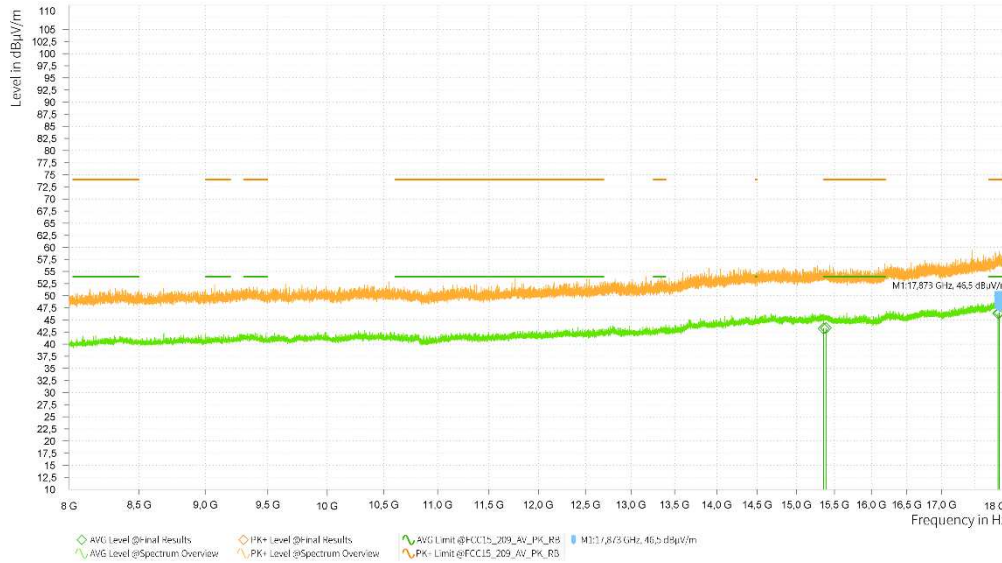


TR No.: 24080432-41495-0

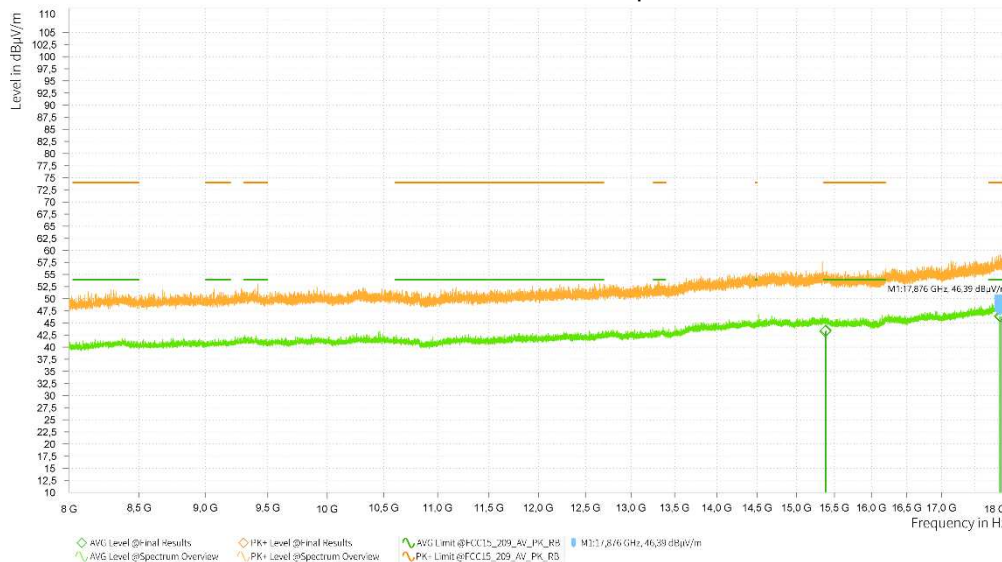
2025-03-10

Plot 465: RSE 8 GHz – 18 GHz, Mode 3, CH38, horizontal / vertical polarisation



Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.353,700				43,26	54,00	10,74	41,28	-15	304,6	1,50	15:36:03
2	15.384,000				43,31	54,00	10,69	41,27	75	81,9	1,50	15:37:40
2	17.851,550				46,36	54,00	7,64	44,07	105	349,8	1,50	15:39:04
2	17.872,650				46,50	54,00	7,50	44,13	10	345,4	1,50	15:34:42

Plot 466: RSE 8 GHz – 18 GHz, Mode 3, CH46, horizontal / vertical polarisation

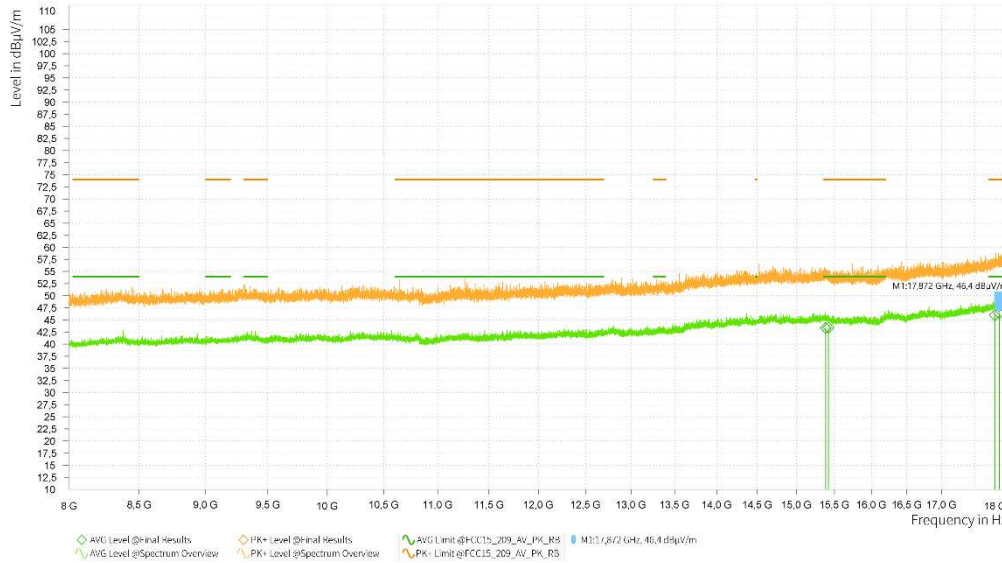


Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.375,650				43,27	54,00	10,73	41,27	15	242,7	1,50	15:20:03
2	15.385,000				43,44	54,00	10,56	41,27	15,1	30,1	1,50	15:17:13
2	17.876,250				46,39	54,00	7,61	44,14	74,9	381	1,50	15:21:31
2	17.896,900				46,32	54,00	7,68	44,19	-4,8	245,4	1,50	15:18:38

TR No.: 24080432-41495-0

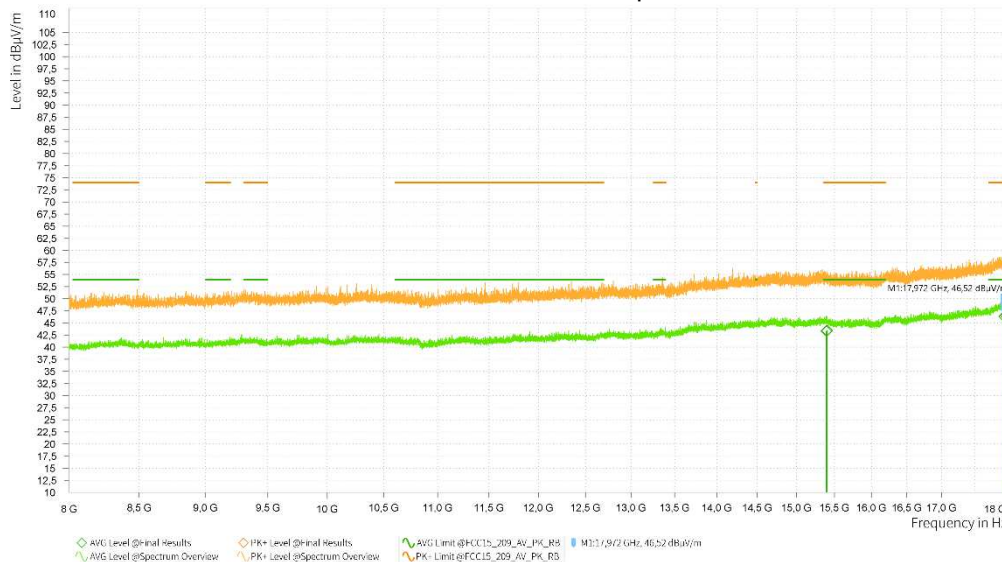
2025-03-10

Plot 467: RSE 8 GHz – 18 GHz, Mode 3, CH54, horizontal / vertical polarisation



Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.380,850				43,35	54,00	10,65	41,27	15	24,7	1,50	15:02:04
2	15.417,850				43,42	54,00	10,58	41,25	105	361,9	1,50	15:03:40
2	17.800,600				45,95	54,00	8,05	43,97	105,1	391,9	1,50	15:06:30
2	17.871,900				46,40	54,00	7,60	44,13	105	106,5	1,50	15:05:09

Plot 468: RSE 8 GHz – 18 GHz, Mode 3, CH62, horizontal / vertical polarisation

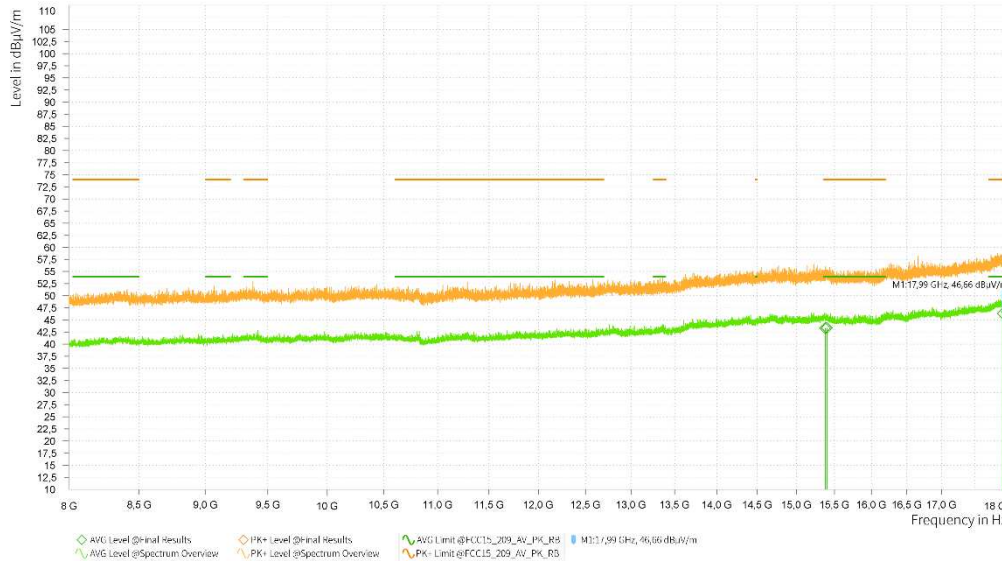


Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.389,450				43,34	54,00	10,66	41,26	105	148,9	1,50	14:55:50
2	15.402,200				43,43	54,00	10,57	41,26	105	106,5	1,50	14:52:17
2	17.944,000				46,34	54,00	7,66	44,33	105	15,8	1,50	14:53:34
2	17.972,400				46,52	54,00	7,48	44,42	101,5	82,5	1,50	14:54:46

TR No.: 24080432-41495-0

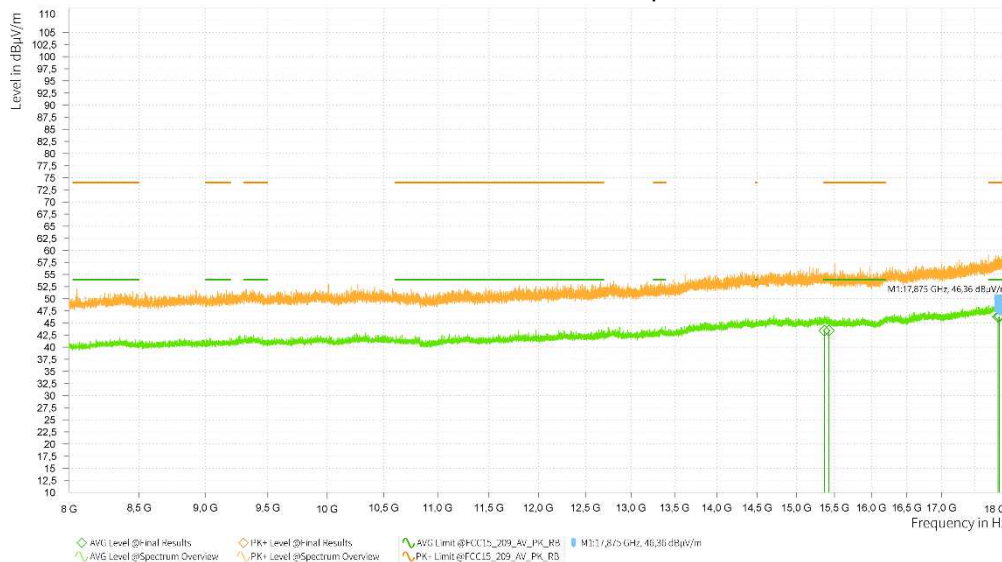
2025-03-10

Plot 469: RSE 8 GHz – 18 GHz, Mode 3, CH102, horizontal / vertical polarisation



Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.374,500				43,31	54,00	10,69	41,27	74,9	131,1	1,50	14:42:03
2	15.394,850				43,38	54,00	10,62	41,26	93,1	320,8	1,50	14:44:17
2	17.924,550				46,36	54,00	7,64	44,27	15	289,1	1,50	14:40:28
2	17.989,500				46,66	54,00	7,34	44,48	74,9	237,8	1,50	14:43:08

Plot 470: RSE 8 GHz – 18 GHz, Mode 3, CH110, horizontal / vertical polarisation

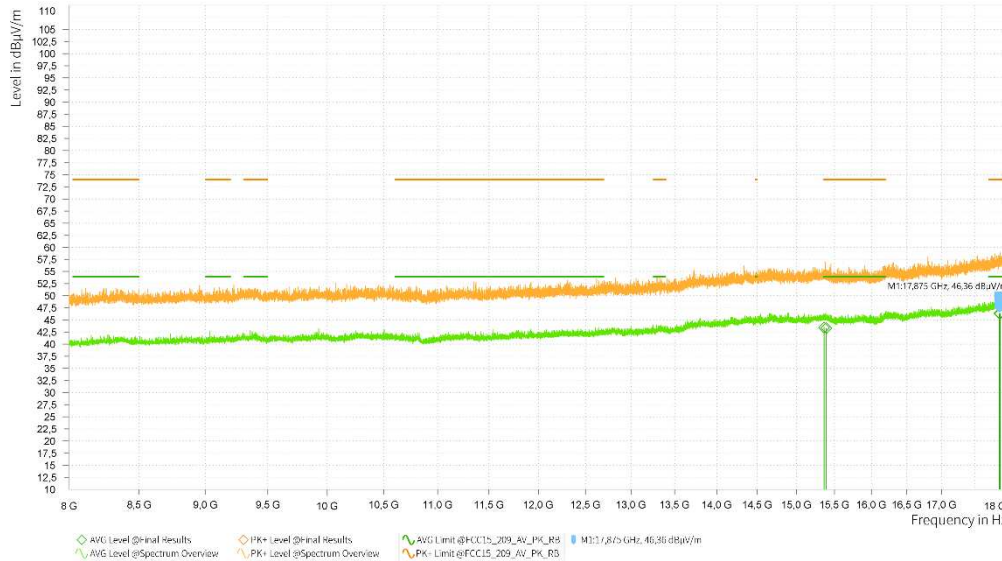


Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.365,950				43,43	54,00	10,57	41,27	15	367,4	1,50	14:29:55
2	15.423,400				43,43	54,00	10,57	41,24	-15	41,7	1,50	14:28:29
2	17.851,250				46,28	54,00	7,72	44,07	105	154	1,50	14:32:51
2	17.875,400				46,36	54,00	7,64	44,14	84,9	34,5	1,50	14:31:45

TR No.: 24080432-41495-0

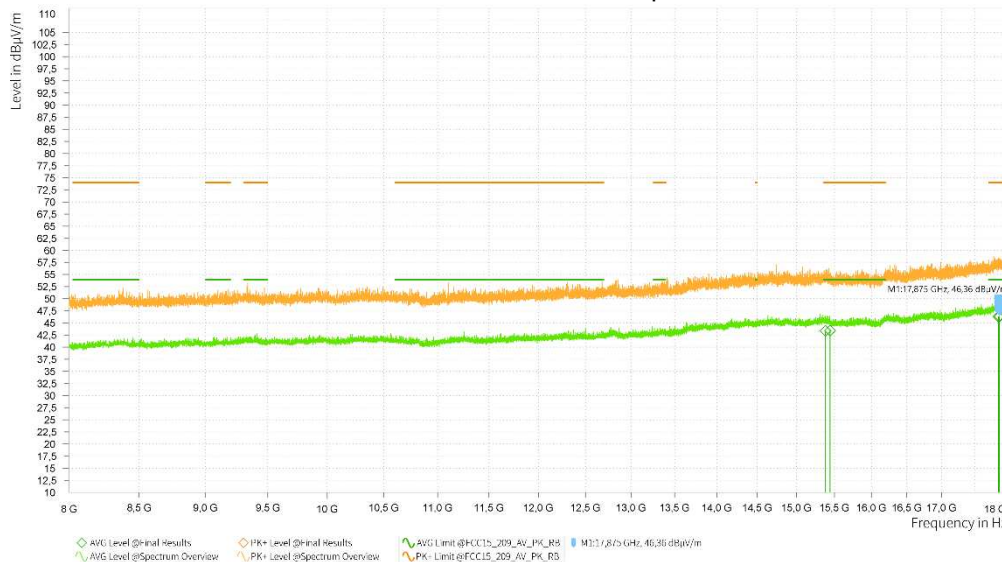
2025-03-10

Plot 471: RSE 8 GHz – 18 GHz, Mode 3, CH134, horizontal / vertical polarisation



Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.361,000				43,41	54,00	10,59	41,28	80,4	126,7	1,50	14:04:01
2	15.389,500				43,33	54,00	10,67	41,26	101,4	72,3	1,50	14:07:30
2	17.874,700				46,36	54,00	7,64	44,13	74,9	132,5	1,50	14:05:07
2	17.884,200				46,30	54,00	7,70	44,16	75	189	1,50	14:06:08

Plot 472: RSE 8 GHz – 18 GHz, Mode 3, CH142, horizontal / vertical polarisation

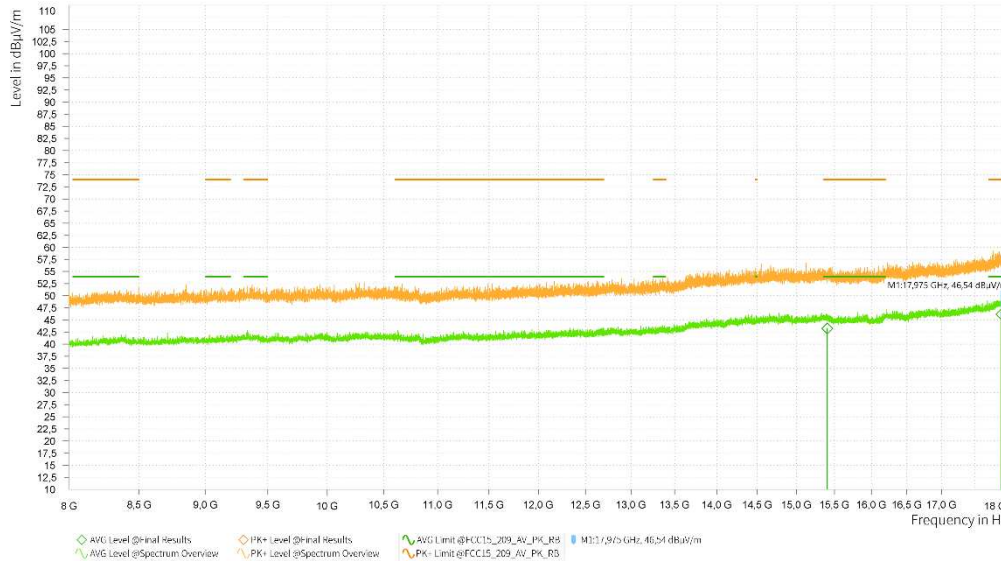


Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.379,000				43,36	54,00	10,64	41,27	15,1	27,8	1,50	12:36:48
2	15.440,350				43,41	54,00	10,59	41,23	12	87,3	1,50	12:37:53
2	17.859,000				46,31	54,00	7,69	44,09	15	202,4	1,50	12:38:59
2	17.875,450				46,36	54,00	7,64	44,14	75	188,6	1,50	12:40:07

TR No.: 24080432-41495-0

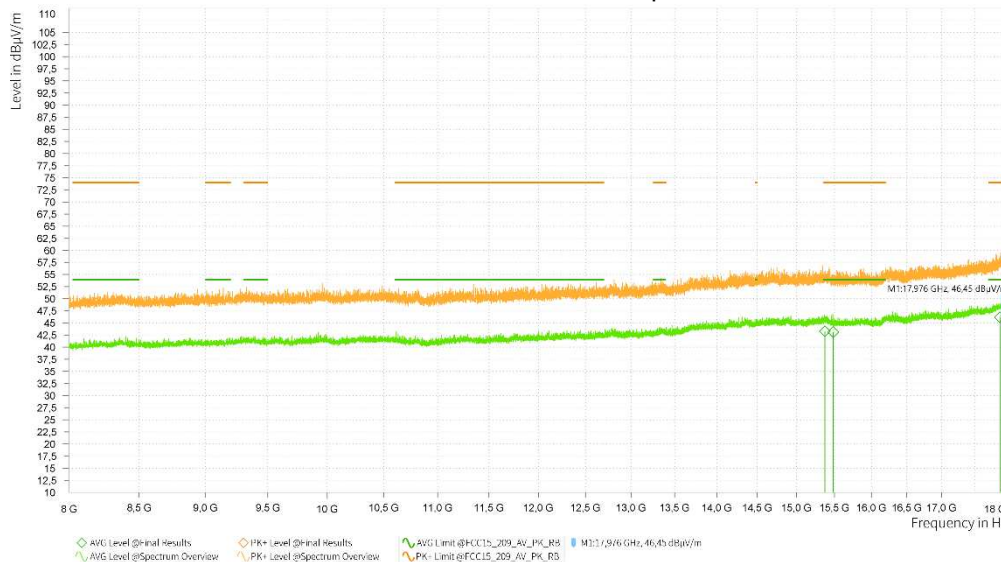
2025-03-10

Plot 473: RSE 8 GHz – 18 GHz, Mode 3, CH151, horizontal / vertical polarisation



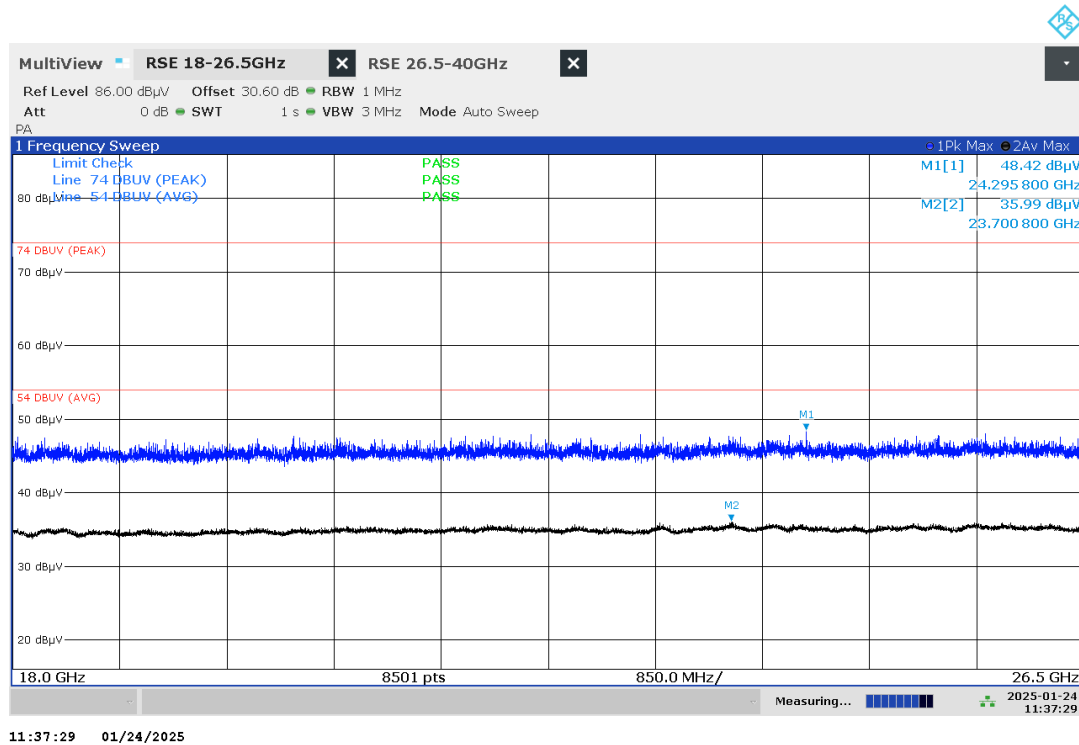
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.400,100				43,27	54,00	10,73	41,26	105	229,5	1,50	11:54:33
2	15.404,100				43,24	54,00	10,76	41,26	105,1	298	1,50	11:55:36
2	17.903,450				46,19	54,00	7,81	44,21	101,4	320,2	1,50	11:56:47
2	17.975,250				46,54	54,00	7,46	44,43	-5,1	291,1	1,50	11:53:21

Plot 474: RSE 8 GHz – 18 GHz, Mode 3, CH159, horizontal / vertical polarisation

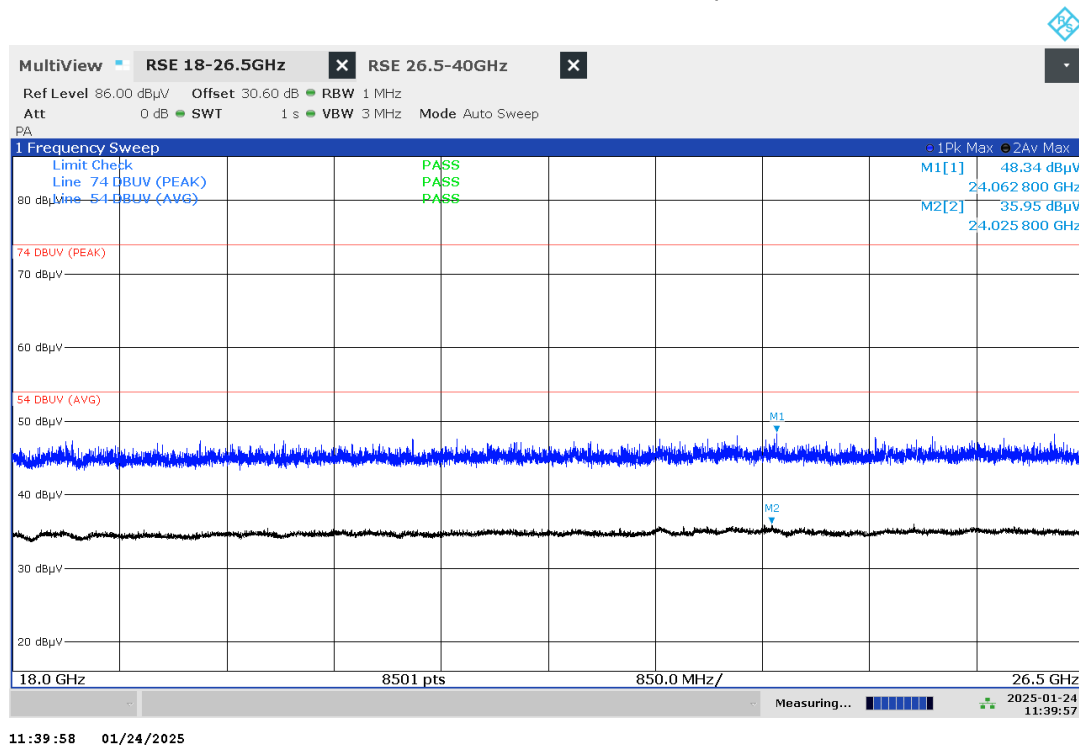


Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.371,850				43,28	54,00	10,72	41,27	102,9	197,8	1,50	11:39:13
2	15.483,500				43,10	54,00	10,90	41,22	14,8	282,1	1,50	11:38:06
2	17.881,250				46,17	54,00	7,83	44,15	105,1	117	1,50	11:42:00
2	17.976,400				46,45	54,00	7,55	44,43	105	352,2	1,50	11:40:24

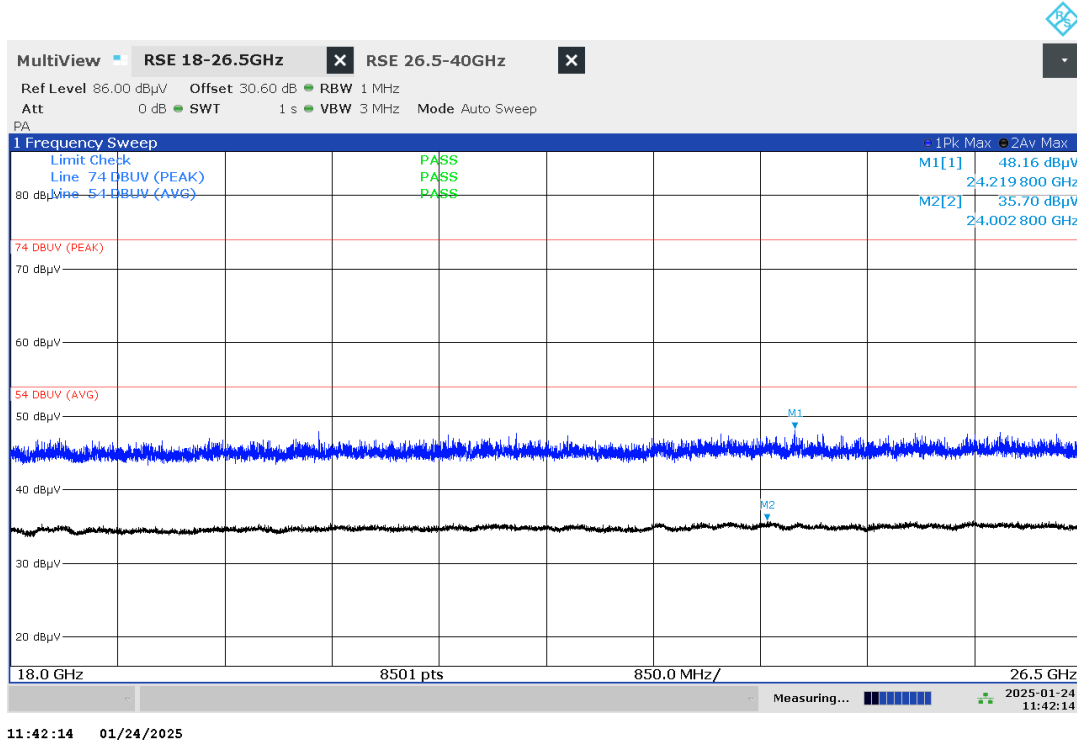
Plot 475: RSE 18 GHz – 26.5 GHz, Mode 3, CH38, horizontal / vertical polarisation



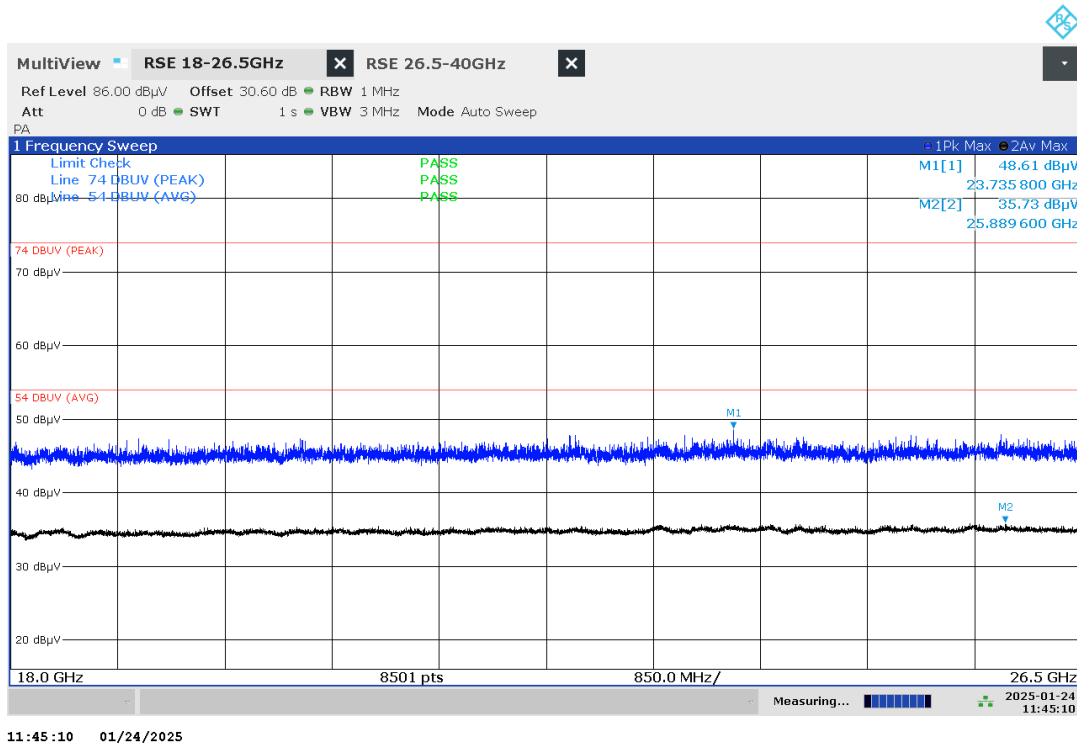
Plot 476: RSE 18 GHz – 26.5 GHz, Mode 3, CH46, horizontal / vertical polarisation



Plot 477: RSE 18 GHz – 26.5 GHz, Mode 3, CH54, horizontal / vertical polarisation



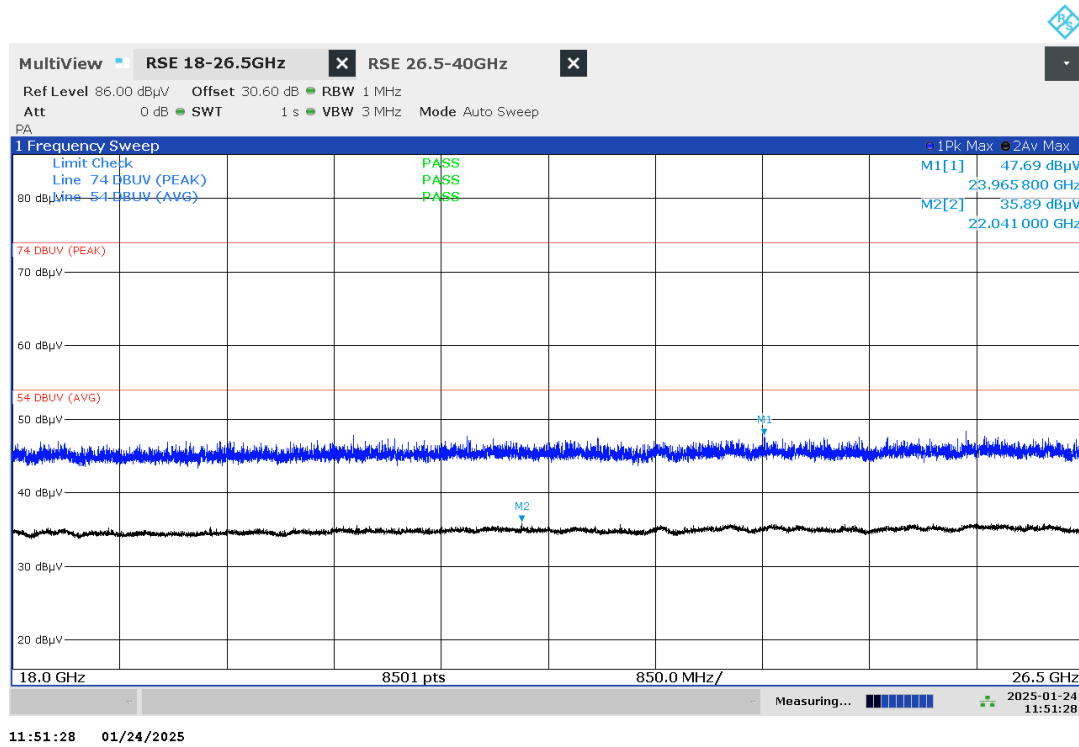
Plot 478: RSE 18 GHz – 26.5 GHz, Mode 3, CH62, horizontal / vertical polarisation



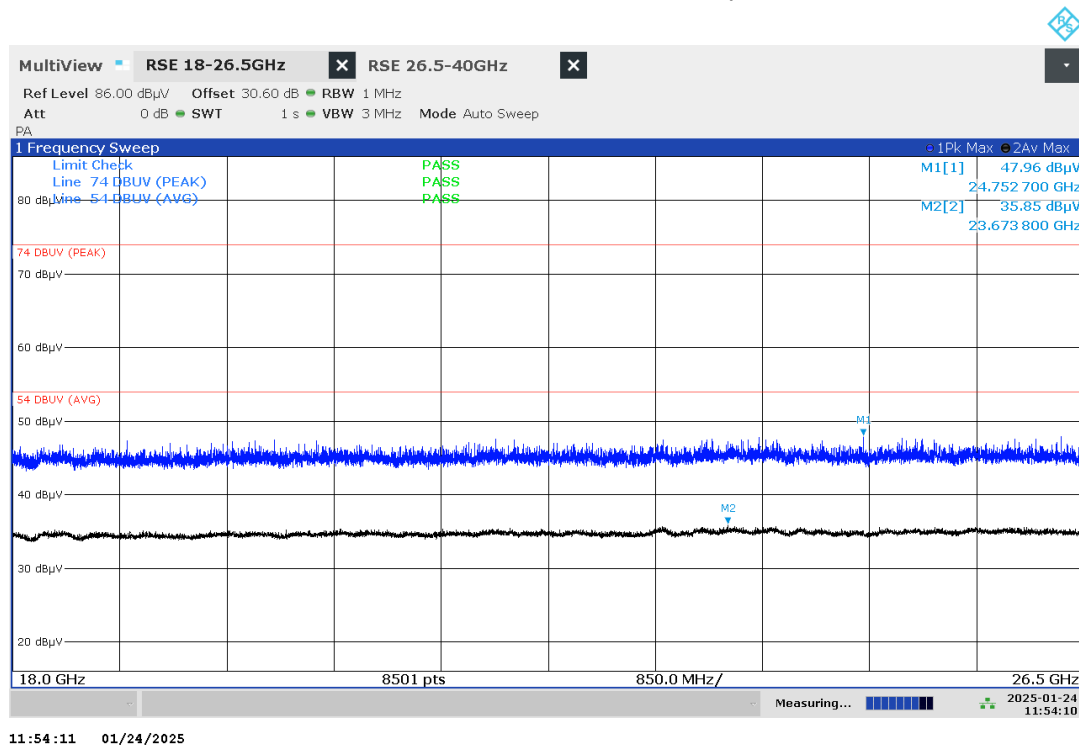
TR No.: 24080432-41495-0

2025-03-10

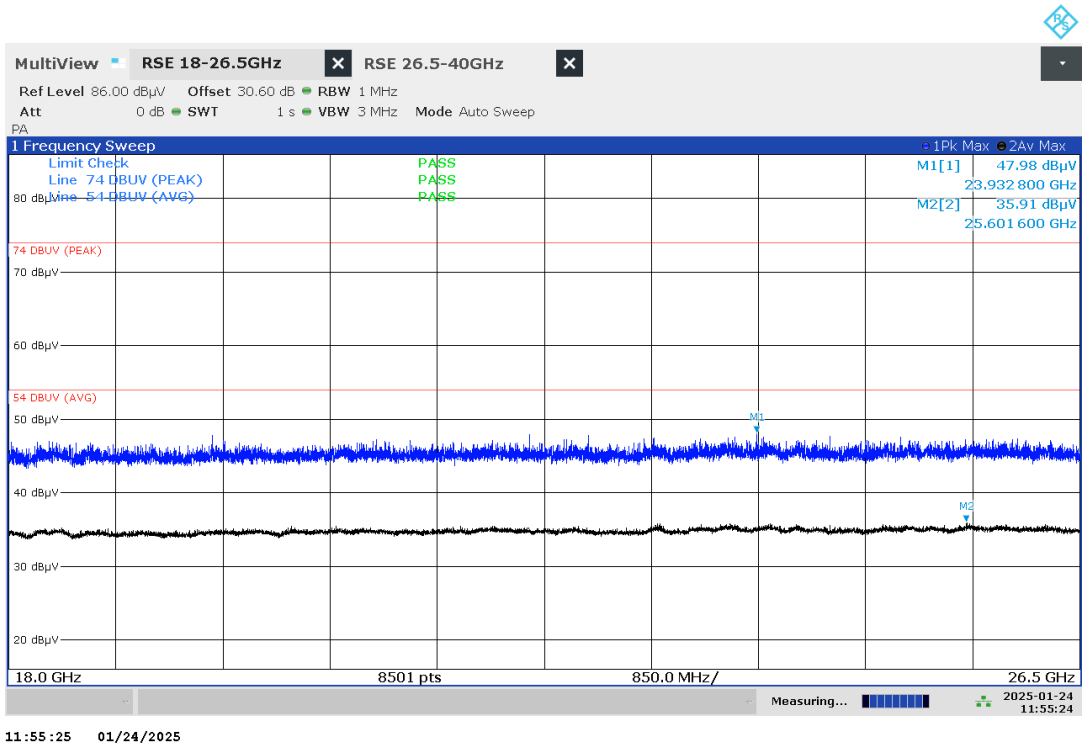
Plot 479: RSE 18 GHz – 26.5 GHz, Mode 3, CH102, horizontal / vertical polarisation



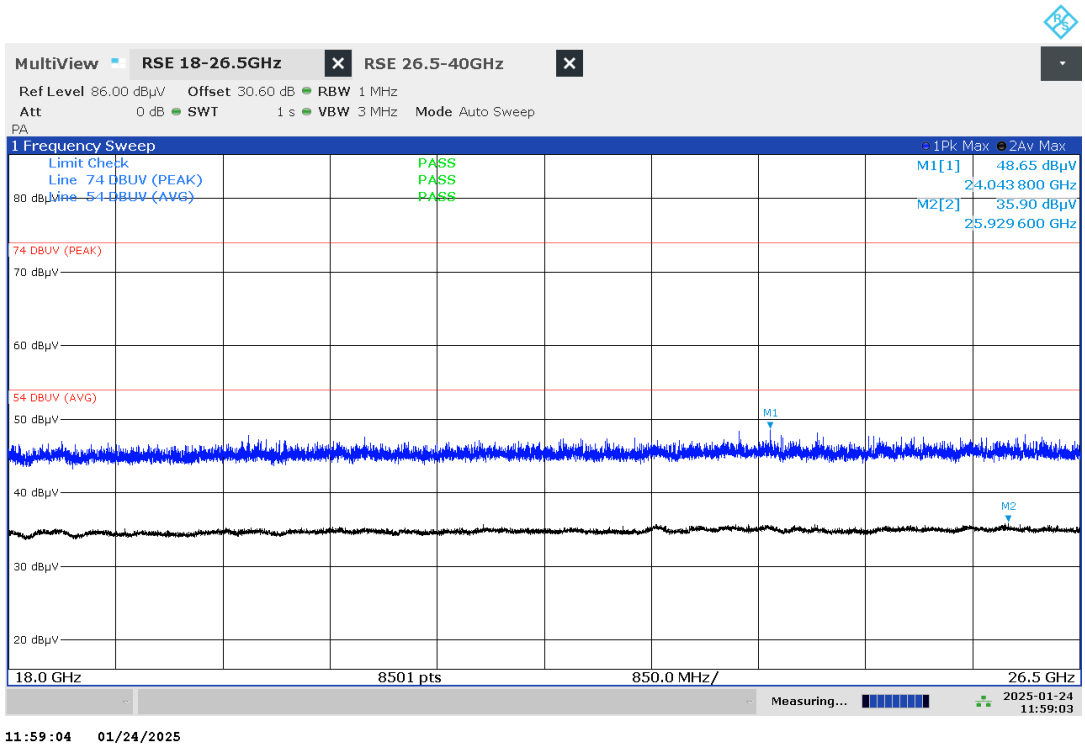
Plot 480: RSE 18 GHz – 26.5 GHz, Mode 3, CH110, horizontal / vertical polarisation



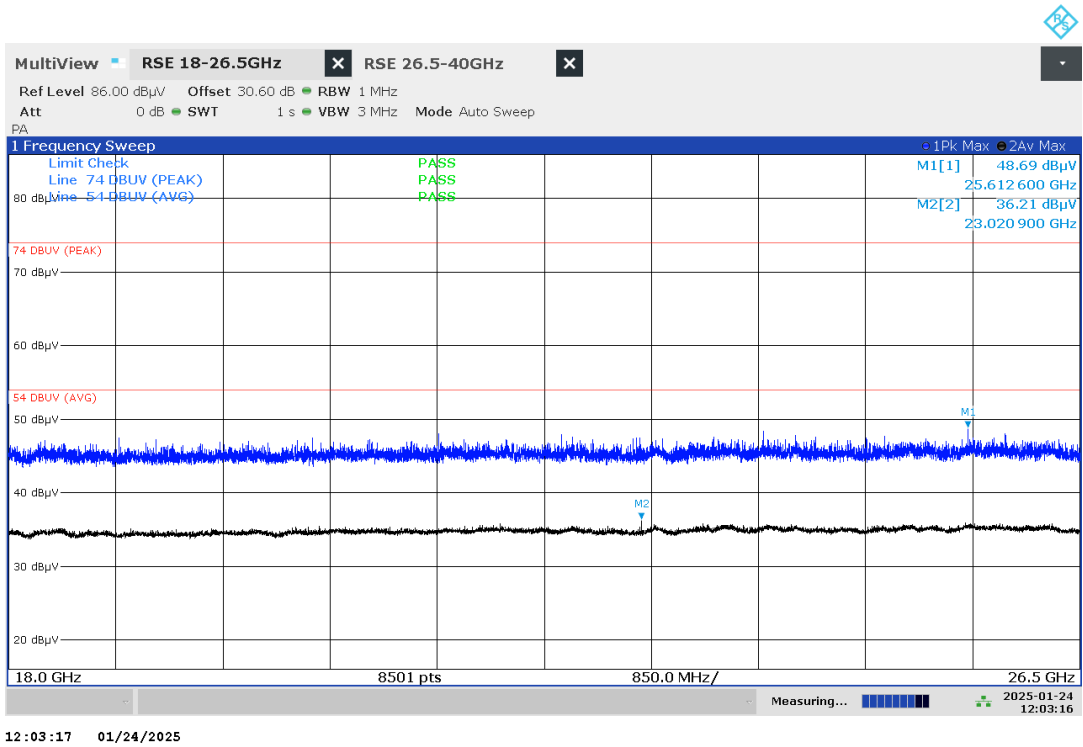
Plot 481: RSE 18 GHz – 26.5 GHz, Mode 3, CH134, horizontal / vertical polarisation



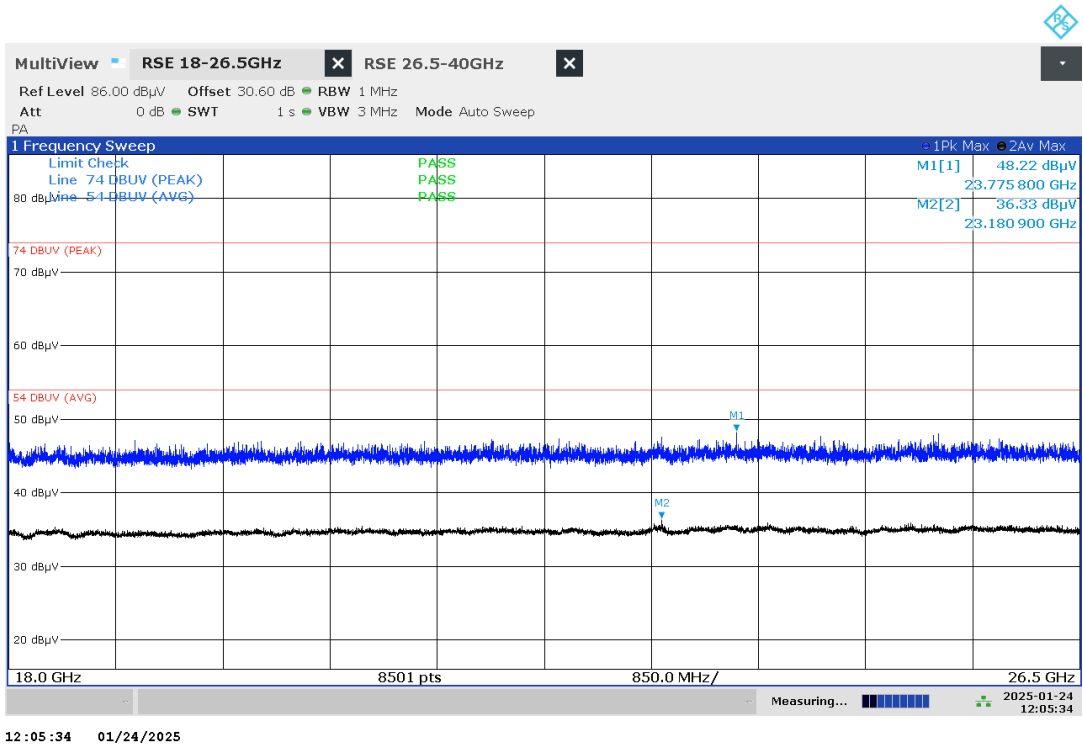
Plot 482: RSE 18 GHz – 26.5 GHz, Mode 3, CH142, horizontal / vertical polarisation



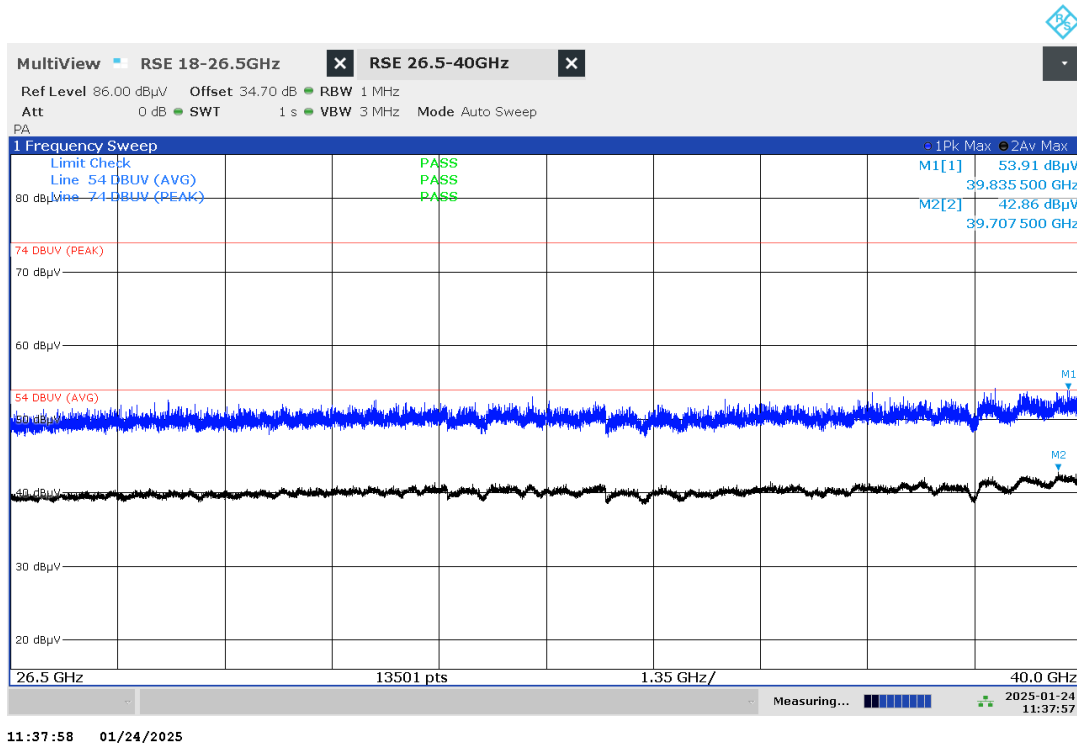
Plot 483: RSE 18 GHz – 26.5 GHz, Mode 3, CH151, horizontal / vertical polarisation



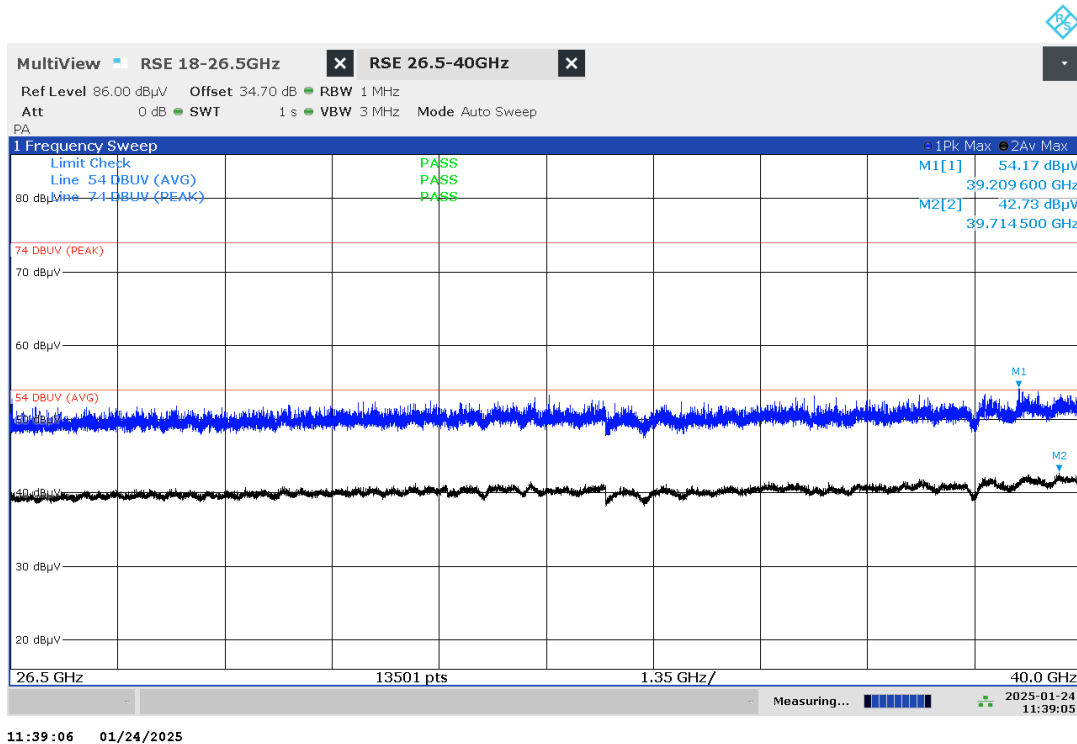
Plot 484: RSE 18 GHz – 26.5 GHz, Mode 3, CH159, horizontal / vertical polarisation



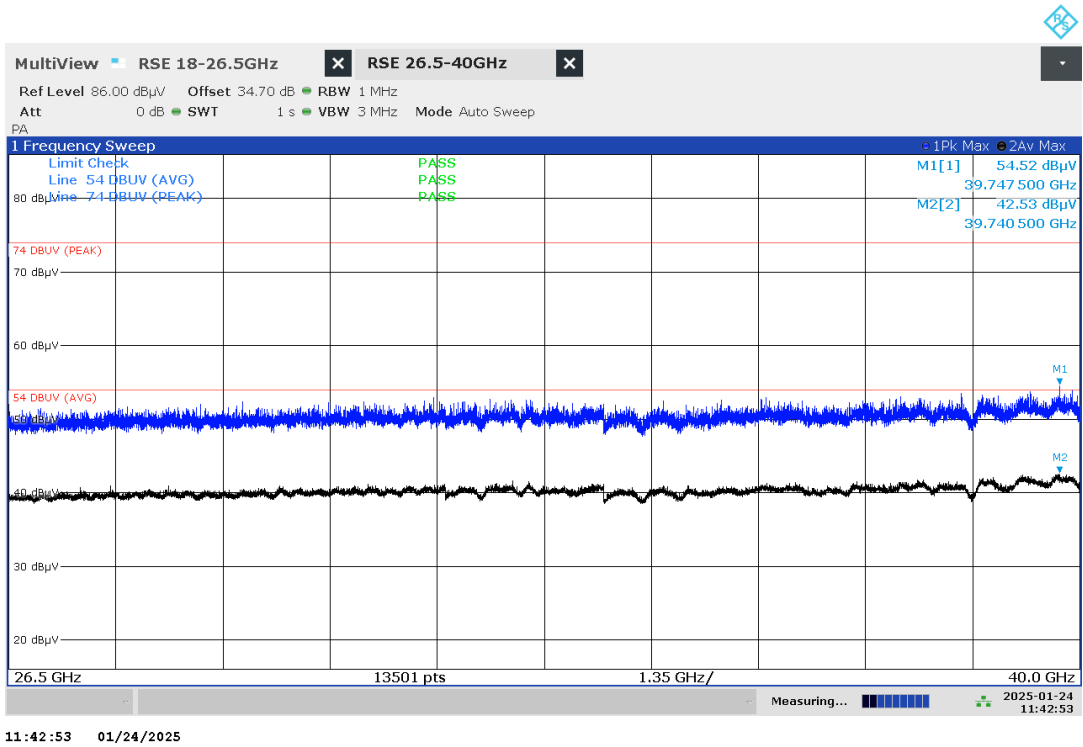
Plot 485: RSE 26.5 GHz – 40 GHz, Mode 3, CH38, horizontal / vertical polarisation



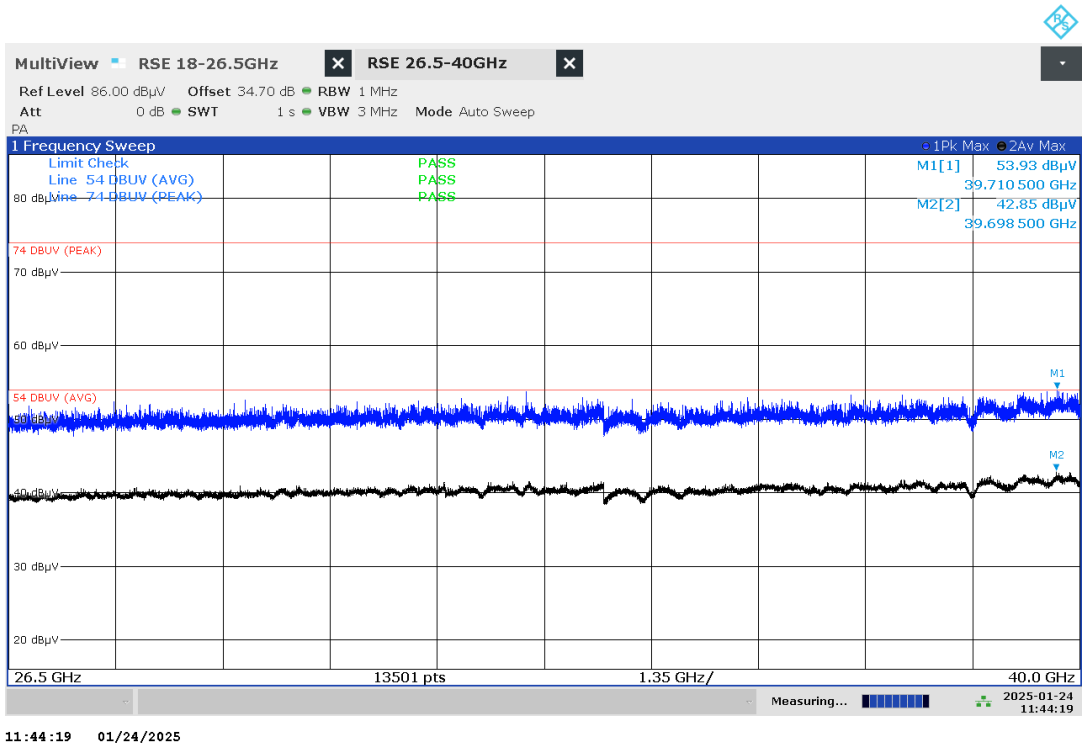
Plot 486: RSE 26.5 GHz – 40 GHz, Mode 3, CH46, horizontal / vertical polarisation



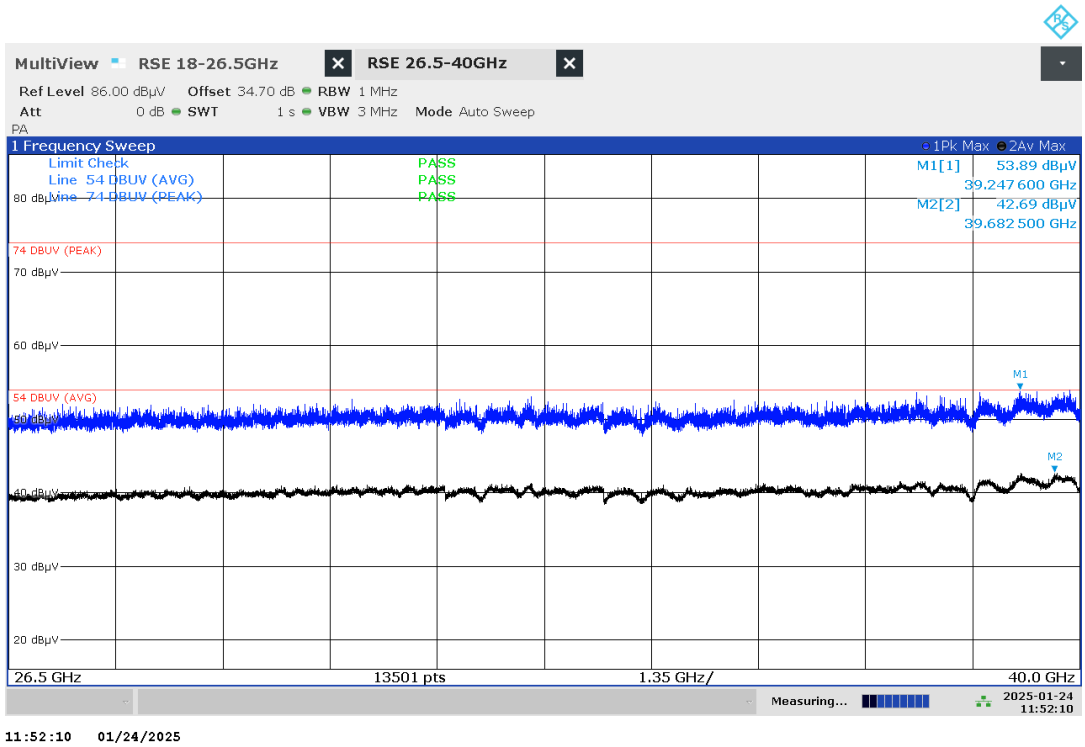
Plot 487: RSE 26.5 GHz – 40 GHz, Mode 3, CH54, horizontal / vertical polarisation



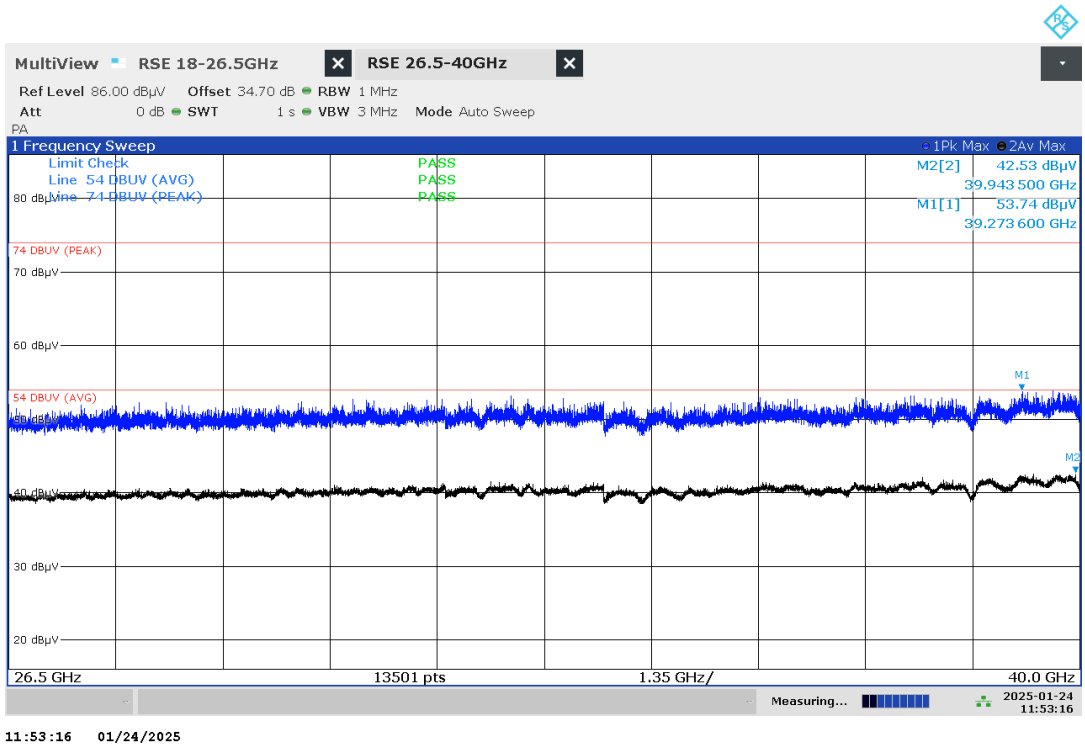
Plot 488: RSE 26.5 GHz – 40 GHz, Mode 3, CH62, horizontal / vertical polarisation



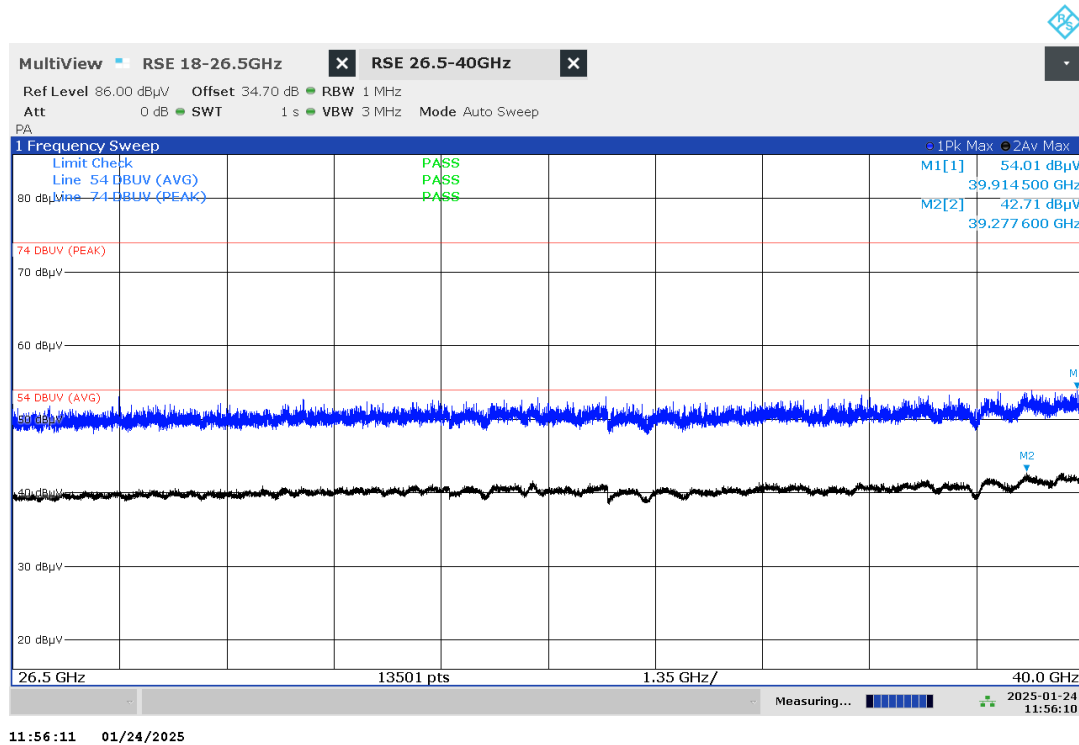
Plot 489: RSE 26.5 GHz – 40 GHz, Mode 3, CH102, horizontal / vertical polarisation



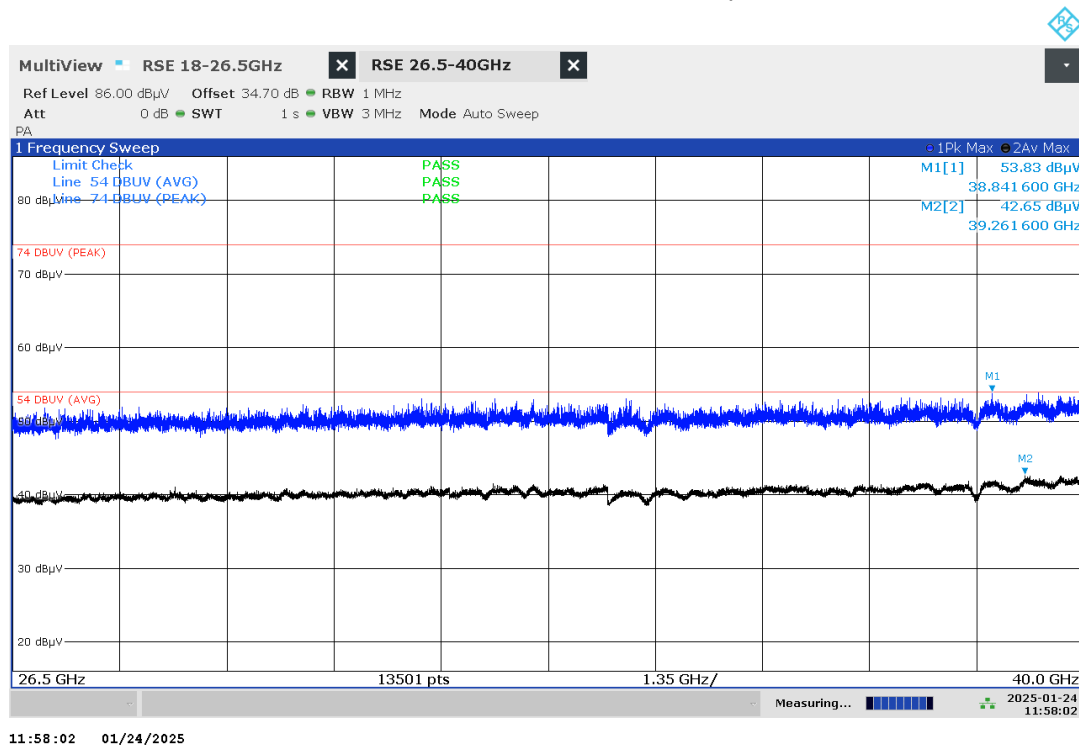
Plot 490: RSE 26.5 GHz – 40 GHz, Mode 3, CH110, horizontal / vertical polarisation



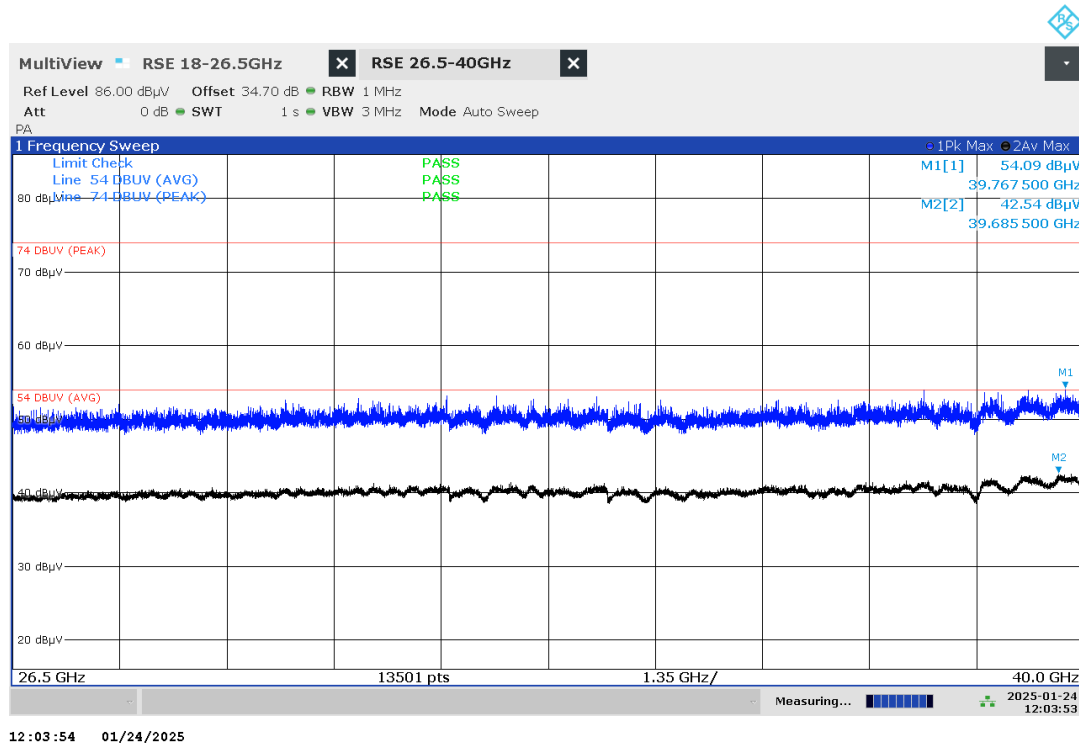
Plot 491: RSE 26.5 GHz – 40 GHz, Mode 3, CH134, horizontal / vertical polarisation



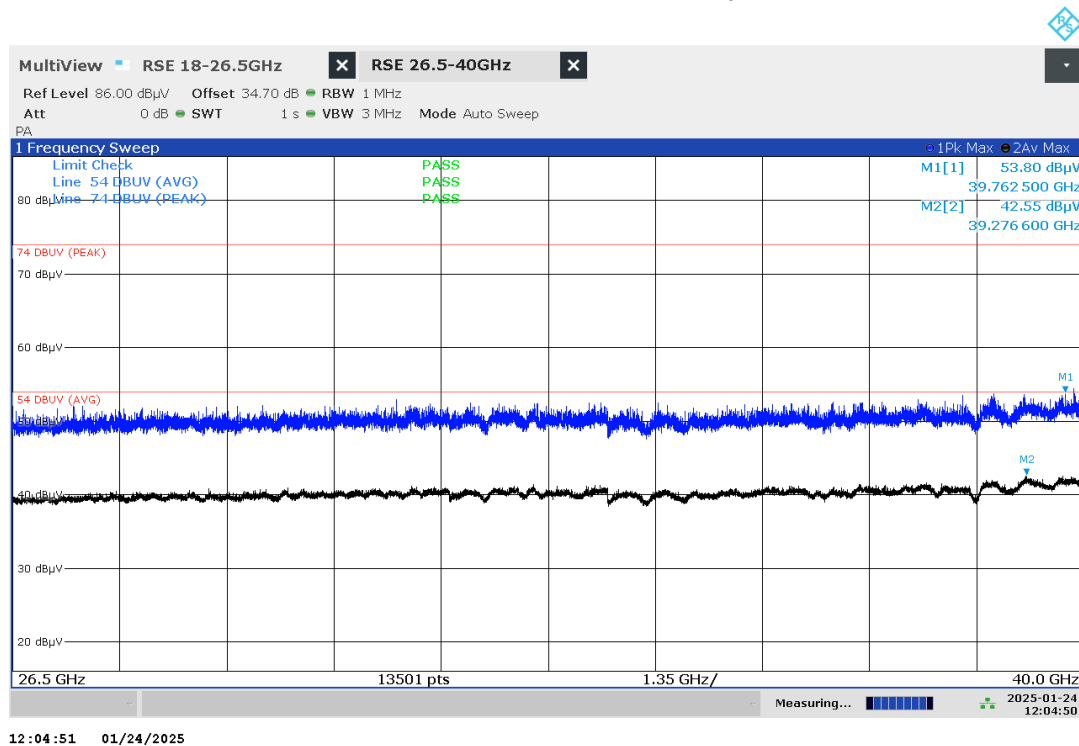
Plot 492: RSE 26.5 GHz – 40 GHz, Mode 3, CH142, horizontal / vertical polarisation



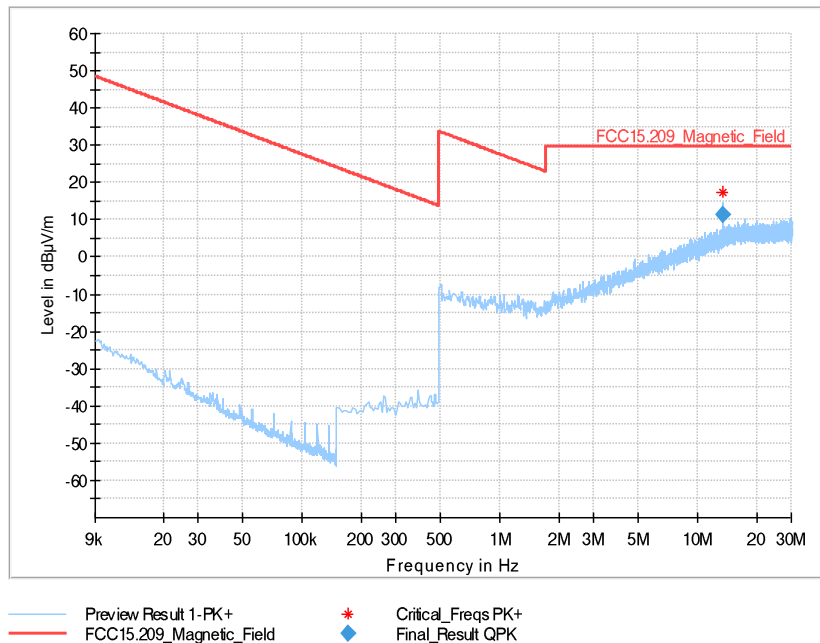
Plot 493: RSE 26.5 GHz – 40 GHz, Mode 3, CH151, horizontal / vertical polarisation



Plot 494: RSE 26.5 GHz – 40 GHz, Mode 3, CH159, horizontal / vertical polarisation

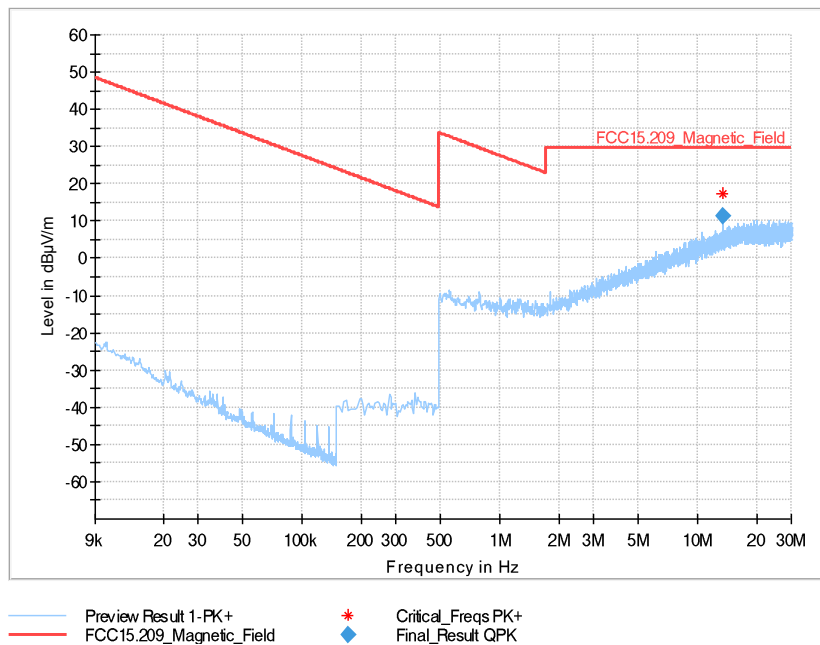


Plot 495: RSE 9 kHz – 30 MHz, Mode 3, CH42, loop antenna



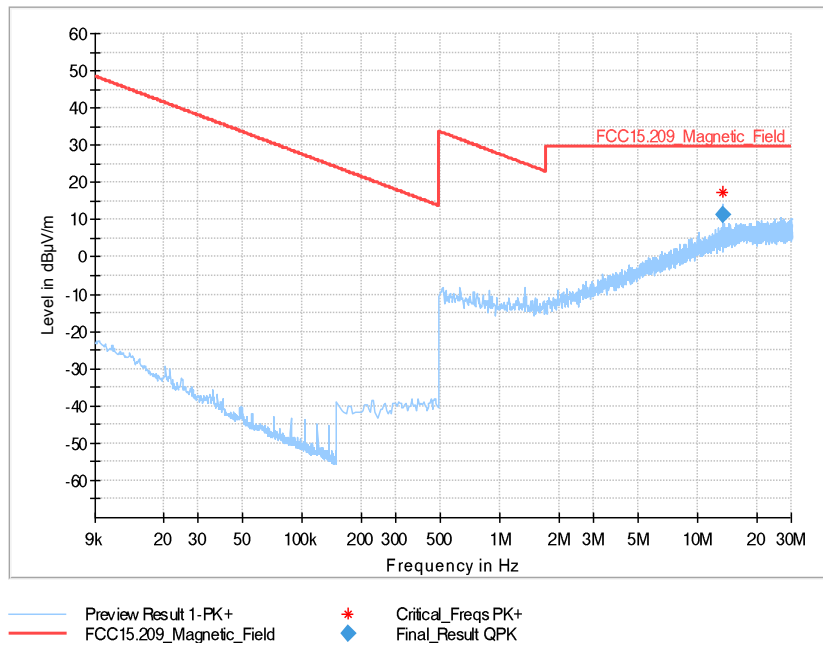
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB/m)
13.559886	11.28	29.54	18.26	100.0	9.000	V	211.0	-0.9

Plot 496: RSE 9 kHz – 30 MHz, Mode 3, CH58, loop antenna



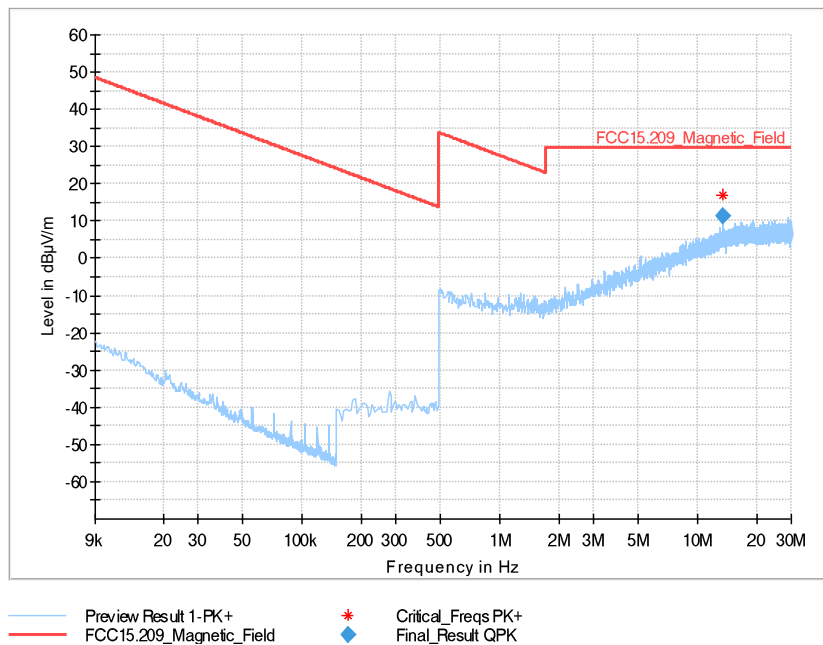
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB/m)
13.559886	11.29	29.54	18.25	100.0	9.000	V	11.0	-0.9

Plot 497: RSE 9 kHz – 30 MHz, Mode 3, CH106, loop antenna



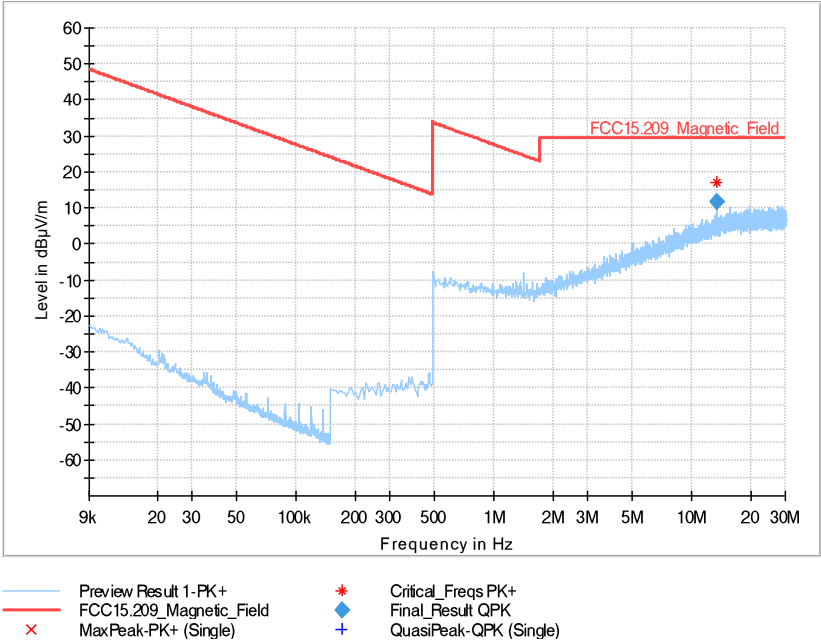
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB/m)
13.559886	11.20	29.54	18.34	100.0	9.000	V	13.0	-0.9

Plot 498: RSE 9 kHz – 30 MHz, Mode 3, CH138, loop antenna



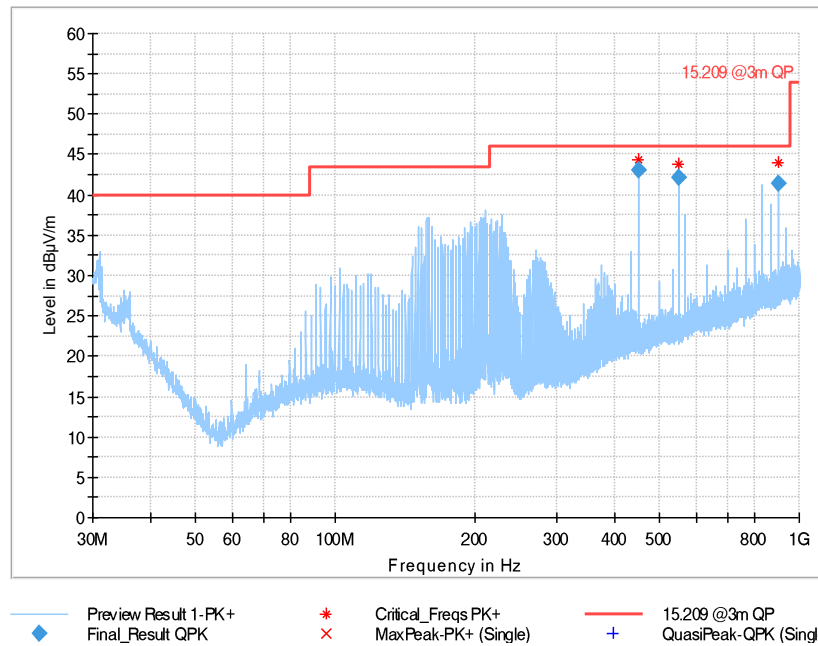
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB/m)
13.559886	11.29	29.54	18.25	100.0	9.000	V	-26.0	-0.9

Plot 499: RSE 9 kHz – 30 MHz, Mode 3, CH155, loop antenna



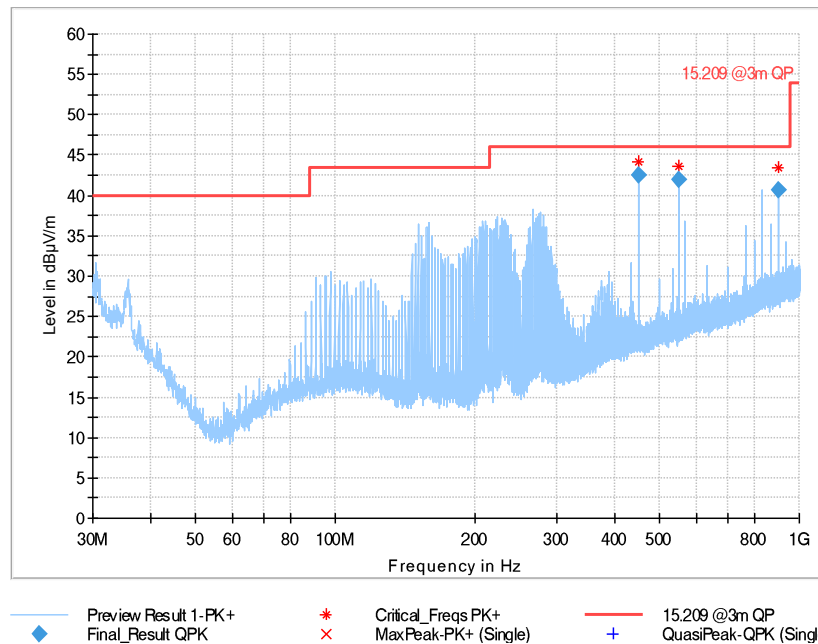
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Corr. (dB/m)
13.559886	11.56	29.54	17.98	100.0	9.000	V	197.0	-0.9

Plot 500: RSE 30 MHz – 1 GHz, Mode 3, CH42, horizontal / vertical polarisation



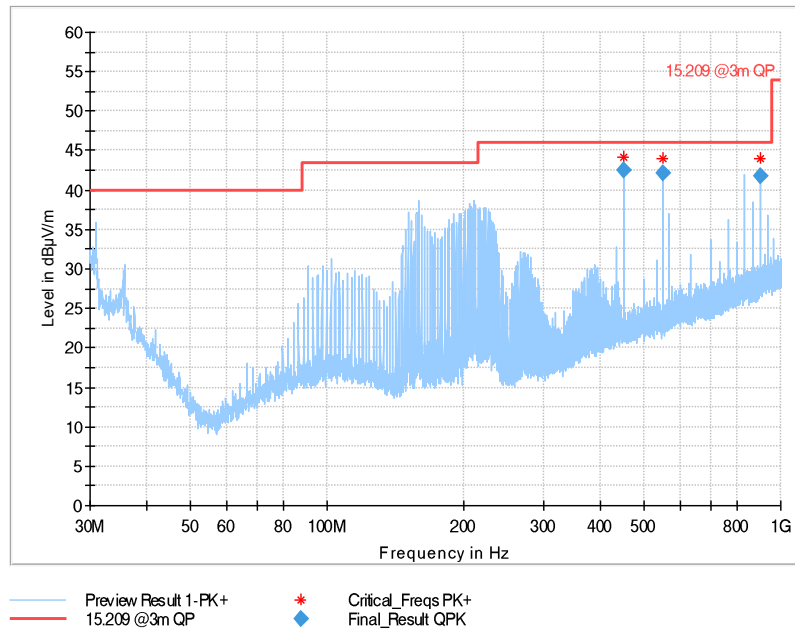
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
450.010000	43.08	46.00	2.92	100.0	120.000	116.0	V	13.0
549.998500	42.20	46.00	3.80	100.0	120.000	104.0	V	76.0
900.011500	41.43	46.00	4.57	100.0	120.000	100.0	H	106.0

Plot 501: RSE 30 MHz – 1 GHz, Mode 3, CH58, horizontal / vertical polarisation



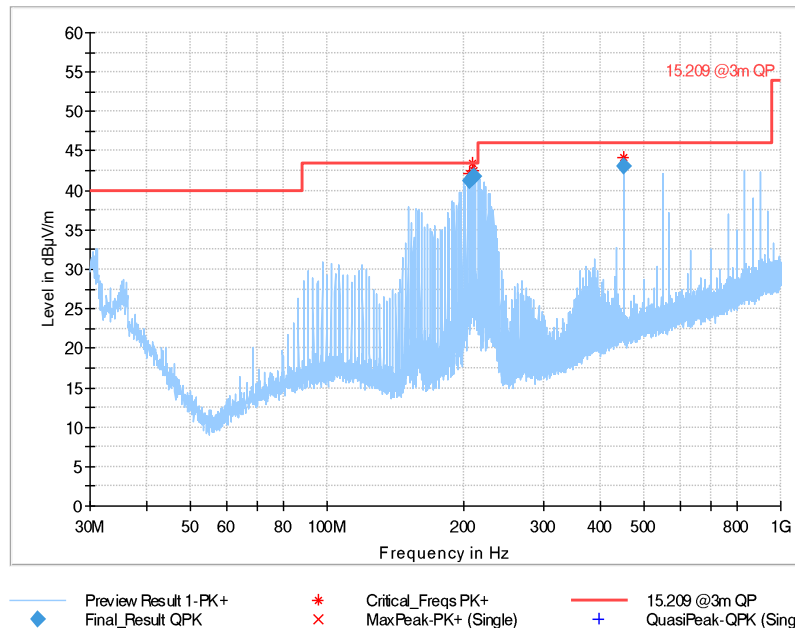
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
449.991500	42.50	46.00	3.50	100.0	120.000	103.0	V	6.0
550.017000	42.00	46.00	4.00	100.0	120.000	100.0	V	79.0
900.011500	40.71	46.00	5.29	100.0	120.000	100.0	H	113.0

Plot 502: RSE 30 MHz – 1 GHz, Mode 3, CH106, horizontal / vertical polarisation



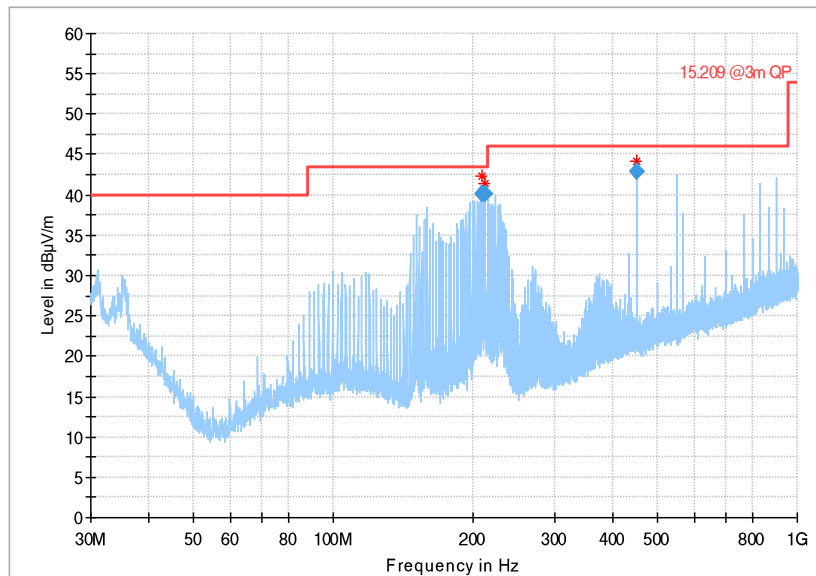
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
450.010000	42.48	46.00	3.52	100.0	120.000	103.0	V	9.0
549.987000	42.09	46.00	3.91	100.0	120.000	100.0	V	73.0
900.011500	41.75	46.00	4.25	100.0	120.000	100.0	H	106.0

Plot 503: RSE 30 MHz – 1 GHz, Mode 3, CH138, horizontal / vertical polarisation



Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
206.193500	41.14	43.50	2.36	100.0	120.000	119.0	V	13.0
208.327500	41.57	43.50	1.93	100.0	120.000	100.0	V	36.0
210.577000	41.69	43.50	1.81	100.0	120.000	100.0	V	5.0
449.991500	43.03	46.00	2.97	100.0	120.000	121.0	V	11.0

Plot 504: RSE 30 MHz – 1 GHz, Mode 3, CH155, horizontal / vertical polarisation

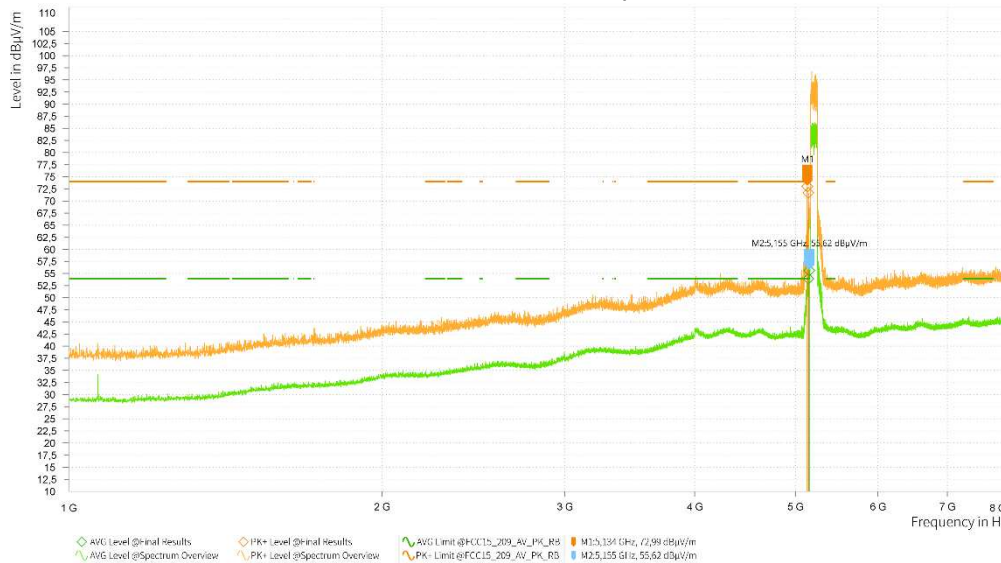


— Preview Result 1-PK+
— 15.209 @ 3m QP

* Critical_Freqs PK+
◆ Final_Result QPK

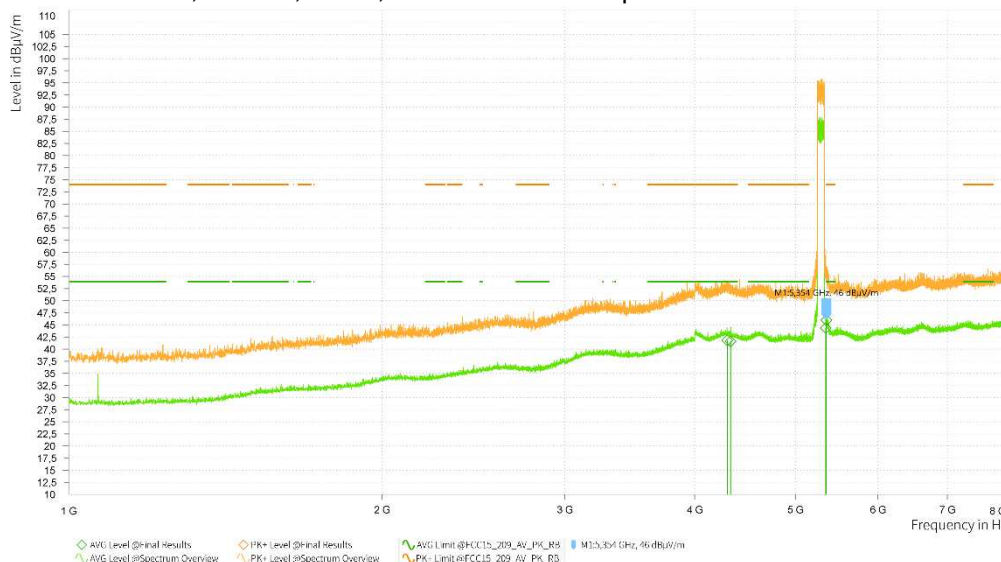
Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
208.316000	40.21	43.50	3.29	100.0	120.000	100.0	V	351.0
212.808000	40.21	43.50	3.29	100.0	120.000	104.0	V	18.0
450.010000	42.91	46.00	3.09	100.0	120.000	119.0	V	20.0

Plot 505: RSE 1 GHz – 8 GHz, Mode 3, CH42, horizontal / vertical polarisation



Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
1	5.134,325	72,99	74,00	1,01				34,34	94,8	315,5	1,50	10:07:25
1	5.144,725	71,68	74,00	2,32				34,33	105	316,2	1,50	10:09:27
1	5.145,000				53,93	54,00	0,07	34,33	105	322,9	1,50	10:08:26
1	5.154,900				55,62			34,31	105	324,3	1,50	10:10:28

Plot 506: RSE 1 GHz – 8 GHz, Mode 3, CH58, horizontal / vertical polarisation

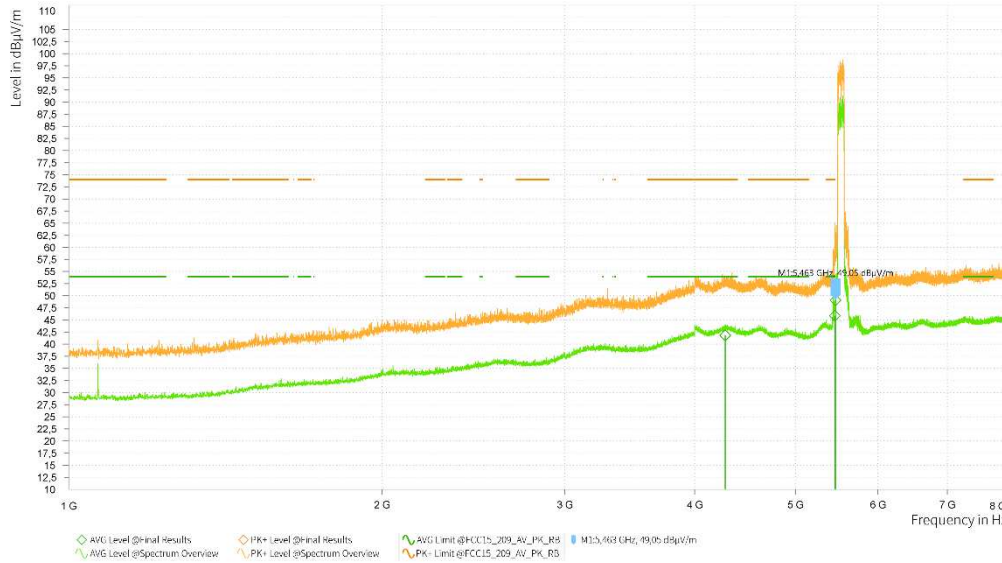


Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
1	4.298,875				41,83	54,00	12,17	34,24	15	287,8	1,50	10:46:05
1	4.330,700				41,61	54,00	12,39	34,22	7,8	362,8	1,50	10:44:48
1	5.345,350				44,39			34,55	75	296,9	1,50	10:47:15
1	5.354,350				46,00	54,00	8,00	34,57	75	337,9	1,50	10:48:25

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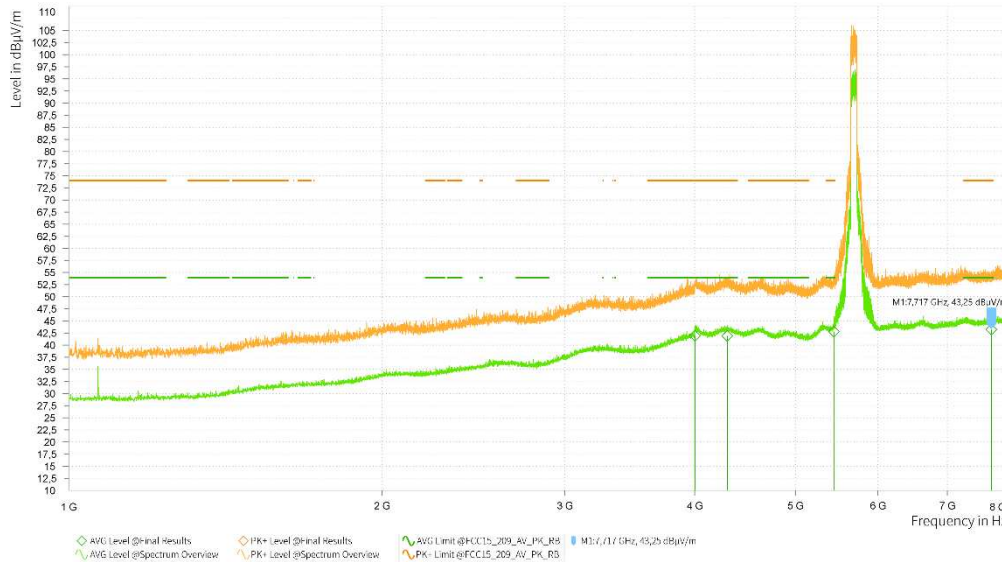
2025-03-10

Plot 507: RSE 1 GHz – 8 GHz, Mode 3, CH106, horizontal / vertical polarisation



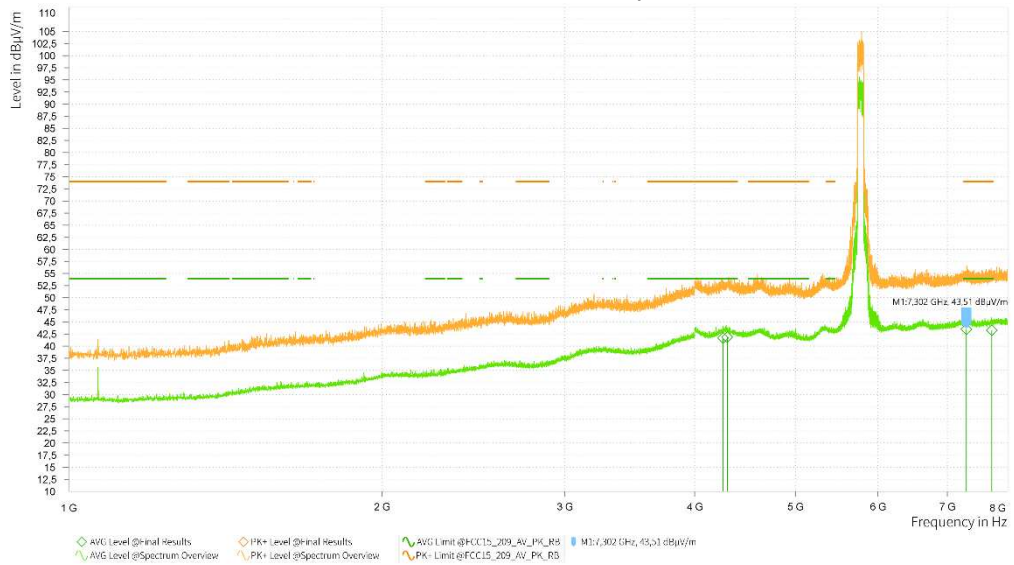
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
1	4.278,700				41,81	54,00	12,19	34,16	9,5	162,5	1,50	11:05:59
1	4.279,925				41,81	54,00	12,19	34,16	97,9	161,2	1,50	11:07:09
1	5.456,200				45,86	54,00	8,14	34,81	75	14,1	1,50	11:08:35
1	5.462,700				49,05			34,82	75	308,6	1,50	11:09:59

Plot 508: RSE 1 GHz – 8 GHz, Mode 3, CH138, horizontal / vertical polarisation



Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
1	4.000,700				41,96	54,00	12,04	33,22	15	37	1,50	11:37:05
1	4.299,325				41,91	54,00	12,09	34,24	-15	334	1,50	11:38:28
1	5.442,650				42,81	54,00	11,19	34,79	105	328,1	1,50	11:41:15
1	7.716,950				43,25	54,00	10,75	36,65	105	105,9	1,50	11:39:54

Plot 509: RSE 1 GHz – 8 GHz, Mode 3, CH155, horizontal / vertical polarisation

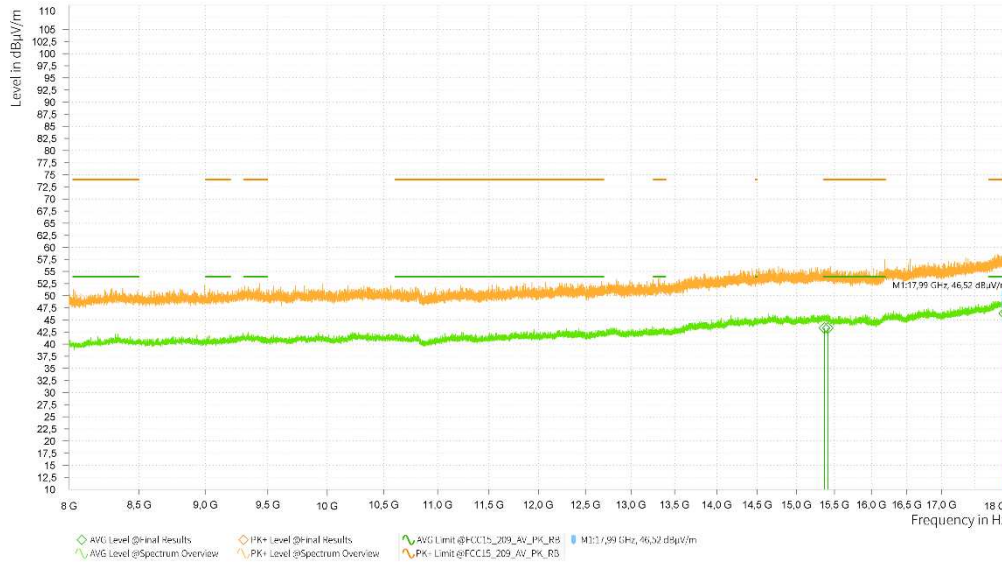


Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
1	4.259,750				41,71	54,00	12,29	34,09	105	76,3	1,50	11:52:58
1	4.297,925				41,88	54,00	12,12	34,23	99,7	145,6	1,50	11:54:07
1	7.301,950				43,51	54,00	10,49	35,98	105	19,9	1,50	11:51:52
1	7.722,100				43,28	54,00	10,72	36,65	-5	4,4	1,50	11:50:36

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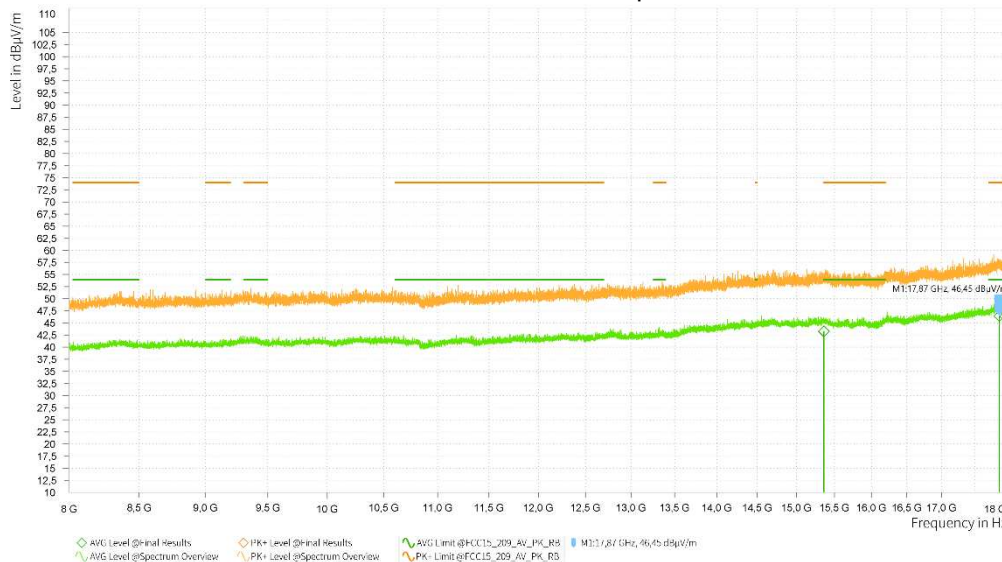
2025-03-10

Plot 510: RSE 8 GHz – 18 GHz, Mode 3, CH42, horizontal / vertical polarisation



Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.366,500				43,35	54,00	10,65	41,27	75	29	1,50	13:57:32
2	15.410,950				43,35	54,00	10,65	41,25	99,6	319,2	1,50	13:54:48
2	17.946,000				46,33	54,00	7,67	44,34	104,9	319,8	1,50	13:55:50
2	17.989,550				46,52	54,00	7,48	44,48	-8,1	149,8	1,50	13:53:29

Plot 511: RSE 8 GHz – 18 GHz, Mode 3, CH58, horizontal / vertical polarisation

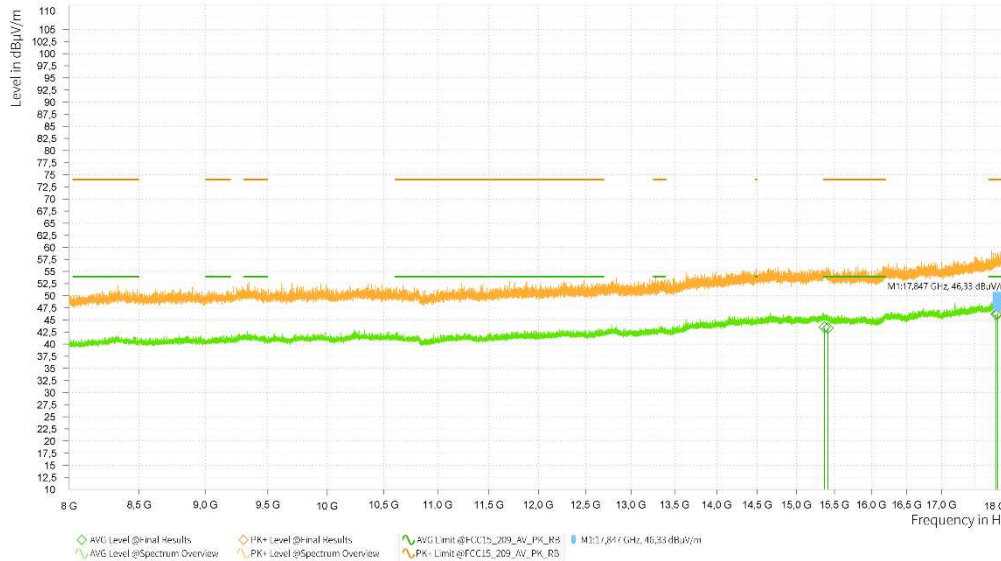


Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.356,000				43,26	54,00	10,74	41,28	80,6	124,7	1,50	13:42:33
2	15.359,800				43,28	54,00	10,72	41,28	99,8	265,8	1,50	13:44:01
2	17.869,750				46,45	54,00	7,55	44,12	75	68,7	1,50	13:41:30
2	17.964,250				46,36	54,00	7,64	44,40	81,6	370,3	1,50	13:45:13

TR No.: 24080432-41495-0

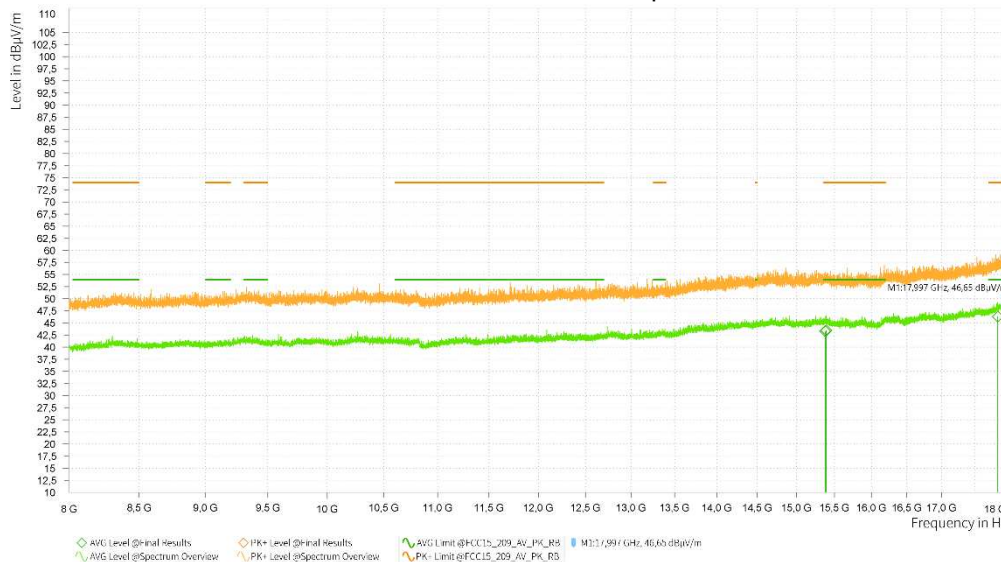
2025-03-10

Plot 512: RSE 8 GHz – 18 GHz, Mode 3, CH106, horizontal / vertical polarisation



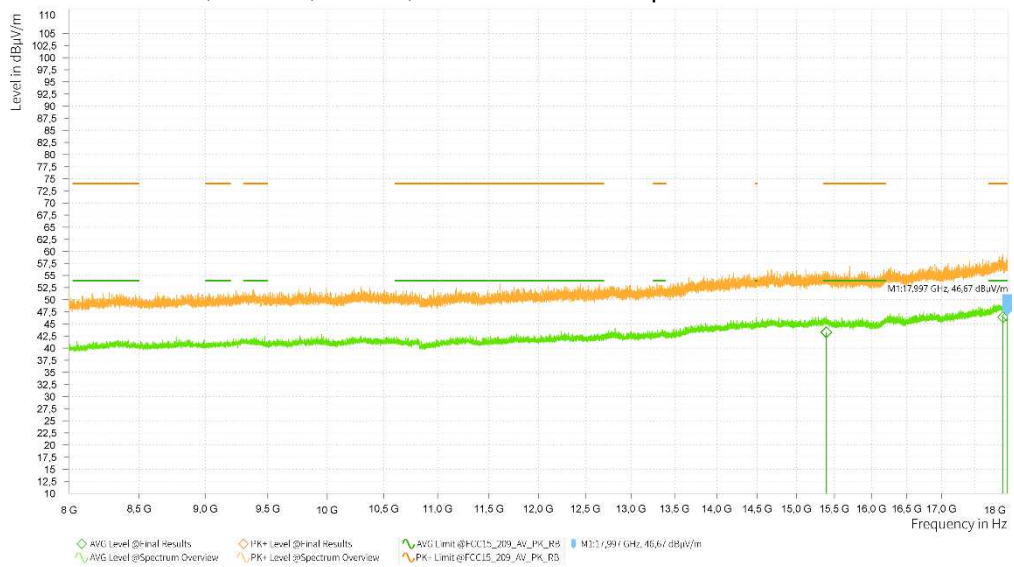
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.364,850				43,52	54,00	10,48	41,27	-8,5	2,5	1,50	13:29:22
2	15.410,650				43,34	54,00	10,66	41,25	75	59,3	1,50	13:32:43
2	17.821,200				46,18	54,00	7,82	44,01	-4,6	380,3	1,50	13:30:55
2	17.846,900				46,33	54,00	7,67	44,06	75	298,5	1,50	13:34:00

Plot 513: RSE 8 GHz – 18 GHz, Mode 3, CH138, horizontal / vertical polarisation



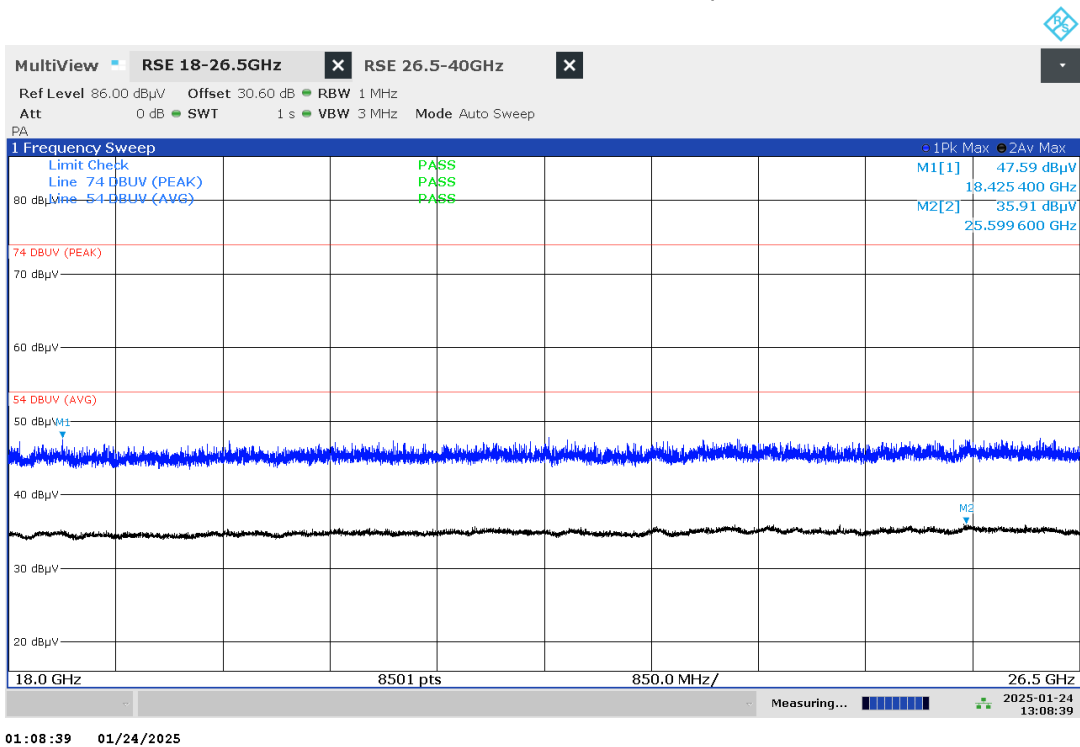
Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.374,000				43,34	54,00	10,66	41,27	104,9	43,9	1,50	13:09:15
2	15.389,650				43,46	54,00	10,54	41,26	-15	150,2	1,50	13:05:53
2	17.849,250				46,29	54,00	7,71	44,07	99,8	64	1,50	13:08:03
2	17.996,920				46,65	54,00	7,35	44,50	8,4	135,5	1,50	13:06:49

Plot 514: RSE 8 GHz – 18 GHz, Mode 3, CH155, horizontal / vertical polarisation

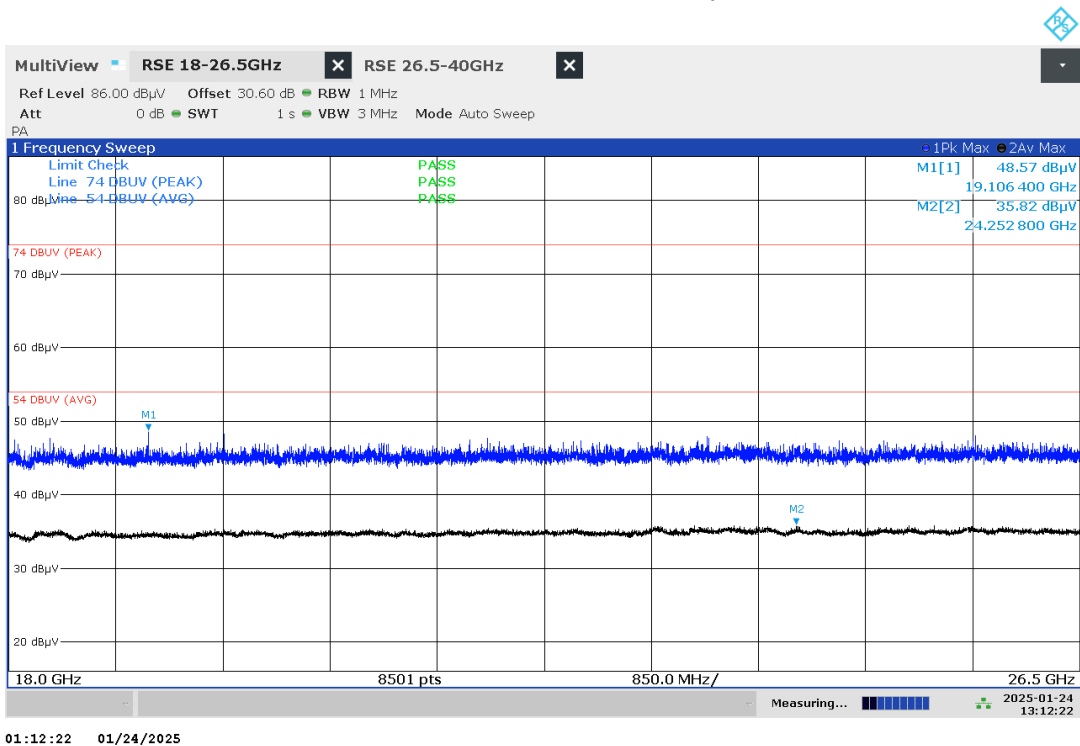


Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Elevation [deg]	Azimuth [deg]	Antenna Height [m]	Time of Meas.
2	15.387,850				43,30	54,00	10,70	41,26	-15	162,2	1,50	12:54:31
2	15.393,900				43,31	54,00	10,69	41,26	99,3	29,8	1,50	12:56:02
2	17.928,900				46,40	54,00	7,60	44,29	-15	33,5	1,50	12:53:11
2	17.997,245				46,67	54,00	7,33	44,50	75	296,3	1,50	12:57:25

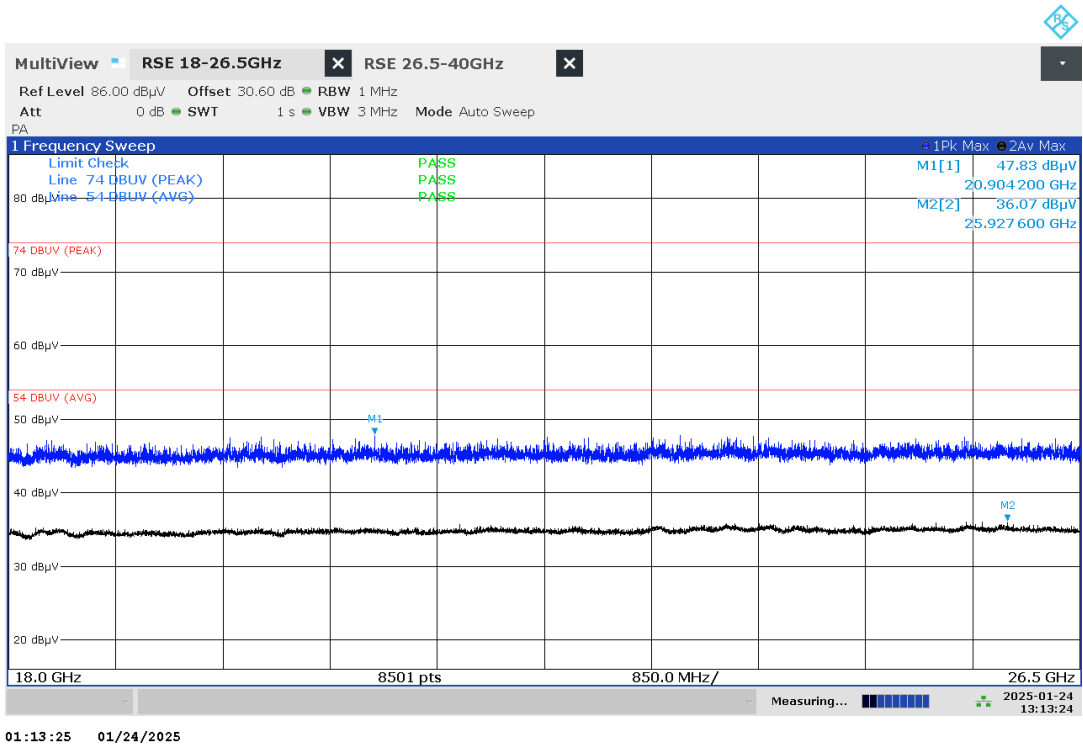
Plot 515: RSE 18 GHz – 26.5 GHz, Mode 3, CH42, horizontal / vertical polarisation



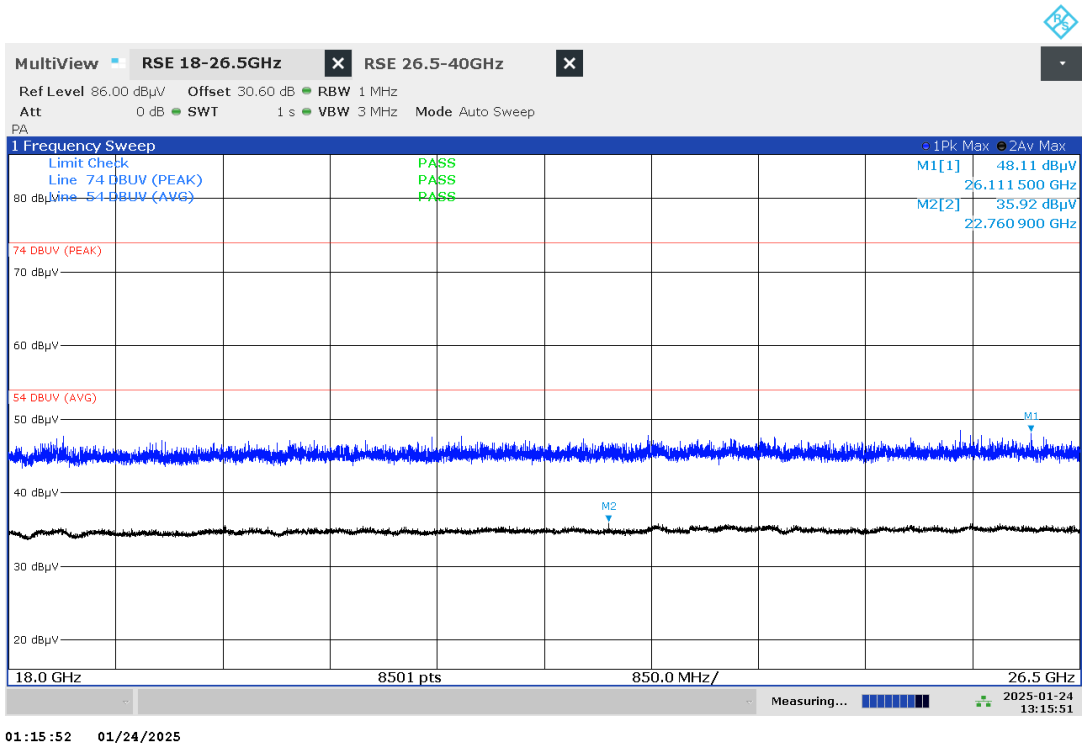
Plot 516: RSE 18 GHz – 26.5 GHz, Mode 3, CH58, horizontal / vertical polarisation



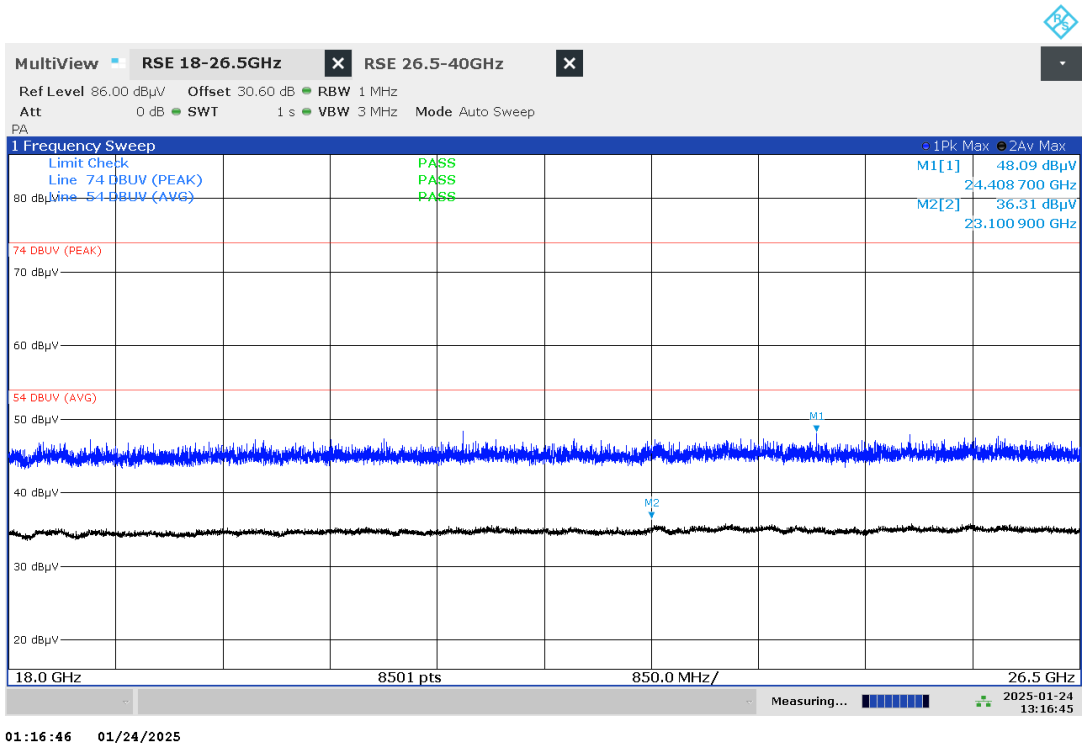
Plot 517: RSE 18 GHz – 26.5 GHz, Mode 3, CH106, horizontal / vertical polarisation



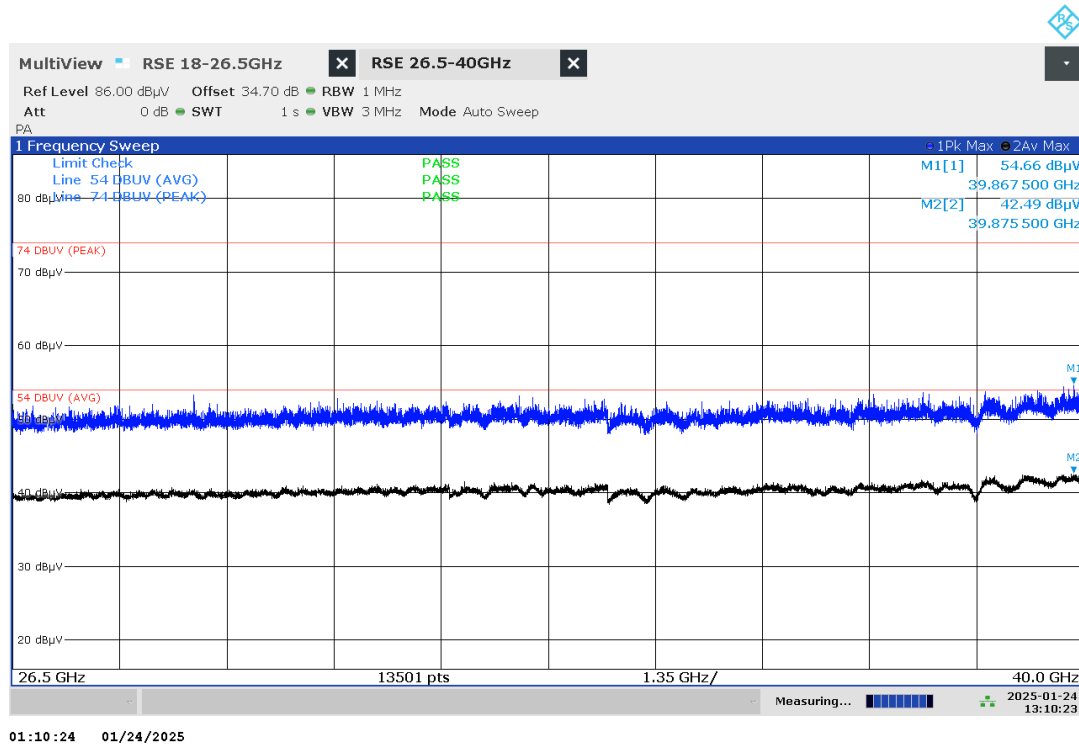
Plot 518: RSE 18 GHz – 26.5 GHz, Mode 3, CH138, horizontal / vertical polarisation



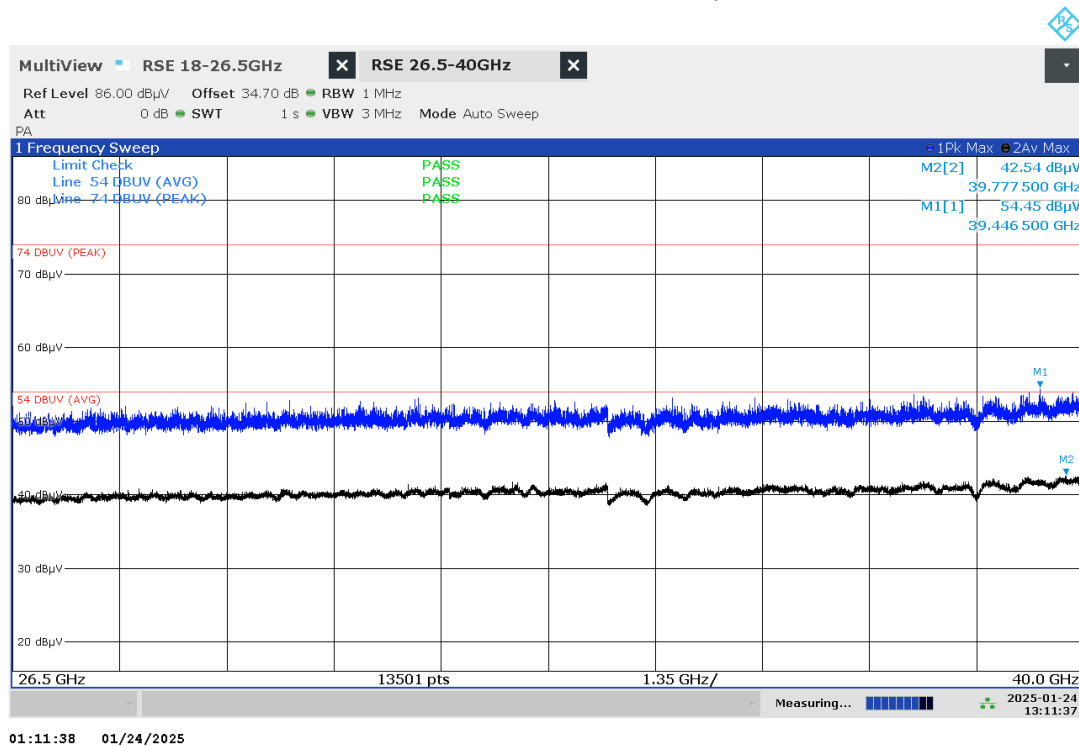
Plot 519: RSE 18 GHz – 26.5 GHz, Mode 3, CH155, horizontal / vertical polarisation



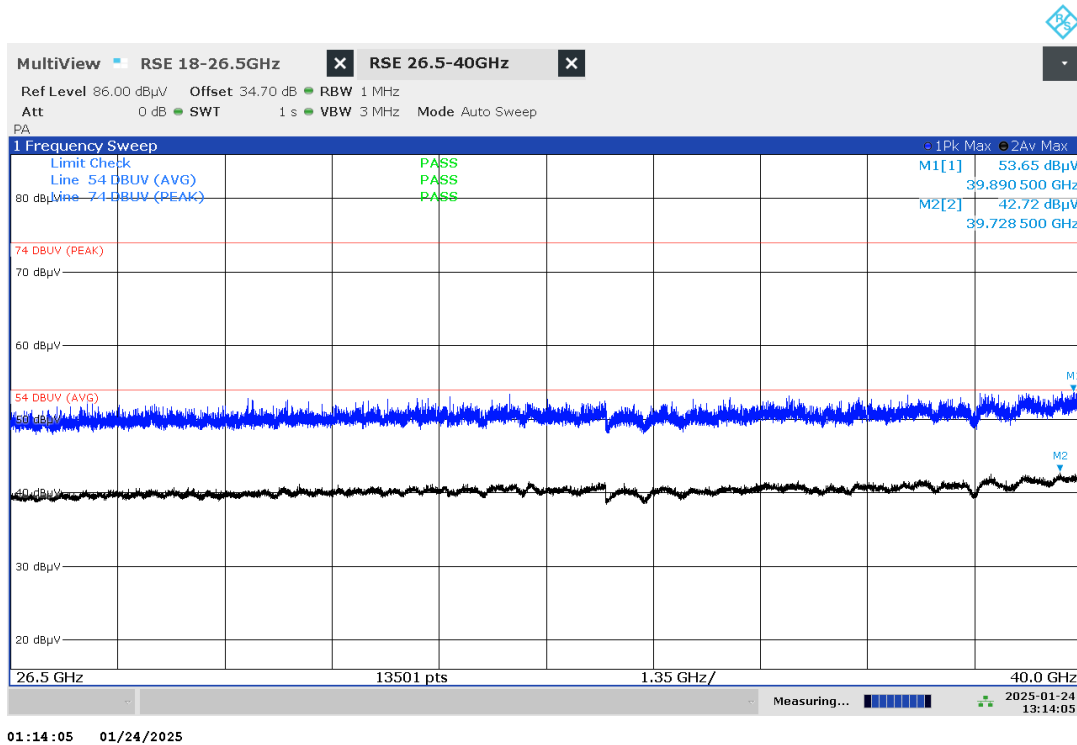
Plot 520: RSE 26.5 GHz – 40 GHz, Mode 3, CH42, horizontal / vertical polarisation



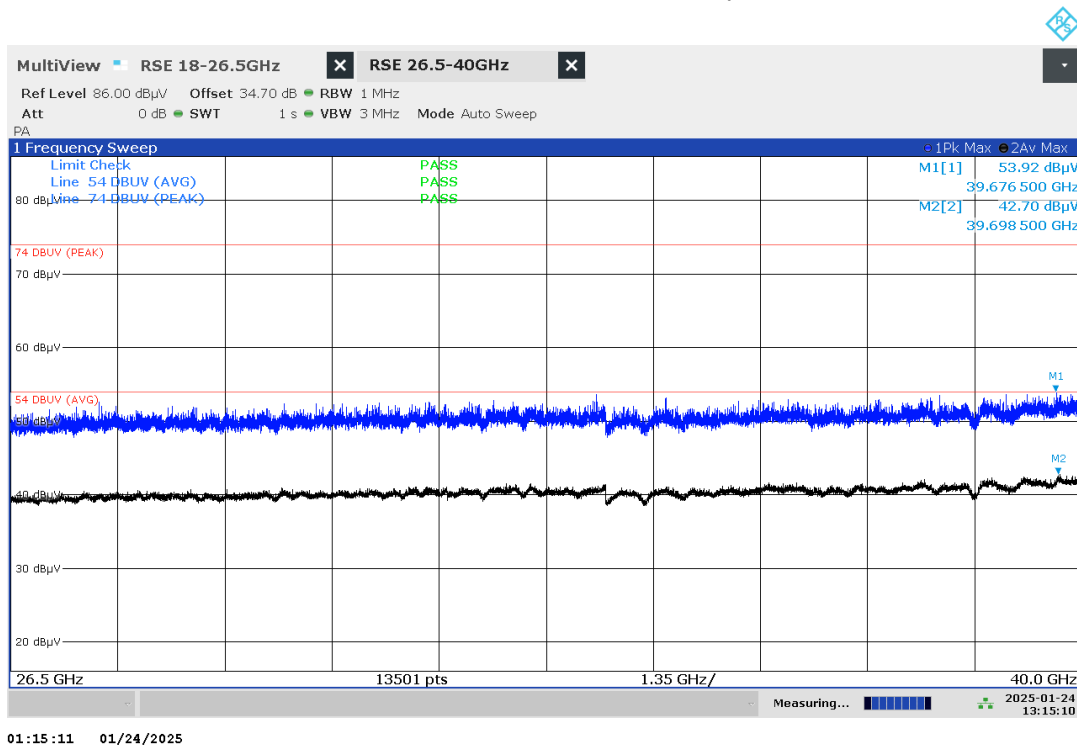
Plot 521: RSE 26.5 GHz – 40 GHz, Mode 3, CH58, horizontal / vertical polarisation



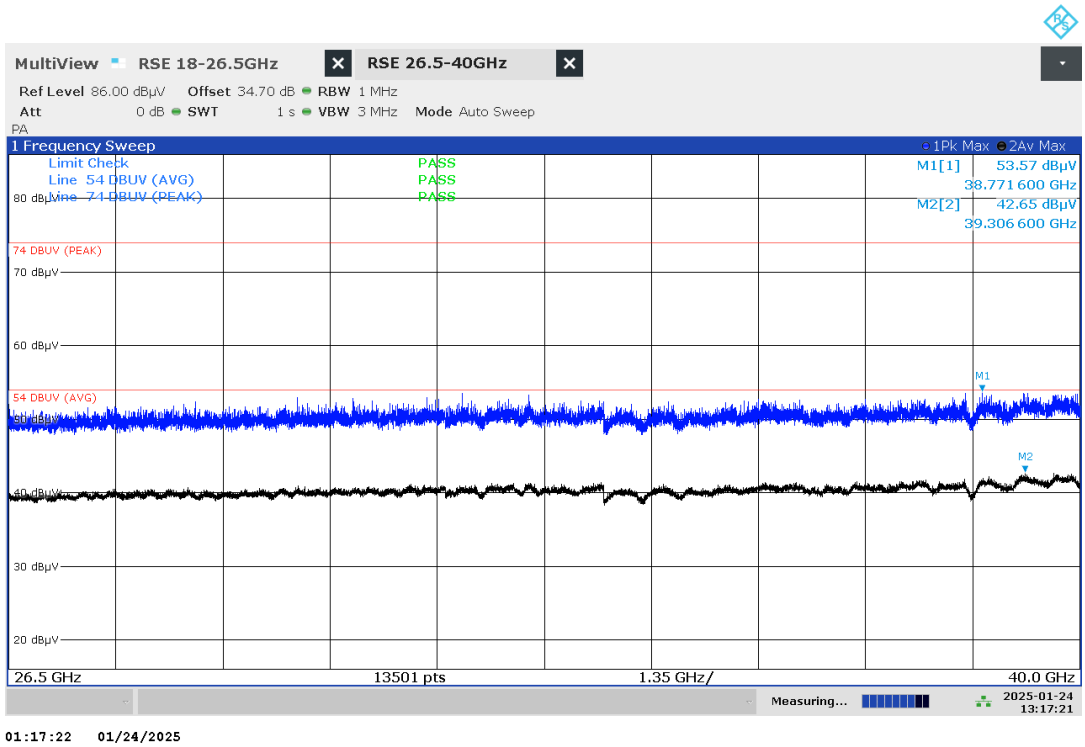
Plot 522: RSE 26.5 GHz – 40 GHz, Mode 3, CH106, horizontal / vertical polarisation



Plot 523: RSE 26.5 GHz – 40 GHz, Mode 3, CH138, horizontal / vertical polarisation



Plot 524: RSE 26.5 GHz – 40 GHz, Mode 3, CH155, horizontal / vertical polarisation



7.11 Dynamic Frequency Selection (DFS)

Applicability

This requirement applies to all unlicensed national information infrastructure (UNII) / licence-exempt local area network (LE-LAN) devices operating in the bands 5250-5350 MHz, 5470-5725 MHz.

Description

Dynamic frequency selection (DFS) is a mechanism that dynamically detects signals from other systems and avoids co-channel operation with those systems, notably radar systems.

Limits

§15.407 (h)

U–NII devices operating with any part of its 26 dB emission bandwidth in the 5.25–5.35 GHz and 5.47–5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems.

For devices that operate with less than 200 mW e.i.r.p. and a power spectral density of less than 10 dBm in a 1 MHz band, the minimum detection threshold is -62 dBm.

(i) Operational Modes. The DFS requirement applies to the following operational modes:

(A) The requirement for channel availability check time applies in the master operational mode.

(B) The requirement for channel move time applies in both the master and slave operational modes.

(ii) Channel Availability Check Time. A U–NII device shall check if there is a radar system already operating on the channel before it can initiate a transmission on a channel and when it has to move to a new channel. The U–NII device may start using the channel if no radar signal with a power level greater than the interference threshold values listed in paragraph (h)(2) of this section, is detected within 60 seconds.

(iii) Channel Move Time. After a radar's presence is detected, all transmissions shall cease on the operating channel within 10 seconds. Transmissions during this period shall consist of normal traffic for a maximum of 200 ms after detection of the radar signal. In addition, intermittent management and control signals can be sent during the remaining time to facilitate vacating the operating channel.

(iv) Non-occupancy Period. A channel that has been flagged as containing a radar system, either by a channel availability check or in-service monitoring, is subject to a non-occupancy period of at least 30 minutes. The non-occupancy period starts at the time when the radar system is detected.

RSS 247 section 6.3:

ISED requires the use of either the FCC KDB Procedure 905462 or the DFS test procedure in the ETSI EN 301 893 for demonstrating compliance with the DFS radar detection requirements set out in this section.

Test procedure

KDB 905462 D02

Test setup: 8.4 with conducted test sample (see section 5.2)

DFS tests are performed with TS8997 test system described in section 8.4. according to FCC title 47 part 15 §15.407(h), KDB 905462 D02 U-NII DFS Compliance Procedures New Rules v02.

For Client devices without radar detection KDB 905462 D02 describes a conducted test setup in section 7.2.2

7.2.2 Setup for Client with injection at the Master

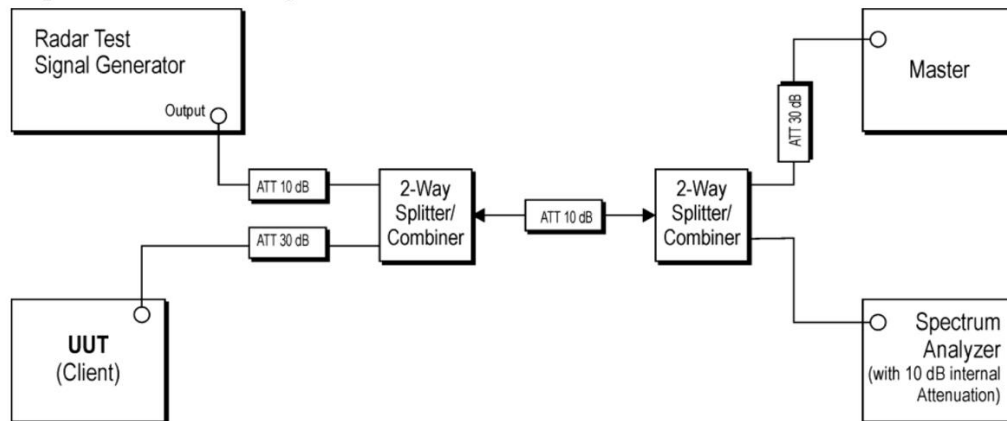


Figure 3: Example Conducted Setup where UUT is a Client and Radar Test Waveforms are injected into the Master

The test setup of above Figure 3 is integrated in the TS8997 test system:

- EUT's antenna ports 0 and 1 are connected to 2 of 8 available input ports of open switch and control platform OSP-B157W8
- Radar Test Signals are generated by Vector Signal Generator SMBV100
- Radar Signals and traffic between DUT/UUT and Master Device are monitored by Spectrum Analyzer FSV40
- Master Companion device Access Point: LINKSYS WRT3200ACM; FCC ID: Q87-WRT3200ACM
- Test procedure according FCC title 47 part 15 §15.407(h), KDB 905462 D02 U-NII DFS Compliance Procedures New Rules v02 is performed by a System Controller with EMC32/WMS32 software (version: 11.00.00)

Device under test (DUT) items	Device under test (DUT) settings
DFS capability	Yes*
DFS mode	Client (slave) without radar detection*
Startup time (incl. CAC)	120 s
Startup time delay	0 s
Conf. occ. bandwidth for	Nom. Bandwidth '20000000' = 20 MHz

* declared by applicant

Test parameters	Declared by the lab
Test environment	Normal
Test set-up	☒ Conducted ☐ Radiated ☐ Test Fixture

Test results

Test result: Channel move time (CMT) detailed results					
DUT Frequency (MHz)	Radar Type No.	CMT Tx Time (s)	CMT Limit (s)	CMT Result	CMT Comment
5280	0	0.447	10.000	- PASS -	Tx Time value is last trailing edge found within sweep.

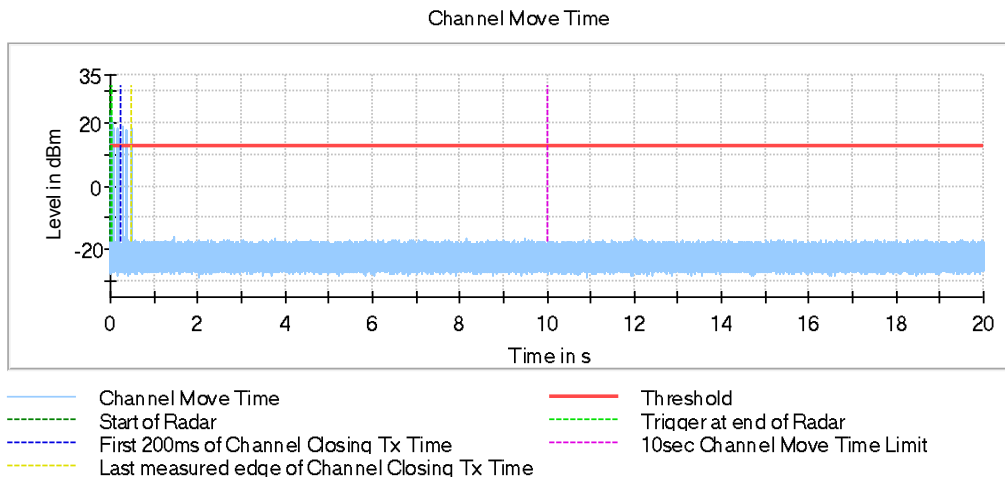
Test result: Channel closing transmission time (CCTT) detailed results						
DUT Frequency (MHz)	Radar Type No.	CCTT Type of value	CCTT No. of Pulses found	CCTT Tx Time (ms)	CCTT Tx Time Limit (ms)	CCTT Result
5280	0	first 200 ms	5	1.136	200	- PASS -
5280	0	remaining 10.0 s period	3	1.612	60	- PASS -

Test result: Non-occupancy period (NOP) detailed results						
DUT Frequency (MHz)	Radar Type No.	NOP No. of pulses found	NOP No. of pulses limit	NOP Tx Time (s)	NOP Tx Time Limit (s)	NOP Result
5280	0	0	0	0.000	0.000	- PASS -

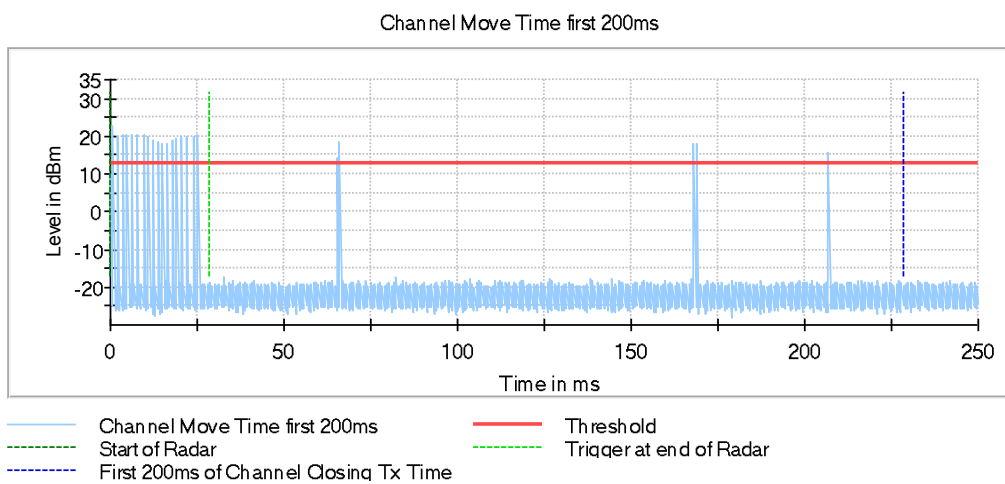
Comment:	--
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Verdict	- PASS -	see test protocol and plots on next pages
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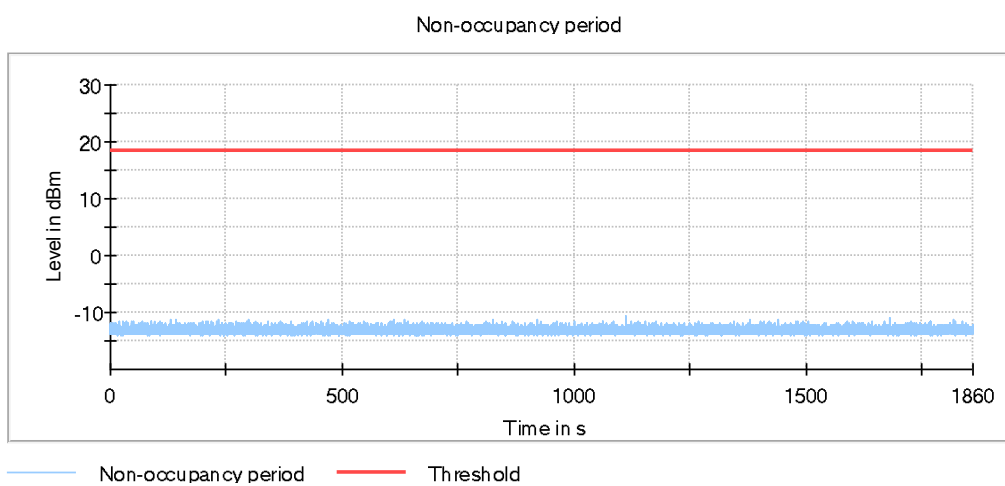
Plot 525: DFS In-Service Monitoring, Channel Move Time, CH56



Plot 526: DFS In-Service Monitoring, Channel Move Time, CH56



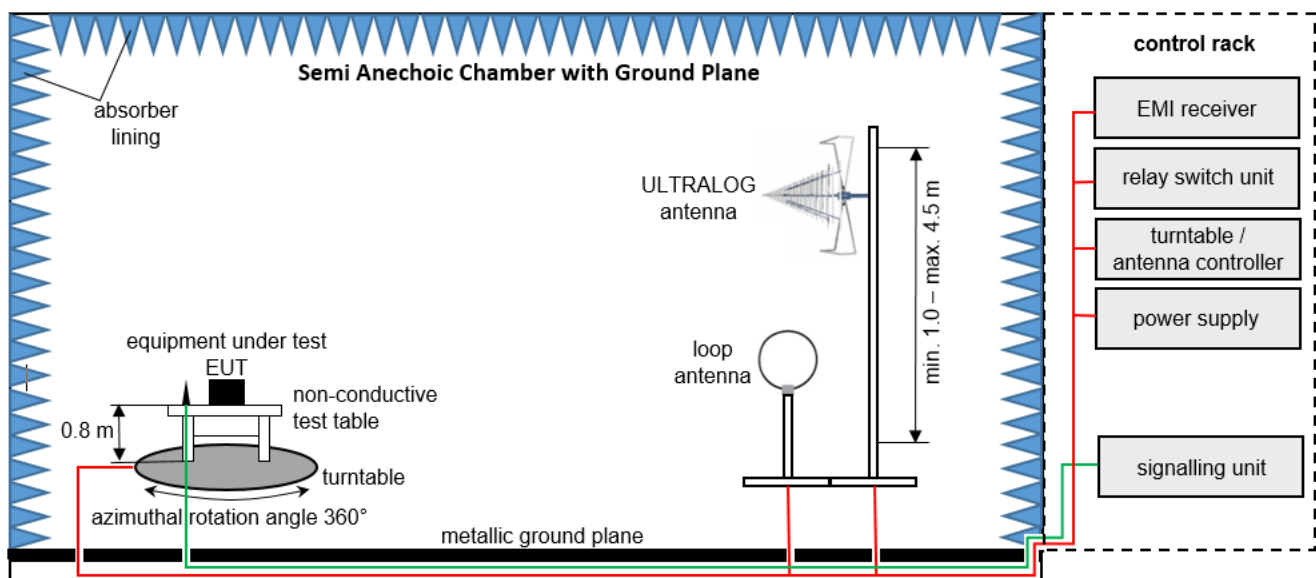
Plot 527: DFS In-Service Monitoring, Non-occupancy Period, CH56



8 TEST SETUP DESCRIPTION

8.1 Semi Anechoic Chamber with Ground Plane

Radiated measurements are performed in vertical and horizontal plane in the frequency range 30 MHz to 1 GHz in a Semi Anechoic Chamber with a metallic ground plane. The EUT is positioned on a non-conductive test table with a height of 0.80 m above the metallic ground plane that covers the whole chamber. The receiving antennas conform to specification ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices. These antennas can be moved over the height range between 1.0 m and 4.5 m in order to search for maximum field strength emitted from the EUT. The measurement distances between EUT and receiving antennas are indicated in the test setups for the various frequency ranges. For each measurement, the EUT is rotated in all three axes until the maximum field strength is received. The wanted and unwanted emissions are received by a spectrum analyzer where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63.



Measurement distance: loop antenna 3 m, ULTRALOG antenna 3 m
EMC32 software version: 11.20.00

$$FS = UR + CL + AF$$

(FS-field strength; UR-voltage at the receiver; CL-loss of the cable; AF-antenna factor)

Example calculation:

$$FS [dB\mu V/m] = 12.35 [dB\mu V/m] + 1.90 [dB] + 16.80 [dB/m] = 31.05 [dB\mu V/m] (35.69 \mu V/m)$$

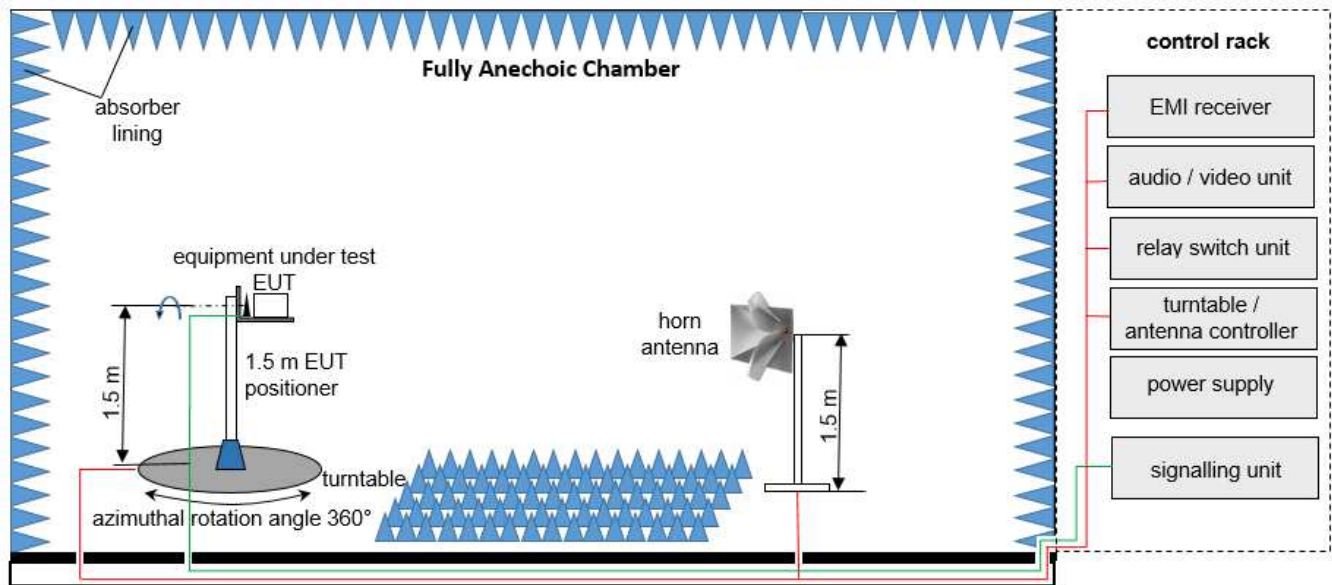
TR No.: 24080432-41495-0

2025-03-10

List of test equipment used:

No.	Equipment	Manufacturer	Type	Serial No.	IBL No.	Kind of Calibration	Last / Next Calibration
1	Power Supply	Rohde & Schwarz	IN 600	101554	LAB000824	NR	–
2	Antenna	Rohde & Schwarz	HL562E	102173	LAB000673	C	2022-10-17 → 36M → 2025-10-17
3	Power Supply	Chroma	61602		LAB000507	NR	–
4	EMI Test Receiver	Rohde & Schwarz	ESW26	101517	LAB000363	C	2025-01-10 → 12M → 2026-01-10
5	Power Supply	Elektro-Automatik GmbH & Co. KG	EA-PSI 9080-40 T	2000230001	LAB000313	NR	–
6	Test table	innco systems GmbH	PT1208-080-RH	-	LAB000306	NR	–
7	Antenna Mast	Berlebach	Tripod HFH2-Z8 & -Z9	101762	LAB000292	NR	–
8	Positioner	matur GmbH	TD 1.5-10KG		LAB000258	NR	–
9	Compressed Air	Implotex	1-850-30	-	LAB000256	NR	–
10	Semi/Fully Anechoic Chamber	Albatross Projects GmbH	Babylon 5 (SAC 5)	20168.PRB	LAB000235	CM	2022-01-31 → 36M → 2025-01-31
11	Measurement Software	Rohde & Schwarz	EMC32 V11.20		LAB000226	NR	–
12	Turntable	matur GmbH	TT2.0-2t	TT2.0-2t/921	LAB000225	NR	–
13	Antenna Mast	matur GmbH	CAM4.0-P	CAM4.0-P/316	LAB000224	NR	–
14	Antenna Mast	matur GmbH	BAM4.5-P	BAM4.5-P/272	LAB000223	NR	–
15	Controller	matur GmbH	FCU 3.0	10082	LAB000222	NR	–
16	Power Supply	Elektro-Automatik GmbH & Co. KG	EA-PS 2042-10 B	2878350292	LAB000191	NR	–
17	Pre-Amplifier	Schwarzbeck Mess-Elektronik OHG	BBV 9718 C	84	LAB000169	CM	2022-05-31 → 36M → 2025-05-31
18	Antenna	Rohde & Schwarz	HF907	102899	LAB000151	C	2023-05-15 → 36M → 2026-05-15
19	Antenna	Rohde & Schwarz	HL562E	102005	LAB000150	C	2022-12-22 → 36M → 2025-12-22
20	Open Switch and Control Platform	Rohde & Schwarz	OSP220 Base Unit 2HU	101748	LAB000149	NR	–
21	Antenna	Rohde & Schwarz	HFH2-Z2E	100954	LAB000108	C	2023-05-05 → 36M → 2026-05-05

8.2 Fully Anechoic Chamber



Measurement distance: horn antenna 3 meter

EMC32 software version: 11.20.00

$$FS = UR + CL + AF$$

(FS-field strength; UR-voltage at the receiver; CL-loss of the cable; AF-antenna factor)

Example calculation:

$$FS [dB\mu V/m] = 12.35 [dB\mu V/m] + 1.90 [dB] + 16.80 [dB/m] = 31.05 [dB\mu V/m] (35.69 \mu V/m)$$

$$OP = AV + D - G + CA$$

(OP-radiated output power; AV-analyzer value; D-free field attenuation of measurement distance; G-antenna gain+amplifier gain; CA-loss signal path)

Example calculation:

$$OP [dBm] = -65.0 [dBm] + 50 [dB] - 20 [dBi] + 5 [dB] = -30 [dBm] (1 \mu W)$$

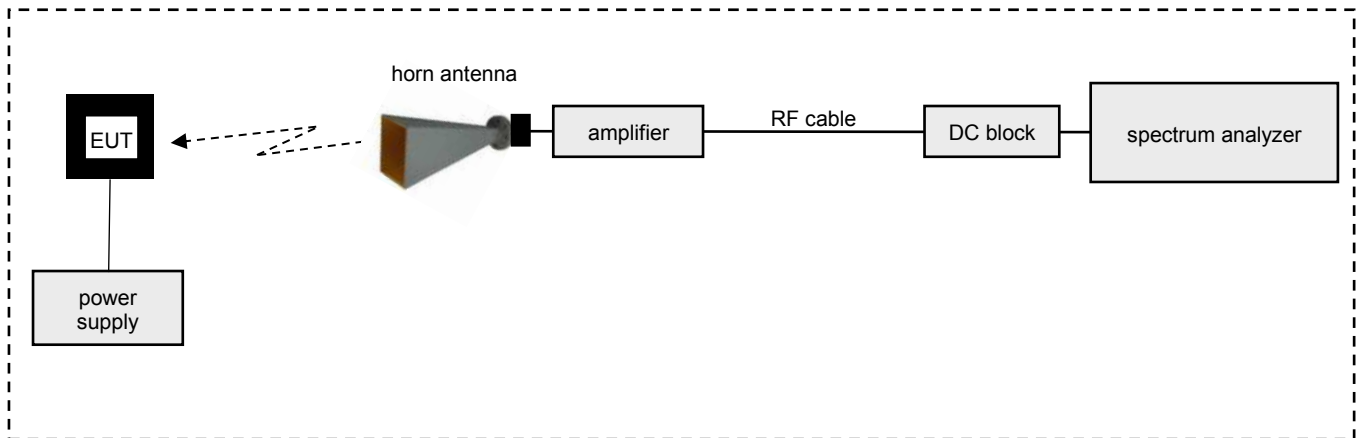
TR No.: 24080432-41495-0

2025-03-10

List of test equipment used:

No.	Equipment	Manufacturer	Type	Serial No.	IBL No.	Kind of Calibration	Last / Next Calibration
1	Power Supply	Rohde & Schwarz	IN 600	101554	LAB000824	NR	–
2	Antenna	Rohde & Schwarz	HL562E	102173	LAB000673	C	2022-10-17 → 36M → 2025-10-17
3	Power Supply	Chroma	61602		LAB000507	NR	–
4	EMI Test Receiver	Rohde & Schwarz	ESW26	101517	LAB000363	C	2025-01-10 → 12M → 2026-01-10
5	Power Supply	Elektro-Automatik GmbH & Co. KG	EA-PSI 9080-40 T	2000230001	LAB000313	NR	–
6	Test table	innco systems GmbH	PT1208-080-RH	-	LAB000306	NR	–
7	Antenna Mast	Berlebach	Tripod HFH2-Z8 & -Z9	101762	LAB000292	NR	–
8	Positioner	matur GmbH	TD 1.5-10KG		LAB000258	NR	–
9	Compressed Air	Implotex	1-850-30	-	LAB000256	NR	–
10	Semi/Fully Anechoic Chamber	Albatross Projects GmbH	Babylon 5 (SAC 5)	20168.PRB	LAB000235	CM	2022-01-31 → 36M → 2025-01-31
11	Measurement Software	Rohde & Schwarz	EMC32 V11.20		LAB000226	NR	–
12	Turntable	matur GmbH	TT2.0-2t	TT2.0-2t/921	LAB000225	NR	–
13	Antenna Mast	matur GmbH	CAM4.0-P	CAM4.0-P/316	LAB000224	NR	–
14	Antenna Mast	matur GmbH	BAM4.5-P	BAM4.5-P/272	LAB000223	NR	–
15	Controller	matur GmbH	FCU 3.0	10082	LAB000222	NR	–
16	Power Supply	Elektro-Automatik GmbH & Co. KG	EA-PS 2042-10 B	2878350292	LAB000191	NR	–
17	Pre-Amplifier	Schwarzbeck Mess-Elektronik OHG	BBV 9718 C	84	LAB000169	CM	2022-05-31 → 36M → 2025-05-31
18	Antenna	Rohde & Schwarz	HF907	102899	LAB000151	C	2023-05-15 → 36M → 2026-05-15
19	Antenna	Rohde & Schwarz	HL562E	102005	LAB000150	C	2022-12-22 → 36M → 2025-12-22
20	Open Switch and Control Platform	Rohde & Schwarz	OSP220 Base Unit 2HU	101748	LAB000149	NR	–
21	Antenna	Rohde & Schwarz	HFH2-Z2E	100954	LAB000108	C	2023-05-05 → 36M → 2026-05-05

8.3 Radiated measurements > 18 GHz

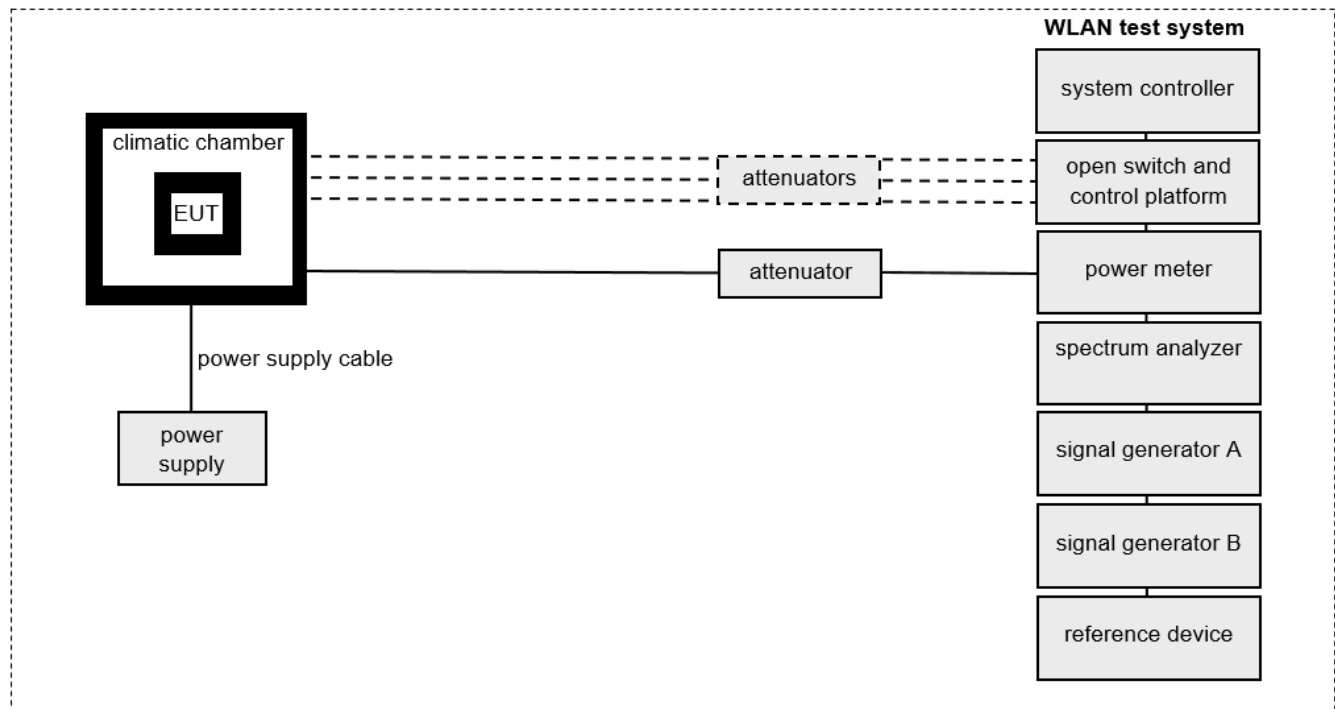


List of test equipment used:

No.	Equipment	Manufacturer	Type	Serial No.	IBL No.	Kind of Calibration	Last / Next Calibration
1	Absorber	Telemeter Electronic	EPP 12	-	LAB000327	NR	–
2	Test table	innco systems GmbH	PT0707-RH light	-	LAB000303	NR	–
3	Spectrum Analyser	Rohde & Schwarz	FSW43	101391	LAB000289	C	2024-06-04 → 12M → 2025-06-04
4	Power Supply	Elektro-Automatik GmbH & Co. KG	EA-PS 2042-10 B	2878350263	LAB000190	NR	–
5	WG-Coax-Adapter	Flann Microwave Ltd	22093-TF30 UG599/U	273263	LAB000183	CM	2024-07-16 → 12M → 2025-07-16
6	WG-Coax-Adapter	Flann Microwave Ltd	20093-TF30 UBR220	273374	LAB000181	CM	2024-07-16 → 12M → 2025-07-16
7	Coaxial Cable	Huber & Suhner	SF101/1.5m	503987/1	LAB000165	CM	2024-07-17 → 12M → 2025-07-17
8	Antenna	Flann Microwave Ltd	22240-20 (26.5-40.0 GHz)	270448	LAB000130	CM	2024-07-16 → 12M → 2025-07-16
9	Antenna	Flann Microwave Ltd	20240-20 (18.0-26.5 GHz)	266403	LAB000128	CM	2024-07-16 → 12M → 2025-07-16
10	Antenna Mast	Schwarzbeck Mess-Elektronik OHG	AM 9104	99	LAB000109	NR	–
11	Multimeter	Keysight	U1242B	MY59110034	LAB000009	C	2024-08-06 → 12M → 2025-08-06

8.4 Conducted measurements WLAN test system R&S TS 8997

The EUT's RF signal is coupled out by the antenna connector which is supplied by the manufacturer. The losses for all signal paths are first checked within a calibration. The measurement readings on the signalling unit/spectrum analyzer are corrected by the specific test set-up loss. The attenuator, power divider, signalling unit and the spectrum analyzer are impedance matched on 50 Ohm.



EMC32/WMS32 software version: 12.00.00

List of test equipment used:

No.	Equipment	Manufacturer	Type	Serial No.	IBL No.	Kind of Calibration	Last / Next Calibration
1	Attenuator	Hewlett Packard	11713A	3439A01548	LAB000962	NR	–
2	RF Shield Box	Rohde & Schwarz	CMW-Z10	101612	LAB000693	NR	–
3	Open Switch and Control Platform	Rohde & Schwarz	OSP-B157W8Plus	100830	LAB000358	C	2024-03-26 → 12M → 2025-03-26
4	TS8997	Rohde & Schwarz	TS8997-Rack	100829	LAB000322	NR	–
5	Open Switch and Control Platform	Rohde & Schwarz	OSP-B157WX	101247	LAB000280	NR	–
6	Spectrum Analyser	Rohde & Schwarz	FSV40	101403	LAB000278	C	2024-04-10 → 12M → 2025-04-10
7	Vector Signal Generator	Rohde & Schwarz	SMBV100A-06	258240	LAB000277	C	2024-12-10 → 36M → 2027-12-10
8	Signal Generator	Rohde & Schwarz	SMB100A-20	178175	LAB000276	C	2024-04-03 → 12M → 2025-04-03
9	Radio Communication Tester	Rohde & Schwarz	CMW270	101479	LAB000275	NR	–
10	Controller	Hewlett Packard	ATS-Z230	101379	LAB000274	NR	–
11	Attenuator	Hewlett Packard	84906K	3049A00482	LAB000250	NR	–
12	Attenuator	Hewlett Packard	84904K	3047A00772	LAB000249	NR	–
13	Power Supply	Elektro-Automatik GmbH & Co. KG	EA-PS 2042-10 B	2878350263	LAB000190	NR	–
14	Climatic Chamber	CTS GmbH	T-65/50	204002	LAB000110	CM	2024-06-07 → 12M → 2025-06-07
15	Multimeter	Keysight	U1242B	MY59110034	LAB000009	C	2024-08-06 → 12M → 2025-08-06

9 MEASUREMENT PROCEDURES

9.1 Radiated spurious emissions from 9 kHz to 30 MHz

Test setup

- The EUT is set up according to its intended use, as described in the user manual or as defined by the manufacturer.
- In case of floor standing equipment, it is placed in the middle of the turn table.
In case of tabletop equipment it is placed on a non-conductive table with a height of 80 cm.
- Additional equipment, cables, ... necessary for testing, are positioned like under normal operation.
- Interface cables, e.g. power supply, network, ... are connected to the connection box in the turn table.
- EUT is powered on and set into operation.

Pre-scan

- Turntable performs an azimuthal rotation from 0° to 360° continuously.
- For each turntable position the EMI-receiver/spectrum analyser performs a positive-peak/max-hold sweep (=worst-case). Data is transferred to EMI-software and recorded. EMI-software will show the maximum level of all single sweeps as the final result for the pre-scan.

Final measurement

- Significant emissions found during the pre-scan will be maximized by the EMI-software by rotating the turntable from 0° to 360°.
- Loop antenna is rotated with special 3D adapter set to find maximum level of emissions.
- Plot of the pre-scan with frequencies of identified emissions including levels, correction factors, turn table position and settings of measuring equipment is recorded.

Distance correction (extrapolation)

- When performing measurements on test distances other than defined in the rules, the results shall be extrapolated to the specified distance by conservatively presuming that the field strength decays at 40 dB/decade of distance in the region closer than λ in m divided by 2π (i.e., $\lambda/2\pi$), and at 20 dB/decade of distance beyond that, using the measurement of a single point at the radial angle that produces the maximum emission.
This correction is already included in the limit line of corresponding measurement plots.

Detailed requirements can be found in e.g. ANSI C63.4 / C63.10

9.2 Radiated spurious emissions from 30 MHz to 1 GHz

Test setup

- The EUT is set up according to its intended use, as described in the user manual or as defined by the manufacturer.
- In case of floor standing equipment, it is placed in the middle of the turn table.
In case of tabletop equipment it is placed on a non-conductive table with a height of 80 cm.
- Additional equipment, cables, ... necessary for testing, are positioned like under normal operation.
- Interface cables, e.g. power supply, network, ... are connected to the connection box in the turn table.
- EUT is powered on and set into operation.

Pre-scan

- Turntable performs an azimuthal rotation from 0° to 360° continuously.
- Antenna polarisation is changed (H-V / V-H) and antenna height is changed from 1 meter to 4 meters.
- For each turntable position / antenna polarisation / antenna height the EMI-receiver/spectrum analyser performs a positive-peak/max-hold sweep (=worst-case). Data is transferred to EMI-software and recorded. EMI-software will show the maximum level of all single sweeps as the final result for the pre-scan.

Final measurement

- Significant emissions found during the pre-scan will be maximized by the EMI-software based on evaluated data during the pre-scan by rotating the turntable and changing antenna height and polarisation.
- Final measurement will be performed with measuring equipment settings as defined in the applicable test standards (e.g. ANSI C6.4).
- Plot of the pre-scan with frequencies of identified emissions including levels, correction factors, turn table position, antenna polarisation and settings of measuring equipment is recorded.

Distance correction (extrapolation)

- When performing measurements on test distances other than defined in the rules, the results shall be extrapolated to the specified distance by conservatively presuming that the field strength decays at 20 dB/decade of distance beyond the region λ in m divided by 2π (i.e., $\lambda/2\pi$), using the measurement of a single point at the radial angle that produces the maximum emission.
This correction is already included in the corresponding measurement plots.

Detailed requirements can be found in e.g. ANSI C63.4 / C63.10

9.3 Radiated spurious emissions from 1 GHz to 18 GHz

Test setup

- The EUT is set up according to its intended use, as described in the user manual or as defined by the manufacturer.
- In case of floor standing equipment, it is placed in the middle of the turn table.
In case of tabletop equipment it is placed on a non-conductive table with a height of 80 cm.
- Additional equipment, cables, ... necessary for testing, are positioned like under normal operation.
- Interface cables, e.g. power supply, network, ... are connected to the connection box in the turn table.
- EUT is powered on and set into operation.

Pre-scan

- Turntable performs an azimuthal rotation from 0° to 360° continuously.
- Antenna polarisation is changed (H-V / V-H) and antenna height is changed from 1 meter to 4 meters.
- For each turntable position / antenna polarisation / antenna height the EMI-receiver/spectrum analyser performs a positive-peak/max-hold sweep (=worst-case). Data is transferred to EMI-software and recorded. EMI-software will show the maximum level of all single sweeps as the final result for the pre-scan.

Final measurement

- Significant emissions found during the pre-scan will be maximized by the EMI-software based on evaluated data during the pre-scan by rotating the turntable and changing antenna height and polarisation.
- Final measurement will be performed with measuring equipment settings as defined in the applicable test standards (e.g. ANSI C6.4).
- Plot of the pre-scan with frequencies of identified emissions including levels, correction factors, turn table position, antenna polarisation and settings of measuring equipment is recorded.

Distance correction (extrapolation)

- When performing measurements on test distances other than defined in the rules, the results shall be extrapolated to the specified distance by conservatively presuming that the field strength decays at 20 dB/decade of distance beyond the region λ in m divided by 2π (i.e., $\lambda/2\pi$), using the measurement of a single point at the radial angle that produces the maximum emission.
This correction is already included in the corresponding measurement plots.

Detailed requirements can be found in e.g. ANSI C63.4 / C63.10

9.4 Radiated spurious emissions above 18 GHz

Test setup

- The EUT is set up according to its intended use, as described in the user manual or as defined by the manufacturer.
- Additional equipment, cables, ... necessary for testing, are positioned like under normal operation.
- EUT is powered on and set into operation.
- Test distance depends on EUT size and test antenna size (farfield conditions shall be met).

Pre-scan

- The test antenna is handheld and moved carefully over the EUT to cover the EUT's whole sphere and for different polarizations of the antenna.

Final measurement

- Significant emissions found during the pre-scan will be maximized, i.e. position and antenna orientation causing the highest emissions with Peak and RMS detector
- Final measurement will be performed with measuring equipment settings as defined in the applicable test standards (e.g. ANSI C63.4 / C63.10).
- Final plot showing measurement data, levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit is recorded.

Note

- In case of measurements with external harmonic mixers (e.g. above 50 GHz) special care is taken to avoid possible overloading of the external mixer's input.
- As external harmonic mixers may generate false images, care is taken to ensure that any emission measured by the spectrum analyzer is indeed radiated from the EUT and not internally generated by the external harmonic mixer. Signal identification feature of spectrum analyzer is used to eliminate/reduce images of the external harmonic mixer.

Distance correction (extrapolation)

- When performing measurements on test distances other than defined in the rules, the results shall be extrapolated to the specified distance by conservatively presuming that the field strength decays at 20 dB/decade of distance beyond the region λ in m divided by 2π (i.e., $\lambda/2\pi$), using the measurement of a single point at the radial angle that produces the maximum emission.
This correction is already included in the corresponding measurement plots.

Detailed requirements can be found in e.g. ANSI C63.4 / C63.10

10 MEASUREMENT UNCERTAINTIES

Radio frequency	$\leq \pm 1 \times 10^{-7}$
RF power, conducted	$\leq \pm 0.75 \text{ dB}$
Power spectral density	$\leq \pm 3 \text{ dB}$
Maximum frequency deviation	$\leq \pm 5 \%$
Deviation limitation Duty Cycle, Tx-sequence, Tx-gap	$\leq \pm 5 \%$
Occupied channel bandwidth	$\leq \pm 5 \%$
Conducted spurious emission of transmitter	$\leq \pm 4 \text{ dB}$
Conducted emission of receivers	$\leq \pm 4 \text{ dB}$
Radiated emission of transmitter	$\leq \pm 6 \text{ dB}$
Radiated emission of receiver	$\leq \pm 6 \text{ dB}$
Temperature	$\leq \pm 2.5 \text{ }^{\circ}\text{C}$
Humidity	$\leq \pm 10 \%$

The indicated expanded measurement uncertainty corresponds to the standard measurement uncertainty for the measurement results multiplied by the coverage factor $k = 2$. It was determined in accordance with EA-4/02 M:2013. The true value is located in the corresponding interval with a probability of 95 %.