



DC6688F-EVK Manual

Document Revision 1.3

January, 2013

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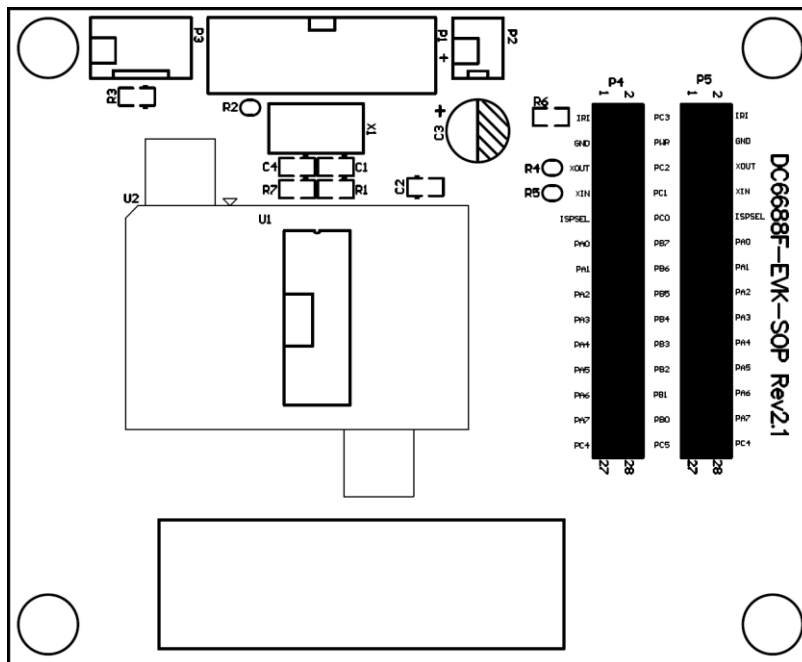
1 Introduction

The Objective of this document is to provide the user a quick start to use DC6688F-EVK to download code to device. This board is applicable to DC6688FS series and DC6688FL series.

For whole software and hardware setup to download code to device, user can refer “User Manual for SL Programmer Board Ver1.1”.

There are three members under DC6688F-EVK. They are DC6688F-EVK-SOP, DC6688F-EVK-LQFP and DC6688F-EVK-TSSOP. The difference is on the IC package.

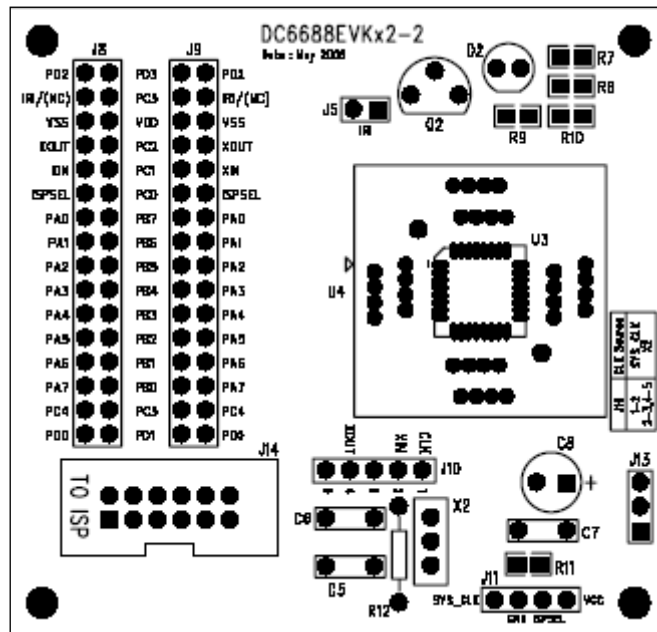
1) DC6688F-EVK-SOP



DC6688F-EVK-SOP supports SOP package up to 28pin.

Remark: If DC6688FL32A/DC6688FLX in FL series is placed to the socket, the pin “IRI/(PD2)” in J1 and J2 would be IRI. If DC6688FLB in FL series is placed to it, the “PC2” in J1 and J2 would be IRI. If DC6688FSX SOP28 is placed, that pin would become PD2. Otherwise, it would be a NC pin.

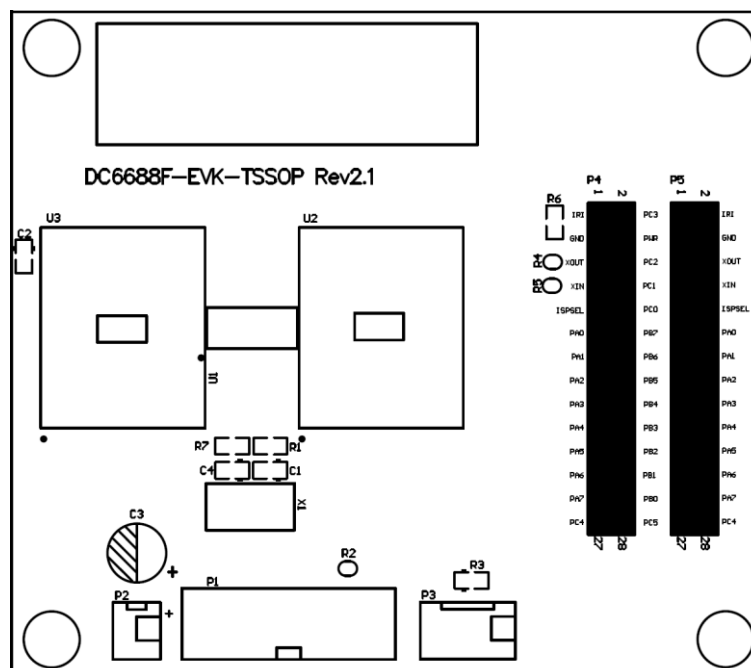
2) DC6688F-EVK-LQFP



DC6688F-EVK-LQFP supports LQFP 32pin package.

Remark: If FL series IC is placed to the socket, the pin “IRI/(PD2)” in J8 and J9 would be IRI. Otherwise, it would be a NC pin.

3) DC6688F-EVK-TSSOP



DC6688F-EVK-TSSOP supports TSSOP 24 / 28pin package.

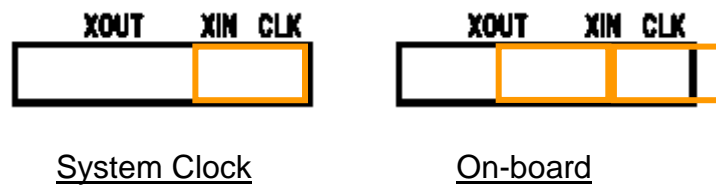
The circuit and components of the three boards are corresponded to each other as the following table:

| Components | DC6688F-EVK-SOP | DC6688F-EVK-LQFP | DC6688F-EVK-TSSOP |
|------------|-----------------|------------------|-------------------|
| Jumper | P4 | J8 | P4 |
| Jumper | P5 | J9 | P5 |
| Jumper | - | J10 | - |
| Jumper | P3 | J11 | P3 |
| Jumper | - | J5 | - |
| Jumper | P2 | J13 | P2 |
| Jumper | P1 | J14 | P1 |
| IC Socket | U2 | U4 | U2, U3 |
| IC | U1 | U3 | U1 |
| Capacitor | C4 | C5 | C4 |
| Capacitor | C1 | C6 | C1 |
| Capacitor | C2 | C7 | C2 |
| Capacitor | C3 | C8 | C3 |
| Oscillator | X1 | X2 | X1 |
| Resistor | - | R7 | - |
| Resistor | - | R8 | - |
| Resistor | - | R9 | - |
| Resistor | - | R10 | - |
| Resistor | R3 | R11 | R3 |
| Transistor | - | Q2 | - |
| IR diode | - | D2 | - |

2 Jumper Setting

The clock source selection while programming with SL Programmer is set in:

- 1) DC6688F-EVK-SOP
Short R2
- 2) DC6688F-EVK-LQFP
J10



- 3) DC6688F-EVK-TSSOP
Short R2

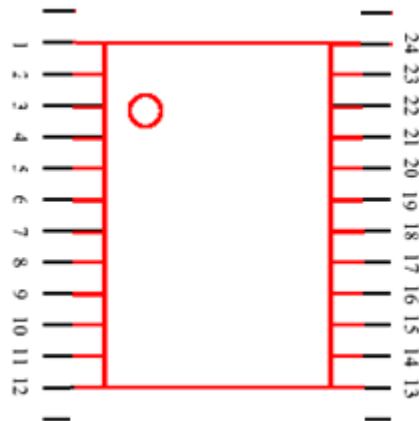
When system clock is used, the clock source should be connected to the pin marked with "SYS_CLK" in:

- 1) DC6688F-EVK-SOP
P3
- 2) DC6688F-EVK-LQFP
J11
- 3) DC6688F-EVK-TSSOP
P3

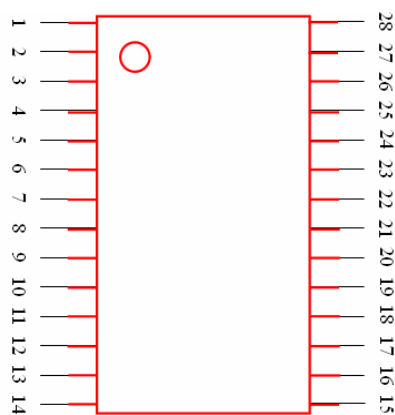
3 IC placement

1) SOP24 / SOP28

The small triangle shows the position of pin 1. All SOP IC should be placed at the centre of the IC socket of DC6688F-EVK-SOP as shown below:



SOP24



SOP28

2) LQFP32

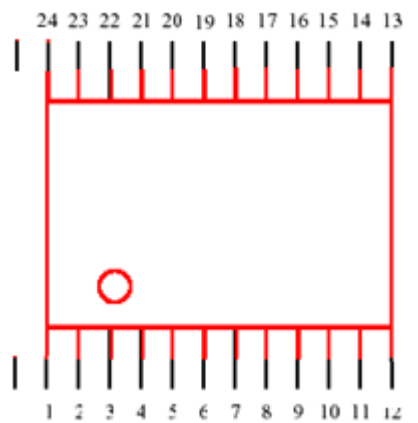
The small triangle shows the position of pin 1. The LQFP32 IC should be placed to DC6688F-EVK-LQFP accordingly

3) TSSOP24 / TSSOP28 (U1, U2)

The small triangle shows the position of pin 1.

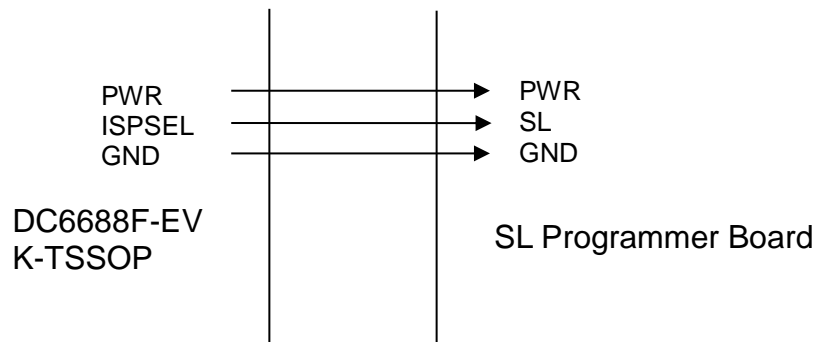
U1 is for 24pin TSSOP.

U2 is for 28pin TSSOP. It can also be used for 24pin TSSOP. The placement is shown below.



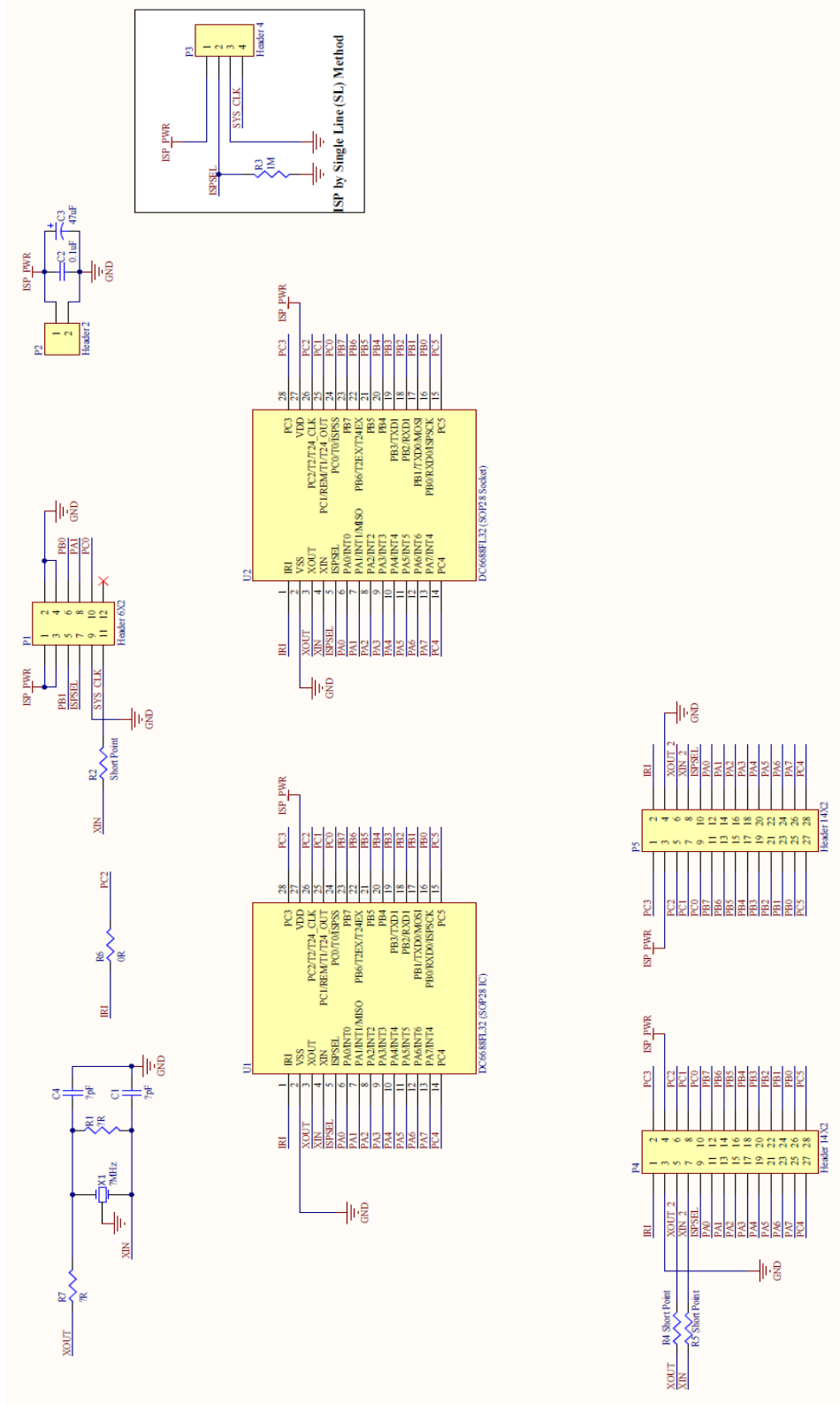
4 SL Programming

1) DC6688F-EVK-SOP/ DC6688F-EVK-LQFP/ DC6688F-EVK-TSSOP
To program the IC with SL Programmer Board (Manual for SL Programmer Board should be referred), a 3-pin connector from the programmer board should be plugged into J4 (or J11). The 3 pins used for SL programming are GND, ISPSEL and VCC:

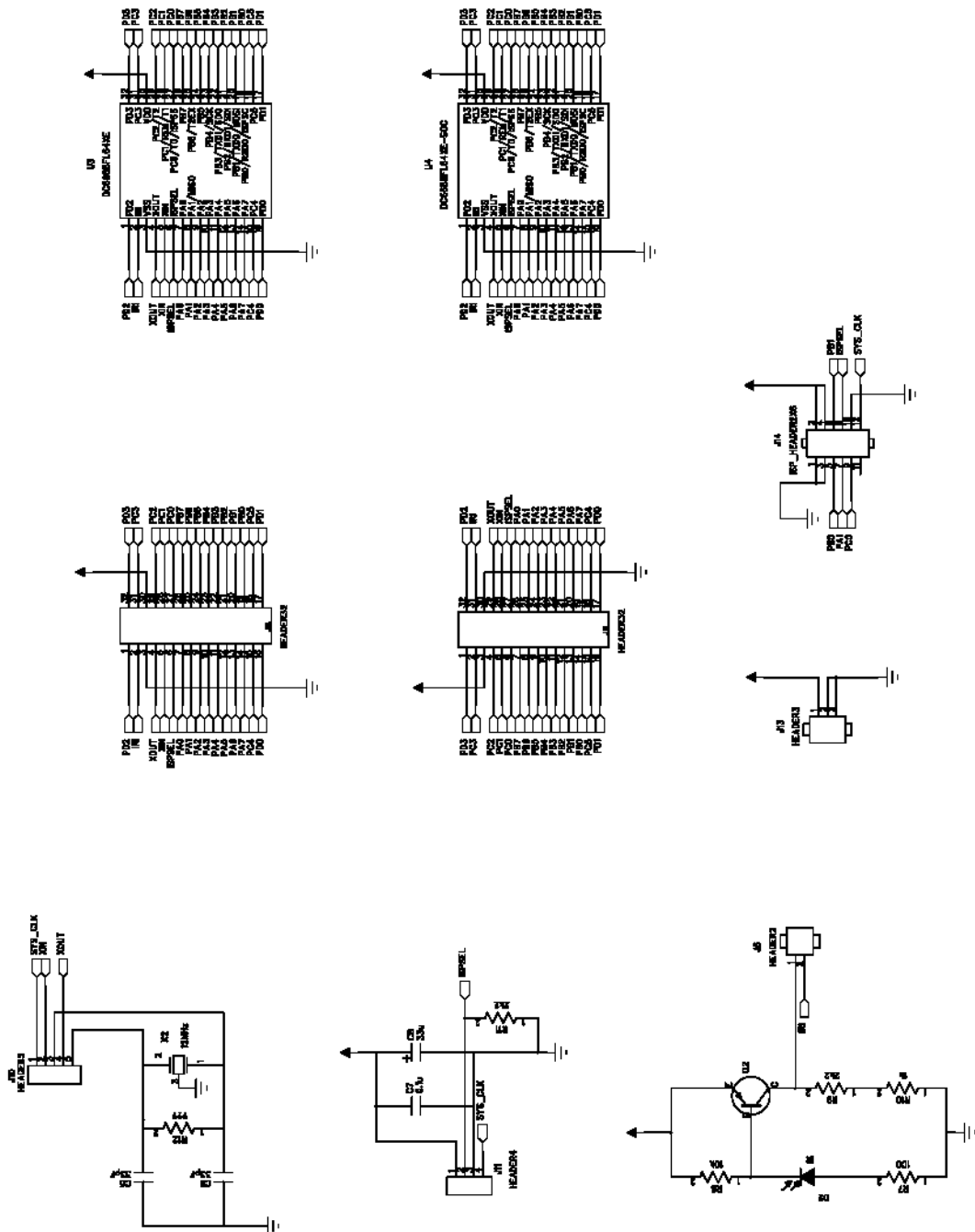


5 Schematics

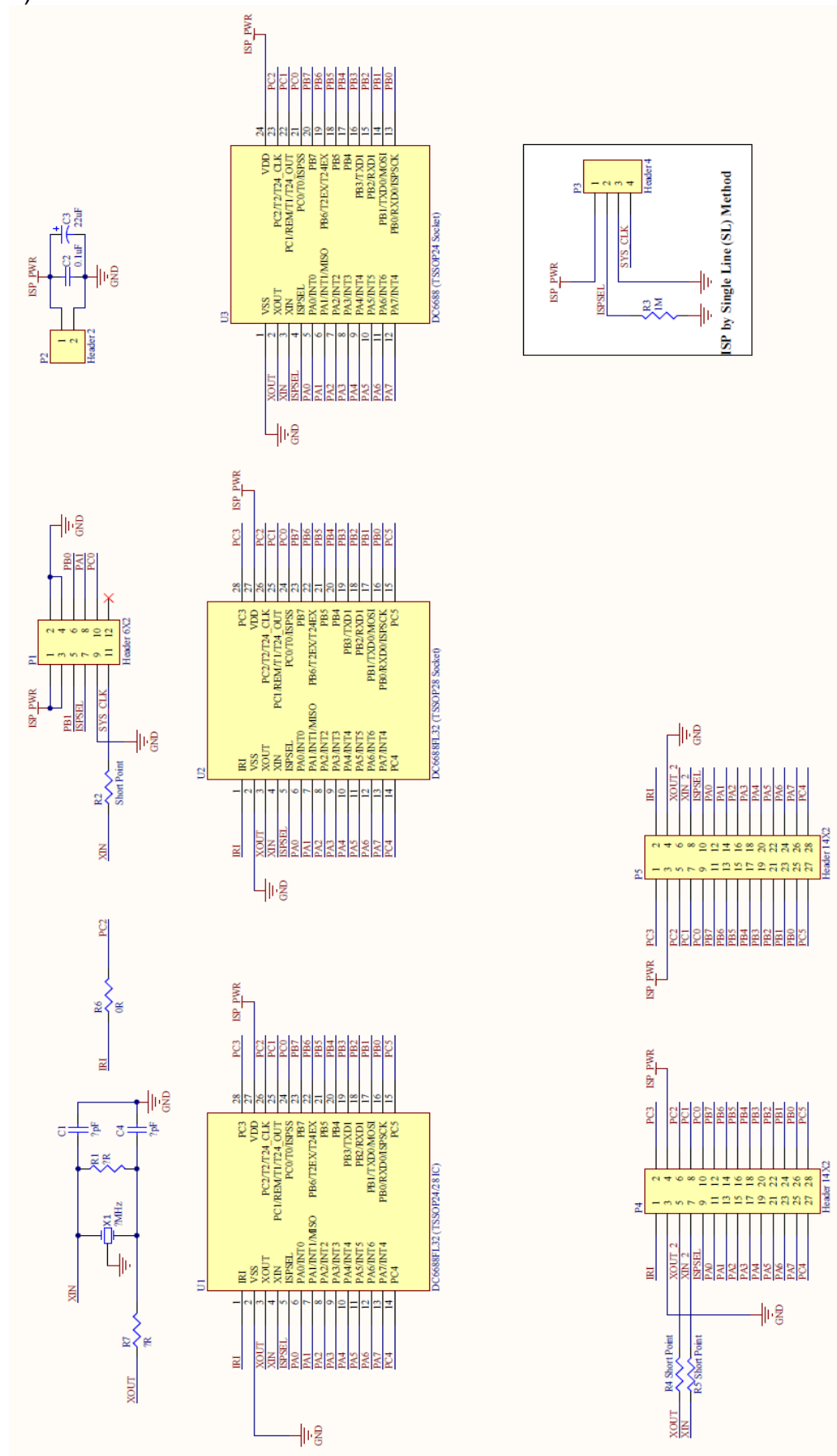
1) DC6688F-EVK-SOP



2) DC6688F-EVK-LQFP



3) DC6688F-EVK-TSSOP



Revision History

| Document Rev. No. | Issued Date | Section | Page | Description | Edited By | Reviewed By |
|-------------------|-------------|---------|------|--|-----------|-------------|
| 1.0 | June, 2008 | | | Preliminary | | |
| 1.1 | July, 2008 | | | Added DC6688FLB | Danny Ho | Kennis To |
| 1.2 | Dec, 2010 | | | Add DC6688F-EVK-TSSOP description | Danny Ho | Kennis To |
| 1.3 | Jan, 2013 | All | | Update DC6688F-EVK-SOP and DC6688F-EVK-TSSOP board | Danny Ho | Celia Ki |

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