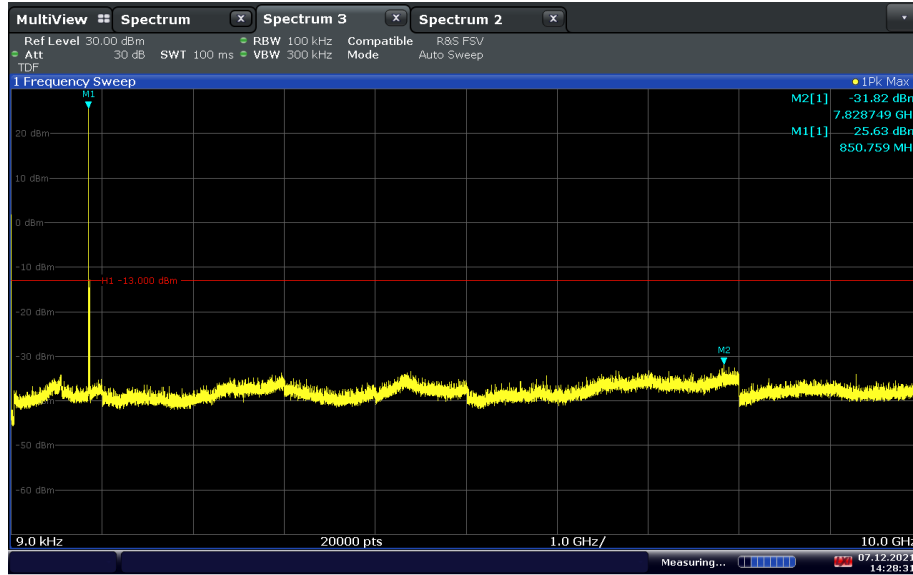
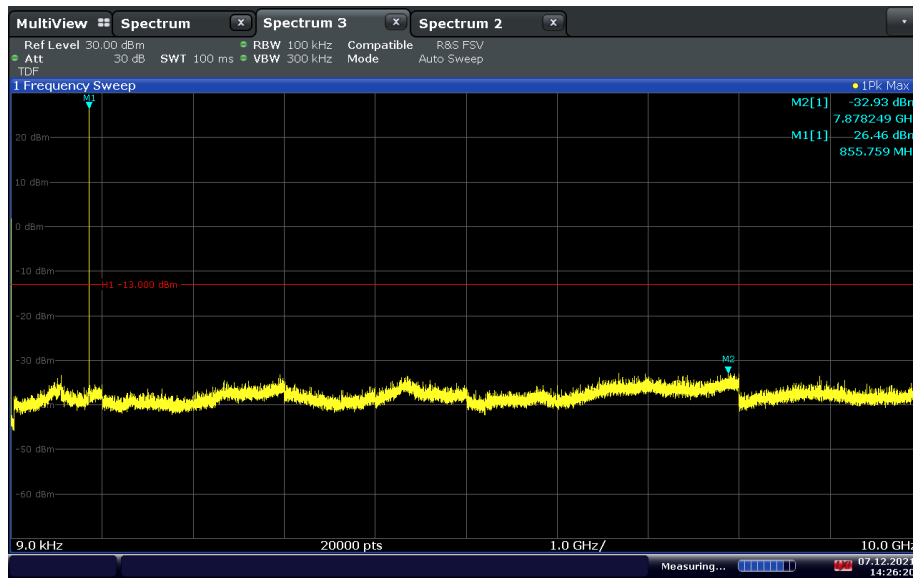


800 MHz NPSPAC Public Safety Downlink (12.5 kHz BW) Low Channel / Spurious Emissions



14:28:32 07.12.2021

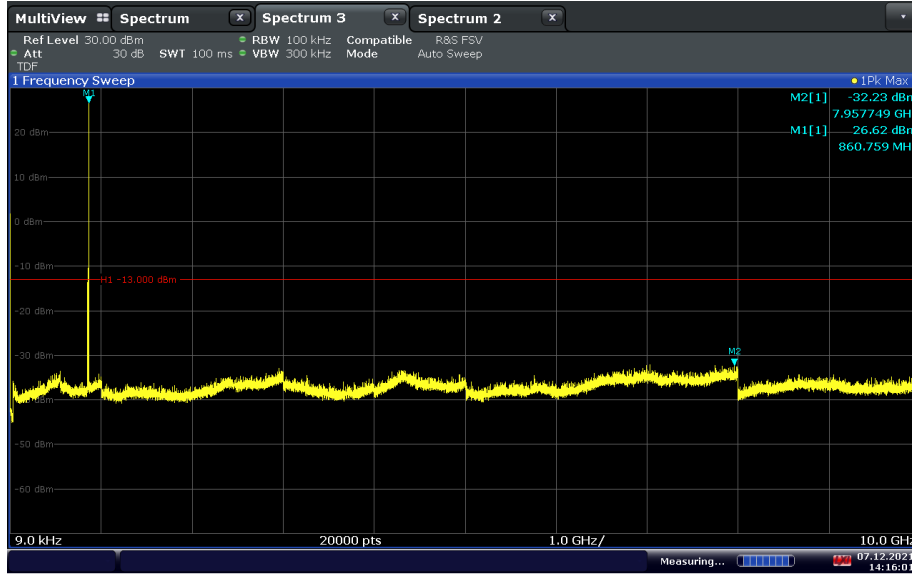
800 MHz NPSPAC Public Safety Downlink (12.5 kHz BW) Middle Channel / Spurious Emissions



14:26:20 07.12.2021

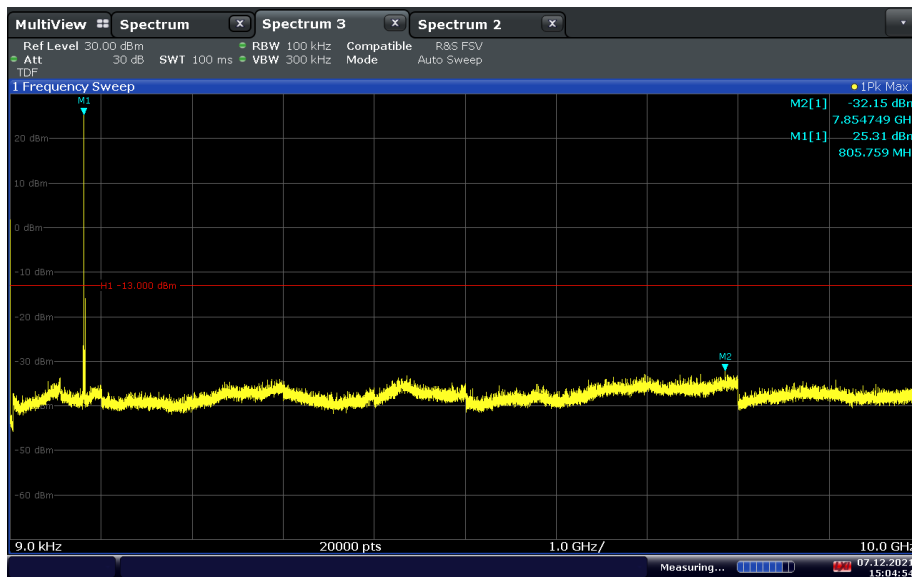


800 MHz NPSPAC Public Safety Downlink (12.5 kHz BW) High Channel / Spurious Emissions



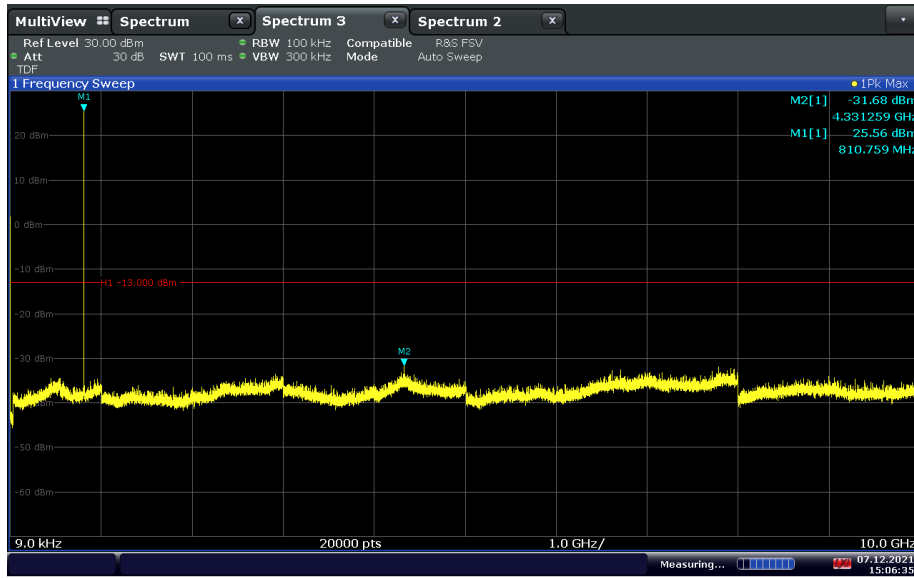
14:16:02 07.12.2021

800 MHz NPSPAC Public Safety Uplink (12.5 kHz BW) Low Channel / Spurious Emissions



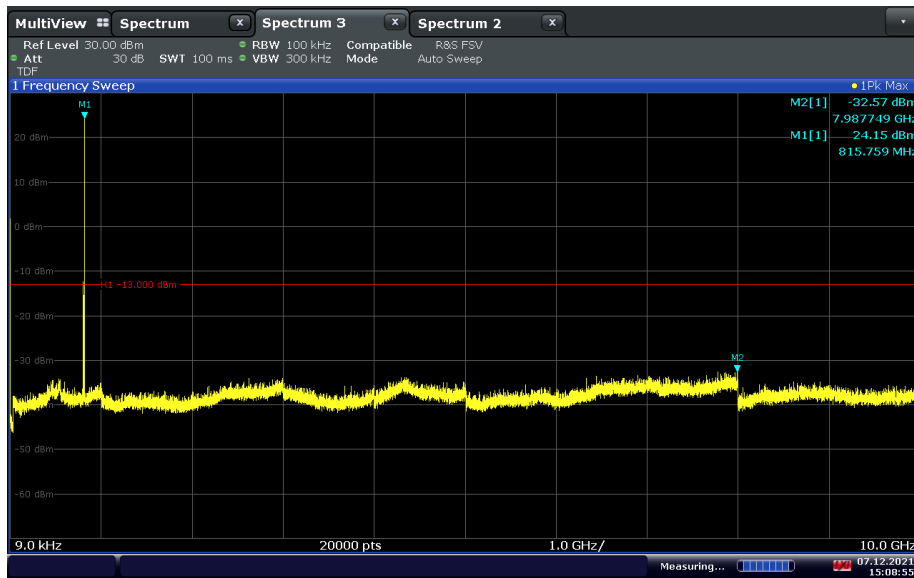
15:04:54 07.12.2021

800 MHz NPSPAC Public Safety Uplink (12.5 kHz BW) Middle Channel / Spurious Emissions



15:06:36 07.12.2021

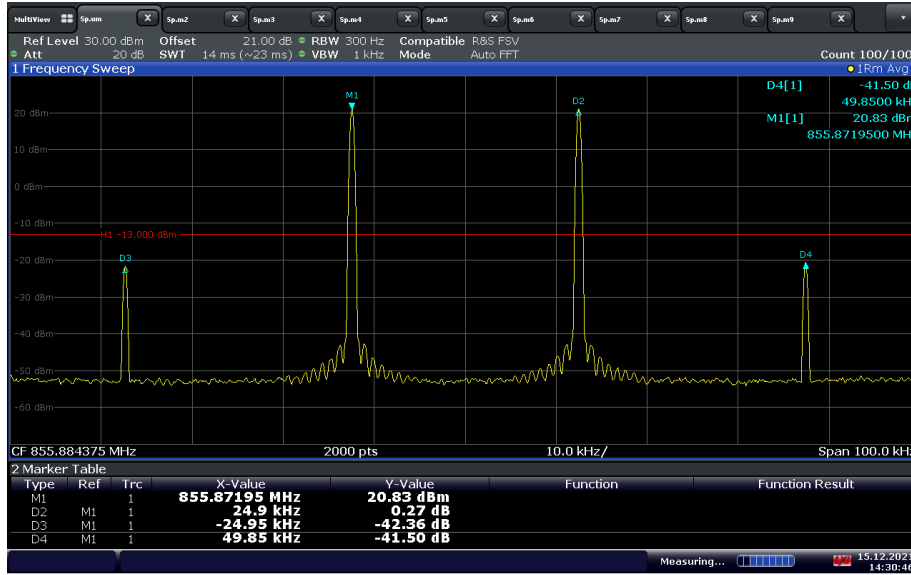
800 MHz NPSPAC Public Safety Uplink (12.5 kHz BW) High Channel / Spurious Emissions



15:08:56 07.12.2021

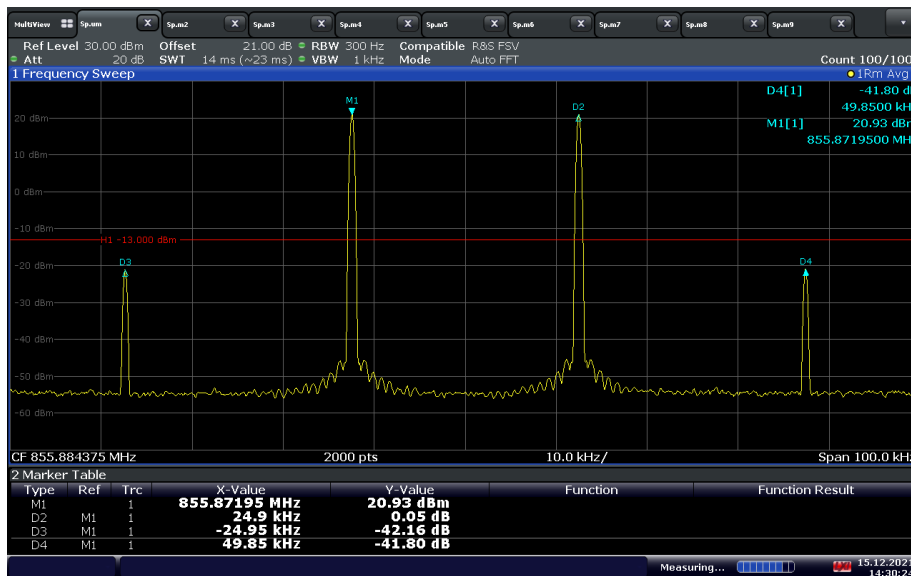


**800 MHz NPSPAC Public Safety Downlink 2 Channels - Intermodulation (AGC Level)
(855.871875 MHz and 855.896875 MHz, 12.5 kHz Channel Space)**



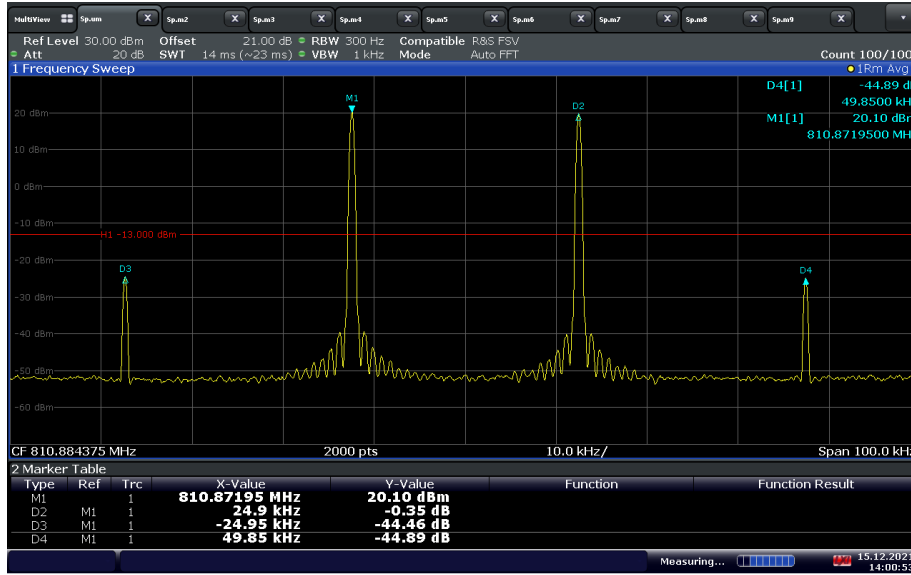
14:30:46 15.12.2021

**800 MHz NPSPAC Public Safety Downlink 2 Channels - Intermodulation (AGC + 3 Level)
(855.871875 MHz and 855.896875 MHz, 12.5 kHz Channel Space)**



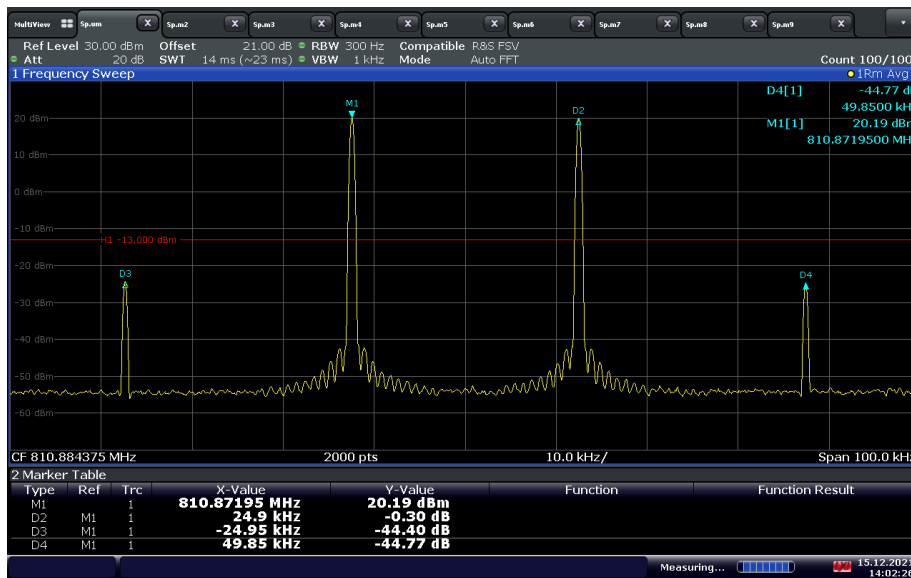
14:30:25 15.12.2021

**800 MHz NPSPAC Public Safety Uplink 2 Channels - Intermodulation (AGC Level)
(810.871875 MHz and 810.896875 MHz, 12.5 kHz Channel Space)**



14:00:53 15.12.2021

**800 MHz NPSPAC Public Safety Uplink 2 Channels - Intermodulation (AGC + 3 Level)
(810.871875 MHz and 810.896875 MHz, 12.5 kHz Channel Space)**



14:02:26 15.12.2021



SECTION 4

TEST EQUIPMENT USED



3.1 TEST EQUIPMENT USED

List of absolute measuring and other principal items of test equipment.

ID Number (SDGE/SDRB)	Test Equipment	Type	Serial Number	Manufacturer	Cal Date	Cal Due Date
Antenna Conducted Port Setup						
7662	P-Series Power Meter	N1911A	MY45100951	Agilent	08/27/21	08/27/22
7605	50MHz-18GHz Wideband Power Sensor	N1921A	MY51100054	Agilent	08/31/21	08/31/22
7608	Vector Signal Generator	SMBV100A	259021	Rhode & Schwarz	11/10/21	11/10/23
7582	Signal/Spectrum Analyzer	FSW26	101614	Rohde & Schwarz	12/16/20	12/16/21
8825	20dB Attenuator	46-20-34	BK5773	Weinschel Corp.	Verified by 7608 and 7582	
Radiated Test Setup						
1033	Bilog Antenna	3142C	00044556	EMCO	10/05/21	10/05/22
7575	Double-ridged waveguide horn antenna	3117	00155511	EMCO	06/22/20	06/22/22
1193	Pre-amplifier	PAM-0202	185	PAM	04/23/21	04/23/22
6013	Preamplifier	310	185831	Sonoma	07/26/21	07/26/22
1040	EMI Test Receiver	ESIB40	100292	Rhode & Schwarz	10/22/21	10/22/22
7620	EMI Test Receiver	ESU	100399	Rhode & Schwarz	08/02/21	08/02/22
7608	Vector Signal Generator	SMBV100A	259021	Rhode & Schwarz	11/10/21	11/10/23
7582	Signal/Spectrum Analyzer	FSW26	101614	Rohde & Schwarz	12/16/20	12/16/21
1153	High-frequency cable	SucoFlex 100 SX	N/A	Suhner	Verified by 7608 and 7582	
8543	High-frequency cable	Micropore 19057793	N/A	United Microwave Products	Verified by 7608 and 7582	
Miscellaneous						
6737	Multimeter Digital	87V	36740294	Fluke	07/21/21	07/21/22
6610	Environmental Chamber	SH27	09963481-1S	Environtronics	01/12/21	01/12/22
7554	Temp/Humidity Sensor	iBTHX-W	400706	Omega	03/09/21	03/09/22
	Test Software	EMC32	V8.53	Rhode & Schwarz	N/A	

3.2 MEASUREMENT UNCERTAINTY

For a 95% confidence level, the measurement uncertainties for defined systems are:

3.2.1 CONDUCTED ANTENNA PORT MEASUREMENT

	Input Quantity (Contribution) X_i	Value	Prob. Dist.	Divisor	$u_i(x)$	$u_i(x)^2$
1	Receiver reading	0.10 dB	Normal, k=1	1.000	0.10	0.01
2	Cable attenuation	1.00 dB	Normal, k=2	2.000	0.50	0.25
3	Received sinewave accuracy	0.07 dB	Normal, k=2	2.000	0.04	0.00
4	Receiver pulse amplitude	0.00 dB	Rectangular	1.732	0.00	0.00
5	Receiver pulse repetition rate	0.00 dB	Rectangular	1.732	0.00	0.00
6	Noise floor proximity	0.00 dB	Rectangular	1.732	0.00	0.00
7	Frequency interpolation	0.10 dB	Rectangular	1.732	0.06	0.00
8	Mismatch	0.07 dB	U-shaped	1.414	0.05	0.00
Combined standard uncertainty			Normal		0.52 dB	
Expanded uncertainty			Normal, k=2		1.03 dB	

3.2.2 RADIATED MEASUREMENTS (BELOW 1GHZ)

	Input Quantity (Contribution) X_i	Value	Prob. Dist.	Divisor	$u_i(x)$	$u_i(x)^2$
1	Receiver reading	0.10 dB	Normal, k=1	1.000	0.10	0.01
2	Attenuation: antenna-receiver	0.20 dB	Normal, k=2	2.000	0.10	0.01
3	Antenna factor AF	0.75 dB	Normal, k=2	2.000	0.38	0.14
4	Receiver sinewave accuracy	1.10 dB	Normal, k=2	2.000	0.55	0.30
5	Receiver pulse amplitude	1.50 dB	Rectangular	1.732	0.87	0.75
6	Receiver pulse repetition rate	1.50 dB	Rectangular	1.732	0.87	0.75
7	Noise floor proximity	0.50 dB	Rectangular	1.732	0.29	0.08
8	Mismatch: antenna-receiver	0.95 dB	U-shaped	1.414	0.67	0.45
9	AF frequency interpolation	0.30 dB	Rectangular	1.732	0.17	0.03
10	AF height deviations	0.10 dB	Rectangular	1.732	0.06	0.00
11	Directivity difference at 3 m	3.12 dB	Rectangular	1.732	1.80	3.24
12	Phase center location at 3 m	1.00 dB	Rectangular	1.732	0.58	0.33
13	Cross-polarisation	0.90 dB	Rectangular	1.732	0.52	0.27
14	Balance	0.00 dB	Rectangular	1.732	0.00	0.00
15	Site imperfections	3.91 dB	Triangular	2.449	1.60	2.55
16	Separation distance at 3 m	0.30 dB	Rectangular	1.732	0.17	0.03
17	Effect of setup table material	0.21 dB	Rectangular	1.732	0.12	0.01
18	Table height at 3 m	0.10 dB	Normal, k=2	2.000	0.05	0.00
19	Near-field effects	0.00 dB	Triangular	2.449	0.00	0.00
20	Effect of ambient noise on OATS	0.00 dB				0.00
Combined standard uncertainty			Normal		3.00 dB	
Expanded uncertainty			Normal, k=2		5.99 dB	

3.2.3 RADIATED EMISSION MEASUREMENTS (ABOVE 1GHZ)

	Input Quantity (Contribution) X_i	Value	Prob. Dist.	Divisor	$u_i(x)$	$u_i(x)^2$
1	Receiver reading	0.10 dB	Normal, k=1	1.000	0.10	0.01
2	Attenuation: antenna-receiver	0.30 dB	Normal, k=2	2.000	0.15	0.02
3	Preamplifier Gain	0.20 dB	Normal, k=2	2.000	0.10	0.01
4	Antenna factor AF	0.37 dB	Normal, k=2	2.000	0.19	0.03
5	Sinewave accuracy	0.57 dB	Normal, k=2	2.000	0.29	0.08
6	Instability of preamp gain	1.21 dB	Rectangular	1.732	0.70	0.49
7	Noise floor proximity	0.70 dB	Rectangular	1.732	0.40	0.16
8	Mismatch: antenna-preamplifier	1.41 dB	U-shaped	1.414	1.00	0.99
9	Mismatch: preamplifier-receiver	1.30 dB	U-shaped	1.414	0.92	0.85
10	AF frequency interpolation	0.30 dB	Rectangular	1.732	0.17	0.03
11	Directivity difference at 3 m	1.50 dB	Rectangular	1.732	0.87	0.75
12	Phase center location at 3 m	0.30 dB	Rectangular	1.732	0.17	0.03
13	Cross-polarisation	0.90 dB	Rectangular	1.732	0.52	0.27
14	Site imperfections VSWR (Method 2)	5.48 dB	Triangular	2.449	2.24	5.01
15	Effect of setup table material	0.95 dB	Rectangular	1.732	0.55	0.30
16	Separation distance at 3 m	0.30 dB	Rectangular	1.732	0.17	0.03
17	Table height at 3 m	0.00 dB	Normal, k=2	2.000	0.00	0.00
Combined standard uncertainty				Normal	3.01 dB	
Expanded uncertainty				Normal, k=2	6.02 dB	

3.2.4 CONDUCTED MEASUREMENTS

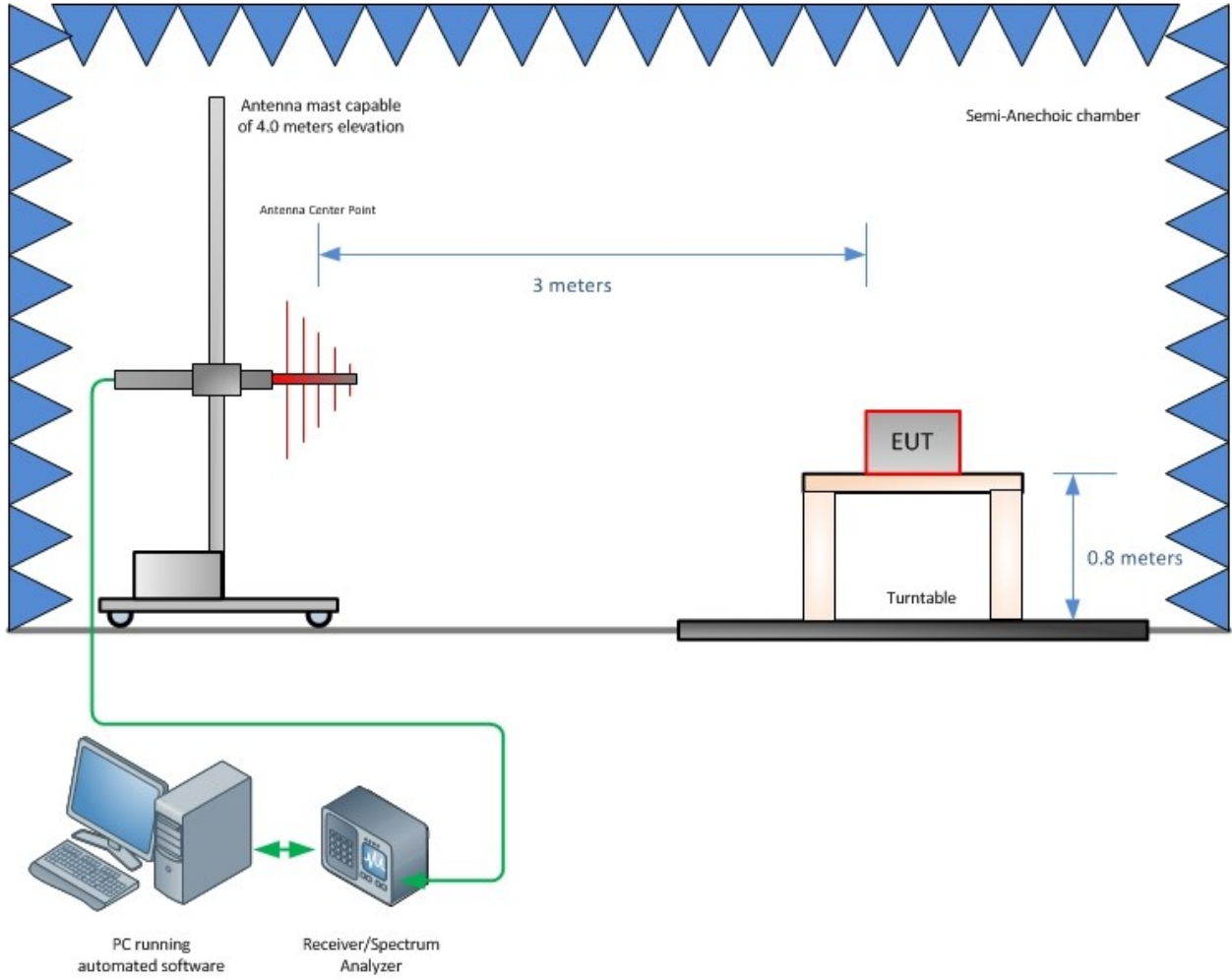
	Input Quantity (Contribution) X_i	Value	Prob. Dist.	Divisor	$u_i(x)$	$u_i(x)^2$
1	Receiver reading	0.10 dB	Normal, k=1	1.000	0.10	0.01
2	LISN-receiver attenuation	0.10 dB	Normal, k=2	2.000	0.05	0.00
3	LISN voltage division factor	0.30 dB	Normal, k=2	2.000	0.15	0.02
4	Receiver sinewave accuracy	0.36 dB	Normal, k=2	2.000	0.18	0.03
5	Receiver pulse amplitude	1.50 dB	Rectangular	1.732	0.87	0.75
6	Receiver pulse repetition rate	1.50 dB	Rectangular	1.732	0.87	0.75
7	Noise floor proximity	0.00 dB	Rectangular	1.732	0.00	0.00
8	AMN VDF frequency interpolation	0.10 dB	Rectangular	1.732	0.06	0.00
9	Mismatch	0.07 dB	U-shaped	1.414	0.05	0.00
10	LISN impedance	3.35 dB	Triangular	2.449	1.37	1.87
11	Effect of mains disturbance	0.00 dB			0.00	0.00
12	Effect of the environment					
Combined standard uncertainty				Normal	1.86 dB	
Expanded uncertainty				Normal, k=2	3.71 dB	



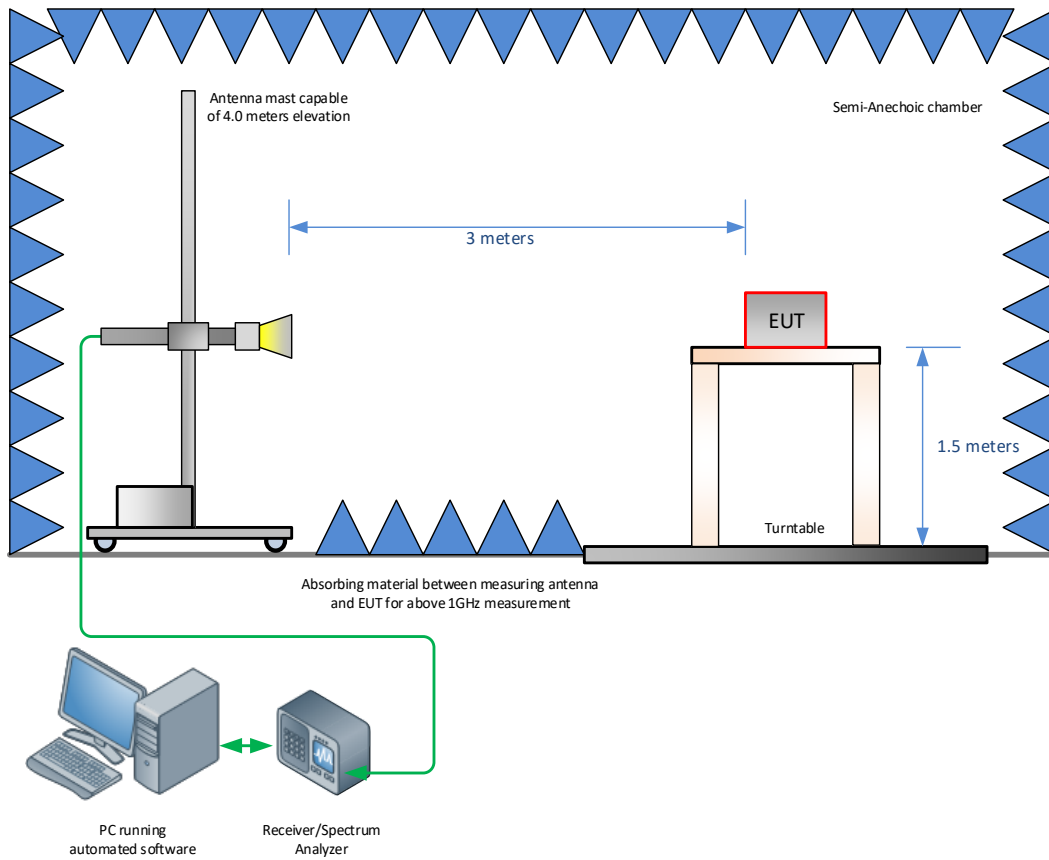
SECTION 5

DIAGRAM OF TEST SETUP

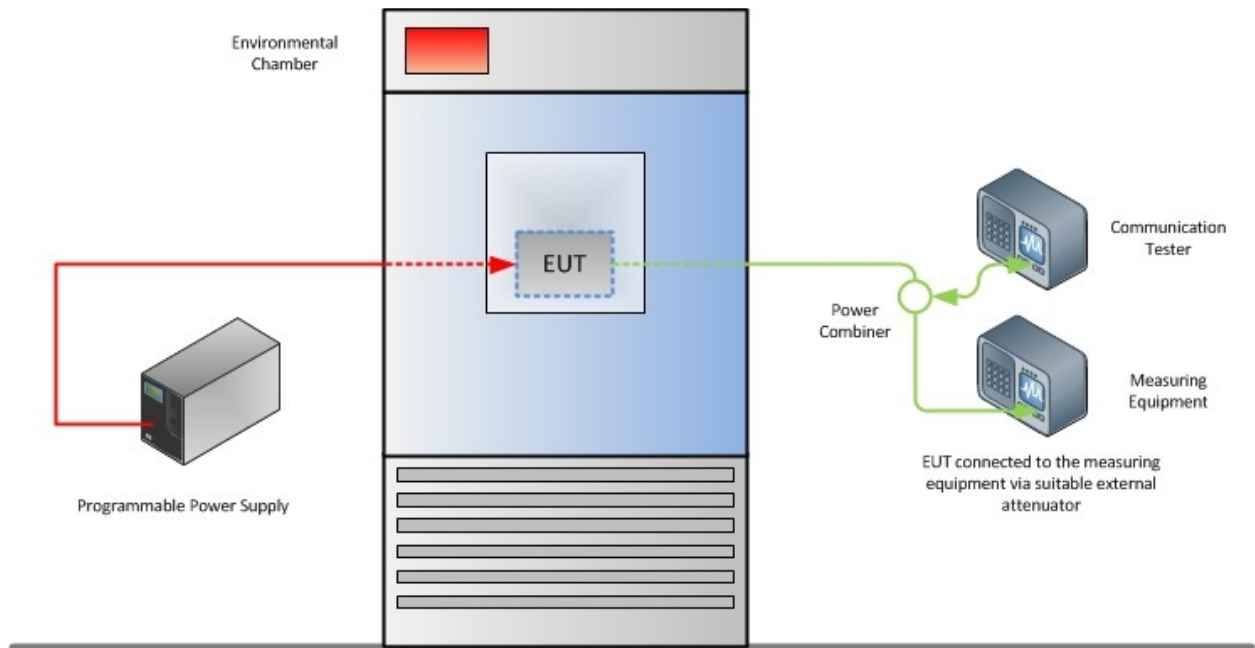
4.1 TEST SETUP DIAGRAM



Radiated Emission Test Setup (Below 1GHz)



Radiated Emission Test Setup (Above 1GHz)



Frequency Stability Test Configuration



SECTION 6

ACCREDITATION, DISCLAIMERS AND COPYRIGHT



5.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT

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