

Peak to Average Ratio

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 48	10 MHz	LCH	QPSK	RB1#0	7.5	13	Pass
				RB50#0	8.72	13	Pass
			16-QAM	RB1#0	9.28	13	Pass
				RB50#0	9.75	13	Pass
		MCH	QPSK	RB1#0	7.45	13	Pass
				RB50#0	8.91	13	Pass
			16-QAM	RB1#0	9.33	13	Pass
				RB50#0	9.7	13	Pass
		HCH	QPSK	RB1#0	7.5	13	Pass
				RB50#0	8.67	13	Pass
			16-QAM	RB1#0	9.37	13	Pass
				RB50#0	9.7	13	Pass

LTE CA Mode Test Data

Test Channel	Modulation	UL RB Number		UL RB Position		Peak to Average Ratio (dB)	Limit (dB)	Verdict
CA_48C								
5MHz+20MHz								
55898 56015	QPSK	Full	Full	Low	Low	8.87	13	Pass
	16-QAM	Full	Full	Low	Low	9.55	13	Pass
20MHz+5MHz								
55965 56082	QPSK	Full	Full	Low	Low	8.77	13	Pass
	16-QAM	Full	Full	Low	Low	9.48	13	Pass
10MHz+20MHz								
55896 56040	QPSK	Full	Full	Low	Low	8.79	13	Pass
	16-QAM	Full	Full	Low	Low	9.48	13	Pass
20MHz+10MHz								
55941 56085	QPSK	Full	Full	Low	Low	8.73	13	Pass
	16-QAM	Full	Full	Low	Low	9.52	13	Pass
15MHz+20MHz								
55893 56064	QPSK	Full	Full	Low	Low	8.74	13	Pass
	16-QAM	Full	Full	Low	Low	9.45	13	Pass
20MHz+15MHz								
55916 56087	QPSK	Full	Full	Low	Low	8.73	13	Pass
	16-QAM	Full	Full	Low	Low	9.52	13	Pass
20MHz+20MHz								
55891 56089	QPSK	Full	Full	Low	Low	8.76	13	Pass
	16-QAM	Full	Full	Low	Low	9.52	13	Pass

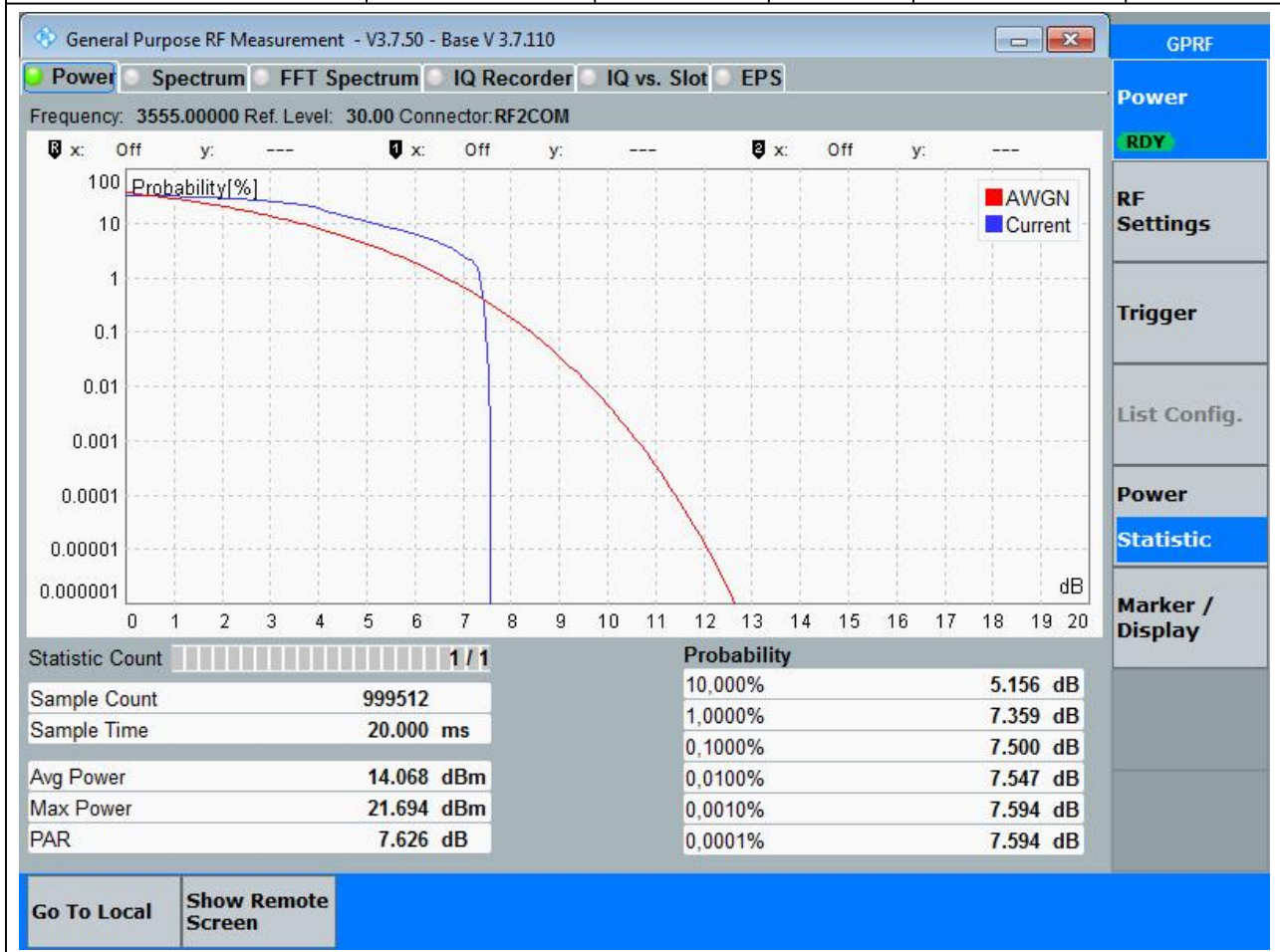
NR Mode Test Dat

Test Band	NR Test Bandwidth	Test Channel	Test Mode	NR UL RB No.	NR UL RB Pos.	Peak to Average Ratio (dB)	Limit (dB)	Verdict
n48	40 MHz	LCH	PI2 BPSK	1	0	4.31	13	Pass
				100	0	4.31	13	Pass
			QPSK	1	0	5.06	13	Pass
				100	0	5.25	13	Pass
			16QAM	1	0	6	13	Pass
				100	0	6.23	13	Pass
			64QAM	1	0	5.81	13	Pass
				100	0	6.33	13	Pass
			256QAM	1	0	6.75	13	Pass
				100	0	6.7	13	Pass
		MCH	PI2 BPSK	1	0	4.31	13	Pass
				100	0	4.27	13	Pass
			QPSK	1	0	4.45	13	Pass
				100	0	4.73	13	Pass
			16QAM	1	0	5.48	13	Pass
				100	0	5.81	13	Pass
			64QAM	1	0	5.86	13	Pass
				100	0	6.47	13	Pass
			256QAM	1	0	6.75	13	Pass
				100	0	6.66	13	Pass
		HCH	PI2 BPSK	1	0	4.27	13	Pass
				100	0	4.22	13	Pass
			QPSK	1	0	5.06	13	Pass
				100	0	4.59	13	Pass
			16QAM	1	0	5.86	13	Pass
				100	0	5.62	13	Pass
			64QAM	1	0	5.81	13	Pass
				100	0	6.33	13	Pass
			256QAM	1	0	6.8	13	Pass
				100	0	6.66	13	Pass

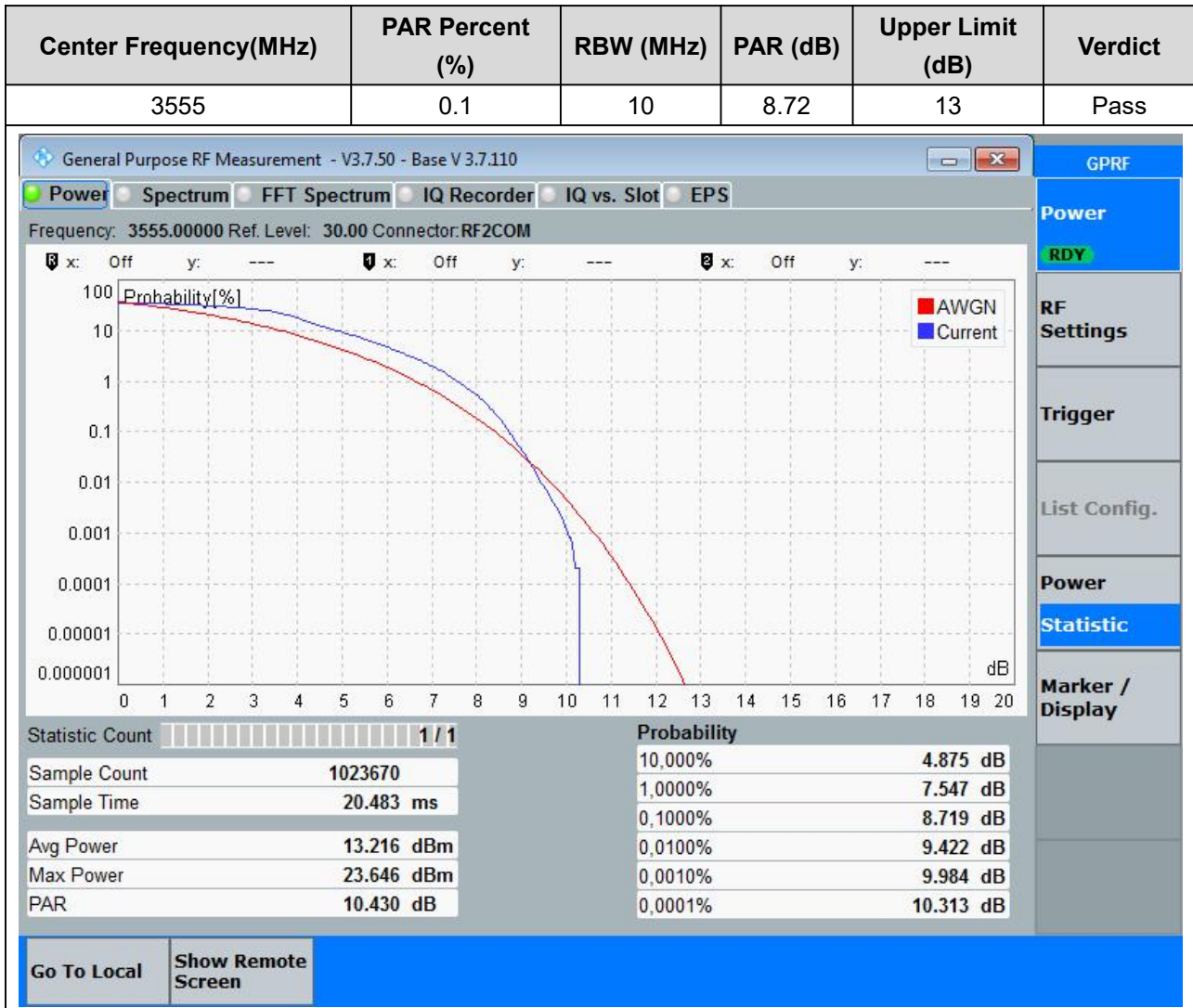
B48

1.1 LTE Peak to Average Ratio_Part96 (NTNV) (Subtest:1, Channel:55290, Bandwidth:10, Modulation:QPSK, RB Number: 1, RB Position:LOW)

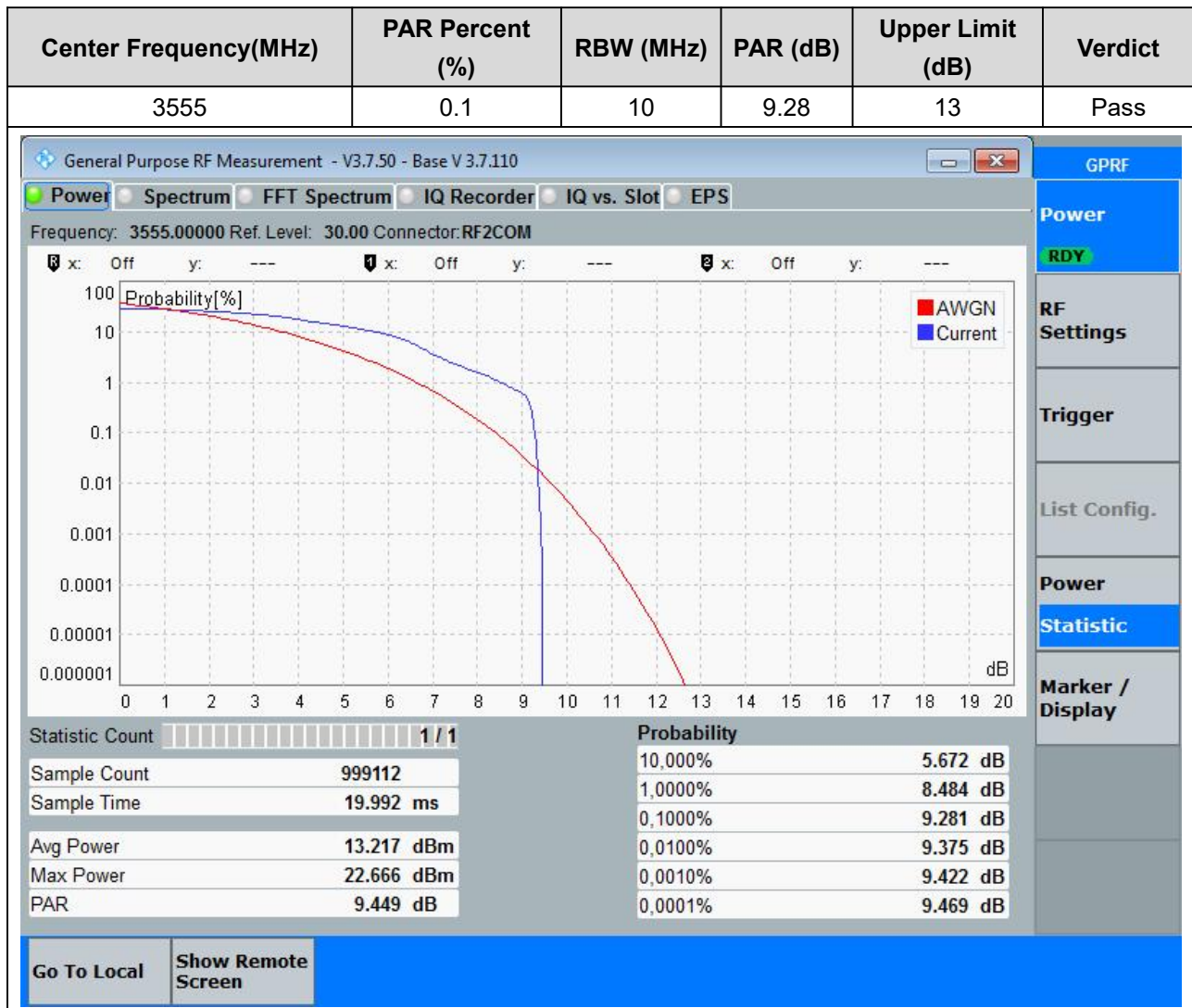
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3555	0.1	10	7.5	13	Pass



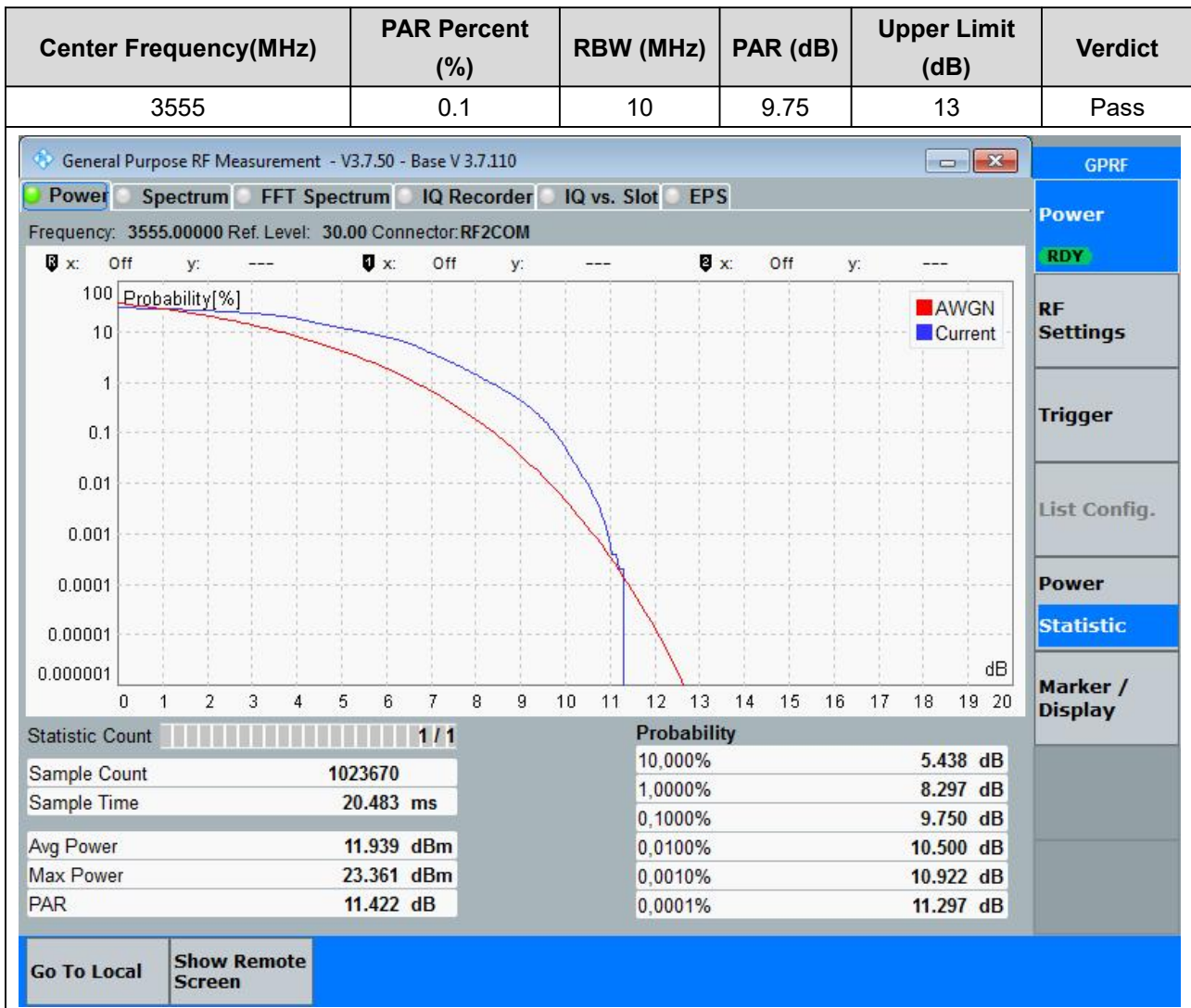
1.2 LTE Peak to Average Ratio_Part96(NTNV)(Subtest:2, Channel:55290, Bandwidth:10, Modulation:QPSK, RB Number: 50, RB Position:LOW)



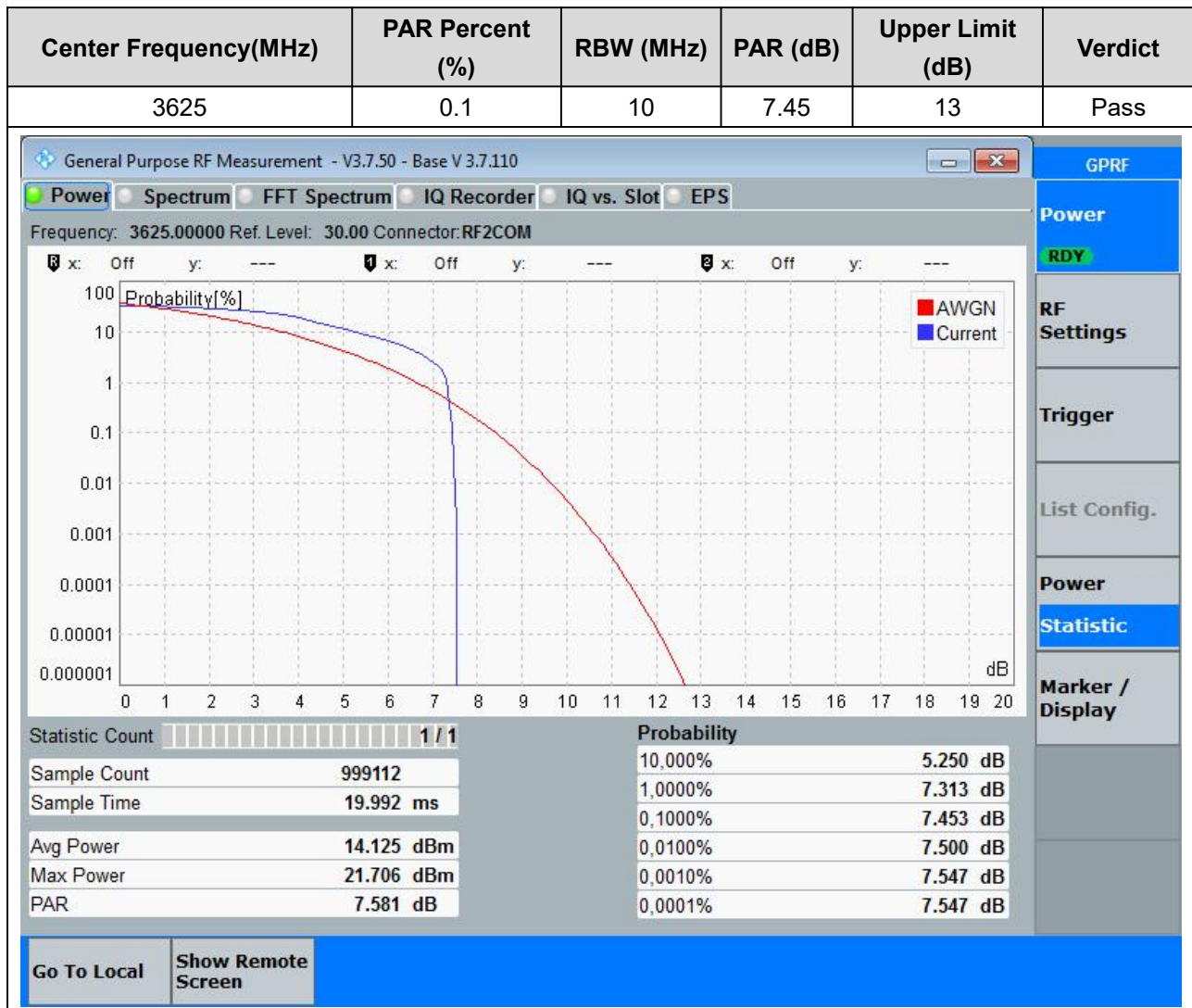
1.3 LTE Peak to Average Ratio_Part96(NTNV)(Subtest:3, Channel:55290, Bandwidth:10, Modulation:Q16, RB Number: 1, RB Position:LOW)



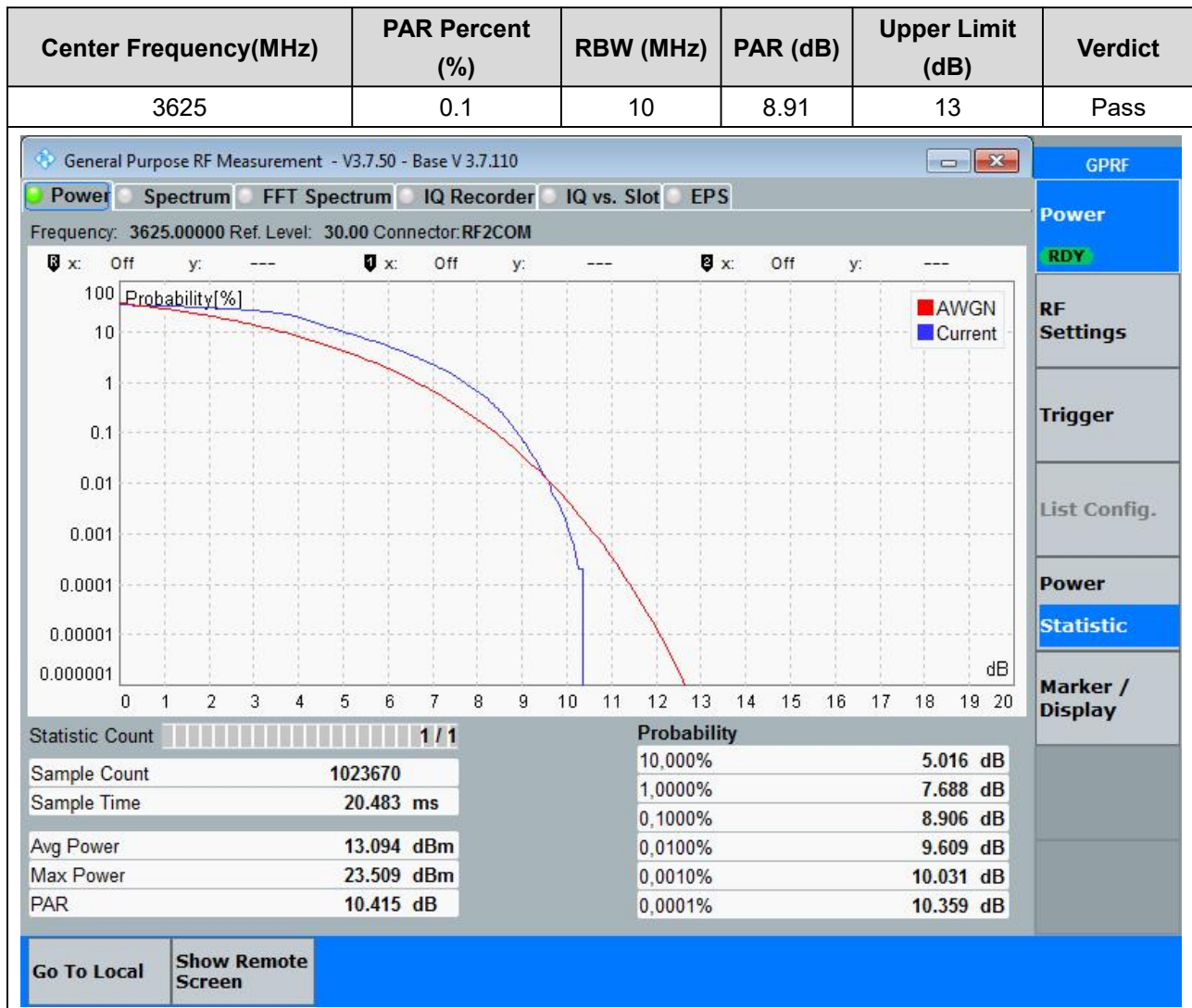
1.4 LTE Peak to Average Ratio_Part96(NTNV)(Subtest:4, Channel:55290, Bandwidth:10, Modulation:Q16, RB Number: 50, RB Position:LOW)



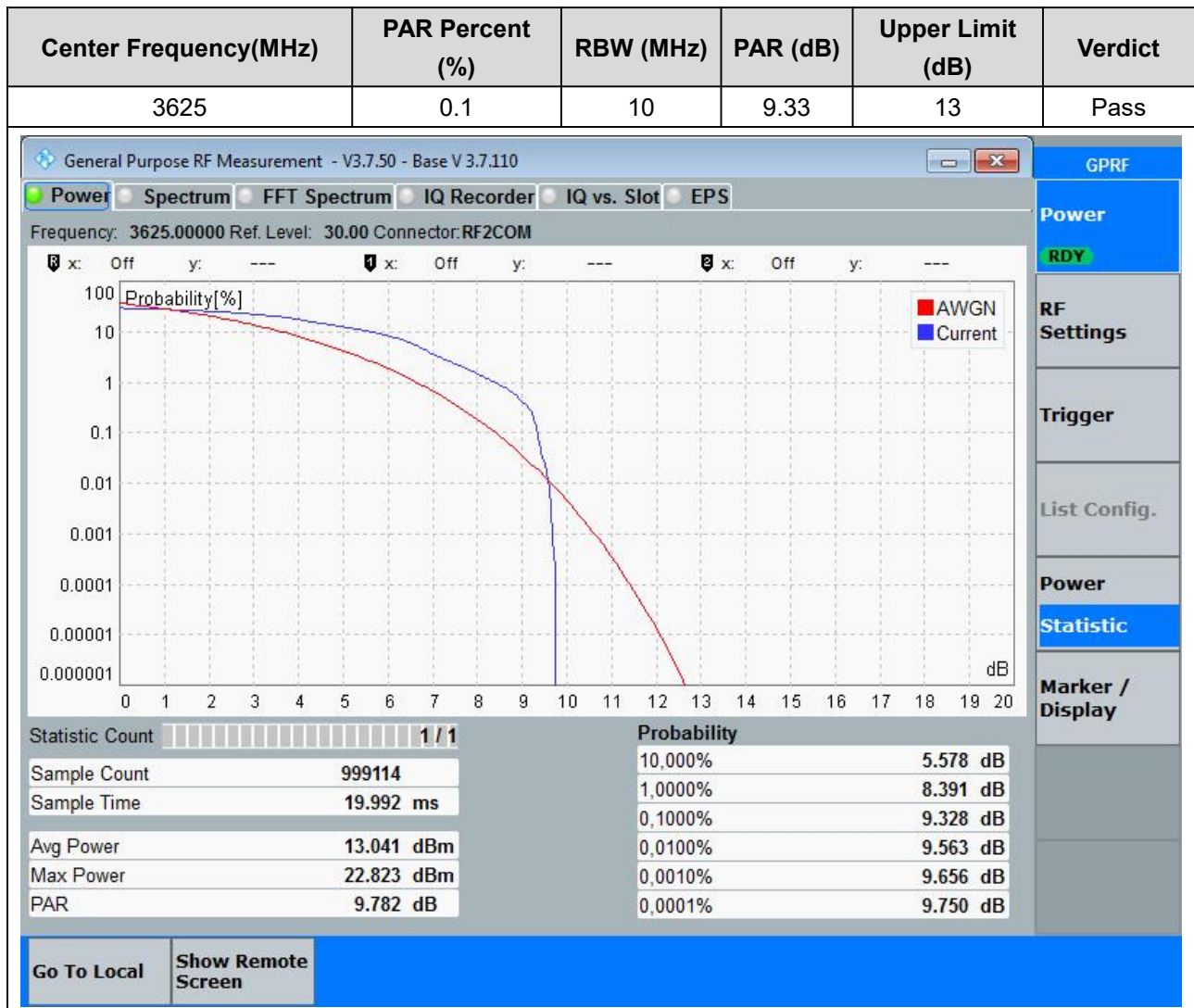
1.5 LTE Peak to Average Ratio_Part96(NTNV)(Subtest:5, Channel:55990, Bandwidth:10, Modulation:QPSK, RB Number: 1, RB Position:LOW)



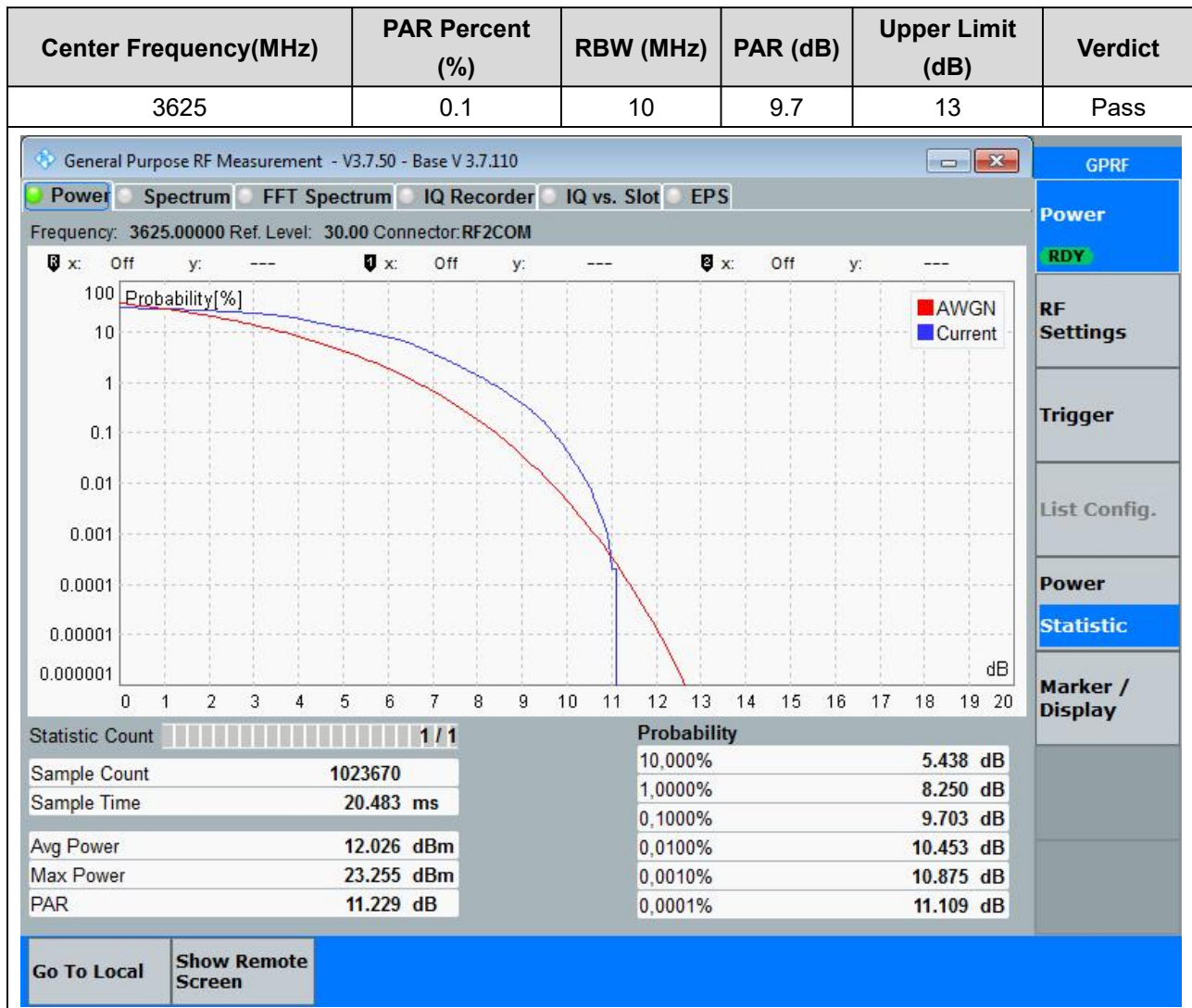
1.6 LTE Peak to Average Ratio_Part96(NTNV)(Subtest:6, Channel:55990, Bandwidth:10, Modulation:QPSK, RB Number: 50, RB Position:LOW)



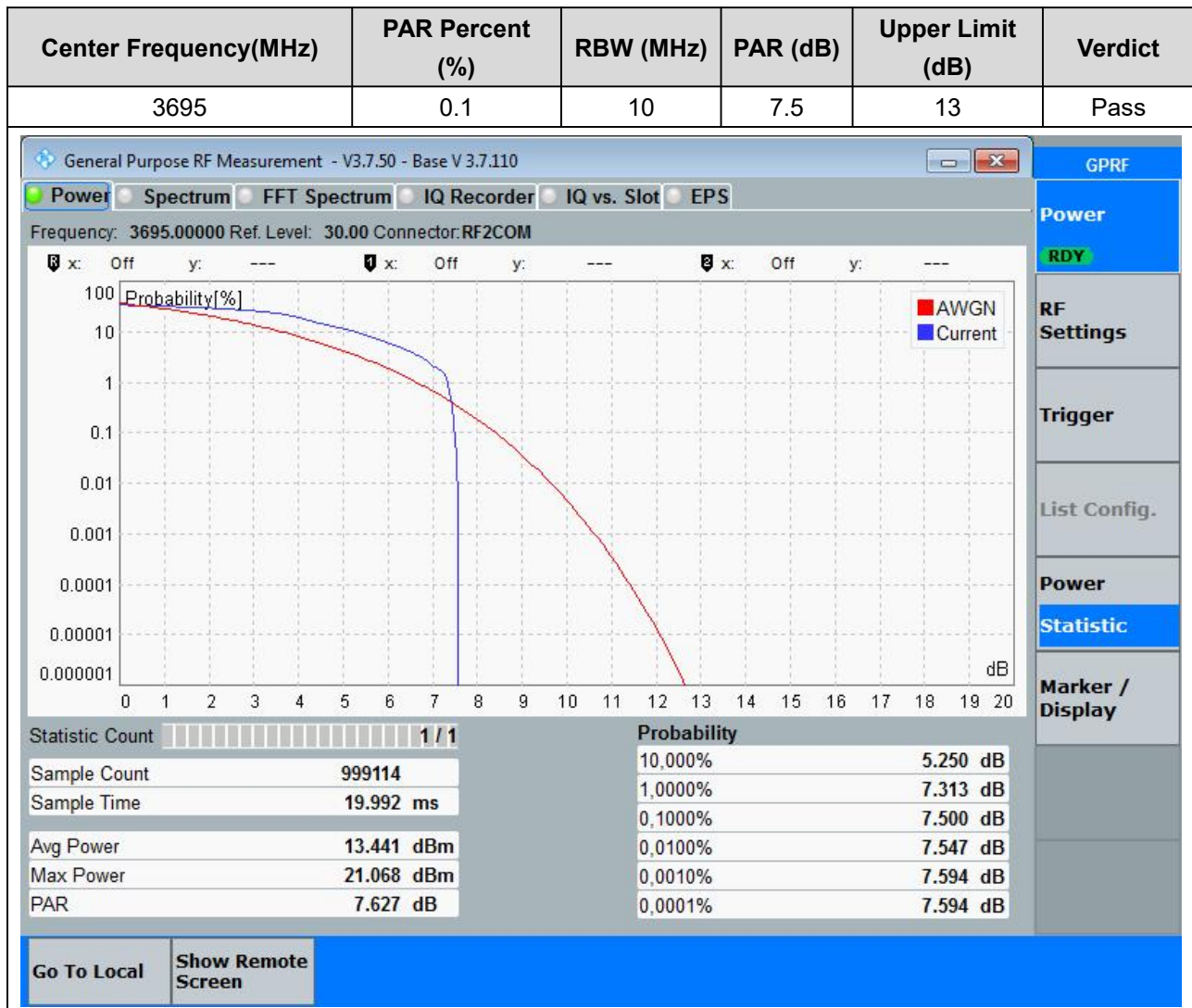
1.7 LTE Peak to Average Ratio_Part96(NTNV)(Subtest:7, Channel:55990, Bandwidth:10, Modulation:Q16, RB Number: 1, RB Position:LOW)



1.8 LTE Peak to Average Ratio_Part96(NTNV)(Subtest:8, Channel:55990, Bandwidth:10, Modulation:Q16, RB Number: 50, RB Position:LOW)

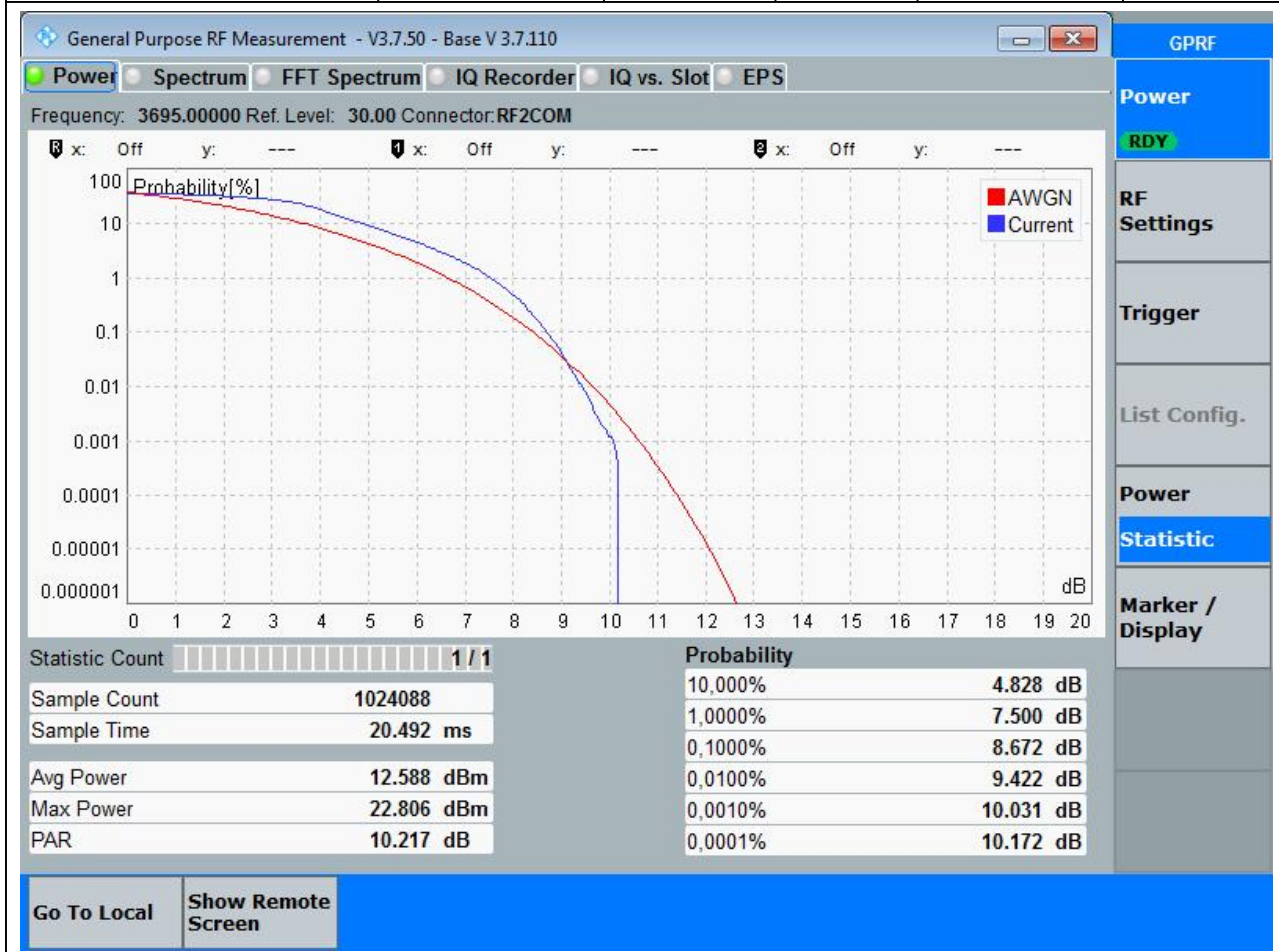


1.9 LTE Peak to Average Ratio_Part96(NTNV)(Subtest:9, Channel:56690, Bandwidth:10, Modulation:QPSK, RB Number: 1, RB Position:LOW)



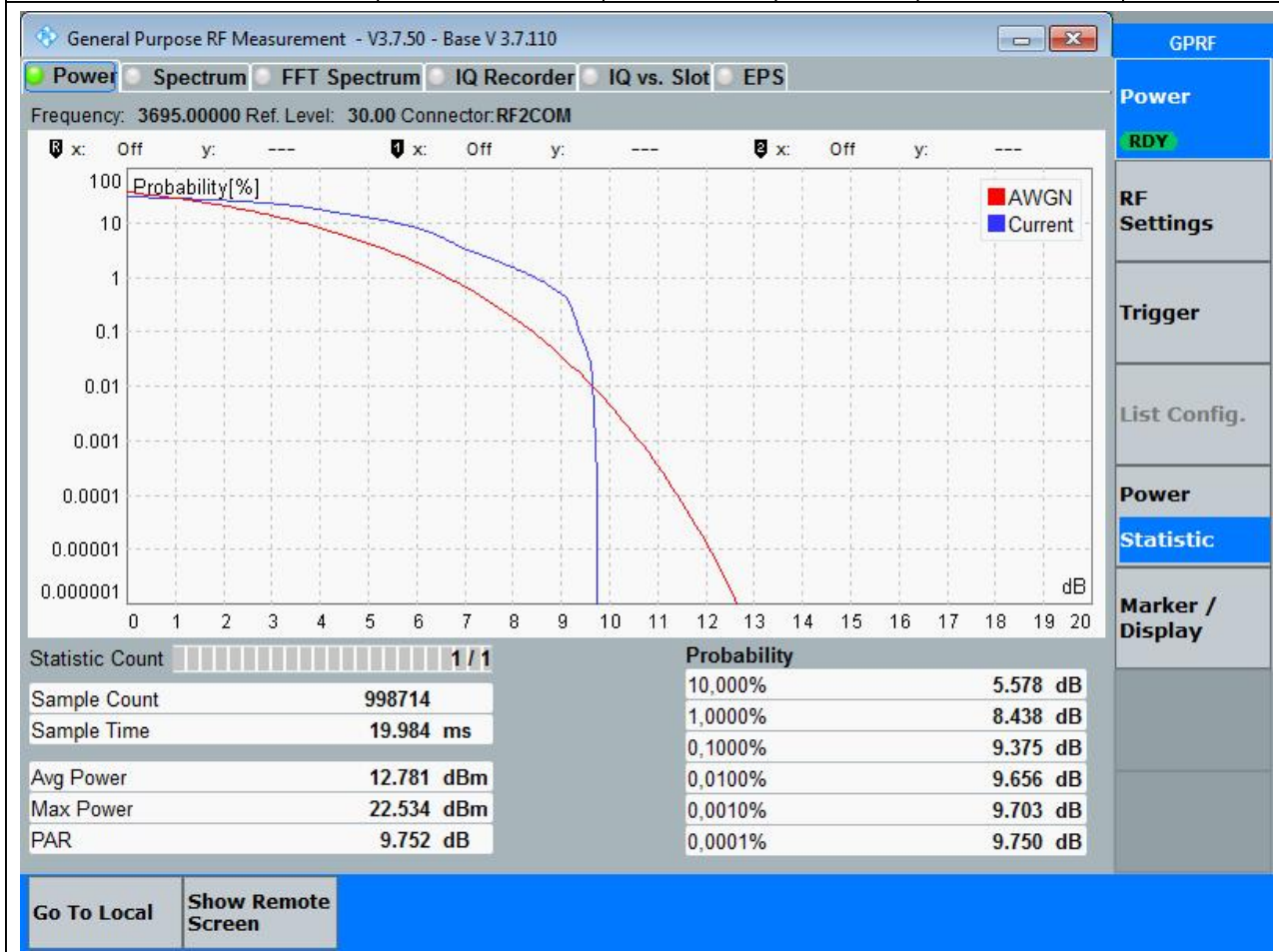
1.10 LTE Peak to Average Ratio_Part96(NTNV)(Subtest:10, Channel:56690, Bandwidth:10, Modulation:QPSK, RB Number: 50, RB Position:LOW)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3695	0.1	10	8.67	13	Pass

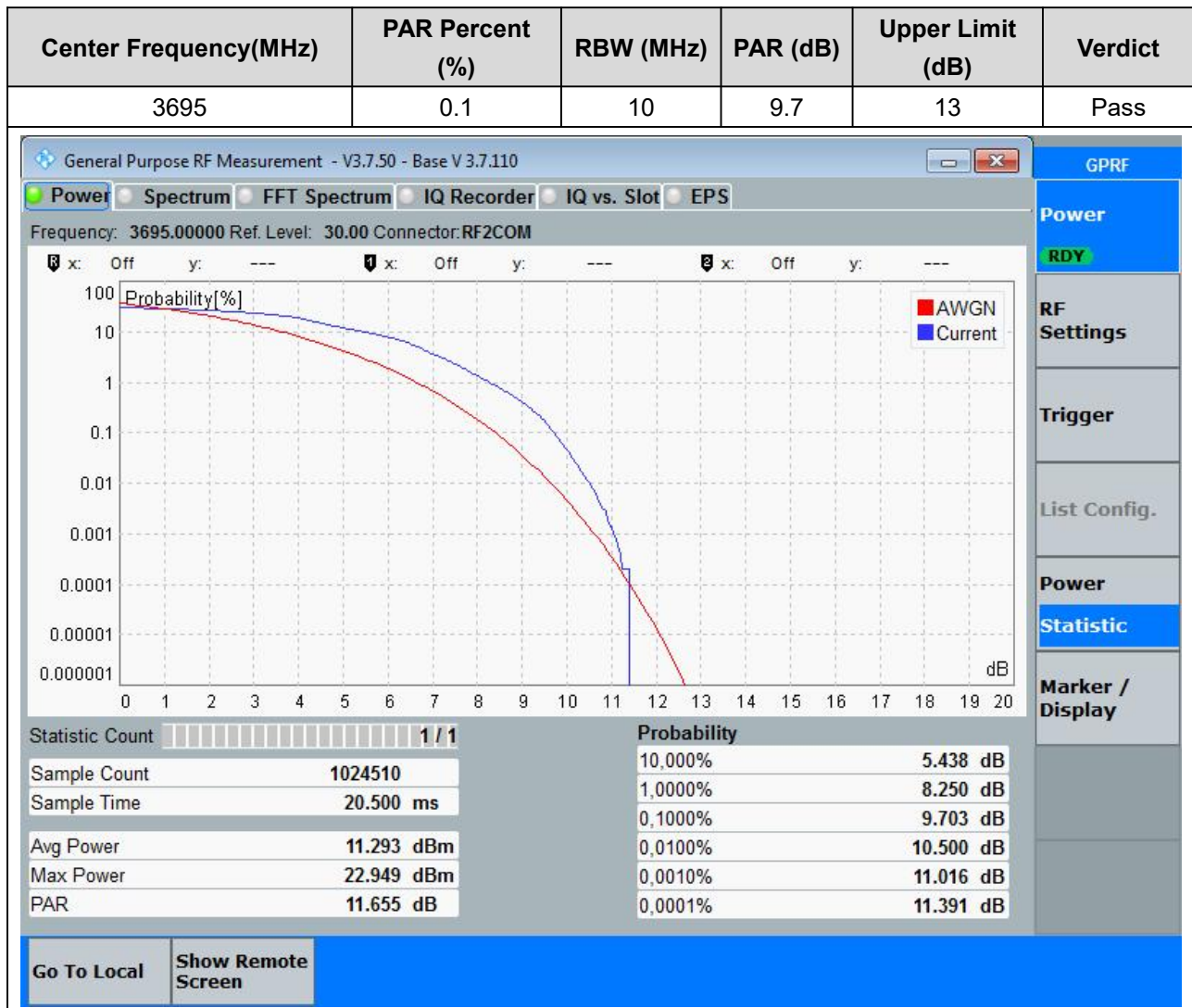


1.11 LTE Peak to Average Ratio_Part96(NTNV)(Subtest:11, Channel:56690, Bandwidth:10, Modulation:Q16, RB Number: 1, RB Position:LOW)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3695	0.1	10	9.37	13	Pass

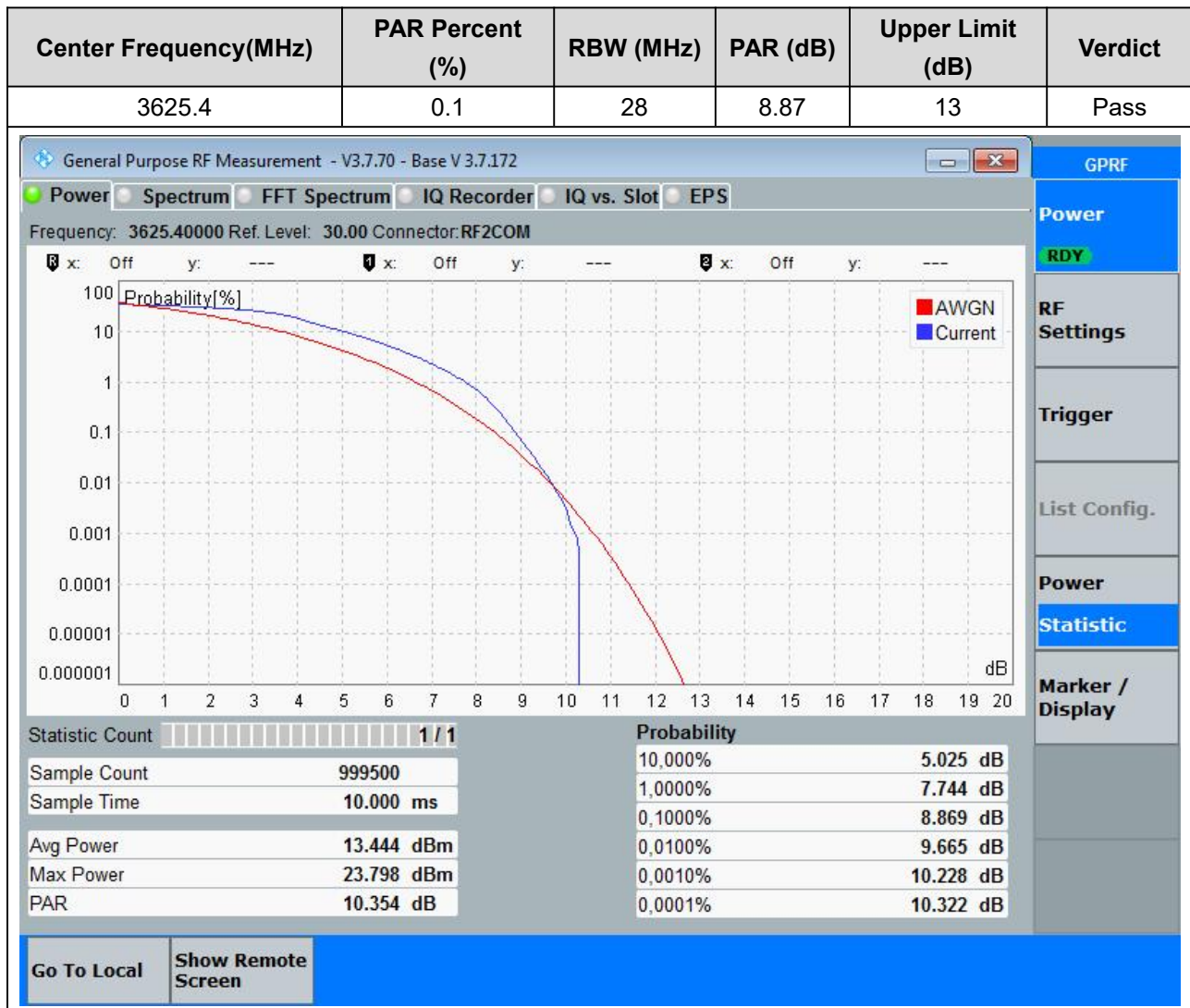


1.12 LTE Peak to Average Ratio_Part96(NTNV)(Subtest:12, Channel:56690, Bandwidth:10, Modulation:Q16, RB Number: 50, RB Position:LOW)



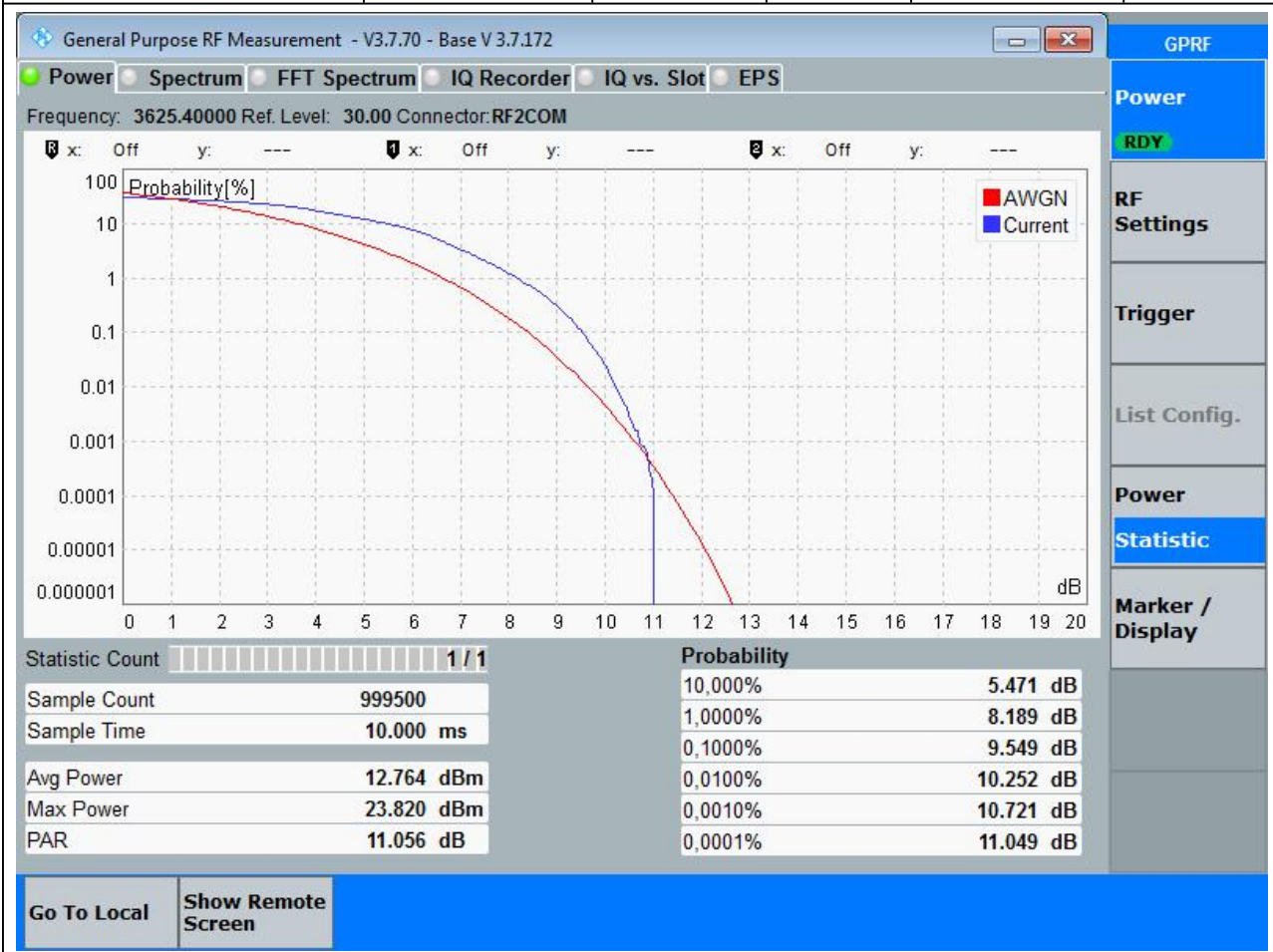
CA_48C

1.1 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:1, Channel:55898|56015, Bandwidth:5|20MHz, Modulation:QPSK, RB Number:Full|Full, RB Position:Low|Low)



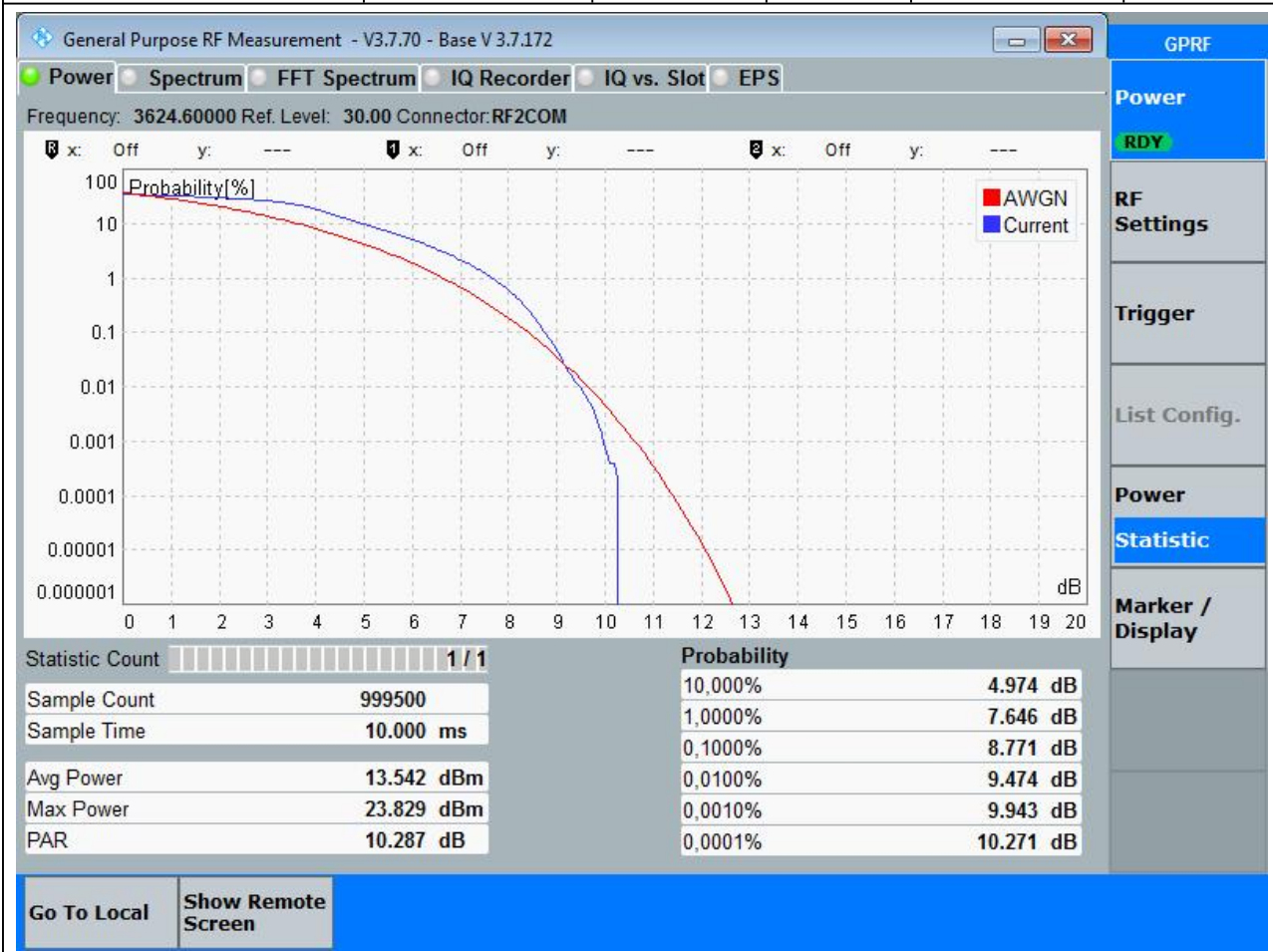
1.2 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:2, Channel:55898|56015, Bandwidth:5|20MHz, Modulation:16QAM, RB Number:Full|Full, RB Position:Low|Low)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3625.4	0.1	28	9.55	13	Pass



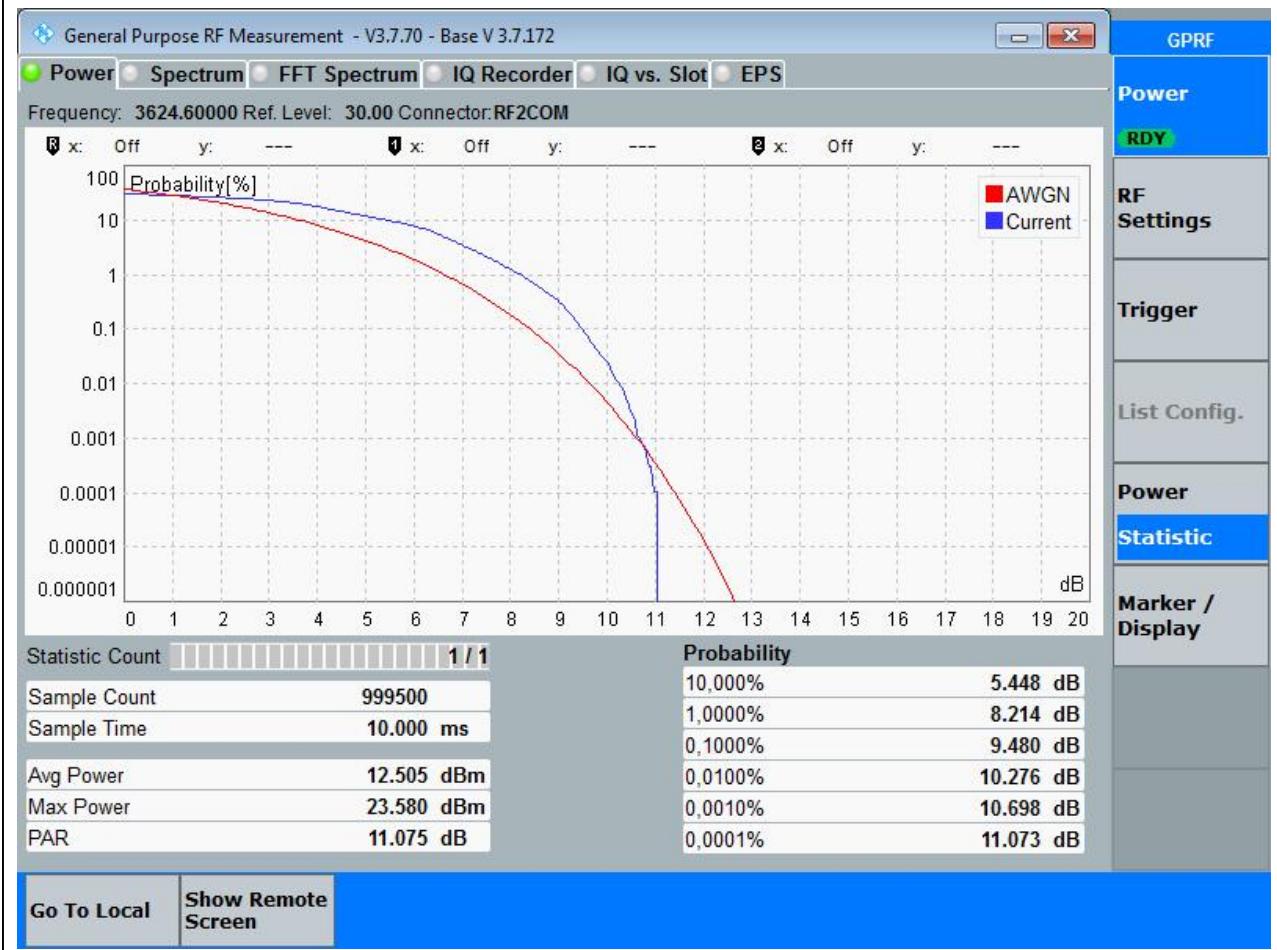
1.3 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:3, Channel:55965|56082, Bandwidth:20|5MHz, Modulation:QPSK, RB Number:Full|Full, RB Position:Low|Low)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3624.6	0.1	28	8.77	13	Pass



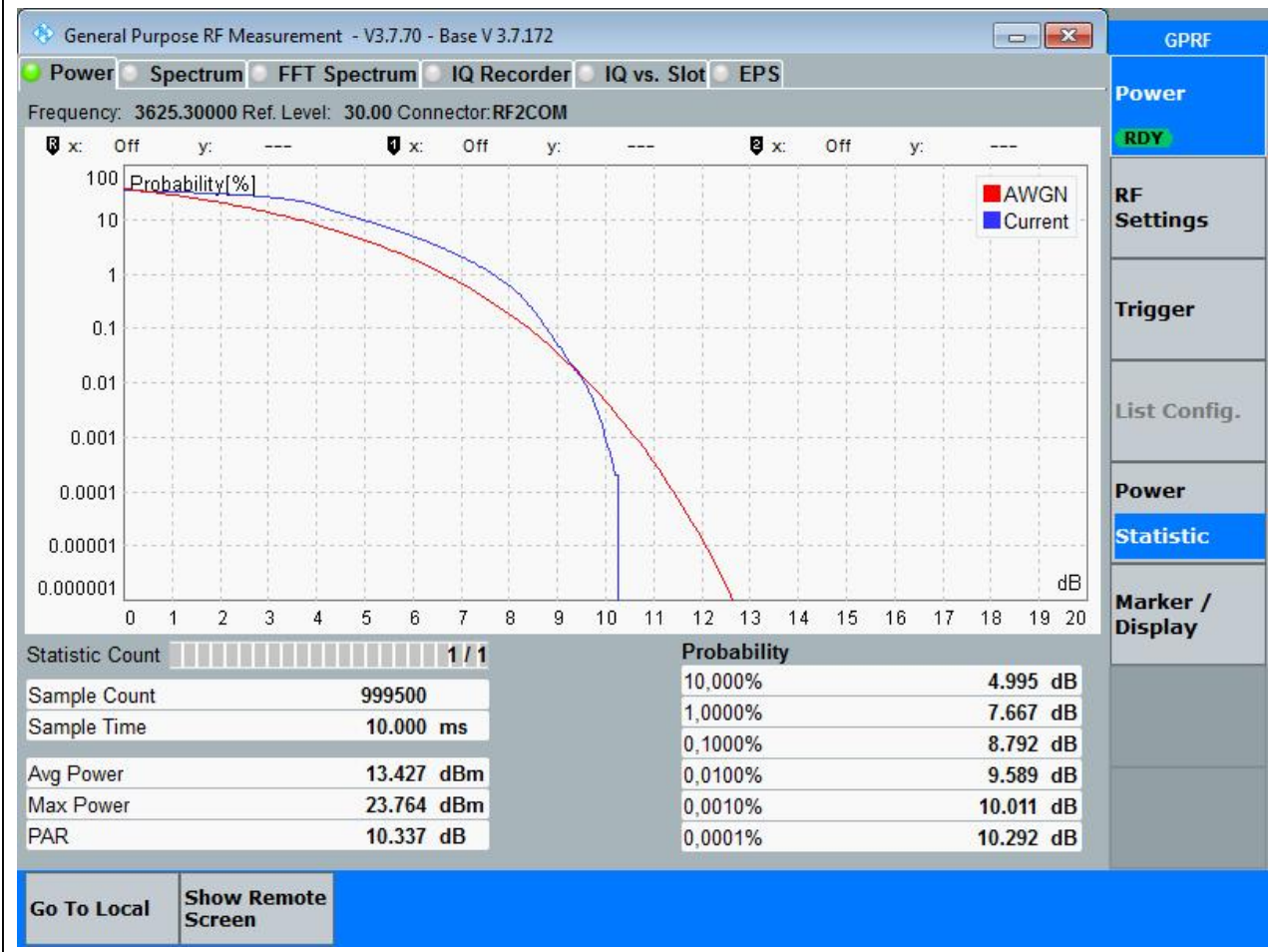
1.4 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:4, Channel:55965|56082, Bandwidth:20|5MHz, Modulation:16QAM, RB Number:Full|Full, RB Position:Low|Low)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3624.6	0.1	28	9.48	13	Pass



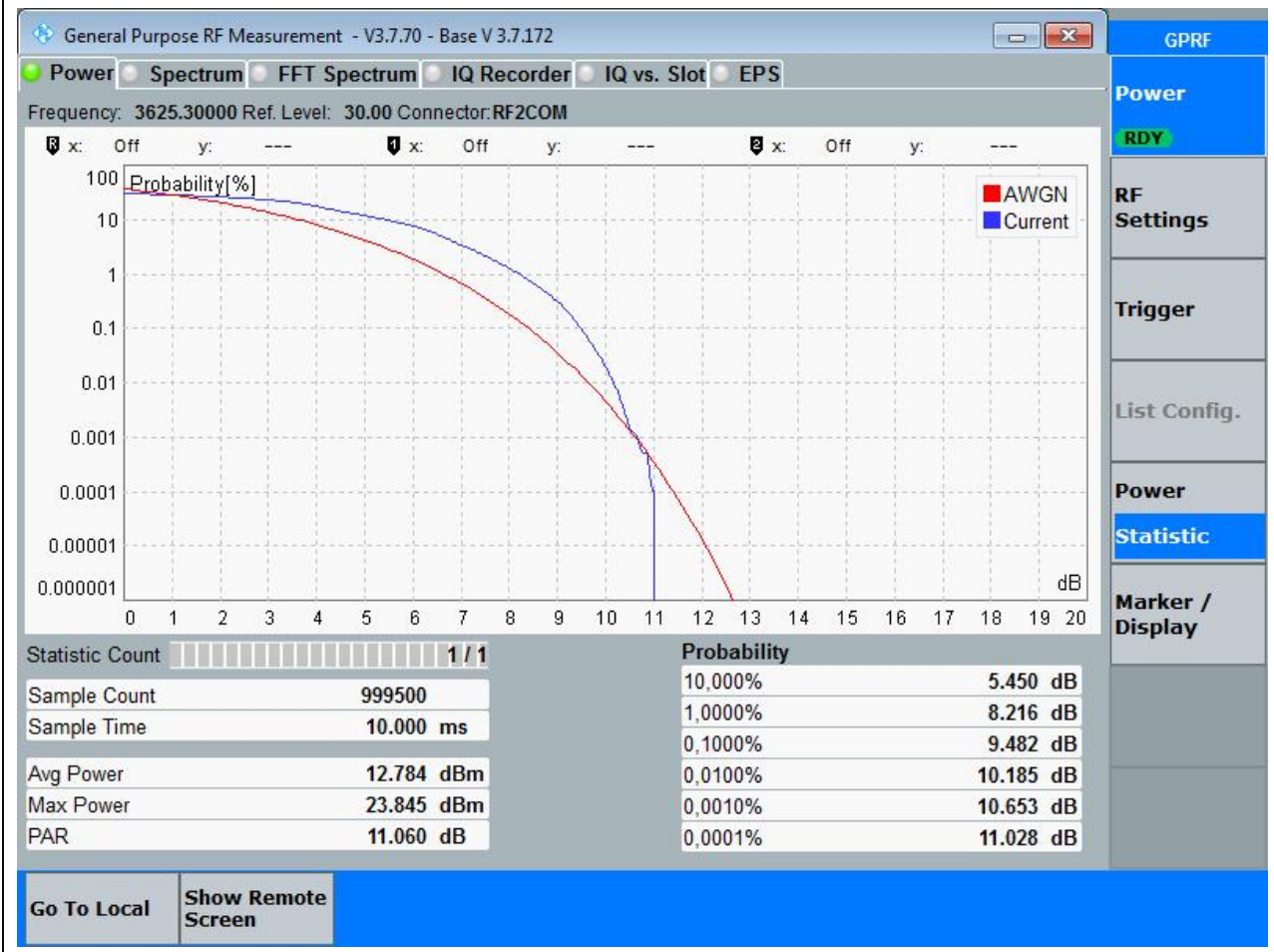
1.5 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:5, Channel:55896|56040, Bandwidth:10|20MHz, Modulation:QPSK, RB Number:Full|Full, RB Position:Low|Low)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3625.3	0.1	30	8.79	13	Pass

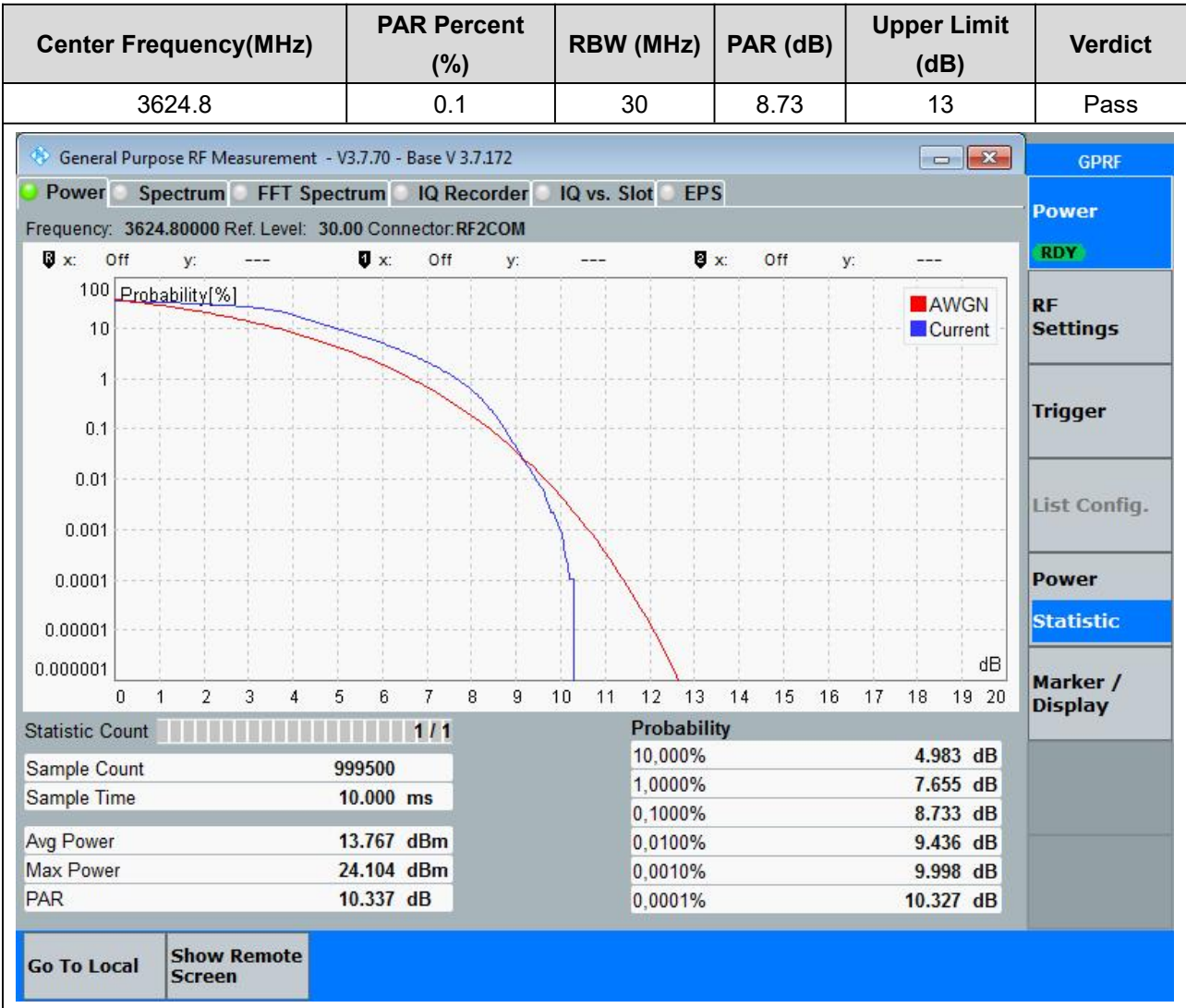


1.6 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:6, Channel:55896|56040, Bandwidth:10|20MHz, Modulation:16QAM, RB Number:Full|Full, RB Position:Low|Low)

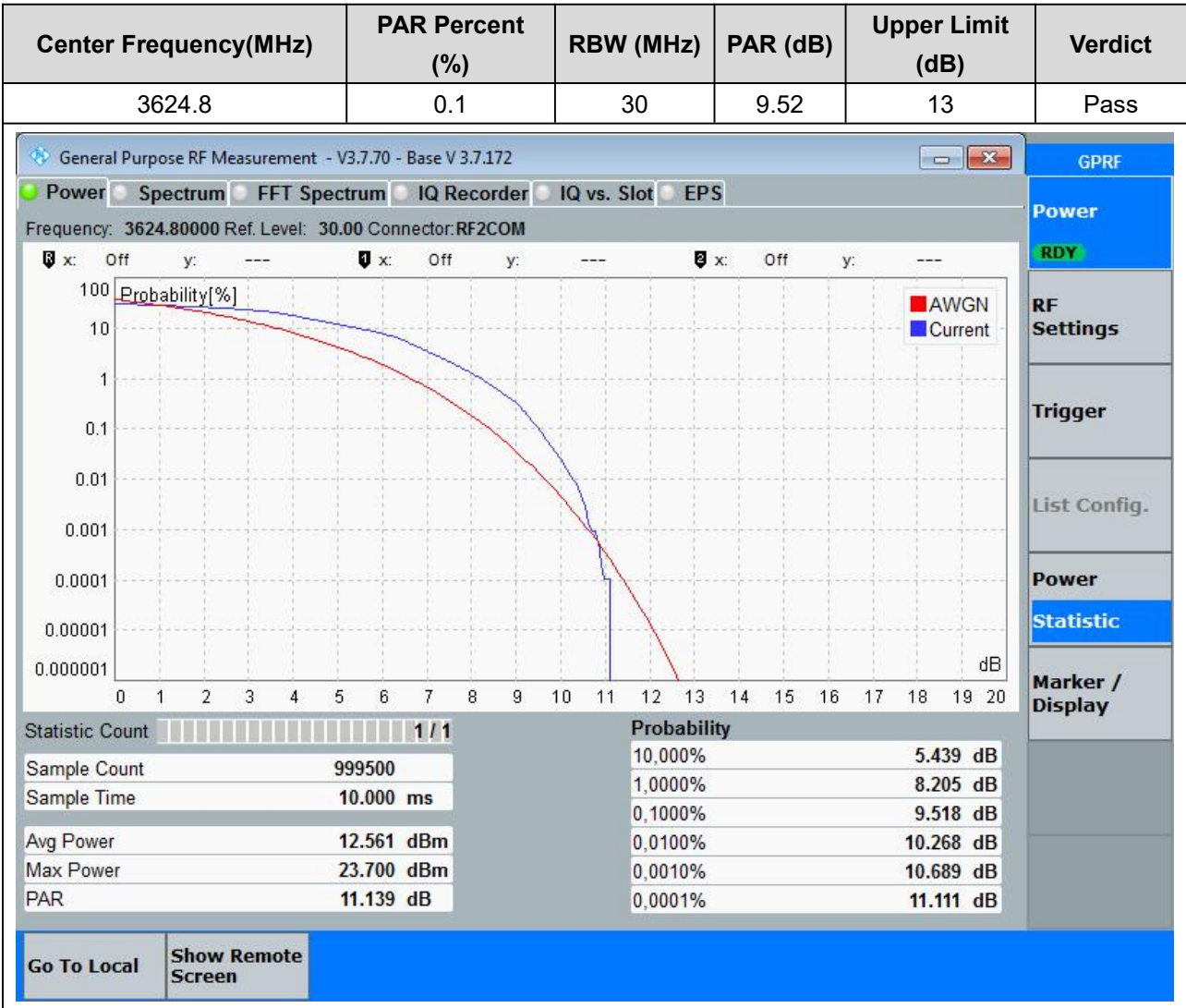
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3625.3	0.1	30	9.48	13	Pass



1.7 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:7, Channel:55941|56085, Bandwidth:20|10MHz, Modulation:QPSK, RB Number:Full|Full, RB Position:Low|Low)

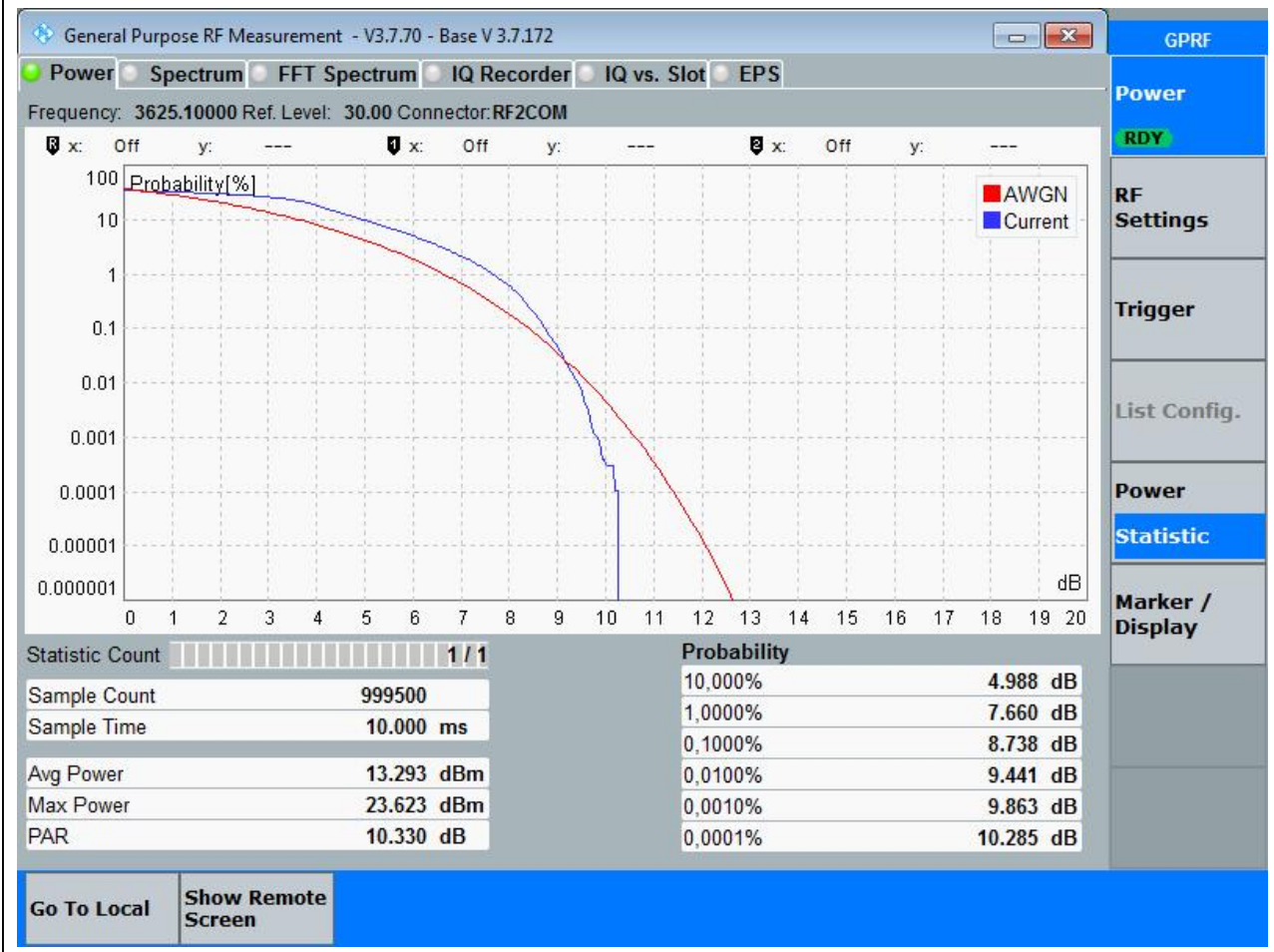


1.8 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:8, Channel:55941|56085, Bandwidth:20|10MHz, Modulation:16QAM, RB Number:Full|Full, RB Position:Low|Low)

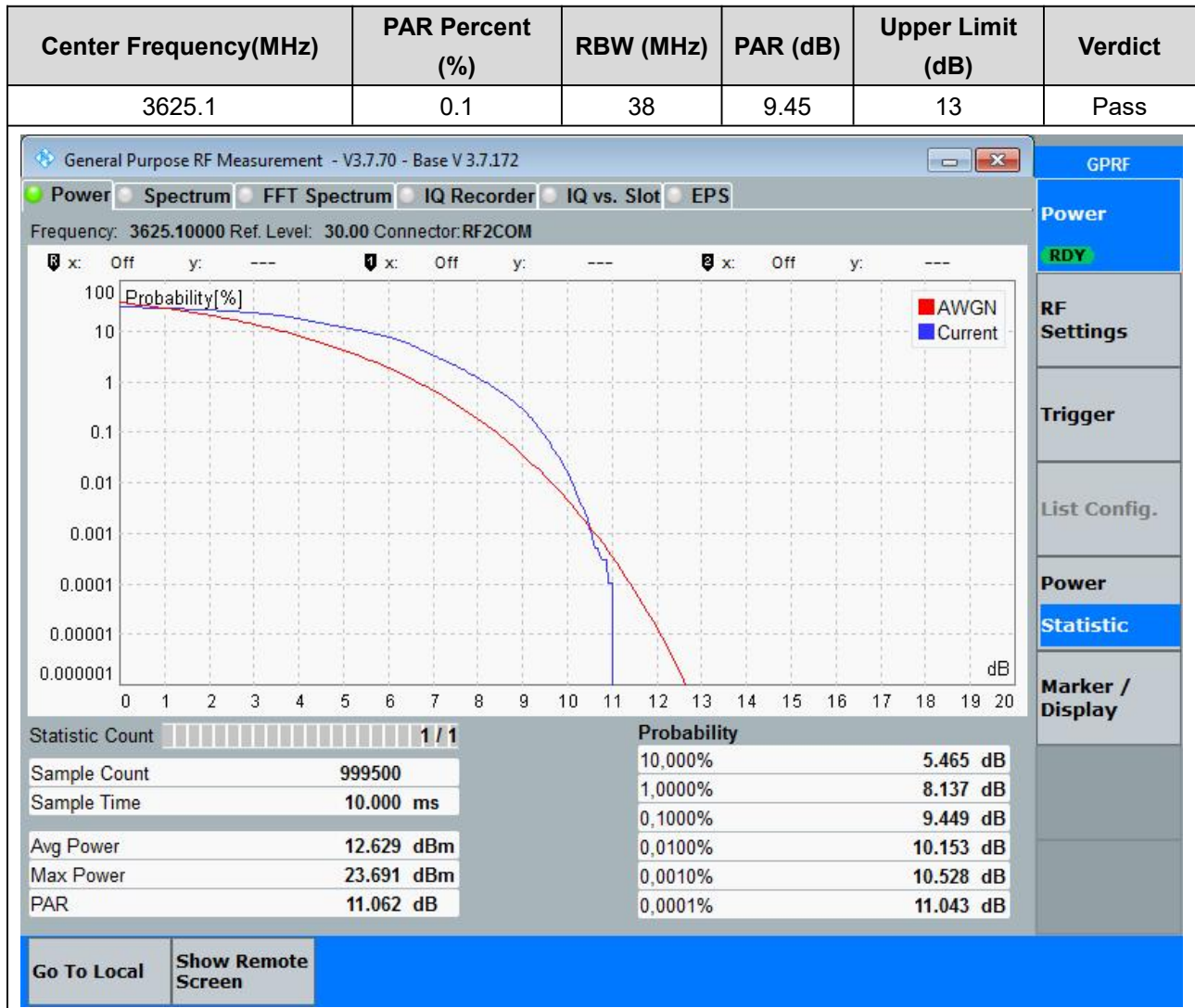


1.9 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:9, Channel:55893|56064, Bandwidth:15|20MHz, Modulation:QPSK, RB Number:Full|Full, RB Position:Low|Low)

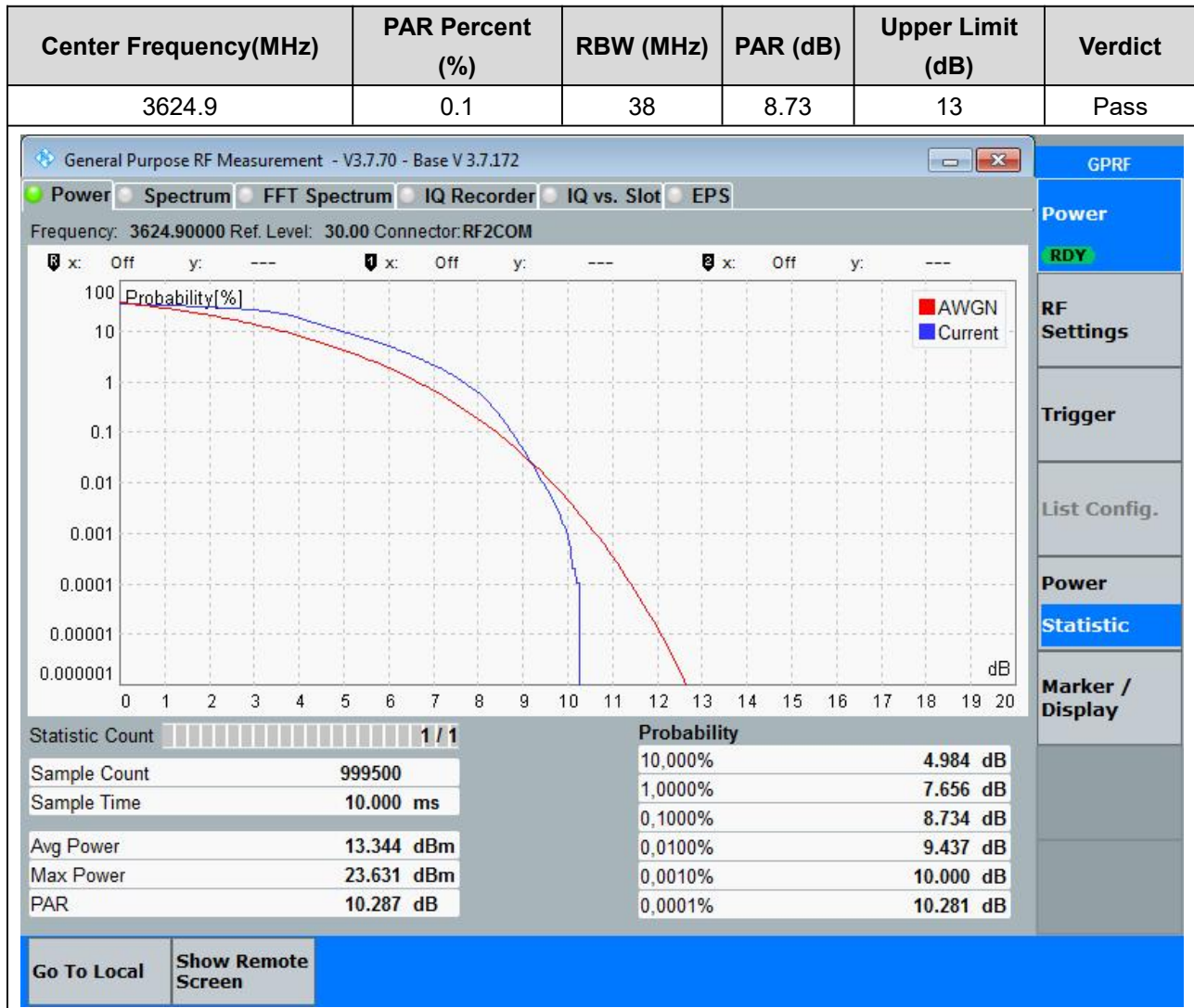
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3625.1	0.1	38	8.74	13	Pass



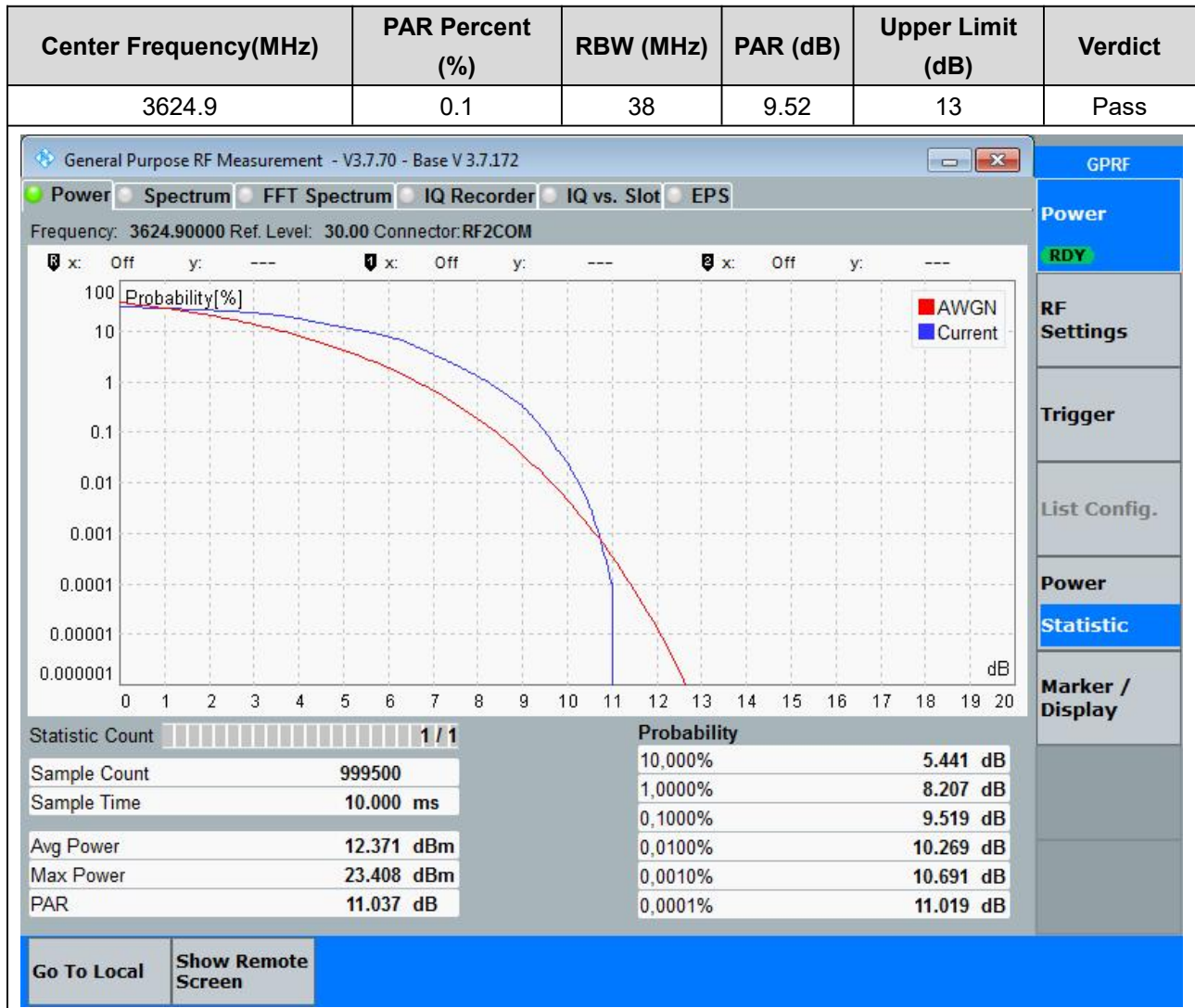
1.10 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:10, Channel:55893|56064, Bandwidth:15|20MHz, Modulation:16QAM, RB Number:Full|Full, RB Position:Low|Low)



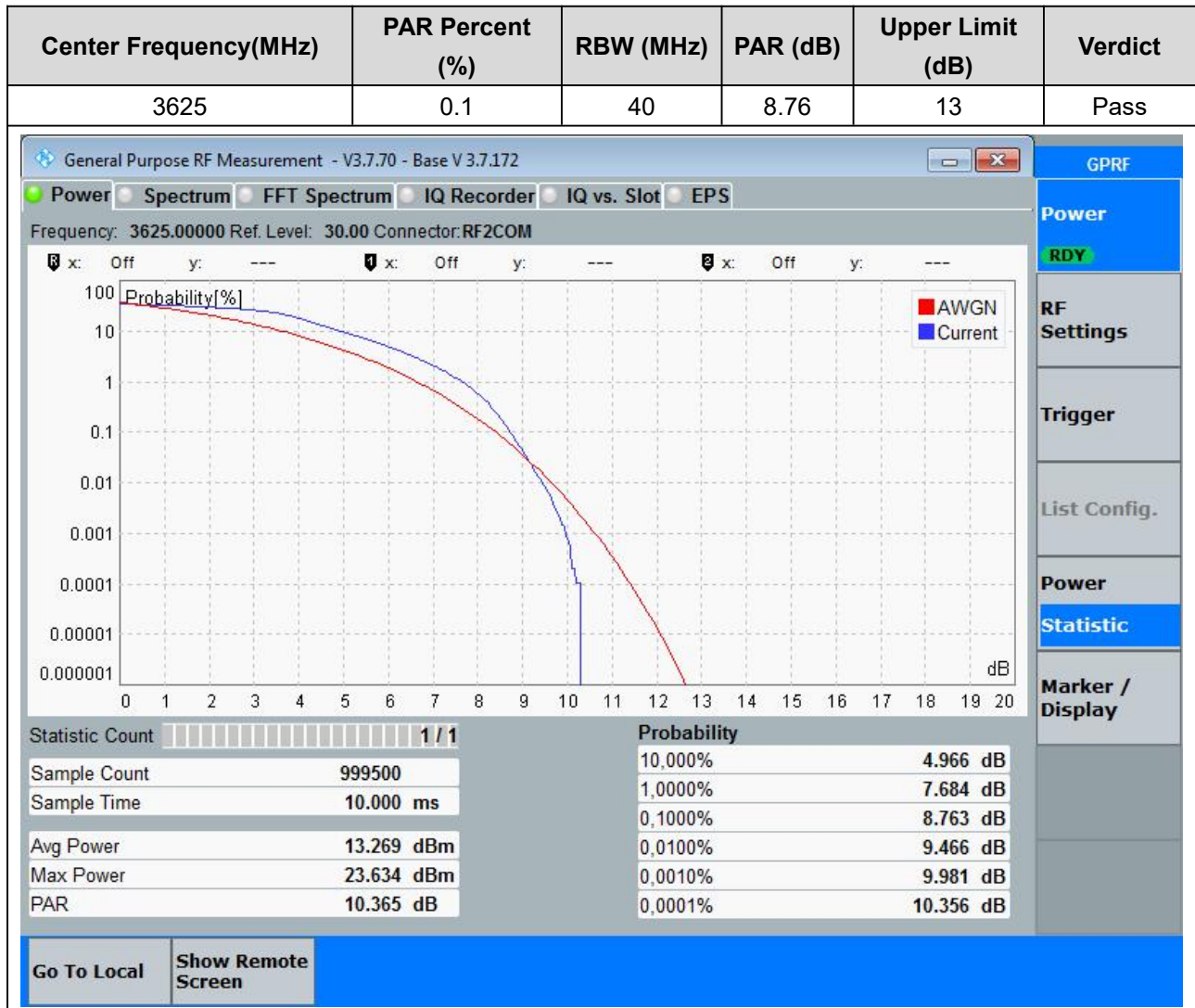
1.11 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:11, Channel:55916|56087, Bandwidth:20|15MHz, Modulation:QPSK, RB Number:Full|Full, RB Position:Low|Low)



1.12 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:12, Channel:55916|56087, Bandwidth:20|15MHz, Modulation:16QAM, RB Number:Full|Full, RB Position:Low|Low)

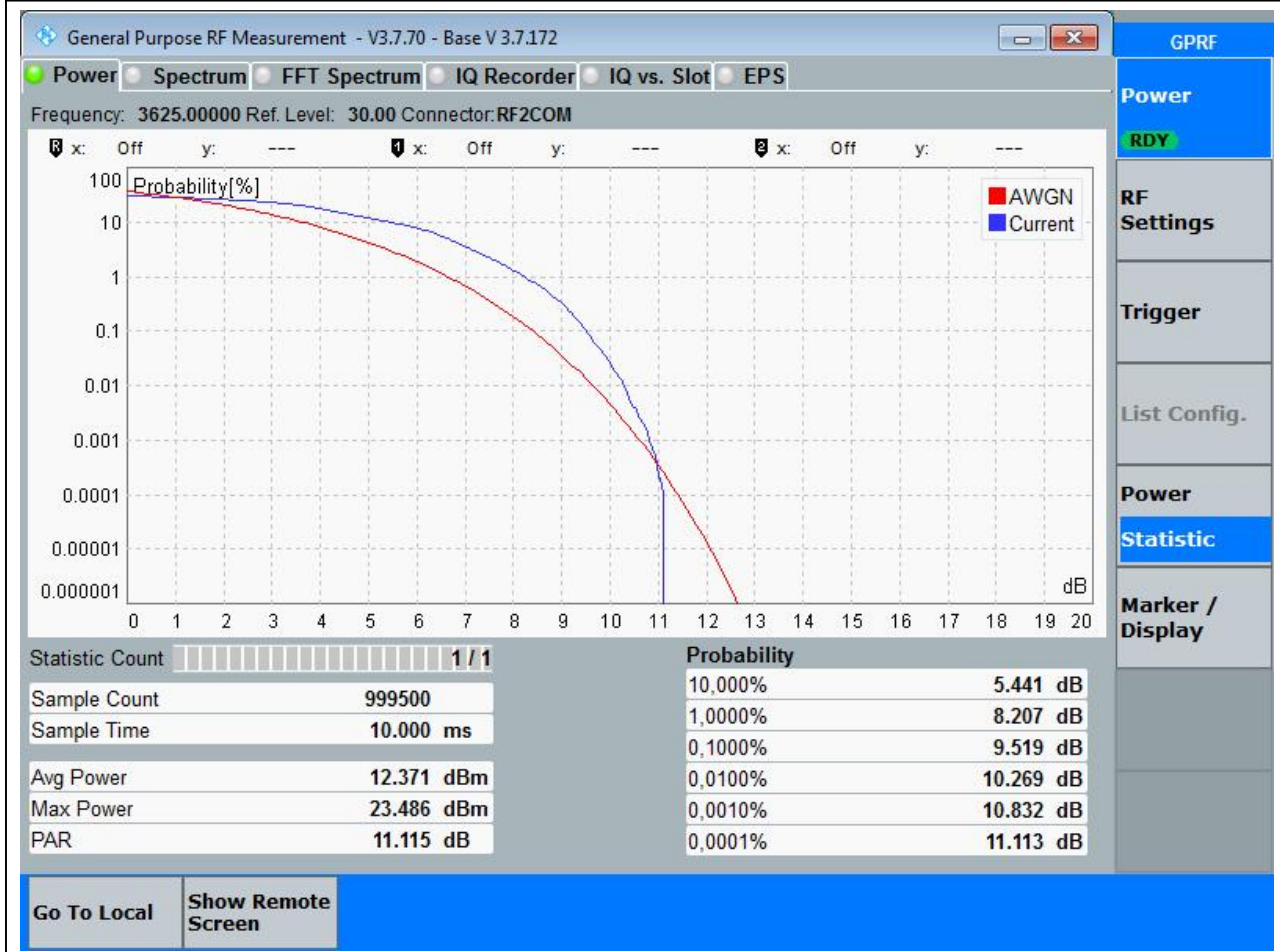


1.13 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:13, Channel:55891|56089, Bandwidth:20|20MHz, Modulation:QPSK, RB Number:Full|Full, RB Position:Low|Low)



1.14 LTE-A Peak to Average Ratio_Part96(NTNV)(Subtest:14, Channel:55891|56089, Bandwidth:20|20MHz, Modulation:16QAM, RB Number:Full|Full, RB Position:Low|Low)

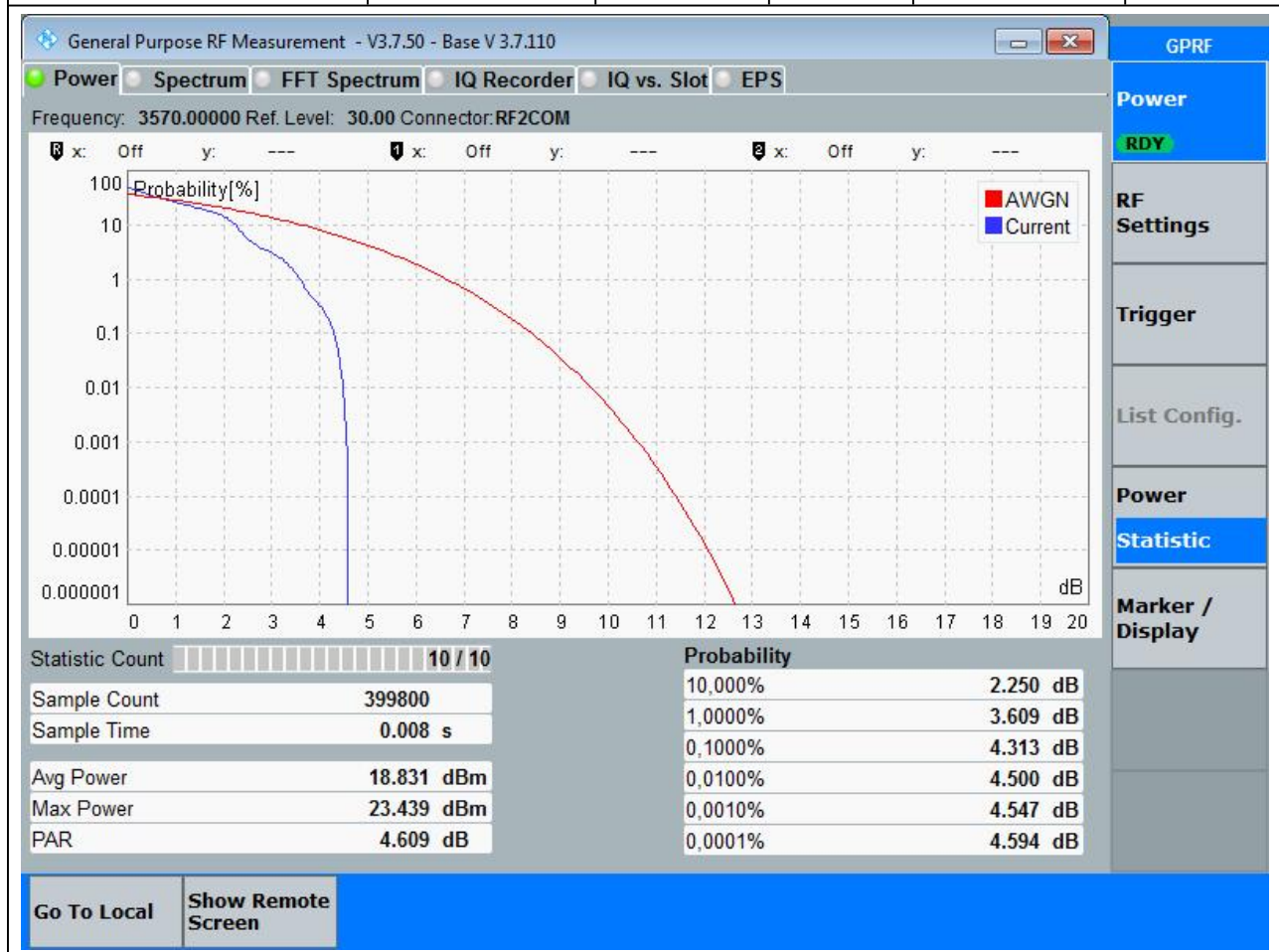
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3625	0.1	40	9.52	13	Pass



N48

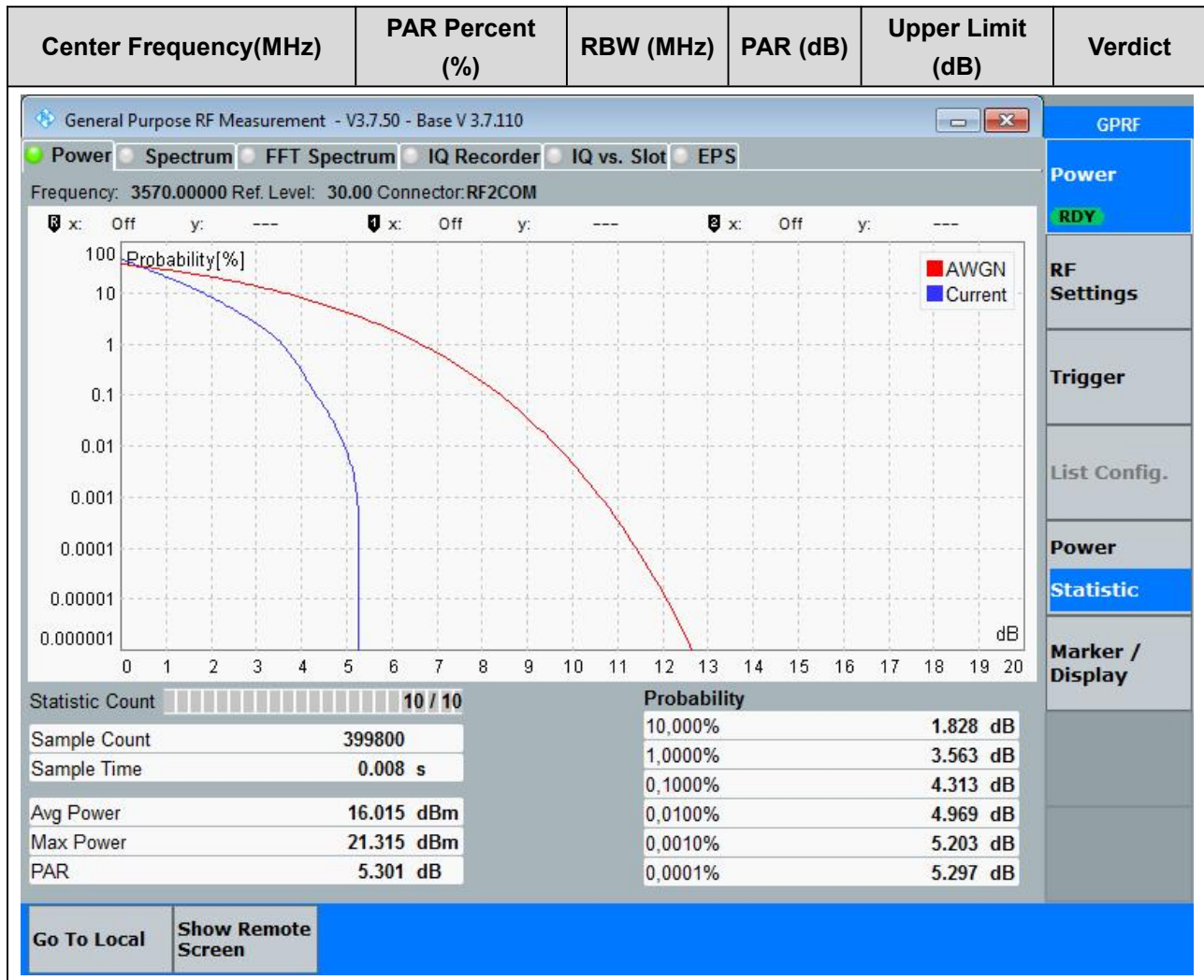
1.1 Peak to Average Ratio for SA_Part96(NTNV)(Channel:638000, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:Pi/2-BPSK, RB Number:1, RB Position:0)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3570	0.1	40	4.31	13	Pass

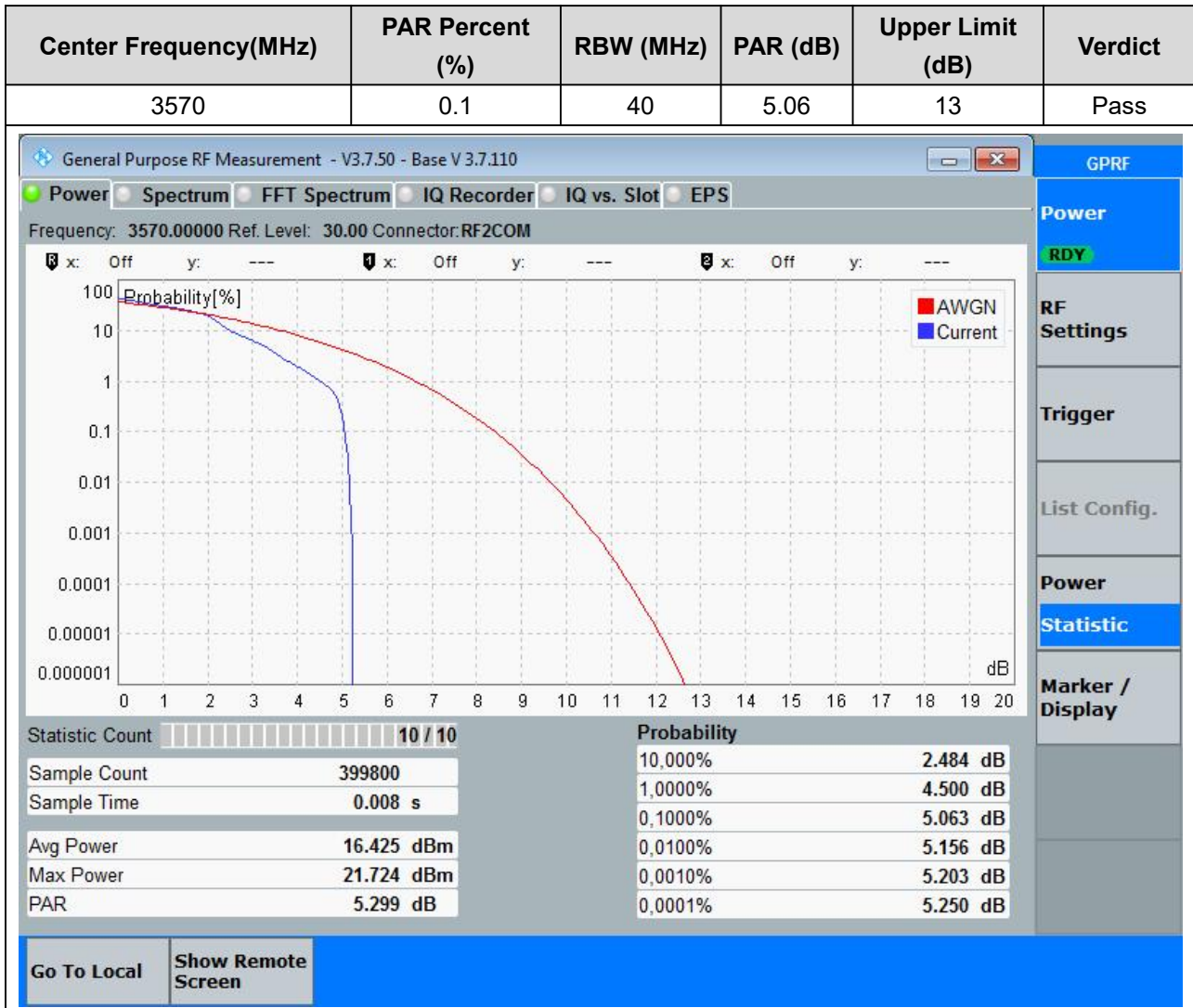


1.2 Peak to Average Ratio for SA_Part96(NTNV)(Channel:638000, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:Pi/2-BPSK, RB Number:100, RB Position:0)

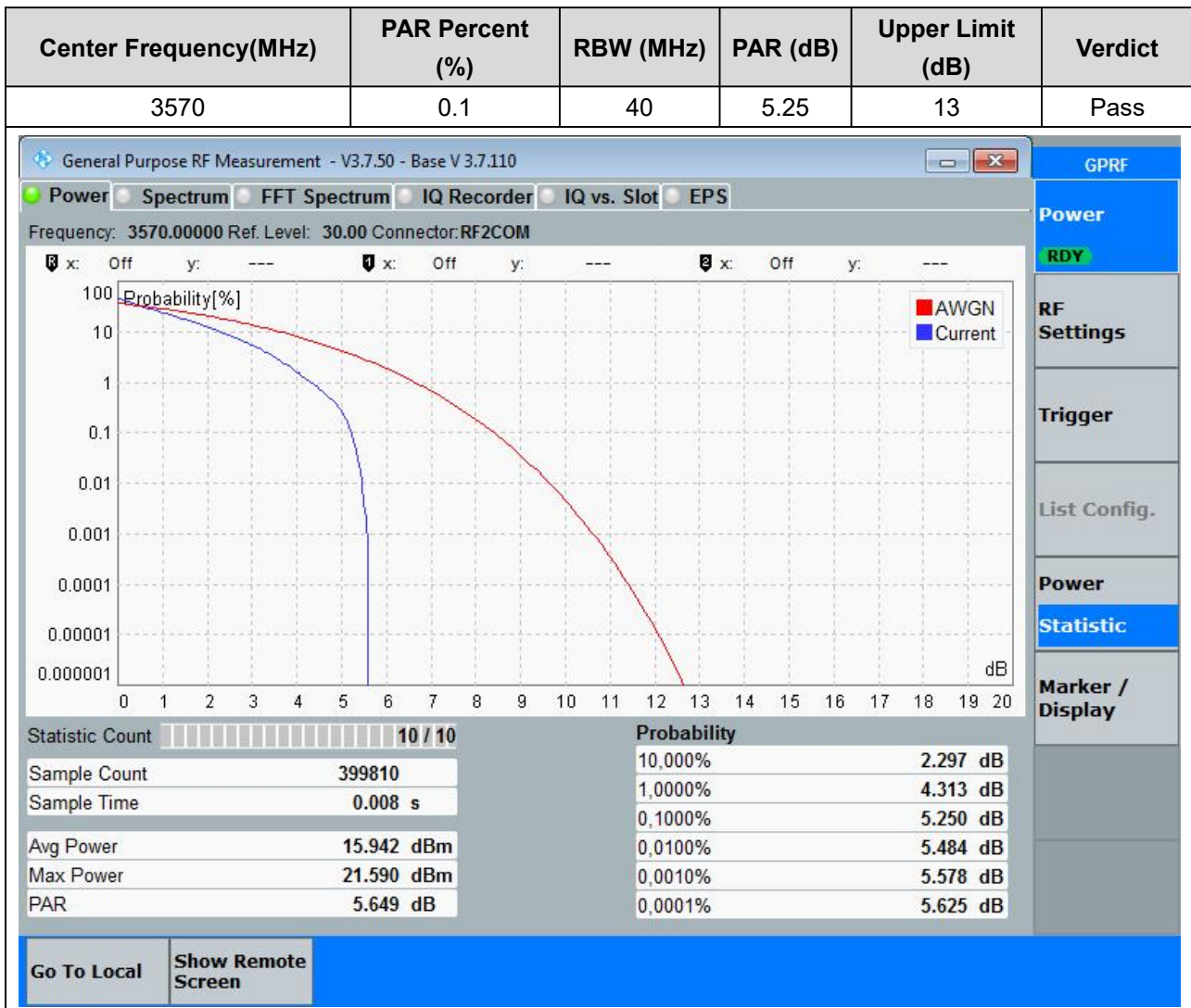
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3570	0.1	40	4.31	13	Pass



1.3 Peak to Average Ratio for SA_Part96(NTNV)(Channel:638000, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:QPSK, RB Number:1, RB Position:0)

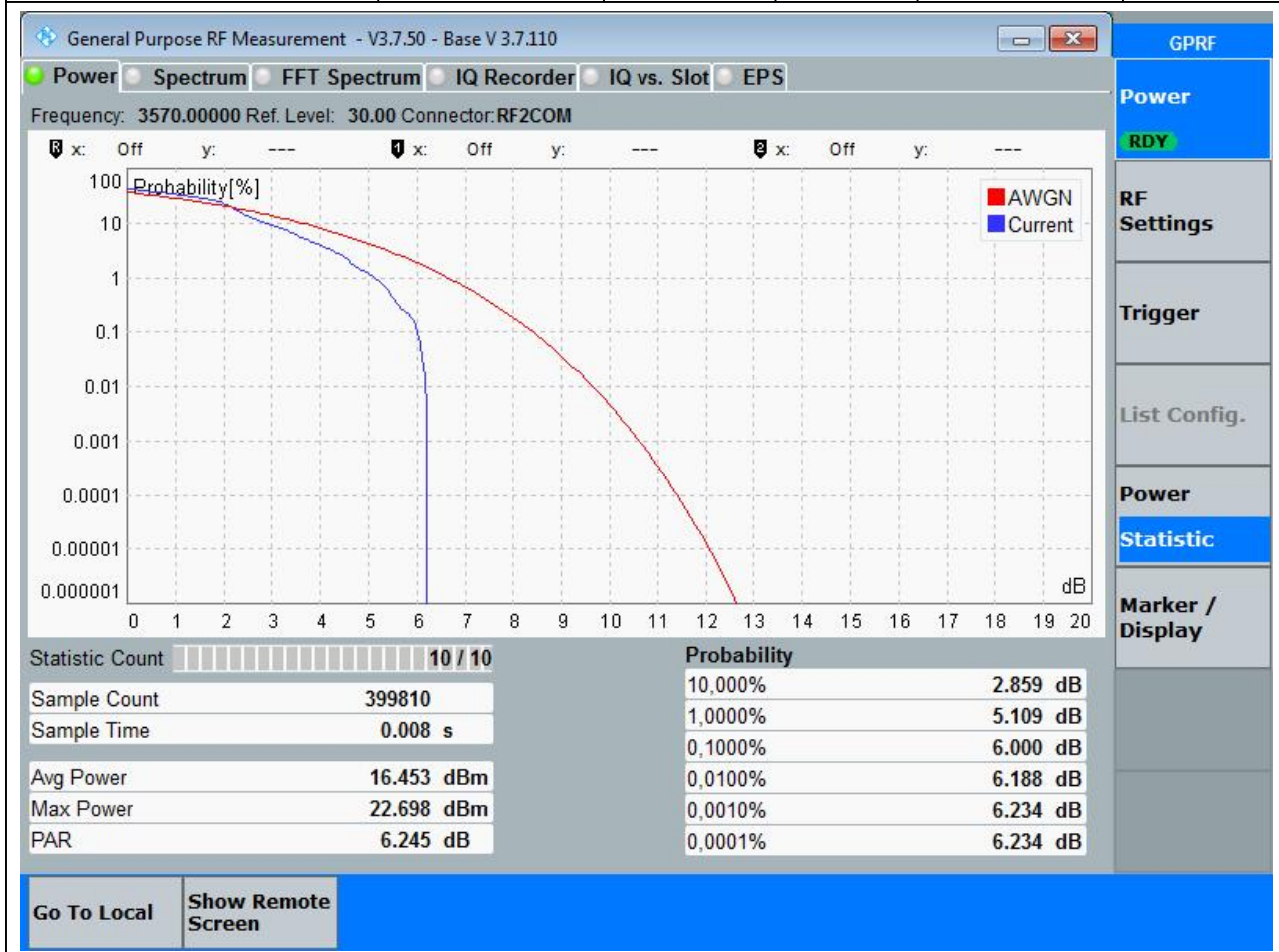


1.4 Peak to Average Ratio for SA_Part96(NTNV)(Channel:638000, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:QPSK, RB Number:100, RB Position:0)

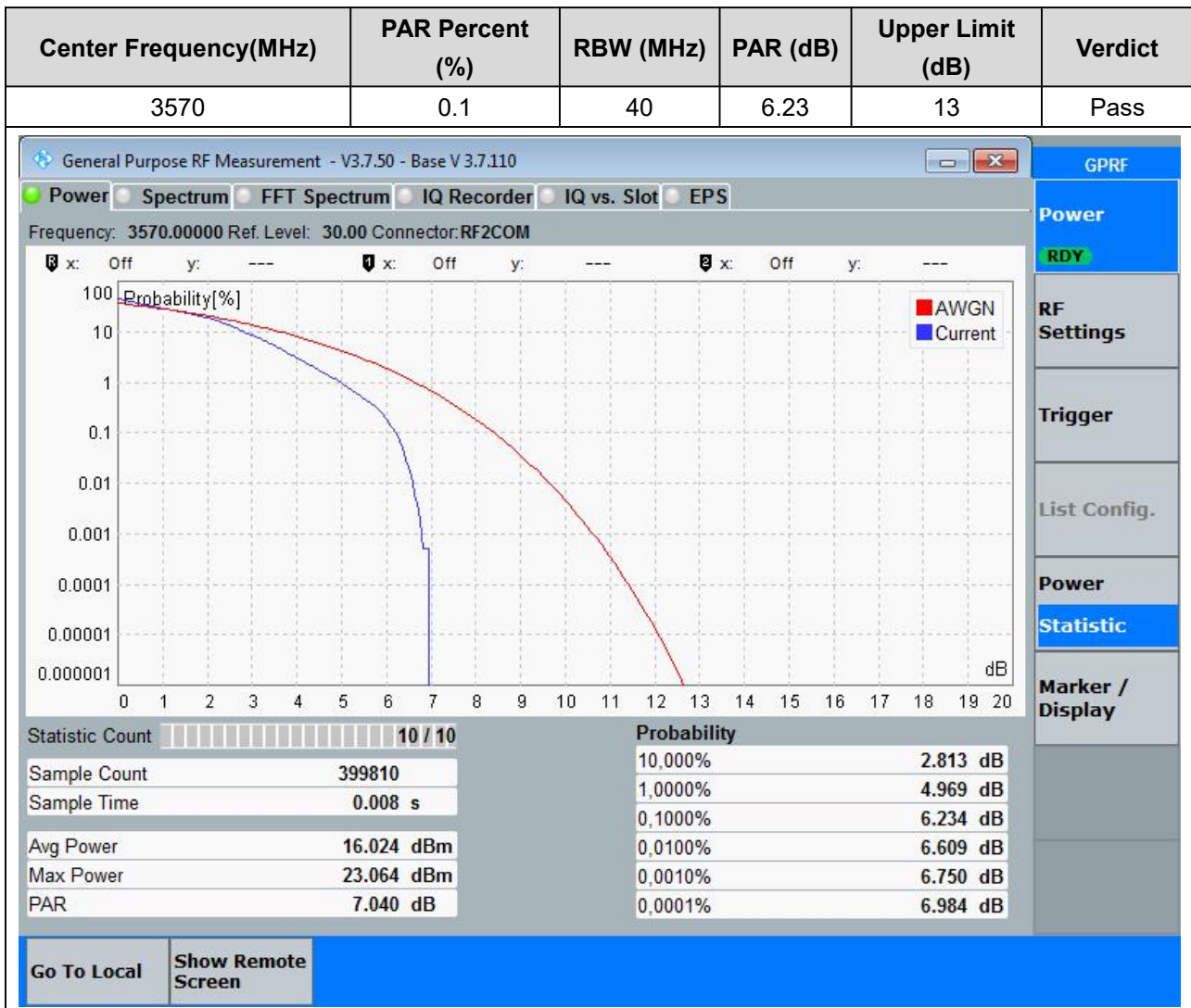


1.5 Peak to Average Ratio for SA_Part96(NTNV)(Channel:638000, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:16QAM, RB Number:1, RB Position:0)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3570	0.1	40	6	13	Pass

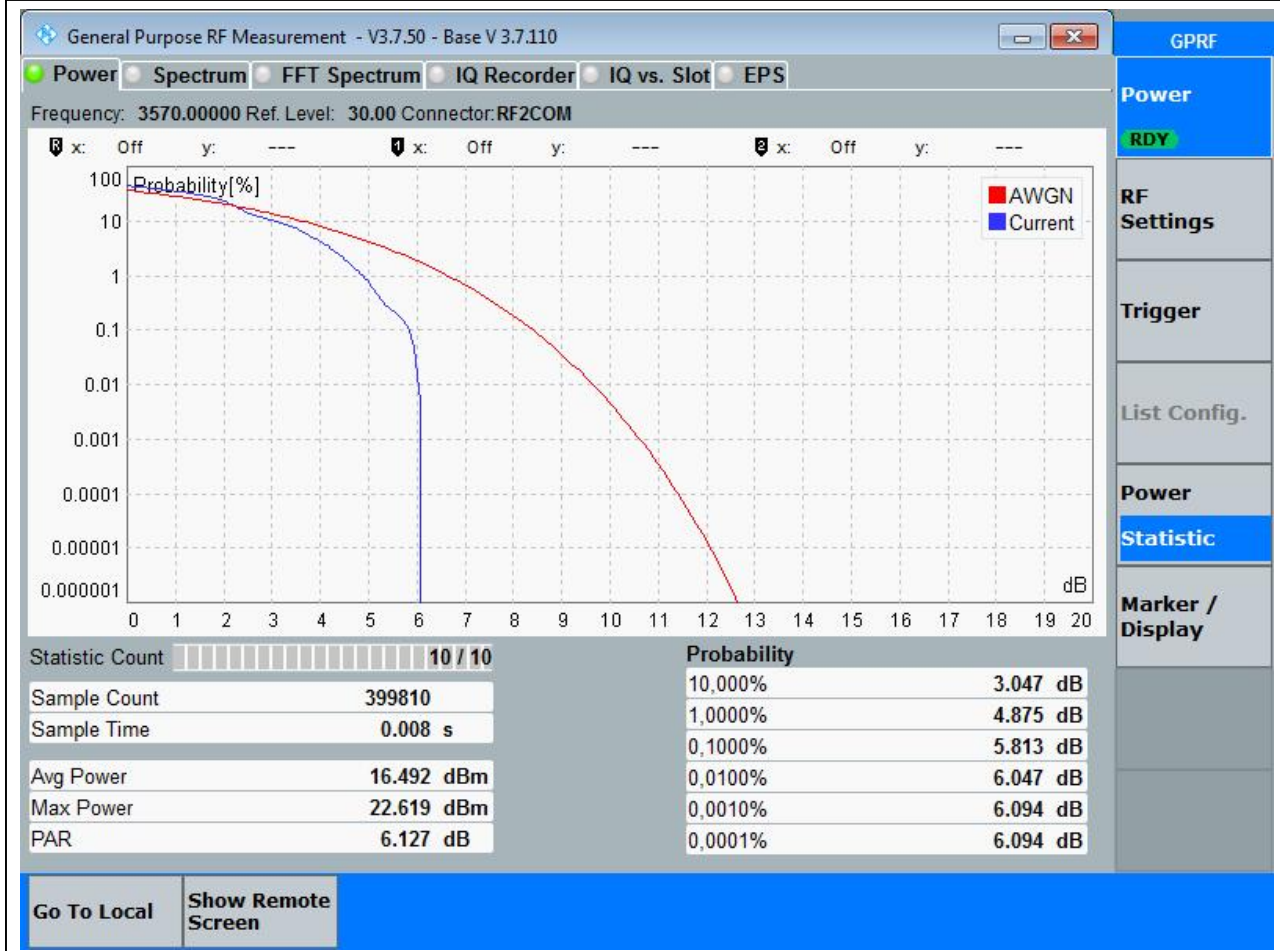


1.6 Peak to Average Ratio for SA_Part96(NTNV)(Channel:638000, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:16QAM, RB Number:100, RB Position:0)



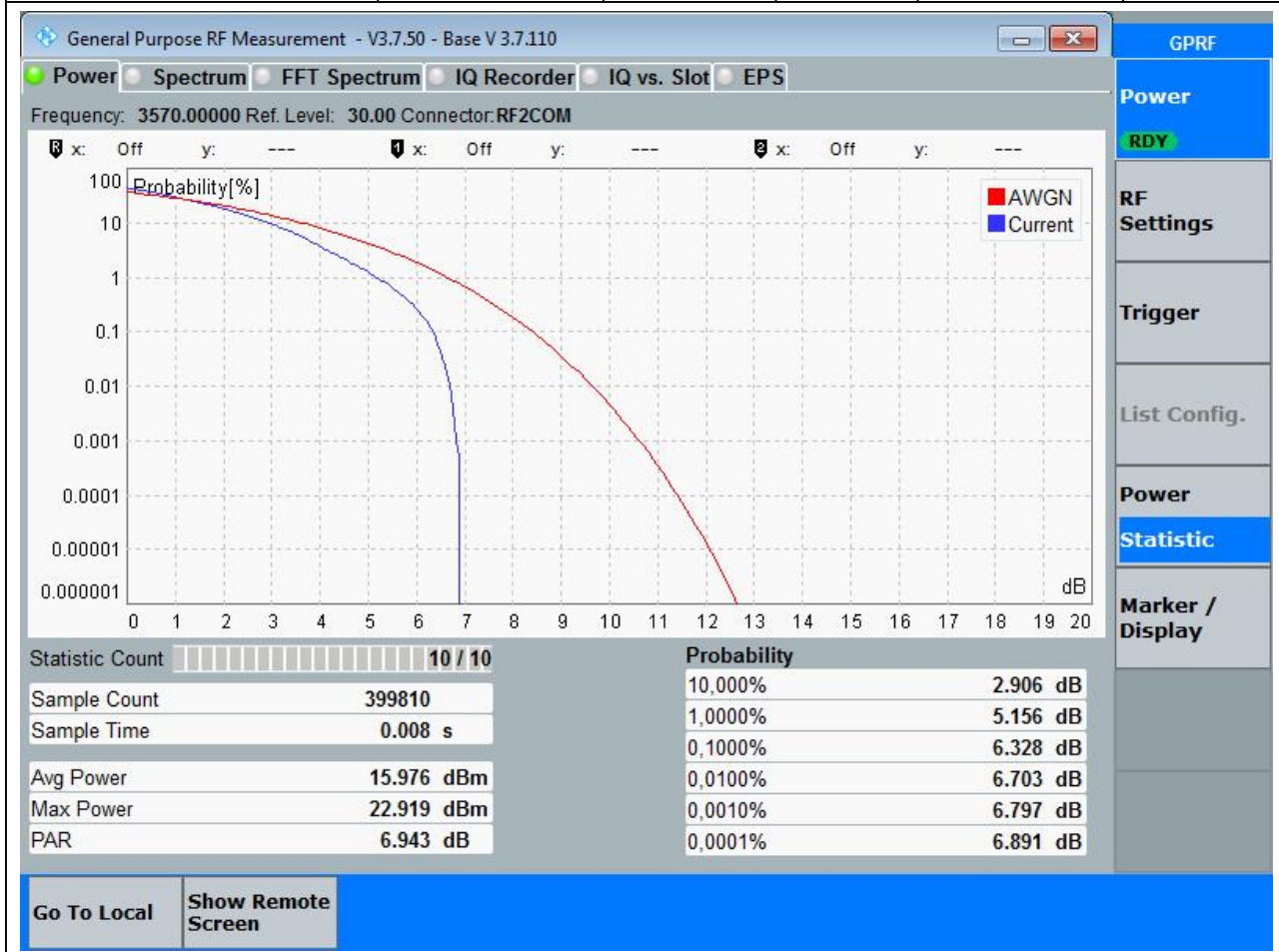
1.7 Peak to Average Ratio for SA_Part96(NTNV)(Channel:638000, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:64QAM, RB Number:1, RB Position:0)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3570	0.1	40	5.81	13	Pass

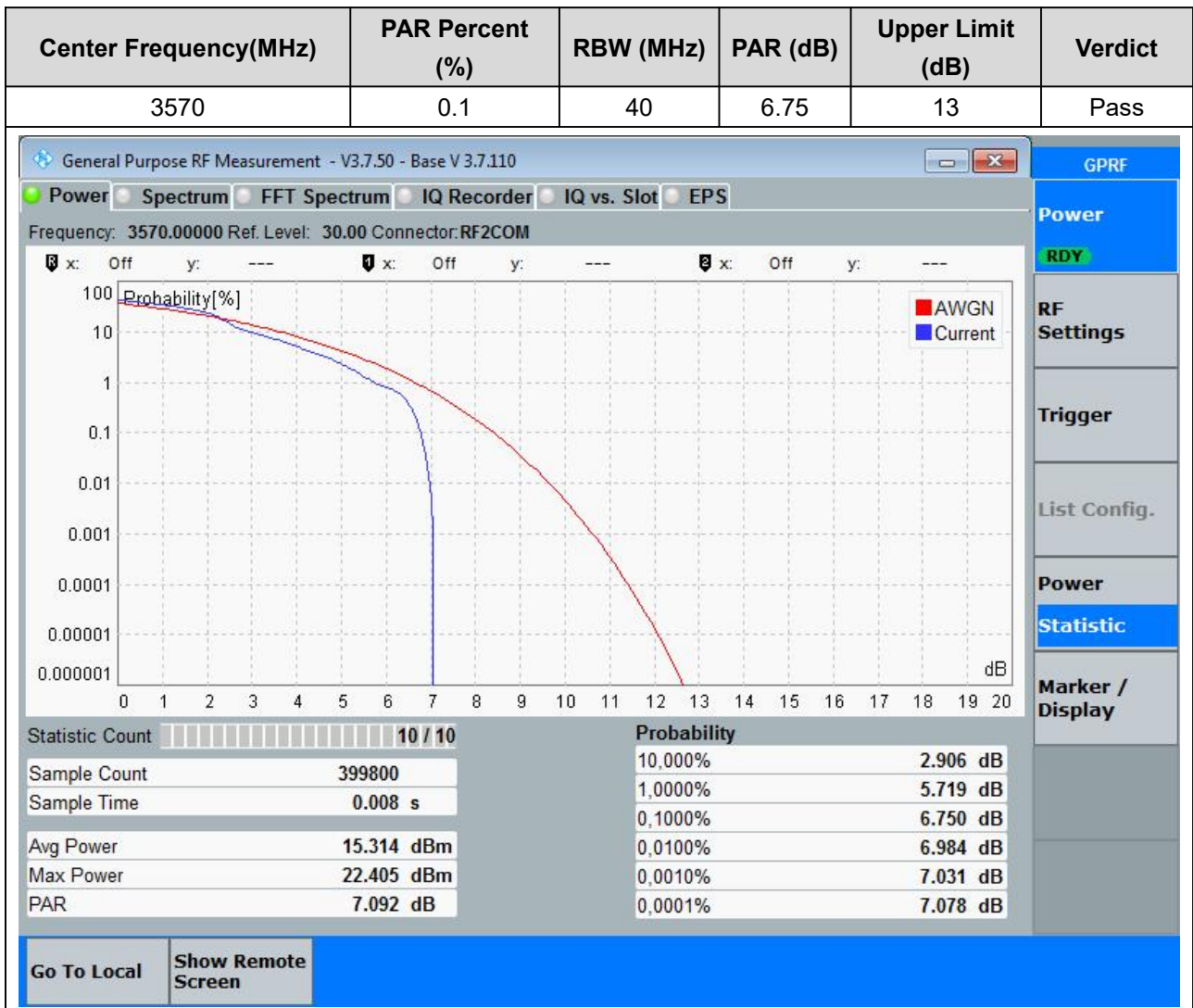


1.8 Peak to Average Ratio for SA_Part96(NTNV)(Channel:638000, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:64QAM, RB Number:100, RB Position:0)

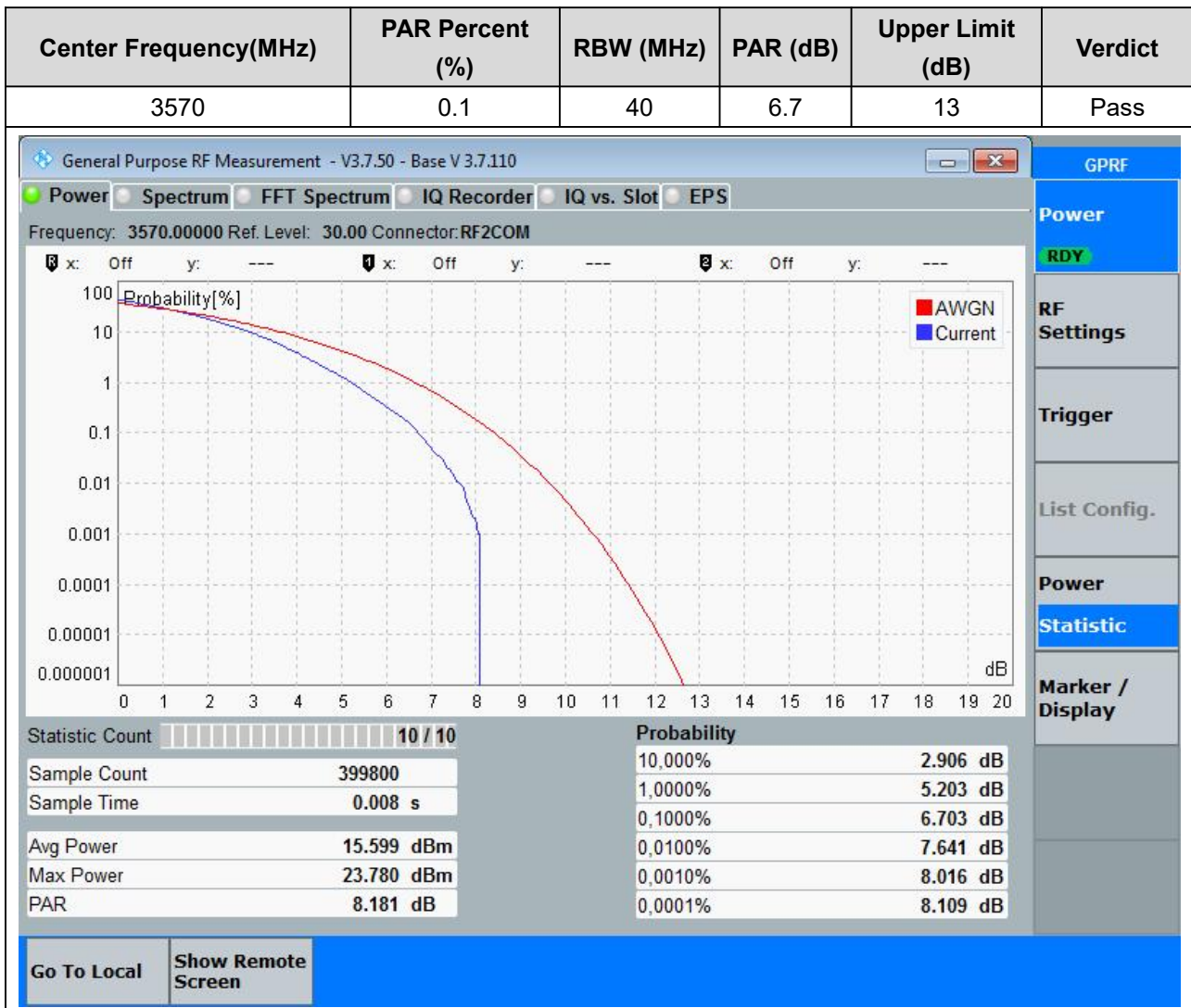
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3570	0.1	40	6.33	13	Pass



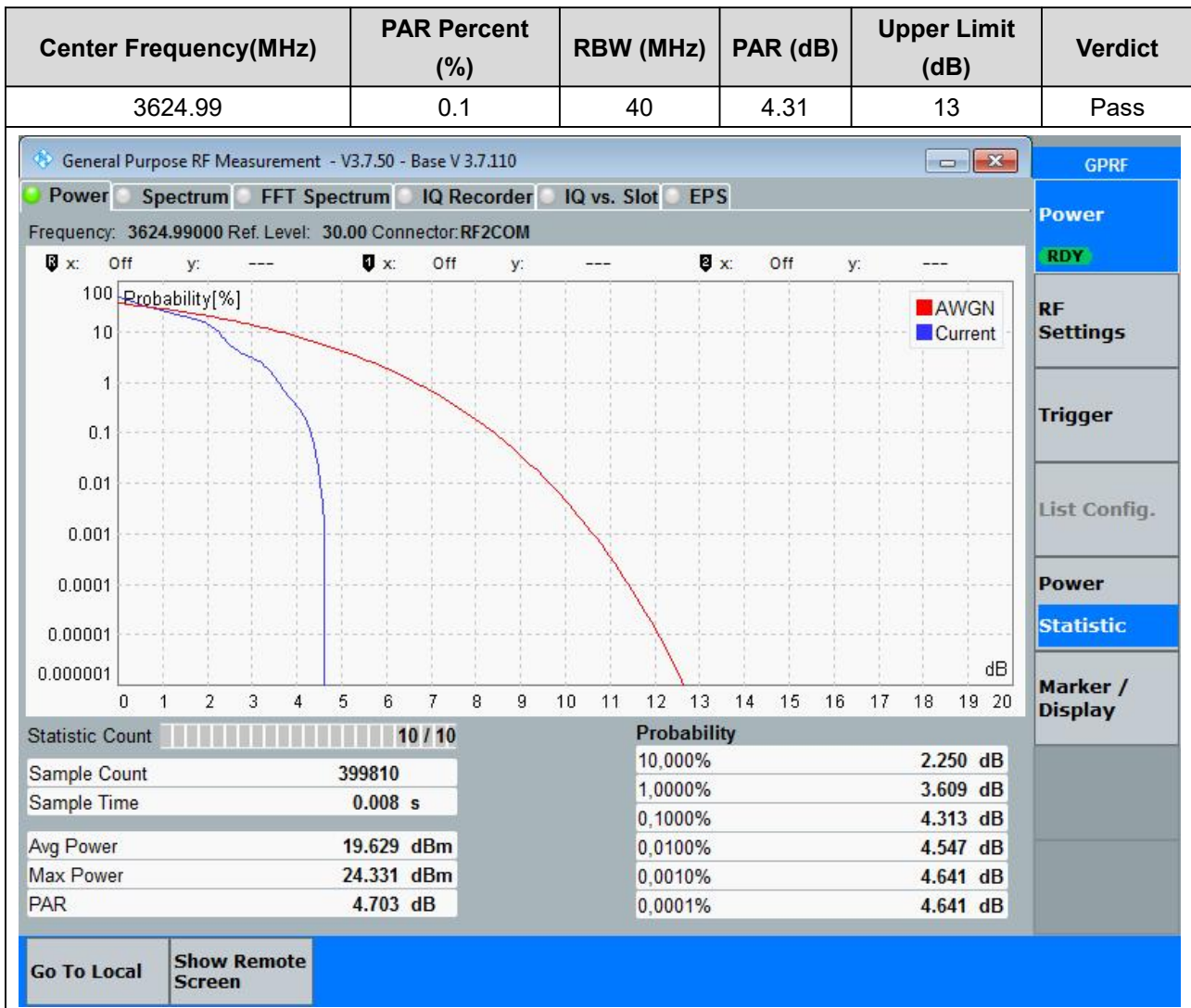
1.9 Peak to Average Ratio for SA_Part96(NTNV)(Channel:638000, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:256QAM, RB Number:1, RB Position:0)



1.10 Peak to Average Ratio for SA_Part96(NTNV)(Channel:638000, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:256QAM, RB Number:100, RB Position:0)

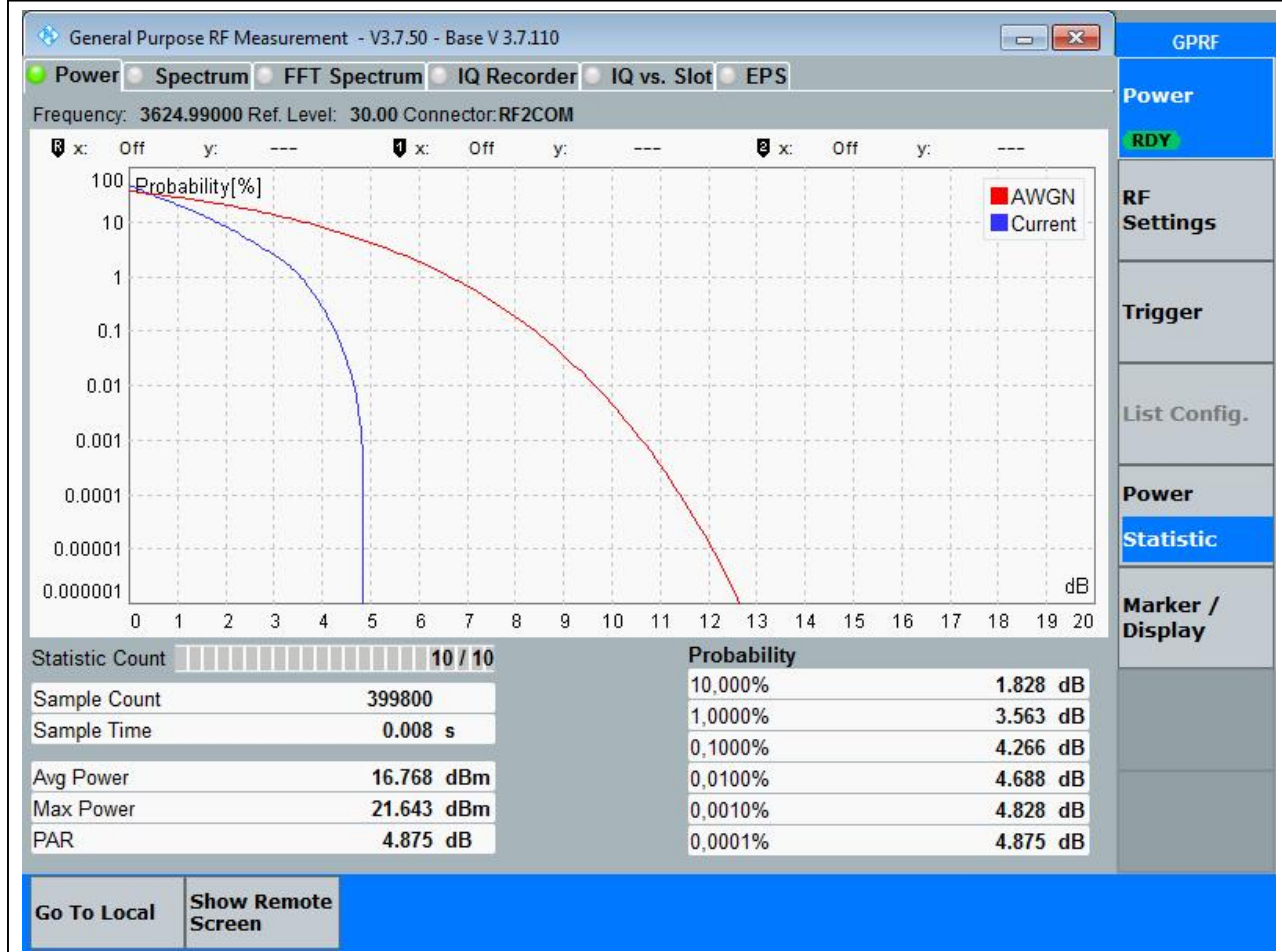


1.11 Peak to Average Ratio for SA_Part96(NTNV)(Channel:641666, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:Pi/2-BPSK, RB Number:1, RB Position:0)

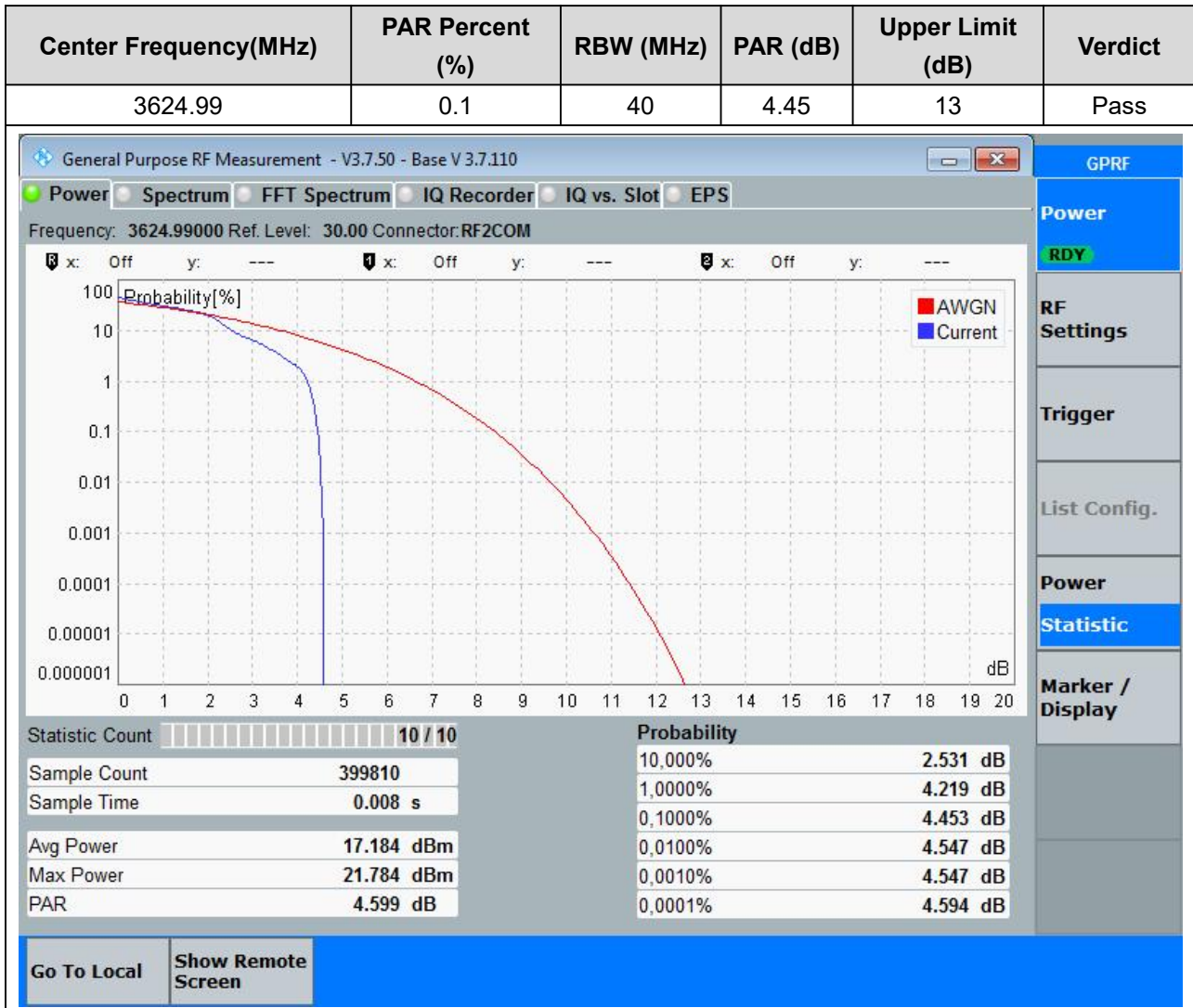


1.12 Peak to Average Ratio for SA_Part96(NTNV)(Channel:641666, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:Pi/2-BPSK, RB Number:100, RB Position:0)

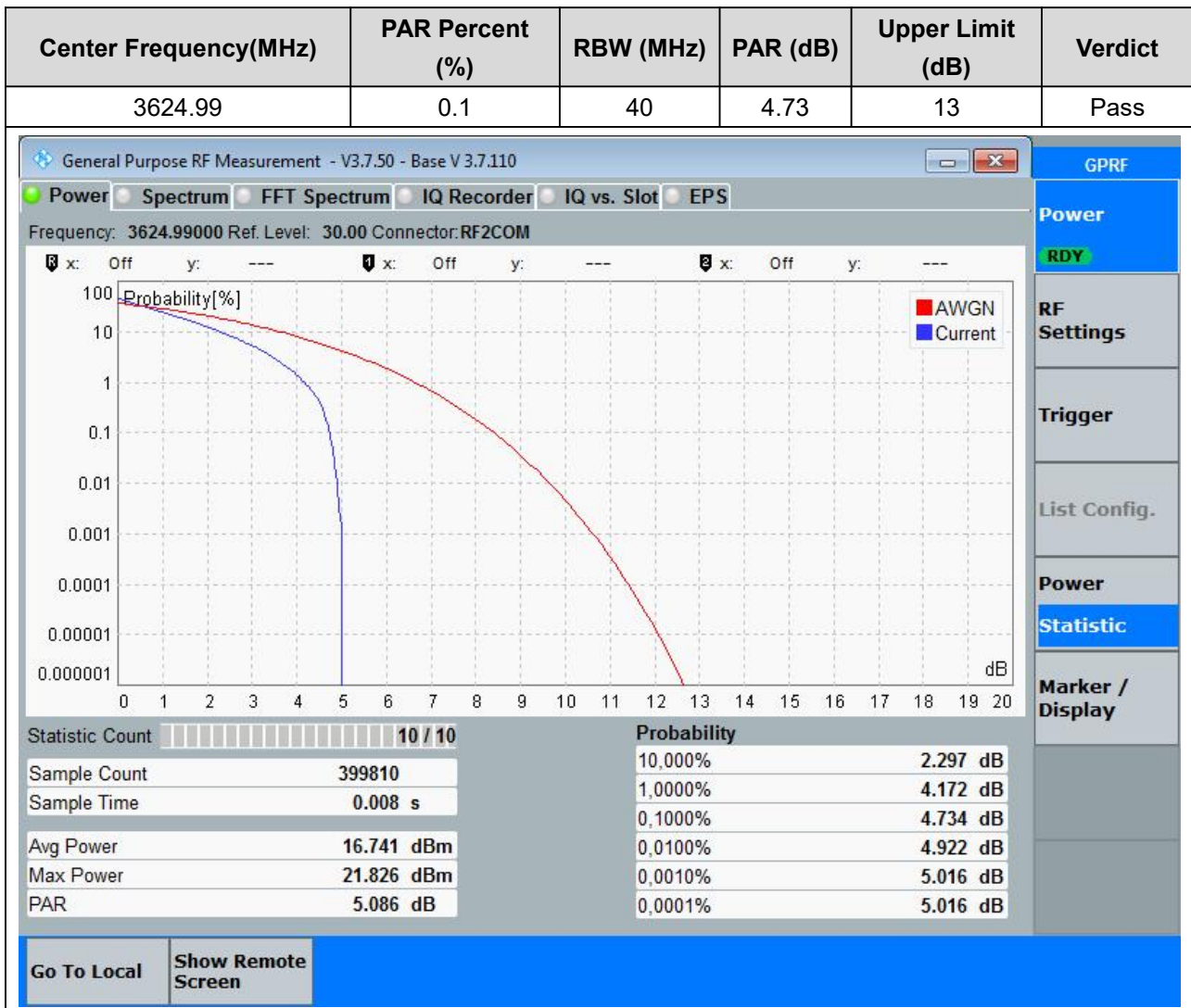
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3624.99	0.1	40	4.27	13	Pass



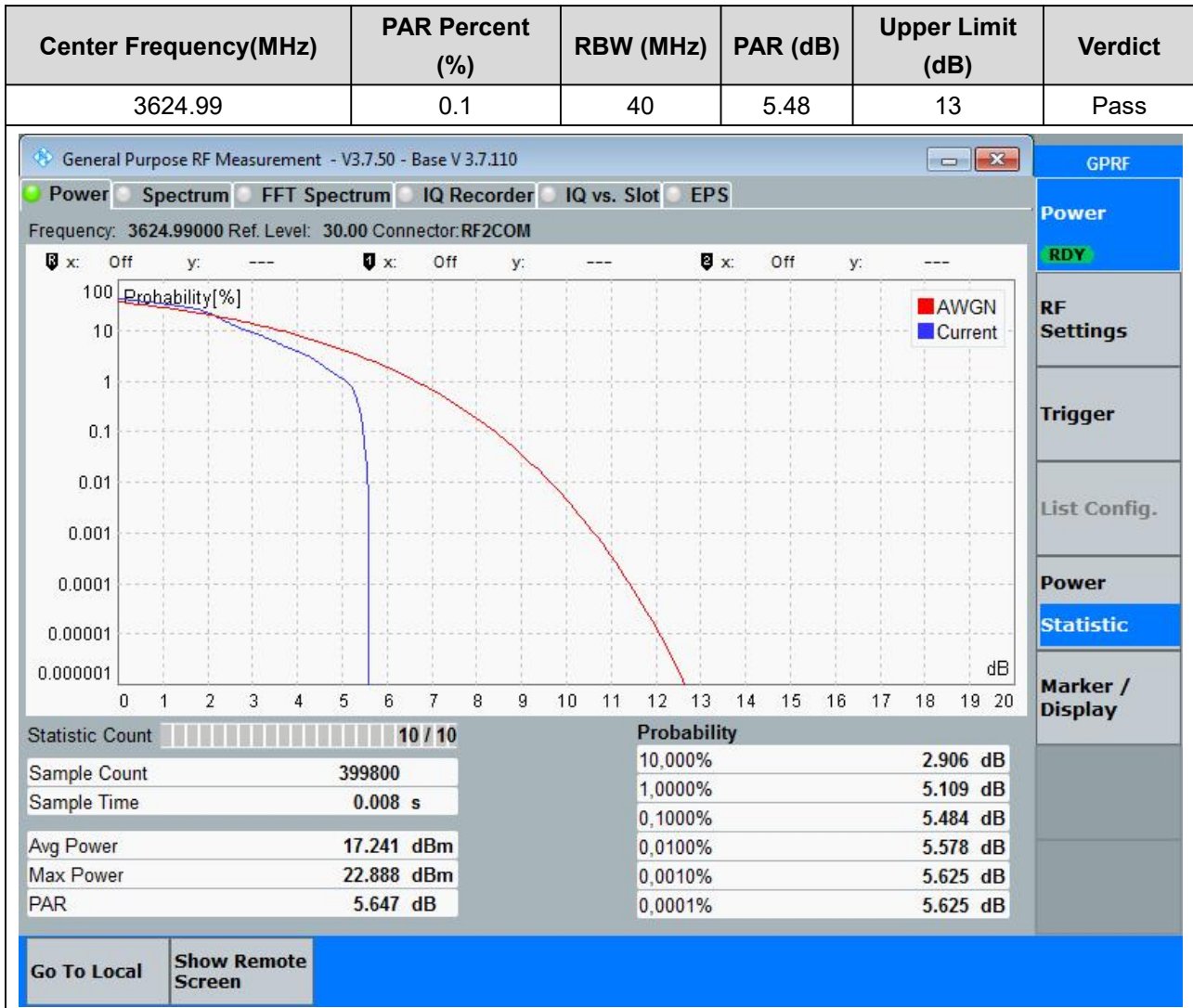
1.13 Peak to Average Ratio for SA_Part96(NTNV)(Channel:641666, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:QPSK, RB Number:1, RB Position:0)



1.14 Peak to Average Ratio for SA_Part96(NTNV)(Channel:641666, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:QPSK, RB Number:100, RB Position:0)

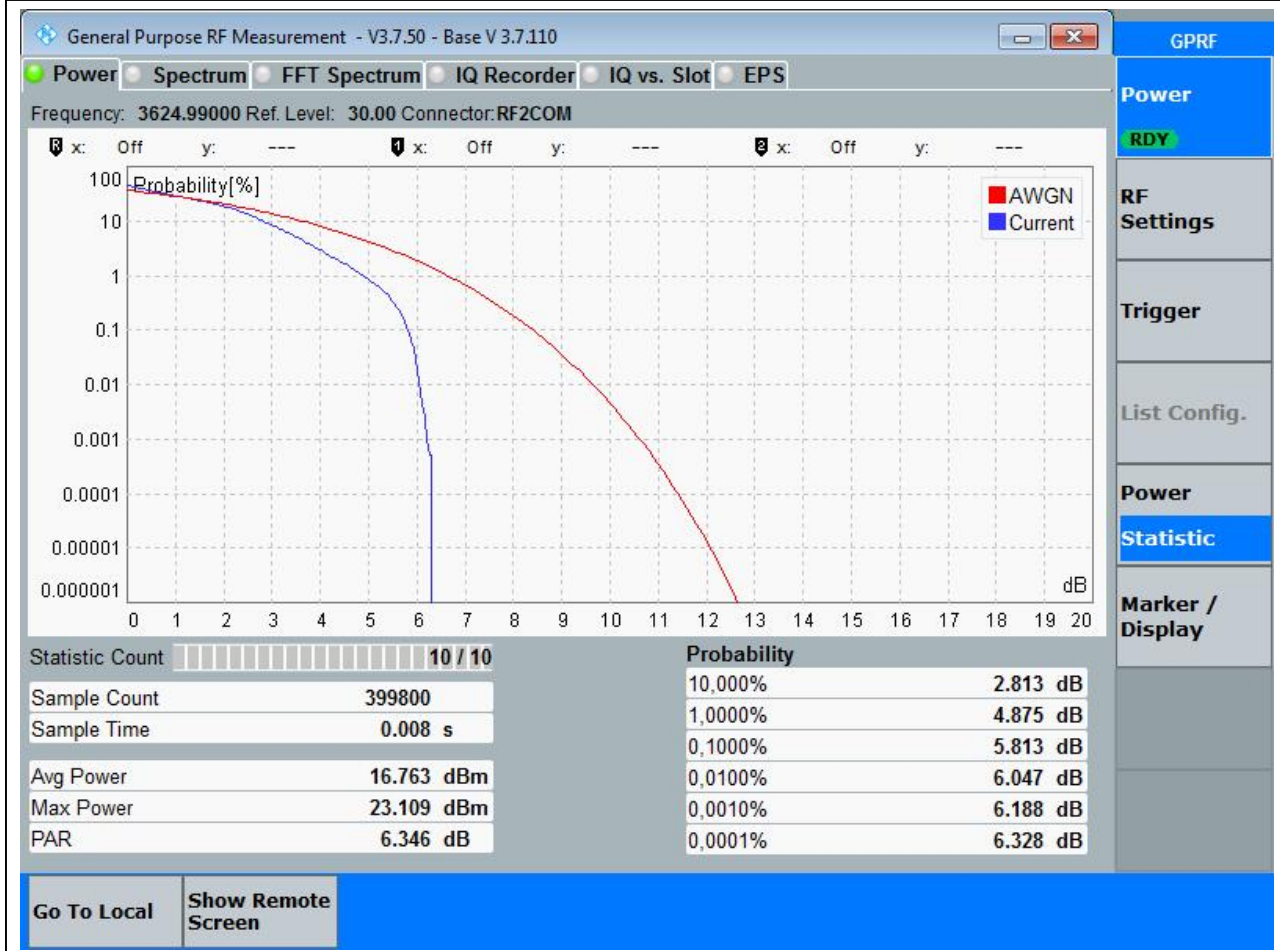


1.15 Peak to Average Ratio for SA_Part96(NTNV)(Channel:641666, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:16QAM, RB Number:1, RB Position:0)

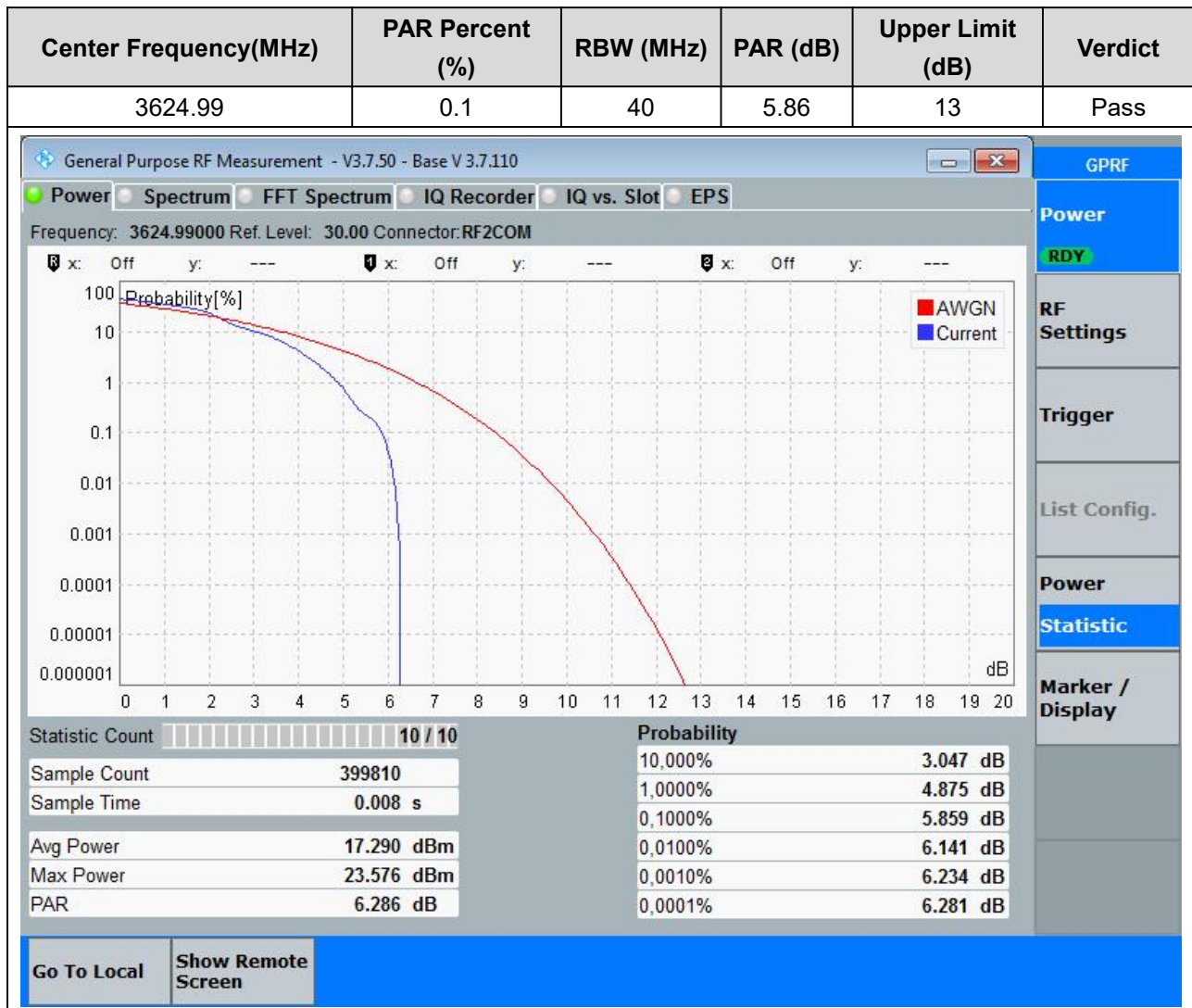


1.16 Peak to Average Ratio for SA_Part96(NTNV)(Channel:641666, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:16QAM, RB Number:100, RB Position:0)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3624.99	0.1	40	5.81	13	Pass

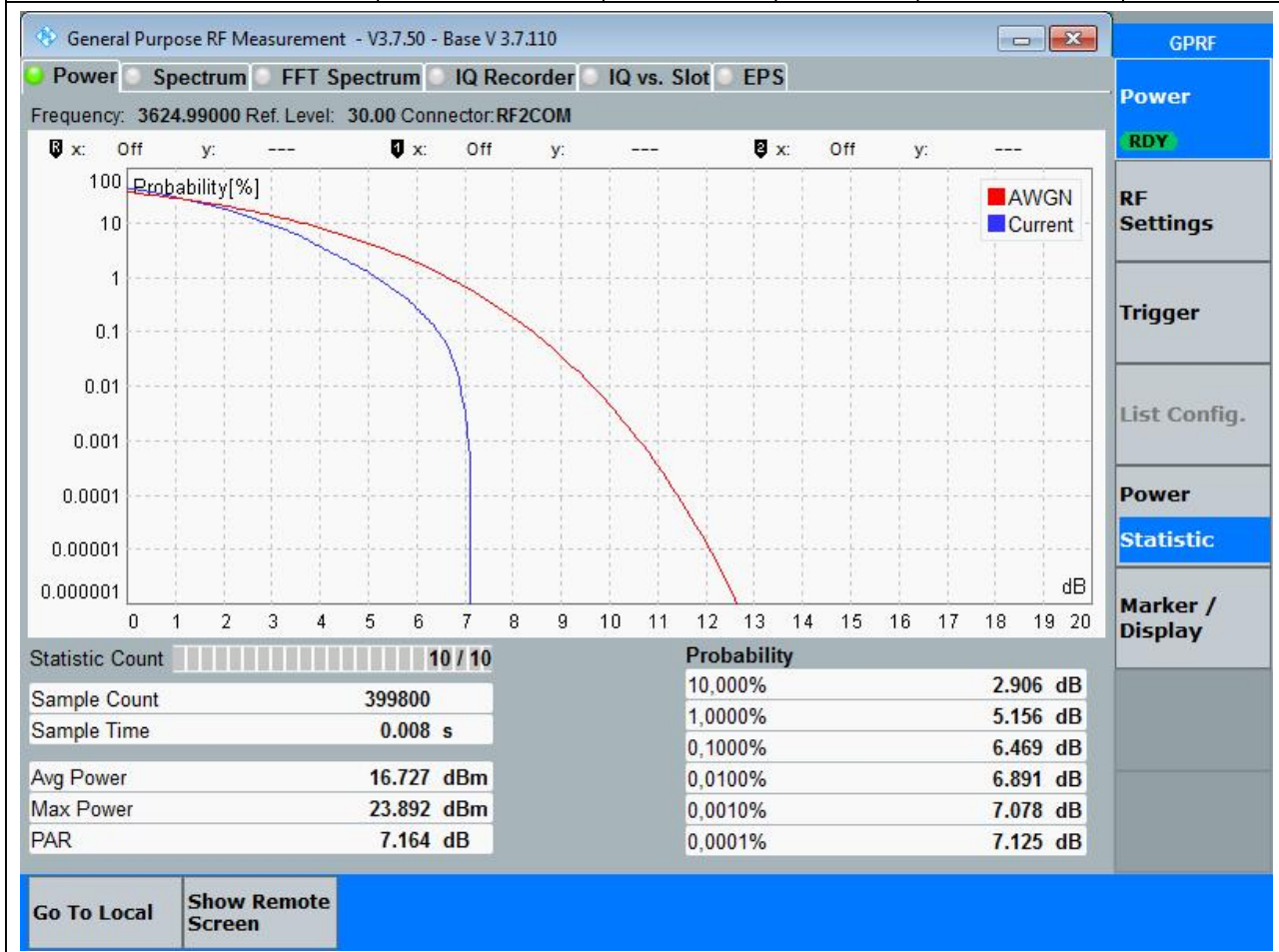


1.17 Peak to Average Ratio for SA_Part96(NTNV)(Channel:641666, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:64QAM, RB Number:1, RB Position:0)



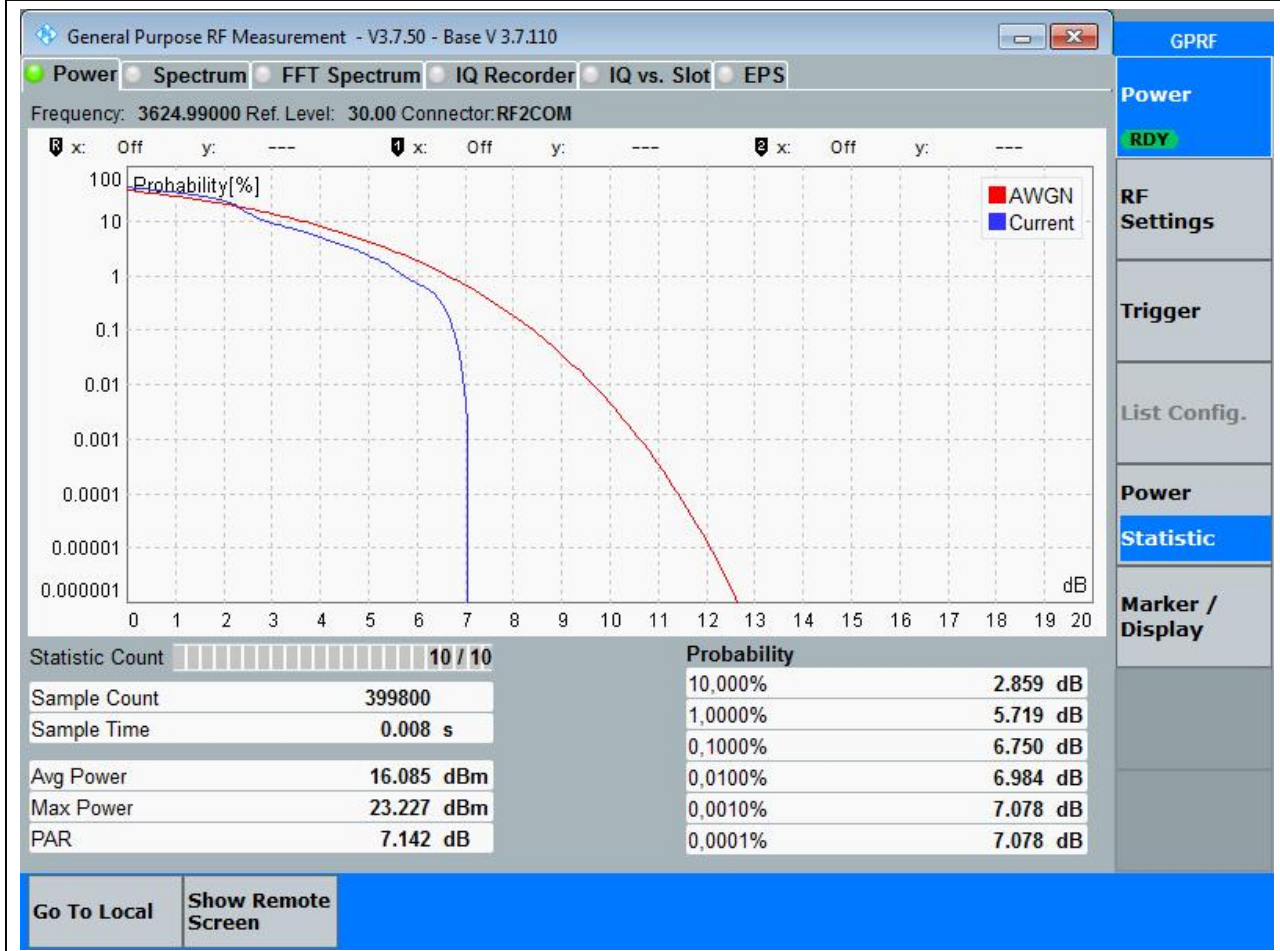
1.18 Peak to Average Ratio for SA_Part96(NTNV)(Channel:641666, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:64QAM, RB Number:100, RB Position:0)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3624.99	0.1	40	6.47	13	Pass



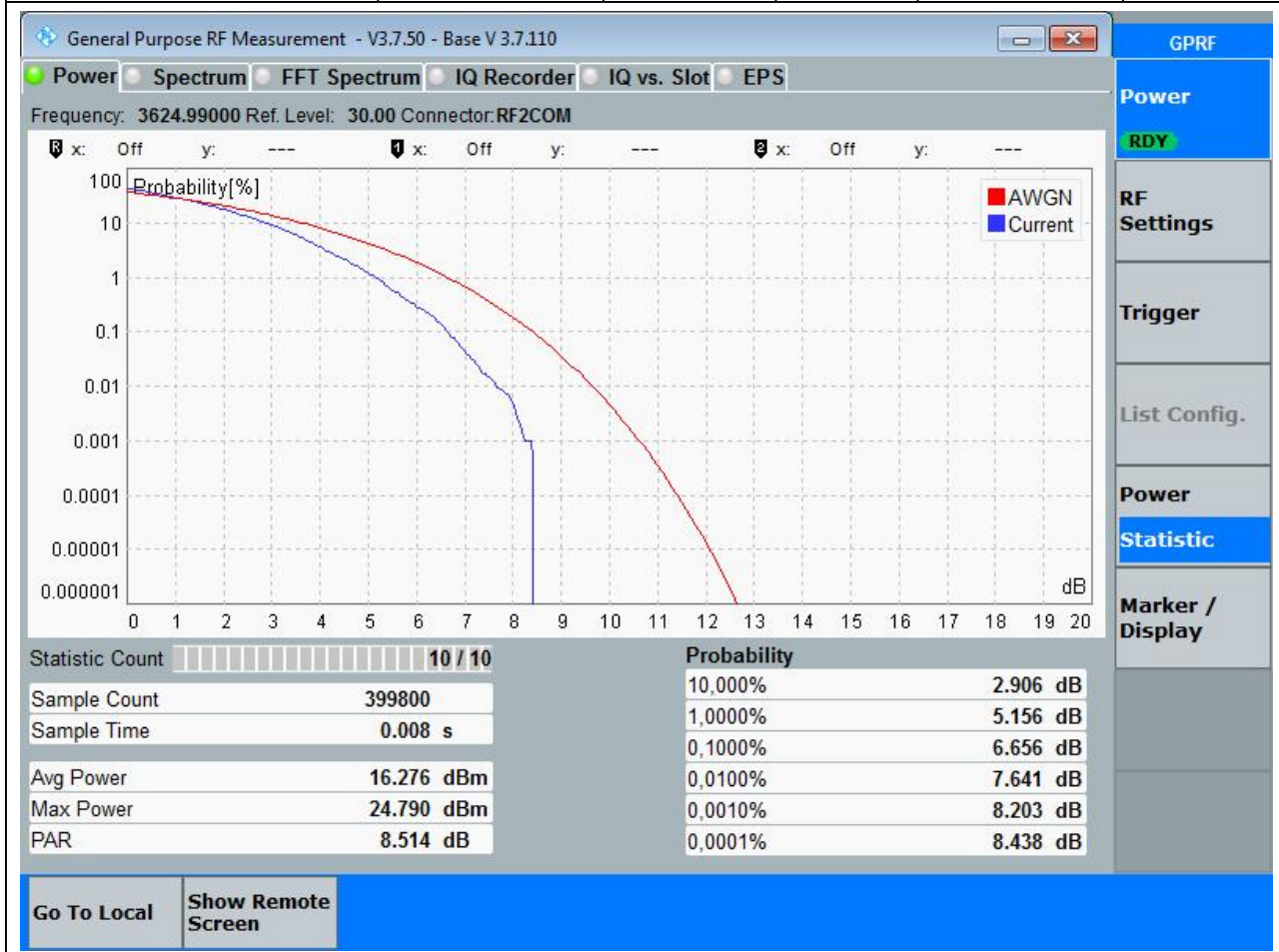
1.19 Peak to Average Ratio for SA_Part96(NTNV)(Channel:641666, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:256QAM, RB Number:1, RB Position:0)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3624.99	0.1	40	6.75	13	Pass

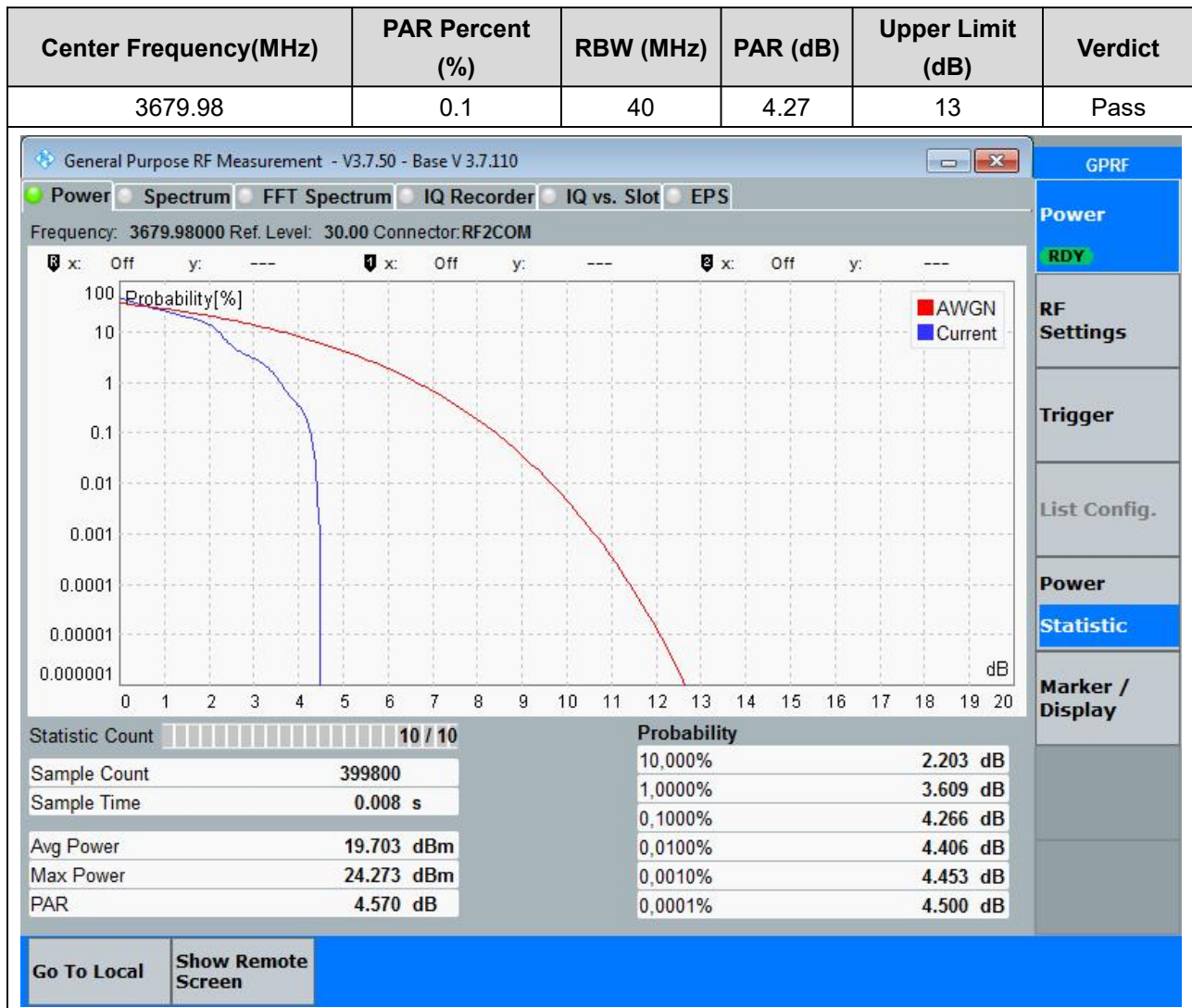


1.20 Peak to Average Ratio for SA_Part96(NTNV)(Channel:641666, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:256QAM, RB Number:100, RB Position:0)

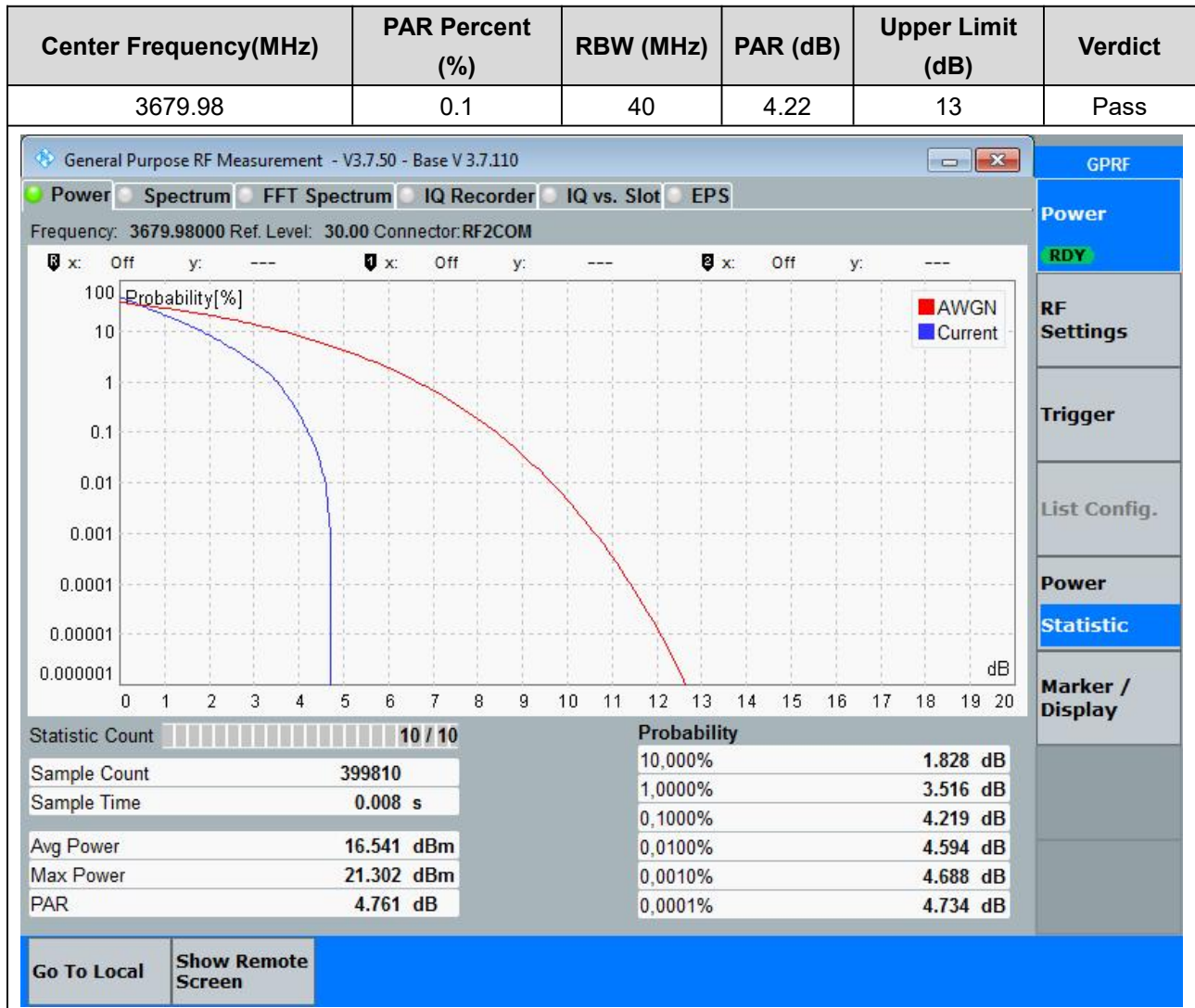
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3624.99	0.1	40	6.66	13	Pass



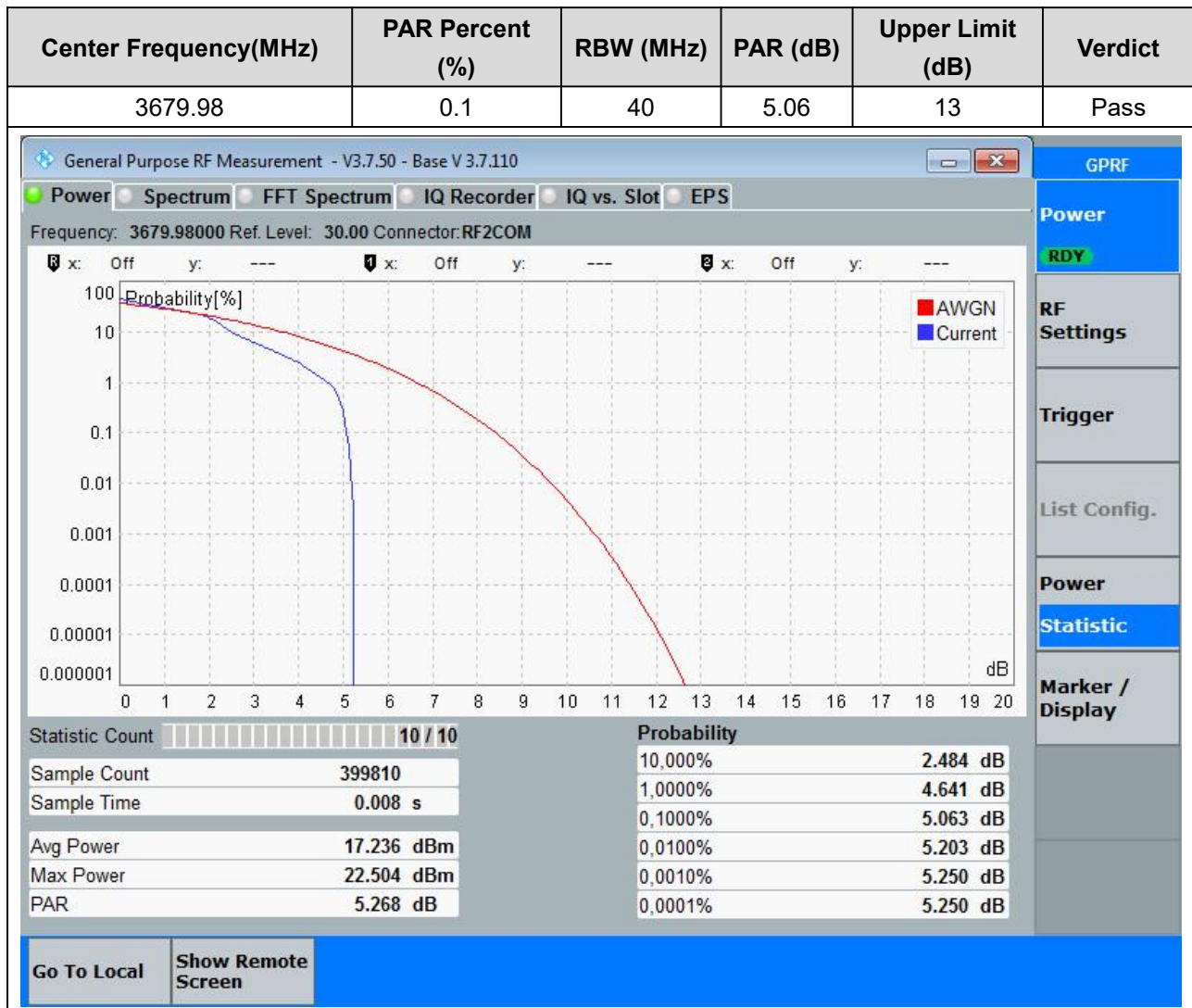
1.21 Peak to Average Ratio for SA_Part96(NTNV)(Channel:645332, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:Pi/2-BPSK, RB Number:1, RB Position:0)



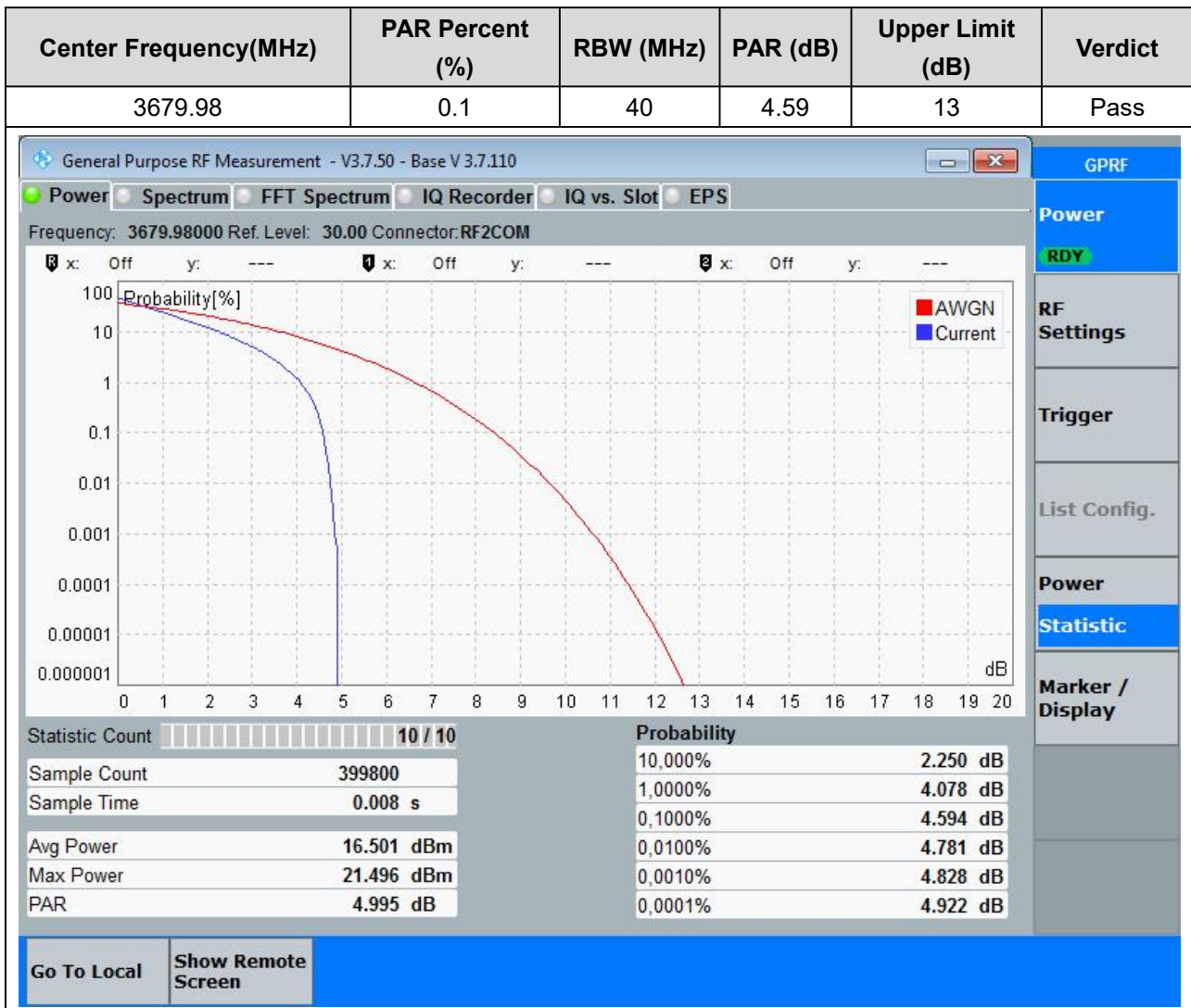
1.22 Peak to Average Ratio for SA_Part96(NTNV)(Channel:645332, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:Pi/2-BPSK, RB Number:100, RB Position:0)



1.23 Peak to Average Ratio for SA_Part96(NTNV)(Channel:645332, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:QPSK, RB Number:1, RB Position:0)

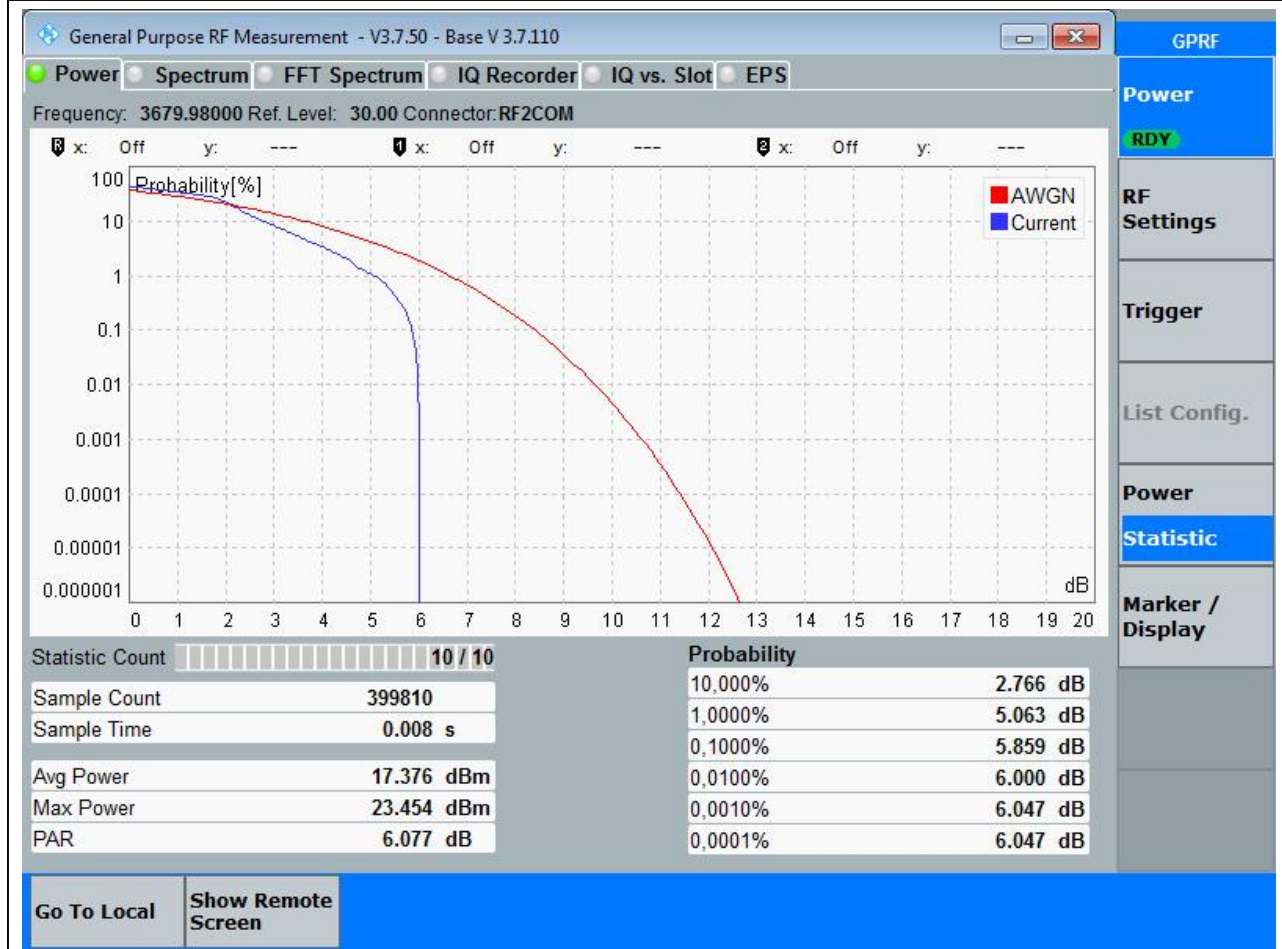


1.24 Peak to Average Ratio for SA_Part96(NTNV)(Channel:645332, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:QPSK, RB Number:100, RB Position:0)

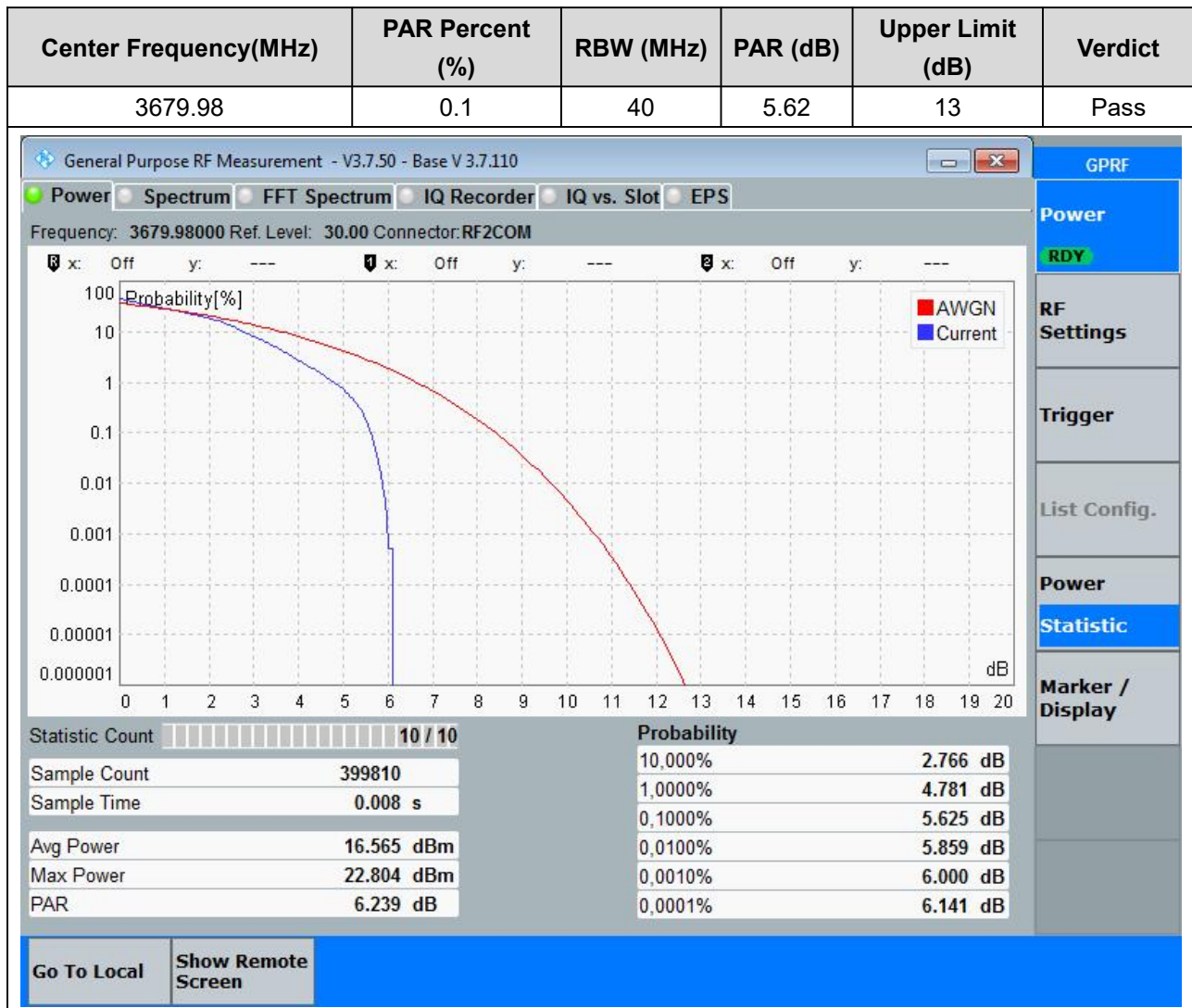


1.25 Peak to Average Ratio for SA_Part96(NTNV)(Channel:645332, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:16QAM, RB Number:1, RB Position:0)

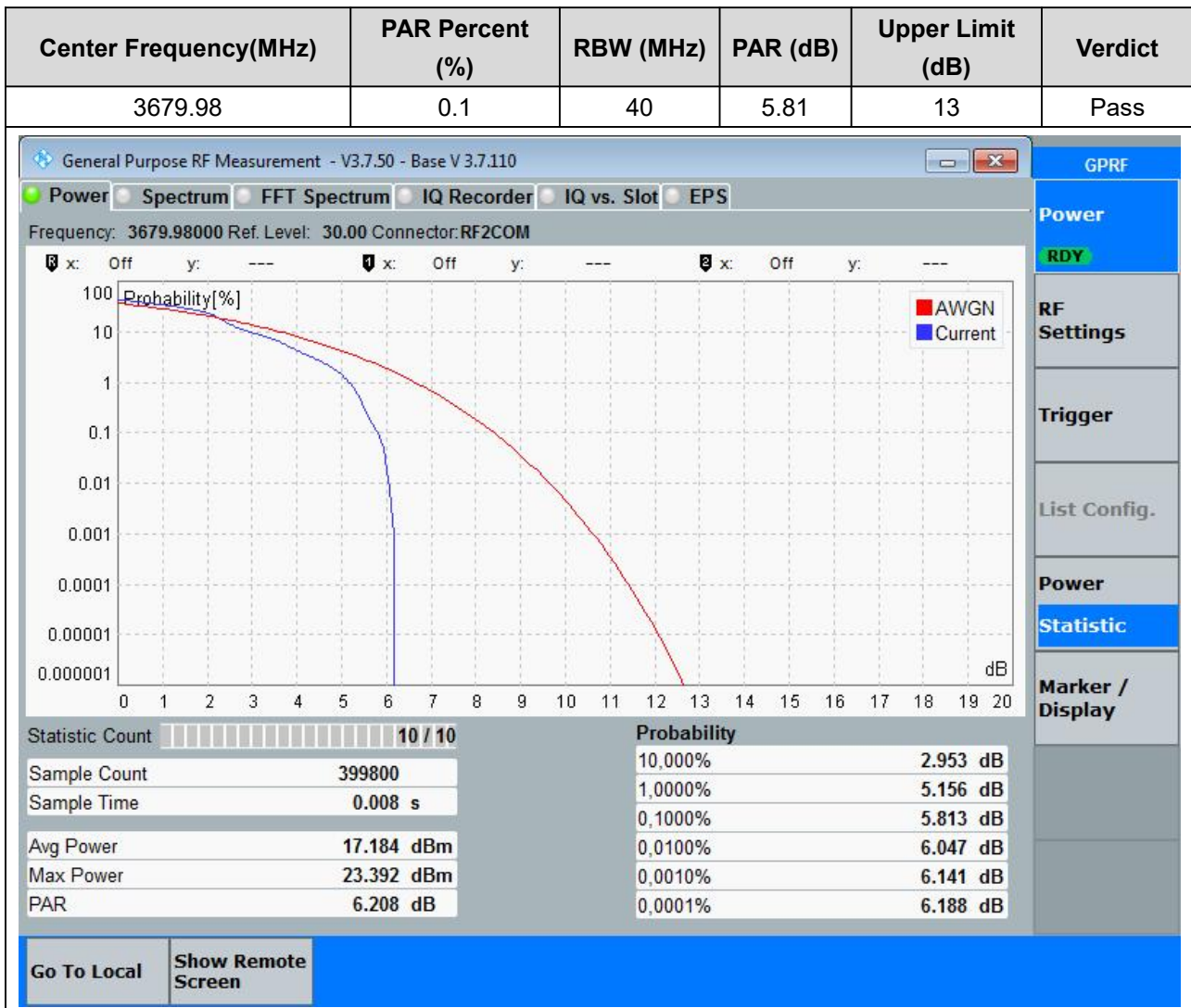
Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3679.98	0.1	40	5.86	13	Pass



1.26 Peak to Average Ratio for SA_Part96(NTNV)(Channel:645332, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:16QAM, RB Number:100, RB Position:0)

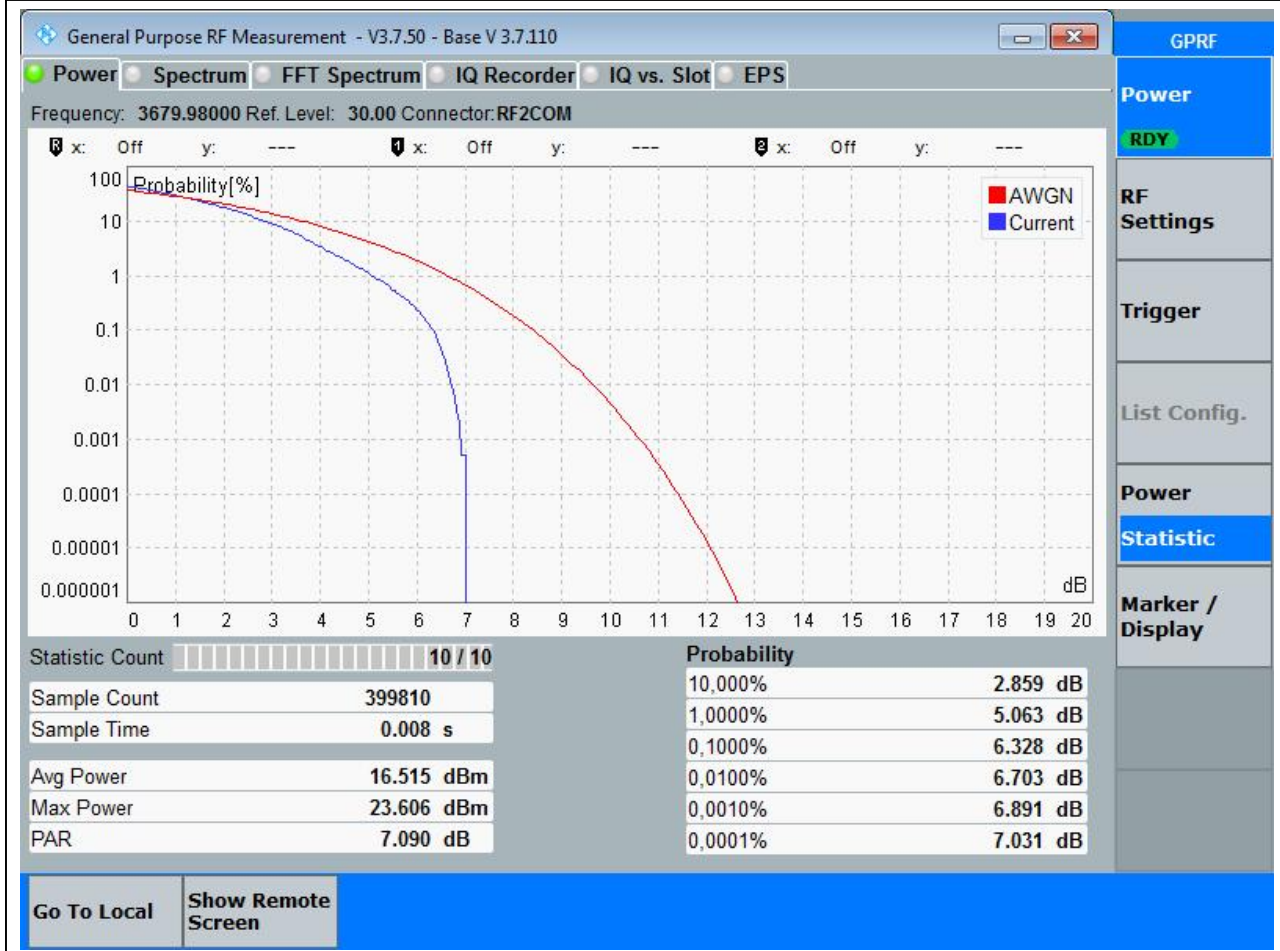


1.27 Peak to Average Ratio for SA_Part96(NTNV)(Channel:645332, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:64QAM, RB Number:1, RB Position:0)



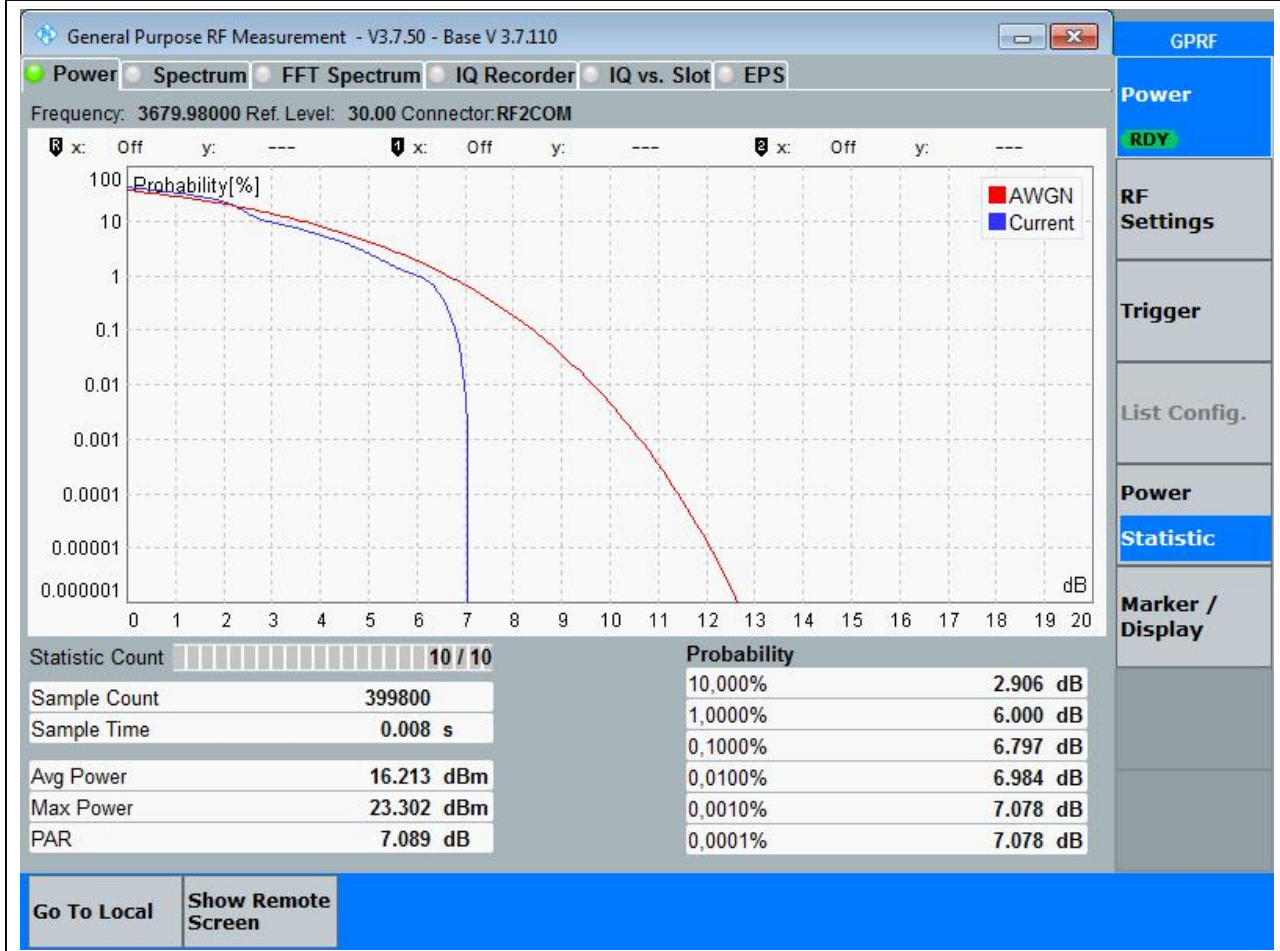
1.28 Peak to Average Ratio for SA_Part96(NTNV)(Channel:645332, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:64QAM, RB Number:100, RB Position:0)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3679.98	0.1	40	6.33	13	Pass



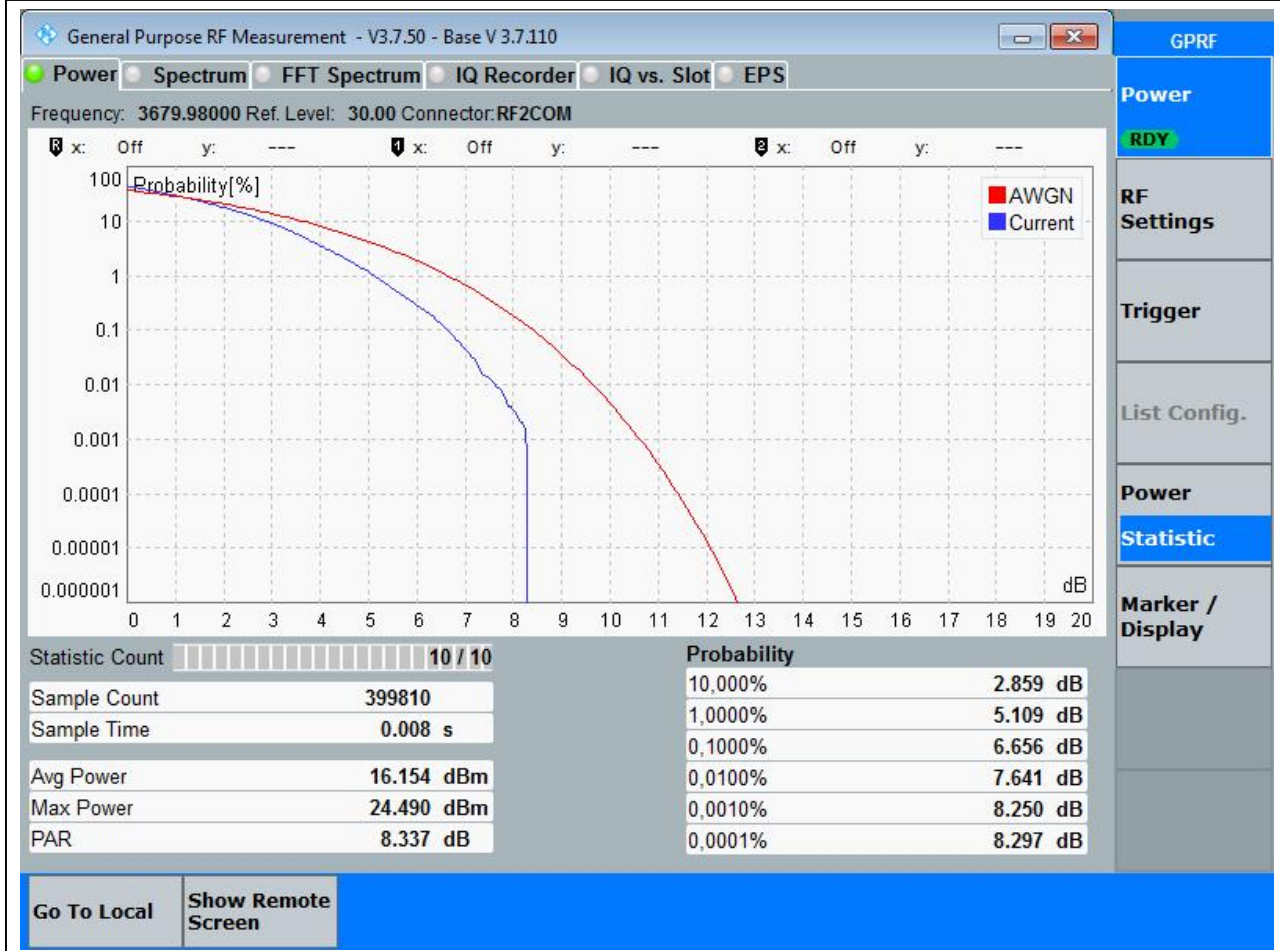
1.29 Peak to Average Ratio for SA_Part96(NTNV)(Channel:645332, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:256QAM, RB Number:1, RB Position:0)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3679.98	0.1	40	6.8	13	Pass



1.30 Peak to Average Ratio for SA_Part96(NTNV)(Channel:645332, Bandwidth:40, SCS:30, OFDM:DFT-s-OFDM, Modulation:256QAM, RB Number:100, RB Position:0)

Center Frequency(MHz)	PAR Percent (%)	RBW (MHz)	PAR (dB)	Upper Limit (dB)	Verdict
3679.98	0.1	40	6.66	13	Pass



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