
PotatoSemi GHz TTL Logic

Regular TTL logic

Advantage

1. Easy to use.
2. Only need decoupling capacitor. No extra component is needed.
3. No static current.

Disadvantage

1. High Noise
2. Low operating frequency
3. High jitter.
4. High Propagation Delay
5. Weak output signal
6. Signal is not able to run through cable.

ECL logic

Advantage

1. Run high frequency.
2. Low noise.
3. Low jitter.
4. Output signal can run through cable.

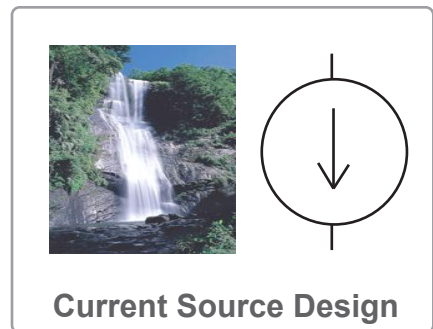
Disadvantage

1. Difficult to use.
2. Need many extra components such as 50 ohm loading resistors.
3. Need two wires to represent one bit.
4. High static current.
5. Burn electricity power when the system is idle. Waste energy.

The Next Generation GHz TTL Logic (PotatoSemi Technology)

Advantage

1. Strong output signal.
2. Run high frequency.
3. Low noise.
4. Low jitter.
5. Output signal can run through cable.
6. Only one wire for one bit
7. Easy to use.
8. Embedded decoupling capacitor.
9. Power up and run. No extra component is needed.
10. No static current. Do not waste power. Power saving. Environment friendly.



Current Source Design

Waste Current



Voltage Source Design

No Static current