Modulator Chips

Modulator chips typically have metallic electrodes that are used to modulate a material for display applications, or move a MEMs device. We have examples of both shown here.

128 x 128 & 256 x 256 Micro mirror MEMS array

Each pixel drives a micro mirror using electro-static forces. Pixels have analog range of motion for high dynamic range performance. 6mm x 9mm & 11.2mm x 14.2mm, High voltage CMOS, complex driver pixel.
Pixel layout at 40x40um.

Black square in the middle denotes region of optical sensitivity. No metal structures are located in this region.
2.6Mpixel LCD/LCOS Microdisplay

Large array of pixels for driving a small LCD display at high frame rates. 19.3mm x 16.9mm 0.35um CMOS

2Mpixel LCD/LCOS Microdisplay

0.35um CMOS, 19.2mm x 13.4mm

400 x 225 LCD/LCOS Microdisplay

7mm x 7mm, 0.25um CMOS
320 x 240 LCD/LCOS Microdisplay

6.2mm x 7.2mm, 0.25um CMOS

Layout of high voltage chip

We were the first company to perform layout on this 40V 0.6um CMOS process. Worked through 12 revisions of design rule document.