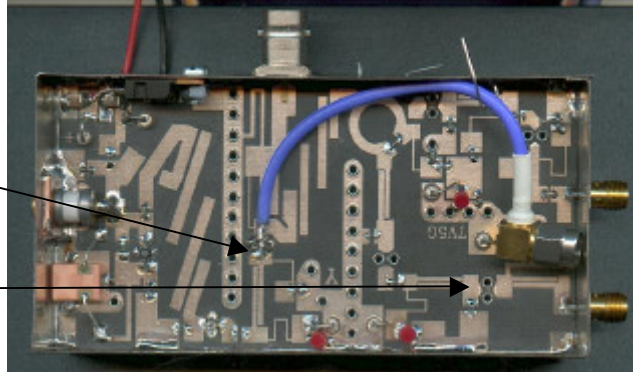


- I2SG 5.7GHz TRANSVERTER – F5LGJ 2002 -

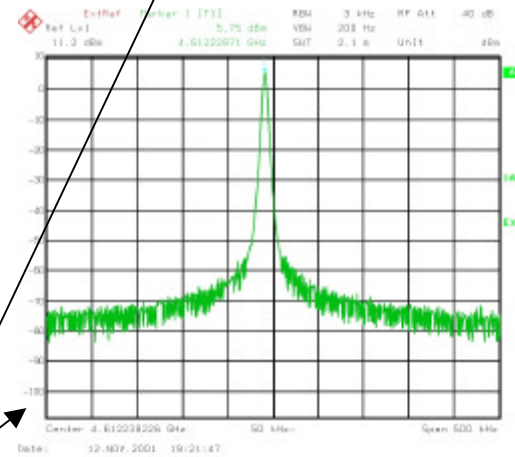
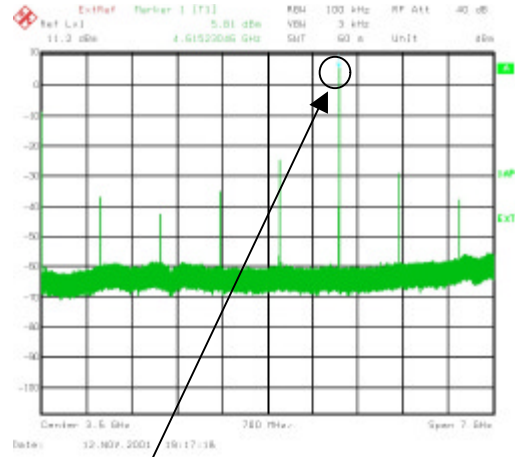
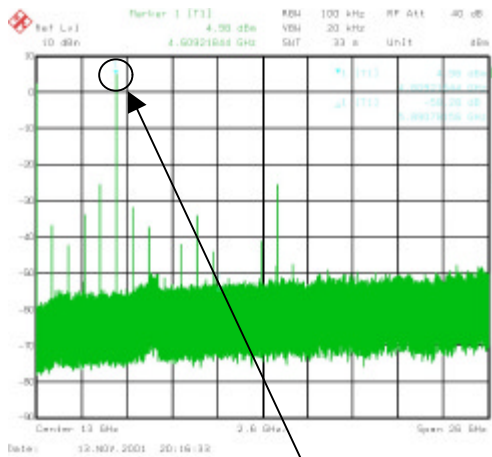
1. Measurement on board :

Gate of Q2 for OL measurement

Gate of Q5 for TX 1st stage measurement



2. Spectrum OL:



Measured levels :

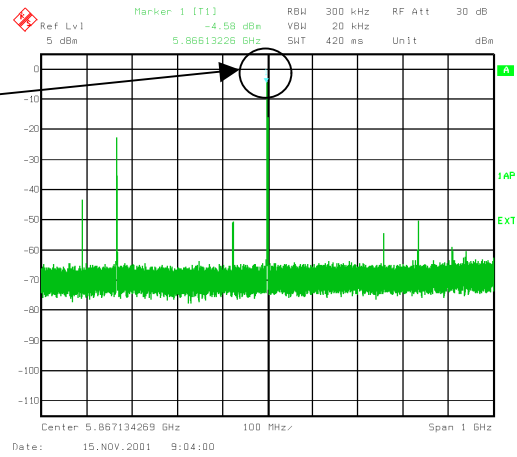
Frequency (MHz)	922.5	1845	2767	3689	4612	5534	6457	7376	8301	9224	10146	11069	11991	12914
Level (dBm)	-36.0	-42.0	-34.5	-25.5	5.1	-31.0	-38.0	-50.0	-42.0	-34.5	-44.5	-53.0	-55.0	-40.0

F5LGJ 13/11/2001 - measurement with R&S FSEM30

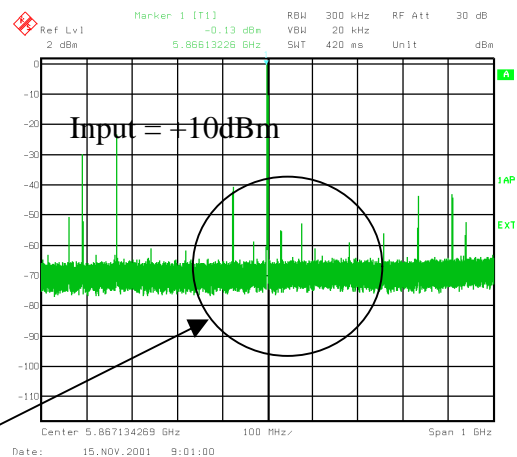
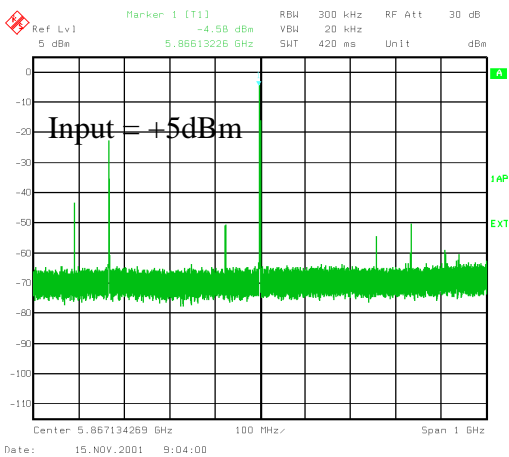
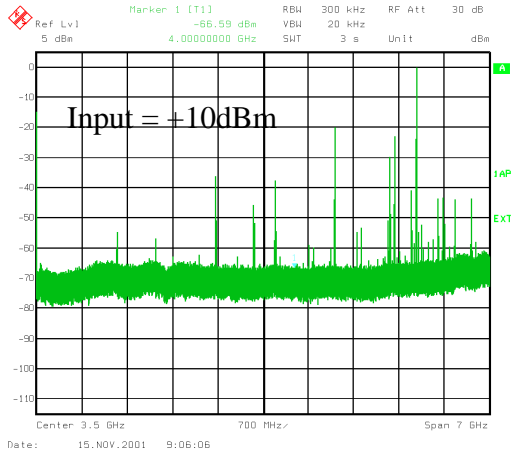
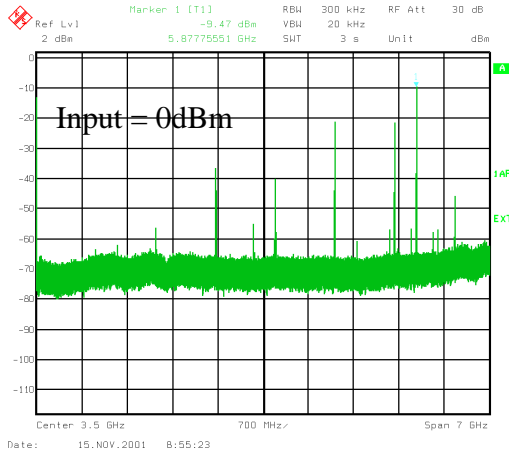
3. Measurement RF output:

After the 1st stage :

Output=-4.5dBm
(after Q4 (gate Q5) input +5dBm)



Intermodulation products :



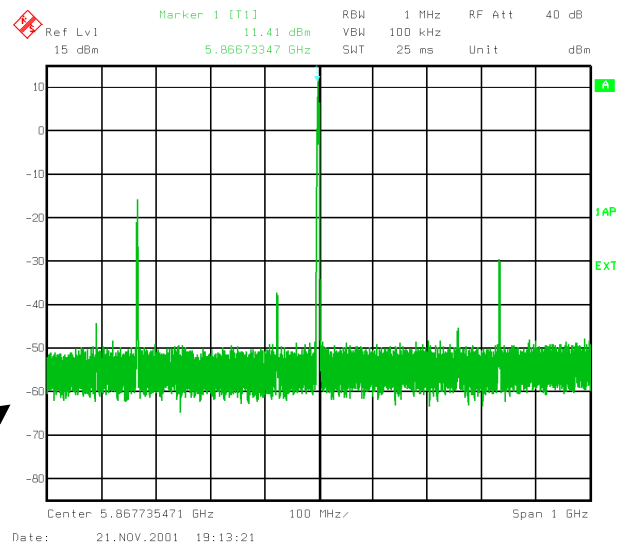
Intermodulation products

After the 2nd stage :

Niveau de sortie :

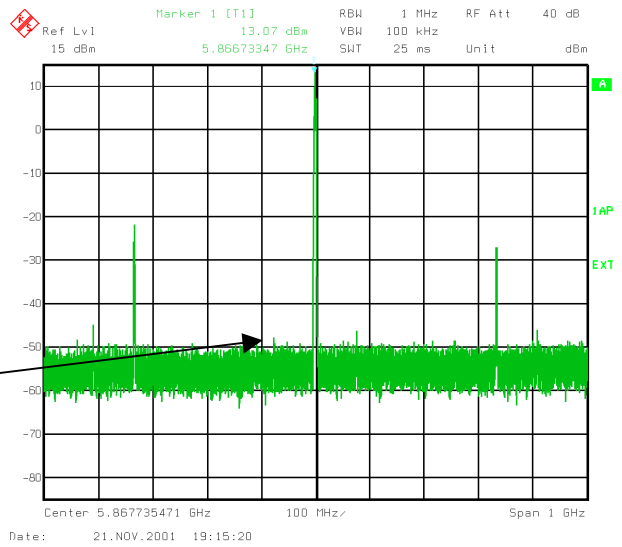
Input dBm	Output dBm	IMD dBc
1255	5867	30.7MHz
15.0	13.2	-44.5
10.0	13.2	-65.0
5.0	13.2	-67.0
0.0	10.7	-87.0
-5.0	6.2	
-10.0	1.0	
-15.0	-3.8	
-20.0	-8.7	

RFIN 1255 MHz = 0dBm



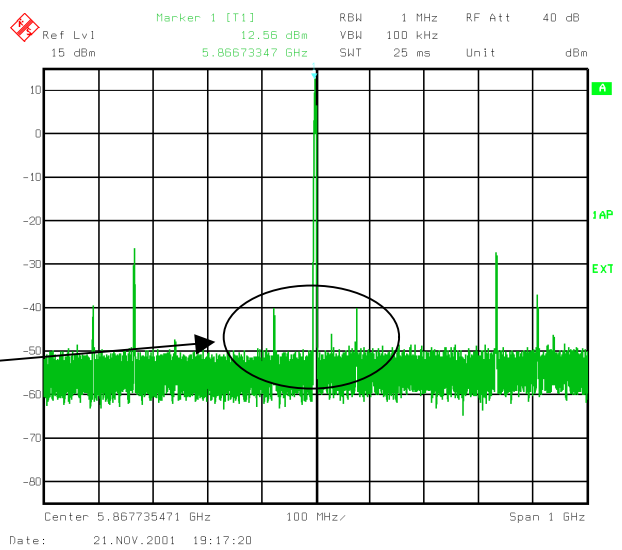
RF IN 1255 MHz = +5dBm

Correct input level



RF IN 1255 MHz = +10dBm

Intermodulation :

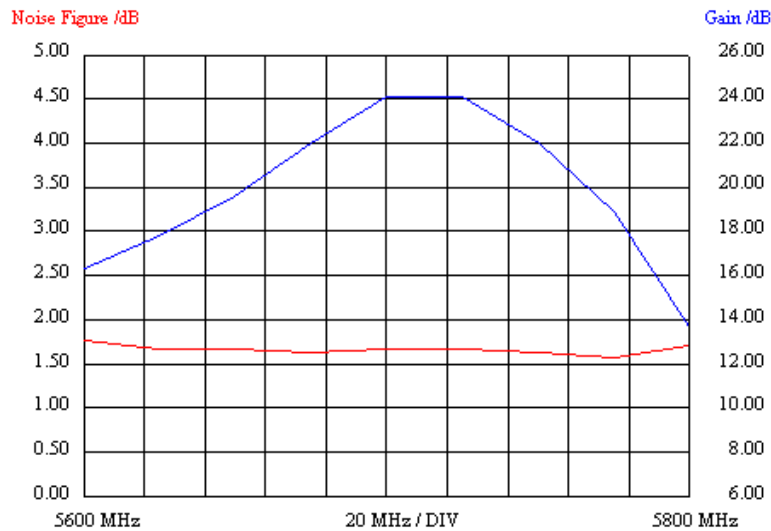


Measurement with final board

4. Noise figure of RX stage

Measurement with FSEK3 kit R&S.

(Test after the 2nd stage)



Result: NF=1.65 @ 5770MHz

Noise source : NC346A ENR=5.42 @ 6GHz

5. Conclusion

This is a good transverter. Be carefull with the RF signal input.
I will test it on external radio site. I will make transmitter and antennas.

On going.

73. Send any comment to
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olivier.berchaud@libertysurf.fr