SONET/SDT/ATM S3026 Example

The S3026 Clock Recovery Unit (CRU) contains a stand-alone CRU PLL. The CAP1/CAP2 pins should be connected to a 1.0 µF in series with two resistors (see Table 1). Figure 1 illustrates the connections for the S3026 CRU device. The ground ring is shown around the loop filter capacitor. The ring should be attached to pin 19 (AGND) and brought to minimum metal spacing distance to pins 16 and 17. Please note that the ring should be directly connected to the ground plane as close as possible to pin 19 to avoid current through the ground ring. The values of the decoupling capacitors are 0.1 µF paralleled with 100 pF as shown below. The inductors are Ferrite bead inductors which are Murata BLM31B601SPB or equivalent inductors.

Figure 1. Decoupling Layout

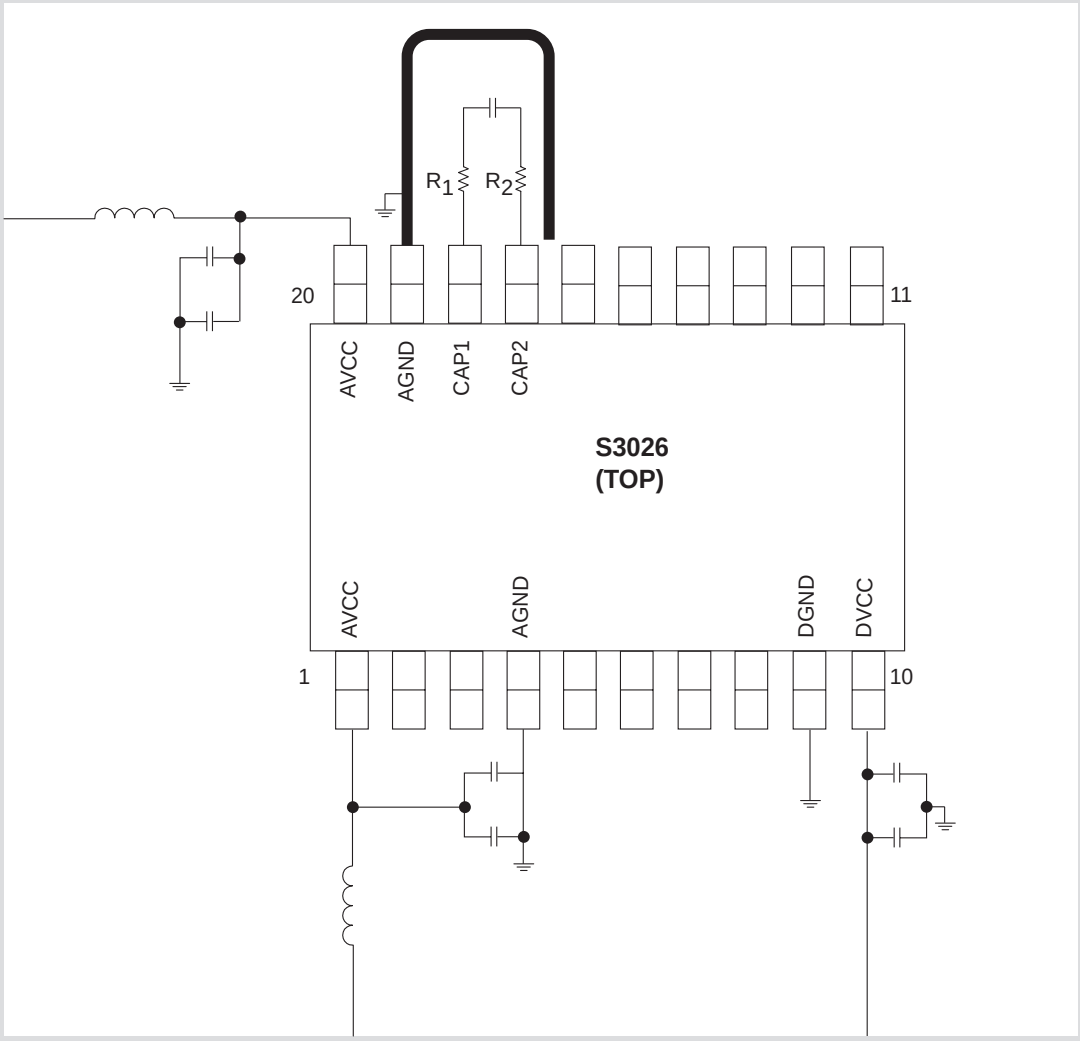

Table 1. Resistor Values

Device	R_1	R_2	Units	Condition
S3026A–1	84	84	Ω	155.52 Mbps
S3026A	68	68	Ω	622.08 Mbps

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