

[illegible]

This diagram illustrates the electrical schematic for an HDMI breakout board, centered around the TPD12S016PWR IC (U1).

### HDMI connector

The HDMI connector (J1, 685119134923) is connected to the TPD12S016PWR IC (U1) and external components. The IC pins are connected as follows:

- Power:** VCCA, VCC5V, and CT\_HPDP are connected to +3V3. LS\_OE is connected to +5V. HPD\_A, SDA\_A, SCL\_A, and CEC\_A are connected to +3V3.
- Signal:** HPD\_B, SDA\_B, SCL\_B, and CEC\_B are connected to GND. HPD\_A, SDA\_A, SCL\_A, and CEC\_A are connected to the IC pins.
- Output:** OUT\_DATA\_2\_P, OUT\_DATA\_2\_N, OUT\_DATA\_1\_P, OUT\_DATA\_1\_N, OUT\_DATA\_0\_P, OUT\_DATA\_0\_N, OUT\_CLK\_P, OUT\_CLK\_N, OUT\_EDID\_SDA, OUT\_EDID\_SCL, and OUT\_HPDP are connected to the IC pins.

External components include resistors R1 (10k), R2 (10k), R3 (10k), R4 (10k), R5 (10k), R6 (10k), R7 (10k), R8 (10k), R9 (10k), R10 (10k), R11 (10k), R12 (10k), R13 (10k), R14 (10k), R15 (10k), R16 (10k), R17 (100R), R18 (100R), R19 (100R), and R20 (100R). Capacitors C1, C2, and C3 are 100nF.

### Icicle interface

The Icicle interface (J2, 2x20\_Header\_Female) is connected to the TPD12S016PWR IC (U1) and external components. The IC pins are connected as follows:

- Power:** 3.3V, 5V, and GND are connected to the IC pins.
- Signal:** GPIO\_02, GPIO\_03, GPIO\_04, GPIO\_14, GPIO\_15, GPIO\_17, GPIO\_18, GPIO\_22, GPIO\_23, GPIO\_24, GPIO\_25, GPIO\_26, GPIO\_27, GPIO\_28, GPIO\_05, GPIO\_06, GPIO\_12, GPIO\_13, GPIO\_16, GPIO\_19, GPIO\_20, GPIO\_21, and GPIO\_29 are connected to the IC pins.

External components include resistors R15 (10k), R16 (10k), R17 (10k), R18 (10k), R19 (10k), R20 (10k), R21 (10k), R22 (10k), R23 (10k), R24 (10k), R25 (10k), R26 (10k), R27 (10k), R28 (10k), R29 (10k), R30 (10k), R31 (10k), R32 (10k), R33 (10k), R34 (10k), R35 (10k), R36 (10k), R37 (10k), R38 (10k), R39 (10k), R40 (10k), R41 (10k), R42 (10k), R43 (10k), R44 (10k), R45 (10k), R46 (10k), R47 (10k), R48 (10k), R49 (10k), R50 (10k), R51 (10k), R52 (10k), R53 (10k), R54 (10k), R55 (10k), R56 (10k), R57 (10k), R58 (10k), R59 (10k), R60 (10k), R61 (10k), R62 (10k), R63 (10k), R64 (10k), R65 (10k), R66 (10k), R67 (10k), R68 (10k), R69 (10k), R70 (10k), R71 (10k), R72 (10k), R73 (10k), R74 (10k), R75 (10k), R76 (10k), R77 (10k), R78 (10k), R79 (10k), R80 (10k), R81 (10k), R82 (10k), R83 (10k), R84 (10k), R85 (10k), R86 (10k), R87 (10k), R88 (10k), R89 (10k), R90 (10k), R91 (10k), R92 (10k), R93 (10k), R94 (10k), R95 (10k), R96 (10k), R97 (10k), R98 (10k), R99 (10k), and R100 (10k).

