Line Printer Terminal (LPT)

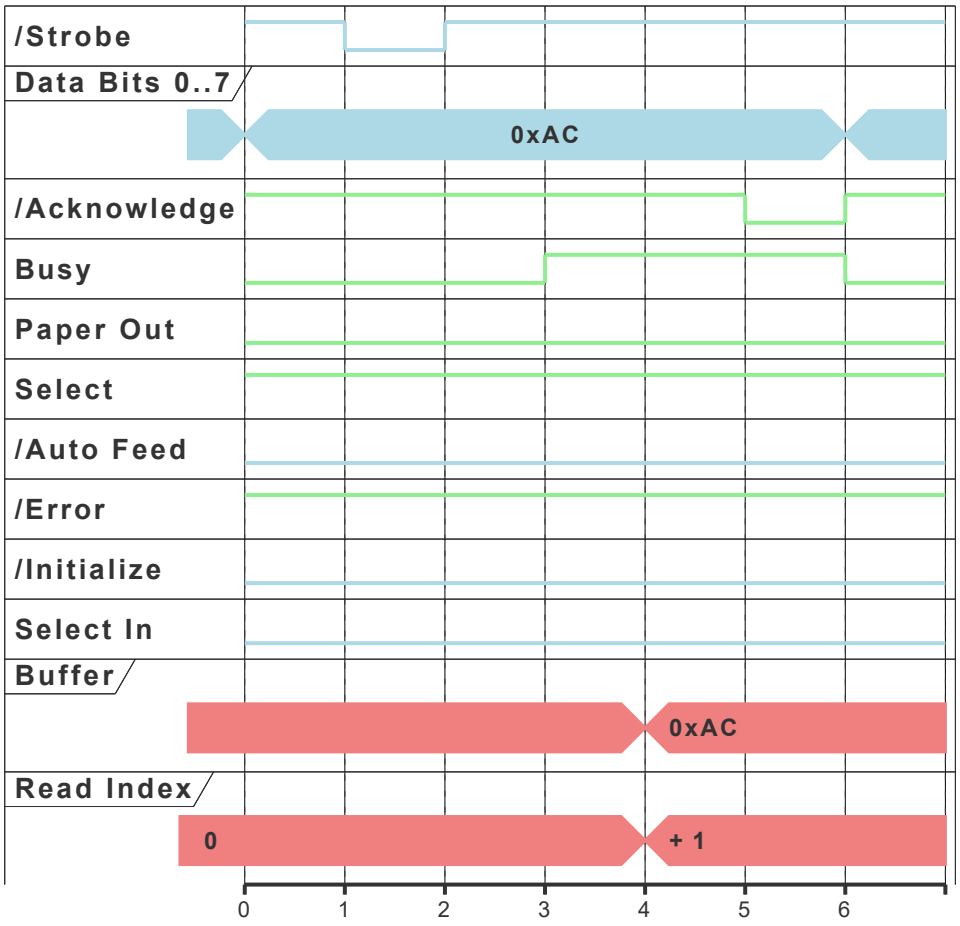
Summary

The `Line Printer Terminal` (LPT), `Line Printer Port` or just `Parallel Port` is a simple 8bit parallel control interface.
The primary intention of this port was to use the `Centronics` printer terminals with `IBM` computers. This design is based on the original design now known as `Standard Parallel Port` (SPP) with 8 data lines, 5 status lines and 4 control lines.

Pinout

Name	DB25	Direction	Register
/Strobe	1	Input	Control
D0	2	Input	Data
D1	3	Input	Data
D2	4	Input	Data
D3	5	Input	Data
D4	6	Input	Data
D5	7	Input	Data
D6	8	Input	Data
D7	9	Input	Data
/Acknowledge	10	Output	Status
Busy	11	Output	Status
Paper Out	12	Output	Status
Select	13	Output	Status
/Auto Feed	14	Input	Control
/Error	15	Output	Status
/Initialize	16	Input	Control
/Select In	17	Input	Control
Ground	18-25	Power	

Timing Diagram



Here is the timing diagram showing the transfer of characters **A to G** from a host to a printer via the LPT port:

Highlights:

- **Each character** takes ~50 ms to send (data setup, STROBE, BUSY, ACK).
- After character **D**, the printer raises **BUSY** for an additional **100 ms**, requesting a pause.
- Control lines:
  - **STROBE**: Host pulses it LOW to signal data is ready.
  - **ACK**: Printer pulses it LOW to acknowledge data received.
  - **BUSY**: Printer holds it HIGH when it's busy (including after D).

Let me know if you'd like to extend this diagram, simulate reverse data (e.g., status readback), or export it.