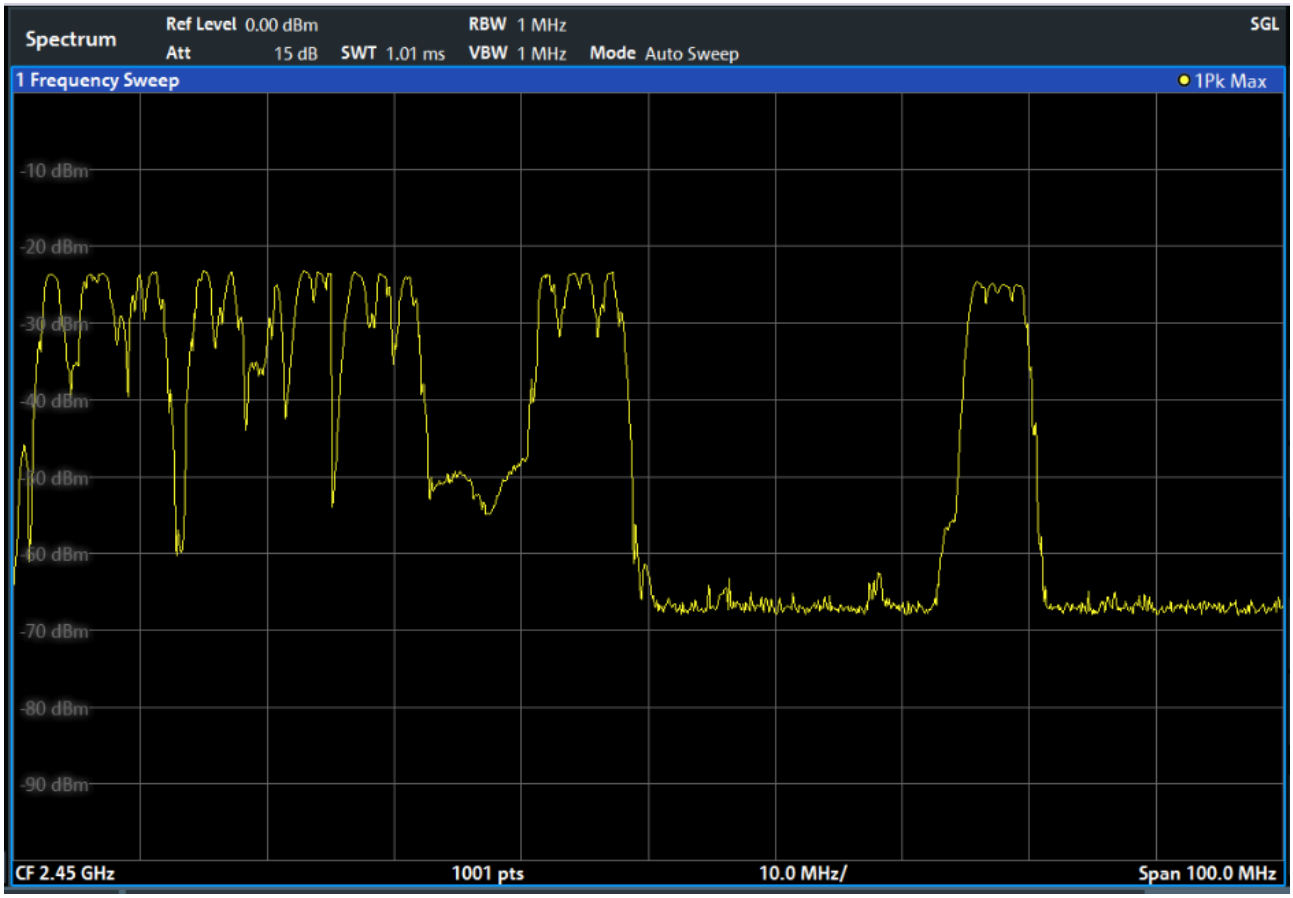
X/Y Plot for Spectrum Analyzer

We have a spectrum analyzer hardware and looking for the X/Y plot visualization on a Raspberry PI.

Graphic Layout

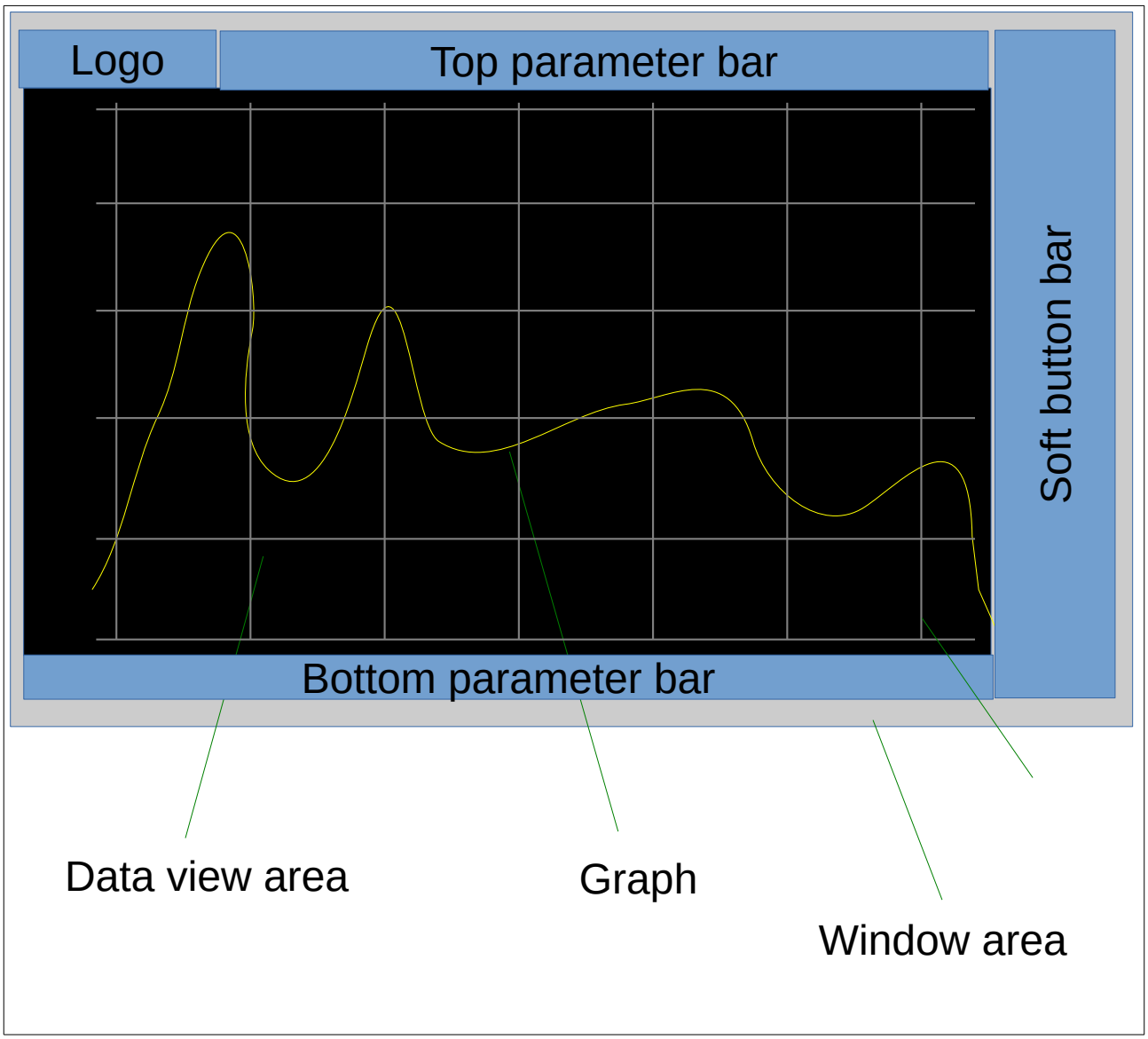
The following picture shows an example plot.



The window shall be flexible in the pixel resolution, so that we are open to use small displays with e.g. 800x480 px also. A full scrren view shall be possible.

For a good example how the final application shall look like, you may see this video:
> https://www.youtube.com/watch?v=WnKK11UEvVE

The first task is to set up the GUI application, draw the data view area and draw the graph in a cyclic manner:



Data Representation

The data to be plot is represented in floating point numbers as follows:

```
Frequency in Hz;Power in dBm
+2.40004995004995E+009;-6.415697479E+001
+2.40014985014985E+009;-6.127413559E+001
+2.40024975024975E+009;-5.991803741E+001
+2.40034965034965E+009;-5.715403366E+001
+2.40044955044955E+009;-5.130084610E+001
+2.40054945054945E+009;-4.917889786E+001
+2.40064935064935E+009;-4.760181427E+001
+2.40074925074925E+009;-4.681595993E+001
+2.40084915084915E+009;-4.590200424E+001
:
:
:
```

Timing

The data array is updated in specified time steps and once an update is completed, a flag tells the plot algorithm to execute. For this task, specify a #define for the timer.

OS, Tools and Delivery

Use the standard Raspian OS. You may choose the programming language and GUI toolkit to your choice. We would like to have the full application including the source code.