

S3032

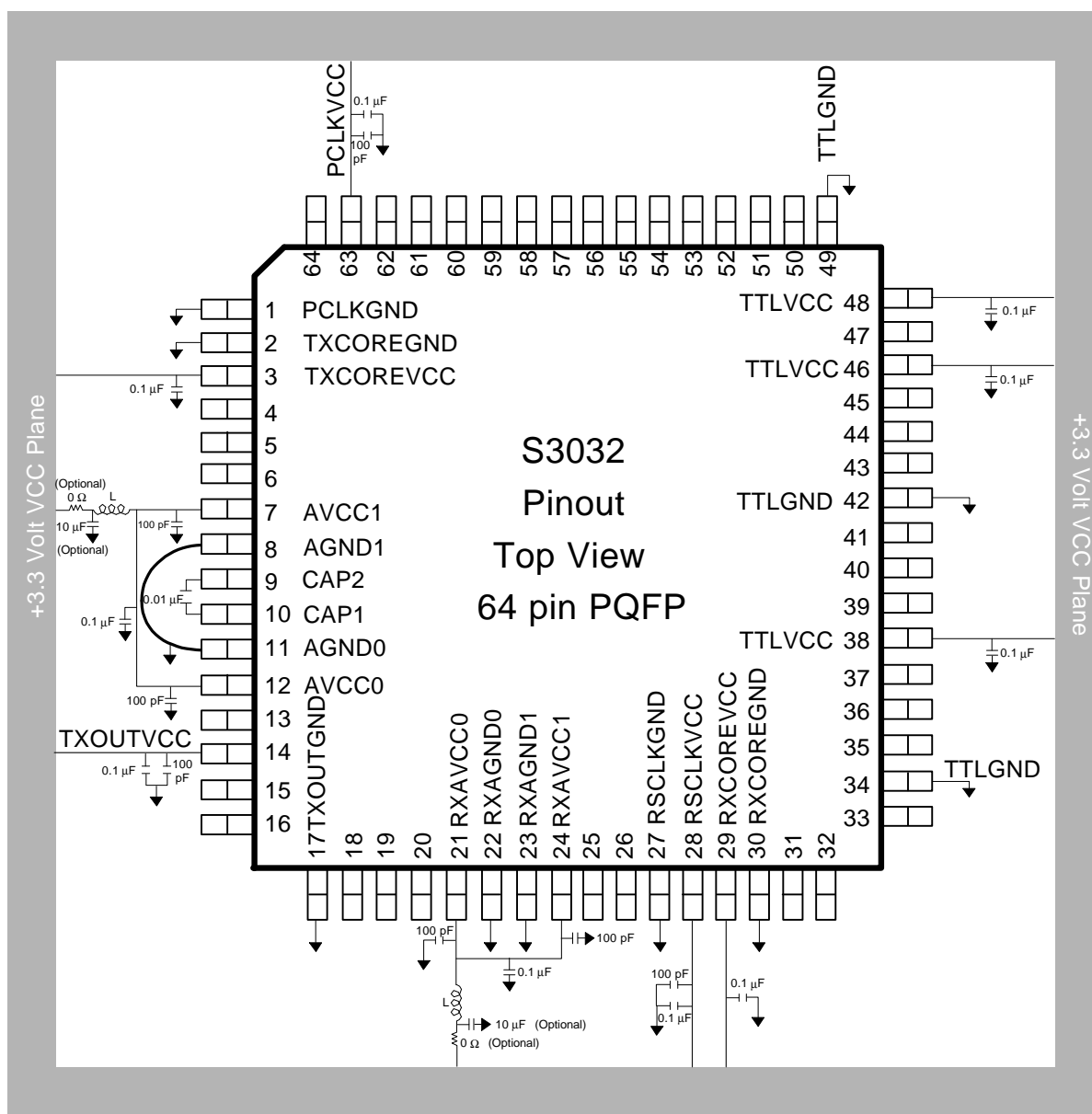
APPLICATION NOTE

Board Decoupling Guidelines

SONET/SDH/ATM OC-3/12 Transceiver w/CDR S3032 Example

The S3032 transceiver chip is a fully integrated serialization/deserialization SONET OC-12 (622.08 Mbit/s) and OC-3 (155.52 Mbit/s) interface device. Figure 1 illustrates the connections for the S3032 device. External capacitors are required for power supply decoupling only. Inductors are Murrata BLM31B601SPB or BLM11B601SPB surface mount ferrites. The double capacitors shown are parallel 0.1 μ F X7R and 100 pF are COG or NPO ceramic chip. The CAP1/CAP2 capacitor should be 0.01 μ F X7R. Note that 100 pF should be placed on the top side of the board near the decoupled pin, and the 0.1 μ F should be placed on the bottom side of the board for better capacitor efficiency. The Low ESR 10 μ F capacitors and 0 Ω resistors are optional for AVCC, for higher noise environments.

Figure 1. S3032 Connections





Applied Micro Circuits Corporation
6290 Sequence Dr., San Diego, CA 92121

Phone: (858) 450-9333 — (800) 755-2622 — Fax: (858) 450-9885

<http://www.amcc.com>

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