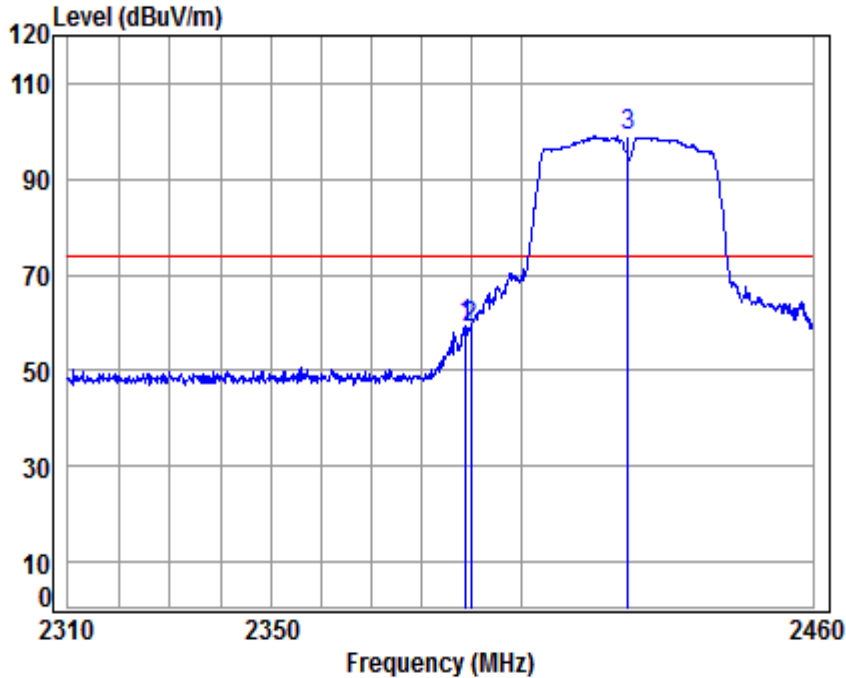


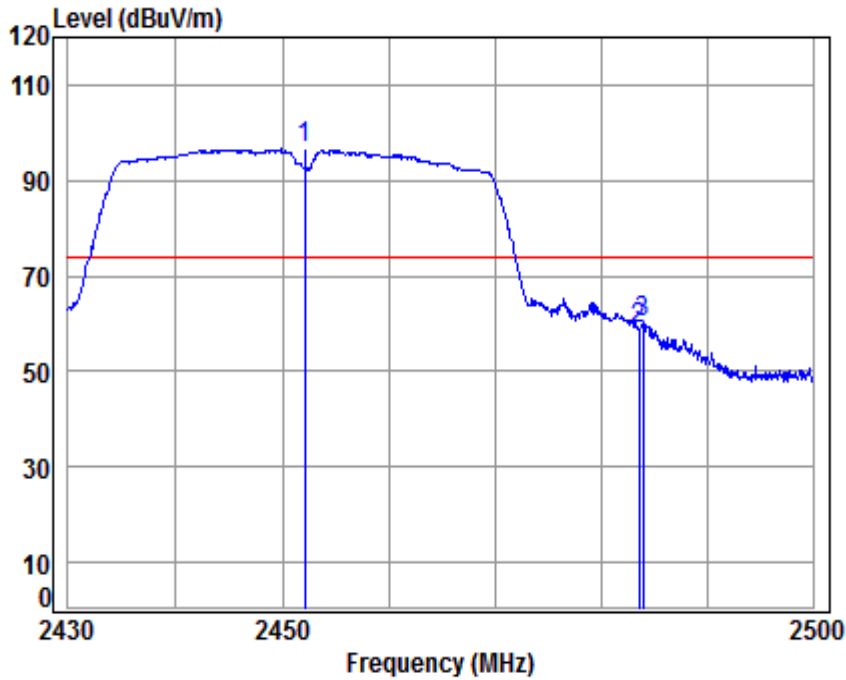
4.10.1.25 802.11N40_Lowest Channel_Peak_Vertical



Site : chamber
 Condition: 3m VERTICAL
 Job No : 90032
 Mode : 2422 Band edge
 : 2.4G Wifi 11N40

	Cable	Ant	Preamp	Read	Limit	Over		
Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	2388.925	5.47	28.52	41.87	67.20	59.32	74.00	-14.68 peak
2	2390.000	5.47	28.52	41.87	66.67	58.79	74.00	-15.21 peak
3 *	2422.000	5.52	28.57	41.89	106.69	98.89	74.00	24.89 peak

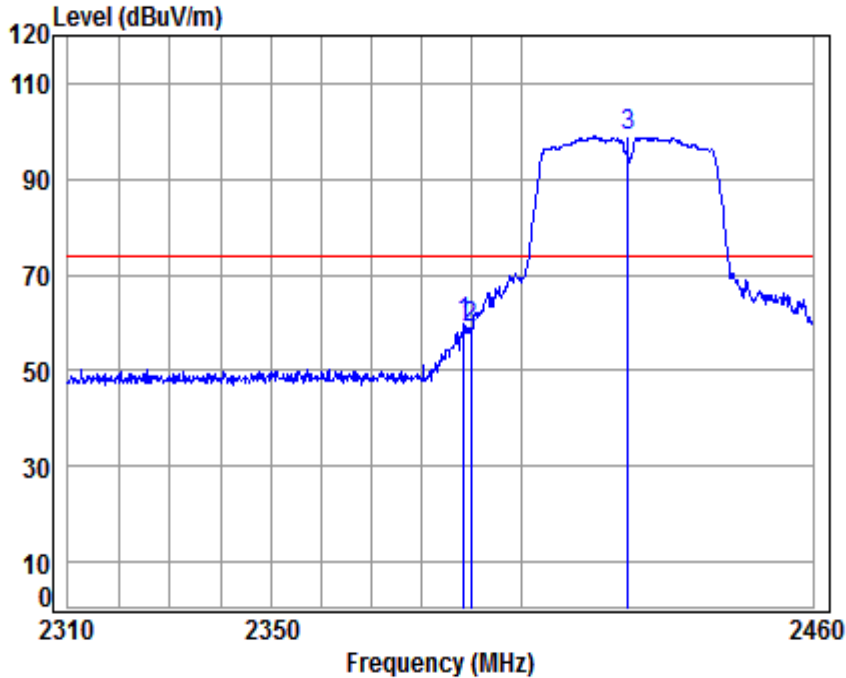
4.10.1.26 802.11N40_ Highest Channel_ Peak_ Vertical



Site : chamber
 Condition: 3m VERTICAL
 Job No : 90032
 Mode : 2452 Band edge
 : 2.4G Wifi 11N40

	Cable	Ant	Preamp	Read	Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 *	2452.000	5.56	28.62	41.90	104.29	96.57	74.00 22.57 peak
2	2483.500	5.60	28.67	41.91	66.70	59.06	74.00 -14.94 peak
3	2483.865	5.60	28.67	41.91	67.64	60.00	74.00 -14.00 peak

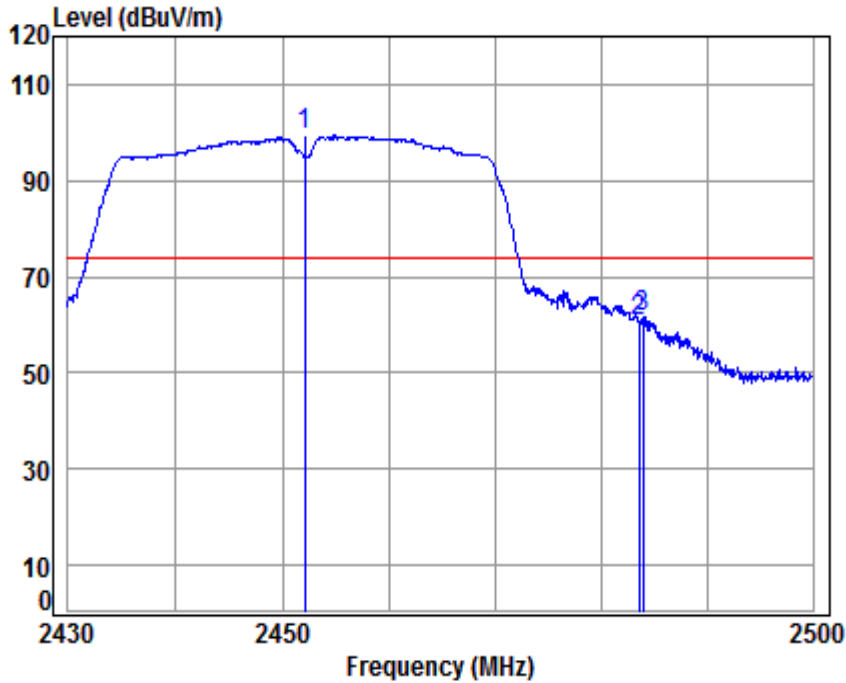
4.10.1.27 802.11N40_Lowest Channel_Peak_Horizontal



Site : chamber
 Condition: 3m HORIZONTAL
 Job No : 90032
 Mode : 2422 Band edge
 : 2.4G Wifi 11N40

	Cable	Ant	Preamp	Read	Limit	Over		
Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	2388.474	5.47	28.52	41.87	67.65	59.77	74.00	-14.23 peak
2	2390.000	5.47	28.52	41.87	66.89	59.01	74.00	-14.99 peak
3 *	2422.000	5.52	28.57	41.89	106.81	99.01	74.00	25.01 peak

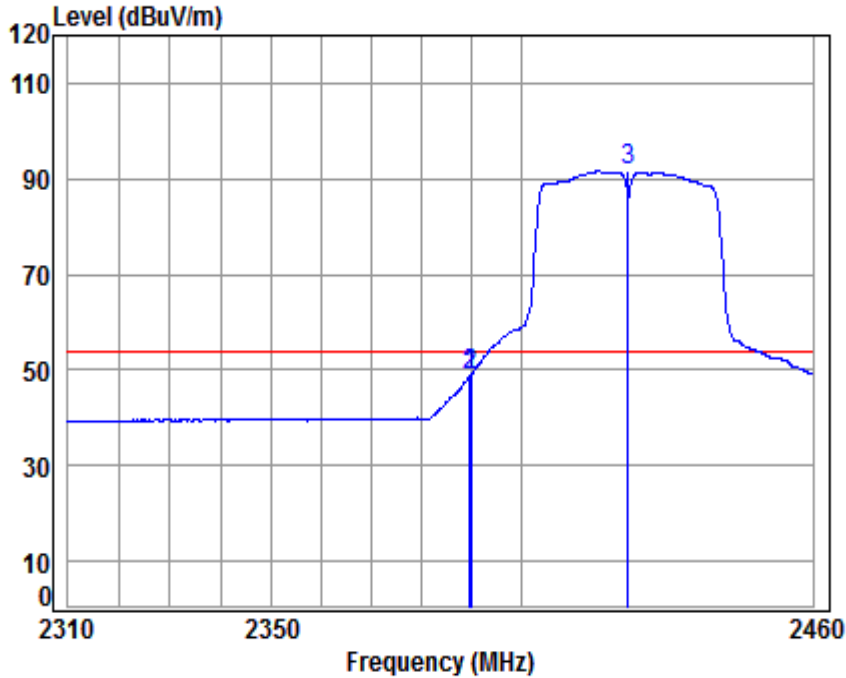
4.10.1.28 802.11N40_ Highest Channel_ Peak_ Horizontal



Site : chamber
 Condition: 3m HORIZONTAL
 Job No : 90032
 Mode : 2452 Band edge
 : 2.4G Wifi 11N40

	Cable	Ant	Preamp	Read	Limit	Over		
Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 *	2452.000	5.56	28.62	41.90	107.00	99.28	74.00	25.28 peak
2	2483.500	5.60	28.67	41.91	68.42	60.78	74.00	-13.22 peak
3	2483.865	5.60	28.67	41.91	69.28	61.64	74.00	-12.36 peak

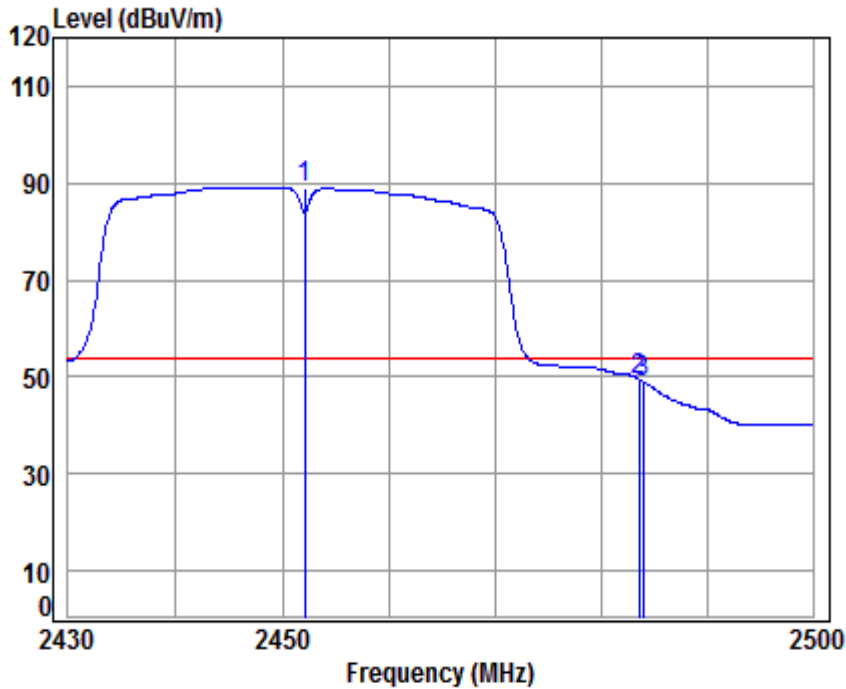
4.10.1.29 802.11N40_Lowest Channel_ Average_ Vertical



Site : chamber
 Condition: 3m VERTICAL
 Job No : 90032
 Mode : 2422 Band edge
 : 2.4G Wifi 11N40

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Limit Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	2389.827	5.47	28.52	41.87	56.71	48.83	54.00	-5.17	Average
2	2390.000	5.47	28.52	41.87	56.92	49.04	54.00	-4.96	Average
3 *	2422.000	5.52	28.57	41.89	99.32	91.52	54.00	37.52	Average

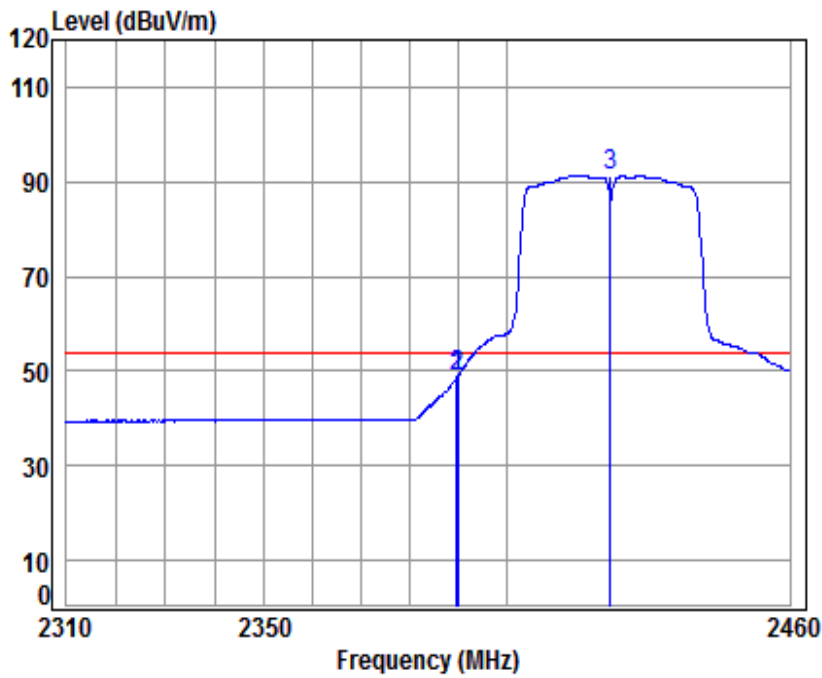
4.10.1.30 802.11N40_ Highest Channel_ Average _ Vertical



Site : chamber
 Condition: 3m VERTICAL
 Job No : 90032
 Mode : 2452 Band edge
 : 2.4G Wifi 11N40

	Cable	Ant	Preamp	Read	Limit	Over		
Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 *	2452.000	5.56	28.62	41.90	96.89	89.17	54.00	35.17 Average
2	2483.500	5.60	28.67	41.91	57.09	49.45	54.00	-4.55 Average
3	2483.865	5.60	28.67	41.91	56.60	48.96	54.00	-5.04 Average

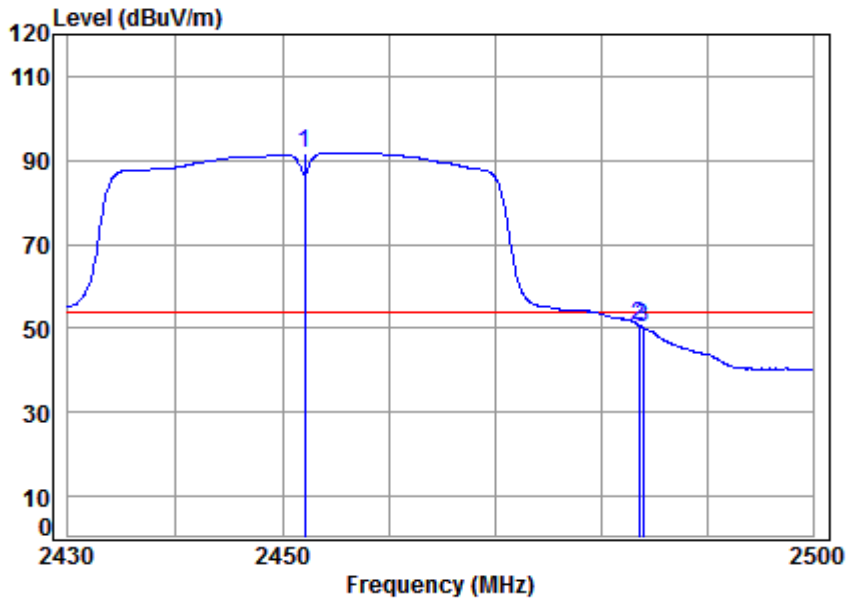
4.10.1.31 802.11N40_Lowest Channel_Average_Horizontal



Site : chamber
 Condition: 3m HORIZONTAL
 Job No : 90032
 Mode : 2422 Band edge
 : 2.4G Wifi 11N40

		Cable	Ant	Preamp	Read	Limit	Over	
	Freq	Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	2389.827	5.47	28.52	41.87	56.65	48.77	54.00	-5.23 Average
2	2390.000	5.47	28.52	41.87	56.78	48.90	54.00	-5.10 Average
3 *	2422.000	5.52	28.57	41.89	99.22	91.42	54.00	37.42 Average

4.10.1.32 802.11N40_ Highest Channel_ Average_ Horizontal



Site : chamber
 Condition: 3m HORIZONTAL
 Job No : 90032
 Mode : 2452 Band edge
 : 2.4G Wifi 11N40

	Cable	Ant	Preamp	Read		Limit	Over	
Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 *	2452.000	5.56	28.62	41.90	99.50	91.78	54.00	37.78 Average
2	2483.500	5.60	28.67	41.91	58.44	50.80	54.00	-3.20 Average
3	2483.865	5.60	28.67	41.91	57.96	50.32	54.00	-3.68 Average

Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

$$\text{Final Test Level} = \text{Receiver Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Preamplifier Factor}$$

All Modes have been tested, but only the worst case data displayed in this report.

5 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Total RF power, conducted	±0.75dB
2	RF power density, conducted	±2.84dB
3	Spurious emissions, conducted	±0.75dB
4	Radiated Spurious emission test	±4.5dB (30MHz-1GHz)
		±4.8dB (1GHz-25GHz)
5	Conduct emission test	±3.12 dB (9KHz- 30MHz)
6	Temperature test	±1°C
7	Humidity test	±3%
8	DC and low frequency voltages	±0.5%

6 Equipment List

Conducted Emission					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal. Due date
				(yyyy-mm-dd)	(yyyy-mm-dd)
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2017/5/10	2020/5/9
LISN	Rohde & Schwarz	ENV216	SEM007-01	2018/9/2	2019/9/2
LISN	ETS-LINDGREN	Feb-16	SEM007-02	2018/4/2	2019/4/1
Measurement Software	AUDIX	e3 V5.4.1221d	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM024-01	2018/7/12	2019/7/11
2 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T2-02	EMC0122	2018/2/14	2019/2/13
EMI Test Receiver	Rohde & Schwarz	ESCI	SEM004-02	2018/4/2	2019/4/1

RF conducted test					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal. Due date
				(yyyy-mm-dd)	(yyyy-mm-dd)
DC Power Supply	Agilent Technologies Inc	66311B	W009-09	2018/9/15	2019/9/15
Signal Analyzer	Rohde & Schwarz	FSV	W025-05	2018/3/13	2019/3/12
Coaxial Cable	SGS	N/A	SEM031-01	2018/7/13	2019/7/12
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2018/9/2	2019/9/2
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2018/9/2	2019/9/2

RE in Chamber					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal. Due date
				(yyyy-mm-dd)	(yyyy-mm-dd)
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2017/8/5	2020/8/4
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2018/7/12	2019/7/11
MXE EMI Receiver (20Hz-8.4GHz)	Agilent Technologies	N9038A	SEM004-05	2018/9/2	2019/9/2
BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEM003-01	2017/6/27	2020/6/26
Pre-amplifier (0.1-1.3GHz)	Agilent Technologies	8447D	SEM005-01	2018/4/2	2019/4/1

RE in Chamber					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date	Cal. Due date
				(yyyy-mm-dd)	(yyyy-mm-dd)
10m Semi-Anechoic Chamber	SAEMC	FSAC1018	SEM001-03	2018/3/31	2021/3/30
EMI Test Receiver (9k-7GHz)	Rohde & Schwarz	ESR	SEM004-03	2018/4/2	2019/4/1
Trilog-Broadband Antenna(25M-2GHz)	Schwarzbeck	VULB9168	SEM003-18	2016/6/29	2019/6/28
Pre-amplifier (9k-1GHz)	Sonoma	310N	SEM005-03	2018/4/13	2019/4/12
Loop Antenna (9kHz-30MHz)	ETS-Lindgren	6502	SEM003-08	2017/8/22	2020/8/21
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM029-01	2018/7/12	2019/7/11

7 Photographs - EUT Constructional Details

Refer to Appendix A - Photographs of EUT Constructional Details for ZR/2018/90032.

The End