

## 4-Channel, Low Phase Noise, Low Power, Continuous Wave Transmitter

### General Description

The CW01 has 6 logic inputs; OE, CLK, D<sub>IN</sub>1, D<sub>IN</sub>2, D<sub>IN</sub>3, and D<sub>IN</sub>4. Every logic input has a 10kΩ pull down resistor.

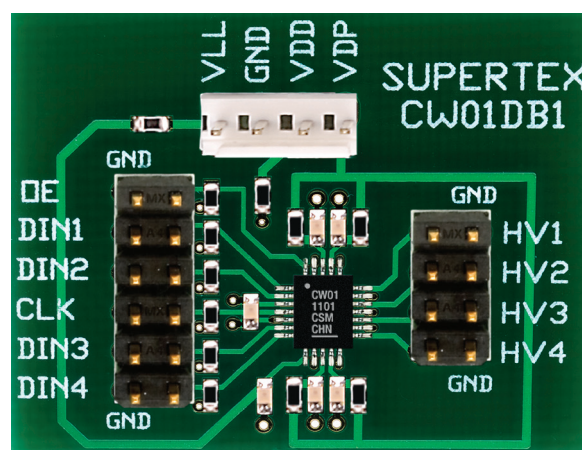
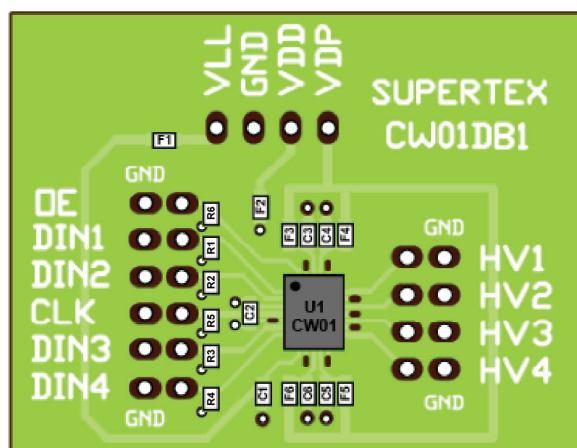
There are 3 power input voltages: V<sub>LL</sub>, V<sub>DD</sub> and V<sub>DX</sub>. V<sub>LL</sub> is the input logic level, typically 2.5V. V<sub>DD</sub> is the level translator, typically 5.0V. V<sub>DX</sub> is the gate drive voltage, and is at the same voltage level as V<sub>DD</sub>. High peak currents will be drawn from V<sub>DX</sub> during switching. Each supply has a series ferrite bead and a 0.1μF ceramic chip capacitor to keep the supply clean from high frequency noise.

There are 4 outputs: HV1, HV2, HV3 and HV4. These are the connections to the drains of 100V, 7.0Ω, N-channel MOSFETs.

### Specifications

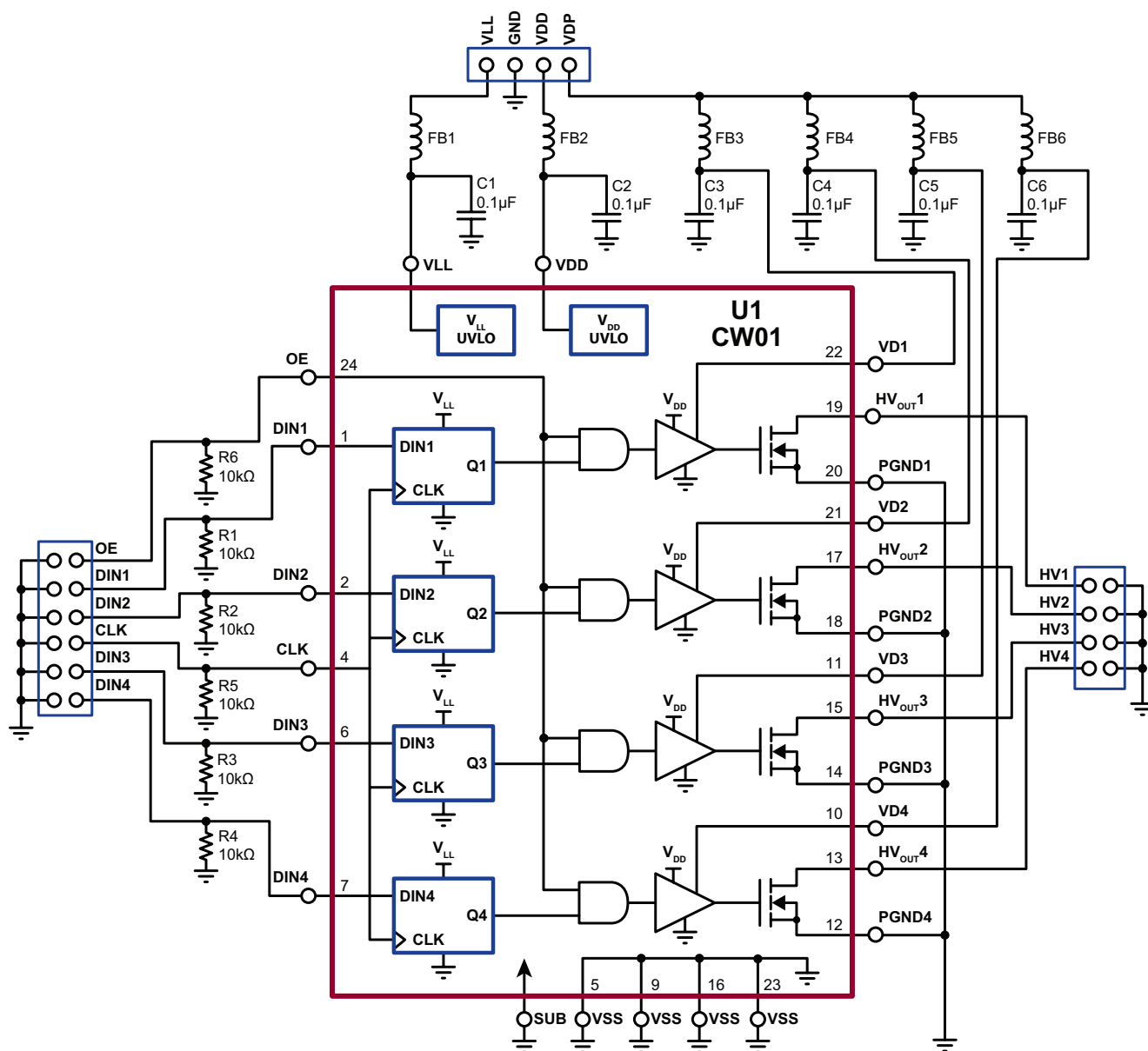
Parameter	Value
V <sub>LL</sub>	0V to +5.5V
V <sub>DD</sub>	0V to +5.5V
V <sub>DX</sub>	0V to +5.5V

### Board Layout



Actual Size: 41.0mm x 31.0mm

## CW01 Demoboard Circuit Diagram



## Bill of Materials

Part	Description	Value	Package	Mfg	Part Number
R1 to R6	Chip resistor	10k $\Omega$	0603	Yageo	RC0603FR-0710KL
C1 to C6	Chip capacitor	0.1 $\mu$ F	0603	Samsung	CL10B104KA8NNNC
FB1 to FB6	Ferrite Bead	220 $\Omega$ @100MHz, 200mA	0603	Murata	BLM18RK121SN1D
U1	4-ch, low phase noise, CW transmitter	100V, 7.0 $\Omega$	24-Lead QFN	Supertex	CW01K6-G

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