AN ANALOG FRONT END FOR VIDEO DECODER APPLICATIONS

by

Gonggui Xu
Texas Instruments, Inc.
Dallas, Texas

Abstract: Traditional analog video signals, such as NTSC and PAL, still coexist with digital signals such as YCbCr and RGB. For modern video equipment, a video decoder is necessary to handle analog video signals.

The Video decoder digitizes the analog video signals and decodes digitized signals into digital component signals. The digitizing is performed by an analog front end which includes mux, clamp, PGA and ADC and etc. In this seminar, the architecture and individual block of this analog front end will be discussed.

Dr. Gonggui Xu received B.S. from Tsinghua University, Beijing in 1991, M.S. from China Academy of Engineering Physics, Beijing in 1993, and Ph.D. from Department of Engineering, Texas A&M University, College Station, Texas in 1999. From 1999 to 2000, He was with Cirrus Logic Inc. of Austin, in the design of read channel applications. From 2000 to present, he has been with Texas Instruments Inc., Dallas, in the design of analog front end for applications like digital still camera, digital radio and digital video. He has been an analog design lead for a number of product lines in TI, which generate tens of millions of dollar business. He has four patents pending and 8 published papers.