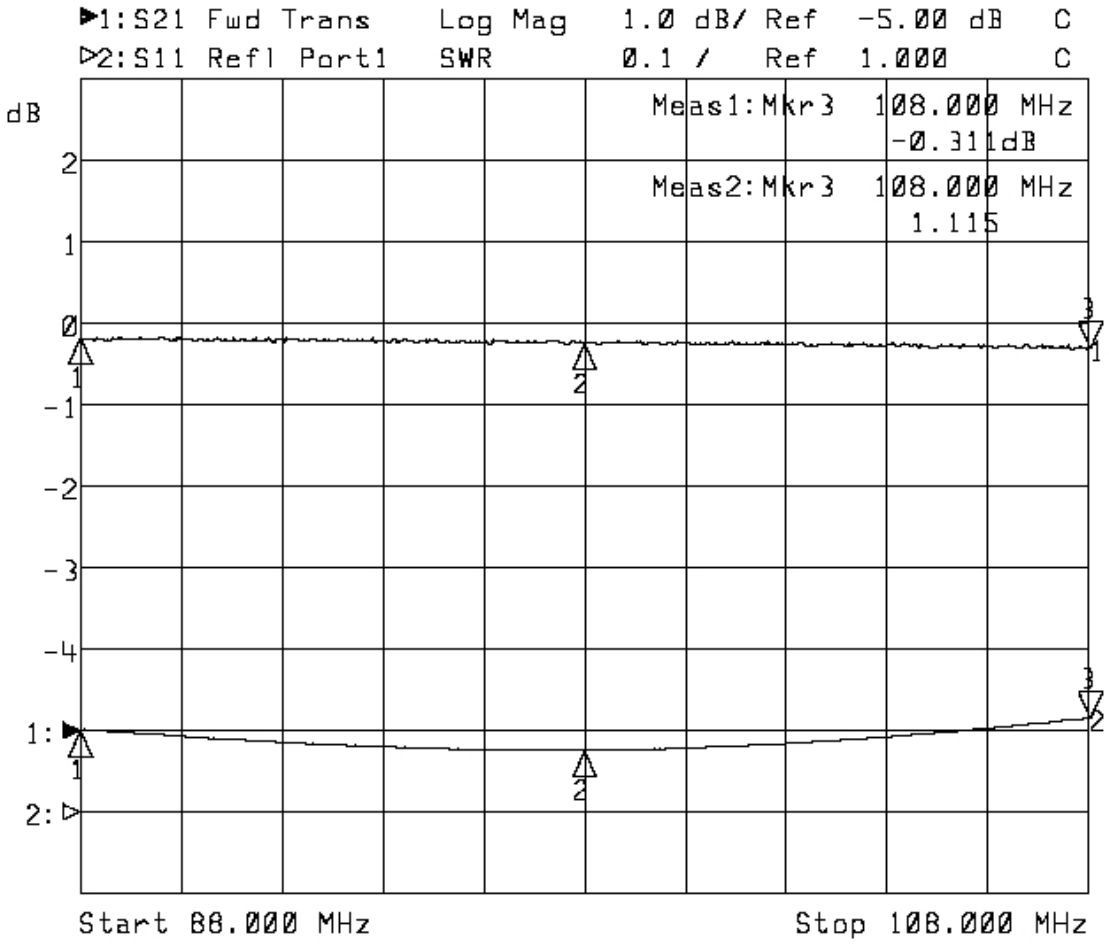
5W BOOSTER TEST REPORT

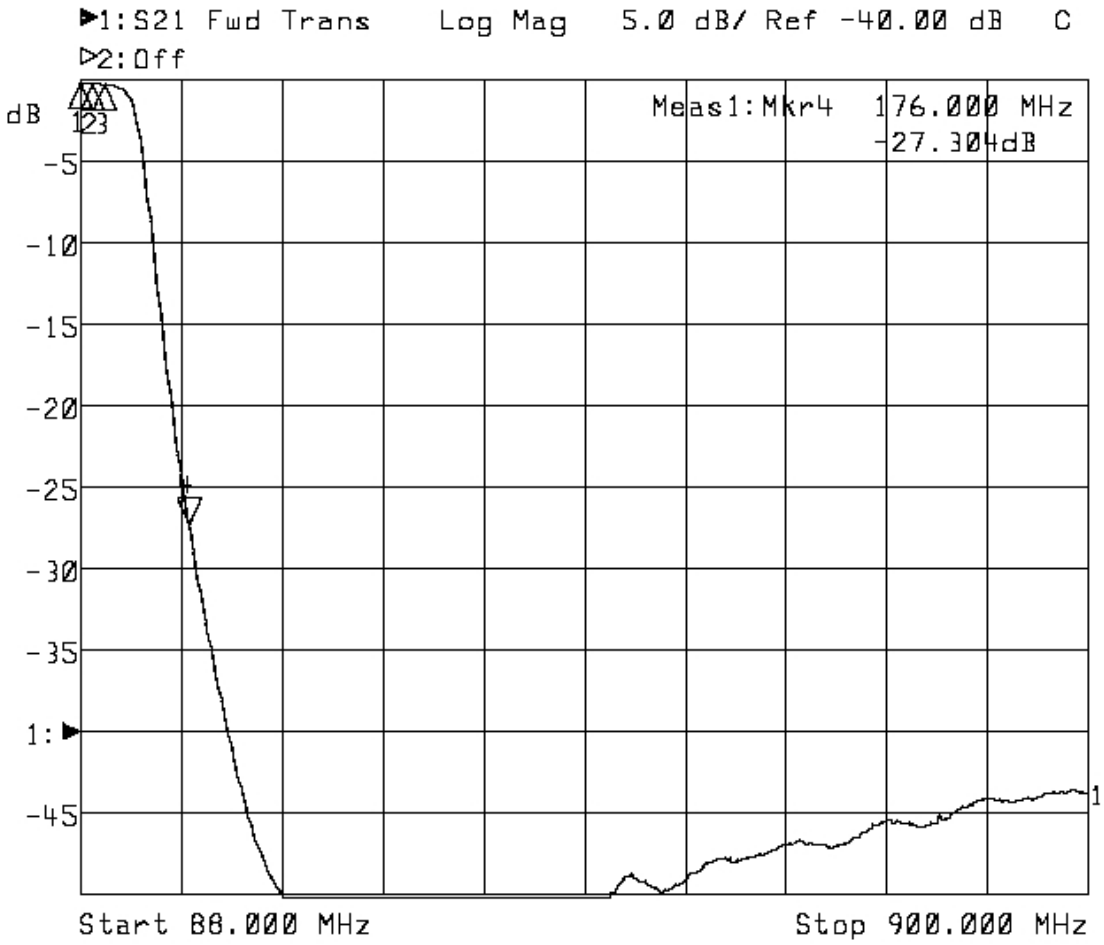
1°) <u>Tos meter and Low pass filter qualification :</u>

1-a: S11 and S21 measurements

Test conditions: Tambiant, Pin=10 dBm (Network Analyser:HP8714)



1:Mkr (MHz)	dB	2:Mkr (MHz)	
1: 88.0000	-0.182	1: 88.0000	1.101
2: 98.0000	-0.238	2: 98.0000	1.075
3> 108.0000	-0.311	3> 108.0000	1.115



1:Mkr (MHz)	dB	2:Mkr (MHz)
1: 88.0000	-0.174	
2: 98.0000	-0.229	
3: 108.0000	-0.281	
4> 176.0000	-27.304	

1-b: Tos meter Frequency response

Test conditions: Tambiant, Pout=37dBm (5W),Vds=12.5V,Ids=350mA
Pin is adjusted to set the output power to 5W.

Frequency	Output Power	V forward
88 MHz	4.95W	0.82V
90 MHz	4.98W	0.85V
92 MHz	4.97W	0.88V
94 MHz	4.95W	0.908V
96 MHz	4.98W	0.945V
98 MHz	4.96W	0.970V
100 MHz	4.96W	0.990V
102 MHz	4.98W	1.026V
104 MHz	4.97W	1.048V
106 MHz	4.95W	1.082V
108 MHz	4.95W	1.12V

2°) <u>RD06HVF1 RF stage qualification :</u>

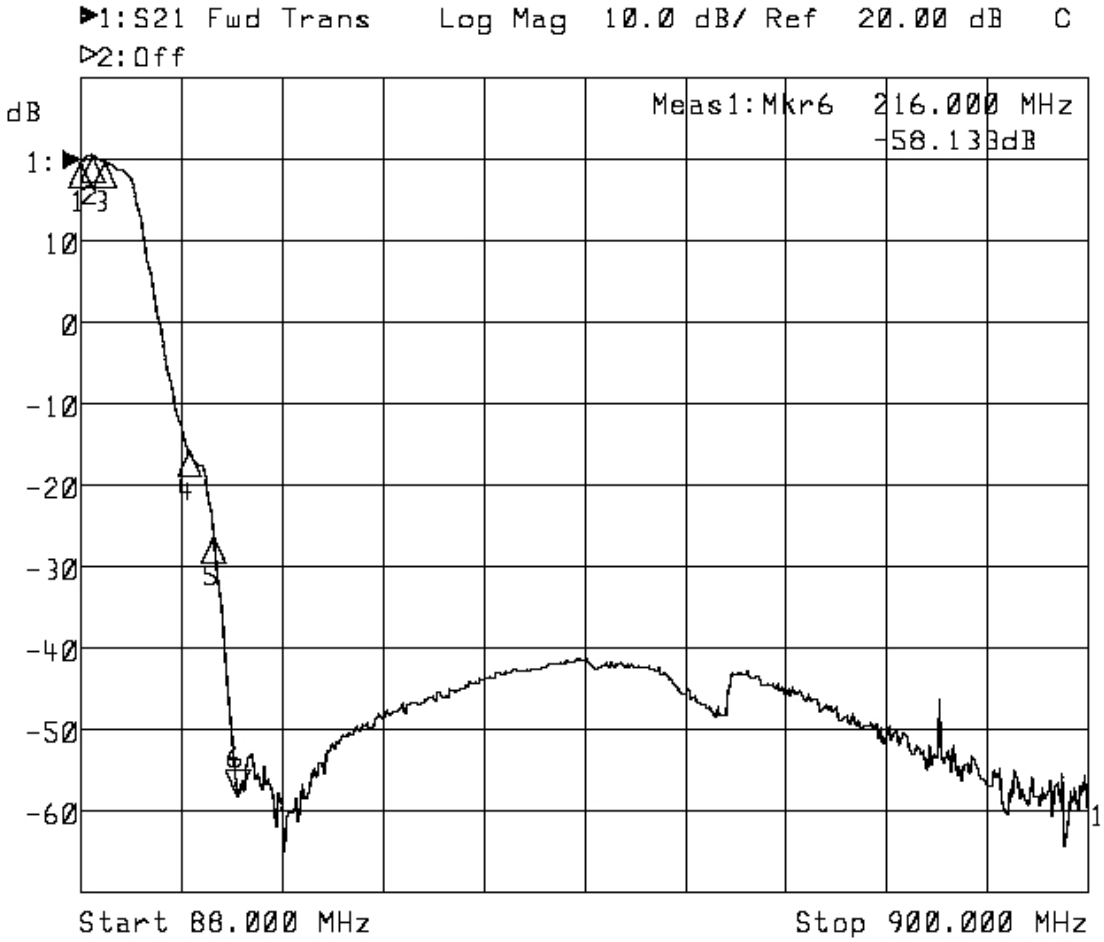
2-a: Frequency Response:

Test conditions: Tambiant, Pin=18 dBm, Vds=12.5V, Vgs=5.16V, Ids=350mA
(SML03 generator and URV5 Power meter)

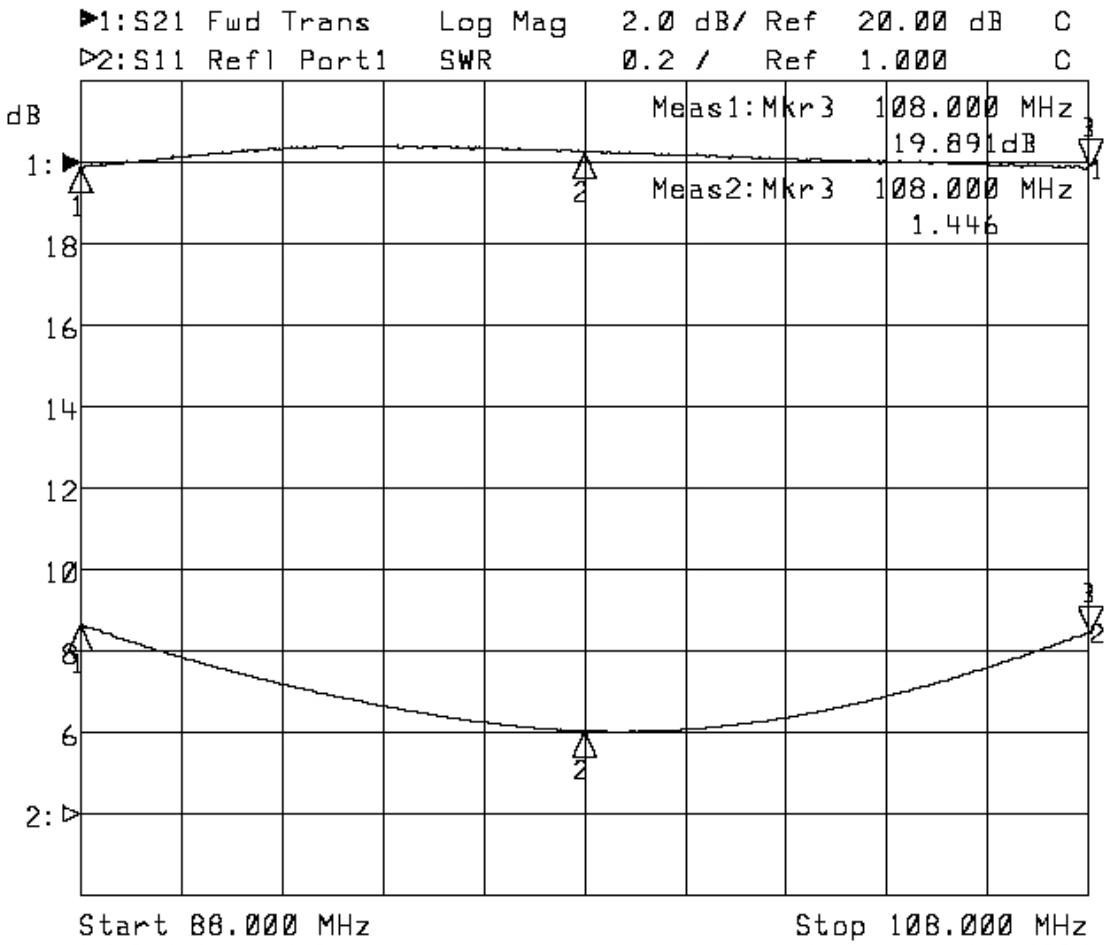
Frequency	Current	Pout	Efficiency
88 MHz	0.741 mA	4.9W	53%
90 MHz	0.744 mA	5.15W	
92 MHz	0.740 mA	5.5W	
94 MHz	0.733 mA	5.58W	
96 MHz	0.722 mA	5.5W	
98 MHz	0.713 mA	5.3W	59%
100 MHz	0.709 mA	5.1W	
102 MHz	0.709 mA	5 W	
104 MHz	0.708 mA	4.9W	
106 MHz	0.706 mA	4.9W	
108 MHz	0.701 mA	4.9W	56%

2-b: S11 and S21 measurements:

Test conditions: Tambiant, Pin=17 dBm, Vds=12.5V, Vgs=5.16V, Ids=350mA
(Network Analyser: HP8714)



1: Mkr (MHz)	dB	2: Mkr (MHz)
1: 88.0000	19.754	
2: 98.0000	20.478	
3: 107.9067	19.735	
4: 176.0000	-15.838	
5: 196.0000	-26.373	
6> 216.0000	-58.133	

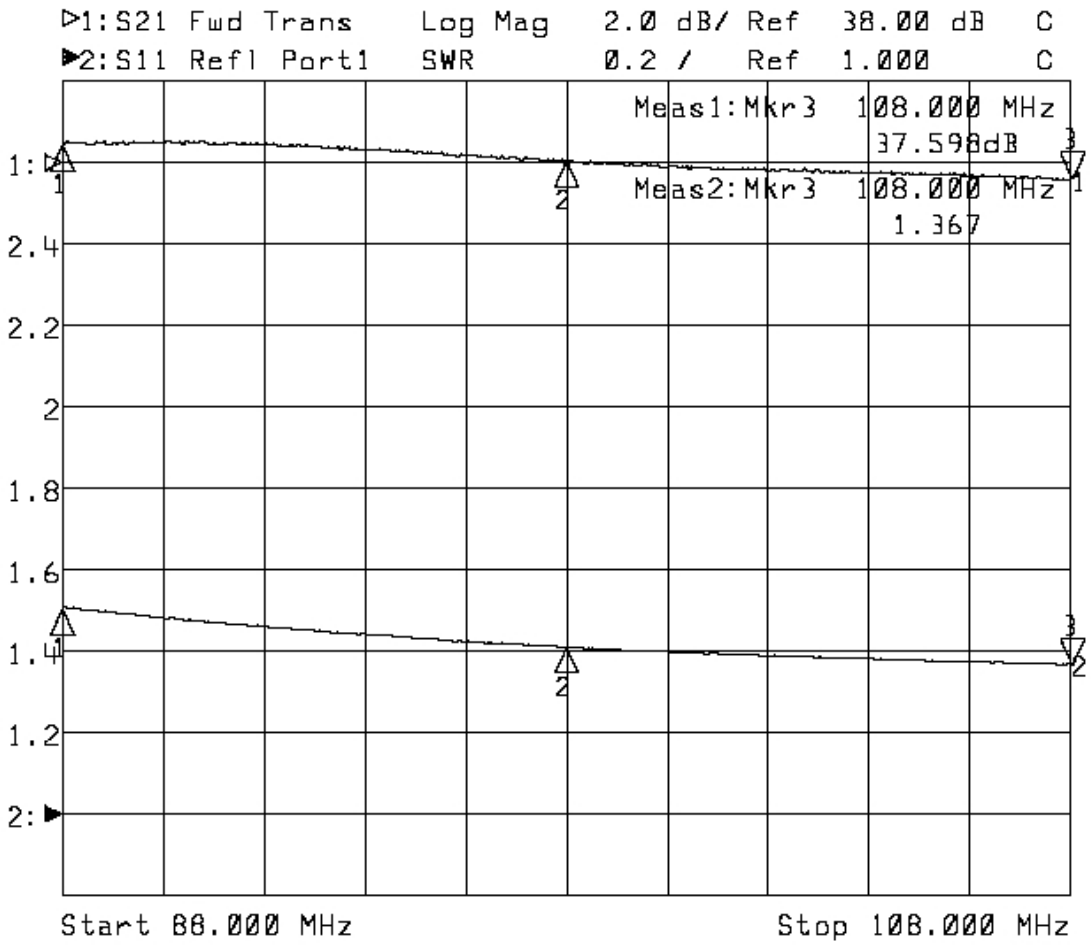


1:Mkr (MHz)		dB	2:Mkr (MHz)		
1:	88.0000	19.906	1:	88.0000	1.465
2:	98.0000	20.266	2:	98.0000	1.203
3>	108.0000	19.891	3>	108.0000	1.446

The Gain is very stable in the FM band.(G=20.08 dB +/-0.18 dB)
The Input Ros is < 1.5 between 88 and 108 MHz.

3°) <u>TX chain qualification :</u> (BFG35+RD06HVF1+LPF+Tosmeter)

3-a: S11 and S21 measurements:



1:Mkr (MHz)		dB	2:Mkr (MHz)		
1:	88.0000	38.438	1:	88.0000	1.507
2:	98.0000	38.025	2:	98.0000	1.409
3>	108.0000	37.598	3>	108.0000	1.367

Total Gain=38dB +/-0.4dB
Input Swr Max: 1.5

Input power level=0 dBm (1mW)

End of the Report