

## CLC002 Evaluation Board User Guide, Rev. 1.0

SD002ASM Rev. B

### Overview

The SD002ASM Rev. B evaluation board provides a typical application for the evaluation of the CLC002 SMPTE 292M / 259M cable driver.

### Specifications

**DC Input Power:**  $3.3V \pm 5\%$  (3.6V maximum)

**Serial Data Inputs (SDI, SDI(bar)):** SMPTE 259M or 292M standard levels and impedances.

**Serial Data Outputs (SDO, SDO(bar)):** SMPTE 259M or 292M standard levels and impedances.

**Input Voltage (all inputs):** -0.3V to VCC +0.3V

### Jumper Settings

**JP1 (SD/HD):** Sets the output slew rate. Pin defaults to HD when no jumper is set. If set to SD, it is pulled to VCC and the output slew rate will comply with SMPTE 259M. If set to HD, it is pulled to ground and the output slew rate will comply with SMPTE 292M.

**JP2 (Input Bias - optional):** May be used to force an input bias voltage. Default (and recommended) condition is no jumper since the CLC002 inputs are self-biasing.

### Input Interfacing

The SD002ASM Rev. B is initially set up for  $75\Omega$ , single-ended input. The inputs may be driven differentially by removing R1 and R2, and setting R3 and R4 for the termination impedance desired. C3 can also be used in this configuration as a center-tap capacitor to filter common-mode noise.

### Adjusting the Output Level

The output level is set by  $R_{REF}$  (R7 on the SD002ASM Rev. B). Default  $R_{REF}$  value is  $750\Omega$  for an  $800mV_{P-P}$  single-ended output. The resistor may be changed to adjust the output level according to the datasheet.