**Project1：FM Receiver**

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| **Introduction**  **Lab results & Analysis**：  **Evaluation of the result:**   1. The influence of IQ Rate:   From the project, what can be known is that IQ rate should be among the range of [275000,315000]. In this range, the music signal can be demodulated relatively perfectly. Otherwise, the music played is unstable and distortional.    ***IQ rate=300k Hz***    ***IQ rate=230k Hz IQ rate=400k Hz***   1. The influence of numbers of channel& sample rate:   After the experiment, a phenomenon what can be found is that the music signal can be perfectly played only when the setting of channel and sample rate are (1,44100) or (2,22050).    ***channel=1 sample rate=44100 channel=2 sample rate=22050***    ***channel=3 sample rate=14700***   1. The control of music length that played:     What can be found is that this module can control the length of music played.  As the number increases, the length gets longer.    ***constant=40***    ***constant=100***    ***constant=160***  **User Interface:**    This is our design of user interface. We find a picture of FM radio interface which serves as the background. What’s more, time indicator is added to Producer-Consumer Design Pattern so that it can display the time in real time when running. | |
| **Experience**  1.In this project, I designed the UI interface and consulted the background knowledge. It is convenient to design the UI interface because of powerful graphical interface design capabilities of Labview. Also, I help the design of multiple channels and performance evaluation.  -------(张旭东 User Interface, Background, Performance evaluation, PPT making) | |
| **Score** |  |