Deciding IC_s:

Deciding which IC to use was a very important and critical decision for the project.

The Texas Instruments' TVP7002 which was initially a good option has now been made NRND (Not Recommended for New Designs) by TI. So, this was the first setback, since they don't sample NRND products and I could have got them through TI Samples program if that wasn't the case.

There were also some other options from Analog Devices, namely,

- AD9984A (original choice)
- ADV7604
- AD9985A (NRND)

The problem with AD9985A was it is older(NRND) with less sampling frequency(140 MSPS) and Bit-resolution(8-bit) and Display resolution(SXGA: 1280 × 1024 at 75 Hz)). The AD9984A seems better than AD9985A, with 170 MSPS, 10-bit and max resolution of UXGA (1600 × 1200 at 60 Hz).

The ADV7604 is another beast altogether. It has excellent capabilities, with only major problem being its cost and the BGA packaging (which is risky of project of this scale)

TVP7002 also requires unconventional, but not that it can't be done, 1.9V supply.

In the end, we decided to go with AD9984A as the preferred IC for this project and keep the TVP7002 as a backup in case of any problems.