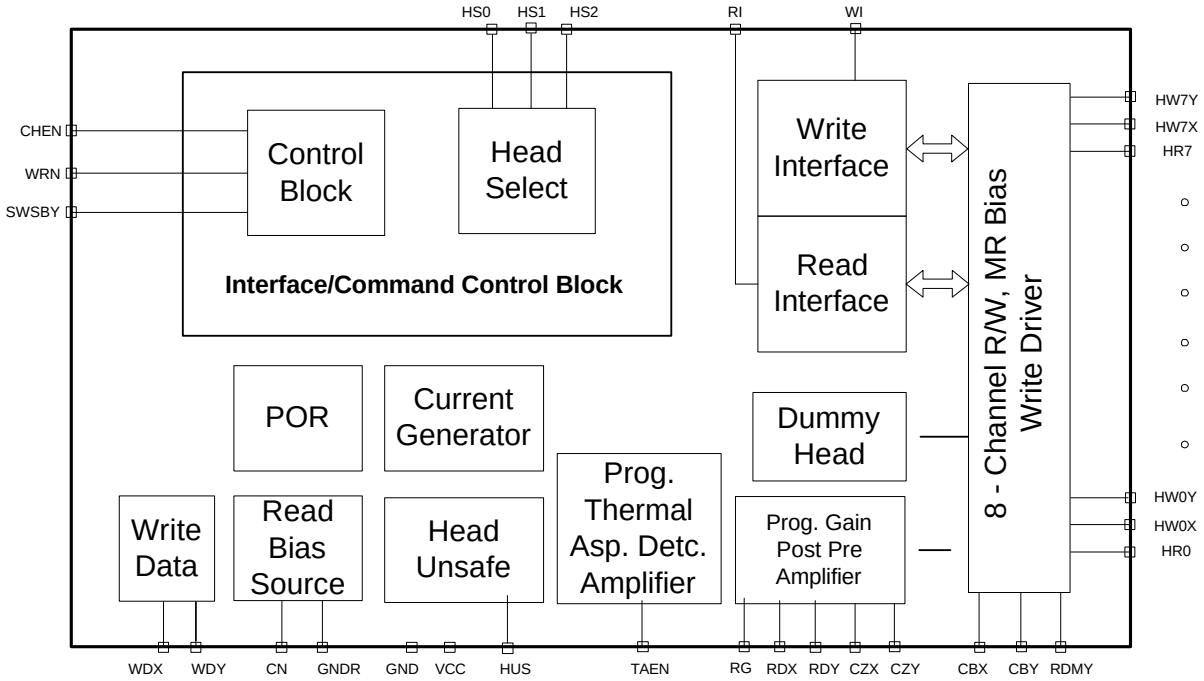
LD3501-XX
2, 4, 6, 8, up to 16-Channel +5V, MR Head Preamplifier

DESCRIPTION

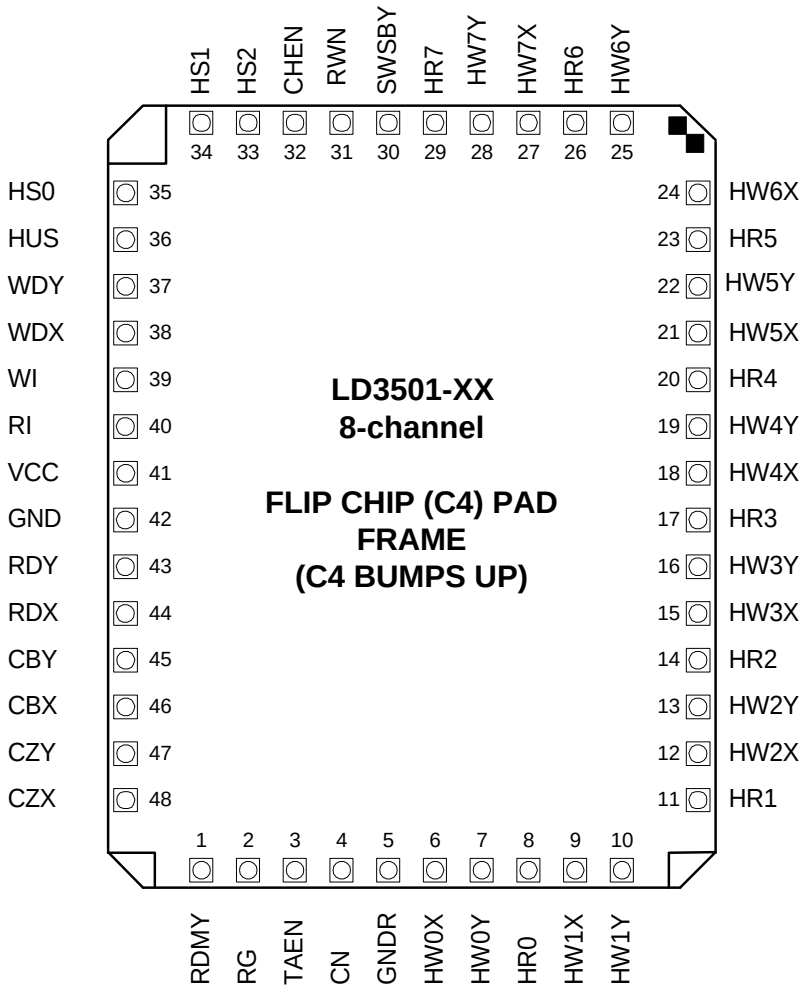
The LD3508 is a 5-Volt only 8-channel MR Pre-Amp, one of the families of LD35XX MR Pre-Amp integrated circuit products designed for use with Magneto-Resistive recording heads. It is based on external component design to provide maximum programmability. These devices support 2, 4, 6, 8, 10 up to 16-channel MR Heads. It contains an MR low noise read amplifier, a thin film head write driver and mode select to provide the ability to control the multiple operation modes. External components provide programmable Read Gain, Programmable Thermal Asperity Threshold Detection, and Correction, Write Currents and MR bias current. This product family requires 5V-supply voltage. These devices are available in VQFP, or flip chip.

FEATURES

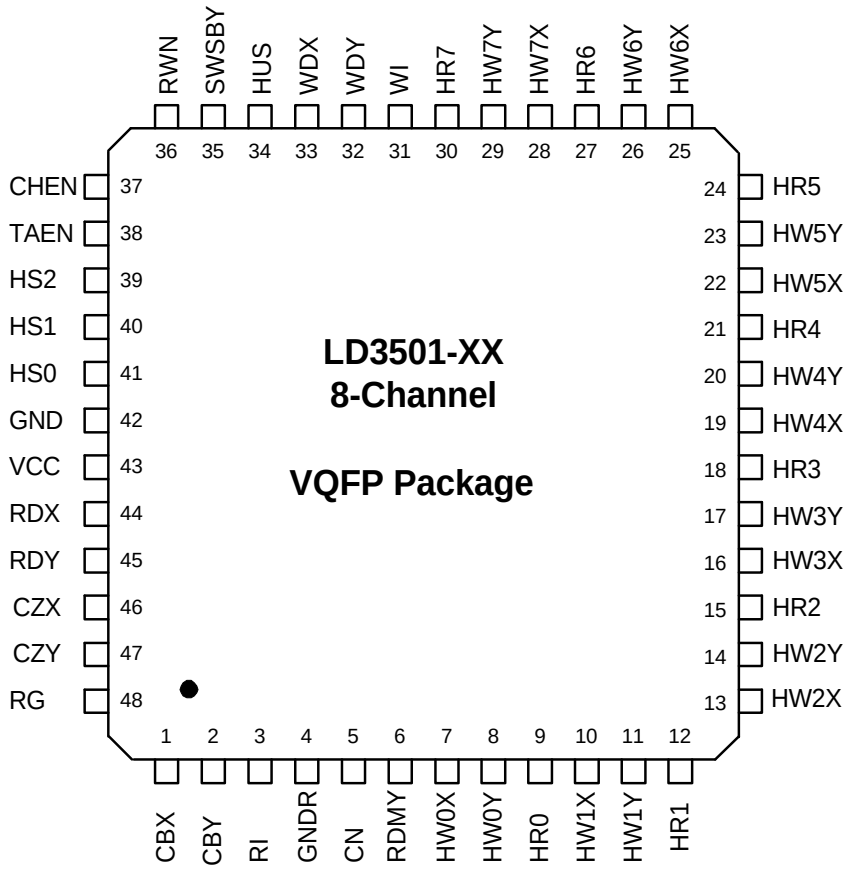
- 70 to 120Mhz - 3db Bandwidth
- Typical write current rise/fall time = 3.5ns (typical conditions)
- Programmable Read Amplifier Gain through external voltage.
- Programmable Thermal Asperity Threshold Detection and correction through external resistor.
- MR Head: Differential current bias, Voltage sense MR Head Read Amp.
- Programmable MR head bias current range 6-16 mA
- MR read input noise = 0.6nv/√Hz
- Programmable write current range 15 - 45 mA
- Write head unsafe sensing
- Head Swing = 8Vp-p differential
- Servo write capability
- Power on Reset
- Power supply fault protection



BLOCK DIAGRAM



Preliminary (Subject to change)



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