

Report No.: SZEM1609008050RG

Page: 1 of 107

Appendix B

Test Report for SZEM1609008050RG



Report No.: SZEM1609008050RG

Page: 2 of 107

CONTENT

		Page
1	EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA	4
2	PEAK-TO-AVERAGE RATIO	8
	2.1 For GSM	
	2.1.1 Test Band = GSM850	
	2.1.2 Test Band = GSM1900	
	2.2 FOR WCDMA	
	2.2.1 Test Band = WCDMA850	
	2.2.2 Test Band = WCDMA1900	
3	MODULATION CHARACTERISTICS	27
	3.1 For GSM	27
	3.1.1 Test Band = GSM850	27
	3.1.2 Test Band = GSM1900	
	3.2 FOR WCDMA	
	3.2.1 Test Band = WCDMA 850	
	3.2.2 Test Band = WCDMA 1900	32
4	BANDWIDTH	33
	4.1 For GSM	34
	4.1.1 Test Band = GSM850	
	4.1.2 Test Band = GSM1900	
	4.2 For WCDMA	
	4.2.1 Test Band = WCDMA850	
	4.2.2 Test Band = WCDMA1900	
5	BAND EDGES COMPLIANCE	46
	5.1 FOR GSM	46
	5.1.1 Test Band = GSM850	
	5.1.2 Test Band = GSM1900	
	5.2 FOR WCDMA	
	5.2.1 Test Band= WCDMA 850	
	5.2.2 Test Band= WCDMA 1900	
6		
	6.1 For GSM	
	6.1.1 Test Band = GSM1900	
	6.1.2 Test Band = GSM1900	
	6.2 FOR WCDMA	
	6.2.1 Test Band = WCDMA850	
_	6.2.2 Test Band = WCDMA1900	
7		
	7.1 FOR GSM	
	7.1.1 Test Band = GSM850	
	7.1.2 Test Band = EGPRS850	
	7.1.3 Test Band = GSM1900 7.1.4 Test Band = EGPRS1900	
	7.1.4 Test Band = EGPRS 1900	



Report No.: SZEM1609008050RG

Page: 3 of 107

		Test Band = WCDMA850 Test Band = WCDMA1900	
8	FREQ	UENCY STABILITY	102
	8.1 F	OR GSM	102
	8.1.1	Frequency Error VS. Voltage	
		Frequency Error VS. Temperature	



Report No.: SZEM1609008050RG

Page: 4 of 107

1 Effective (Isotropic) Radiated Power Output Data

Part I - Test Results

Part 1 – RF Conducted Power of Transmitter for GSM850

Tart 1 - Til Conducted Fower of Transmitter for Gowood										
		RF Output Power(Conducted)								
TEST CONDITIONS	Channel 12	28(L)	Channel190	O(M)	Channel251	H)				
TEST CONDITIONS	824.2MI	Нz	836.6 MH	łz	848.8 MHz	_				
Tnom/ Vnom	Measured (dBm)	Limit (dBm)	Measured (dBm)	Limit (dBm)	Measured(dBm)	Limit (dBm)				
GSM /(GPRS)	32.31	38.5	32.38	38.5	32.37	38.5				
GSM/ (EGPRS)	27.00	38.5	27.05	38.5	27.10	38.5				
GSM/TM1 (4slot GPRS)	30.57	38.5	30.62	38.5	30.61	38.5				

Part 2– Effective Radiated Power of Transmitter (ERP) for GSM850

Test Mode	Freq. (MHz)	Meas. Level (dBm)	Substitution Antenna Type	SGP (dBm)	Substitution Gain(dBd)	Cable Loss (dB)	Substitution Level(ERP) / dBm	Limit (dBm)	Result
GSM/TM1 (GPRS)	824.2	33.71	Dipole	37.88	-4.90	0.6	32.26	38.5	Pass
GSM/TM1 (GPRS)	836.6	33.78	Dipole	37.91	-5.02	0.6	32.31	38.5	Pass
GSM/TM1 (GPRS)	848.8	33.77	Dipole	37.79	-5.00	0.6	32.29	38.5	Pass
GSM/TM2 (EGPRS)	824.2	28.40	Dipole	32.67	-4.90	0.6	27.05	38.5	Pass
GSM/TM2 (EGPRS)	836.6	28.45	Dipole	32.72	-5.02	0.6	27.12	38.5	Pass
GSM/TM2 (EGPRS)	848.8	28.50	Dipole	27.70	-5.00	0.6	27.10	38.5	Pass

Note:

a: For getting the ERP (Efficient Radiated Power) in substitution method, the following formula should be taken to calculate it,

ERP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBd]

b: SGP=Signal Generator Level

c: RBW > emission bandwidth, VBW > 3 x RBW.



Report No.: SZEM1609008050RG

Page: 5 of 107

Part 3 - RF Conducted Power of Transmitter for GSM1900

	RF Output Power(Conducted)								
TEGT CONDITIONS	Channel51	12(L)	Channel66	1(M)	Channel810(H)				
TEST CONDITIONS	1850.2MHz		1880.0 M	Hz	1909.8 MHz				
Tnom/ Vnom	Measured (dBm)	Limit (dBm)	Measured (dBm)	Limit (dBm)	Measured(dBm)	Limit (dBm)			
GSM/TM1 (GPRS)	29.34	33	29.41	33	29.49	33			
GSM/TM2 (EGPRS)	25.00	33	25.21	33	25.28	33			
GSM/TM1 (4slot GPRS)	27.42	33	27.46	33	27.48	33			

Part 4– Effective Isotropic Radiated Power of Transmitter (EIRP) for GSM1900

Test Mode	Freq. (MHz)	Meas. Level (dBm)	Substitution Antenna Type	SGP (dBm)	Substitution Gain(dBd)	Cable Loss (dB)	Substitution Level(EIRP) / dBm	Limit (dBm)	Result
GSM/TM1 (GPRS)	1850.2	30.69	Dipole	34.75	-4.90	0.6	29.25	33	Pass
GSM/TM1 (GPRS)	1880	30.76	Dipole	34.67	-5.02	0.6	29.05	33	Pass
GSM/TM1 (GPRS)	1909.8	30.84	Dipole	34.77	-5.00	0.6	29.17	33	Pass
GSM/TM2 (EGPRS)	1850.2	26.35	Dipole	30.52	-4.90	0.6	25.02	33	Pass
GSM/TM2 (EGPRS)	1880	26.56	Dipole	30.73	-5.02	0.6	25.11	33	Pass
GSM/TM2 (EGPRS)	1909.8	26.63	Dipole	30.73	-5.00	0.6	25.13	33	Pass

Note:

a: For getting the EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

EIRP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBd]

b: SGP=Signal Generator Level

c: RBW > emission bandwidth, VBW > 3 x RBW.



Report No.: SZEM1609008050RG

Page: 6 of 107

Part 5 – RF Conducted Power of Transmitter for WCDMA BAND 5

		RF Output Power(Conducted)								
TEST CONDITIONS	Channel 4132	(L)	Channel 4183	(M)	Channel 4233((H)				
TEST CONDITIONS	826.4MHz	MHz 836.6MHz			846.6MHz					
Tnom/ Vnom	Measured(dBm)	Limit (dBm)	Measured(dBm)	Limit (dBm)	Measured(dBm)	Limit (dBm)				
WCDMA	23.10	38.5	23.87	38.5	23.35	38.5				
HSDPA	22.32	38.5	23.08	38.5	22.49	38.5				
HSUPA	22.38	38.5	23.04	38.5	22.44	38.5				

Part 6- Effective Radiated Power of Transmitter (ERP) for WCDMA BAND 5

Test Mode	Freq. (MHz)	Meas. Level (dBm)	Substitution Antenna Type	SGP (dBm)	Substitution Gain(dBd)	Cable Loss (dB)	Substitution Level(ERP) / dBm	Limit (dBm)	Result
HSDPA	826.4	23.72	Dipole	27.95	-4.90	0.6	22.45	38.5	Pass
HSDPA	836.6	24.48	Dipole	28.63	-5.02	0.6	23.01	38.5	Pass
HSDPA	846.6	23.89	Dipole	28.12	-5.00	0.6	22.52	38.5	Pass
HSUPA	826.4	23.78	Dipole	27.94	-4.90	0.6	22.44	38.5	Pass
HSUPA	836.6	24.44	Dipole	28.60	-5.02	0.6	22.98	38.5	Pass
HSUPA	846.6	23.84	Dipole	27.70	-5.00	0.6	22.10	38.5	Pass

Note:

a: For getting the ERP (Efficient Radiated Power) in substitution method, the following formula should be taken to calculate it,

ERP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBd]

b: SGP=Signal Generator Level

c: RBW > emission bandwidth, VBW > 3 x RBW.



Report No.: SZEM1609008050RG

Page: 7 of 107

Part 7 – RF Conducted Power of Transmitter for WCDMA BAND 2

		RF Output Power(Conducted)								
TEST CONDITIONS	Channel 9262	(L)	Channel 9400 ((M)	Channel 9538(H)					
	1852.4MHz		1880.0MHz		1907.6MHz					
Tnom/ Vnom	Measured(dBm)	Limit (dBm)	Measured(dBm)	Limit (dBm)	Measured(dBm)	Limit (dBm)				
WCDMA	2315	33	22.74	33	23.96	33				
HSDPA	22.46	33	22.01	33	22.15	33				
HSUPA	22.44	33	22.04	33	22.27	33				

Part 8- Effective Radiated Power of Transmitter (ERP) for WCDMA BAND 2

Test Mode	Freq. (MHz)	Meas. Level (dBm)	Substitution Antenna Type	SGP (dBm)	Substitution Gain(dBd)	Cable Loss (dB)	Substitution Level(ERP) / dBm	Limit (dBm)	Result
HSDPA	1852.4	23.81	Dipole	27.87	-5.02	0.6	22.25	33	Pass
HSDPA	1880.0	23.36	Dipole	27.67	-5.02	0.6	22.05	33	Pass
HSDPA	1907.6	23.50	Dipole	27.74	-5.02	0.6	22.12	33	Pass
HSUPA	1852.4	23.79	Dipole	27.77	-5.00	0.6	22.17	33	Pass
HSUPA	1880.0	23.39	Dipole	27.84	-5.00	0.6	22.24	33	Pass
HSUPA	1907.6	23.62	Dipole	27.89	-5.00	0.6	22.29	33	Pass

Note:

a: For getting the EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

EIRP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBd]

b: SGP=Signal Generator Level

c: RBW > emission bandwidth, VBW > 3 x RBW.



Report No.: SZEM1609008050RG

Page: 8 of 107

2 Peak-to-Average Ratio

Part I - Test Results

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
		LCH	6.41	13	PASS
	TM1	MCH	6.46	13	PASS
GSM850		HCH	6.43	13	PASS
GSIVIOSU	TM2	LCH	9.25	13	PASS
		MCH	8.99	13	PASS
		HCH	5.88	13	PASS

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
		LCH	9.30	13	PASS
	TM1	MCH	9.07	13	PASS
GSM1900		HCH	9.36	13	PASS
G3W1900	TM2	LCH	9.57	13	PASS
		MCH	9.07	13	PASS
		HCH	9.10	13	PASS

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
WCDMA850	TM1	LCH	4.70	13	PASS
		MCH	4.14	13	PASS
		HCH	4.14	13	PASS

Test Band	Test Mode	Test Channel	Measured[dB]	Limit [dB]	Verdict
WCDMA1900		LCH	5.01	13	PASS
	TM1	MCH	4.03	13	PASS
		HCH	3.77	13	PASS



Report No.: SZEM1609008050RG

Page: 9 of 107

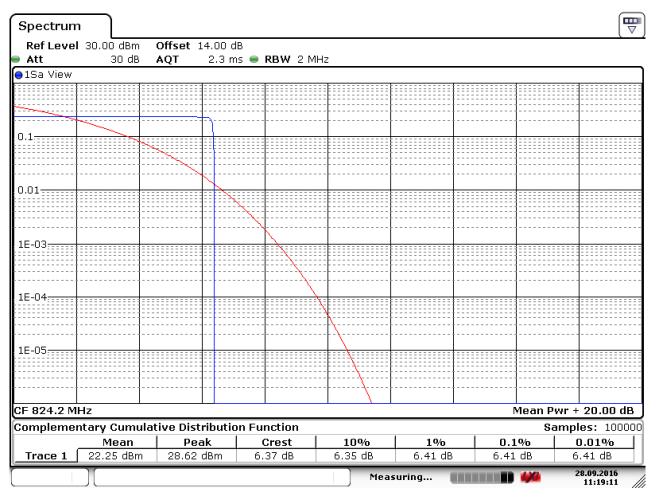
Part II - Test Plots

2.1 For GSM

2.1.1 Test Band = GSM850

2.1.1.1 Test Mode = GSM/TM1

2.1.1.1.1 Test Channel = LCH



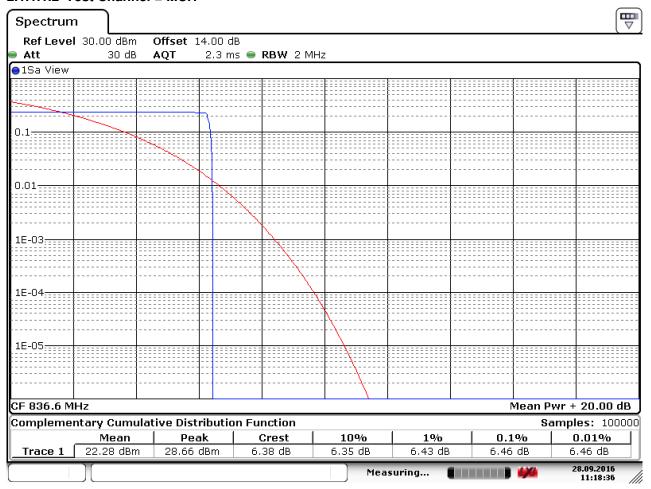
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Report No.: SZEM1609008050RG

Page: 10 of 107

2.1.1.1.2 Test Channel = MCH



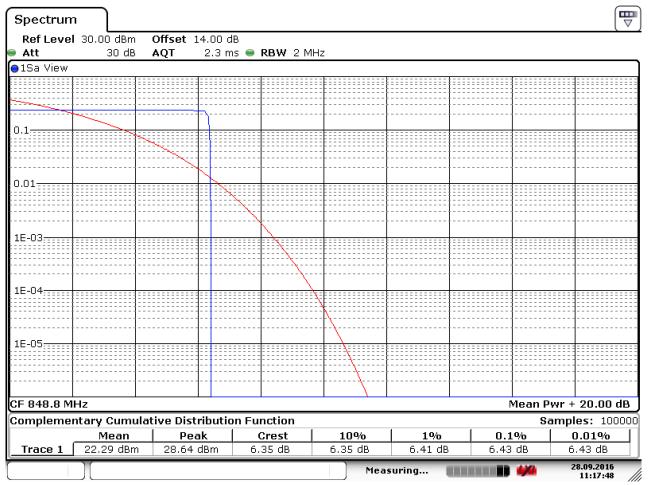
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Report No.: SZEM1609008050RG

Page: 11 of 107

2.1.1.1.3 Test Channel = HCH



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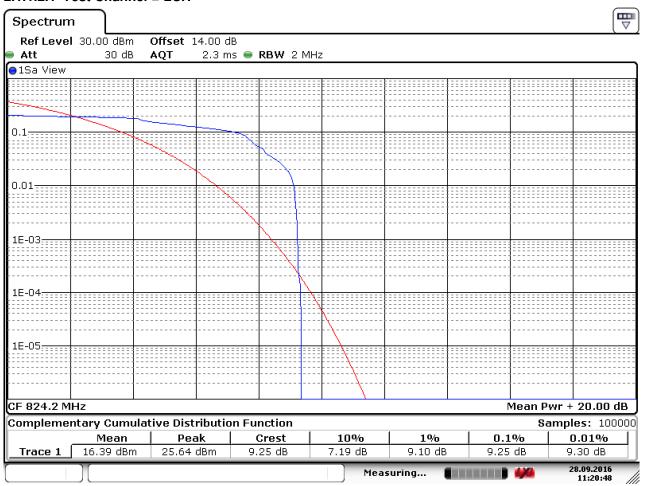


Report No.: SZEM1609008050RG

Page: 12 of 107

2.1.1.2 Test Mode = GSM/TM2

2.1.1.2.1 Test Channel = LCH



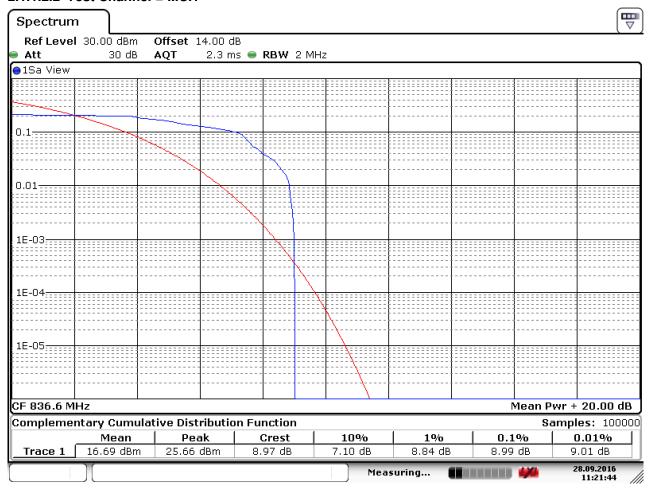
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Report No.: SZEM1609008050RG

Page: 13 of 107

2.1.1.2.2 Test Channel = MCH



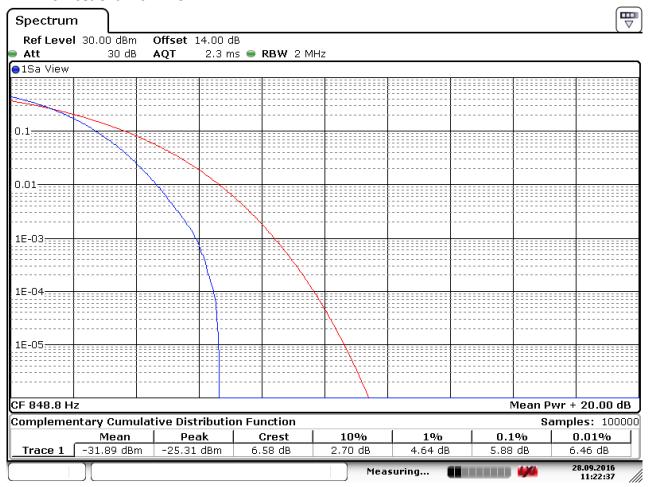
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Report No.: SZEM1609008050RG

Page: 14 of 107

2.1.1.2.3 Test Channel = HCH



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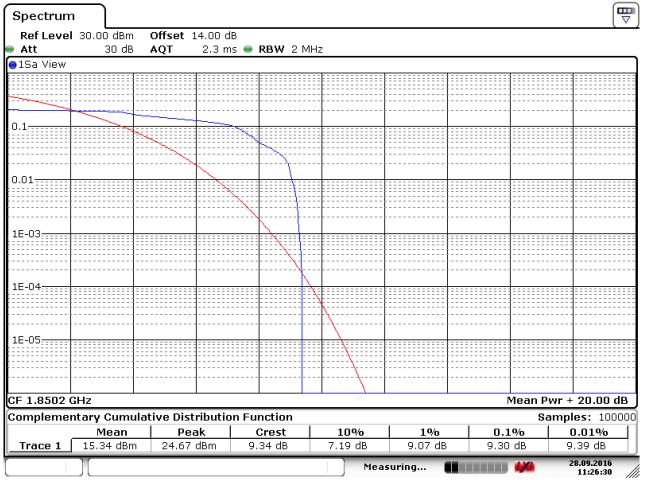
Report No.: SZEM1609008050RG

Page: 15 of 107

2.1.2 Test Band = GSM1900

2.1.2.1 Test Mode = GSM/TM1





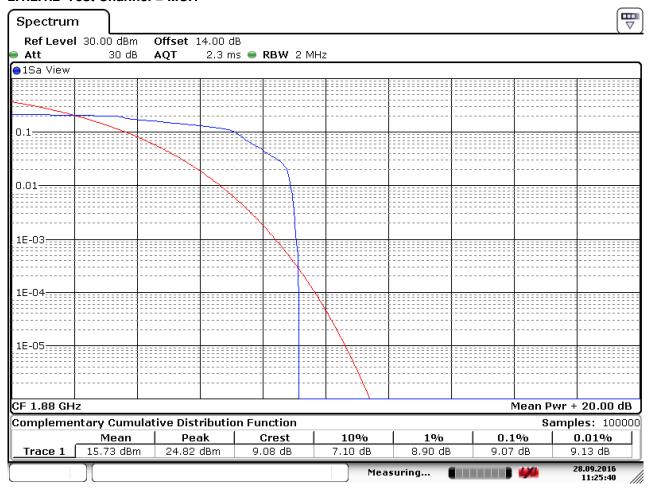
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Report No.: SZEM1609008050RG

Page: 16 of 107

2.1.2.1.2 Test Channel = MCH



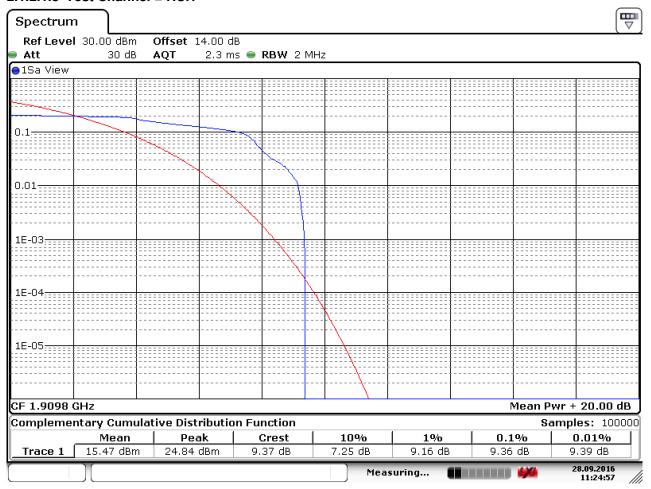
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Report No.: SZEM1609008050RG

Page: 17 of 107

2.1.2.1.3 Test Channel = HCH



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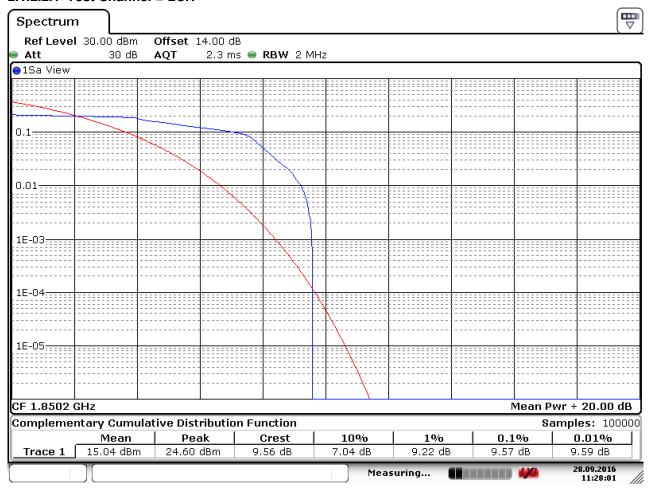


Report No.: SZEM1609008050RG

Page: 18 of 107

2.1.2.2 Test Mode = GSM/TM2

2.1.2.2.1 Test Channel = LCH



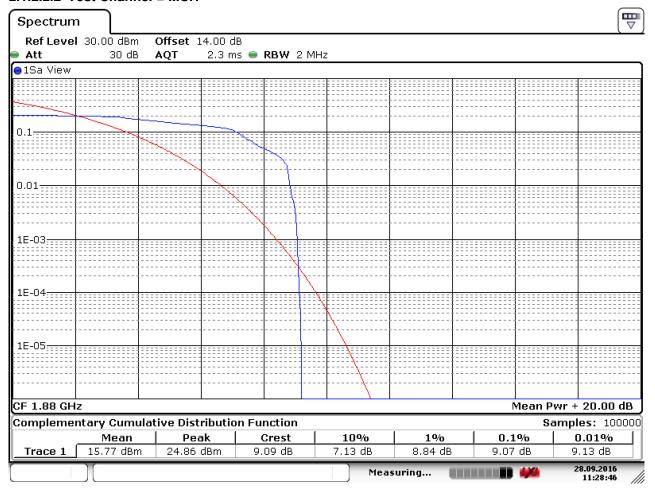
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Report No.: SZEM1609008050RG

Page: 19 of 107

2.1.2.2.2 Test Channel = MCH



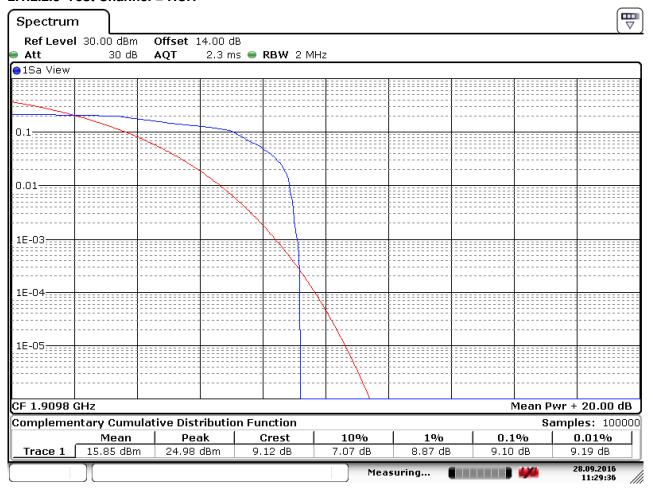
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Report No.: SZEM1609008050RG

Page: 20 of 107

2.1.2.2.3 Test Channel = HCH



Date: 28.SEP.2016 11:29:37



Report No.: SZEM1609008050RG

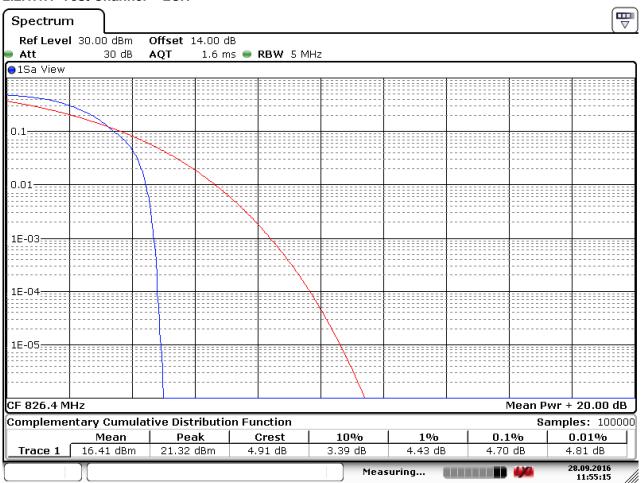
Page: 21 of 107

2.2 For WCDMA

2.2.1 Test Band = WCDMA850

2.2.1.1 Test Mode = UMTS/TM1

2.2.1.1.1 Test Channel = LCH



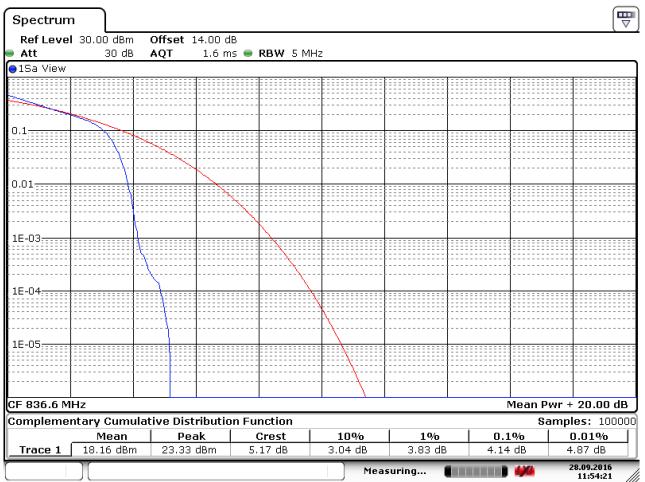
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Report No.: SZEM1609008050RG

Page: 22 of 107

2.2.1.1.2 Test Channel = MCH



Date: 28.SEP.2016 11:54:21



Report No.: SZEM1609008050RG

Page: 23 of 107

2.2.1.1.3 Test Channel = HCH



Date: 28.SEP.2016 11:53:30



Report No.: SZEM1609008050RG

Page: 24 of 107

2.2.2 Test Band = WCDMA1900

2.2.2.1 Test Mode = UMTS/TM1

2.2.2.1.1 Test Channel = LCH



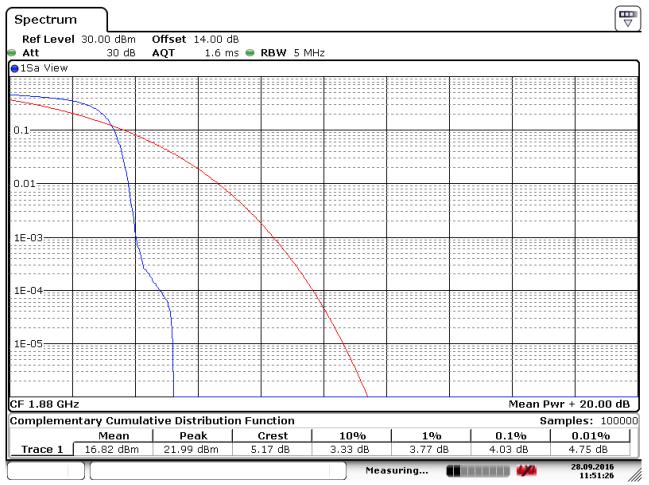
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Report No.: SZEM1609008050RG

Page: 25 of 107

2.2.2.1.2 Test Channel = MCH



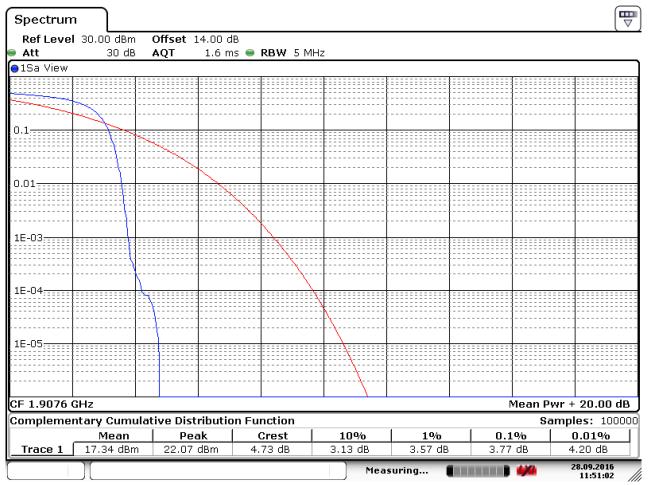
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Report No.: SZEM1609008050RG

Page: 26 of 107

2.2.2.1.3 Test Channel = HCH



Date: 28.SEP.2016 11:51:03



Report No.: SZEM1609008050RG

Page: 27 of 107

3 Modulation Characteristics

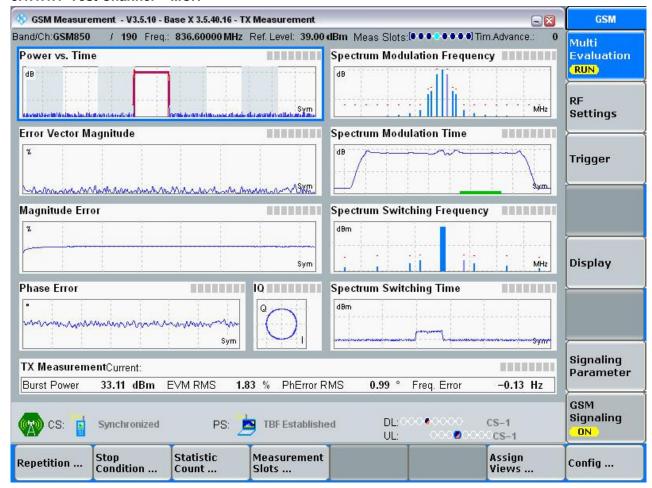
Part I - Test Plots

3.1 For GSM

3.1.1 Test Band = GSM850

3.1.1.1 Test Mode = GSM/TM1

3.1.1.1.1 Test Channel = MCH



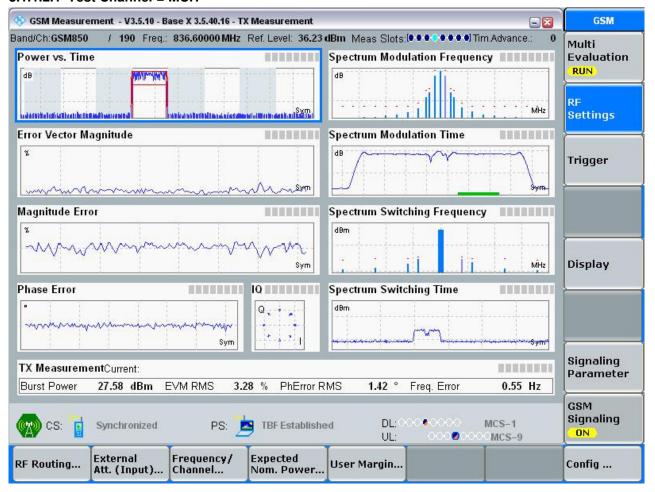


Report No.: SZEM1609008050RG

Page: 28 of 107

3.1.1.2 Test Mode = GSM/TM2

3.1.1.2.1 Test Channel = MCH





Report No.: SZEM1609008050RG

Page: 29 of 107

3.1.2 Test Band = GSM1900

3.1.2.1 Test Mode = GSM/TM1

3.1.2.1.1 Test Channel = MCH



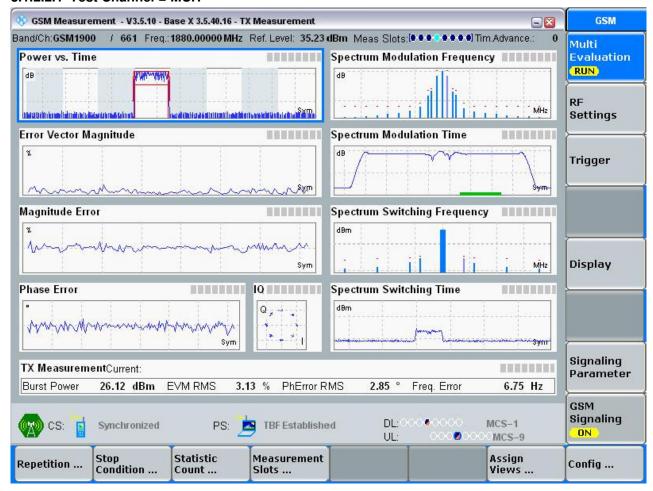


Report No.: SZEM1609008050RG

Page: 30 of 107

3.1.2.2 Test Mode = GSM/TM2

3.1.2.2.1 Test Channel = MCH





Report No.: SZEM1609008050RG

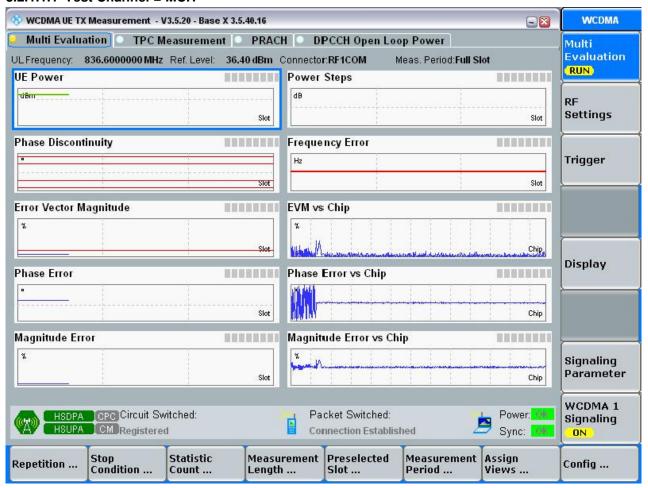
Page: 31 of 107

3.2 For WCDMA

3.2.1 Test Band = WCDMA 850

3.2.1.1 Test Mode = UMTS/TM1

3.2.1.1.1 Test Channel = MCH





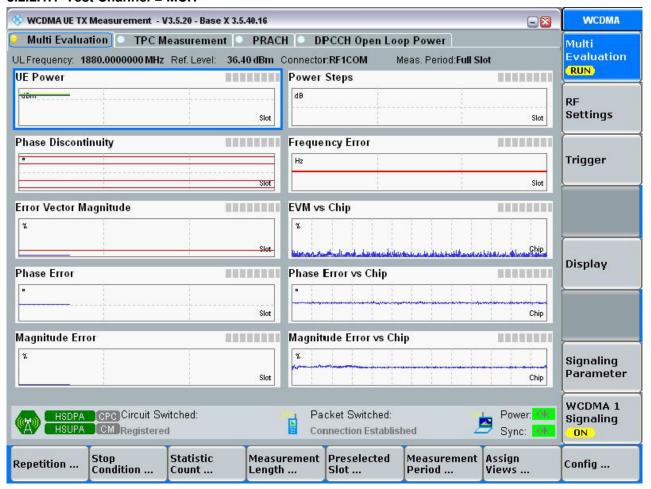
Report No.: SZEM1609008050RG

Page: 32 of 107

3.2.2 Test Band = WCDMA 1900

3.2.2.1 Test Mode = UMTS/TM1

3.2.2.1.1 Test Channel = MCH





Report No.: SZEM1609008050RG

Page: 33 of 107

4 Bandwidth

Part I - Test Results

Test Band	Test Mode	Test Channel	Occupied Bandwidth [kHz]	Emission Bandwidth [kHz]	Verdict
GSM850	TM1	MCH	241.7	315.5	PASS
	TM1&4slots	MCH	240.2	315.5	PASS
	TM2	MCH	243.1	315.5	PASS

Test Band	Test Mode	Test Channel	Occupied Bandwidth [kHz]	Emission Bandwidth [kHz]	Verdict
GSM1900	TM1	MCH	243.1	315.5	PASS
	TM1&4slots	MCH	243.1	318.4	PASS
	TM2	MCH	244.6	315.5	PASS

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA 850	TM1&WCDA	MCH	4.07	4.66	PASS
	TM1&HSDPA	MCH	4.07	4.65	PASS
	TM1&HSUPA	MCH	4.07	4.65	PASS

Test Band	Test Mode	Test Channel	Occupied Bandwidth [MHz]	Emission Bandwidth [MHz]	Verdict
WCDMA 1900	TM1&WCDA	MCH	4.07	4.65	PASS
	TM1&HSDPA	MCH	4.08	4.65	PASS
	TM1&HSUPA	MCH	4.08	4.65	PASS



Report No.: SZEM1609008050RG

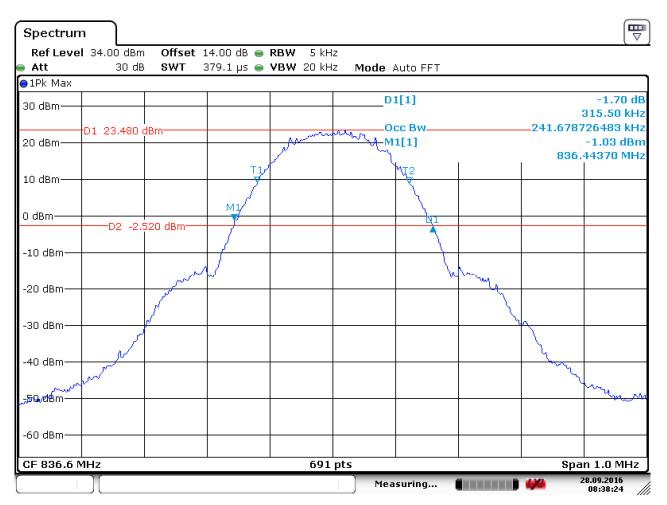
Page: 34 of 107

4.1 For GSM

4.1.1 Test Band = GSM850

4.1.1.1 Test Mode = GSM/TM1

4.1.1.1.1 Test Channel = MCH



Date: 28.SEP.2016 08:38:24

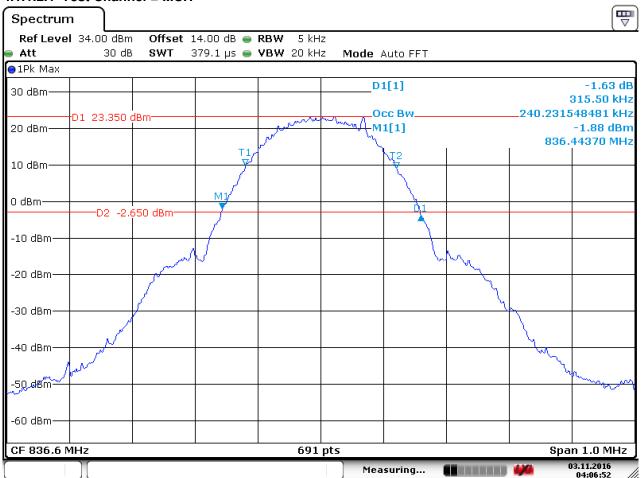


Report No.: SZEM1609008050RG

Page: 35 of 107

4.1.1.2 Test Mode = GSM/TM1&4slots

4.1.1.2.1 Test Channel = MCH



Date: 3.NOV.2016 04:06:52

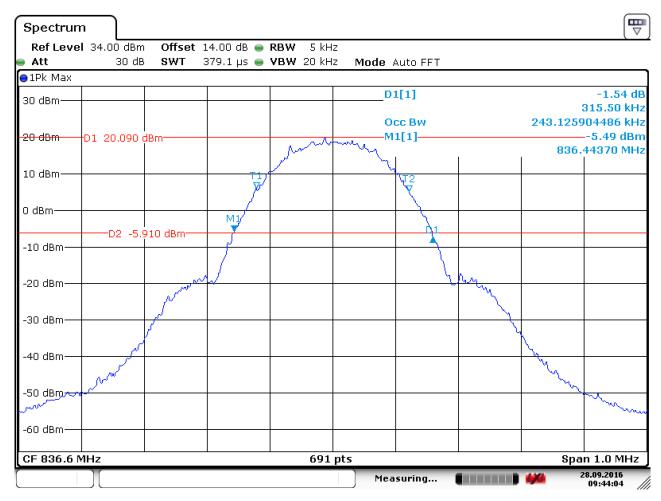


Report No.: SZEM1609008050RG

Page: 36 of 107

4.1.1.3 Test Mode = GSM/TM2

4.1.1.3.1 Test Channel = MCH



Date: 28.SEP.2016 09:44:05



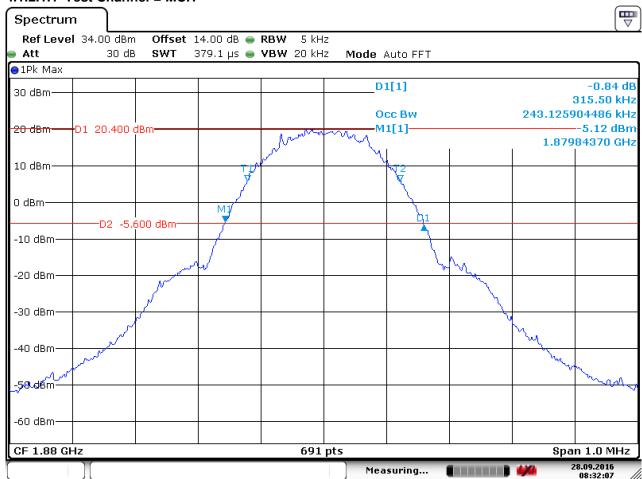
Report No.: SZEM1609008050RG

Page: 37 of 107

4.1.2 Test Band = GSM1900

4.1.2.1 Test Mode = GSM/TM1

4.1.2.1.1 Test Channel = MCH



Date: 28.SEP.2016 08:32:08

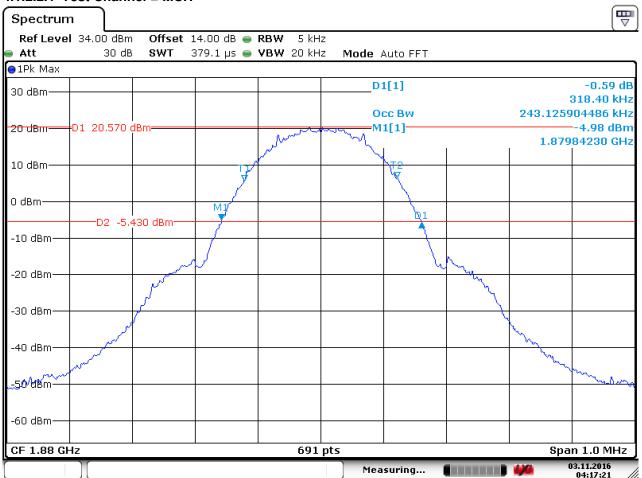


Report No.: SZEM1609008050RG

Page: 38 of 107

4.1.2.2 Test Mode = GSM/TM1&4slots

4.1.2.2.1 Test Channel = MCH



Date: 3.NOV.2016 04:17:21

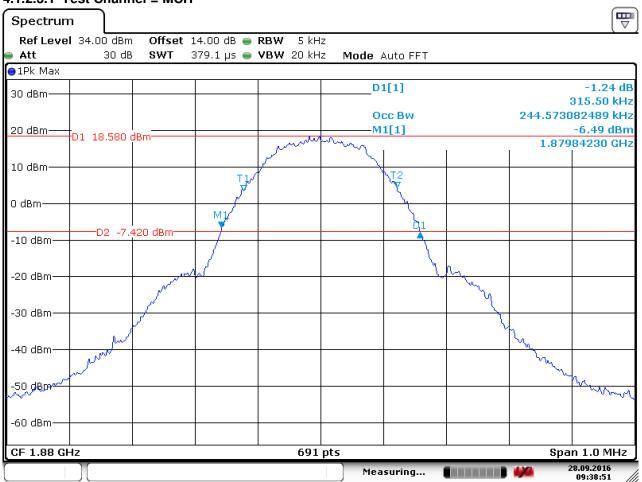


Report No.: SZEM1609008050RG

Page: 39 of 107

4.1.2.3 Test Mode = GSM/TM2

4.1.2.3.1 Test Channel = MCH



Date: 28.SEP.2016 09:38:51



Report No.: SZEM1609008050RG

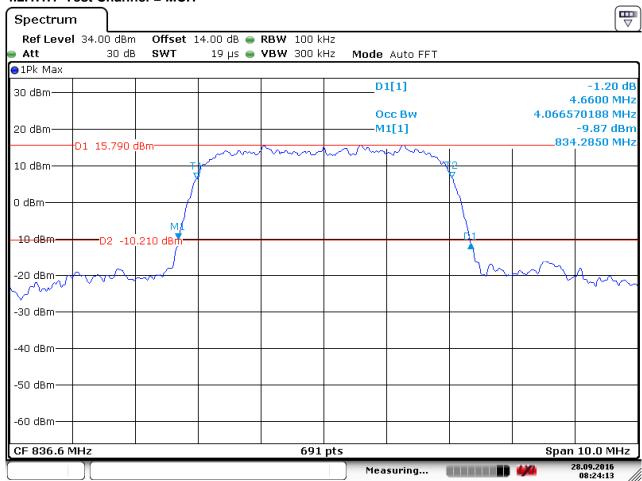
Page: 40 of 107

4.2 For WCDMA

4.2.1 Test Band = WCDMA850

4.2.1.1 Test Mode = UMTS/TM1&WCDMA

4.2.1.1.1 Test Channel = MCH



Date: 28.SEP.2016 08:24:14

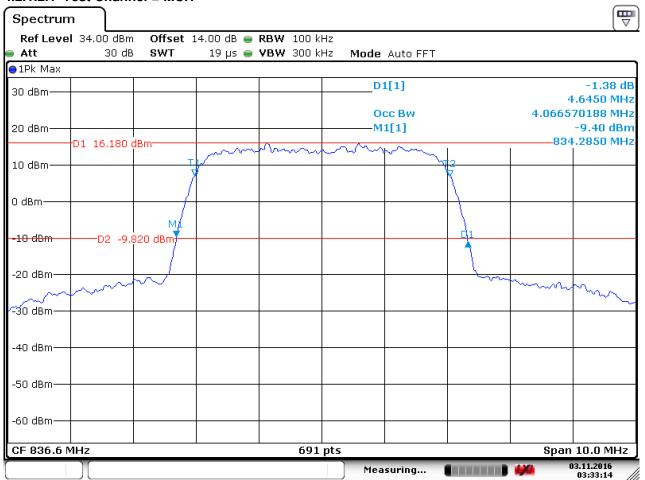


Report No.: SZEM1609008050RG

Page: 41 of 107

4.2.1.2 Test Mode = UMTS/ TM1&HSDPA

4.2.1.2.1 Test Channel = MCH



Date: 3.NOV.2016 03:33:14

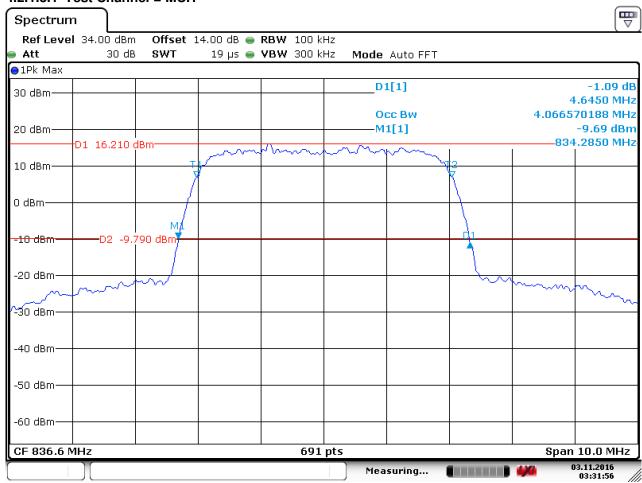


Report No.: SZEM1609008050RG

Page: 42 of 107

4.2.1.3 Test Mode = UMTS/ TM1&HSUPA

4.2.1.3.1 Test Channel = MCH



Date: 3.NOV.2016 03:31:57



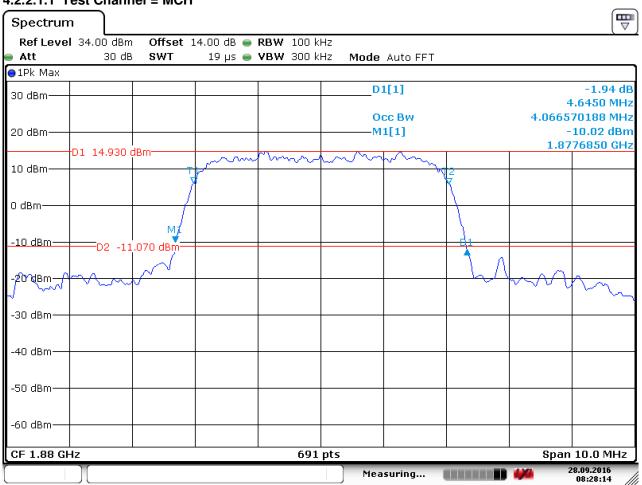
Report No.: SZEM1609008050RG

Page: 43 of 107

4.2.2 Test Band = WCDMA1900

4.2.2.1 Test Mode = UMTS/TM1&WCDMA

4.2.2.1.1 Test Channel = MCH



Date: 28.SEP.2016 08:28:14

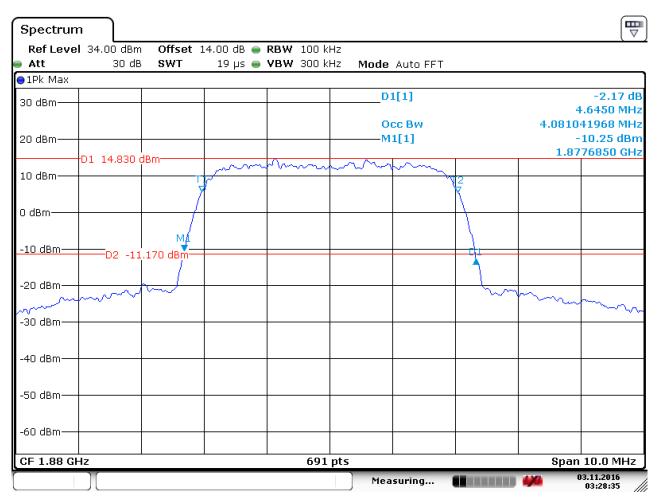


Report No.: SZEM1609008050RG

Page: 44 of 107

4.2.2.2 Test Mode = UMTS/ TM1&HSDPA

4.2.2.2.1 Test Channel = MCH



Date: 3.NOV.2016 03:28:36

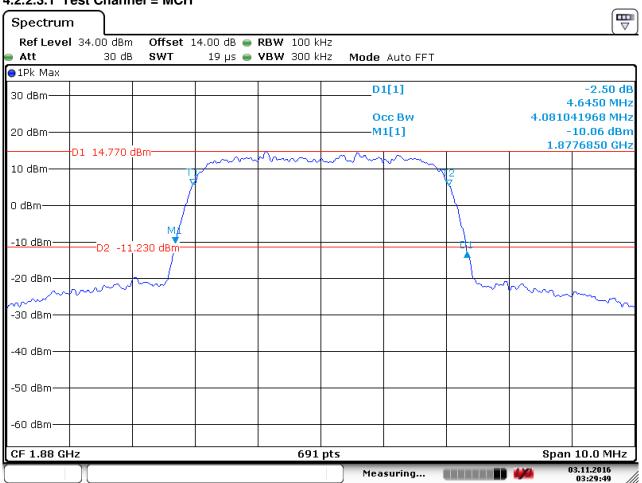


Report No.: SZEM1609008050RG

Page: 45 of 107

4.2.2.3 Test Mode = UMTS/ TM1&HSUPA

4.2.2.3.1 Test Channel = MCH



Date: 3.NOV.2016 03:29:50



Report No.: SZEM1609008050RG

Page: 46 of 107

5 Band Edges Compliance

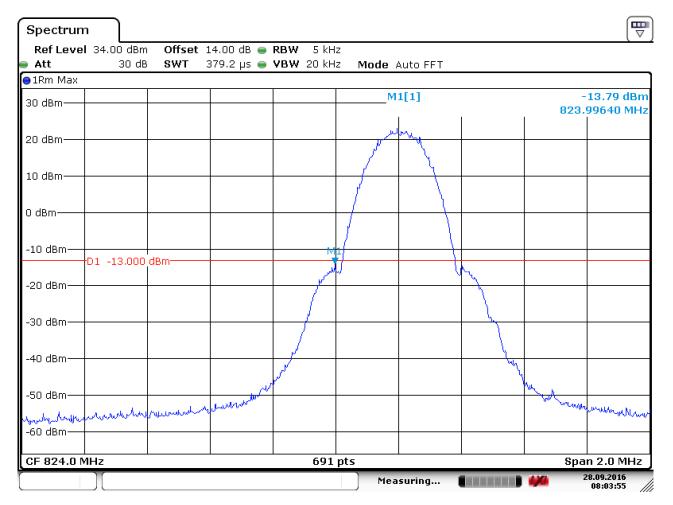
Part I - Test Plots

5.1 For GSM

5.1.1 Test Band = GSM850

5.1.1.1 Test Mode = GSM/TM1

5.1.1.1.1 Test Channel = LCH



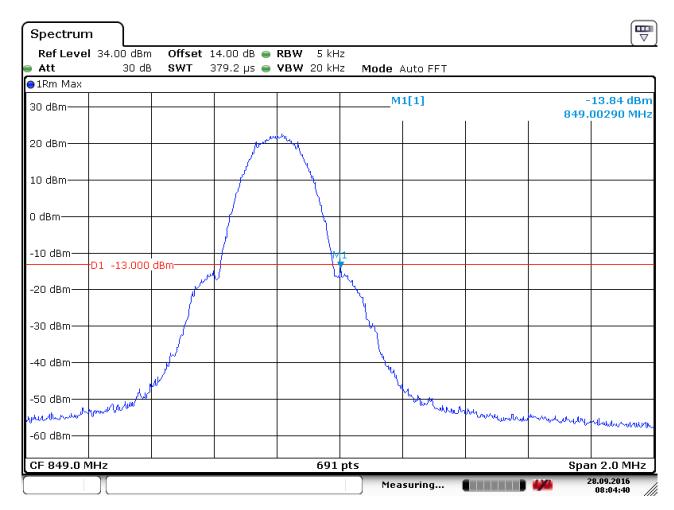
Date: 28.SEP.2016 08:03:56



Report No.: SZEM1609008050RG

Page: 47 of 107

5.1.1.1.2 Test Channel = HCH



Date: 28.SEP.2016 08:04:41

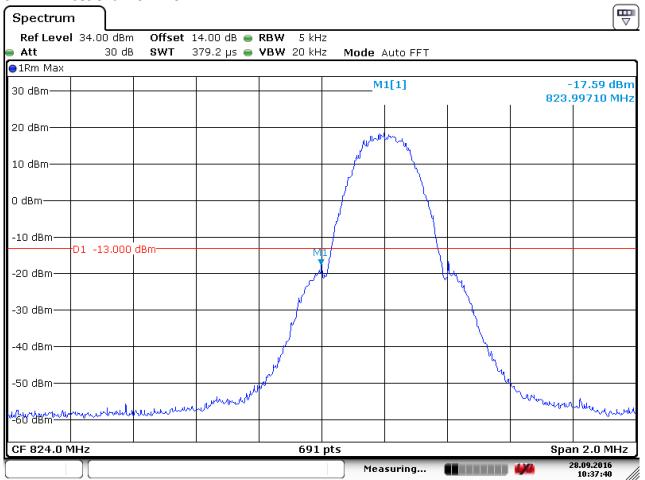


Report No.: SZEM1609008050RG

Page: 48 of 107

5.1.1.2 Test Mode = GSM/TM2

5.1.1.2.1 Test Channel = LCH



Date: 28.SEP.2016 10:37:41

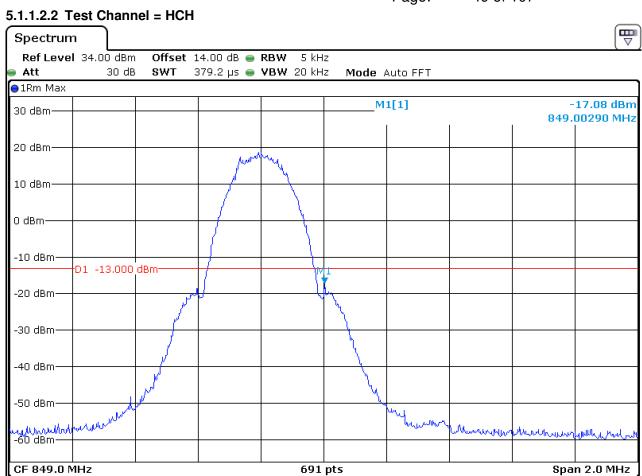


Report No.: SZEM1609008050RG

28.09.2016

10:38:50

Page: 49 of 107



Measuring...

Date: 28.SEP.2016 10:38:50



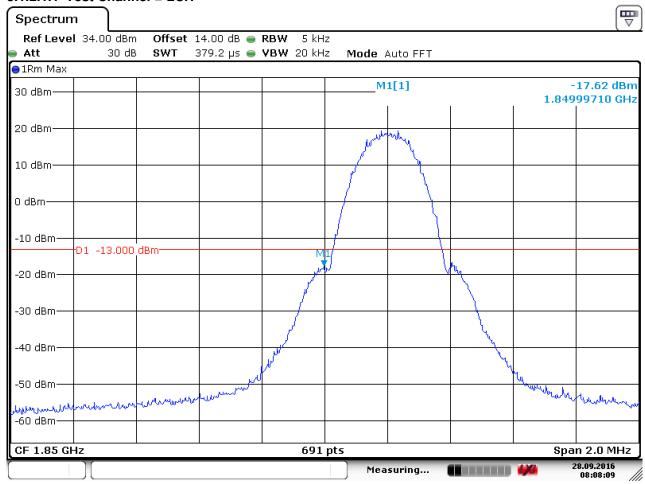
Report No.: SZEM1609008050RG

Page: 50 of 107

5.1.2 Test Band = GSM1900

5.1.2.1 Test Mode = GSM/TM1

5.1.2.1.1 Test Channel = LCH



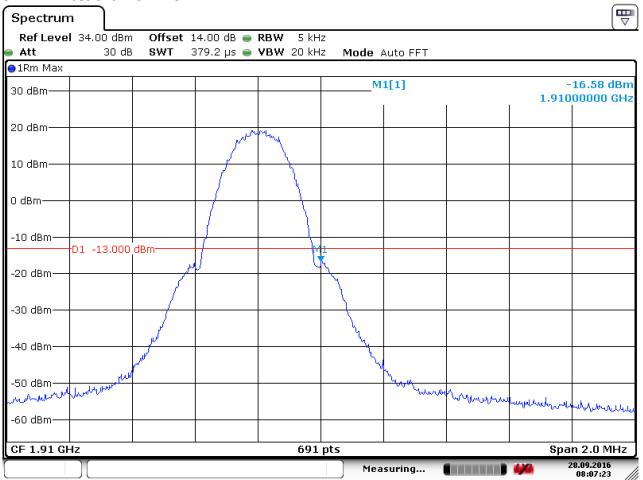
Date: 28.SEP.2016 08:08:09



Report No.: SZEM1609008050RG

Page: 51 of 107

5.1.2.1.2 Test Channel = HCH



Date: 28.SEP.2016 08:07:23

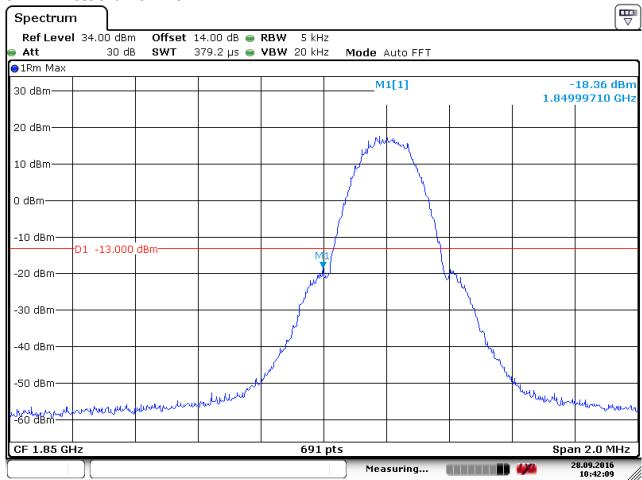


Report No.: SZEM1609008050RG

Page: 52 of 107

5.1.2.2 Test Mode = GSM/TM2

5.1.2.2.1 Test Channel = LCH



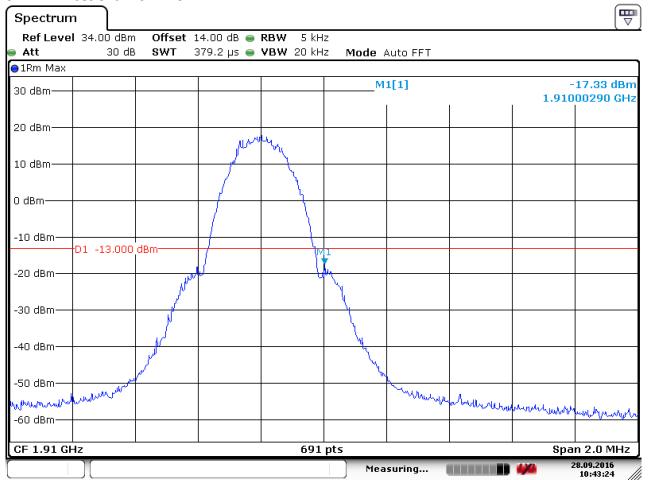
Date: 28.SEP.2016 10:42:10



Report No.: SZEM1609008050RG

Page: 53 of 107

5.1.2.2.2 Test Channel = HCH



Date: 28.SEP.2016 10:43:25



Report No.: SZEM1609008050RG

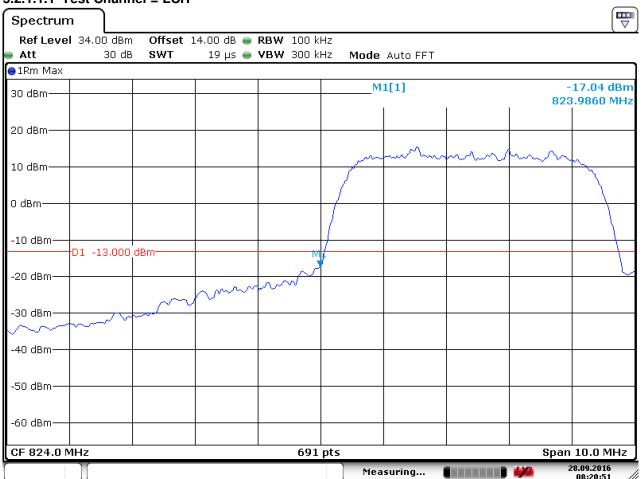
Page: 54 of 107

5.2 For WCDMA

5.2.1 Test Band= WCDMA 850

5.2.1.1 Test Mode = UMTS/TM1

5.2.1.1.1 Test Channel = LCH



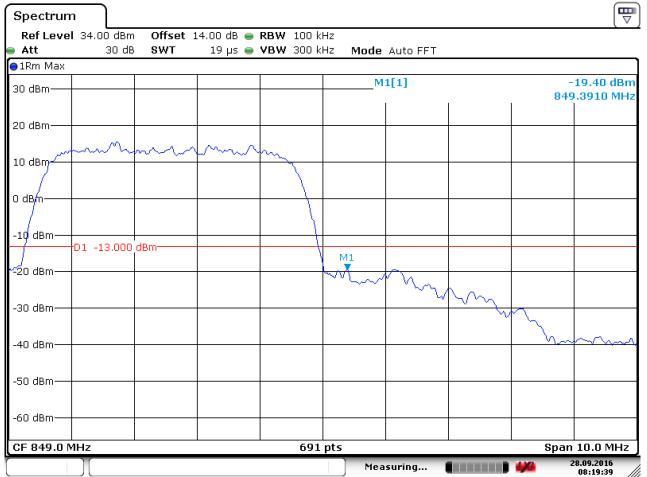
Date: 28.SEP.2016 08:20:52



Report No.: SZEM1609008050RG

Page: 55 of 107

5.2.1.1.2 Test Channel = HCH



Date: 28.SEP.2016 08:19:40



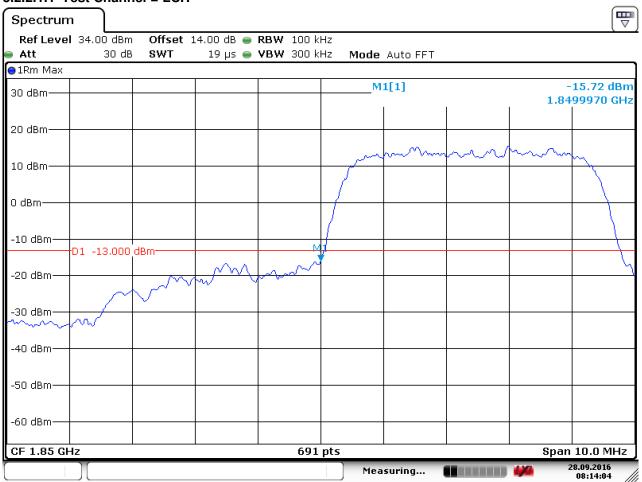
Report No.: SZEM1609008050RG

Page: 56 of 107

5.2.2 Test Band= WCDMA 1900

5.2.2.1 Test Mode = UMTS/TM1

5.2.2.1.1 Test Channel = LCH



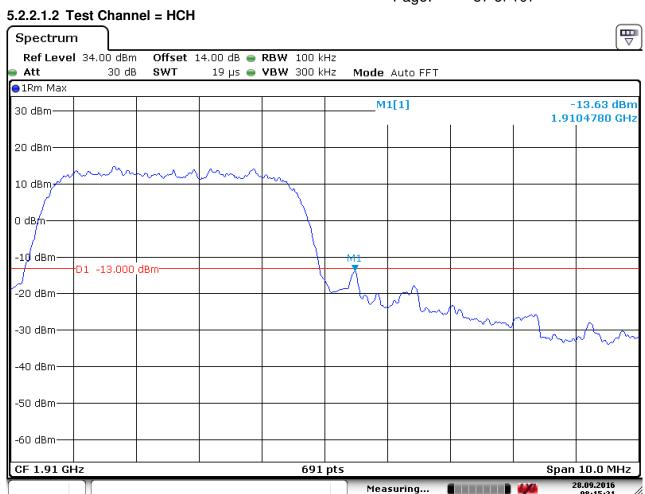
Date: 28.SEP.2016 08:14:04



Report No.: SZEM1609008050RG

08:15:21

Page: 57 of 107



Date: 28.SEP.2016 08:15:21



Report No.: SZEM1609008050RG

Page: 58 of 107

6 Spurious Emission at Antenna Terminal

NOTE: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of < RBW/2 so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = k * (Span / RBW)" with k = 4 * (Span / RBW) with k = 4 * (Span / RBW) with k = 4 * (Span / RBW).

Part I - Test Plots

6.1 For GSM

6.1.1 Test Band = GSM1900

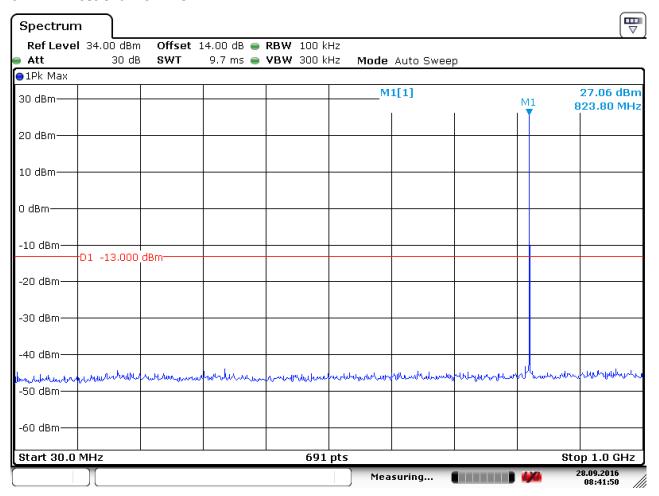
6.1.1.1 Test Mode = UMTS/TM1



Report No.: SZEM1609008050RG

Page: 59 of 107

6.1.1.1.1 Test Channel = LCH

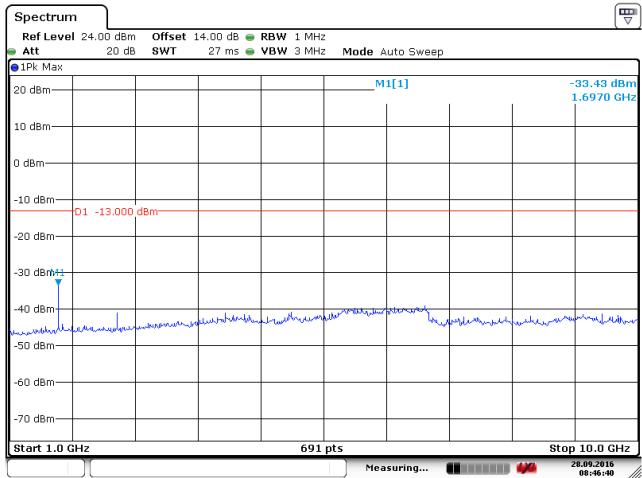


Date: 28.SEP.2016 08:41:51



Report No.: SZEM1609008050RG

Page: 60 of 107



Date: 28.SEP.2016 08:46:40

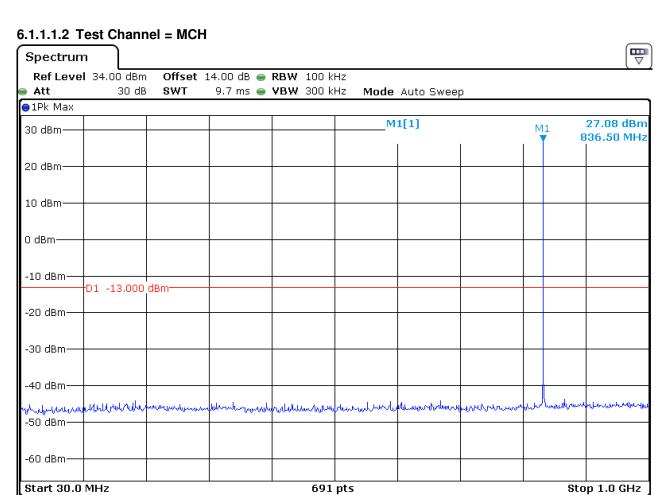


Report No.: SZEM1609008050RG

28.09.2016

08:43:56

Page: 61 of 107



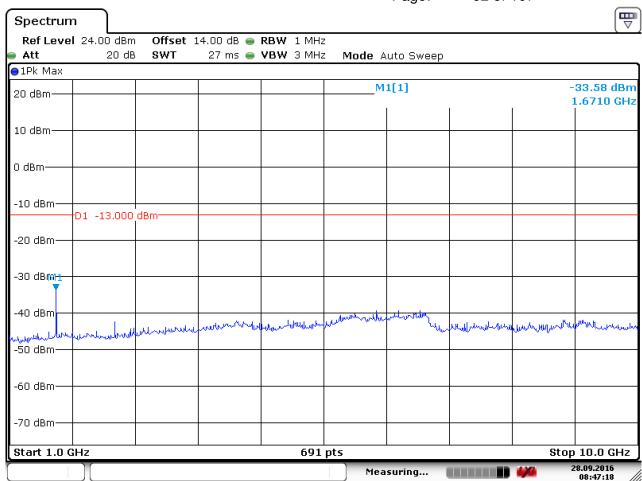
Measuring...

Date: 28.SEP.2016 08:43:57



Report No.: SZEM1609008050RG

Page: 62 of 107

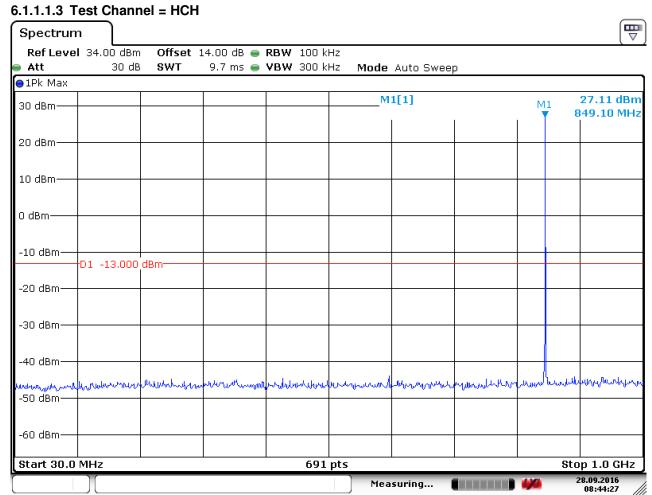


Date: 28.SEP.2016 08:47:18



Report No.: SZEM1609008050RG

Page: 63 of 107

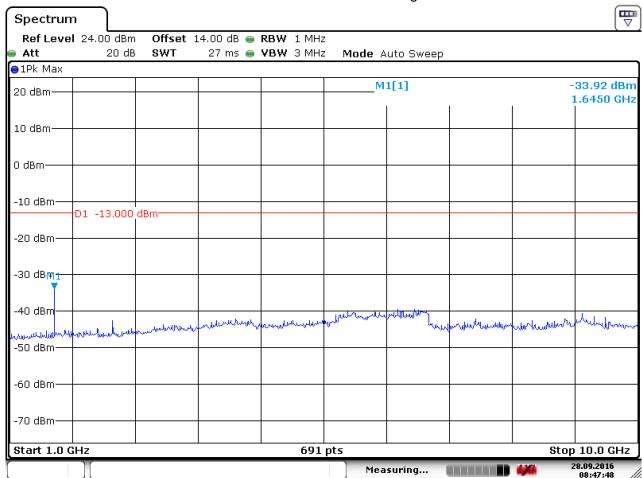


Date: 28.SEP.2016 08:44:27



Report No.: SZEM1609008050RG

Page: 64 of 107



Date: 28.SEP.2016 08:47:48



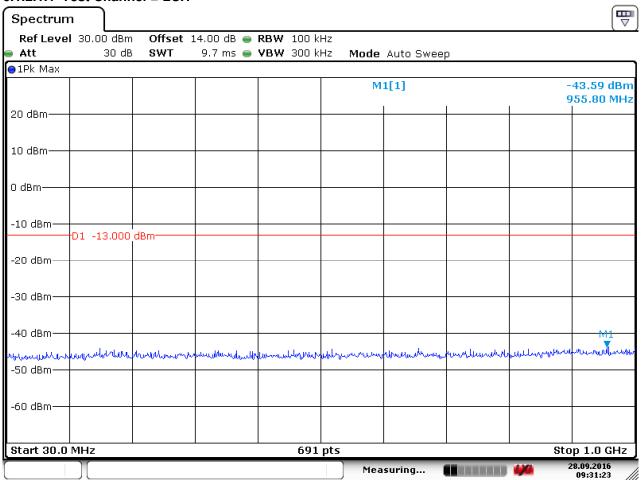
Report No.: SZEM1609008050RG

Page: 65 of 107

6.1.2 Test Band = GSM1900

6.1.2.1 Test Mode = UMTS/TM1

6.1.2.1.1 Test Channel = LCH

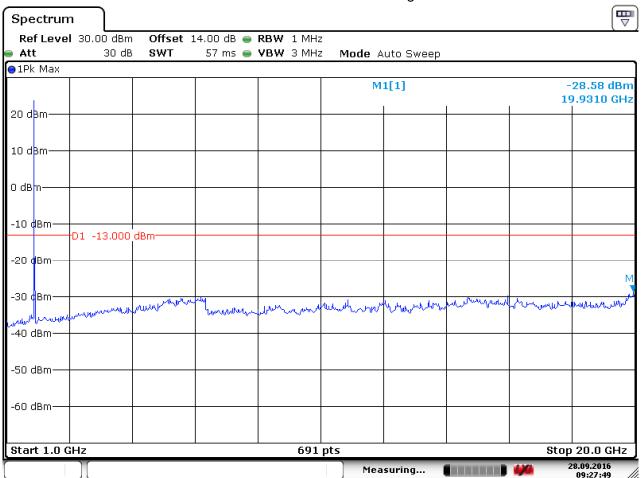


Date: 28.SEP.2016 09:31:23



Report No.: SZEM1609008050RG

Page: 66 of 107



Date: 28.SEP.2016 09:27:49

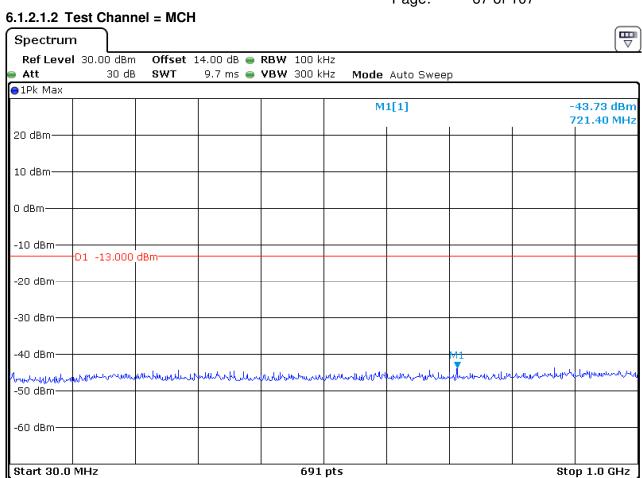


Report No.: SZEM1609008050RG

28.09.2016

09:30:35

Page: 67 of 107



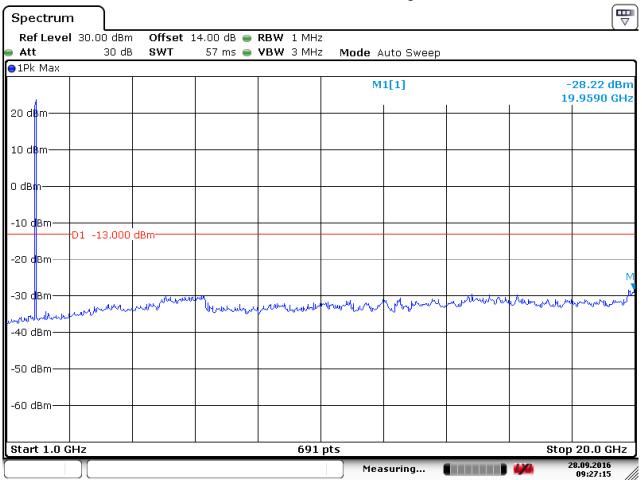
Measuring...

Date: 28.SEP.2016 09:30:35



Report No.: SZEM1609008050RG

Page: 68 of 107



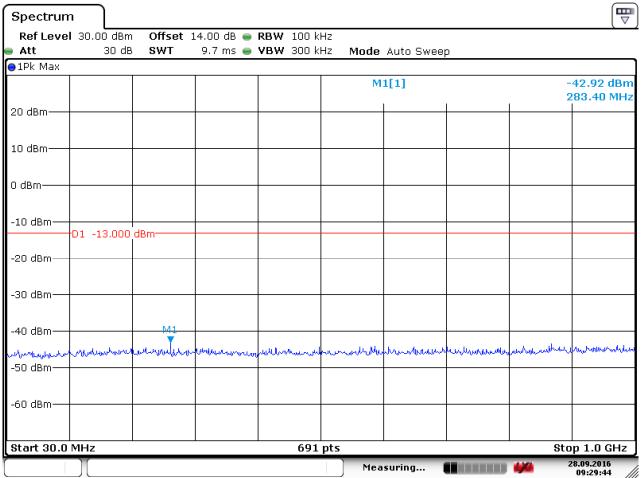
Date: 28.SEP.2016 09:27:16



Report No.: SZEM1609008050RG

Page: 69 of 107

6.1.2.1.3 Test Channel = HCH

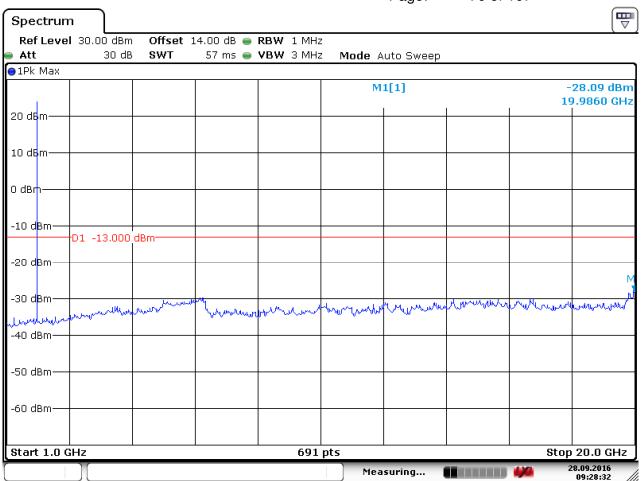


Date: 28.SEP.2016 09:29:45



Report No.: SZEM1609008050RG

Page: 70 of 107



Date: 28.SEP.2016 09:28:33



Report No.: SZEM1609008050RG

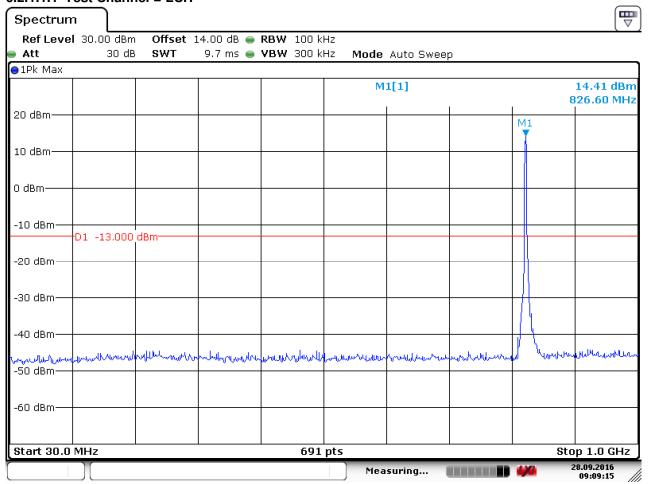
Page: 71 of 107

6.2 For WCDMA

6.2.1 Test Band = WCDMA850

6.2.1.1 Test Mode = UMTS/TM1

6.2.1.1.1 Test Channel = LCH



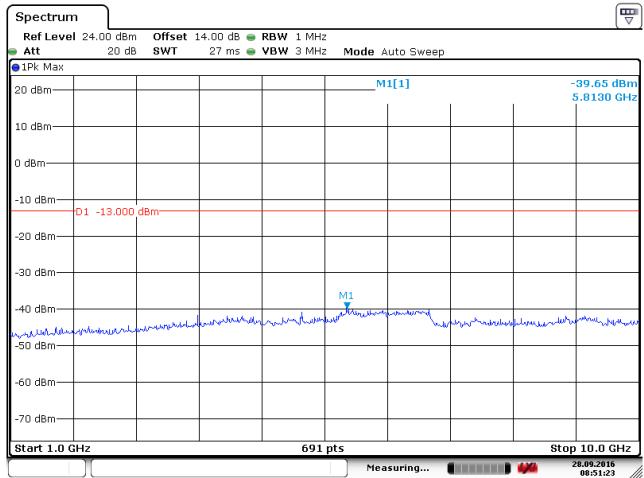
Date: 28.SEP.2016 09:09:16

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Report No.: SZEM1609008050RG

Page: 72 of 107



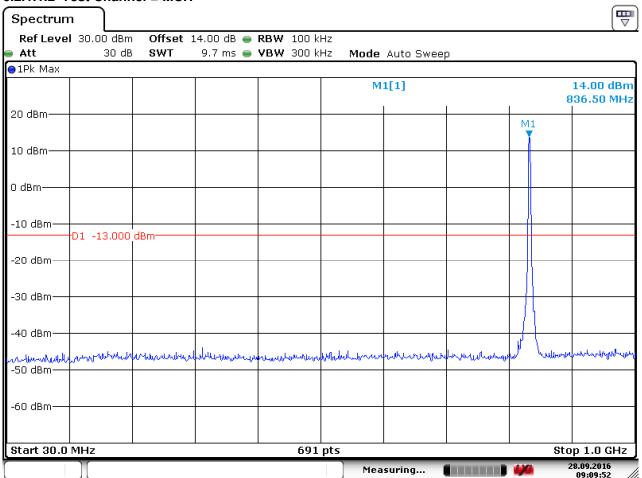
Date: 28.SEP.2016 08:51:24



Report No.: SZEM1609008050RG

Page: 73 of 107

6.2.1.1.2 Test Channel = MCH

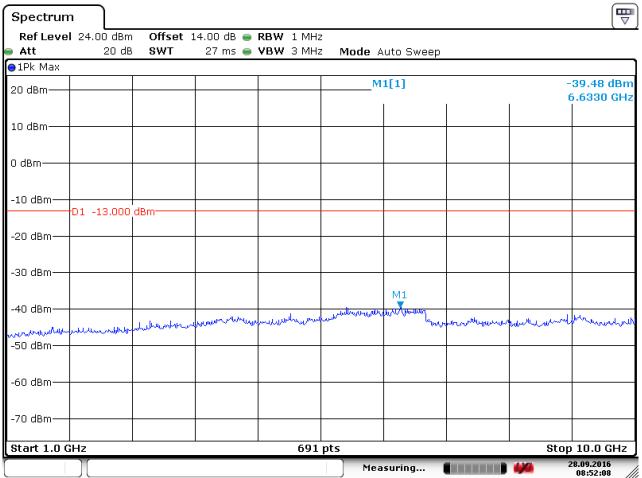


Date: 28.SEP.2016 09:09:52



Report No.: SZEM1609008050RG

Page: 74 of 107



Date: 28.SEP.2016 08:52:09

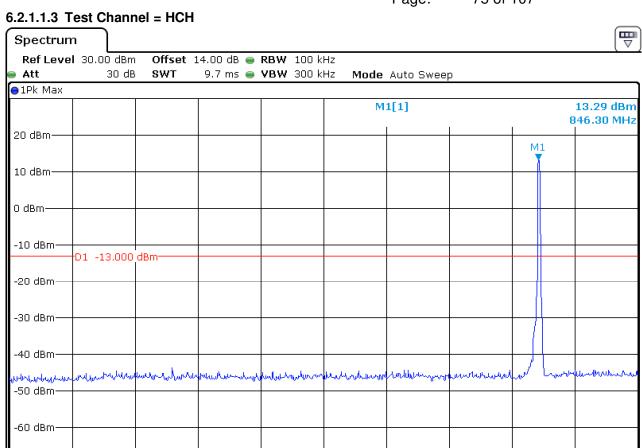


Report No.: SZEM1609008050RG

Stop 1.0 GHz 28.09.2016

09:10:39

Page: 75 of 107



691 pts

Measuring...

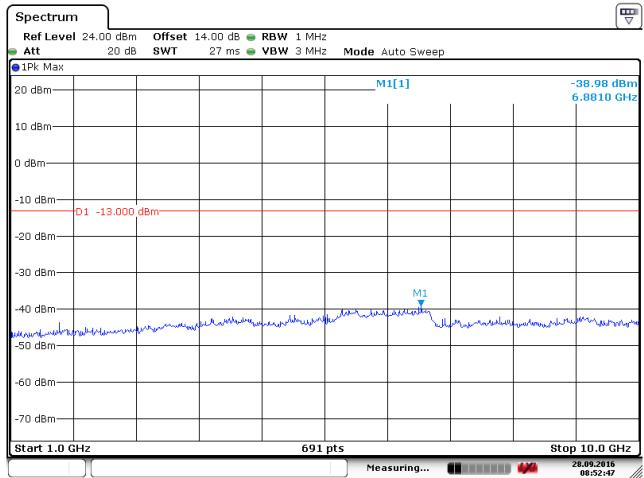
Date: 28.SEP.2016 09:10:39

Start 30.0 MHz



Report No.: SZEM1609008050RG

Page: 76 of 107



Date: 28.SEP.2016 08:52:48



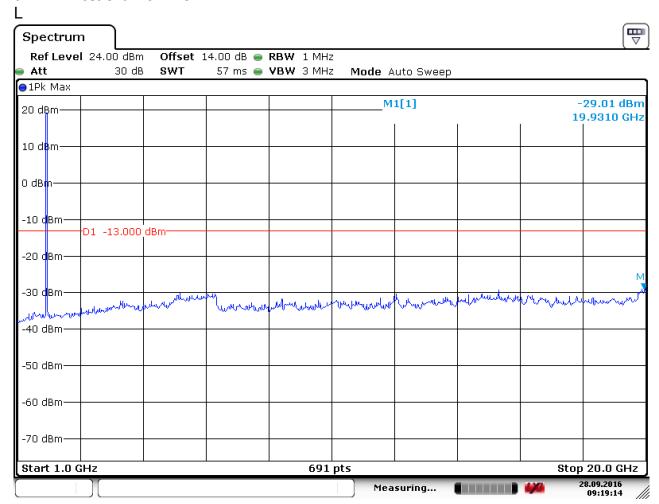
Report No.: SZEM1609008050RG

Page: 77 of 107

6.2.2 Test Band = WCDMA1900

6.2.2.1 Test Mode = UMTS/TM1

6.2.2.1.1 Test Channel = LCH

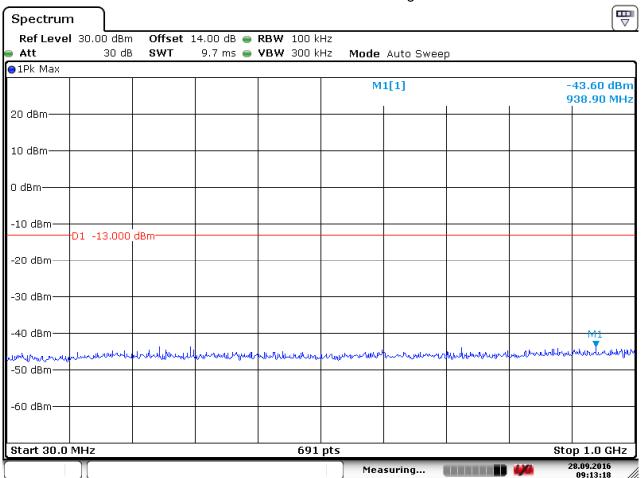


Date: 28.SEP.2016 09:19:15



Report No.: SZEM1609008050RG

Page: 78 of 107

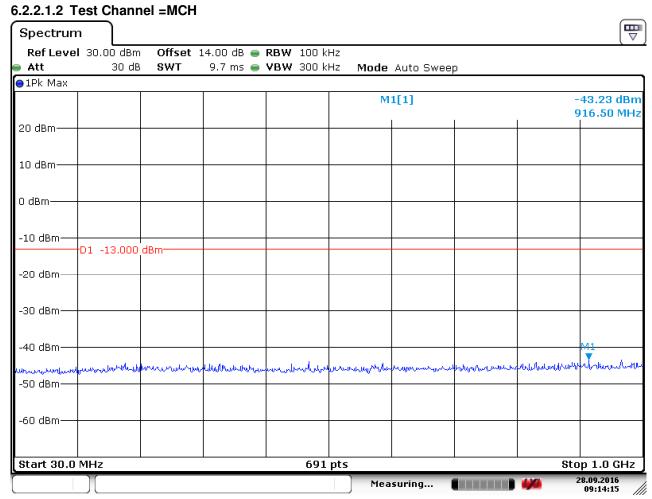


Date: 28.SEP.2016 09:13:19



Report No.: SZEM1609008050RG

Page: 79 of 107

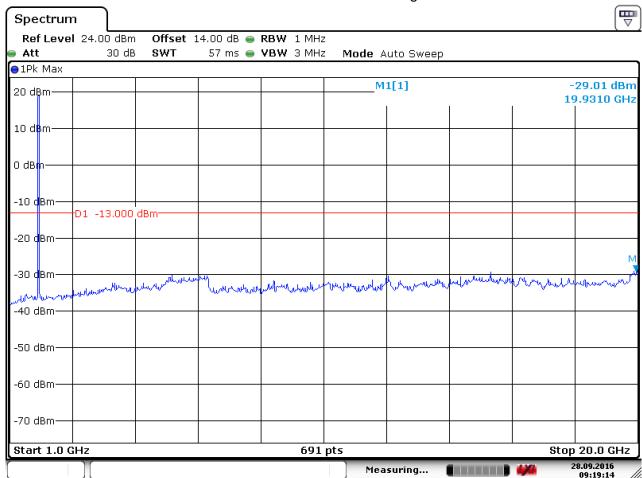


Date: 28.SEP.2016 09:14:16



Report No.: SZEM1609008050RG

Page: 80 of 107

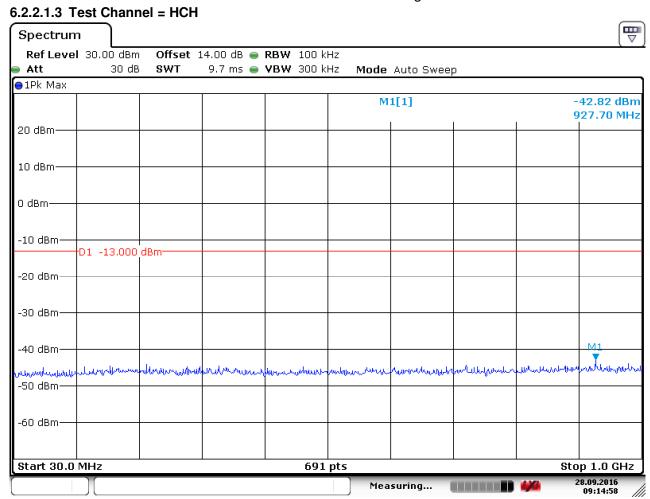


Date: 28.SEP.2016 09:19:15



Report No.: SZEM1609008050RG

Page: 81 of 107

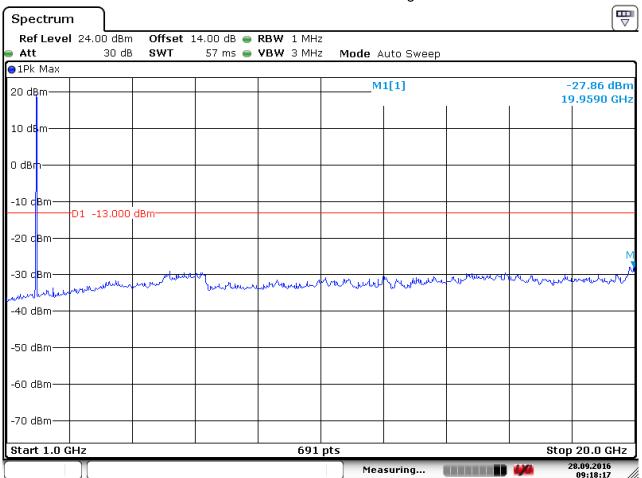


Date: 28.SEP.2016 09:14:58



Report No.: SZEM1609008050RG

Page: 82 of 107



Date: 28.SEP.2016 09:18:17



Report No.: SZEM1609008050RG

Page: 83 of 107

7 Field Strength of Spurious Radiation

Part I - Test Plots

7.1 For GSM

7.1.1 Test Band = GSM850

7.1.1.1 Test Mode = GSM/TM1

7.1.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
76.250	-65.05	-13.00	-52.05	Vertical
128.500	-76.08	-13.00	-63.08	Vertical
225.600	-81.52	-13.00	-68.52	Vertical
357.200	-77.28	-13.00	-64.28	Vertical
529.690	-61.07	-13.00	-48.07	Vertical
713.875	-58.43	-13.00	-45.43	Vertical
1185.833	-51.02	-13.00	-38.02	Vertical
1648.125	-43.17	-13.00	-30.17	Vertical
2462.313	-38.39	-13.00	-25.39	Vertical
3740.250	-48.84	-13.00	-35.84	Vertical
7091.500	-48.98	-13.00	-35.98	Vertical
8941.000	-47.67	-13.00	-34.67	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
117.550	-80.24	-13.00	-67.24	Horizontal
176.800	-72.59	-13.00	-59.59	Horizontal
312.500	-71.32	-13.00	-58.32	Horizontal
475.950	-77.55	-13.00	-64.55	Horizontal
658.800	-61.90	-13.00	-48.90	Horizontal
746.225	-58.09	-13.00	-45.09	Horizontal
1648.875	-44.46	-13.00	-31.46	Horizontal
2472.750	-41.84	-13.00	-28.84	Horizontal
3297.375	-49.35	-13.00	-36.35	Horizontal
5223.375	-50.60	-13.00	-37.60	Horizontal
6618.000	-48.36	-13.00	-35.36	Horizontal
8275.500	-47.18	-13.00	-34.18	Horizontal



Report No.: SZEM1609008050RG

Page: 84 of 107

Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
71.050	-74.78	-13.00	-61.78	Vertical
125.250	-81.23	-13.00	-68.23	Vertical
264.350	-83.08	-13.00	-70.08	Vertical
375.250	-76.24	-13.00	-63.24	Vertical
548.305	-61.46	-13.00	-48.46	Vertical
726.370	-58.15	-13.00	-45.15	Vertical
1672.312	-47.15	-13.00	-34.15	Vertical
2510.437	-41.73	-13.00	-28.73	Vertical
3740.250	-49.19	-13.00	-36.19	Vertical
5840.250	-49.42	-13.00	-36.42	Vertical
7028.000	-49.25	-13.00	-36.25	Vertical
8979.000	-48.04	-13.00	-35.04	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
86.950	-83.20	-13.00	-70.20	Horizontal
137.500	-83.49	-13.00	-70.49	Horizontal
265.100	-81.24	-13.00	-68.24	Horizontal
356.200	-78.25	-13.00	-65.25	Horizontal
532.050	-61.32	-13.00	-48.32	Horizontal
659.495	-50.16	-13.00	-37.16	Horizontal
1760.437	-47.77	-13.00	-34.77	Horizontal
2510.437	-41.16	-13.00	-28.16	Horizontal
3346.500	-47.19	-13.00	-34.19	Horizontal
5632.875	-50.10	-13.00	-37.10	Horizontal
7721.500	-49.18	-13.00	-36.18	Horizontal
9024.500	-47.84	-13.00	-34.84	Horizontal



Report No.: SZEM1609008050RG

Page: 85 of 107

7.1.1.1.2 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
76.900	-83.04	-13.00	-70.04	Vertical
142.750	-82.86	-13.00	-69.86	Vertical
277.950	-82.41	-13.00	-69.41	Vertical
374.300	-77.85	-13.00	-64.85	Vertical
547.485	-63.83	-13.00	-50.83	Vertical
719.785	-59.38	-13.00	-46.38	Vertical
1697.437	-45.85	-13.00	-32.85	Vertical
2545.500	-41.96	-13.00	-28.96	Vertical
3716.625	-52.28	-13.00	-39.28	Vertical
5228.625	-51.22	-13.00	-38.22	Vertical
7138.000	-48.18	-13.00	-35.18	Vertical
9222.000	-48.24	-13.00	-35.24	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
69.950	-83.25	-13.00	-70.25	Horizontal
142.200	-85.29	-13.00	-72.29	Horizontal
218.450	-83.18	-13.00	-70.18	Horizontal
346.500	-79.04	-13.00	-66.04	Horizontal
515.860	-61.35	-13.00	-48.35	Horizontal
851.370	-58.07	-13.00	-45.07	Horizontal
1697.062	-46.95	-13.00	-33.95	Horizontal
2323.125	-43.77	-13.00	-30.77	Horizontal
3619.625	-52.48	-13.00	-39.48	Horizontal
5524.500	-51.17	-13.00	-38.17	Horizontal
6538.000	-48.53	-13.00	-35.53	Horizontal
8961.500	-47.27	-13.00	-34.27	Horizontal



Report No.: SZEM1609008050RG

Page: 86 of 107

7.1.2 Test Band = EGPRS850

7.1.2.1 Test Mode = GSM/TM2

7.1.2.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
72.100	-73.92	-13.00	-60.92	Vertical
123.500	-80.12	-13.00	-67.12	Vertical
248.700	-82.94	-13.00	-69.94	Vertical
354.650	-77.15	-13.00	-64.15	Vertical
535.125	-61.35	-13.00	-48.35	Vertical
714.785	-55.61	-13.00	-42.61	Vertical
1650.000	-46.72	-13.00	-33.72	Vertical
2453.313	-38.55	-13.00	-25.55	Vertical
3740.250	-48.84	-13.00	-35.84	Vertical
7774.500	-48.58	-13.00	-35.58	Vertical
6853.500	-49.73	-13.00	-36.73	Vertical
9111.000	-47.79	-13.00	-34.79	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
79.300	-85.57	-13.00	-72.57	Horizontal
143.350	-83.80	-13.00	-70.80	Horizontal
213.150	-82.61	-13.00	-69.61	Horizontal
358.650	-80.25	-13.00	-67.25	Horizontal
576.870	-61.36	-13.00	-48.36	Horizontal
726.250	-56.29	-13.00	-43.29	Horizontal
1437.500	-51.53	-13.00	-38.53	Horizontal
2644.875	-43.26	-13.00	-30.26	Horizontal
3297.125	-49.25	-13.00	-36.25	Horizontal
5560.500	-50.91	-13.00	-37.91	Horizontal
7418.500	-48.42	-13.00	-35.42	Horizontal
9532.000	-47.37	-13.00	-34.37	Horizontal



Report No.: SZEM1609008050RG

Page: 87 of 107

7.1.2.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
72.650	-76.58	-13.00	-63.58	Vertical
126100	-82.10	-13.00	-69.10	Vertical
176.270	-85.28	-13.00	-72.28	Vertical
265.800	-80.18	-13.00	-67.18	Vertical
418.300	-78.24	-13.00	-65.24	Vertical
601.250	-63.81	-13.00	-50.81	Vertical
1111.500	-58.71	-13.00	-45.71	Vertical
1740.750	-47.79	-13.00	-34.79	Vertical
3810.250	-39.16	-13.00	-26.16	Vertical
4149.375	-51.50	-13.00	-38.50	Vertical
7494.500	-49.57	-13.00	-36.57	Vertical
8857.500	-48.23	-13.00	-35.23	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
86.800	-86.36	-13.00	-73.36	Horizontal
162.050	-86.05	-13.00	-73.05	Horizontal
284.650	-76.30	-13.00	-63.30	Horizontal
326.700	-78.83	-13.00	-65.83	Horizontal
578.875	-61.78	-13.00	-48.78	Horizontal
660.345	-58.21	-13.00	-45.21	Horizontal
1672.875	-48.45	-13.00	-35.45	Horizontal
2735.812	-41.77	-13.00	-28.77	Horizontal
4397.375	-49.35	-13.00	-36.35	Horizontal
6045.500	-49.85	-13.00	-36.85	Horizontal
7784.500	-48.28	-13.00	-35.28	Horizontal
9459.500	-48.04	-13.00	-35.04	Horizontal



Report No.: SZEM1609008050RG

Page: 88 of 107

7.1.2.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
65.450	-76.54	-13.00	-63.54	Vertical
123.500	-82.61	-13.00	-69.61	Vertical
246.380	-82.33	-13.00	-69.33	Vertical
318.200	-78.75	-13.00	-65.75	Vertical
556.150	-61.42	-13.00	-48.42	Vertical
747.695	-58.23	-13.00	-45.23	Vertical
1502.250	-51.40	-13.00	-38.40	Vertical
2309.062	-43.74	-13.00	-30.74	Vertical
4532.250	-51.94	-13.00	-38.94	Vertical
5576.750	-52.34	-13.00	-39.34	Vertical
7623.500	-48.85	-13.00	-35.85	Vertical
9212.500	-47.06	-13.00	-34.06	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
84.700	-85.24	-13.00	-72.24	Horizontal
158.2500	-86.15	-13.00	-73.15	Horizontal
264.350	-81.65	-13.00	-68.65	Horizontal
414.300	-78.75	-13.00	-65.75	Horizontal
528.100	-64.20	-13.00	-51.20	Horizontal
704.5000	-58.08	-13.00	-45.08	Horizontal
1480.833	-50.56	-13.00	-37.56	Horizontal
2323.125	-43.77	-13.00	-30.77	Horizontal
4992.375	-51.18	-13.00	-38.18	Horizontal
5234.000	-50.18	-13.00	-37.18	Horizontal
6975.000	-48.58	-13.00	-35.58	Horizontal
9732.2500	-48.53	-13.00	-35.53	Horizontal



Report No.: SZEM1609008050RG

Page: 89 of 107

7.1.3 Test Band = GSM1900

7.1.3.1 Test Mode = GSM/TM1

7.1.3.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
76.250	-68.32	-13.00	-55.32	Vertical
163.650	-67.50	-13.00	-54.50	Vertical
319.500	-74.07	-13.00	-61.07	Vertical
480.050	-72.14	-13.00	-59.14	Vertical
827.500	-54.70	-13.00	-41.70	Vertical
1166.980	-50.74	-13.00	-37.74	Vertical
2544.880	-51.60	-13.00	-38.60	Vertical
3700.500	-42.56	-13.00	-29.56	Vertical
5707.500	-51.21	-13.00	-38.21	Vertical
6284.000	-48.66	-13.00	-35.66	Vertical
8040.000	-48.79	-13.00	-35.79	Vertical
9645.000	-47.08	-13.00	-34.08	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
62.375	-69.54	-13.00	-56.54	Horizontal
154.150	-71.25	-13.00	-58.25	Horizontal
325.400	-78.44	-13.00	-65.44	Horizontal
460.000	-69.07	-13.00	-56.07	Horizontal
875.833	-53.38	-13.00	-40.38	Horizontal
1165.040	-52.81	-13.00	-39.81	Horizontal
2410.500	-51.87	-13.00	-38.87	Horizontal
3700.500	-40.67	-13.00	-27.67	Horizontal
4345.875	-50.54	-13.00	-37.54	Horizontal
5694.000	-50.86	-13.00	-37.86	Horizontal
7767.000	-47.88	-13.00	-34.88	Horizontal
8971.000	-48.34	-13.00	-35.34	Horizontal



Report No.: SZEM1609008050RG

Page: 90 of 107

7.1.3.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
74.800	-67.85	-13.00	-54.85	Vertical
156.650	-70.64	-13.00	-57.64	Vertical
211.350	-77.10	-13.00	-64.10	Vertical
346.500	-75.76	-13.00	-62.76	Vertical
874.200	-53.40	-13.00	-40.40	Vertical
1197.620	-51.21	-13.00	-38.21	Vertical
2427.820	-51.62	-13.00	-38.62	Vertical
3759.750	-43.18	-13.00	-30.18	Vertical
4368.875	-51.86	-13.00	-38.86	Vertical
5874.750	-50.05	-13.00	-37.05	Vertical
7988.000	-48.33	-13.00	-35.33	Vertical
9104.000	-48.01	-13.00	-35.01	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
64.750	-68.20	-13.00	-55.20	Horizontal
157.150	-70.33	-13.00	-57.33	Horizontal
278.150	-78.84	-13.00	-65.84	Horizontal
392.500	-76.31	-13.00	-63.31	Horizontal
686.667	-56.75	-13.00	-43.75	Horizontal
1273.520	-51.82	-13.00	-38.82	Horizontal
2578.520	-52.14	-13.00	-39.14	Horizontal
3760.125	-43.37	-13.00	-30.37	Horizontal
4922.000	-50.35	-13.00	-37.35	Horizontal
6220.000	-49.46	-13.00	-36.46	Horizontal
8041.000	-48.63	-13.00	-35.63	Horizontal
9071.000	-48.55	-13.00	-35.55	Horizontal



Report No.: SZEM1609008050RG

Page: 91 of 107

7.1.3.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
77.480	-69.80	-13.00	-56.80	Vertical
222.900	-76.42	-13.00	-63.42	Vertical
335.350	-75.44	-13.00	-62.44	Vertical
487.500	-75.27	-13.00	-62.27	Vertical
823.167	-54.52	-13.00	-41.52	Vertical
1192.250	-51.36	-13.00	-38.36	Vertical
2445.940	-52.73	-13.00	-39.73	Vertical
3819.750	-42.94	-13.00	-29.94	Vertical
4264.875	-50.51	-13.00	-37.51	Vertical
6181.000	-49.35	-13.00	-36.35	Vertical
8115.000	-47.88	-13.00	-34.88	Vertical
9087.000	-47.97	-13.00	-34.97	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
60.250	-68.27	-13.00	-55.27	Horizontal
127.250	-73.55	-13.00	-60.55	Horizontal
228.800	-78.44	-13.00	-65.44	Horizontal
469.700	-76.32	-13.00	-63.32	Horizontal
733.167	-56.53	-13.00	-43.53	Horizontal
1156.160	-54.51	-13.00	-41.51	Horizontal
2535.940	-53.41	-13.00	-40.41	Horizontal
3819.000	-43.33	-13.00	-30.33	Horizontal
4484.125	-49.35	-13.00	-36.35	Horizontal
6182.000	-49.69	-13.00	-36.69	Horizontal
7644.000	-48.58	-13.00	-35.58	Horizontal
8607.000	-49.00	-13.00	-36.00	Horizontal



Report No.: SZEM1609008050RG

Page: 92 of 107

7.1.4 Test Band = EGPRS1900

7.1.4.1 Test Mode = GSM/TM2

7.1.4.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
75.300	-68.64	-13.00	-55.64	Vertical
212.600	-79.00	-13.00	-66.00	Vertical
357.520	-77.35	-13.00	-64.35	Vertical
484.000	-75.14	-13.00	-62.14	Vertical
616.667	-53.56	-13.00	-40.56	Vertical
12379.100	-51.24	-13.00	-38.24	Vertical
2525.340	-51.13	-13.00	-38.13	Vertical
3859.875	-49.28	-13.00	-36.28	Vertical
5316.750	-50.66	-13.00	-37.66	Vertical
6163.000	-47.55	-13.00	-34.55	Vertical
7944.000	-47.28	-13.00	-34.28	Vertical
8913.000	-48.32	-13.00	-35.32	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
72.900	-70.18	-13.00	-57.18	Horizontal
134.500	-72.62	-13.00	-59.62	Horizontal
224.300	-78.25	-13.00	-65.25	Horizontal
438.000	-75.22	-13.00	-62.22	Horizontal
875.500	-53.39	-13.00	-40.39	Horizontal
1252.540	-51.40	-13.00	-38.4	Horizontal
2408.900	-52.35	-13.00	-39.35	Horizontal
3859.875	-49.45	-13.00	-36.45	Horizontal
4286.375	-50.72	-13.00	-37.72	Horizontal
5694.000	-50.86	-13.00	-37.86	Horizontal
7697.000	-48.24	-13.00	-35.24	Horizontal
9248.000	-48.27	-13.00	-35.27	Horizontal



Report No.: SZEM1609008050RG

Page: 93 of 107

7.1.4.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
77.550	-68.35	-13.00	-55.35	Vertical
128.650	-70.25	-13.00	-57.25	Vertical
334.250	-77.53	-13.00	-64.53	Vertical
457.500	-75.24	-13.00	-62.24	Vertical
778.350	-56.51	-13.00	-43.51	Vertical
1342.540	-51.07	-13.00	-38.07	Vertical
2731.820	-42.72	-13.00	-29.72	Vertical
3759.000	-44.11	-13.00	-31.11	Vertical
4923.125	-49.88	-13.00	-36.88	Vertical
6045.000	-48.60	-13.00	-35.60	Vertical
7837.000	-47.35	-13.00	-34.35	Vertical
9266.000	-47.42	-13.00	-34.42	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
61.850	-72.28	-13.00	-59.28	Horizontal
143.350	-73.28	-13.00	-60.28	Horizontal
226.050	-78.14	-13.00	-65.14	Horizontal
467.450	-75.67	-13.00	-62.67	Horizontal
878.570	-53.35	-13.00	-40.35	Horizontal
1346.160	-51.82	-13.00	-38.82	Horizontal
2452.060	-52.74	-13.00	-39.74	Horizontal
3477.375	-49.95	-13.00	-36.95	Horizontal
43254.375	-50.24	-13.00	-37.24	Horizontal
6220.000	-49.46	-13.00	-36.46	Horizontal
8520.000	-48.95	-13.00	-35.95	Horizontal
9165.000	-47.84	-13.00	-34.84	Horizontal



Report No.: SZEM1609008050RG

Page: 94 of 107

7.1.4.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
68.350	-68.57	-13.00	-55.57	Vertical
138.850	-71.57	-13.00	-58.57	Vertical
244.850	-77.46	-13.00	-64.46	Vertical
373.900	-75.55	-13.00	-62.55	Vertical
866.667	-52.65	-13.00	-39.65	Vertical
1207.680	-51.44	-13.00	-38.44	Vertical
2428.760	-50.76	-13.00	-37.76	Vertical
3817.125	-48.80	-13.00	-35.80	Vertical
4358.875	-50.43	-13.00	-37.43	Vertical
5500.875	-50.34	-13.00	-37.34	Vertical
7277.000	-49.37	-13.00	-36.37	Vertical
9234.000	-47.45	-13.00	-34.45	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
67.550	-68.54	-13.00	-55.54	Horizontal
149.950	-70.66	-13.00	-57.66	Horizontal
262.950	-78.33	-13.00	-65.33	Horizontal
473.600	-75.42	-13.00	-62.42	Horizontal
599.250	-59.81	-13.00	-46.81	Horizontal
875.835	-51.29	-13.00	-38.29	Horizontal
2426.400	-52.42	-13.00	-39.42	Horizontal
3818.625	-48.99	-13.00	-35.99	Horizontal
4314.000	-50.82	-13.00	-37.82	Horizontal
6273.000	-49.25	-13.00	-36.25	Horizontal
8662.000	-48.09	-13.00	-35.09	Horizontal
9242.000	-47.64	-13.00	-34.64	Horizontal



Report No.: SZEM1609008050RG

Page: 95 of 107

7.2 For WCDMA

7.2.1 Test Band = WCDMA850

7.2.1.1 Test Mode = UMTS/TM1

7.2.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
75.150	-82.13	-13.00	-69.13	Vertical
157.950	-81.55	-13.00	-68.55	Vertical
234.500	-83.52	-13.00	-70.52	Vertical
357.500	-78.52	-13.00	-65.52	Vertical
430.450	-83.24	-13.00	-70.24	Vertical
528.175	-66.72	-13.00	-53.72	Vertical
1654.500	-61.52	-13.00	-48.52	Vertical
2476.500	-53.15	-13.00	-40.15	Vertical
3734.488	-66.55	-13.00	-53.55	Vertical
4299.187	-67.58	-13.00	-54.58	Vertical
7827.963	-63.22	-13.00	-50.22	Vertical
9734.815	-64.89	-13.00	-51.89	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
76.250	-86.40	-13.00	-73.40	Horizontal
157.550	-85.42	-13.00	-72.42	Horizontal
235.120	-84.11	-13.00	-71.11	Horizontal
386.500	-82.43	-13.00	-69.43	Horizontal
438.550	-74.25	-13.00	-61.25	Horizontal
624.570	-75.80	-13.00	-62.80	Horizontal
1675.000	-64.12	-13.00	-51.12	Horizontal
2476.500	-54.21	-13.00	-41.21	Horizontal
4392.300	-67.82	-13.00	-54.82	Horizontal
6182.875	-64.85	-13.00	-51.85	Horizontal
8645.250	-64.90	-13.00	-51.90	Horizontal
10597.425	-63.73	-13.00	-50.73	Horizontal



Report No.: SZEM1609008050RG

Page: 96 of 107

7.2.1.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
73.150	-88.60	-13.00	-75.60	Vertical
180.650	-87.76	-13.00	-74.76	Vertical
284.250	-88.16	-13.00	-75.16	Vertical
372.100	-84.83	-13.00	-71.83	Vertical
437.150	-82.85	-13.00	-69.85	Vertical
613.120	-79.25	-13.00	-66.25	Vertical
1652.500	-64.57	-13.00	-51.57	Vertical
2507.000	-56.61	-13.00	-43.61	Vertical
3526.012	-63.17	-13.00	-50.17	Vertical
5978.125	-65.27	-13.00	-52.27	Vertical
8616.000	-64.66	-13.00	-51.66	Vertical
10450.188	-63.05	-13.00	-50.05	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
76.050	-88.70	-13.00	-75.70	Horizontal
145.850	-89.25	-13.00	-76.25	Horizontal
269.700	-87.25	-13.00	-74.25	Horizontal
405.300	-87.31	-13.00	-74.31	Horizontal
571.080	-81.24	-13.00	-68.24	Horizontal
608.622	-78.94	-13.00	-65.94	Horizontal
1425.500	-67.28	-13.00	-54.28	Horizontal
1675.000	-64.31	-13.00	-51.31	Horizontal
3526.012	-68.02	-13.00	-55.02	Horizontal
5947.250	-65.44	-13.00	-52.44	Horizontal
7761.900	-65.13	-13.00	-52.13	Horizontal
11815.450	-63.38	-13.00	-50.38	Horizontal



Report No.: SZEM1609008050RG

Page: 97 of 107

7.2.1.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
73.000	-89.40	-13.00	-76.40	Vertical
172.700	-90.43	-13.00	-77.43	Vertical
257.500	-89.42	-13.00	-76.42	Vertical
384.200	-86.24	-13.00	-73.24	Vertical
433.605	-82.17	-13.00	-69.17	Vertical
616.513	-78.25	-13.00	-65.25	Vertical
1694.000	-63.09	-13.00	-50.09	Vertical
2627.500	-57.73	-13.00	-44.73	Vertical
3565.987	-63.00	-13.00	-50.00	Vertical
5014.900	-66.44	-13.00	-53.44	Vertical
7758.487	-65.34	-13.00	-52.34	Vertical
10434.750	-64.32	-13.00	-51.32	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
76.550	-90.15	-13.00	-77.15	Horizontal
143.750	-88.26	-13.00	-75.26	Horizontal
237.400	-88.10	-13.00	-75.10	Horizontal
342.900	-86.91	-13.00	-73.91	Horizontal
438.855	-81.76	-13.00	-68.76	Horizontal
612.805	-78.33	-13.00	-65.33	Horizontal
1713.500	-60.55	-13.00	-47.55	Horizontal
2543.000	-53.60	-13.00	-40.60	Horizontal
3742.875	-68.25	-13.00	-55.25	Horizontal
5123.850	-66.91	-13.00	-53.91	Horizontal
7091.100	-65.51	-13.00	-52.51	Horizontal
10210.700	-64.62	-13.00	-51.62	Horizontal



Report No.: SZEM1609008050RG

Page: 98 of 107

7.2.2 Test Band = WCDMA1900

7.2.2.1 Test Mode = UMTS/TM1

7.2.2.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
111.750	-79.60	-13.00	-66.60	Vertical
221.450	-90.21	-13.00	-77.21	Vertical
312.050	-84.33	-13.00	-71.33	Vertical
458.835	-87.14	-13.00	-74.14	Vertical
642.295	-85.38	-13.00	-72.38	Vertical
788.810	-80.27	-13.00	-67.27	Vertical
3706.387	-58.74	-13.00	-45.74	Vertical
4298.225	-68.69	-13.00	-55.69	Vertical
6539.250	-65.98	-13.00	-52.98	Vertical
7679.350	-63.96	-13.00	-50.96	Vertical
10005.950	-64.44	-13.00	-51.44	Vertical
11251.912	-64.23	-13.00	-51.23	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
93.300	-78.83	-13.00	-65.83	Horizontal
123.225	-76.42	-13.00	-63.42	Horizontal
367.050	-85.33	-13.00	-72.33	Horizontal
478.920	-86.81	-13.00	-73.81	Horizontal
635.600	-83.32	-13.00	-70.32	Horizontal
745.892	-80.74	-13.00	-67.74	Horizontal
3702.487	-62.83	-13.00	-49.83	Horizontal
4335.400	-66.07	-13.00	-53.07	Horizontal
6019.087	-66.21	-13.00	-53.21	Horizontal
7942.513	-64.32	-13.00	-51.32	Horizontal
9218.350	-63.22	-13.00	-50.22	Horizontal
11892.975	-64.19	-13.00	-51.19	Horizontal



Report No.: SZEM1609008050RG

Page: 99 of 107

7.2.2.1.2 Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
112.200	-75.40	-13.00	-62.40	Vertical
235.750	-88.72	-13.00	-75.72	Vertical
347.000	-83.20	-13.00	-70.20	Vertical
483.250	-86.17	-13.00	-73.17	Vertical
622.158	-84.23	-13.00	-71.23	Vertical
916.225	-78.54	-13.00	-65.54	Vertical
3758.062	-57.69	-13.00	-44.69	Vertical
5624.880	-64.03	-13.00	-51.03	Vertical
6285.750	-66.01	-13.00	-53.01	Vertical
7924.025	-65.47	-13.00	-52.47	Vertical
9168.585	-64.35	-13.00	-51.35	Vertical
11255.812	-64.23	-13.00	-51.23	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
73.700	-86.34	-13.00	-73.34	Horizontal
185.050	-90.01	-13.00	-77.01	Horizontal
366.000	-86.12	-13.00	-73.12	Horizontal
625.824	-86.54	-13.00	-73.54	Horizontal
780.396	-80.33	-13.00	-67.33	Horizontal
958.628	-76.26	-13.00	-63.26	Horizontal
3758.062	-54.10	-13.00	-41.10	Horizontal
5736.888	-63.26	-13.00	-50.26	Horizontal
6942.900	-65.76	-13.00	-52.76	Horizontal
9233.750	-65.95	-13.00	-52.95	Horizontal
10226.225	-63.62	-13.00	-50.62	Horizontal
11891.512	-64.20	-13.00	-51.20	Horizontal



Report No.: SZEM1609008050RG

Page: 100 of 107

7.2.2.1.3 Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
86.350	-90.25	-13.00	-77.25	Vertical
205.300	-92.15	-13.00	-79.15	Vertical
317.000	-83.22	-13.00	-70.22	Vertical
413.450	-84.16	-13.00	-71.16	Vertical
559.600	-84.13	-13.00	-71.13	Vertical
854.008	-78.88	-13.00	-65.88	Vertical
3813.637	-58.32	-13.00	-45.32	Vertical
6284.775	-66.03	-13.00	-53.03	Vertical
7632.275	-67.32	-13.00	-54.32	Vertical
8684.250	-65.08	-13.00	-52.08	Vertical
10344.975	-63.25	-13.00	-50.25	Vertical
11894.700	-63.49	-13.00	-50.49	Vertical

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Over Limit (dB)	Polarization
83.800	-91.05	-13.00	-78.05	Horizontal
172.150	-90.57	-13.00	-77.57	Horizontal
283.150	-87.33	-13.00	-74.33	Horizontal
424.350	-86.25	-13.00	-73.25	Horizontal
619.975	-83.24	-13.00	-70.24	Horizontal
924.160	-77.62	-13.00	-64.62	Horizontal
3812.662	-55.91	-13.00	-42.91	Horizontal
4837.863	-66.81	-13.00	-53.81	Horizontal
6018.112	-66.23	-13.00	-53.23	Horizontal
7942.250	-64.21	-13.00	-51.21	Horizontal
9255.763	-64.68	-13.00	-51.68	Horizontal
10500.187	-64.45	-13.00	-51.45	Horizontal



Report No.: SZEM1609008050RG

Page: 101 of 107

NOTE:

1) The disturbance above 10GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

 Pretest was performed at the EUT in low, middle, high channel, but only the worst test channel (Channel 190 for GSM850 and Channel 661 for GSM1900) and only the data of the worst case show in the test report.



Report No.: SZEM1609008050RG

Page: 102 of 107

8 Frequency Stability

8.1 For GSM

8.1.1 Frequency Error VS. Voltage

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				VL	-11.54	-0.01400	PASS
		LCH	TN	VN	-13.41	-0.01627	PASS
		MCH		VH	-6.57	-0.00797	PASS
				VL	-4.21	-0.00503	PASS
GSM850	GSM/TM1	MCH	TN	VN	-2.18	-0.00261	PASS
				VH	-7.49	-0.00895	PASS
		НСН	TN	VL	-3.86	-0.00455	PASS
				VN	-8.08	-0.00952	PASS
				VH	-12.44	-0.01466	PASS
		LCH	TN	VL	-11.51	-0.01397	PASS
				VN	-7.65	-0.00928	PASS
				VH	-6.18	-0.00750	PASS
				VL	-3.51	-0.00420	PASS
GSM850	GSM/TM2	MCH	TN	VN	-2.18	-0.00261	PASS
				VH	-5.67	-0.00678	PASS
				VL	-4.37	-0.00515	PASS
		HCH	TN	VN	-3.57	-0.00421	PASS
				VH	-16.18	-0.01906	PASS



Report No.: SZEM1609008050RG

Page: 103 of 107

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				VL	-17.51	-0.00946	PASS
		LCH	TN	VN	-8.24	-0.00445	PASS
				VH	-5.26	-0.00284	PASS PASS PASS PASS PASS PASS PASS PASS
				VL	-7.54	-0.00401	
GSM1900	GSM/TM1	MCH	TN	VN	-3.54	-0.00188	PASS
				VH	-7.49	-0.00398	PASS
		НСН	TN	VL	-6.24	-0.00327	PASS
				VN	-8.15	-0.00427	PASS
				VH	-13.84	-0.00725	PASS
				VL	-9.28	-0.00502	PASS
		LCH	TN	VN	-6.35	-0.00343	PASS PASS PASS PASS PASS PASS PASS PASS
				VH	-8.12	-0.00439	PASS
				VL	-1.08	-0.00057	PASS
GSM1900	GSM/TM2	MCH	TN	VN	-3.54	-0.00188	PASS
				VH	-7.49	-0.00398	PASS
				VL	-3.29	-0.00172	PASS
		HCH	TN	VN	-10.77	-0.00564	PASS
				VH	-12.68	-0.00664	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				VL	-12.85	-0.01555	PASS
		LCH	TN	VN	-10.32	-0.01249	PASS
				VH	-8.65	-0.01047	PASS
WCDMA		MCH	TN	VL	-2.51	-0.00300	PASS
850	UMTS/TM			VN	-3.54	-0.00423	PASS
830	'			VH	1.58	0.00189	PASS
				VL	-6.16	-0.00728	PASS
		HCH	TN	VN	-8.39	-0.00991	PASS
				VH	-7.04	-0.00832	PASS

Test Band	Test Mode	Test Channel	Test Temp.	Test Volt.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				VL	-7.84	-0.00423	PASS
		LCH	TN	VN	-10.12	-0.00546	PASS
				VH	-5.57	-0.00301	PASS
WCDMA				VL	-4.31	-0.00229	PASS
1900	UMTS/TM	MCH	TN	VN	-5.57	-0.00296	PASS
1900	'			VH	-7.49	-0.00398	PASS
				VL	-0.16	-0.00008	PASS
		HCH	TN	VN	-3.39	-0.00178	PASS
				VH	-6.04	-0.00317	PASS



Report No.: SZEM1609008050RG

Page: 104 of 107

8.1.2 Frequency Error VS. Temperature

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				-30	-2.11	-0.00256	PASS
				-20	-4.39	-0.00533	PASS
				-10	-4.71	-0.00571	PASS
				0	-2.64	-0.00320	PASS
		LCH	VN	10	6.05	0.00734	PASS
				20	8.36	0.01014	PASS
				30	2.45	0.00297	PASS
				40	4.62	0.00561	PASS
				50	6.07	0.00736	PASS
				-30	10.13	0.01211	PASS
		МСН	VN	-20	2.84	0.00339	PASS
				-10	-0.38	-0.00045	PASS
	GSM/TM1			0	-2.08	-0.00249	PASS
GSM850				10	5.31	0.00635	PASS
				20	-1.24	-0.00148	PASS
				30	0.82	0.00098	PASS
				40	1.51	0.00180	PASS
				50	2.24	0.00268	PASS
				-30	3.37	0.00397	PASS
				-20	4.85	0.00571	PASS
				-10	-3.77	-0.00444	PASS
				0	-1.22	-0.00144	PASS
		HCH	VN	10	-0.96	-0.00113	PASS
				20	-3.54	-0.00417	PASS
				30	-11.42	-0.01345	PASS
				40	-2.32	-0.00273	PASS
				50	-7.71	-0.00908	PASS



Report No.: SZEM1609008050RG

Page: 105 of 107

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				-30	-14.71	-0.00795	PASS
				-20	-8.64	-0.00467	PASS
				-10	-13.81	-0.00746	PASS
				0	-3.99	-0.00216	PASS
		LCH	VN	10	1.88	0.00102	PASS
				20	-4.83	-0.00261	PASS
				30	-13.61	-0.00736	PASS
				40	-10.19	-0.00551	PASS
				50	3.56	0.00192	PASS
				-30	-5.54	-0.00295	PASS
	GSM/TM1	MCH		-20	-7.16	-0.00381	PASS
			VN	-10	-12.9	-0.00686	PASS
				0	-0.44	-0.00023	PASS
GSM1900				10	-15.1	-0.00803	PASS
				20	-7.41	-0.00394	PASS
				30	2.66	0.00141	PASS
				40	-8.64	-0.00460	PASS
				50	-11.68	-0.00621	PASS
				-30	-14.45	-0.00757	PASS
				-20	-4.96	-0.00260	PASS
				-10	-6.51	-0.00341	PASS
				0	-11.48	-0.00601	PASS
		HCH	VN	10	-4.23	-0.00221	PASS
				20	2.85	0.00149	PASS
				30	-6.06	-0.00317	PASS
				40	-8.36	-0.00438	PASS
				50	-11.93	-0.00625	PASS



Report No.: SZEM1609008050RG

Page: 106 of 107

Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				-30	-4.25	-0.00514	PASS
				-20	1.43	0.00173	PASS
				-10	0.57	0.00069	PASS
				0	-2.74	-0.00332	PASS
		LCH	VN	10	0.51	0.00062	PASS
				20	-7.9	-0.00956	PASS
				30	1.58	0.00191	PASS
				40	0.26	0.00031	PASS
				50	-0.95	-0.00115	PASS
				-30	-1.7	-0.00203	PASS
	UMTS/TM1	МСН	VN	-20	-7.97	-0.00953	PASS
				-10	-5.23	-0.00625	PASS
MODMA				0	-1.24	-0.00148	PASS
WCDMA 850				10	2.44	0.00292	PASS
				20	6.86	0.00820	PASS
				30	5.75	0.00687	PASS
				40	0.31	0.00037	PASS
				50	-0.13	-0.00016	PASS
				-30	-1.18	-0.00139	PASS
				-20	0.77	0.00091	PASS
		НСН		-10	6.88	0.00813	PASS
				0	-7.42	-0.00876	PASS
			VN	10	1.67	0.00197	PASS
				20	-2.71	-0.00320	PASS
				30	-3.87	-0.00457	PASS
				40	-7.26	-0.00858	PASS
				50	-12.79	-0.01511	PASS



Report No.: SZEM1609008050RG

Page: 107 of 107

					Page:	107 of 107	
Test Band	Test Mode	Test Channel	Test Volt.	Test Temp.	Freq. Error [Hz]	Freq. vs. rated [ppm]	Verdict
				-30	-10.66	-0.00575	PASS
				-20	1.43	0.00077	PASS
				-10	0.57	0.00031	PASS
				0	-8.74	-0.00472	PASS
		LCH	VN	10	0.51	0.00028	PASS
				20	-11.39	-0.00615	PASS
				30	-0.58	-0.00031	PASS
				40	1.06	0.00057	PASS
				50	-0.95	-0.00051	PASS
	UMTS/TM1			-30	-6.7	-0.00356	PASS
		MCH	VN	-20	-0.97	-0.00052	PASS
				-10	-5.23	-0.00278	PASS
WCDMA				0	-1.84	-0.00098	PASS
1900				10	2.08	0.00111	PASS
				20	1.86	0.00099	PASS
				30	-7.75	-0.00412	PASS
				40	0.88	0.00047	PASS
				50	-0.66	-0.00035	PASS
				-30	-3.58	-0.00188	PASS
				-20	0.77	0.00040	PASS
				-10	-2.81	-0.00147	PASS
				0	-1.42	-0.00074	PASS
		HCH	VN	10	1.67	0.00088	PASS
				20	-439	-0.23013	PASS
				30	-8.82	-0.00462	PASS
				40	-0.96	-0.00050	PASS
				50	-12.25	-0.00642	PASS

The End