

ABSTRACT

A system and method for a preamplifier write circuit with reduced rise/fall time.

Embodiments of the present invention present preamplifier write circuits for increasing the speed at which a write head (202, 202', 202'') in a disk drive assembly writes to a memory, such as a magnetic disk memory. The embodiments of the present invention increase the speed at which currents through the write head (202, 202', 202'') rise (10a) and fall (10b). According to embodiments of the present invention, a current source (206a, 206b, 212a, 212b, 206a', 206b', 212a', 212b', 206a'', 206b'', 212a'', 212b'') in the write circuit is bypassed during rise (10a) and fall (10b) times. Bypassing the current source (206a, 206b, 212a, 212b, 206a', 206b', 212a', 212b', 206a'', 206b'', 212a'', 212b'') increases the voltage across the write head (202, 202', 202''), increasing in the rise (10a) / fall (10b) speed of the current pulses applied to the write head (202, 202', 202''). The embodiments of the present invention allow data to be written faster than conventional write circuits. Accordingly, the density of the data stored on disk is increased.

Fig.4