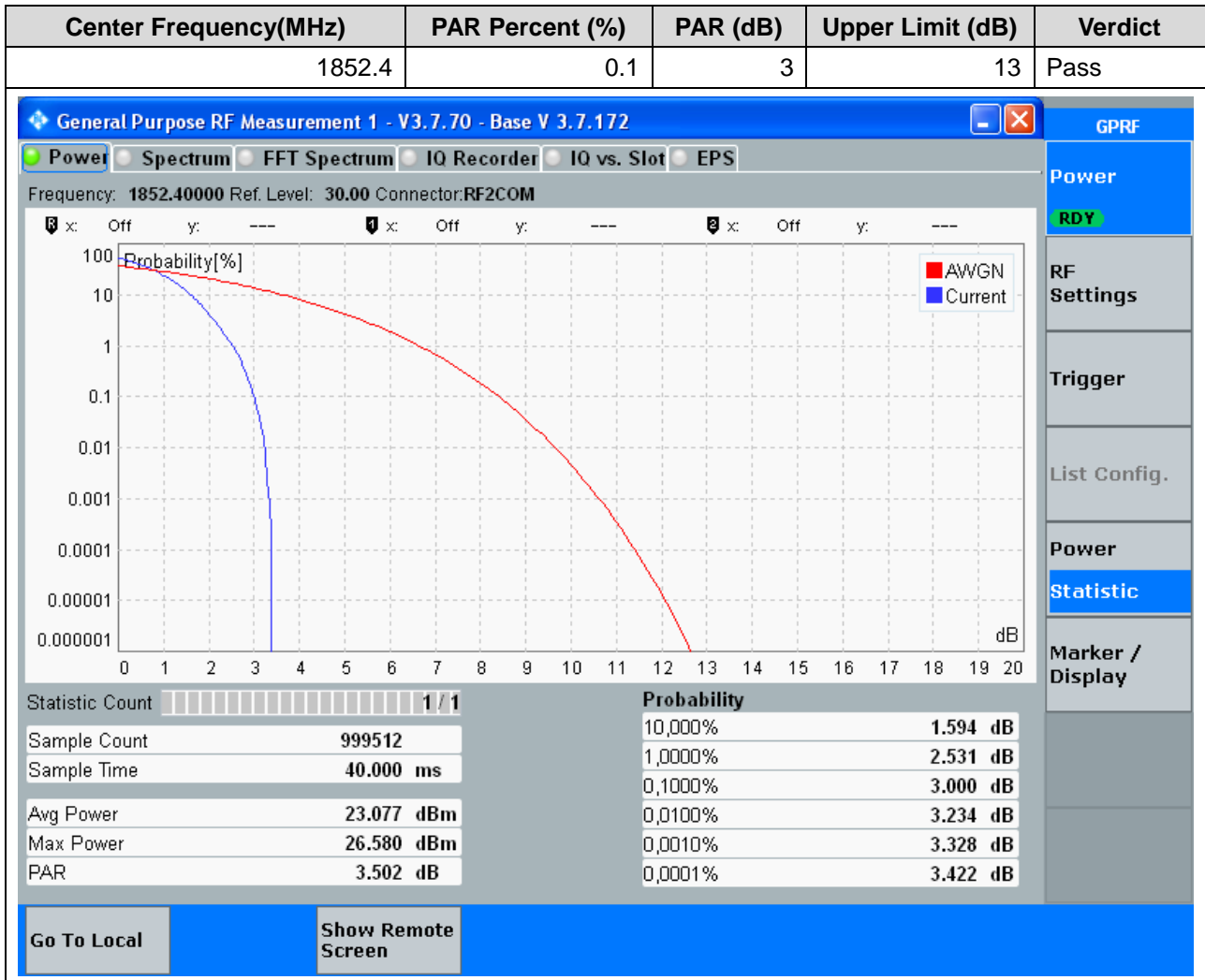


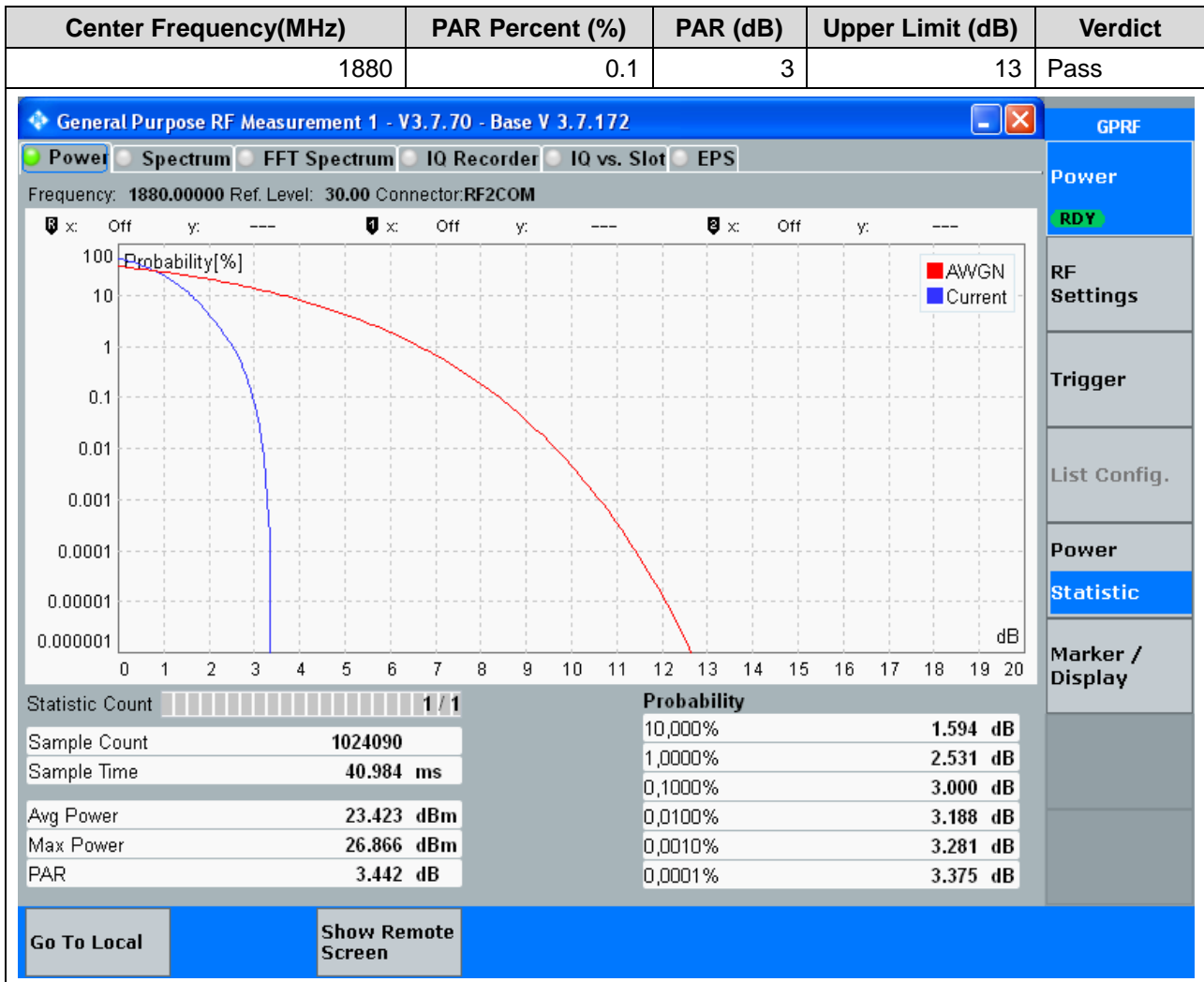
## **Annex A.2 Peak to Average Ratio**

# 1. WCDMA\_Band2

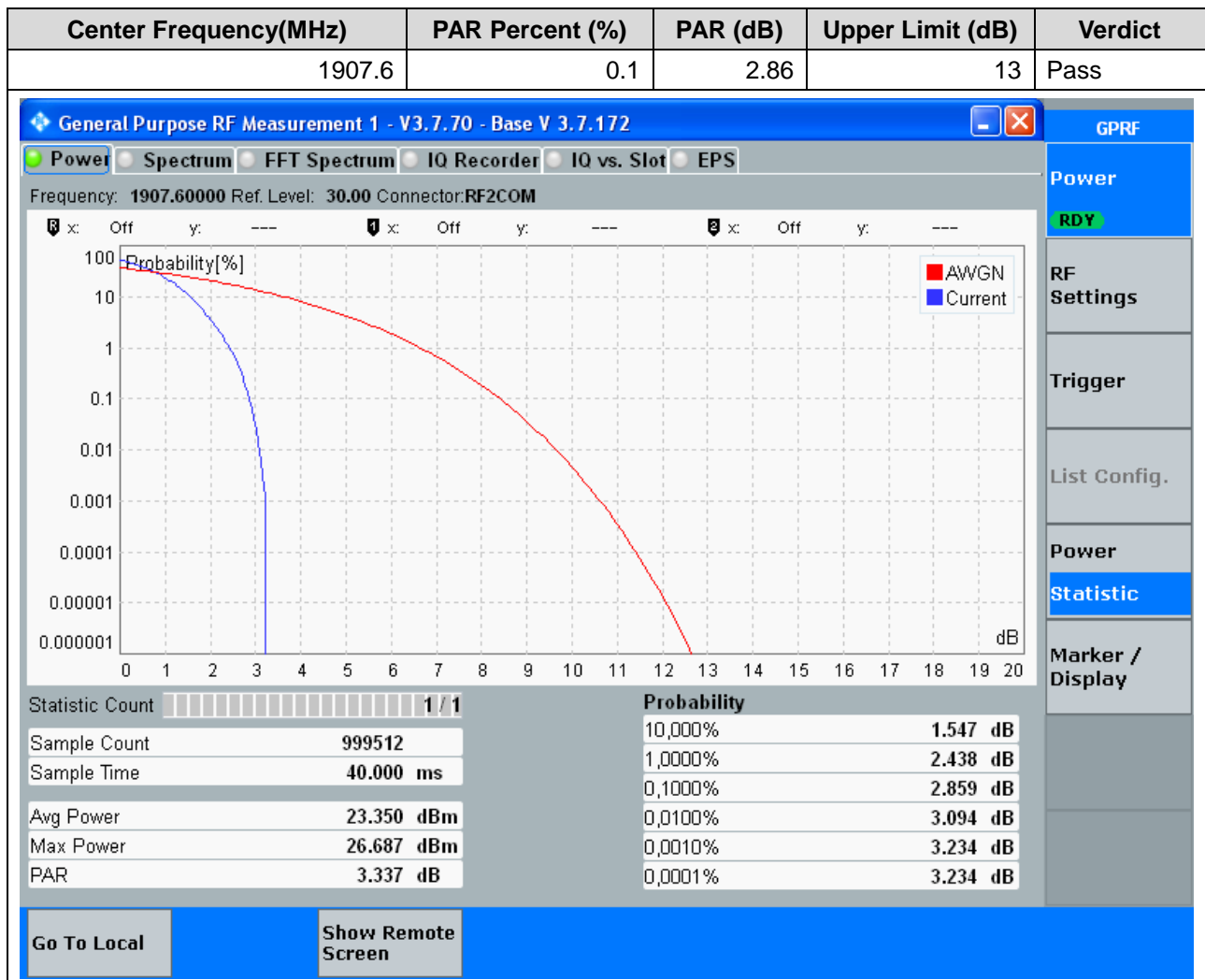
## 1.1. WCDMA Peak to Average Ratio(NTNV)(Channel:9262)



## 1.2. WCDMA Peak to Average Ratio(NTNV)(Channel:9400)

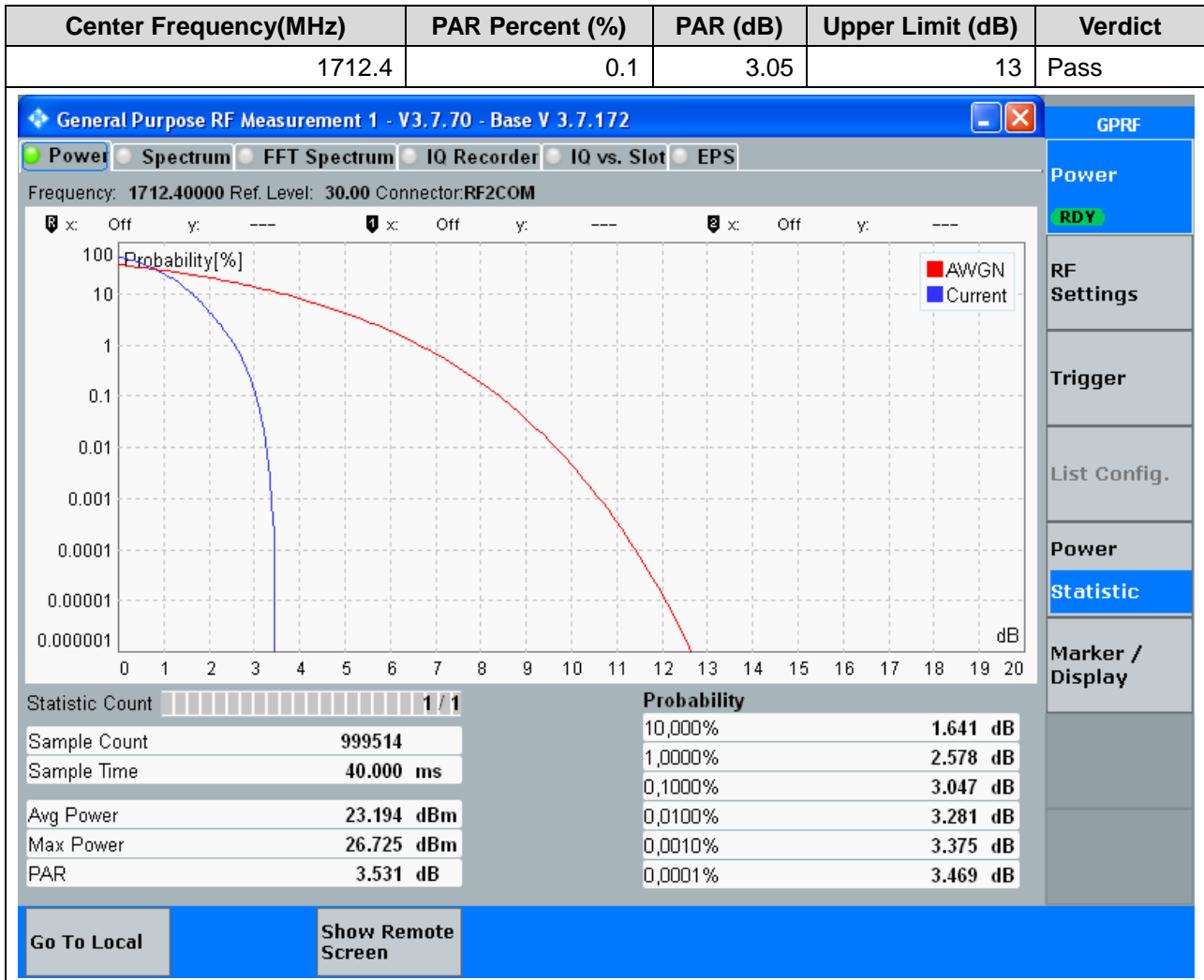


### 1.3. WCDMA Peak to Average Ratio(NTNV)(Channel:9538)

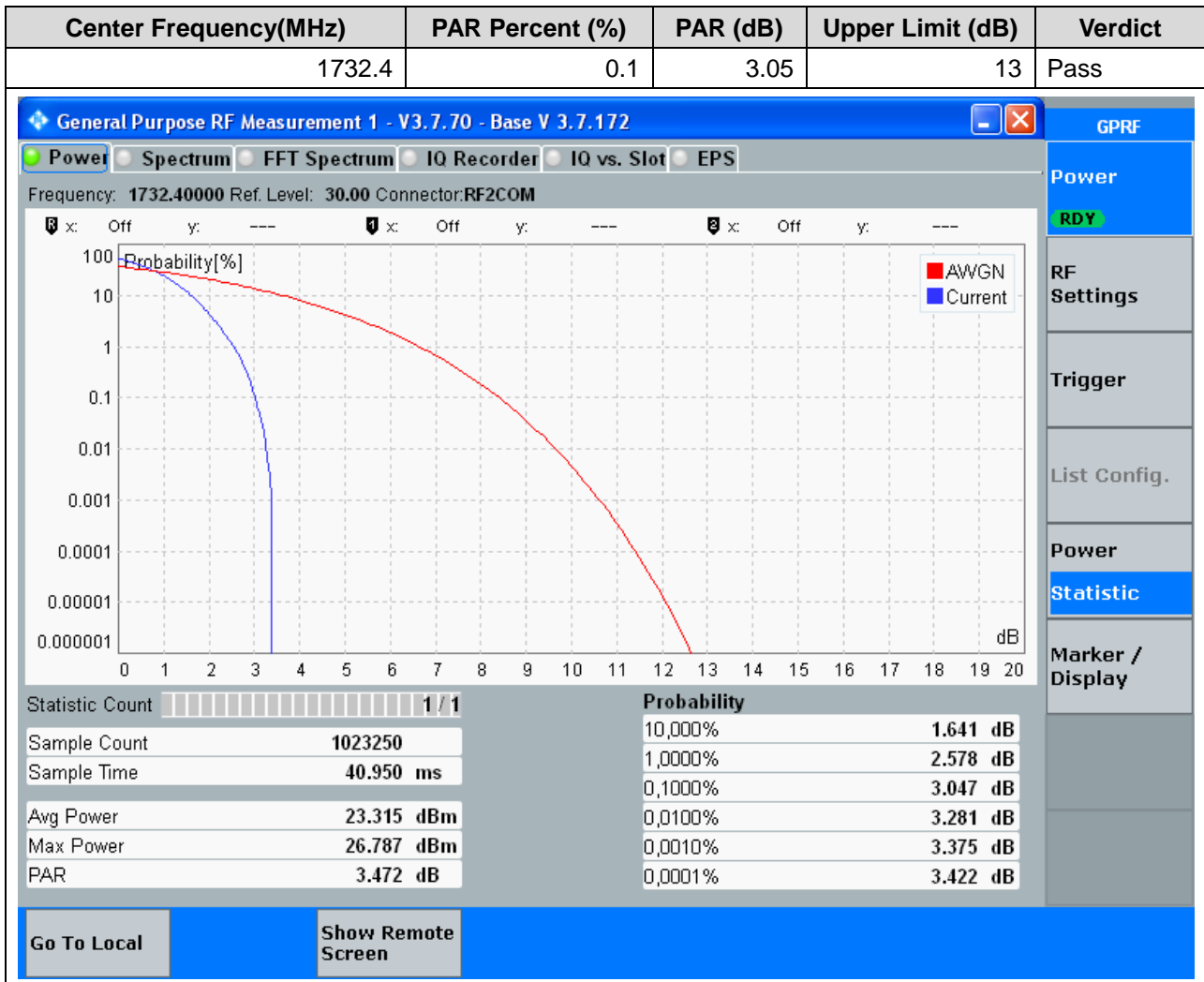


## 2. WCDMA\_Band4

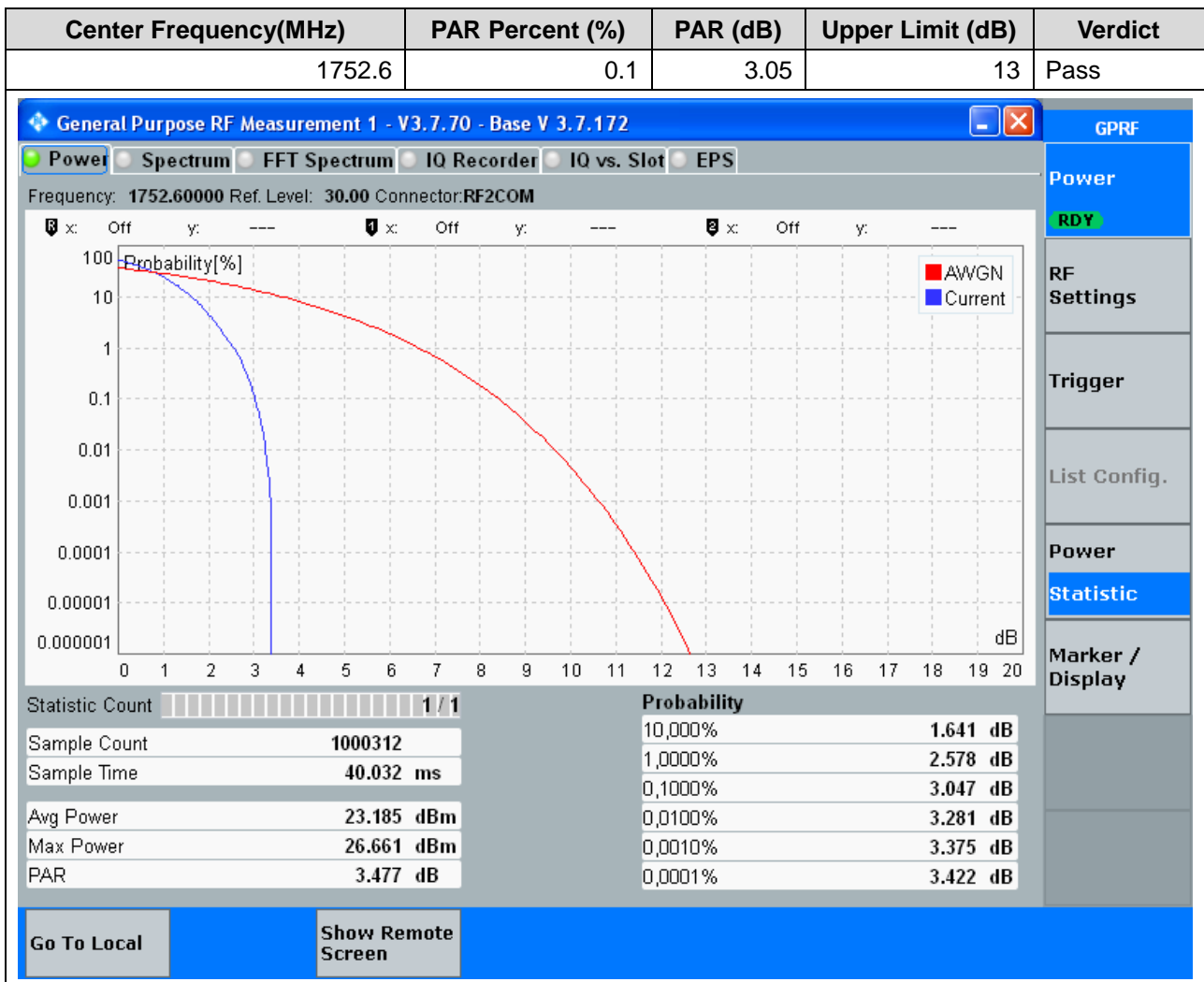
### 2.1. WCDMA Peak to Average Ratio(NTNV)(Channel:1312)



## 2.2. WCDMA Peak to Average Ratio(NTNV)(Channel:1412)

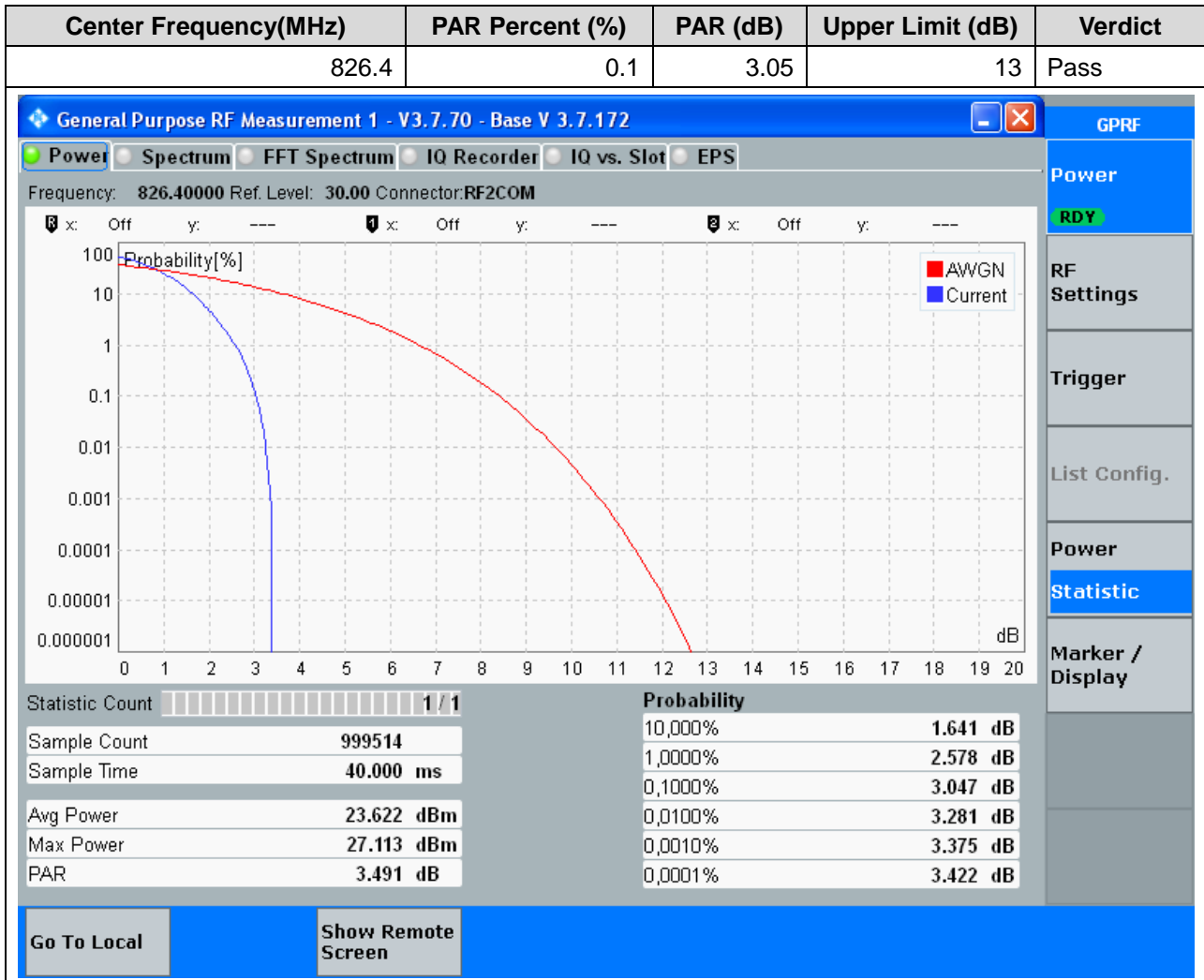


### 2.3. WCDMA Peak to Average Ratio(NTNV)(Channel:1513)



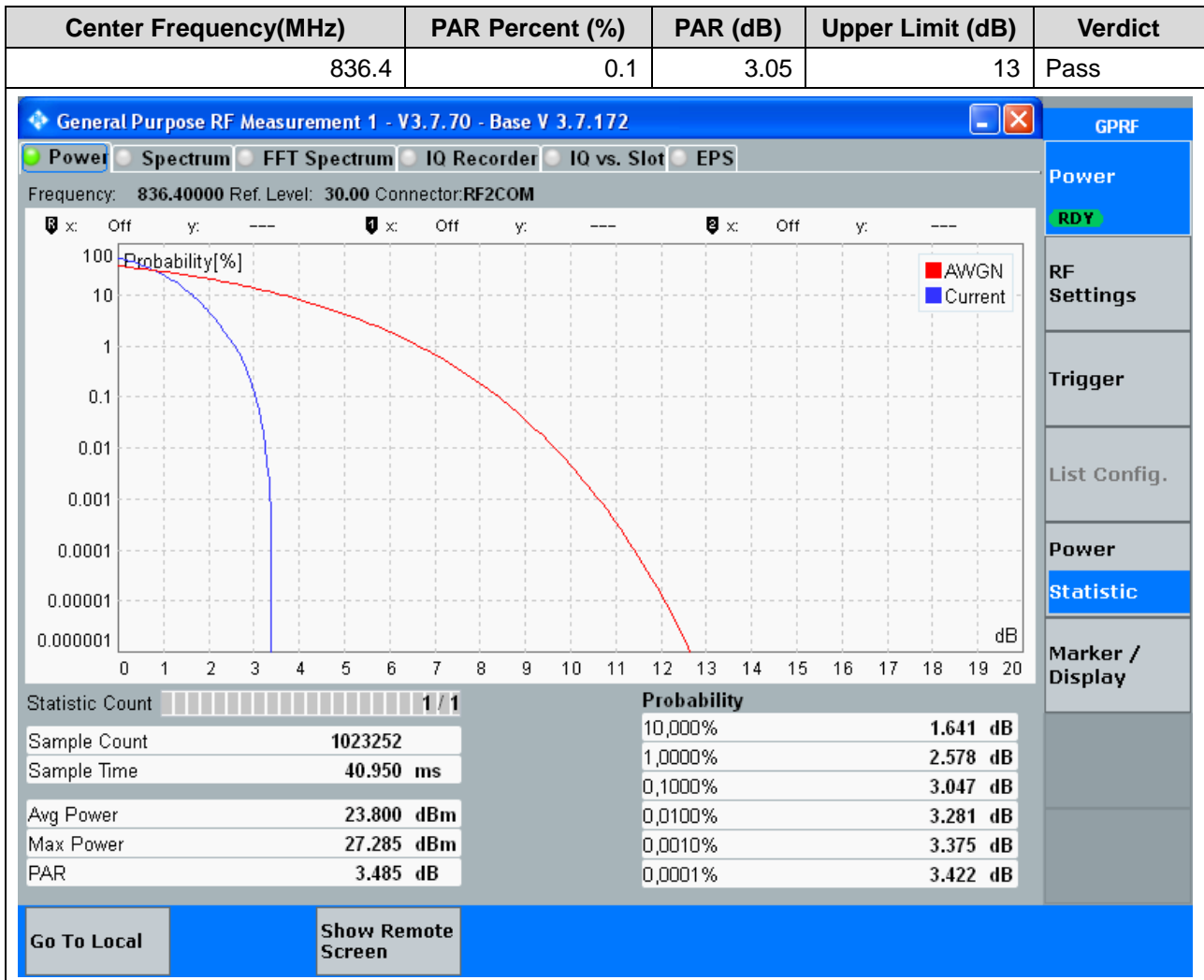
### 3. WCDMA\_Band5

#### 3.1. WCDMA Peak to Average Ratio(NTNV)(Channel:4132)

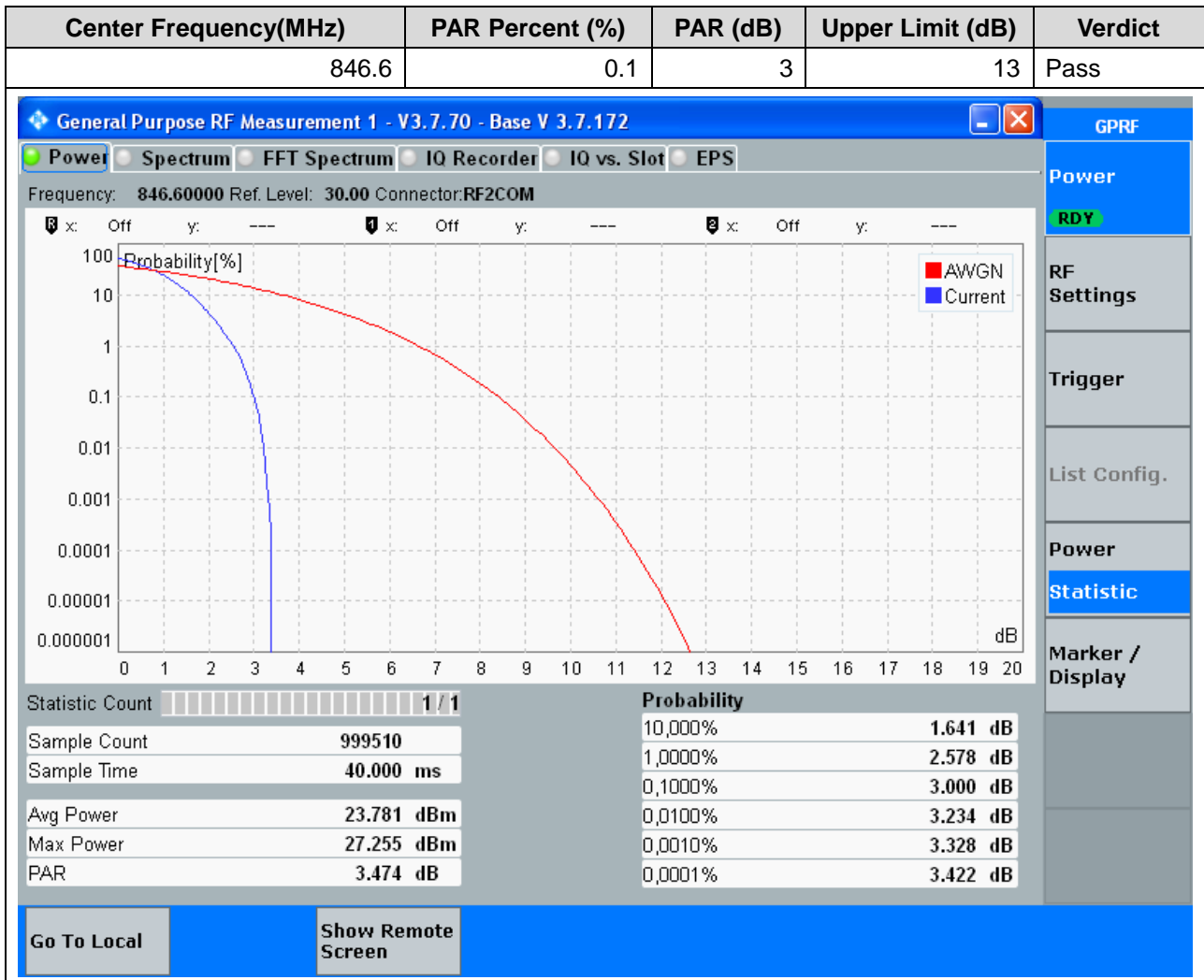




### 3.2. WCDMA Peak to Average Ratio(NTNV)(Channel:4182)

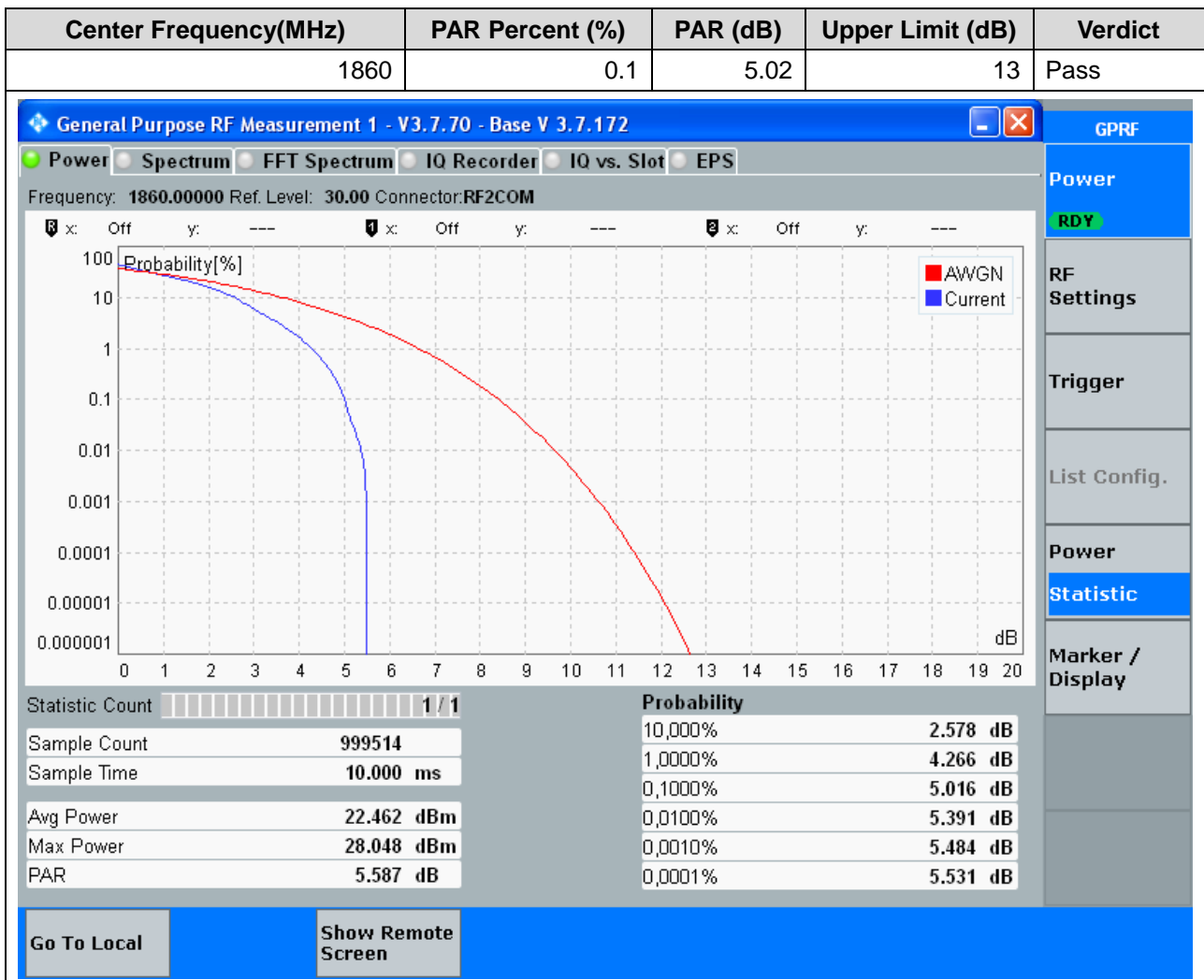


### 3.3. WCDMA Peak to Average Ratio(NTNV)(Channel:4233)

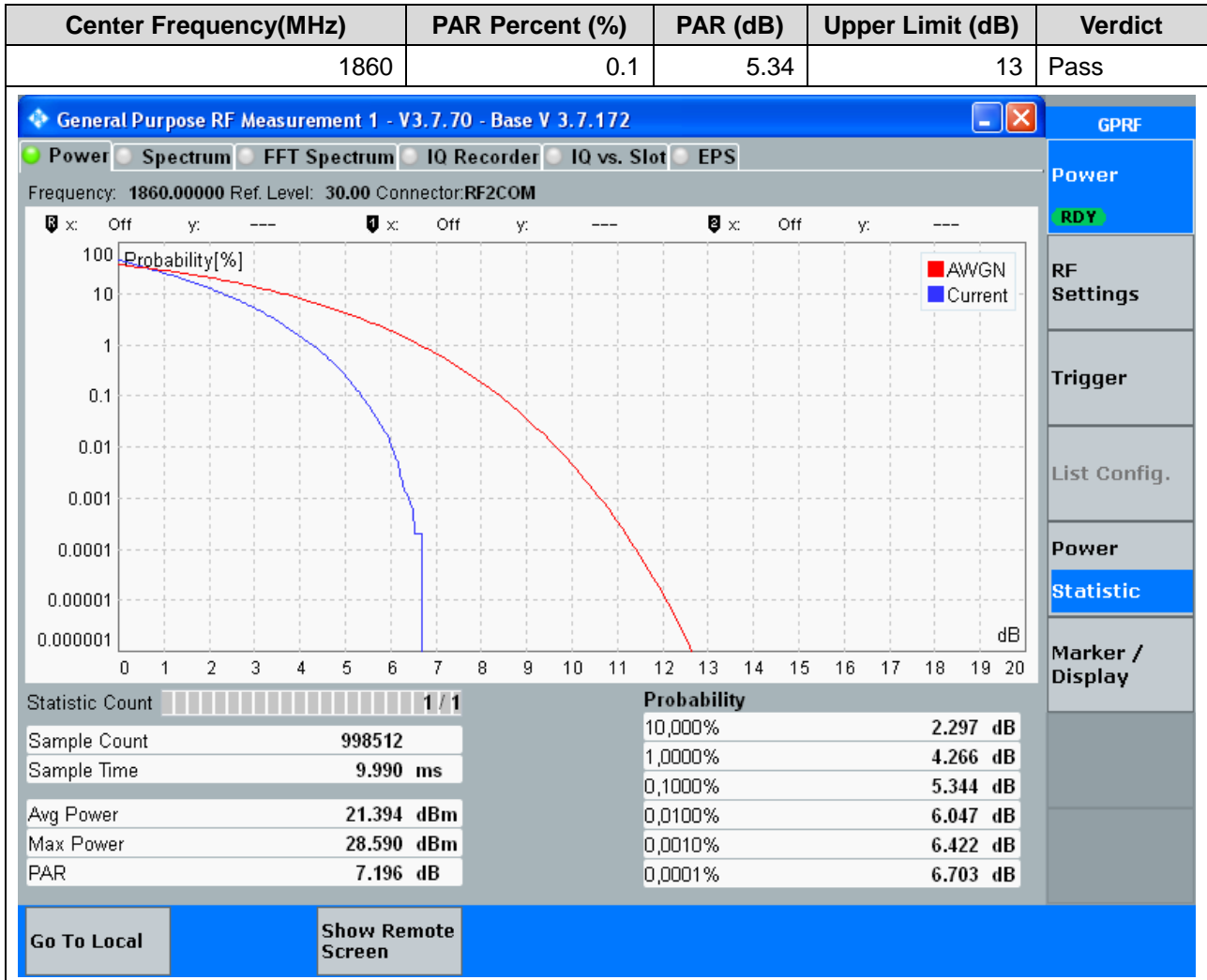


## 4. LTE\_Band2

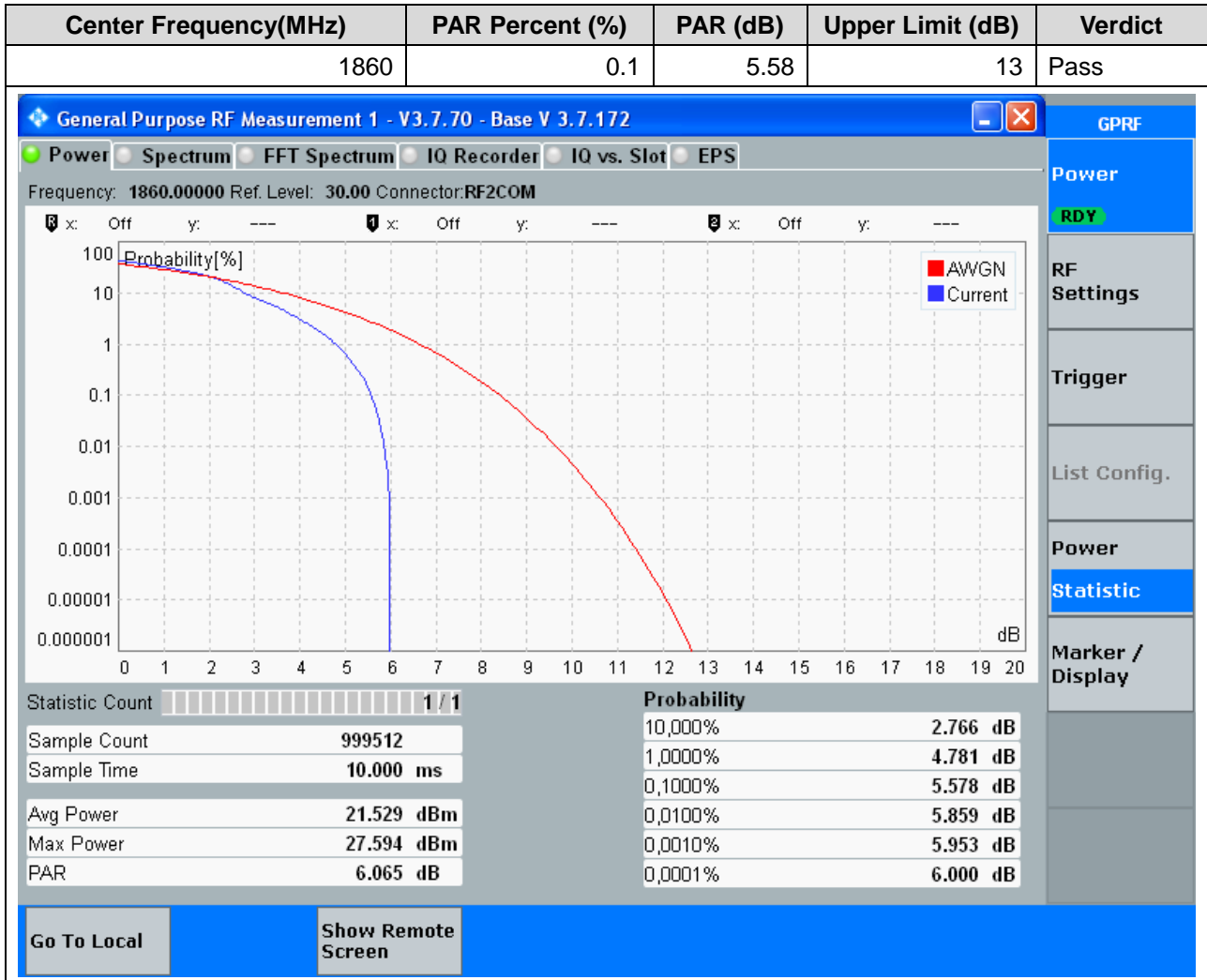
### 4.1. LTE Peak to Average Ratio(NTNV)(Subtest:1, Channel:18700, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)



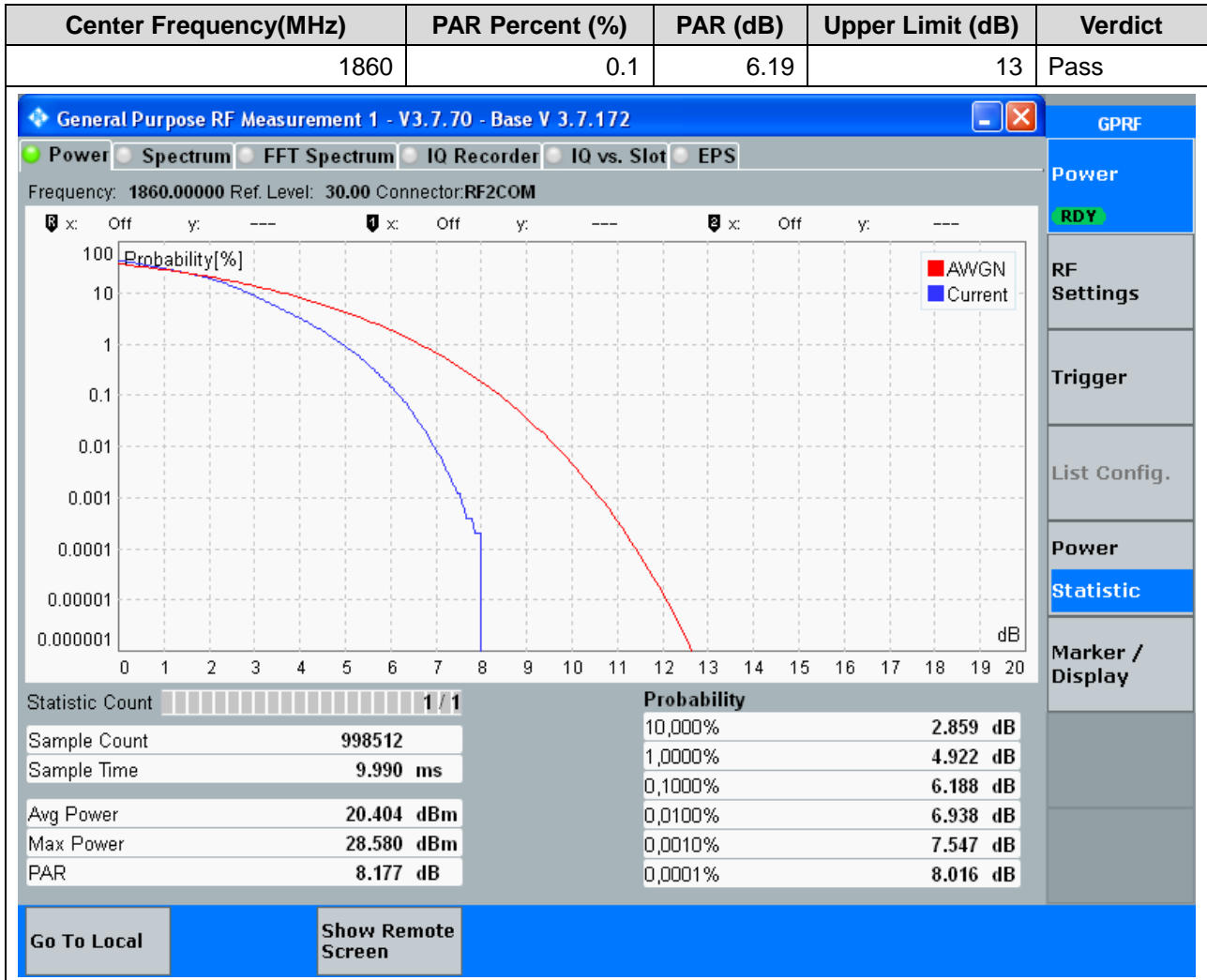
#### 4.2. LTE Peak to Average Ratio(NTNV)(Subtest:2, Channel:18700, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)



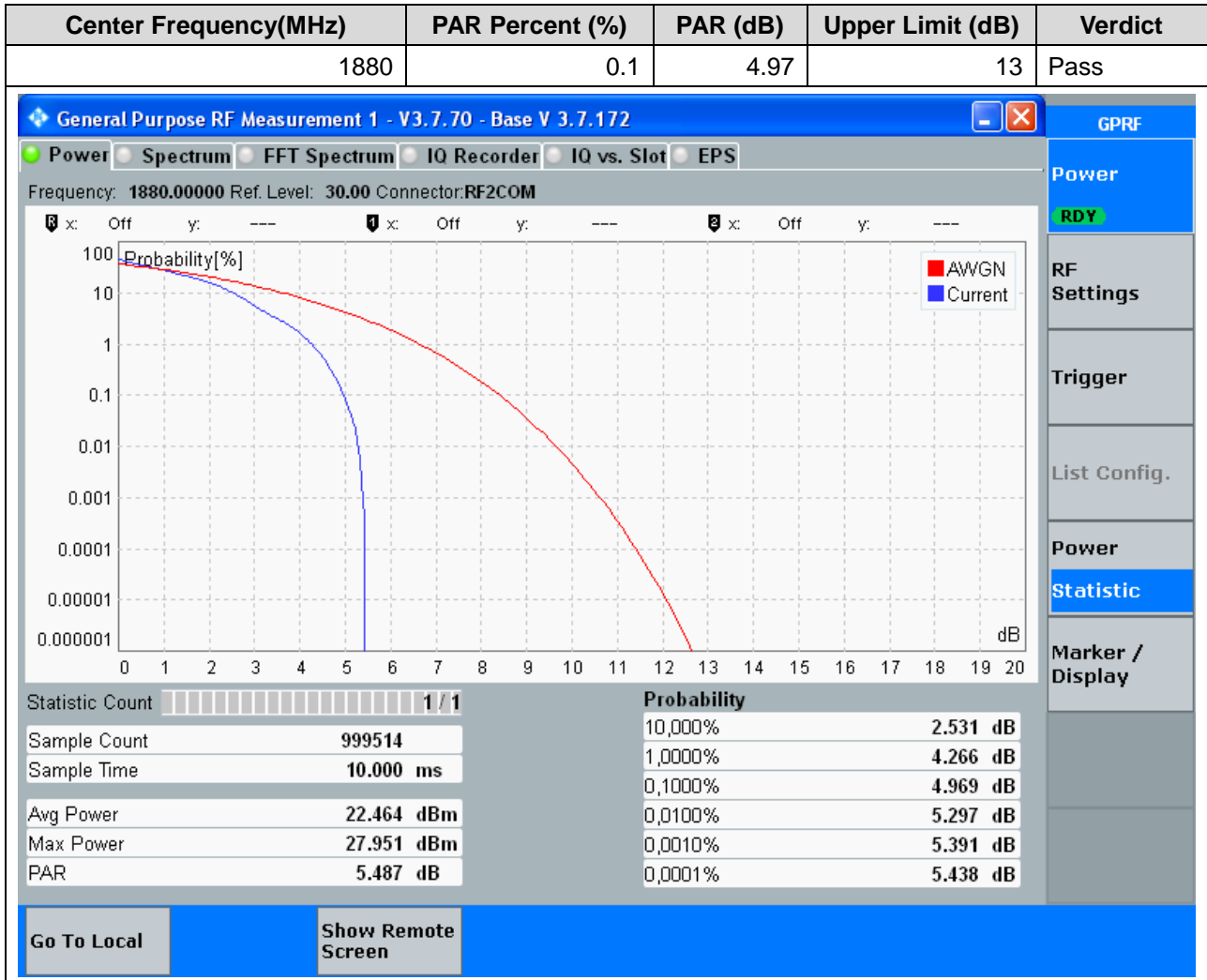
### 4.3. LTE Peak to Average Ratio(NTNV)(Subtest:3, Channel:18700, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)



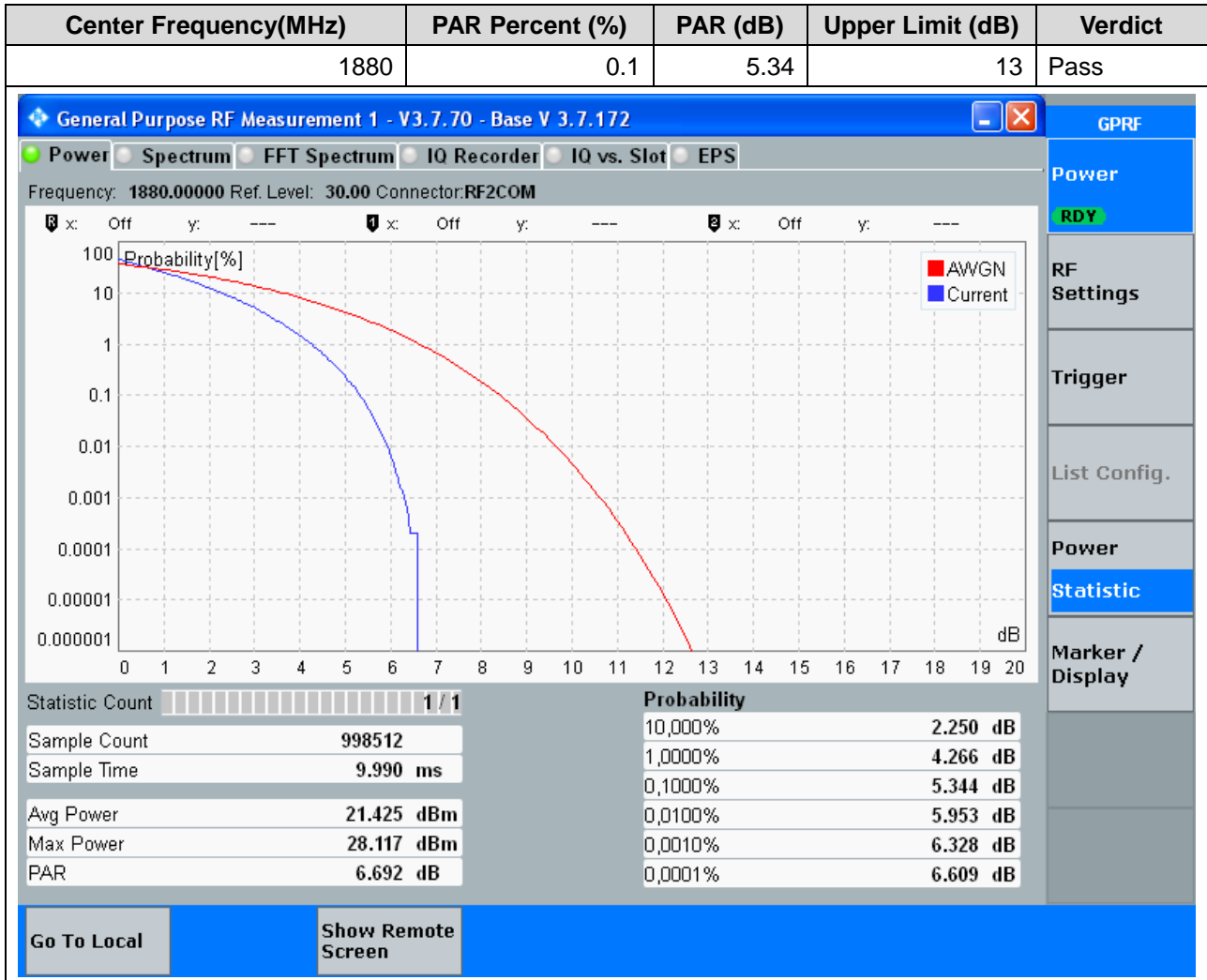
#### 4.4. LTE Peak to Average Ratio(NTNV)(Subtest:4, Channel:18700, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)



**4.5. LTE Peak to Average Ratio(NTNV)(Subtest:5, Channel:18900, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**

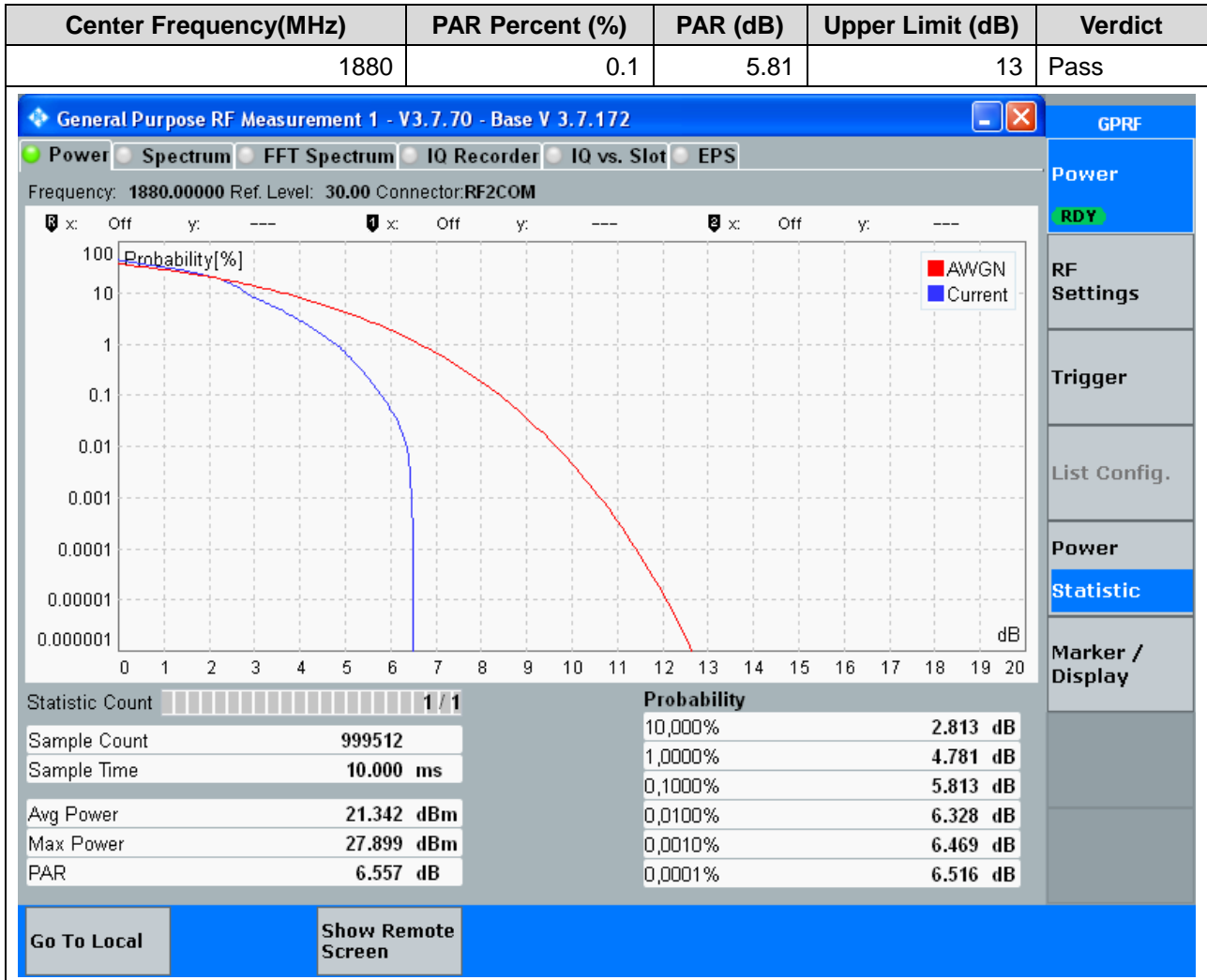


**4.6. LTE Peak to Average Ratio(NTNV)(Subtest:6, Channel:18900, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**

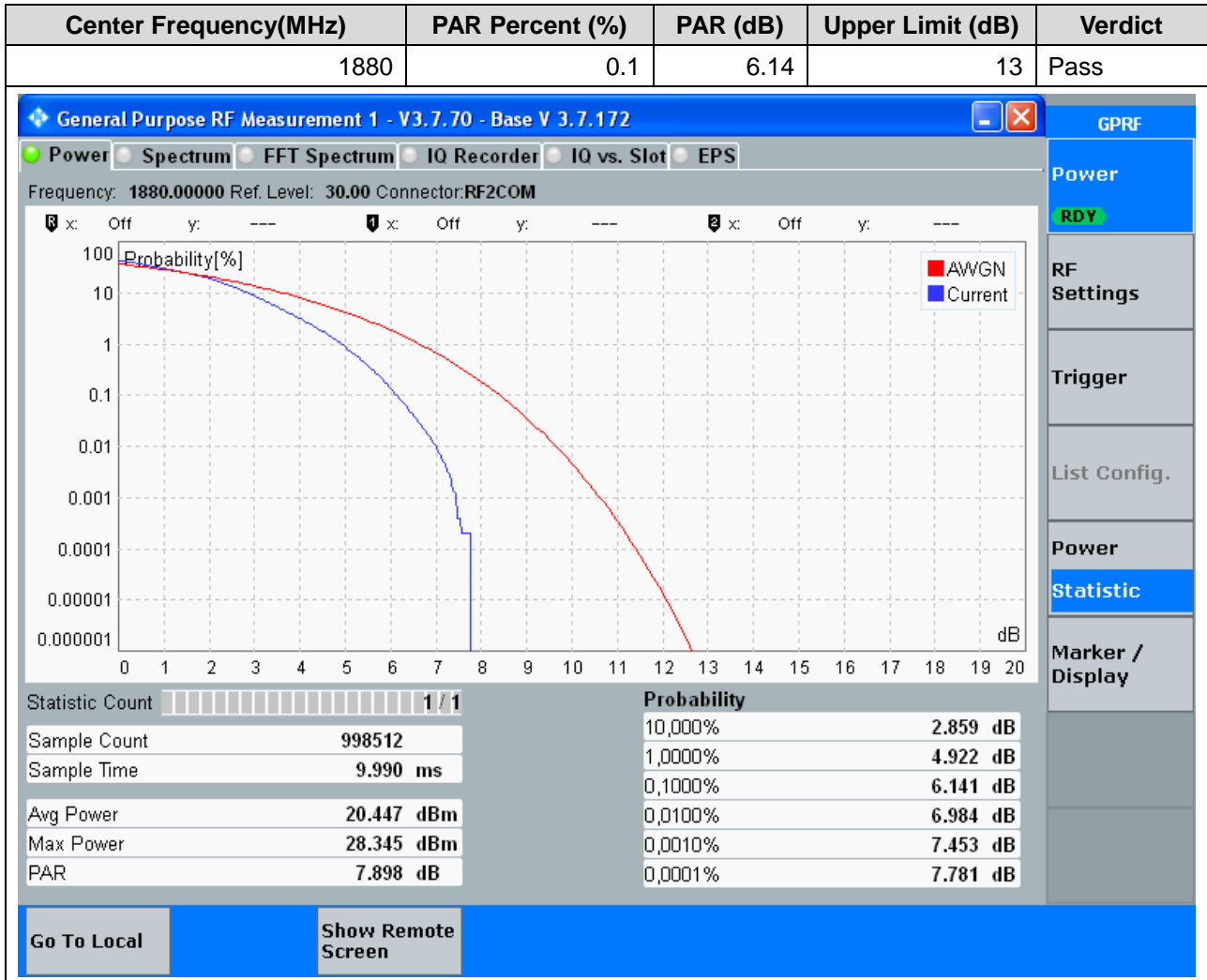




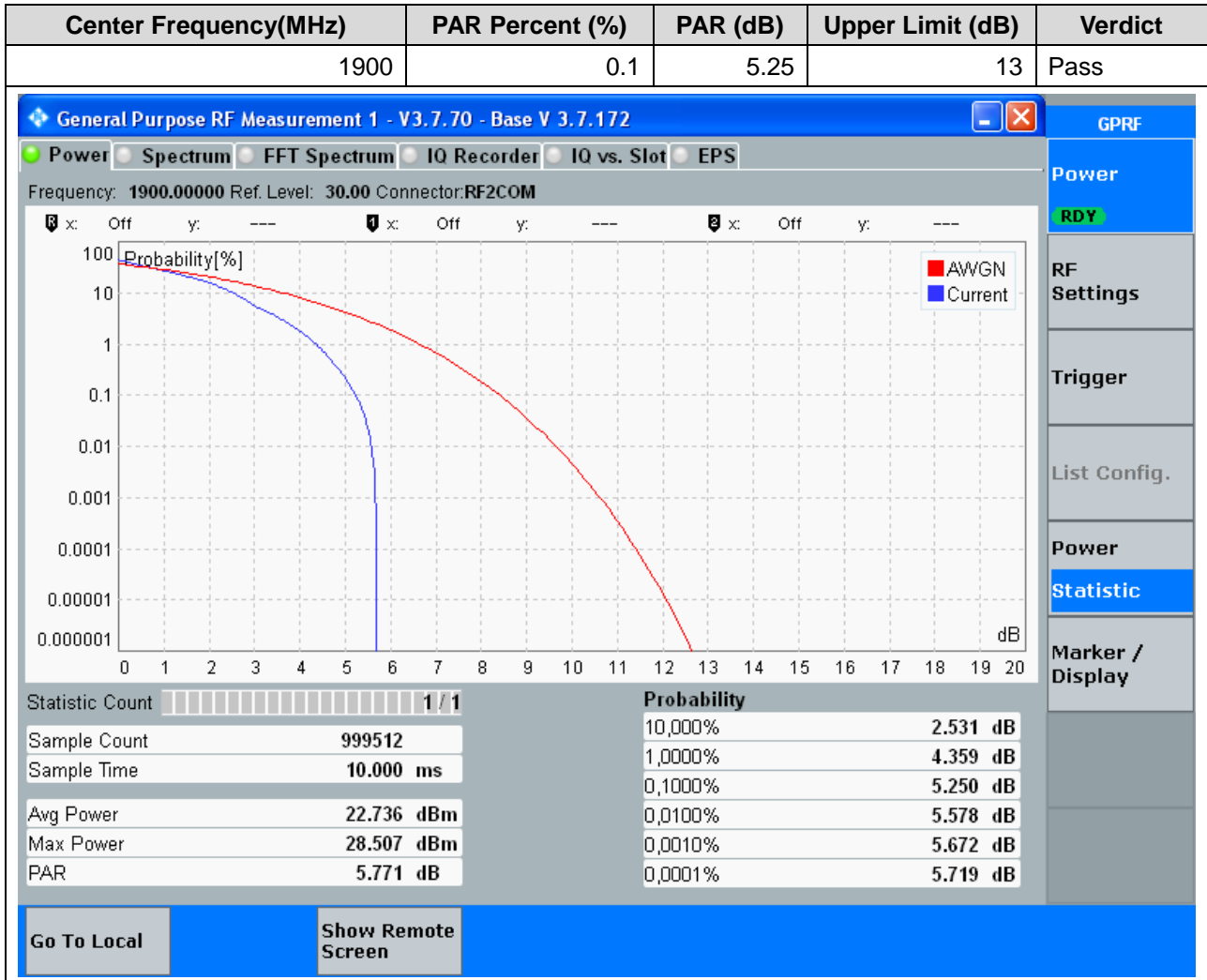
**4.7. LTE Peak to Average Ratio(NTNV)(Subtest:7, Channel:18900, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**



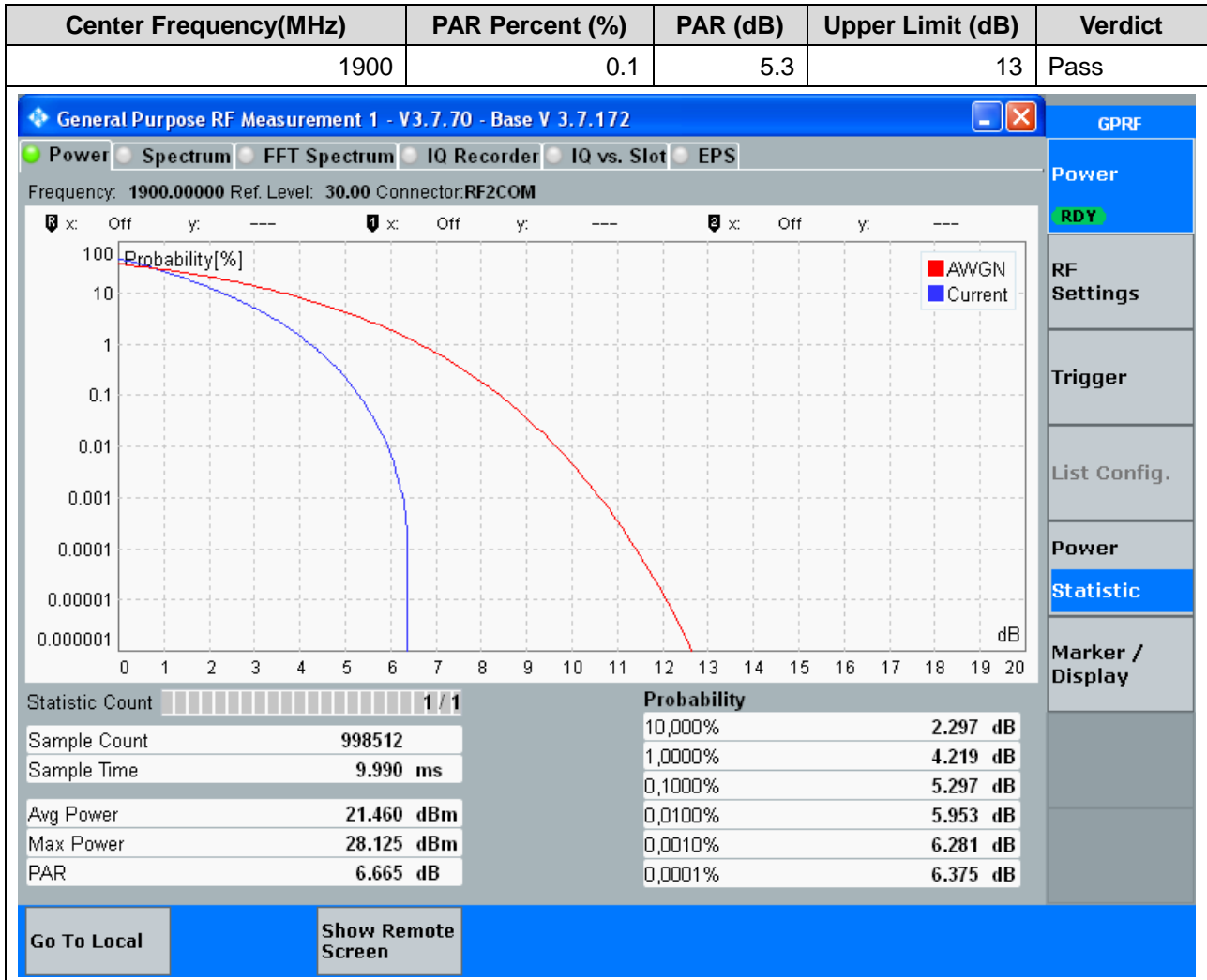
**4.8. LTE Peak to Average Ratio(NTNV)(Subtest:8, Channel:18900, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**



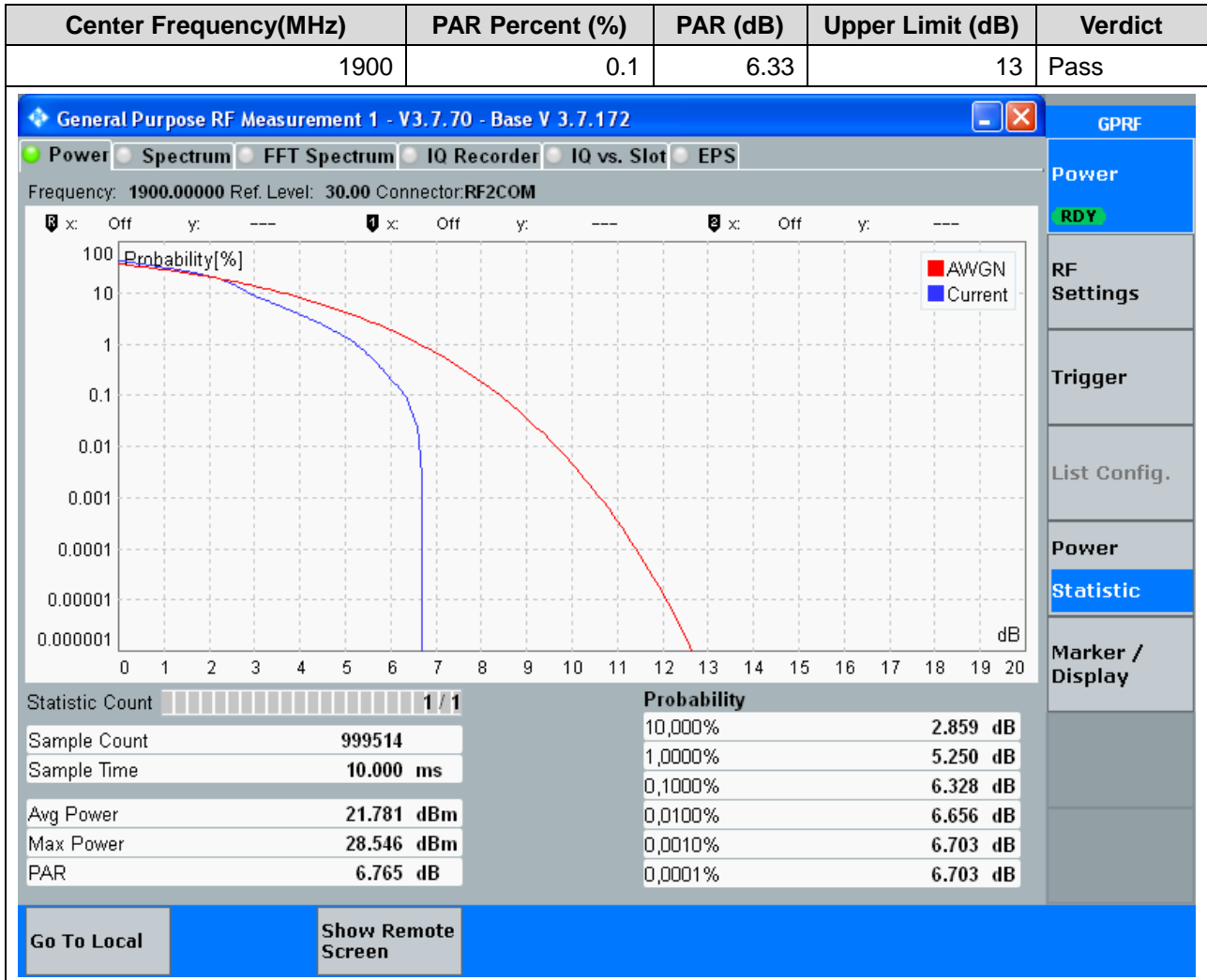
**4.9. LTE Peak to Average Ratio(NTNV)(Subtest:9, Channel:19100, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**



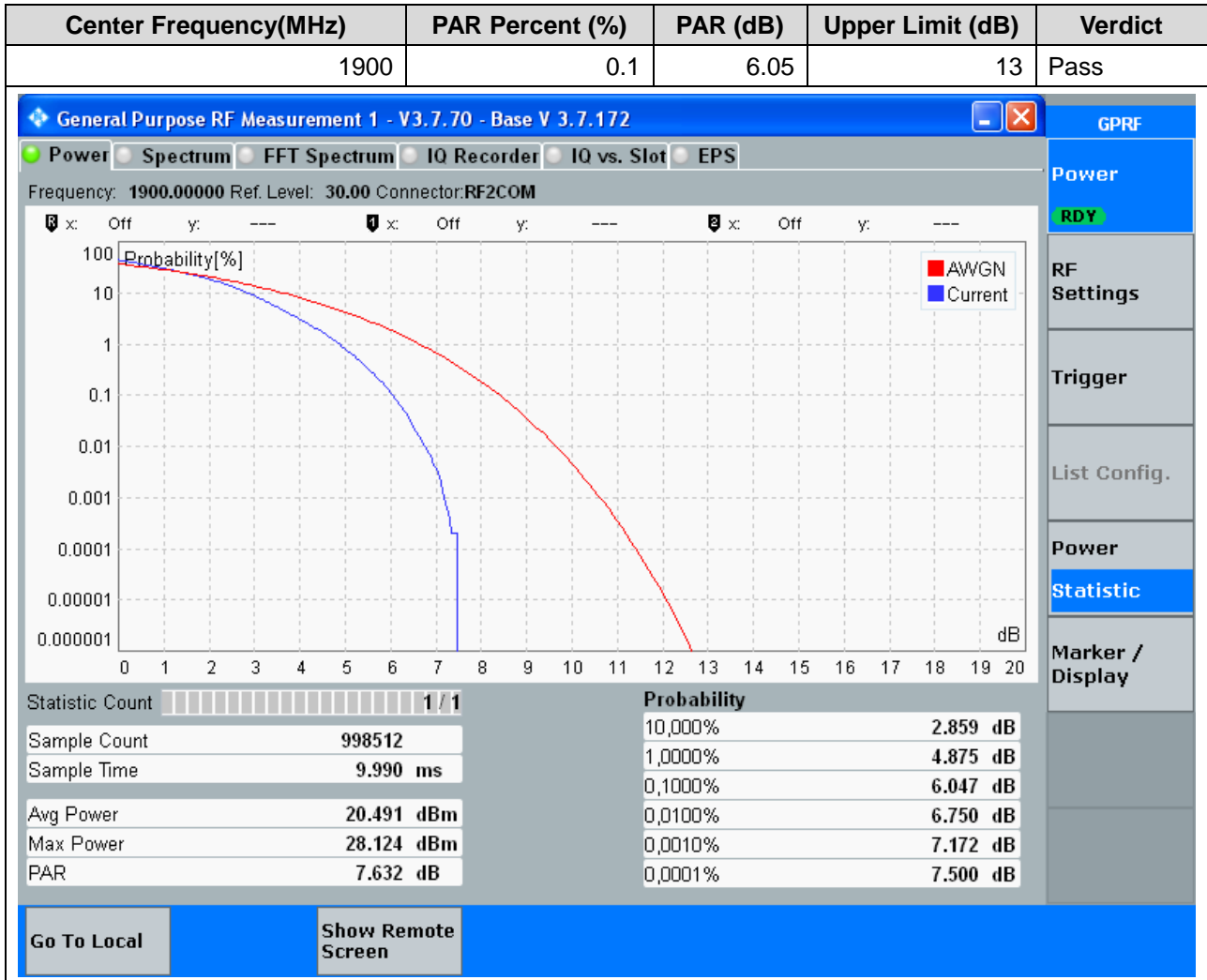
**4.10. LTE Peak to Average Ratio(NTNV)(Subtest:10, Channel:19100, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**



**4.11. LTE Peak to Average Ratio(NTNV)(Subtest:11, Channel:19100, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**

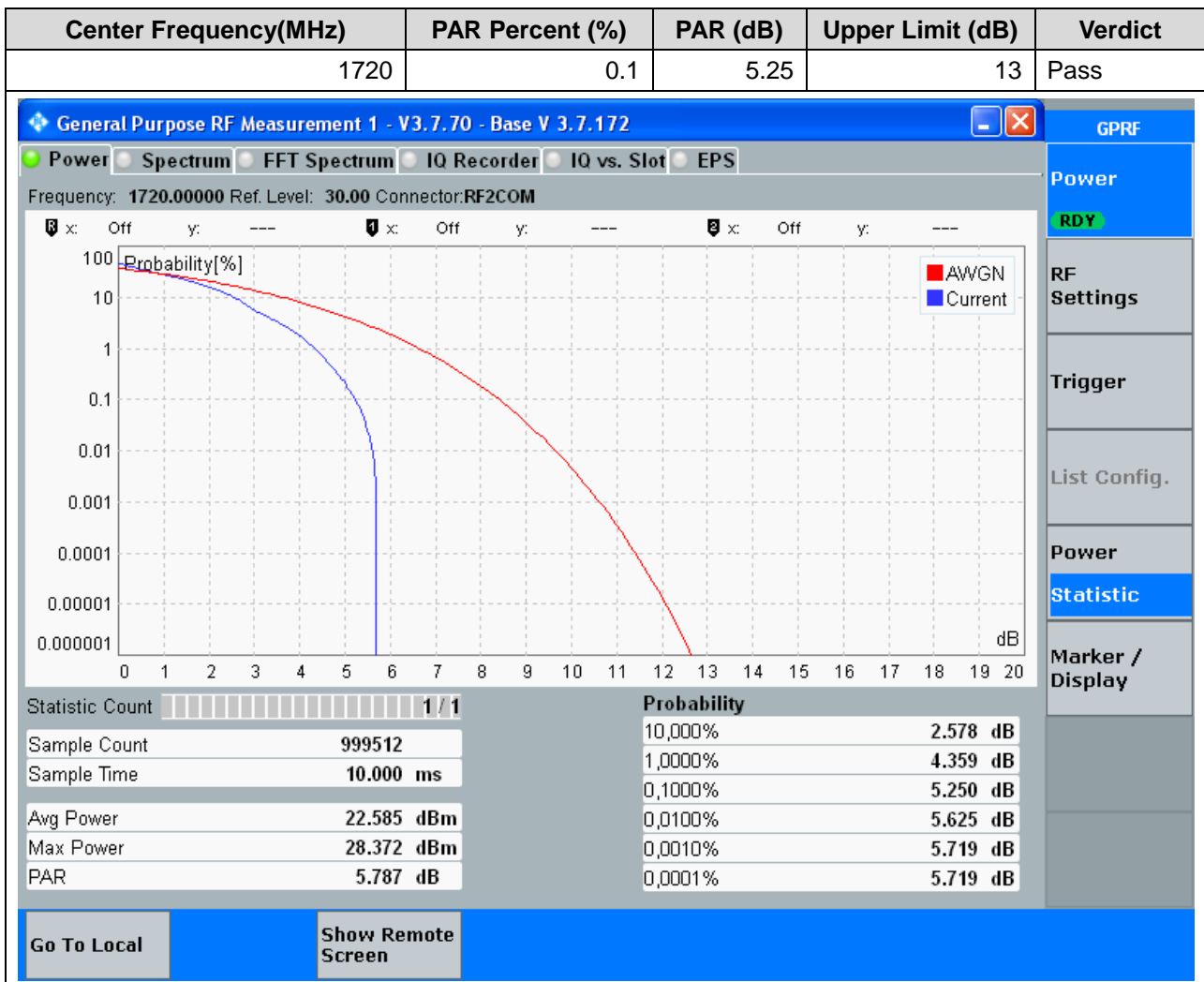


**4.12. LTE Peak to Average Ratio(NTNV)(Subtest:12, Channel:19100, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**

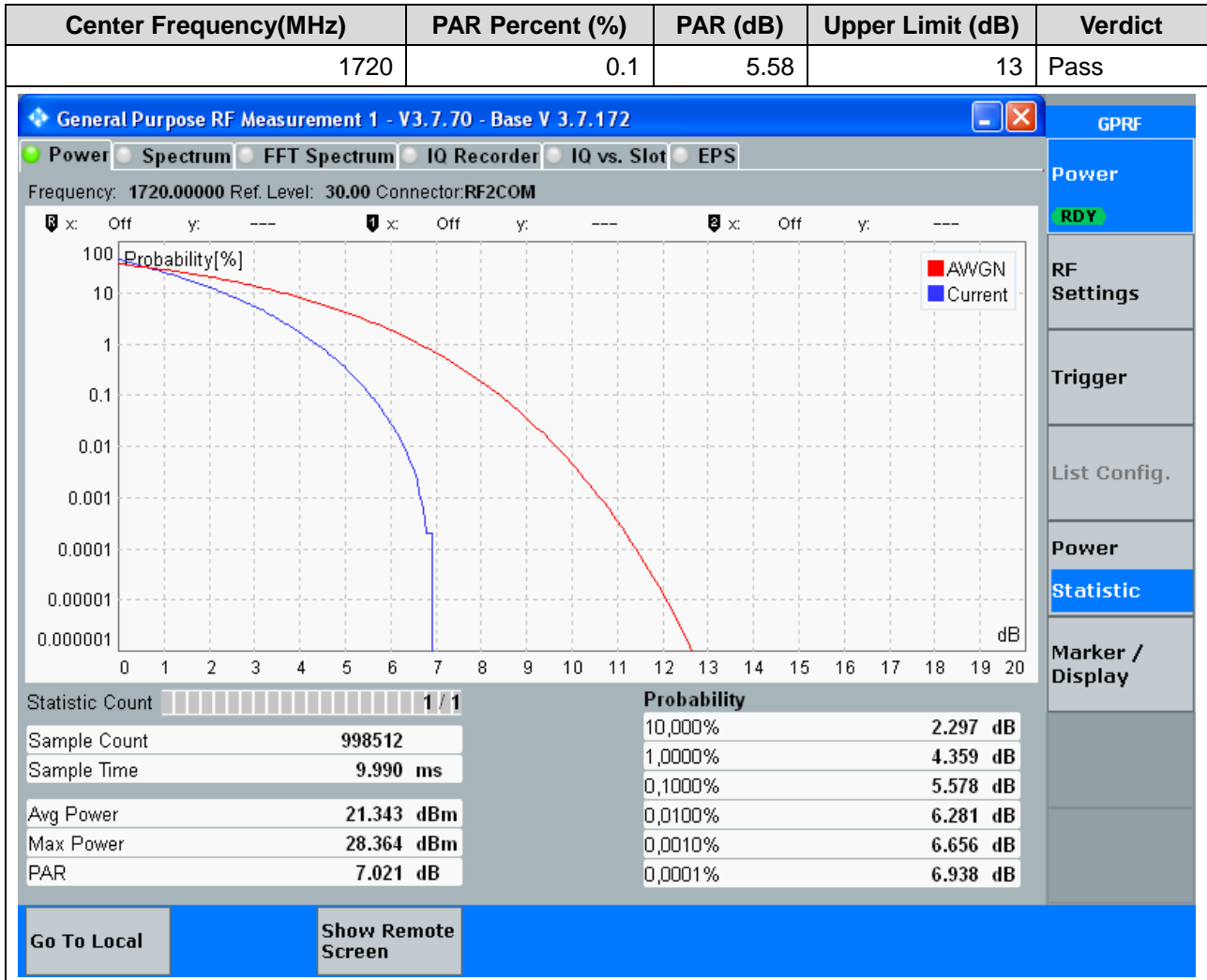


## 5. LTE\_Band4

### 5.1. LTE Peak to Average Ratio(NTNV)(Subtest:1, Channel:20050, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)

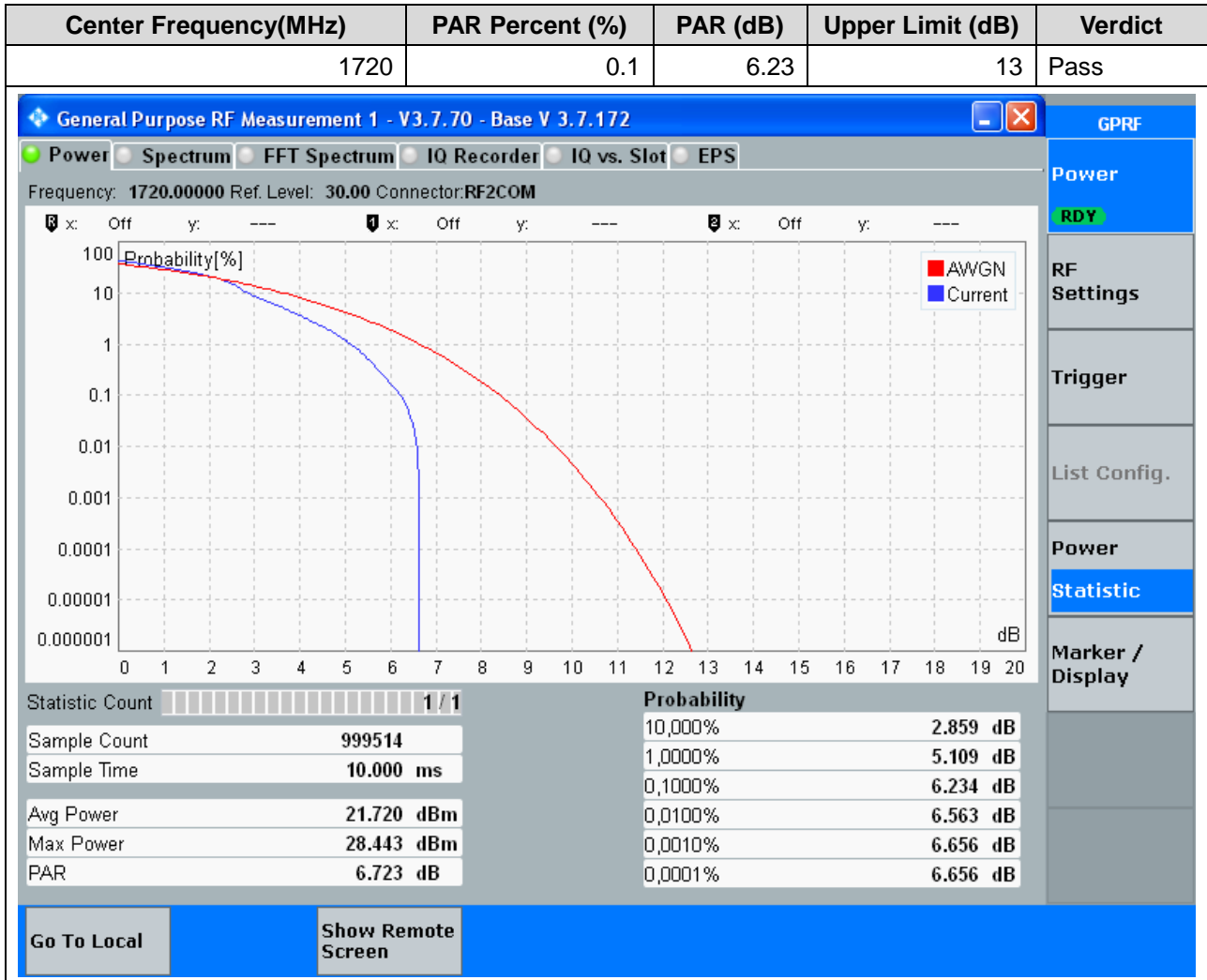


**5.2. LTE Peak to Average Ratio(NTNV)(Subtest:2, Channel:20050, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**

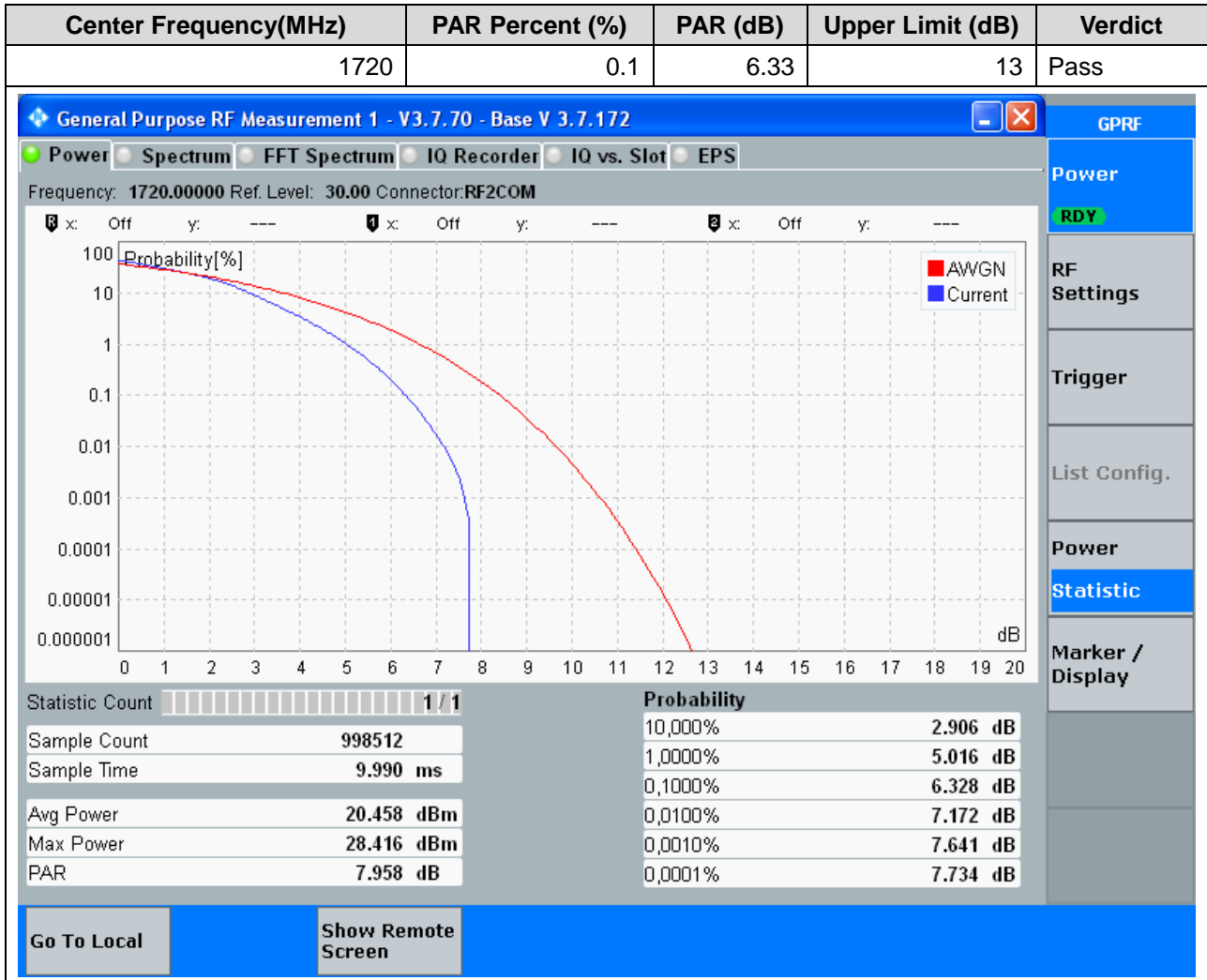




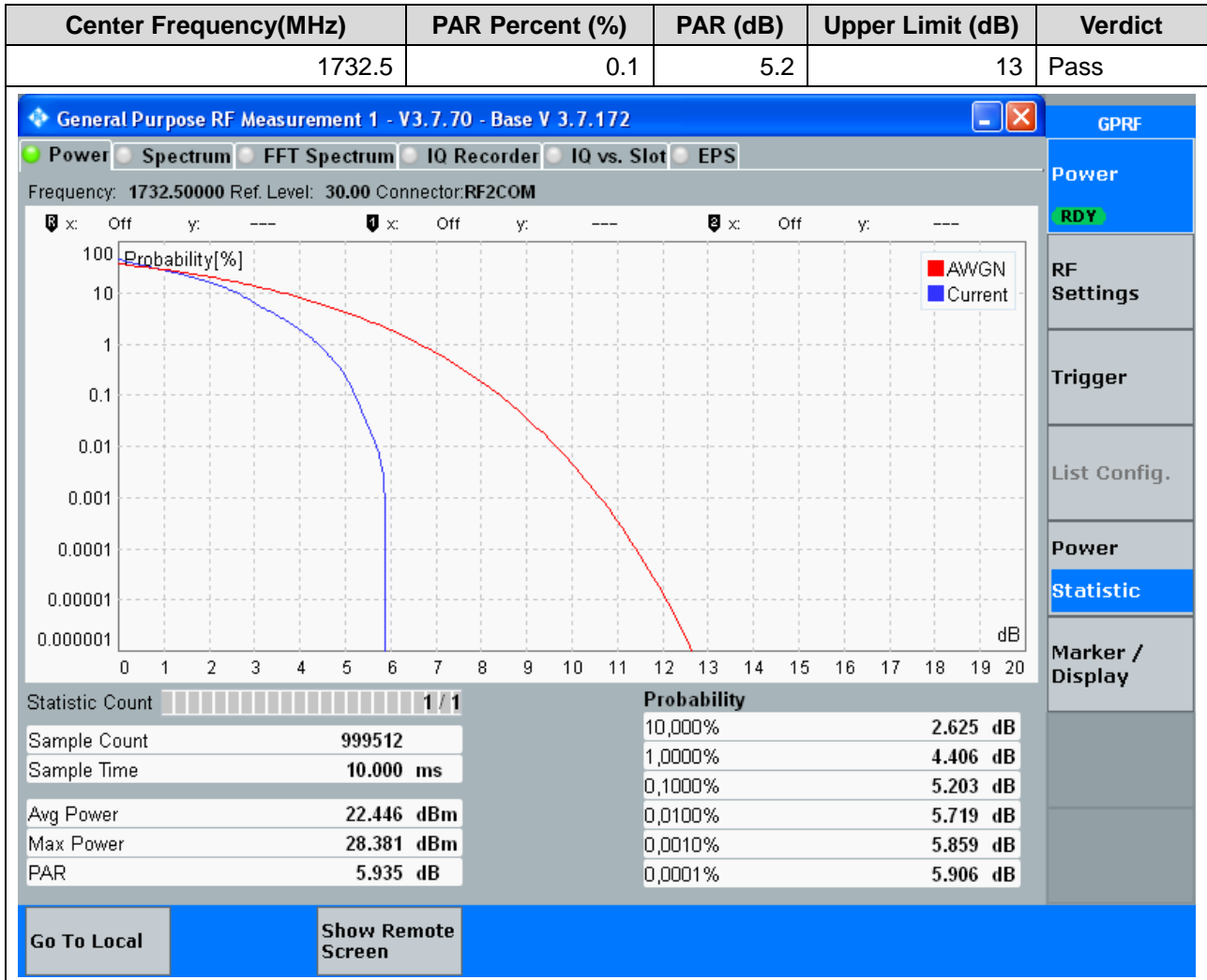
### 5.3. LTE Peak to Average Ratio(NTNV)(Subtest:3, Channel:20050, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)



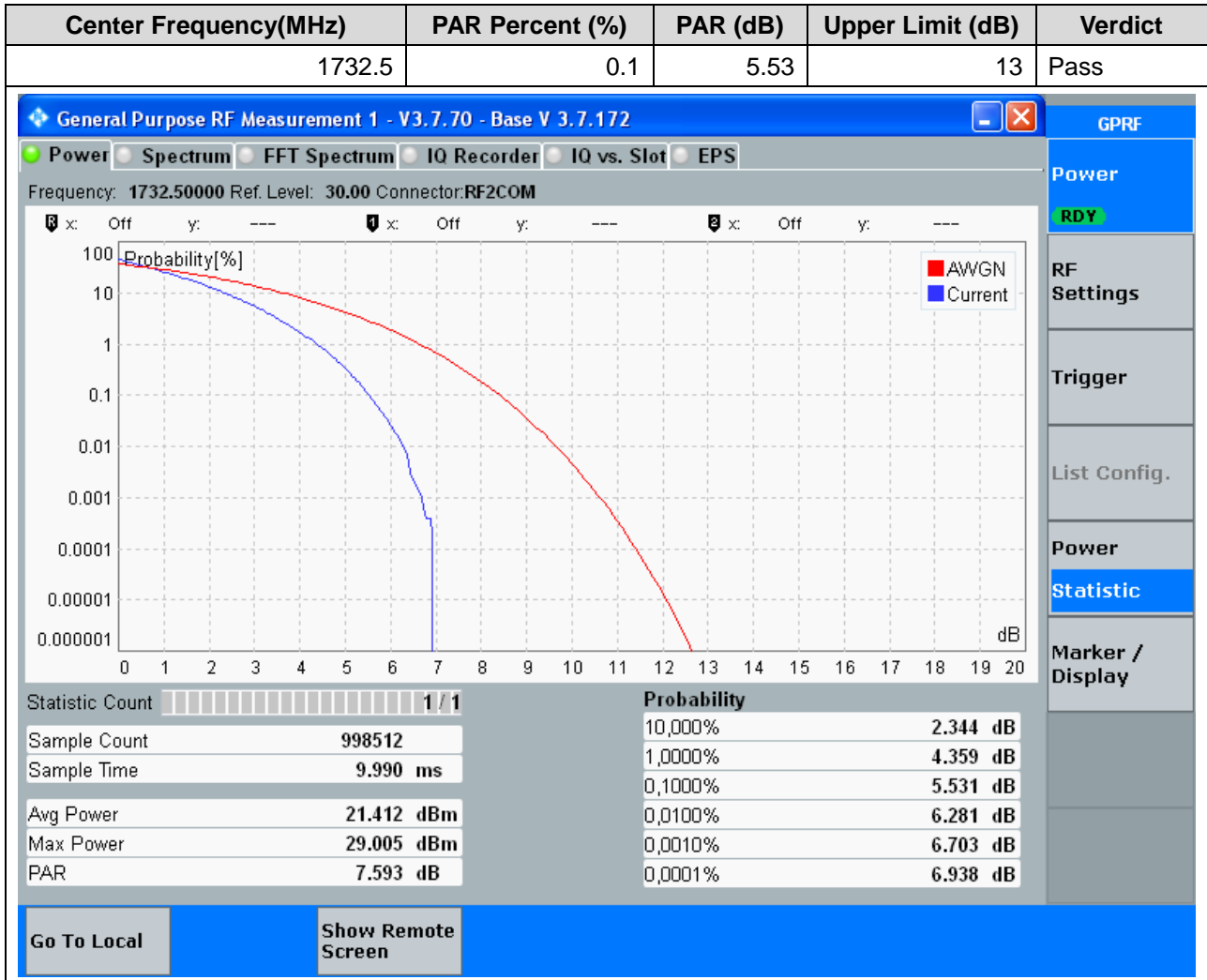
**5.4. LTE Peak to Average Ratio(NTNV)(Subtest:4, Channel:20050, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**



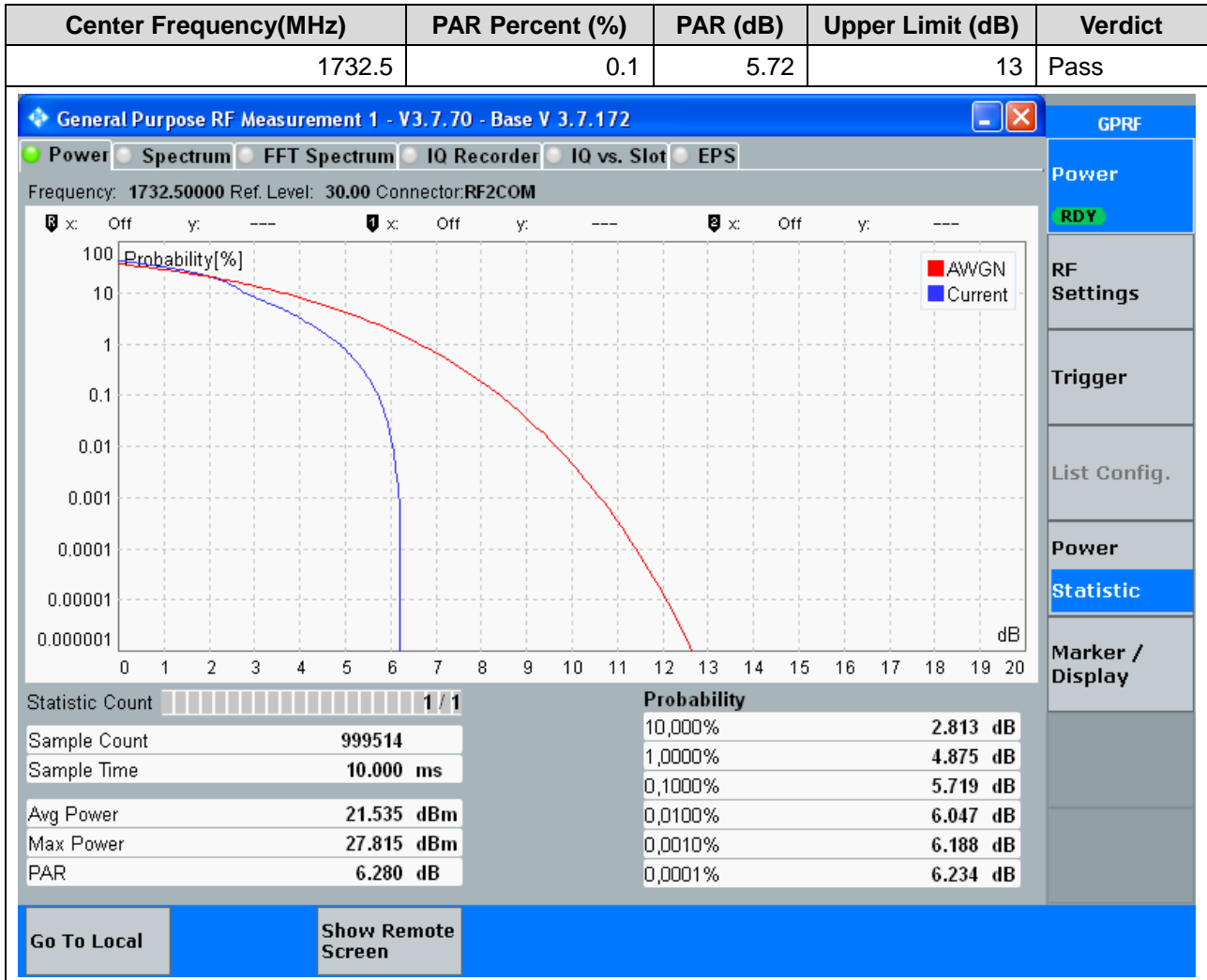
**5.5. LTE Peak to Average Ratio(NTNV)(Subtest:5, Channel:20175, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**



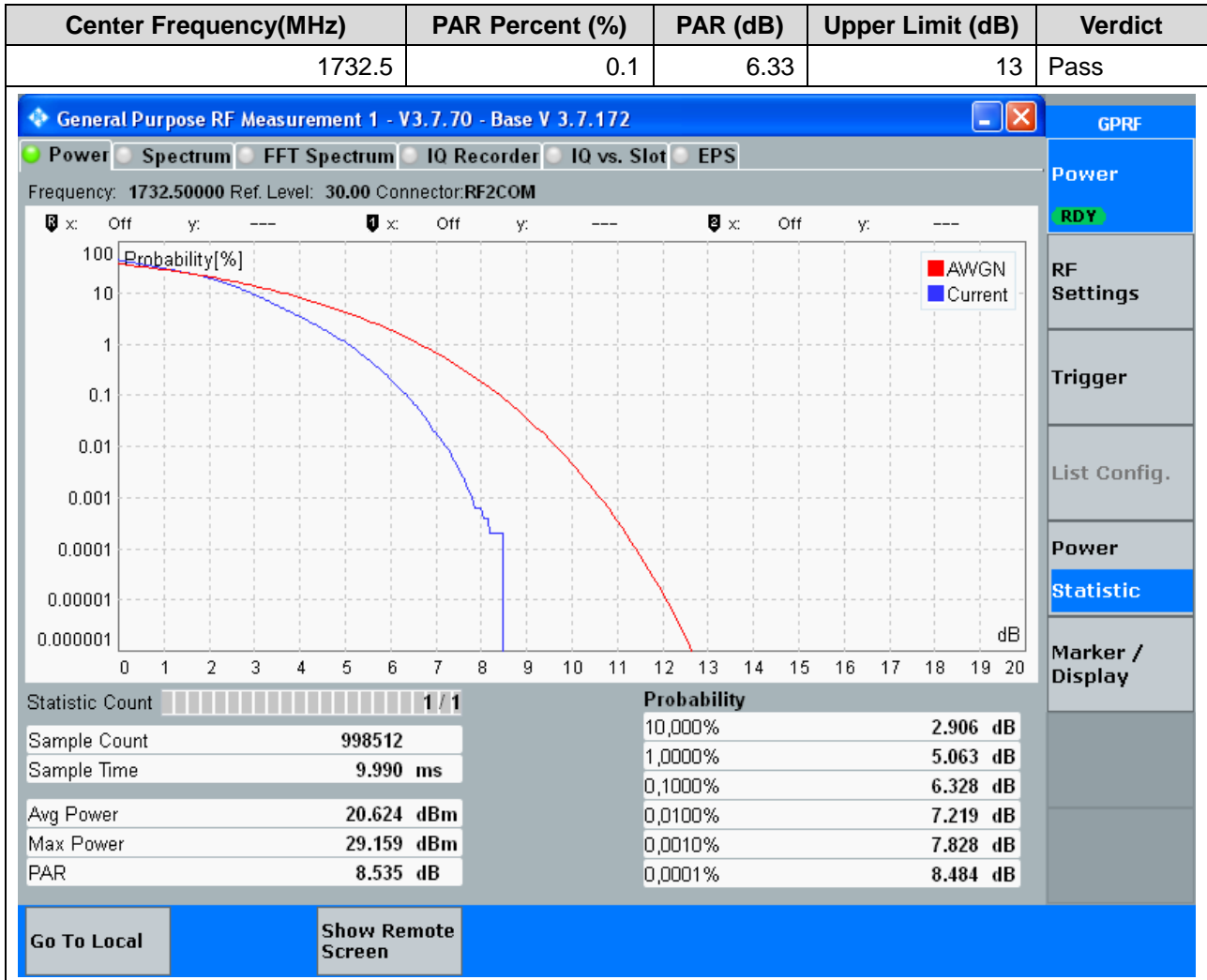
**5.6. LTE Peak to Average Ratio(NTNV)(Subtest:6, Channel:20175, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**



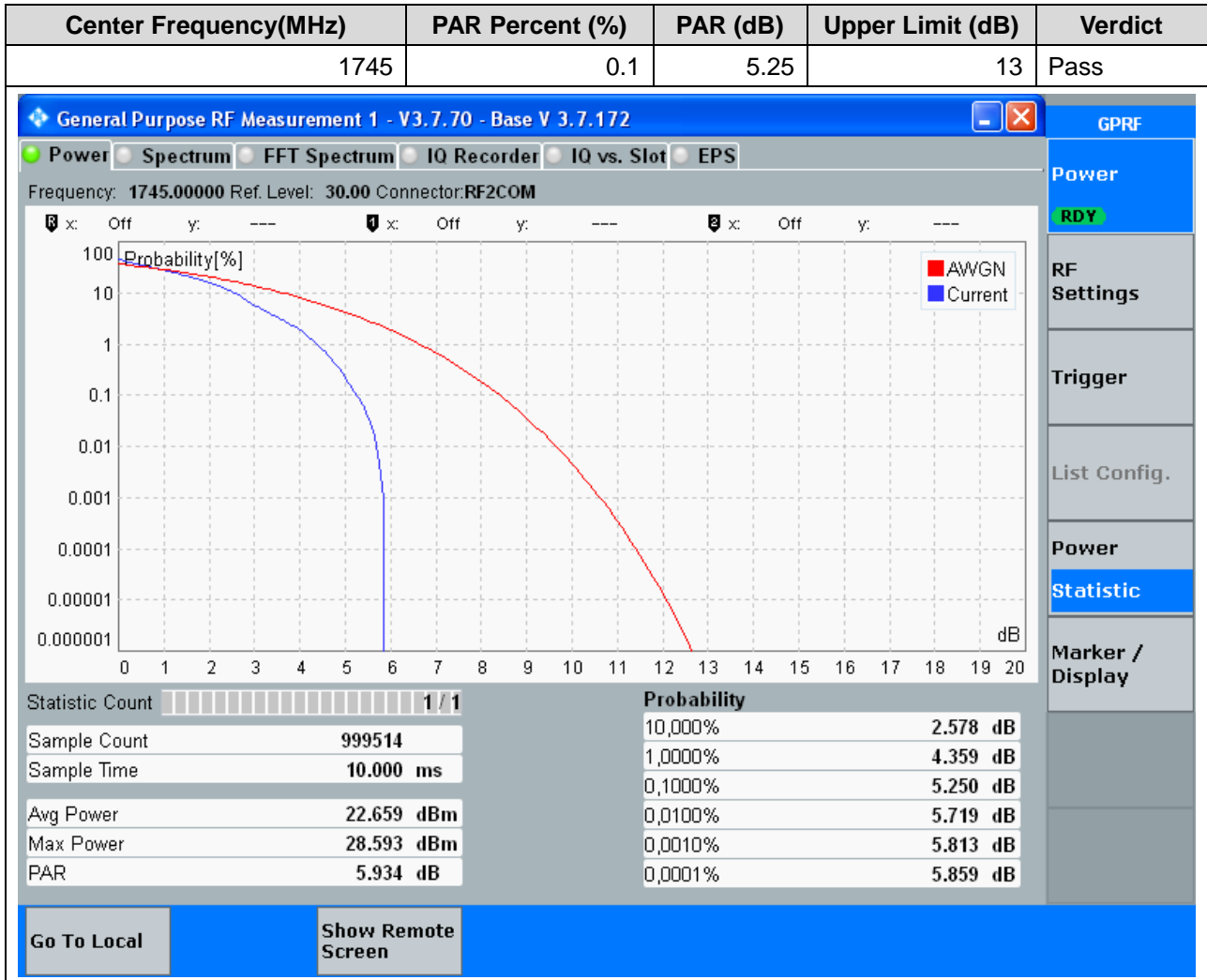
**5.7. LTE Peak to Average Ratio(NTNV)(Subtest:7, Channel:20175, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**



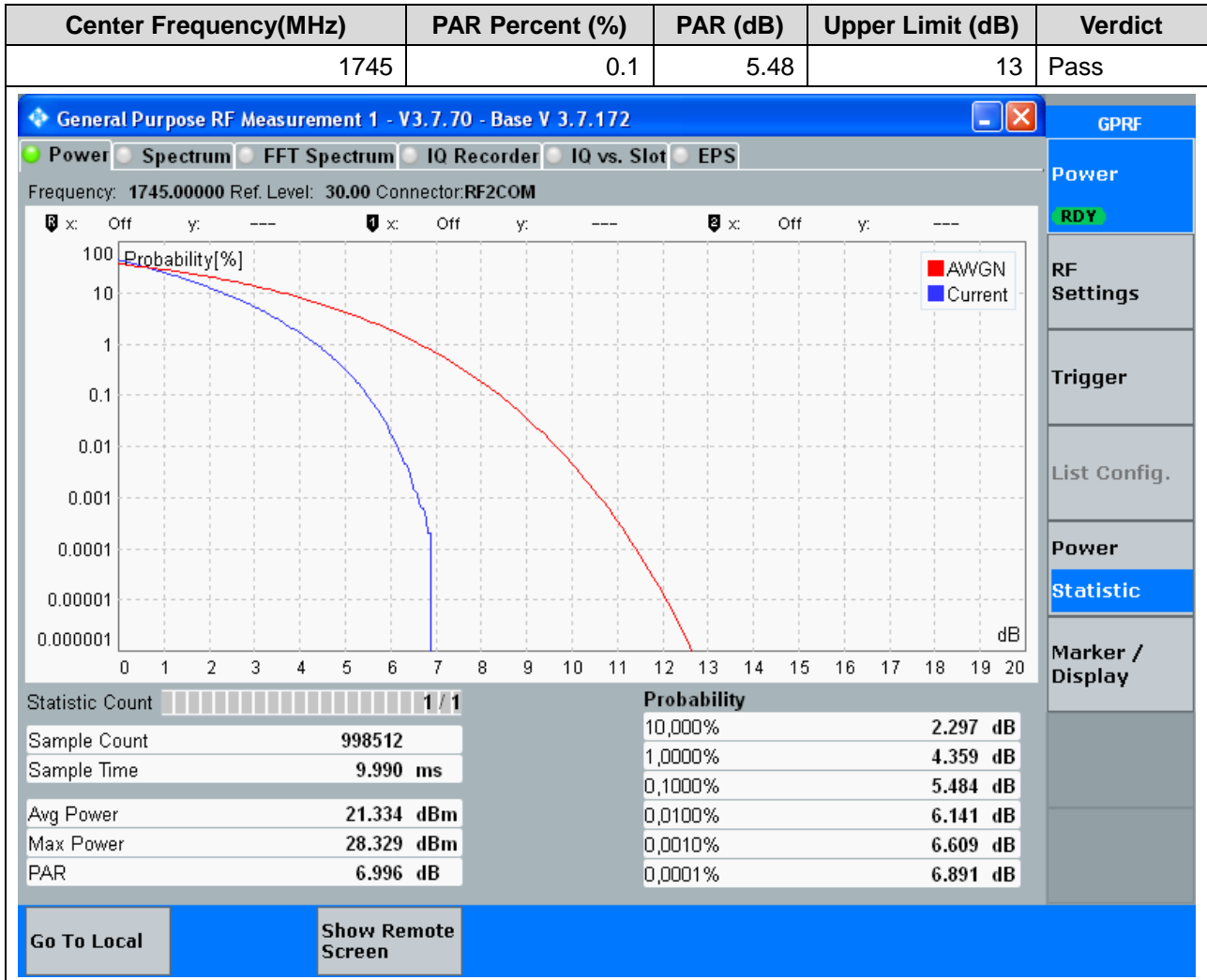
**5.8. LTE Peak to Average Ratio(NTNV)(Subtest:8, Channel:20175, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**



**5.9. LTE Peak to Average Ratio(NTNV)(Subtest:9, Channel:20300, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**

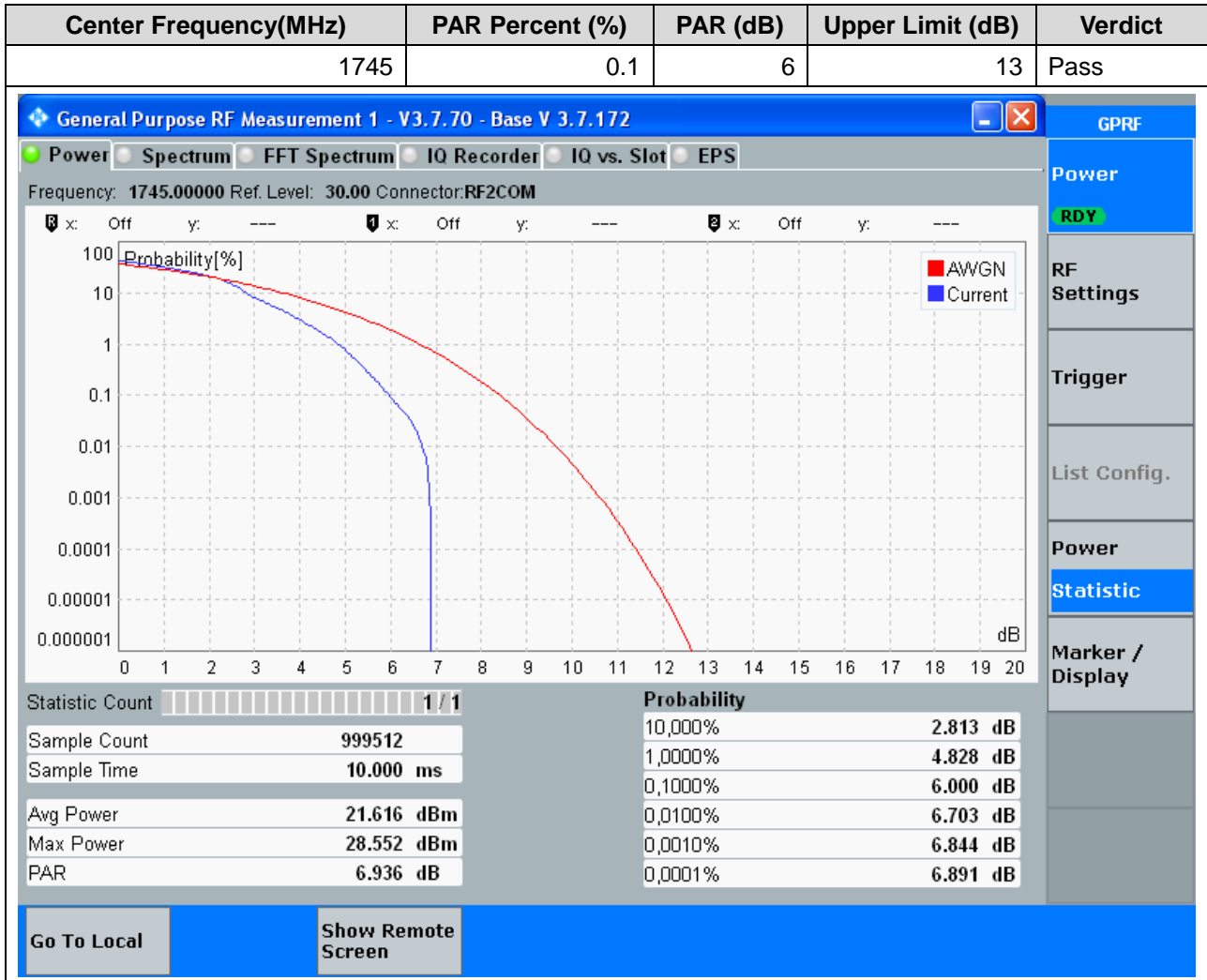


**5.10. LTE Peak to Average Ratio(NTNV)(Subtest:10, Channel:20300, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**

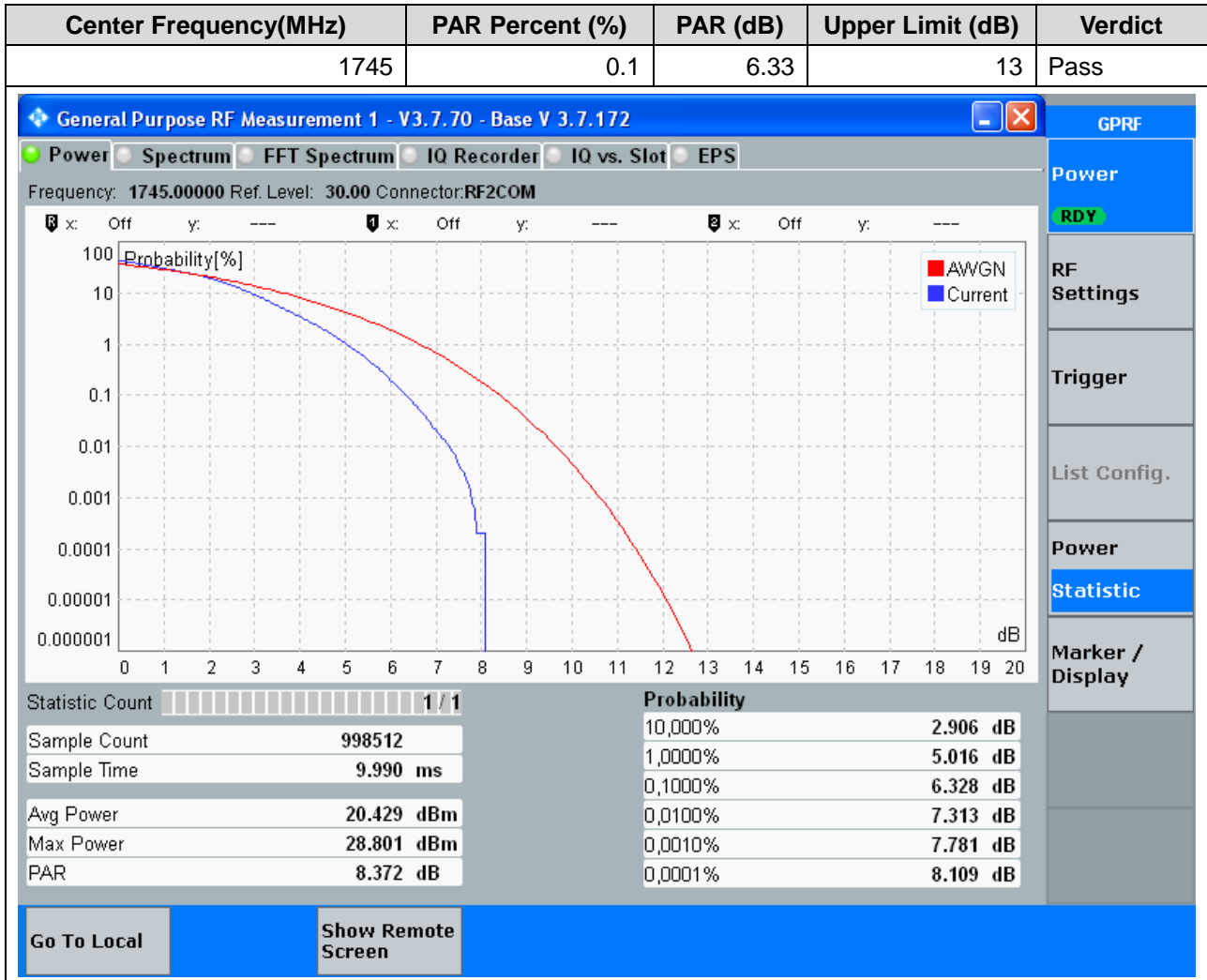




**5.11. LTE Peak to Average Ratio(NTNV)(Subtest:11, Channel:20300, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**

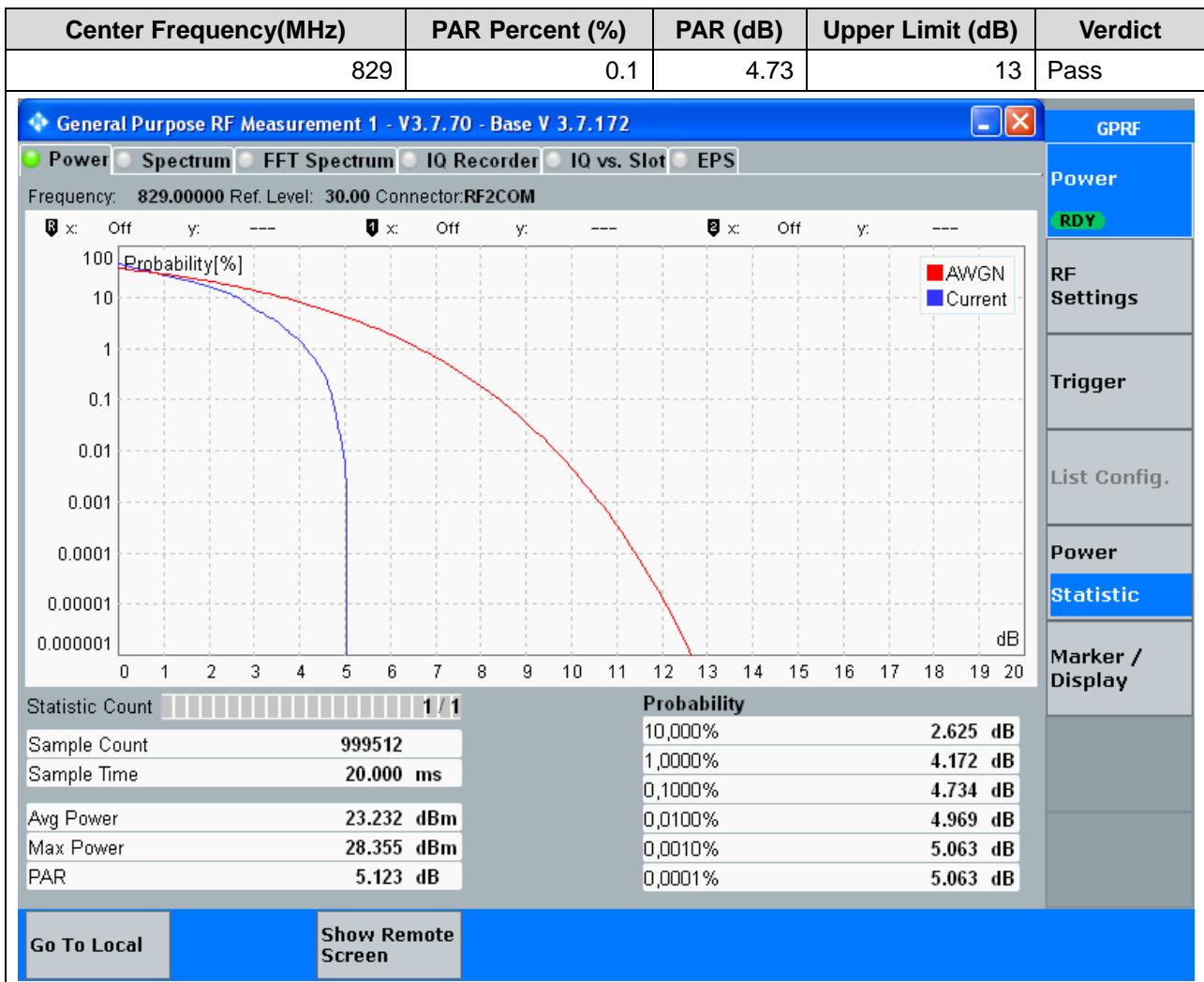


**5.12. LTE Peak to Average Ratio(NTNV)(Subtest:12, Channel:20300, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**

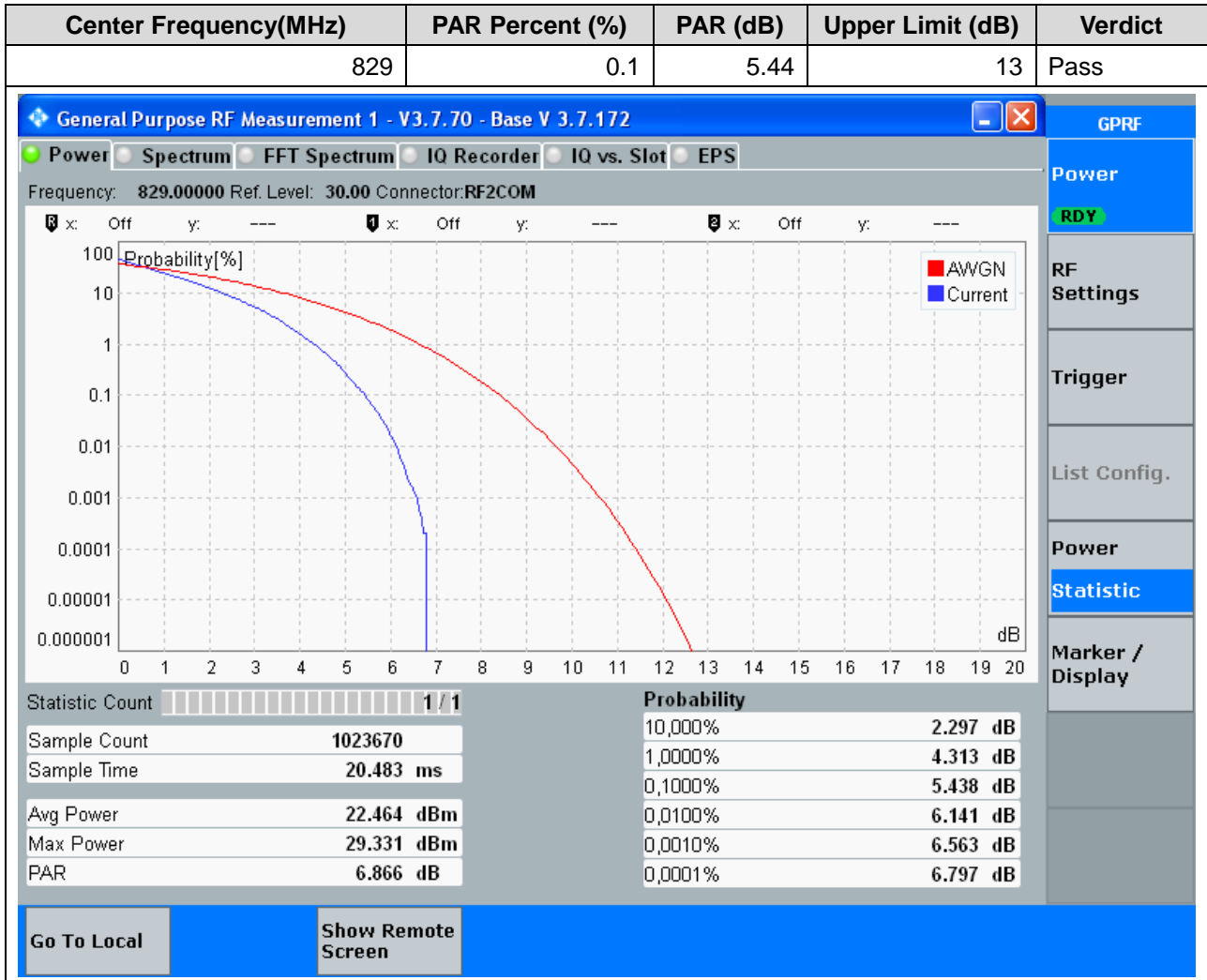


## 6. LTE\_Band5

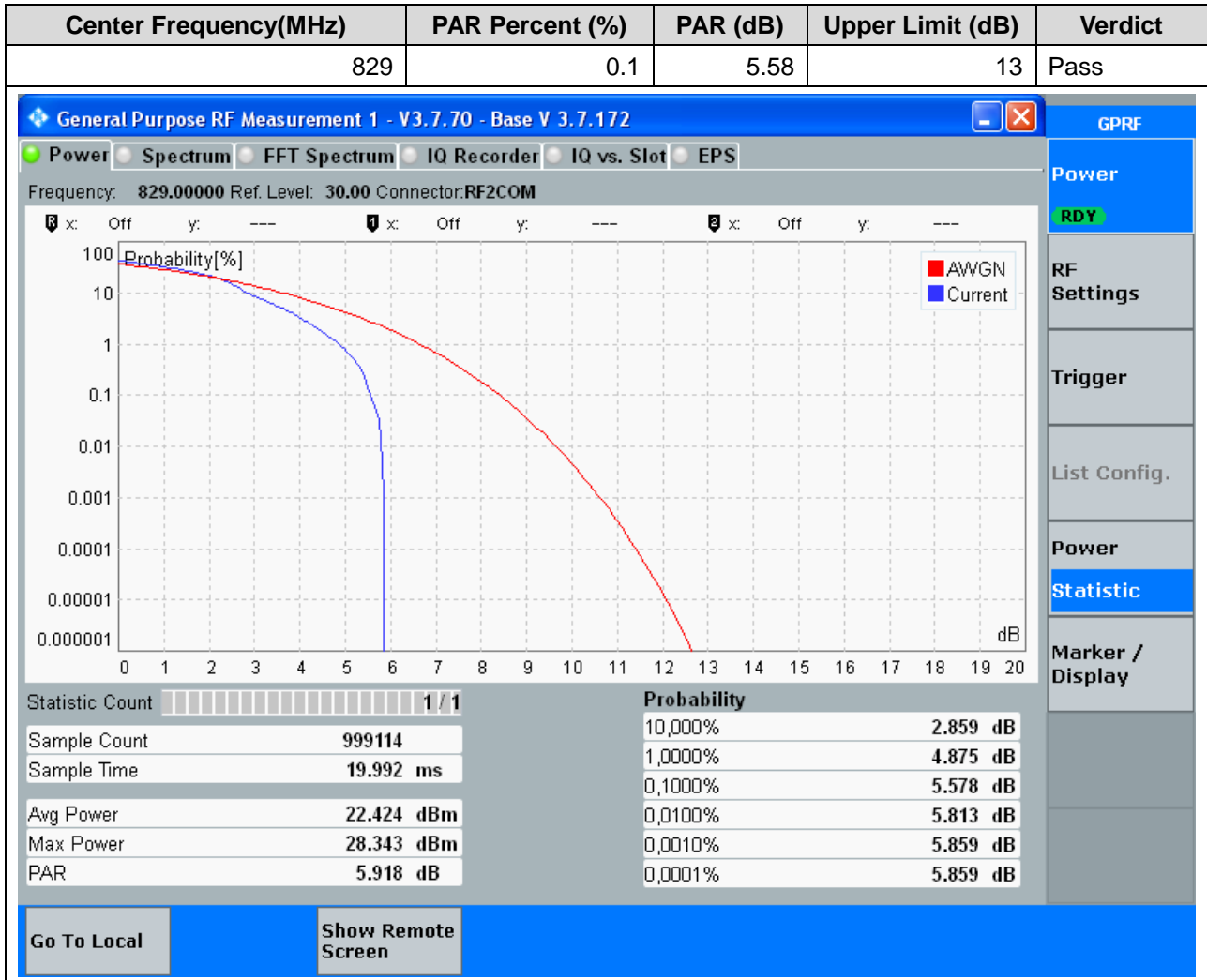
### 6.1. LTE Peak to Average Ratio(NTNV)(Subtest:1, Channel:20450, Bandwidth:10, Modulation:QPSK, RB Number: 1, RB Position:LOW)



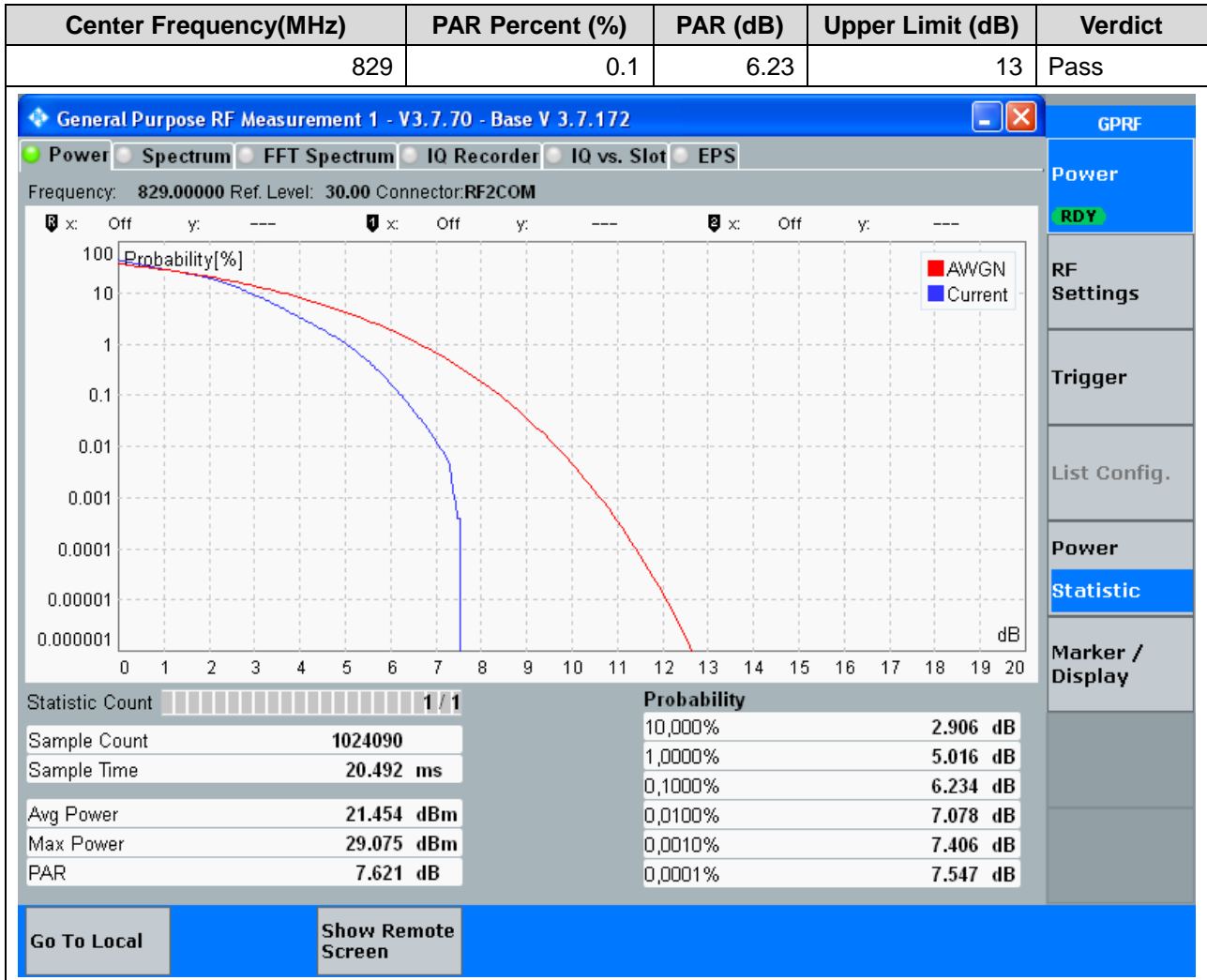
**6.2. LTE Peak to Average Ratio(NTNV)(Subtest:2, Channel:20450, Bandwidth:10, Modulation:QPSK, RB Number: 50, RB Position:LOW)**



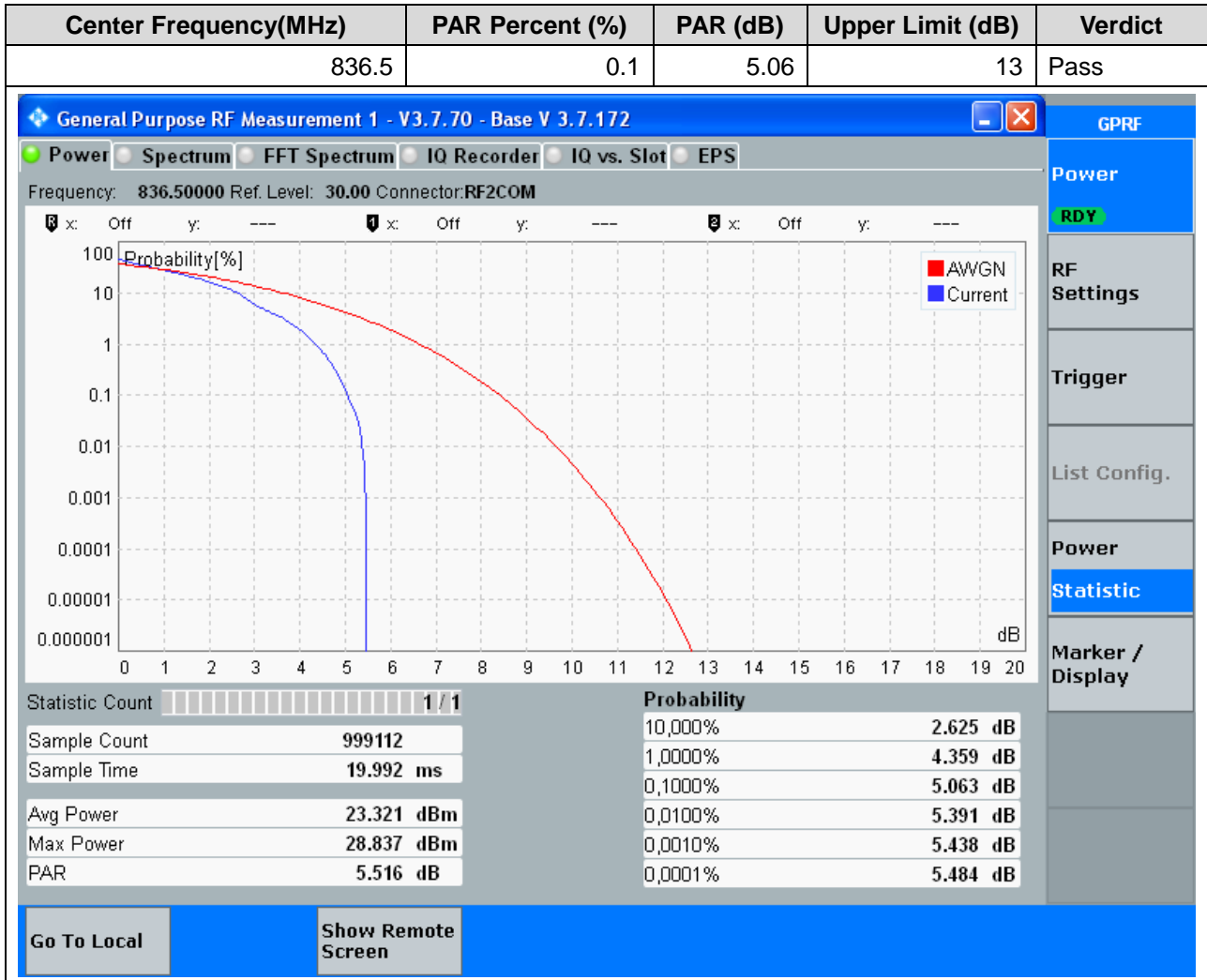
### 6.3. LTE Peak to Average Ratio(NTNV)(Subtest:3, Channel:20450, Bandwidth:10, Modulation:Q16, RB Number: 1, RB Position:LOW)



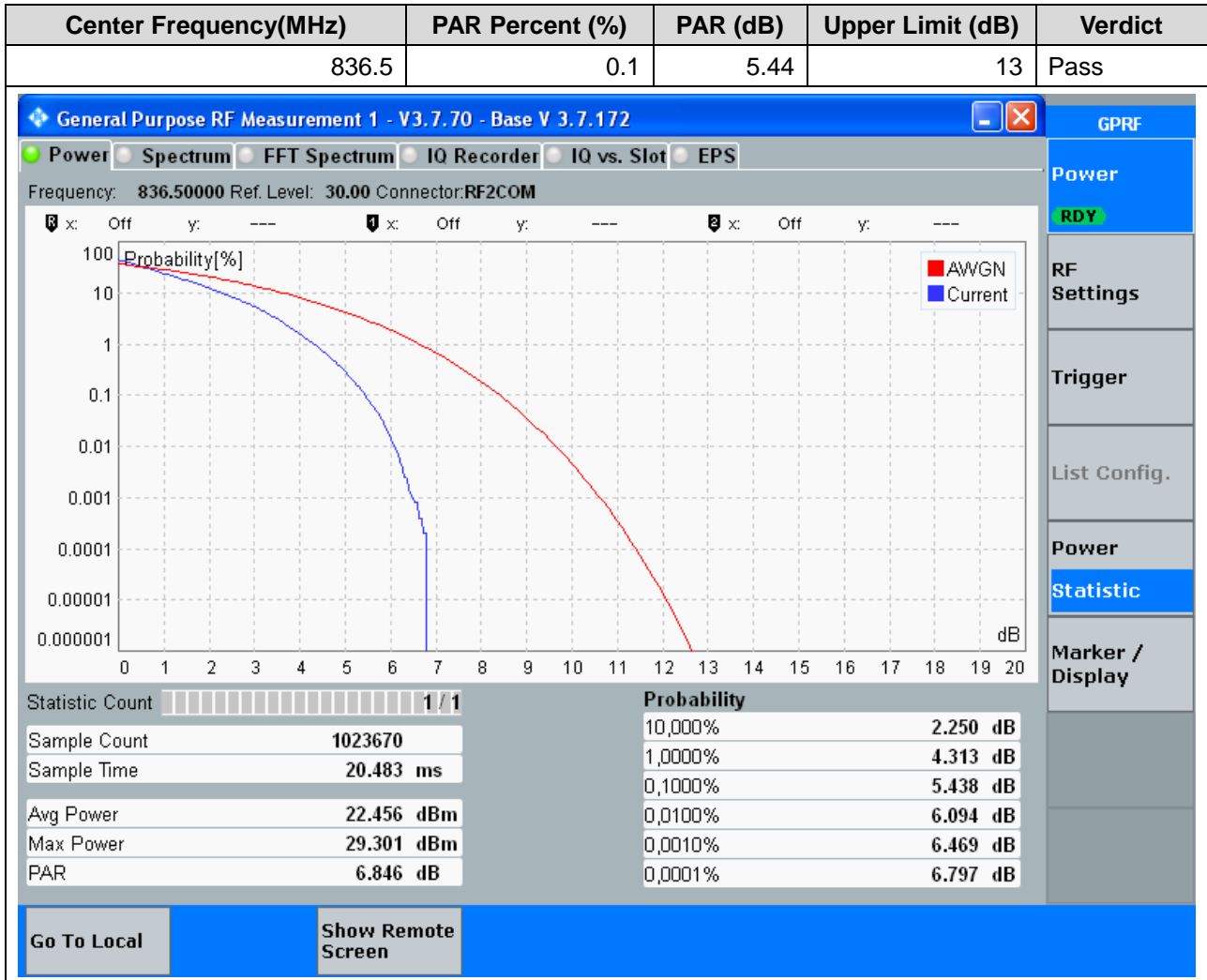
### 6.4. LTE Peak to Average Ratio(NTNV)(Subtest:4, Channel:20450, Bandwidth:10, Modulation:Q16, RB Number: 50, RB Position:LOW)



**6.5. LTE Peak to Average Ratio(NTNV)(Subtest:5, Channel:20525, Bandwidth:10, Modulation:QPSK, RB Number: 1, RB Position:LOW)**

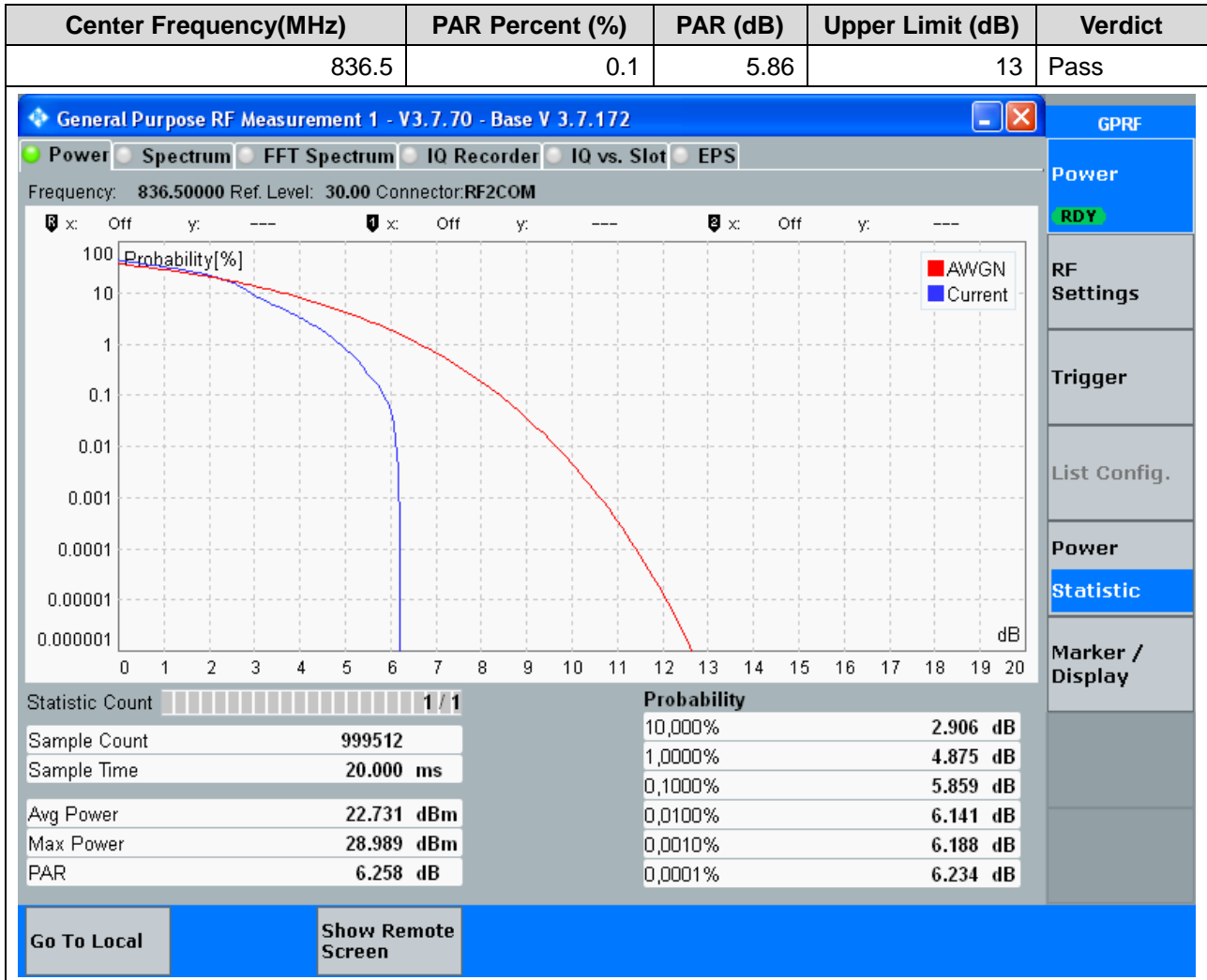


**6.6. LTE Peak to Average Ratio(NTNV)(Subtest:6, Channel:20525, Bandwidth:10, Modulation:QPSK, RB Number: 50, RB Position:LOW)**

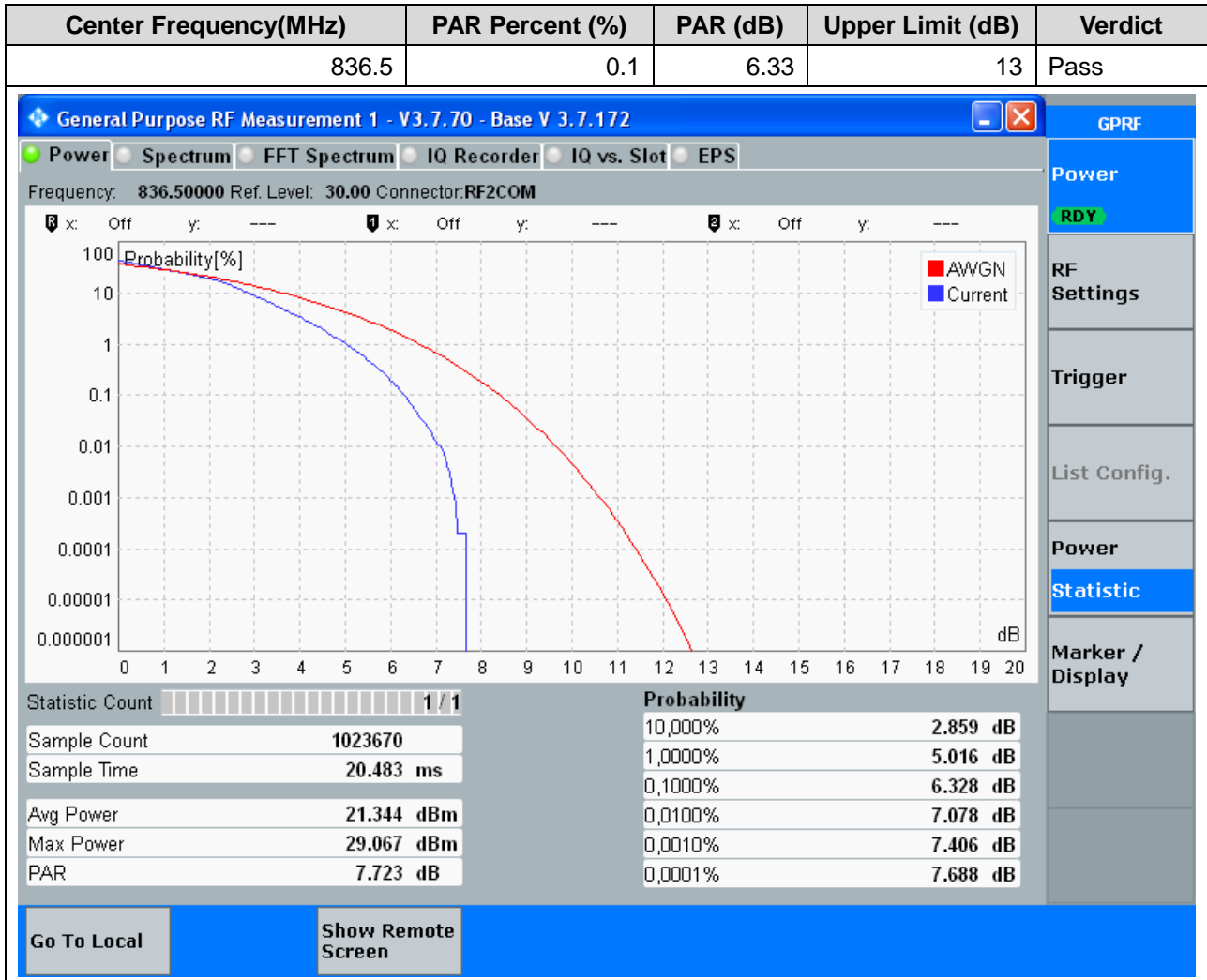




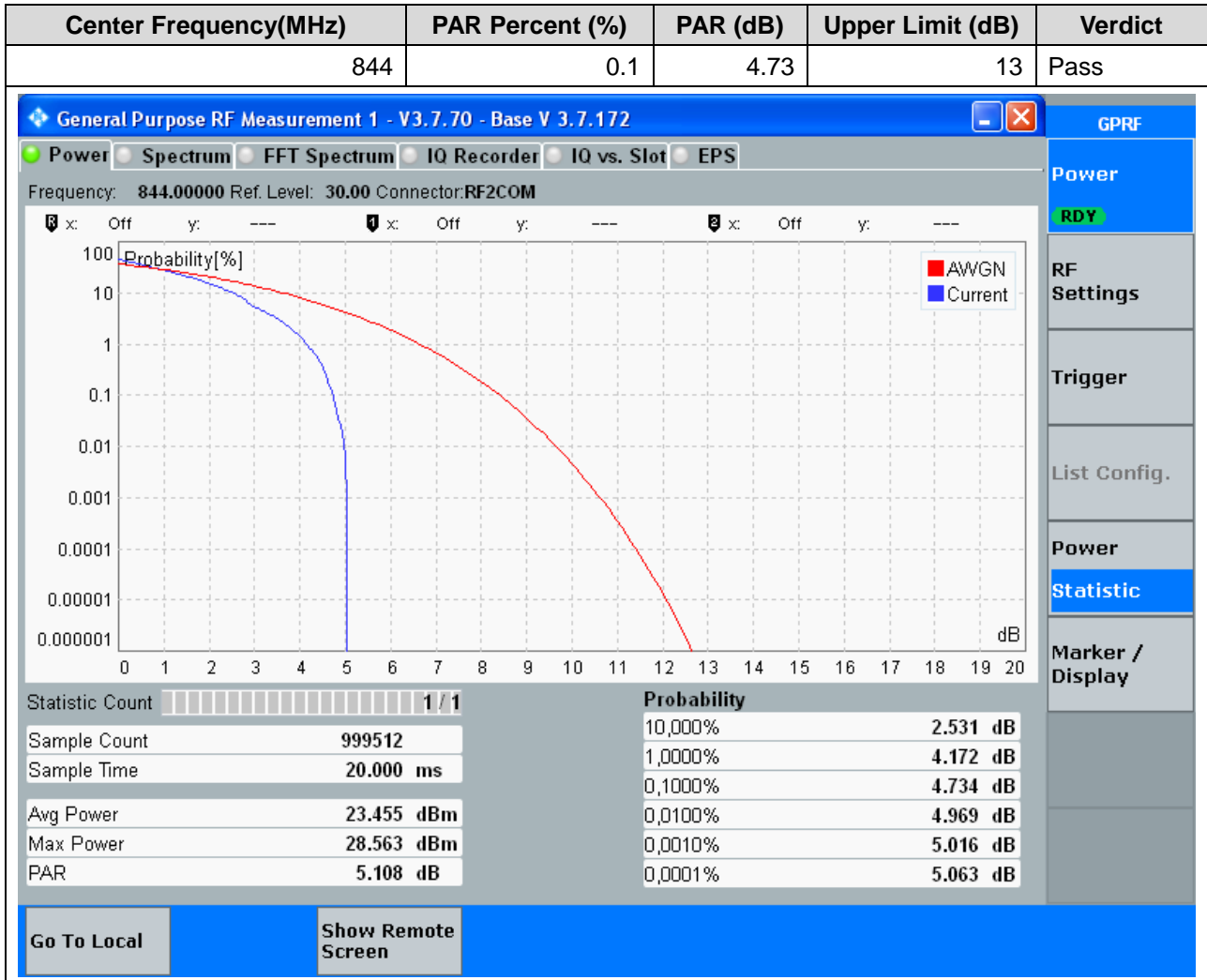
**6.7. LTE Peak to Average Ratio(NTNV)(Subtest:7, Channel:20525, Bandwidth:10, Modulation:Q16, RB Number: 1, RB Position:LOW)**



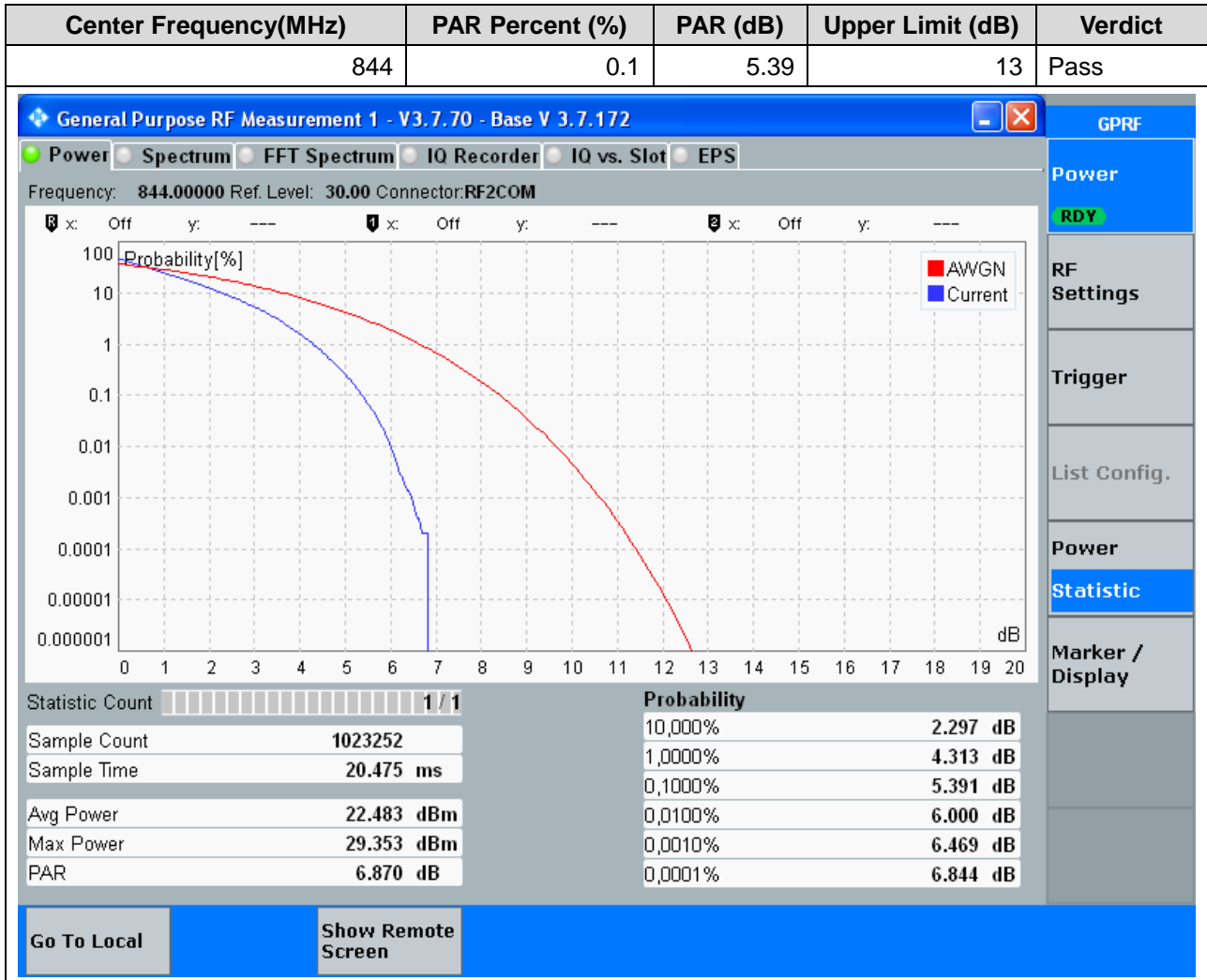
**6.8. LTE Peak to Average Ratio(NTNV)(Subtest:8, Channel:20525, Bandwidth:10, Modulation:Q16, RB Number: 50, RB Position:LOW)**



**6.9. LTE Peak to Average Ratio(NTNV)(Subtest:9, Channel:20600, Bandwidth:10, Modulation:QPSK, RB Number: 1, RB Position:LOW)**



**6.10. LTE Peak to Average Ratio(NTNV)(Subtest:10, Channel:20600, Bandwidth:10, Modulation:QPSK, RB Number: 50, RB Position:LOW)**



**6.11. LTE Peak to Average Ratio(NTNV)(Subtest:11, Channel:20600, Bandwidth:10, Modulation:Q16, RB Number: 1, RB Position:LOW)**

Center Frequency(MHz)	PAR Percent (%)	PAR (dB)	Upper Limit (dB)	Verdict
844	0.1	5.39	13	Pass

The screenshot displays the 'General Purpose RF Measurement 1 - V3.7.70 - Base V 3.7.172' interface. The main plot shows 'Probability[%]' on the y-axis (log scale from 0.000001 to 100) versus 'dB' on the x-axis (linear scale from 0 to 20). Two curves are shown: 'AWGN' (red) and 'Current' (blue). The 'Current' curve shows a sharp drop-off around 5.8 dB, while the 'AWGN' curve is broader and extends to approximately 12.5 dB.

Statistic Count		Probability	
Sample Count	999912	10,000%	2.859 dB
Sample Time	20.008 ms	1,0000%	4.781 dB
Avg Power	22.730 dBm	0,1000%	5.391 dB
Max Power	28.555 dBm	0,0100%	5.672 dB
PAR	5.824 dB	0,0010%	5.766 dB
		0,0001%	5.813 dB

Buttons at the bottom: Go To Local, Show Remote Screen.

**6.12. LTE Peak to Average Ratio(NTNV)(Subtest:12, Channel:20600, Bandwidth:10, Modulation:Q16, RB Number: 50, RB Position:LOW)**

Center Frequency(MHz)	PAR Percent (%)	PAR (dB)	Upper Limit (dB)	Verdict
844	0.1	6.23	13	Pass

General Purpose RF Measurement 1 - V3.7.70 - Base V 3.7.172
GPRF

Power Spectrum FFT Spectrum IQ Recorder IQ vs. Slot EPS
Power

Frequency: 844.00000 Ref. Level: 30.00 Connector:RF2COM
RDY

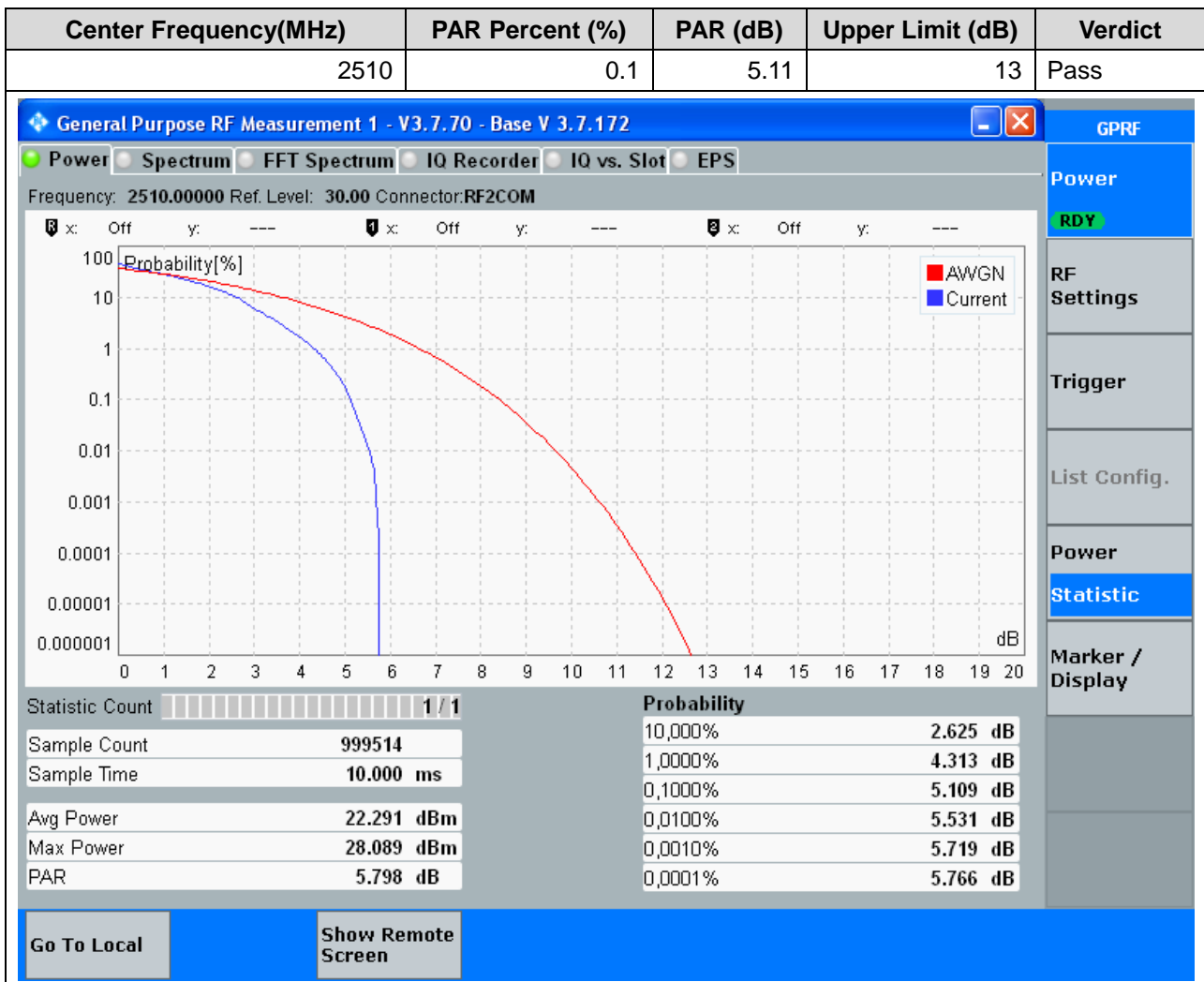
Statistic Count	Value
Sample Count	1023252
Sample Time	20.475 ms
Avg Power	21.369 dBm
Max Power	29.035 dBm
PAR	7.666 dB

Probability	Value
10,000%	2.906 dB
1,0000%	4.969 dB
0,1000%	6.234 dB
0,0100%	6.984 dB
0,0010%	7.406 dB
0,0001%	7.641 dB

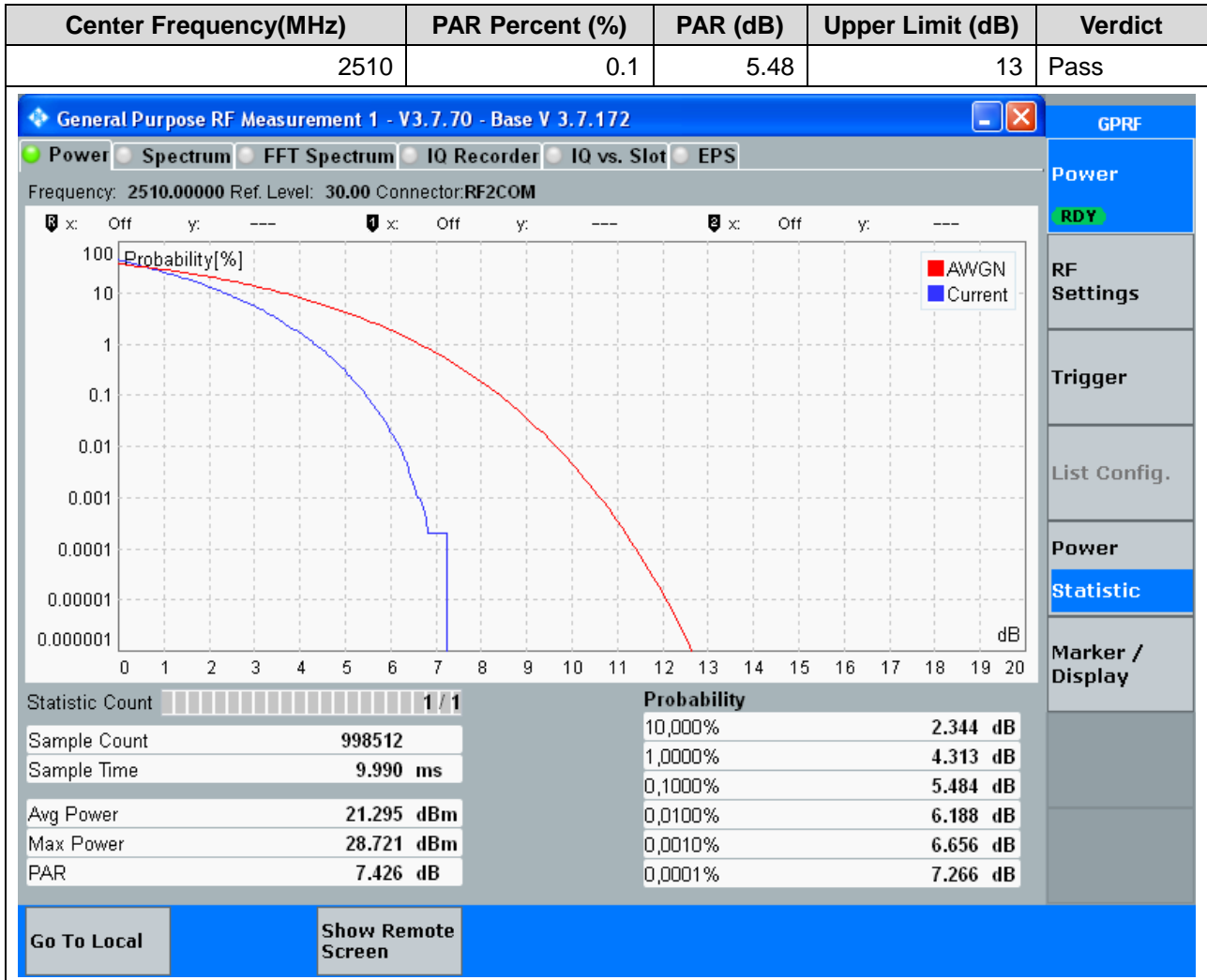
Go To Local
Show Remote Screen

## 7. LTE\_Band7

### 7.1. LTE Peak to Average Ratio(NTNV)(Subtest:1, Channel:20850, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)

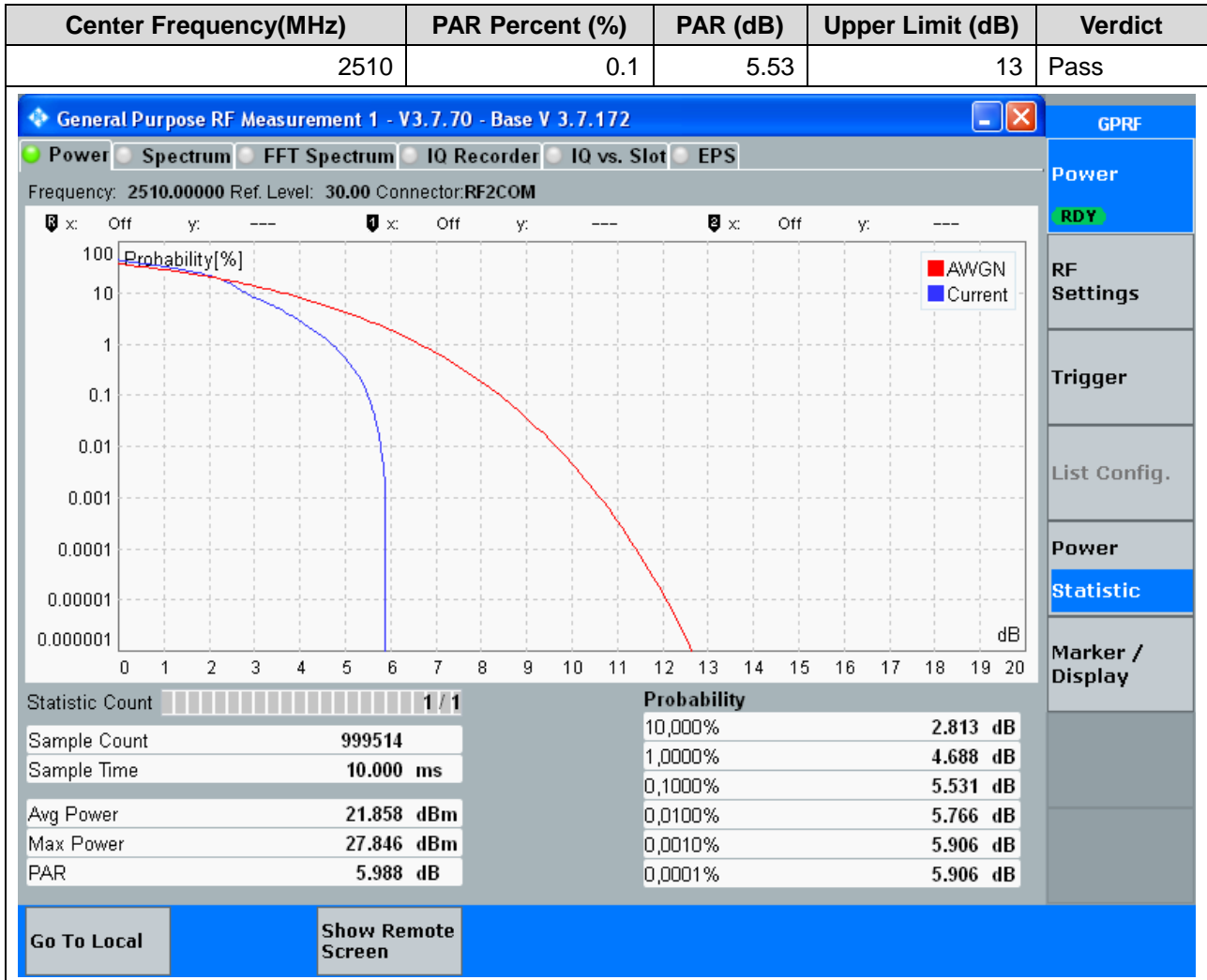


**7.2. LTE Peak to Average Ratio(NTNV)(Subtest:2, Channel:20850, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**

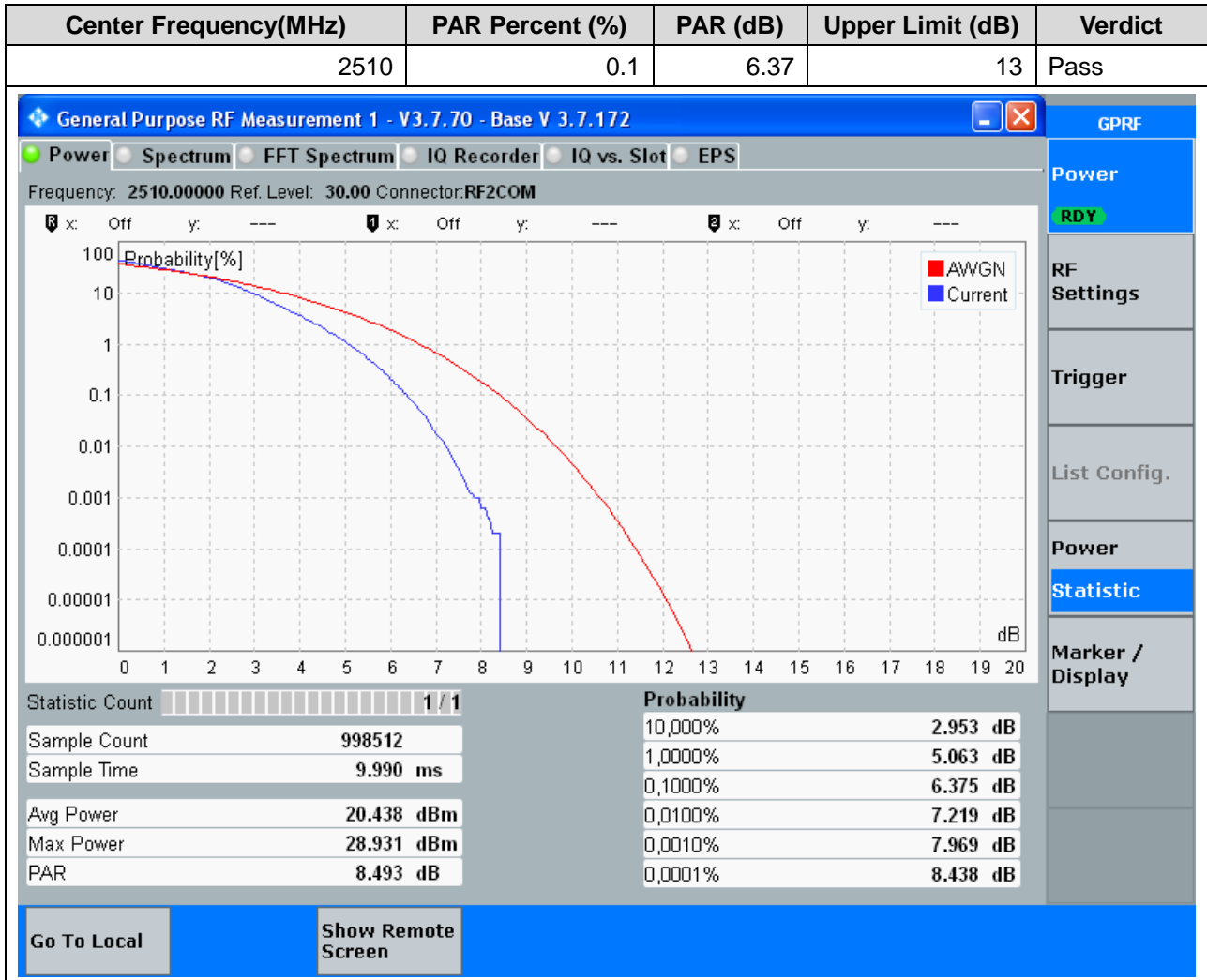




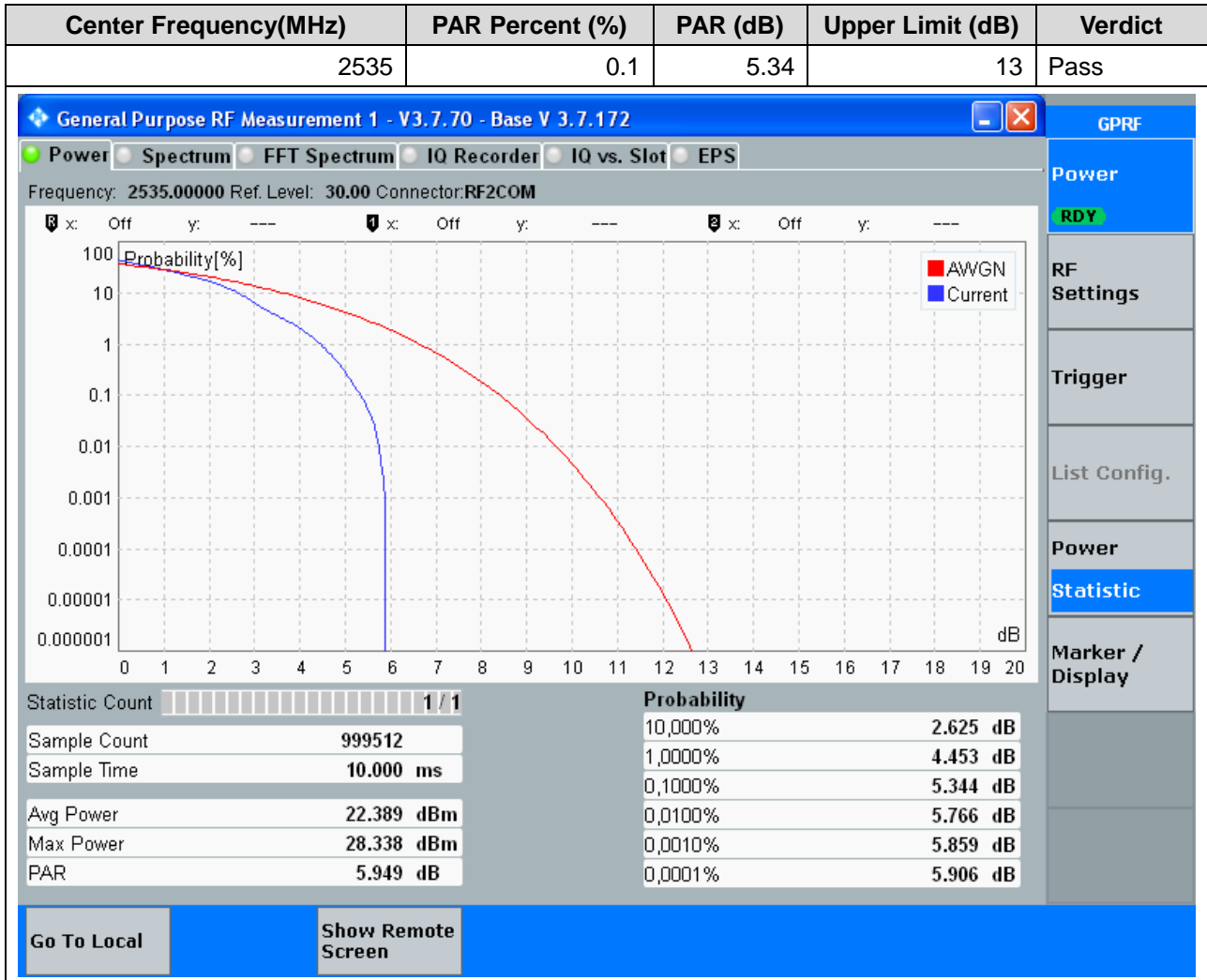
### 7.3. LTE Peak to Average Ratio(NTNV)(Subtest:3, Channel:20850, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)



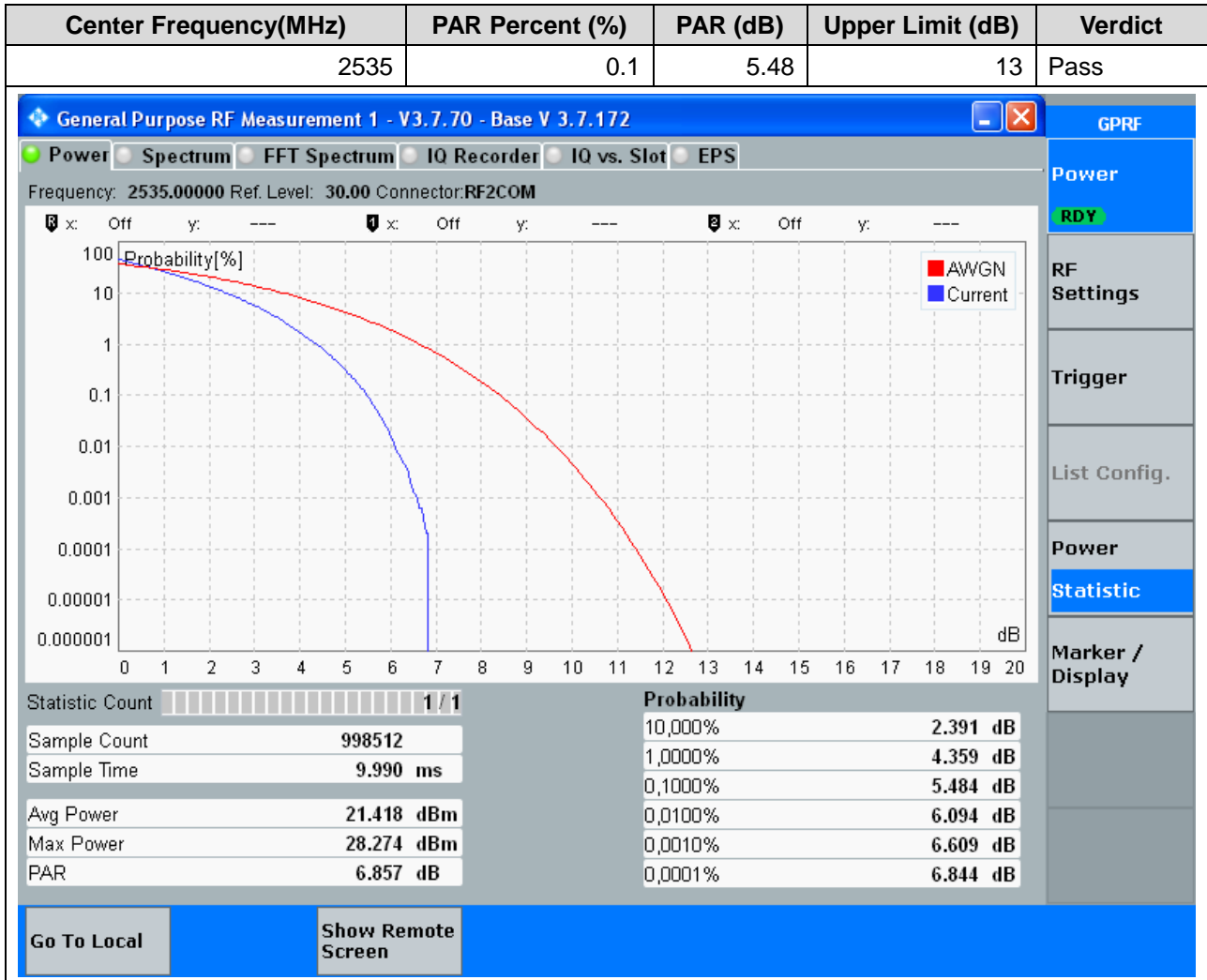
**7.4. LTE Peak to Average Ratio(NTNV)(Subtest:4, Channel:20850, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**



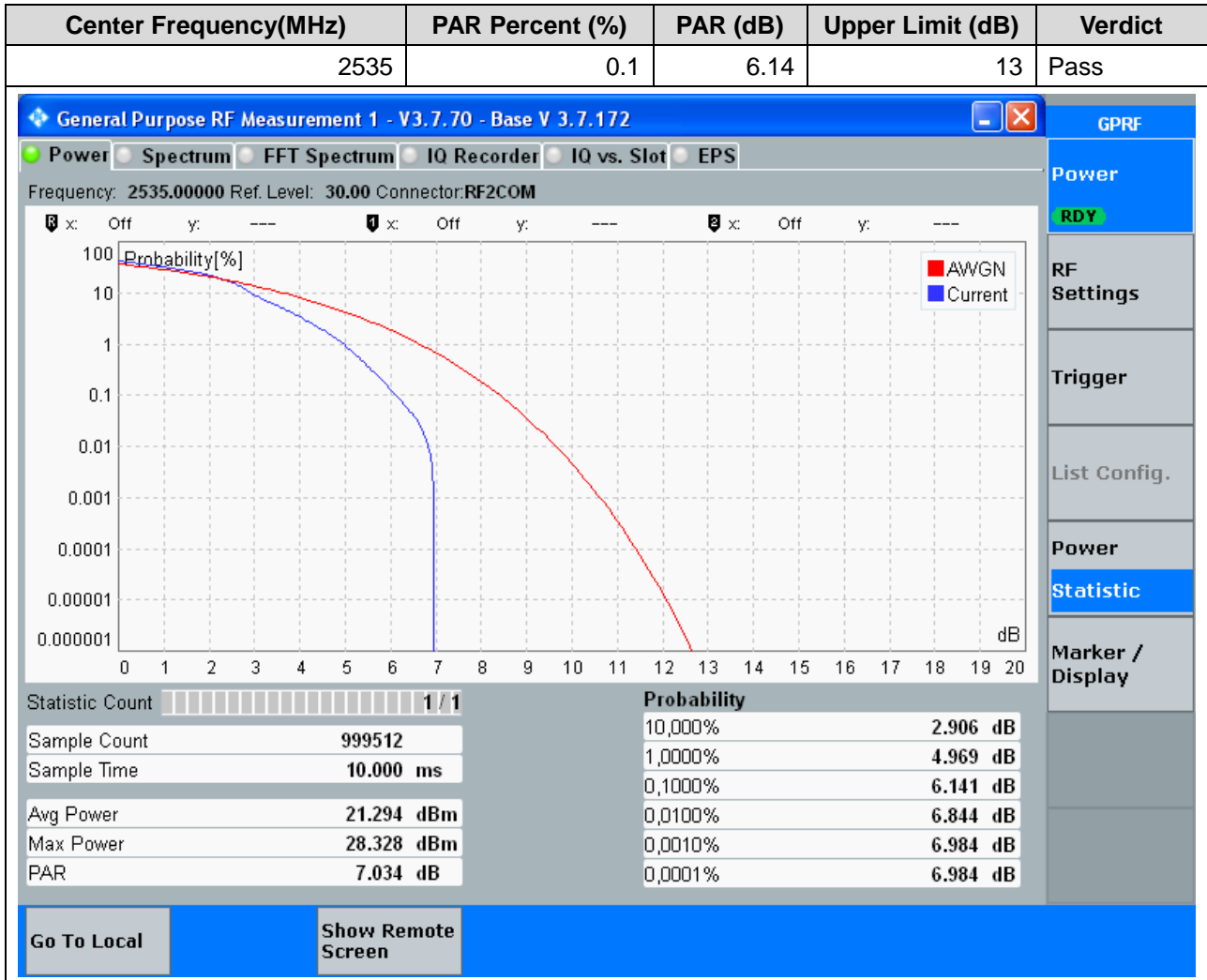
**7.5. LTE Peak to Average Ratio(NTNV)(Subtest:5, Channel:21100, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**



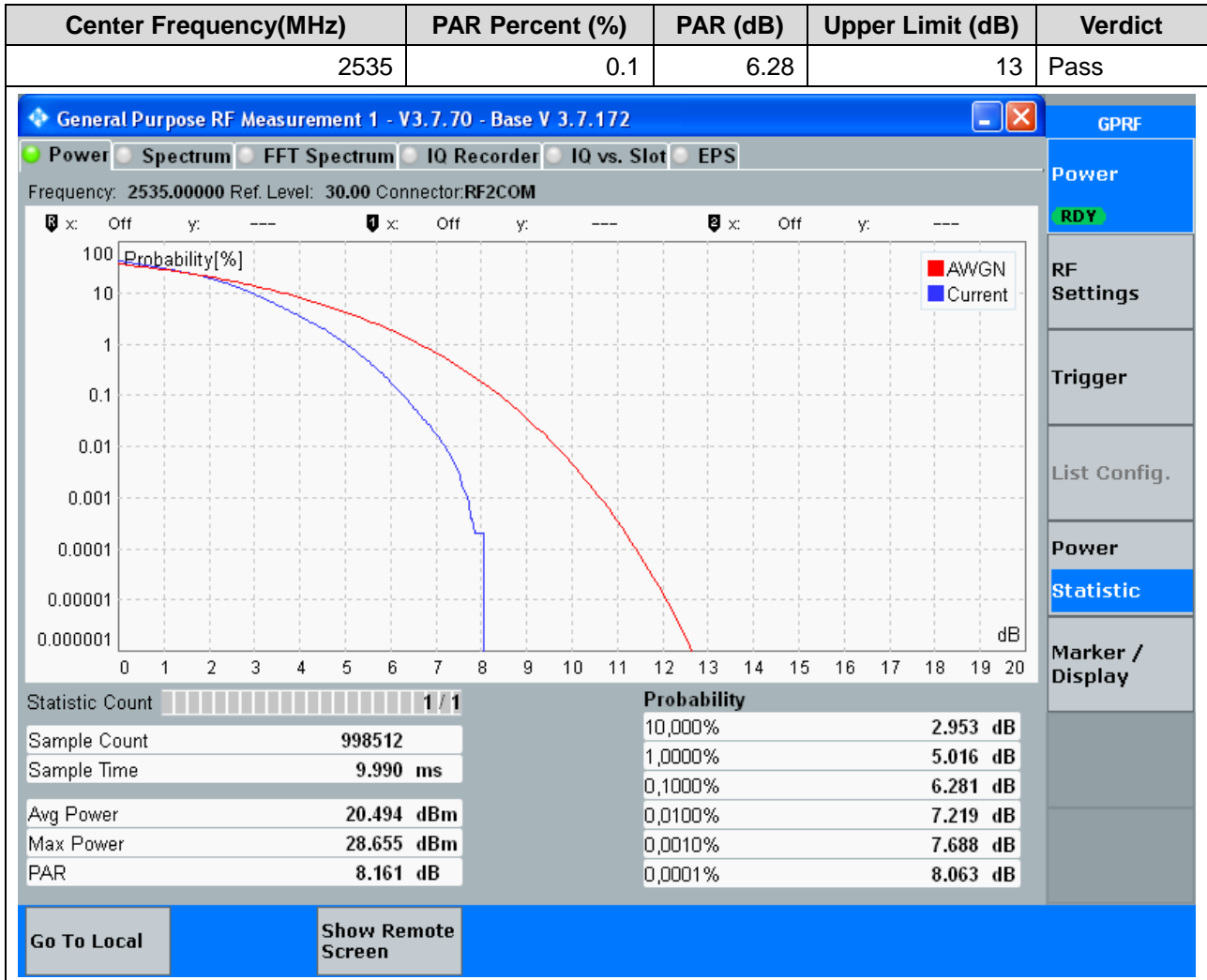
**7.6. LTE Peak to Average Ratio(NTNV)(Subtest:6, Channel:21100, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**



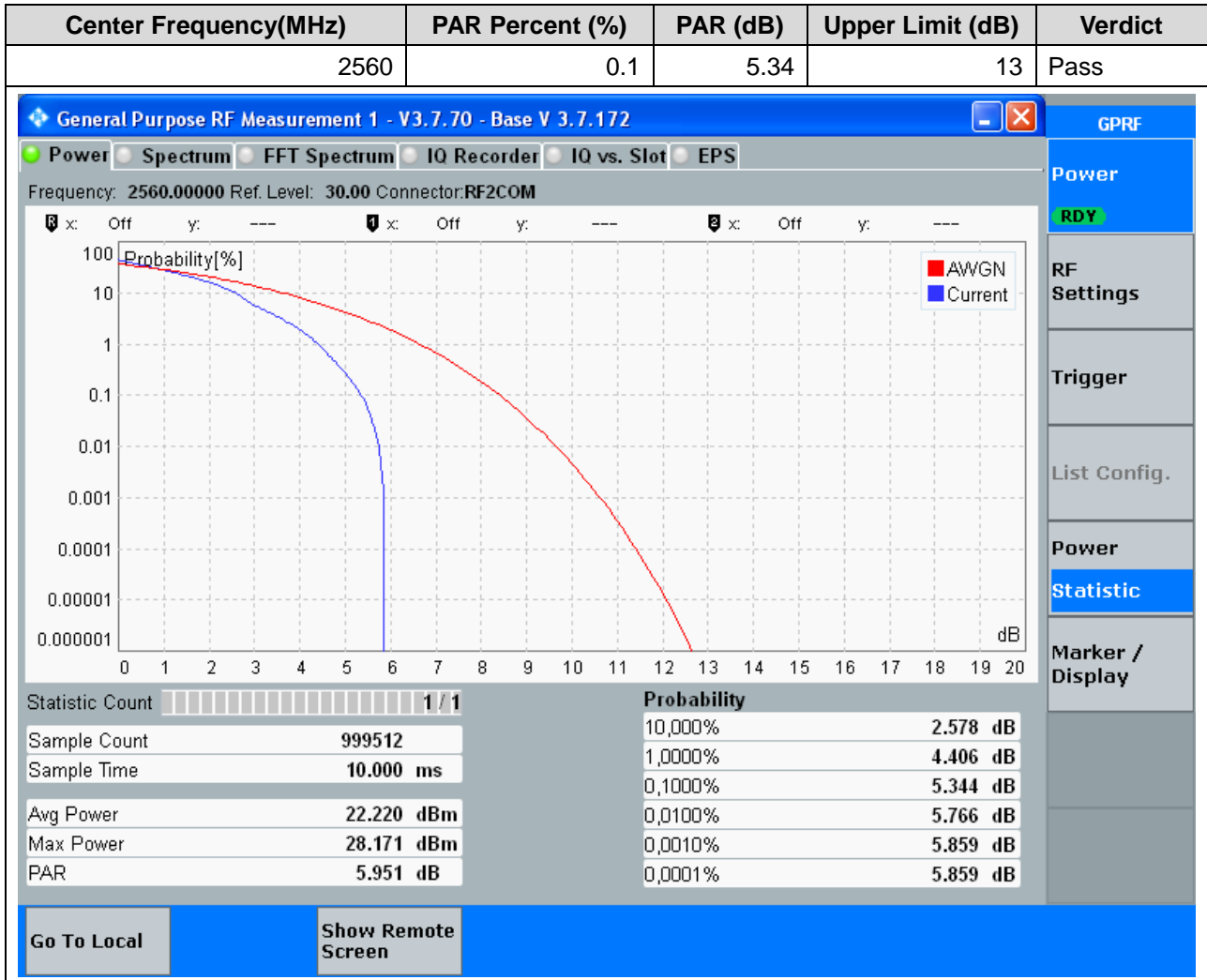
**7.7. LTE Peak to Average Ratio(NTNV)(Subtest:7, Channel:21100, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**



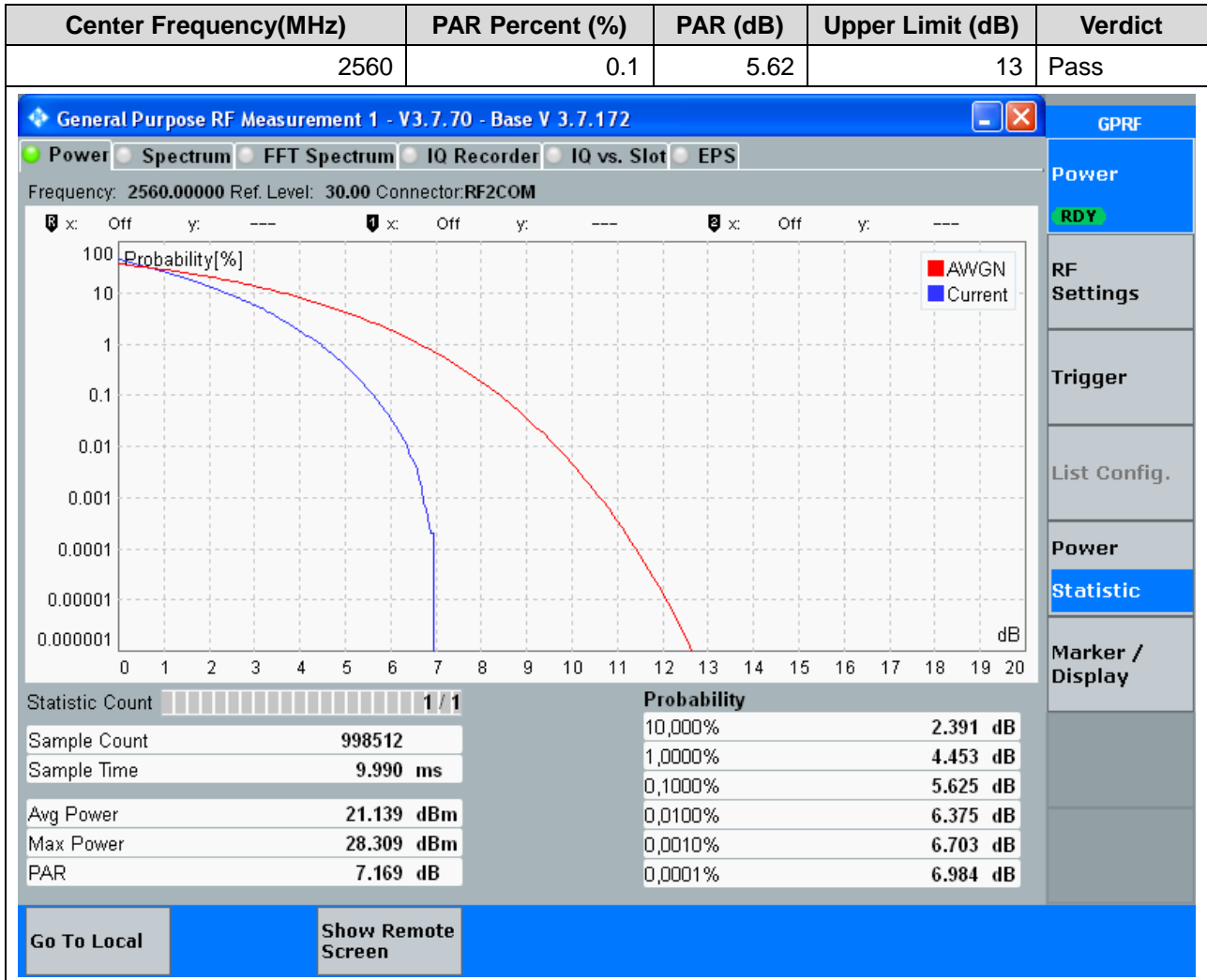
**7.8. LTE Peak to Average Ratio(NTNV)(Subtest:8, Channel:21100, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**



**7.9. LTE Peak to Average Ratio(NTNV)(Subtest:9, Channel:21350, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**

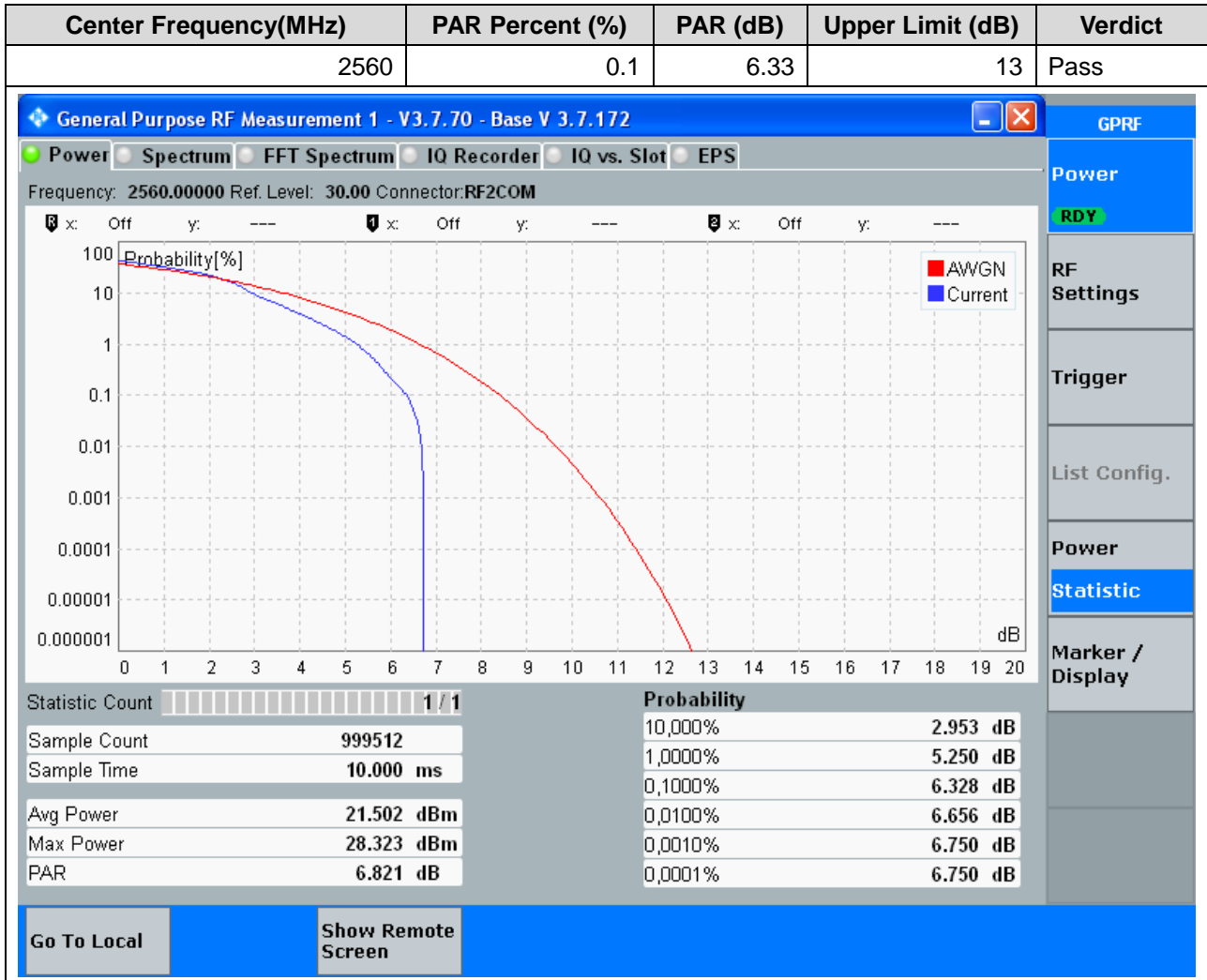


**7.10. LTE Peak to Average Ratio(NTNV)(Subtest:10, Channel:21350, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**

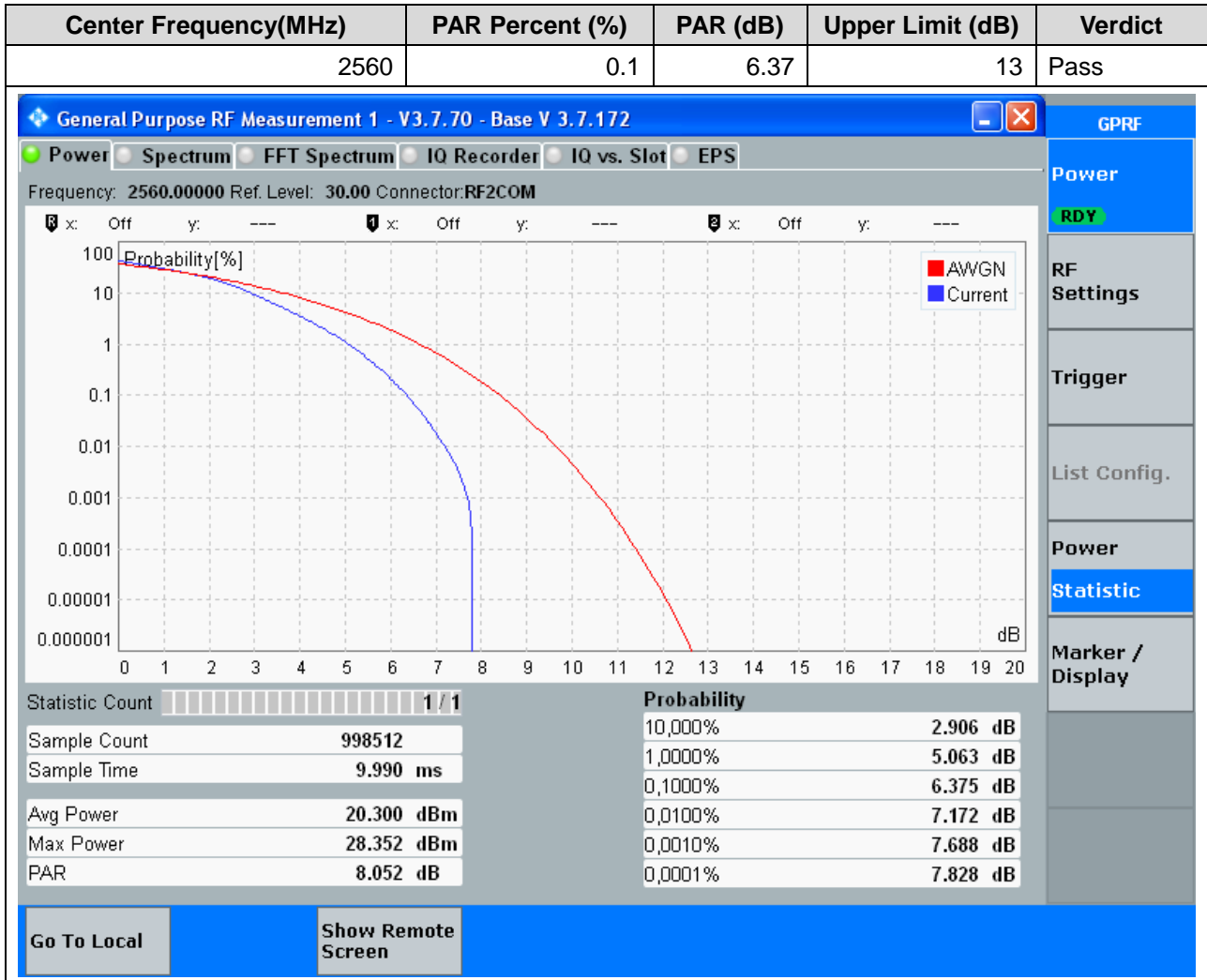




**7.11. LTE Peak to Average Ratio(NTNV)(Subtest:11, Channel:21350, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**

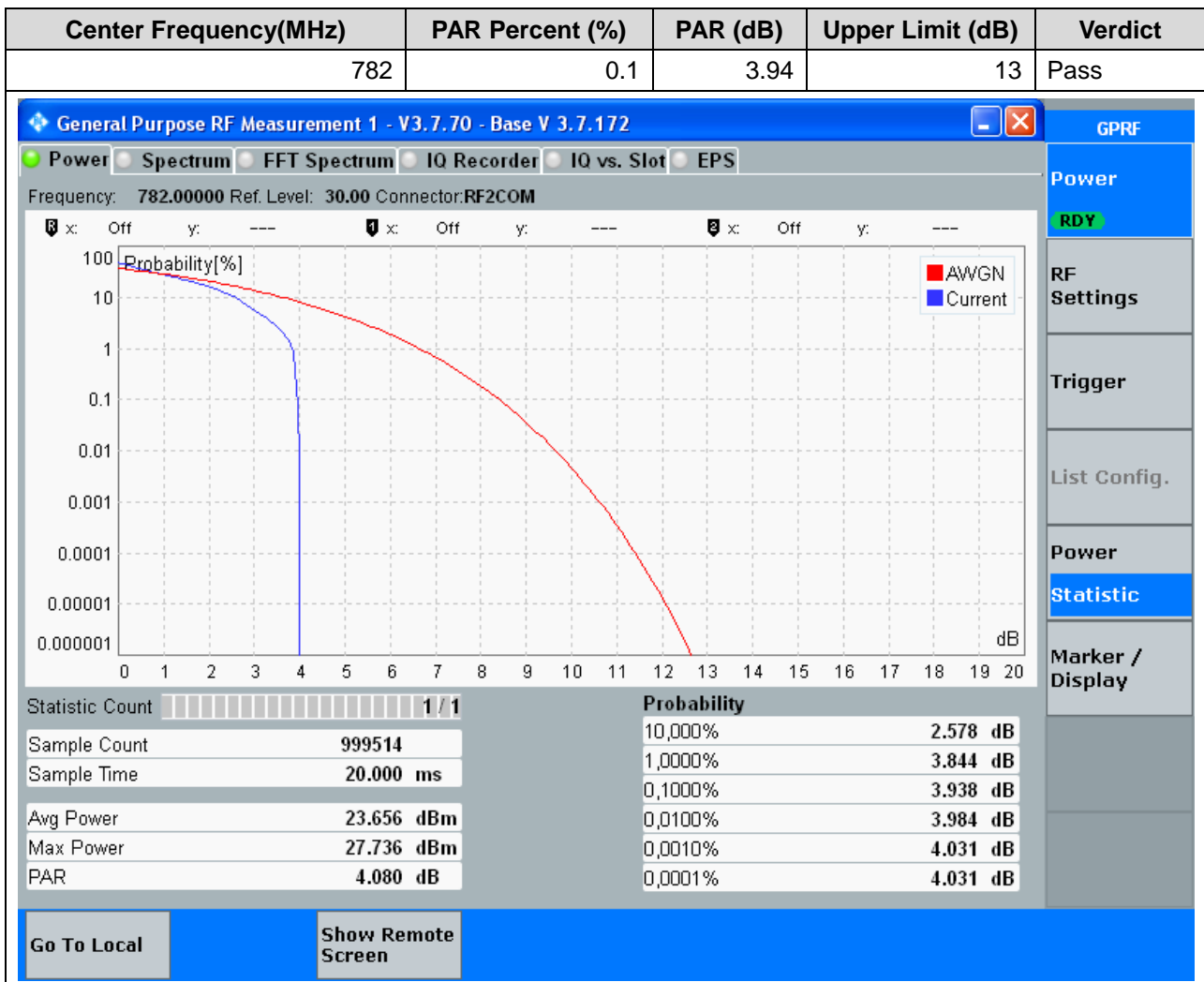


**7.12. LTE Peak to Average Ratio(NTNV)(Subtest:12, Channel:21350, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**

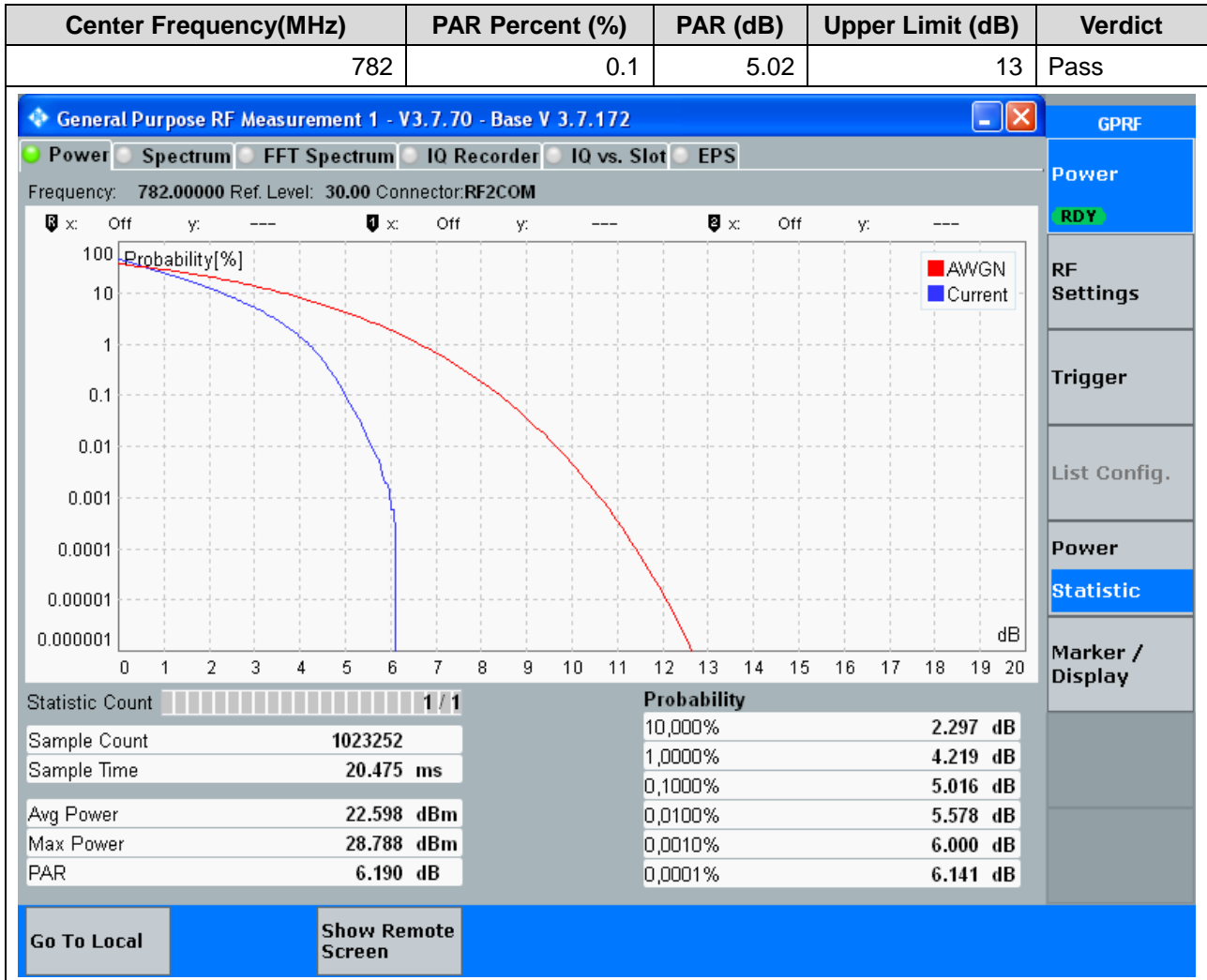


## 8. LTE\_Band13

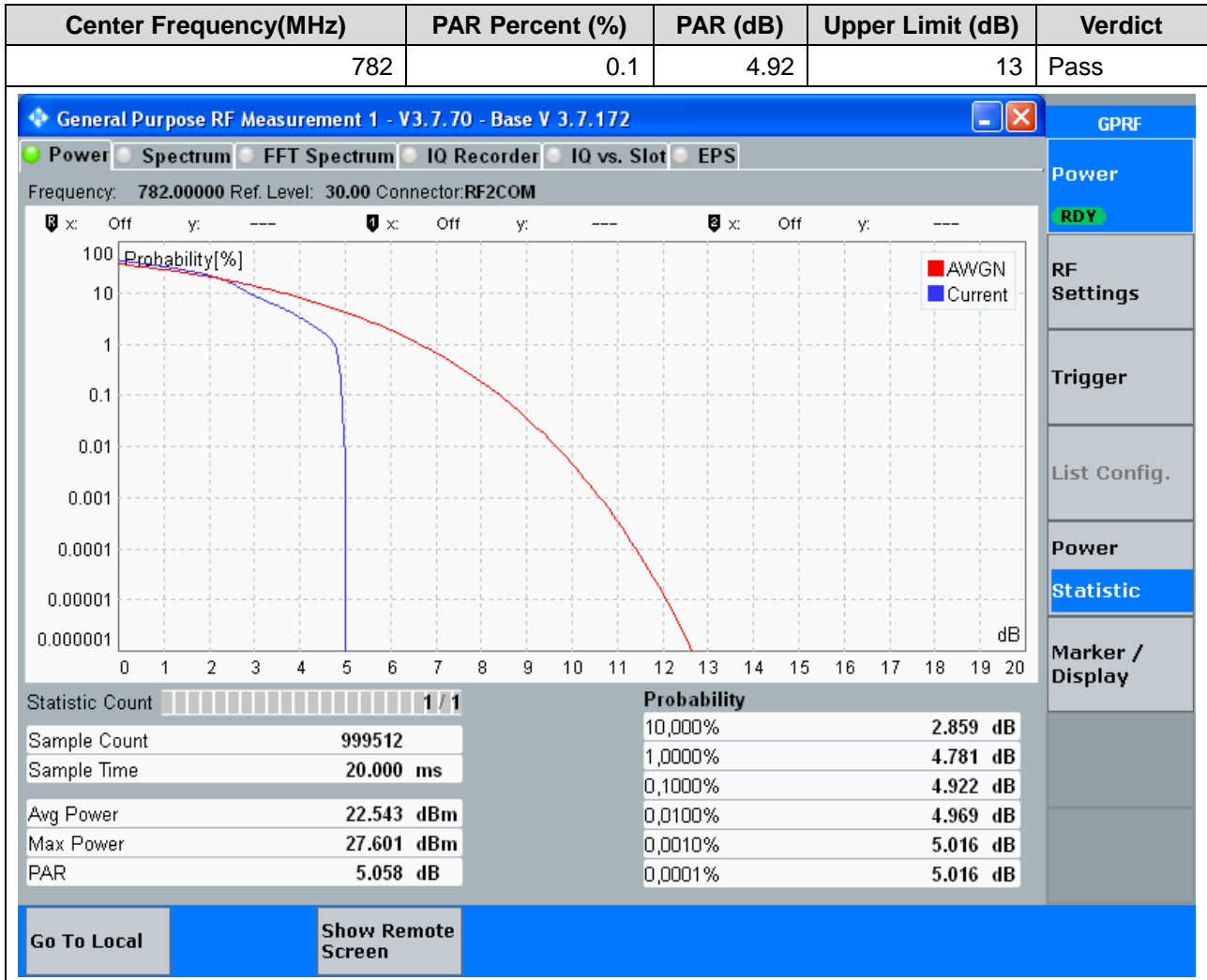
### 8.1. LTE Peak to Average Ratio(NTNV)(Subtest:1, Channel:23230, Bandwidth:10, Modulation:QPSK, RB Number: 1, RB Position:LOW)



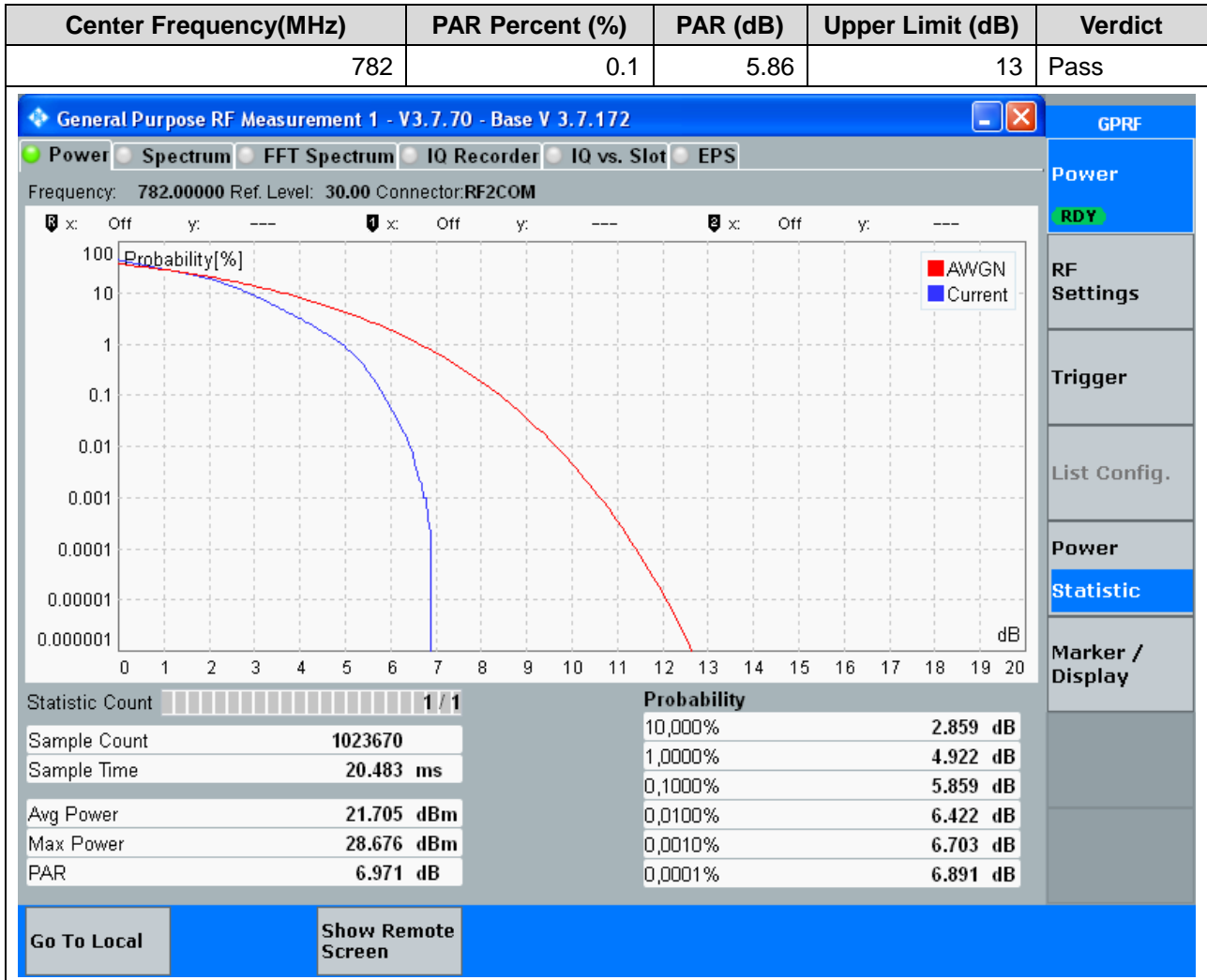
**8.2. LTE Peak to Average Ratio(NTNV)(Subtest:2, Channel:23230, Bandwidth:10, Modulation:QPSK, RB Number: 50, RB Position:LOW)**



### 8.3. LTE Peak to Average Ratio(NTNV)(Subtest:3, Channel:23230, Bandwidth:10, Modulation:Q16, RB Number: 1, RB Position:LOW)

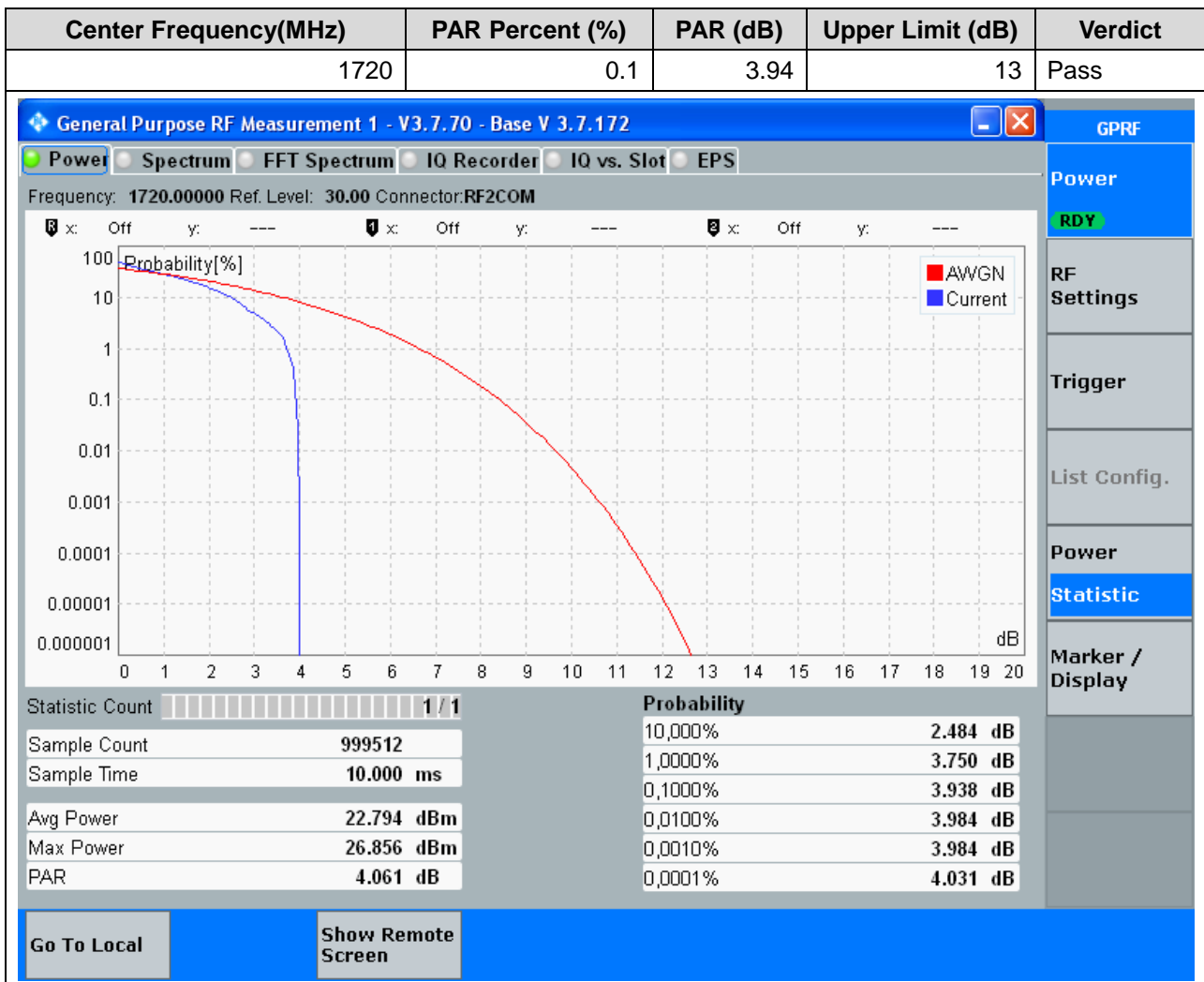


### 8.4. LTE Peak to Average Ratio(NTNV)(Subtest:4, Channel:23230, Bandwidth:10, Modulation:Q16, RB Number: 50, RB Position:LOW)

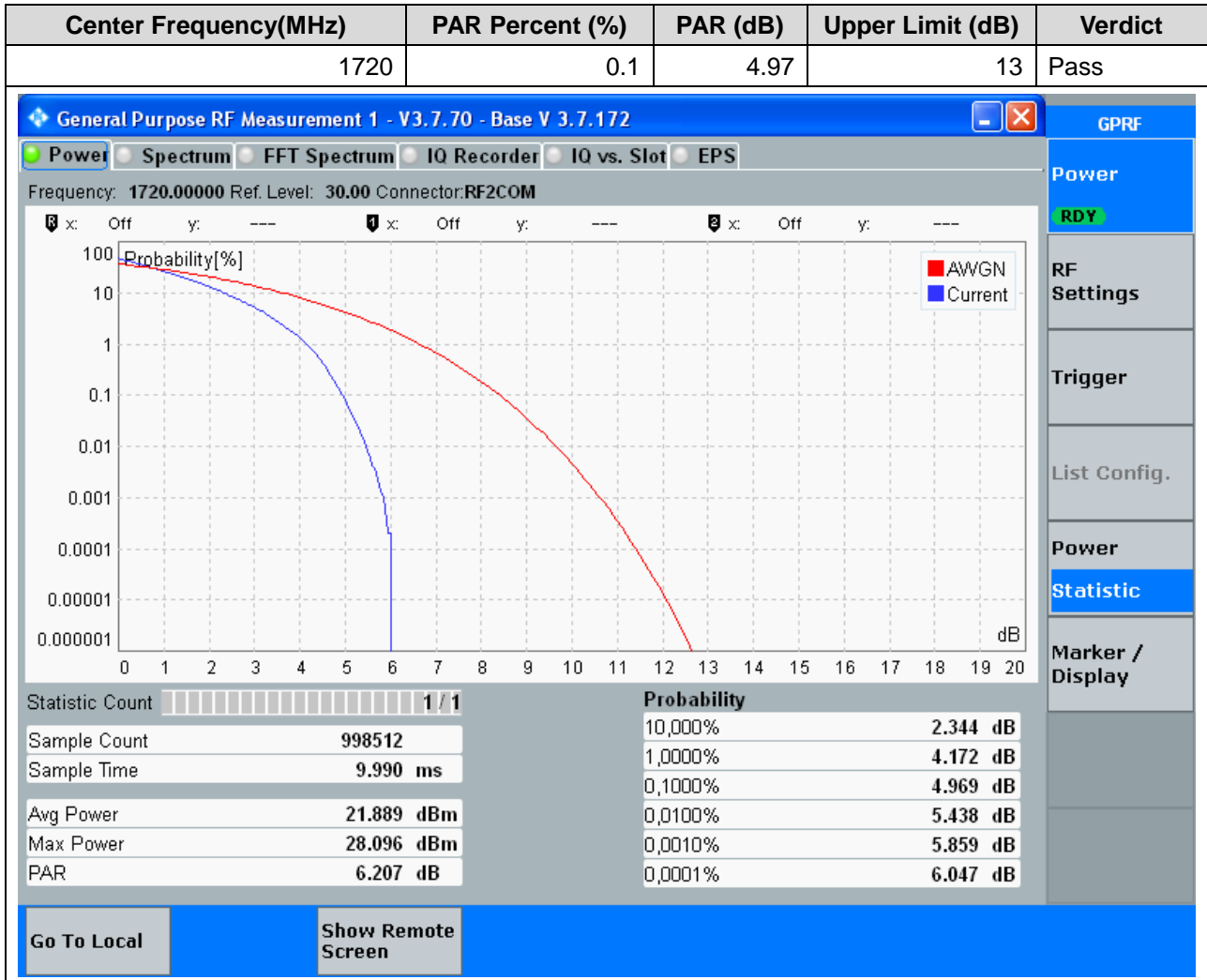


## 9. LTE\_Band66

### 9.1. LTE Peak to Average Ratio(NTNV)(Subtest:1, Channel:132072, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)

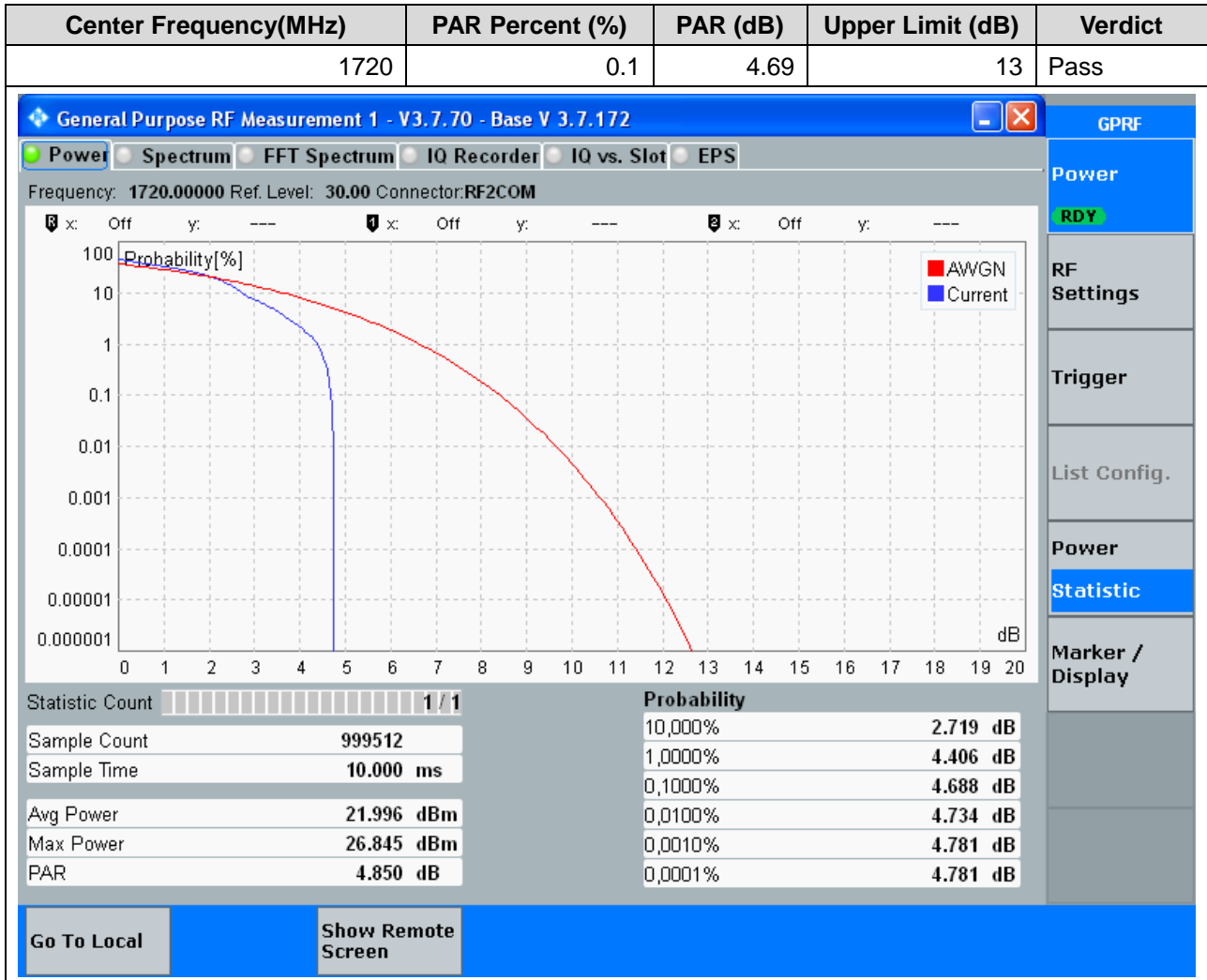


**9.2. LTE Peak to Average Ratio(NTNV)(Subtest:2, Channel:132072, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**

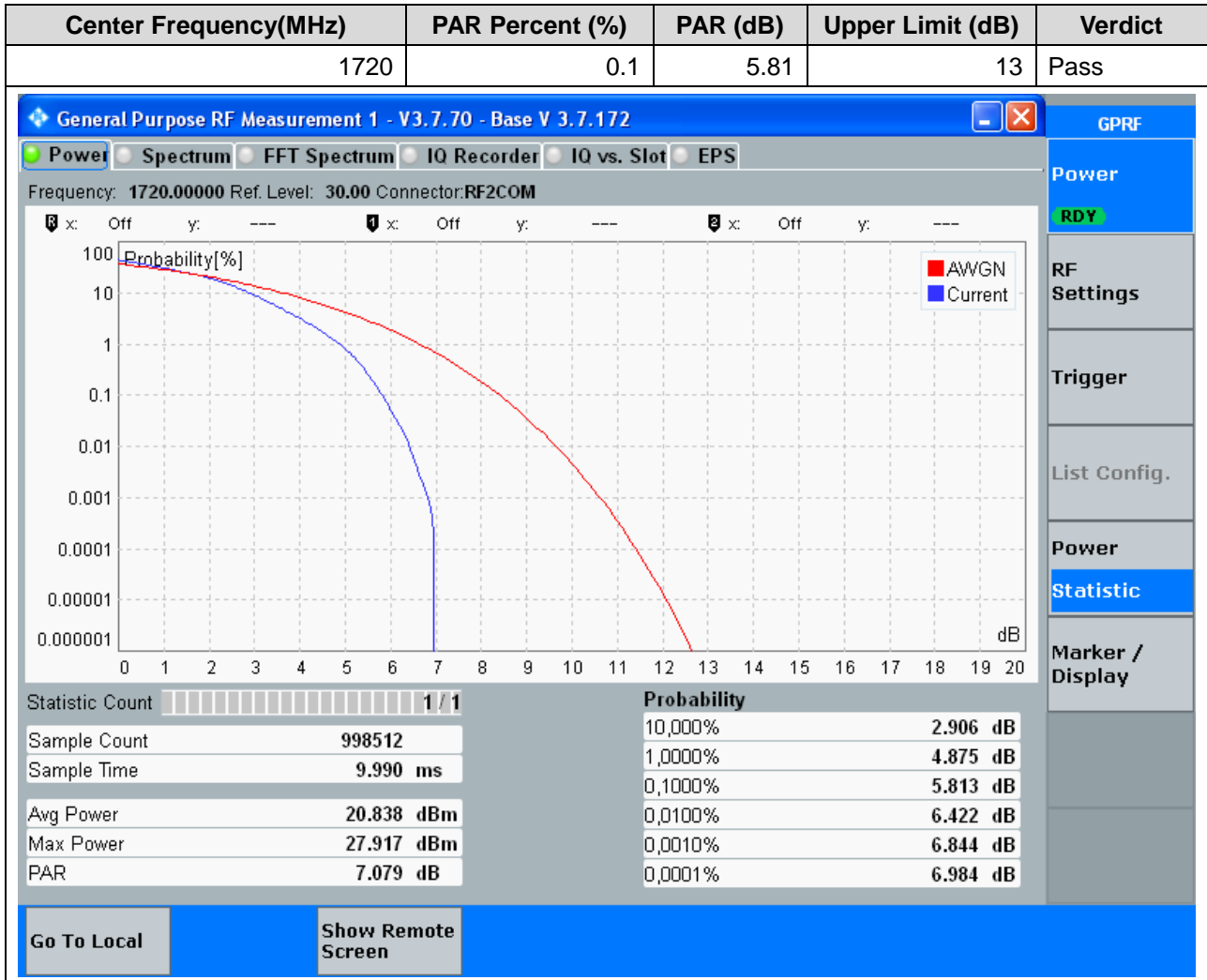




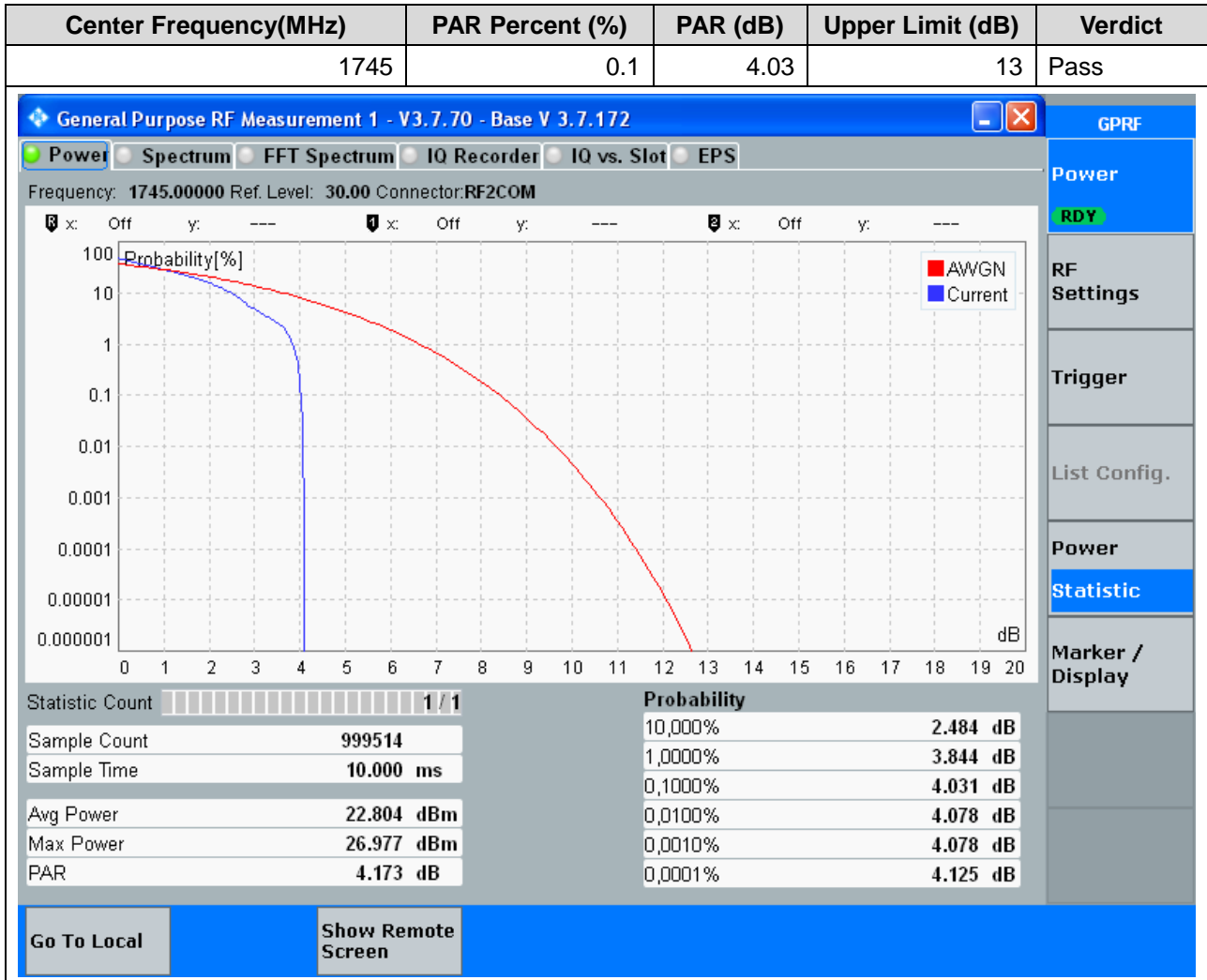
### 9.3. LTE Peak to Average Ratio(NTNV)(Subtest:3, Channel:132072, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)



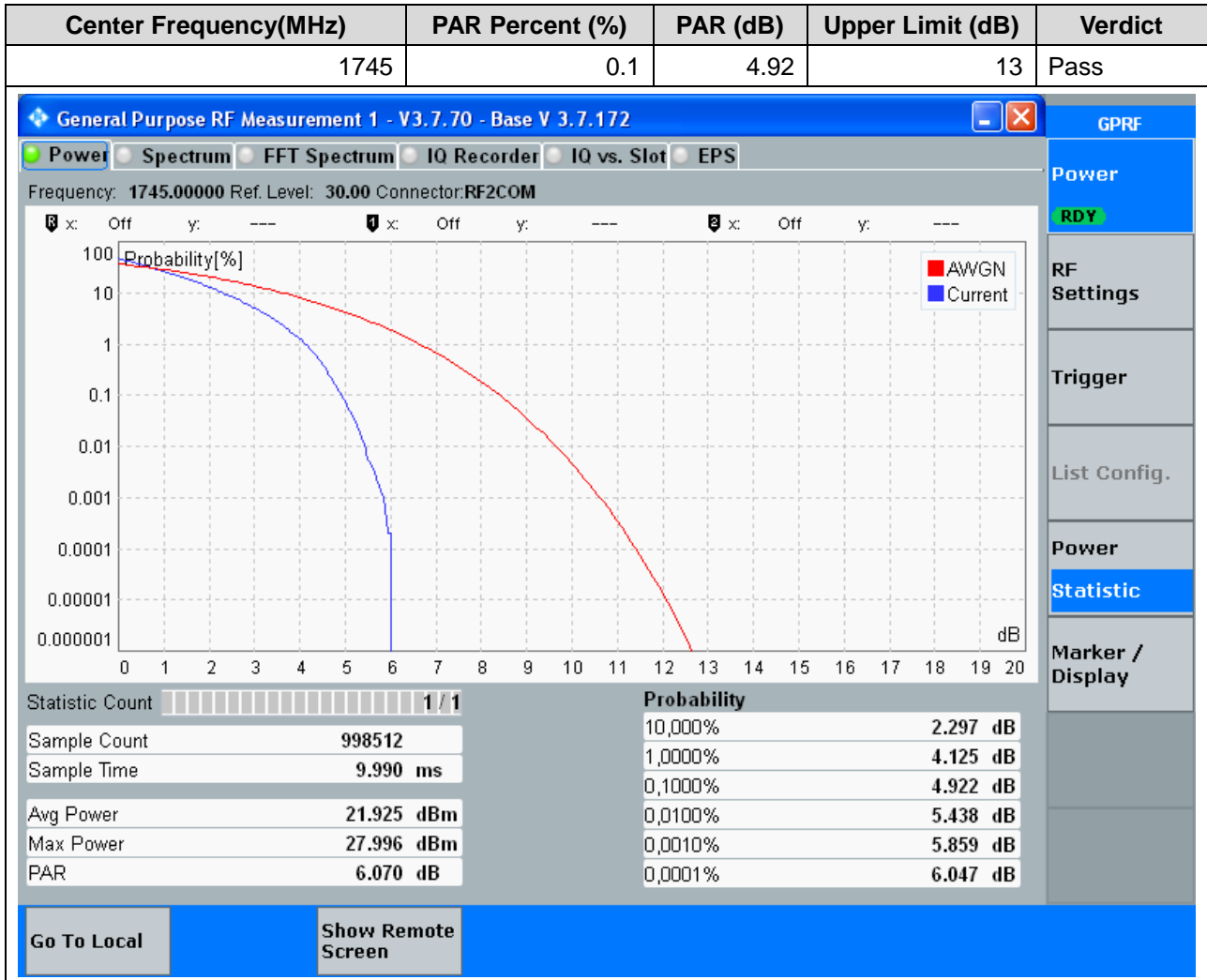
**9.4. LTE Peak to Average Ratio(NTNV)(Subtest:4, Channel:132072, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**



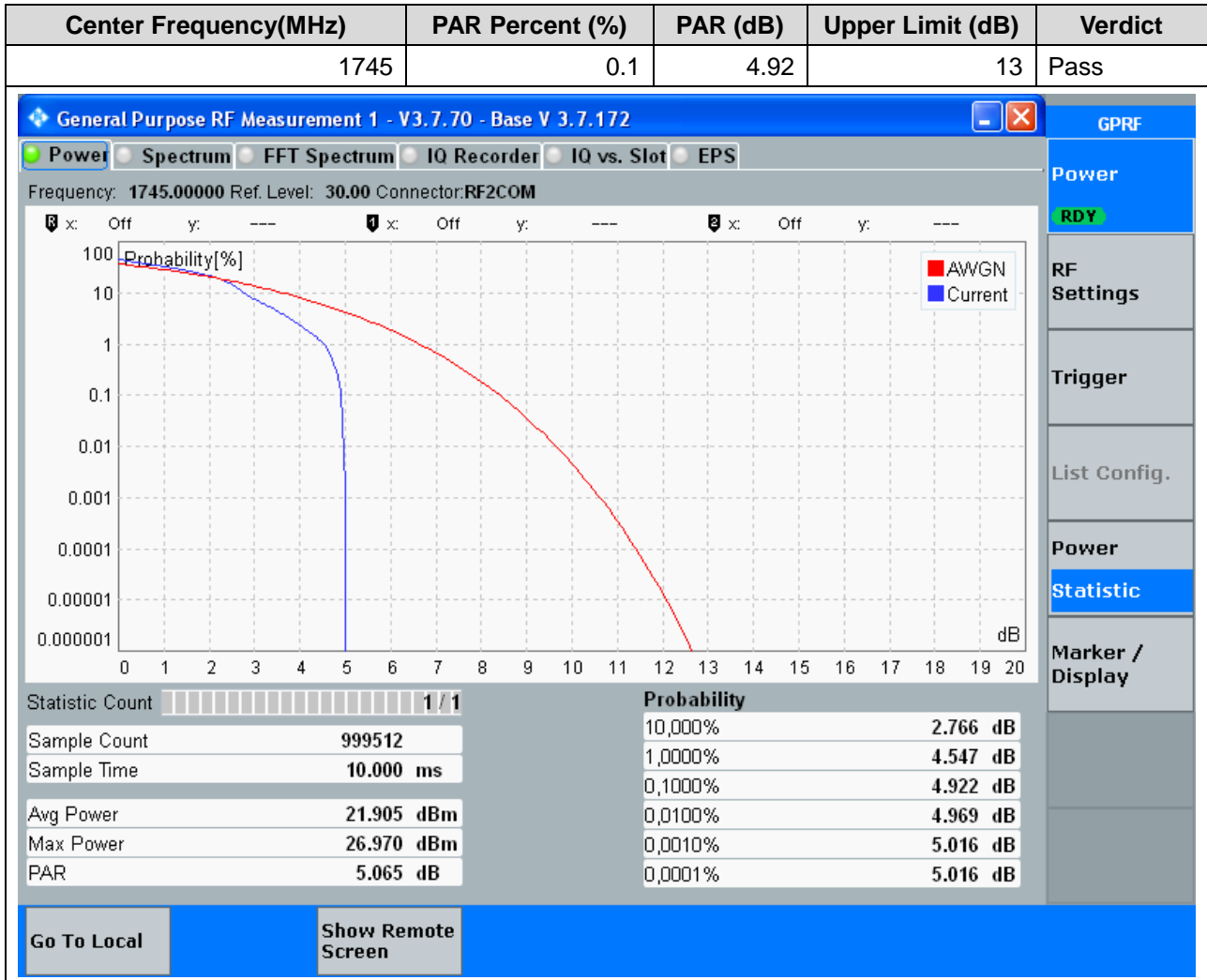
**9.5. LTE Peak to Average Ratio(NTNV)(Subtest:5, Channel:132322, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**



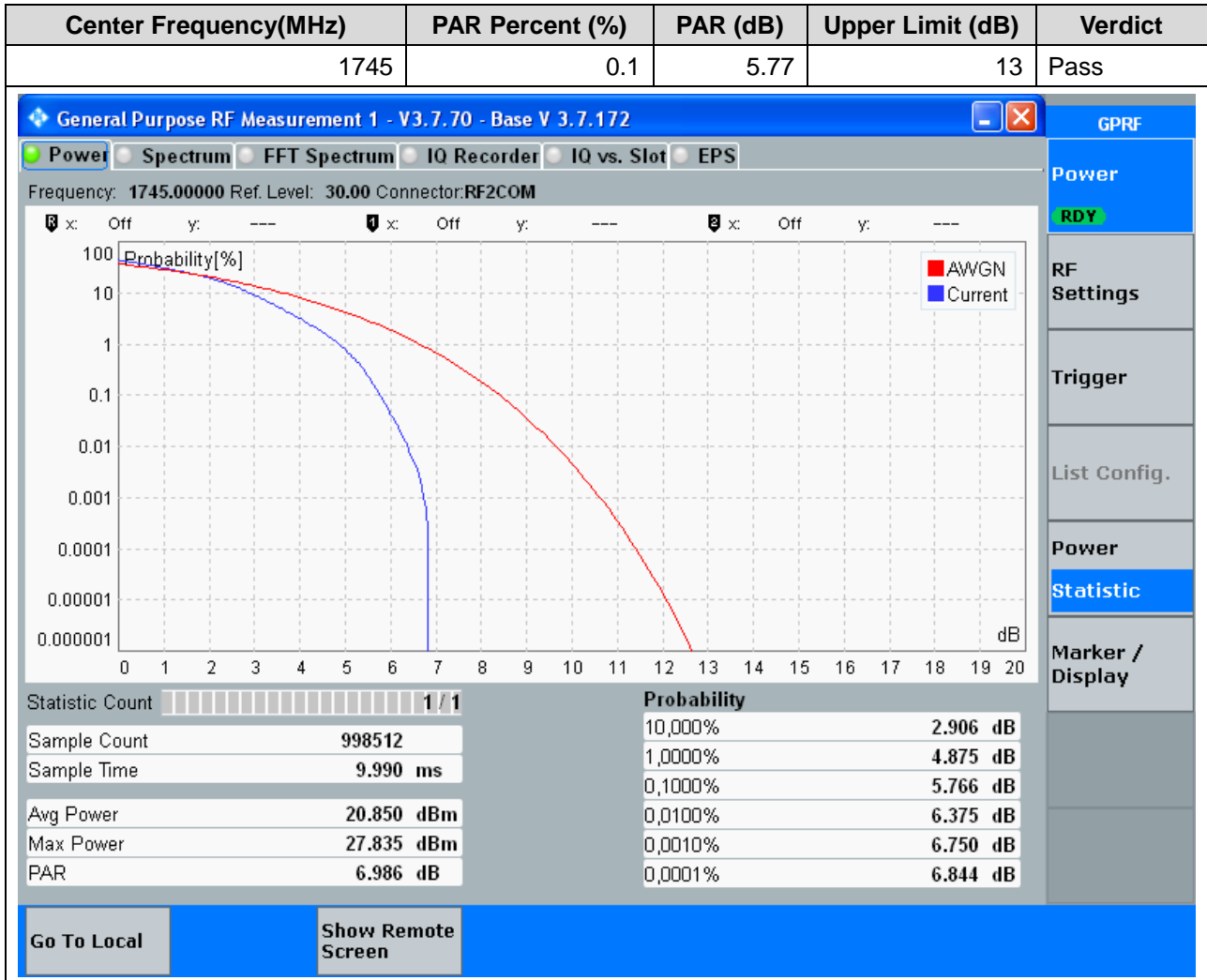
**9.6. LTE Peak to Average Ratio(NTNV)(Subtest:6, Channel:132322, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**



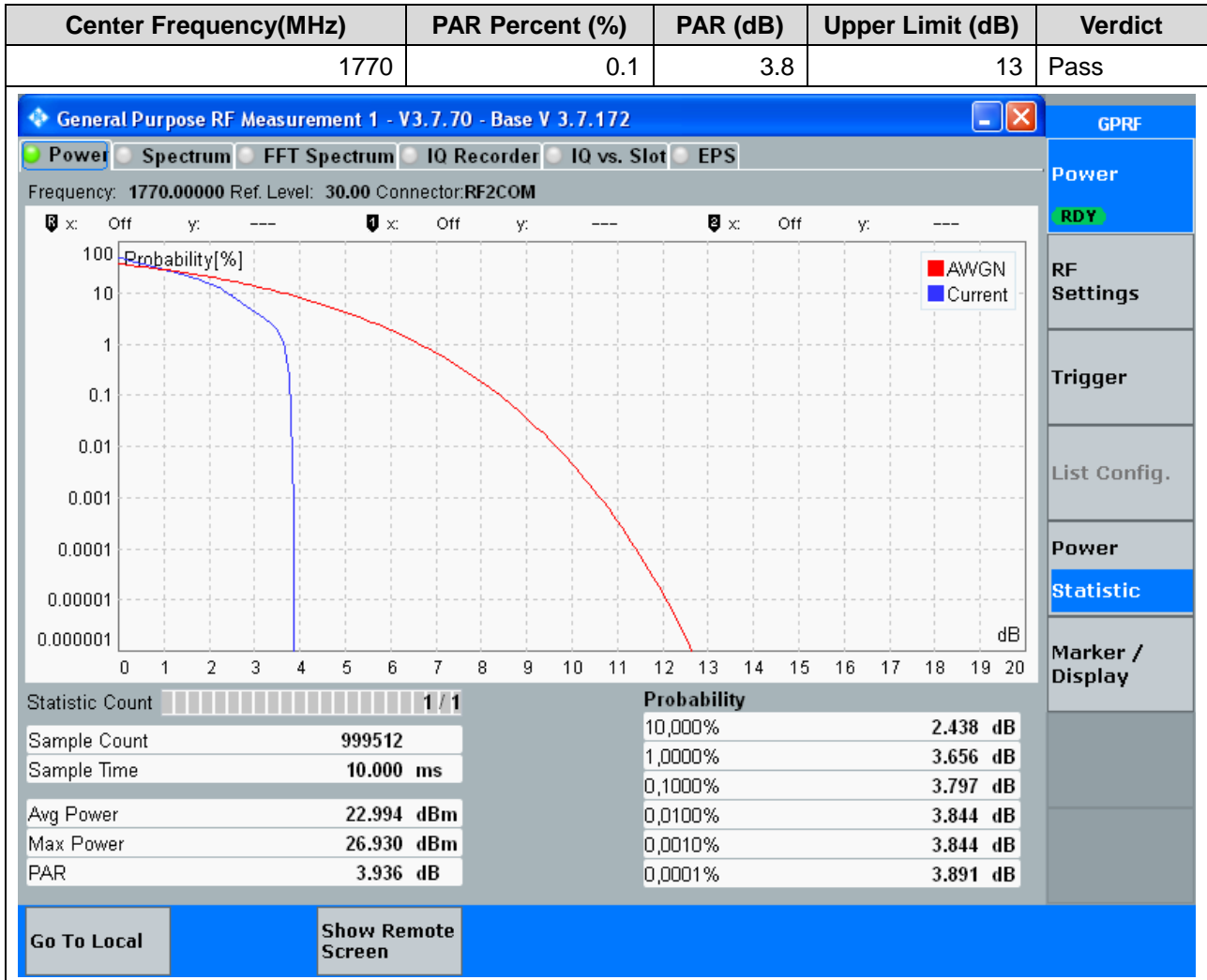
**9.7. LTE Peak to Average Ratio(NTNV)(Subtest:7, Channel:132322, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**



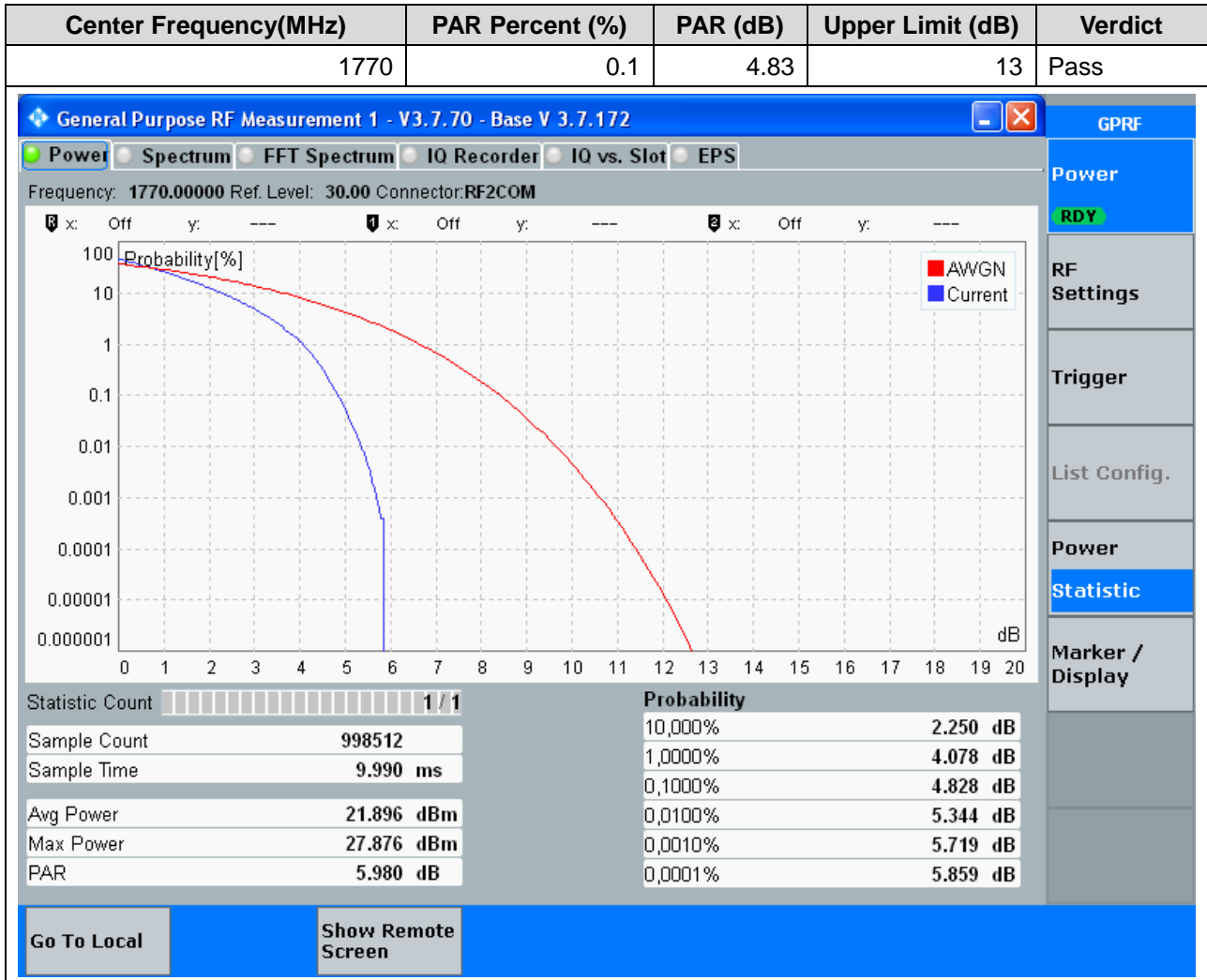
**9.8. LTE Peak to Average Ratio(NTNV)(Subtest:8, Channel:132322, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**



**9.9. LTE Peak to Average Ratio(NTNV)(Subtest:9, Channel:132572, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**

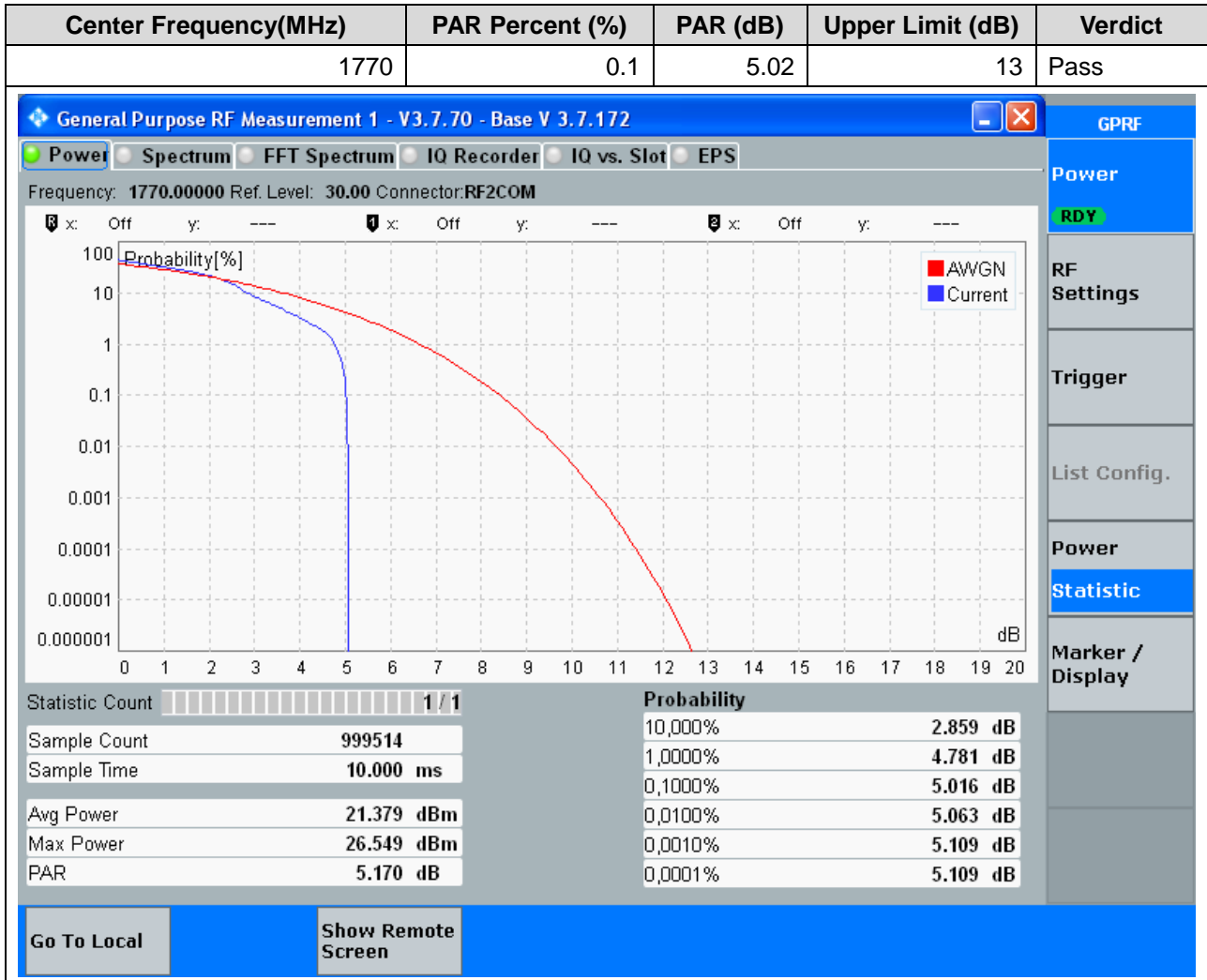


**9.10. LTE Peak to Average Ratio(NTNV)(Subtest:10, Channel:132572, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**

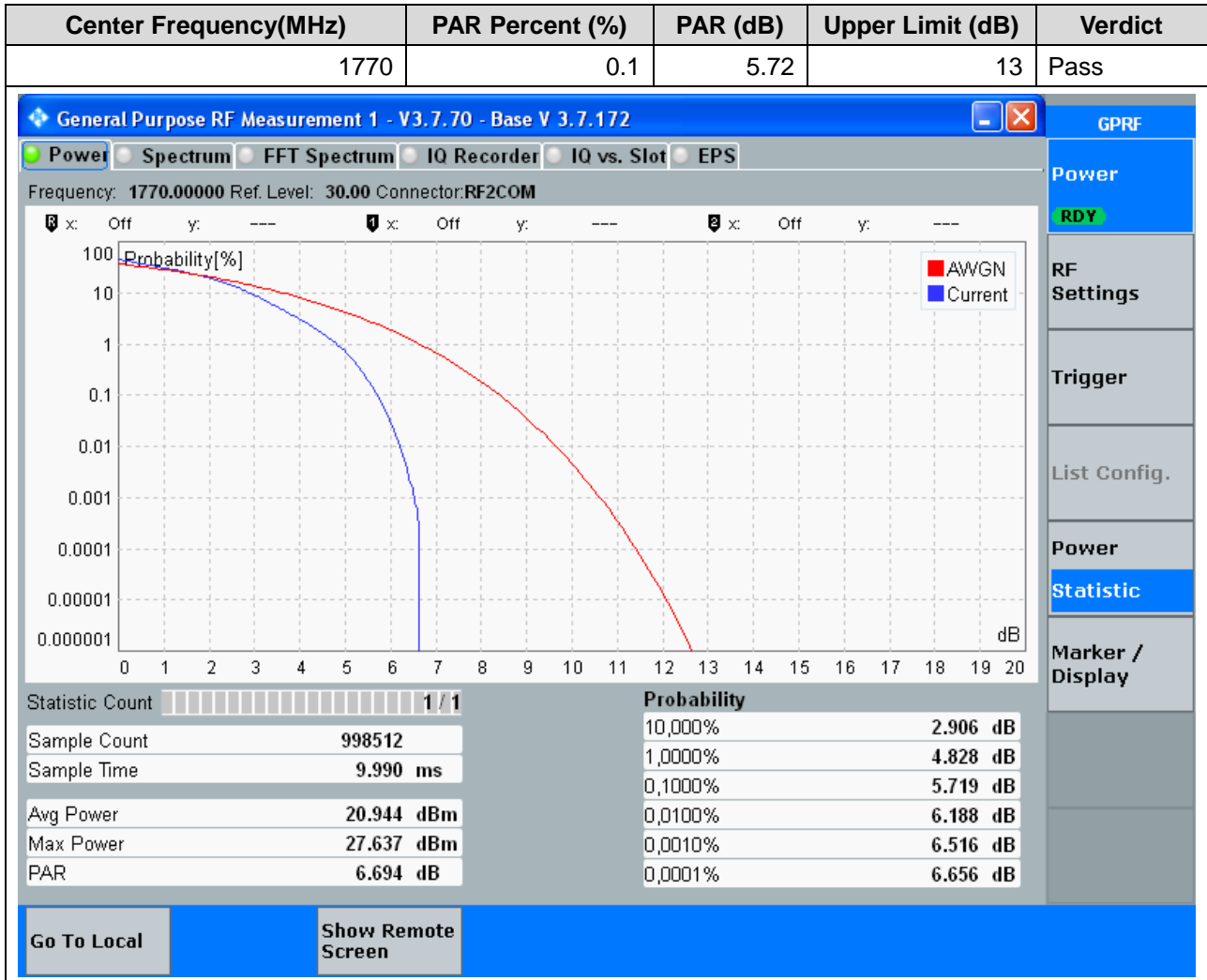




**9.11. LTE Peak to Average Ratio(NTNV)(Subtest:11, Channel:132572, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**

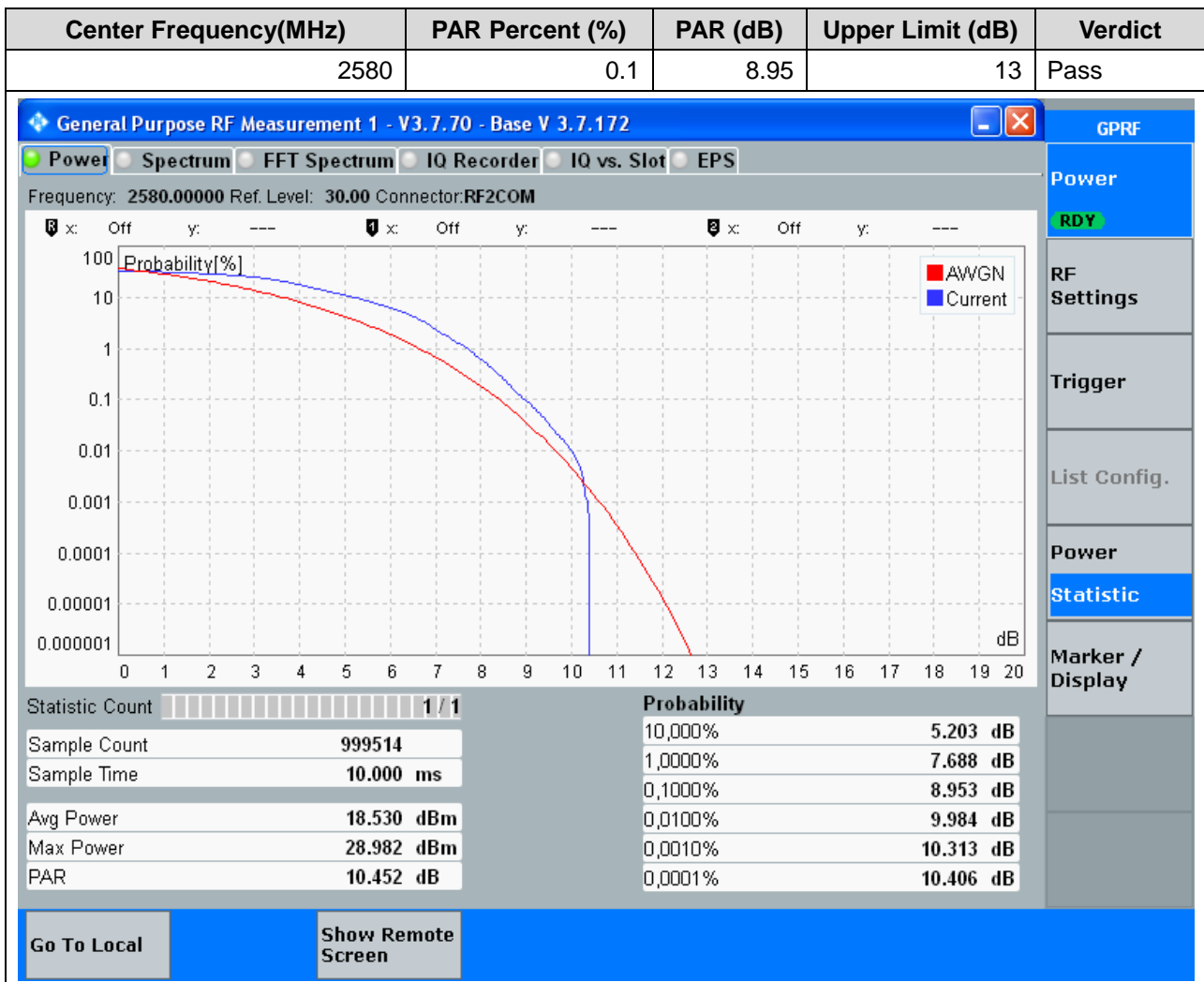


**9.12. LTE Peak to Average Ratio(NTNV)(Subtest:12, Channel:132572, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**

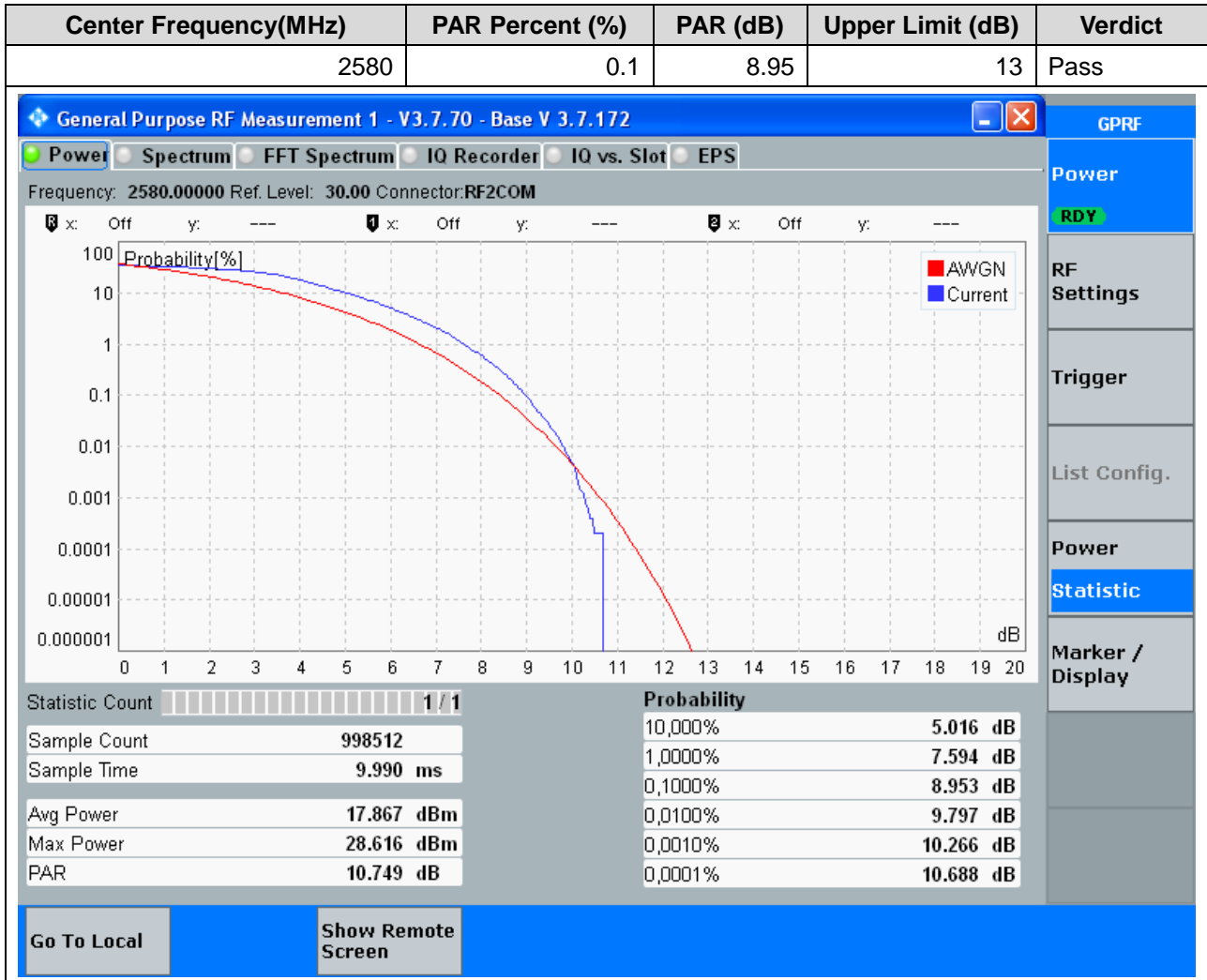


## 10. LTE\_Band38

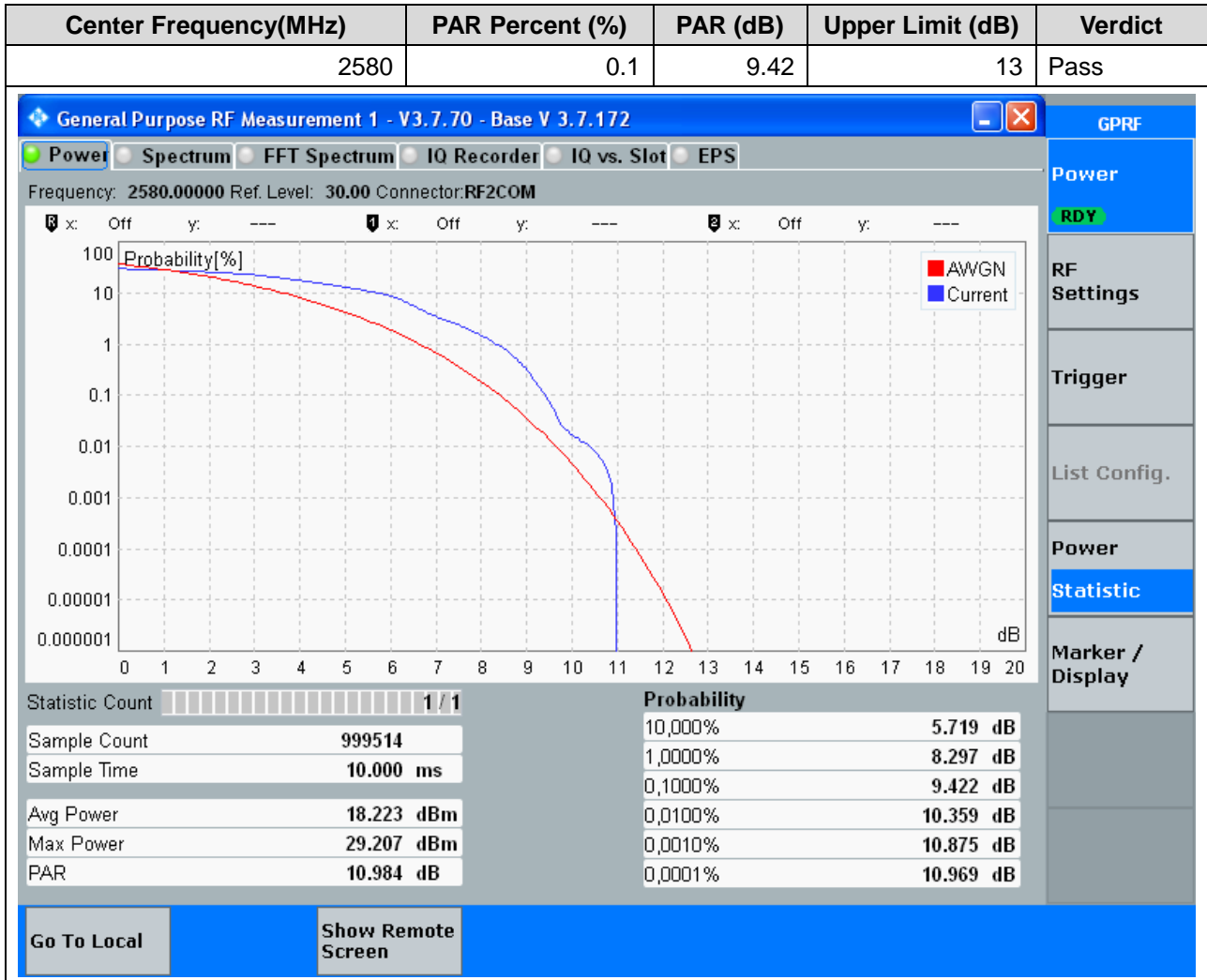
### 10.1. LTE Peak to Average Ratio(NTNV)(Subtest:1, Channel:37850, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)



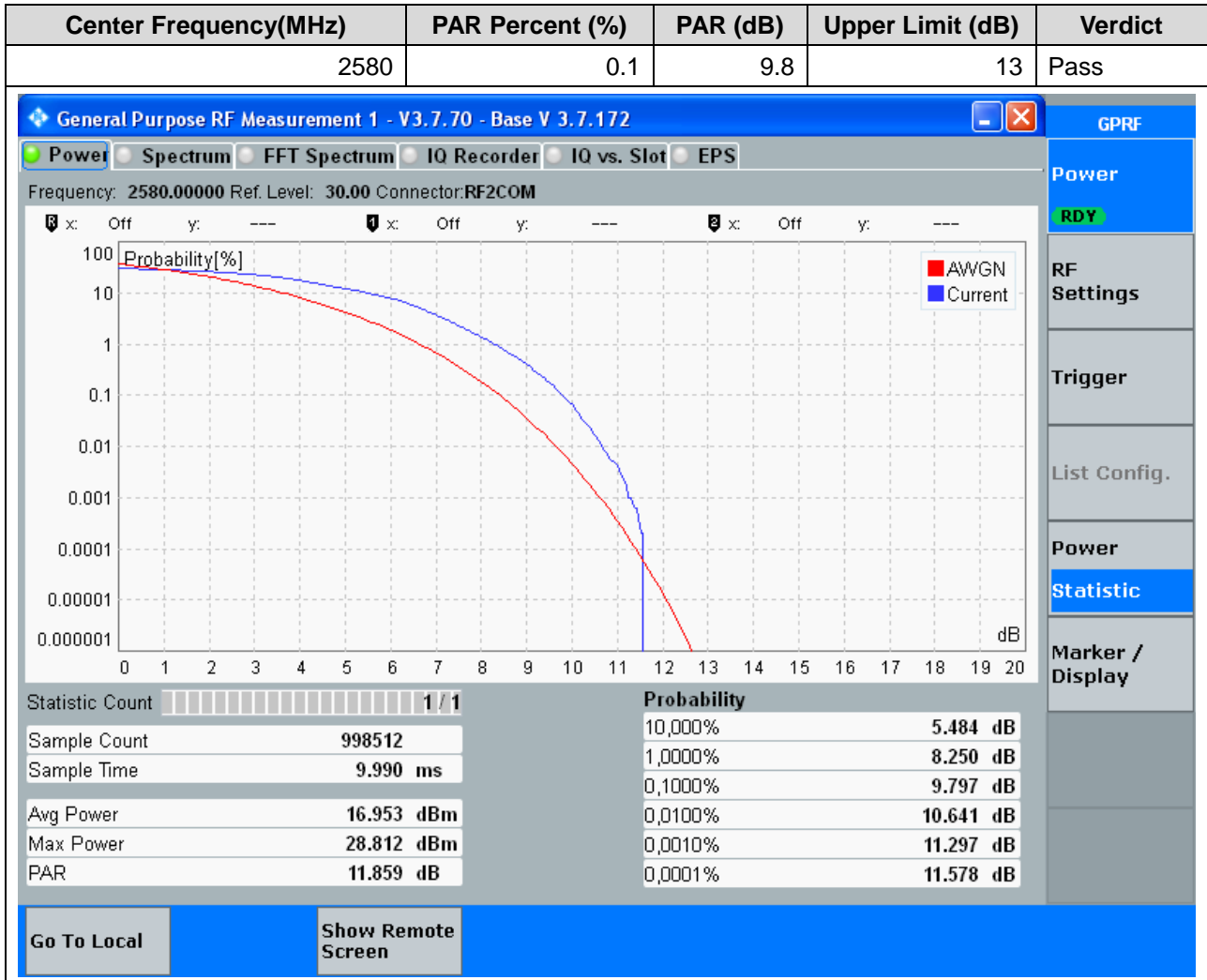
**10.2. LTE Peak to Average Ratio(NTNV)(Subtest:2, Channel:37850, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**



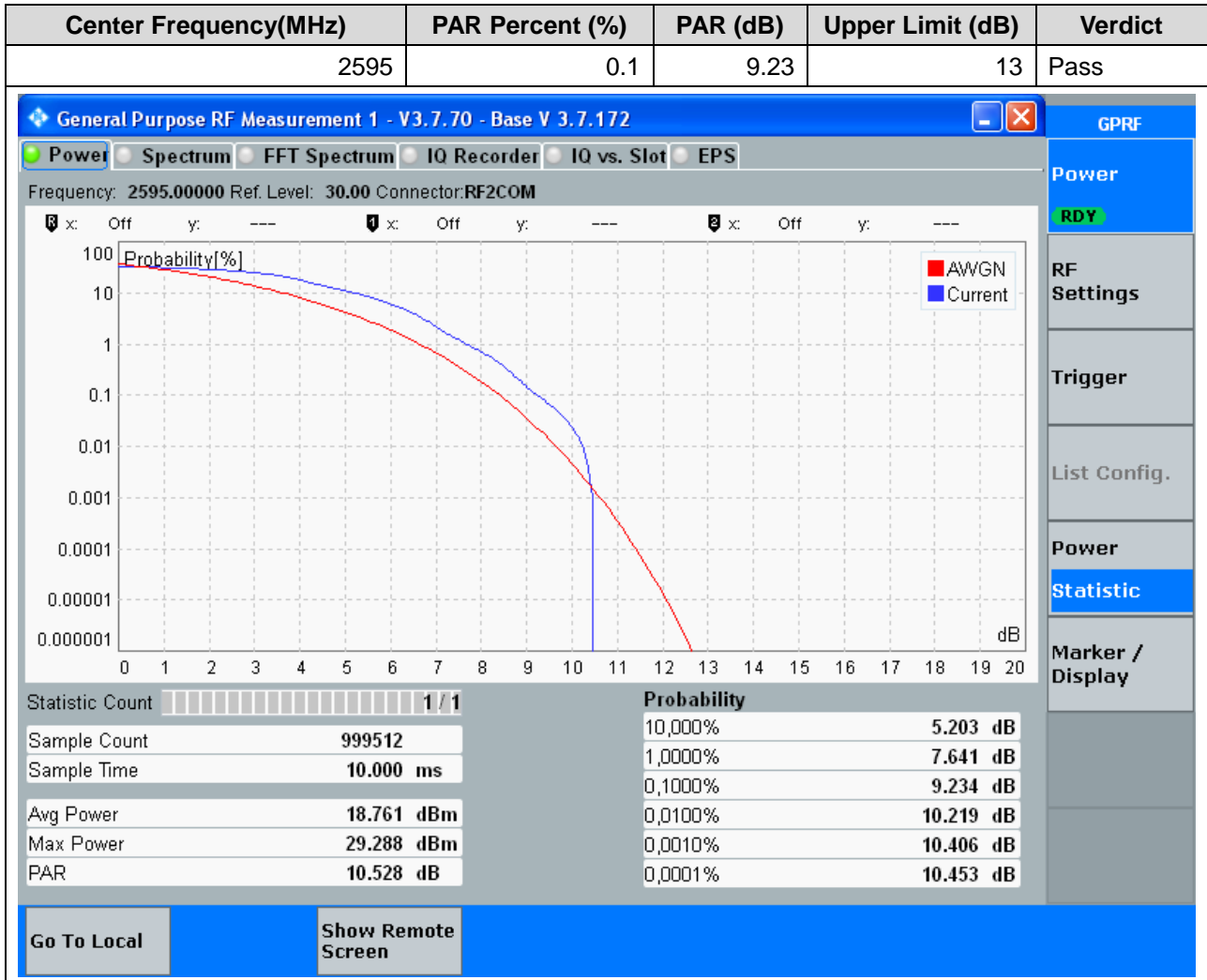
**10.3. LTE Peak to Average Ratio(NTNV)(Subtest:3, Channel:37850, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**



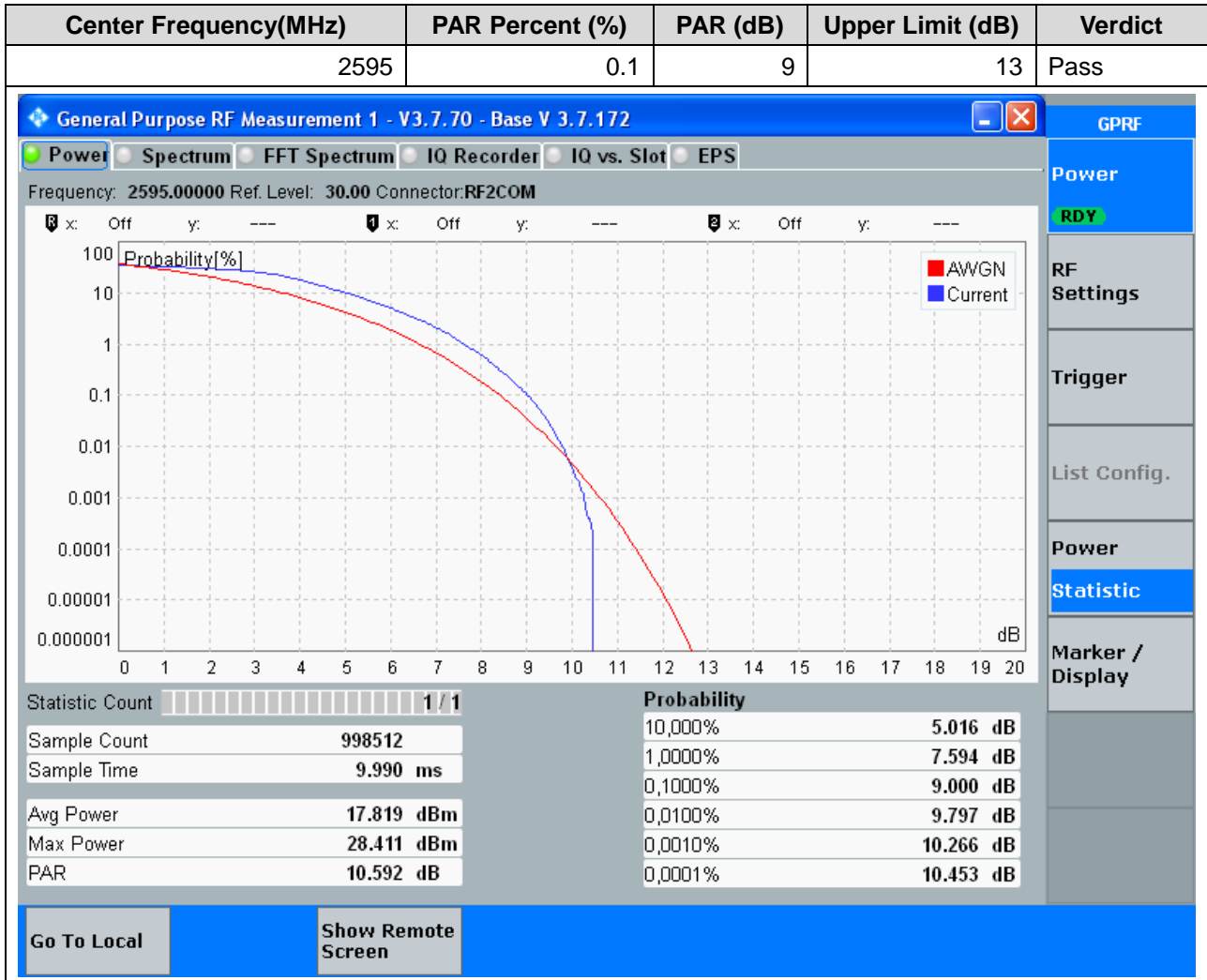
**10.4. LTE Peak to Average Ratio(NTNV)(Subtest:4, Channel:37850, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**



**10.5. LTE Peak to Average Ratio(NTNV)(Subtest:5, Channel:38000, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**

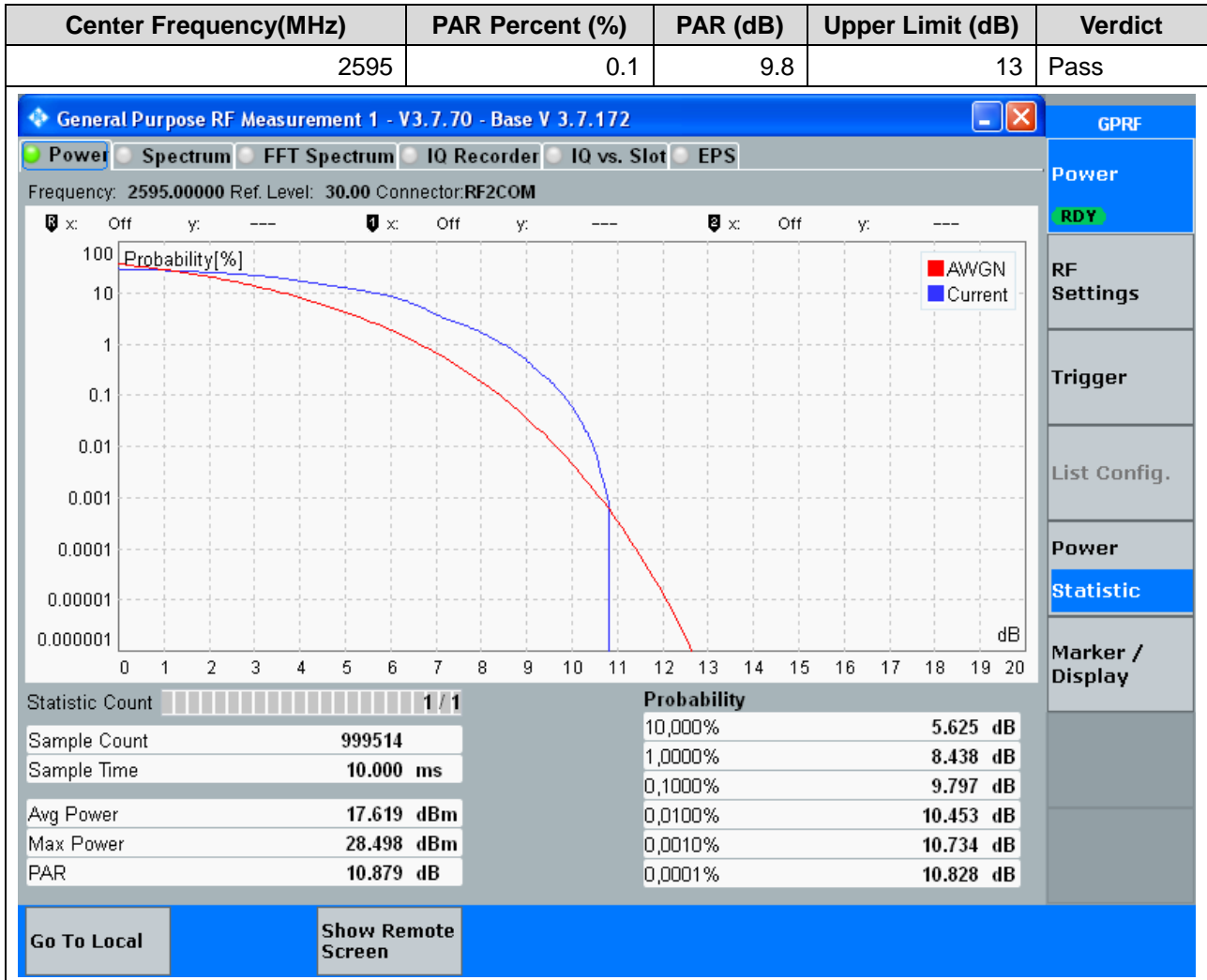


**10.6. LTE Peak to Average Ratio(NTNV)(Subtest:6, Channel:38000, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**

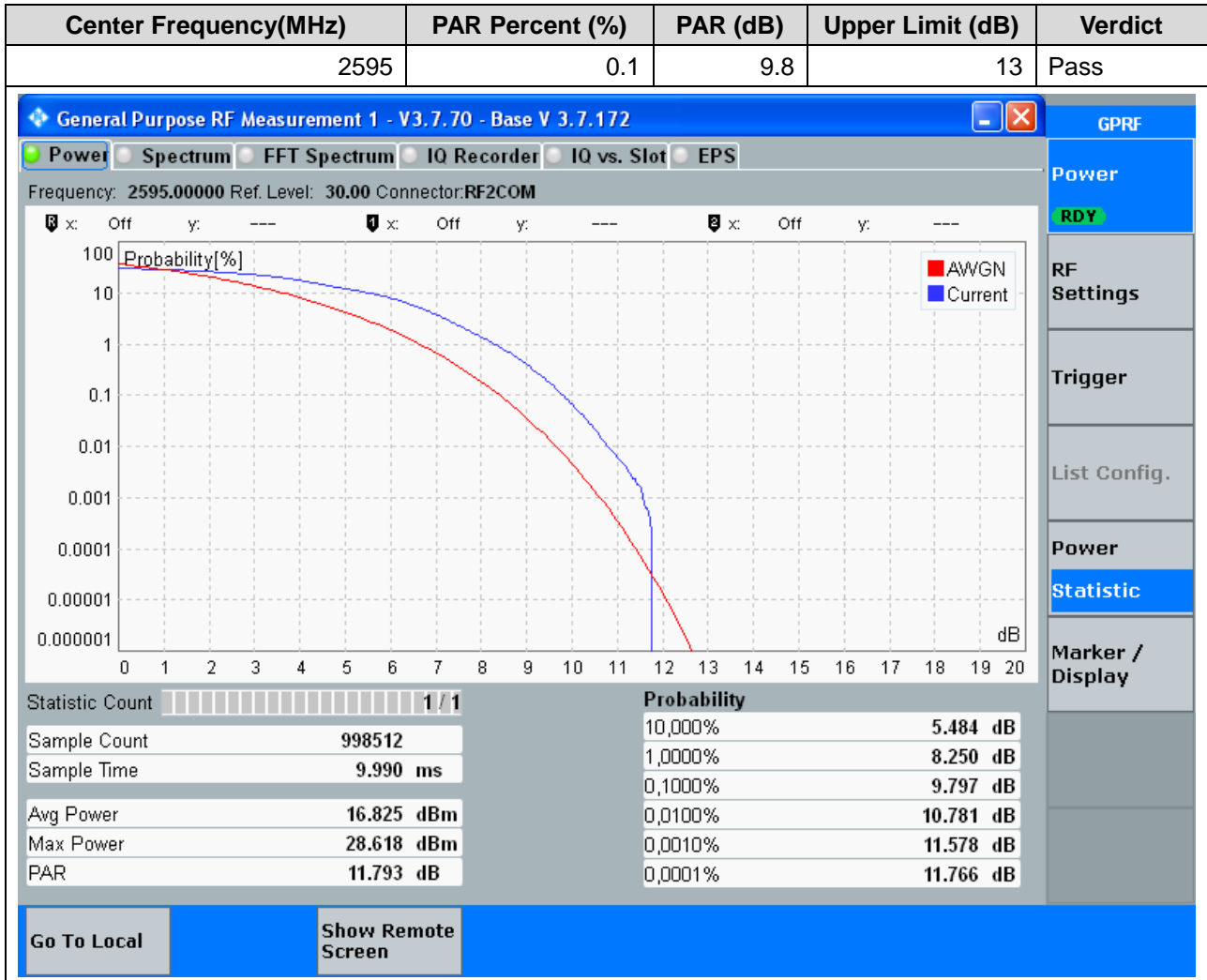




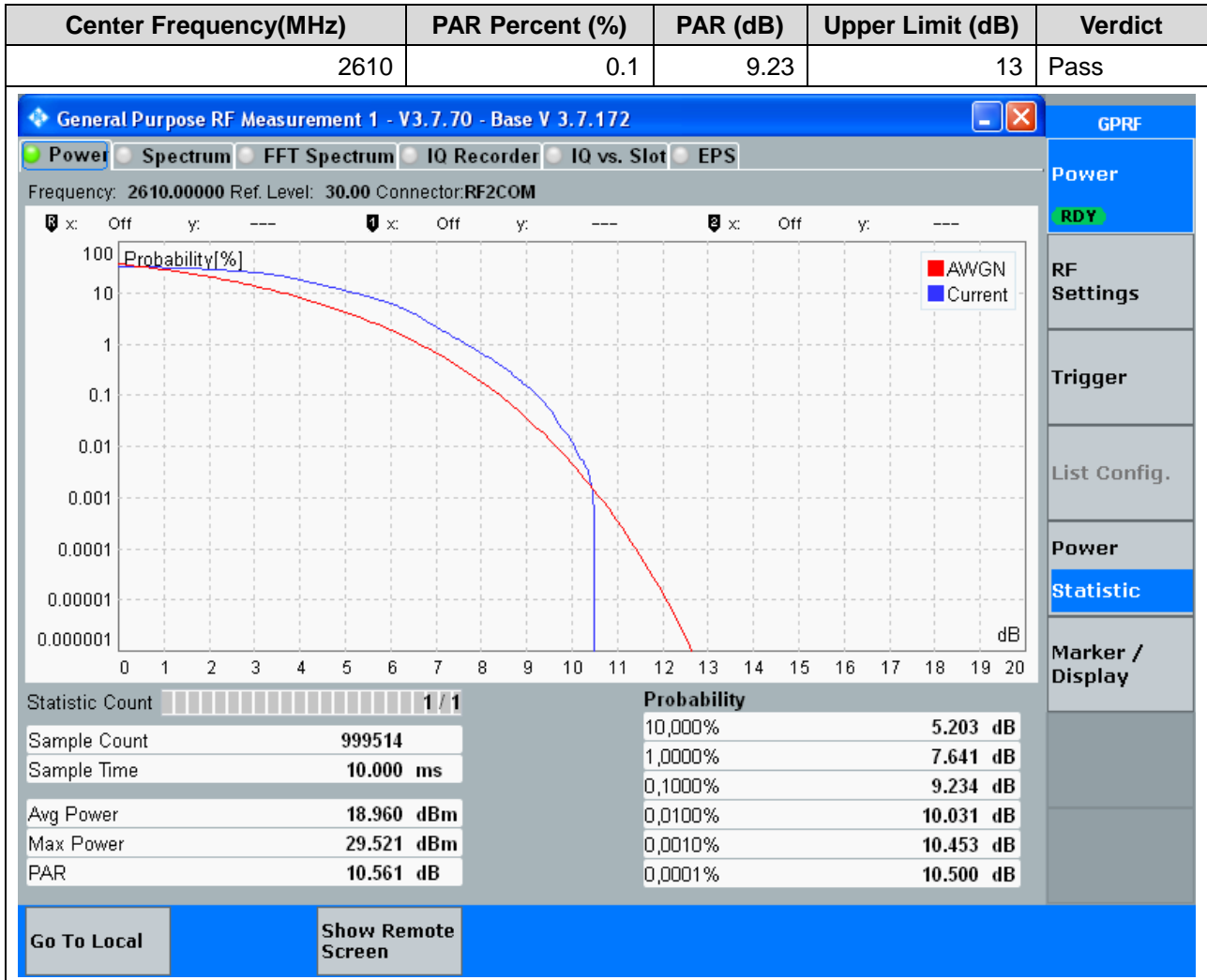
**10.7. LTE Peak to Average Ratio(NTNV)(Subtest:7, Channel:38000, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**



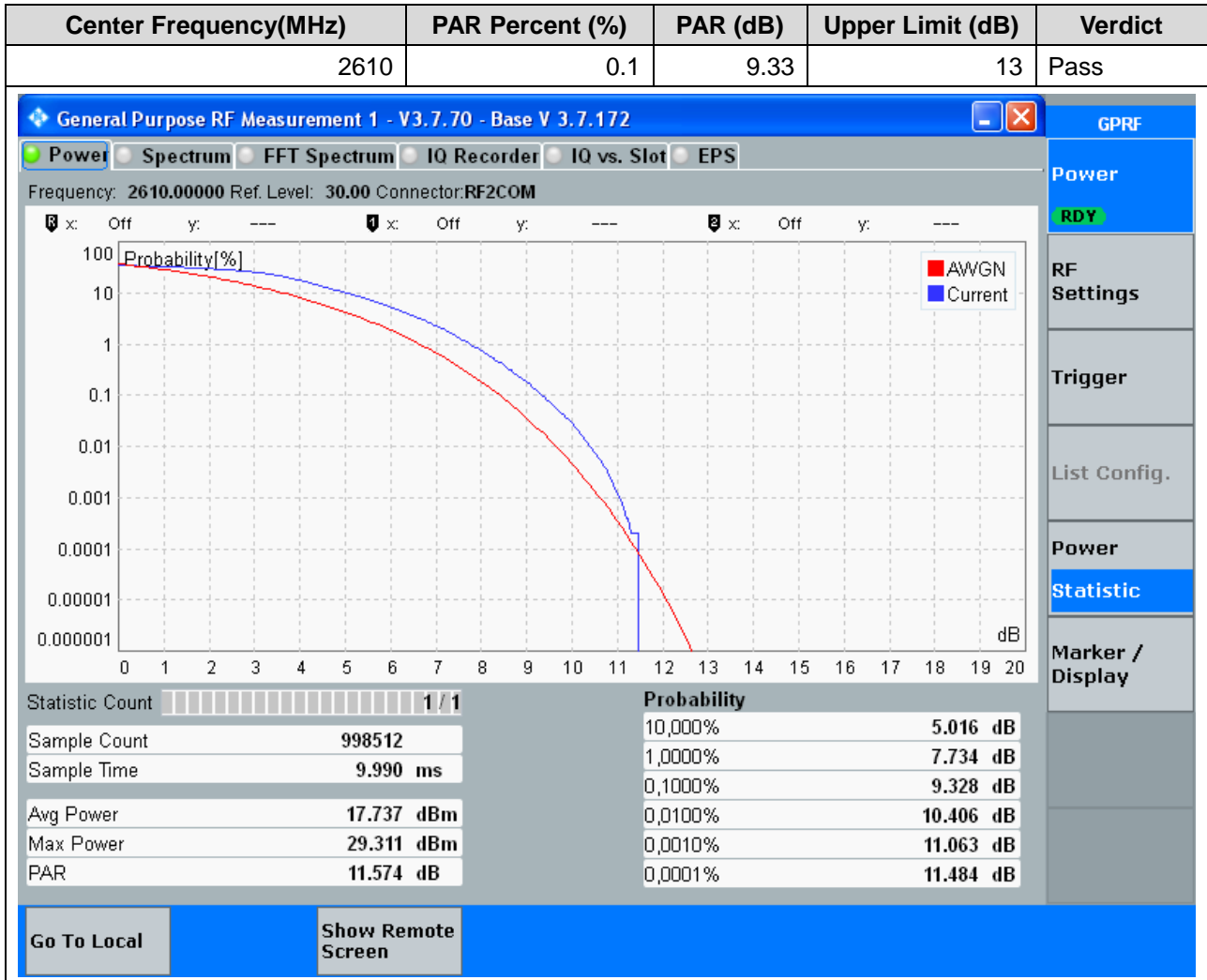
**10.8. LTE Peak to Average Ratio(NTNV)(Subtest:8, Channel:38000, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**



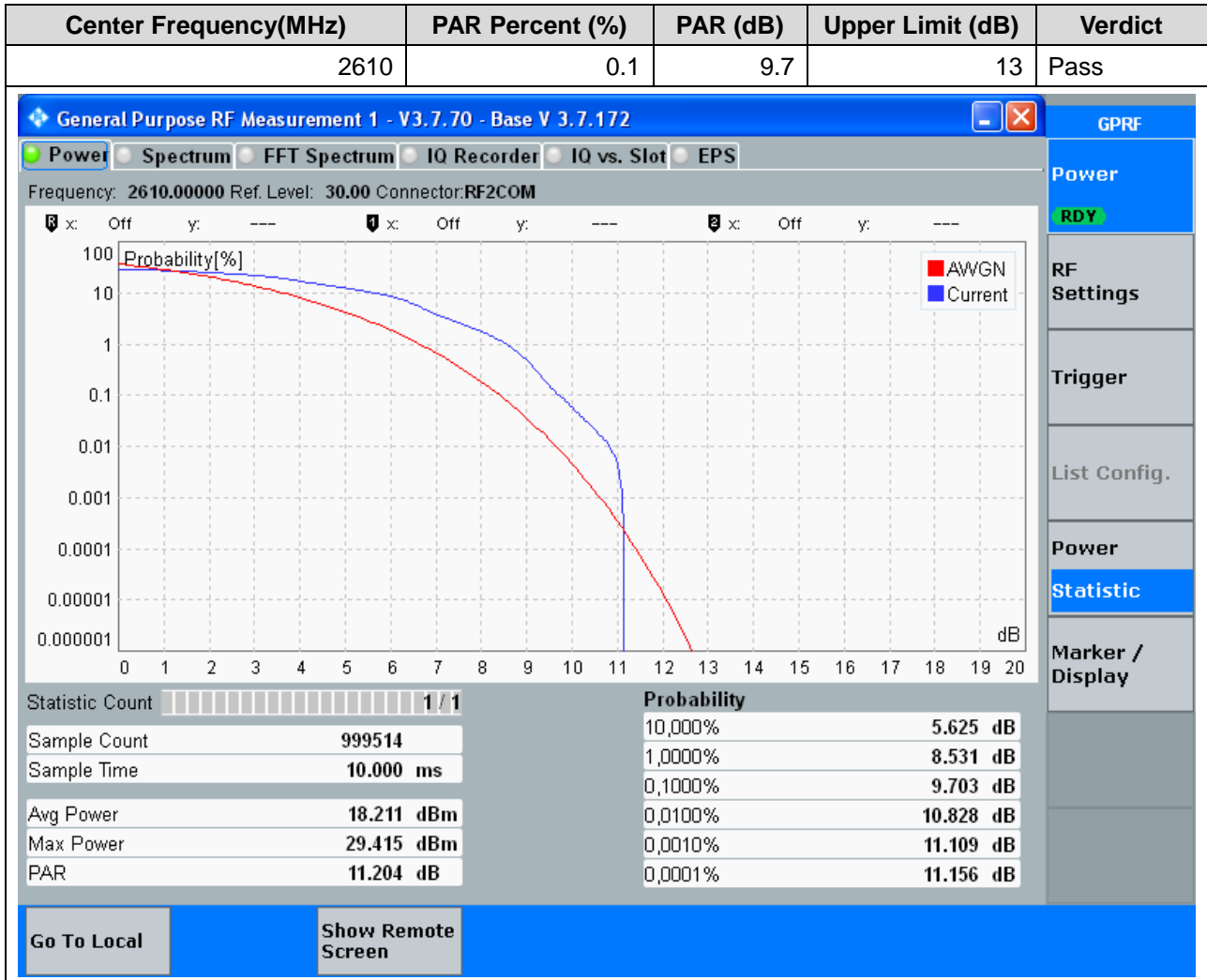
**10.9. LTE Peak to Average Ratio(NTNV)(Subtest:9, Channel:38150, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**



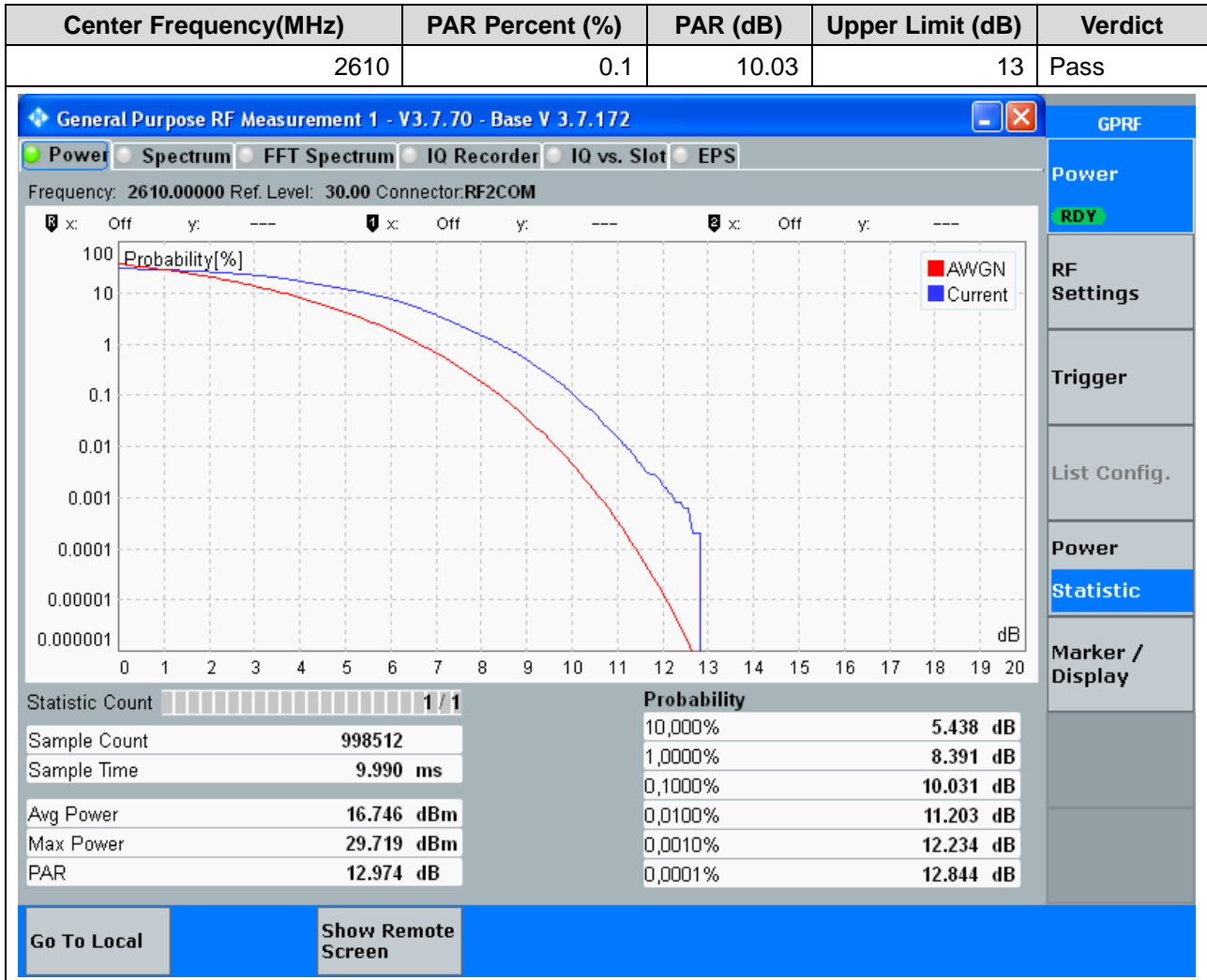
**10.10. LTE Peak to Average Ratio(NTNV)(Subtest:10, Channel:38150, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**



**10.11. LTE Peak to Average Ratio(NTNV)(Subtest:11, Channel:38150, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**

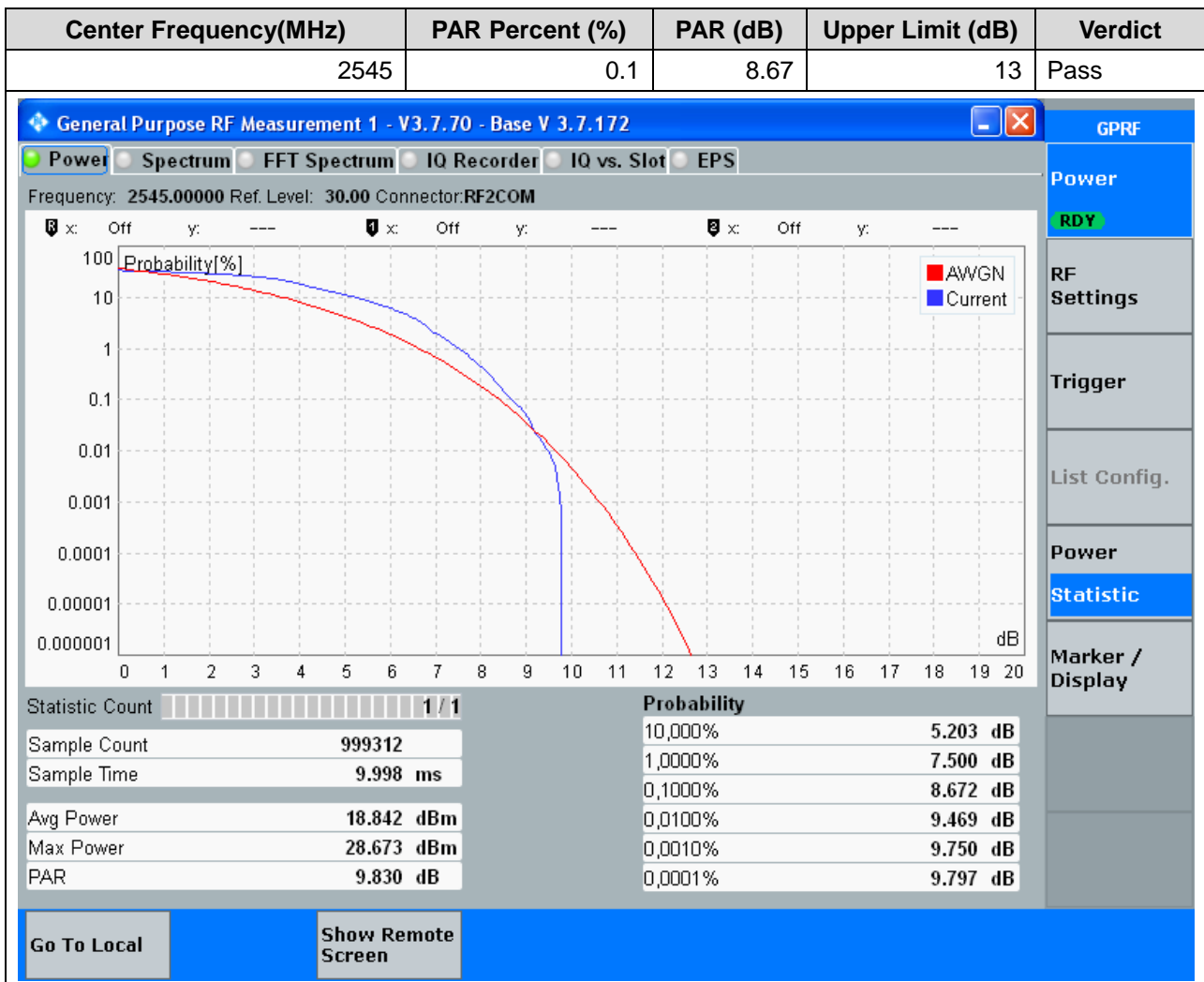


**10.12. LTE Peak to Average Ratio(NTNV)(Subtest:12, Channel:38150, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**

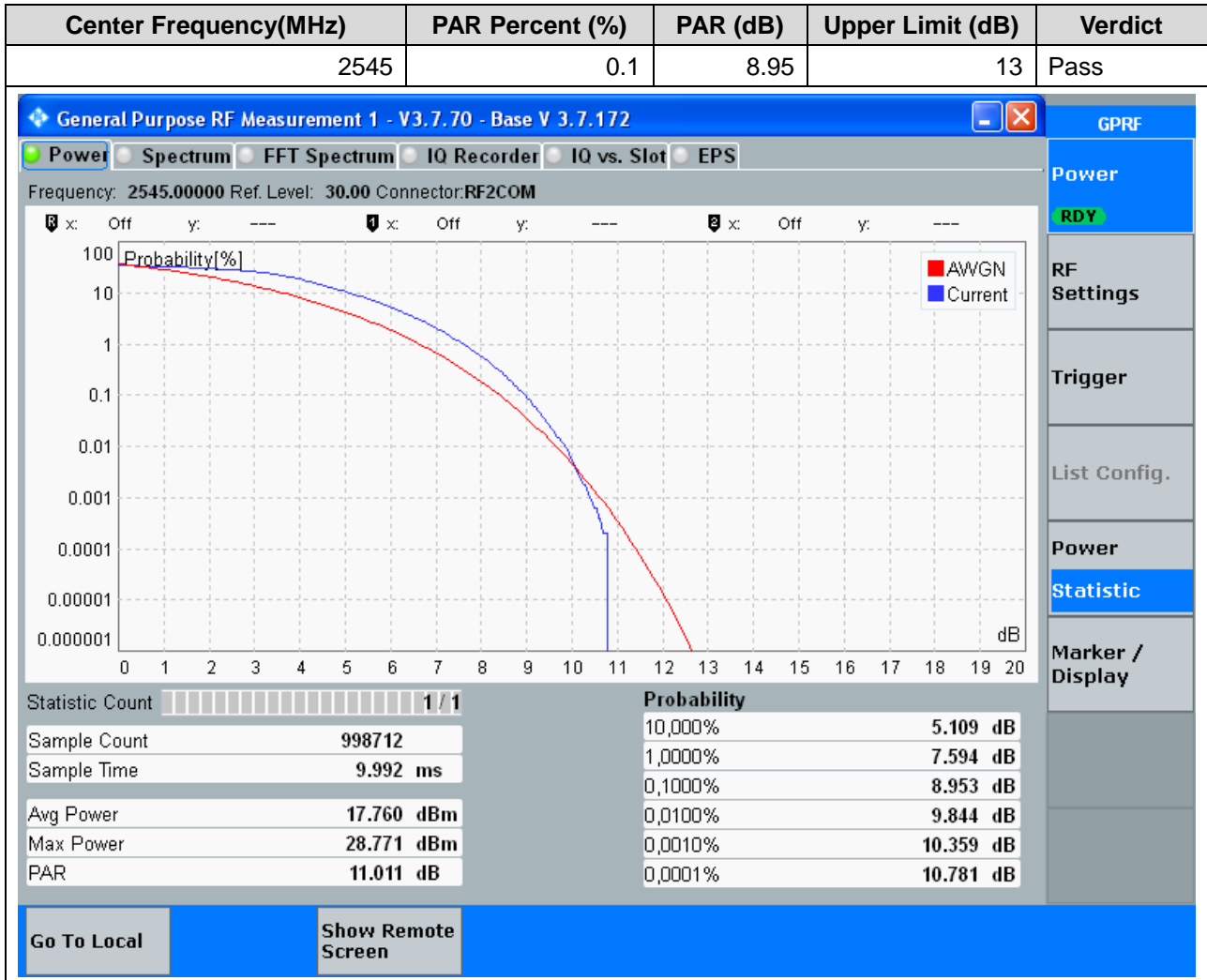


## 11. LTE\_Band41 120M

### 11.1. LTE Peak to Average Ratio(NTNV)(Subtest:1, Channel:40140, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)

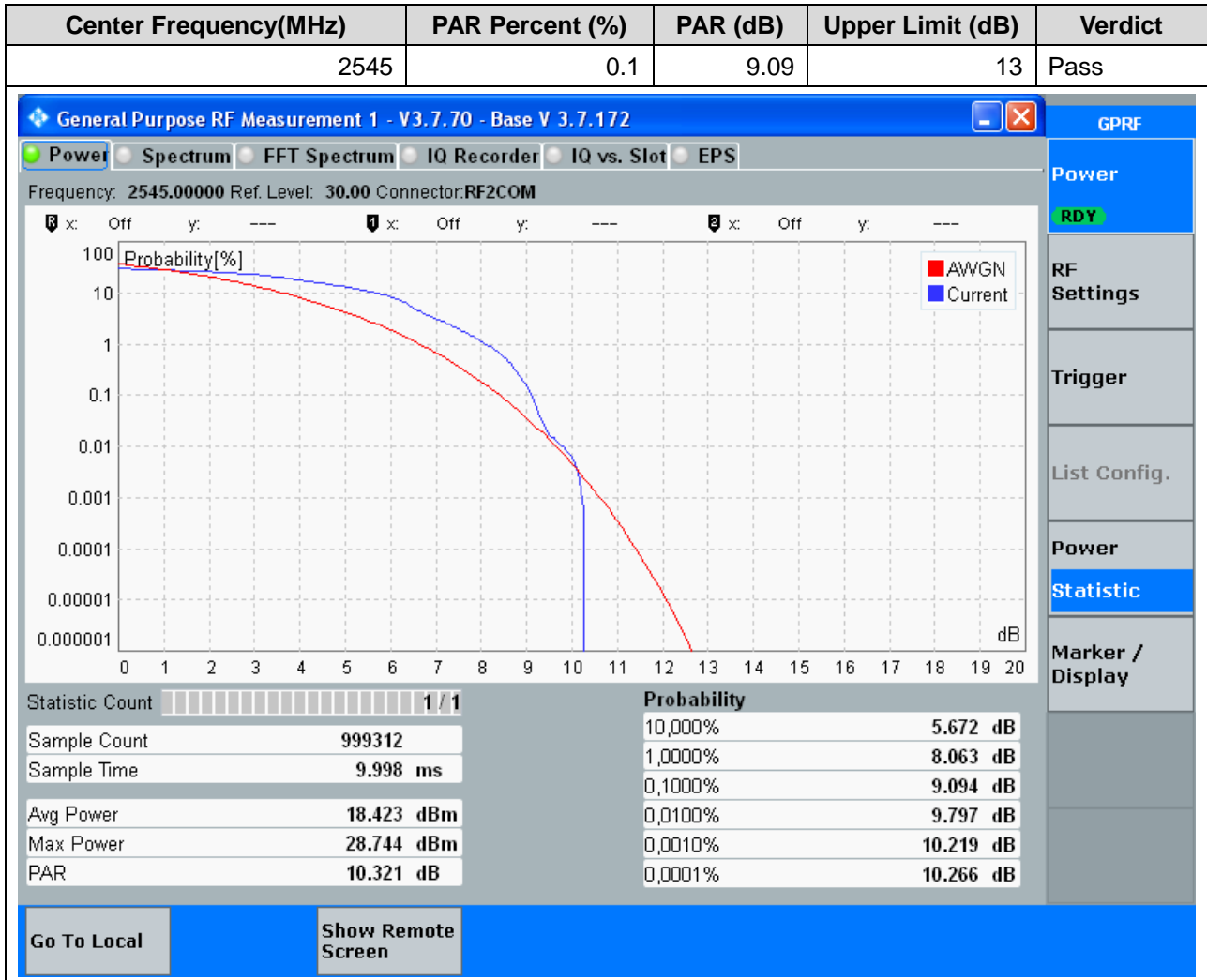


**11.2. LTE Peak to Average Ratio(NTNV)(Subtest:2, Channel:40140, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**

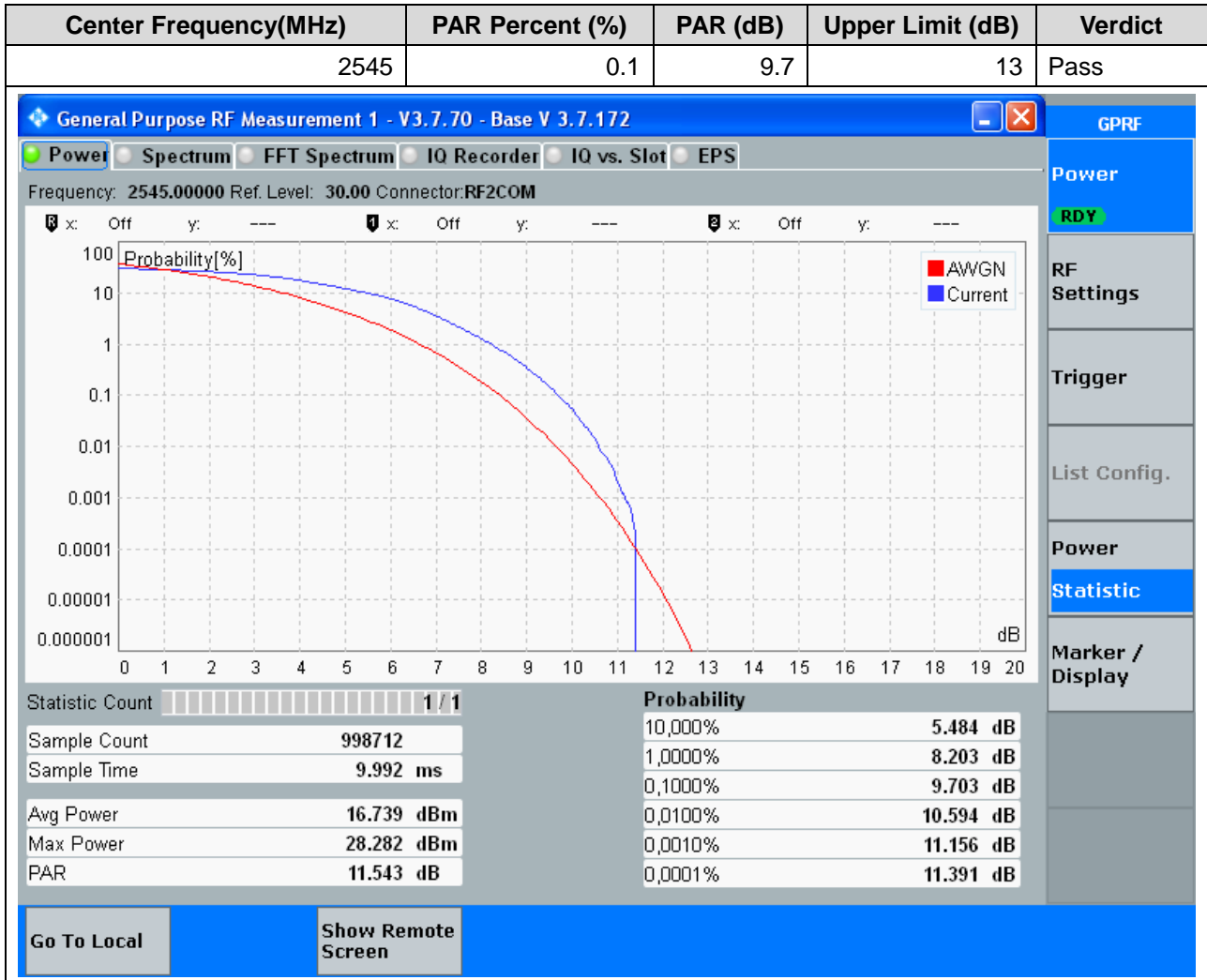




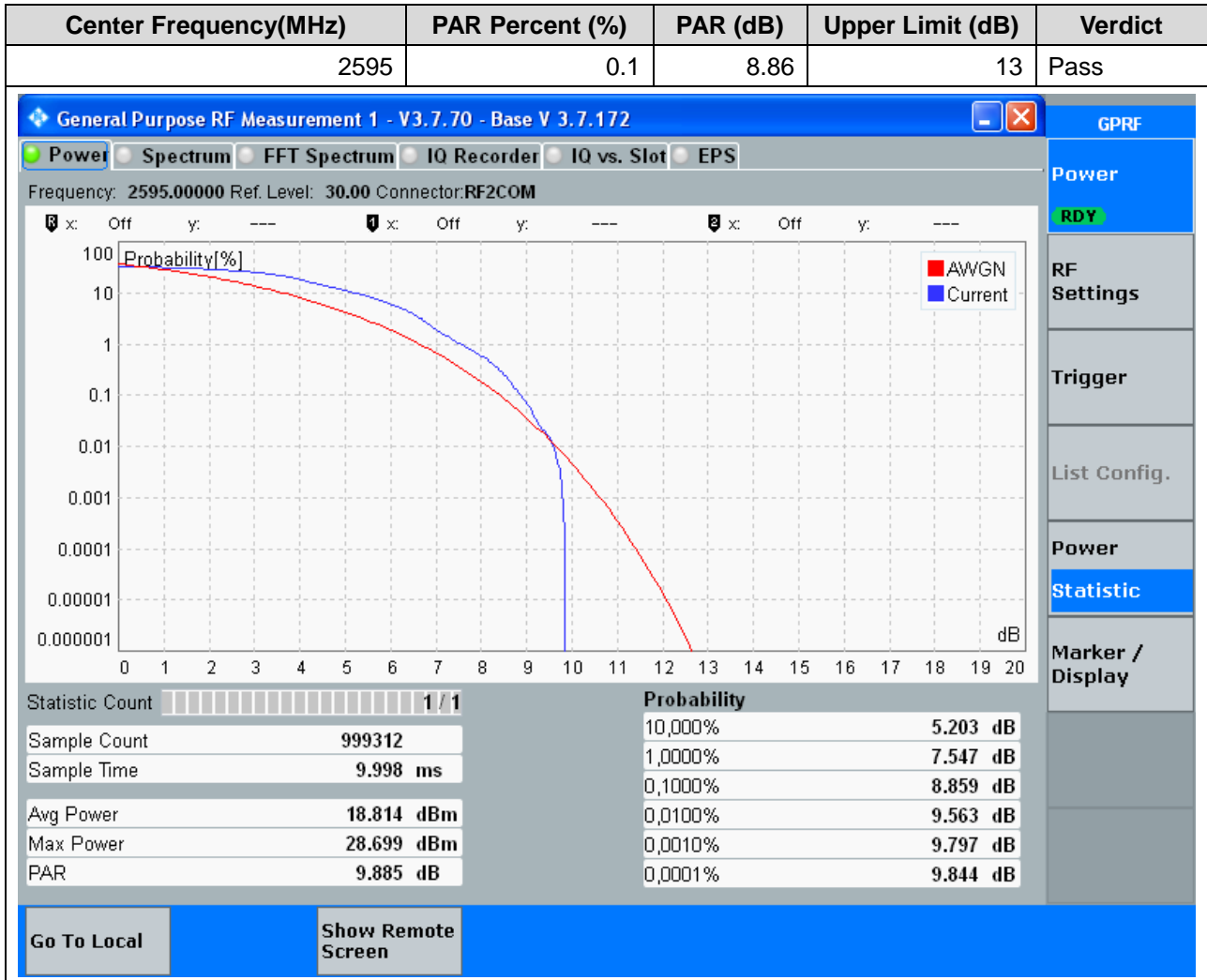
### 11.3. LTE Peak to Average Ratio(NTNV)(Subtest:3, Channel:40140, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)



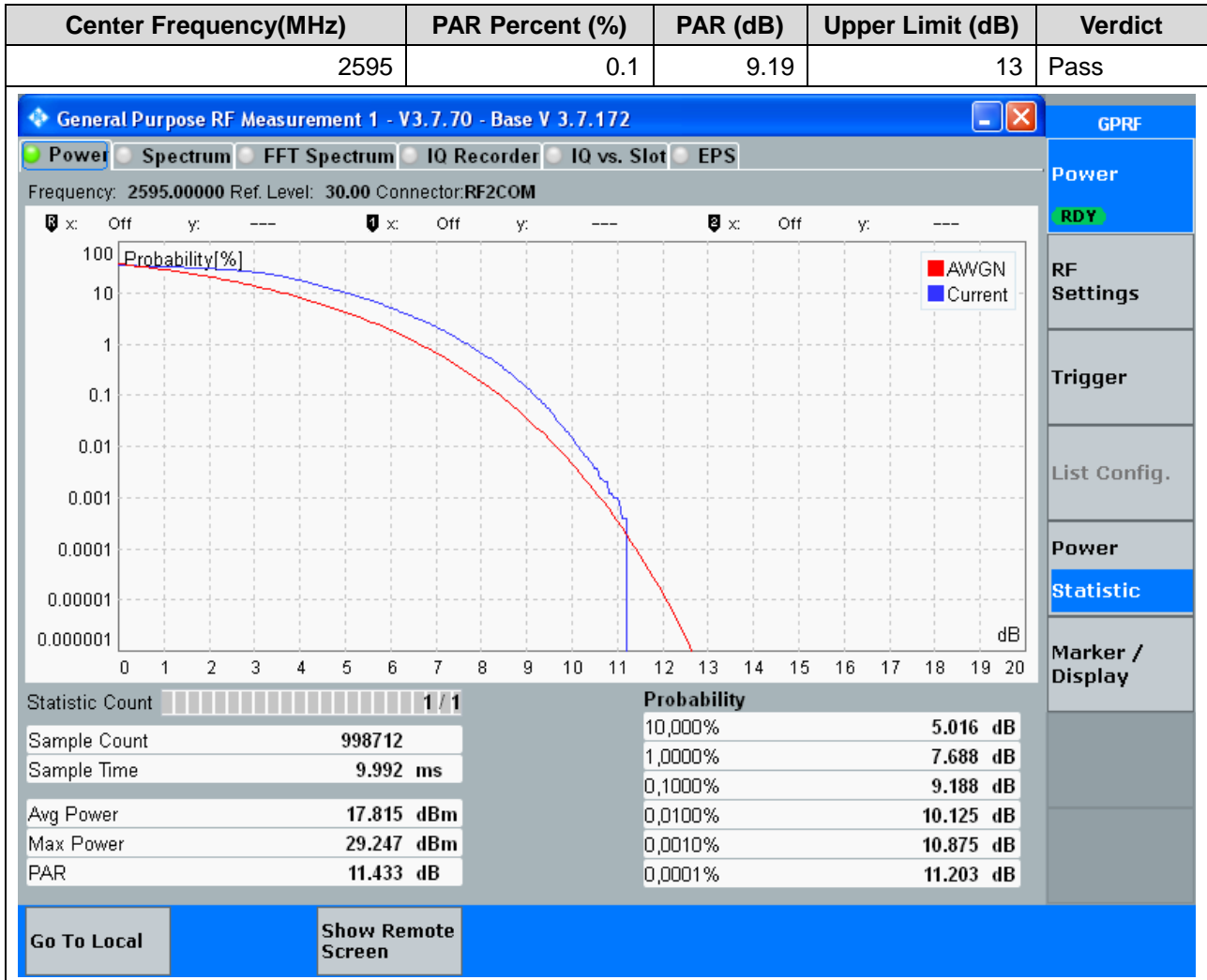
### 11.4. LTE Peak to Average Ratio(NTNV)(Subtest:4, Channel:40140, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)



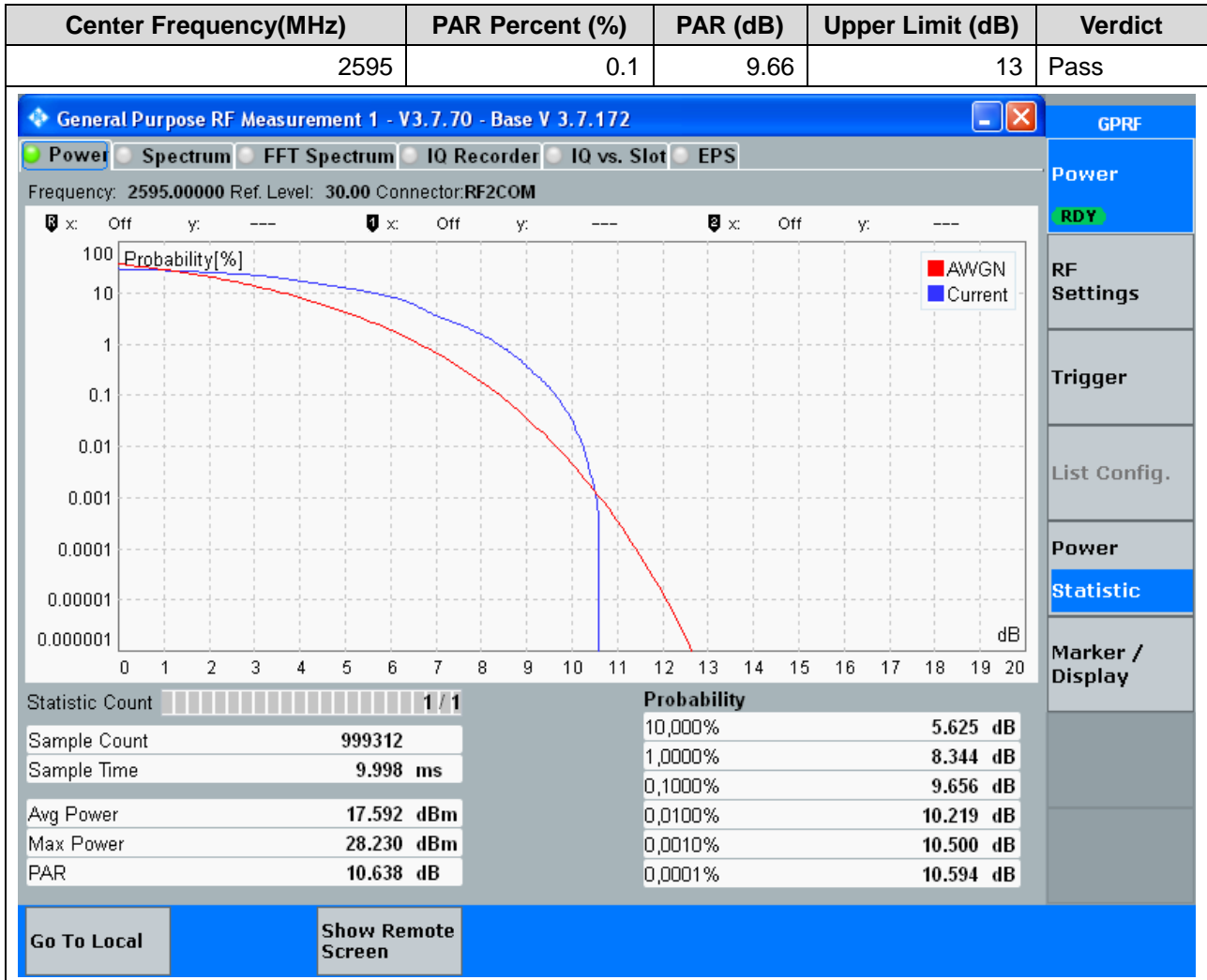
**11.5. LTE Peak to Average Ratio(NTNV)(Subtest:5, Channel:40640, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**



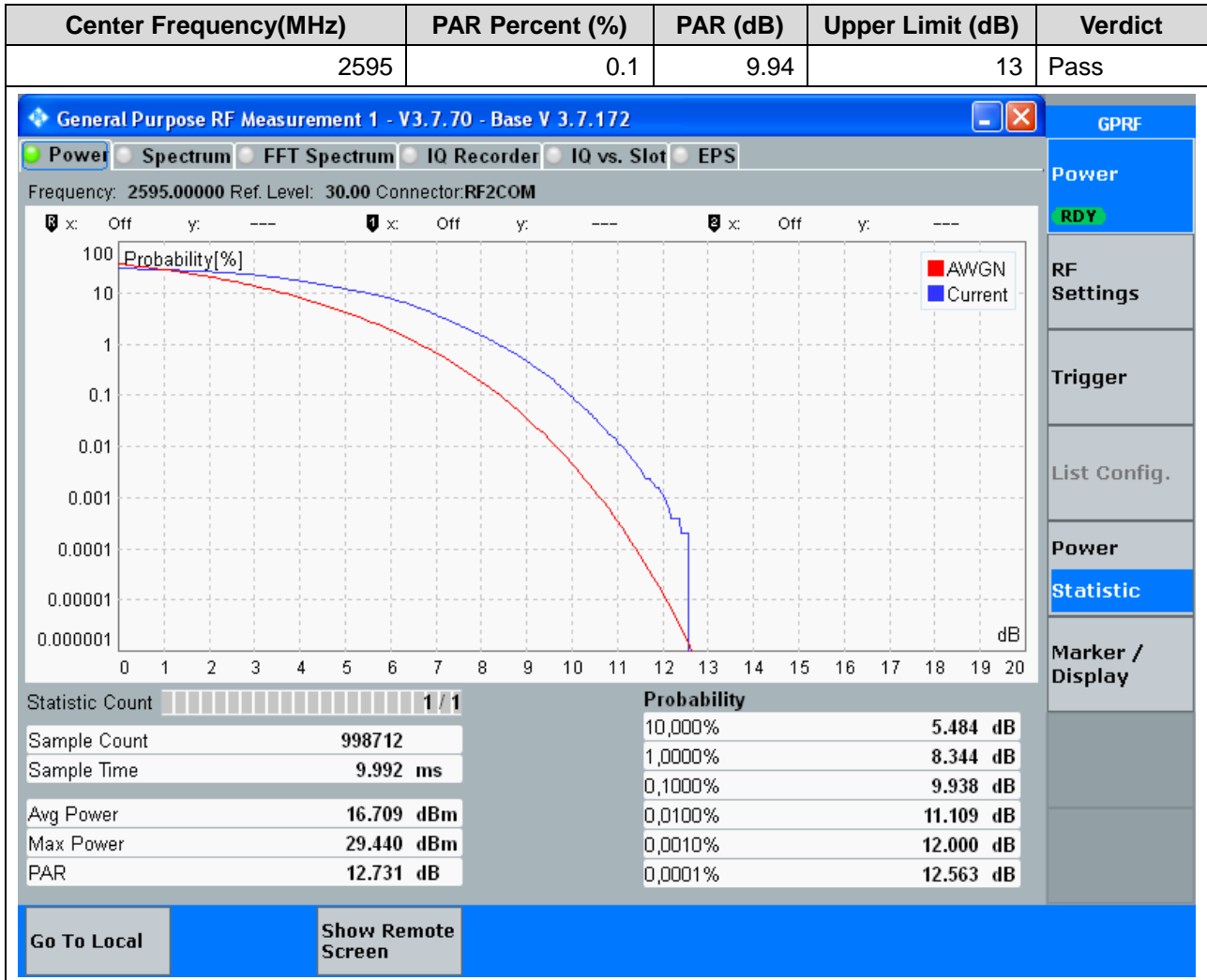
**11.6. LTE Peak to Average Ratio(NTNV)(Subtest:6, Channel:40640, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**



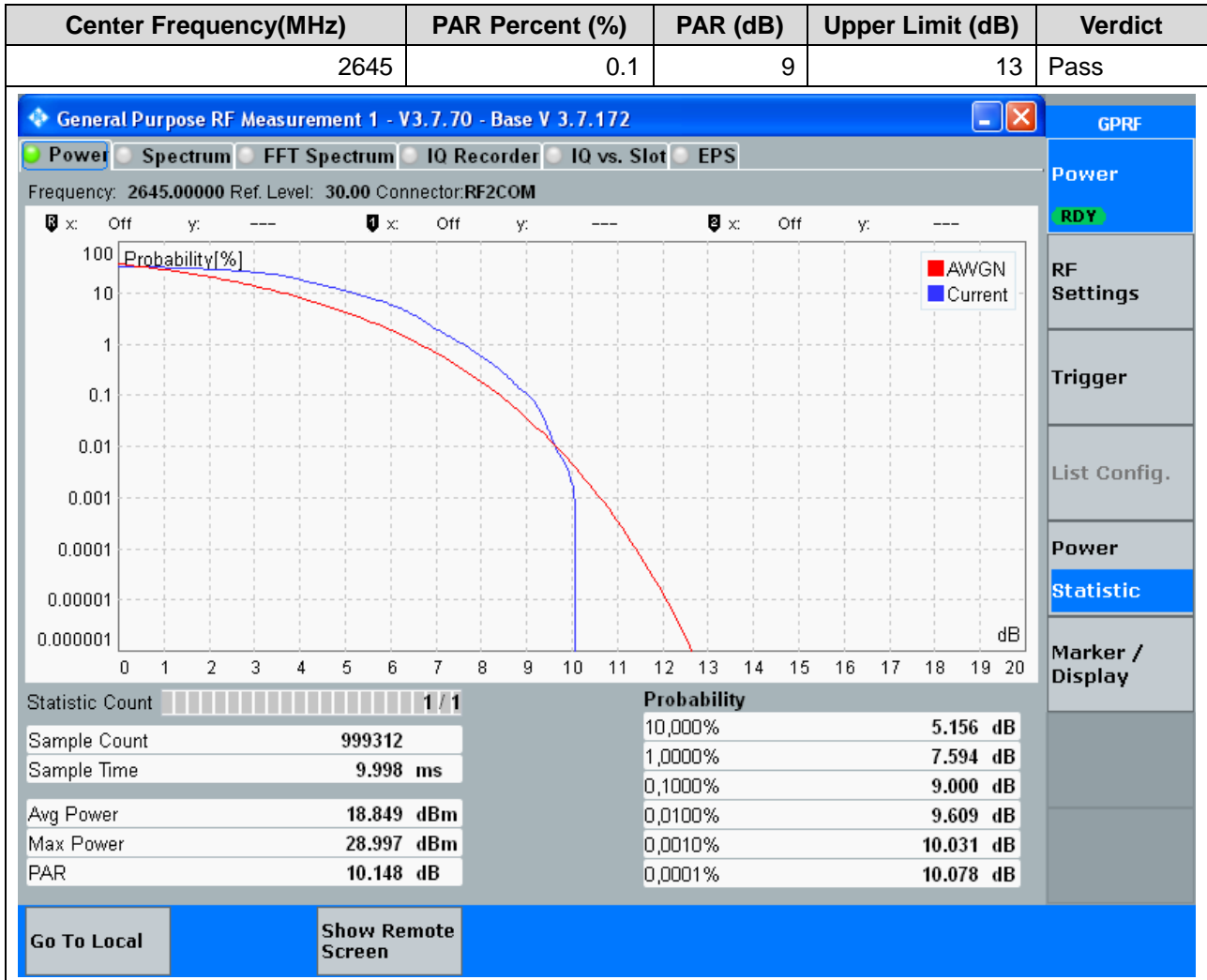
**11.7. LTE Peak to Average Ratio(NTNV)(Subtest:7, Channel:40640, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**



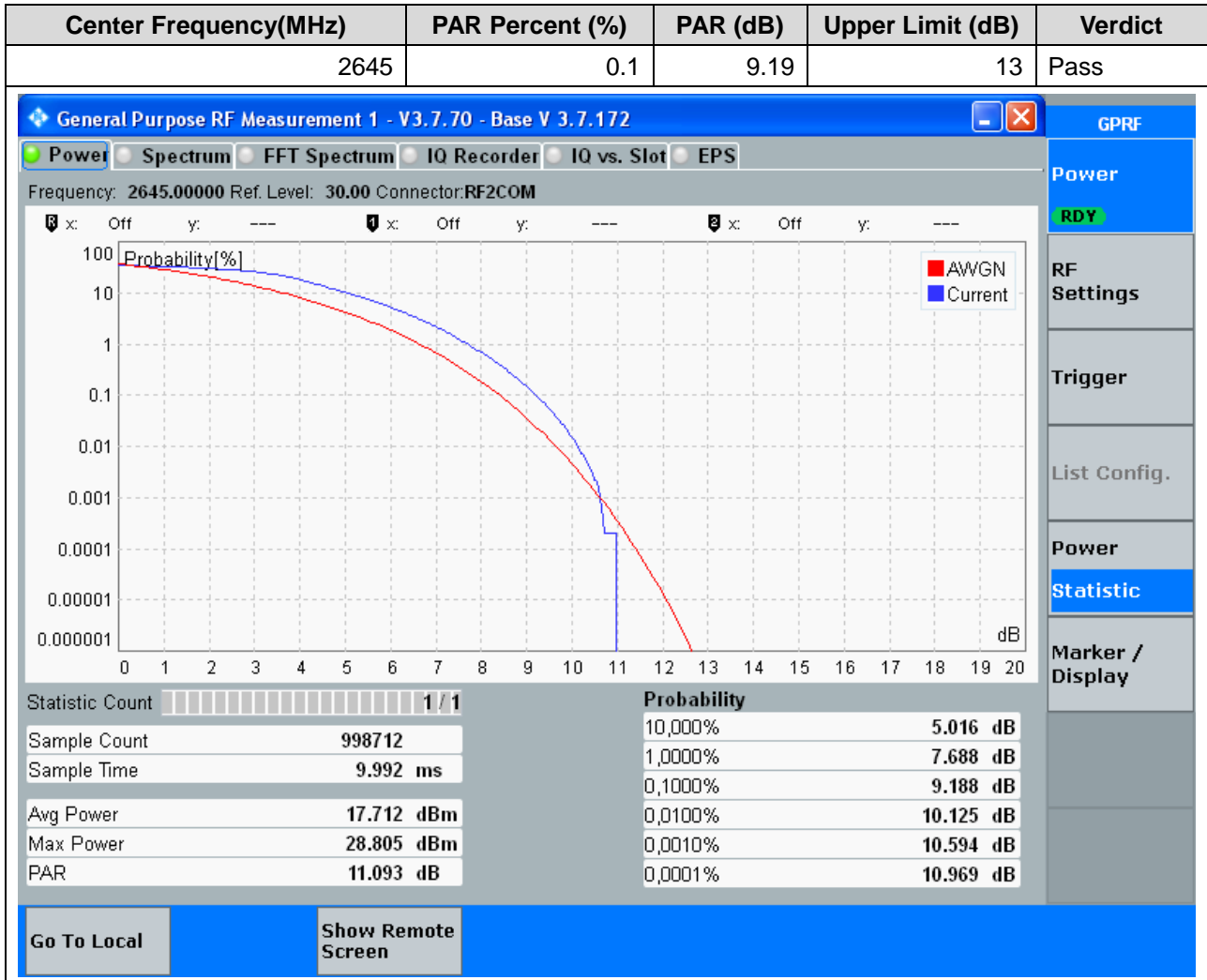
**11.8. LTE Peak to Average Ratio(NTNV)(Subtest:8, Channel:40640, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**



**11.9. LTE Peak to Average Ratio(NTNV)(Subtest:9, Channel:41140, Bandwidth:20, Modulation:QPSK, RB Number: 1, RB Position:LOW)**

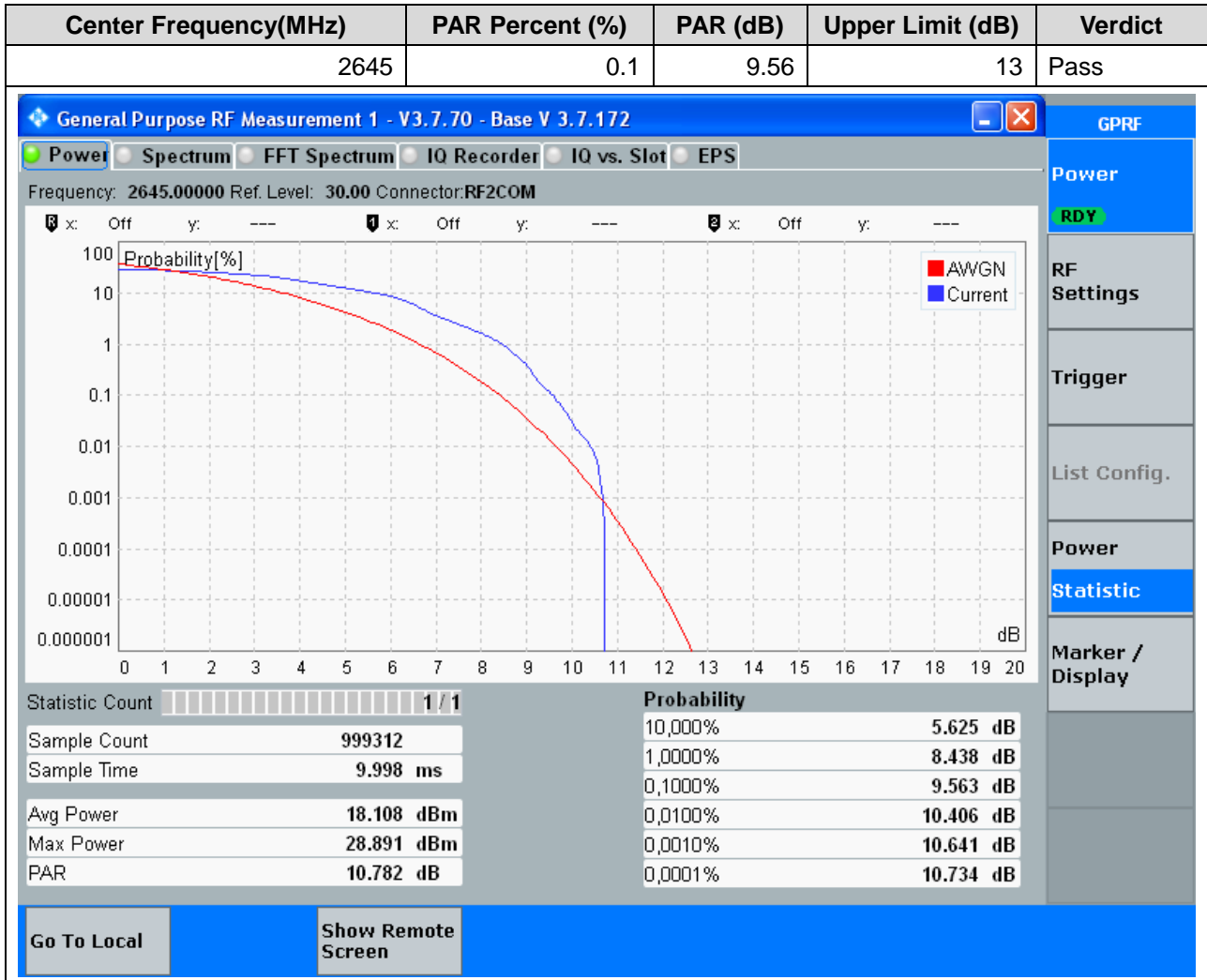


**11.10. LTE Peak to Average Ratio(NTNV)(Subtest:10, Channel:41140, Bandwidth:20, Modulation:QPSK, RB Number: 100, RB Position:LOW)**

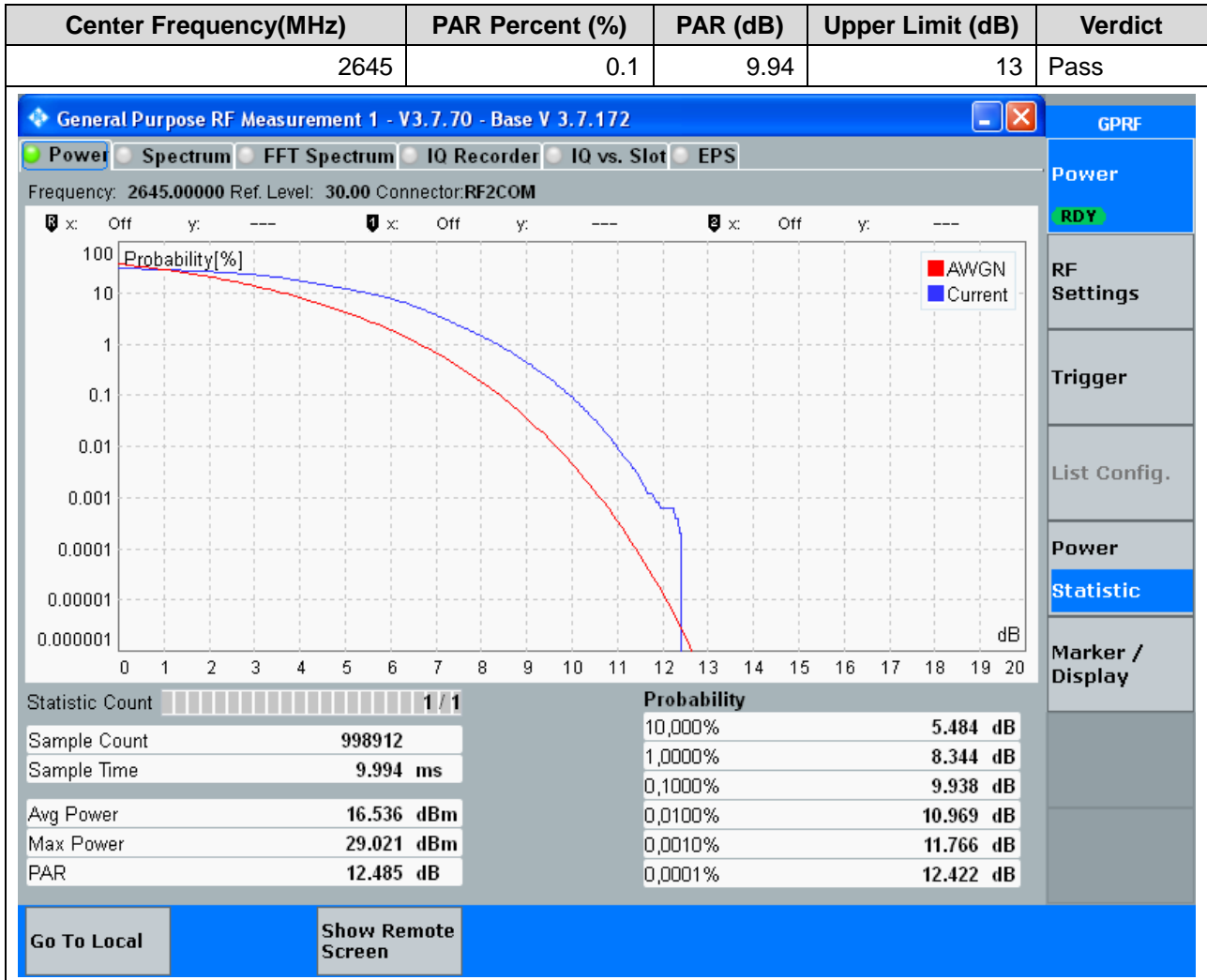




**11.11. LTE Peak to Average Ratio(NTNV)(Subtest:11, Channel:41140, Bandwidth:20, Modulation:Q16, RB Number: 1, RB Position:LOW)**



**11.12. LTE Peak to Average Ratio(NTNV)(Subtest:12, Channel:41140, Bandwidth:20, Modulation:Q16, RB Number: 100, RB Position:LOW)**



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