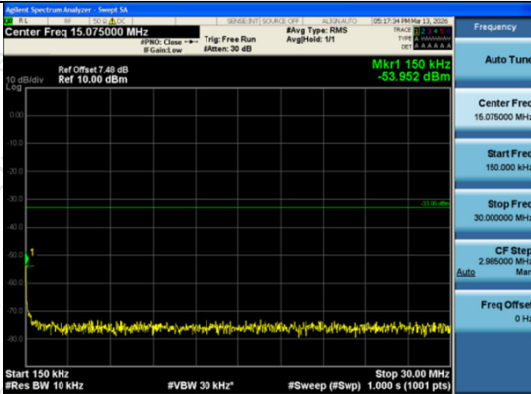




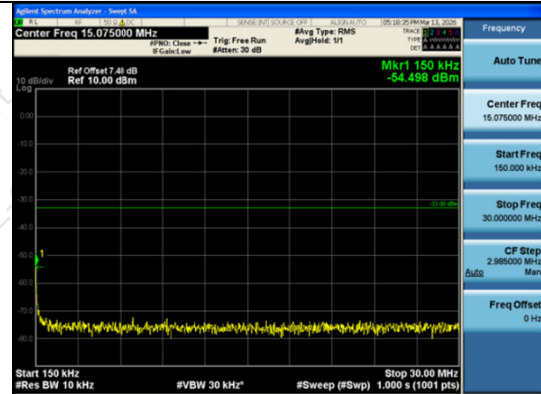
FDD Band 4-5MHz Channel Bandwidth

Low Channel

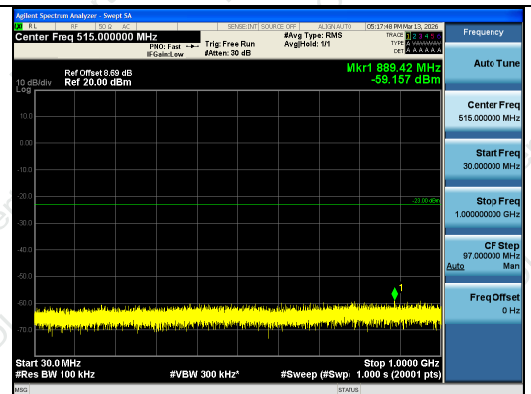
QPSK



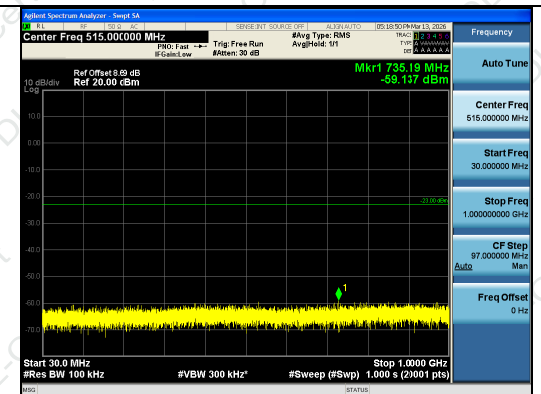
16QAM



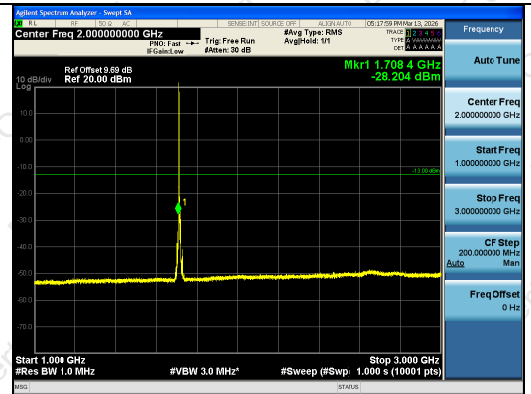
0.15MHz~30MHz



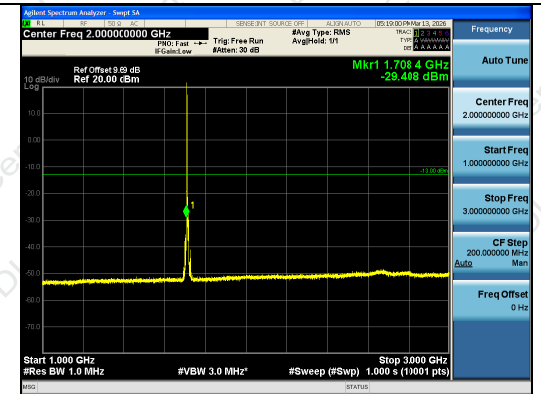
0.15MHz~30MHz



30MHz~1GHz

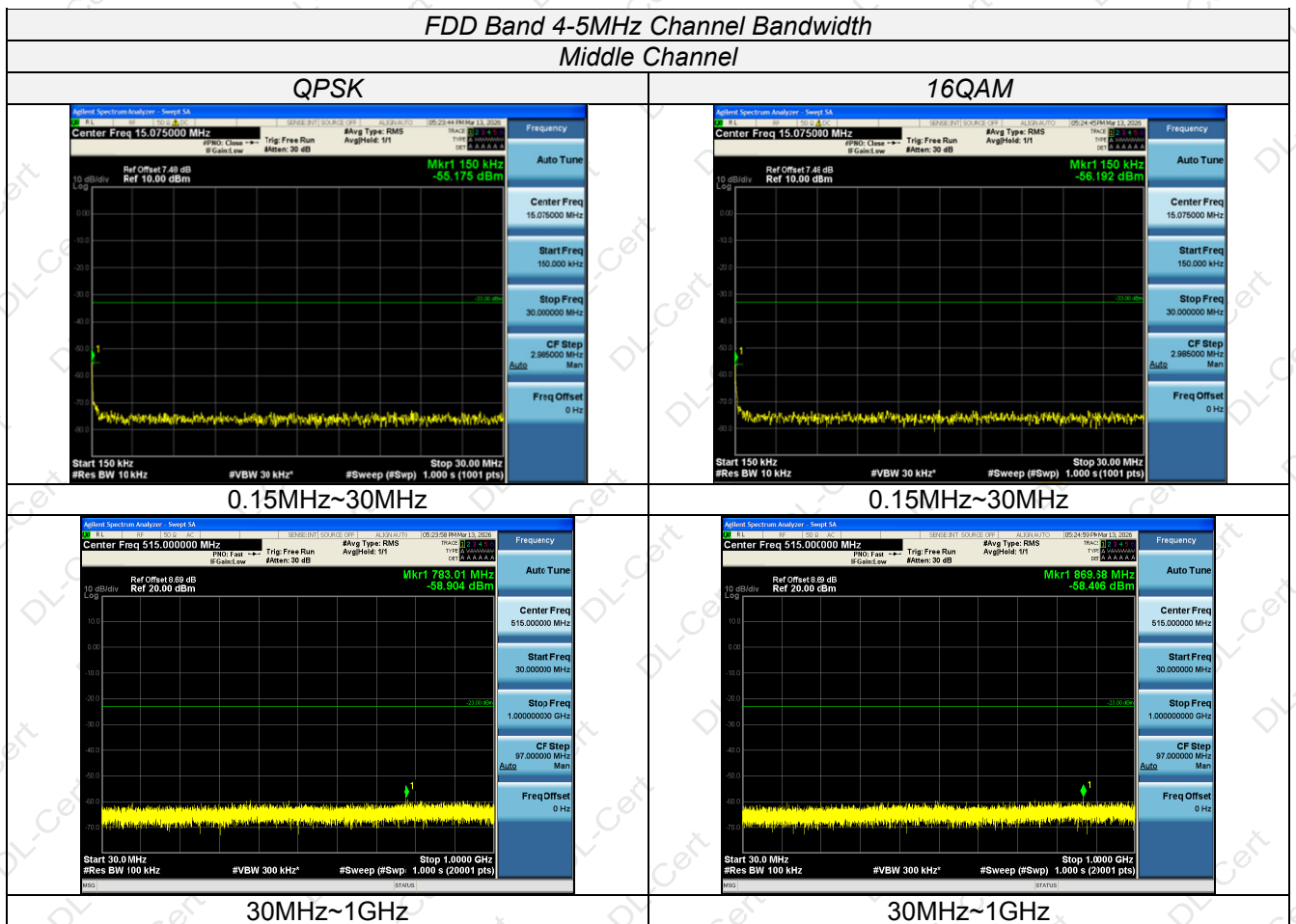
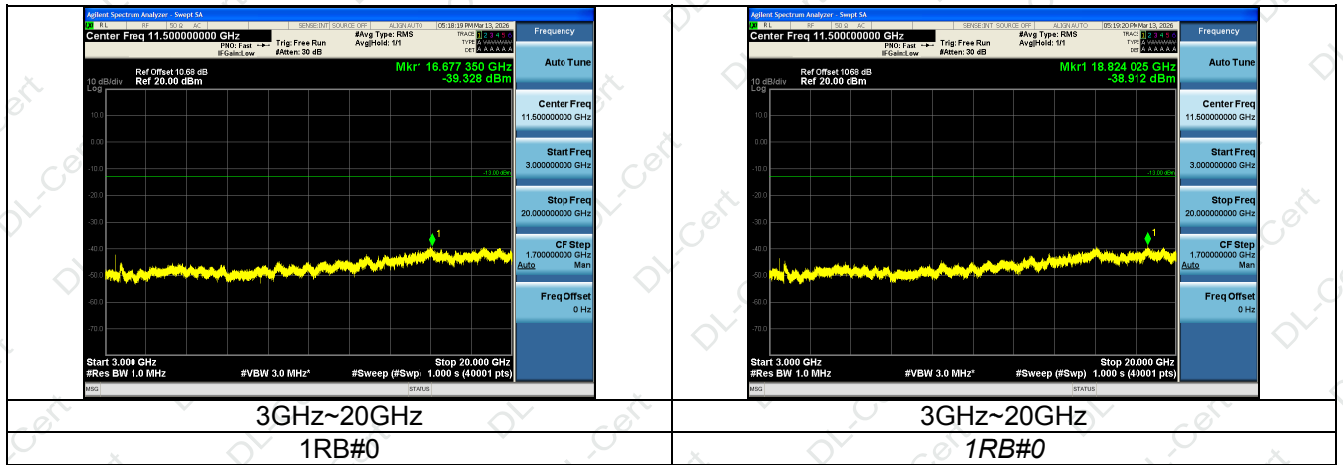


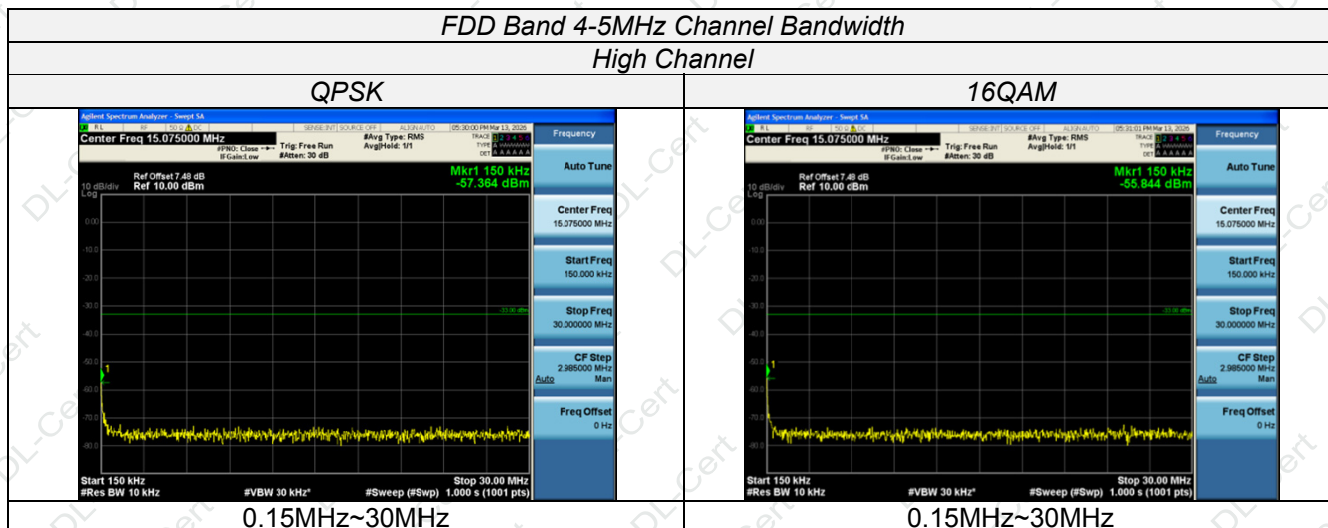
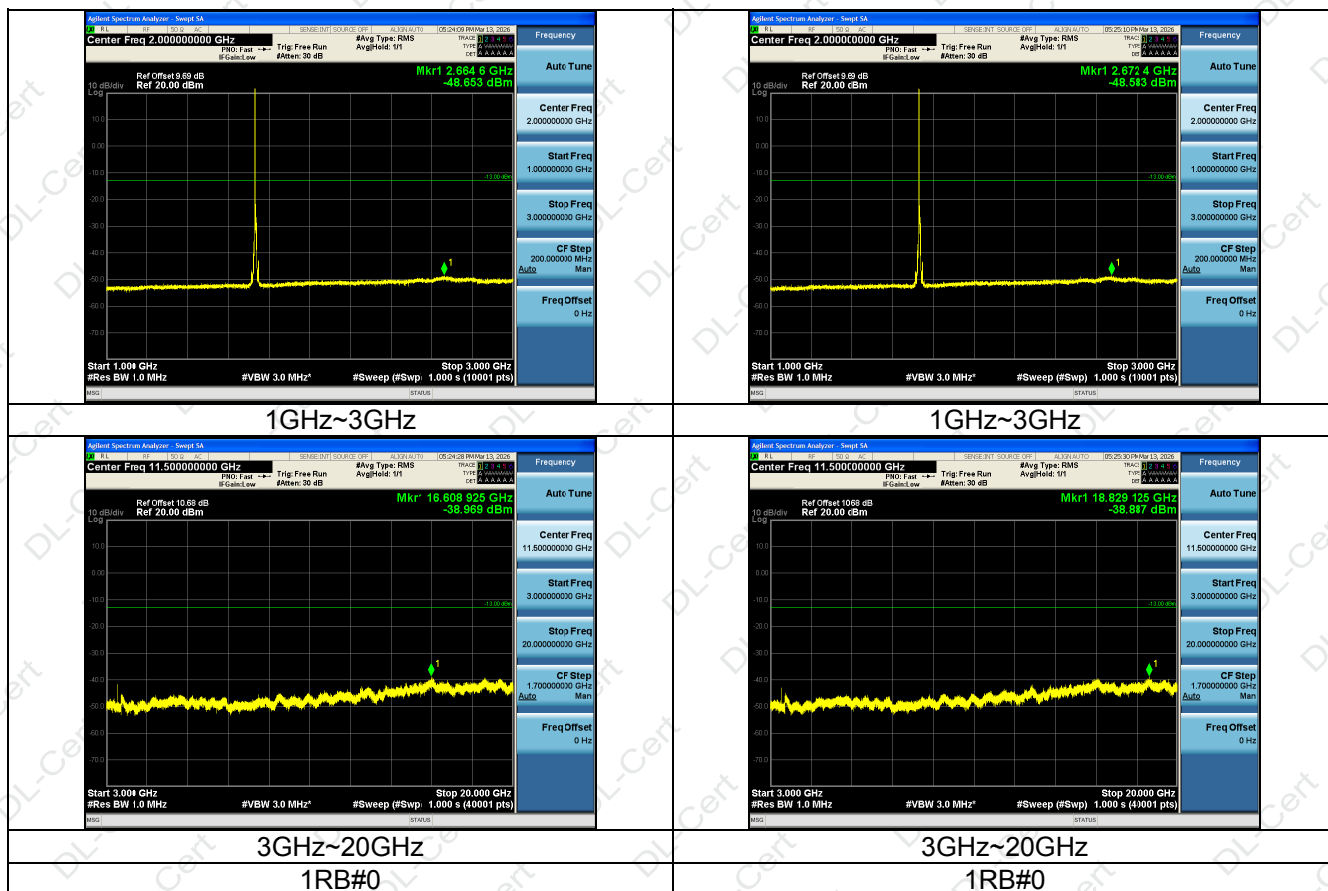
30MHz~1GHz

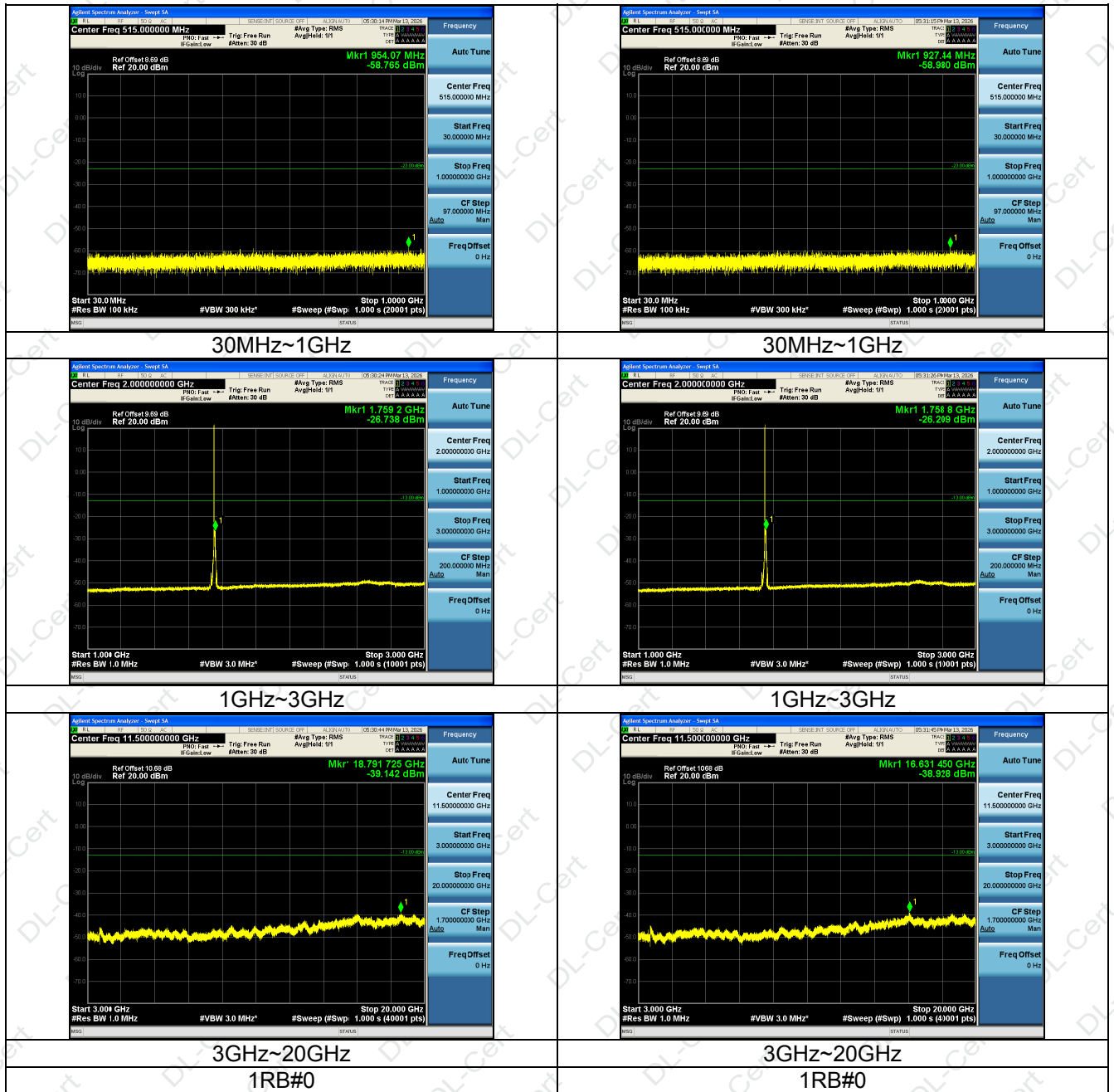


1GHz~3GHz

1GHz~3GHz







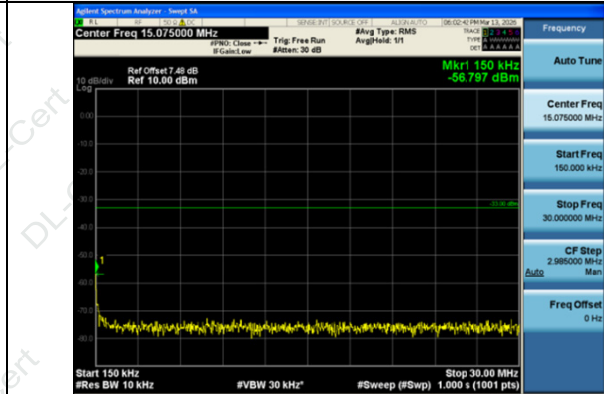
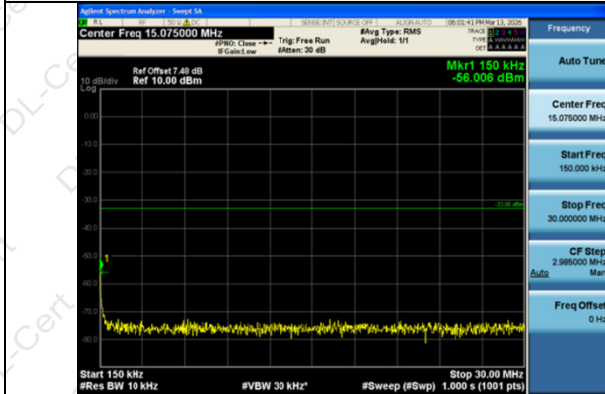


FDD Band 4-10MHz Channel Bandwidth

Low Channel

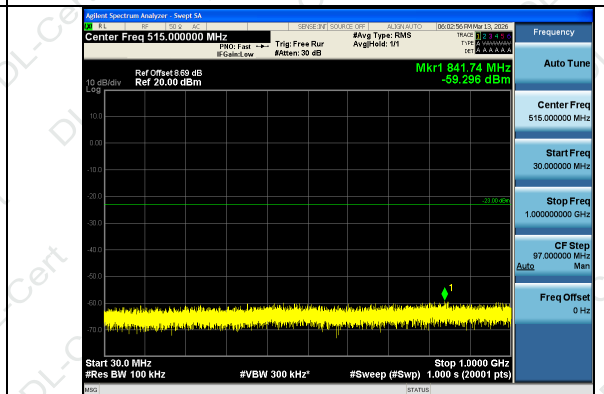
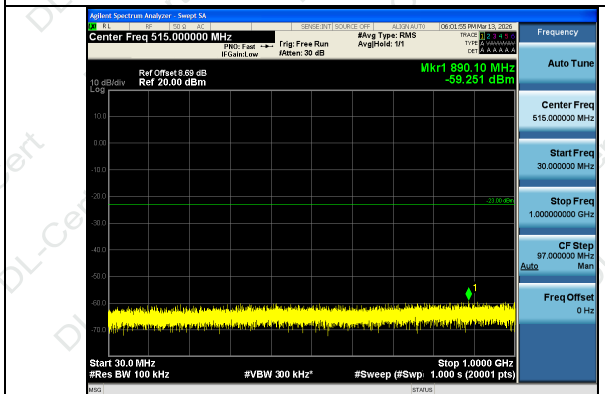
QPSK

16QAM



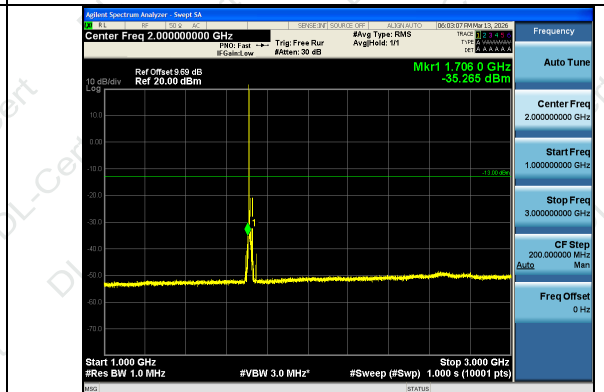
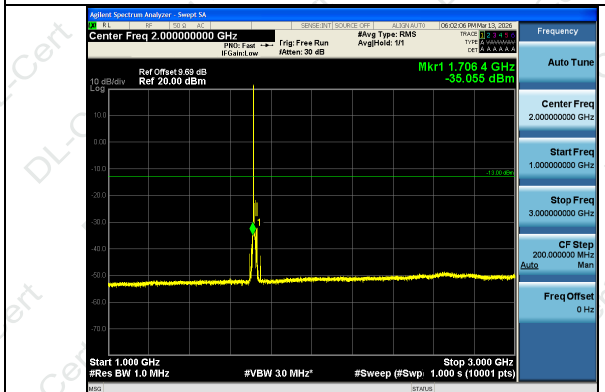
0.15MHz~30MHz

0.15MHz~30MHz



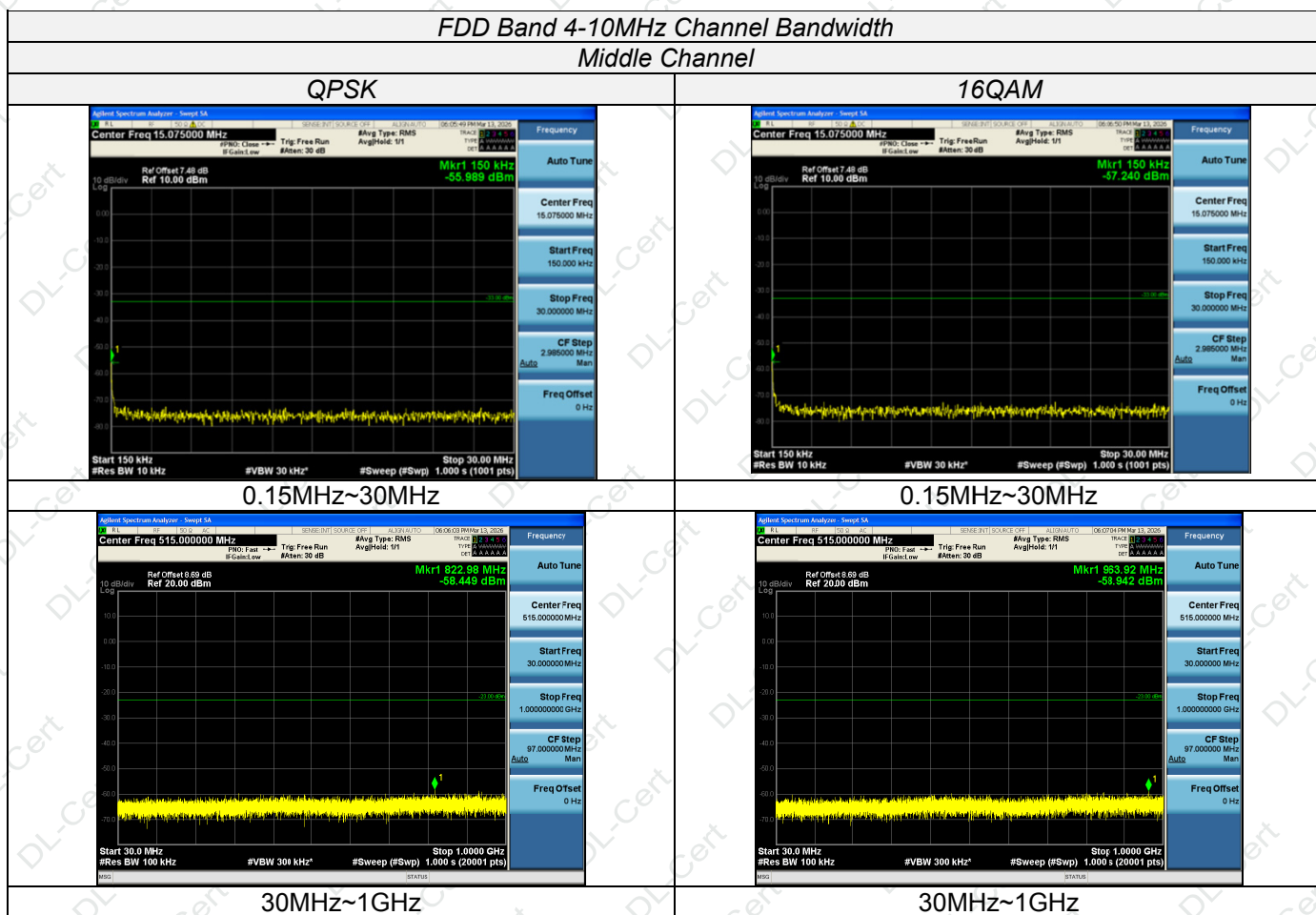
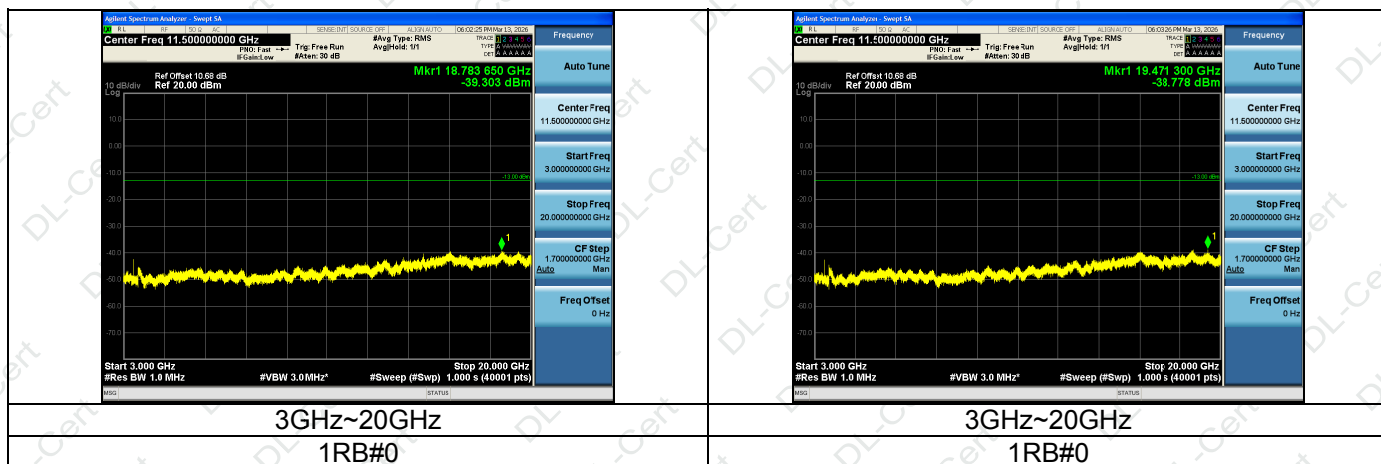
30MHz~1GHz

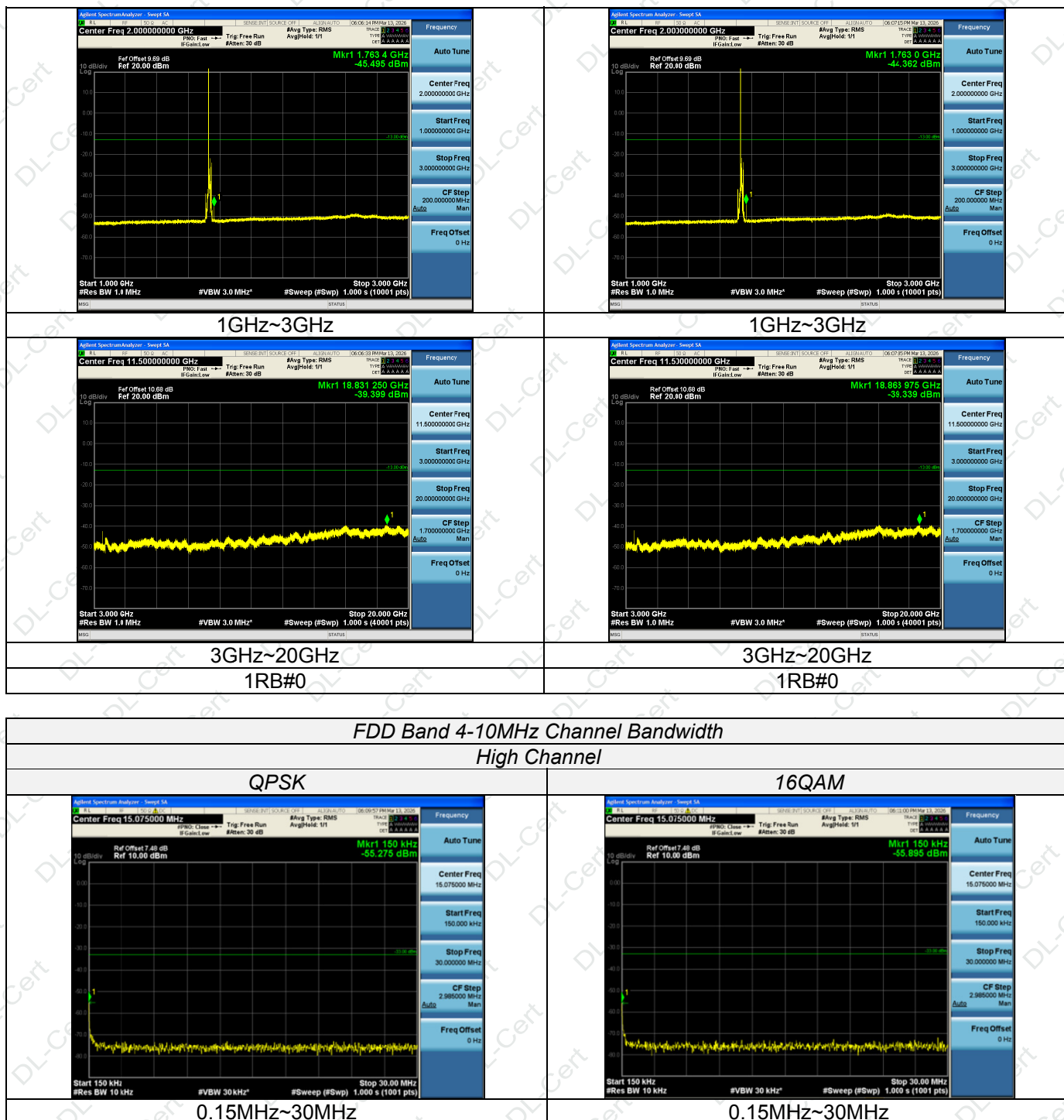
30MHz~1GHz

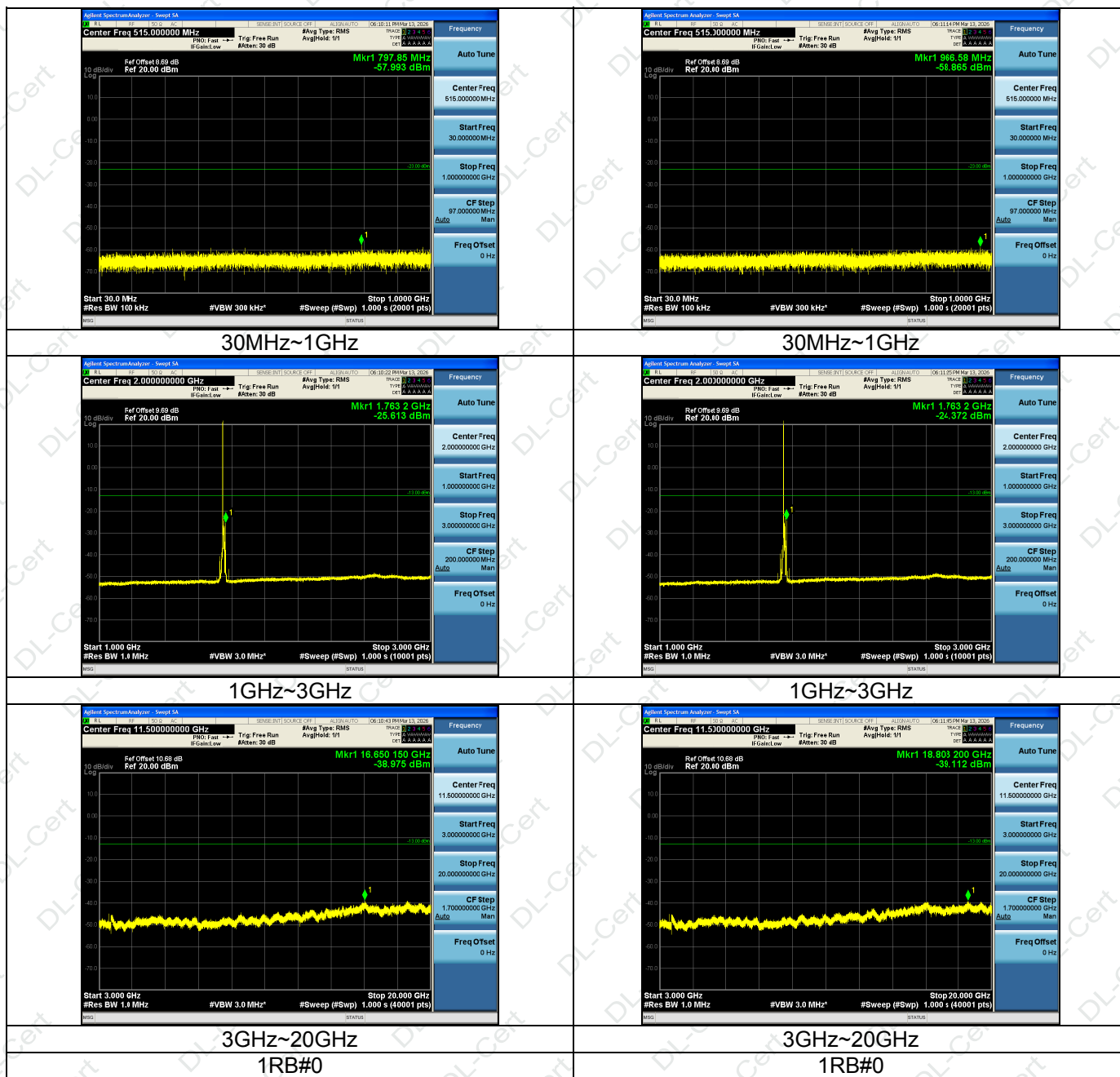


1GHz~3GHz

1GHz~3GHz





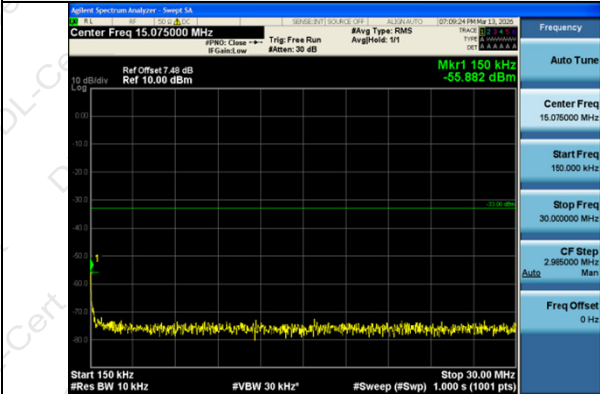




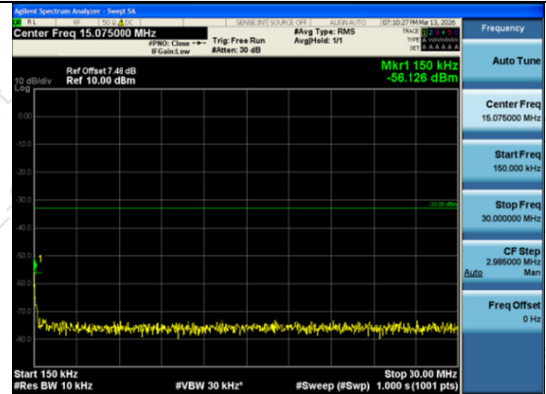
FDD Band 4-15MHz Channel Bandwidth

Low Channel

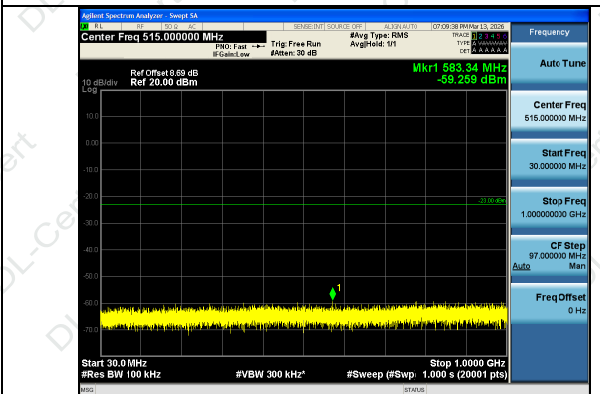
QPSK



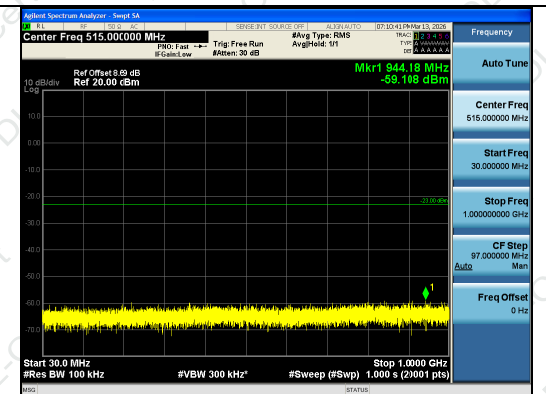
16QAM



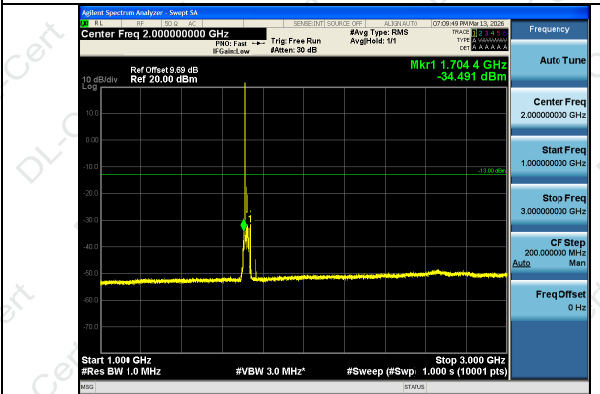
0.15MHz~30MHz



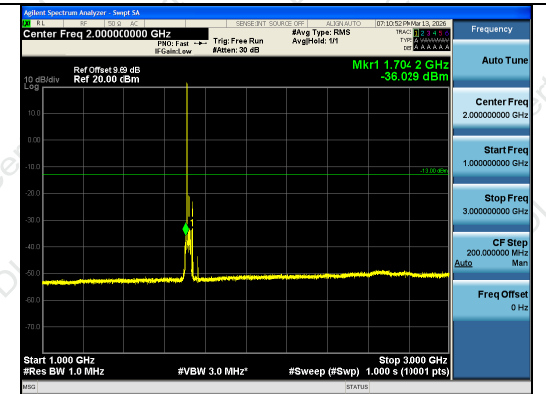
0.15MHz~30MHz



30MHz~1GHz



30MHz~1GHz

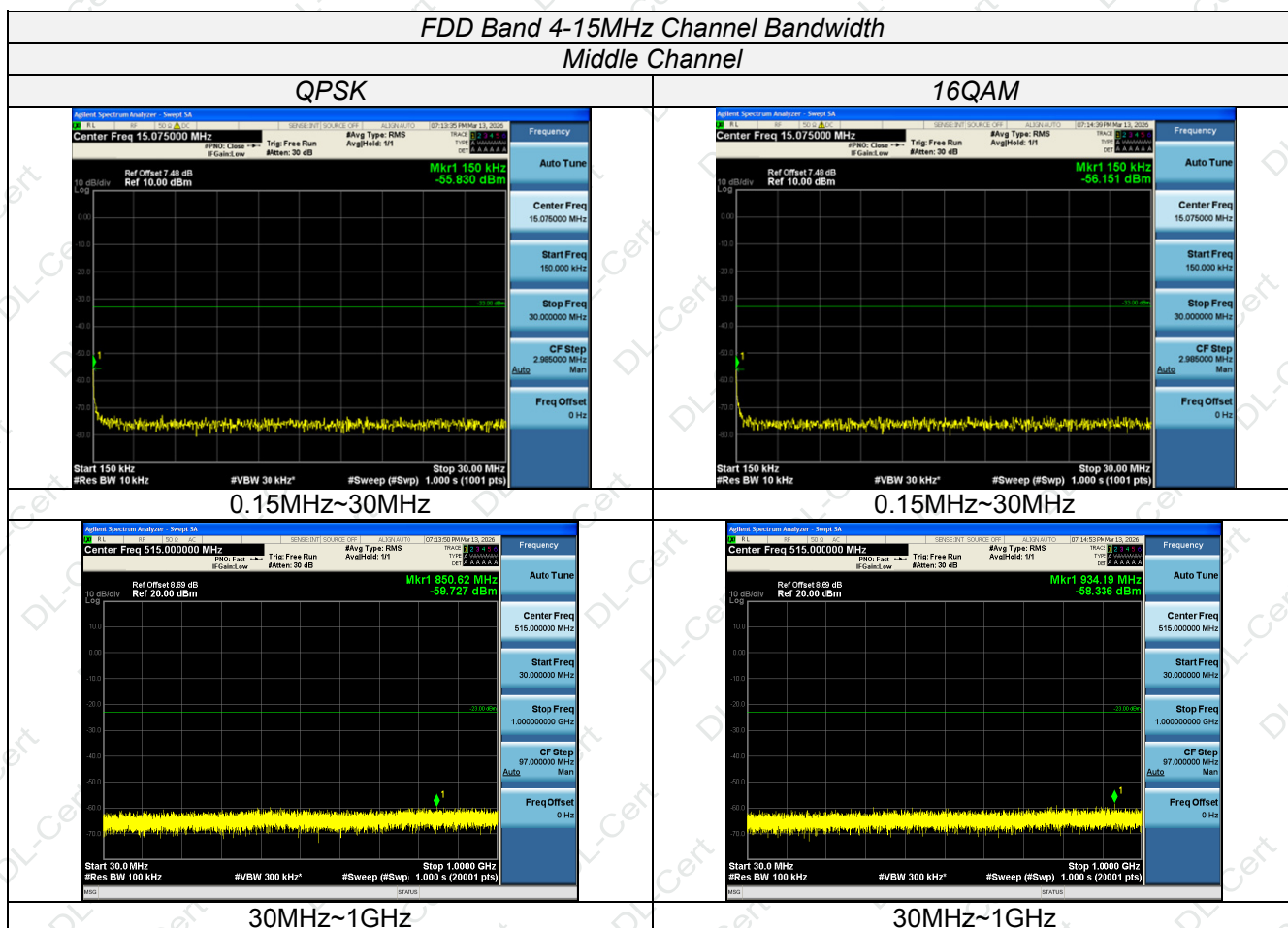
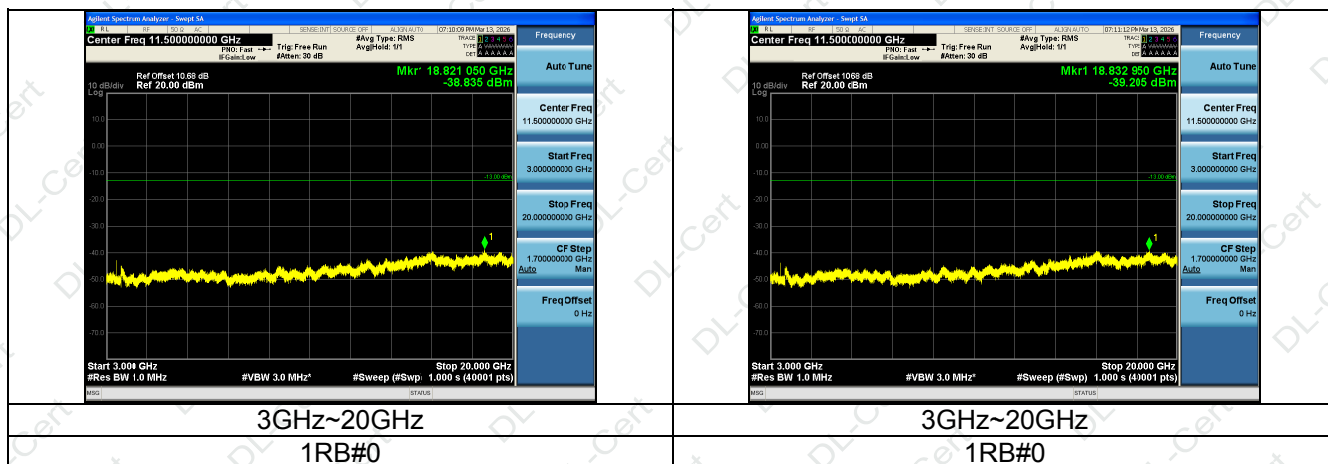


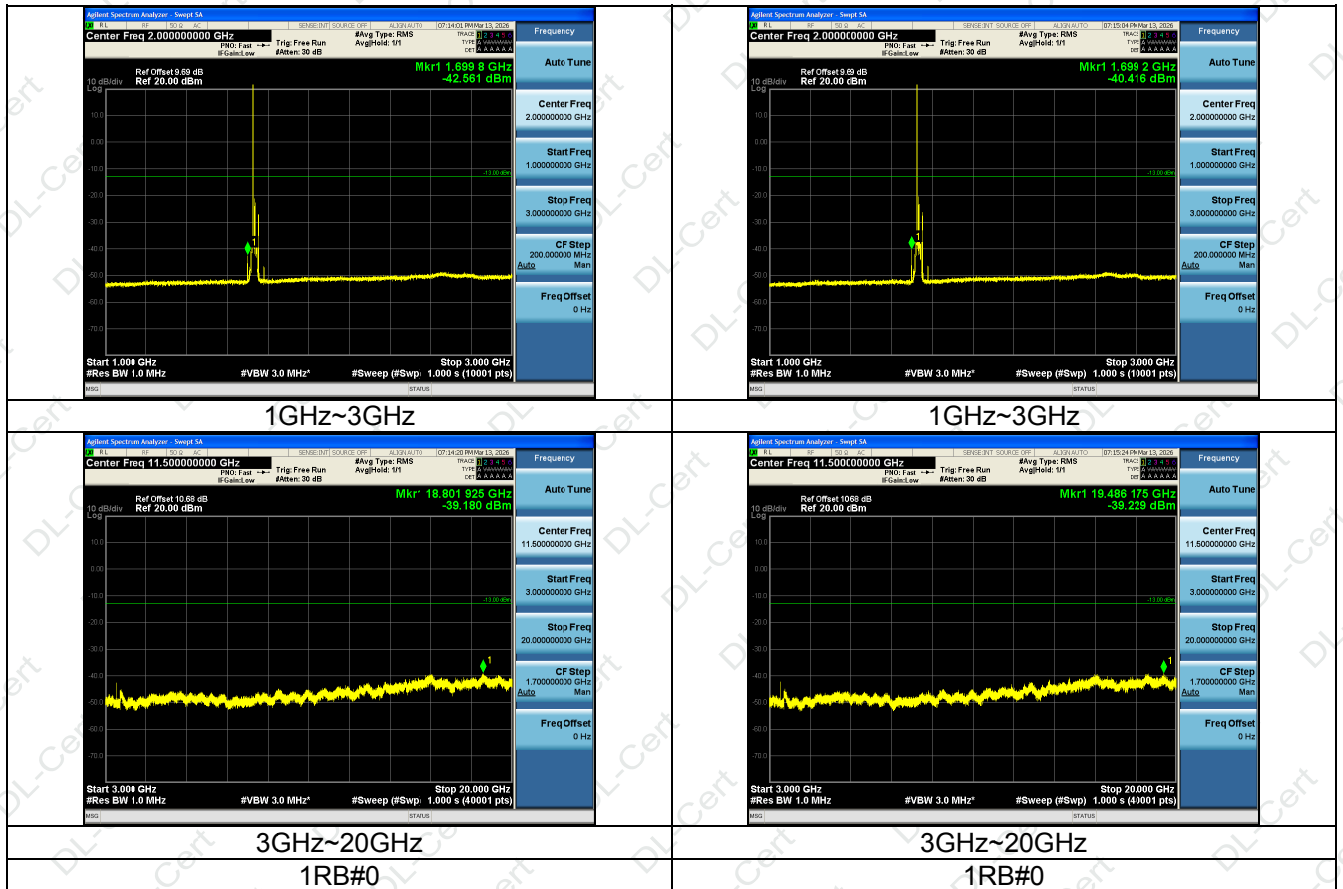
1GHz~3GHz



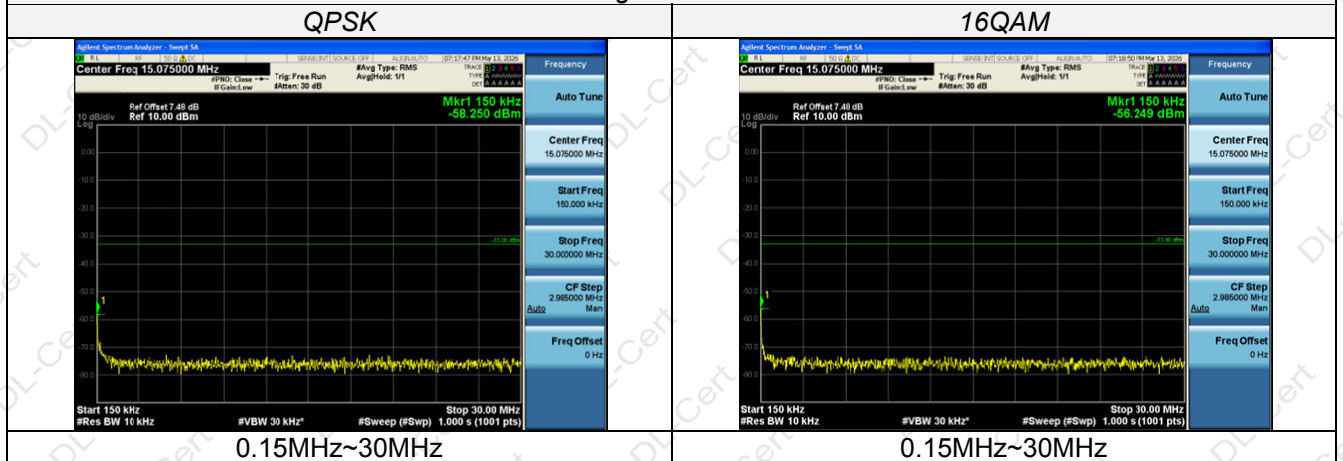
1GHz~3GHz

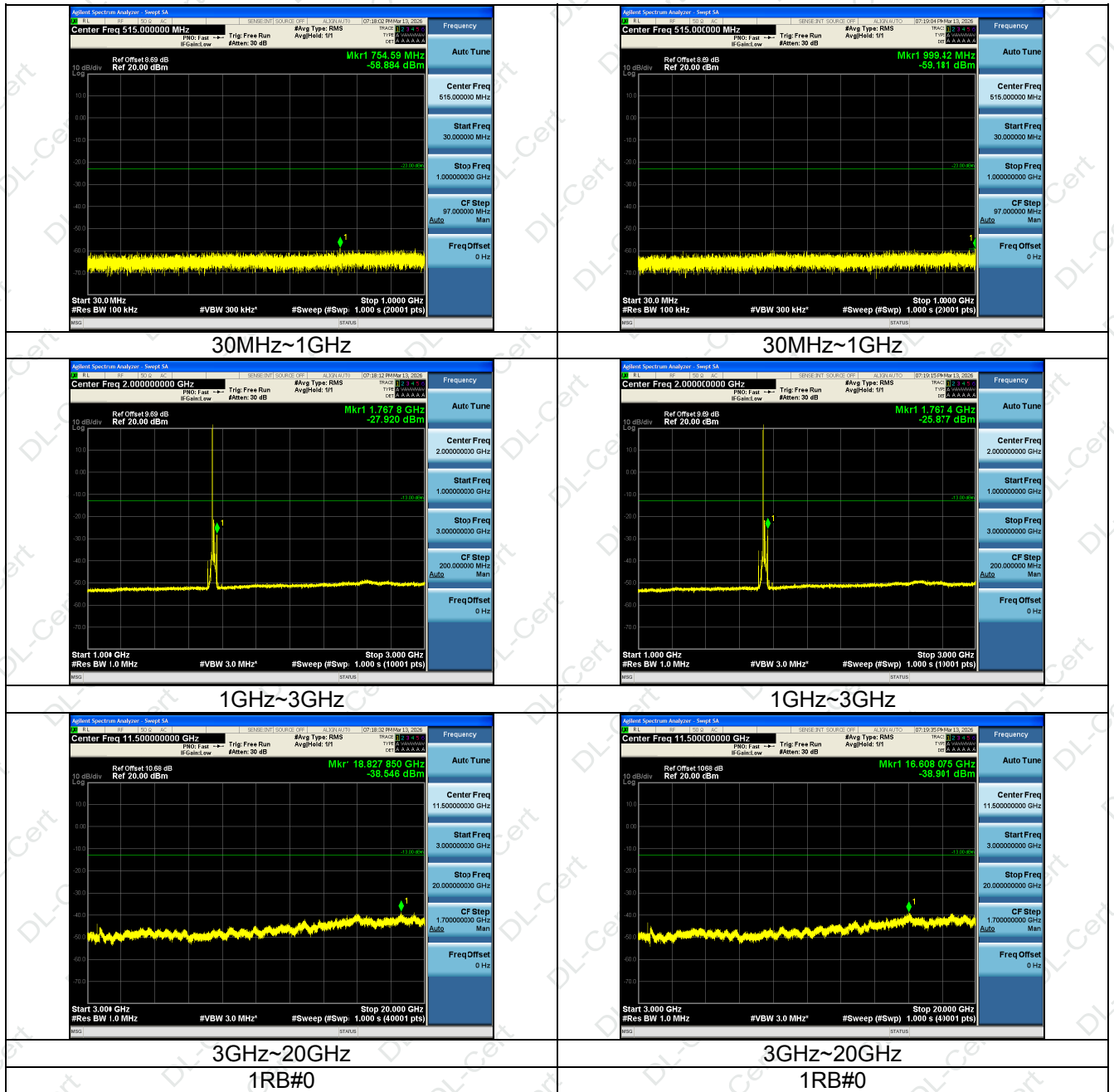






FDD Band 4-15MHz Channel Bandwidth
High Channel





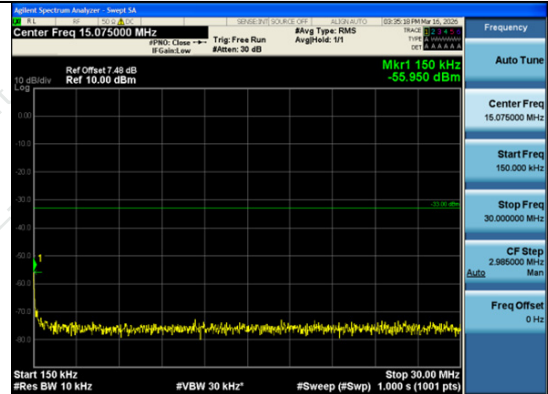
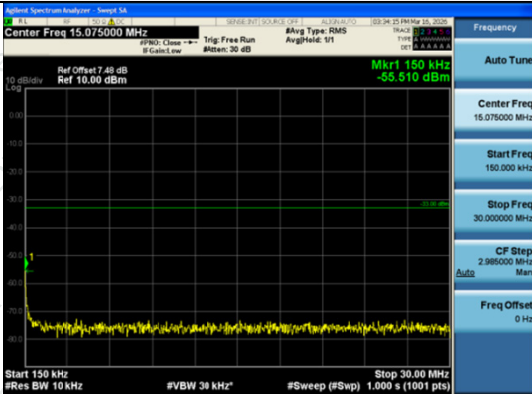


FDD Band 4-20MHz Channel Bandwidth

Low Channel

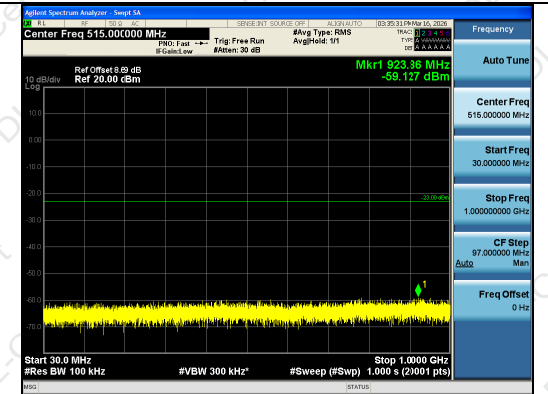
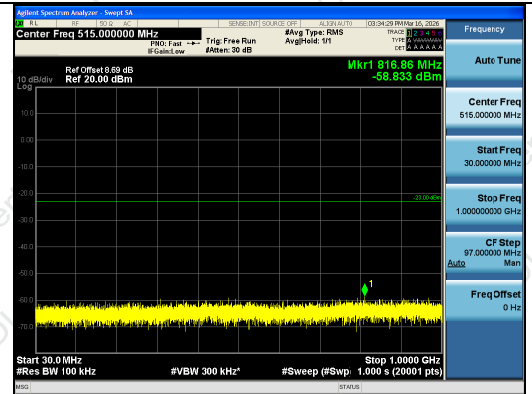
QPSK

16QAM



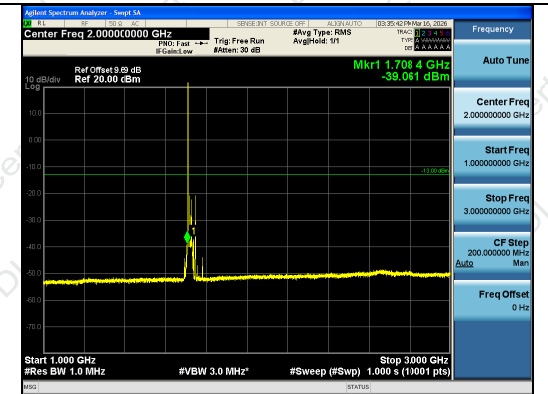
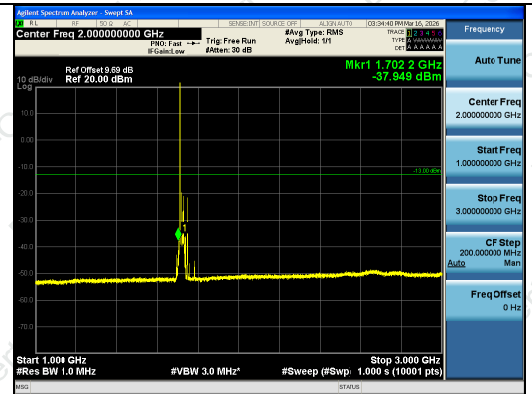
0.15MHz~30MHz

0.15MHz~30MHz



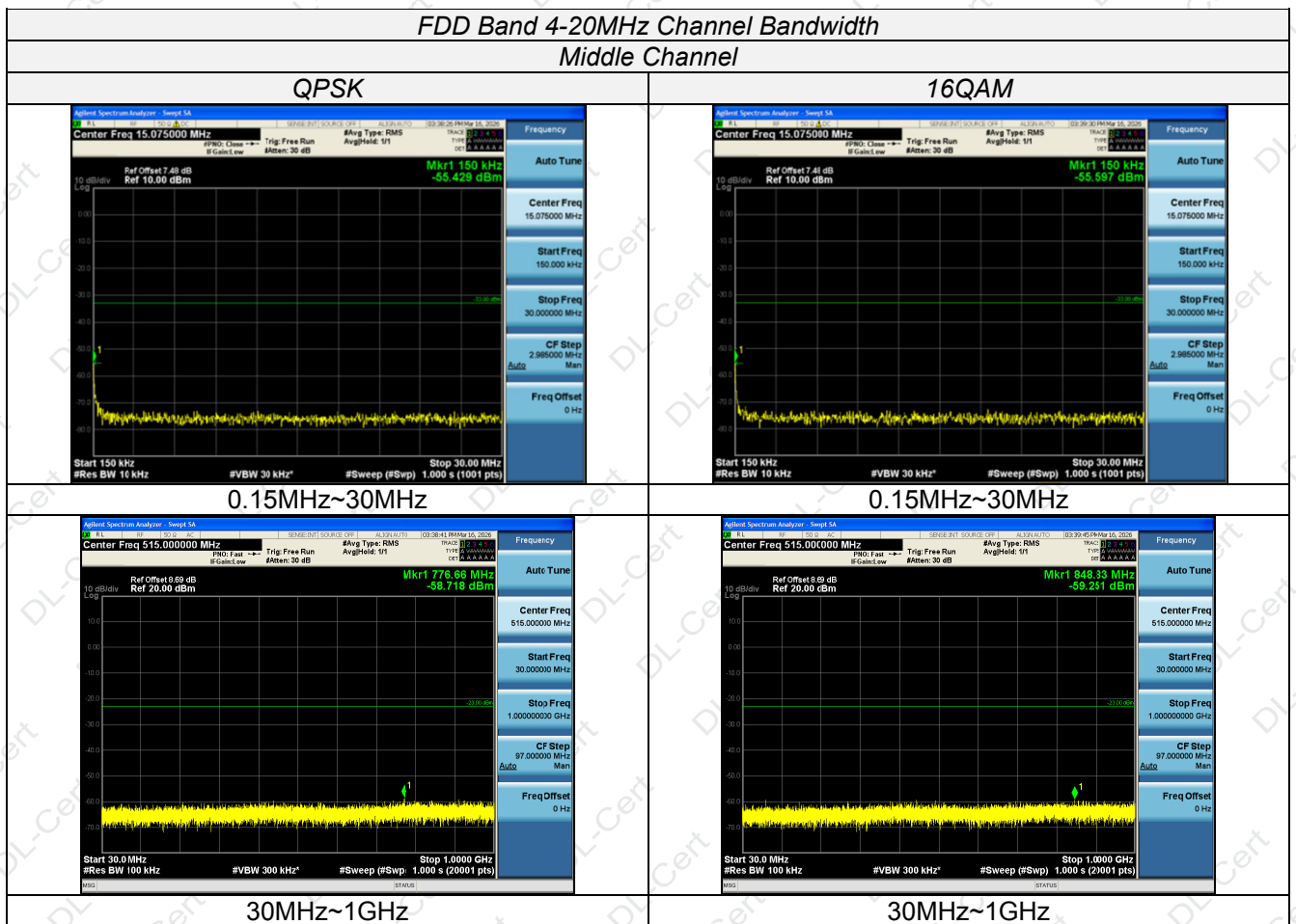
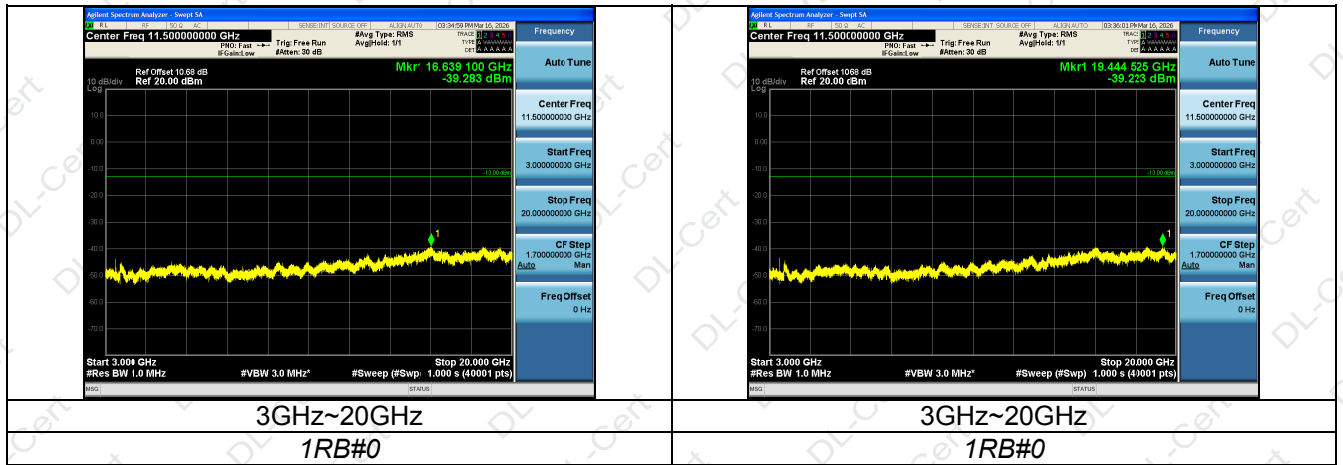
30MHz~1GHz

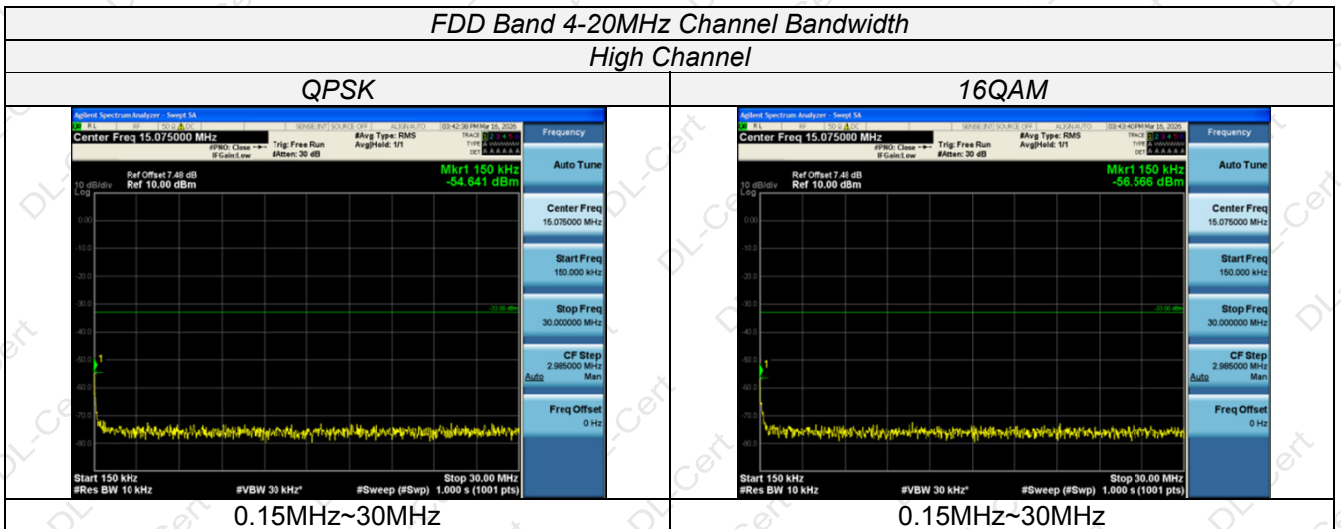
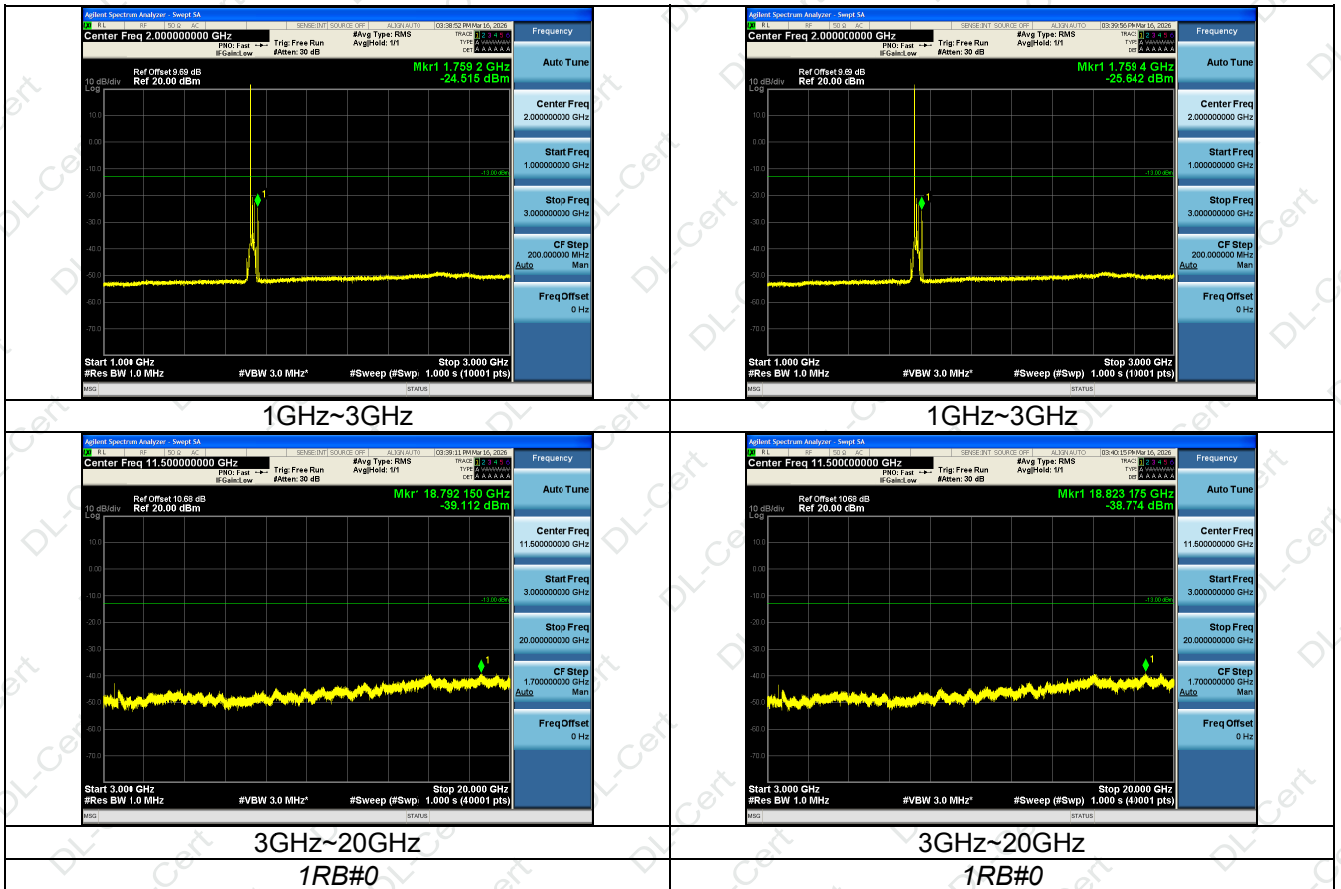
30MHz~1GHz

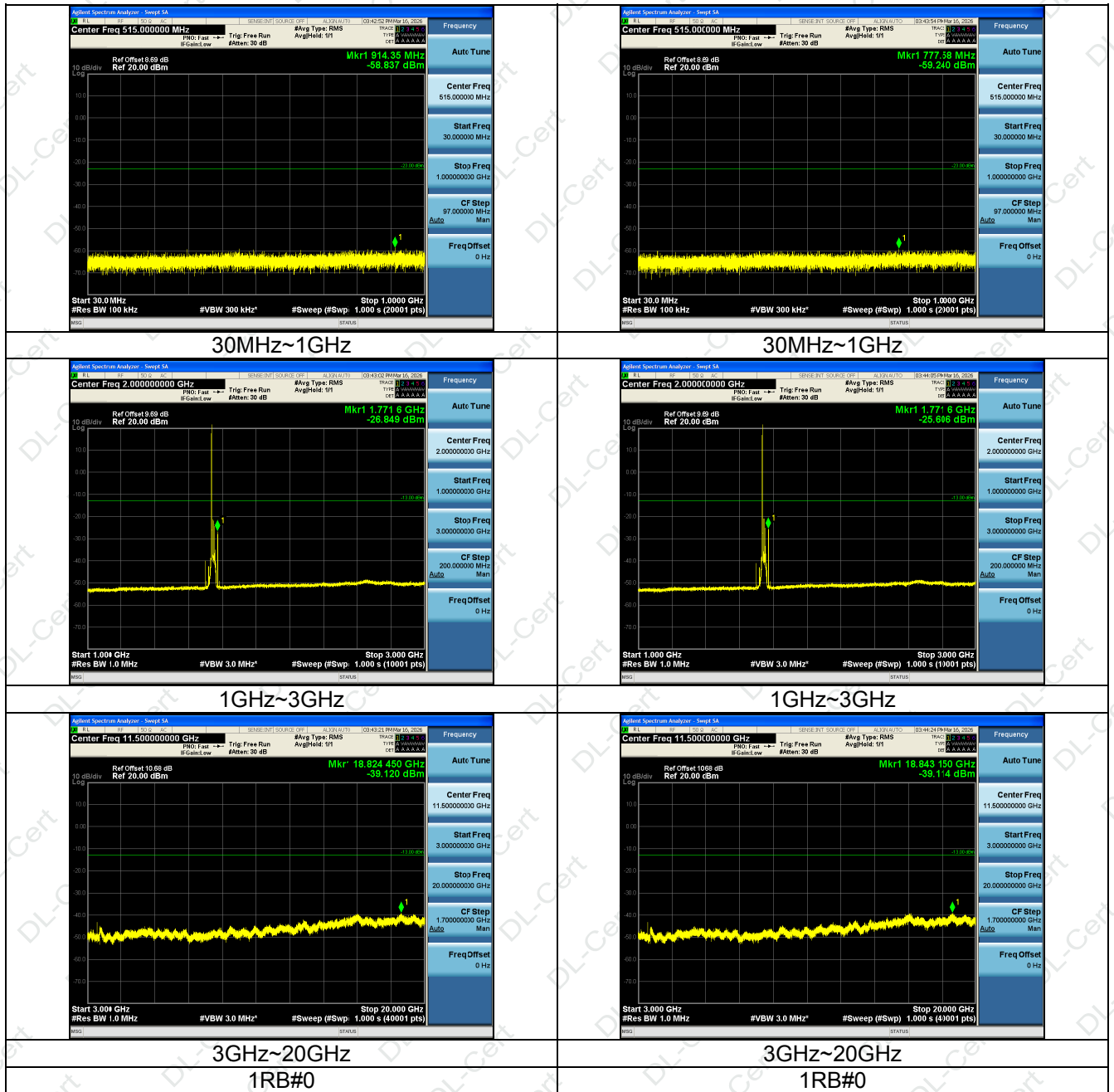


1GHz~3GHz

1GHz~3GHz







**Radiated Measurement:****Remark:**

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

FDD Band 4 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	-29.43	4.02	3.00	12.50	-37.91	-13.00	24.91	H
5132.1	-36.51	5.11	3.00	13.38	-44.78	-13.00	31.78	H
3421.4	-35.01	4.02	3.00	12.50	-43.49	-13.00	30.49	V
5132.1	-33.77	5.11	3.00	13.38	-42.04	-13.00	29.04	V

FDD Band 4 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
3465.0	-28.65	4.02	3.00	12.45	-37.08	-13.00	24.08	H
5197.5	-36.87	5.11	3.00	13.38	-45.14	-13.00	32.14	H
3465.0	-34.28	4.02	3.00	12.45	-42.71	-13.00	29.71	V
5197.5	-33.88	5.11	3.00	13.38	-42.15	-13.00	29.15	V

FDD Band 4 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
3508.6	-29.03	4.02	3.00	12.21	-37.22	-13.00	24.22	H
5262.9	-36.54	5.11	3.00	13.26	-44.69	-13.00	31.69	H
3508.6	-34.40	4.02	3.00	12.21	-42.59	-13.00	29.59	V
5262.9	-34.36	5.11	3.00	13.26	-42.51	-13.00	29.51	V

FDD Band 4 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	-29.15	4.02	3.00	12.50	-37.63	-13.00	24.63	H
5134.5	-36.39	5.11	3.00	13.38	-44.66	-13.00	31.66	H
3423.0	-34.29	4.02	3.00	12.50	-42.77	-13.00	29.77	V
5134.5	-34.53	5.11	3.00	13.38	-42.80	-13.00	29.80	V

FDD Band 4 Channel Bandwidth 3MHz_QPSK_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-29.54	4.02	3.00	12.45	-37.97	-13.00	24.97	H
5197.5	-36.82	5.11	3.00	13.38	-45.09	-13.00	32.09	H
3465.0	-35.00	4.02	3.00	12.45	-43.43	-13.00	30.43	V
5197.5	-33.80	5.11	3.00	13.38	-42.07	-13.00	29.07	V



FDD Band 4 Channel Bandwidth 3MHz_QPSK_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3507.0	-28.76	4.02	3.00	12.21	-36.95	-13.00	23.95	H
5260.5	-36.82	5.11	3.00	13.26	-44.97	-13.00	31.97	H
3507.0	-34.98	4.02	3.00	12.21	-43.17	-13.00	30.17	V
5260.5	-34.54	5.11	3.00	13.26	-42.69	-13.00	29.69	V

FDD Band 4 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	-28.69	4.02	3.00	12.50	-37.17	-13.00	24.17	H
5137.5	-36.88	5.11	3.00	13.38	-45.15	-13.00	32.15	H
3425.0	-34.24	4.02	3.00	12.50	-42.72	-13.00	29.72	V
5137.5	-34.40	5.11	3.00	13.38	-42.67	-13.00	29.67	V

FDD Band 4 Channel Bandwidth 5MHz_QPSK_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-29.26	4.02	3.00	12.45	-37.69	-13.00	24.69	H
5197.5	-37.01	5.11	3.00	13.38	-45.28	-13.00	32.28	H
3465.0	-34.63	4.02	3.00	12.45	-43.06	-13.00	30.06	V
5197.5	-34.18	5.11	3.00	13.38	-42.45	-13.00	29.45	V

FDD Band 4 Channel Bandwidth 5MHz_QPSK_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3505.0	-28.67	4.02	3.00	12.21	-36.86	-13.00	23.86	H
5257.5	-36.33	5.11	3.00	13.26	-44.48	-13.00	31.48	H
3505.0	-35.00	4.02	3.00	12.21	-43.19	-13.00	30.19	V
5257.5	-34.07	5.11	3.00	13.26	-42.22	-13.00	29.22	V

FDD Band 4 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	-28.82	4.02	3.00	12.50	-37.30	-13.00	24.30	H
5145.0	-37.01	5.11	3.00	13.38	-45.28	-13.00	32.28	H
3430.0	-34.71	4.02	3.00	12.50	-43.19	-13.00	30.19	V
5145.0	-34.36	5.11	3.00	13.38	-42.63	-13.00	29.63	V

FDD Band 4 Channel Bandwidth 10MHz_QPSK_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-29.48	4.02	3.00	12.45	-37.91	-13.00	24.91	H
5197.5	-36.93	5.11	3.00	13.38	-45.20	-13.00	32.20	H
3465.0	-34.77	4.02	3.00	12.45	-43.20	-13.00	30.20	V
5197.5	-34.23	5.11	3.00	13.38	-42.50	-13.00	29.50	V



FDD Band 4 Channel Bandwidth 10MHz_QPSK_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3500.0	-28.73	4.02	3.00	12.21	-36.92	-13.00	23.92	H
5250.0	-36.90	5.11	3.00	13.26	-45.05	-13.00	32.05	H
3500.0	-34.91	4.02	3.00	12.21	-43.10	-13.00	30.10	V
5250.0	-34.10	5.11	3.00	13.26	-42.25	-13.00	29.25	V

FDD Band 4 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	-28.95	4.02	3.00	12.50	-37.43	-13.00	24.43	H
5152.5	-36.80	5.11	3.00	13.38	-45.07	-13.00	32.07	H
3435.0	-34.75	4.02	3.00	12.50	-43.23	-13.00	30.23	V
5152.5	-34.00	5.11	3.00	13.38	-42.27	-13.00	29.27	V

FDD Band 4 Channel Bandwidth 15MHz_QPSK_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-28.99	4.02	3.00	12.45	-37.42	-13.00	24.42	H
5197.5	-36.30	5.11	3.00	13.38	-44.57	-13.00	31.57	H
3465.0	-34.29	4.02	3.00	12.45	-42.72	-13.00	29.72	V
5197.5	-33.77	5.11	3.00	13.38	-42.04	-13.00	29.04	V

FDD Band 4 Channel Bandwidth 15MHz_QPSK_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3495.0	-29.46	4.02	3.00	12.21	-37.65	-13.00	24.65	H
5242.5	-37.24	5.11	3.00	13.26	-45.39	-13.00	32.39	H
3495.0	-34.89	4.02	3.00	12.21	-43.08	-13.00	30.08	V
5242.5	-34.11	5.11	3.00	13.26	-42.26	-13.00	29.26	V

FDD Band 4 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	-29.51	4.02	3.00	12.50	-37.99	-13.00	24.99	H
5160.0	-36.44	5.11	3.00	13.38	-44.71	-13.00	31.71	H
3440.0	-34.27	4.02	3.00	12.50	-42.75	-13.00	29.75	V
5160.0	-34.06	5.11	3.00	13.38	-42.33	-13.00	29.33	V

FDD Band 4 Channel Bandwidth 20MHz_QPSK_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-29.55	4.02	3.00	12.45	-37.98	-13.00	24.98	H
5197.5	-32.44	5.11	3.00	13.38	-40.71	-13.00	27.71	H
3465.0	-34.52	4.02	3.00	12.45	-42.95	-13.00	29.95	V
5197.5	-34.57	5.11	3.00	13.38	-42.84	-13.00	29.84	V



FDD Band 4 Channel Bandwidth 20MHz_QPSK_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490.0	-29.25	4.02	3.00	12.21	-37.44	-13.00	24.44	H
5235.0	-32.40	5.11	3.00	13.26	-40.55	-13.00	27.55	H
3490.0	-34.69	4.02	3.00	12.21	-42.88	-13.00	29.88	V
5235.0	-34.47	5.11	3.00	13.26	-42.62	-13.00	29.62	V

FDD Band 4 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	-28.93	4.02	3.00	12.50	-37.41	-13.00	24.41	H
5132.1	-33.07	5.11	3.00	13.38	-41.34	-13.00	28.34	H
3421.4	-34.40	4.02	3.00	12.50	-42.88	-13.00	29.88	V
5132.1	-34.74	5.11	3.00	13.38	-43.01	-13.00	30.01	V

FDD Band 4 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
3465.0	-28.59	4.02	3.00	12.45	-37.02	-13.00	24.02	H
5197.5	-32.35	5.11	3.00	13.38	-40.62	-13.00	27.62	H
3465.0	-34.17	4.02	3.00	12.45	-42.60	-13.00	29.60	V
5197.5	-33.74	5.11	3.00	13.38	-42.01	-13.00	29.01	V

FDD Band 4 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
3508.6	-29.42	4.02	3.00	12.21	-37.61	-13.00	24.61	H
5262.9	-32.41	5.11	3.00	13.26	-40.56	-13.00	27.56	H
3508.6	-35.07	4.02	3.00	12.21	-43.26	-13.00	30.26	V
5262.9	-34.07	5.11	3.00	13.26	-42.22	-13.00	29.22	V

FDD Band 4 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	-29.58	4.02	3.00	12.50	-38.06	-13.00	25.06	H
5134.5	-33.01	5.11	3.00	13.38	-41.28	-13.00	28.28	H
3423.0	-34.23	4.02	3.00	12.50	-42.71	-13.00	29.71	V
5134.5	-34.40	5.11	3.00	13.38	-42.67	-13.00	29.67	V

FDD Band 4 Channel Bandwidth 3MHz_16QAM_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-29.54	4.02	3.00	12.45	-37.97	-13.00	24.97	H
5197.5	-32.94	5.11	3.00	13.38	-41.21	-13.00	28.21	H
3465.0	-34.59	4.02	3.00	12.45	-43.02	-13.00	30.02	V
5197.5	-34.08	5.11	3.00	13.38	-42.35	-13.00	29.35	V



FDD Band 4 Channel Bandwidth 3MHz_16QAM_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3507.0	-28.84	4.02	3.00	12.21	-37.03	-13.00	24.03	H
5260.5	-32.47	5.11	3.00	13.26	-40.62	-13.00	27.62	H
3507.0	-34.56	4.02	3.00	12.21	-42.75	-13.00	29.75	V
5260.5	-33.91	5.11	3.00	13.26	-42.06	-13.00	29.06	V

FDD Band 4 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	-28.80	4.02	3.00	12.50	-37.28	-13.00	24.28	H
5137.5	-32.71	5.11	3.00	13.38	-40.98	-13.00	27.98	H
3425.0	-34.78	4.02	3.00	12.50	-43.26	-13.00	30.26	V
5137.5	-33.83	5.11	3.00	13.38	-42.10	-13.00	29.10	V

FDD Band 4 Channel Bandwidth 5MHz_16QAM_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-29.11	4.02	3.00	12.45	-37.54	-13.00	24.54	H
5197.5	-32.41	5.11	3.00	13.38	-40.68	-13.00	27.68	H
3465.0	-35.06	4.02	3.00	12.45	-43.49	-13.00	30.49	V
5197.5	-33.97	5.11	3.00	13.38	-42.24	-13.00	29.24	V

FDD Band 4 Channel Bandwidth 5MHz_16QAM_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3505.0	-29.20	4.02	3.00	12.21	-37.39	-13.00	24.39	H
5257.5	-32.89	5.11	3.00	13.26	-41.04	-13.00	28.04	H
3505.0	-34.56	4.02	3.00	12.21	-42.75	-13.00	29.75	V
5257.5	-34.22	5.11	3.00	13.26	-42.37	-13.00	29.37	V

FDD Band 4 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	-28.82	4.02	3.00	12.50	-37.30	-13.00	24.30	H
5145.0	-32.94	5.11	3.00	13.38	-41.21	-13.00	28.21	H
3430.0	-34.66	4.02	3.00	12.50	-43.14	-13.00	30.14	V
5145.0	-33.81	5.11	3.00	13.38	-42.08	-13.00	29.08	V

FDD Band 4 Channel Bandwidth 10MHz_16QAM_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-28.97	4.02	3.00	12.45	-37.40	-13.00	24.40	H
5197.5	-32.99	5.11	3.00	13.38	-41.26	-13.00	28.26	H
3465.0	-34.66	4.02	3.00	12.45	-43.09	-13.00	30.09	V
5197.5	-34.28	5.11	3.00	13.38	-42.55	-13.00	29.55	V



FDD Band 4 Channel Bandwidth 10MHz_16QAM_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3500.0	-29.54	4.02	3.00	12.21	-37.73	-13.00	24.73	H
5250.0	-32.63	5.11	3.00	13.26	-40.78	-13.00	27.78	H
3500.0	-34.12	4.02	3.00	12.21	-42.31	-13.00	29.31	V
5250.0	-33.78	5.11	3.00	13.26	-41.93	-13.00	28.93	V

FDD Band 4 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	-28.68	4.02	3.00	12.50	-37.16	-13.00	24.16	H
5152.5	-33.00	5.11	3.00	13.38	-41.27	-13.00	28.27	H
3435.0	-35.11	4.02	3.00	12.50	-43.59	-13.00	30.59	V
5152.5	-33.85	5.11	3.00	13.38	-42.12	-13.00	29.12	V

FDD Band 4 Channel Bandwidth 15MHz_16QAM_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-29.29	4.02	3.00	12.45	-37.72	-13.00	24.72	H
5197.5	-32.57	5.11	3.00	13.38	-40.84	-13.00	27.84	H
3465.0	-34.80	4.02	3.00	12.45	-43.23	-13.00	30.23	V
5197.5	-34.60	5.11	3.00	13.38	-42.87	-13.00	29.87	V

FDD Band 4 Channel Bandwidth 15MHz_16QAM_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3495.0	-28.96	4.02	3.00	12.21	-37.15	-13.00	24.15	H
5242.5	-33.05	5.11	3.00	13.26	-41.20	-13.00	28.20	H
3495.0	-34.65	4.02	3.00	12.21	-42.84	-13.00	29.84	V
5242.5	-34.10	5.11	3.00	13.26	-42.25	-13.00	29.25	V

FDD Band 4 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	-28.75	4.02	3.00	12.50	-37.23	-13.00	24.23	H
5160.0	-32.85	5.11	3.00	13.38	-41.12	-13.00	28.12	H
3440.0	-35.10	4.02	3.00	12.50	-43.58	-13.00	30.58	V
5160.0	-33.86	5.11	3.00	13.38	-42.13	-13.00	29.13	V

FDD Band 4 Channel Bandwidth 20MHz_16QAM_Middle Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3465.0	-29.06	4.02	3.00	12.45	-37.49	-13.00	24.49	H
5197.5	-32.87	5.11	3.00	13.38	-41.14	-13.00	28.14	H
3465.0	-34.83	4.02	3.00	12.45	-43.26	-13.00	30.26	V
5197.5	-34.72	5.11	3.00	13.38	-42.99	-13.00	29.99	V



FDD Band 4 Channel Bandwidth 20MHz_16QAM_High Channel

Frequency (MHz)	PMea (dBm)	Pcl (dB)	Diatance	Ga Antenna Gain(dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Polarization
3490.0	-29.16	4.02	3.00	12.21	-37.35	-13.00	24.35	H
5235.0	-32.84	5.11	3.00	13.26	-40.99	-13.00	27.99	H
3490.0	-35.02	4.02	3.00	12.21	-43.21	-13.00	30.21	V
5235.0	-33.98	5.11	3.00	13.26	-42.13	-13.00	29.13	V

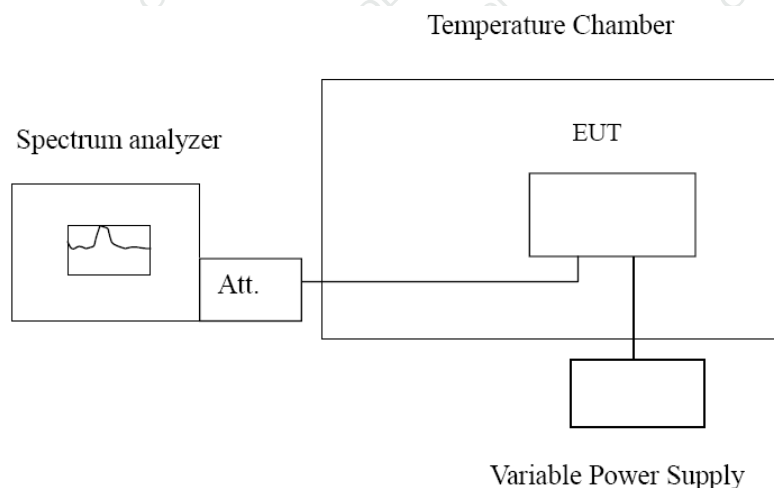


3.6 Frequency Stability Under Temperature & Voltage Variations

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 ANSI/TIA-603-E.

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 Cat 1 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.

**TEST RESULTS****Remark:**

1. We tested all RB Configuration refer 3GPP TS136 521 for each Channel Bandwidth of FDD Band 4; recorded worst case.

Cat 1 Band 4, 1.4MHz bandwidth, QPSK (worst case of all bandwidths).

FDD Band 4				
DC Power(V)	Temperature (°C)	Frequency error(Hz)	Frequency error(ppm)	Verdict
4.25	20	26.68	0.015596	PASS
5.0	20	24.20	0.014146	PASS
5.75	20	20.27	0.011849	PASS
5.0	-30	23.48	0.013725	PASS
5.0	-20	9.82	0.005740	PASS
5.0	-10	15.99	0.009347	PASS
5.0	0	10.63	0.006214	PASS
5.0	10	14.58	0.008523	PASS
5.0	20	21.15	0.012363	PASS
5.0	30	-22.72	-0.013114	PASS
5.0	40	-3.35	-0.001934	PASS
5.0	50	-23.37	-0.013489	PASS

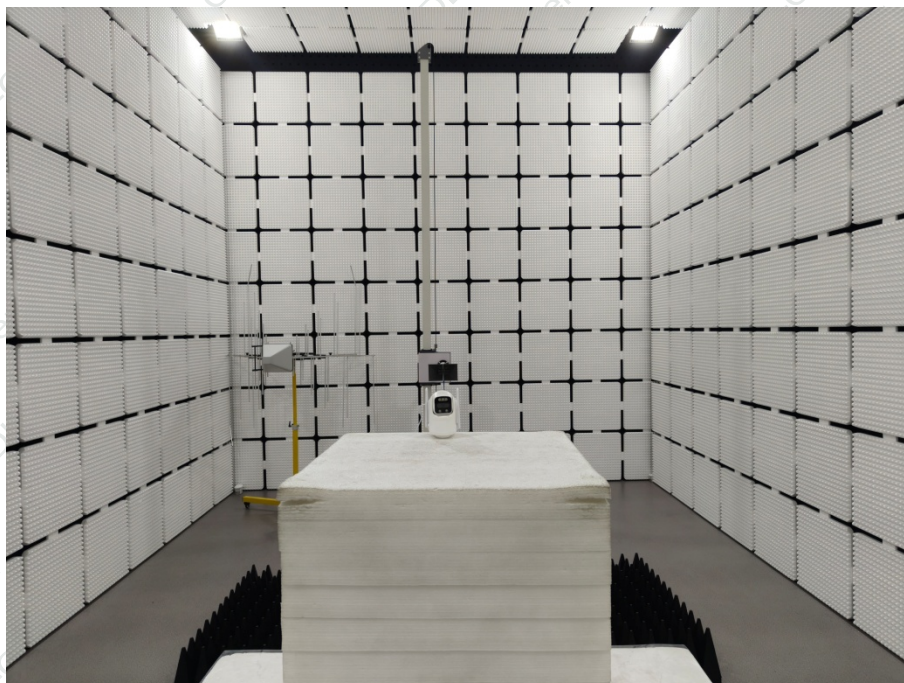
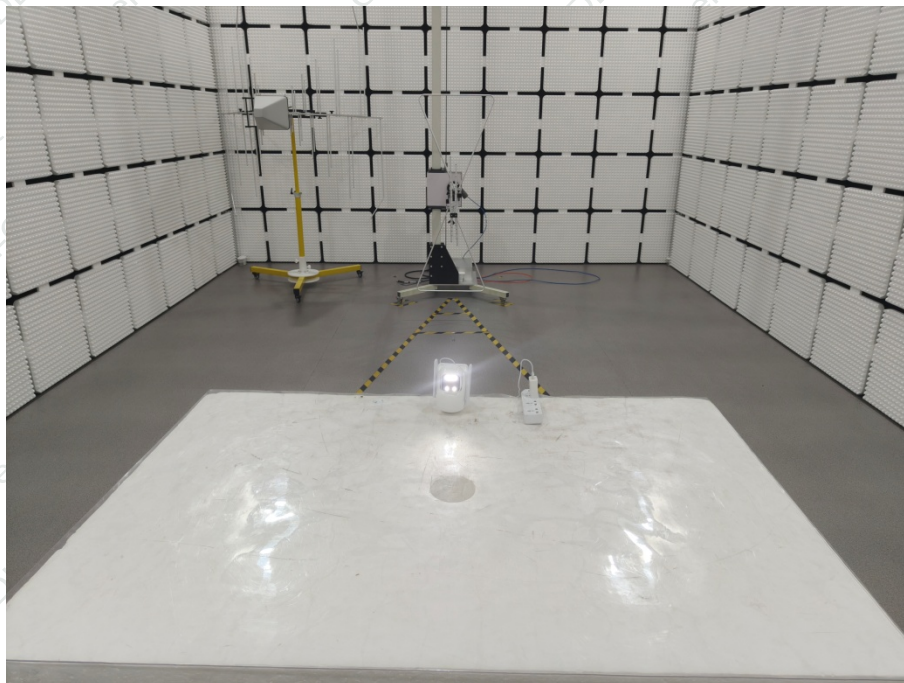
Cat 1 Band 4, 1.4MHz bandwidth , 16QAM (worst case of all bandwidths)

FDD Band 4				
DC Power(V)	Temperature (°C)	Frequency error(Hz)	Frequency error(ppm)	Verdict
4.25	20	-24.12	-0.014099	PASS
5.0	20	-13.89	-0.008119	PASS
5.75	20	-24.55	-0.014351	PASS
5.0	-30	-8.58	-0.005015	PASS
5.0	-20	-26.67	-0.015590	PASS
5.0	-10	-12.69	-0.007418	PASS
5.0	0	19.04	0.011130	PASS
5.0	10	-20.57	-0.012024	PASS
5.0	20	16.08	0.009400	PASS
5.0	30	-15.34	-0.008854	PASS
5.0	40	-15.97	-0.009218	PASS
5.0	50	-24.18	-0.013957	PASS



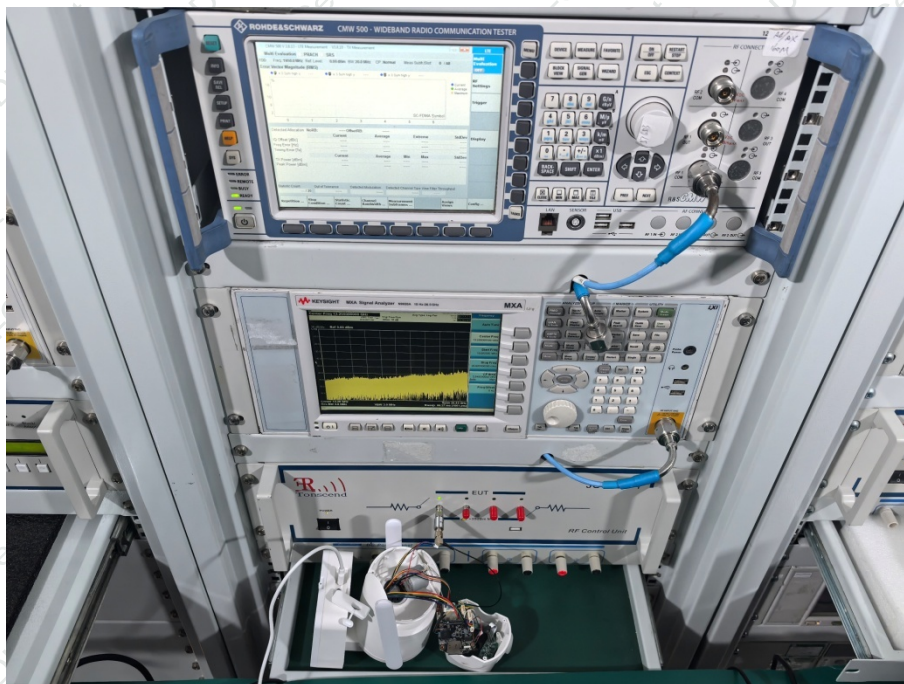
4 Test Setup Photos of the EUT

Radiated Emissions





RF Conducted Emission





5 Photos of the EUT

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

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