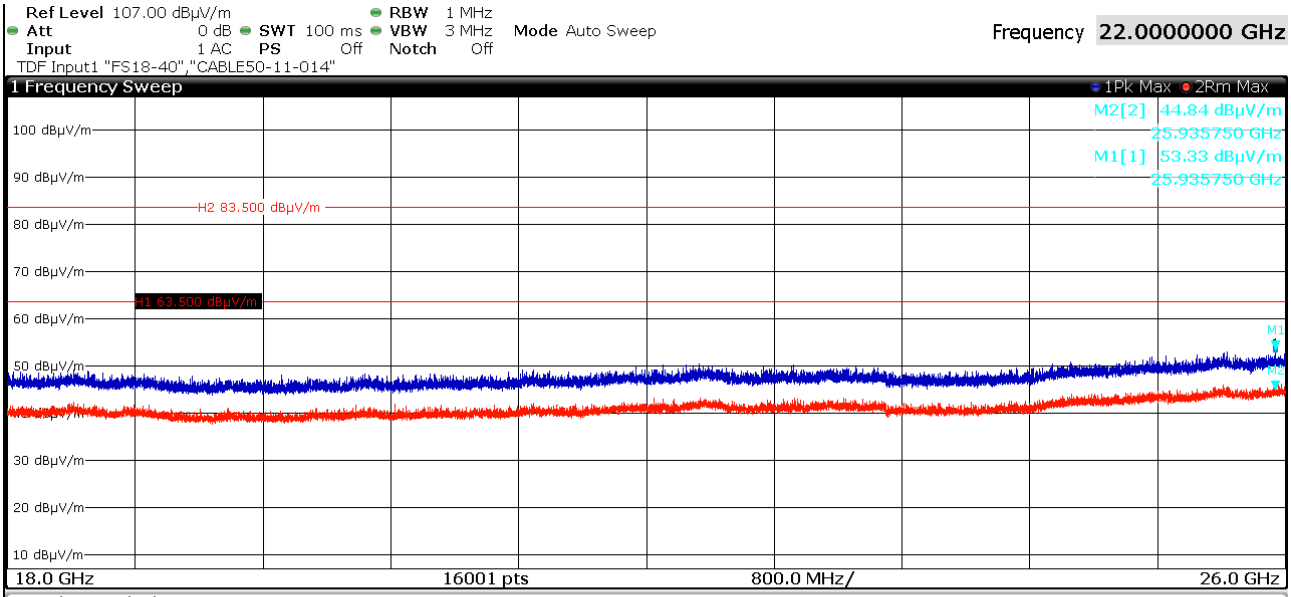


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685140 GHz	50.086 dBµV/m	4	4.819980 GHz	52.014 dBµV/m
2	4.763550 GHz	49.187 dBµV/m	5	4.871910 GHz	51.555 dBµV/m
3	4.804490 GHz	53.409 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.804494 GHz**	**53.41 dBµV/m**		
M2		2	**4.804494 GHz**	**50.27 dBµV/m**		

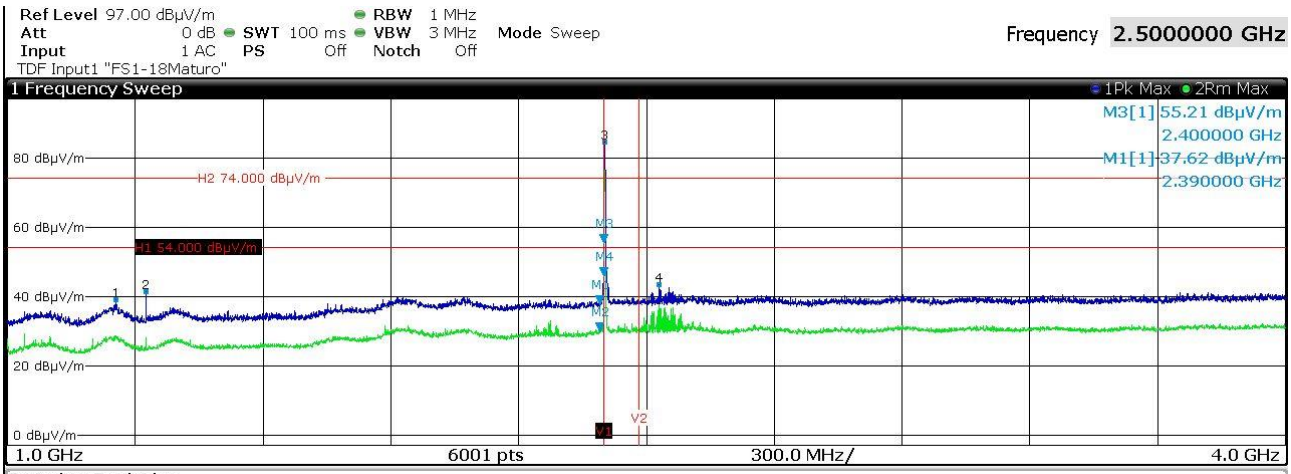


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.935750 GHz	53.329 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2402 MHz, horizontal polarisation, EUT-Y:

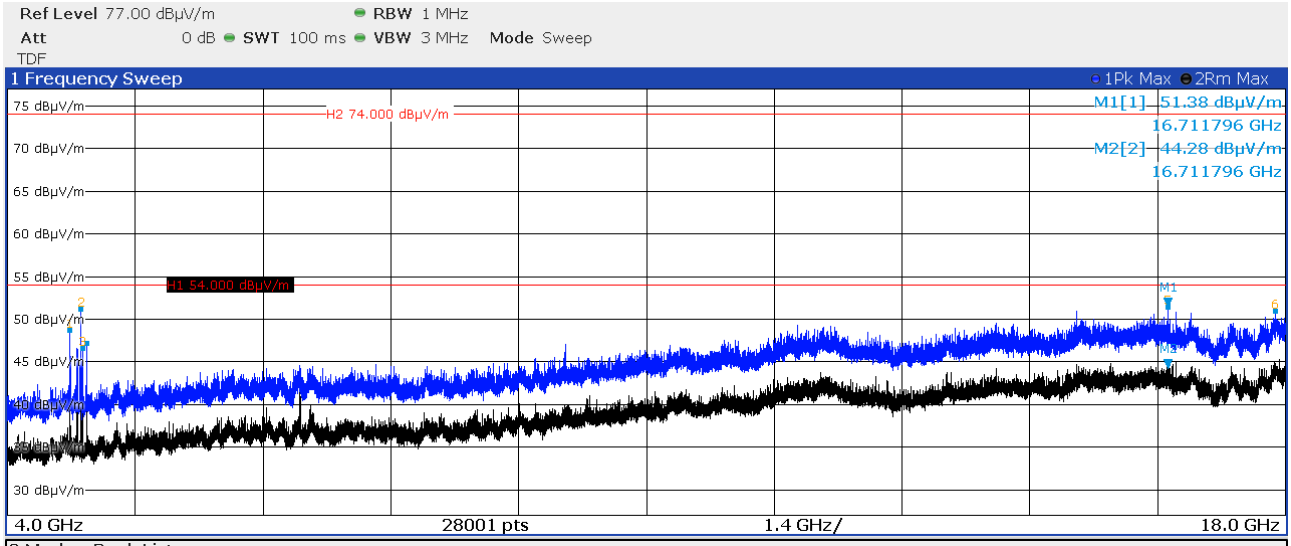


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	1.255210 GHz	39.071 dBµV/m	3	2.402020 GHz	84.465 dBµV/m
2	1.325200 GHz	41.369 dBµV/m	4	2.530000 GHz	43.379 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.39 GHz**	**37.62 dBµV/m**		
M2		2	**2.39 GHz**	**29.63 dBµV/m**		
M3		1	**2.4 GHz**	**55.21 dBµV/m**		
M4		2	**2.4 GHz**	**45.58 dBµV/m**		



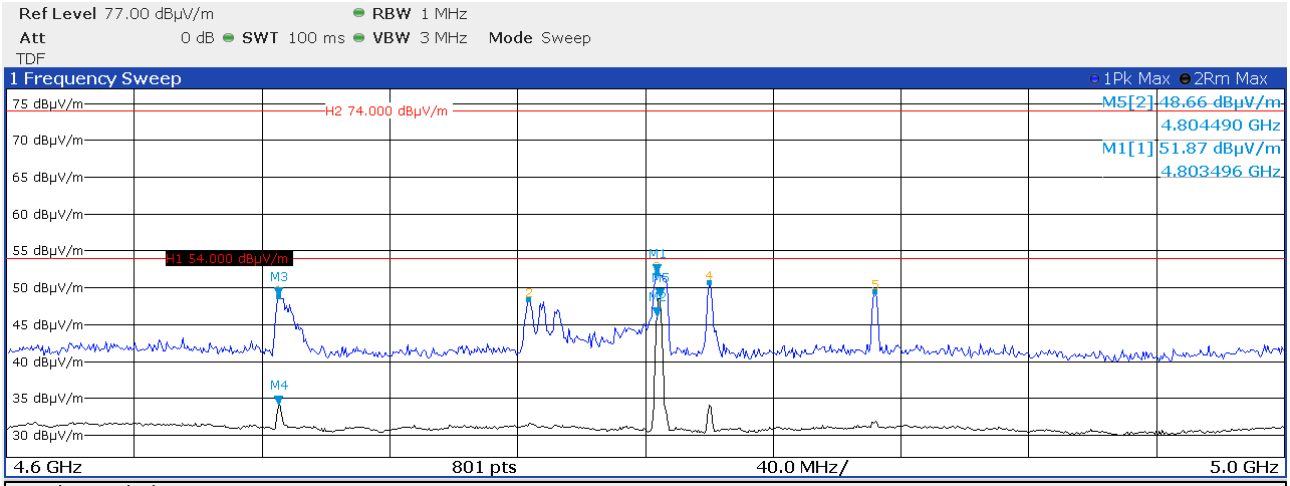
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.686230 GHz	48.711 dBµV/m	4	4.871720 GHz	47.132 dBµV/m
2	4.804720 GHz	51.187 dBµV/m	5	16.711800 GHz	51.376 dBµV/m
3	4.819720 GHz	46.544 dBµV/m	6	17.885750 GHz	50.917 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**16.711796 GHz**	**51.38 dBµV/m**		
M2		2	**16.711796 GHz**	**44.28 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

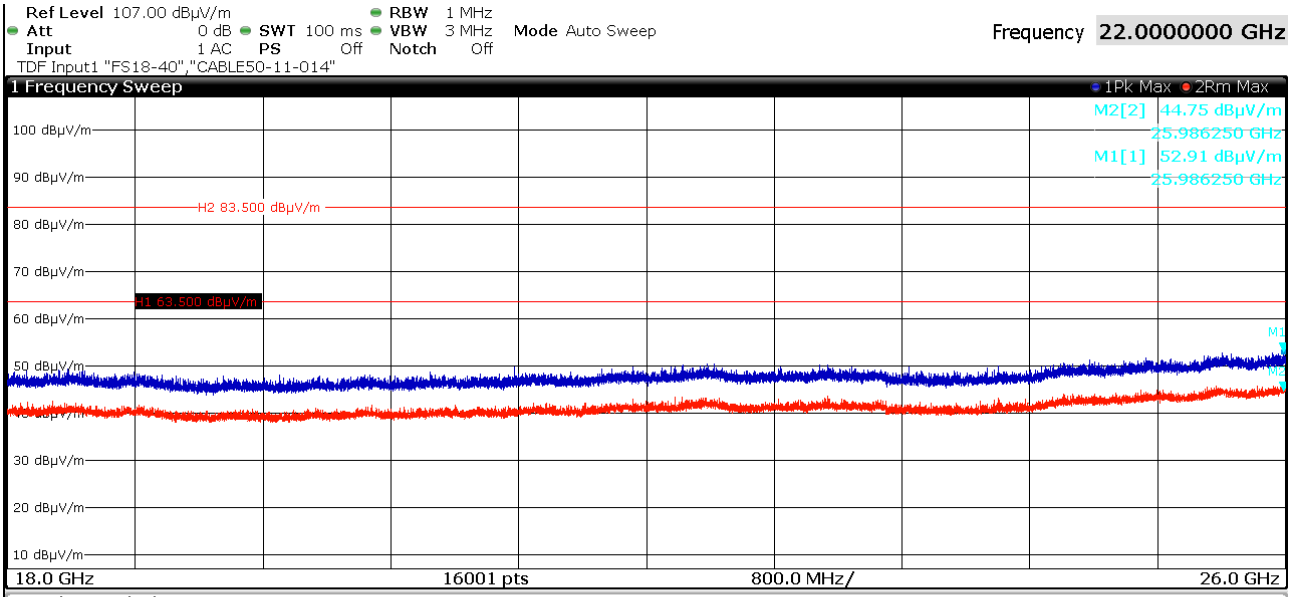


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685140 GHz	48.862 dBµV/m	4	4.819980 GHz	50.750 dBµV/m
2	4.763550 GHz	48.399 dBµV/m	5	4.871910 GHz	49.514 dBµV/m
3	4.803500 GHz	51.870 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.803496 GHz**	**51.87 dBµV/m**		
M2		2	**4.803496 GHz**	**46.10 dBµV/m**		
M3		1	**4.68514 GHz**	**48.86 dBµV/m**		
M4		2	**4.685144 GHz**	**34.07 dBµV/m**		
M5		2	**4.80449 GHz**	**48.66 dBµV/m**		

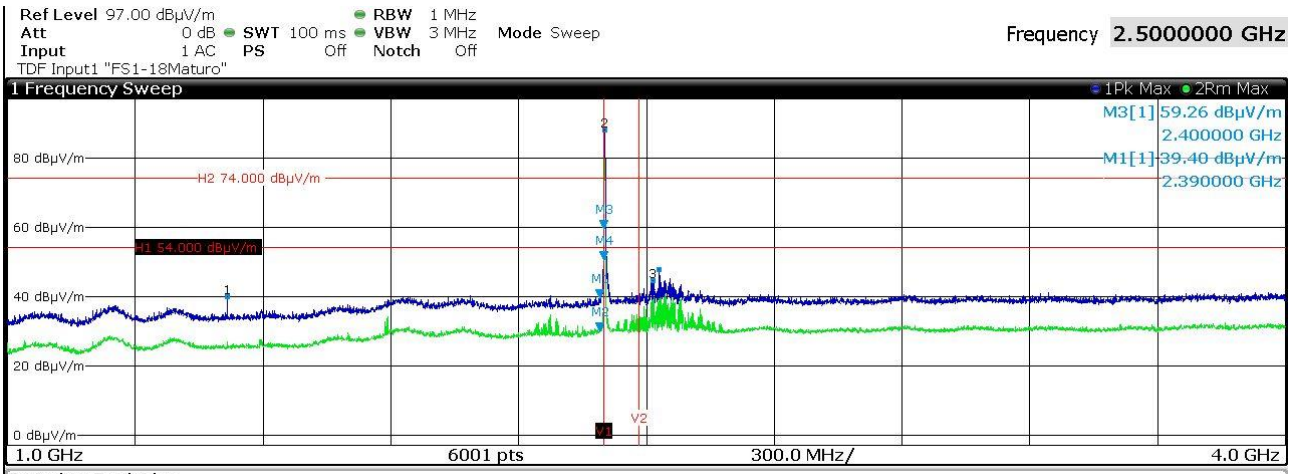


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.986250 GHz	52.911 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2402 MHz, vertical polarisation, EUT-Y:

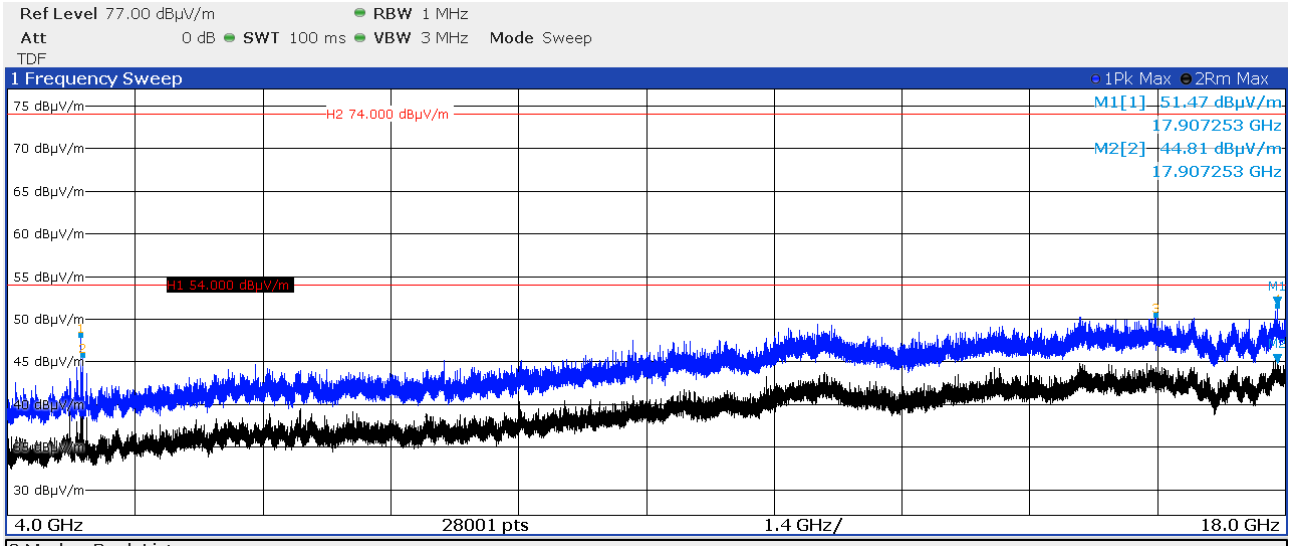


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	1.515660 GHz	39.958 dBµV/m	3	2.515000 GHz	44.468 dBµV/m
2	2.402020 GHz	88.070 dBµV/m	4	2.530000 GHz	47.632 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.39 GHz**	**39.40 dBµV/m**		
M2		2	**2.39 GHz**	**29.68 dBµV/m**		
M3		1	**2.4 GHz**	**59.26 dBµV/m**		
M4		2	**2.4 GHz**	**50.26 dBµV/m**		



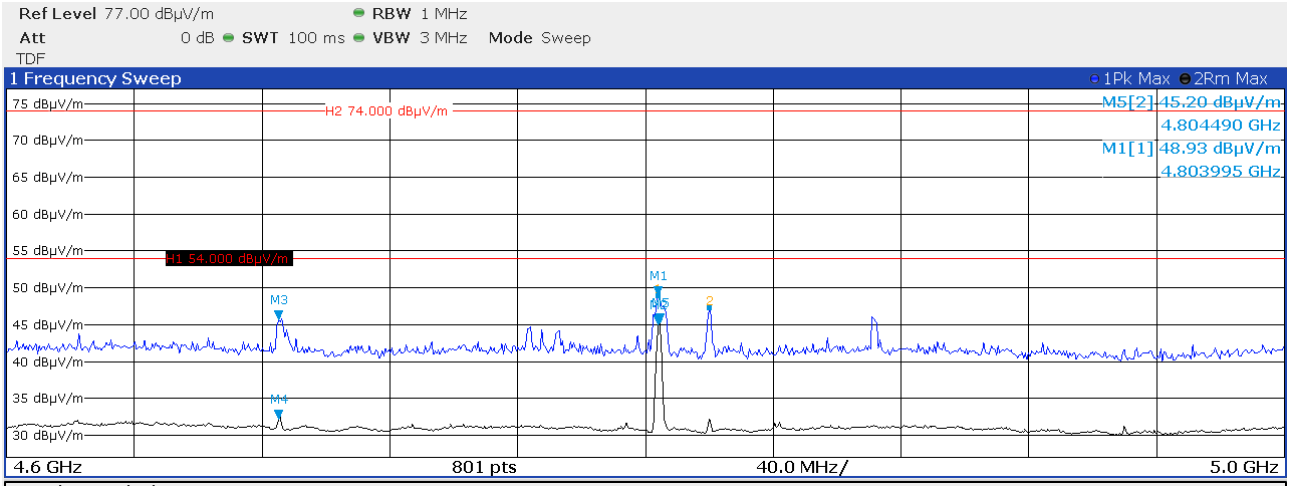
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.804220 GHz	48.135 dBµV/m	3	16.579800 GHz	50.494 dBµV/m
2	4.820220 GHz	45.721 dBµV/m	4	17.907250 GHz	51.473 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**17.907253 GHz**	**51.47 dBµV/m**		
M2		2	**17.907253 GHz**	**44.81 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

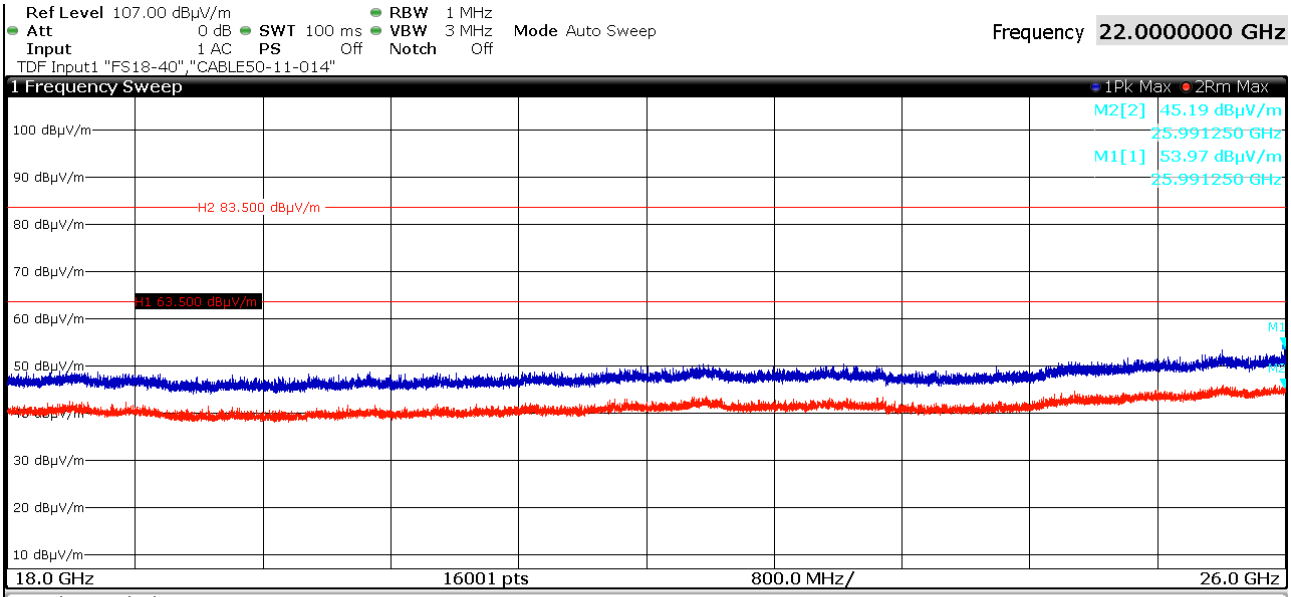


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.804000 GHz	48.926 dBµV/m	2	4.819980 GHz	47.284 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.803995 GHz**	**48.93 dBµV/m**		
M2		2	**4.803995 GHz**	**44.99 dBµV/m**		
M3		1	**4.68514 GHz**	**45.65 dBµV/m**		
M4		2	**4.685144 GHz**	**32.18 dBµV/m**		
M5		2	**4.80449 GHz**	**45.20 dBµV/m**		

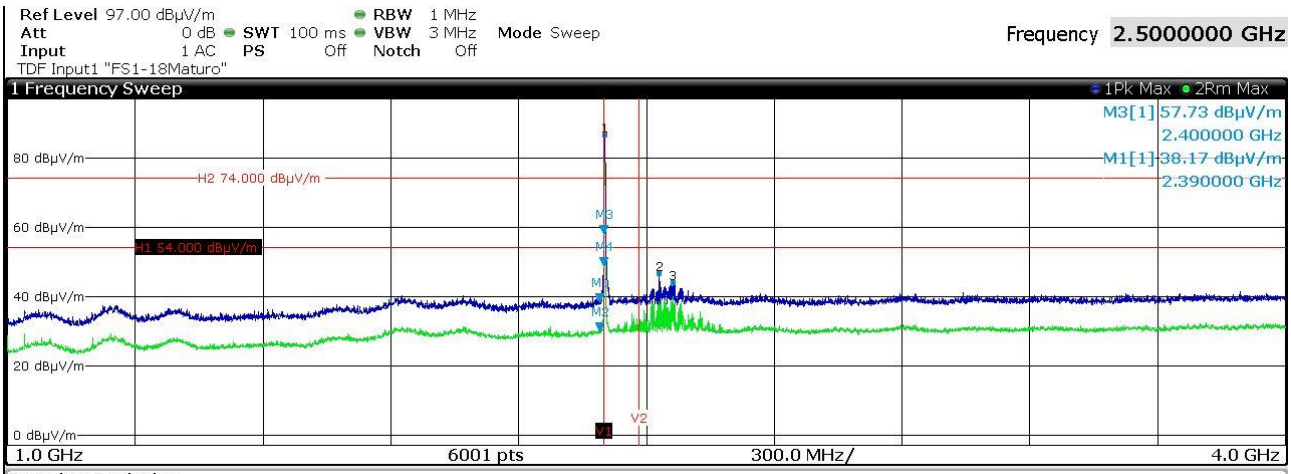


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.991250 GHz	53.968 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2402 MHz, horizontal polarisation, EUT-Z:

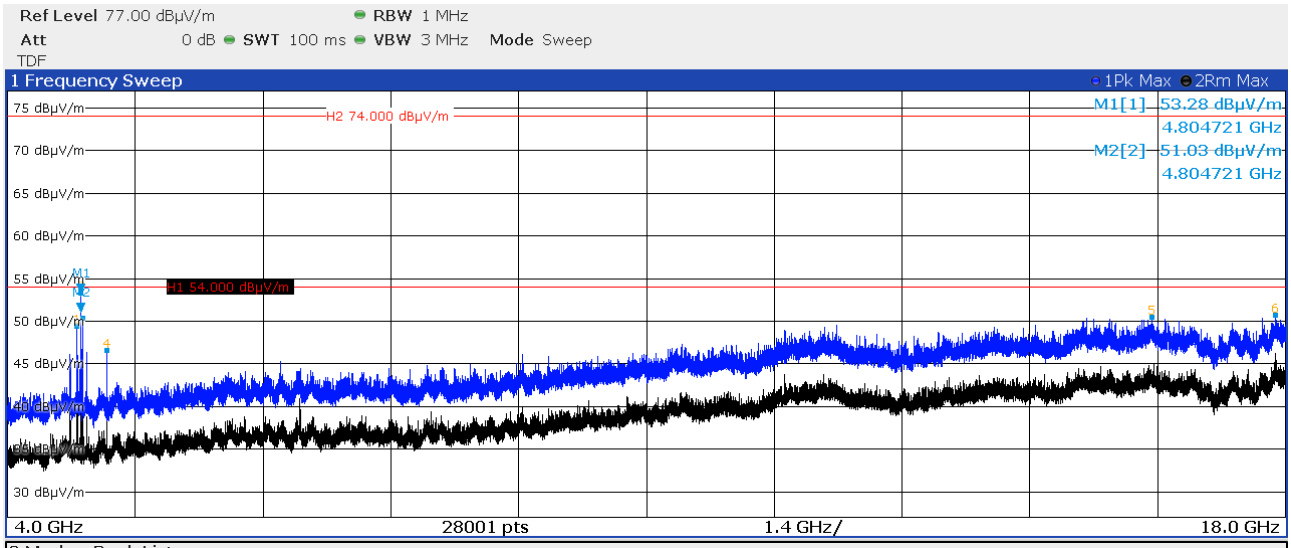


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.402020 GHz	86.423 dBµV/m	3	2.561490 GHz	43.983 dBµV/m
2	2.530000 GHz	46.449 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.39 GHz**	**38.17 dBµV/m**		
M2		2	**2.39 GHz**	**29.69 dBµV/m**		
M3		1	**2.4 GHz**	**57.73 dBµV/m**		
M4		2	**2.4 GHz**	**48.72 dBµV/m**		



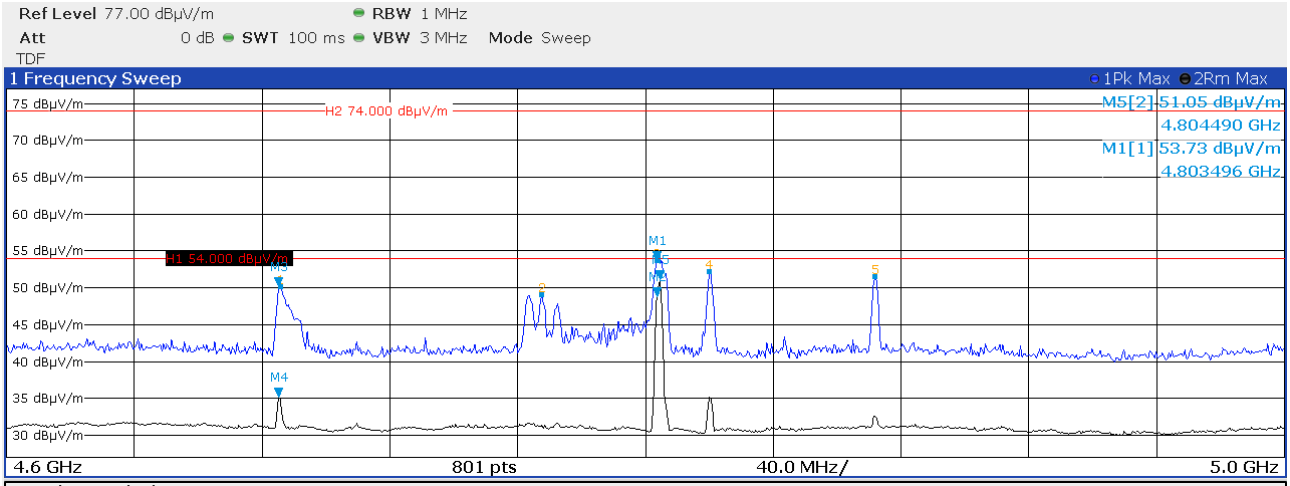
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.764220 GHz	49.359 dBµV/m	4	5.088710 GHz	46.555 dBµV/m
2	4.804720 GHz	53.277 dBµV/m	5	16.532300 GHz	50.475 dBµV/m
3	4.820220 GHz	50.299 dBµV/m	6	17.889750 GHz	50.744 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.804721 GHz**	**53.28 dBµV/m**		
M2		2	**4.804721 GHz**	**51.03 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

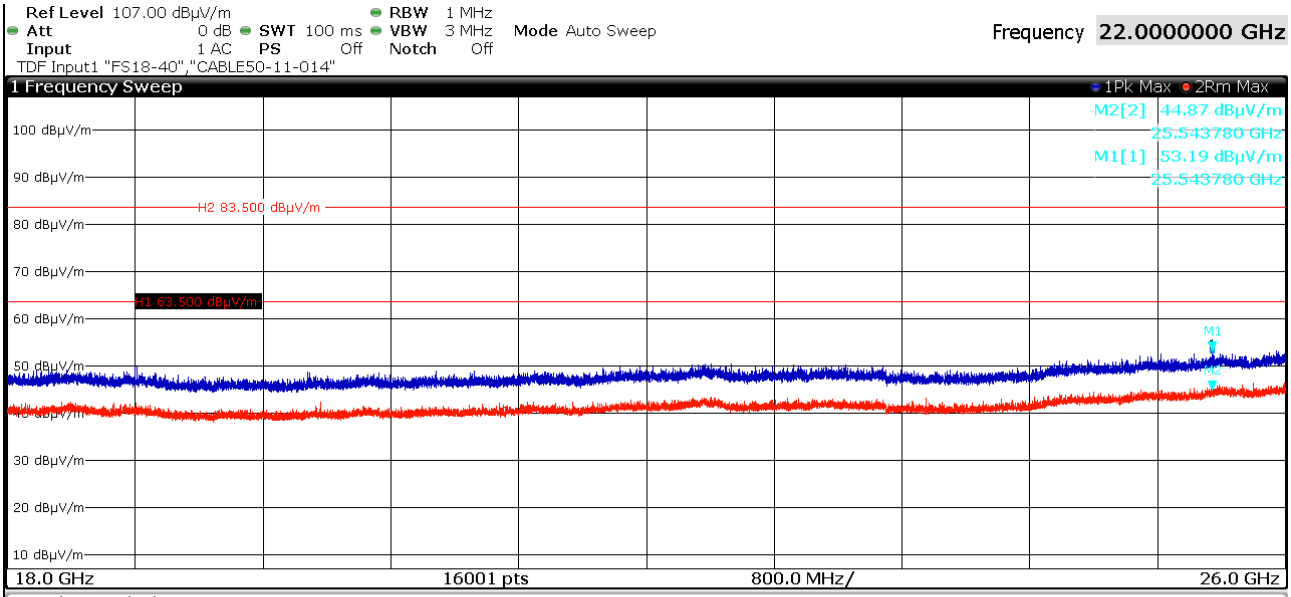


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685640 GHz	50.158 dBµV/m	4	4.819980 GHz	52.223 dBµV/m
2	4.767540 GHz	49.107 dBµV/m	5	4.871910 GHz	51.504 dBµV/m
3	4.803500 GHz	53.729 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.803496 GHz**	**53.73 dBµV/m**		
M2		2	**4.803496 GHz**	**48.86 dBµV/m**		
M3		1	**4.68514 GHz**	**50.12 dBµV/m**		
M4		2	**4.685144 GHz**	**35.20 dBµV/m**		
M5		2	**4.80449 GHz**	**51.05 dBµV/m**		

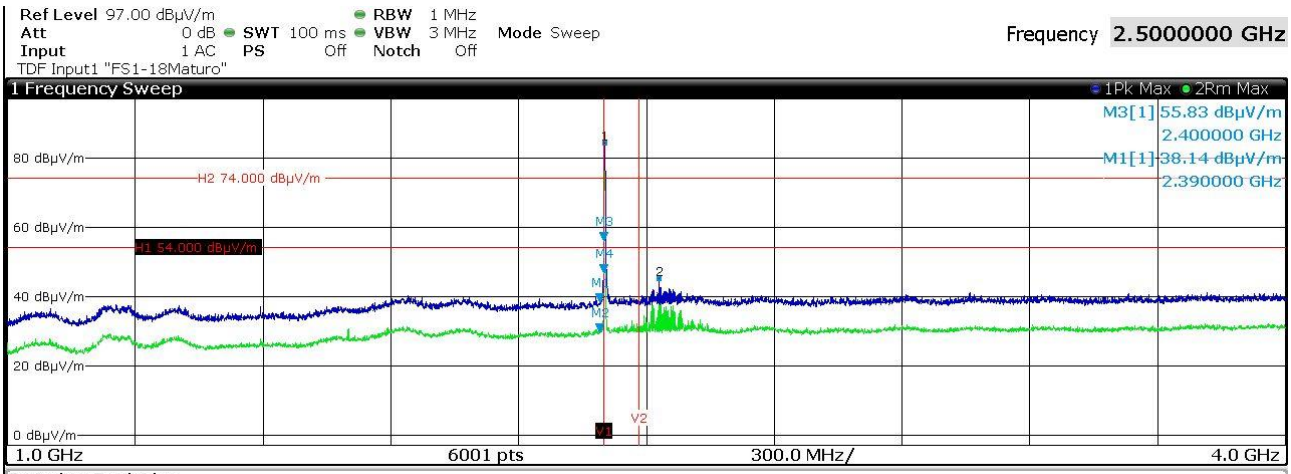


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.543780 GHz	53.187 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2402 MHz, vertical polarisation, EUT-Z:

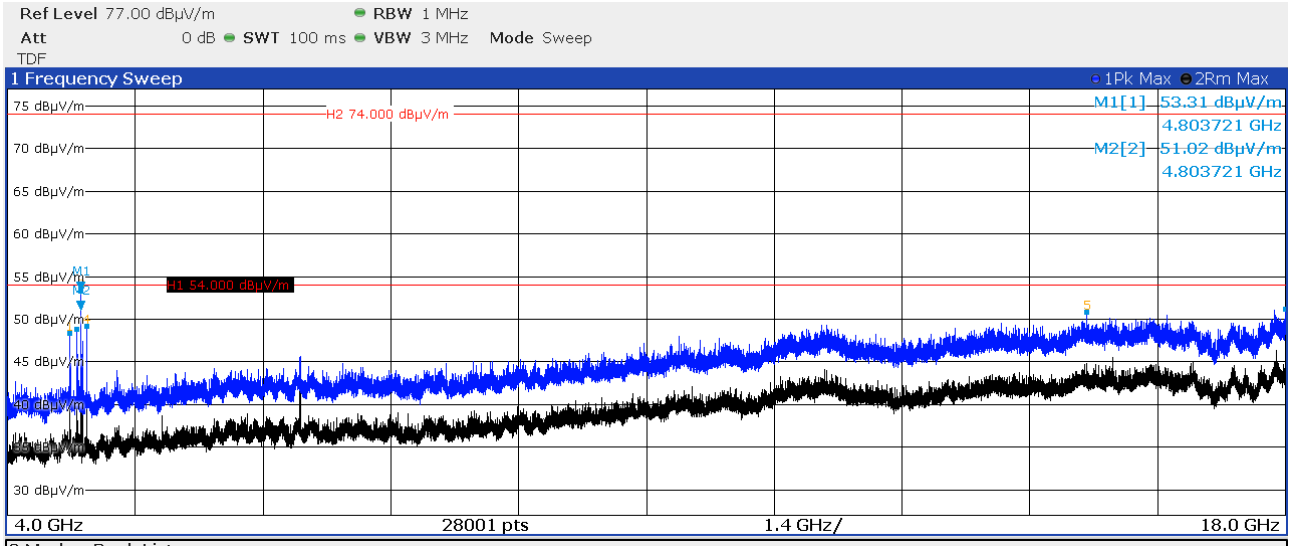


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.402020 GHz	84.212 dBµV/m	2	2.530000 GHz	45.046 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.39 GHz**	**38.14 dBµV/m**		
M2		2	**2.39 GHz**	**29.37 dBµV/m**		
M3		1	**2.4 GHz**	**55.83 dBµV/m**		
M4		2	**2.4 GHz**	**46.67 dBµV/m**		



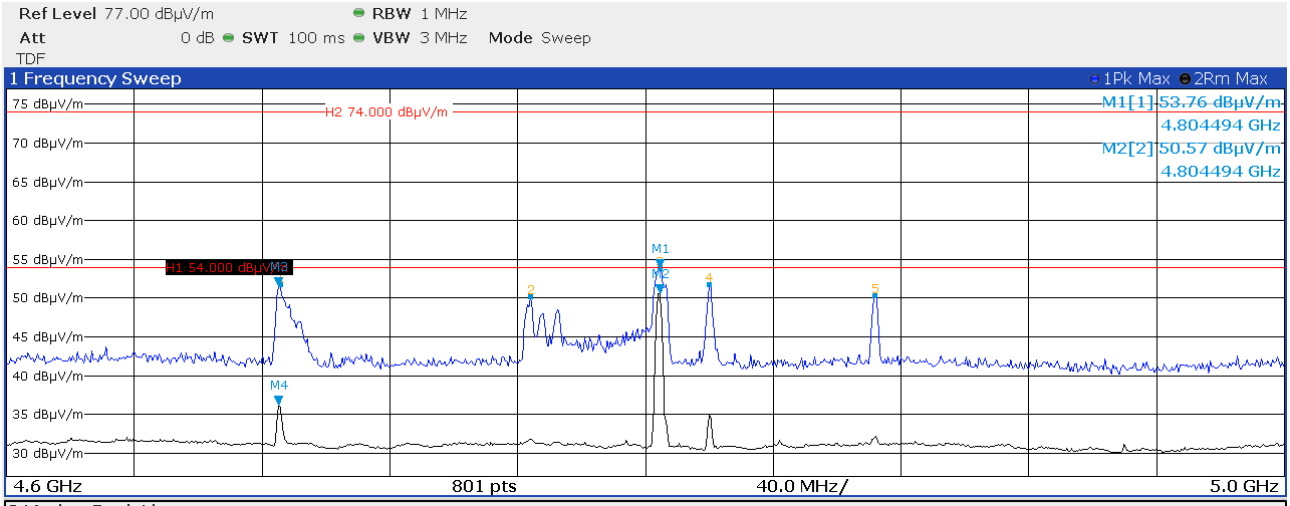
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685730 GHz	48.294 dBµV/m	4	4.871720 GHz	49.221 dBµV/m
2	4.763720 GHz	48.779 dBµV/m	5	15.824330 GHz	50.799 dBµV/m
3	4.803720 GHz	53.311 dBµV/m	6	17.997250 GHz	51.230 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.803721 GHz**	**53.31 dBµV/m**		
M2		2	**4.803721 GHz**	**51.02 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

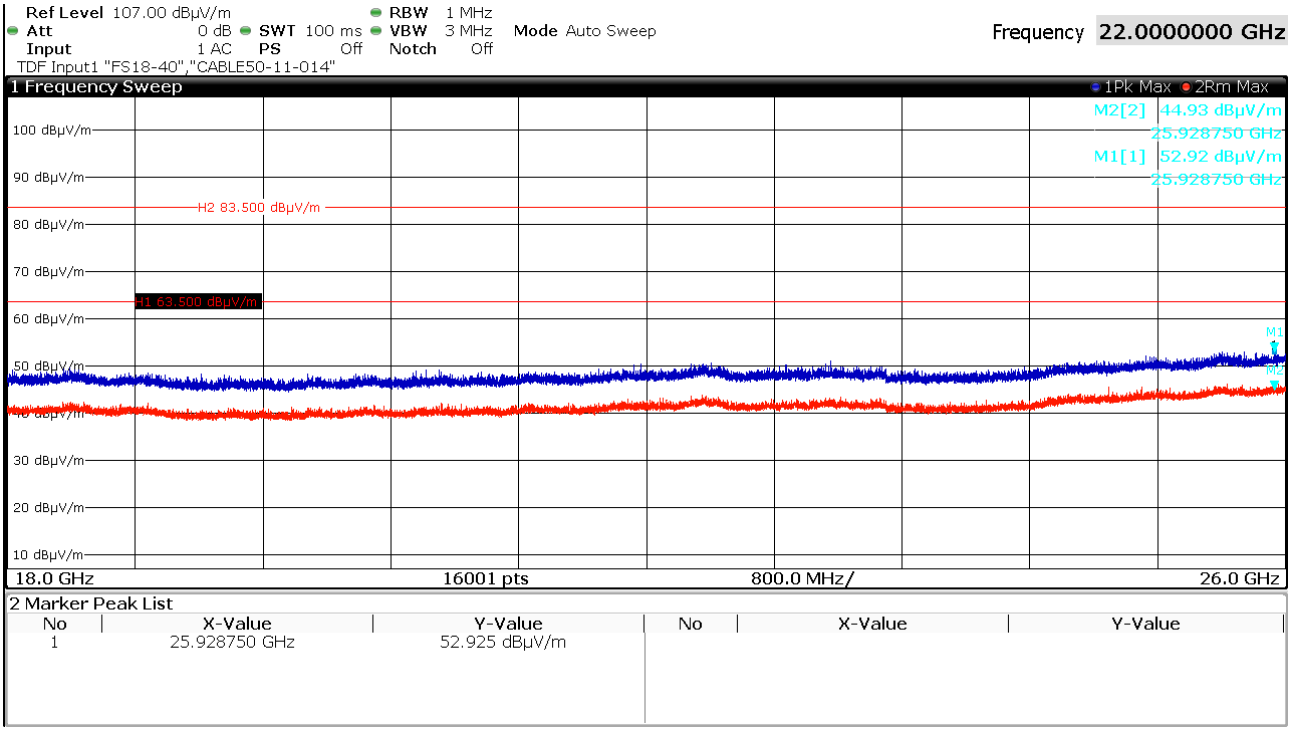


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685640 GHz	51.759 dBµV/m	4	4.819980 GHz	51.701 dBµV/m
2	4.764040 GHz	50.190 dBµV/m	5	4.871910 GHz	50.331 dBµV/m
3	4.804490 GHz	53.764 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.804494 GHz**	**53.76 dBµV/m**		
M2		2	**4.804494 GHz**	**50.57 dBµV/m**		
M3		1	**4.68514 GHz**	**51.50 dBµV/m**		
M4		2	**4.685144 GHz**	**36.17 dBµV/m**		

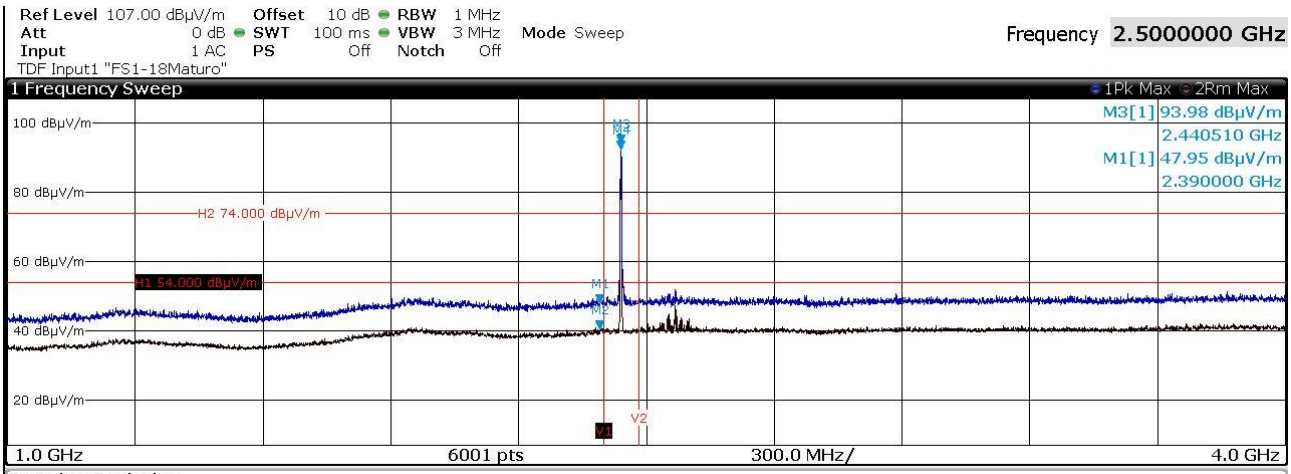


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.928750 GHz	52.925 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2440 MHz, horizontal polarisation, EUT-X:

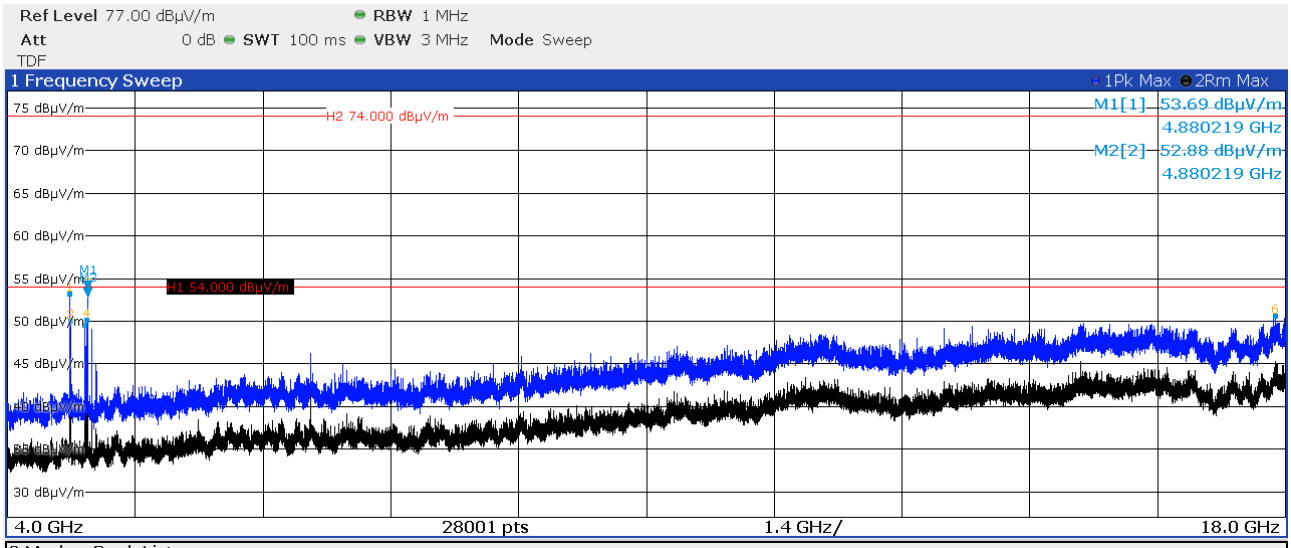


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.440010 GHz	93.993 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.39 GHz**	**47.95 dBµV/m**		
M2		2	**2.39 GHz**	**40.23 dBµV/m**		
M3		1	**2.44051 GHz**	**93.98 dBµV/m**		
M4		2	**2.44051 GHz**	**92.21 dBµV/m**		



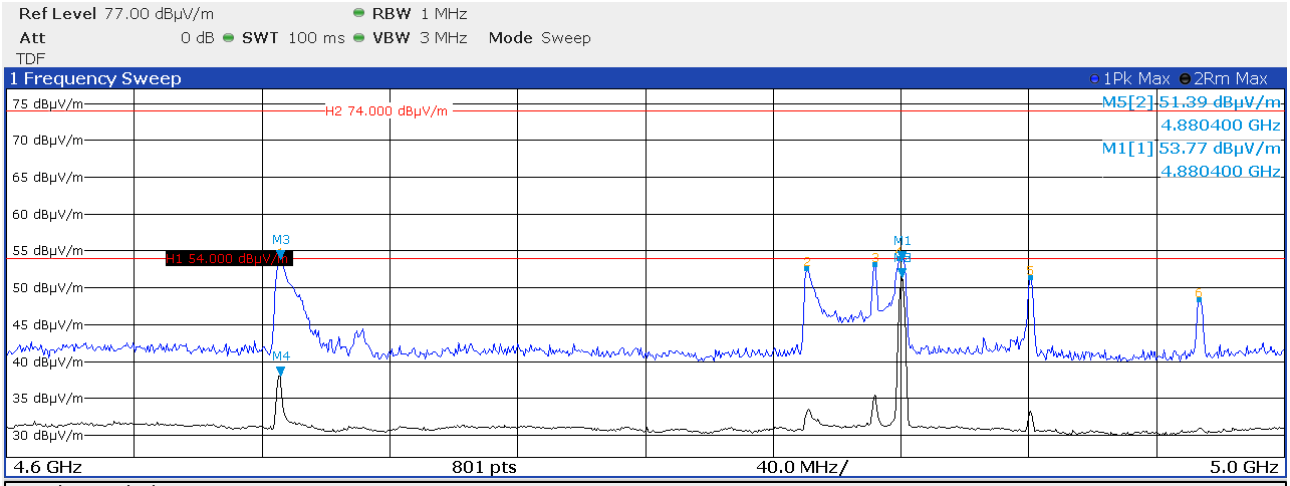
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685730 GHz	53.139 dBµV/m	4	4.871720 GHz	50.072 dBµV/m
2	4.688230 GHz	49.990 dBµV/m	5	4.880220 GHz	53.688 dBµV/m
3	4.850220 GHz	49.582 dBµV/m	6	17.888750 GHz	50.552 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.880219 GHz**	**53.69 dBµV/m**		
M2		2	**4.880219 GHz**	**52.88 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

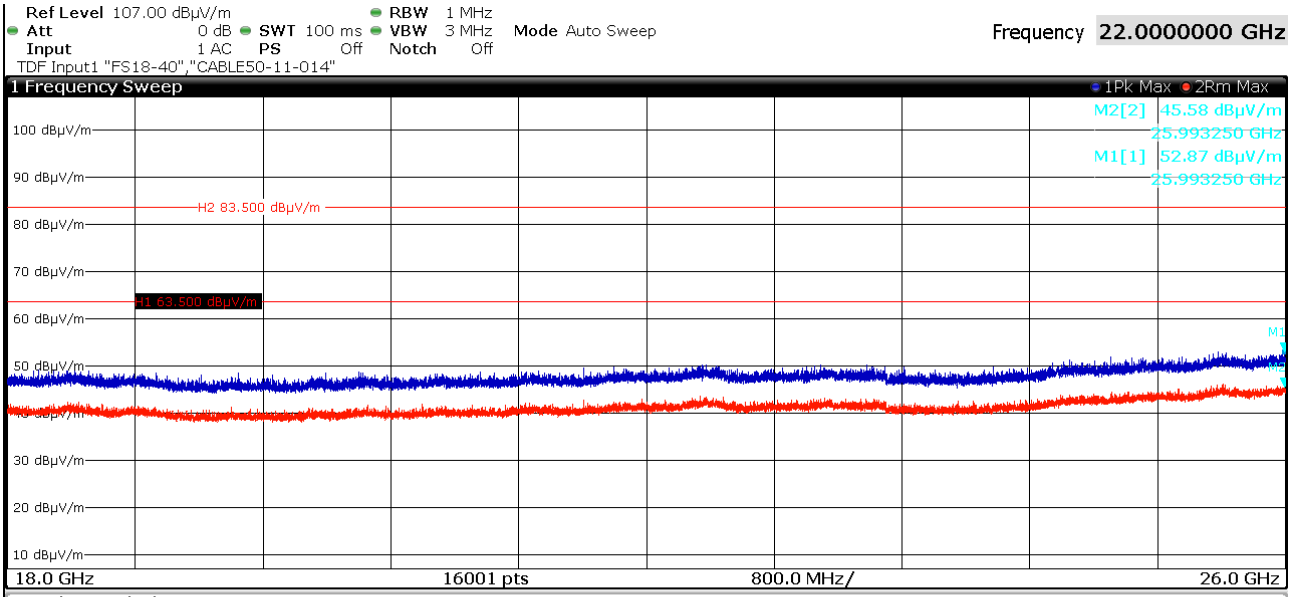


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685640 GHz	53.856 dBµV/m	4	4.879400 GHz	54.028 dBµV/m
2	4.850440 GHz	52.594 dBµV/m	5	4.920350 GHz	51.419 dBµV/m
3	4.871910 GHz	53.149 dBµV/m	6	4.973280 GHz	48.410 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.8804 GHz**	**53.77 dBµV/m**		
M2		2	**4.8804 GHz**	**51.39 dBµV/m**		
M3		1	**4.68564 GHz**	**53.86 dBµV/m**		
M4		2	**4.685643 GHz**	**38.01 dBµV/m**		
M5		2	**4.8804 GHz**	**51.39 dBµV/m**		

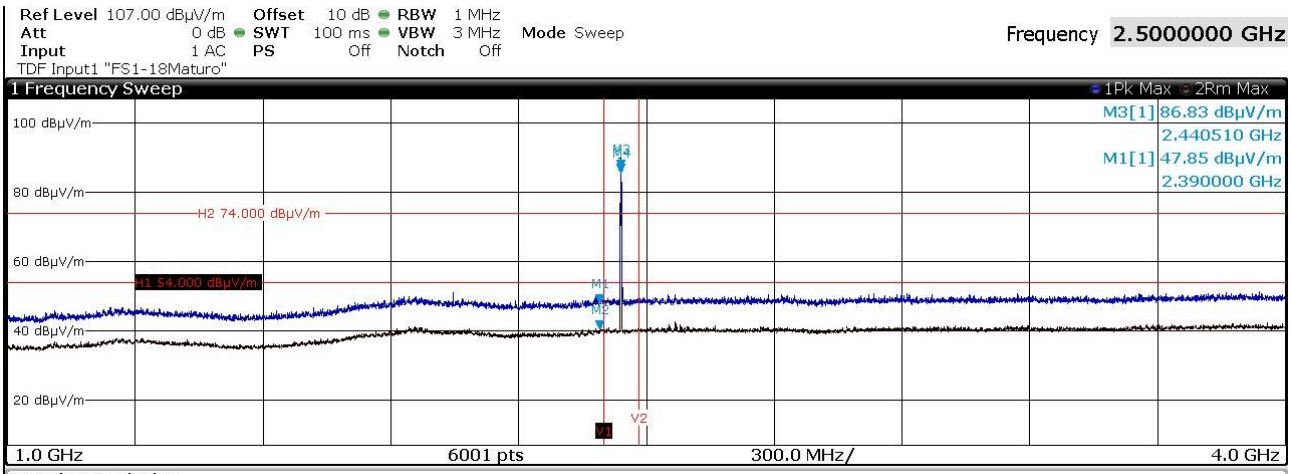


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.993250 GHz	52.873 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2440 MHz, vertical polarisation, EUT-X:

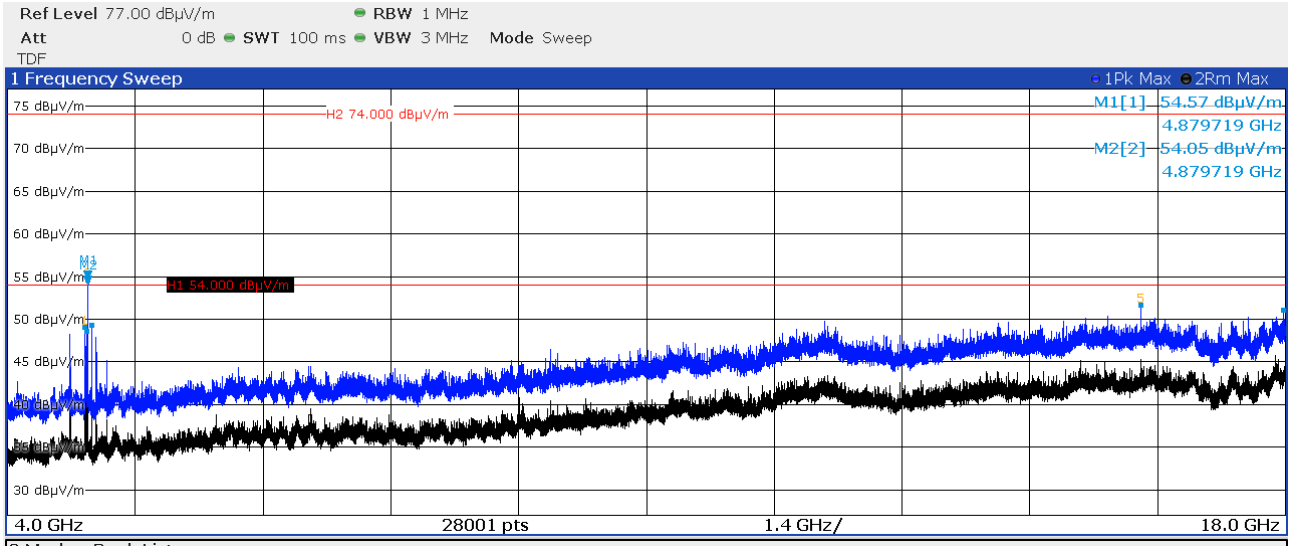


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.440010 GHz	86.890 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.39 GHz**	**47.85 dBµV/m**		
M2		2	**2.39 GHz**	**40.20 dBµV/m**		
M3		1	**2.44051 GHz**	**86.83 dBµV/m**		
M4		2	**2.44051 GHz**	**85.41 dBµV/m**		



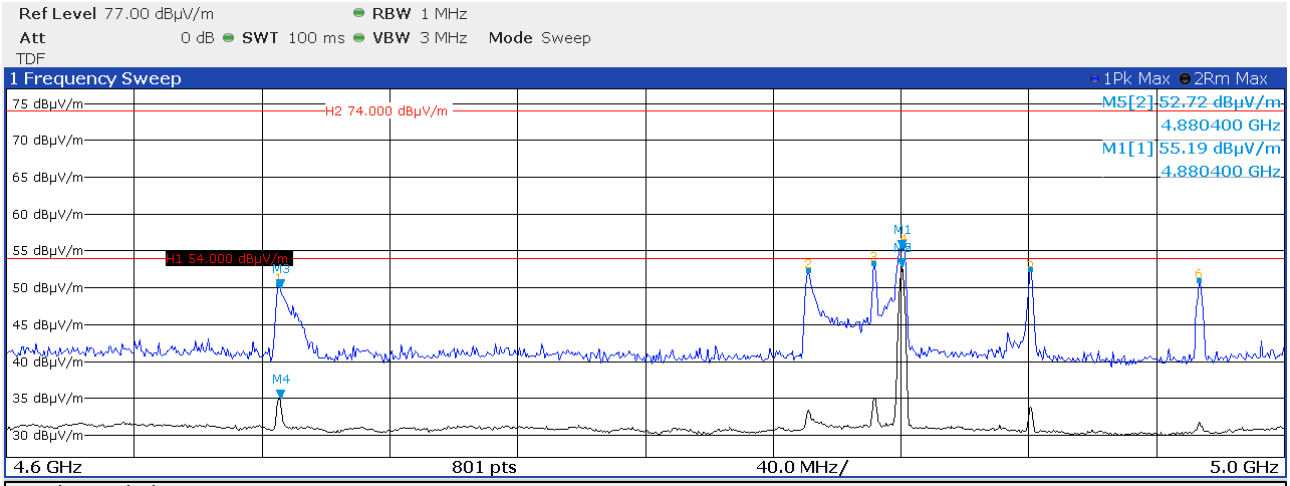
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.851220 GHz	49.055 dBµV/m	4	4.920220 GHz	49.280 dBµV/m
2	4.871220 GHz	48.541 dBµV/m	5	16.414310 GHz	51.646 dBµV/m
3	4.879720 GHz	54.570 dBµV/m	6	17.975250 GHz	51.089 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.879719 GHz**	**54.57 dBµV/m**		
M2		2	**4.879719 GHz**	**54.05 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

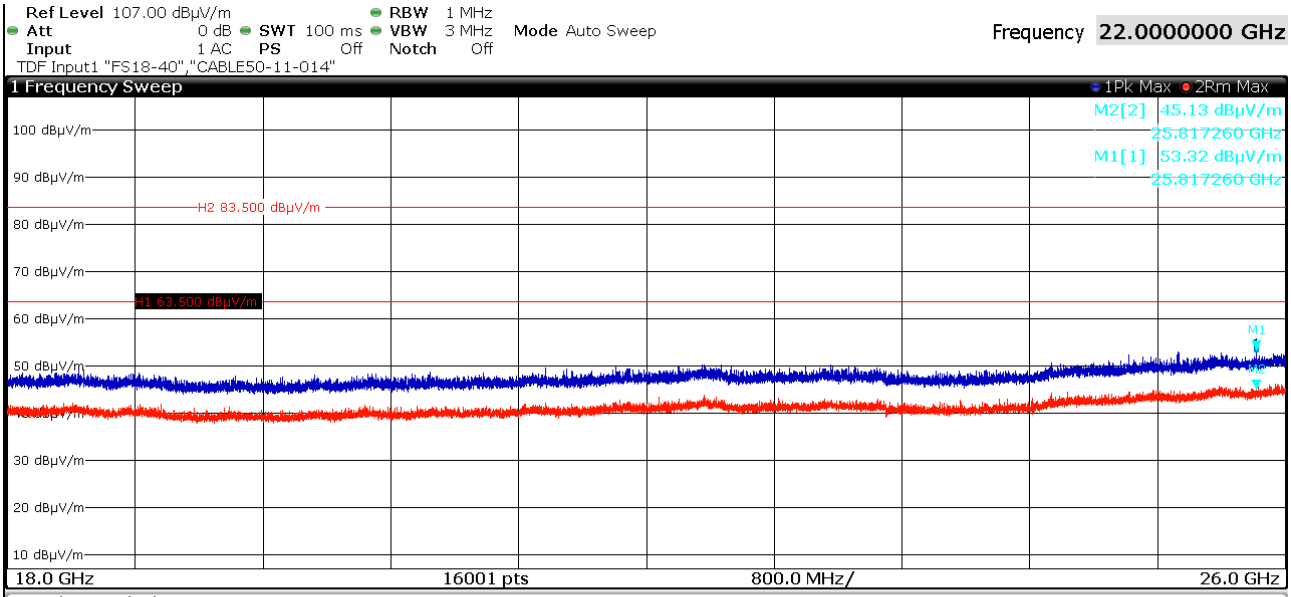


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685140 GHz	50.380 dBµV/m	4	4.880900 GHz	55.774 dBµV/m
2	4.850940 GHz	52.288 dBµV/m	5	4.920350 GHz	52.417 dBµV/m
3	4.871410 GHz	53.329 dBµV/m	6	4.973280 GHz	50.954 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.8804 GHz**	**55.19 dBµV/m**		
M2		2	**4.8804 GHz**	**52.72 dBµV/m**		
M3		1	**4.68564 GHz**	**49.88 dBµV/m**		
M4		2	**4.685643 GHz**	**34.86 dBµV/m**		
M5		2	**4.8804 GHz**	**52.72 dBµV/m**		

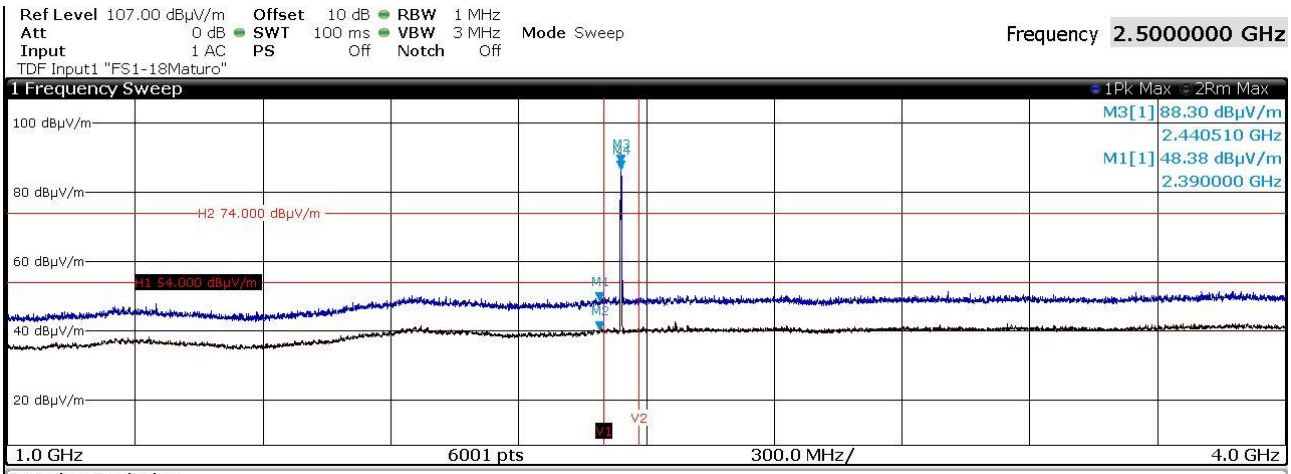


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.817260 GHz	53.323 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2440 MHz, horizontal polarisation, EUT-Y:

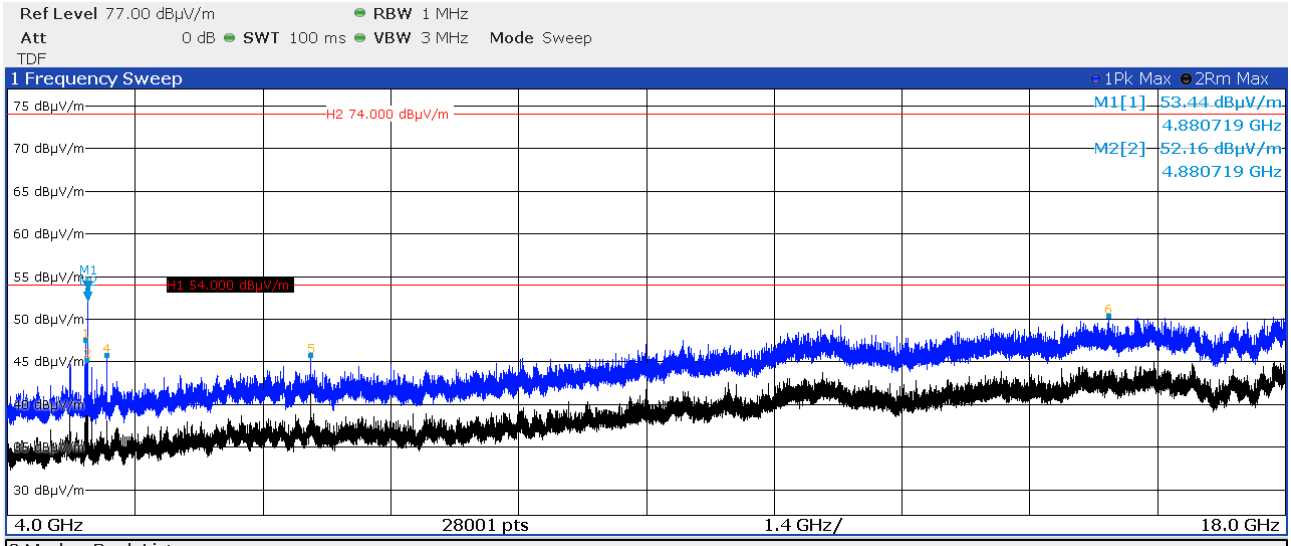


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.440010 GHz	88.337 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.39 GHz**	**48.38 dBµV/m**		
M2		2	**2.39 GHz**	**40.01 dBµV/m**		
M3		1	**2.44051 GHz**	**88.30 dBµV/m**		
M4		2	**2.44051 GHz**	**86.53 dBµV/m**		



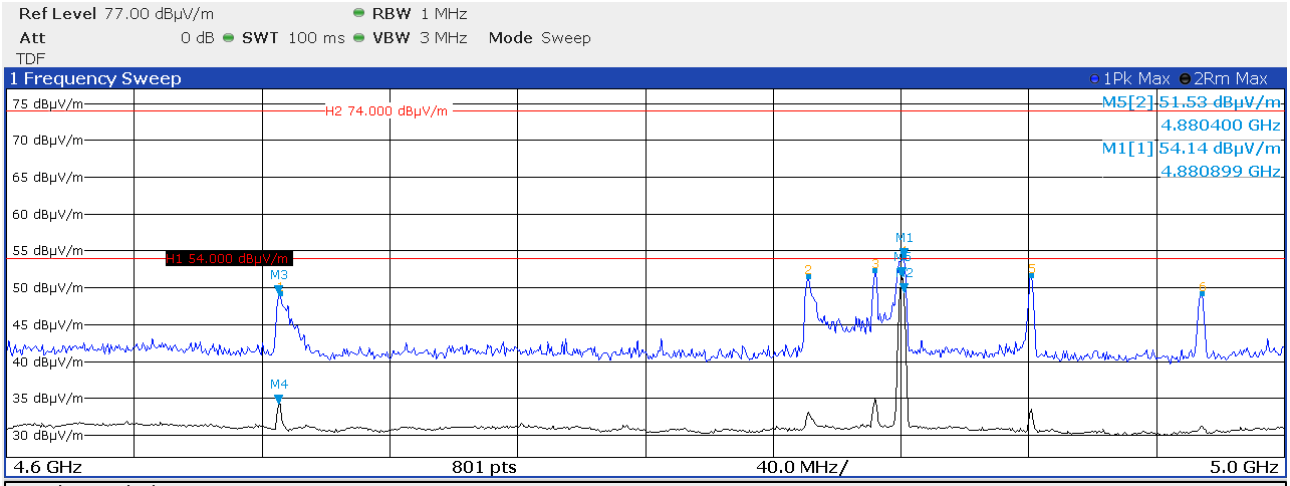
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.854220 GHz	47.476 dBµV/m	4	5.088710 GHz	45.804 dBµV/m
2	4.872720 GHz	45.180 dBµV/m	5	7.321630 GHz	45.774 dBµV/m
3	4.880720 GHz	53.437 dBµV/m	6	16.060320 GHz	50.341 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.880719 GHz**	**53.44 dBµV/m**		
M2		2	**4.880719 GHz**	**52.16 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

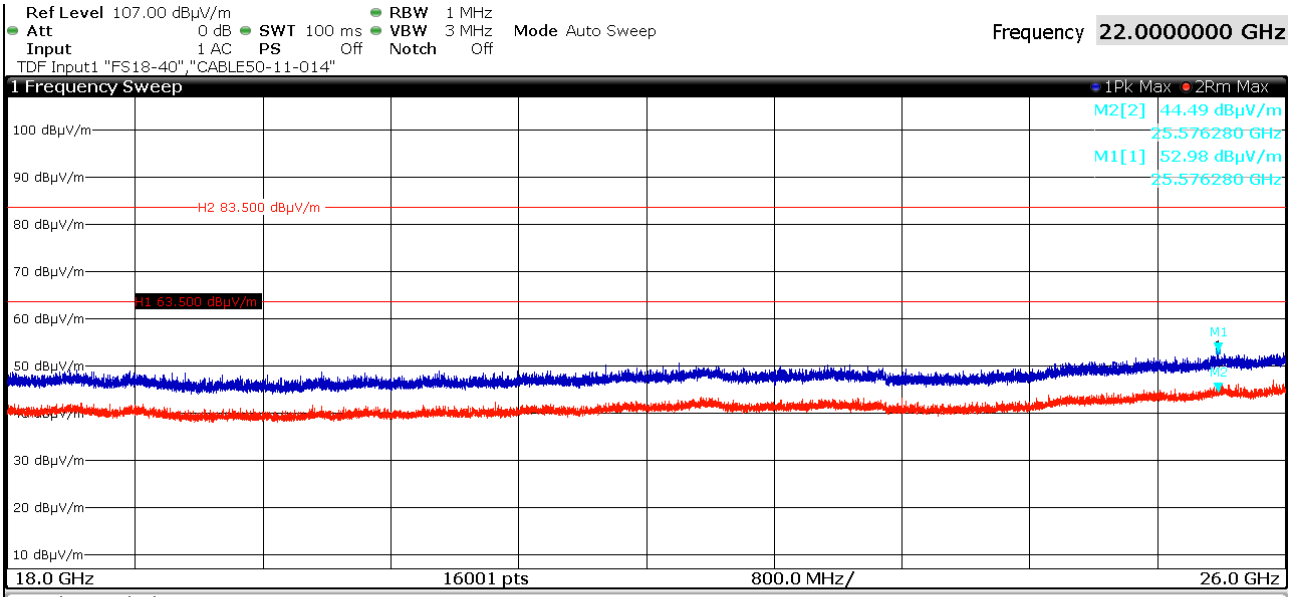


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685640 GHz	49.146 dBµV/m	4	4.880900 GHz	54.139 dBµV/m
2	4.850940 GHz	51.531 dBµV/m	5	4.920850 GHz	51.676 dBµV/m
3	4.871910 GHz	52.319 dBµV/m	6	4.974280 GHz	49.211 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.880899 GHz**	**54.14 dBµV/m**		
M2		2	**4.880899 GHz**	**49.31 dBµV/m**		
M3		1	**4.68514 GHz**	**49.04 dBµV/m**		
M4		2	**4.685144 GHz**	**34.18 dBµV/m**		
M5		2	**4.8804 GHz**	**51.53 dBµV/m**		

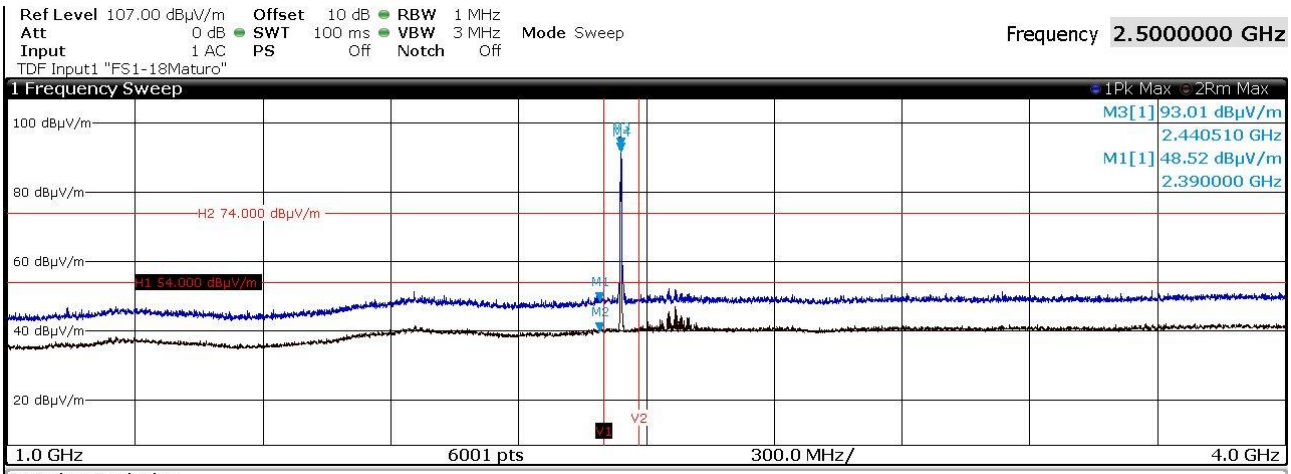


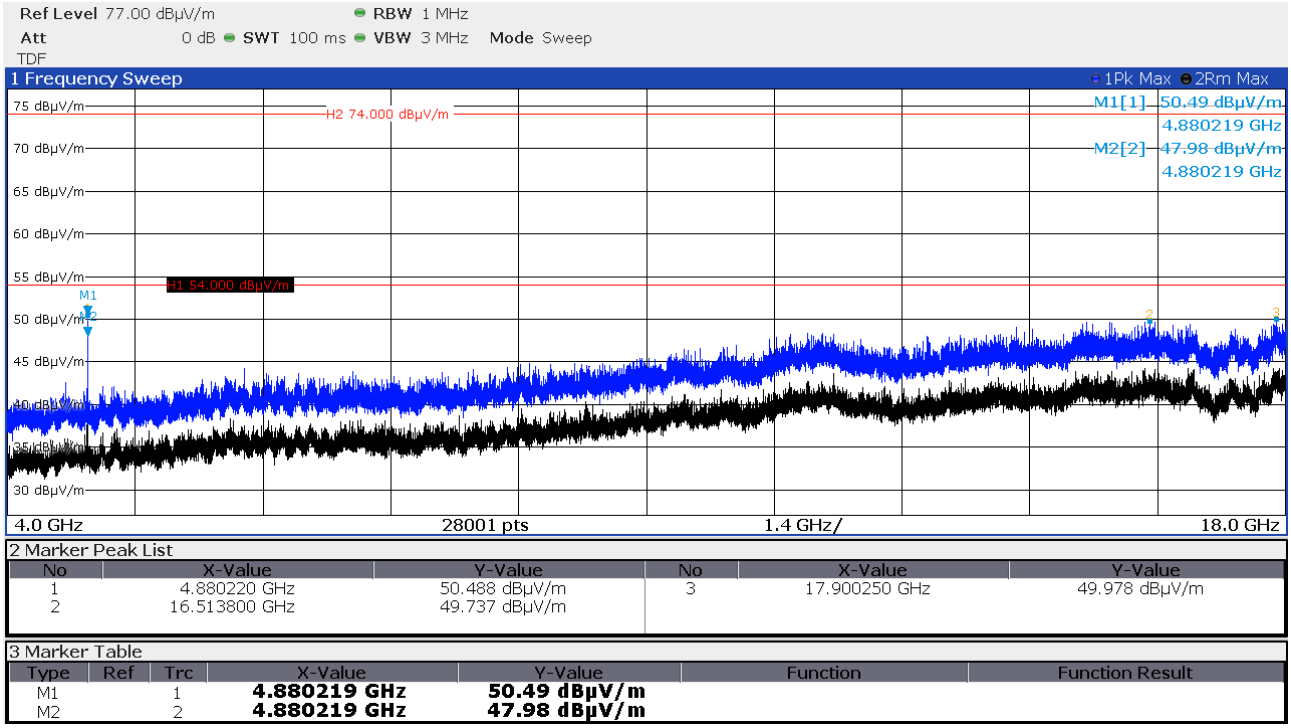
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.576280 GHz	52.978 dBµV/m			

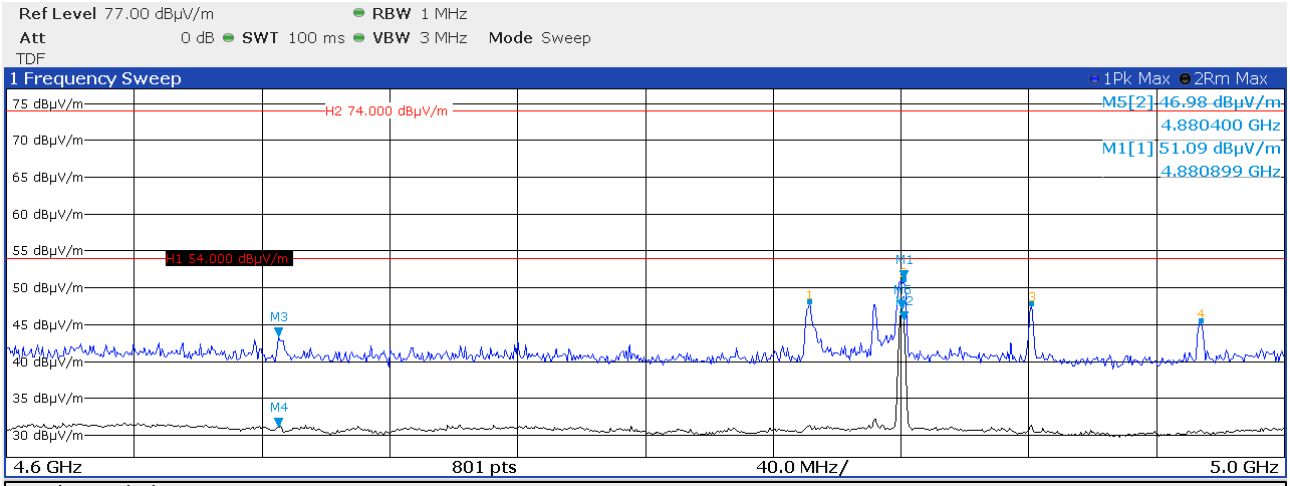
FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2440 MHz, vertical polarisation, EUT-Y:





FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

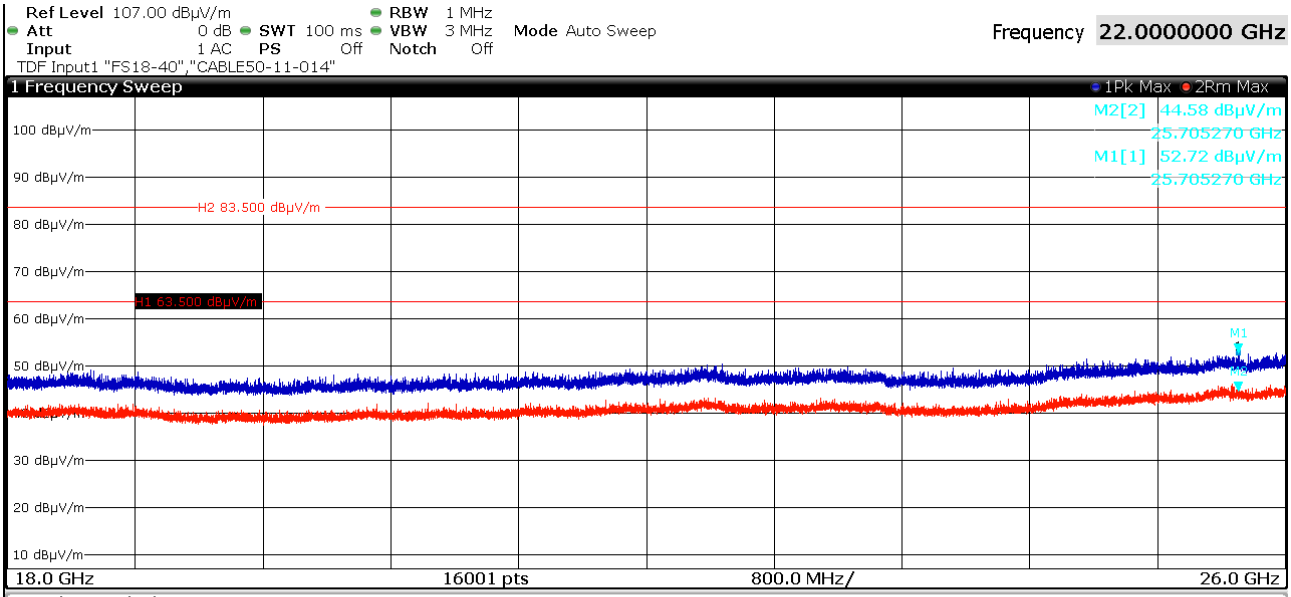


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.851440 GHz	48.069 dBµV/m	3	4.920850 GHz	47.821 dBµV/m
2	4.880900 GHz	51.086 dBµV/m	4	4.973780 GHz	45.486 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.880899 GHz**	**51.09 dBµV/m**		
M2		2	**4.880899 GHz**	**45.48 dBµV/m**		
M3		1	**4.68514 GHz**	**43.39 dBµV/m**		
M4		2	**4.685144 GHz**	**31.11 dBµV/m**		
M5		2	**4.8804 GHz**	**46.98 dBµV/m**		

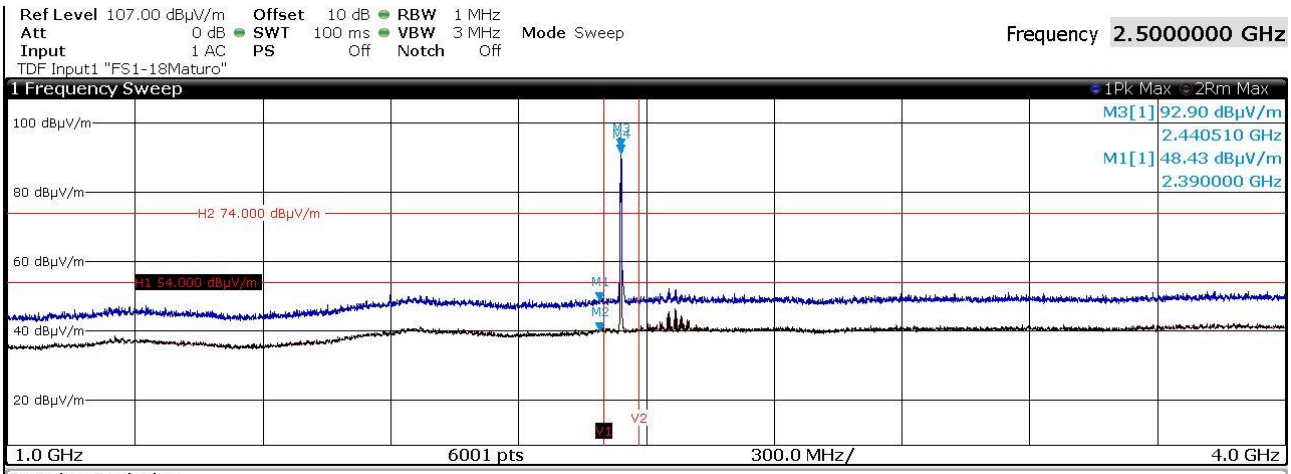


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.705270 GHz	52.717 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2440 MHz, horizontal polarisation, EUT-Z:

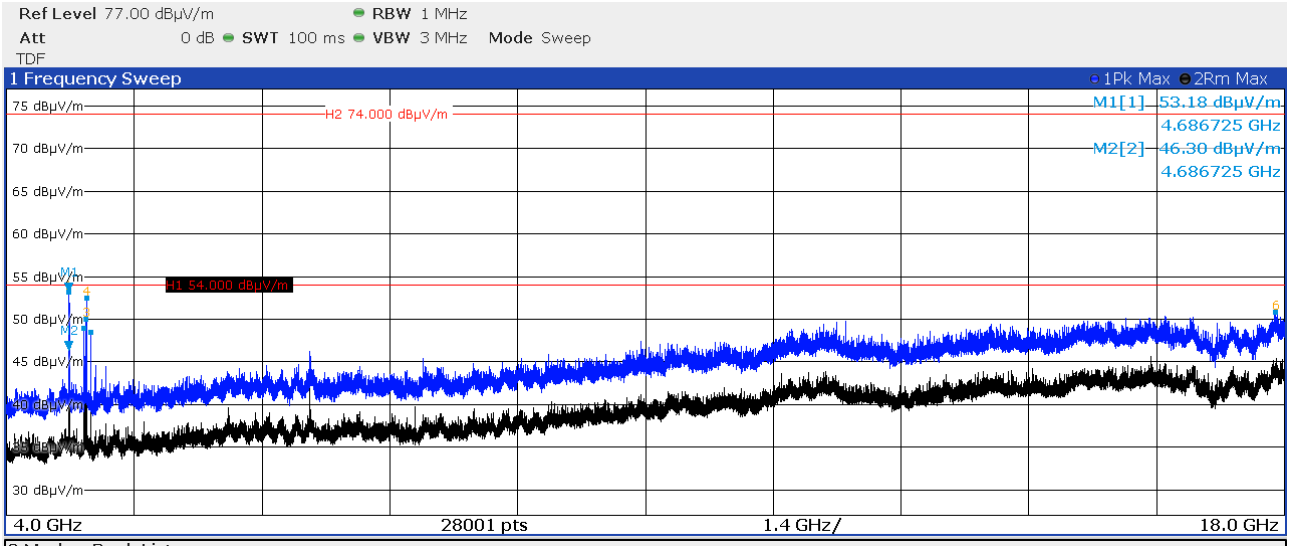


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.440010 GHz	92.908 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.39 GHz**	**48.43 dBµV/m**		
M2		2	**2.39 GHz**	**39.64 dBµV/m**		
M3		1	**2.44051 GHz**	**92.90 dBµV/m**		
M4		2	**2.44051 GHz**	**91.18 dBµV/m**		



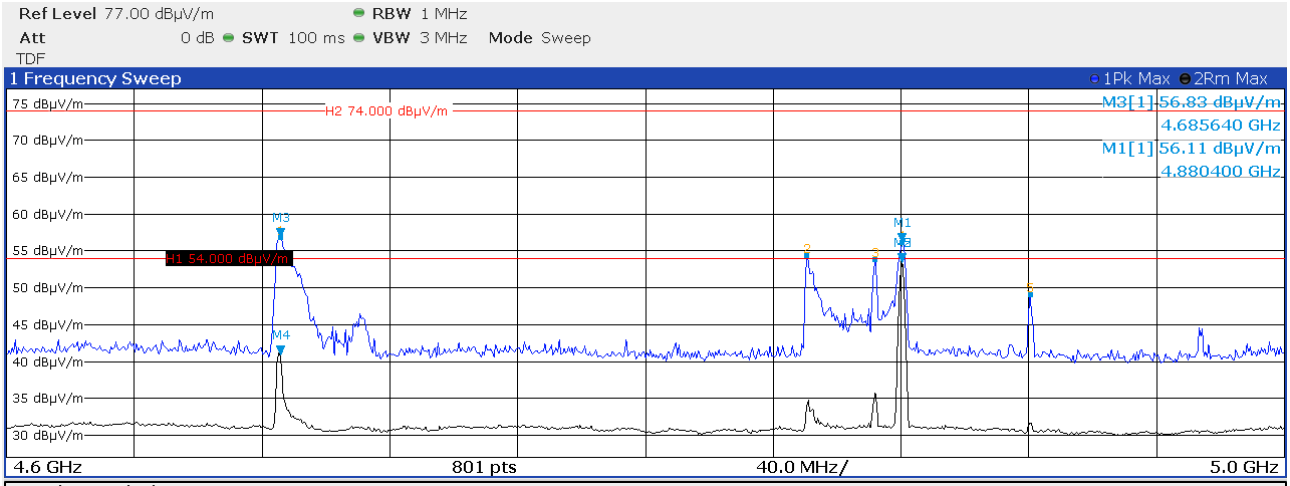
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.686730 GHz	53.175 dBµV/m	4	4.879720 GHz	52.528 dBµV/m
2	4.850220 GHz	48.959 dBµV/m	5	4.920720 GHz	48.414 dBµV/m
3	4.871720 GHz	49.961 dBµV/m	6	17.901750 GHz	50.841 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.686725 GHz**	**53.18 dBµV/m**		
M2		2	**4.686725 GHz**	**46.30 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

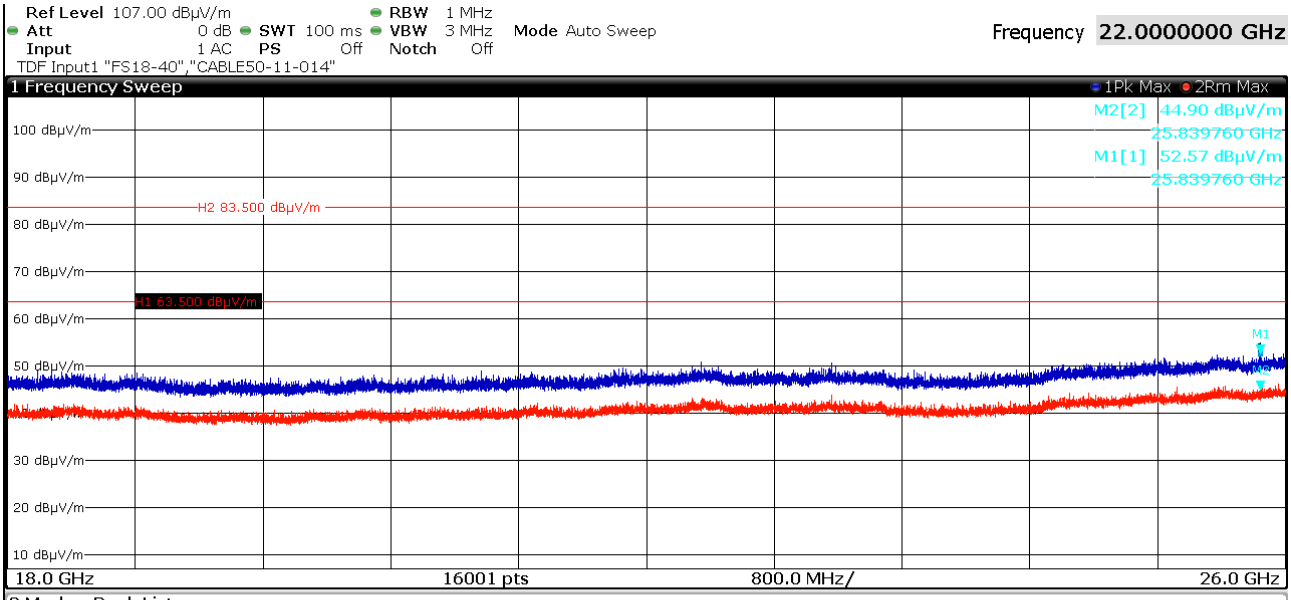


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685640 GHz	56.830 dBµV/m	4	4.880400 GHz	56.113 dBµV/m
2	4.850440 GHz	54.392 dBµV/m	5	4.920350 GHz	49.100 dBµV/m
3	4.871910 GHz	53.856 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.8804 GHz**	**56.11 dBµV/m**		
M2		2	**4.8804 GHz**	**53.45 dBµV/m**		
M3		1	**4.68564 GHz**	**56.83 dBµV/m**		
M4		2	**4.685643 GHz**	**40.88 dBµV/m**		
M5		2	**4.8804 GHz**	**53.45 dBµV/m**		

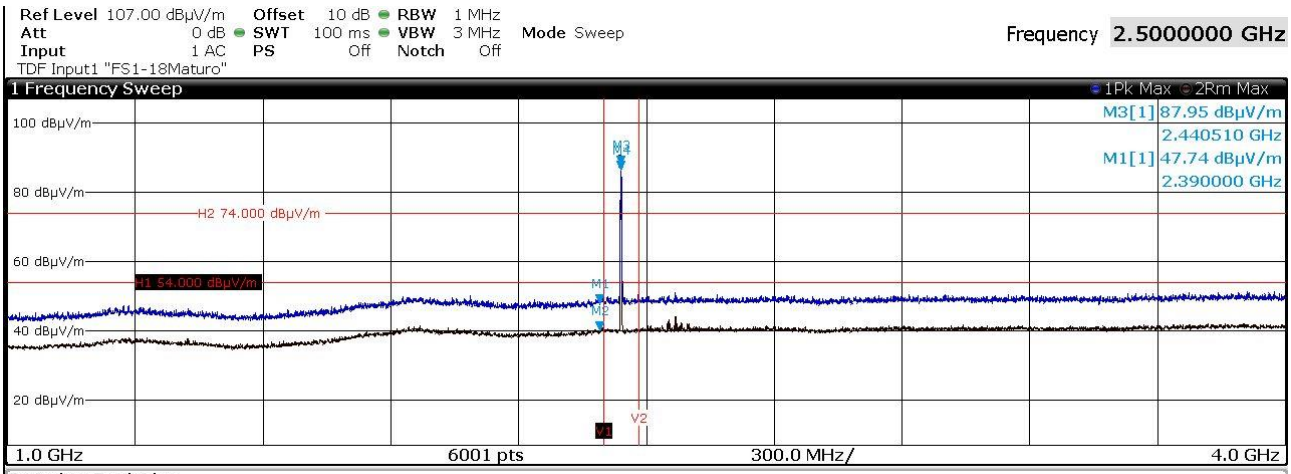


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.839760 GHz	52.566 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2440 MHz, vertical polarisation, EUT-Z:

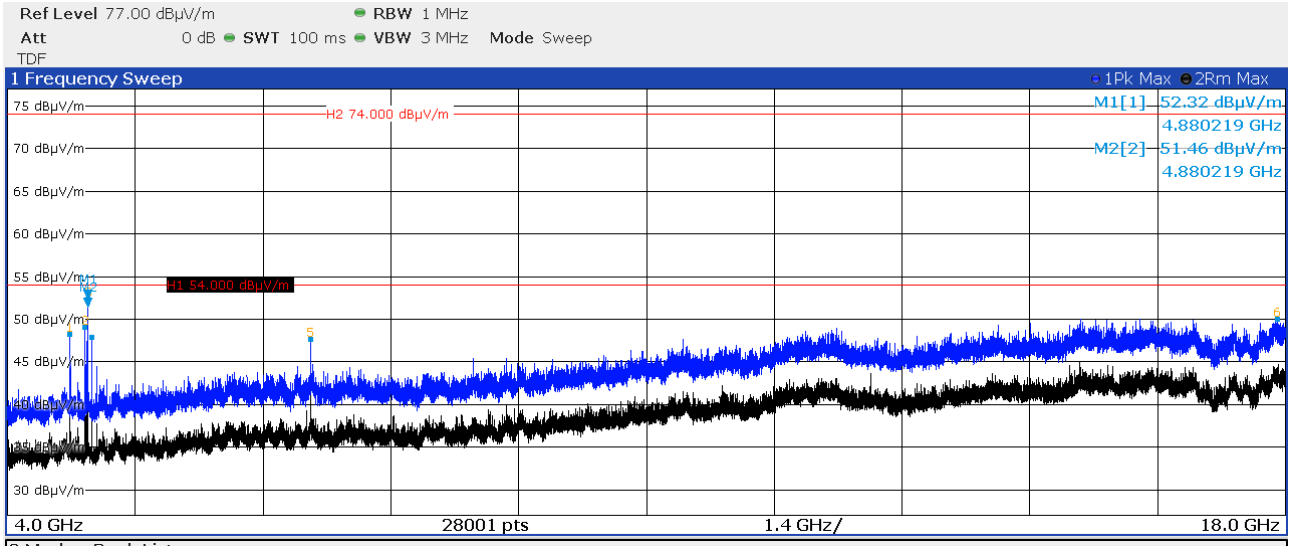


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.440010 GHz	88.013 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.39 GHz**	**47.74 dBµV/m**		
M2		2	**2.39 GHz**	**40.13 dBµV/m**		
M3		1	**2.44051 GHz**	**87.95 dBµV/m**		
M4		2	**2.44051 GHz**	**86.32 dBµV/m**		



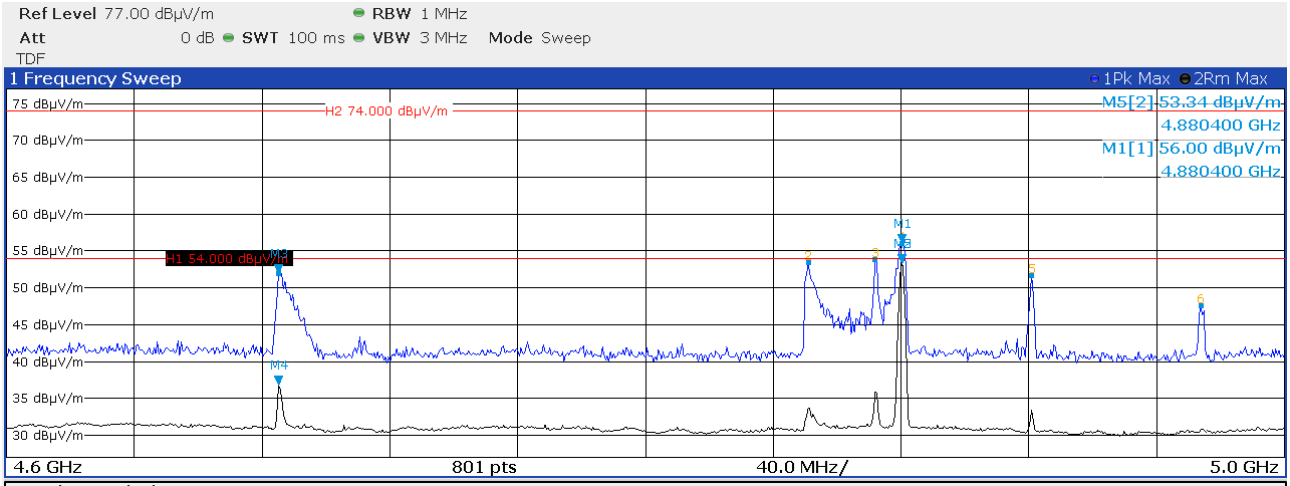
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.686730 GHz	48.206 dBµV/m	4	4.920720 GHz	47.897 dBµV/m
2	4.850720 GHz	48.994 dBµV/m	5	7.320630 GHz	47.622 dBµV/m
3	4.880220 GHz	52.316 dBµV/m	6	17.907750 GHz	49.985 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.880219 GHz**	**52.32 dBµV/m**		
M2		2	**4.880219 GHz**	**51.46 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

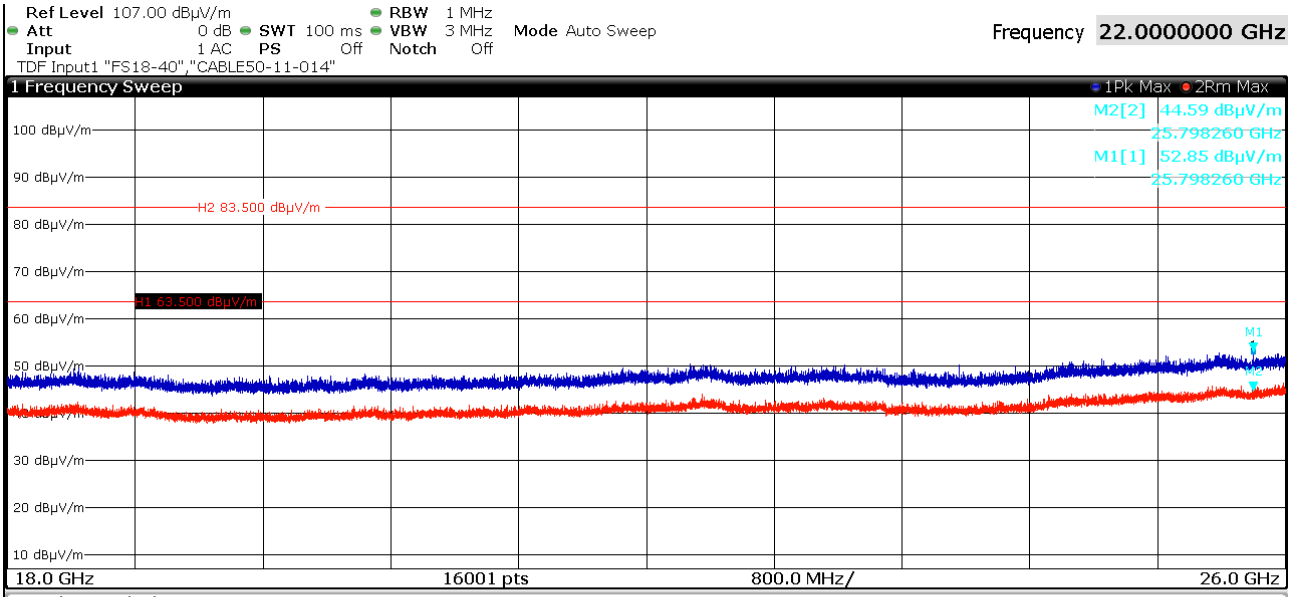


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685140 GHz	51.981 dBµV/m	4	4.880400 GHz	56.001 dBµV/m
2	4.850940 GHz	53.397 dBµV/m	5	4.920850 GHz	51.718 dBµV/m
3	4.871910 GHz	53.857 dBµV/m	6	4.973780 GHz	47.550 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.8804 GHz**	**56.00 dBµV/m**		
M2		2	**4.8804 GHz**	**53.34 dBµV/m**		
M3		1	**4.68514 GHz**	**51.98 dBµV/m**		
M4		2	**4.685144 GHz**	**36.77 dBµV/m**		
M5		2	**4.8804 GHz**	**53.34 dBµV/m**		

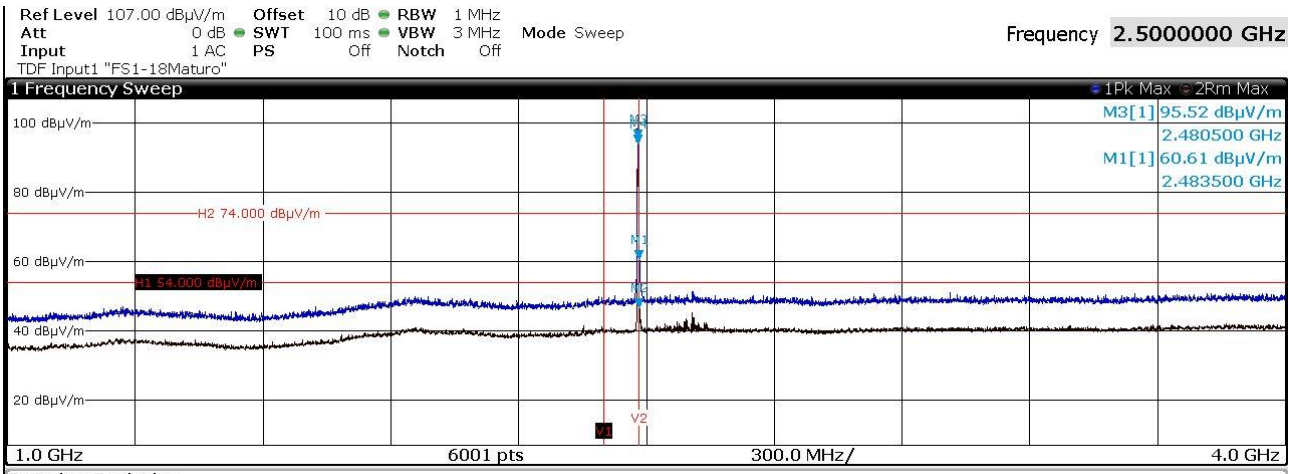


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.798260 GHz	52.855 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2480 MHz, horizontal polarisation, EUT-X:

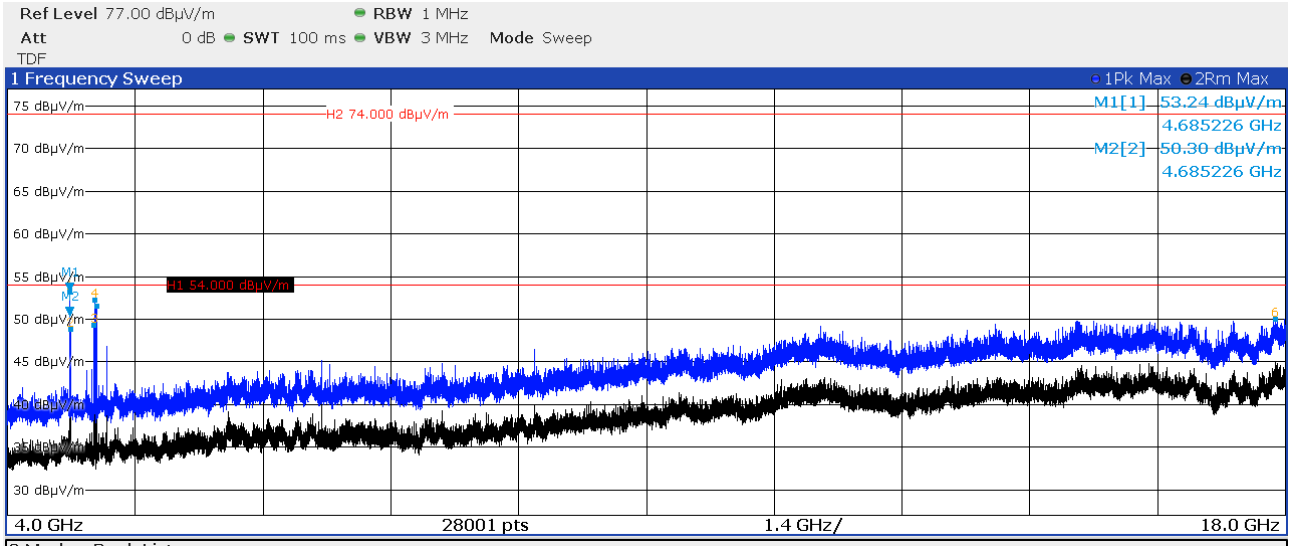


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.480500 GHz	95.519 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.4835 GHz**	**60.61 dBµV/m**		
M2		2	**2.4835 GHz**	**46.71 dBµV/m**		
M3		1	**2.4805 GHz**	**95.52 dBµV/m**		
M4		2	**2.480503 GHz**	**94.00 dBµV/m**		



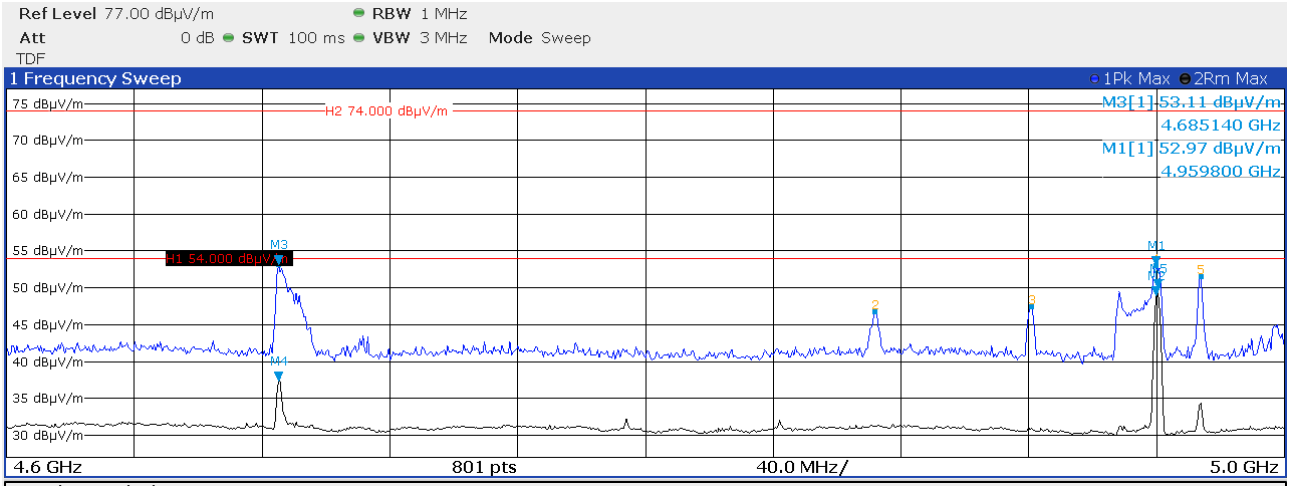
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685230 GHz	53.238 dBµV/m	4	4.959720 GHz	52.227 dBµV/m
2	4.688230 GHz	48.836 dBµV/m	5	4.973720 GHz	51.550 dBµV/m
3	4.948720 GHz	49.254 dBµV/m	6	17.887750 GHz	50.040 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.685226 GHz**	**53.24 dBµV/m**		
M2		2	**4.685226 GHz**	**50.30 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

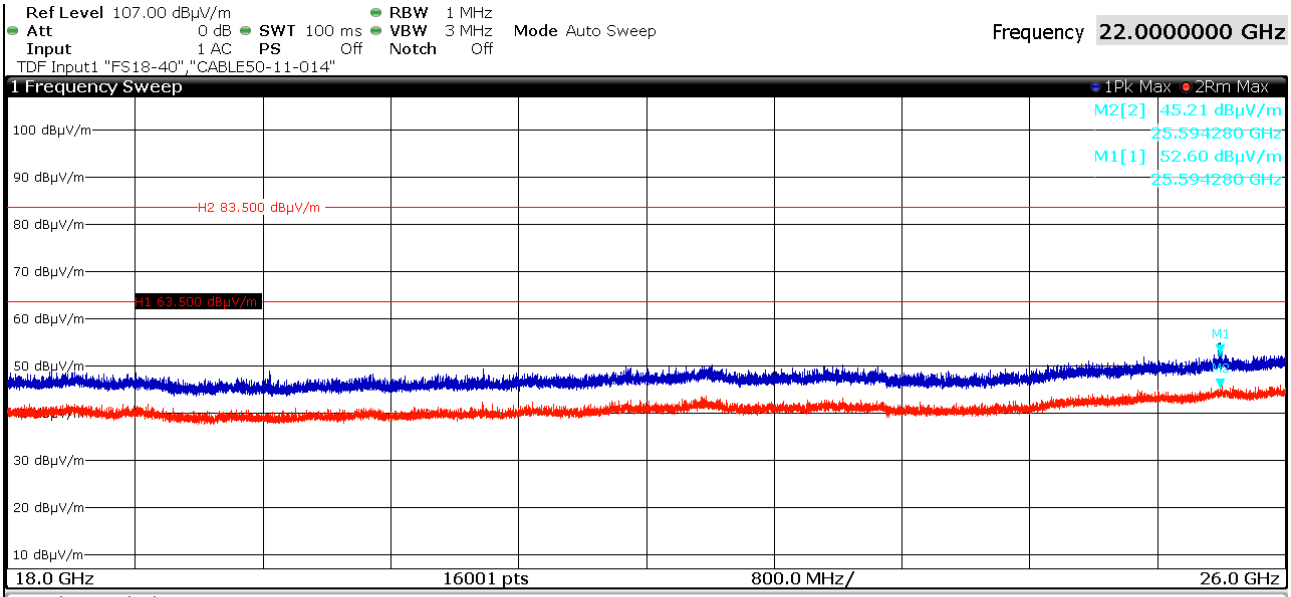


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685140 GHz	53.108 dBµV/m	4	4.959800 GHz	52.966 dBµV/m
2	4.871910 GHz	46.748 dBµV/m	5	4.973780 GHz	51.475 dBµV/m
3	4.920850 GHz	47.479 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.9598 GHz**	**52.97 dBµV/m**		
M2		2	**4.9598 GHz**	**48.96 dBµV/m**		
M3		1	**4.68514 GHz**	**53.11 dBµV/m**		
M4		2	**4.685144 GHz**	**37.38 dBµV/m**		
M5		2	**4.9603 GHz**	**49.84 dBµV/m**		

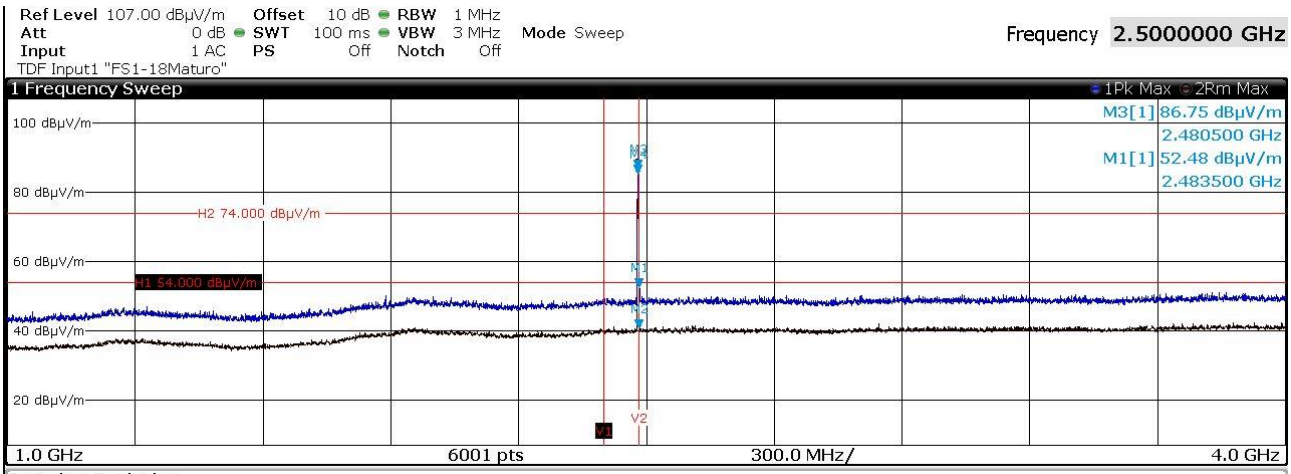


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.594280 GHz	52.595 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2480 MHz, vertical polarisation, EUT-X:

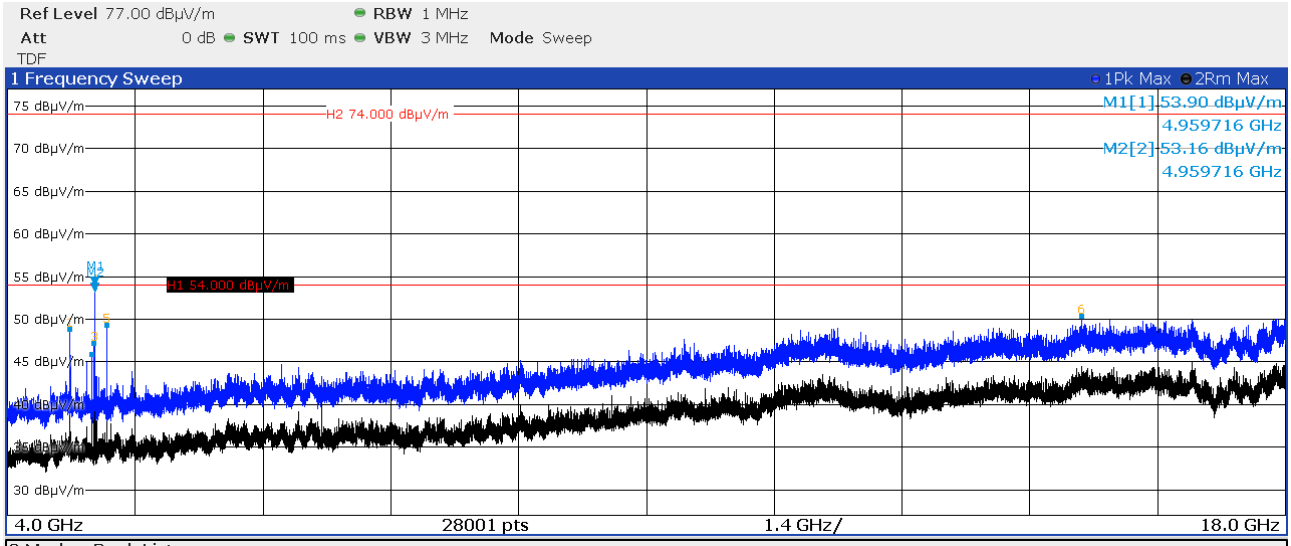


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.480500 GHz	86.749 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.4835 GHz**	**52.48 dBµV/m**		
M2		2	**2.4835 GHz**	**40.61 dBµV/m**		
M3		1	**2.4805 GHz**	**86.75 dBµV/m**		
M4		2	**2.480503 GHz**	**85.23 dBµV/m**		



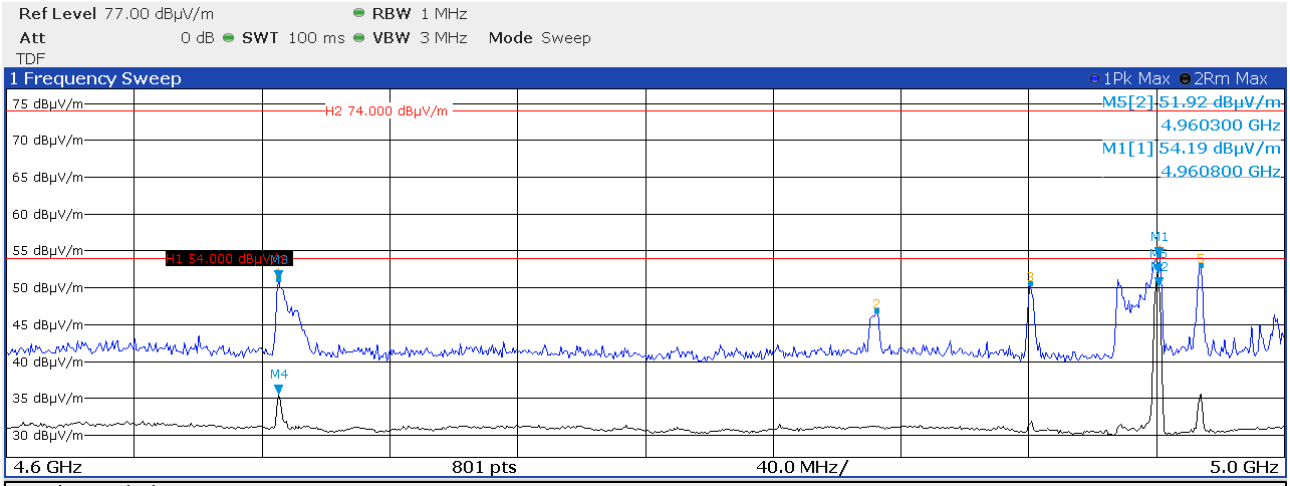
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.684730 GHz	48.875 dBµV/m	4	4.959720 GHz	53.901 dBµV/m
2	4.920720 GHz	45.830 dBµV/m	5	5.087210 GHz	49.325 dBµV/m
3	4.948220 GHz	47.152 dBµV/m	6	15.766830 GHz	50.397 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.959716 GHz**	**53.90 dBµV/m**		
M2		2	**4.959716 GHz**	**53.16 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

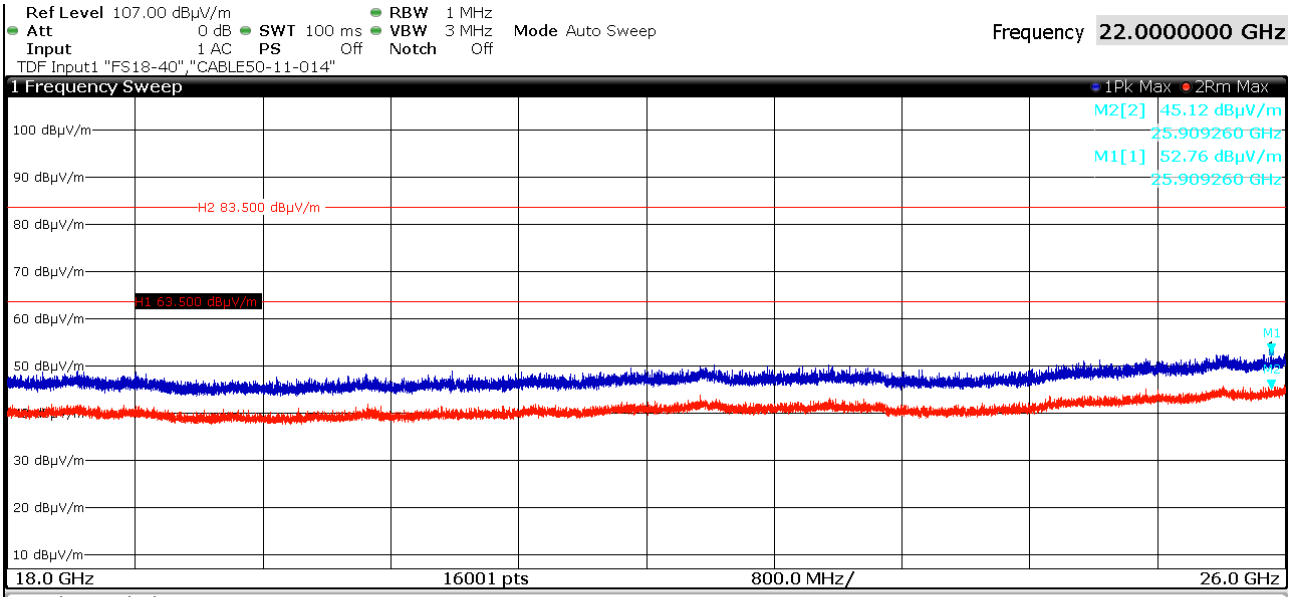


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685140 GHz	51.096 dBµV/m	4	4.960800 GHz	54.187 dBµV/m
2	4.872410 GHz	46.919 dBµV/m	5	4.973780 GHz	52.971 dBµV/m
3	4.920350 GHz	50.614 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.9608 GHz**	**54.19 dBµV/m**		
M2		2	**4.960799 GHz**	**50.12 dBµV/m**		
M3		1	**4.68514 GHz**	**51.10 dBµV/m**		
M4		2	**4.685144 GHz**	**35.52 dBµV/m**		
M5		2	**4.9603 GHz**	**51.92 dBµV/m**		

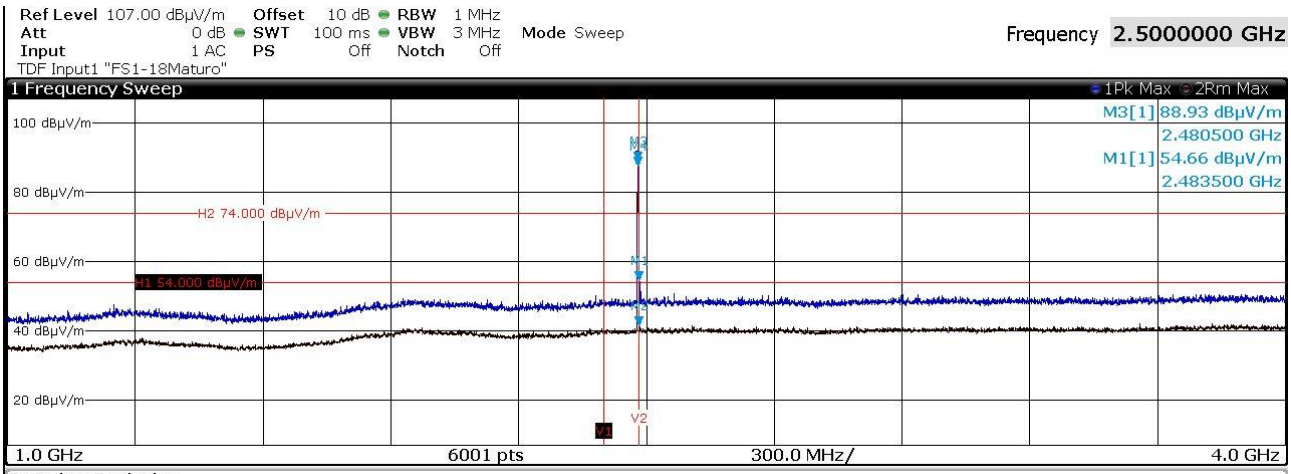


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.909260 GHz	52.764 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2480 MHz, horizontal polarisation, EUT-Y:

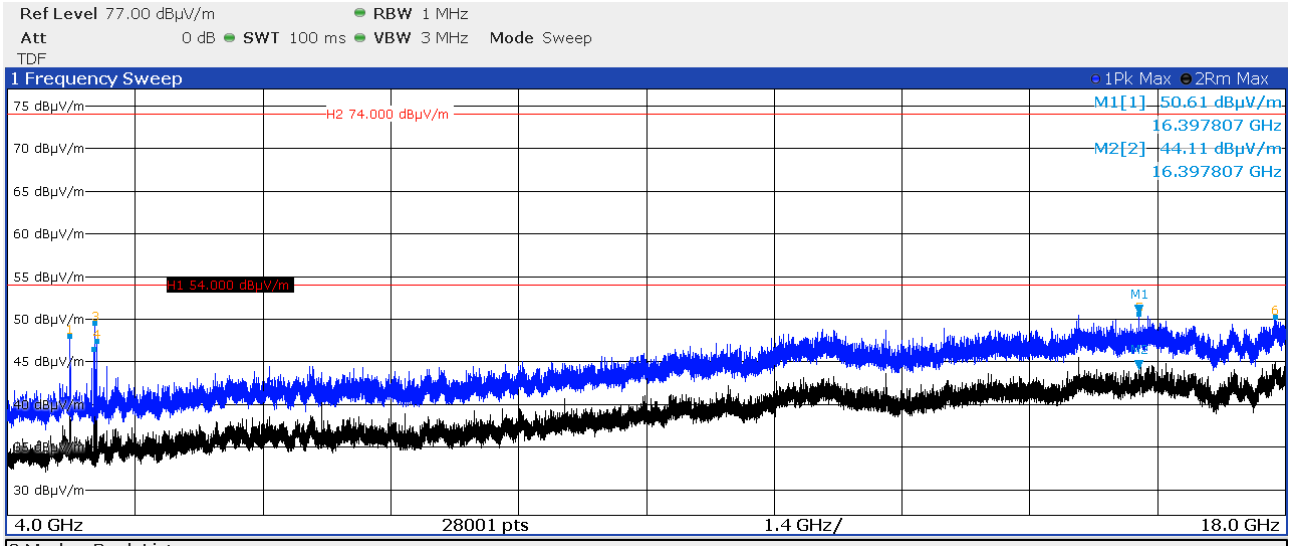


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.480000 GHz	88.995 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.4835 GHz**	**54.66 dBµV/m**		
M2		2	**2.4835 GHz**	**41.52 dBµV/m**		
M3		1	**2.4805 GHz**	**88.93 dBµV/m**		
M4		2	**2.480503 GHz**	**87.49 dBµV/m**		



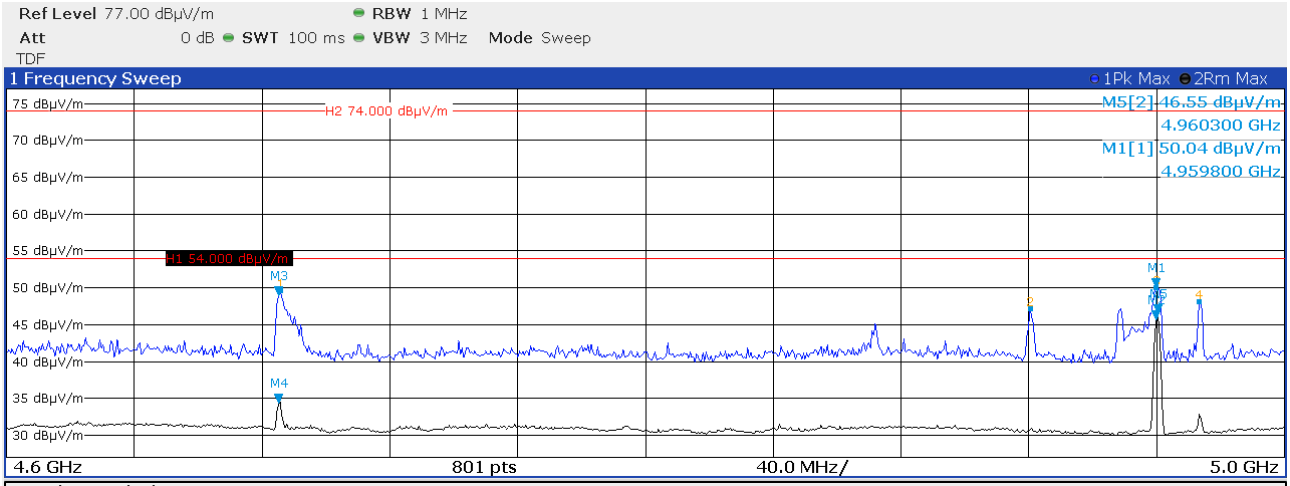
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.686230 GHz	47.950 dBµV/m	4	4.973720 GHz	47.370 dBµV/m
2	4.948220 GHz	46.415 dBµV/m	5	16.397810 GHz	50.608 dBµV/m
3	4.959720 GHz	49.566 dBµV/m	6	17.887250 GHz	50.262 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**16.397807 GHz**	**50.61 dBµV/m**		
M2		2	**16.397807 GHz**	**44.11 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

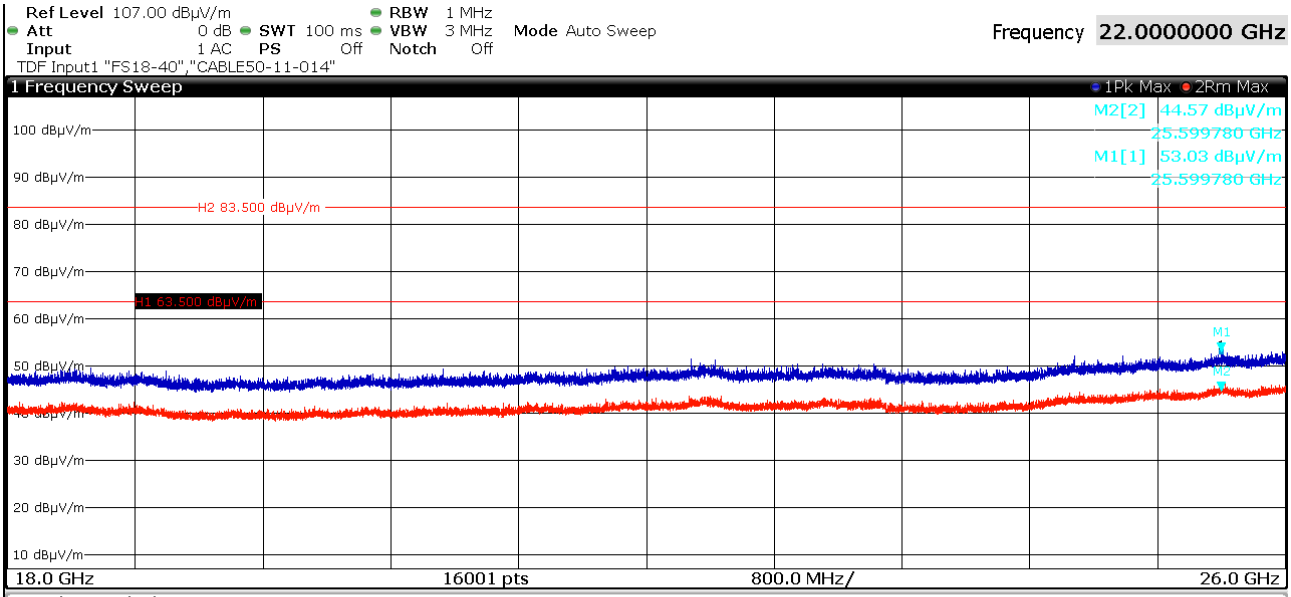


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685640 GHz	49.572 dBµV/m	3	4.959800 GHz	50.037 dBµV/m
2	4.920350 GHz	47.142 dBµV/m	4	4.973280 GHz	48.156 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.9598 GHz**	**50.04 dBµV/m**		
M2		2	**4.9598 GHz**	**45.67 dBµV/m**		
M3		1	**4.68514 GHz**	**48.93 dBµV/m**		
M4		2	**4.685144 GHz**	**34.31 dBµV/m**		
M5		2	**4.9603 GHz**	**46.55 dBµV/m**		

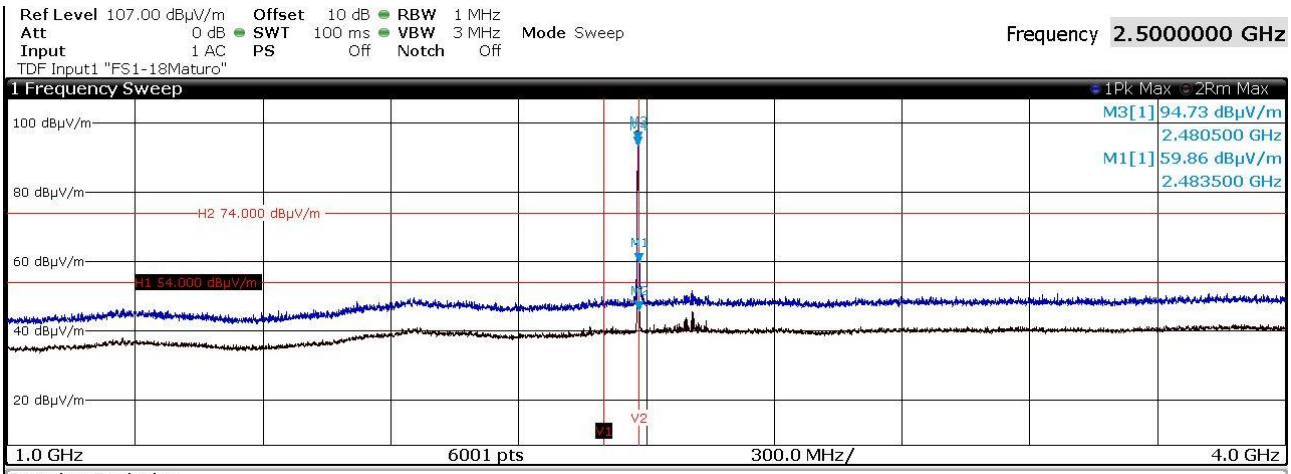


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.599780 GHz	53.028 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2480 MHz, vertical polarisation, EUT-Y:

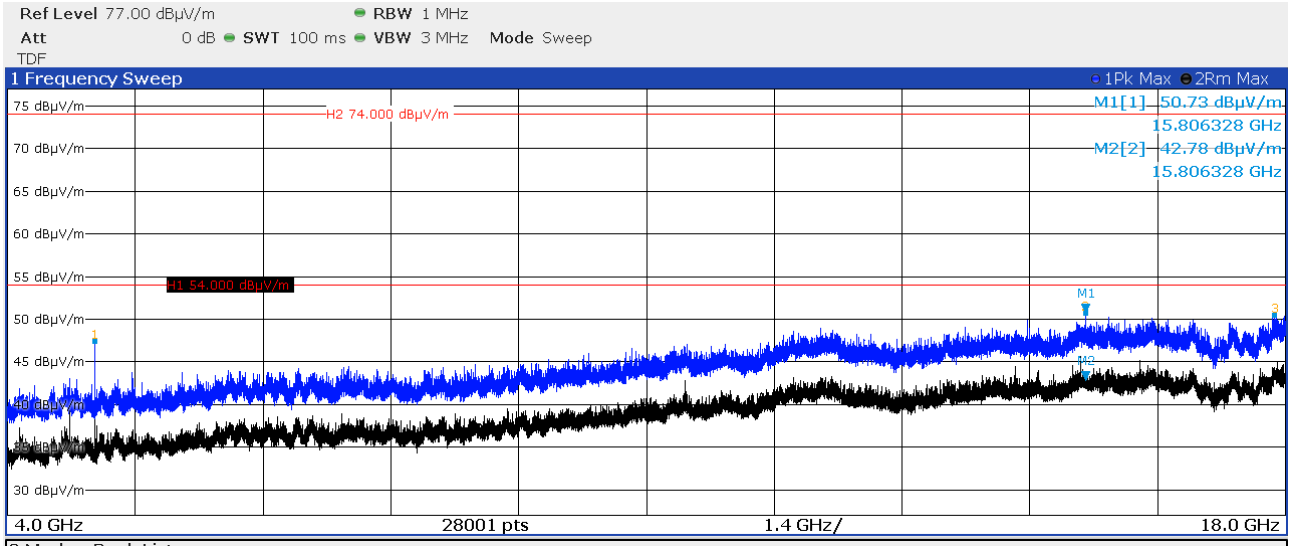


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.480500 GHz	94.729 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.4835 GHz**	**59.86 dBµV/m**		
M2		2	**2.4835 GHz**	**45.84 dBµV/m**		
M3		1	**2.4805 GHz**	**94.73 dBµV/m**		
M4		2	**2.480503 GHz**	**93.48 dBµV/m**		



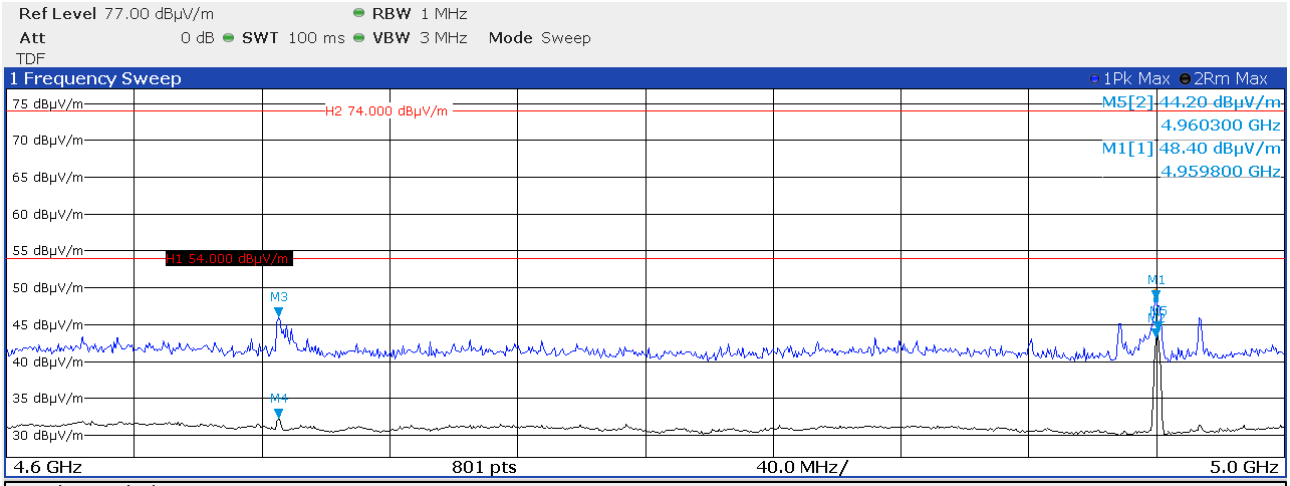
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.960220 GHz	47.361 dBµV/m	3	17.884250 GHz	50.453 dBµV/m
2	15.806330 GHz	50.728 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**15.806328 GHz**	**50.73 dBµV/m**		
M2		2	**15.806328 GHz**	**42.78 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

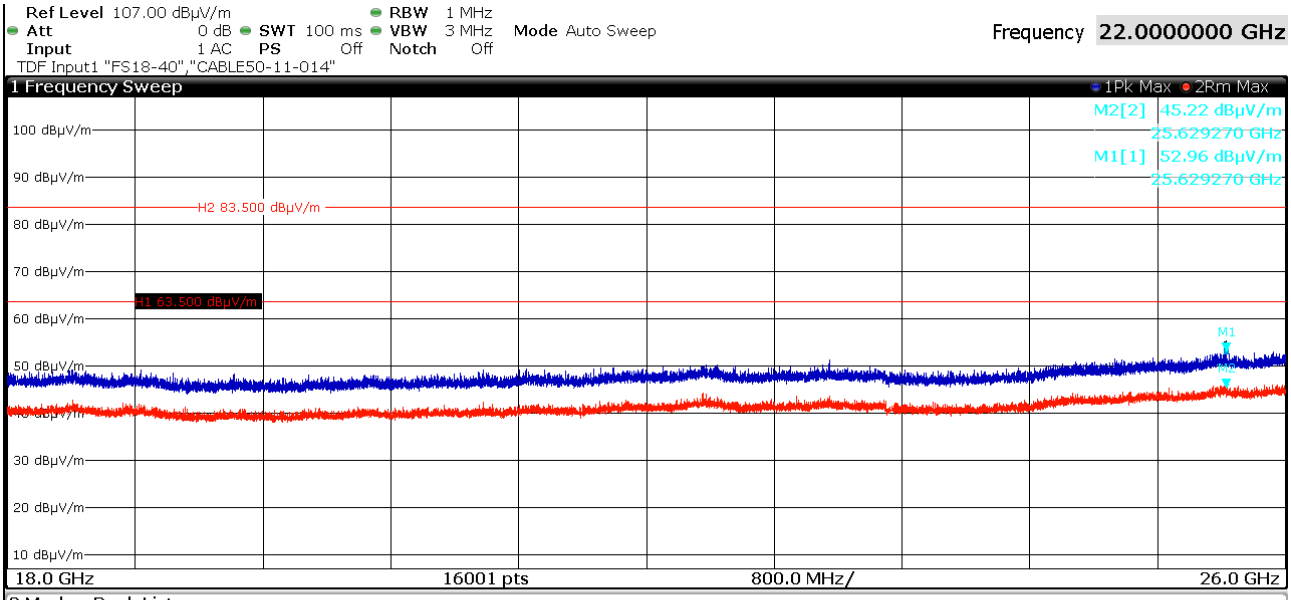


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.959800 GHz	48.401 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.9598 GHz**	**48.40 dBµV/m**		
M2		2	**4.9598 GHz**	**43.27 dBµV/m**		
M3		1	**4.68514 GHz**	**46.03 dBµV/m**		
M4		2	**4.685144 GHz**	**32.33 dBµV/m**		
M5		2	**4.9603 GHz**	**44.20 dBµV/m**		

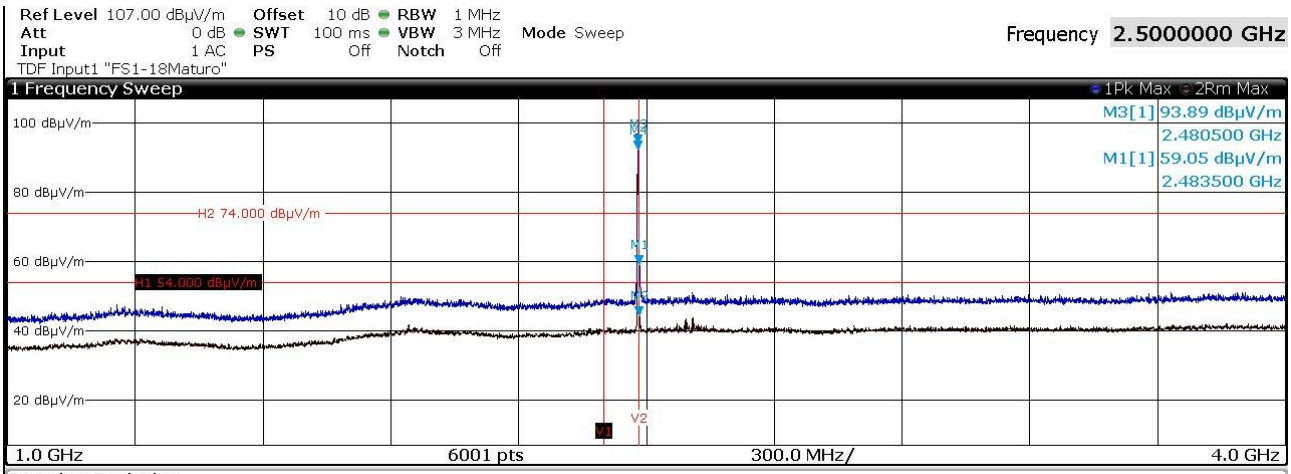


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.629270 GHz	52.956 dBµV/m			

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2480 MHz, horizontal polarisation, EUT-Z:

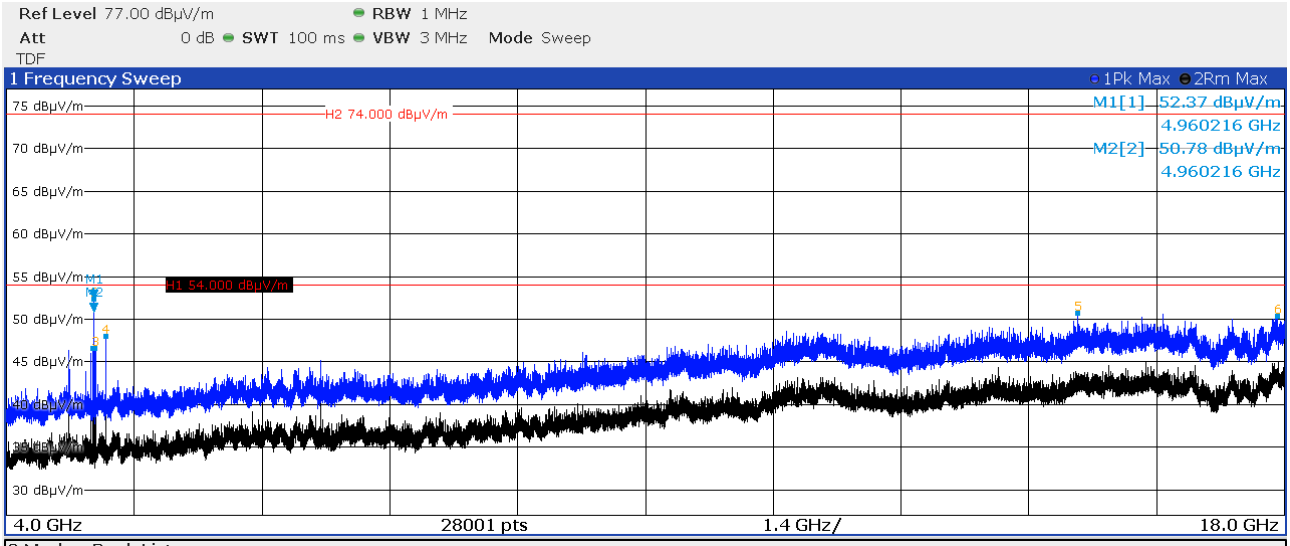


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.480000 GHz	93.900 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.4835 GHz**	**59.05 dBµV/m**		
M2		2	**2.4835 GHz**	**44.44 dBµV/m**		
M3		1	**2.4805 GHz**	**93.89 dBµV/m**		
M4		2	**2.480503 GHz**	**92.23 dBµV/m**		



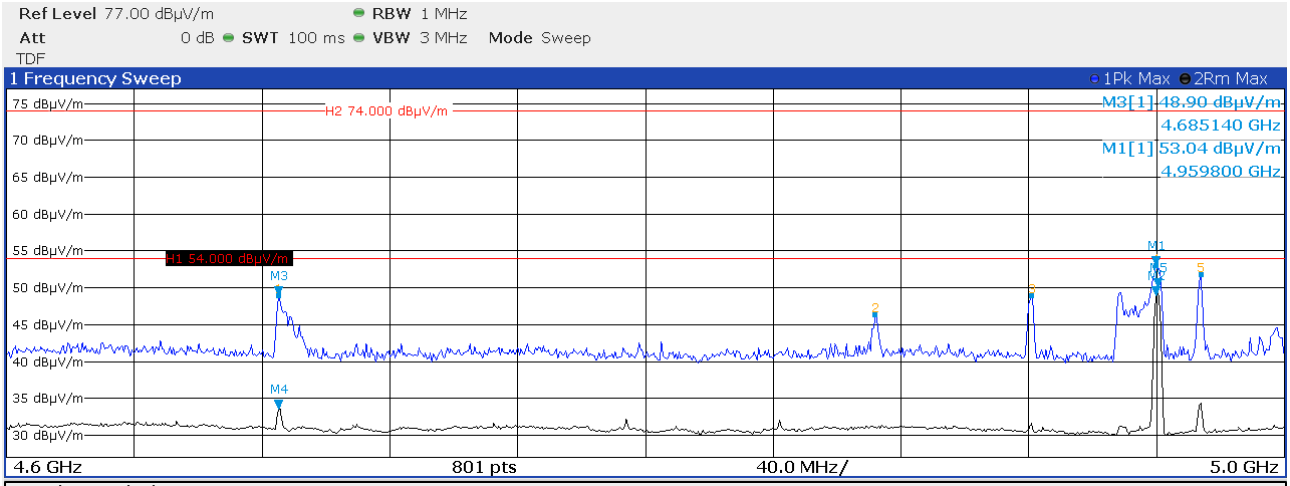
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.948720 GHz	46.548 dBµV/m	4	5.087710 GHz	47.974 dBµV/m
2	4.960220 GHz	52.371 dBµV/m	5	15.734830 GHz	50.744 dBµV/m
3	4.973220 GHz	46.549 dBµV/m	6	17.927250 GHz	50.378 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.960216 GHz**	**52.37 dBµV/m**		
M2		2	**4.960216 GHz**	**50.78 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

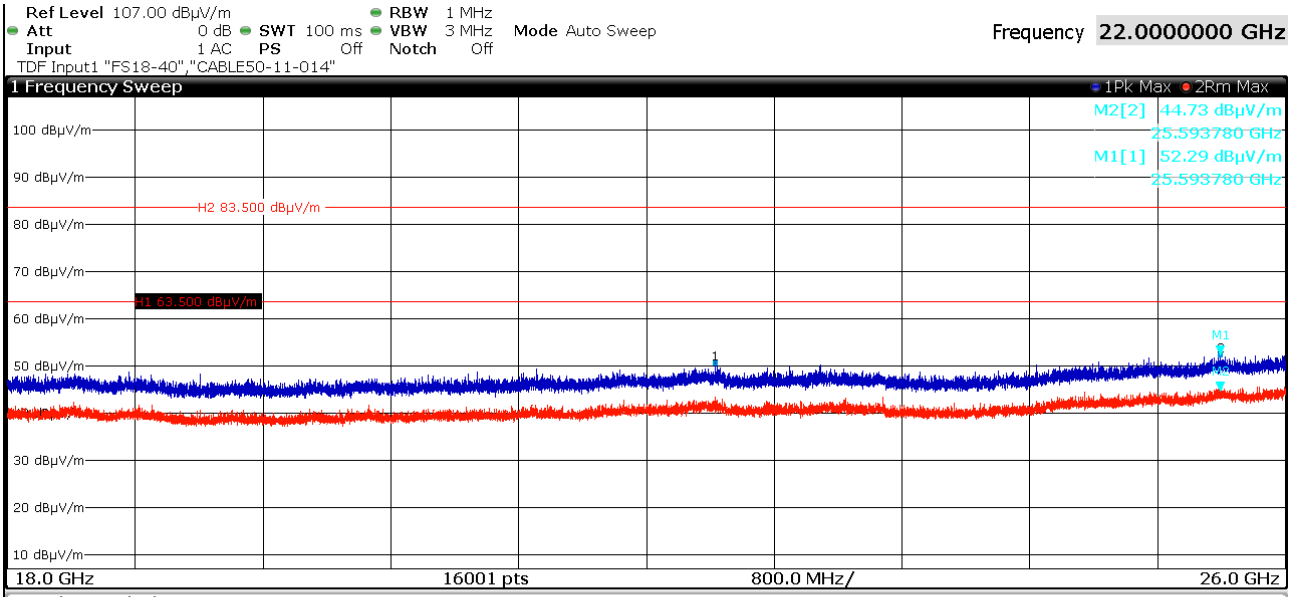


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685140 GHz	48.903 dBµV/m	4	4.959800 GHz	53.044 dBµV/m
2	4.871910 GHz	46.279 dBµV/m	5	4.973780 GHz	51.753 dBµV/m
3	4.920850 GHz	48.949 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.9598 GHz**	**53.04 dBµV/m**		
M2		2	**4.9598 GHz**	**48.97 dBµV/m**		
M3		1	**4.68514 GHz**	**48.90 dBµV/m**		
M4		2	**4.685144 GHz**	**33.56 dBµV/m**		
M5		2	**4.9603 GHz**	**50.09 dBµV/m**		

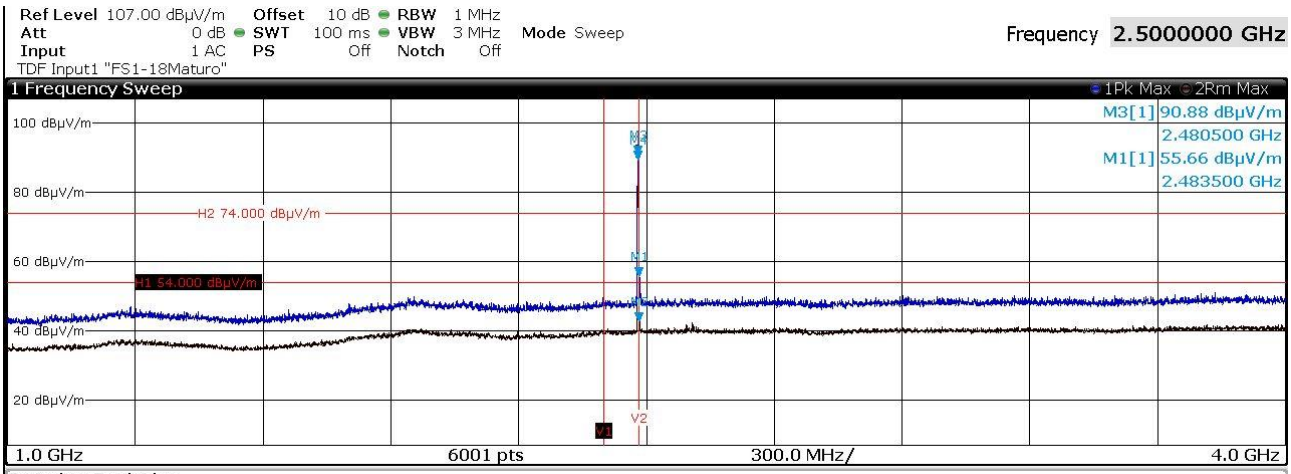


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	22.428470 GHz	50.668 dBµV/m	2	25.593780 GHz	52.290 dBµV/m

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2480 MHz, vertical polarisation, EUT-Z:

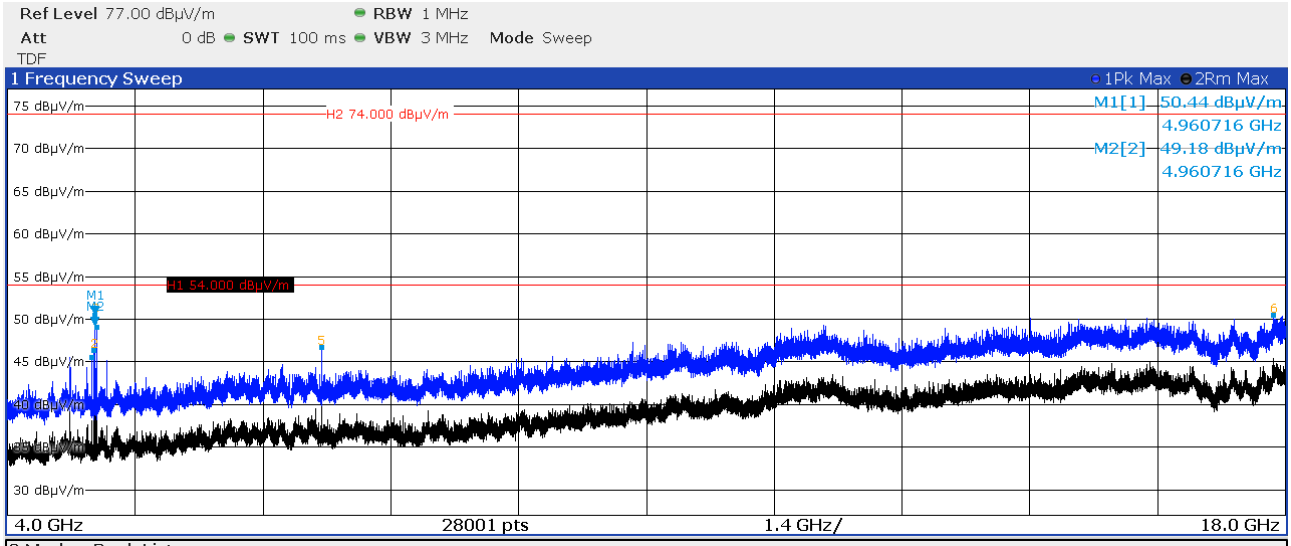


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	2.480500 GHz	90.881 dBµV/m			

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**2.4835 GHz**	**55.66 dBµV/m**		
M2		2	**2.4835 GHz**	**42.79 dBµV/m**		
M3		1	**2.4805 GHz**	**90.88 dBµV/m**		
M4		2	**2.480503 GHz**	**89.18 dBµV/m**		



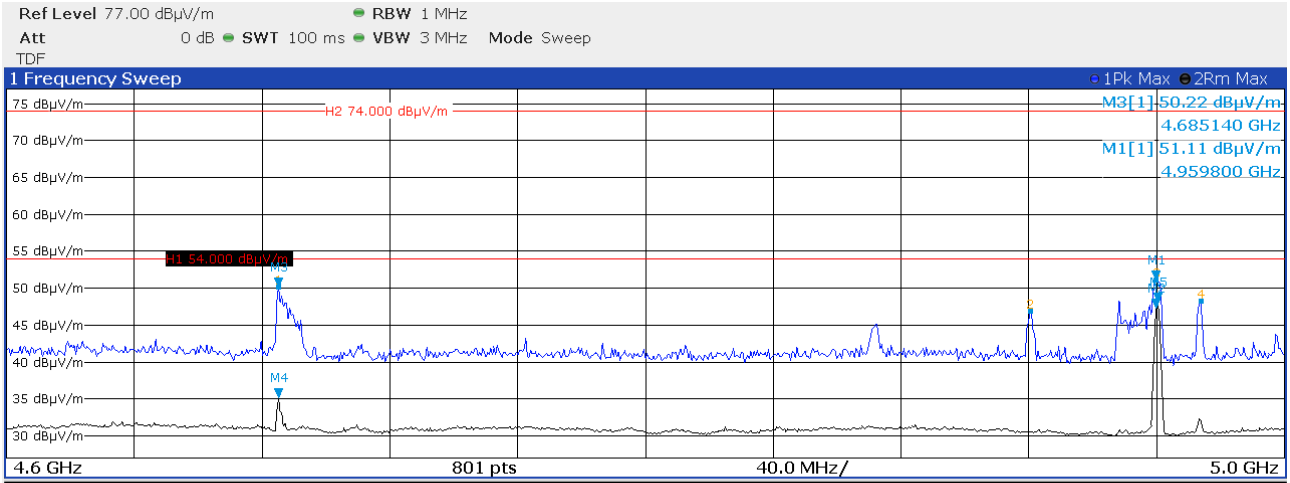
2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.920720 GHz	45.565 dBµV/m	4	4.973720 GHz	49.025 dBµV/m
2	4.948720 GHz	46.349 dBµV/m	5	7.439130 GHz	46.648 dBµV/m
3	4.960720 GHz	50.442 dBµV/m	6	17.869750 GHz	50.426 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.960716 GHz**	**50.44 dBµV/m**		
M2		2	**4.960716 GHz**	**49.18 dBµV/m**		

FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

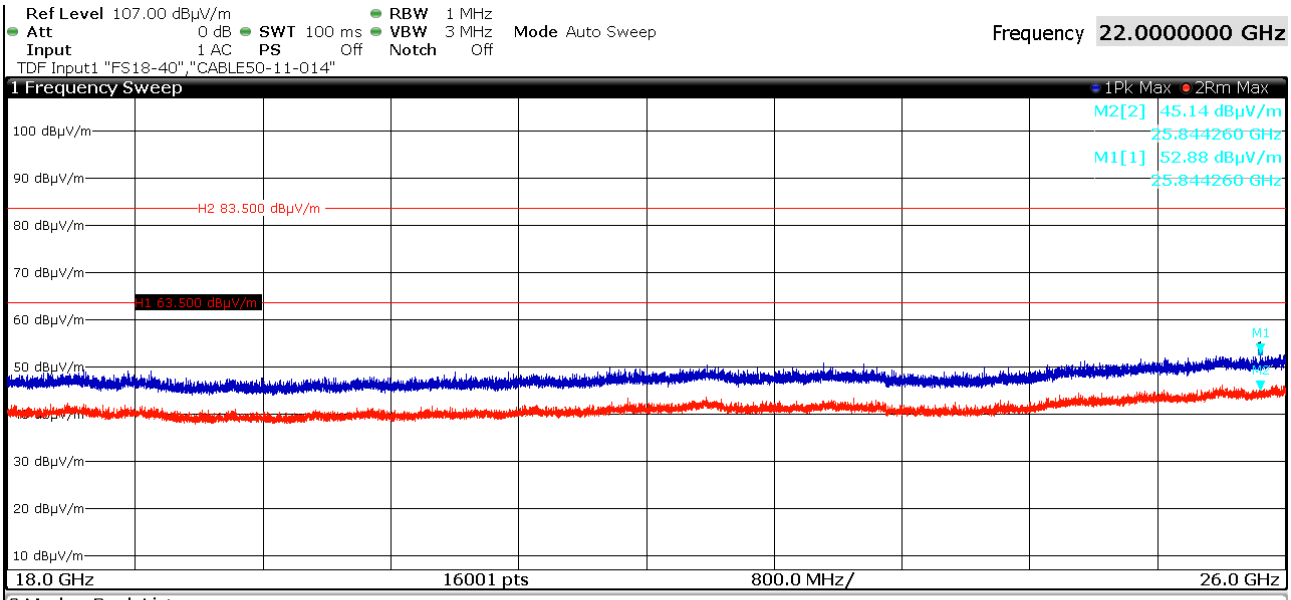


2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	4.685140 GHz	50.221 dBµV/m	3	4.959800 GHz	51.109 dBµV/m
2	4.920350 GHz	46.955 dBµV/m	4	4.973780 GHz	48.207 dBµV/m

3 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	**4.9598 GHz**	**51.11 dBµV/m**		
M2		2	**4.9598 GHz**	**47.26 dBµV/m**		
M3		1	**4.68514 GHz**	**50.22 dBµV/m**		
M4		2	**4.685144 GHz**	**35.15 dBµV/m**		
M5		2	**4.9603 GHz**	**48.06 dBµV/m**		



2 Marker Peak List

No	X-Value	Y-Value	No	X-Value	Y-Value
1	25.844260 GHz	52.884 dBµV/m			

5.7 Spurious emissions radiated

For test instruments and accessories used see section 6 Part **SER3**.

5.7.1 Description of the test location

Test location: Anechoic chamber 1
Test distance: 3 m

5.7.2 Photo documentation of the test set-up

For test setup photos see T44704-00 ATTACHMENT C

5.7.3 Applicable standard

According to FCC Part 15, Section 15.247(d):
In any 100 kHz bandwidth outside the frequency bands 2400 – 2483.50 MHz and 5725 – 5850 MHz, the digitally modulated 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 an radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limit specified in Section 15.209(a) (see Section 15.205(c)).

5.7.4 Description of Measurement

The radiated power of the spurious emission from the EUT is measured in a test setup following the procedures set out in ANSI C63.10. If the emission level of the EUT in peak mode complies with the average limit is 20 dB lower, then testing will be stopped and peak values of the EUT will be reported, otherwise the emission will be measured in average mode again and reported.

Spectrum analyser settings for SER3:
RBW: 100 kHz, VBW: 300 kHz, Detector: Max. peak, Trace: Max. hold, Sweep: Auto

5.7.5 Test result

Frequency range: 2.39 GHz – 2.4 GHz

Highest value (Peak detection): 39.0 dBµV/m at 2.3996 GHz

Note:
Measurements were performed in the frequency range from 1 GHz up to 26 GHz with the analyser settings for restricted band measurements to show compliance for emissions falling into restricted bands, else the band edge compliance is fulfilled. In the frequency ranges from 9 kHz up to 1000 MHz no emissions can be detected.

FCC ID: 2ATBZDS02DC02 IC: 25048-DS02DC02

According to FCC Part 15, Section 15.205(a):
In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limit specified in Section 15.209(a).

Compliance to the radiated emission limit specified in Section 15.209(a) is shown in section 5.4 of this test report. Only emissions exceeding the general limits of section 15.209(a) and which do not fall into the restricted bands are re-measured applying the limit of section 15.247(d).

Limit according to FCC Part 15, Section 15.247(d) for emissions falling not in restricted bands:
In any 100 kHz bandwidth outside the frequency bands 2400 – 2483.50 MHz and 5725 – 5850 MHz, the digitally modulated 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. Attenuation below the general limits specified in Section 15.209(a) is not required.

Frequency (MHz)	Spurious emission limit
Below 1000	20 dB below the highest level of the desired power
Above 1000	20 dB below the highest level of the desired power

The requirements are **FULFILLED.**

Remarks: Only the frequency range not complying with the general emission limit has been re-measured.

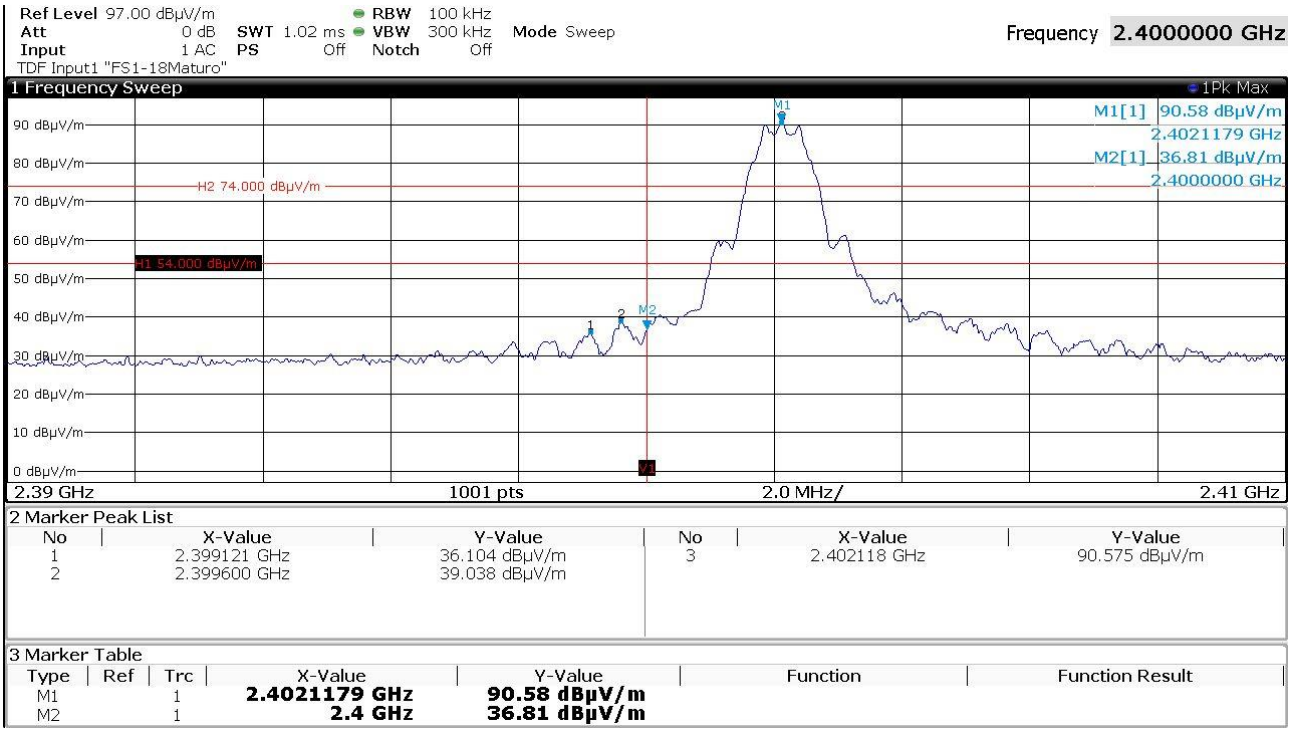
Compliance to the general limit of the other frequency ranges are shown in section 5.6

For detailed test results please see the following test plots.

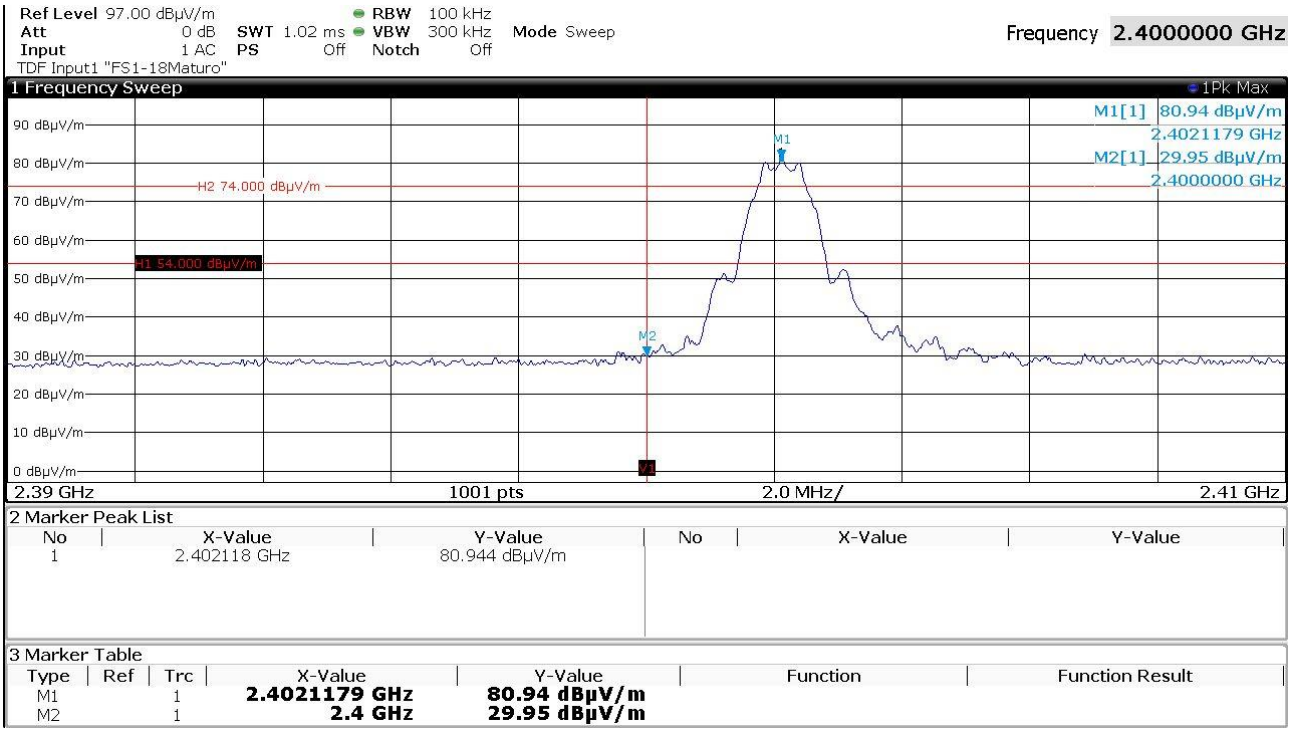
FCC ID: 2ATBZDS02DC02 IC: 25048-DS02DC02

5.7.6 Test protocols radiated emissions

2.39 GHz ≤ f ≤ 2.4 GHz
2402 MHz, horizontal polarisation, EUT-X:

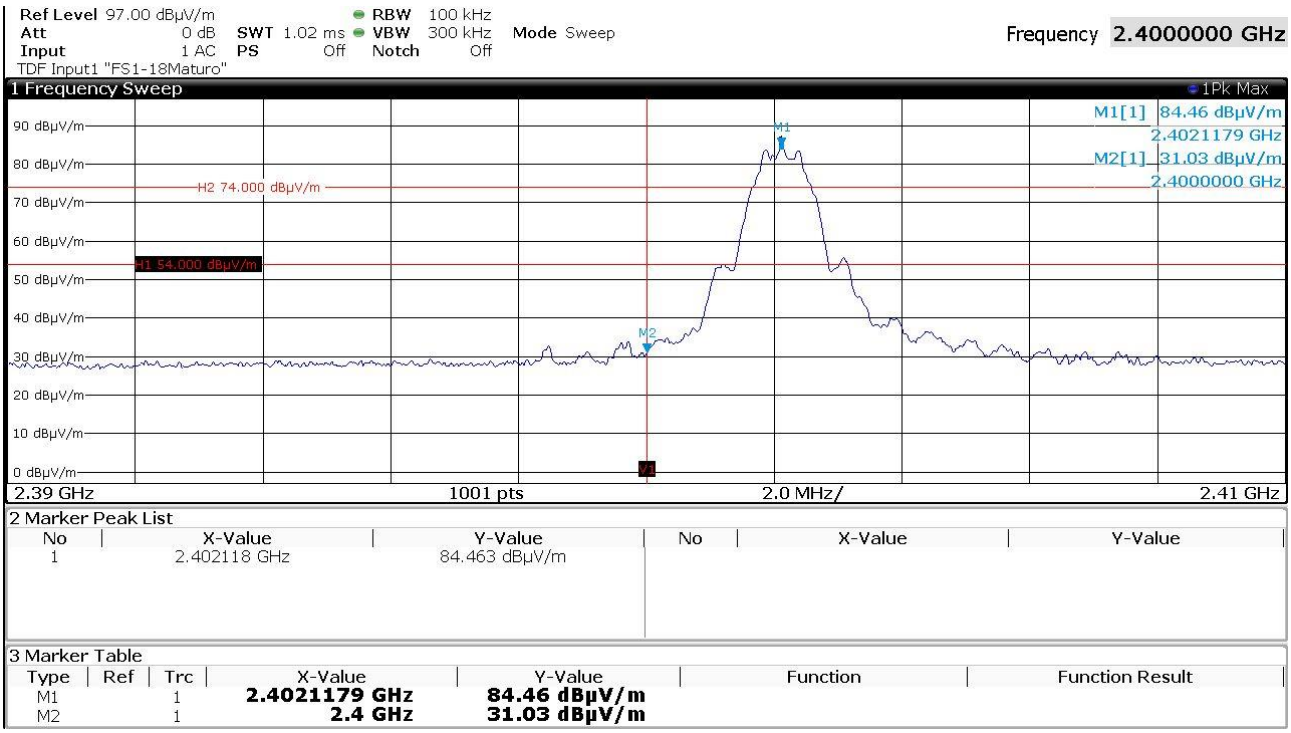


2402 MHz, vertical polarisation, EUT-X:

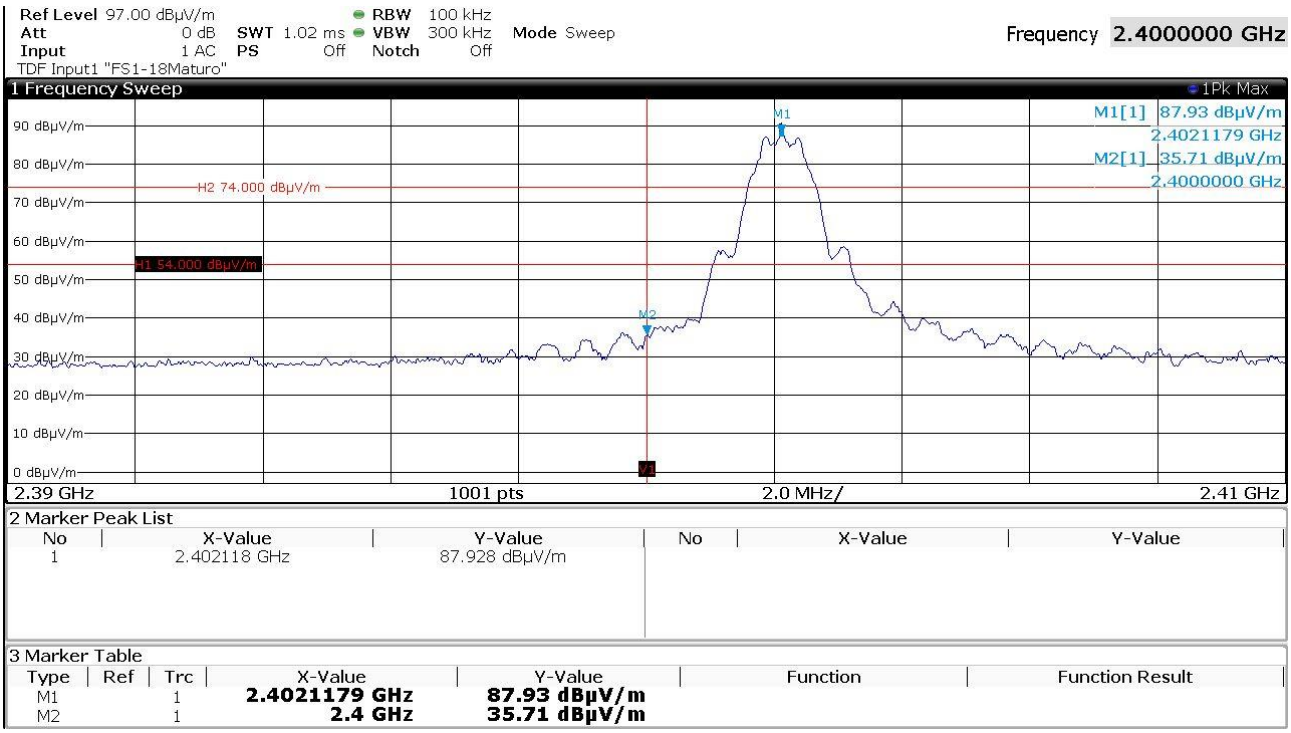


FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2402 MHz, horizontal polarisation, EUT-Y:

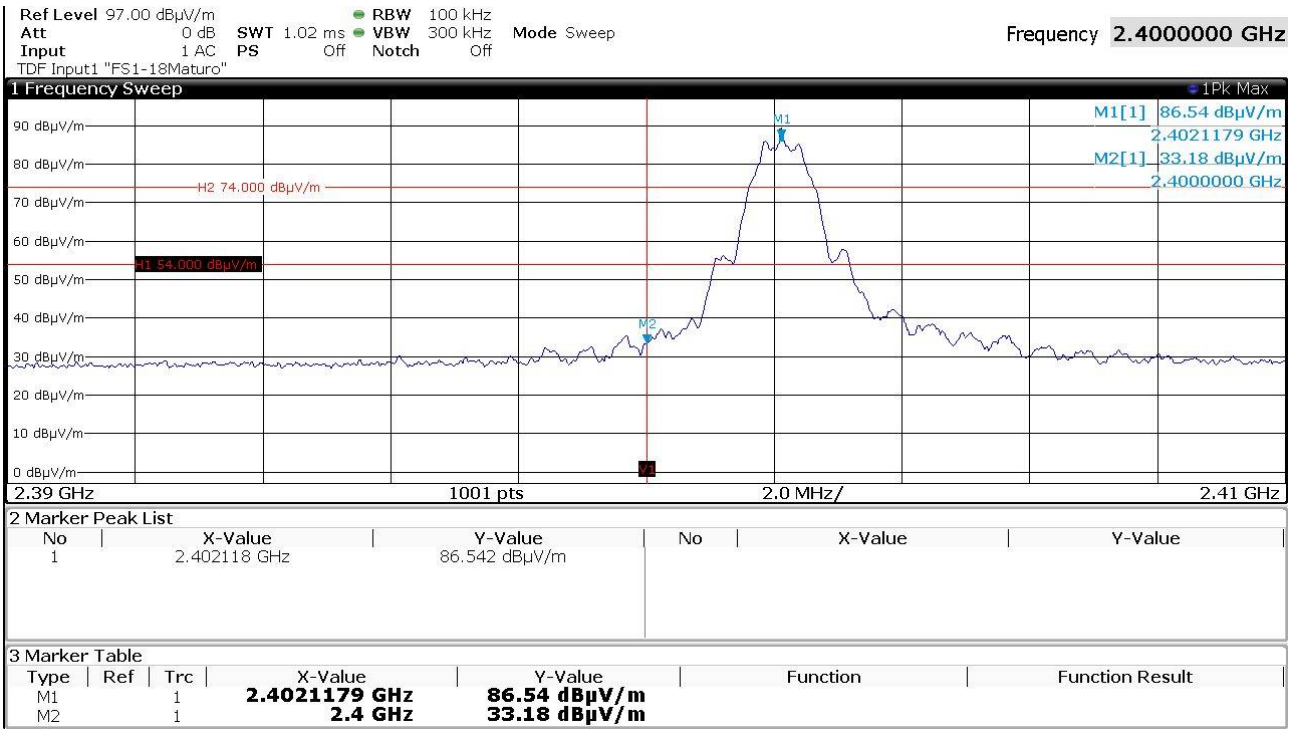


2402 MHz, vertical polarisation, EUT-Y:

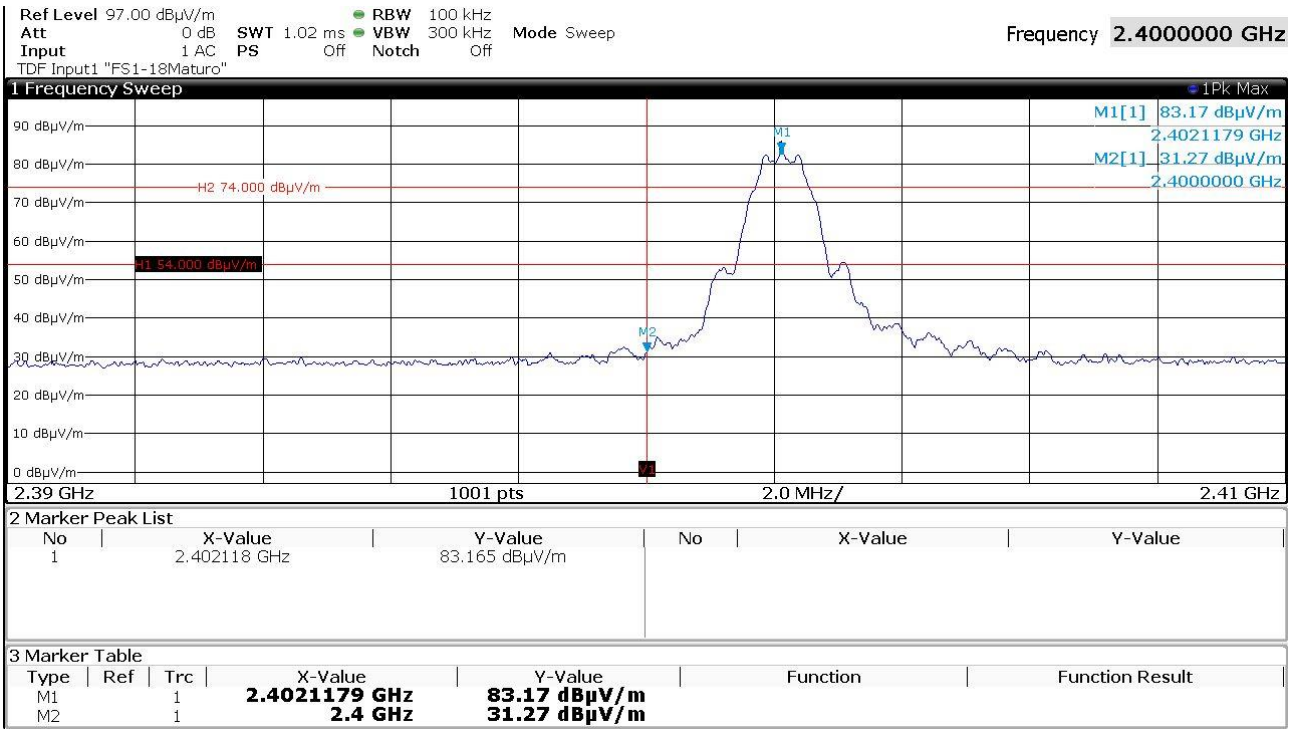


FCC ID: 2ATBZDS02DC02 **IC: 25048-DS02DC02**

2402 MHz, horizontal polarisation, EUT-Z:



2402 MHz, vertical polarisation, EUT-Z:



5.8 Antenna application

5.8.1 Applicable standard

According to FCC Part 15C, Section 15.203:
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

The EUT has an integrated antenna. No other antenna can be used with the device.

The antenna of the EUT meets the requirement of FCC Part 15C, Section 15.203 and 15.204.

5.8.2 Antenna requirements

According to FCC Part 15C, Section 15.247(b)(4):
The conducted output power limit specified in paragraph (b) of 15.247 is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from intentional radiator shall be reduced below the stated values in paragraph (b)(1), (b)(2) and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Remarks: No power reduction results from the defacto limit, peak Gain of the used antenna is 2.5 dBi.

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6 USED TEST EQUIPMENT AND ACCESSORIES

All test instruments used are calibrated and verified regularly. The calibration history is available on request.

Test ID	Model Type	Equipment No.	Next Calib.	Last Calib.	Next Verif.	Last Verif.
CPR 3	ESW26	02-02/03-17-002	13/12/2019	13/12/2018		
	AMF-6D-01002000-22-10P	02-02/17-15-004				
	3117	02-02/24-05-009	06/06/2020	06/06/2019		
	18N-20	02-02/50-17-003				
	NMS111-GL200SC01-NMS11	02-02/50-17-012				
	BAM 4.5-P	02-02/50-17-024				
	NCD	02-02/50-17-025				
	KK-SF106-2X11N-6,5M	02-02/50-18-016				
DC	ESR 7	02-02/03-13-001	04/02/2020	04/02/2019		
	KMS102-1 m	02-02/50-11-014				
MB	ESR 7	02-02/03-13-001	04/02/2020	04/02/2019		
PSD	FSW43	02-02/11-15-001	08/04/2020	08/04/2019		
	AMF-6D-01002000-22-10P	02-02/17-15-004				
	3117	02-02/24-05-009	06/06/2020	06/06/2019		
	18N-20	02-02/50-17-003				
	NMS111-GL200SC01-NMS11	02-02/50-17-012				
	BAM 4.5-P	02-02/50-17-024				
	NCD	02-02/50-17-025				
	KK-SF106-2X11N-6,5M	02-02/50-18-016				
SER 1	ESCI	02-02/03-05-004	17/09/2019	17/09/2018		
	HFH 2 - Z 2	02-02/24-05-020	09/08/2020	09/08/2017	15/01/2020	15/01/2019
	NW-2000-NB	02-02/50-05-113				
	KK-EF393/U-16N-21N20 m	02-02/50-12-018				
	KK-SD_7/8-2X21N-33,0M	02-02/50-15-028				
SER 2	ESVS 30	02-02/03-05-006	06/06/2019	06/06/2018		
	VULB 9168	02-02/24-05-005	18/04/2019	18/04/2018		
	NW-2000-NB	02-02/50-05-113				
	KK-EF393/U-16N-21N20 m	02-02/50-12-018				
	KK-SD_7/8-2X21N-33,0M	02-02/50-15-028				
SER 3	ESW26	02-02/03-17-002	13/12/2019	13/12/2018		
	FSW43	02-02/11-15-001	08/04/2020	08/04/2019		
	JS4-18004000-30-5A	02-02/17-05-017				
	AMF-6D-01002000-22-10P	02-02/17-15-004				
	3117	02-02/24-05-009	06/06/2020	06/06/2019		
	BBHA 9170	02-02/24-05-014	12/06/2021	12/06/2018	12/12/2019	12/12/2018
	WHK 3.0/18G-10EF	02-02/50-05-180				
	KMS102-1 m	02-02/50-11-014				
	KMS102-0.2 m	02-02/50-11-020				
	18N-20	02-02/50-17-003				
	NMS111-GL200SC01-NMS11	02-02/50-17-012				
	BAM 4.5-P	02-02/50-17-024				
	NCD	02-02/50-17-025				
	KK-SF106-2X11N-6,5M	02-02/50-18-016				