S3076

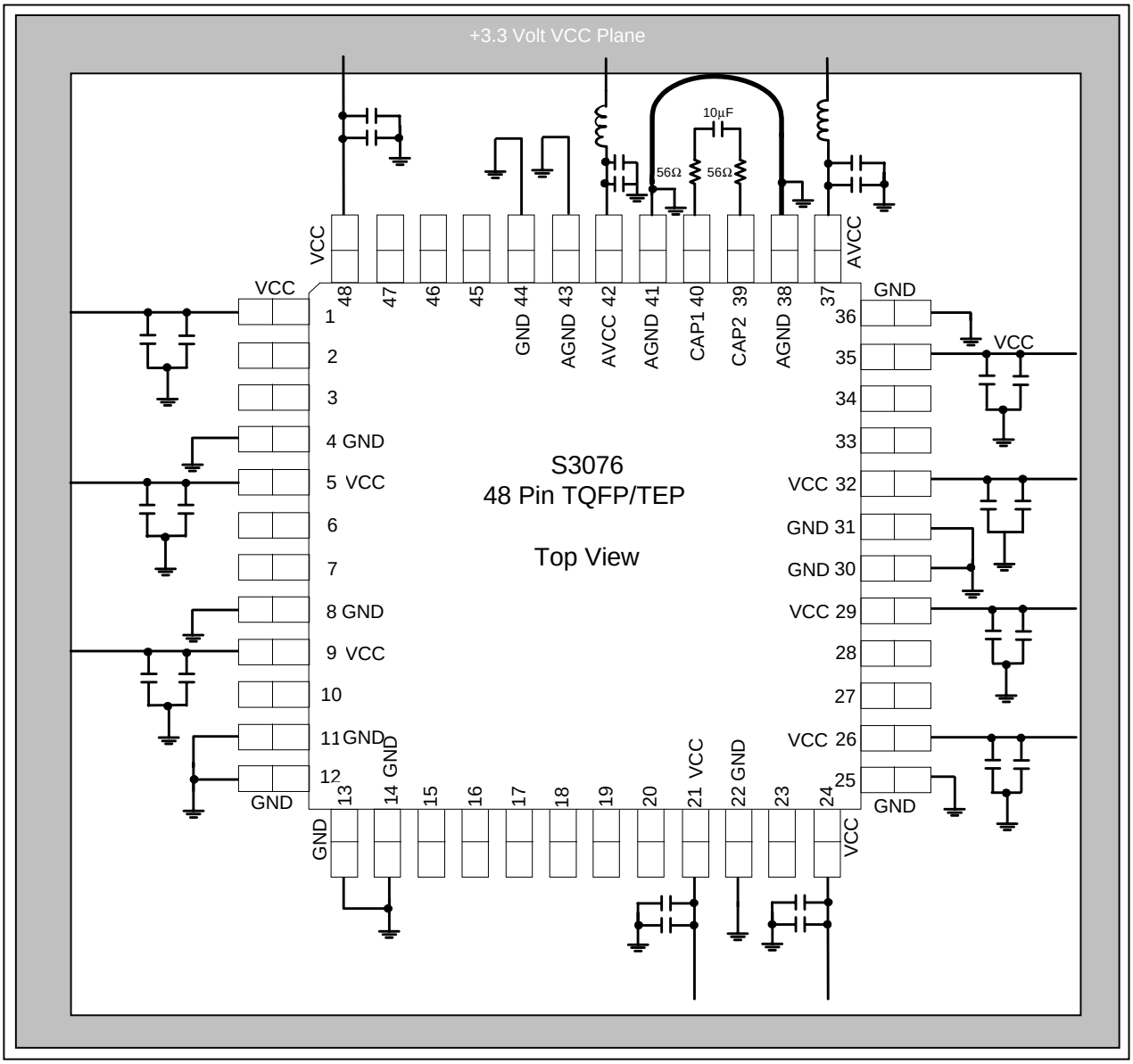
PRELIMINARY APPLICATION NOTE

Board Decoupling Guidelines

MULTI-RATE SONET/SDH/CLOCK RECOVERY UNIT

The S3076 supports clock recovery for the OC-48, OC-24, Gigabit Ethernet, OC-12, or OC-3 data rates. The CAP1/CAP2 capacitor should be 10 µF in series with 56 Ω resistors. Figure 1 illustrates the connections for the S3076 device. The ground ring is shown around the loop filter capacitor. The ring should be attached to pin 38 and pin 41. Please note that the ring should be directly connected to the ground plane as close as possible to pin 41 to avoid current through the ground ring. The values of the decoupling components are 0.1 µF paralleled with 100 pF, X7R dielectric, EIA sizes 0603 or 0805. Ferrite Bead Inductors are Murata BLM31B601S, BLM11B601SPB, or equivalent. All grounds must be tied directly to the ground plane. (Note: Do not daisy chain grounds together.) AGND should be tied to ground directly.

Figure 1. Recommended Connection Diagram



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