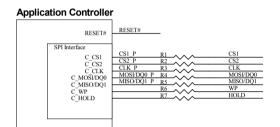
1 2 3 4 5

Reference schematic for Isolation Free In-Circuit-Programming Methodology

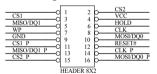
Isolation Free method is supported by DediProg SF600 programmer and protected by copy right

Benefits:

- -Low cost method applicable on high volume production
- -Code update flexibility: R&D development, Production lines, Warehouse, Field support ...



Programmer Header



Pitch 2.54mm or 1.27mm

Dediprog provide cable with both 2.54mm pitch and 1.27mm pitch. Refer to Dediprog part number "ADP-SF600-ISLF-01"

CS1

WP

HOLD

CK

MISO'DQ1

WP

T

SPIFlash1

CS

VCC

Q

Hold

GRD

D

Diode is only needed in Application power off mode

VCC

C1

MISO'DQ1

WCC

C1

Application power off mode

VCC

C1

WCC

C2

SPIFlash1

WCLK

GRD

D

SPIFlash2

- 1) Update with Application not supplied: Isolation on Serial Flash Vcc is required (Diode or Mosfet) to avoid programmer Vcc leakage. Diode must be selected with low threshold drop. Application Reset is not required.
- 2) Update with Application supplied: Isolation on Serial Flash Vcc is not required but programmer Reset signal must reset the application controller to stabilize its outputs.
- 3) If application is using a single Serial Flash then CS2 and CS2 P can be left unconnected.
- 4) The signals XXX_P on the allicaiton controller side are also connected to the programmer to protect the controller against current leakage and prevent damages.
- 5) Serial resistors (R1-R7) are commonly used by application to filter the undershoot and overshoot during SPI transitions. This application resistors are also required as an isolation to ensure a good communication between programmer and flash. The resistor value selected will depend on the application frequency and bus capacitance to ensure proper transitions. Higher value resistor will reduce the current leakage and power consumption.

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3 4 5