Test Report No.50048435 001

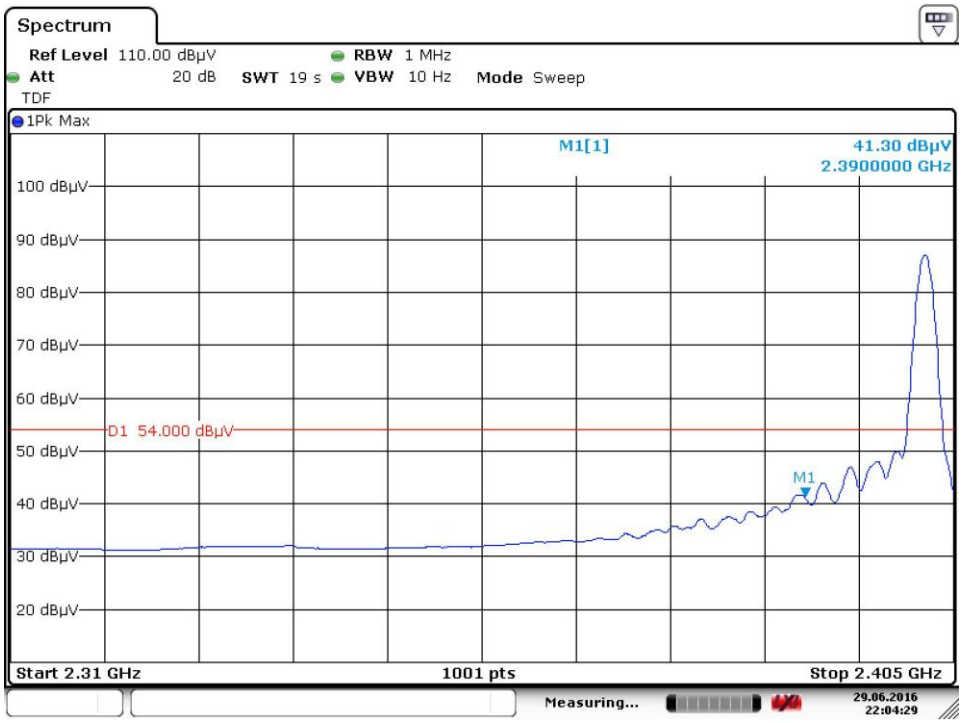
Appendix D: Radiated and Mains Spurious Emission Data

(File: 50048435AppendixD)

Contents

Radiated Bandedge (GFSK)

Low Channel (Hor)



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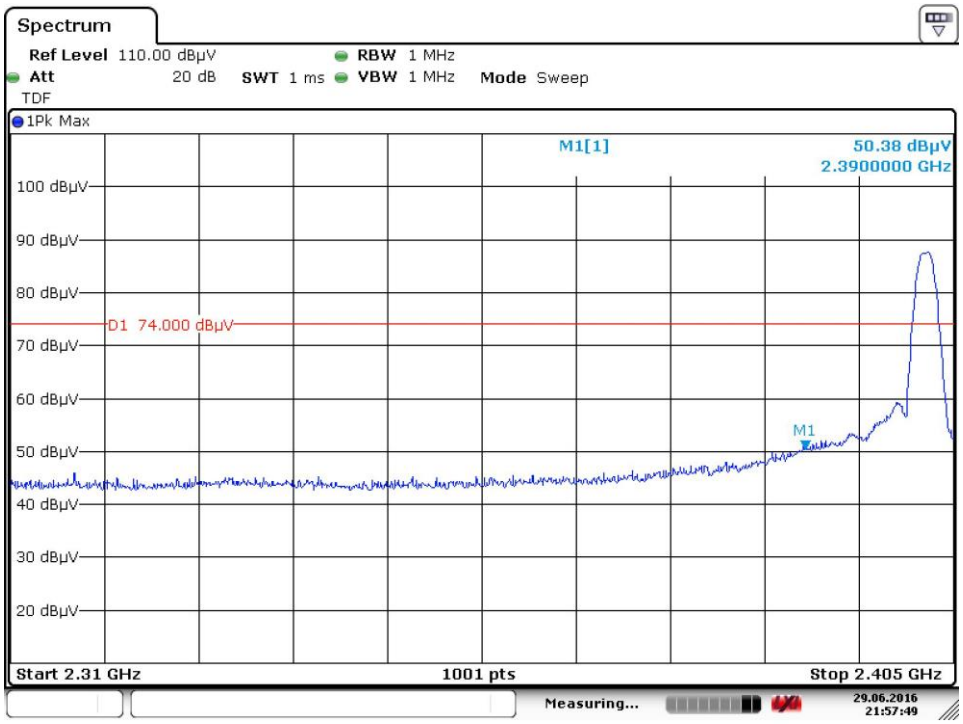

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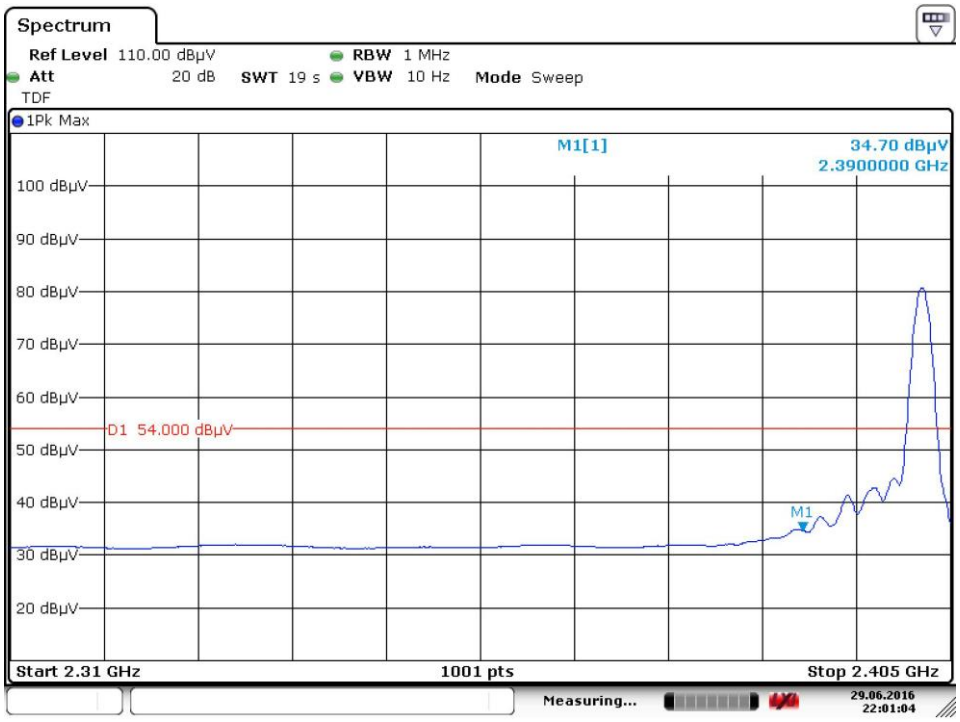
Low Channel (Ver)



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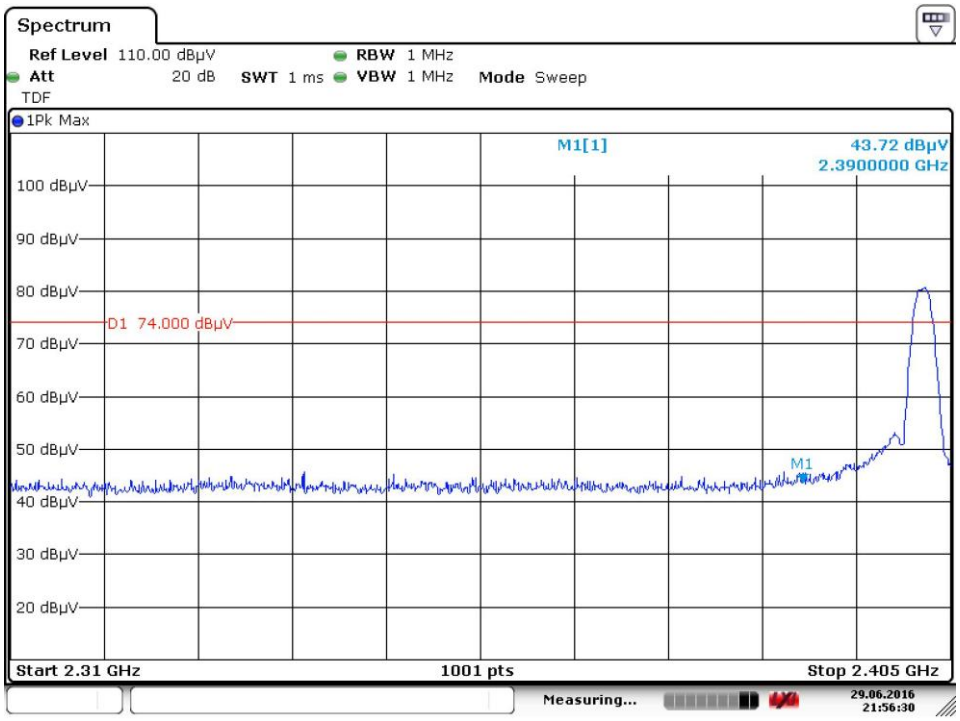

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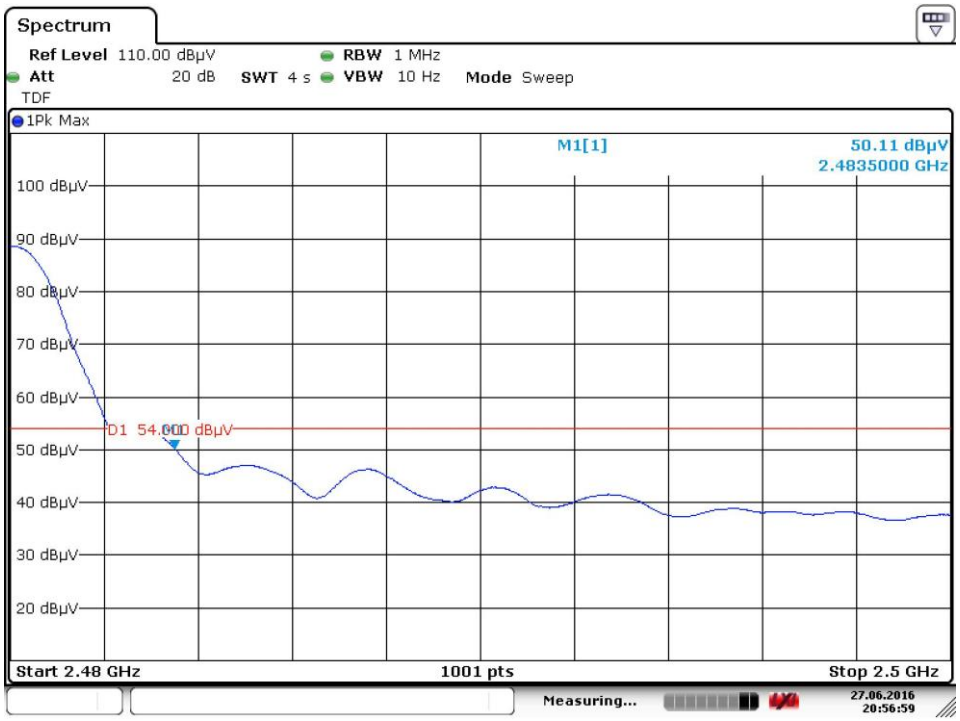
Spurious Emissions, Band Edge, 2.35-2.5G

Radiated Bandedge (GFSK)

High Channel (Hor)



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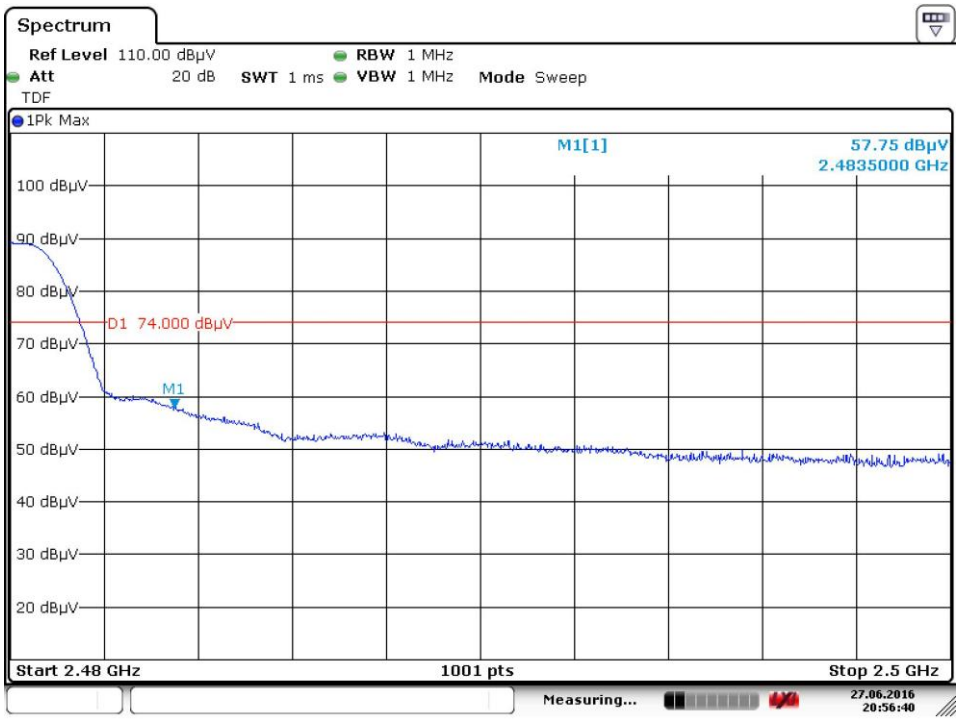

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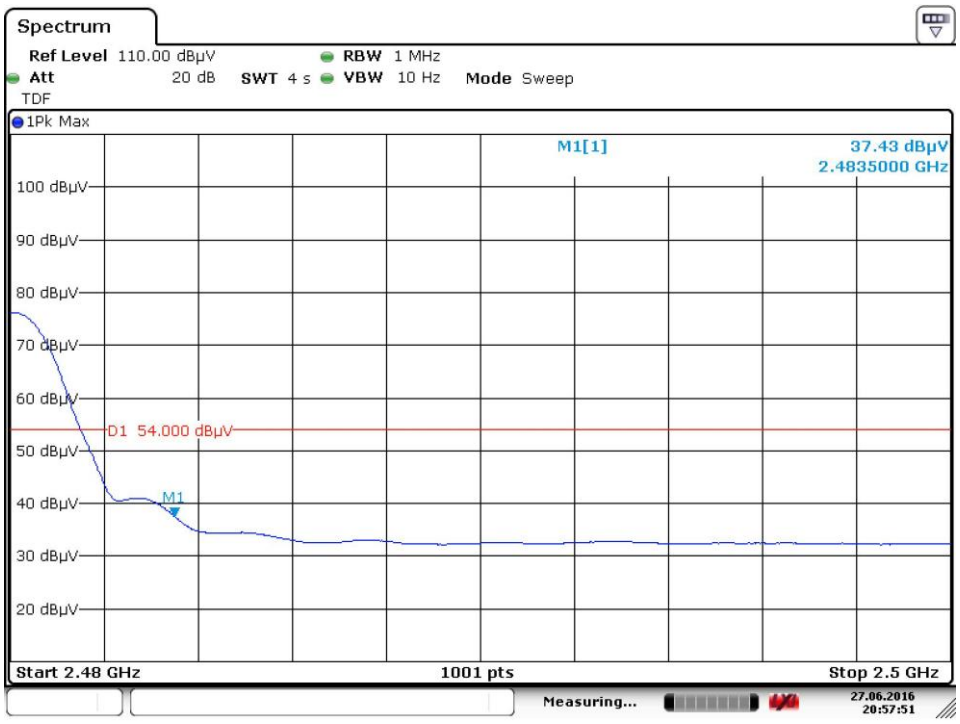
High Channel (Ver)



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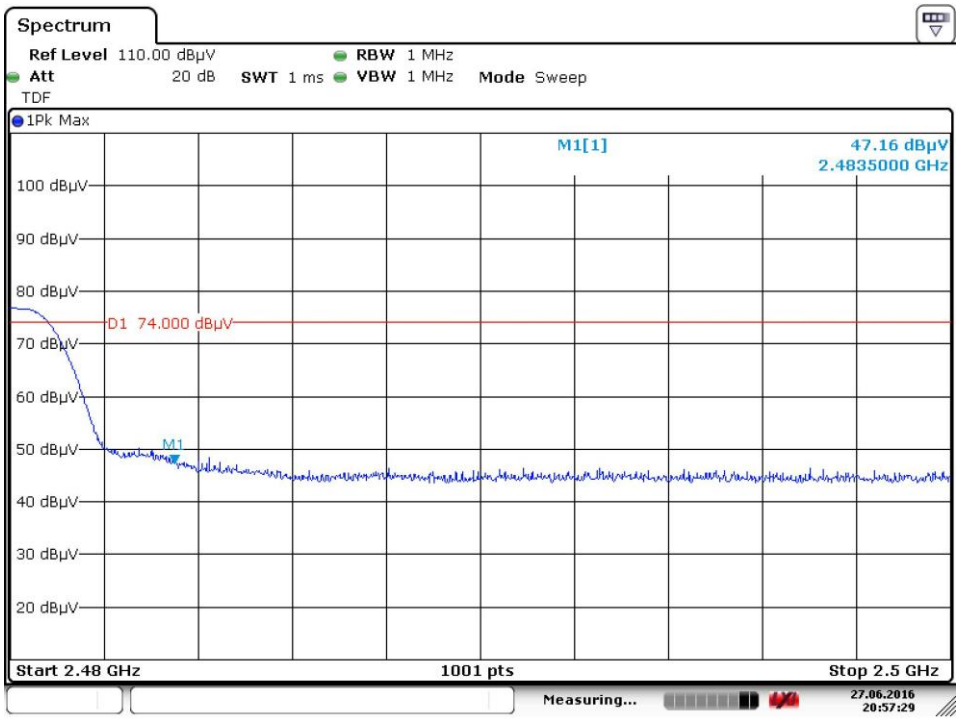

Date: 27.JUN.2016 20:57:29

Spurious Emissions, Band Edge, 2.35-2.5G

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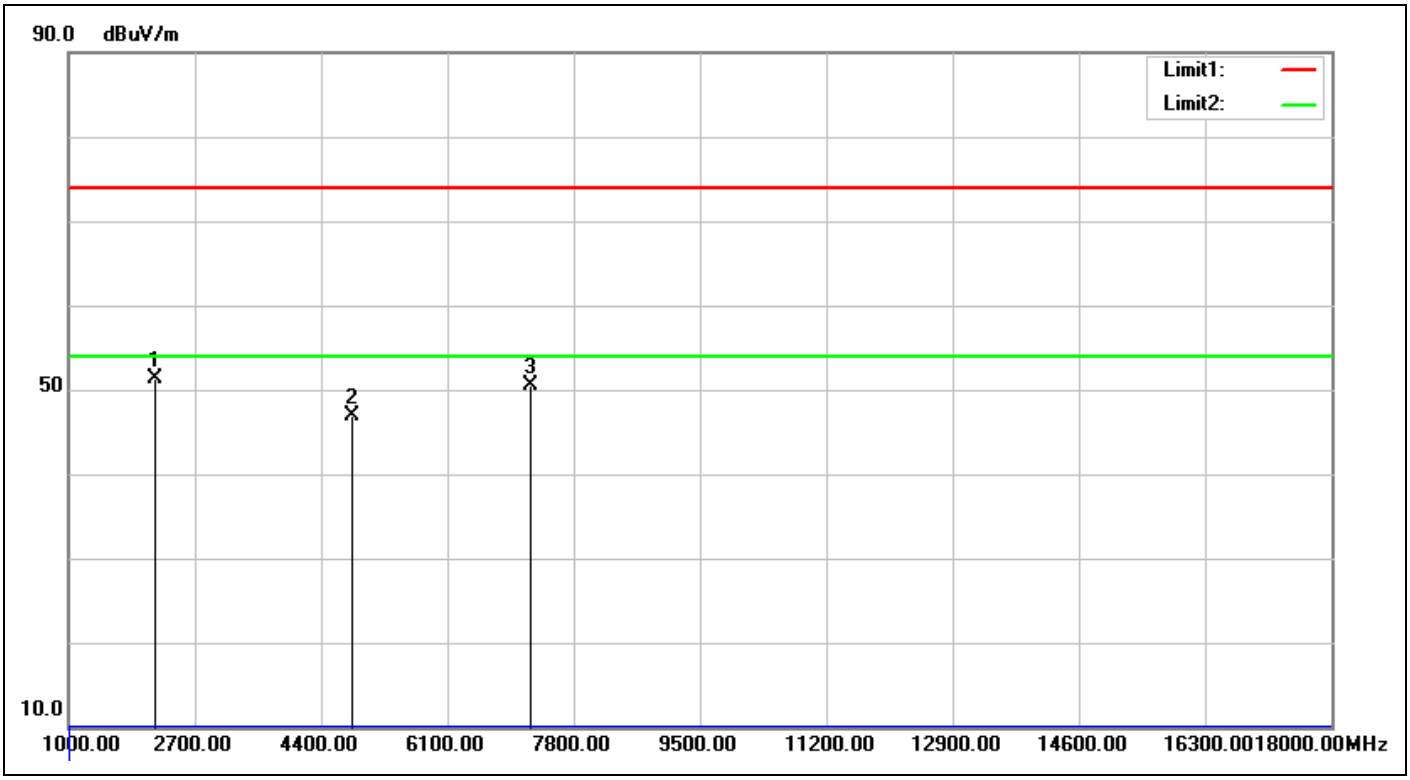

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Horizontal**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:08:23**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2402-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	2156.000	-7.46	58.76	51.30	74.00	-22.70	peak	100	38	
2	4804.000	-2.64	49.53	46.89	74.00	-27.11	peak		0	
3	7206.000	5.57	44.94	50.51	74.00	-23.49	peak		0	

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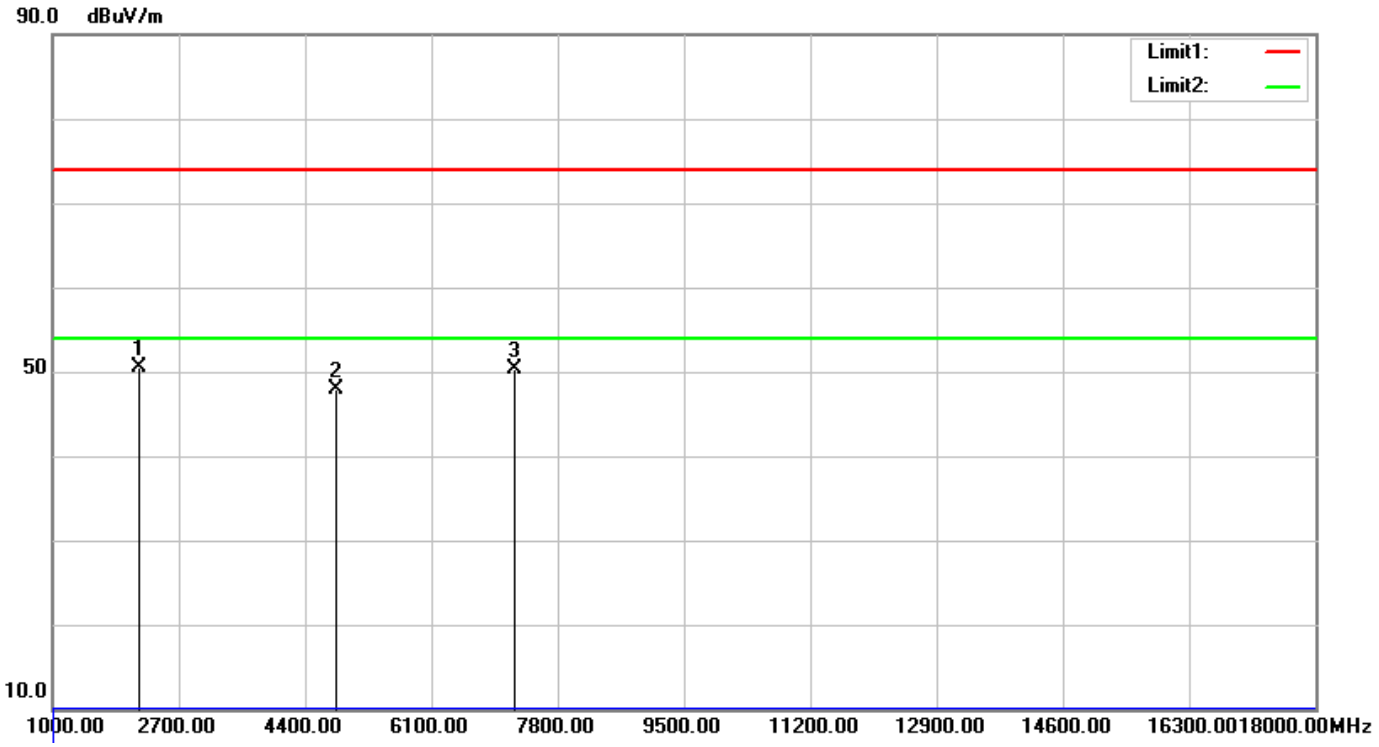

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Vertical**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:09:25**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2402-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	2156.000	-7.46	58.05	50.59	74.00	-23.41	peak	100	28	
2	4804.000	-2.64	50.56	47.92	74.00	-26.08	peak			
3	7206.000	5.57	44.73	50.30	74.00	-23.70	peak			

Spurious Emissions, TX Mode, 1-18G

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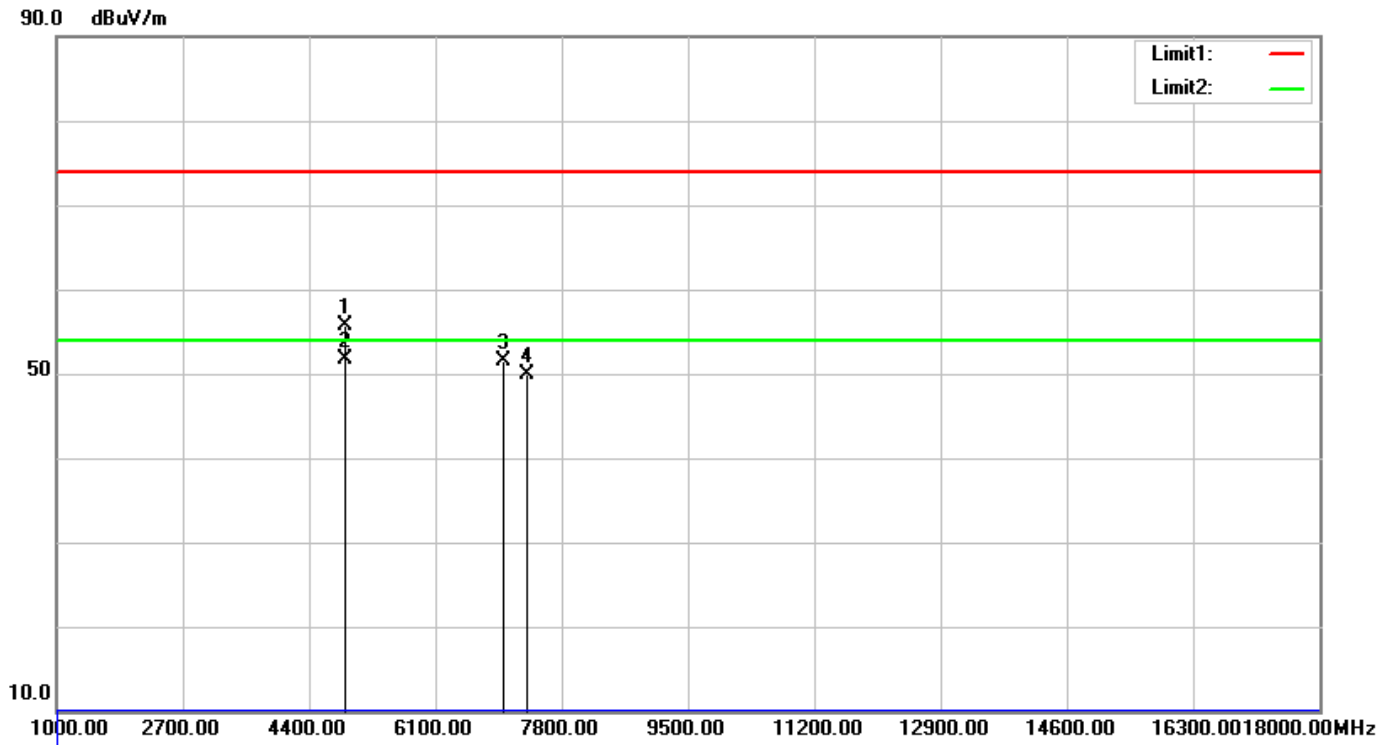

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Horizontal**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:12:17**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2440-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	4880.000	-2.47	58.16	55.69	74.00	-18.31	peak	100	91	
2	4880.000	-2.47	54.13	51.66	54.00	-2.34	AVG	100	91	
3	7018.000	5.04	46.39	51.43	74.00	-22.57	peak	100	110	
4	7320.000	5.90	43.95	49.85	74.00	-24.15	peak		0	

Spurious Emissions, TX Mode, 1-18G

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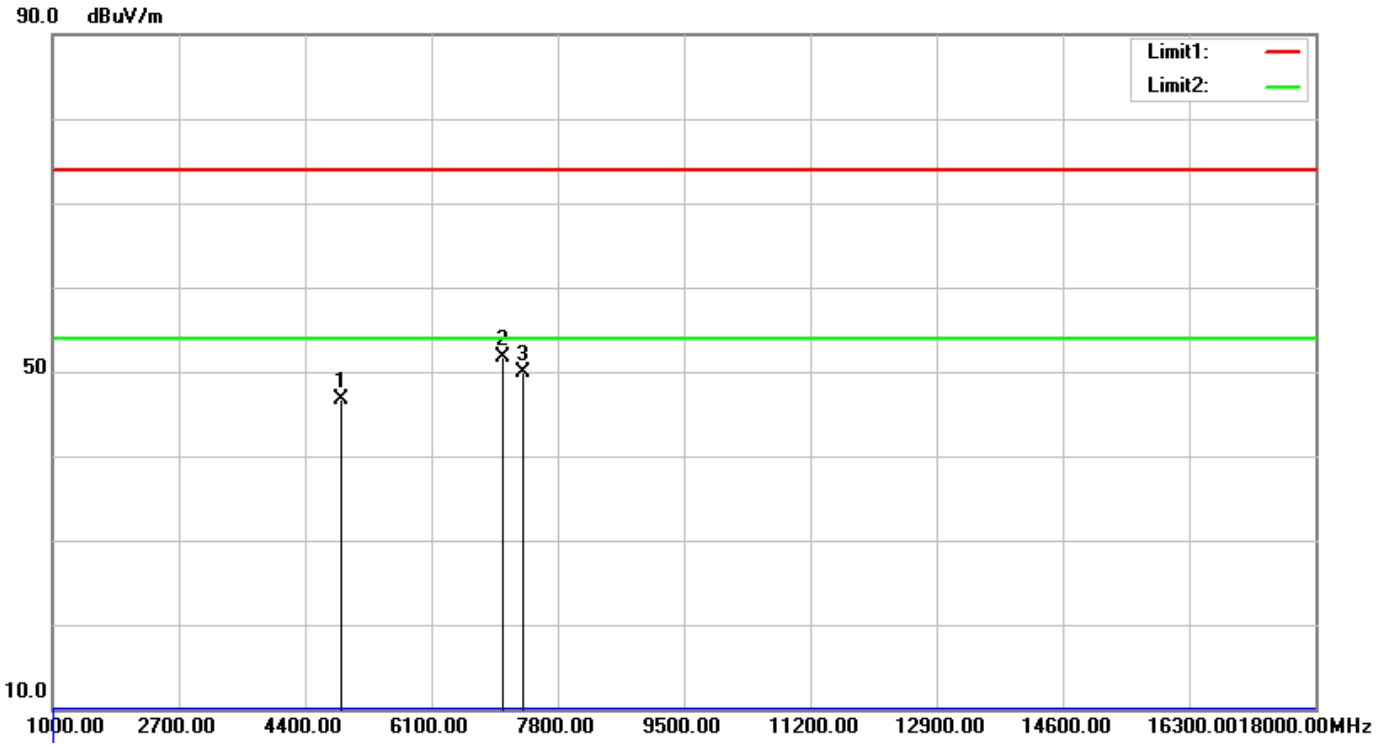

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Vertical**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:13:20**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2440-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	4880.000	-2.47	49.20	46.73	74.00	-27.27	peak			
2	7052.000	5.13	46.56	51.69	74.00	-22.31	peak	100	97	
3	7320.000	5.90	43.98	49.88	74.00	-24.12	peak			

Spurious Emissions, TX Mode, 1-18G

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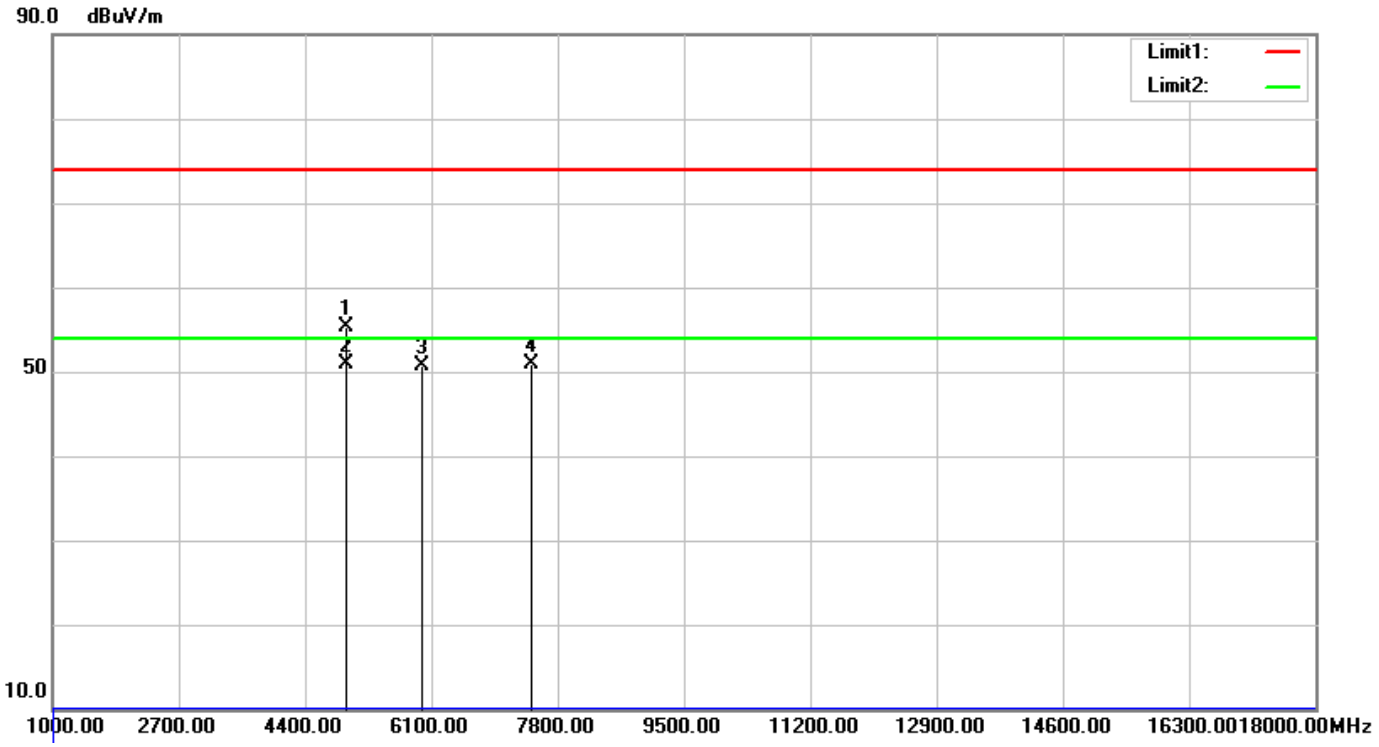

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Horizontal**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:20:27**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2480-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	4960.000	-2.30	57.60	55.30	74.00	-18.70	peak	100	106	
2	4960.000	-2.30	53.11	50.81	54.00	-3.19	AVG	100	106	
3	5981.000	3.79	46.99	50.78	74.00	-23.22	peak	100	335	
4	7440.000	6.24	44.59	50.83	74.00	-23.17	peak			

Spurious Emissions, TX Mode, 1-18G

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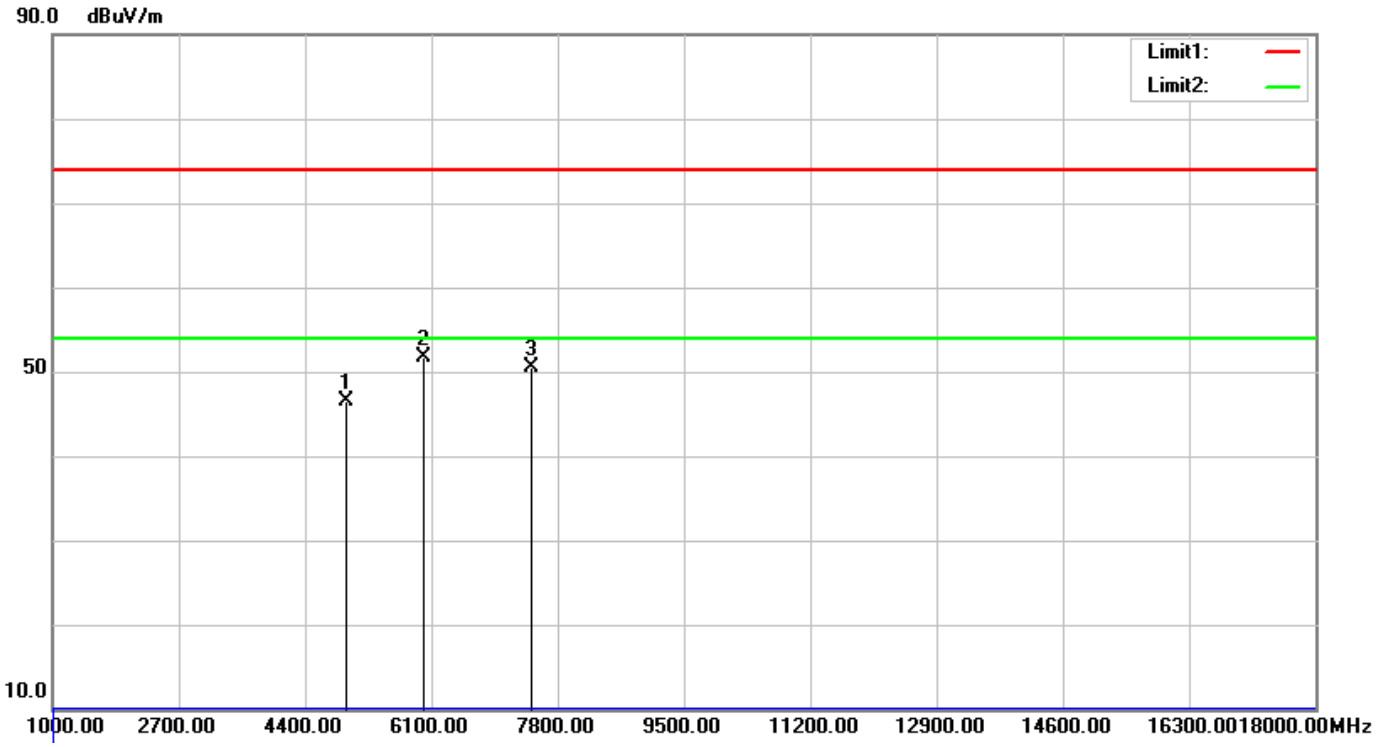

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Vertical**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:21:29**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2480-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	4960.000	-2.30	48.73	46.43	74.00	-27.57	peak			
2	5998.000	3.92	47.82	51.74	74.00	-22.26	peak	100	257	
3	7440.000	6.24	44.33	50.57	74.00	-23.43	peak			

Spurious Emissions, TX Mode, 1-18G

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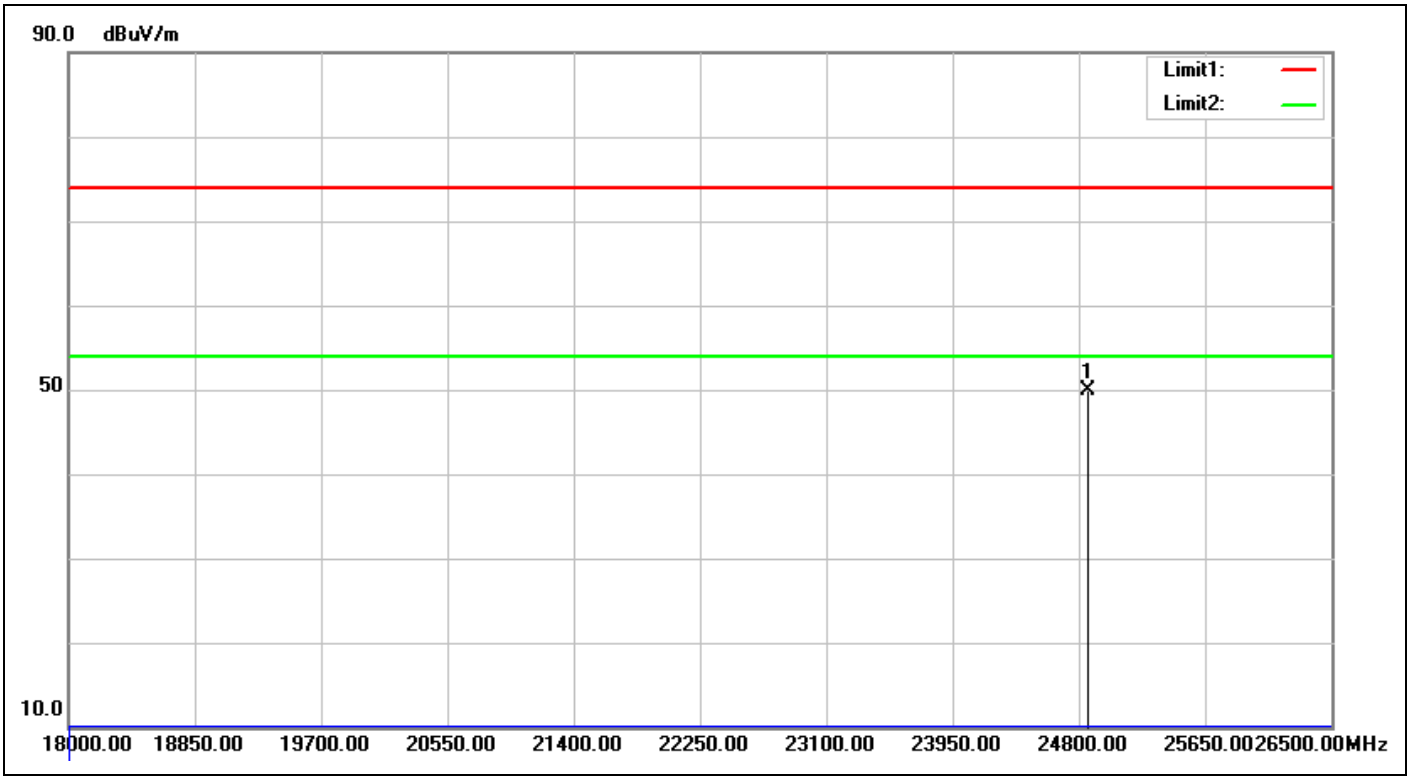

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Horizontal**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:29:21**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2402-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	24859.500	31.17	18.79	49.96	74.00	-24.04	peak	100	194	

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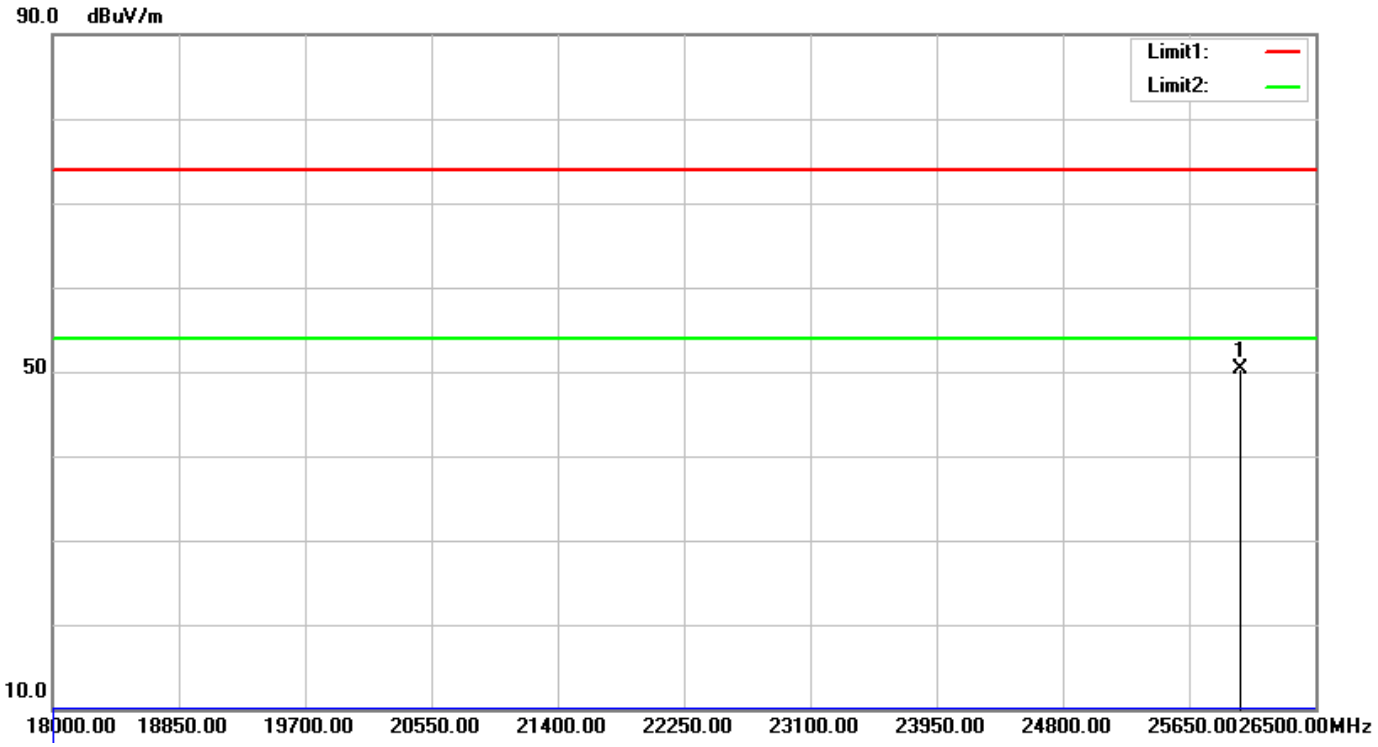

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Vertical**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:29:29**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2402-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	25990.000	31.85	18.42	50.27	74.00	-23.73	peak			

Spurious Emissions, TX Mode, 18-26G

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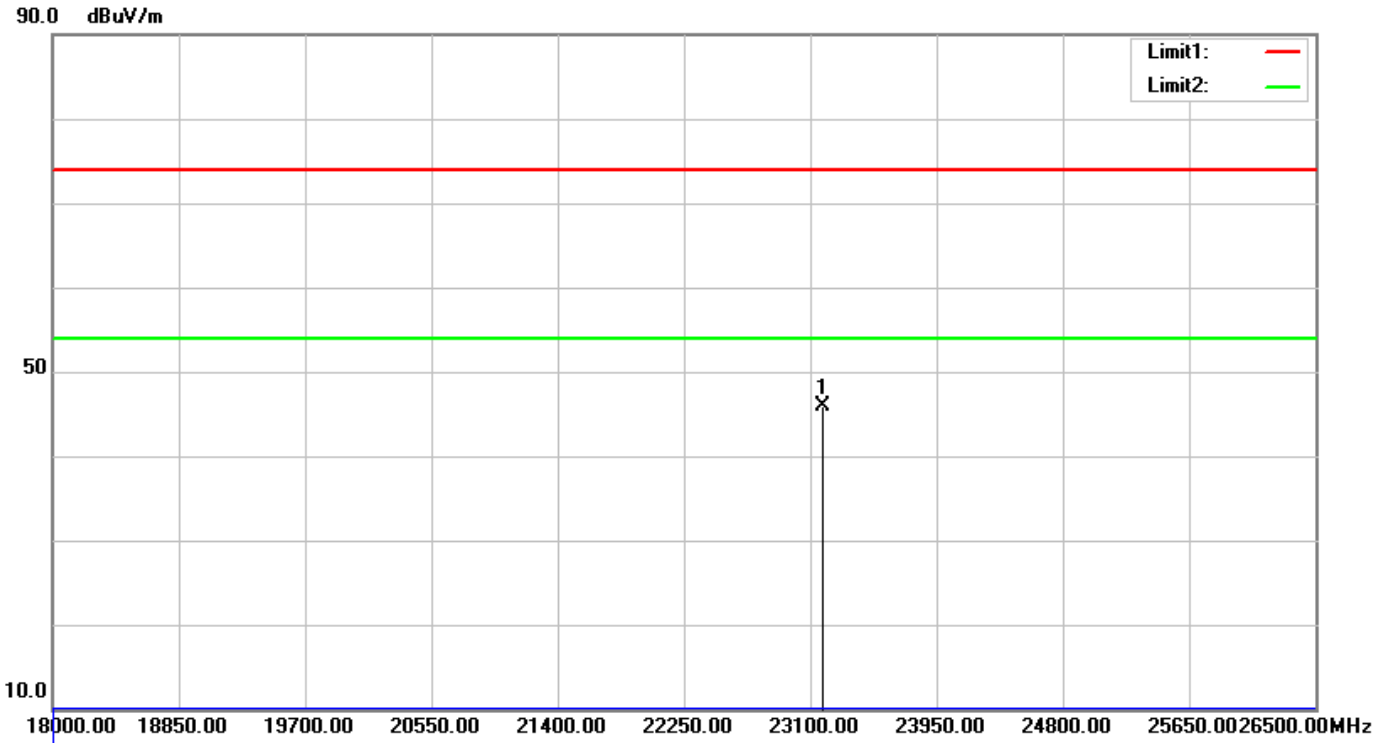

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Horizontal**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:29:44**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2440-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	23185.000	30.00	15.99	45.99	74.00	-28.01	peak			

Spurious Emissions, TX Mode, 18-26G

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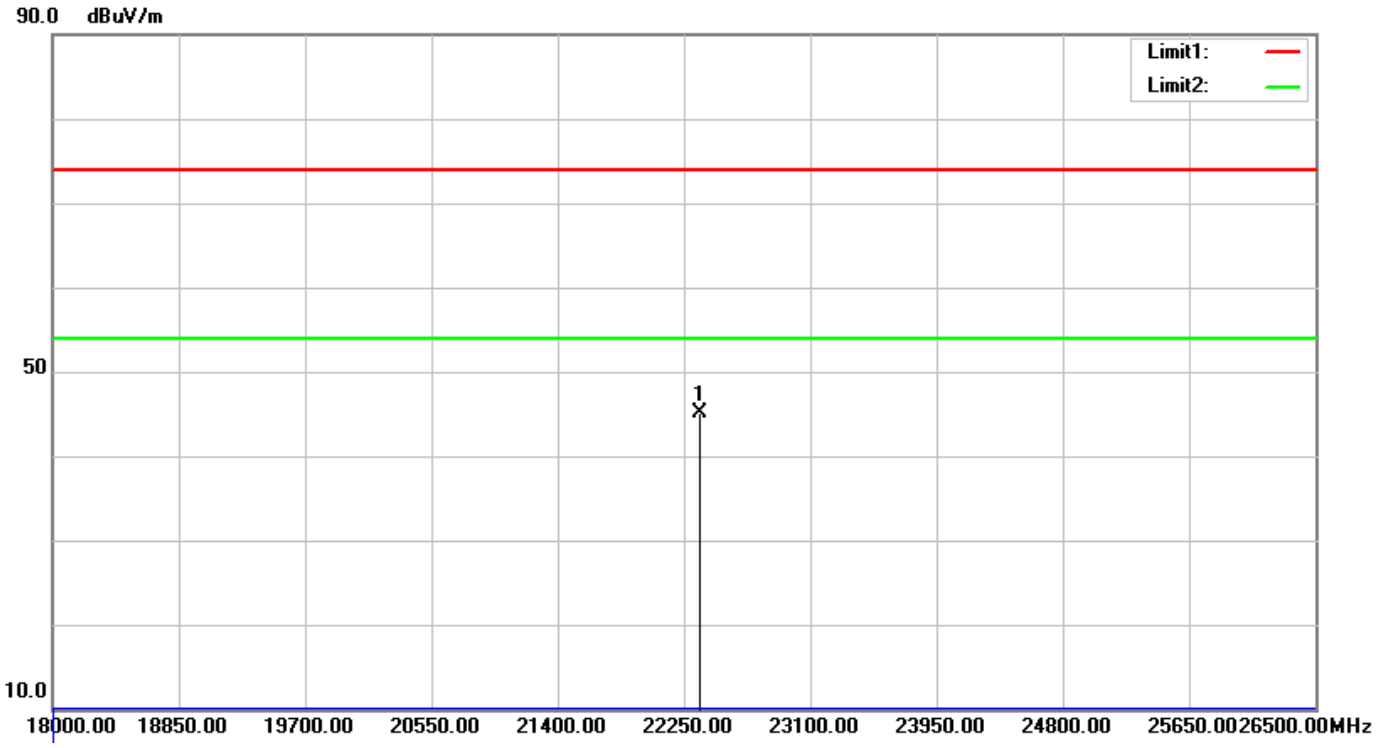

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Vertical**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:29:50**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2440-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	22360.500	29.81	15.34	45.15	74.00	-28.85	peak			

Spurious Emissions, TX Mode, 18-26G

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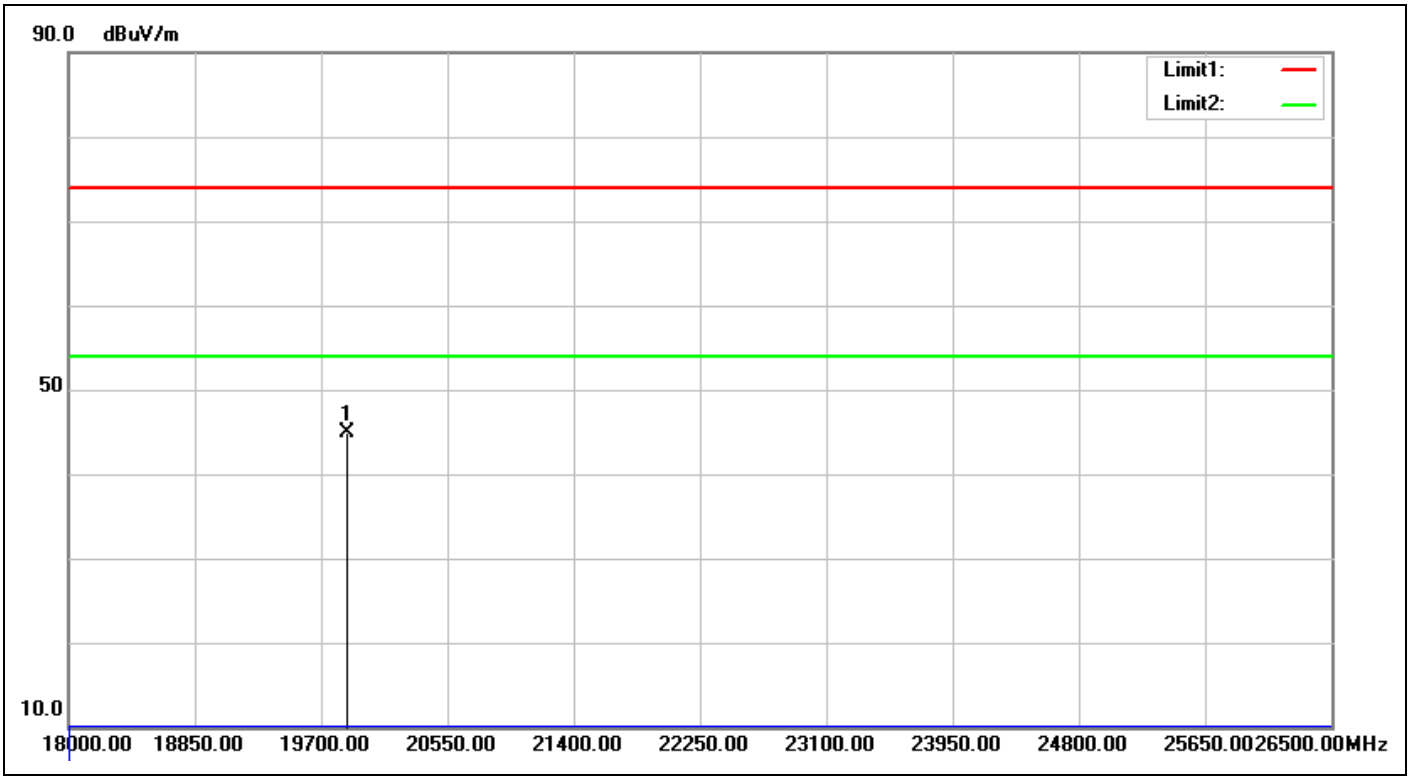

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Horizontal**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:30:05**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2480-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	19870.000	29.73	15.15	44.88	74.00	-29.12	peak			

Spurious Emissions, TX Mode, 18-26G

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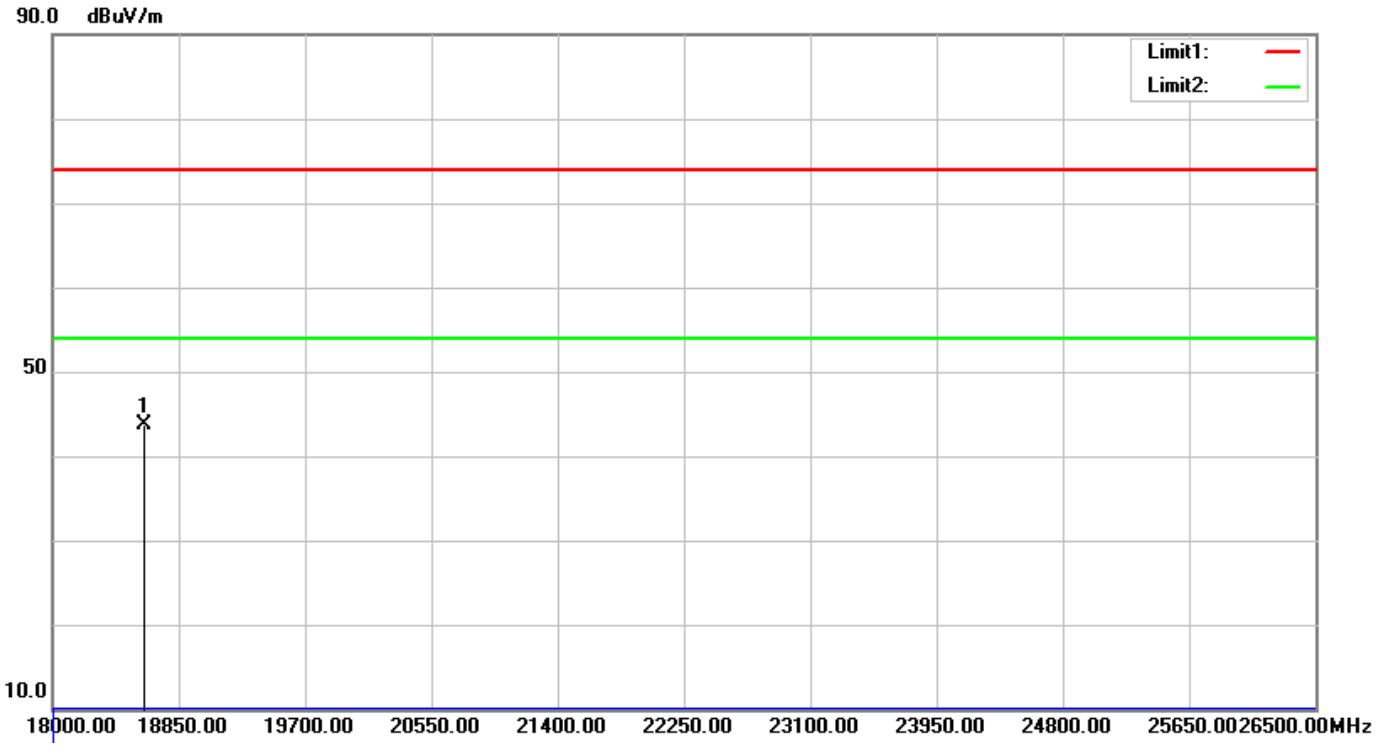

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Above 1G PEAK**	**Ant. Polarization:**	**Vertical**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:30:14**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2480-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	18620.500	29.13	14.61	43.74	74.00	-30.26	peak			

Spurious Emissions, TX Mode, 18-26G

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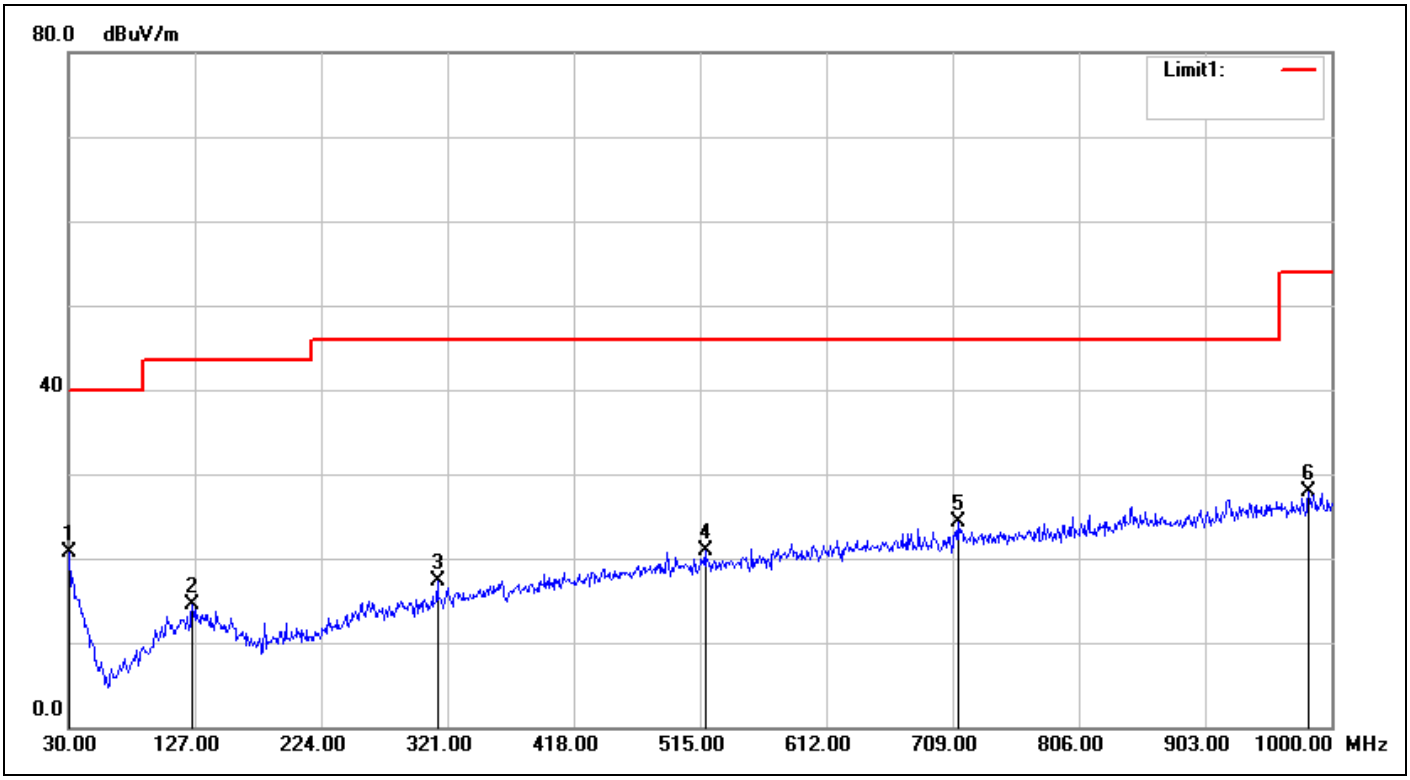

Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Class B 3M Radiation**	**Ant. Polarization:**	**Horizontal**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:45:49**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2440-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	30.9700	-6.39	27.12	20.73	40.00	-19.27	QP	100	147	
2	125.0600	-12.84	27.28	14.44	43.50	-29.06	QP	100	38	
3	313.2400	-10.19	27.46	17.27	46.00	-28.73	QP	100	347	
4	518.8800	-7.19	28.08	20.89	46.00	-25.11	QP	100	89	
5	712.8800	-4.82	29.10	24.28	46.00	-21.72	QP	100	328	
6	982.5400	-0.17	28.14	27.97	54.00	-26.03	QP	100	144	

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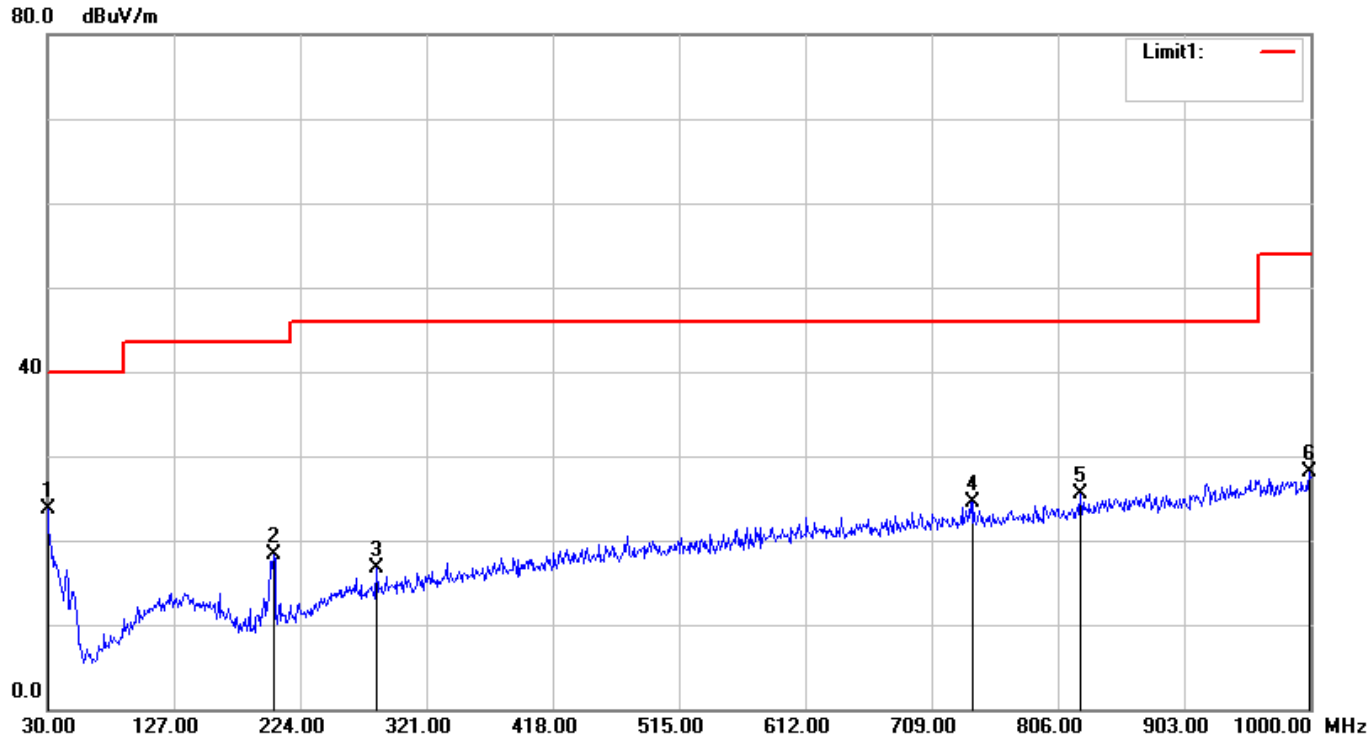
Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	**114052370-FCC**	**Test Distance:**	**3m**
Test Standard:	**FCC Class B 3M Radiation**	**Ant. Polarization:**	**Vertical**
Test item:	**Radiation Emission**	**Test Time:**	**2016/6/27 20:46:52**
Applicant:	**Indagem**	**Test Rating:**	**DC 3V**
Product:	**UMS**	**Temp.(℃)/Hum.(%):**	**20.8(℃)/56%**
Model No.:	**CS01**	**Test Engineer:**	**George Yang**
Test Mode:	**2440-TX**		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (◦)	Remark
1	30.0000	-5.85	29.46	23.61	40.00	-16.39	QP	100	190	
2	203.6300	-14.65	33.03	18.38	43.50	-25.12	QP	100	353	
3	283.1700	-10.94	27.66	16.72	46.00	-29.28	QP	100	47	
4	741.0100	-4.26	28.78	24.52	46.00	-21.48	QP	100	302	
5	823.4600	-3.09	28.66	25.57	46.00	-20.43	QP	100	132	
6	999.0300	0.00	28.05	28.05	54.00	-25.95	QP	100	360	

Spurious Emissions, TX Mode, 30M-1G