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MS1100 Ultra High-Performance XO Evaluation Kit

User Guide

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1 INTRODUCTION

MS1100 Ultra High-Performance XO Evaluation Board Kit (EVK) is used to demonstrate the functionality of MS1100 for the following applications:

- Ultra-low phase noise clock generation

Figure 1 shows a picture of MS1100, an Ultra-High Performance XO Evaluation Board (EVB) with CLK (Ultra-low phase noise clock output), Mini USB, and supply Vdd(4.5V) & Vss(GND).

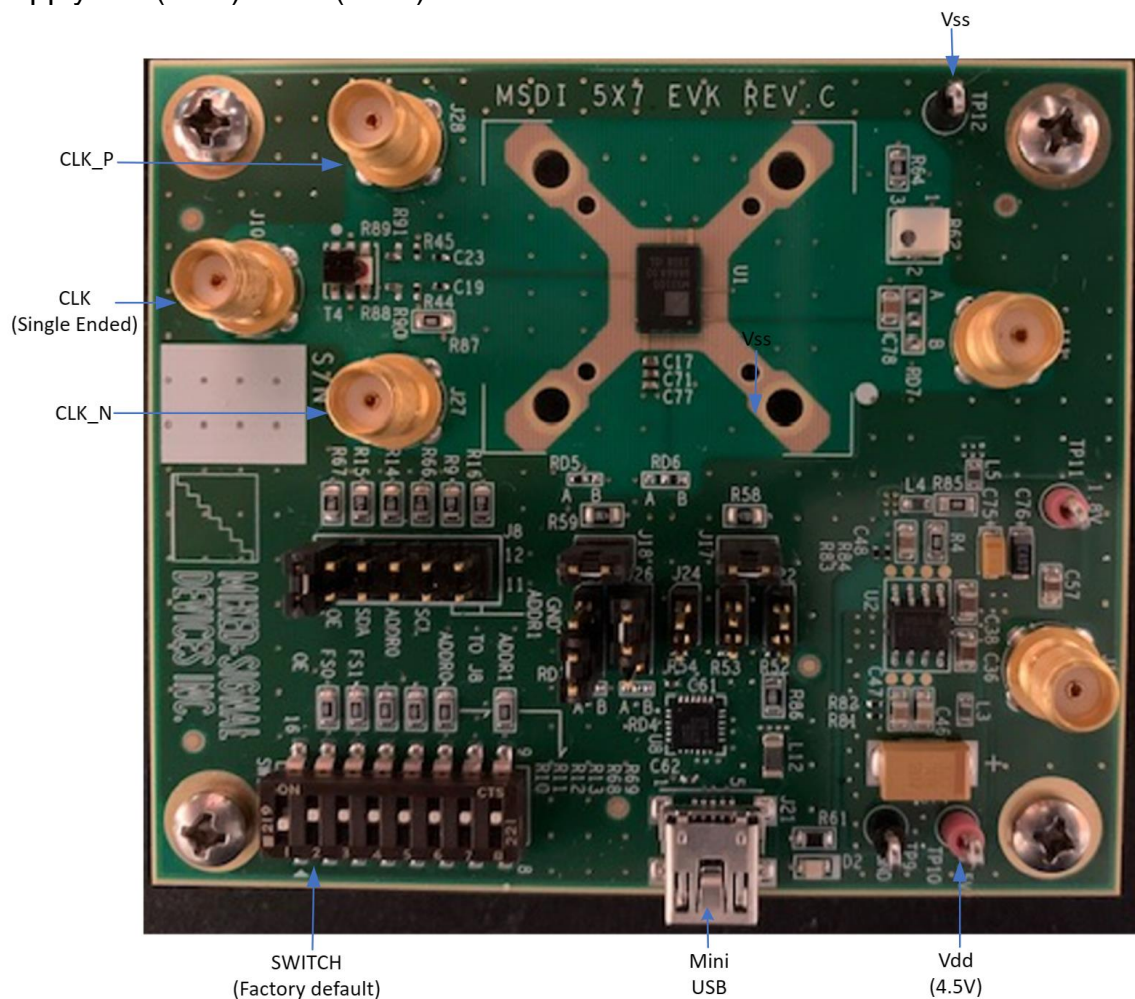


Figure 1: MS1100 Ultra-High Performance XO Evaluation board



Figure 2 shows a picture of how EVB should be connected. This XO chip is fully integrated and does not require any external filters.

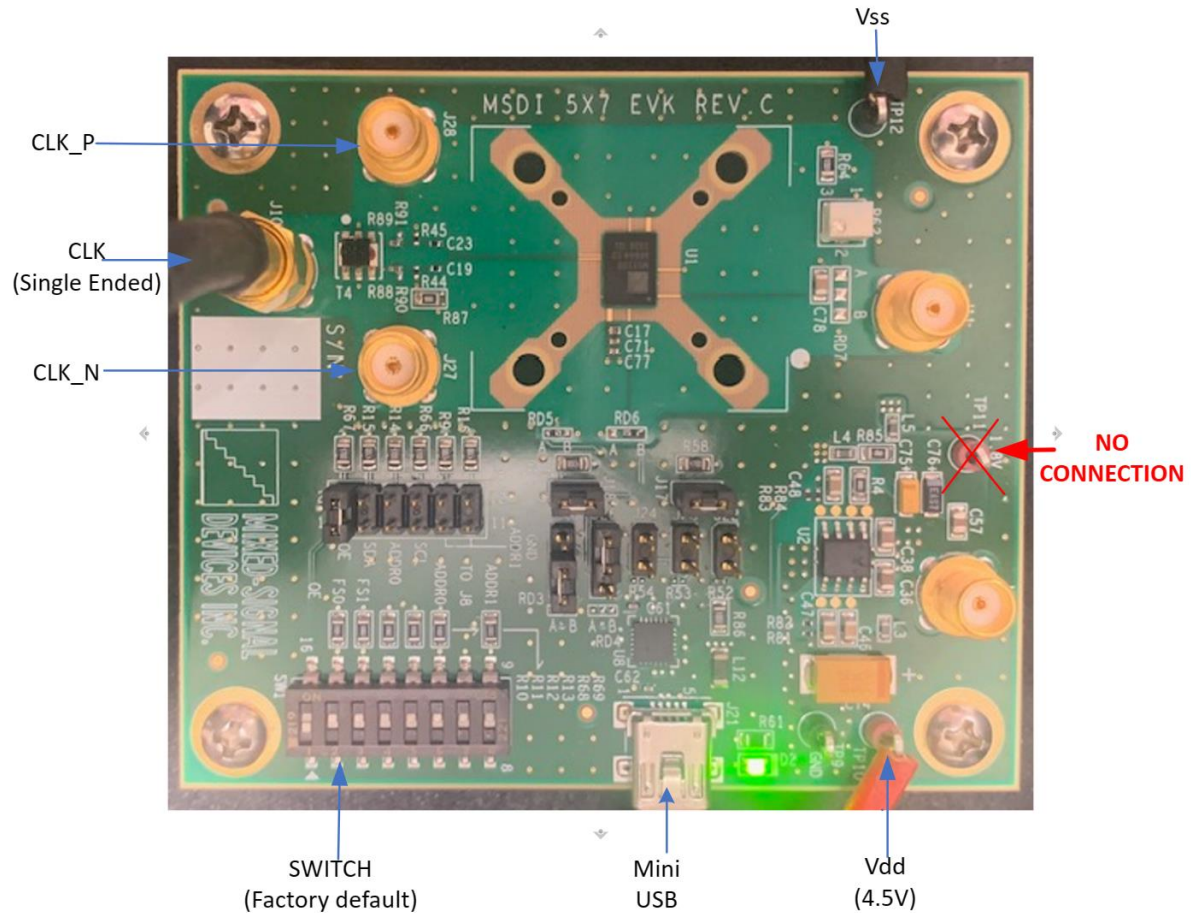


Figure 2: EVK board connections



2 EVALUATION BOARD (EVB) CONNECTION, SUPPLY AND SWITCH

2.1 Power Supply:

Vdd: TP10, 4.5V +/- 10%

Vss: TP12, Ground

Note: TP11 should be NC (No Connect).

2.2 CLK Outputs: Single Ended clock output (label: J10 CLK0) default

Differential clock outputs (label: J27 CLK0_P, J28 CLK0_N)

Rotate: R89 to R91; R88 to R90

Remove: R45, R44

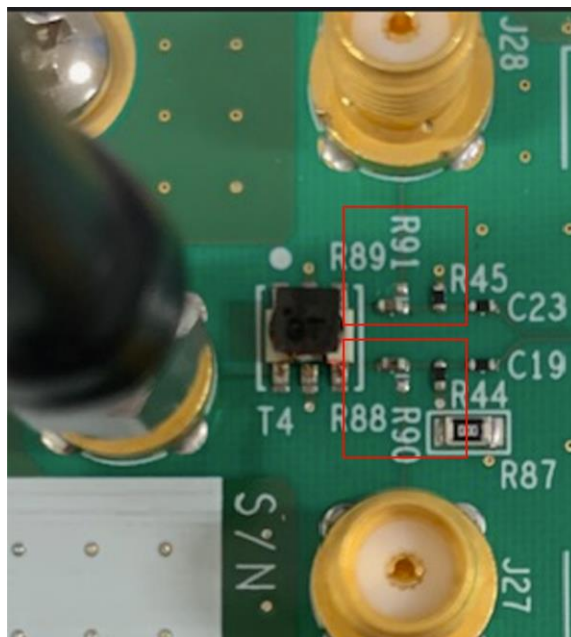


Figure 3: Clock output circuit



2.3 Switch settings

Figure 4 shows the preset address select defaults for SW1. DO NOT MODIFY.

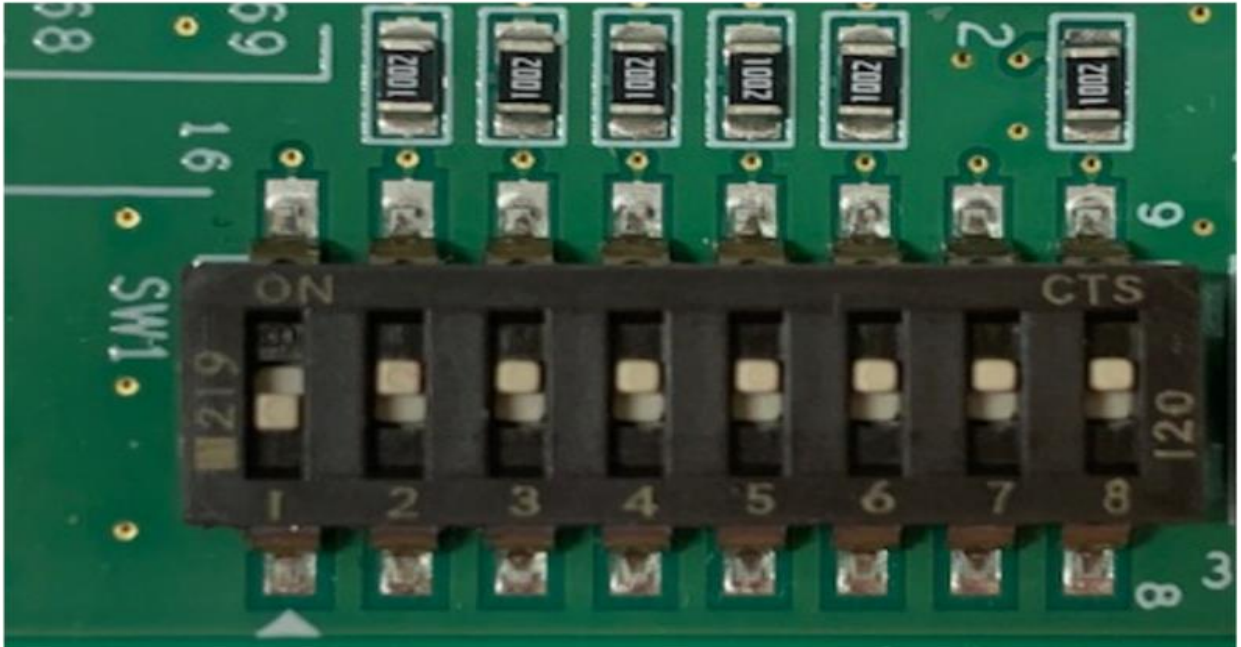


Figure 4: SW1 switch default settings.



3 SOFTWARE SUPPORT

Users need to install EZ-XO GUI. For details, refer to EZ-XO GUI User Guide.

Figure 4 shows the snapshot of EZ-XO GUI where a 25MHz XTAL is used as the input clock reference and generates an output frequency of 491.52MHz.

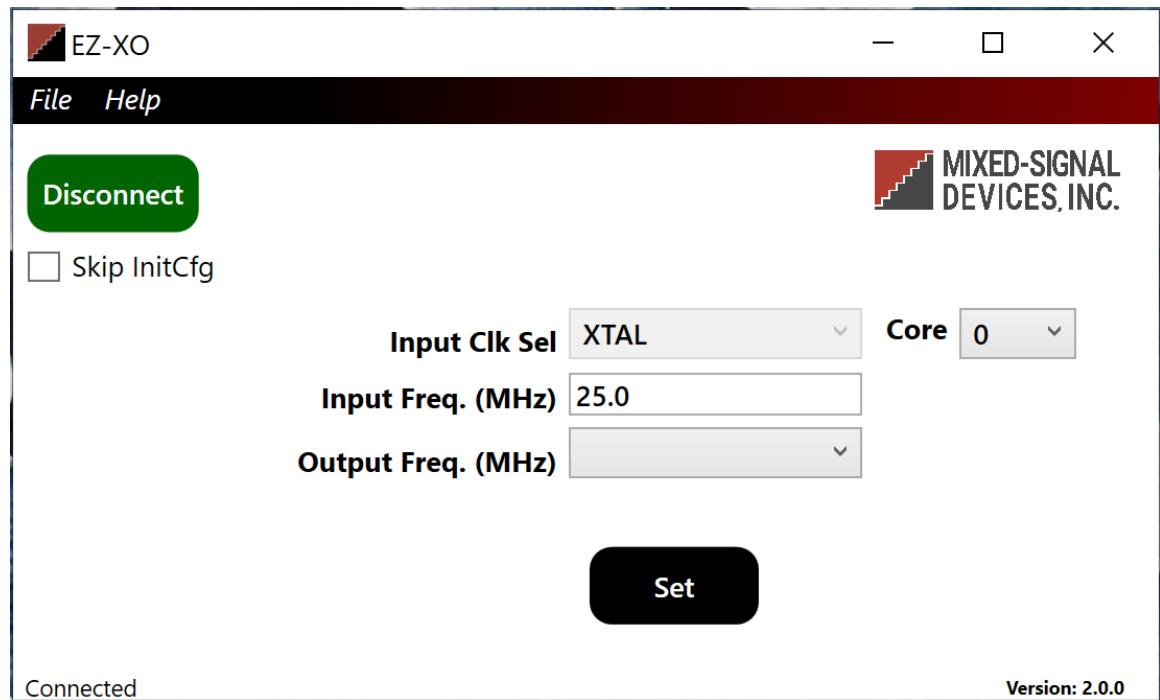


Figure 4: EZ-XO GUI (Initialization)



Phase noise plot after initialization is shown below:

