Disk 2A — Servo Control (Upper Board)

Function:

- Processes the reference frequency and tachometer signal to generate phase-comparison pulses and speed-error control signals.

Main ICs:

- MC1455P1 — Timer (NE555 equivalent)
- MC14520CP — Dual binary counter
- MC14001CP / MC14040CP — Logic dividers and gates
- MC14516CP — Binary up/down counter

Notes:

- Central element of the GT2101's phase-lock servo loop.
- The 555 timer acts as a pulse-width or monostable generator for control gating.
- Works in tandem with Disk 2B (driver) to modulate motor drive current according to speed error.
- Receives reference from Disk 4 and tach feedback from Disk 3.