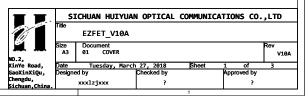
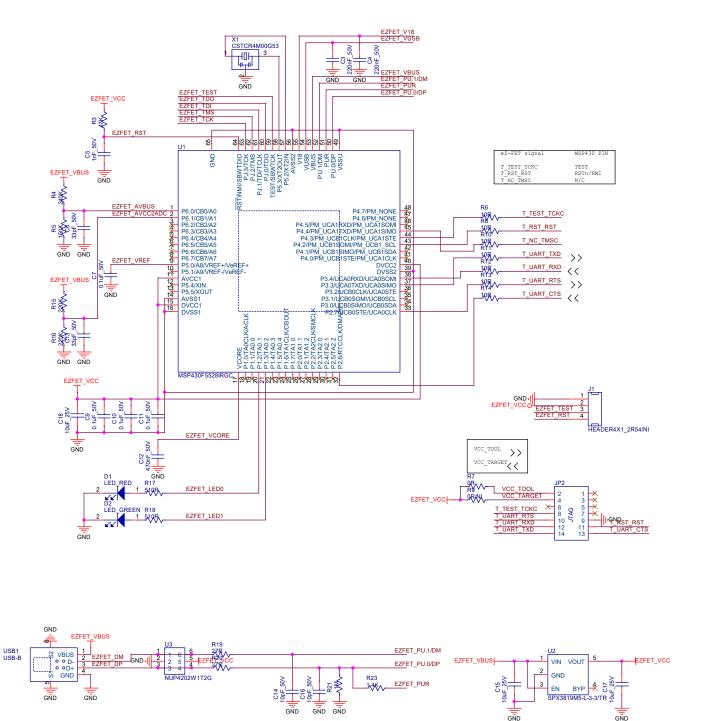
COVER

Revision	Description	Date	Drawn	Checked
V10A	Initial	2016-10-27	xxxlzjxxx	,
V10B	1、修复BUG	2018-03-27	xxxlzjxxx	

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BUG





5.6.5.1 JTAG Target Connector

Figure 12 shows the pinout of the MSP-FET JTAG connector.

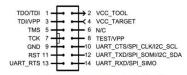


Figure 12. MSP-FET 14-Pin JTAG Connector

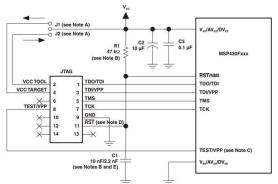
5.6.5.2 MSP-FET Pin States After Power Up

GND

Table 6 describes the electrical state of every JTAG pin after debug probe power up.

Table 6. MSP-FET Pin States

Pin	Name	After Power up	When JTAG Protocol is Active	When Spy-Bi-Wire Protocol is Active
1	TDO/TDI	Hi-Z, pulled up to 3.3 V	In, TDO	In and Out, SBWTDIO (RST pin)
2	VCC_TOOL	3.3 V	Target V _{cc}	Target V _{cc}
3	TDI/VPP	Hi-Z, pulled up to 3.3 V	Out, TDI	Hi-Z, pulled up to V _{cc}
4	VCC_TARGET	In, external V _{CC} sense	In, external V _{CC} sense	In, external V _{CC} sense
5	TMS	Hi-Z, pulled up to 3.3 V	Out, TMS	Hi-Z, pulled up to V _{CC}
6	N/C	N/C	N/C	N/C
7	TCK	Hi-Z, pulled up to 3.3 V	Out, TCK	Out, SBWTCK
8	TEST/VPP	Out, Ground	Out, TEST	Hi-Z, pulled up to V _{CC}
9	GND	Ground	Ground	Ground
10	UART_CTS/SPI_CLK/I2C_SCL	Hi-Z, pulled up to 3.3 V	Out, Target UART Clear- To-Send Handshake input	Out, Target UART Clear- To-Send Handshake input
11	RST	Out, V _{cc}	Out, RST	Ground
12	UART_TXD/SPI_SOMI/I2C_SDA	Hi-Z, pulled up to 3.3 V	In, Target UART TXD output	In, Target UART TXD output
13	UART_RTS	Hi-Z, pulled up to 3.3 V	In, Target UART Ready- to-Send Handshake output	In, Target UART Ready- to-Send Handshake output
14	UART_RXD/SPI_SIMO	Hi-Z, pulled up to 3.3 V	Out, Target UART RXD input	Out, Target UART RXD input



- A 如果使用一个本地目标电源,那么连接 J1。 如果使用调试或编程适配器供电,那么连接 J2。
- 针对RST/NMI 引脚的 R1 和 C1 的配置取决于器件系列。 推荐配置请参阅 MSP430 系列产品用户指南。
- TEST 引脚只在带有复用 JTAG 引脚的 MSP430 系列产品成员上提供。参见专用器件数据表以确定这个引脚是否可
- D 当使用只支持 4 线刺 JTAG 通信模式的器件并且对器件编程和调试没有要求的时候,到 JTAG 连接器 RST 引脚的连接 是可选的。然而,当在 4 线刺 JTAG 模式中使用支持 2 线刺 JTAG 通信模式时,此连接是必需的。
- E 当在 4 线制 JTAG 模式中使用支持 2 线制 JTAG 通信模式时, C1 的上限不应超过 2.2nF。 这适用于全部两个 TI FET 接口模块 (LPT 和 USB FET)。

图 2-1. 针对 4 线制 JTAG 通信的信号连接

