METHOD TO REDUCE PERCEPTUAL CONTOURING IN DISPLAY SYSTEM

ABSTRACT

A method of pulse width modulation using a spatial light modulator (40) with a finite transition time. The method uses m bits per sample to digitize the incoming data, but apportions the LSB times for pulse width modulation based upon m-1 bits. The current video frame displays all of the bits for each sample, except for the LSBs for each sample. The next video frame displays all of the bits for each sample, adding one more LSB for dividing up the frame time. The first frame could use either the additional LSB time and display no data, or it could use only that number of LSB times it needs. In the latter, the system will have to adjust to different partitions of the frame time for alternating frames. The system includes a spatial light modulator (40), a memory (42), a formatter (48), a sequence controller (44) and a toggle circuit (46), to perform this method.

Figure 4