TCIEVMK2LX Known Issues

SR No#	Issue Detail	Effected Board Version No.	Resolved Board Version No.
1	JESD pins swap issue	EVM v 1.0.1.1 EVM v 1.0.2.0 EVM v 1.0.2.1	EVM v 1.0.3.0
2	10MHz clock validation test issue	EVM v 1.0.1.1 EVM v 1.0.2.0 EVM v 1.0.2.1	EVM v 1.0.3.0
3	LM10011 Enable pin pull up resistor (R524) value	EVM v 1.0.1.1 EVM v 1.0.2.0 EVM v 1.0.2.1	EVM v 1.0.3.0
4	LMK programming failure issue	EVM v 1.0.1.1 EVM v 1.0.2.0 EVM v 1.0.2.1	EVM v 1.0.3.0
5	CVDD1 nominal voltage implementation as per the latest K2L datasheet revised Oct-2014	EVM v 1.0.1.1 EVM v 1.0.2.0 EVM v 1.0.2.1 EVM v 1.0.3.0	EVM v 1.0.3.0
6	SOC Power Failure issue	All	
7	XDS200 firmware issue	All	

1. JESD TX lanes 1 and 2 swapping issue

In Alpha (V01) and Beta (V02) version of K2L EVMs, JESD TX1 and TX2 routing is as shown below picture. This is different from FMC standard pin mapping.
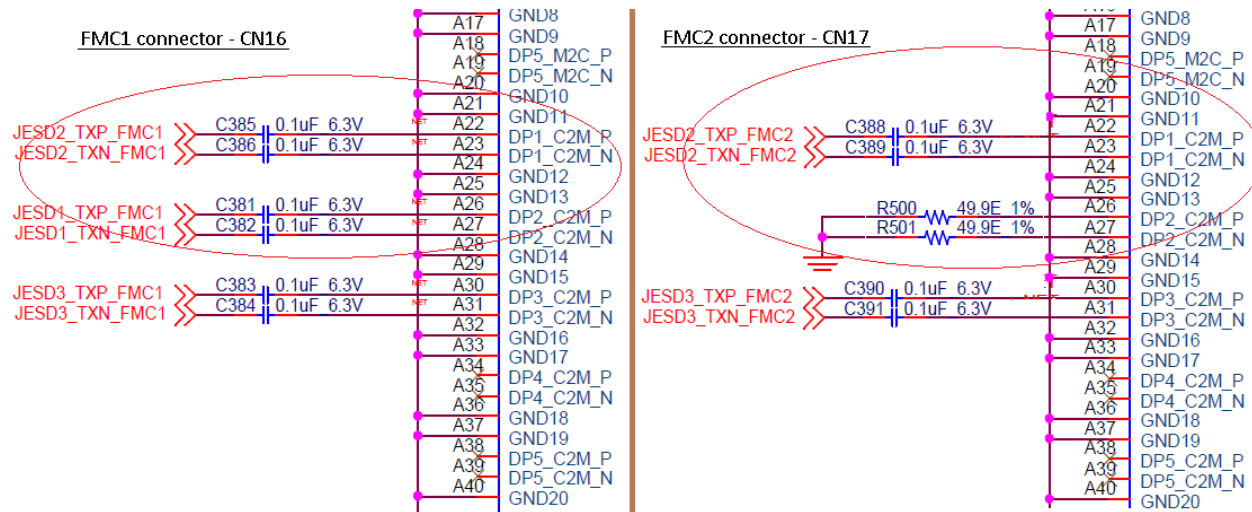
This issue shall be resolved from EVM v1.0.3.0 and onwards.

CN16 (FMC1 connector)			
Pin no	Pin name	Current Implementation	As per FMC standard
A22	DP1_C2M_P	JESD2_TXP_FMC1	JESD1_TXP_FMC1
A23	DP1_C2M_N	JESD2_TXN_FMC1	JESD1_TXN_FMC1
A26	DP2_C2M_P	JESD1_TXP_FMC1	JESD2_TXP_FMC1
A27	DP2_C2M_N	JESD1_TXN_FMC1	JESD2_TXN_FMC1

CN17 (FMC2 connector)			
Pin no	Pin name	Current Implementation	As per FMC standard
A22	DP1_C2M_P	JESD2_TXP_FMC2	GND (Not used)
A23	DP1_C2M_N	JESD2_TXN_FMC2	GND (Not used)
A26	DP2_C2M_P	GND	JESD2_TXP_FMC2
A27	DP2_C2M_N	GND	JESD2_TXN_FMC2

Workaround:
To resolve this JESD swizzle issue on board (V01 and V02), use TI's latest RFSDK.

2. 10MHz clock circuit validation issue

In Alpha (V01) and Beta (V02) versions of K2L EVMs, 10MHz clock validation test was failed and the clock mux input (U37 pin1) goes in negative. The root cause of this problem is due to the incorrect reference input to clock mux and incorrect level of positive clamping.

Workaround:
For V02 boards: Replace R364 with 3.16K (ERJ-2RKF3161X) resistors. Replace R878 with 46.4K (ERJ-2RKF4642X) resistors. Make R877 and R879 as not-mounted on board (NU).

<u>For V01 boards:</u> This validation test is not applicable. These V01 boards don't have 10MHz clamping circuit on board.

3. LM10011 Enable pin pull up resistor (R524) value

In Alpha (V01) and Beta (V02) versions of K2L EVMs, the pull up resistor (R524) value on LM10011 between EN and VDD (U53-4 and U53-3 respectively) is 0 ohm.

Workaround:
Remove 0 ohm resistor from R524 location and mount 10Kohm resistor (ERJ-2RKF1002X) in R524 location.

4. LMK programming failure issue

In Alpha (V01) and Beta (V02) versions of K2L EVMs, LMK programming through FPGA get failed. This issue is due to wrong PLL options in FPGA.

Workaround:
To resolve this issue on V01 and V02 boards, use FPGA programming bit file version 4C.

5. CVDD1 nominal voltage implementation as per the latest K2L datasheet revised Oct-2014

To resolve this issue on V01, V02 and V03 boards, remove 10.2Kohm resistor from R77 location and mount 7.68Kohm resistor. Refer below picture to identify the location of R77.
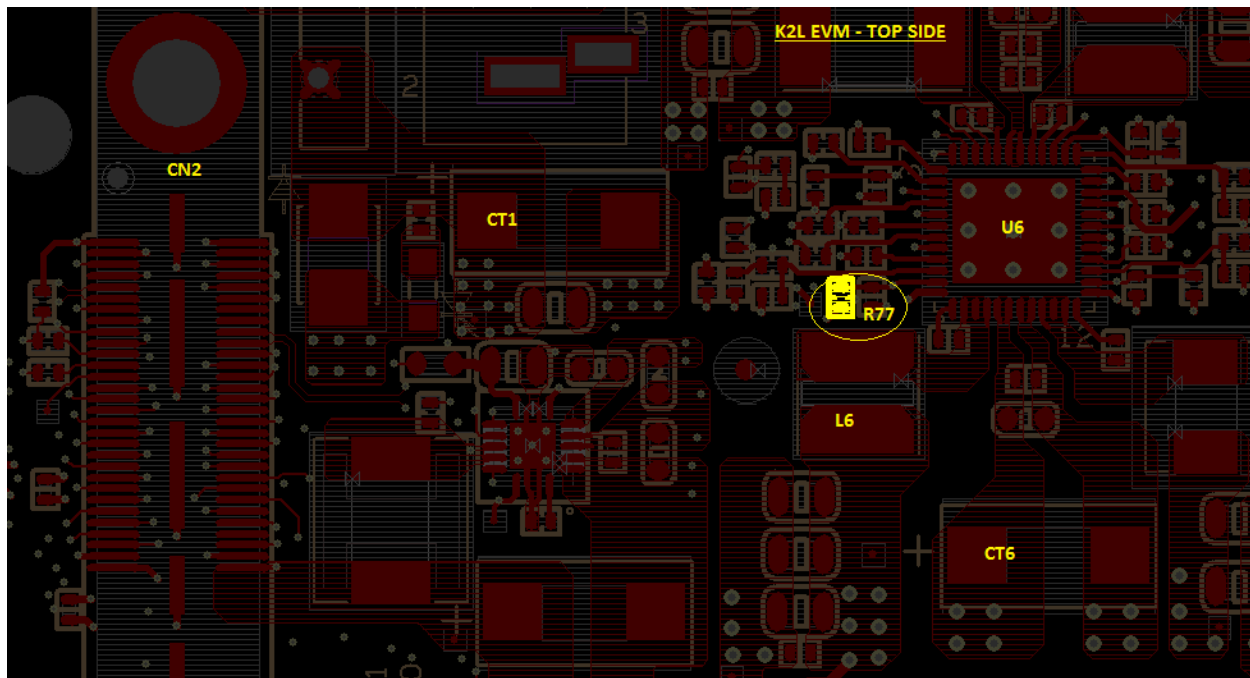
6. SOC Power Failure issue

This Issue is random and analyzed in very few boards.

Workaround:
Please re-flash latest UCD file from EVM webpage.

7. XDS200 firmware issue

Note that the firmware update is not required. The user can choose to continue using the XDS200 emulator without the firmware update. But the user would have to make the choice each and every time a Target Configuration is launched.

The firmware update is provided to improve interoperability of the USB driver in the firmware. Therefore, special care needs to be used to guarantee success with the firmware update. If the firmware update fails, the EVM must be returned for repair.

The update is done via script and uses the supplied xds2xx_conf utility. Be sure the USB cable from the XDS200 emulator is plugged directly into the PC and not into an external USB hub before running the script. Also make sure there are no other devices plugged into the same USB hub on the PC. Do not perform the firmware update from a machine running MAC OSX or Linux since there were compatibility problems discovered with these operating systems.