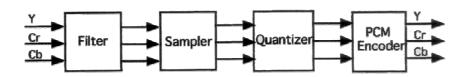
From Analog To Digital Video



- Prefiltering (call prefilter prior to sampling)
 - ➤ Reduce unwanted excessive frequency and noise in the signal by region filtering
- Sampling
 - ➤ Sampling theorem (sampling frequency for NTSC, PAL, CCIR601??)
- Quantization
- PCM (Pulse Code Modulation) Coding

@NTUEE DSP/IC Lab

27

Video Formats

Picture format	Luminance pixels	Luminance lines
CCIR601(525)	480	720
CCIR601(625)	576	720
SQCIF	128	96
QCIF	176	144
CIF^{1}	352	288
4CIF	704	576
16CIF	1408	1152
$HDTV^2$	720	1280
HDTV ³	1080	1920

- 1: Common Intermediate Format
- 2: at frame rates of 24, 30, 60 Hz progressive
- 3: at frame rates of 24, 30 Hz progressive and 30Hz interlaced



28