
Low Pass (Harmonic) Filter Measurement

In order to meet FCC Part 74.794(b) requirement of filtering with an attenuation of not less than 85 dB in the GPS bands, two additional Low Pass Filters will be added to transmitters operating on those TV channels identified in the FCC rules.

To verify compliance the test arrangement shown below in Figure 1 was used to measure the attenuation of the overall Low Pass Filter combination. The results of these measurements are shown on the plot on the following page Figure 2.

The plot shows that the filter attenuation between 1.164 GHz and 1.24 GHz to be below 85 dB. The plot also shows filter attenuation between 1.559 GHz and 1.610 GHz to be below 85 dB.

The displayed value is the noise floor of the network analyzer. There has been some averaging applied to minimize the peak power values of the noise floor. The peak value of the response shown is zero dB and not -5 dB as indicated on the plot. The peak value did not go up to zero dB as a result of the response capability of the network analyzer.

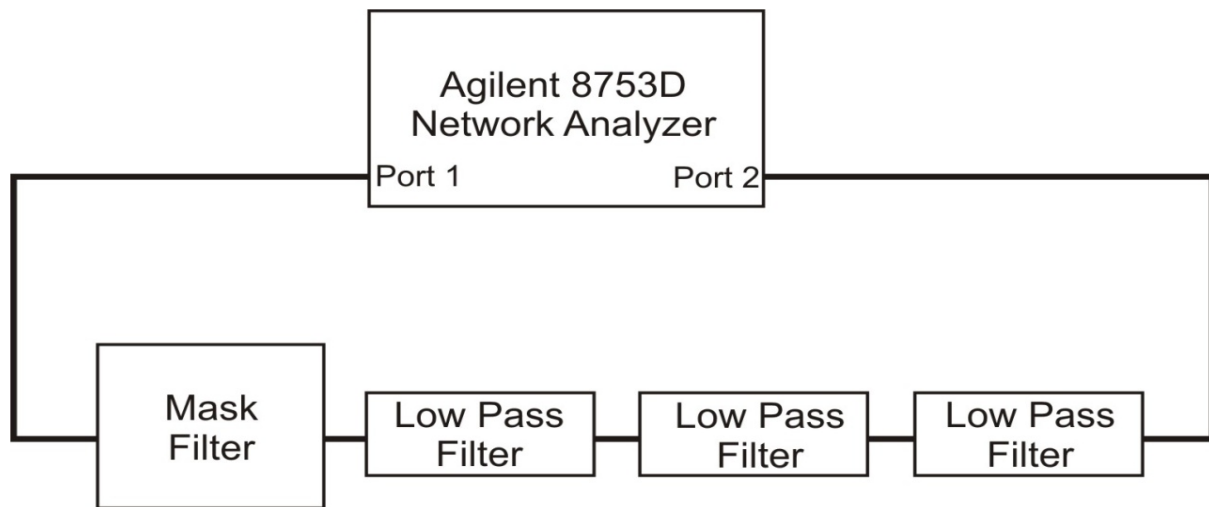


Figure 1

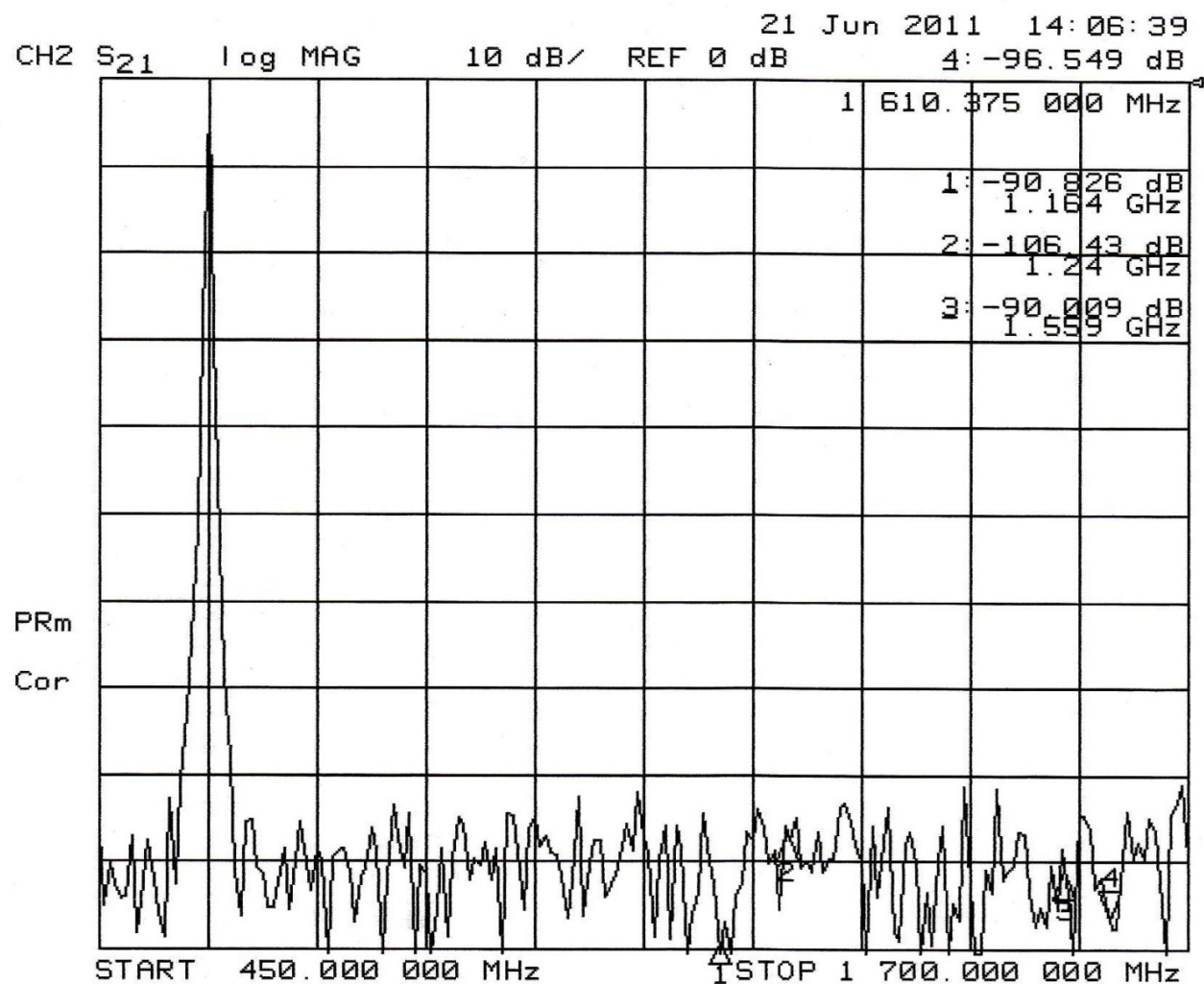


Figure 2

The above network analyzer plot of the output filtering for this transmitter demonstrates compliance with emission attenuation requirements for GPS band protection as specified in FCC 74.794.