

G085 Disk Read Amplifier

The G085 Disk Read Amplifier is a double-height module consisting of an ac-coupled amplifier with a bandwidth (-3 dB) from 20 kHz to approximately 1 MHz, followed by a slicer. The G085 module is used to detect and amplify timing tracks and data signals for the RS09 DECdisk. The maximum voltage gain (under potentiometer control) is approximately 60 dB (1000). Common mode rejection ratio is approximately 40 dB. The amplifier is insensitive to any power supply ripple voltage less than 5 percent. Pin AM increases the gain by approximately 20 percent when its input is low. The nonrectified slice output is gateable, and the slice point can be varied by logic inputs. A potentiometer is provided to adjust the slice. Pins at AT and AV are provided as amplifier test points. Proper grounding is critical in this module. G085 ground pins should not be bussed. Pins AS and AC should be connected to analog ground, and BF and BC should be connected to logical ground. All amplifier connections must be isolated from fast rise-time signals.

INPUTS: Voltage levels are 0 and -3V, except at the input to pins AE and AF.

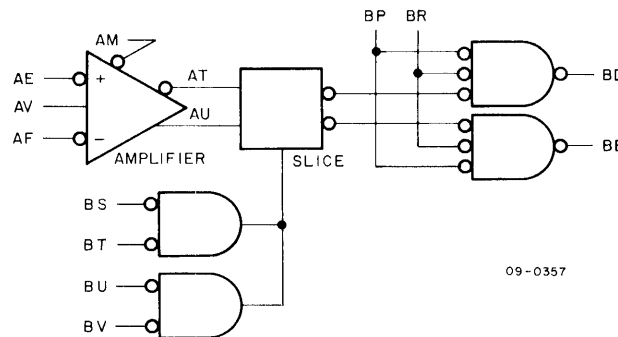
Pin	Function	Load or Input Voltage
AE,AF	Read Head Input	approx. 15 mV peak-to-peak
AM	Read Gain Control	2 mA
BU,BV	Read Slice Control	2 mA
BS,BT	Read Slice Control	2 mA
BP,BR	Enable Output	2 mA

OUTPUTS: Voltage levels are 0 and -3V except at AV, which provides +20V for the timing track center taps.

Pin	Function	Drive
BE,BD	Signal Output	10 mA

INPUT/OUTPUT DELAY: 120 ns

POWER DISSIPATION: 2W at +20V
1.5W at -15V



G085 Disk Read Amplifier and Slice, Block Schematic