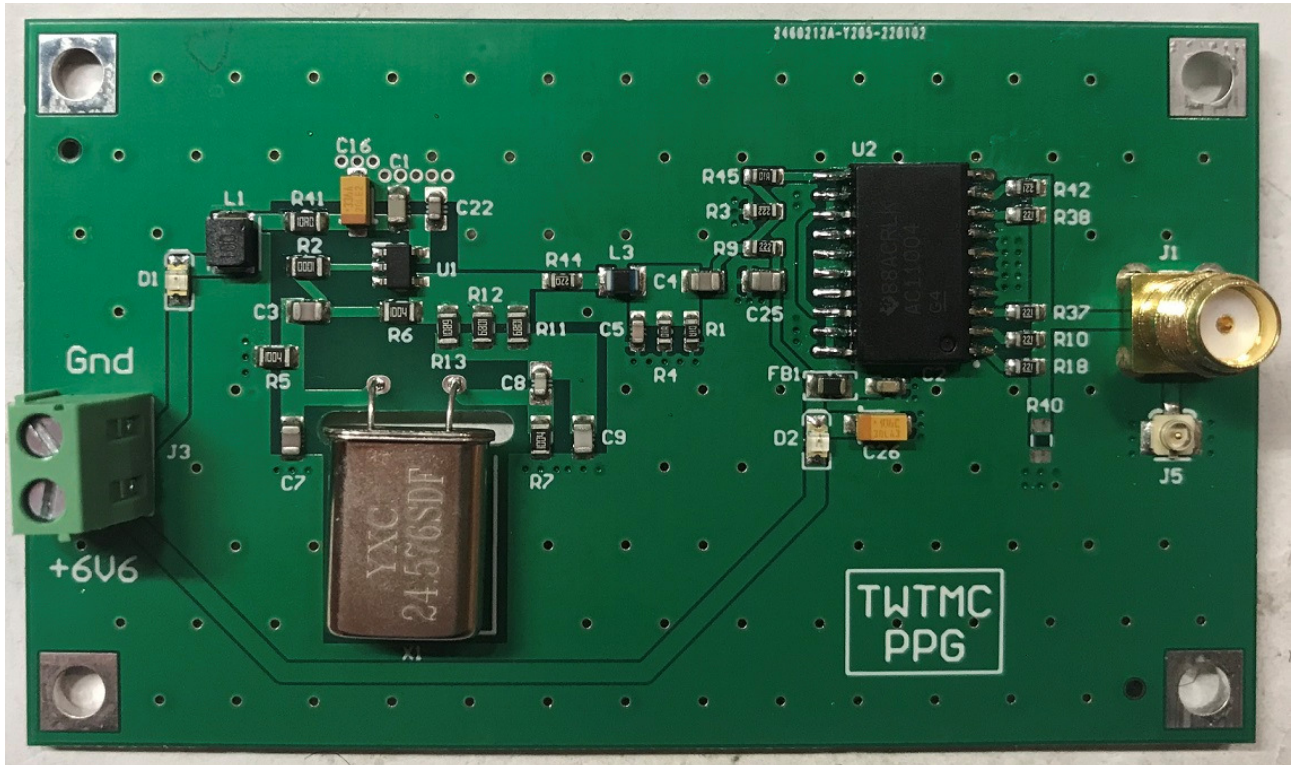


TWTMC-PPG-V2 Pierce pico-gate oscillator



It's a entry level Pierce oscillator using a standard HC-49/U crystal and it's designed to be used as the master clock for digital to analog conversion. The output of this oscillator is square wave therefore it can be directly connected to digital devices such as FIFO or DAC.

Features:

Oscillator type: Pierce (CMOS)

Frequencies: 22.5792 MHz, 24.576 MHz

Output: 50 Ohm square wave (+15 dBm)

Crystals: AT-Cut fundamental only (22.5792 MHz and 24.576 MHz)

Board size: 81mm x 48mm

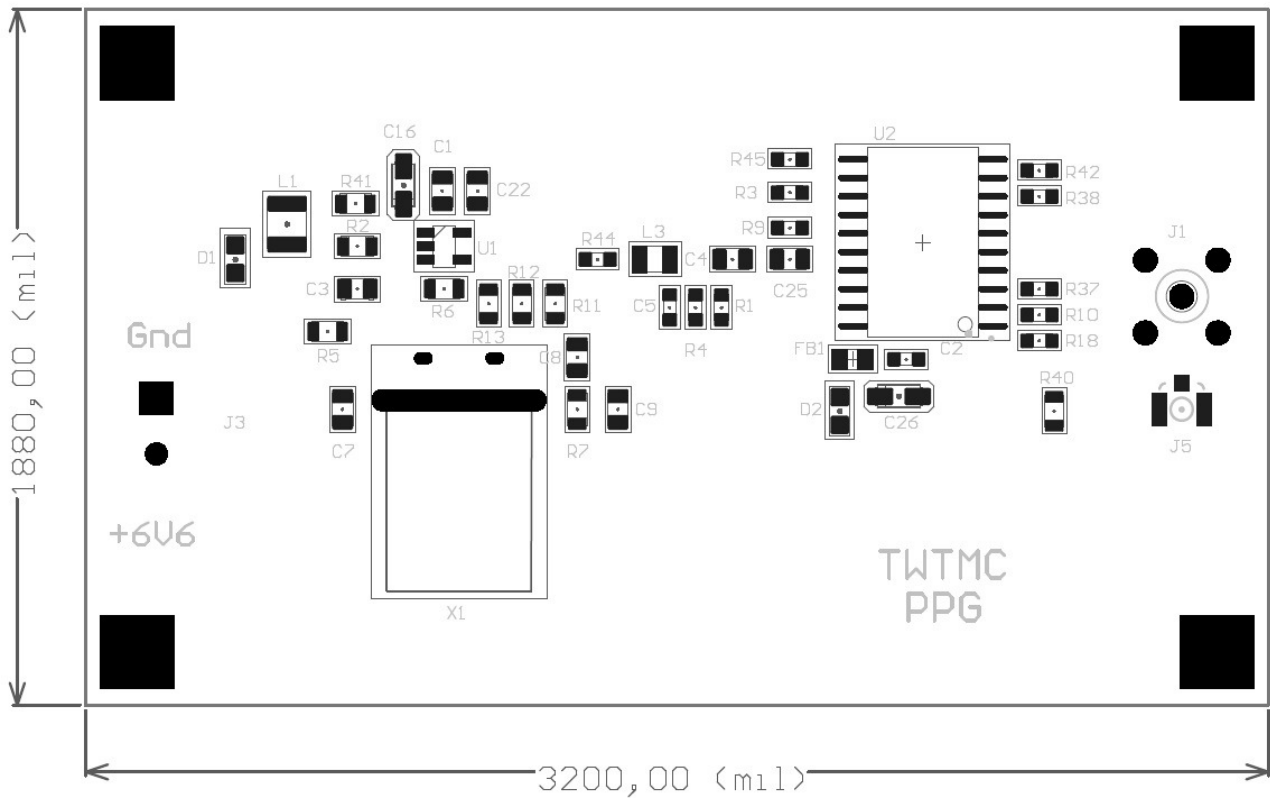
Power supply: 6.6 Vdc 25 mA

Board options: finished only

Note: supplied with crystal and connectors

Measured phase noise of the entry level Pierce oscillator at 24.576 MHz (2 different crystals).

PCB layout



Connectors

J3: DC power supply (6.6 Vdc).

J1: RF output. RG400 semi-rigid cable should be used to connect the board to other devices.

J5: RF output. U.fl plug connector alternative to SMA connector

The screenshot shows the Superbat website interface for configuring Custom Cable Assemblies. The page includes a navigation menu with "Categories", "Custom Cable Assemblies", and "Blog". The main content area is titled "Custom Cable Assemblies" and provides instructions for designing a cable assembly from compatible connectors and cables.

Instructions:

- Cable Type:** RG400
- Connector 1:** SMA Straight Plug
- Connector 2:** SMA Straight Plug

Cable Length:

- 50 cm or
- 19.69 inch(s)
- 1 inch = 2.54 cm

The diagram shows a cable assembly with two SMA Straight Plug connectors (Connector A and Connector B) connected by a cable. The length of the cable is labeled as "LENGTH". Heat Shrink Tube is shown covering the connectors.

The output voltage of the oscillator is around 5V pp. If it has to be connected to a non 5V tolerant device the 100R resistor R40 should be installed (Susumu RR1220P-101-D Mouser part 754-RR1220P-101D).

When planning to use the TWTMC-PPG oscillator with Ian's FIFO buffers the TWTMC-DIL adapter can be used to fit Ian's boards.

