

Peak to Average Ratio

WCDMA Mode Test Data

Test Band	Test Channel	Peak to Average Ratio (dB)	Limit (dB)	Verdict
Band 2	LCH	3.09	13	Pass
	MCH	3.19	13	Pass
	HCH	3.09	13	Pass
Band 4	LCH	3.05	13	Pass
	MCH	3.14	13	Pass
	HCH	3.05	13	Pass
Band 5	LCH	3.23	13	Pass
	MCH	3.23	13	Pass
	HCH	3.23	13	Pass

LTE Mode Test Data

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Verdict
LTE Band 2	20 MHz	LCH	QPSK	RB1#0	4.83	13	Pass
				RB100#0	5.25	13	Pass
			16-QAM	RB1#0	5.44	13	Pass
				RB100#0	6	13	Pass
		MCH	QPSK	RB1#0	4.87	13	Pass
				RB100#0	5.53	13	Pass
			16-QAM	RB1#0	5.67	13	Pass
				RB100#0	6.23	13	Pass
		HCH	QPSK	RB1#0	4.92	13	Pass
				RB100#0	5.53	13	Pass
			16-QAM	RB1#0	5.95	13	Pass
				RB100#0	6.23	13	Pass
LTE Band 4	20 MHz	LCH	QPSK	RB1#0	4.22	13	Pass
				RB100#0	5.48	13	Pass
			16-QAM	RB1#0	4.87	13	Pass
				RB100#0	6.23	13	Pass
		MCH	QPSK	RB1#0	5.25	13	Pass
				RB100#0	5.39	13	Pass
			16-QAM	RB1#0	6.05	13	Pass
				RB100#0	6.14	13	Pass
		HCH	QPSK	RB1#0	4.92	13	Pass
				RB100#0	5.44	13	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Verdict
			16-QAM	RB1#0	5.95	13	Pass
				RB100#0	6.14	13	Pass
LTE Band 5	10 MHz	LCH	QPSK	RB1#0	5.16	13	Pass
				RB50#0	5.58	13	Pass
			16-QAM	RB1#0	5.95	13	Pass
				RB50#0	6.28	13	Pass
		MCH	QPSK	RB1#0	4.83	13	Pass
				RB50#0	5.72	13	Pass
			16-QAM	RB1#0	5.77	13	Pass
				RB50#0	6.52	13	Pass
		HCH	QPSK	RB1#0	4.64	13	Pass
				RB50#0	5.58	13	Pass
			16-QAM	RB1#0	5.44	13	Pass
				RB50#0	6.42	13	Pass
LTE Band 7	20 MHz	LCH	QPSK	RB1#0	4.17	13	Pass
				RB100#0	5.53	13	Pass
			16-QAM	RB1#0	4.87	13	Pass
				RB100#0	6.33	13	Pass
		MCH	QPSK	RB1#0	4.03	13	Pass
				RB100#0	5.58	13	Pass
			16-QAM	RB1#0	4.97	13	Pass
				RB100#0	6.37	13	Pass
		HCH	QPSK	RB1#0	4.17	13	Pass
				RB100#0	5.67	13	Pass
			16-QAM	RB1#0	5.11	13	Pass
				RB100#0	6.42	13	Pass
LTE Band 38	20 MHz	LCH	QPSK	RB1#0	9.19	13	Pass
				RB100#0	9.14	13	Pass
			16-QAM	RB1#0	9.84	13	Pass
				RB100#0	9.84	13	Pass
		MCH	QPSK	RB1#0	9.28	13	Pass
				RB100#0	9.19	13	Pass
			16-QAM	RB1#0	10.03	13	Pass
				RB100#0	9.84	13	Pass
		HCH	QPSK	RB1#0	9.23	13	Pass
				RB100#0	9.19	13	Pass
			16-QAM	RB1#0	9.98	13	Pass
				RB100#0	9.84	13	Pass

Test Band	Test Bandwidth	Test Channel	Test Mode	Test RB (Size#Offset)	Peak to Average Ratio (dB)	Limit (dB)	Verdict
LTE Band 41 (120M)	20 MHz	LCH	QPSK	RB1#0	8.25	13	Pass
				RB100#0	9.14	13	Pass
			16-QAM	RB1#0	9	13	Pass
				RB100#0	9.84	13	Pass
		MCH	QPSK	RB1#0	9.42	13	Pass
				RB100#0	9.19	13	Pass
			16-QAM	RB1#0	10.17	13	Pass
				RB100#0	9.89	13	Pass
		HCH	QPSK	RB1#0	9.09	13	Pass
				RB100#0	9.14	13	Pass
			16-QAM	RB1#0	9.84	13	Pass
				RB100#0	9.84	13	Pass

CA Mode Test Data

Test Channel	Modulation	UL RB Number		UL RB Position		Peak to Average Ratio (dB)	Limit (dB)	Verdict
CA_2C								
5MHz+20MHz								
18808 18925	QPSK	Full	Full	Low	Low	6.42	13	Pass
	16-QAM	Full	Full	Low	Low	7.08	13	Pass
20MHz+5MHz								
18875 18992	QPSK	Full	Full	Low	Low	6.56	13	Pass
	16-QAM	Full	Full	Low	Low	7.12	13	Pass
10MHz+20MHz								
18806 18950	QPSK	Full	Full	Low	Low	6.42	13	Pass
	16-QAM	Full	Full	Low	Low	7.12	13	Pass
20MHz+10MHz								
18851 18995	QPSK	Full	Full	Low	Low	6.52	13	Pass
	16-QAM	Full	Full	Low	Low	7.12	13	Pass
10MHz+15MHz								
18829 18949	QPSK	Full	Full	Low	Low	6.52	13	Pass
	16-QAM	Full	Full	Low	Low	7.12	13	Pass
15MHz+10MHz								
18851 18971	QPSK	Full	Full	Low	Low	6.61	13	Pass
	16-QAM	Full	Full	Low	Low	7.22	13	Pass
15MHz+15MHz								
18825 18975	QPSK	Full	Full	Low	Low	6.7	13	Pass
	16-QAM	Full	Full	Low	Low	7.22	13	Pass
15MHz+20MHz								
18803 18974	QPSK	Full	Full	Low	Low	6.42	13	Pass
	16-QAM	Full	Full	Low	Low	7.17	13	Pass
20MHz+15MHz								
18826 18997	QPSK	Full	Full	Low	Low	6.42	13	Pass
	16-QAM	Full	Full	Low	Low	7.08	13	Pass
20MHz+20MHz								
18801 18999	QPSK	Full	Full	Low	Low	6.47	13	Pass
	16-QAM	Full	Full	Low	Low	7.08	13	Pass

Test Channel	Modulation	UL RB Number		UL RB Position		Peak to Average Ratio (dB)	Limit (dB)	Verdict
CA_5B								
5MHz+10MHz								
20478 20550	QPSK	Full	Full	Low	Low	7.59	13	Pass
	16-QAM	Full	Full	Low	Low	8.34	13	Pass
10MHz+5MHz								
20500 20572	QPSK	Full	Full	Low	Low	7.59	13	Pass
	16-QAM	Full	Full	Low	Low	8.44	13	Pass
10MHz+10MHz								
20476 20575	QPSK	Full	Full	Low	Low	7.55	13	Pass
	16-QAM	Full	Full	Low	Low	8.2	13	Pass

Test Channel	Modulation	UL RB Number		UL RB Position		Peak to Average Ratio (dB)	Limit (dB)	Verdict
CA_7C								
10MHz+20MHz								
21006 21150	QPSK	Full	Full	Low	Low	6.37	13	Pass
	16-QAM	Full	Full	Low	Low	7.03	13	Pass
20MHz+10MHz								
21051 21195	QPSK	Full	Full	Low	Low	6.47	13	Pass
	16-QAM	Full	Full	Low	Low	7.08	13	Pass
15MHz+15MHz								
21025 21175	QPSK	Full	Full	Low	Low	6.7	13	Pass
	16-QAM	Full	Full	Low	Low	7.12	13	Pass
15MHz+20MHz								
21003 21174	QPSK	Full	Full	Low	Low	6.42	13	Pass
	16-QAM	Full	Full	Low	Low	7.03	13	Pass
20MHz+15MHz								
21026 21197	QPSK	Full	Full	Low	Low	6.42	13	Pass
	16-QAM	Full	Full	Low	Low	7.08	13	Pass
20MHz+20MHz								
21001 21199	QPSK	Full	Full	Low	Low	6.52	13	Pass
	16-QAM	Full	Full	Low	Low	7.08	13	Pass

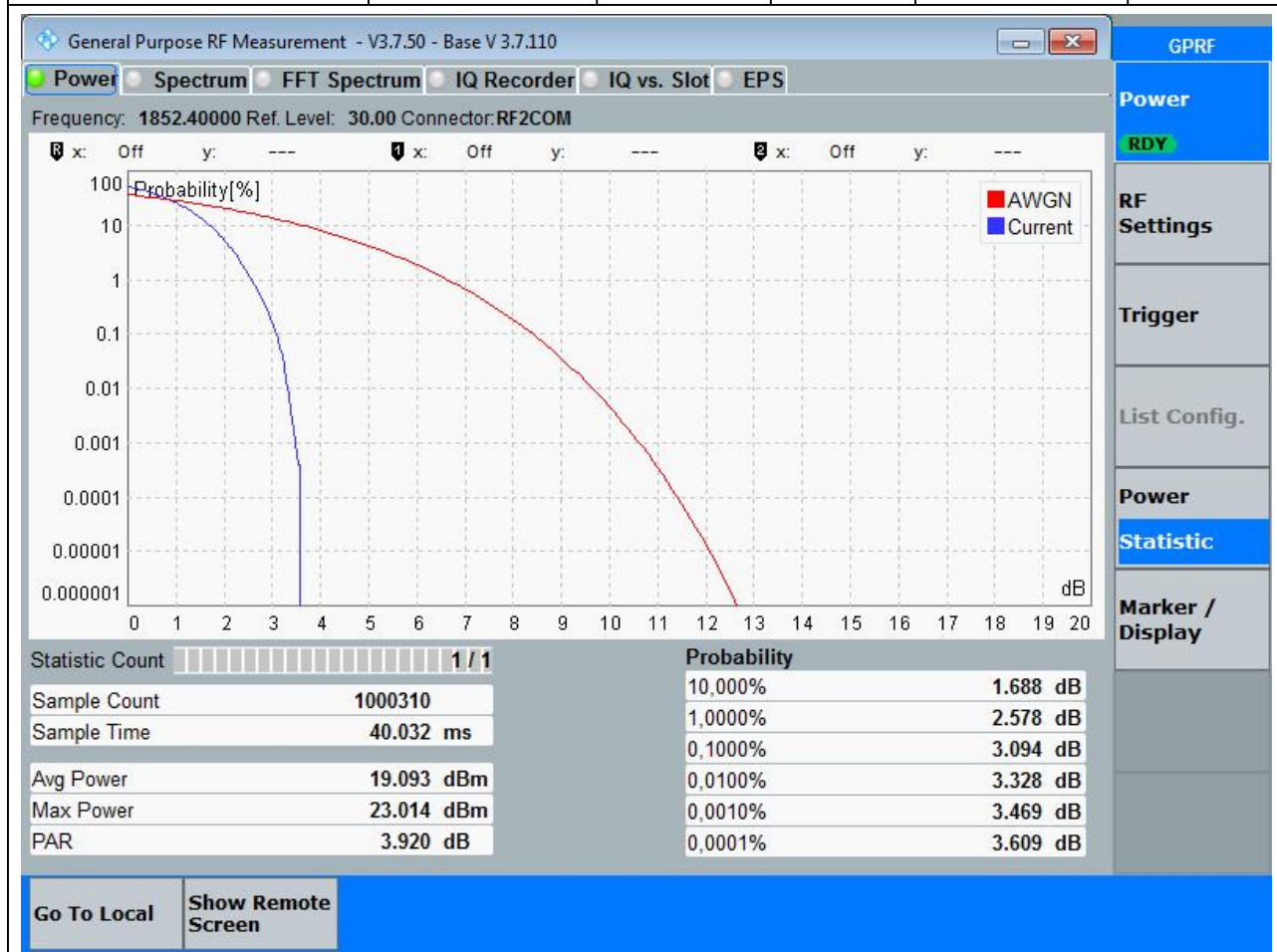
Test Channel	Modulation	UL RB Number		UL RB Position		Peak to Average Ratio (dB)	Limit (dB)	Verdict
CA_38C								
15MHz+15MHz								
37925 38075	QPSK	Full	Full	Low	Low	10.27	13	Pass
	16-QAM	Full	Full	Low	Low	10.64	13	Pass
20MHz+20MHz								
37901 38099	QPSK	Full	Full	Low	Low	10.12	13	Pass
	16-QAM	Full	Full	Low	Low	10.5	13	Pass

Test Channel	Modulation	UL RB Number		UL RB Position		Peak to Average Ratio (dB)	Limit (dB)	Verdict
CA_41C(120M)								
5MHz+20MHz								
40548 40665	QPSK	Full	Full	Low	Low	9.89	13	Pass
	16-QAM	Full	Full	Low	Low	10.5	13	Pass
20MHz+5MHz								
40615 40732	QPSK	Full	Full	Low	Low	9.89	13	Pass
	16-QAM	Full	Full	Low	Low	10.45	13	Pass
10MHz+20MHz								
40546 40690	QPSK	Full	Full	Low	Low	9.94	13	Pass
	16-QAM	Full	Full	Low	Low	10.5	13	Pass
20MHz+10MHz								
40591 40735	QPSK	Full	Full	Low	Low	10.03	13	Pass
	16-QAM	Full	Full	Low	Low	10.5	13	Pass
15MHz+15MHz								
40565 40715	QPSK	Full	Full	Low	Low	10.17	13	Pass
	16-QAM	Full	Full	Low	Low	10.59	13	Pass
15MHz+20MHz								
40543 40714	QPSK	Full	Full	Low	Low	9.98	13	Pass
	16-QAM	Full	Full	Low	Low	10.55	13	Pass
20MHz+15MHz								
40566 40737	QPSK	Full	Full	Low	Low	9.94	13	Pass
	16-QAM	Full	Full	Low	Low	10.45	13	Pass
20MHz+20MHz								
40541 40739	QPSK	Full	Full	Low	Low	10.08	13	Pass
	16-QAM	Full	Full	Low	Low	10.5	13	Pass

1. WCDMA_Band2

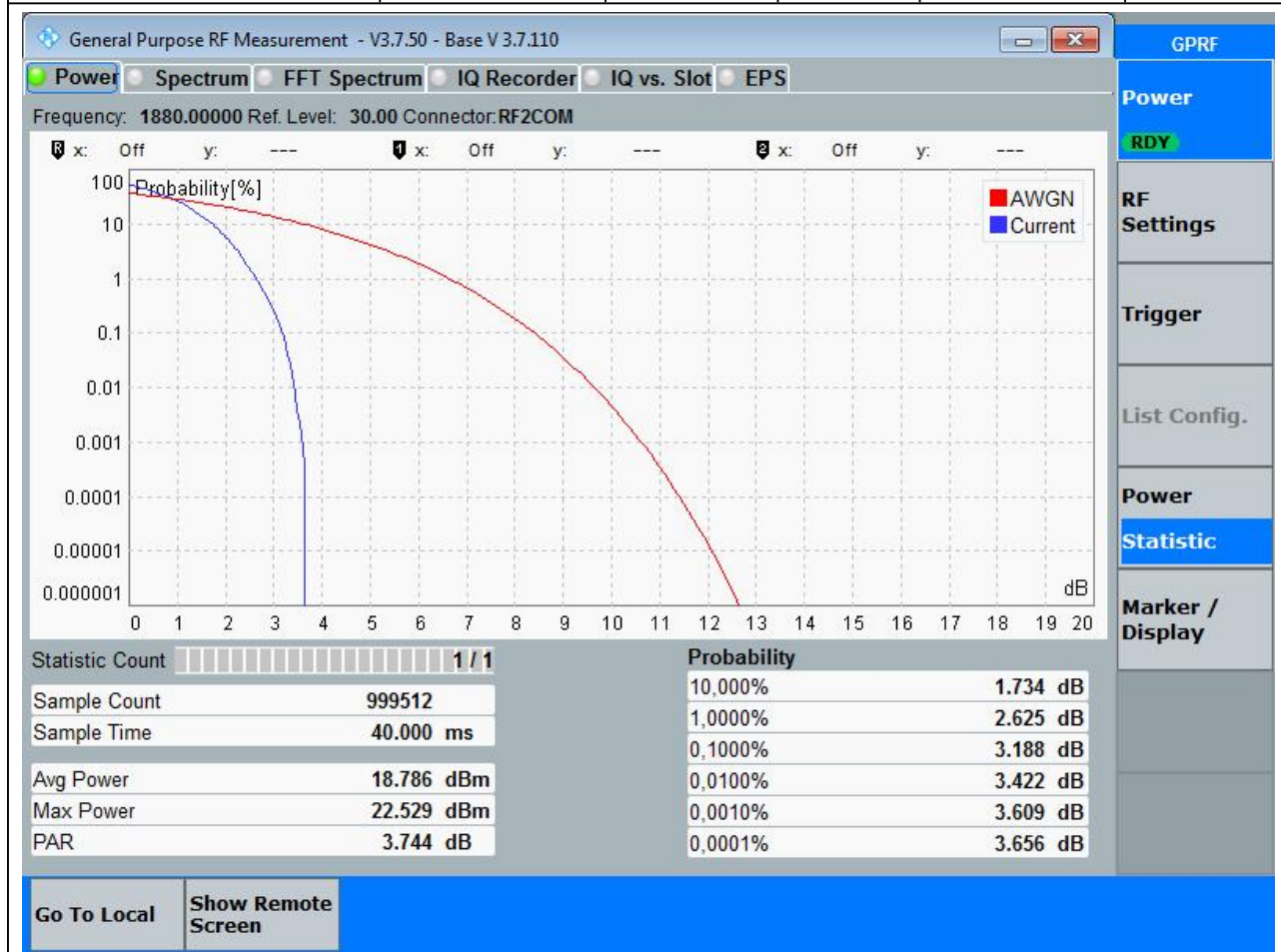
1.1. WCDMA Peak to Average Ratio_Part22-24-27(Channel:9262)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
1852.4	0.1	5	3.09	13	Pass



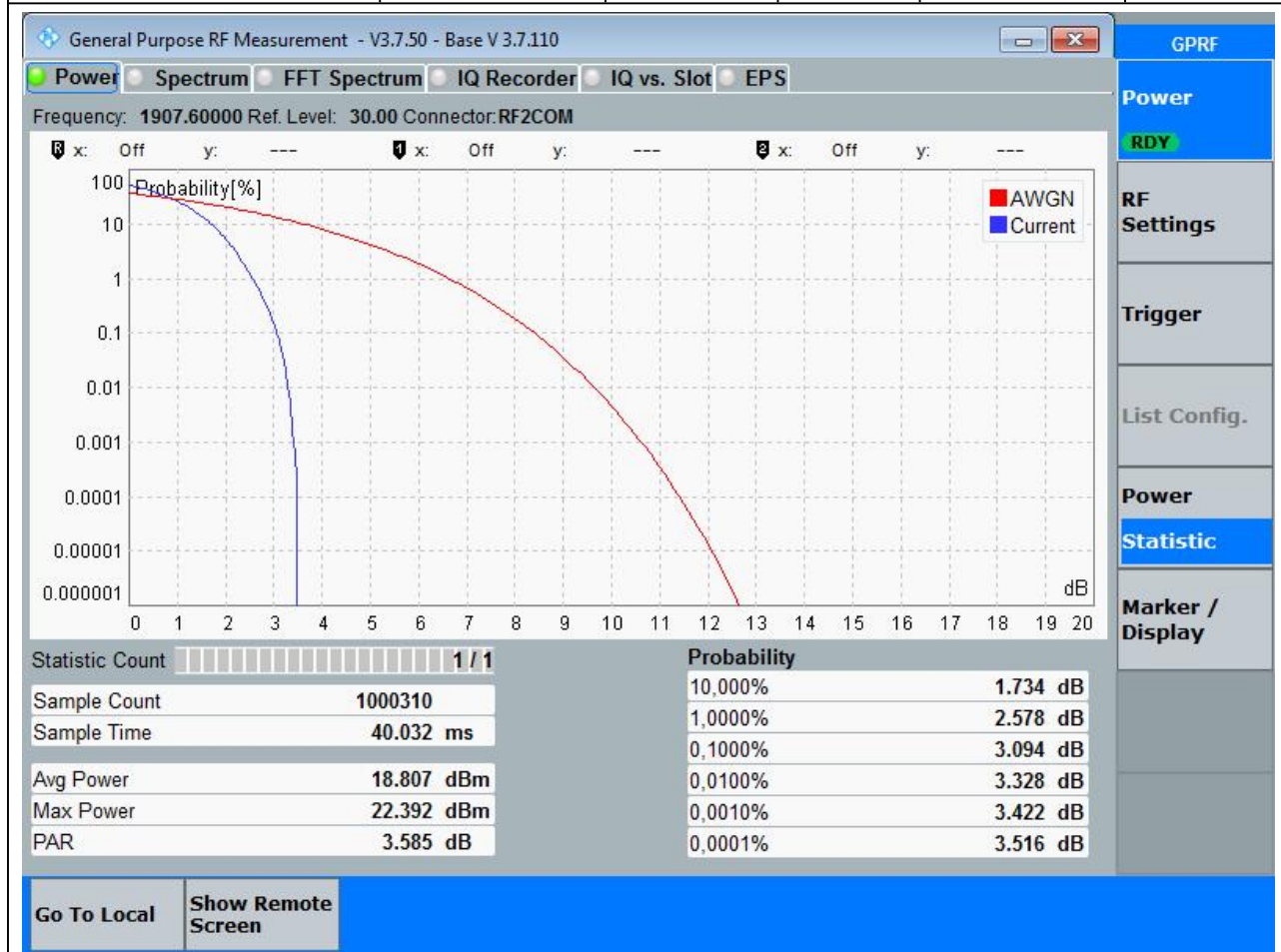
1.2. WCDMA Peak to Average Ratio_Part22-24-27(Channel:9400)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
1880	0.1	5	3.19	13	Pass



1.3. WCDMA Peak to Average Ratio_Part22-24-27(Channel:9538)

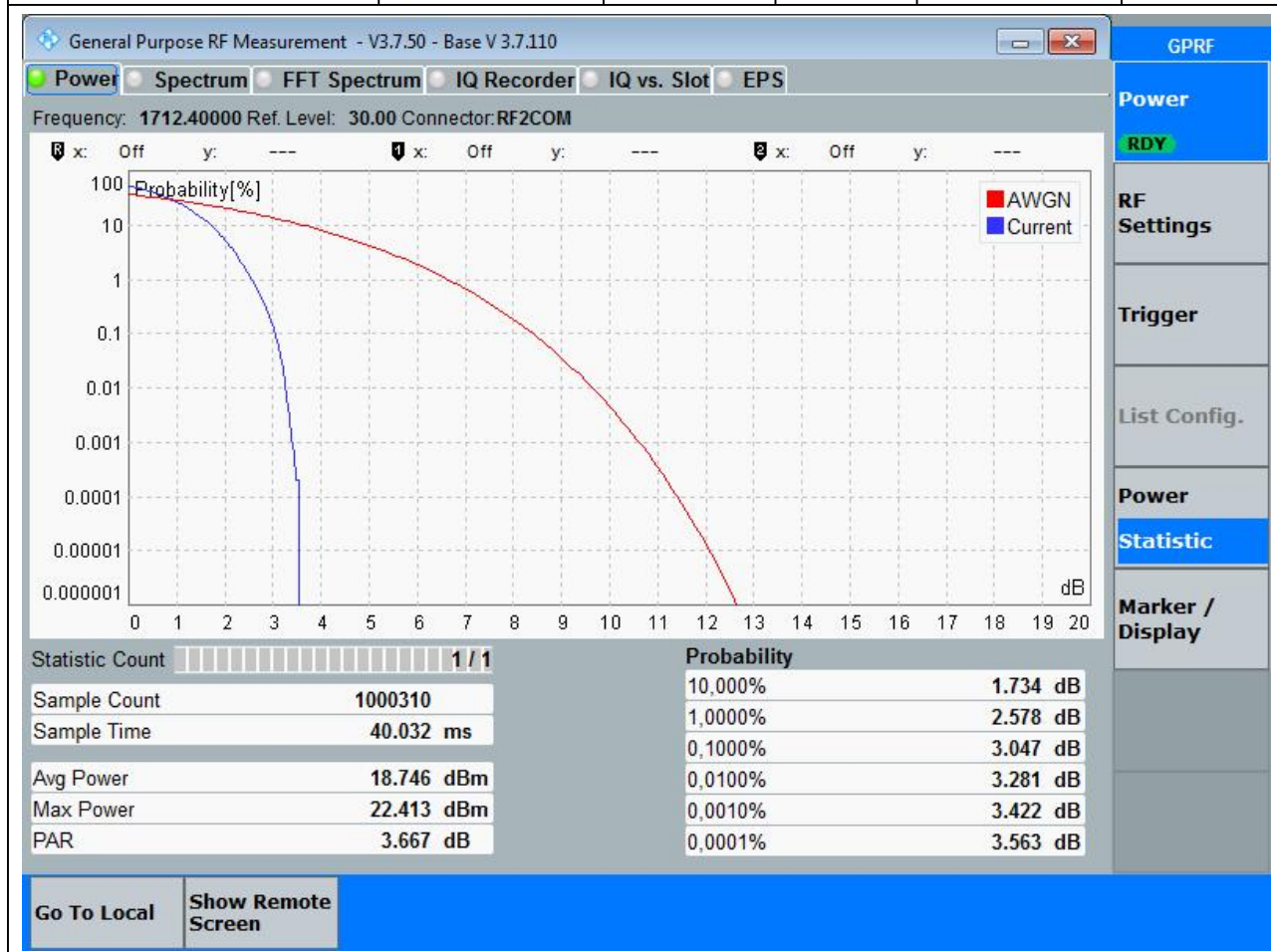
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
1907.6	0.1	5	3.09	13	Pass



2. WCDMA_Band4

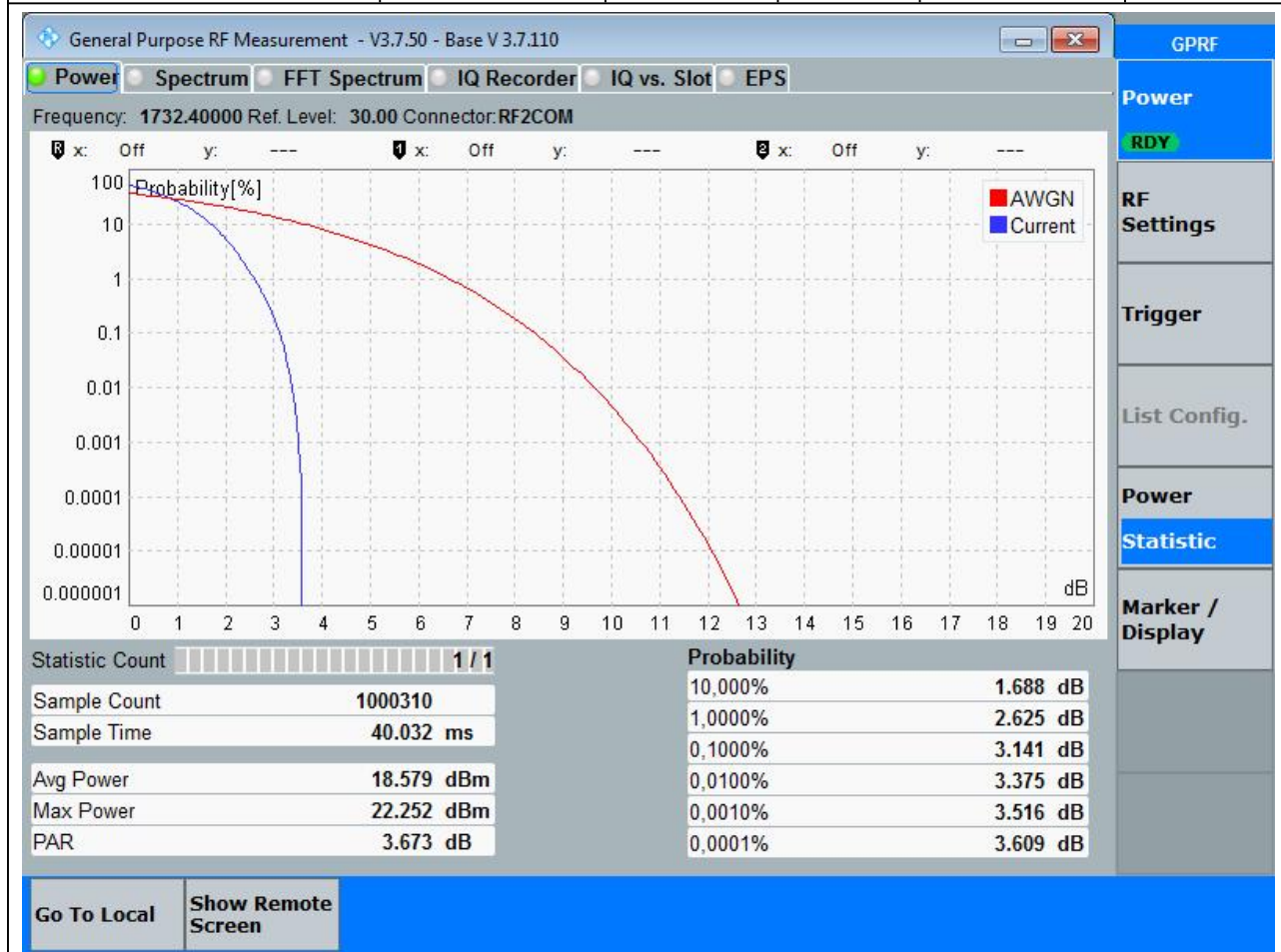
2.1. WCDMA Peak to Average Ratio_Part22-24-27(Channel:1312)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
1712.4	0.1	5	3.05	13	Pass



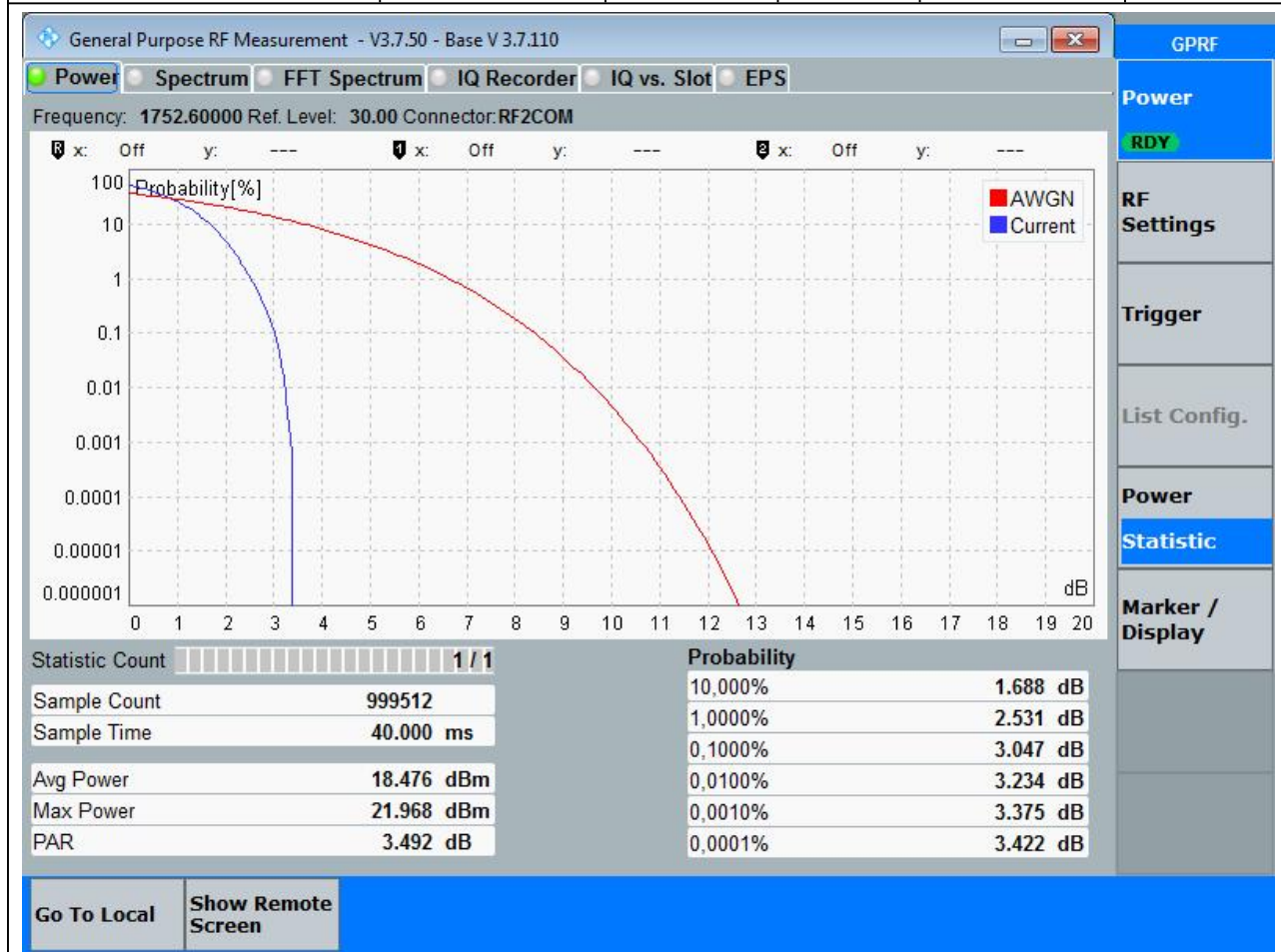
2.2. WCDMA Peak to Average Ratio_Part22-24-27(Channel:1412)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
1732.4	0.1	5	3.14	13	Pass



2.3. WCDMA Peak to Average Ratio_Part22-24-27(Channel:1513)

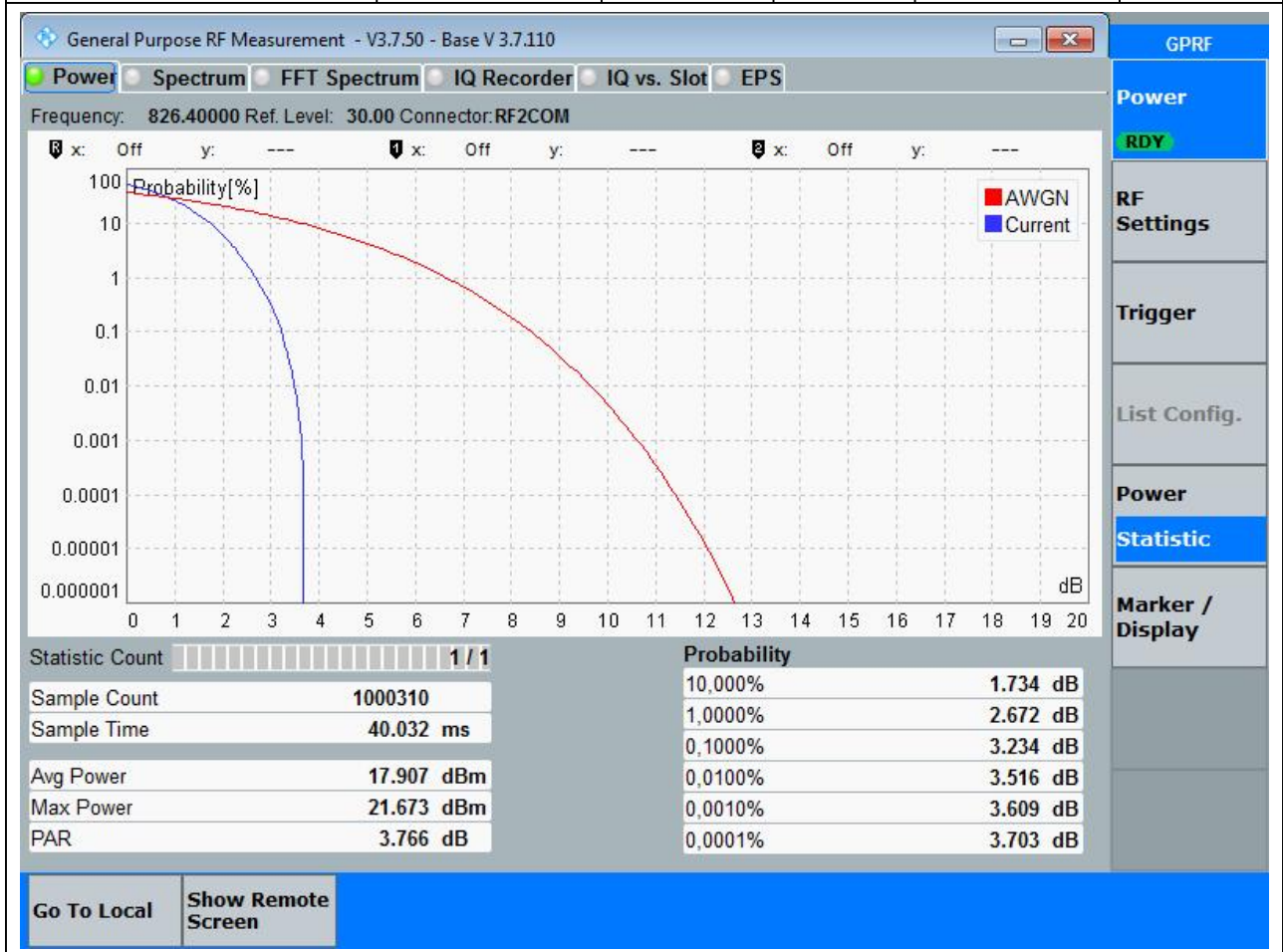
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
1752.6	0.1	5	3.05	13	Pass



3. WCDMA_Band5

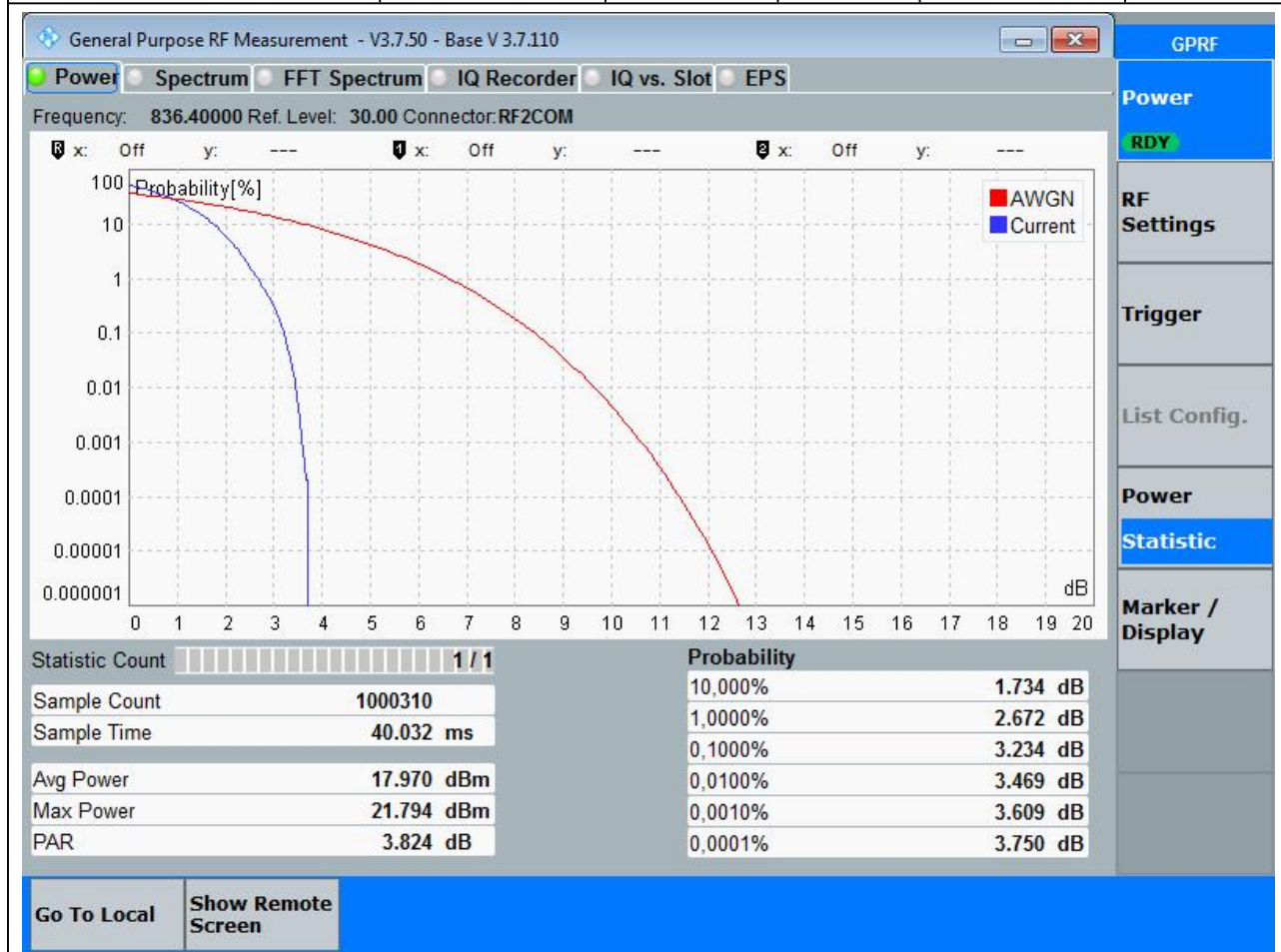
3.1. WCDMA Peak to Average Ratio_Part22-24-27(Channel:4132)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
826.4	0.1	5	3.23	13	Pass



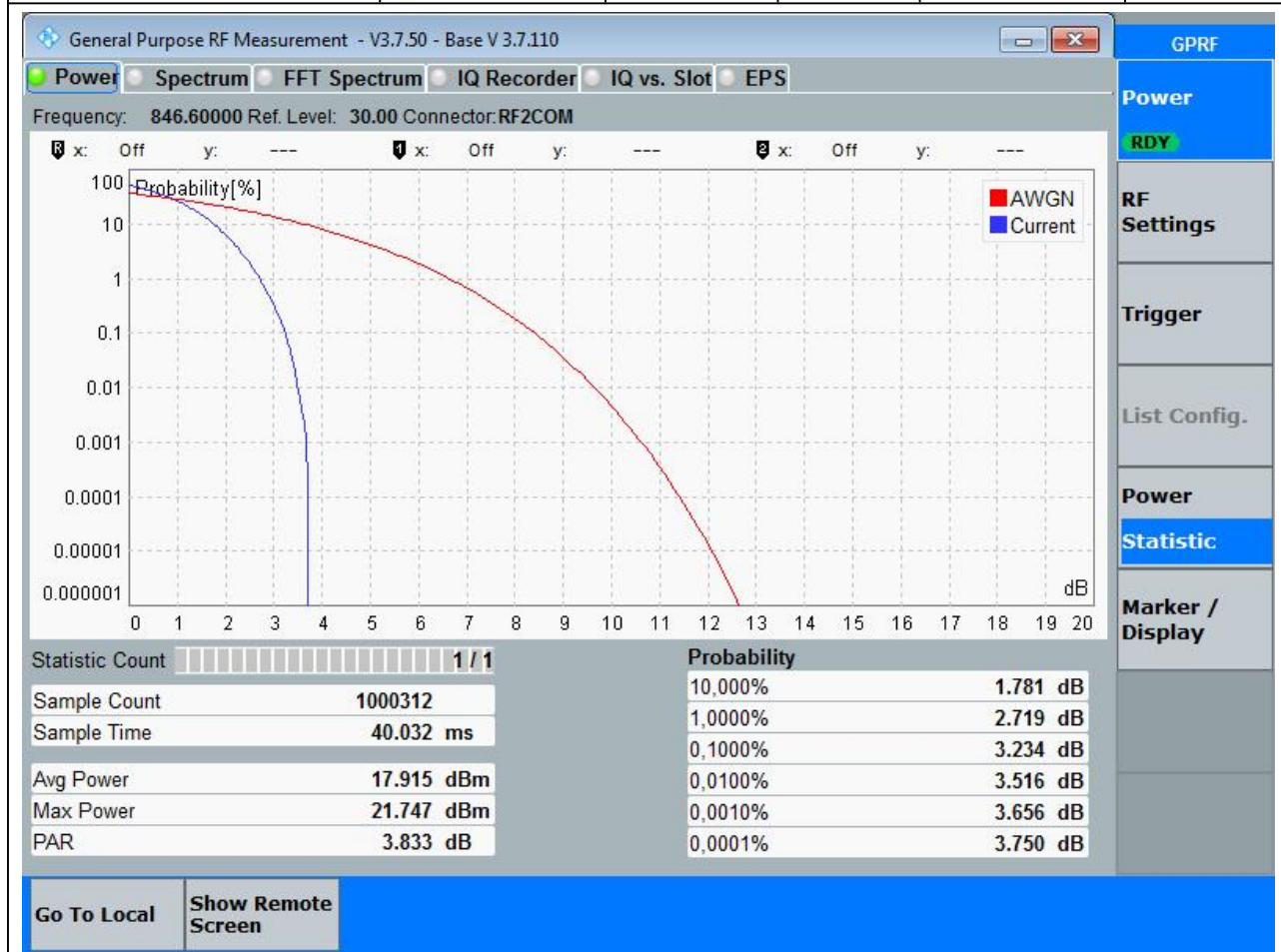
3.2. WCDMA Peak to Average Ratio_Part22-24-27(Channel:4182)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
836.4	0.1	5	3.23	13	Pass



3.3. WCDMA Peak to Average Ratio_Part22-24-27(Channel:4233)

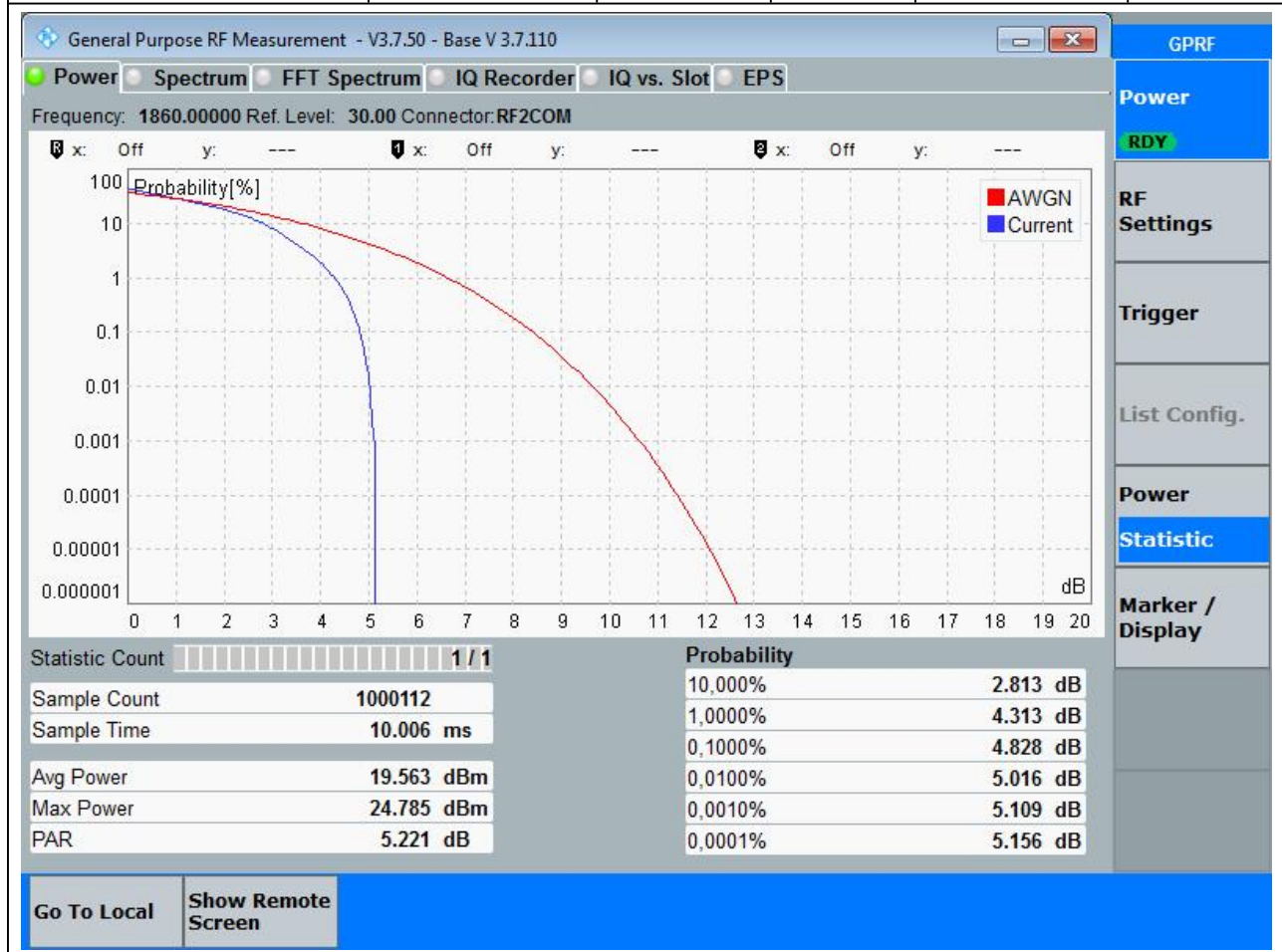
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
846.6	0.1	5	3.23	13	Pass



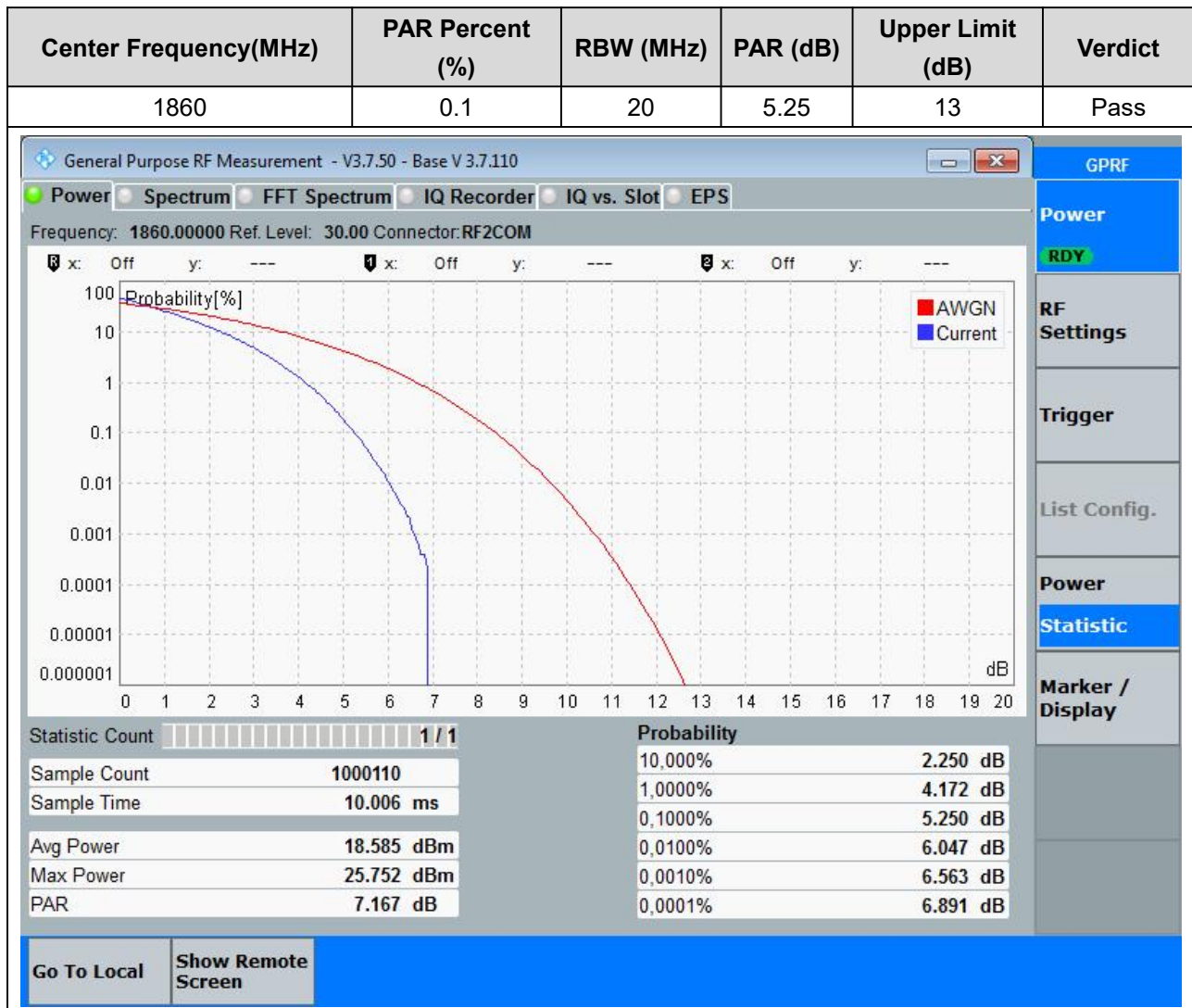
1. LTE_Band2

1.1. LTE Peak to Average Ratio_Part22-24-27(Channel:18700, Bandwidth:20, Modulation:QPSK, RB Number:1, RB Position:0)

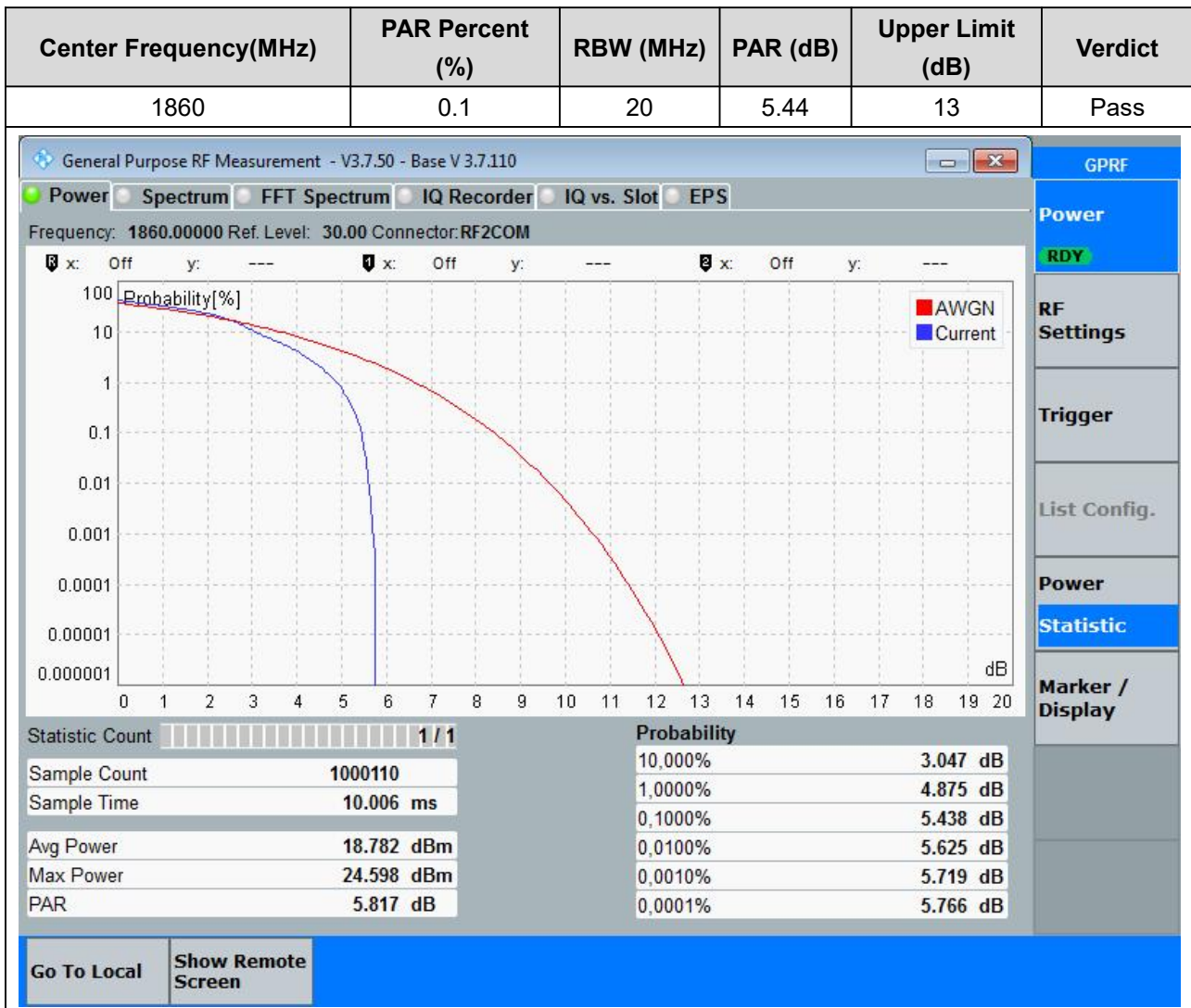
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
1860	0.1	20	4.83	13	Pass



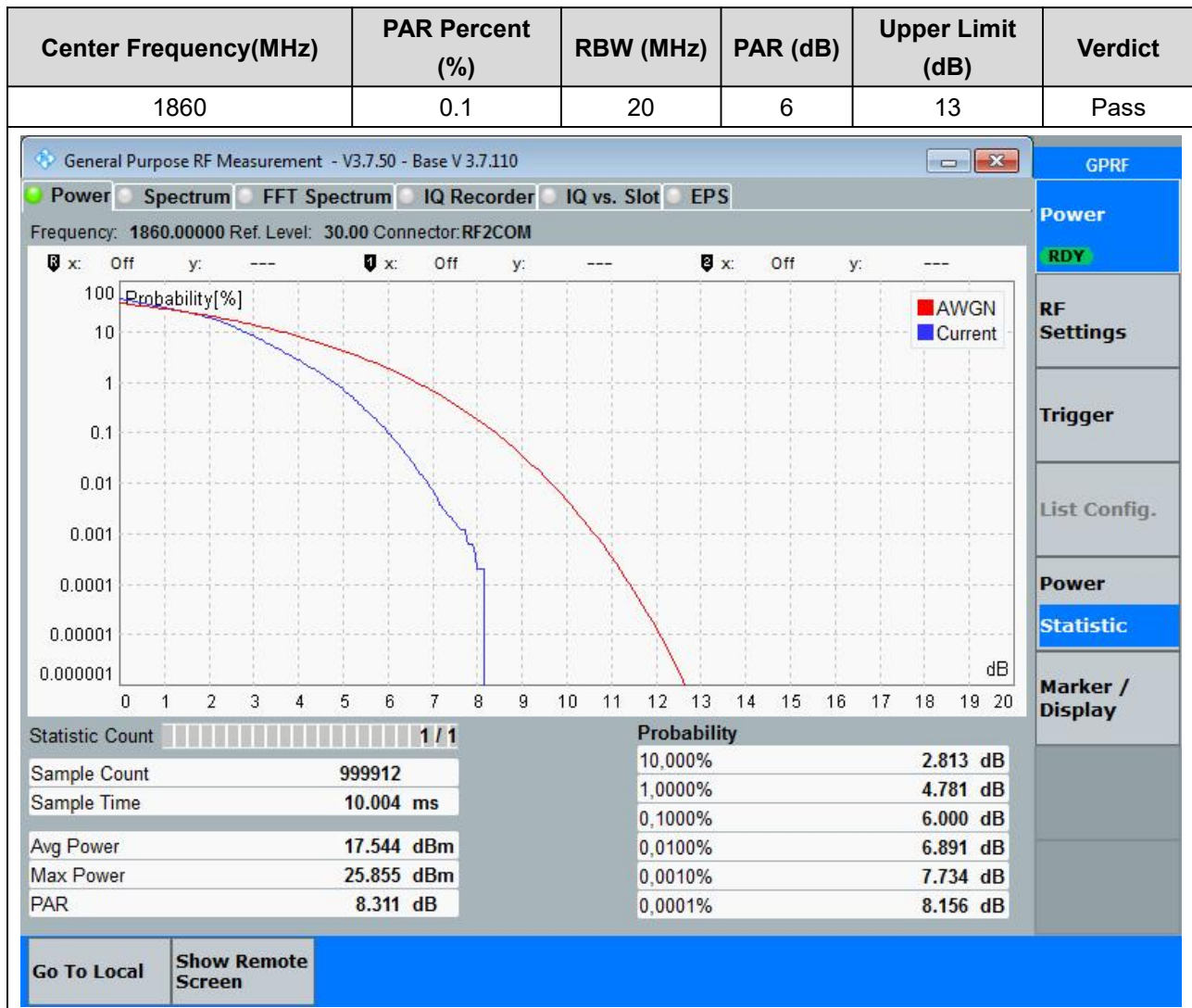
1.2. LTE Peak to Average Ratio_Part22-24-27(Channel:18700, Bandwidth:20, Modulation:QPSK, RB Number:100, RB Position:0)



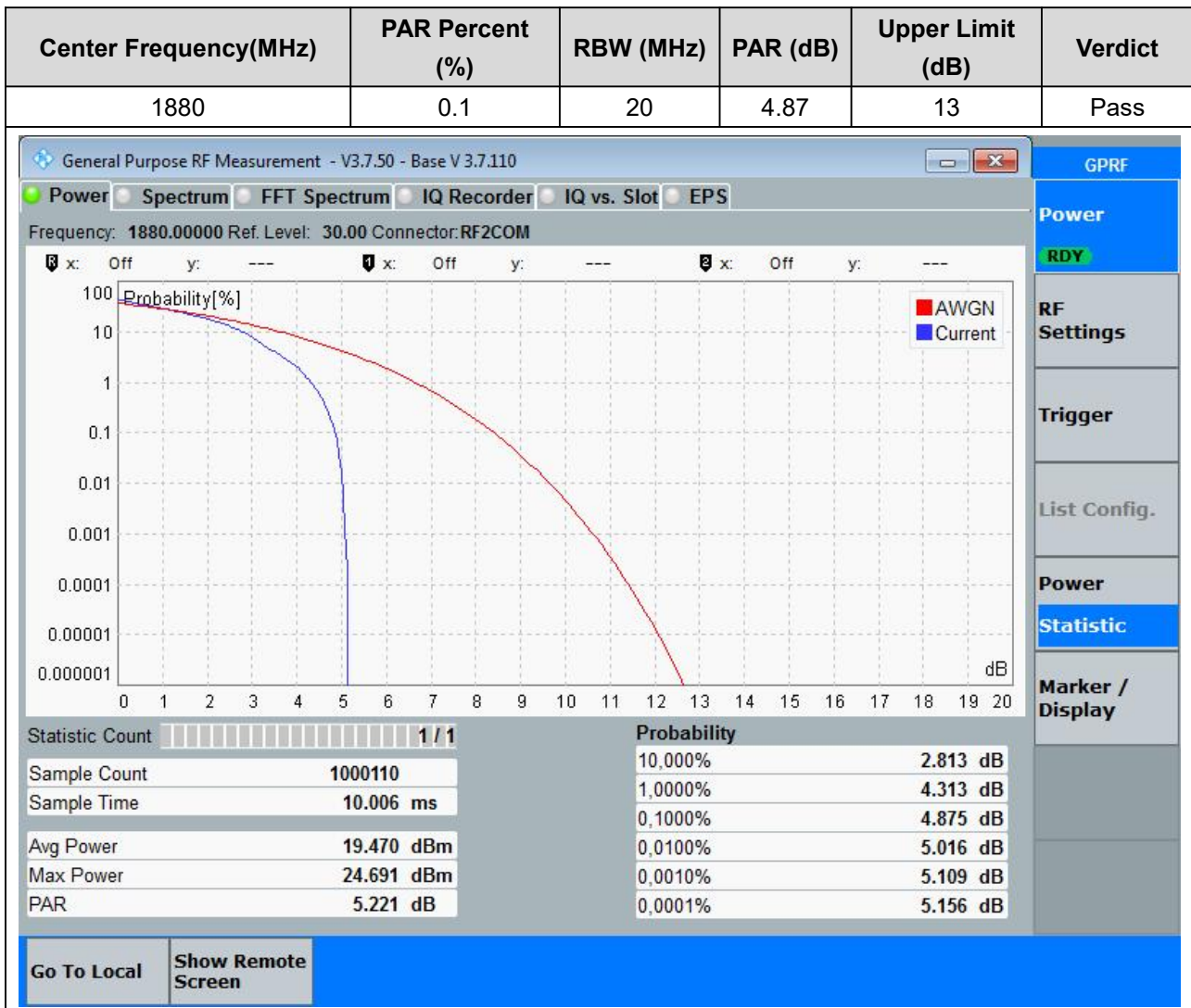
1.3. LTE Peak to Average Ratio_Part22-24-27(Channel:18700, Bandwidth:20, Modulation:16QAM, RB Number:1, RB Position:0)



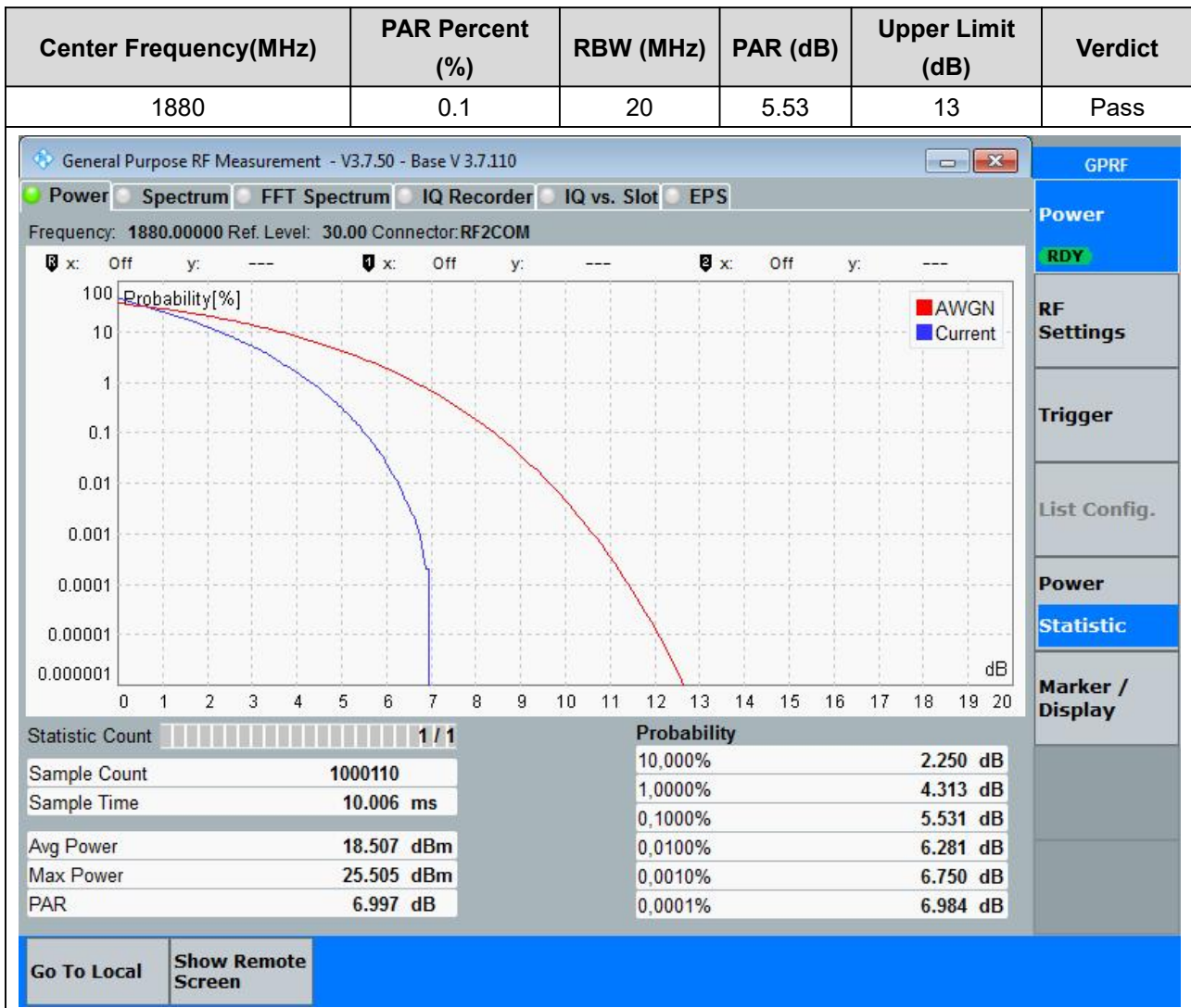
1.4. LTE Peak to Average Ratio_Part22-24-27(Channel:18700, Bandwidth:20, Modulation:16QAM, RB Number:100, RB Position:0)



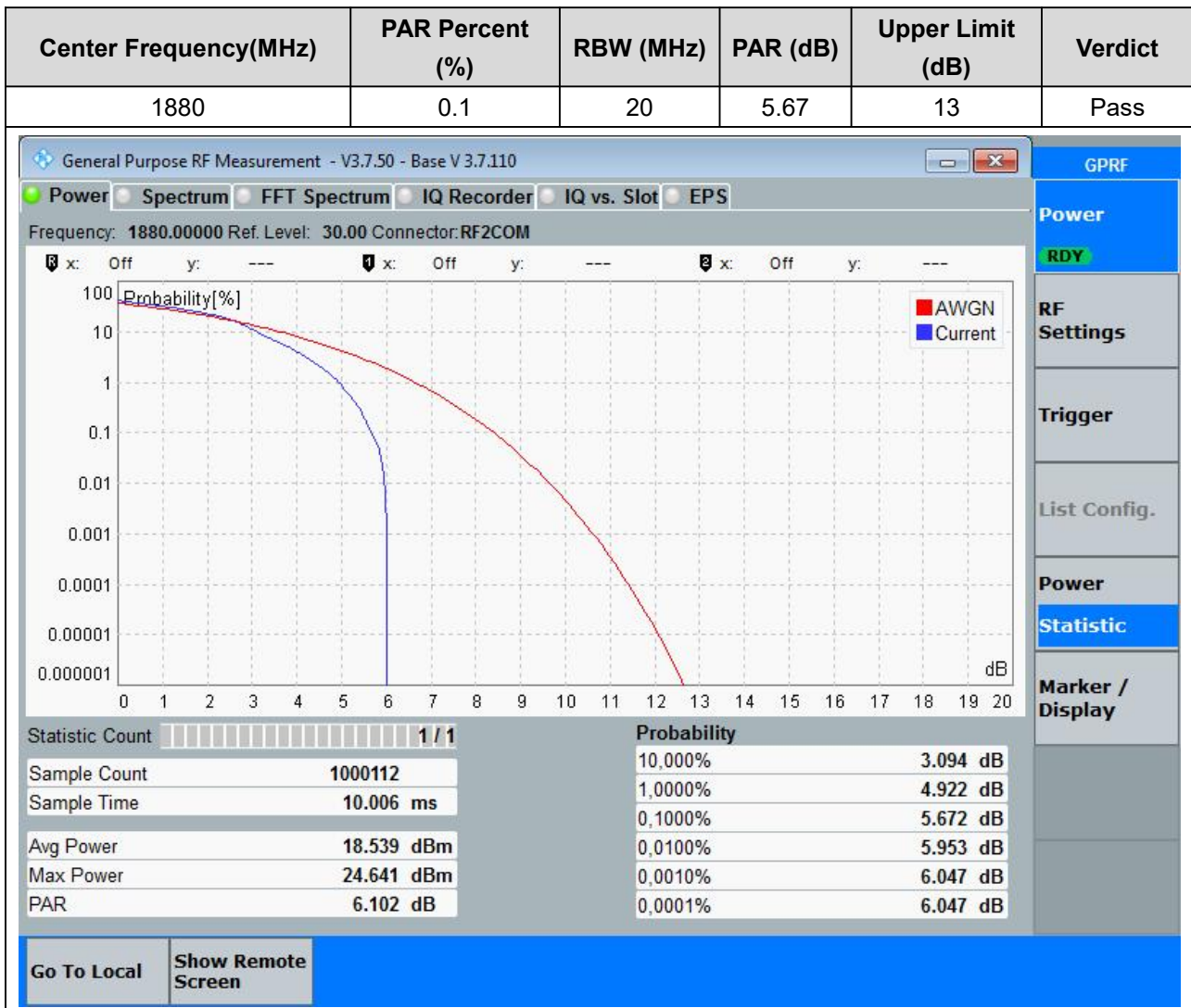
1.5. LTE Peak to Average Ratio_Part22-24-27(Channel:18900, Bandwidth:20, Modulation:QPSK, RB Number:1, RB Position:0)



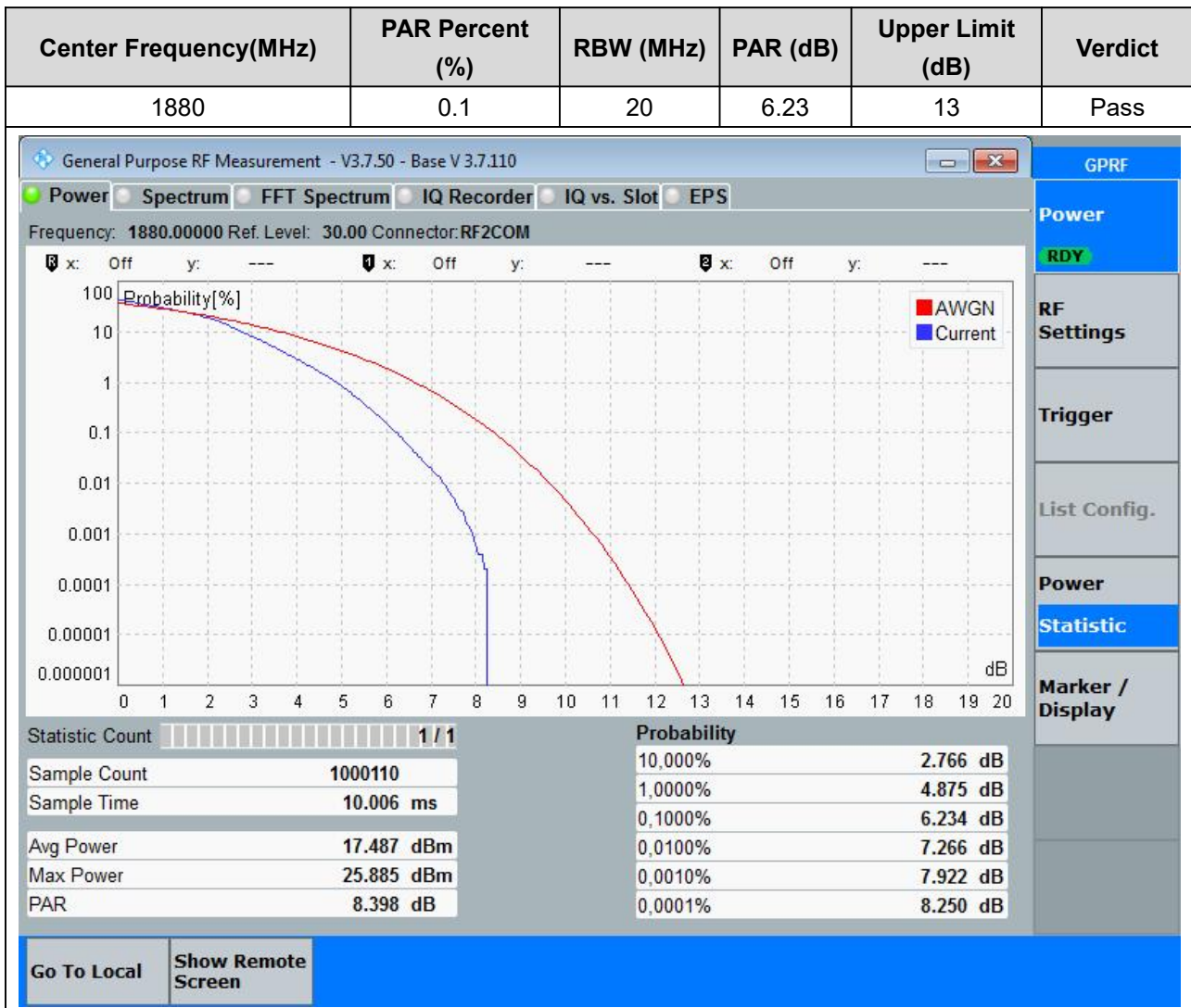
1.6. LTE Peak to Average Ratio_Part22-24-27(Channel:18900, Bandwidth:20, Modulation:QPSK, RB Number:100, RB Position:0)



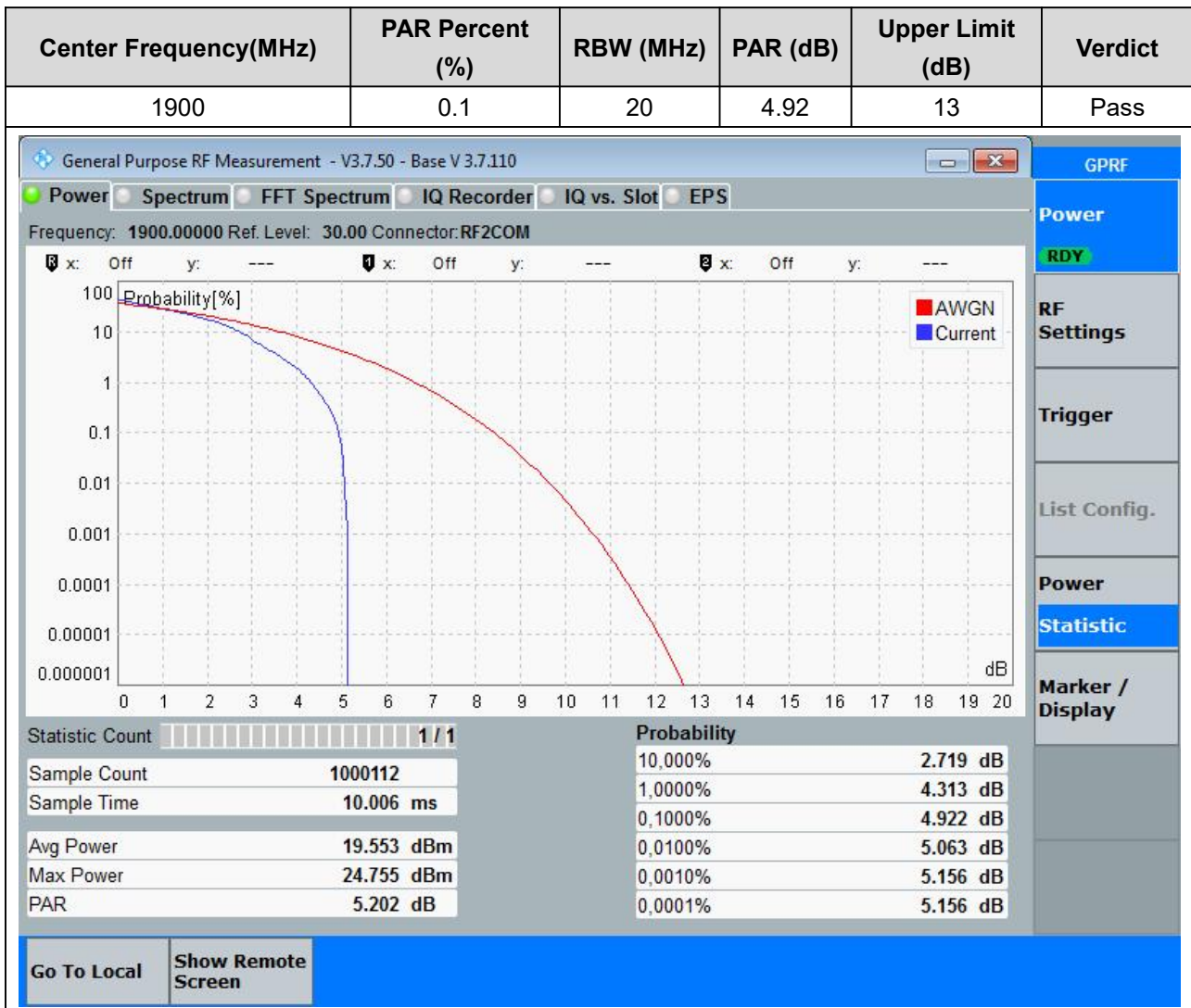
1.7. LTE Peak to Average Ratio_Part22-24-27(Channel:18900, Bandwidth:20, Modulation:16QAM, RB Number:1, RB Position:0)



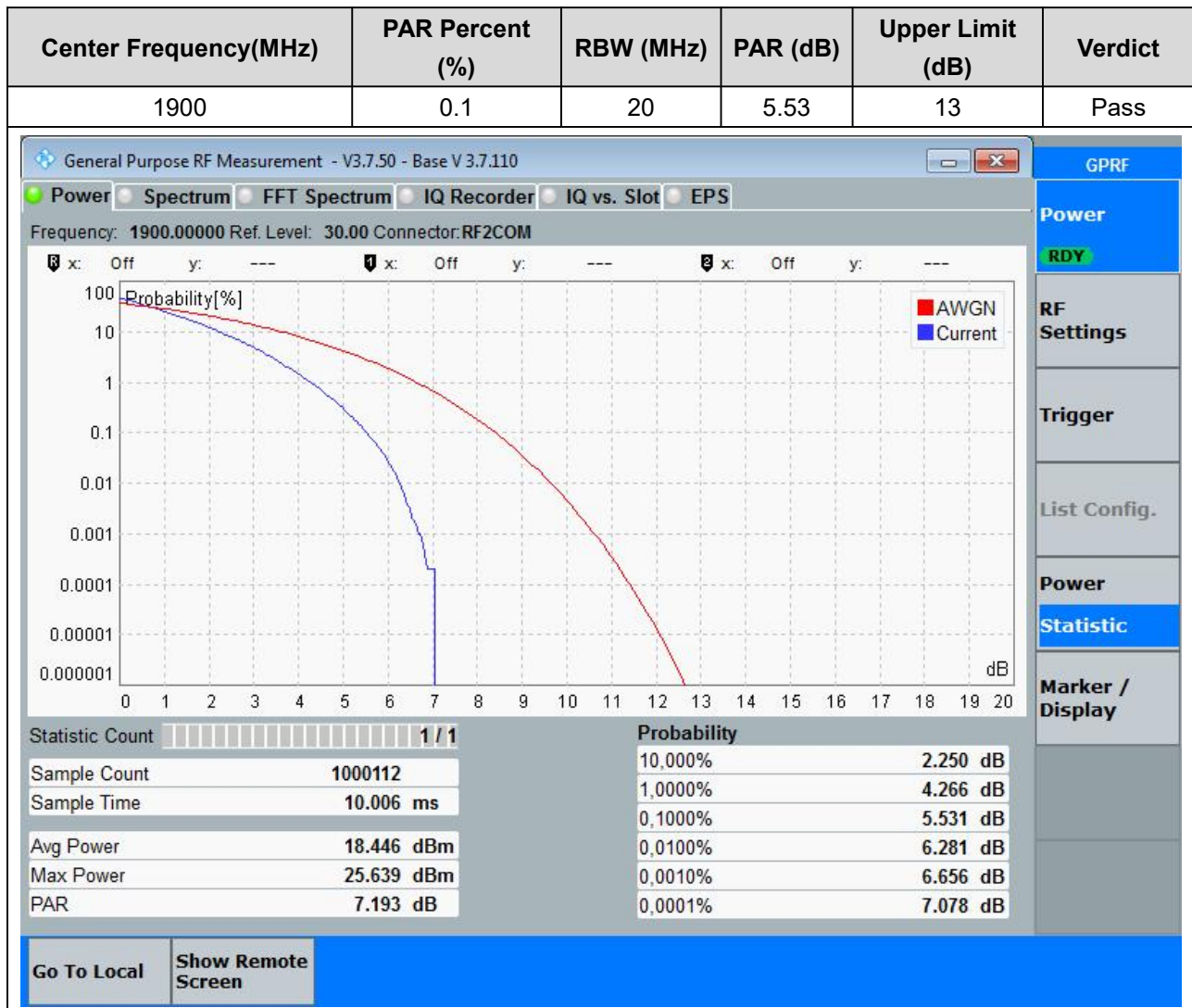
1.8. LTE Peak to Average Ratio_Part22-24-27(Channel:18900, Bandwidth:20, Modulation:16QAM, RB Number:100, RB Position:0)



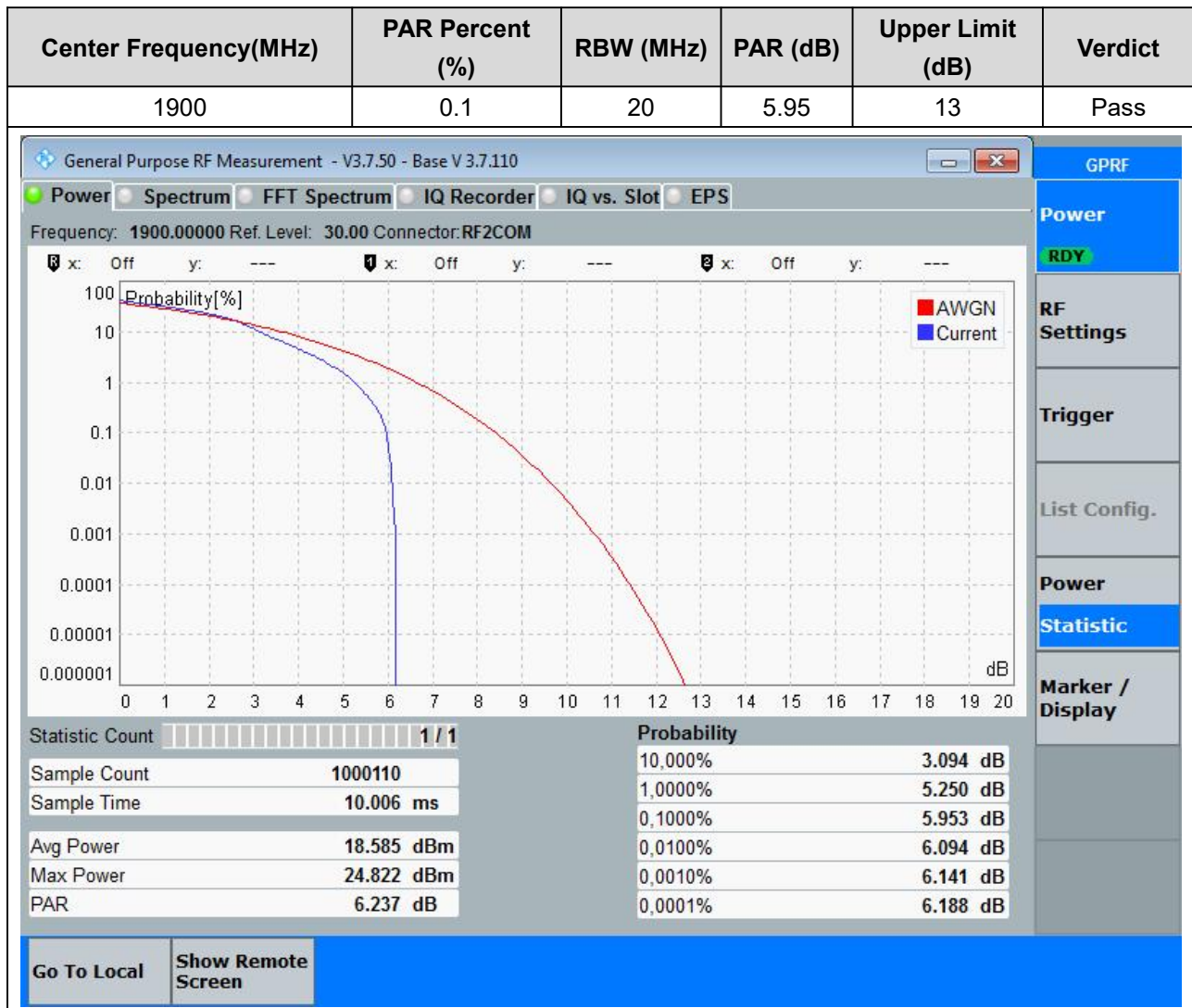
1.9. LTE Peak to Average Ratio_Part22-24-27(Channel:19100, Bandwidth:20, Modulation:QPSK, RB Number:1, RB Position:0)



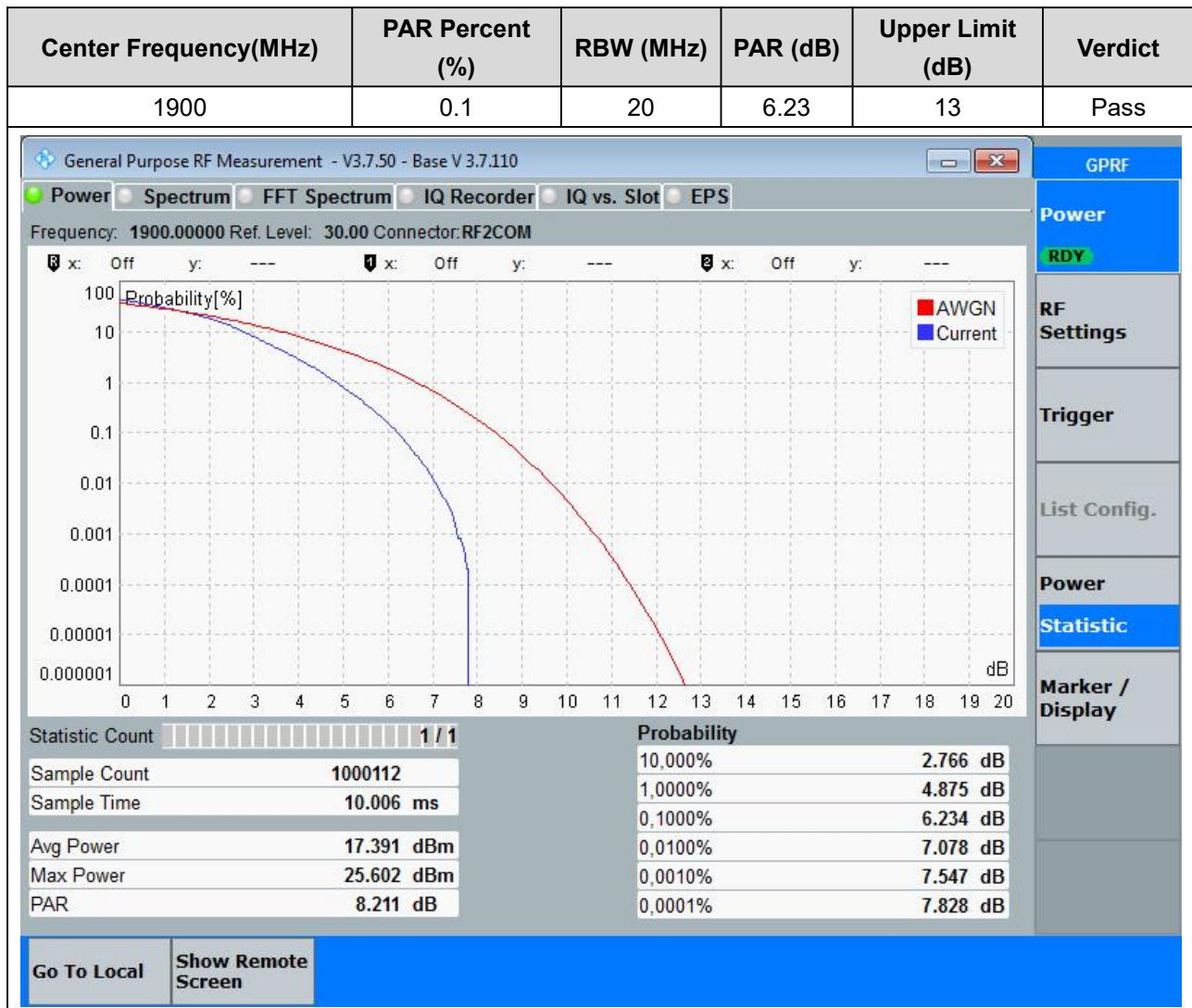
1.10. LTE Peak to Average Ratio_Part22-24-27(Channel:19100, Bandwidth:20, Modulation:QPSK, RB Number:100, RB Position:0)



1.11. LTE Peak to Average Ratio_Part22-24-27(Channel:19100, Bandwidth:20, Modulation:16QAM, RB Number:1, RB Position:0)



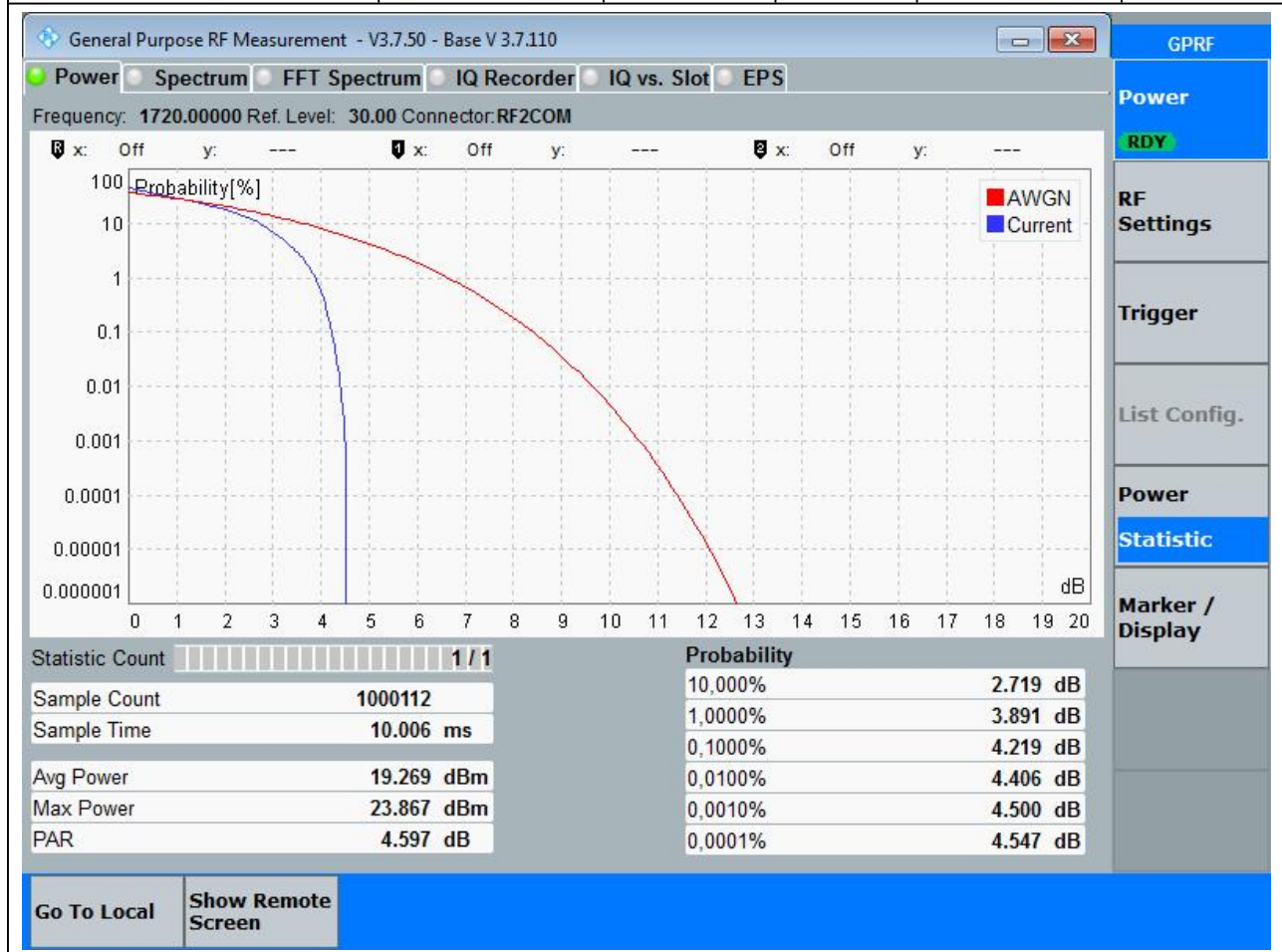
1.12. LTE Peak to Average Ratio_Part22-24-27(Channel:19100, Bandwidth:20, Modulation:16QAM, RB Number:100, RB Position:0)



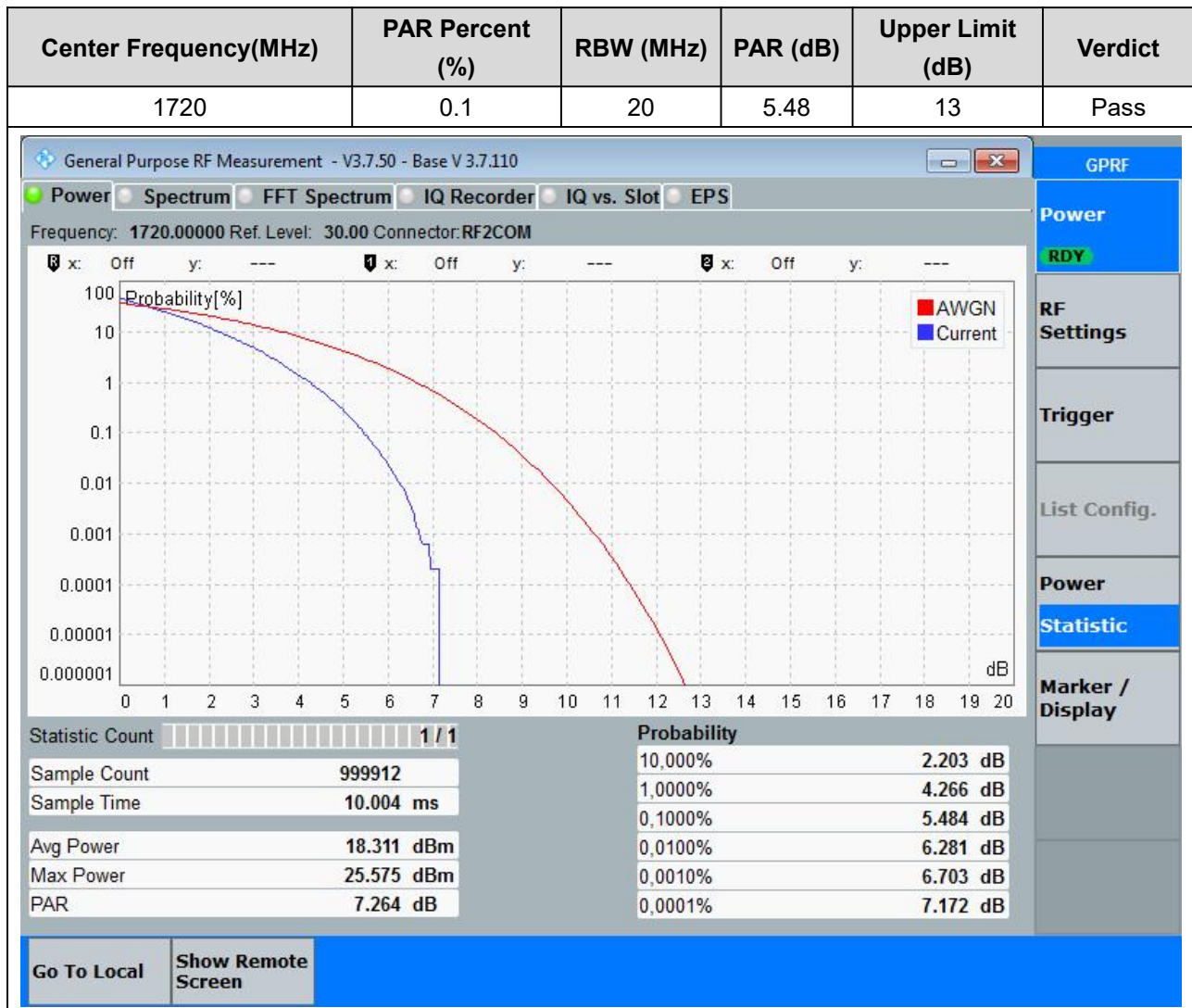
2. LTE_Band4

2.1. LTE Peak to Average Ratio_Part22-24-27(Channel:20050, Bandwidth:20, Modulation:QPSK, RB Number:1, RB Position:0)

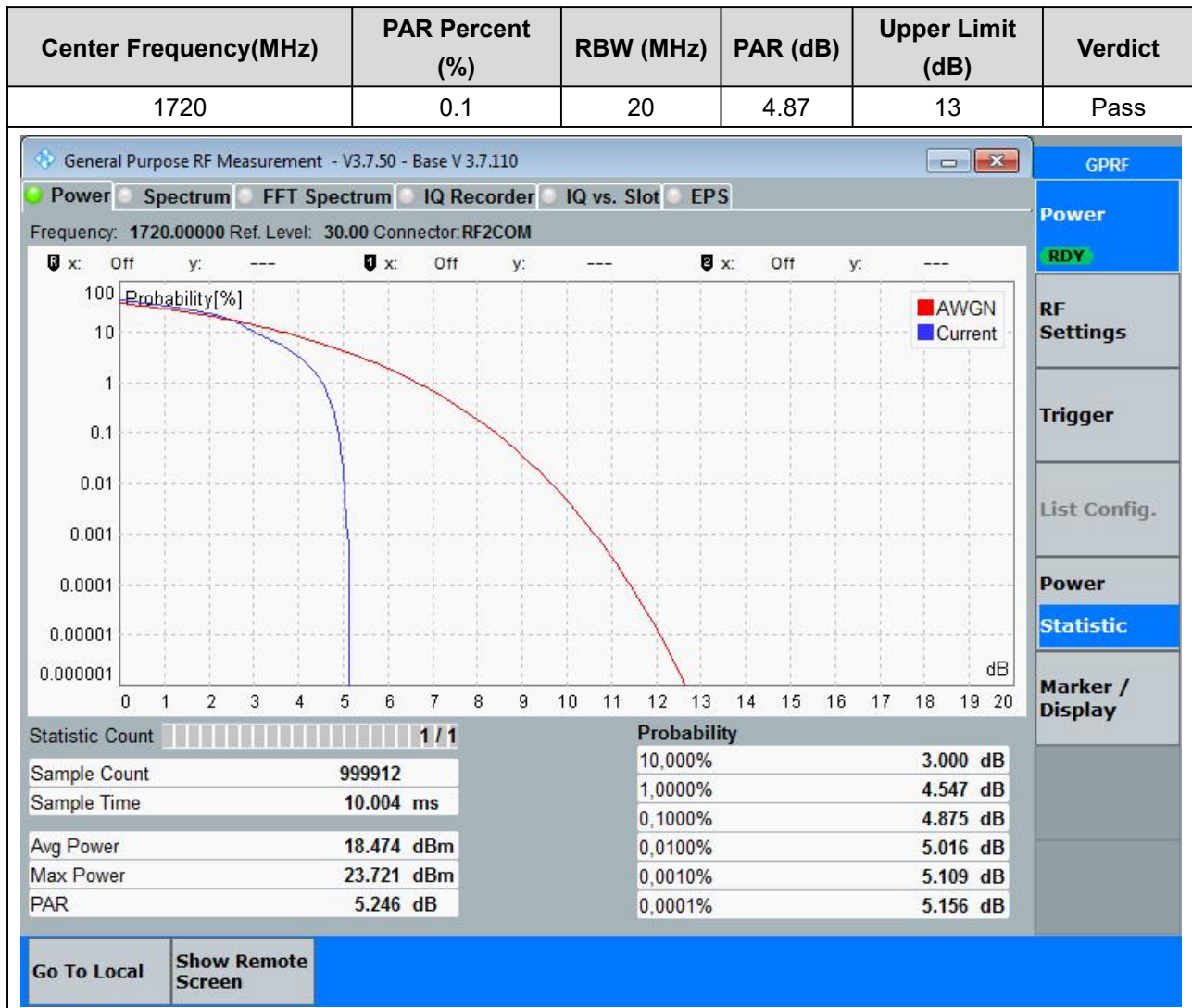
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
1720	0.1	20	4.22	13	Pass



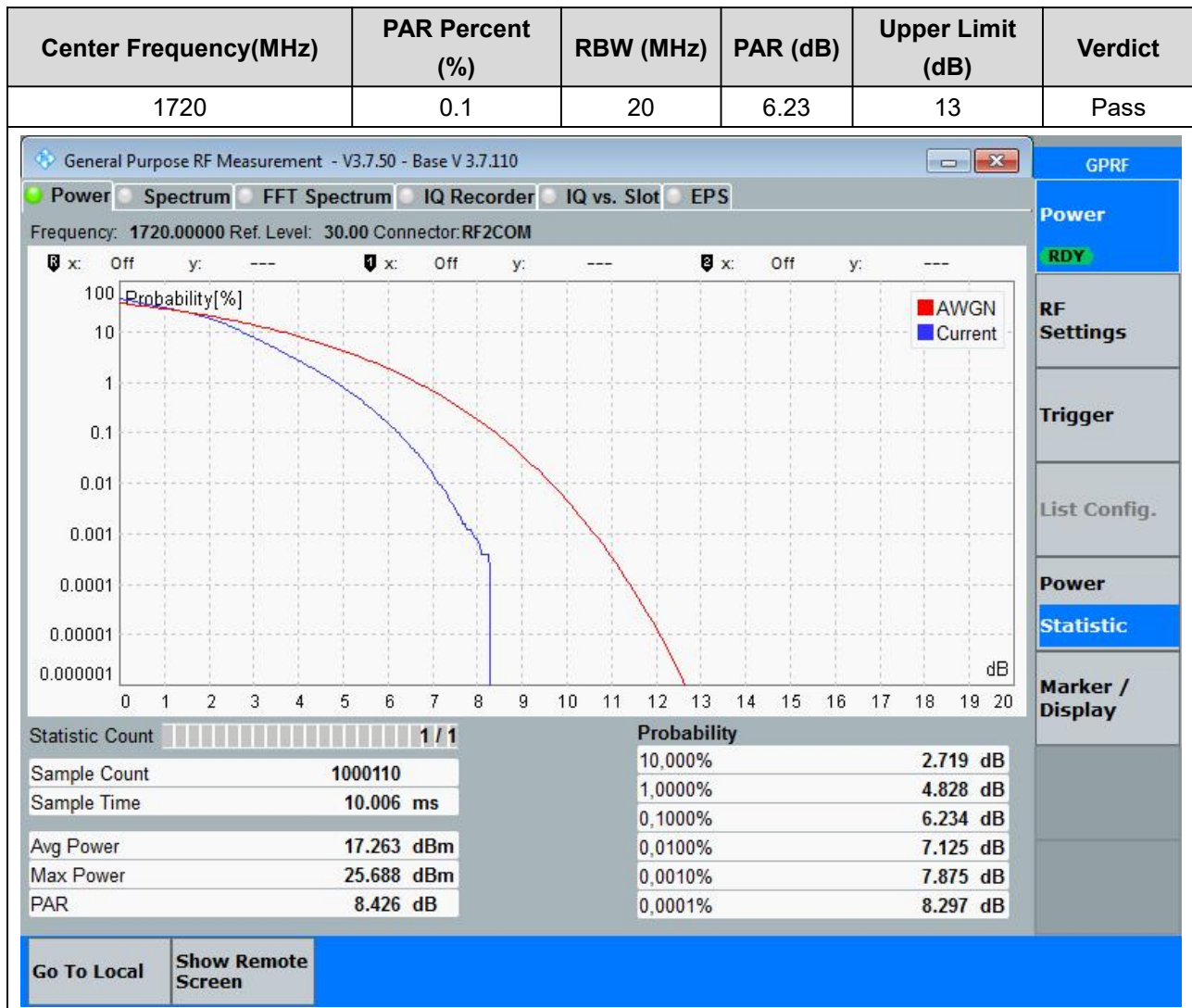
2.2. LTE Peak to Average Ratio_Part22-24-27(Channel:20050, Bandwidth:20, Modulation:QPSK, RB Number:100, RB Position:0)



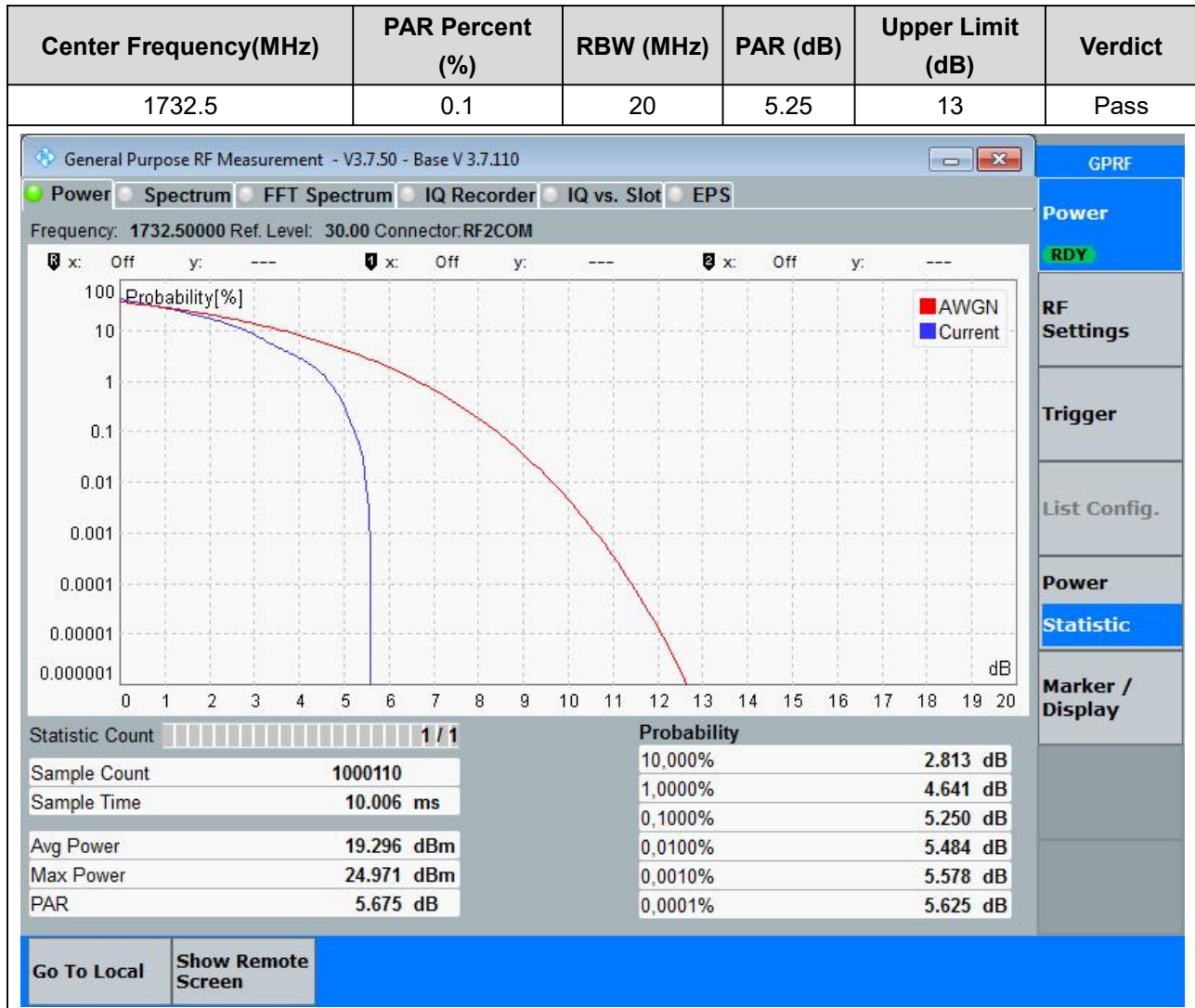
2.3. LTE Peak to Average Ratio_Part22-24-27(Channel:20050, Bandwidth:20, Modulation:16QAM, RB Number:1, RB Position:0)



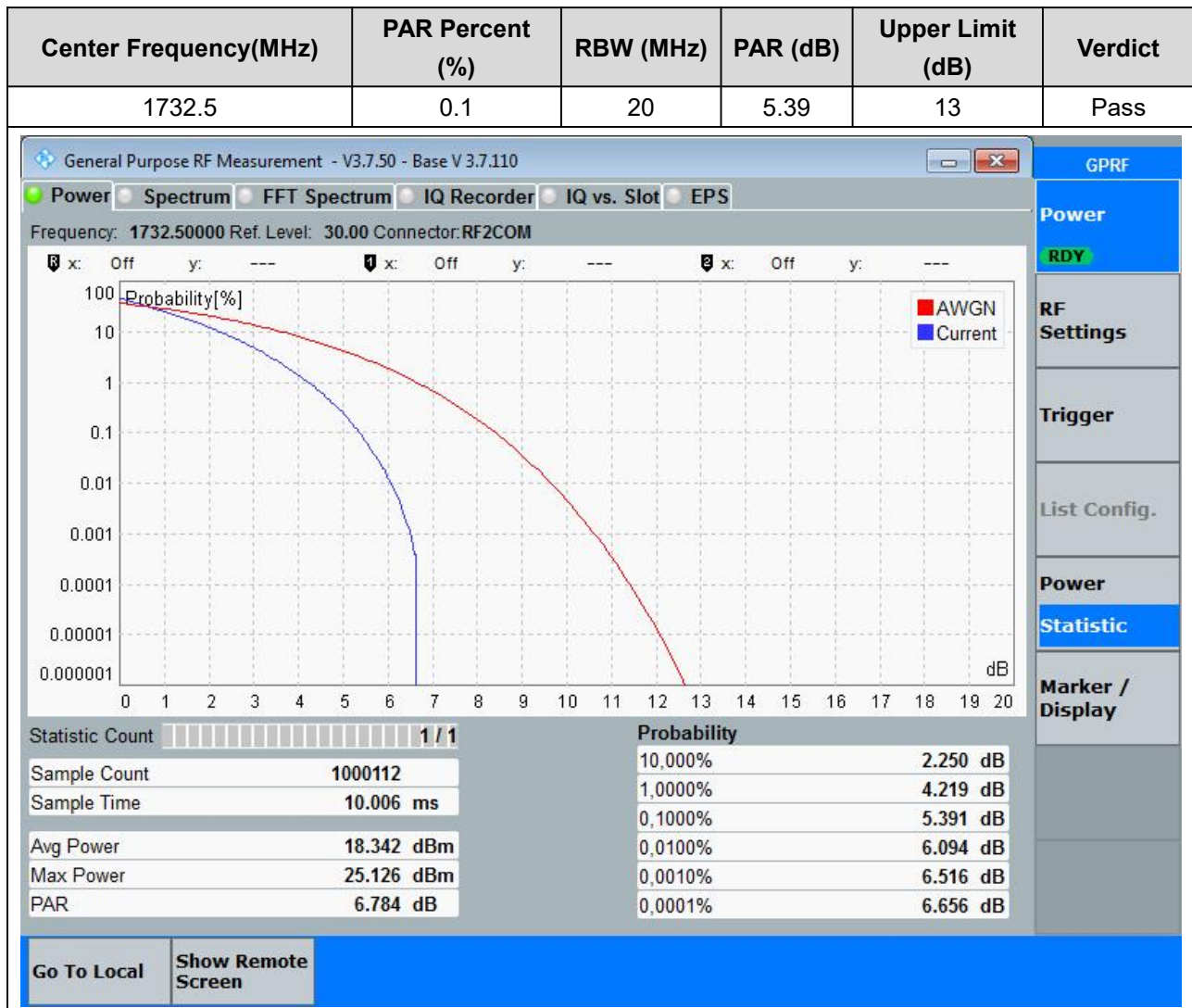
2.4. LTE Peak to Average Ratio_Part22-24-27(Channel:20050, Bandwidth:20, Modulation:16QAM, RB Number:100, RB Position:0)



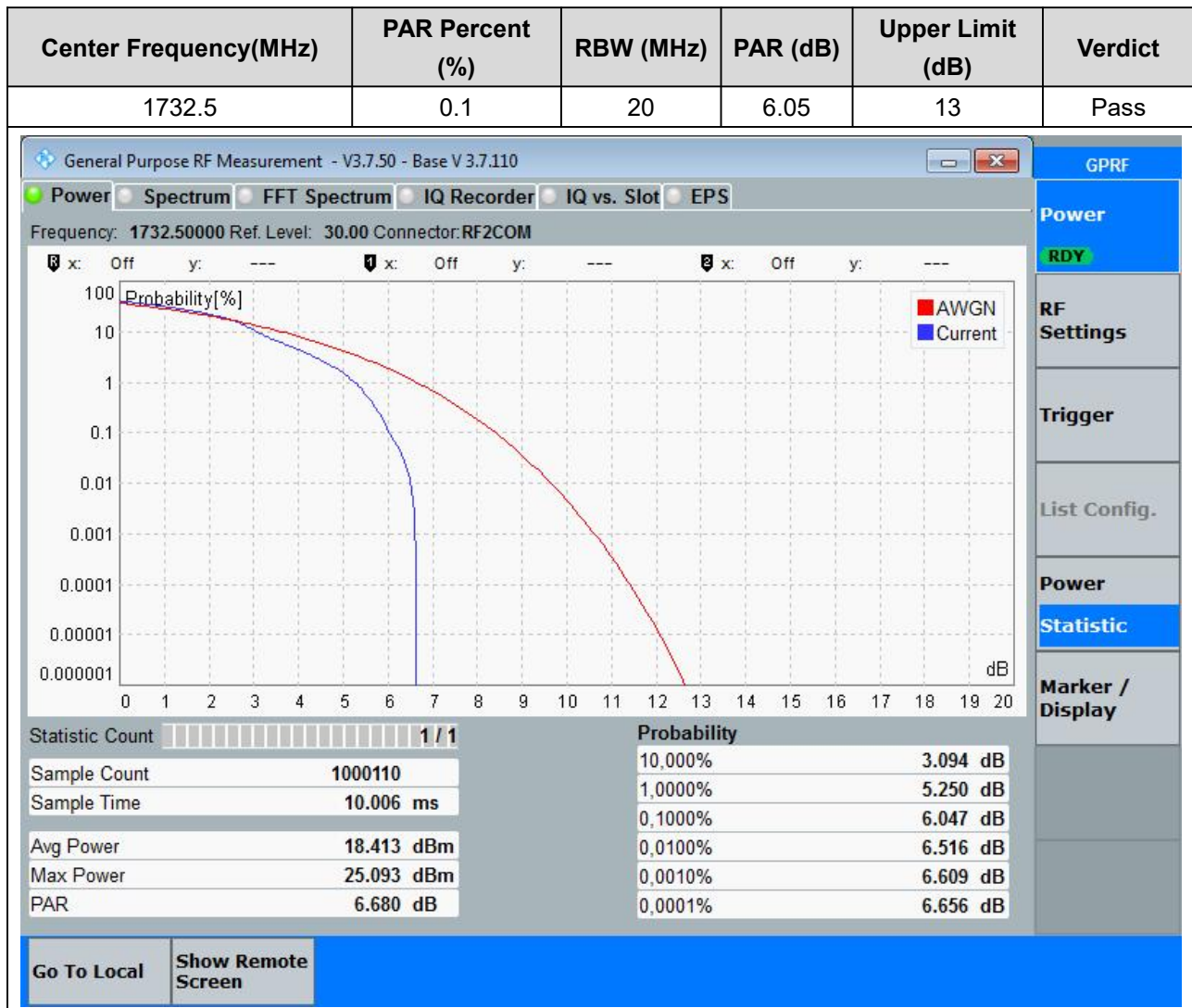
2.5. LTE Peak to Average Ratio_Part22-24-27(Channel:20175, Bandwidth:20, Modulation:QPSK, RB Number:1, RB Position:0)



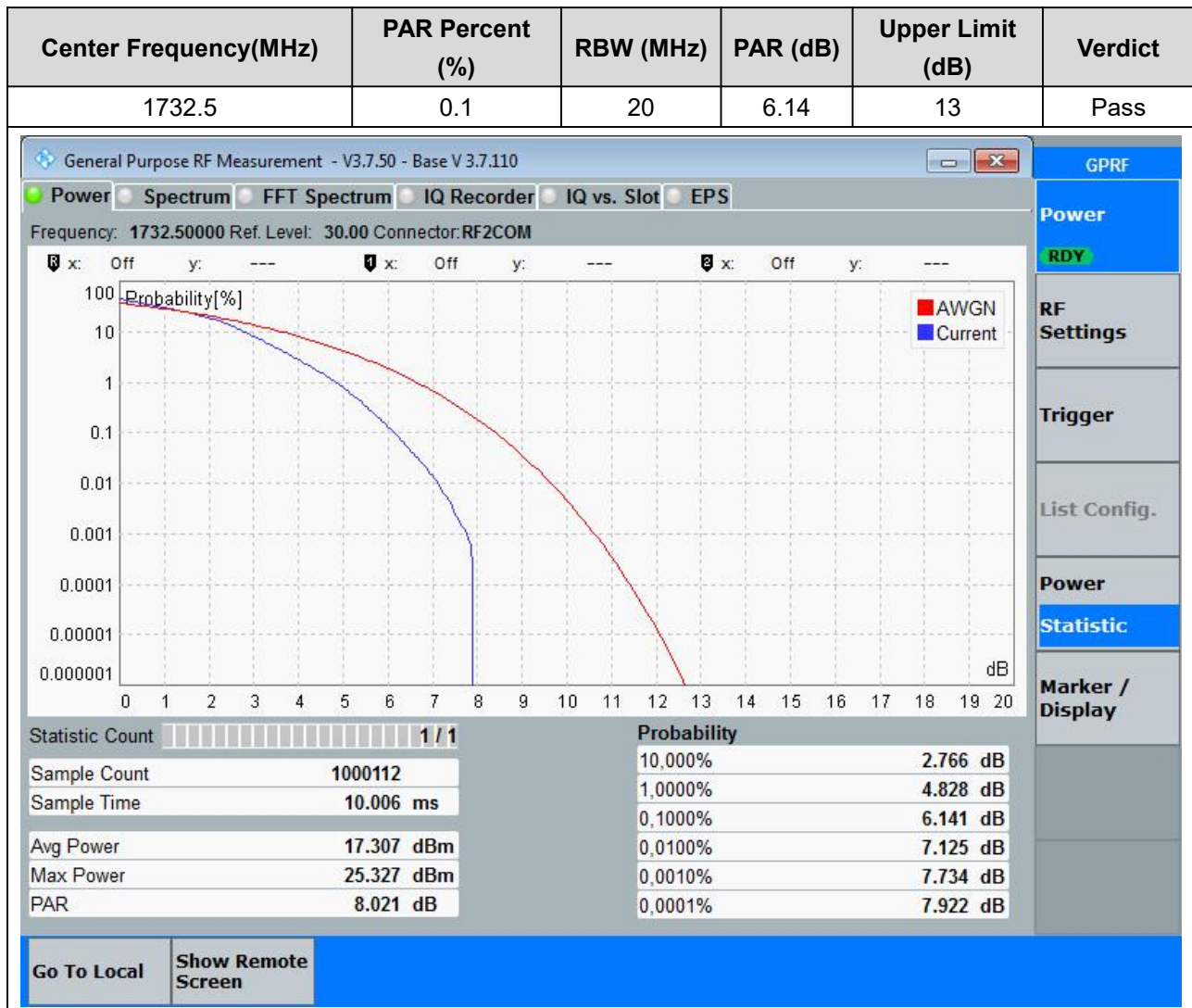
2.6. LTE Peak to Average Ratio_Part22-24-27(Channel:20175, Bandwidth:20, Modulation:QPSK, RB Number:100, RB Position:0)



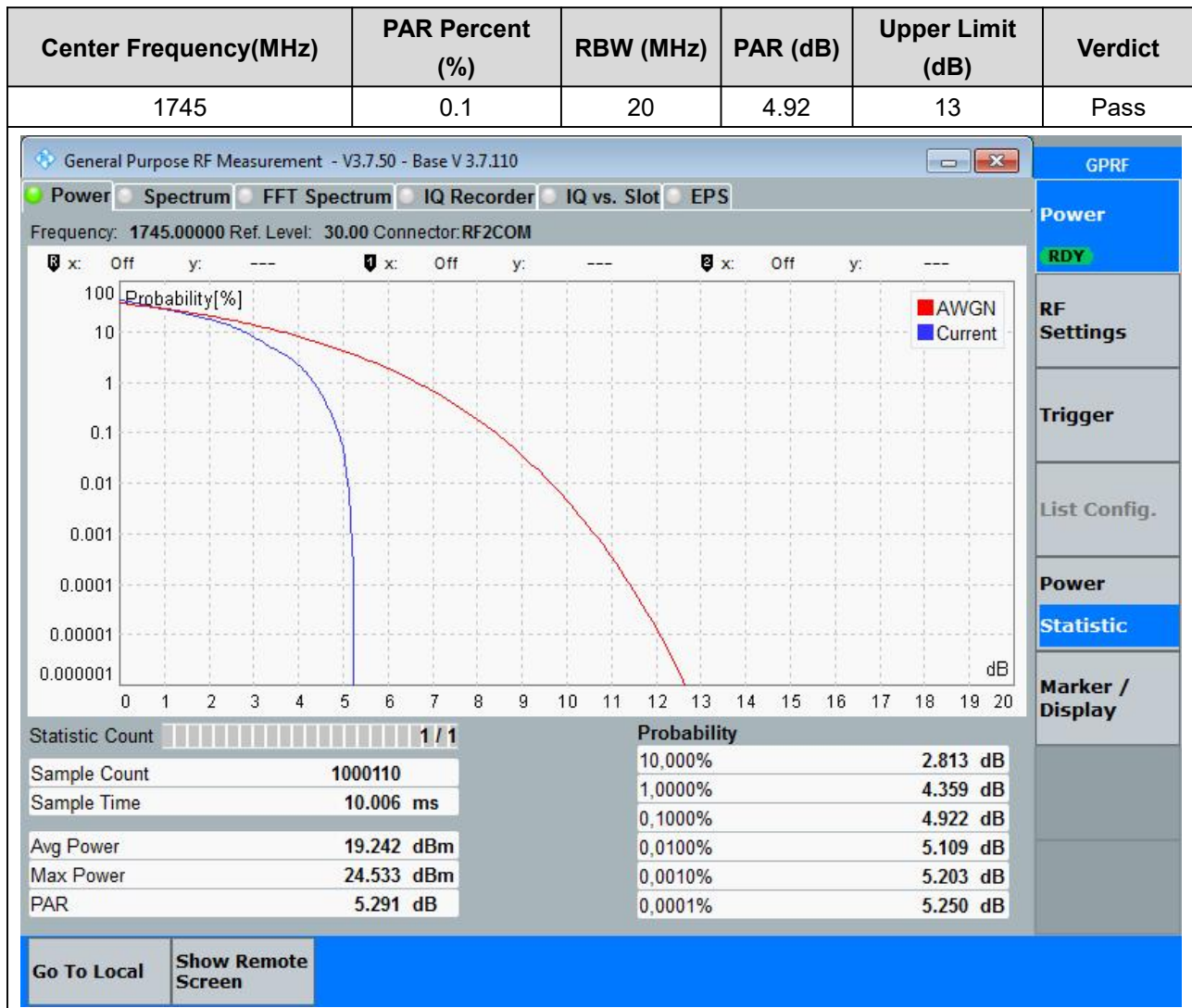
2.7. LTE Peak to Average Ratio_Part22-24-27(Channel:20175, Bandwidth:20, Modulation:16QAM, RB Number:1, RB Position:0)



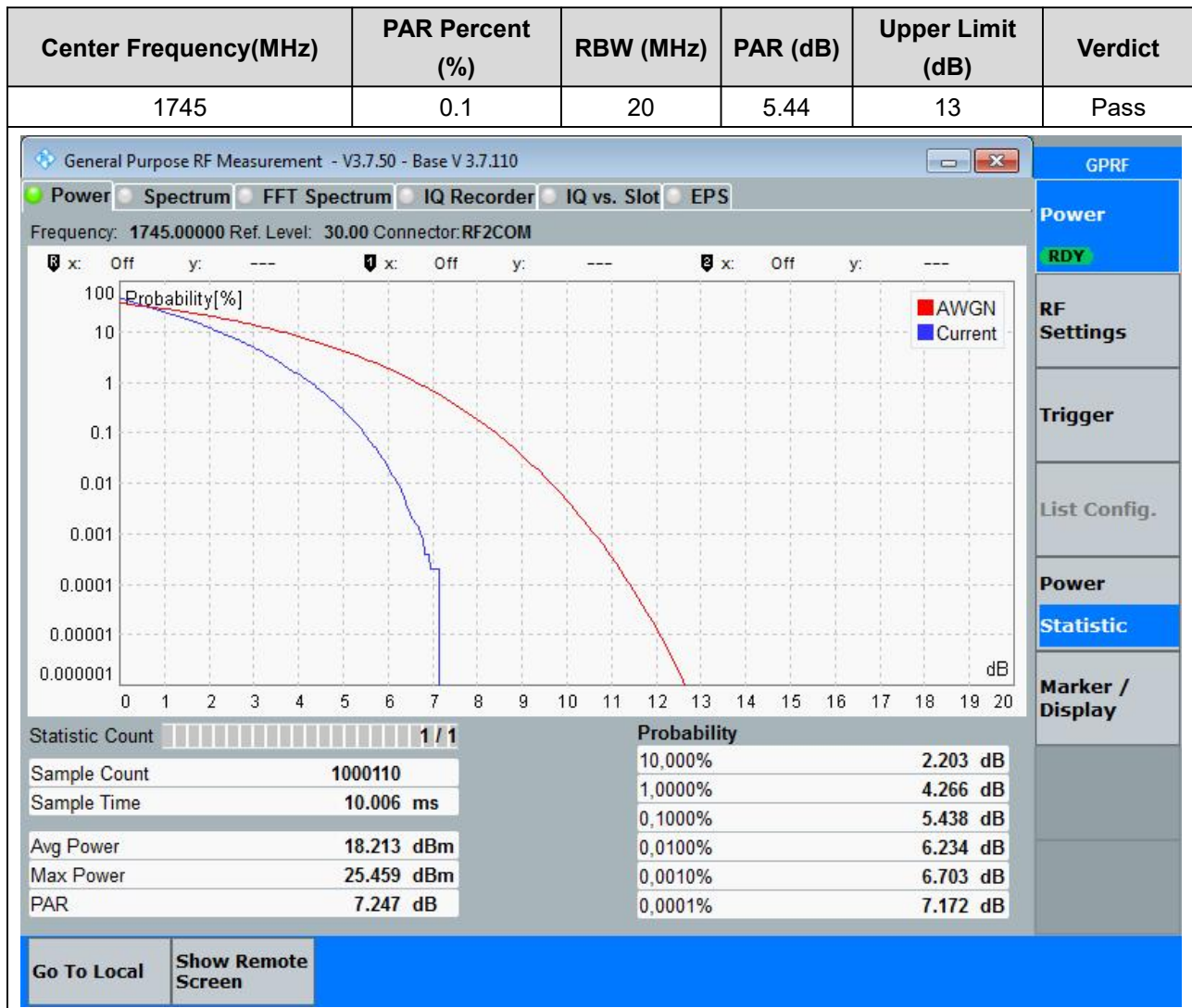
2.8. LTE Peak to Average Ratio_Part22-24-27(Channel:20175, Bandwidth:20, Modulation:16QAM, RB Number:100, RB Position:0)



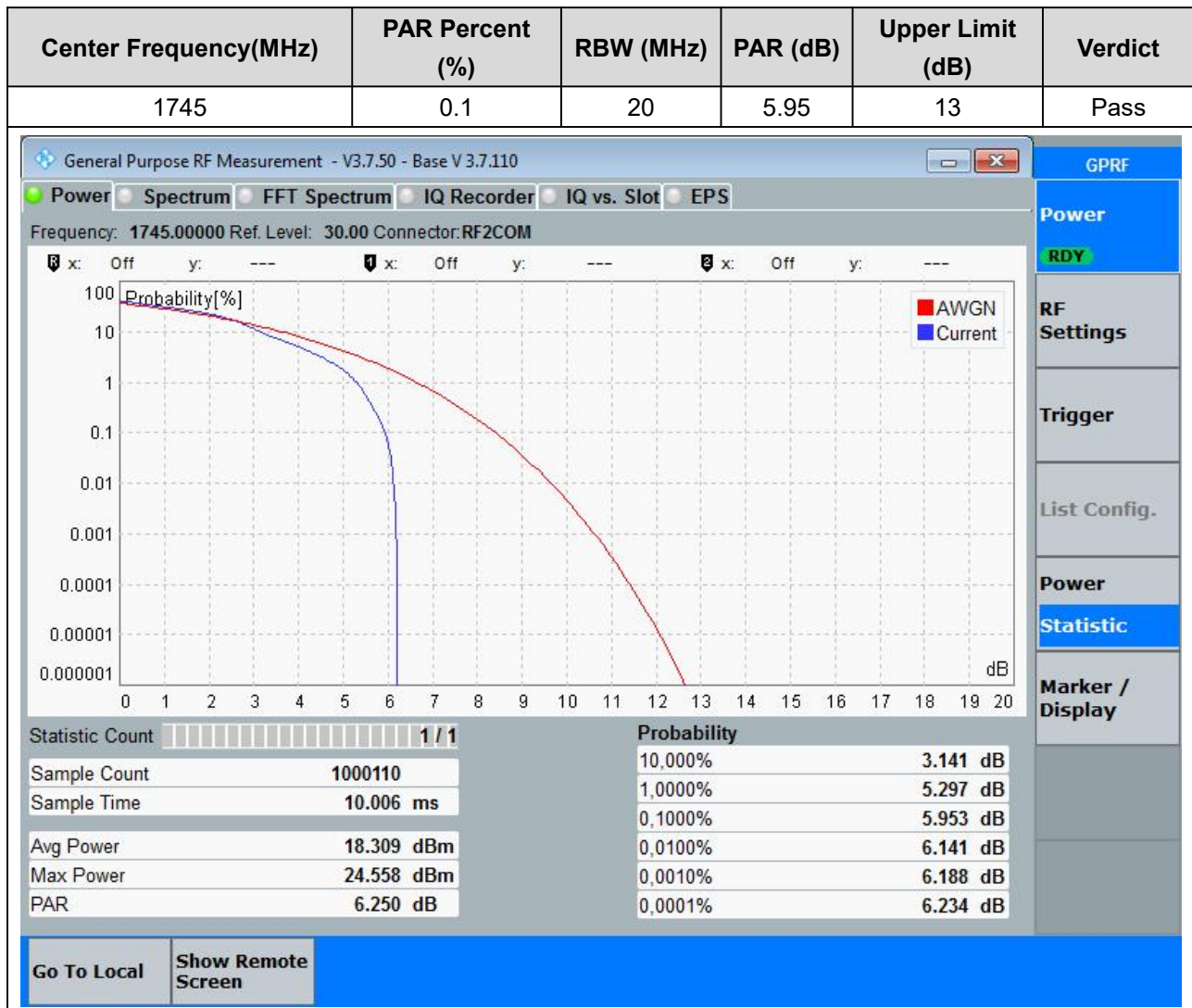
2.9. LTE Peak to Average Ratio_Part22-24-27(Channel:20300, Bandwidth:20, Modulation:QPSK, RB Number:1, RB Position:0)



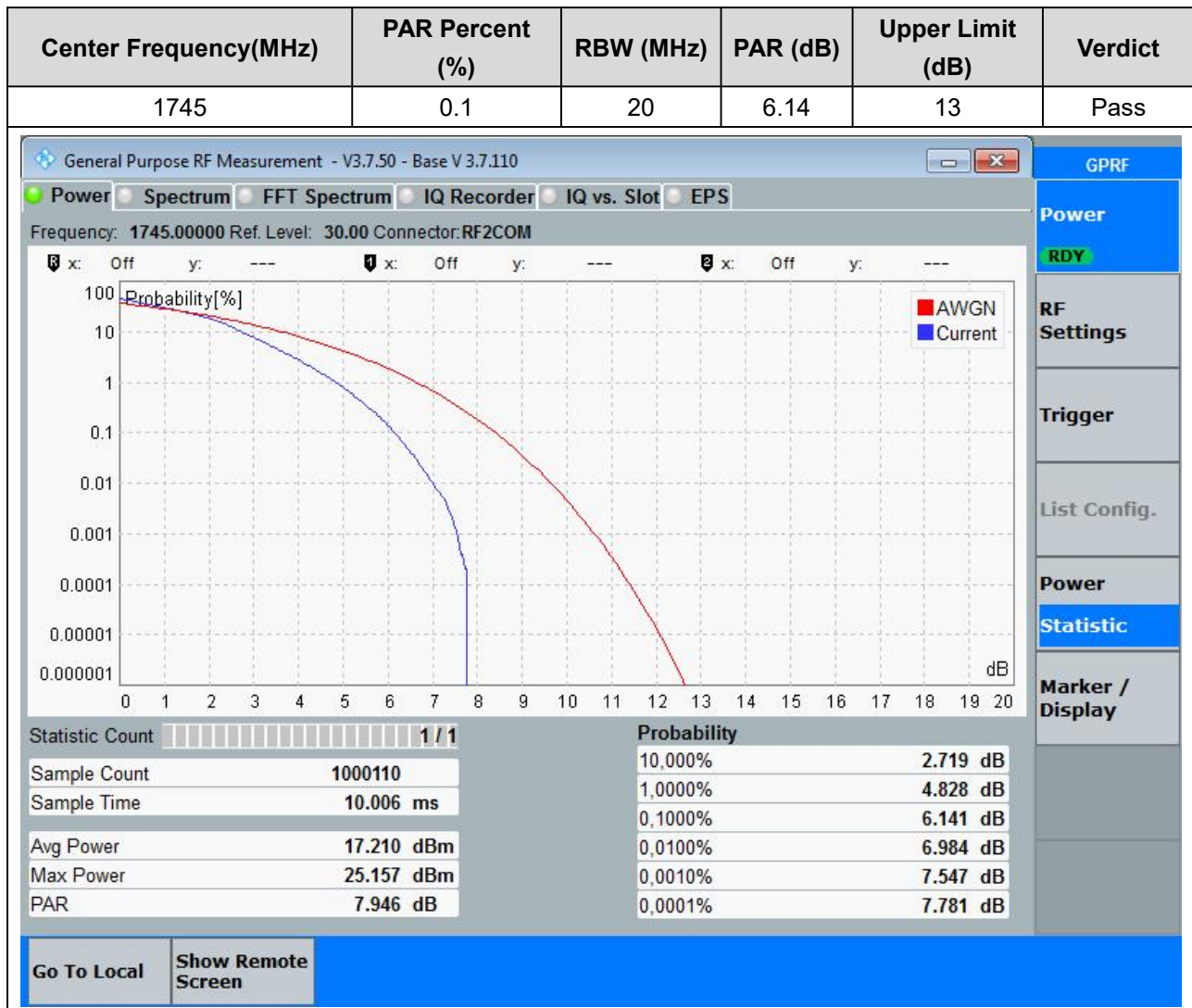
2.10. LTE Peak to Average Ratio_Part22-24-27(Channel:20300, Bandwidth:20, Modulation:QPSK, RB Number:100, RB Position:0)



2.11. LTE Peak to Average Ratio_Part22-24-27(Channel:20300, Bandwidth:20, Modulation:16QAM, RB Number:1, RB Position:0)

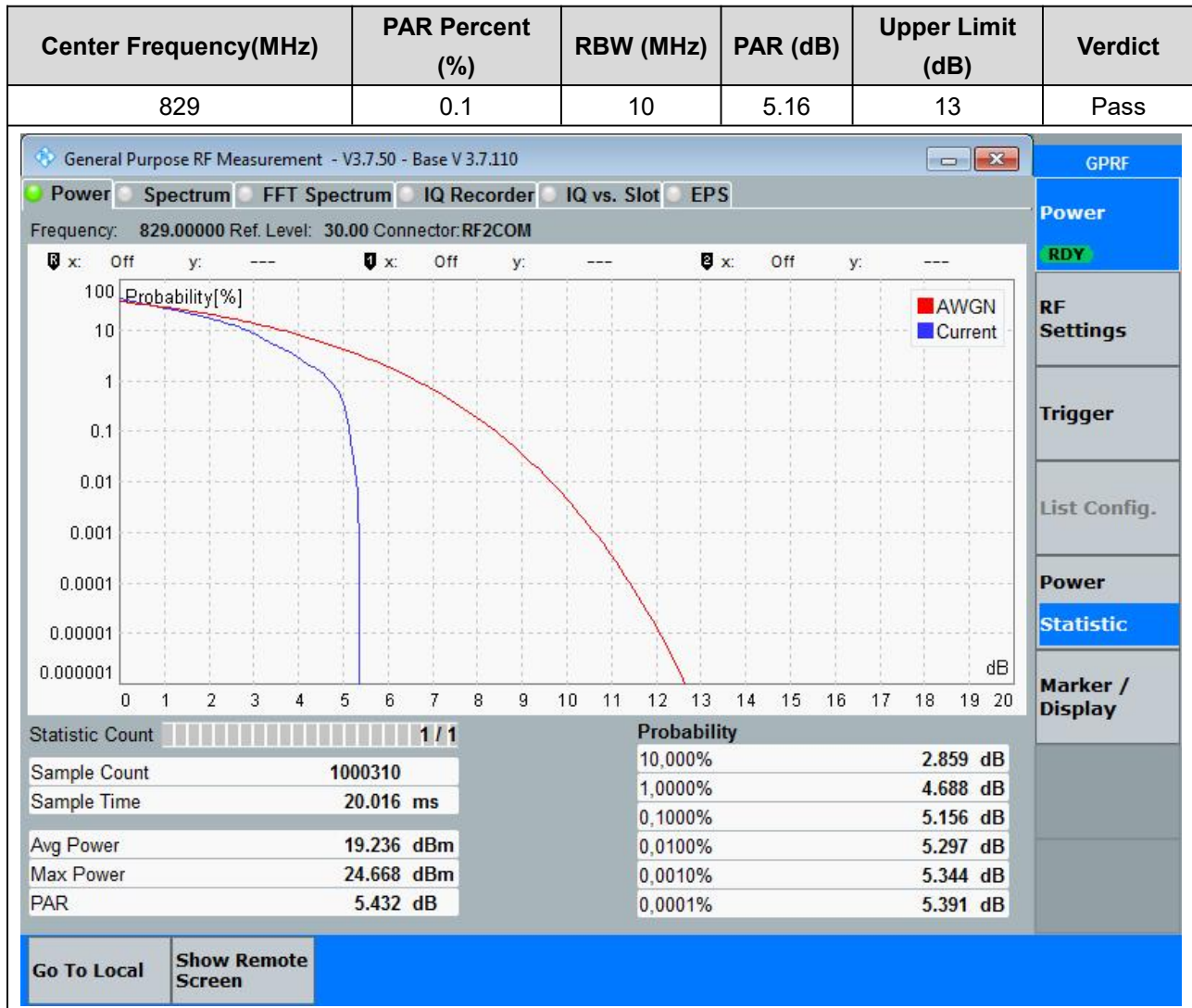


2.12. LTE Peak to Average Ratio_Part22-24-27(Channel:20300, Bandwidth:20, Modulation:16QAM, RB Number:100, RB Position:0)

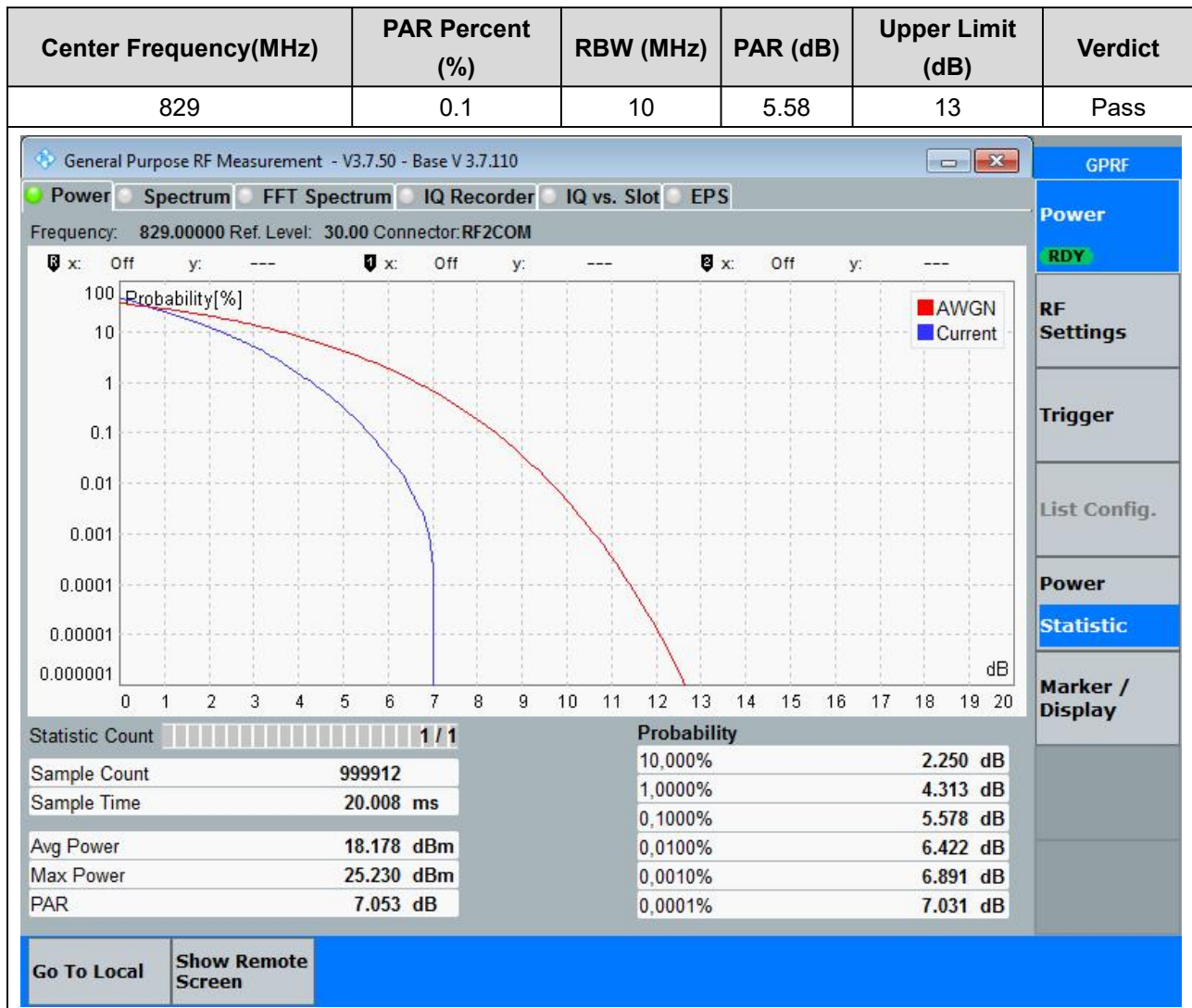


3. LTE_Band5

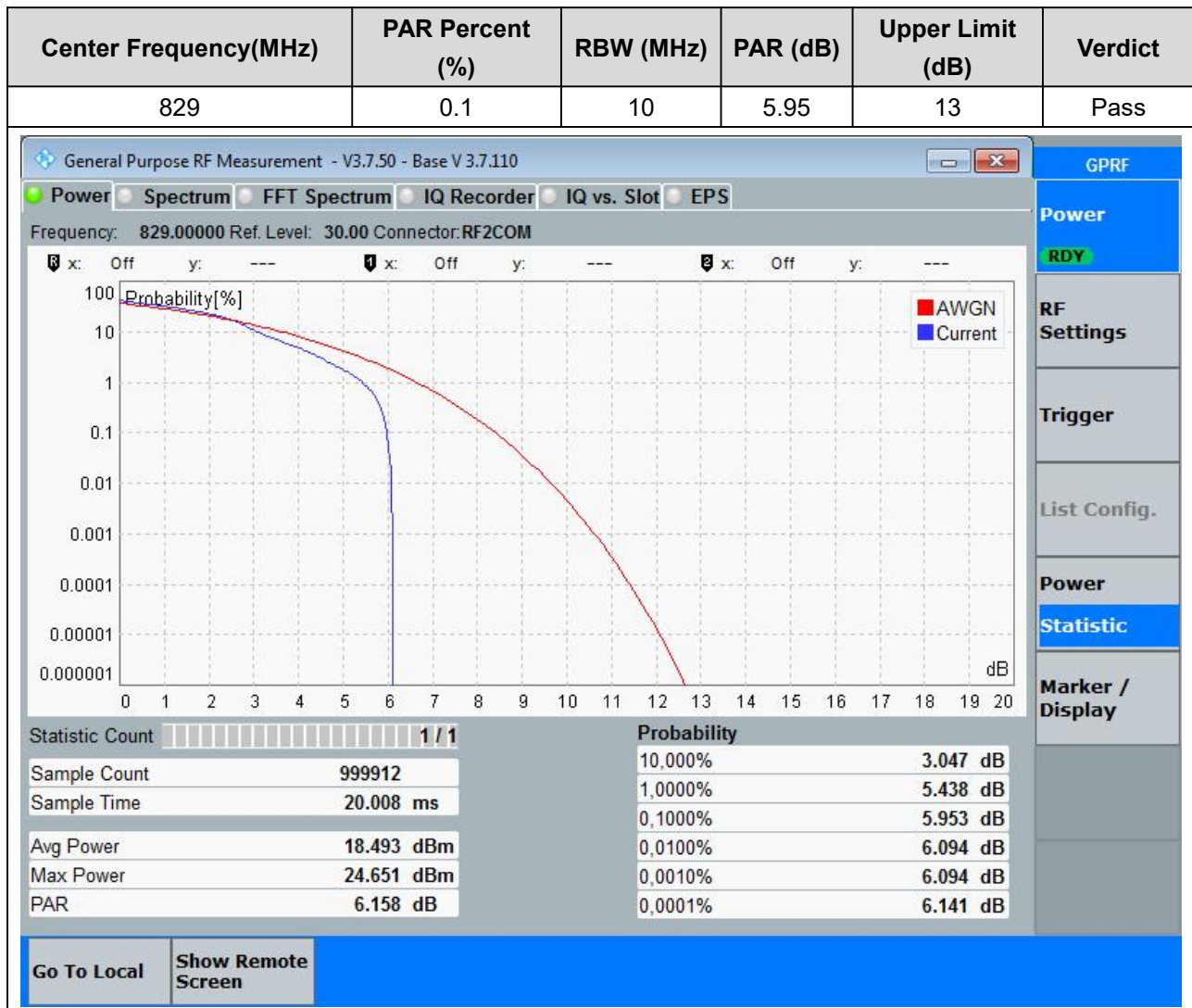
3.1. LTE Peak to Average Ratio_Part22-24-27(Channel:20450, Bandwidth:10, Modulation:QPSK, RB Number:1, RB Position:0)



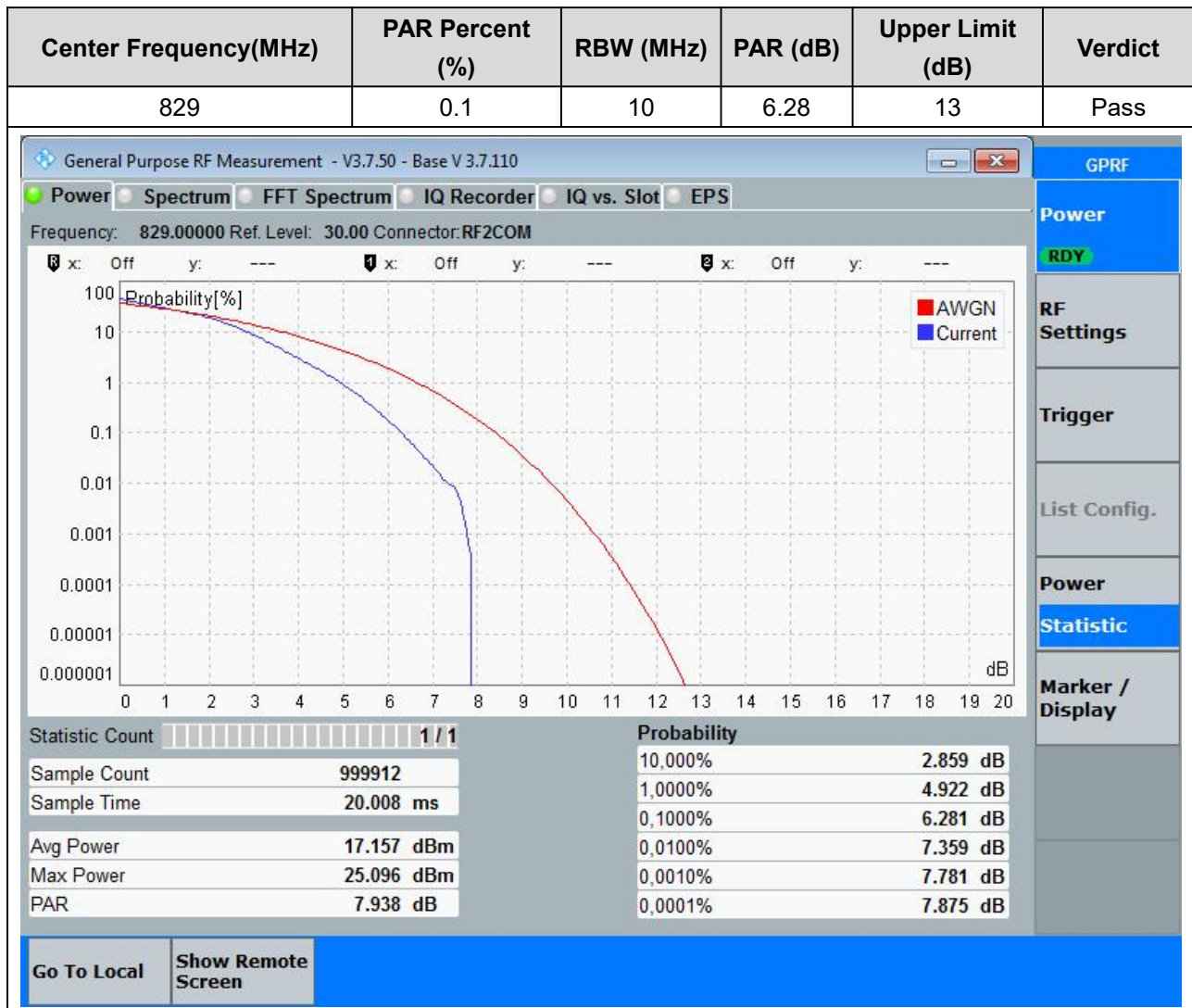
3.2. LTE Peak to Average Ratio_Part22-24-27(Channel:20450, Bandwidth:10, Modulation:QPSK, RB Number:50, RB Position:0)



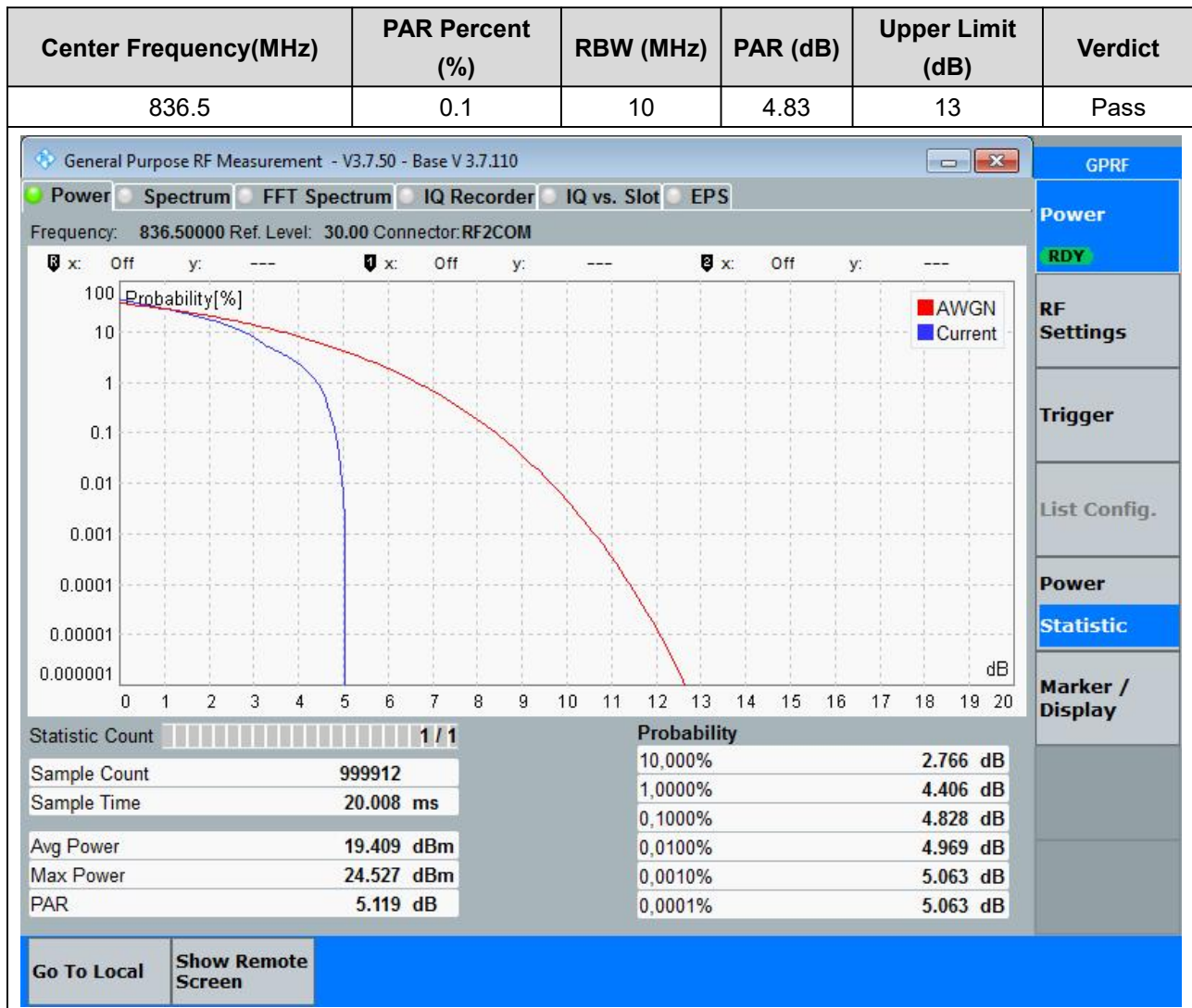
3.3. LTE Peak to Average Ratio_Part22-24-27(Channel:20450, Bandwidth:10, Modulation:16QAM, RB Number:1, RB Position:0)



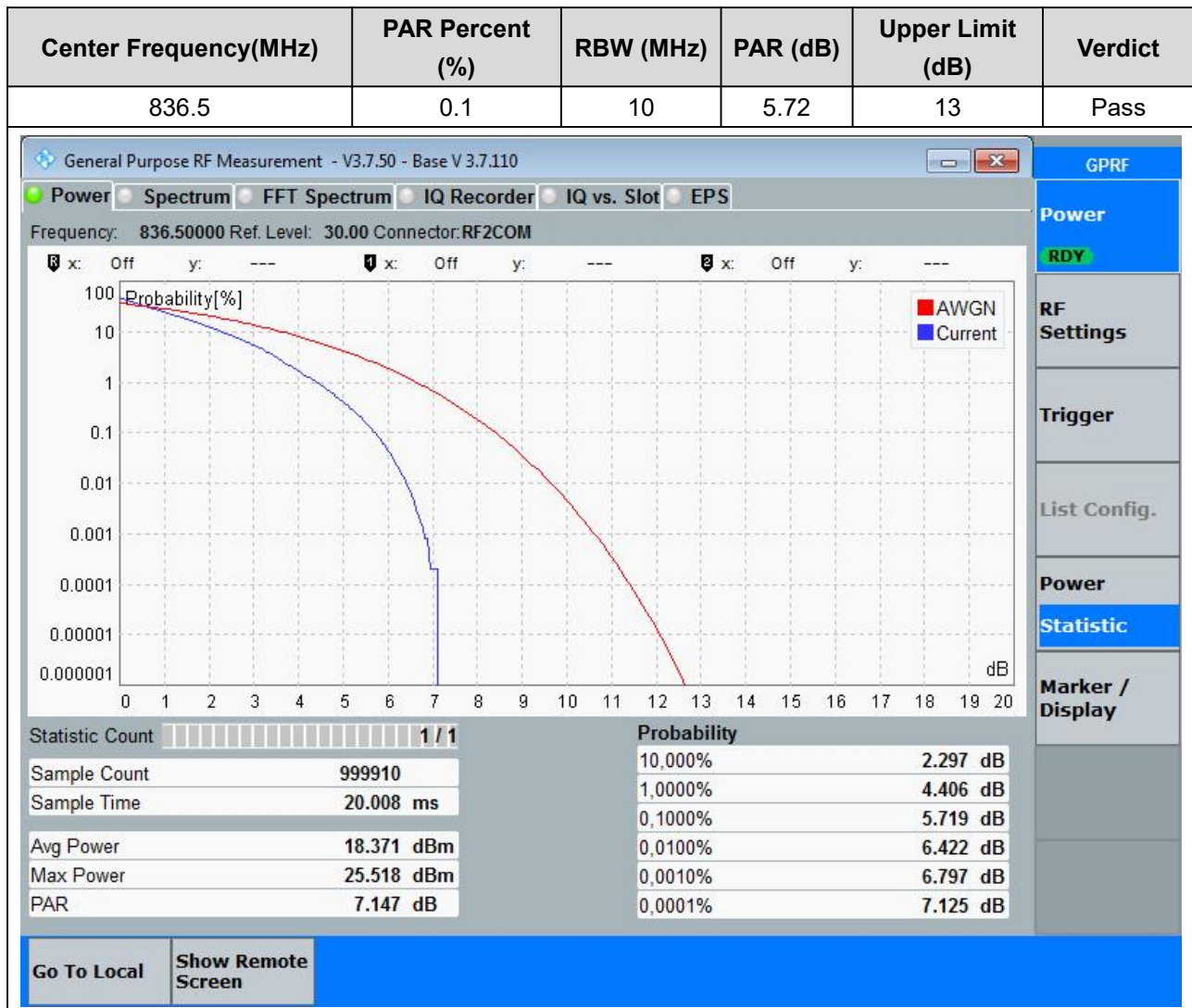
3.4. LTE Peak to Average Ratio_Part22-24-27(Channel:20450, Bandwidth:10, Modulation:16QAM, RB Number:50, RB Position:0)



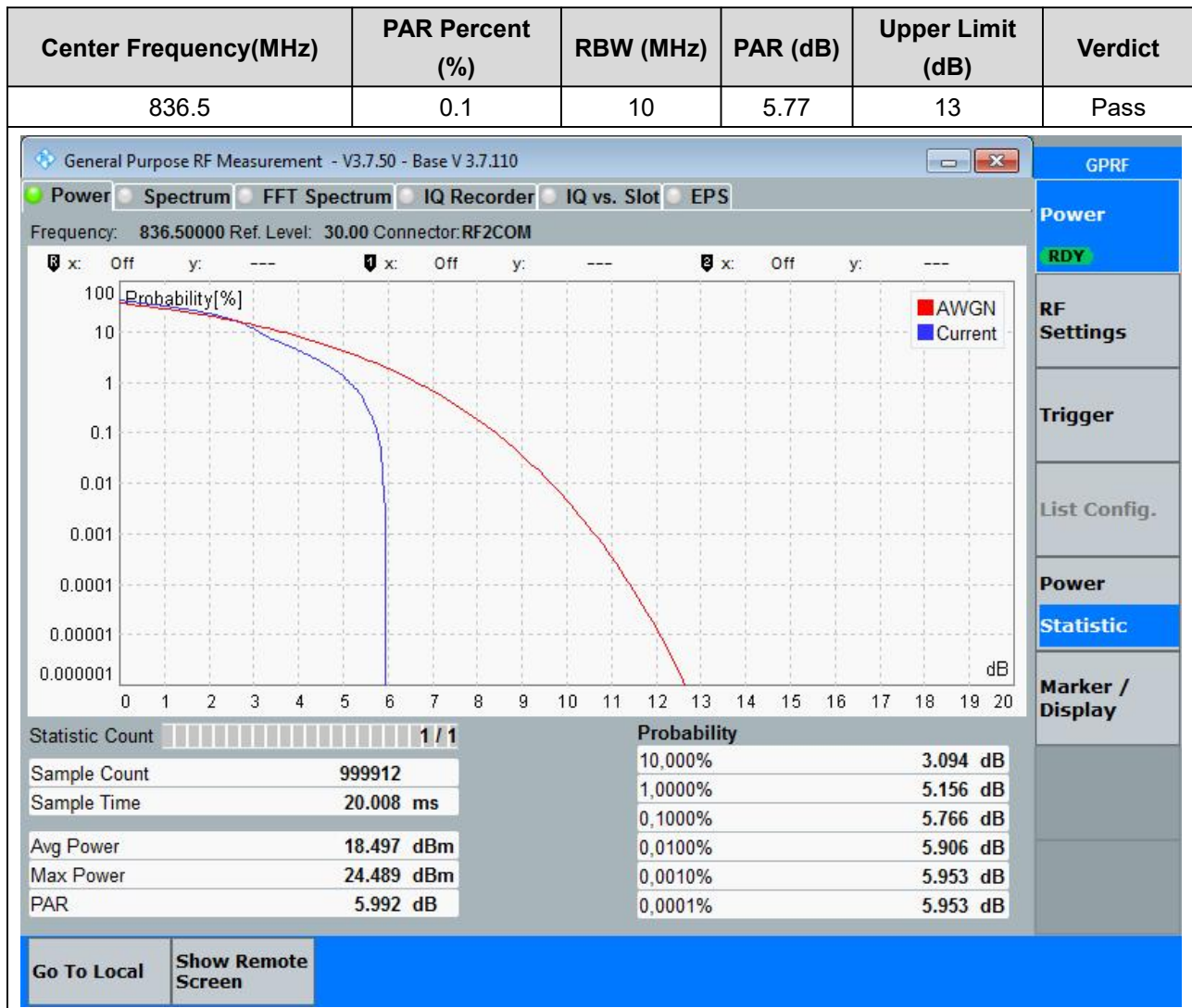
3.5. LTE Peak to Average Ratio_Part22-24-27(Channel:20525, Bandwidth:10, Modulation:QPSK, RB Number:1, RB Position:0)



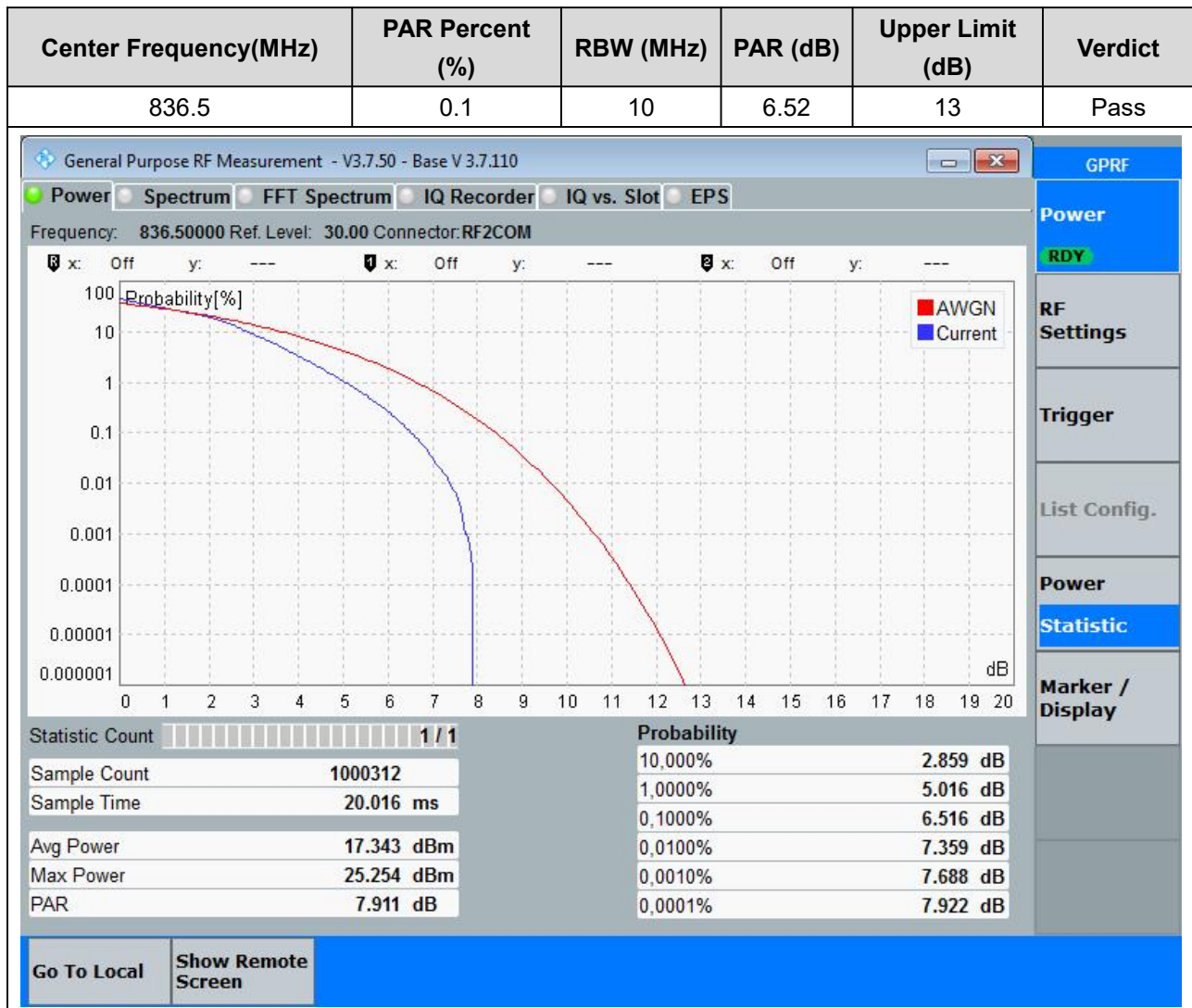
3.6. LTE Peak to Average Ratio_Part22-24-27(Channel:20525, Bandwidth:10, Modulation:QPSK, RB Number:50, RB Position:0)



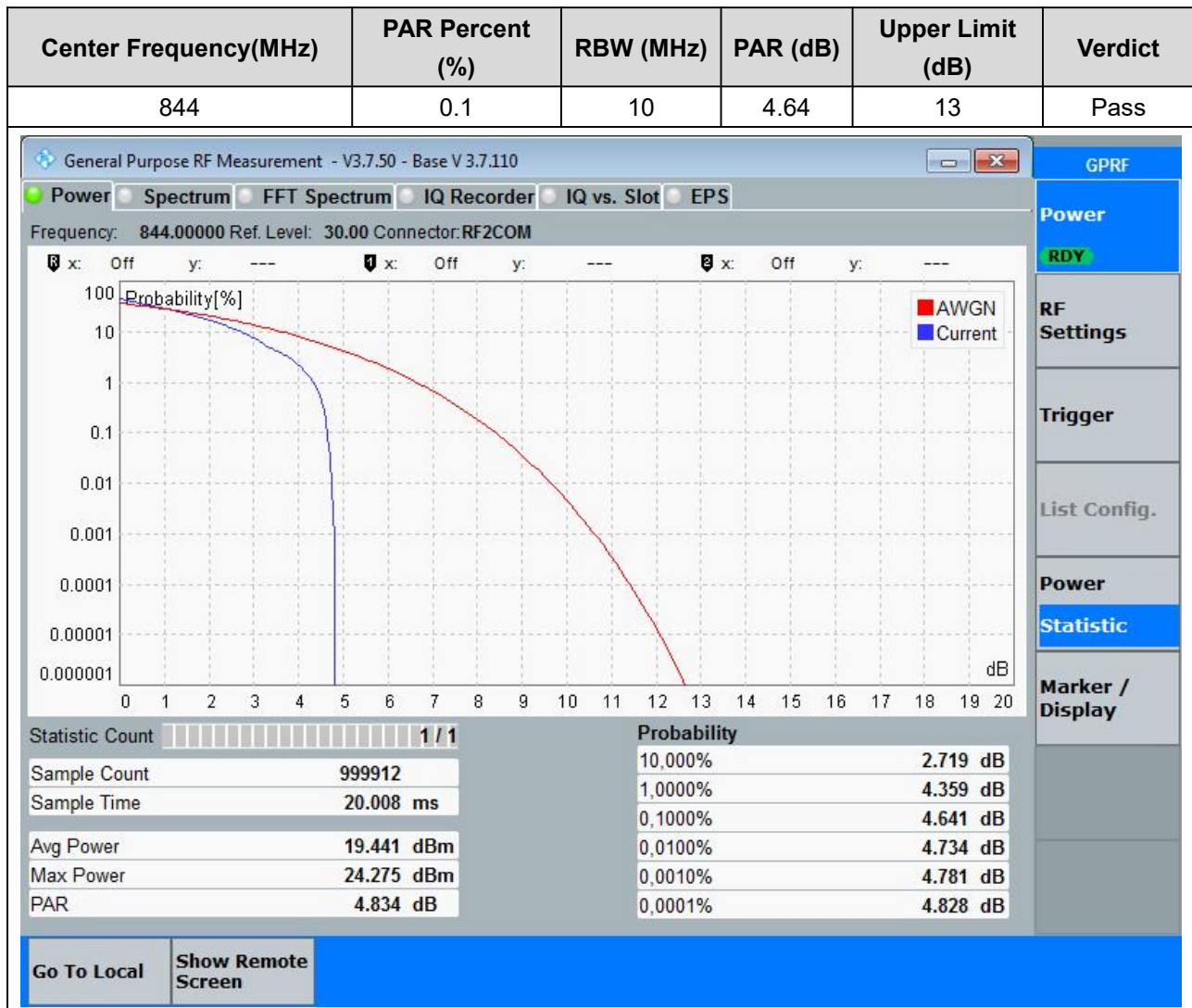
3.7. LTE Peak to Average Ratio_Part22-24-27(Channel:20525, Bandwidth:10, Modulation:16QAM, RB Number:1, RB Position:0)



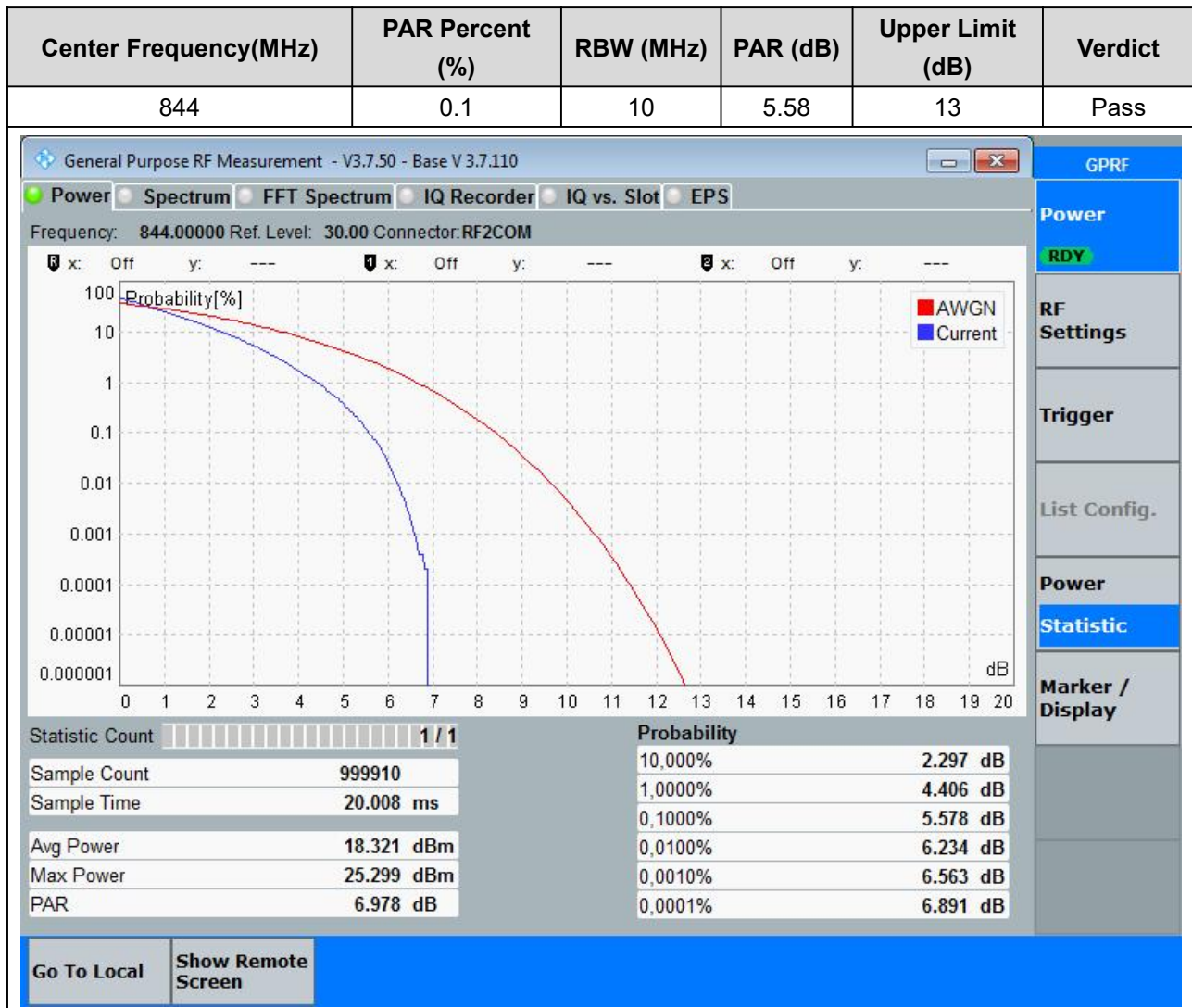
3.8. LTE Peak to Average Ratio_Part22-24-27(Channel:20525, Bandwidth:10, Modulation:16QAM, RB Number:50, RB Position:0)



3.9. LTE Peak to Average Ratio_Part22-24-27(Channel:20600, Bandwidth:10, Modulation:QPSK, RB Number:1, RB Position:0)



3.10. LTE Peak to Average Ratio_Part22-24-27(Channel:20600, Bandwidth:10, Modulation:QPSK, RB Number:50, RB Position:0)



3.11. LTE Peak to Average Ratio_Part22-24-27(Channel:20600, Bandwidth:10, Modulation:16QAM, RB Number:1, RB Position:0)

