Single-Chip ASLM

Title: Single Chip ASLM

Invention: Researchers at the University of Arizona have developed an apparatus and means of using DMDs and DLP chips in more than just a binary manner. The novel apparatus and means produces a spatial light modulator that also acts as an angular light modulator.

Background: The Digital Micromirror Device (DMD) is a type of Spatial Light Modulator (SLM) composed of an array of micromirrors. Each mirror, acting as a pixel in a display, is a binary switch rotating between two states located at +12 degrees and -12 degrees (specific product dependent), effectively “on” and “off” states. The DMD is typically used as a binary device.

Applications:
* LiDAR
* Beam steering

Advantages:
* High speed with a wide angular range
* Inexpensive compared to conventional devices

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