



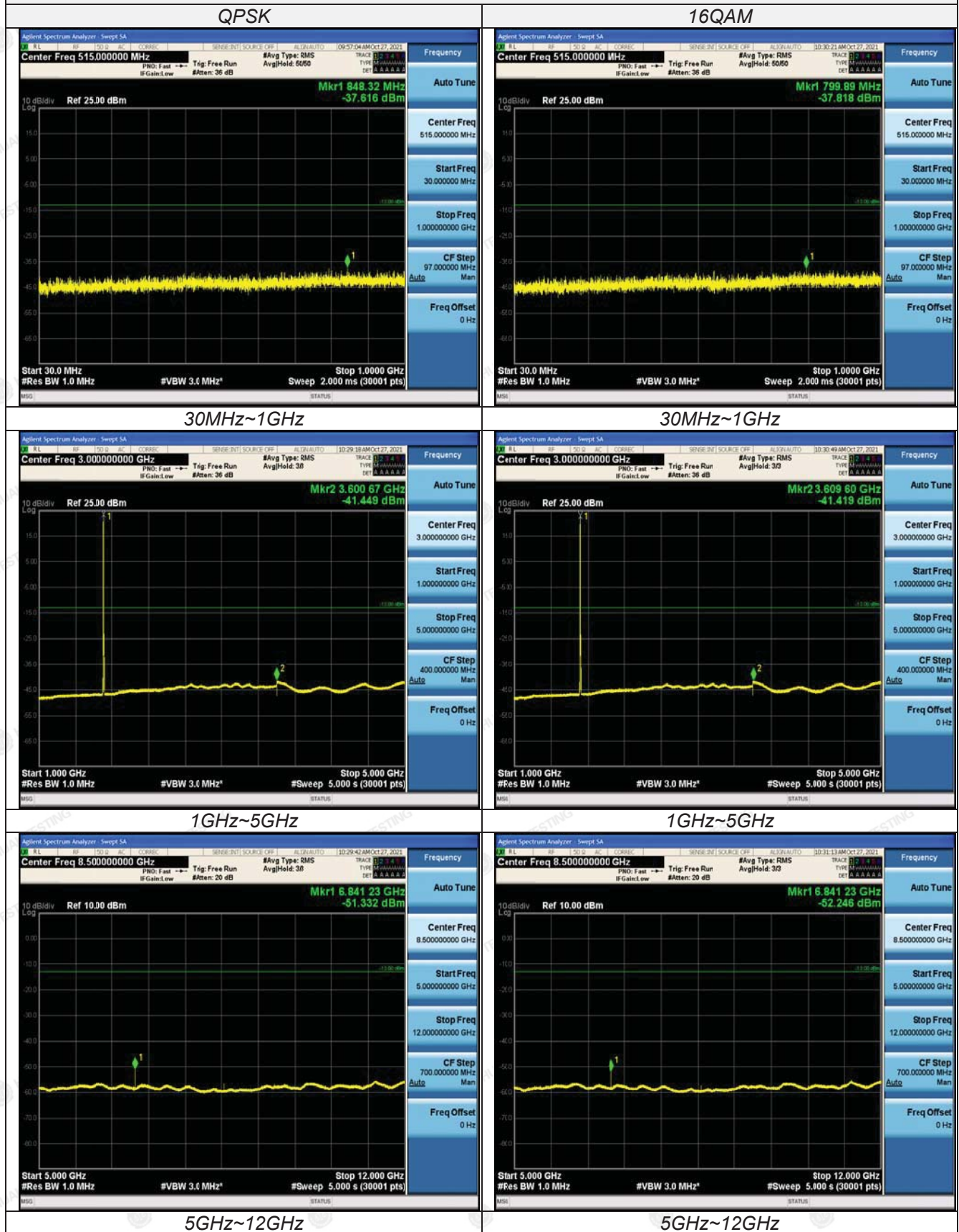
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.

HUAKE Testing Lab TEL : +86-755 2302 9901 FAX : +86-755 2302 9901 E-mail : service@cer-mark.com

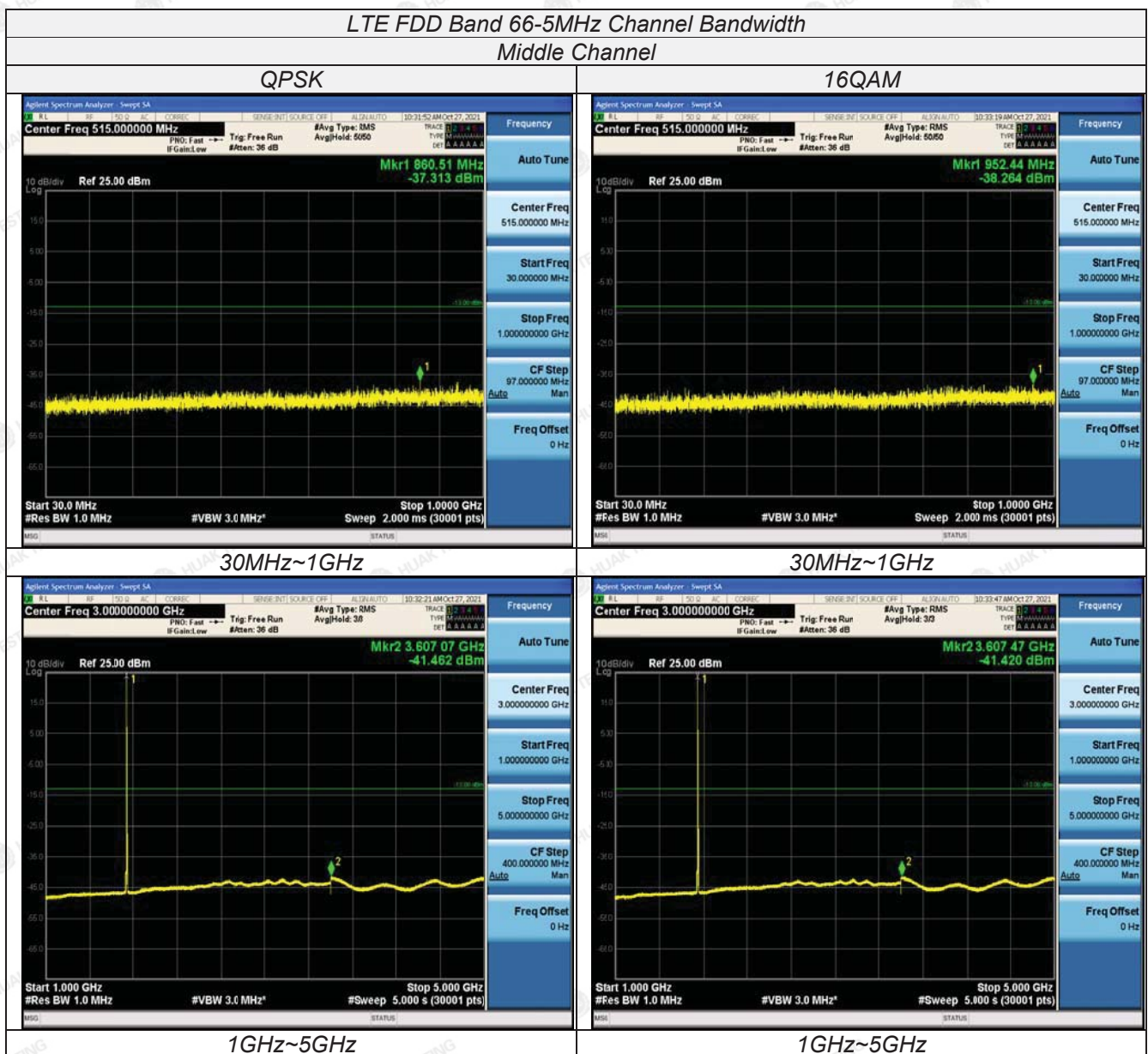
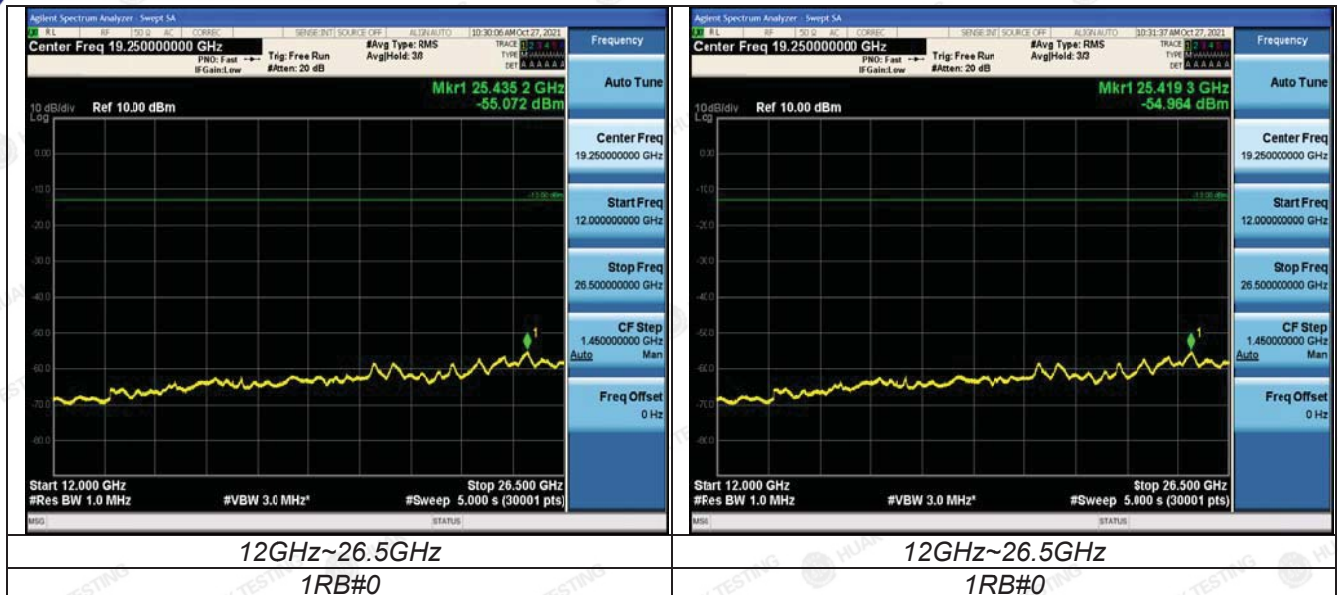
1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China



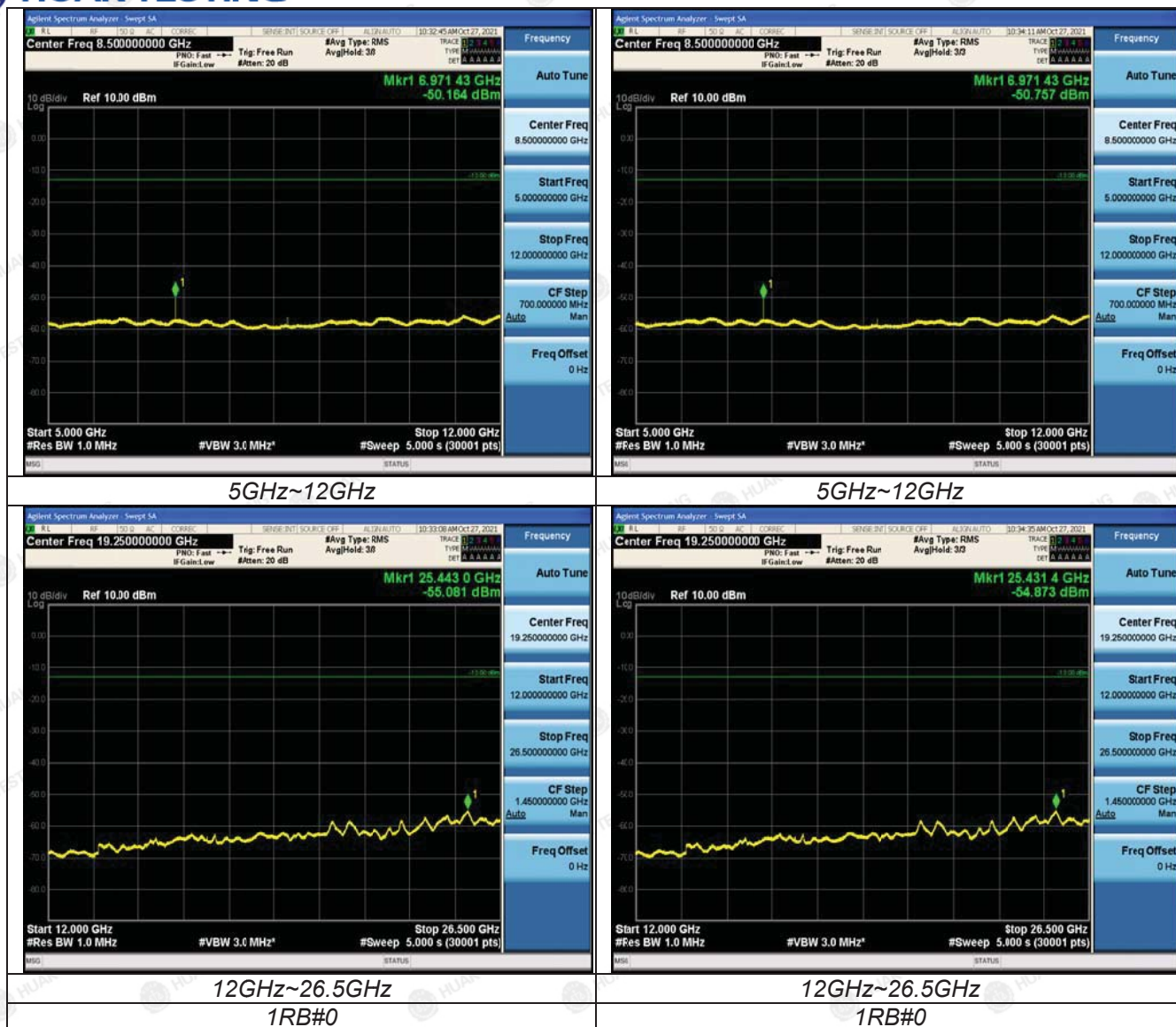
LTE FDD Band 66-5MHz Channel Bandwidth Low Channel



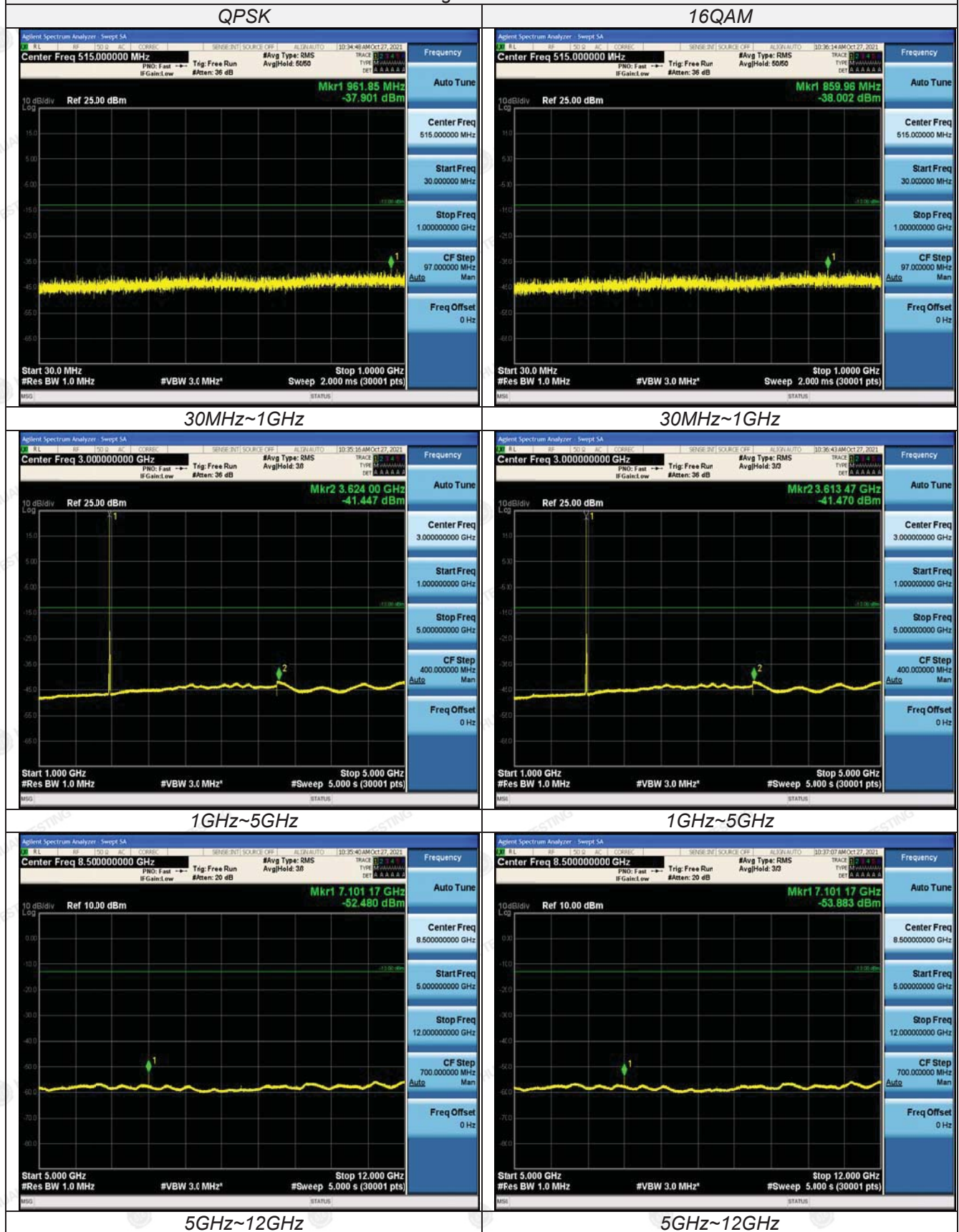
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.



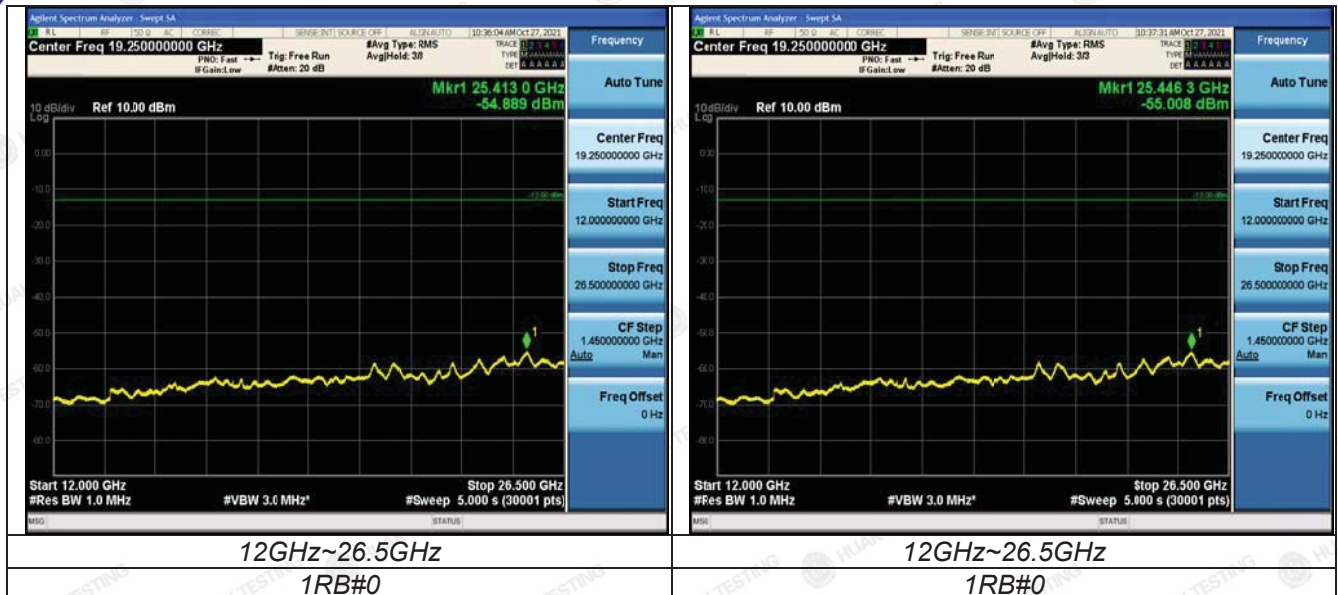
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.



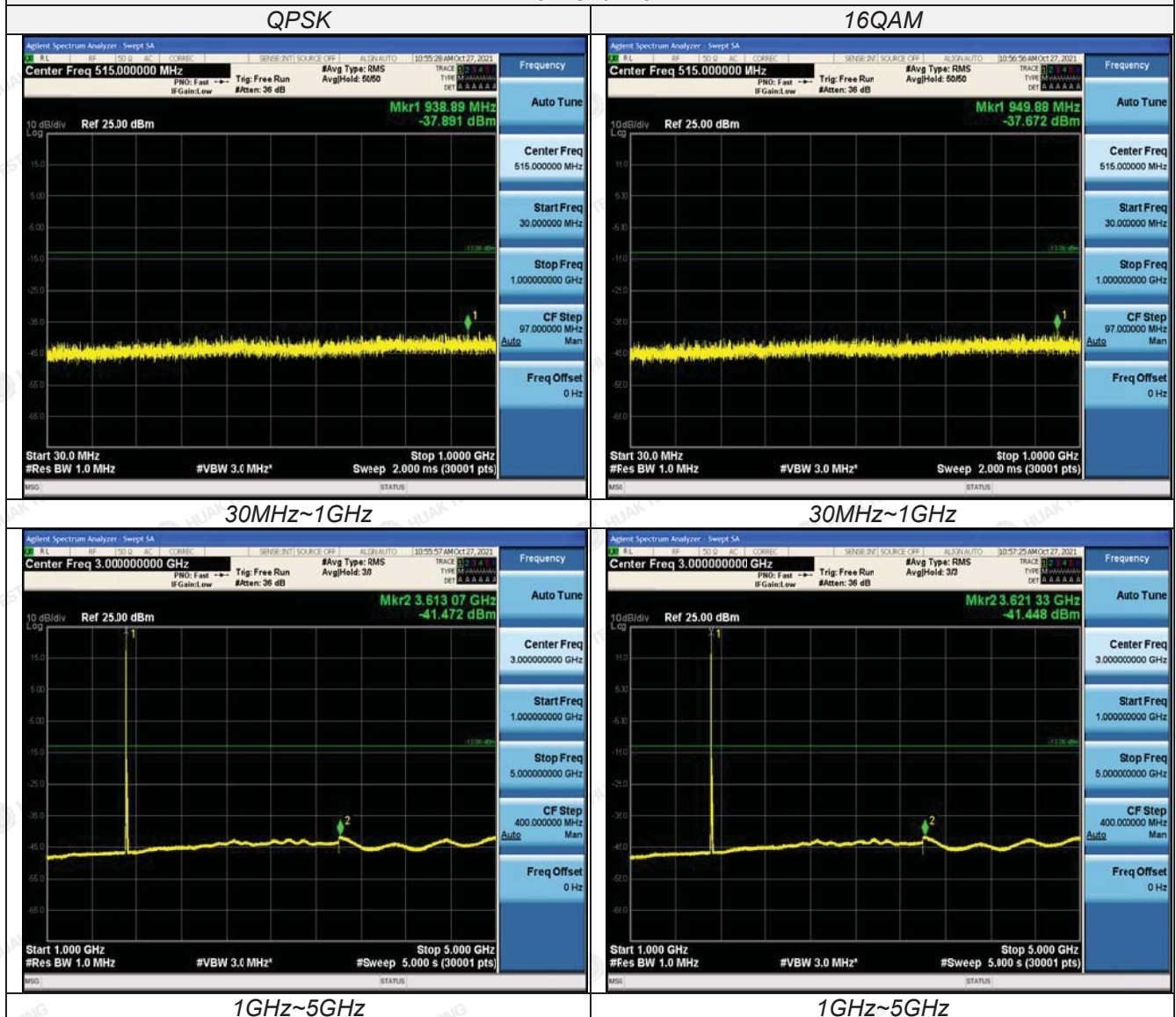
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.

LTE FDD Band 66-5MHz Channel Bandwidth
High Channel

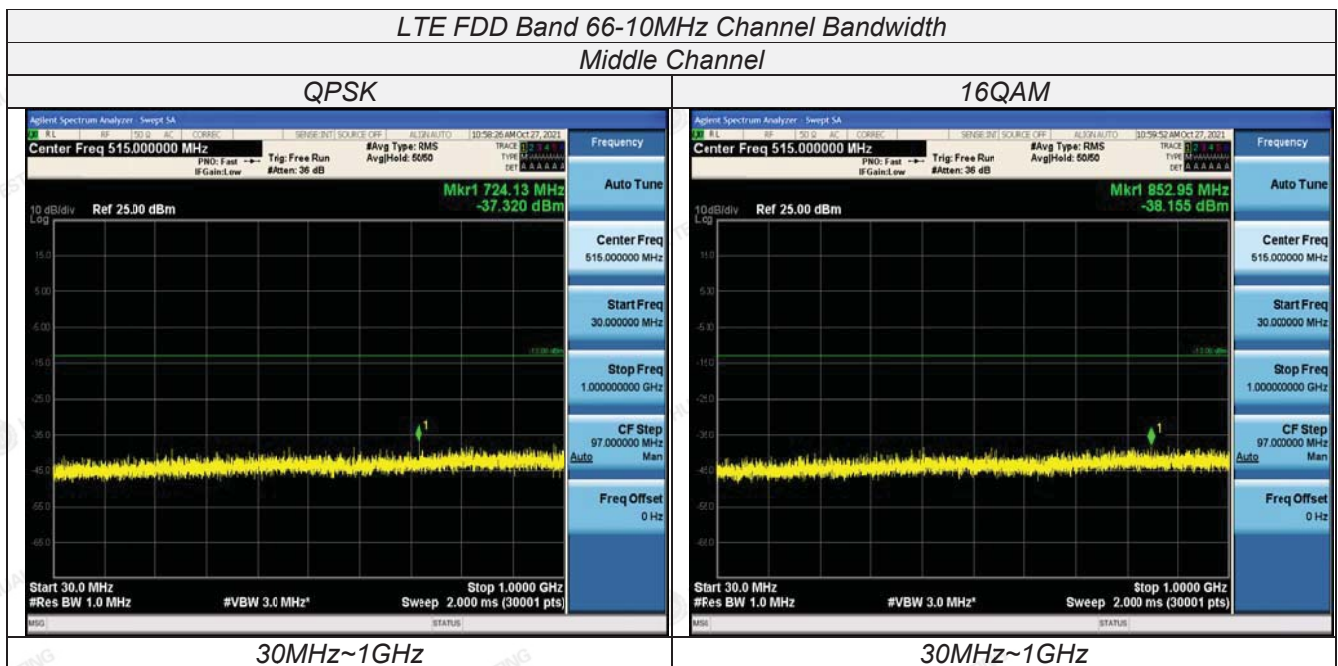
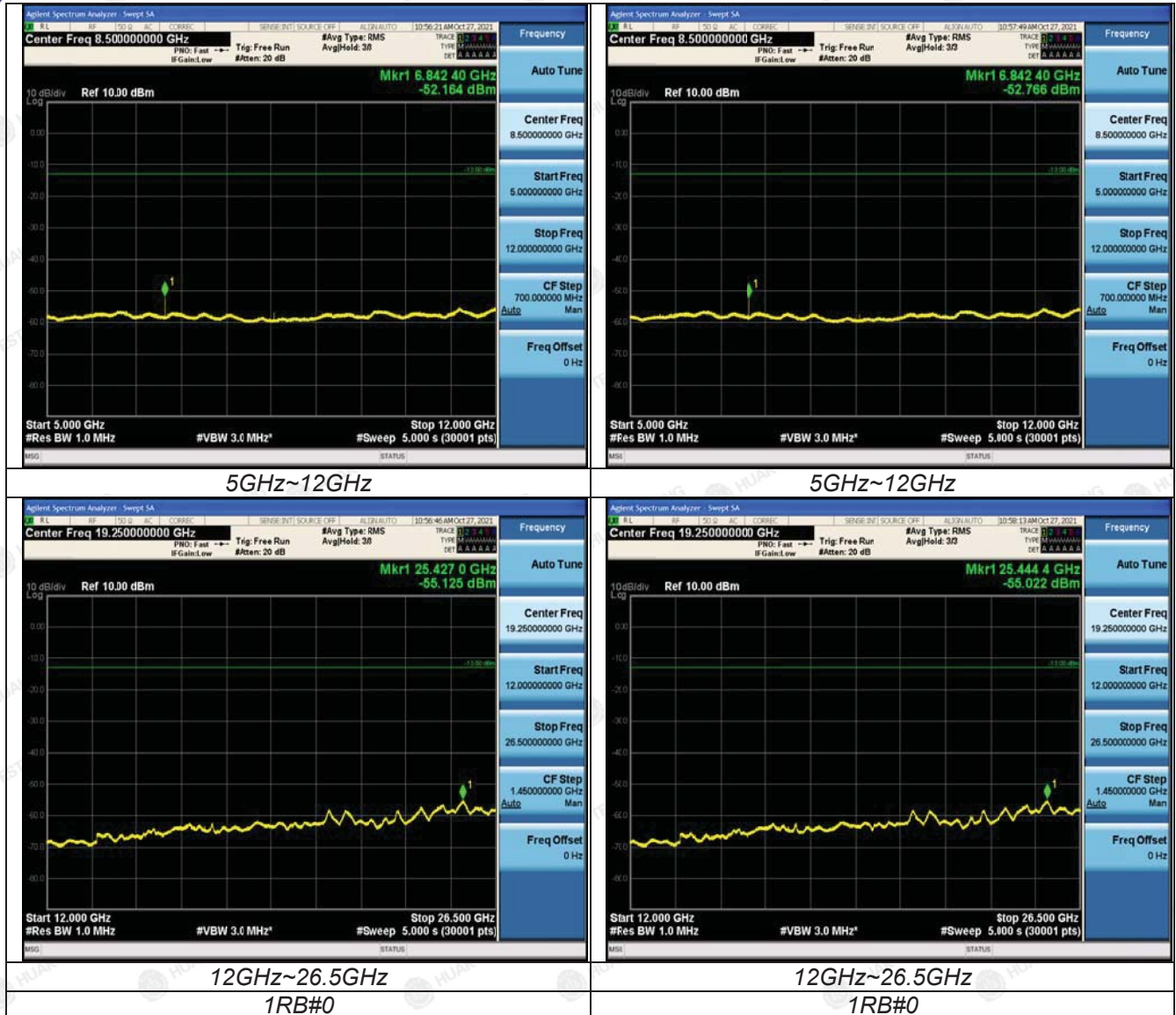
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.



LTE FDD Band 66-10MHz Channel Bandwidth Low Channel



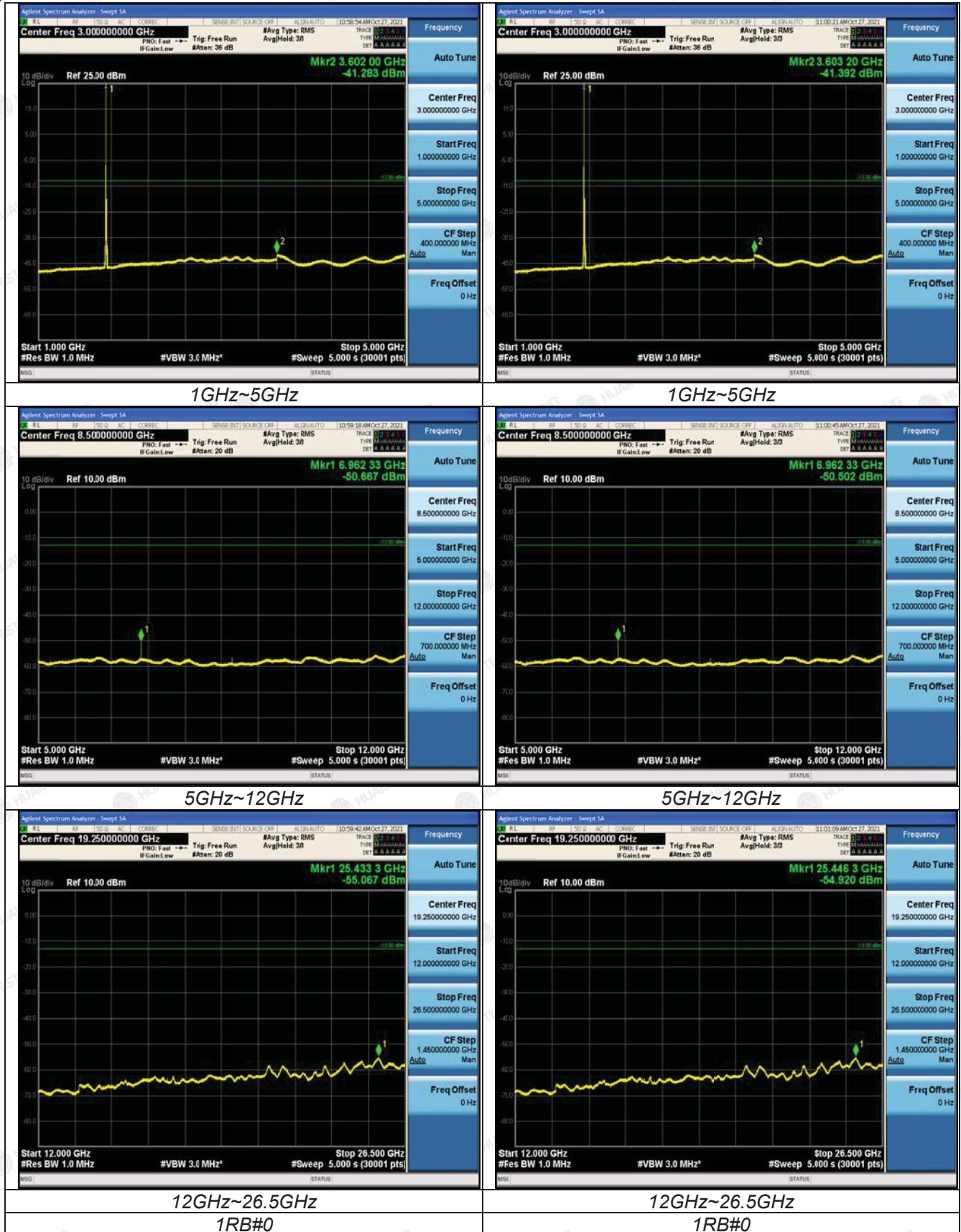
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.

HUAKE Testing Lab TEL : +86-755 2302 9901 FAX : +86-755 2302 9901 E-mail : service@cer-mark.com

1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China



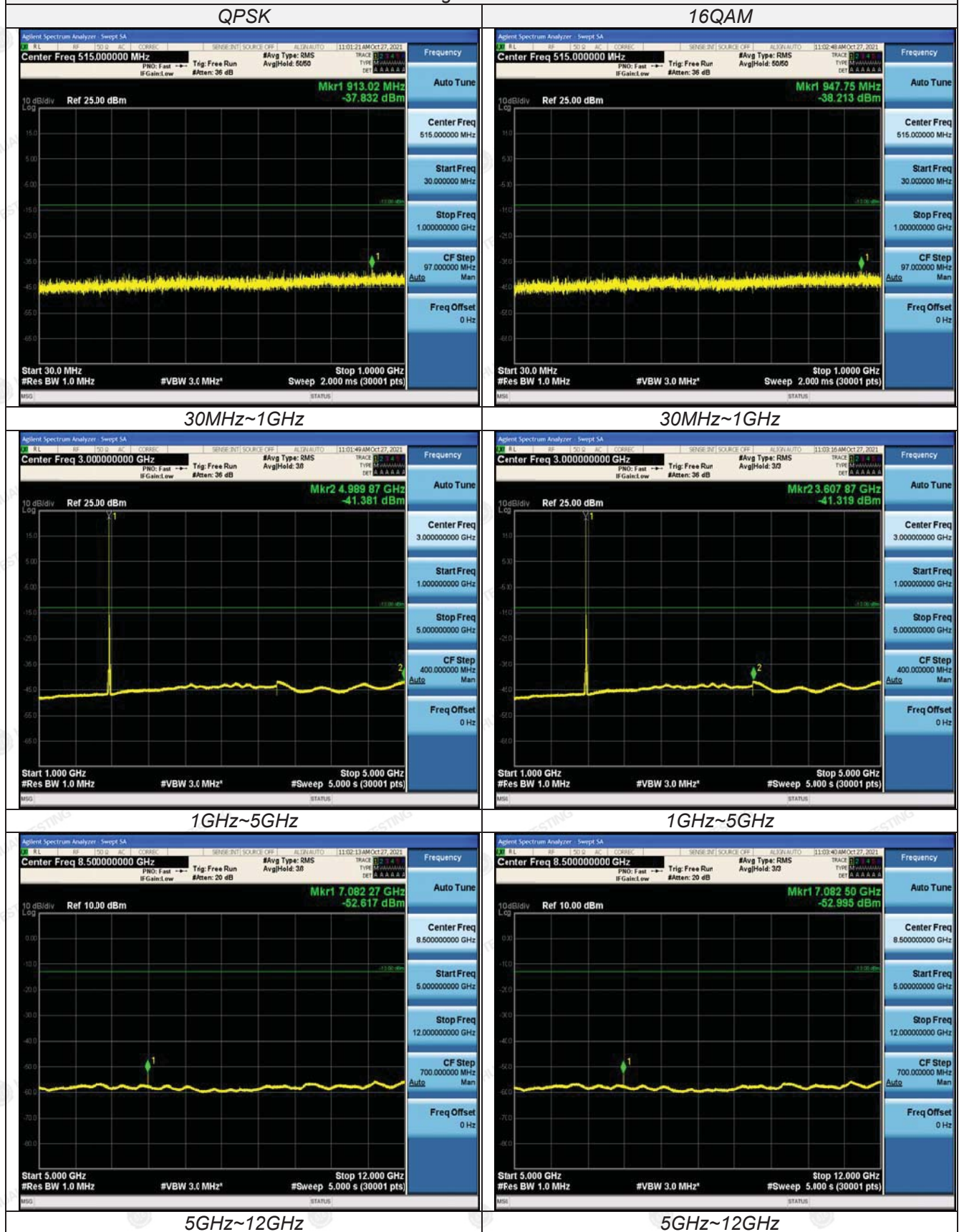
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.

HUAKE Testing Lab TEL : +86-755 2302 9901 FAX : +86-755 2302 9901 E-mail : service@cer-mark.com

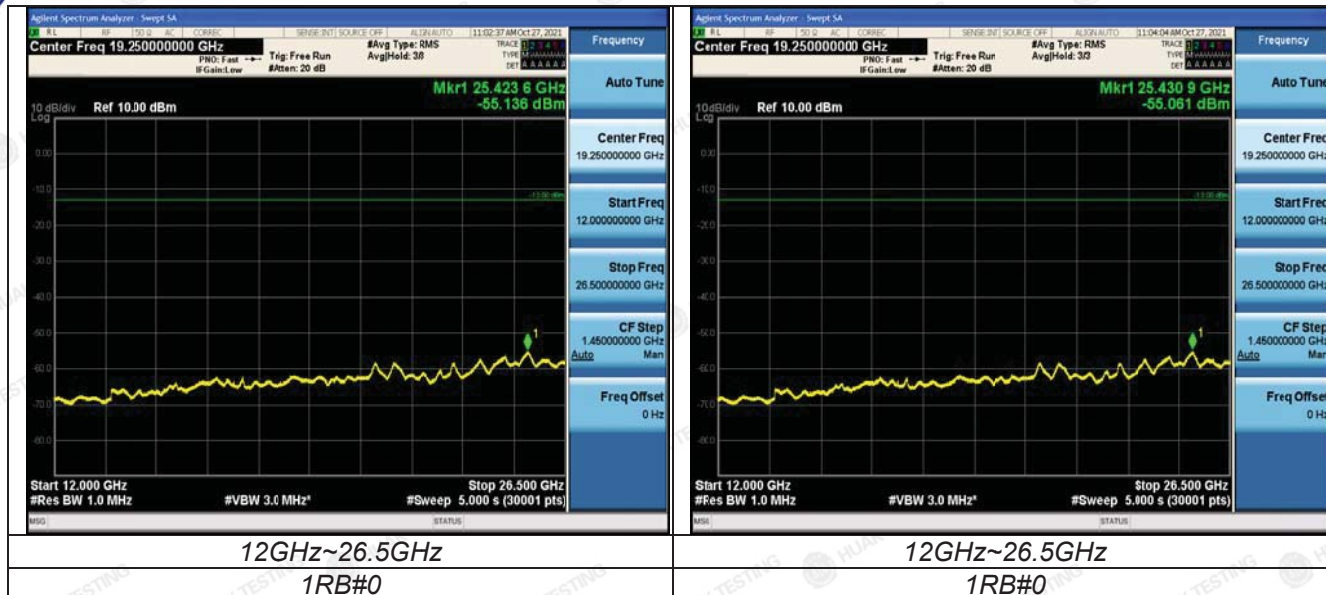
1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China



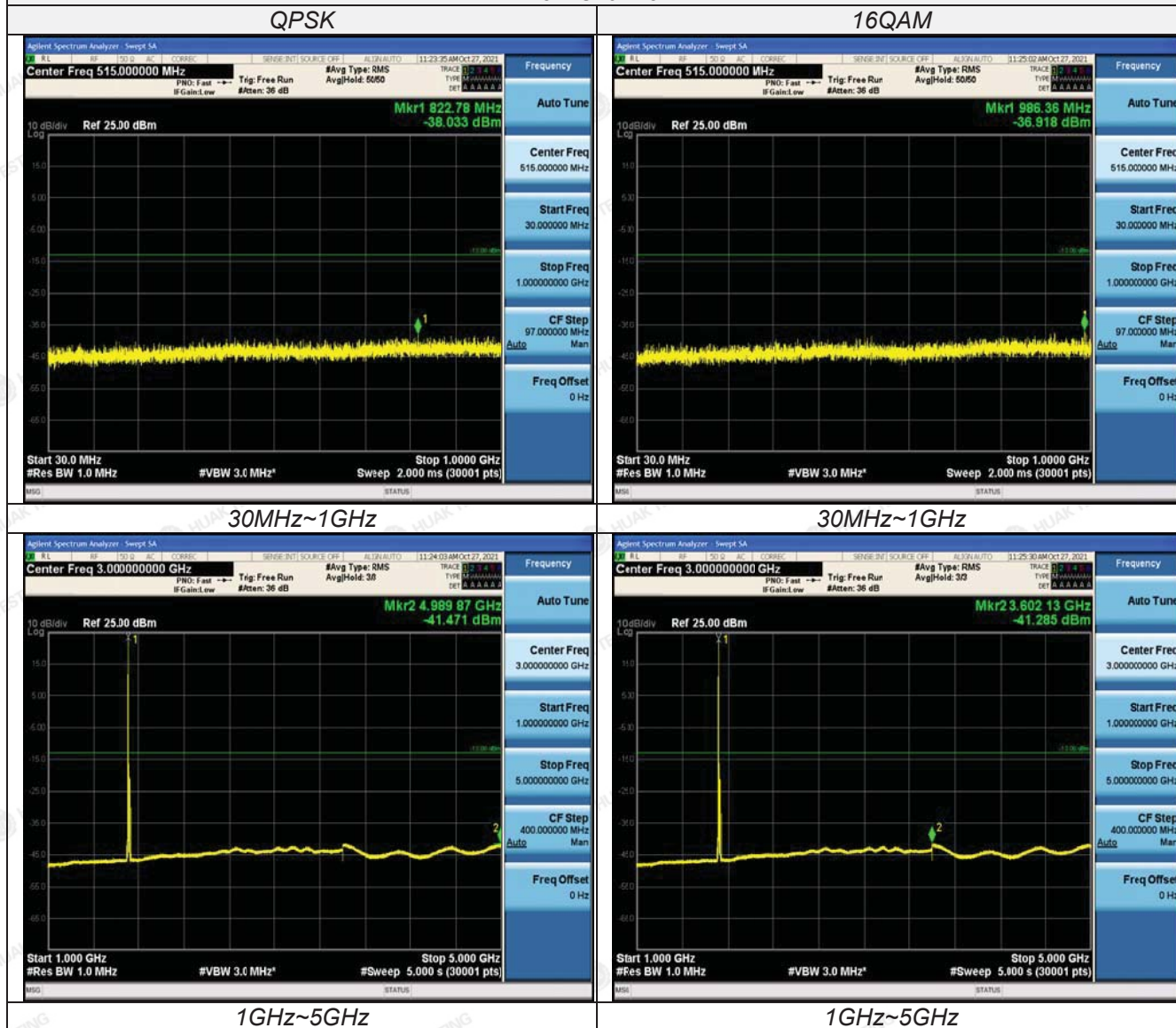
LTE FDD Band 66-10MHz Channel Bandwidth High Channel



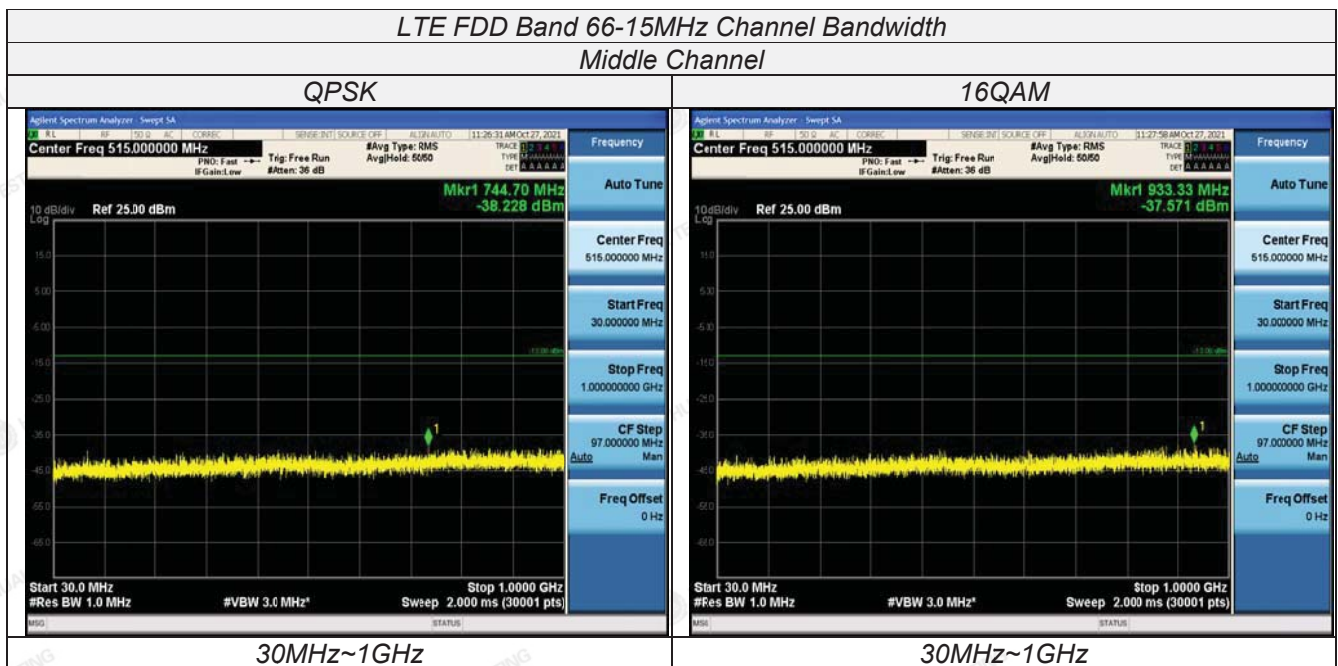
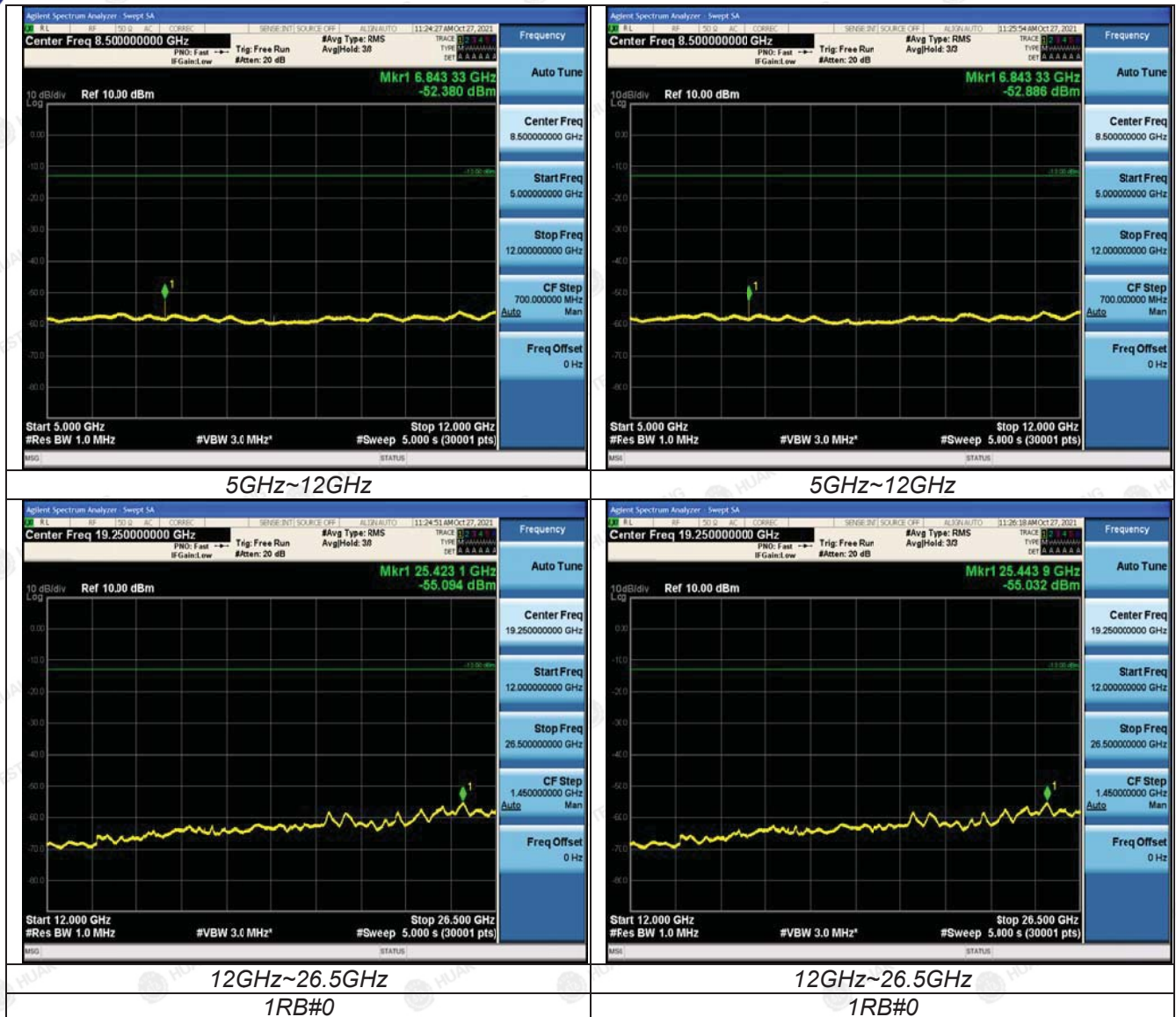
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.



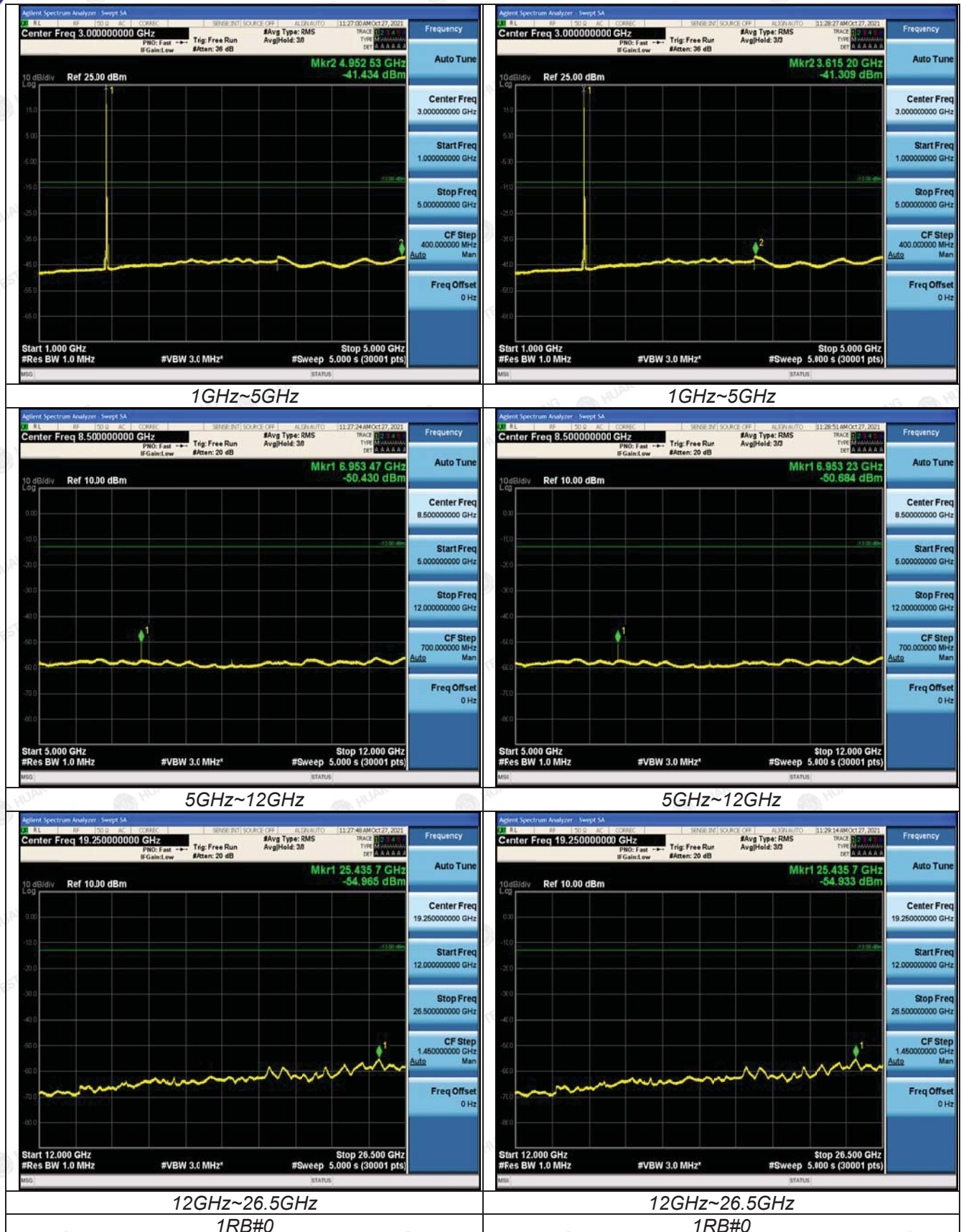
LTE FDD Band 66-15MHz Channel Bandwidth Low Channel



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.



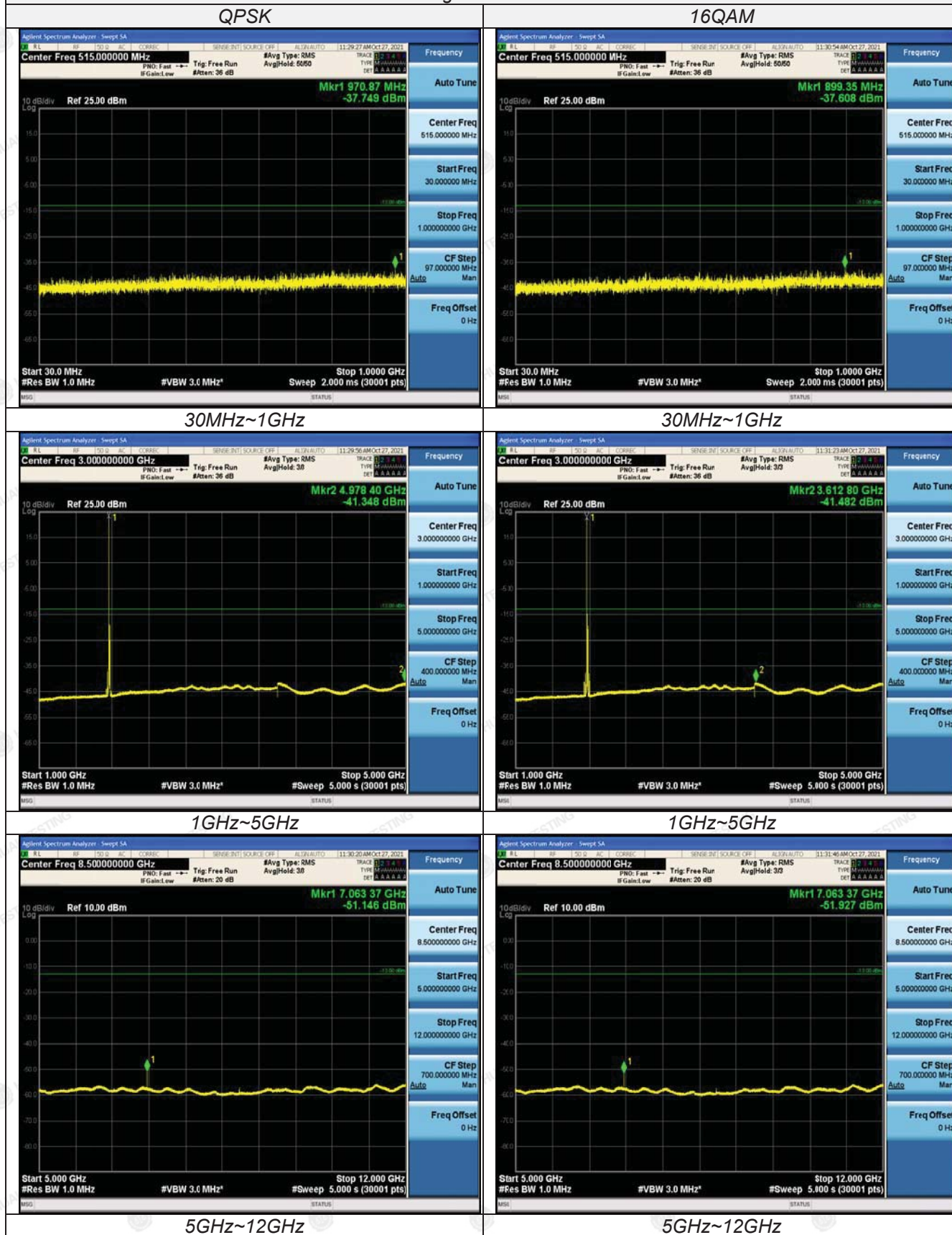
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.

HUAKE Testing Lab TEL : +86-755 2302 9901 FAX : +86-755 2302 9901 E-mail : service@cer-mark.com

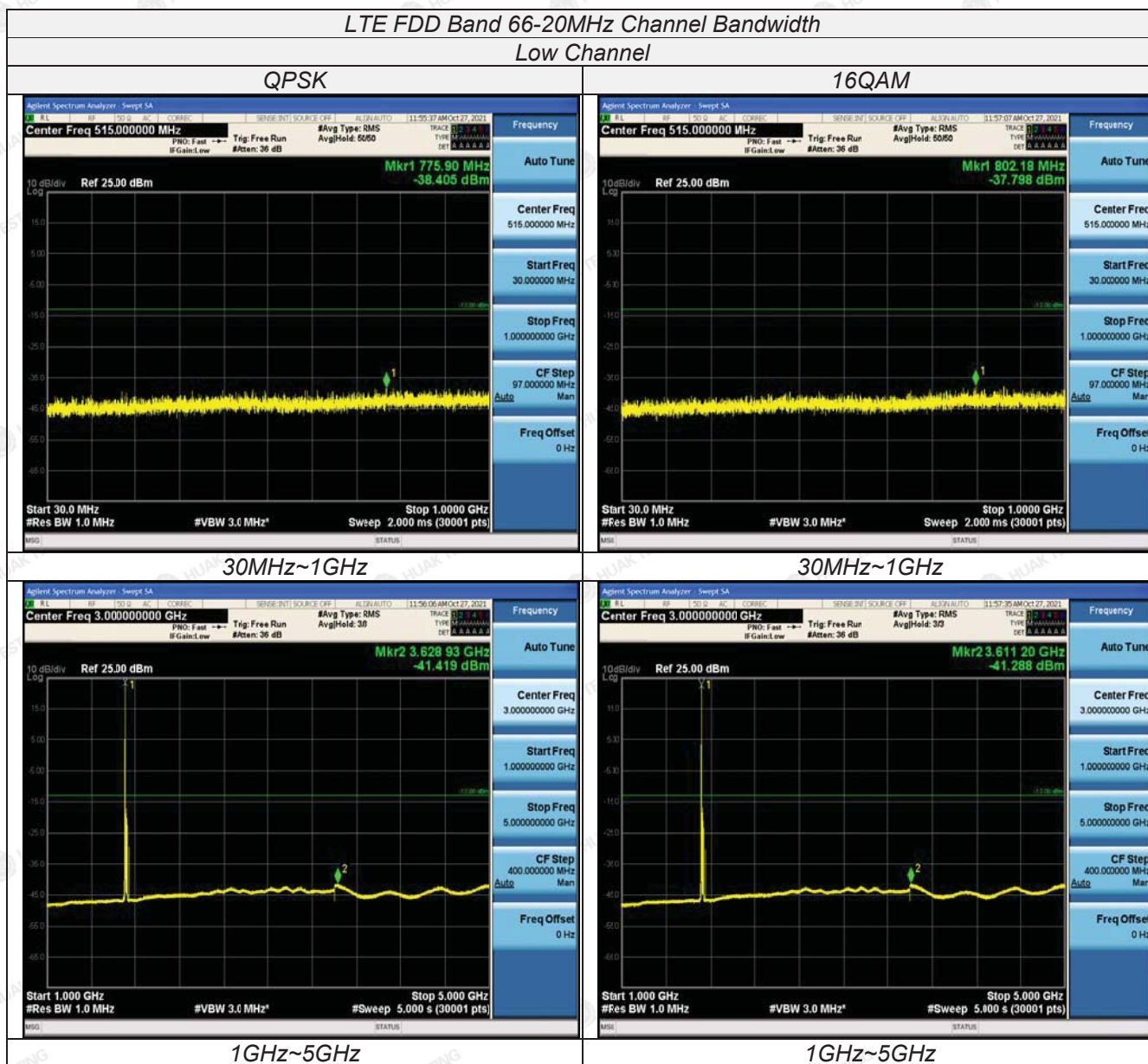
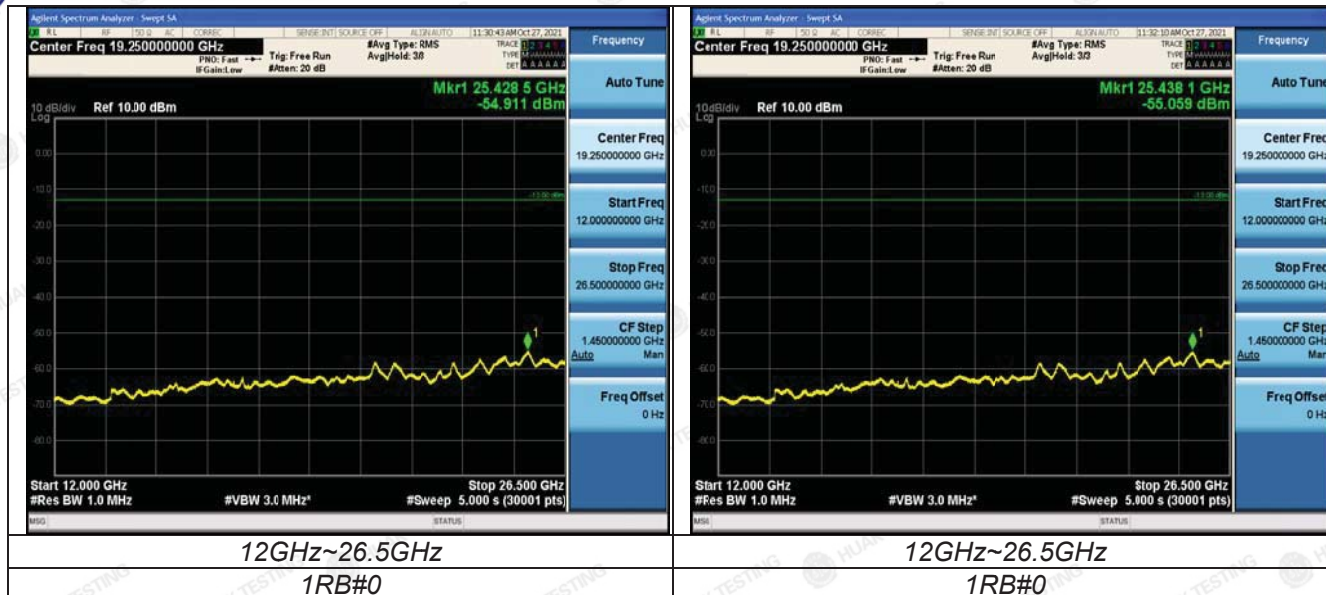
1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China



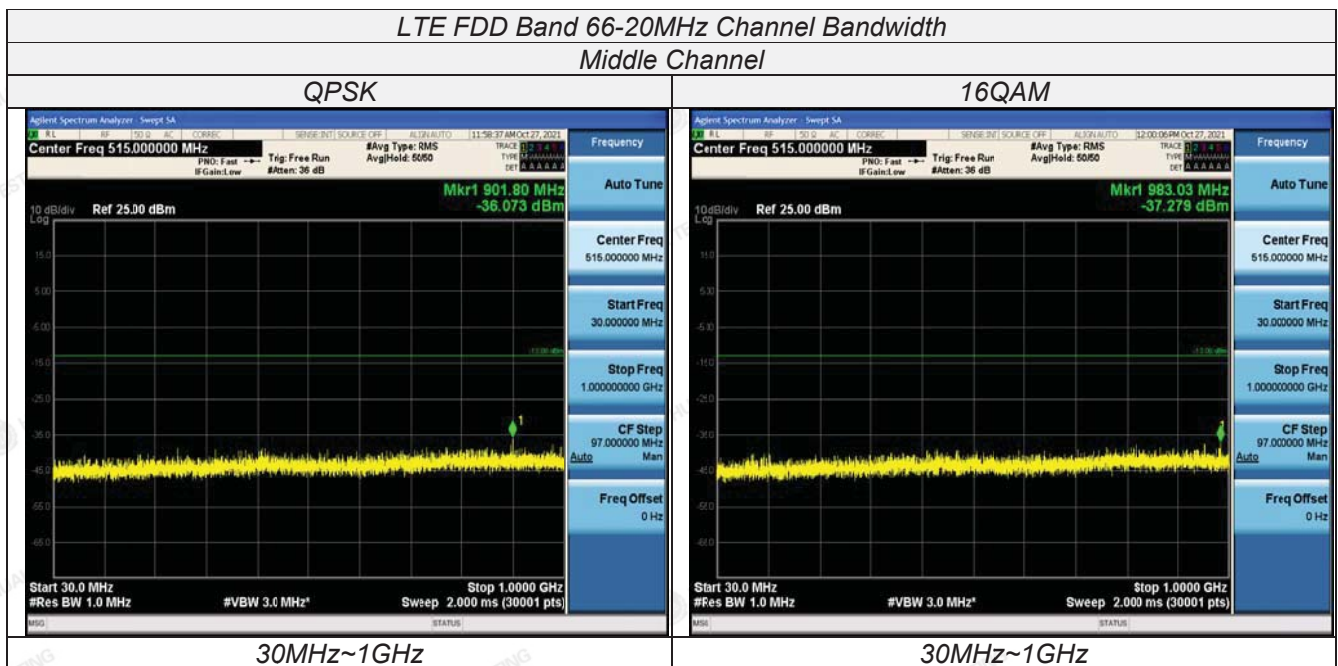
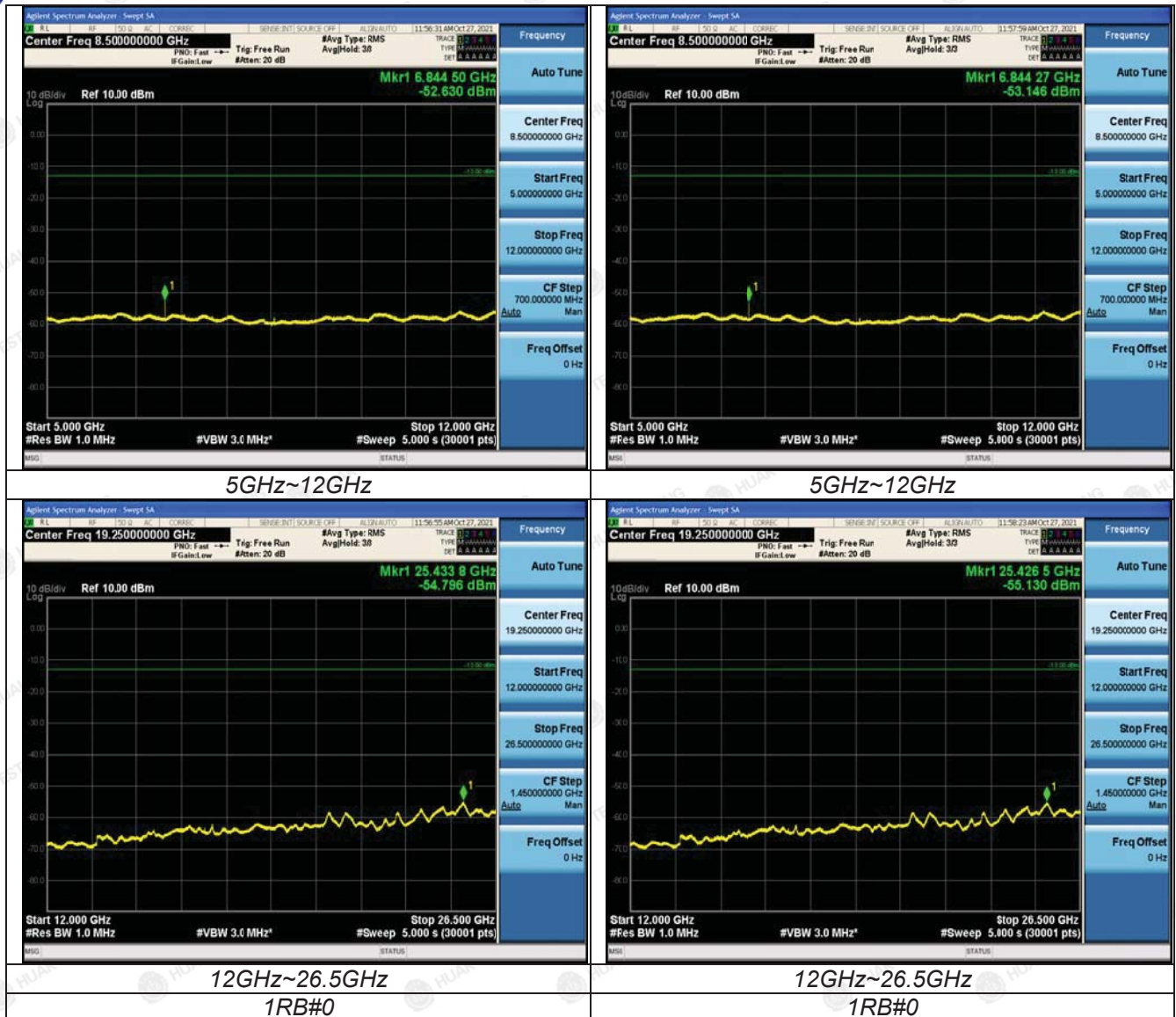
LTE FDD Band 66-15MHz Channel Bandwidth High Channel



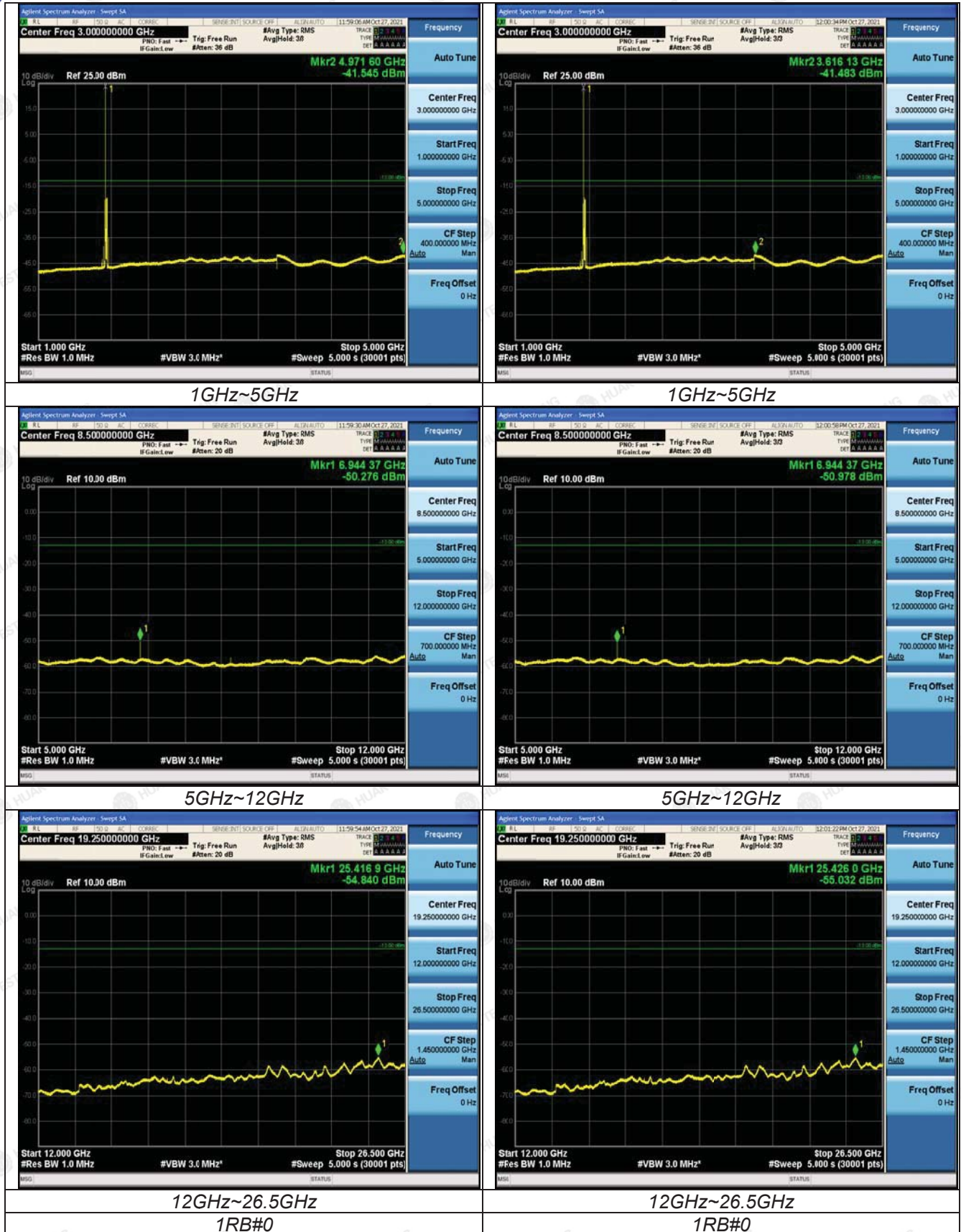
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.



The results shown in this test report refer only to the sample(s) tested otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.



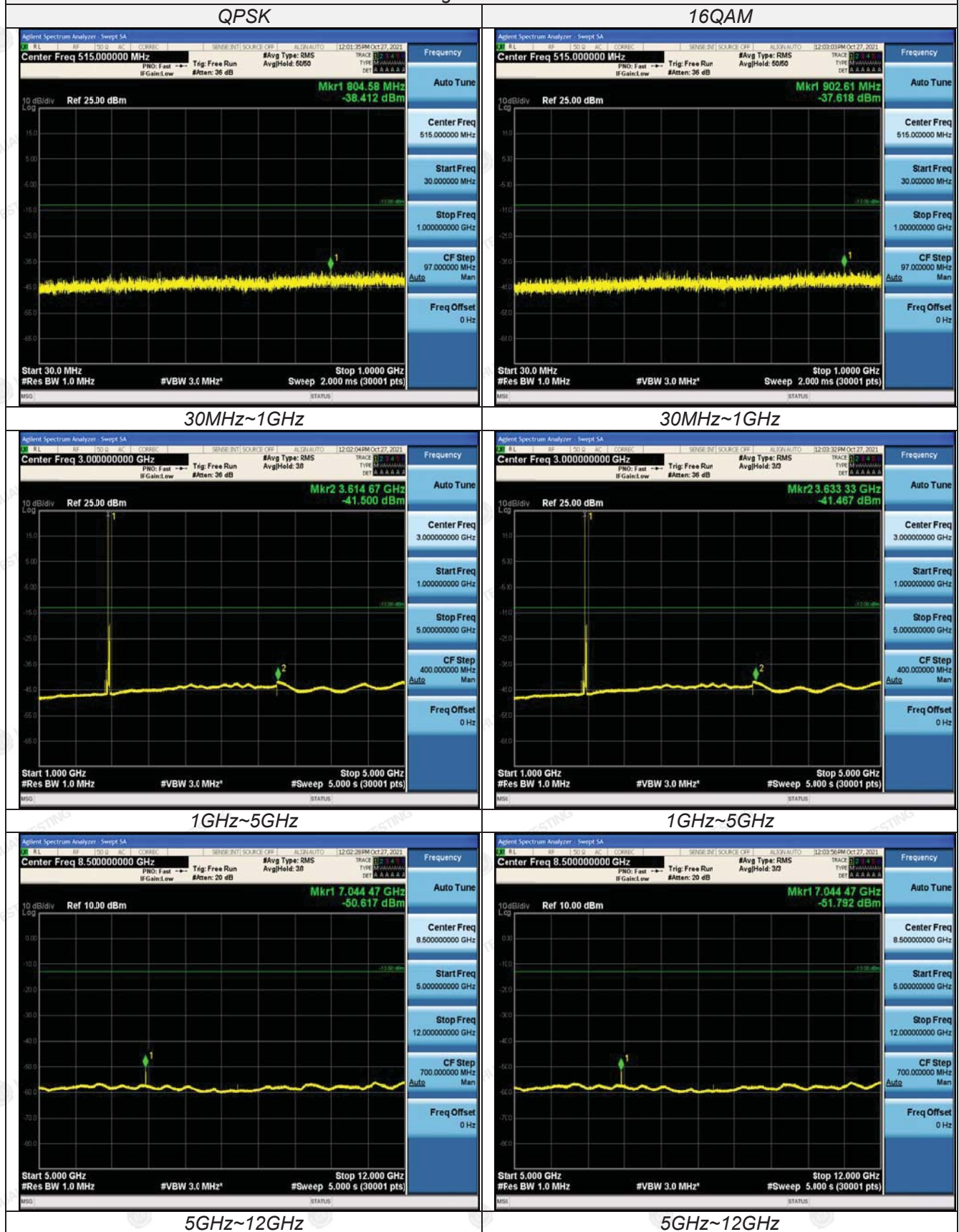
The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.

HUAKE Testing Lab TEL : +86-755 2302 9901 FAX : +86-755 2302 9901 E-mail : service@cer-mark.com

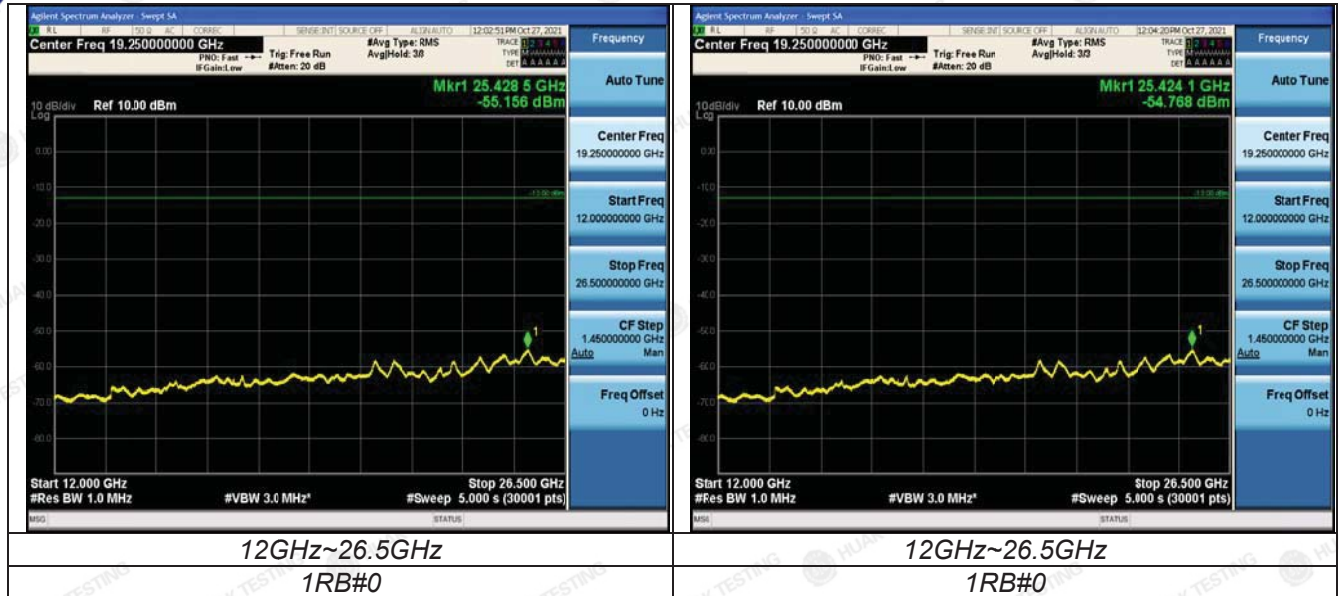
1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China



LTE FDD Band 66-20MHz Channel Bandwidth High Channel



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.

HUAKE Testing Lab TEL : +86-755 2302 9901 FAX : +86-755 2302 9901 E-mail : service@cer-mark.com

1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China



Remark:

1. We were tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE FDD Band 66; recorded worst case for each Channel Bandwidth of LTE FDD Band 66.
2. $EIRP = P_{Mea}(dBm) - P_{cl}(dB) + G_a(dBi)$
3. We were not recorded other points as values lower than limits.
4. $Margin = Limit - EIRP$

LTE FDD Band 66 Channel Bandwidth 1.4MHz QPSK Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3421.4	-44.14	4.02	3	12.5	-35.66	-13.00	22.66	H
5132.1	-49.25	5.11	3	13.38	-40.98	-13.00	27.98	H
3421.4	-51.61	4.02	3	12.5	-43.13	-13.00	30.13	V
5132.1	-50.32	5.11	3	13.38	-42.05	-13.00	29.05	V

LTE FDD Band 66 Channel Bandwidth 1.4MHz QPSK Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-43.56	4.02	3	12.45	-35.13	-13.00	22.13	H
5235	-49.34	5.11	3	13.38	-41.07	-13.00	28.07	H
3490	-51.66	4.02	3	12.45	-43.23	-13.00	30.23	V
5235	-50.24	5.11	3	13.38	-41.97	-13.00	28.97	V

LTE FDD Band 66 Channel Bandwidth 1.4MHz QPSK High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3558.6	-43.65	4.02	3	12.21	-35.46	-13.00	22.46	H
5337.9	-49.1	5.11	3	13.26	-40.95	-13.00	27.95	H
3558.6	-51.19	4.02	3	12.21	-43	-13.00	30.00	V
5337.9	-49.91	5.11	3	13.26	-41.76	-13.00	28.76	V

LTE FDD Band 66 Channel Bandwidth 3MHz QPSK Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3423.0	-43.64	4.02	3	12.5	-35.16	-13.00	22.16	H
5134.5	-48.44	5.11	3	13.38	-40.17	-13.00	27.17	H
3423.0	-51.7	4.02	3	12.5	-43.22	-13.00	30.22	V
5134.5	-49.48	5.11	3	13.38	-41.21	-13.00	28.21	V

LTE FDD Band 66 Channel Bandwidth 3MHz QPSK Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-43.83	4.02	3	12.45	-35.4	-13.00	22.40	H
5235	-48.47	5.11	3	13.38	-40.2	-13.00	27.20	H
3490	-51.77	4.02	3	12.45	-43.34	-13.00	30.34	V
5235	-49.56	5.11	3	13.38	-41.29	-13.00	28.29	V



LTE FDD Band 66 Channel Bandwidth 3MHz QPSK High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3557	-43.51	4.02	3	12.21	-35.32	-13.00	22.32	H
5335.5	-48.94	5.11	3	13.26	-40.79	-13.00	27.79	H
3557	-51.82	4.02	3	12.21	-43.63	-13.00	30.63	V
5335.5	-49.9	5.11	3	13.26	-41.75	-13.00	28.75	V

LTE FDD Band 66 Channel Bandwidth 5MHz QPSK Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3425.0	-43.38	4.02	3	12.5	-34.9	-13.00	21.90	H
5137.5	-49.13	5.11	3	13.38	-40.86	-13.00	27.86	H
3425.0	-51.19	4.02	3	12.5	-42.71	-13.00	29.71	V
5137.5	-49.58	5.11	3	13.38	-41.31	-13.00	28.31	V

LTE FDD Band 66 Channel Bandwidth 5MHz QPSK Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-44.12	4.02	3	12.45	-35.69	-13.00	22.69	H
5235	-48.55	5.11	3	13.38	-40.28	-13.00	27.28	H
3490	-51.27	4.02	3	12.45	-42.84	-13.00	29.84	V
5235	-50.22	5.11	3	13.38	-41.95	-13.00	28.95	V

LTE FDD Band 66 Channel Bandwidth 5MHz QPSK High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3555	-43.97	4.02	3	12.21	-35.78	-13.00	22.78	H
5332.5	-49.16	5.11	3	13.26	-41.01	-13.00	28.01	H
3555	-51.06	4.02	3	12.21	-42.87	-13.00	29.87	V
5332.5	-50.15	5.11	3	13.26	-42	-13.00	29.00	V

LTE FDD Band 66 Channel Bandwidth 10MHz QPSK Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3430.0	-43.86	4.02	3	12.5	-35.38	-13.00	22.38	H
5145.0	-49	5.11	3	13.38	-40.73	-13.00	27.73	H
3430.0	-51.51	4.02	3	12.5	-43.03	-13.00	30.03	V
5145.0	-49.61	5.11	3	13.38	-41.34	-13.00	28.34	V

LTE FDD Band 66 Channel Bandwidth 10MHz QPSK Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-43.56	4.02	3	12.45	-35.13	-13.00	22.13	H
5235	-48.42	5.11	3	13.38	-40.15	-13.00	27.15	H
3490	-50.9	4.02	3	12.45	-42.47	-13.00	29.47	V
5235	-49.74	5.11	3	13.38	-41.47	-13.00	28.47	V



LTE FDD Band 66_Channel Bandwidth 10MHz_QPSK_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3550	-43.65	4.02	3	12.21	-35.46	-13.00	22.46	H
5325	-48.76	5.11	3	13.26	-40.61	-13.00	27.61	H
3550	-51.34	4.02	3	12.21	-43.15	-13.00	30.15	V
5325	-49.61	5.11	3	13.26	-41.46	-13.00	28.46	V

LTE FDD Band 66_Channel Bandwidth 15MHz_QPSK_Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3435.0	-44.24	4.02	3	12.5	-35.76	-13.00	22.76	H
5152.5	-48.47	5.11	3	13.38	-40.2	-13.00	27.20	H
3435.0	-51.21	4.02	3	12.5	-42.73	-13.00	29.73	V
5152.5	-50.13	5.11	3	13.38	-41.86	-13.00	28.86	V

LTE FDD Band 66_Channel Bandwidth 15MHz_QPSK_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-43.4	4.02	3	12.45	-34.97	-13.00	21.97	H
5235	-48.89	5.11	3	13.38	-40.62	-13.00	27.62	H
3490	-51.02	4.02	3	12.45	-42.59	-13.00	29.59	V
5235	-49.96	5.11	3	13.38	-41.69	-13.00	28.69	V

LTE FDD Band 66_Channel Bandwidth 15MHz_QPSK_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3545	-43.57	4.02	3	12.21	-35.38	-13.00	22.38	H
5317.5	-48.81	5.11	3	13.26	-40.66	-13.00	27.66	H
3545	-51.62	4.02	3	12.21	-43.43	-13.00	30.43	V
5317.5	-49.53	5.11	3	13.26	-41.38	-13.00	28.38	V

LTE FDD Band 66_Channel Bandwidth 20MHz_QPSK_Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3440.0	-44	4.02	3	12.5	-35.52	-13.00	22.52	H
5160.0	-48.83	5.11	3	13.38	-40.56	-13.00	27.56	H
3440.0	-51.37	4.02	3	12.5	-42.89	-13.00	29.89	V
5160.0	-49.86	5.11	3	13.38	-41.59	-13.00	28.59	V

LTE FDD Band 66_Channel Bandwidth 20MHz_QPSK_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-43.59	4.02	3	12.45	-35.16	-13.00	22.16	H
5235	-48.48	5.11	3	13.38	-40.21	-13.00	27.21	H
3490	-51.26	4.02	3	12.45	-42.83	-13.00	29.83	V
5235	-49.7	5.11	3	13.38	-41.43	-13.00	28.43	V



LTE FDD Band 66 Channel Bandwidth 20MHz QPSK High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3540	-43.61	4.02	3	12.21	-35.42	-13.00	22.42	H
5310	-48.84	5.11	3	13.26	-40.69	-13.00	27.69	H
3540	-51.13	4.02	3	12.21	-42.94	-13.00	29.94	V
5310	-49.37	5.11	3	13.26	-41.22	-13.00	28.22	V

LTE FDD Band 66 Channel Bandwidth 1.4MHz 16QAM Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3421.4	-43.34	4.02	3	12.5	-34.86	-13.00	21.86	H
5132.1	-48.43	5.11	3	13.38	-40.16	-13.00	27.16	H
3421.4	-51.62	4.02	3	12.5	-43.14	-13.00	30.14	V
5132.1	-49.77	5.11	3	13.38	-41.5	-13.00	28.50	V

LTE FDD Band 66 Channel Bandwidth 1.4MHz 16QAM Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-43.77	4.02	3	12.45	-35.34	-13.00	22.34	H
5235	-49.18	5.11	3	13.38	-40.91	-13.00	27.91	H
3490	-51.58	4.02	3	12.45	-43.15	-13.00	30.15	V
5235	-50.23	5.11	3	13.38	-41.96	-13.00	28.96	V

LTE FDD Band 66 Channel Bandwidth 1.4MHz 16QAM High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3558.6	-44.19	4.02	3	12.21	-36	-13.00	23.00	H
5337.9	-49.19	5.11	3	13.26	-41.04	-13.00	28.04	H
3558.6	-51.32	4.02	3	12.21	-43.13	-13.00	30.13	V
5337.9	-50.12	5.11	3	13.26	-41.97	-13.00	28.97	V

LTE FDD Band 66 Channel Bandwidth 3MHz 16QAM Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3423.0	-43.74	4.02	3	12.5	-35.26	-13.00	22.26	H
5134.5	-48.52	5.11	3	13.38	-40.25	-13.00	27.25	H
3423.0	-51.85	4.02	3	12.5	-43.37	-13.00	30.37	V
5134.5	-49.65	5.11	3	13.38	-41.38	-13.00	28.38	V

LTE FDD Band 66 Channel Bandwidth 3MHz 16QAM Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-43.78	4.02	3	12.45	-35.35	-13.00	22.35	H
5235	-48.88	5.11	3	13.38	-40.61	-13.00	27.61	H
3490	-51.29	4.02	3	12.45	-42.86	-13.00	29.86	V
5235	-50.16	5.11	3	13.38	-41.89	-13.00	28.89	V



LTE FDD Band 66 Channel Bandwidth 3MHz 16QAM High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3557	-43.43	4.02	3	12.21	-35.24	-13.00	22.24	H
5335.5	-48.83	5.11	3	13.26	-40.68	-13.00	27.68	H
3557	-50.98	4.02	3	12.21	-42.79	-13.00	29.79	V
5335.5	-49.7	5.11	3	13.26	-41.55	-13.00	28.55	V

LTE FDD Band 66 Channel Bandwidth 5MHz 16QAM Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3425.0	-43.27	4.02	3	12.5	-34.79	-13.00	21.79	H
5137.5	-48.73	5.11	3	13.38	-40.46	-13.00	27.46	H
3425.0	-51.44	4.02	3	12.5	-42.96	-13.00	29.96	V
5137.5	-49.61	5.11	3	13.38	-41.34	-13.00	28.34	V

LTE FDD Band 66 Channel Bandwidth 5MHz 16QAM Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-43.82	4.02	3	12.45	-35.39	-13.00	22.39	H
5235	-49.01	5.11	3	13.38	-40.74	-13.00	27.74	H
3490	-50.92	4.02	3	12.45	-42.49	-13.00	29.49	V
5235	-49.99	5.11	3	13.38	-41.72	-13.00	28.72	V

LTE FDD Band 66 Channel Bandwidth 5MHz 16QAM High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3555	-43.92	4.02	3	12.21	-35.73	-13.00	22.73	H
5332.5	-48.92	5.11	3	13.26	-40.77	-13.00	27.77	H
3555	-51.74	4.02	3	12.21	-43.55	-13.00	30.55	V
5332.5	-49.88	5.11	3	13.26	-41.73	-13.00	28.73	V

LTE FDD Band 66 Channel Bandwidth 10MHz 16QAM Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3430.0	-43.94	4.02	3	12.5	-35.46	-13.00	22.46	H
5145.0	-48.78	5.11	3	13.38	-40.51	-13.00	27.51	H
3430.0	-51.39	4.02	3	12.5	-42.91	-13.00	29.91	V
5145.0	-49.55	5.11	3	13.38	-41.28	-13.00	28.28	V

LTE FDD Band 66 Channel Bandwidth 10MHz 16QAM Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-43.28	4.02	3	12.45	-34.85	-13.00	21.85	H
5235	-48.44	5.11	3	13.38	-40.17	-13.00	27.17	H
3490	-50.9	4.02	3	12.45	-42.47	-13.00	29.47	V
5235	-49.6	5.11	3	13.38	-41.33	-13.00	28.33	V



LTE FDD Band 66 Channel Bandwidth 10MHz 16QAM High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3550	-43.47	4.02	3	12.21	-35.28	-13.00	22.28	H
5325	-49.05	5.11	3	13.26	-40.9	-13.00	27.90	H
3550	-51.06	4.02	3	12.21	-42.87	-13.00	29.87	V
5325	-49.77	5.11	3	13.26	-41.62	-13.00	28.62	V

LTE FDD Band 66 Channel Bandwidth 15MHz 16QAM Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3435.0	-43.29	4.02	3	12.5	-34.81	-13.00	21.81	H
5152.5	-48.44	5.11	3	13.38	-40.17	-13.00	27.17	H
3435.0	-51.34	4.02	3	12.5	-42.86	-13.00	29.86	V
5152.5	-49.49	5.11	3	13.38	-41.22	-13.00	28.22	V

LTE FDD Band 66 Channel Bandwidth 15MHz 16QAM Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-43.56	4.02	3	12.45	-35.13	-13.00	22.13	H
5235	-48.99	5.11	3	13.38	-40.72	-13.00	27.72	H
3490	-50.97	4.02	3	12.45	-42.54	-13.00	29.54	V
5235	-50.32	5.11	3	13.38	-42.05	-13.00	29.05	V

LTE FDD Band 66 Channel Bandwidth 15MHz 16QAM High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3545	-44.26	4.02	3	12.21	-36.07	-13.00	23.07	H
5317.5	-48.73	5.11	3	13.26	-40.58	-13.00	27.58	H
3545	-51.67	4.02	3	12.21	-43.48	-13.00	30.48	V
5317.5	-50.08	5.11	3	13.26	-41.93	-13.00	28.93	V

LTE FDD Band 66 Channel Bandwidth 20MHz 16QAM Low Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	Peak EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3440.0	-43.66	4.02	3	12.5	-35.18	-13.00	22.18	H
5160.0	-48.7	5.11	3	13.38	-40.43	-13.00	27.43	H
3440.0	-51.15	4.02	3	12.5	-42.67	-13.00	29.67	V
5160.0	-50	5.11	3	13.38	-41.73	-13.00	28.73	V

LTE FDD Band 66 Channel Bandwidth 20MHz 16QAM Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490	-44.14	4.02	3	12.45	-35.71	-13.00	22.71	H
5235	-49.29	5.11	3	13.38	-41.02	-13.00	28.02	H
3490	-51.16	4.02	3	12.45	-42.73	-13.00	29.73	V
5235	-50.26	5.11	3	13.38	-41.99	-13.00	28.99	V



LTE FDD Band 66 Channel Bandwidth 20MHz 16QAM High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3540	-43.37	4.02	3	12.21	-35.18	-13.00	22.18	H
5310	-48.47	5.11	3	13.26	-40.32	-13.00	27.32	H
3540	-50.95	4.02	3	12.21	-42.76	-13.00	29.76	V
5310	-49.47	5.11	3	13.26	-41.32	-13.00	28.32	V

The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.

HUAKE Testing Lab TEL : +86-755 2302 9901 FAX : +86-755 2302 9901 E-mail : service@cer-mark.com

1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

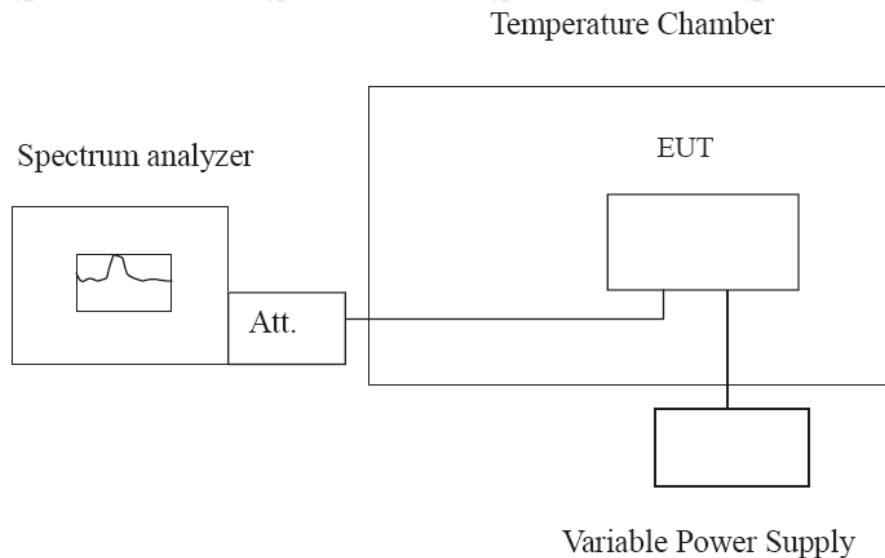


3.7 Frequency Stability under Temperature & Voltage Variations

LIMIT

According to §27.54, §2.1055 requirement, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation and should not exceed 2.5ppm.

TEST CONFIGURATION



TEST PROCEDURE

The EUT was setup according to EIA/TIA 603D

Frequency Stability Under Temperature Variations:

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a "call mode". This is accomplished with the use of R&S CMW500 DIGITAL RADIO COMMUNICATION TESTER.

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -30°C.
3. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on middle channel for LTE band 4, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
4. Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
5. Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1.5 hours unpowered, to allow any self-heating to stabilize, before continuing.
6. Subject the EUT to overnight soak at +50°C.
7. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on the centre channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
8. Repeat the above measurements at 10 °C increments from +50°C to -30°C. Allow at least 1.5 hours at each temperature, unpowered, before making measurements
9. At all temperature levels hold the temperature to +/- 0.5°C during the measurement procedure.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

**Remark:**

1. We tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of LTE FDD Band 66; recorded worst case.

LTE Band 66, 1.4MHz bandwidth , QPSK (worst case of all bandwidths)

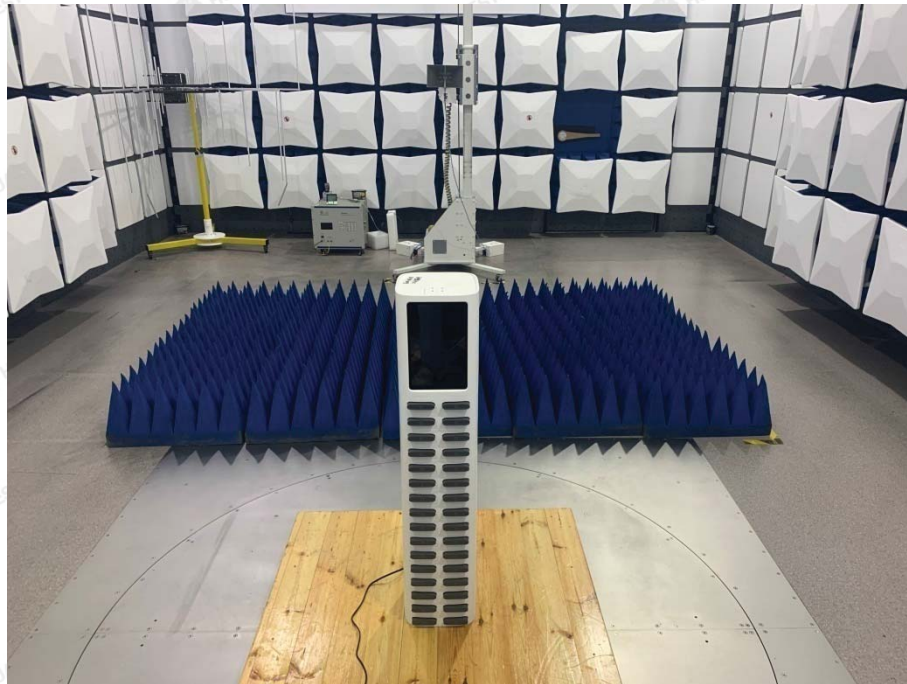
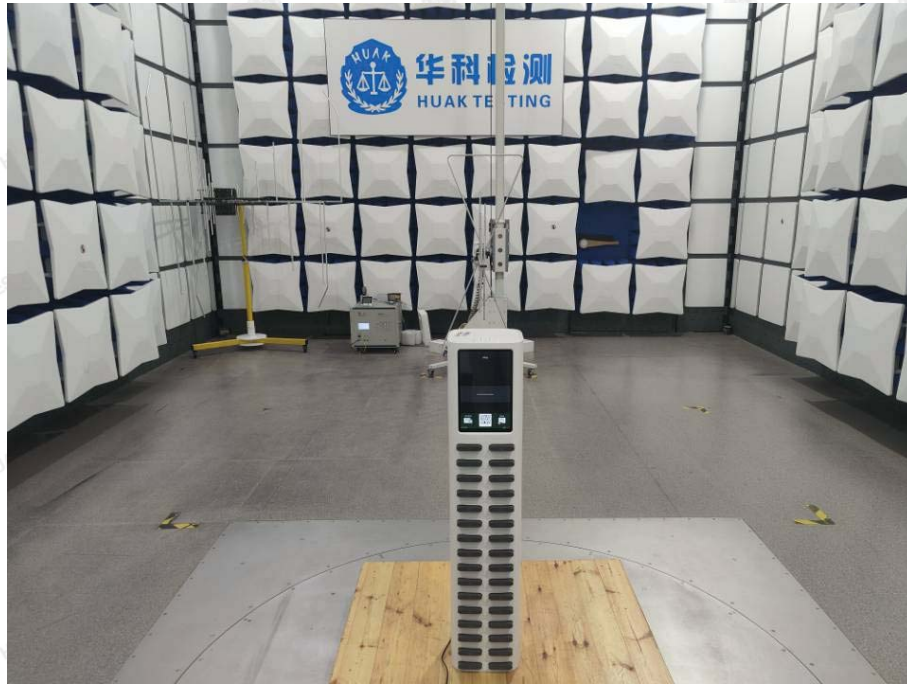
LTE FDD Band 66				
DC Power	Temperature (°C)	Frequency error(Hz)	Frequency error(ppm)	Verdict
99	20	6.42	0.003753	PASS
110	20	-5.19	-0.003034	PASS
121	20	5.02	0.002934	PASS
110	-30	-7.64	-0.004466	PASS
110	-20	4.92	0.002876	PASS
110	-10	-9.64	-0.005524	PASS
110	0	-7.98	-0.004573	PASS
110	10	-7.98	-0.004573	PASS
110	20	-8.51	-0.004877	PASS
110	30	-8.88	-0.005089	PASS
110	40	-5.46	-0.003069	PASS
110	50	-7.38	-0.004148	PASS

LTE Band 66, 1.4MHz bandwidth , 16QAM (worst case of all bandwidths)

LTE FDD Band 66				
DC Power	Temperature (°C)	Frequency error(Hz)	Frequency error(ppm)	Verdict
99	20	6.47	0.003782	PASS
110	20	5.75	0.003361	PASS
121	20	6.17	0.003607	PASS
110	-30	4.33	0.002531	PASS
110	-20	7.98	0.004665	PASS
110	-10	-8.47	-0.004854	PASS
110	0	-9.14	-0.005238	PASS
110	10	-7.68	-0.004401	PASS
110	20	-8.15	-0.004670	PASS
110	30	-11.13	-0.006378	PASS
110	40	-7.05	-0.003962	PASS
110	50	5.66	0.003181	PASS



4 Test Setup Photos of the EUT



The results shown in this test report refer only to the sample(s) tested unless otherwise stated and the sample(s) are retained for 30 days only. The document is issued by HUAKE, this document cannot be reproduced except in full with our prior written permission. The more details and the authenticity of the report will be confirmed at <http://www.cer-mark.com>.

HUAKE Testing Lab TEL : +86-755 2302 9901 FAX : +86-755 2302 9901 E-mail : service@cer-mark.com

1-2/F., Building B2, Junfeng Zhongcheng Zhizao Innovation Park, Heping, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China



5 PHOTOS OF THE EUT

Reference to the report: ANNEX A of external photos and ANNEX B of internal photos

***** End of Report *****

