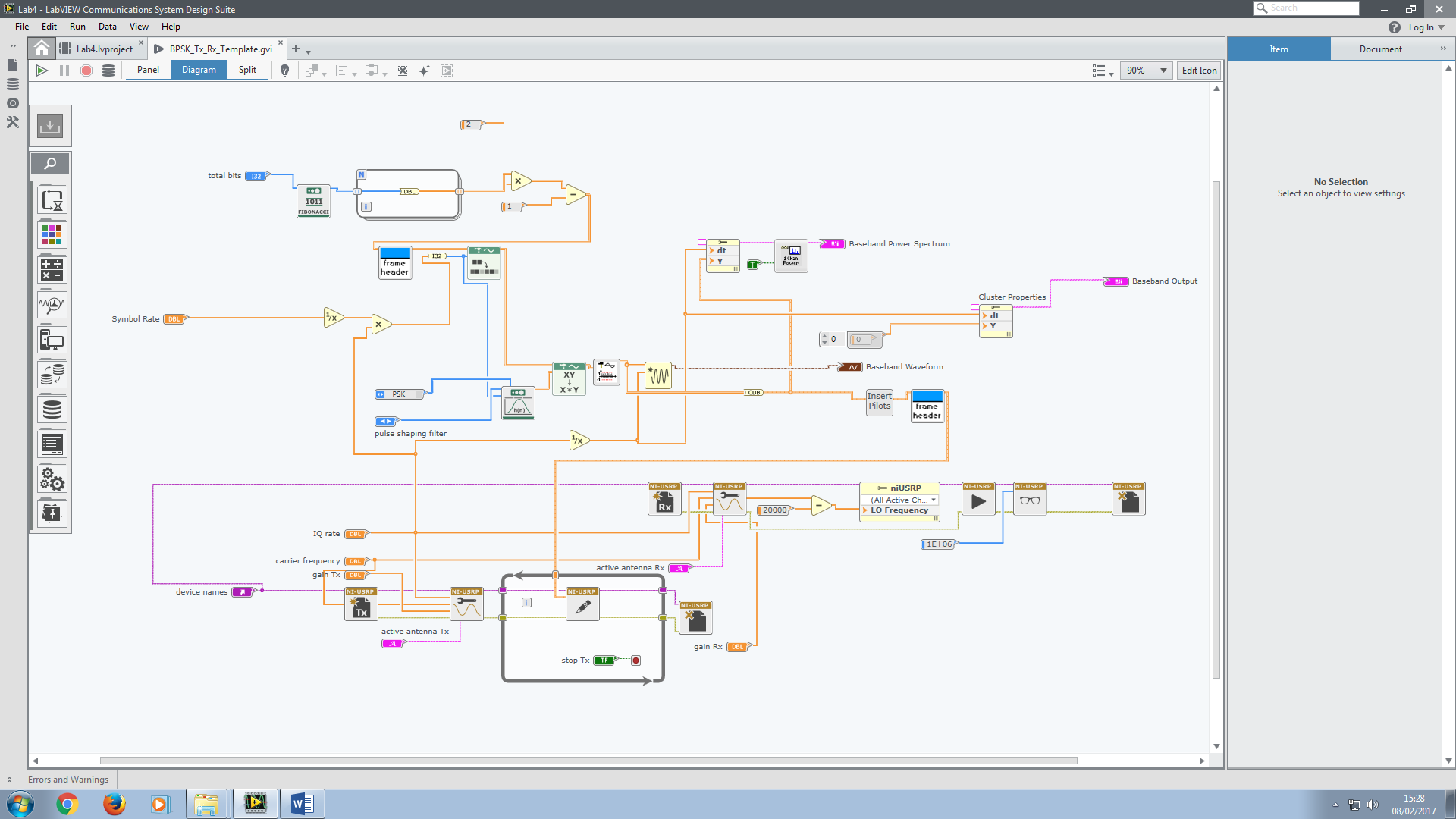
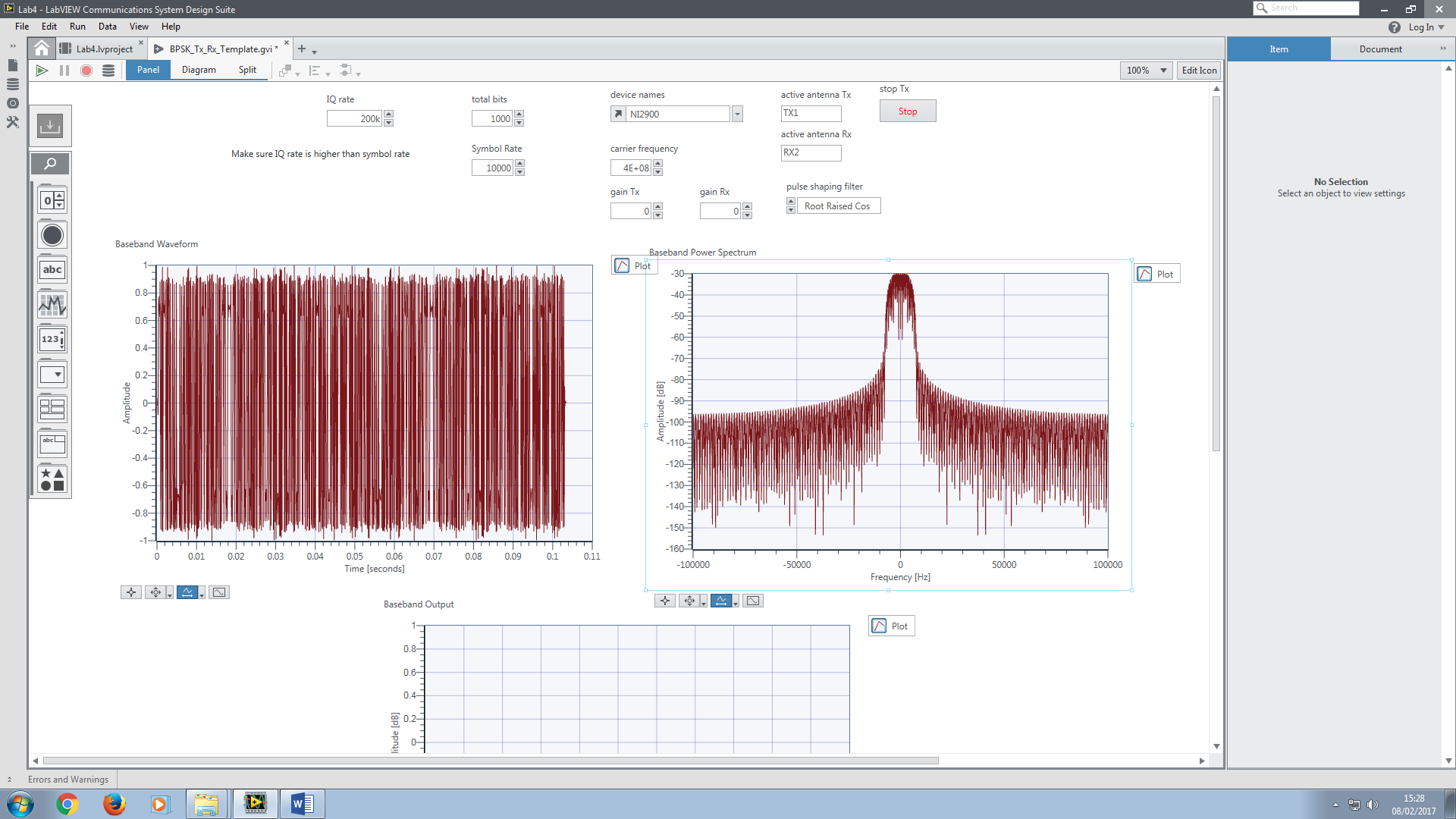
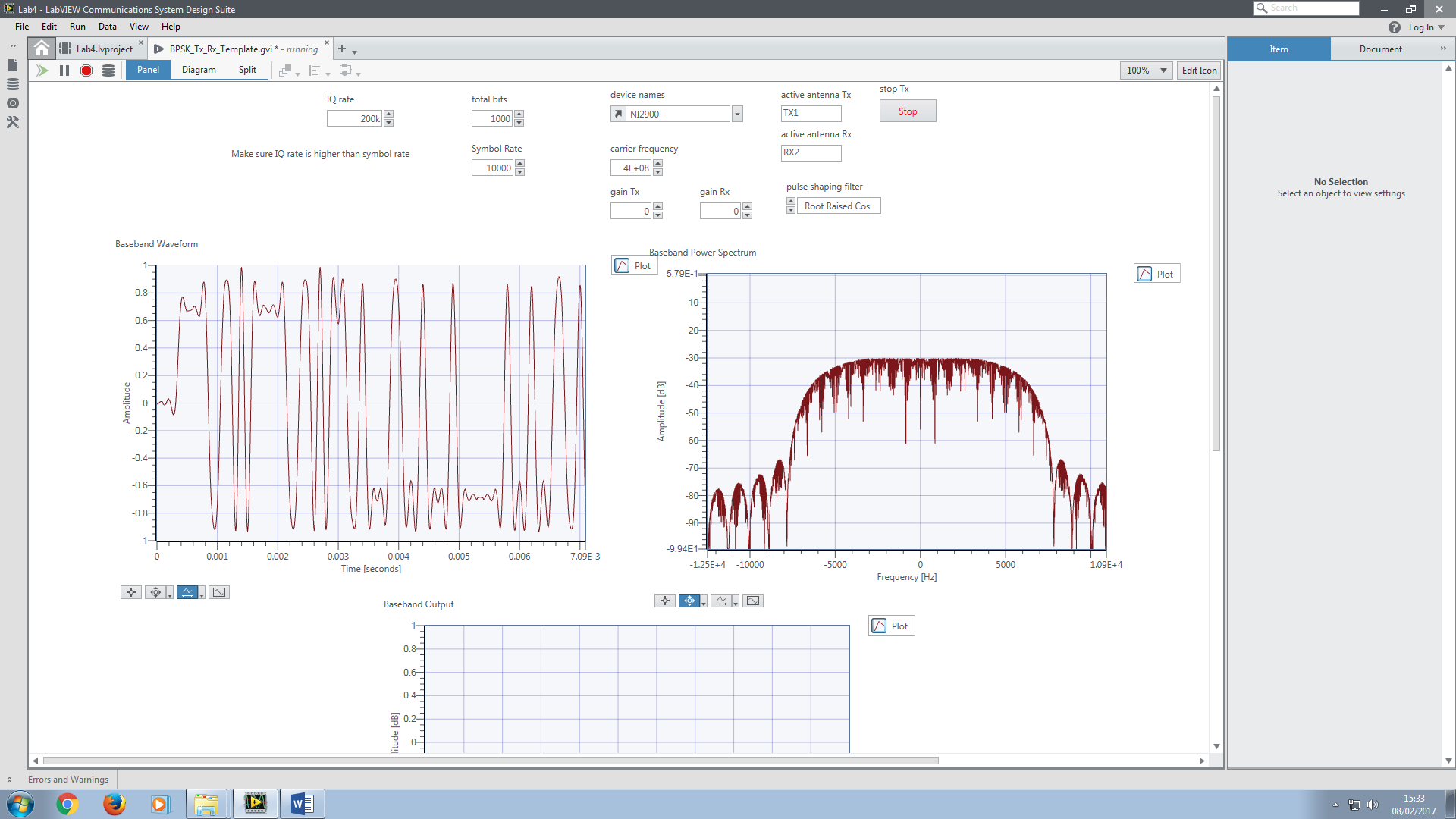
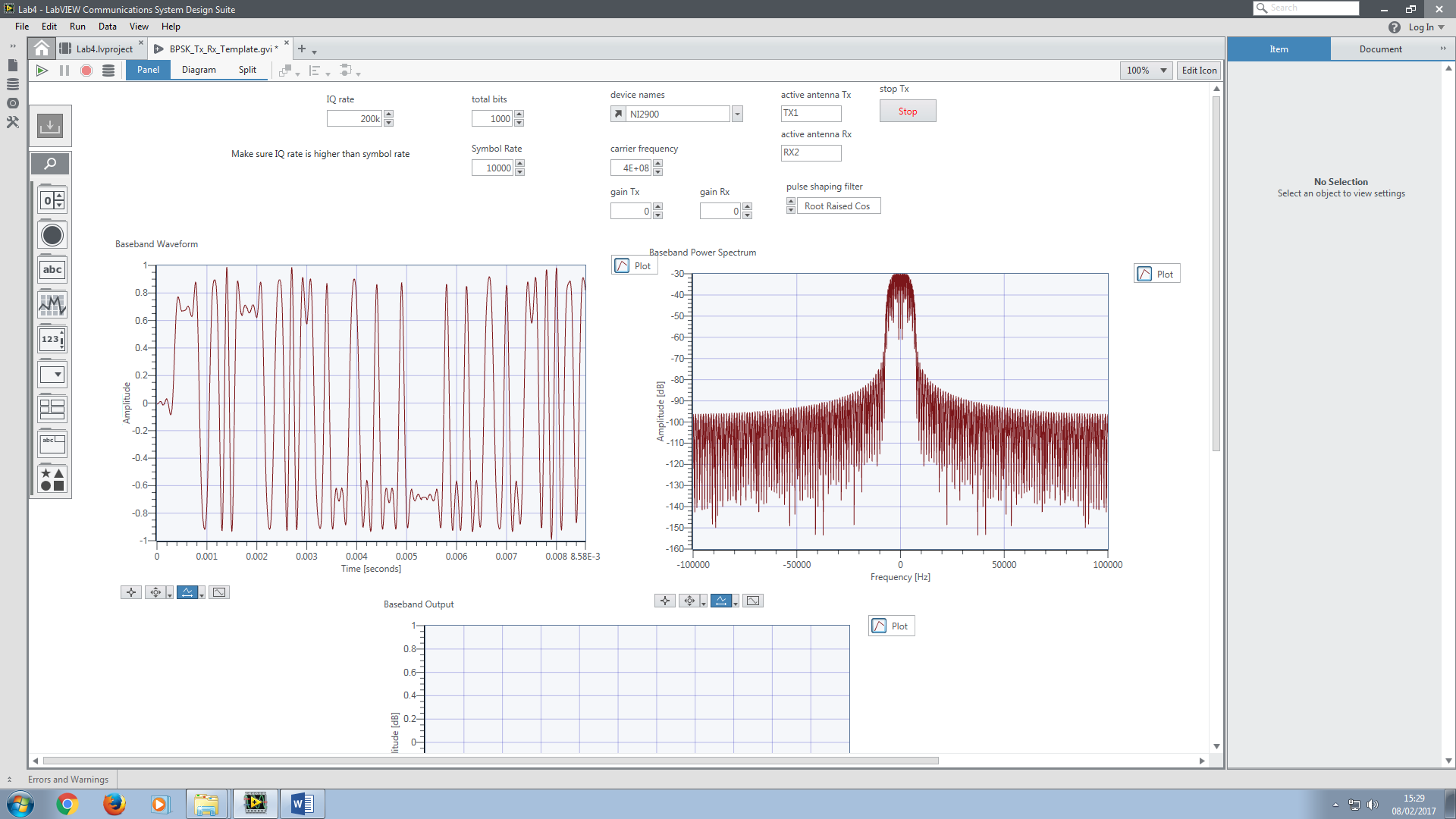
Lab 4

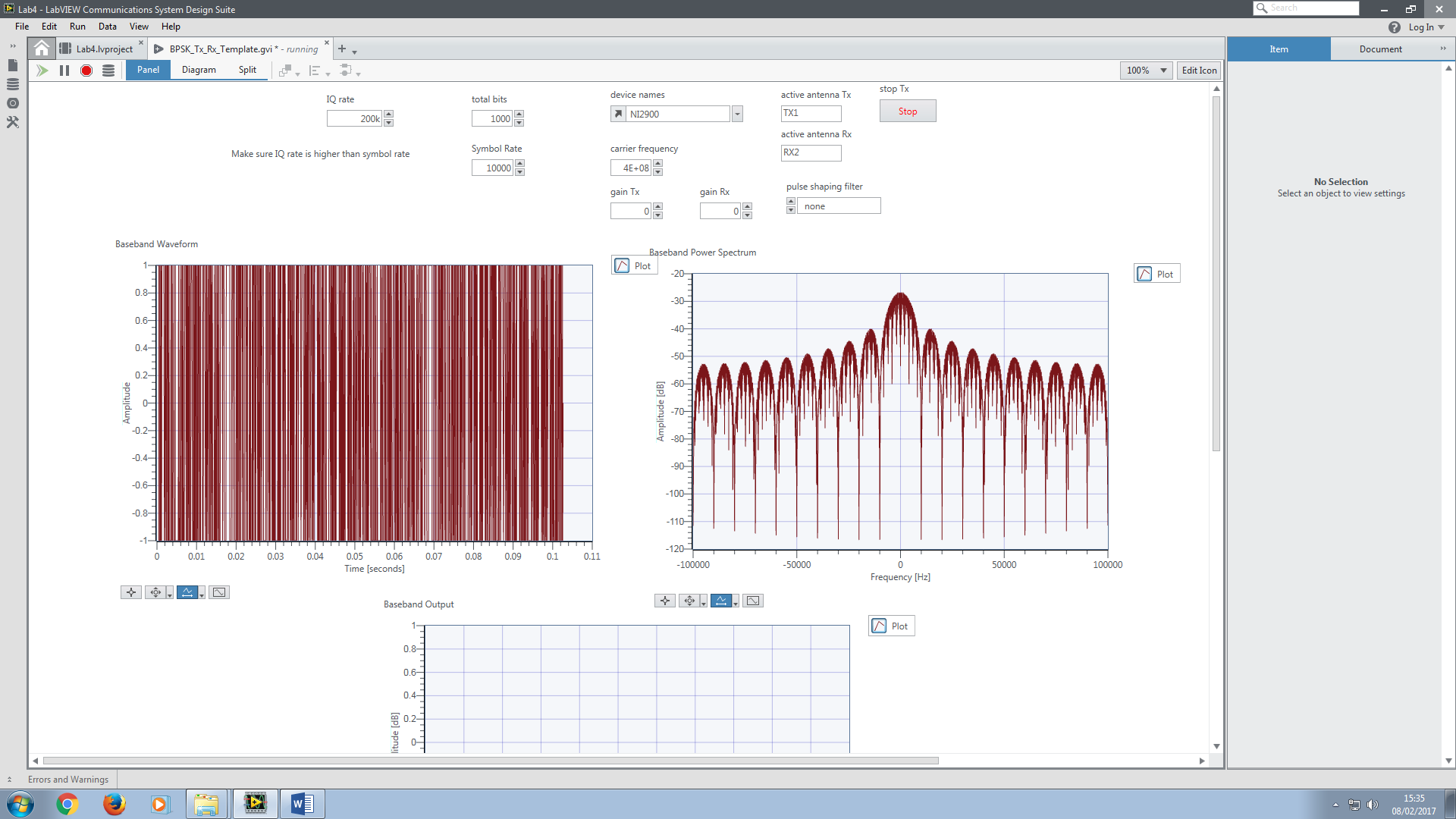
Ex.1

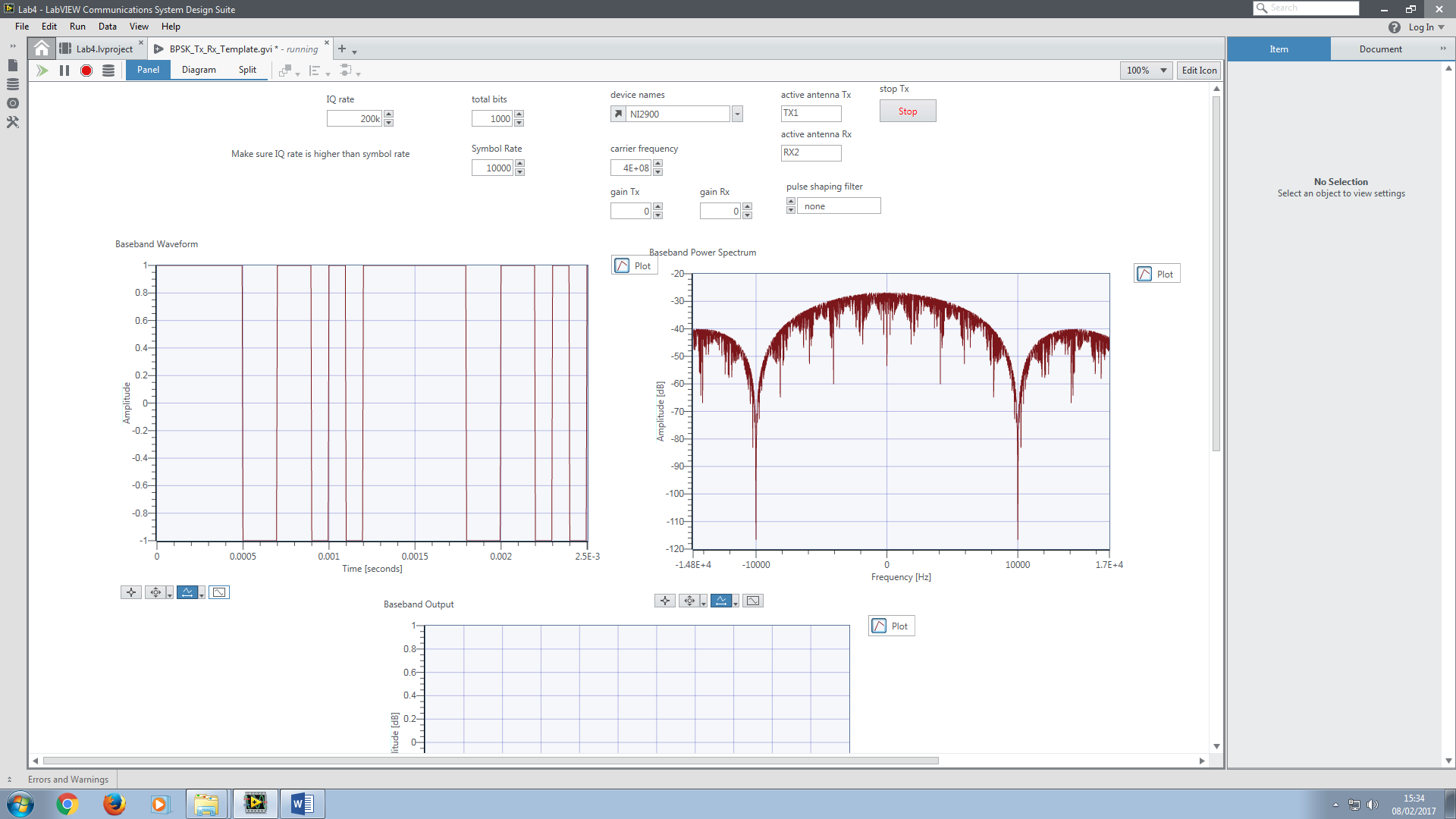






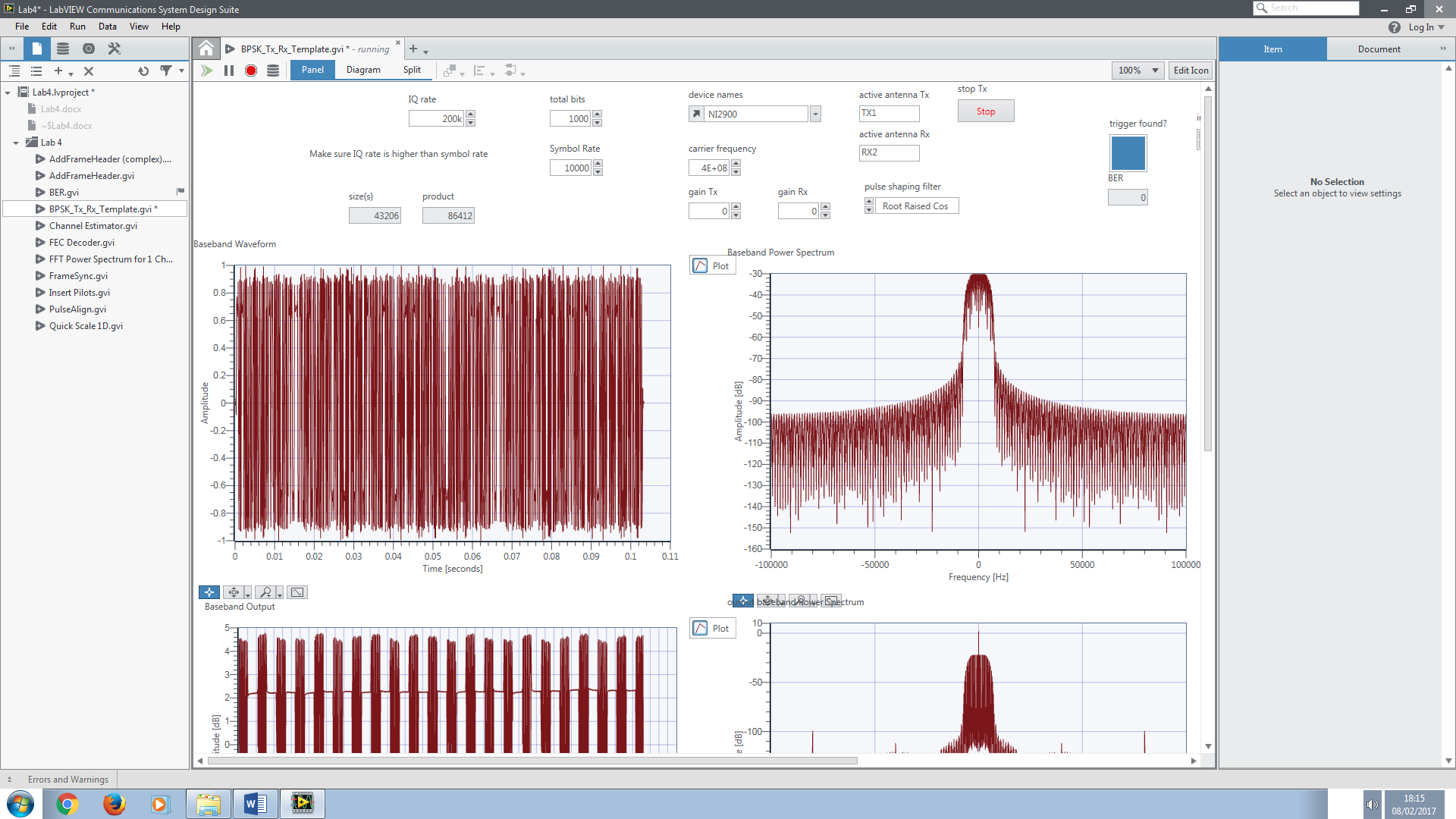
**In the above, we can see that the main lobe bandwidth is around 8000Hz (just under).**

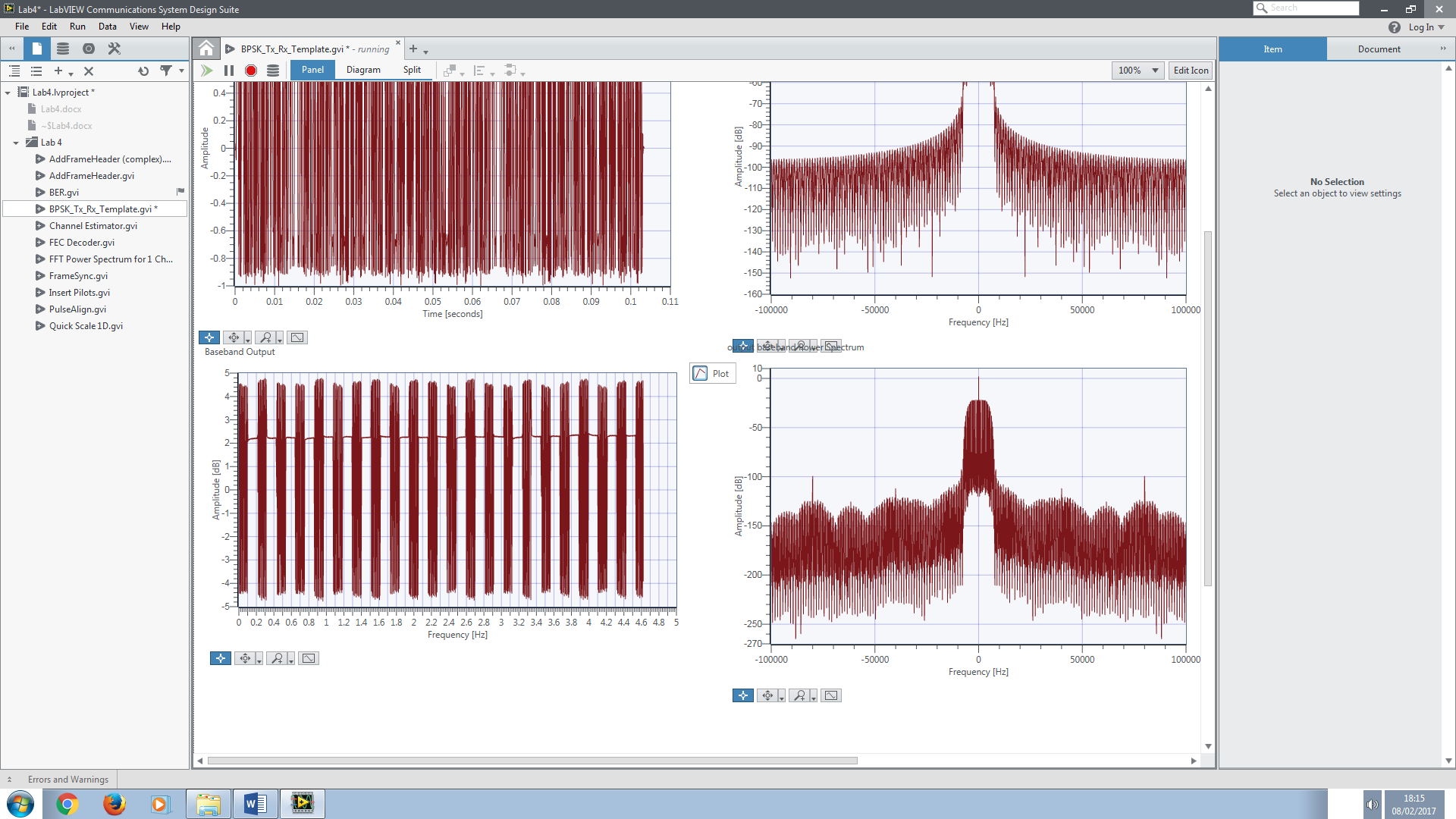


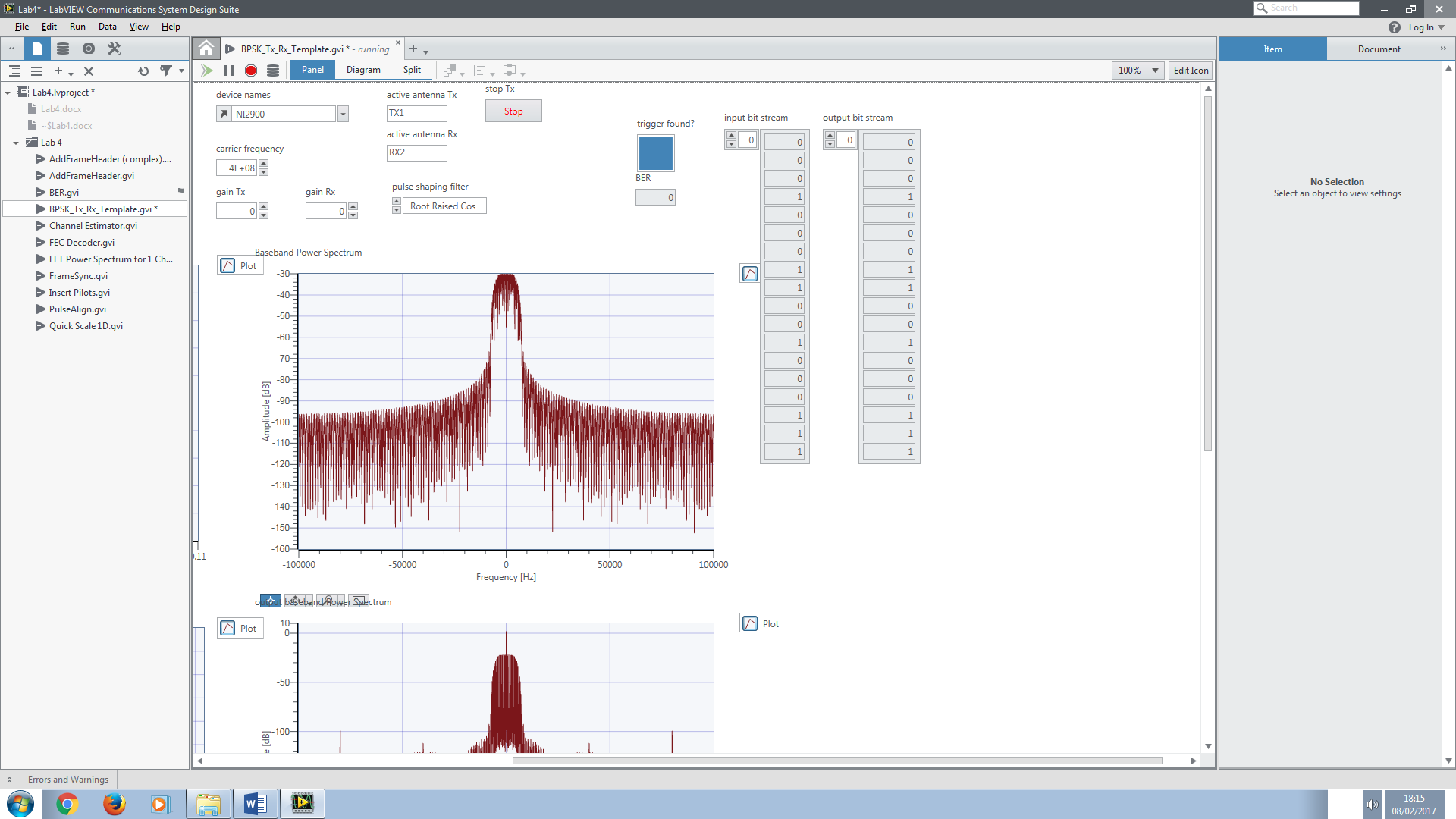


**As you can see, the main lobe bandwidth has increased to 10,000 Hz. We can also see the spectral roll-off is much worse.**

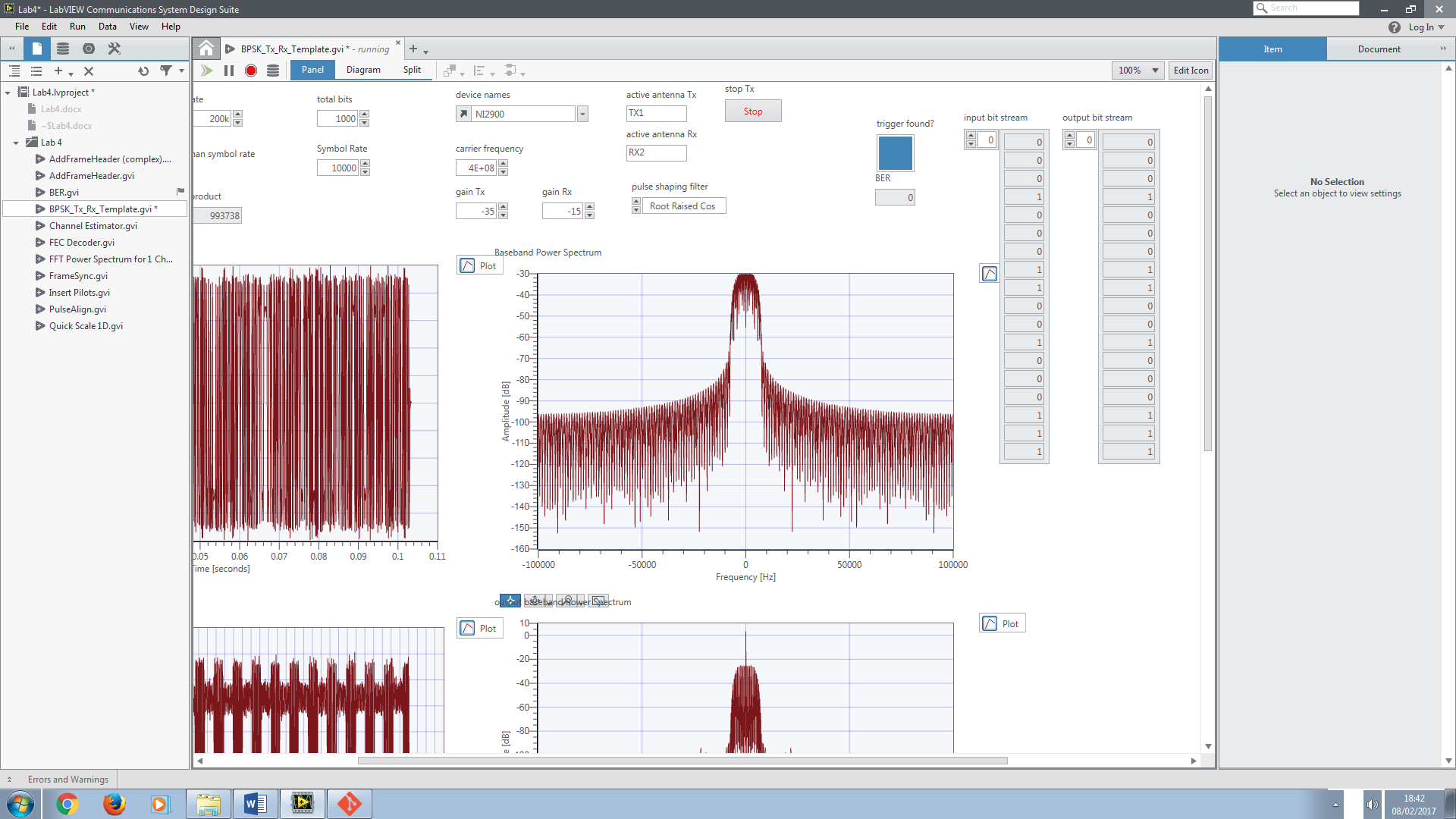
**Ex 2.**

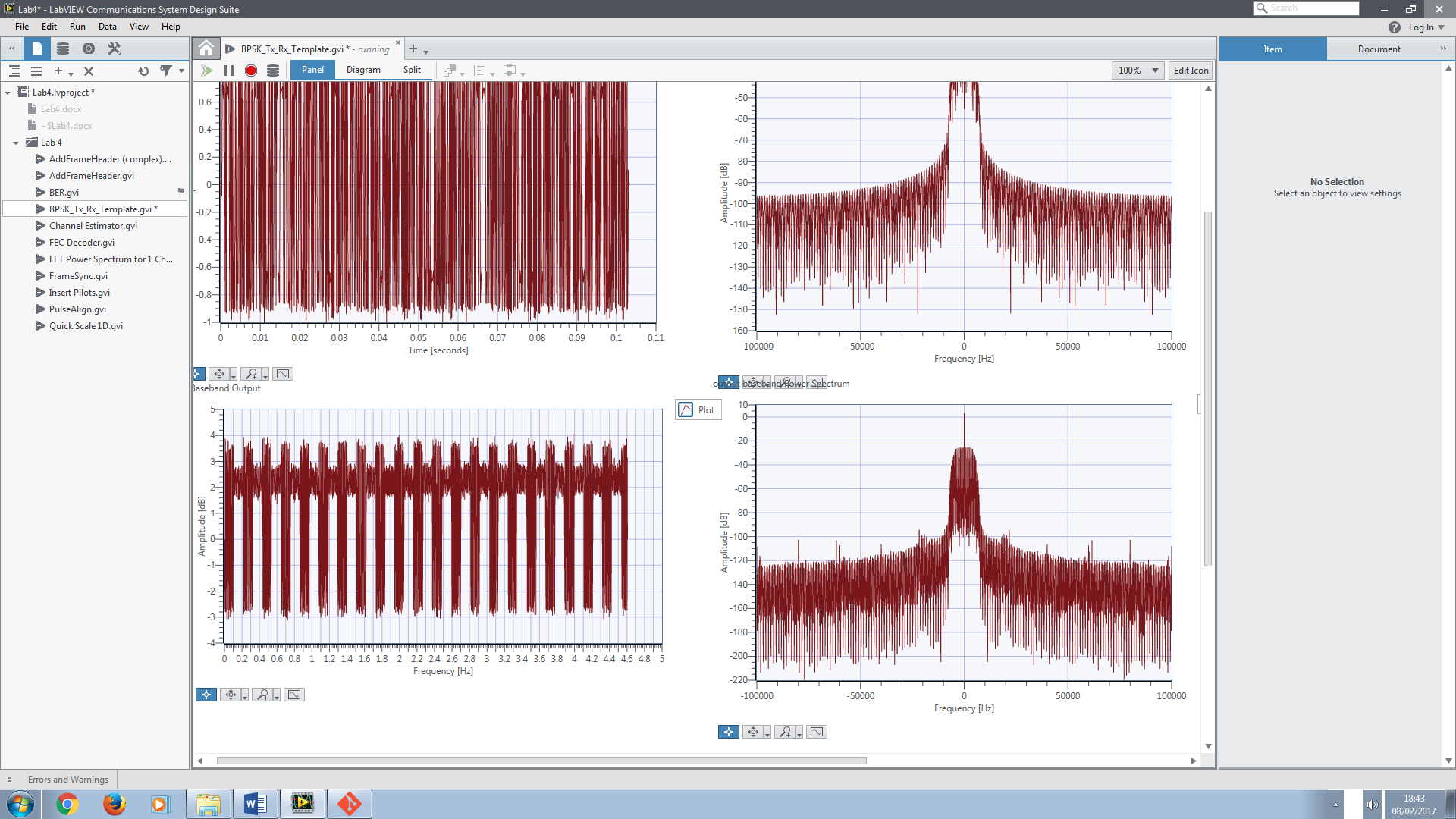






**-35,-15**





**0, 0,0.495459, 0, 0.163471, 0.0423814**

**-37,-15**

**0,** 0.403321, 1, 0.0368098