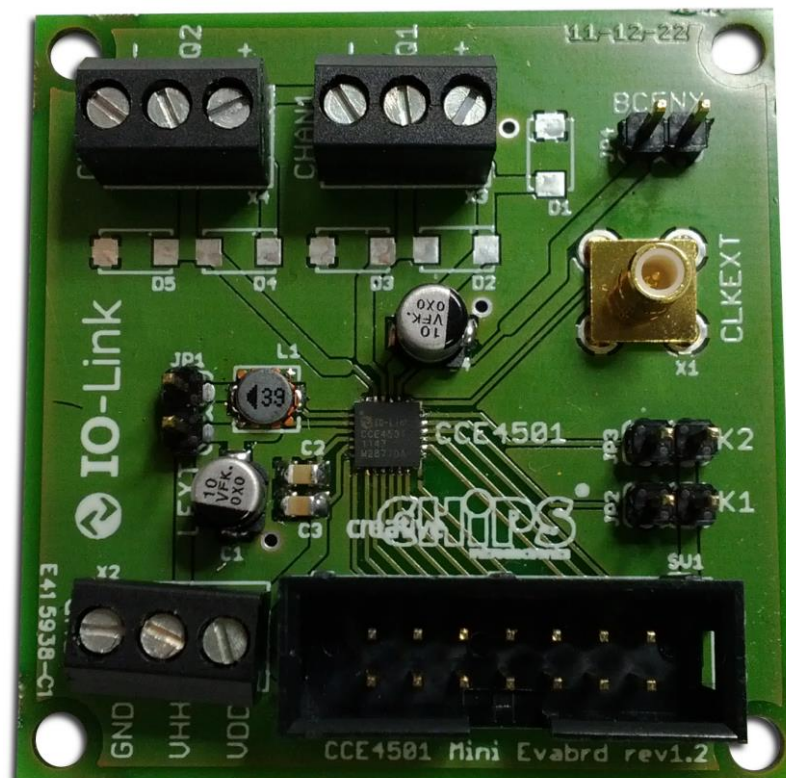


CREATIVECHIPS®

M I C R O E L E C T R O N I C S

CCE4501

Mini Evaluation Board v1.2



CCE4501 – IO-Link Evaluation Board

Power Supply

The L+ voltage of the CCE4501 is applied through the terminal CHAN1 or CHAN2, where L+ can be 9-30 V.

The VHH voltage is applied through the terminal PWR, where VHH can be 7-30 V. If the DC/DC converter of the CCE4501 is active, the 7 V VHH voltage will be generated independently, using the L+ voltage.

The CCE4501 additionally integrates a low drop voltage regulator that generates a selectable voltage VDD that can be 3.3 V or 5 V. This voltage is used as digital pad supply, but can be also used for the supply of external components. In case of the evaluation board, the VDD is programmed as 3.3 V.

DC/DC Converter

To enable the integrated DC/DC converter the coil needs to be connected using jumper LEXT and BC_ENX pin must be pulled to ground using jumper BCENX.

If the DC/DC converter is disabled, the coil must not be connected to avoid damage to the evaluation board.

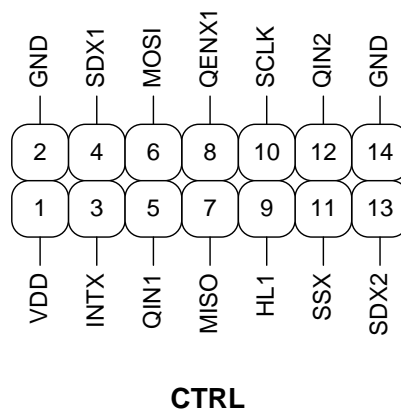
Oscillator

The internal RC oscillator of the CCE4501 is active while K1 and K2 are left open. It can be measured at the CLKEXT terminal.

To clock the CCE4501 over an external source, the jumper K2 needs to be closed. An external clock of 3.6864 MHz can be at the CLKEXT terminal.

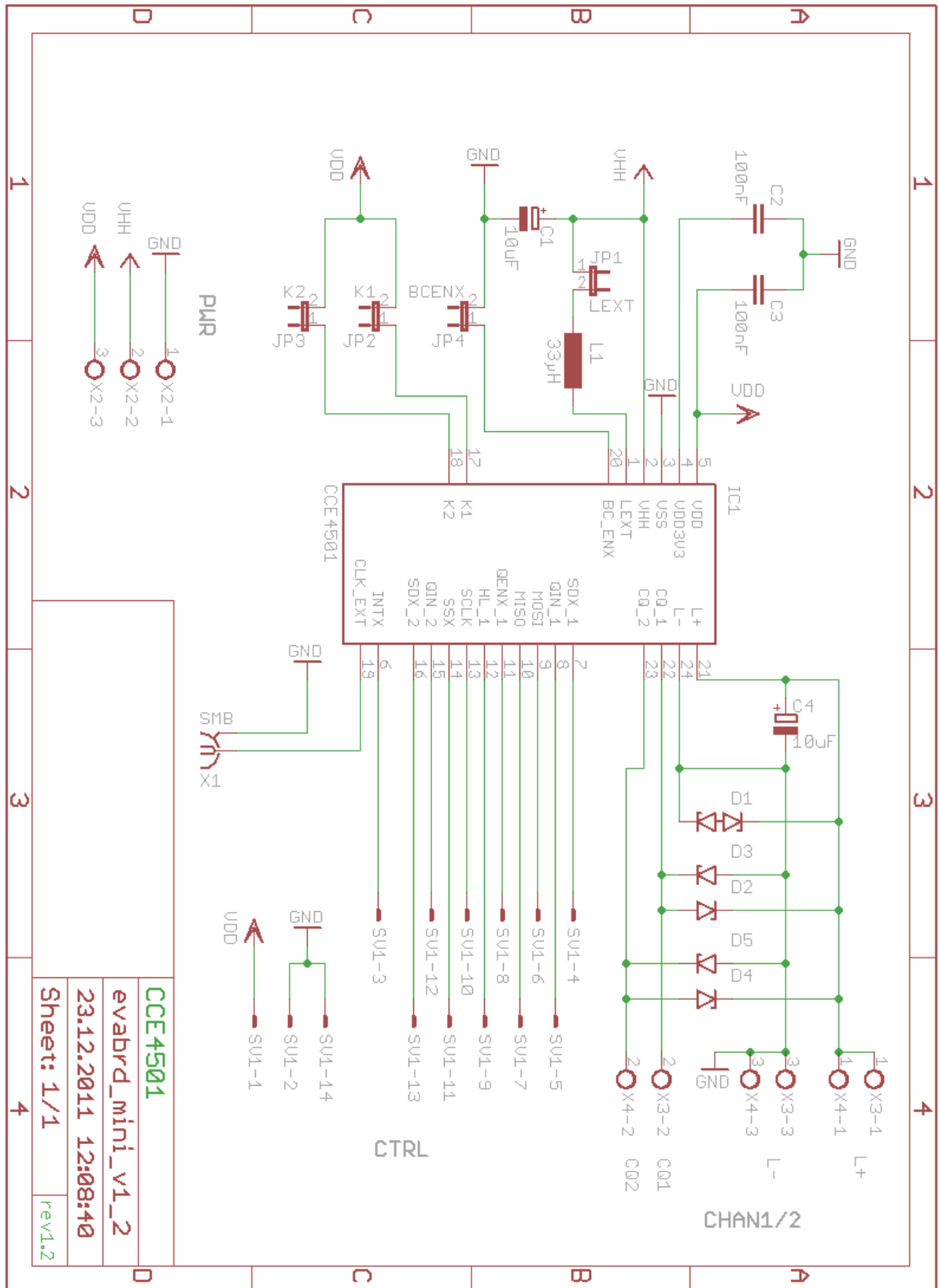
External Connector

The digital pins of the CCE4501 are accessed via the CTRL connector.



CCE4501 – IO-Link Evaluation Board

Schematics



*TVS diodes are not equipped.

CCE4501 – IO-Link Evaluation Board

Bill of Materials

Part	Value
C1	10µF/35V
C2	100nF
C3	100nF
C4	10µF/35V
L1	33µH ELL4GG
IC1	CCE4501
D1	SMAJ33CA (BI)
D2	SMAJ33A (UNI)
D3	SMAJ33A (UNI)
D4	SMAJ33A (UNI)
D5	SMAJ33A (UNI)
X1	CLKEXT (SMB)
X2	GND/VDD/VHH
X3	L+/CQ1/L-
X4	L+/CQ2/L-
SV1	CTRL
JP1	LEXT
JP2	K1
JP3	K2
JP4	BCENX

CCE4501 – IO-Link Evaluation Board

Usage Restrictions

Creative Chips GmbH provides this board only for evaluation purposes in laboratory environments. It is not allowed to use this board or any part of it in production systems or any other installations.

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CREATIVE CHIPS GmbH
Im Bubenstück 1
D-55411 Bingen / Rhein
Germany