GPIO DIP Switch Circuit

Figure 1-26 shows the GPIO DIP switch circuit.

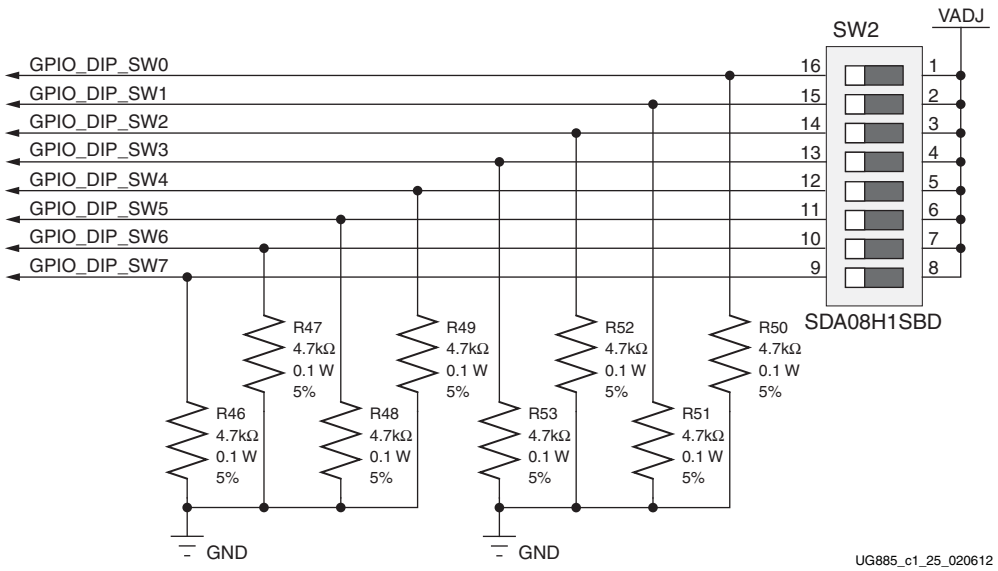

Figure 1-26: **GPIO DIP Switch Circuit**

User Rotary Switch

Figure 1-27 shows the user rotary switch circuit.

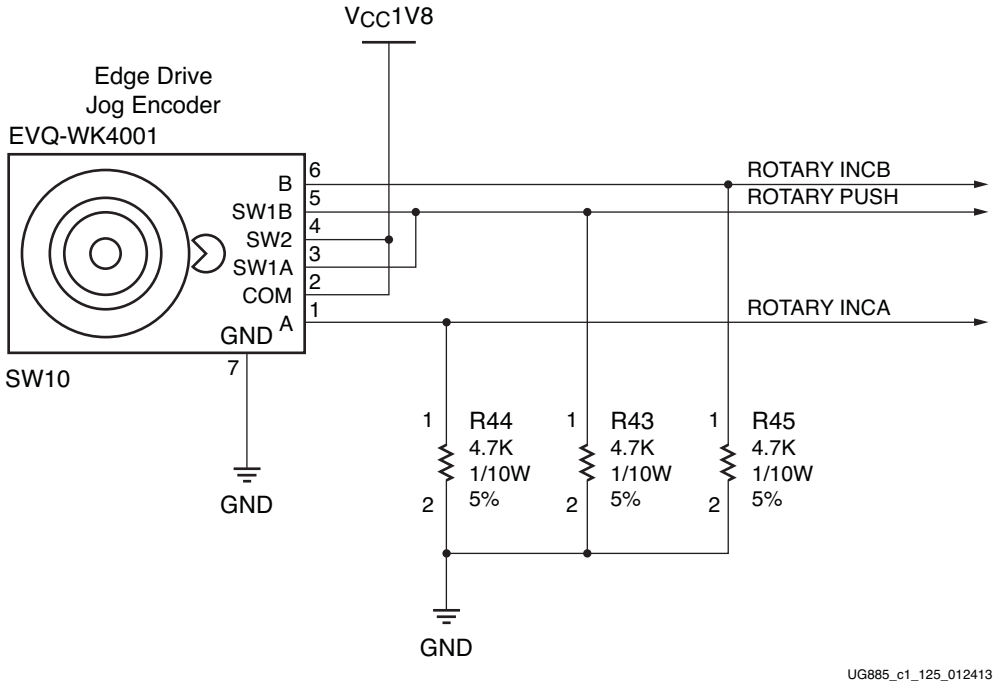

Figure 1-27: **User Rotary Switch**

User SMA

Figure 1-28 shows the user SMA circuit.

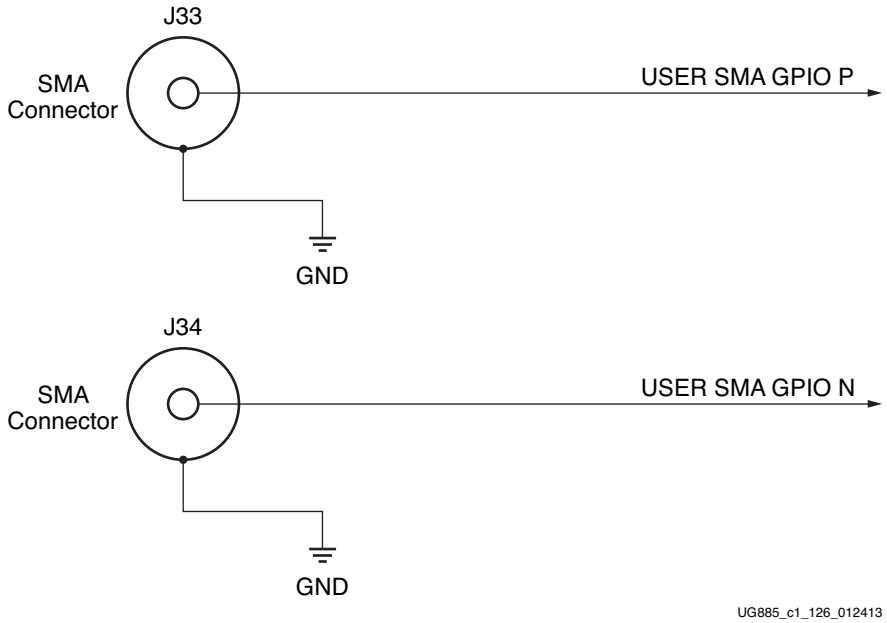

Figure 1-28: **User SMA**

Table 1-26 lists the GPIO Connections to FPGA U1.

Table 1-26: **GPIO Connections to FPGA U1**

FPGA (U1) Pin	Schematic Net Name	I/O Standard	GPIO Pin
Indicator LEDs (Active-High)			
AM39	GPIO_LED_0	LVCMOS18	DS2.2
AN39	GPIO_LED_1	LVCMOS18	DS3.2
AR37	GPIO_LED_2	LVCMOS18	DS4.2
AT37	GPIO_LED_3	LVCMOS18	DS5.2
AR35	GPIO_LED_4	LVCMOS18	DS6.2
AP41	GPIO_LED_5	LVCMOS18	DS7.2
AP42	GPIO_LED_6	LVCMOS18	DS8.2
AU39	GPIO_LED_7	LVCMOS18	DS9.2
CPU Reset Pushbutton Switch			
AV40	CPU_RESET	LVCMOS18	SW8.3
Directional Pushbutton Switches			
AR40	GPIO_SW_N	LVCMOS18	SW3.3
AU38	GPIO_SW_E	LVCMOS18	SW4.3
AP40	GPIO_SW_S	LVCMOS18	SW5.3

Table 1-28: **J37 VITA 57.1 FMC 2 HPC Connections *(Cont'd)***

J37 FMC 2 HPC Pin	Schematic Net Name	I/O Standard	U1 FPGA Pin		J37 FMC 2 HPC Pin	Schematic Net Name	I/O Standard	U1 FPGA Pin
C2	FMC2_HPC_DP0_C2M_P	(1)	N2		D1	PWRCTL1_VCC4B_PG		AL32
C3	FMC2_HPC_DP0_C2M_N	(1)	N1		D4	FMC2_HPC_GBTCLK0_M2C_P	(1)	K8
C6	FMC2_HPC_DP0_M2C_P	(1)	P8		D5	FMC2_HPC_GBTCLK0_M2C_N	(1)	K7
C7	FMC2_HPC_DP0_M2C_N	(1)	P7		D8	FMC2_HPC_LA01_CC_P	LVCMOS18	AF41
C10	FMC2_HPC_LA06_P	LVCMOS18	AD38		D9	FMC2_HPC_LA01_CC_N	LVCMOS18	AG41
C11	FMC2_HPC_LA06_N	LVCMOS18	AE38		D11	FMC2_HPC_LA05_P	LVCMOS18	AF42
C14	FMC2_HPC_LA10_P	LVCMOS18	AB41		D12	FMC2_HPC_LA05_N	LVCMOS18	AG42
C15	FMC2_HPC_LA10_N	LVCMOS18	AB42		D14	FMC2_HPC_LA09_P	LVCMOS18	AJ38
C18	FMC2_HPC_LA14_P	LVCMOS18	AB38		D15	FMC2_HPC_LA09_N	LVCMOS18	AK38
C19	FMC2_HPC_LA14_N	LVCMOS18	AB39		D17	FMC2_HPC_LA13_P	LVCMOS18	W40
C22	FMC2_HPC_LA18_CC_P	LVCMOS18	U36		D18	FMC2_HPC_LA13_N	LVCMOS18	Y40
C23	FMC2_HPC_LA18_CC_N	LVCMOS18	T37		D20	FMC2_HPC_LA17_CC_P	LVCMOS18	U37
C26	FMC2_HPC_LA27_P	LVCMOS18	P32		D21	FMC2_HPC_LA17_CC_N	LVCMOS18	U38
C27	FMC2_HPC_LA27_N	LVCMOS18	P33		D23	FMC2_HPC_LA23_P	LVCMOS18	R38
C30	FMC2_HPC_IIC_SCL		U52.6		D24	FMC2_HPC_LA23_N	LVCMOS18	R39
C31	FMC2_HPC_IIC_SDA		U52.5		D26	FMC2_HPC_LA26_P	LVCMOS18	N33
C34	GA0 = 0 = GND				D27	FMC2_HPC_LA26_N	LVCMOS18	N34
C35	VCC12_P				D29	FMC2_HPC_TCK_BUF		U19.13
C37	VCC12_P				D30	FMC1_TDO_FMC2_TDI		U27.2
C39	VCC3V3				D31	FMC2_TDO_FPGA_TDI		U46.3
					D32	VCC3V3		
					D33	FMC2_HPC_TMS_BUF		U19.16
					D34	NC		
					D35	GA1 = 0 = GND		
					D36	VCC3V3		
					D38	VCC3V3		
					D40	VCC3V3		

芯片详细信息

Manufacturer Part Number: XC2VP4-5FFG672C	Pbfree Code: Yes	Rohs Code: Yes	Part Life Cycle Code: Obsolete
Ihs Manufacturer: XILINX INC	Part Package Code: BGA	Package Description: BGA, BGA672,26X26,40	Pin Count: 672
Reach Compliance Code: not_compliant	ECCN Code: 3A991.D	HTS Code: 8542.39.00.01	Factory Lead Time: 12 Weeks
Manufacturer: Xilinx	Risk Rank: 5.76	Clock Frequency-Max: 1050 MHz	Combinatorial Delay of a CLB-Max: 0.36 ns
JESD-30 Code: S-PBGA-B672	JESD-609 Code: e1	Length: 27 mm	Moisture Sensitivity Level: 4
Number of CLBs: 752	Number of Inputs: 348	Number of Logic Cells: 6768	Number of Outputs: 348
Number of Terminals: 672	Operating Temperature-Max: 85 °C	Organization: 752 CLBS	Package Body Material: PLASTIC/EPOXY
Package Code: BGA	Package Equivalence Code: BGA672,26X26,40	Package Shape: SQUARE	Package Style: GRID ARRAY
Peak Reflow Temperature (Cel): 245	Power Supplies: 1.5,1.5/3.3,2/2.5,2.5 V	Programmable Logic Type: FIELD PROGRAMMABLE GATE ARRAY	Qualification Status: Not Qualified
Seated Height-Max: 2.65 mm	Subcategory: Field Programmable Gate Arrays	Supply Voltage-Max: 1.575 V	Supply Voltage-Min: 1.425 V
Supply Voltage-Nom: 1.5 V	Surface Mount: YES	Technology: CMOS	Temperature Grade: OTHER
Terminal Finish: Tin/Silver/Copper (Sn95.5Ag4.0Cu0.5)	Terminal Form: BALL	Terminal Pitch: 1 mm	Terminal Position: BOTTOM
Time@Peak Reflow Temperature-Max (s): 30	Width: 27 mm		

产品种类:	FPGA - 现场可编程门阵列	☑
RoHS:	RoHS 详细信息	
产品:	Virtex-II Pro	☐
系列:	XC2VP4	☐
逻辑元件数量:	6768 LE	☐
自适应逻辑模块 - ALM:	3008 ALM	☐
嵌入式内存:	504 kbit	☐
输入/输出端数量:	348 I/O	☐
工作电源电压:	1.5 V	☐
最小工作温度:	0 C	☐
最大工作温度:	+ 85 C	☐
安装风格:	SMD/SMT	☐
封装 / 箱体:	FBGA-672	☐
数据速率:	4.25 Gb/s	
商标:	Xilinx	
分布式RAM:	94 kbit	
内嵌式块RAM - EBR:	504 kbit	
最大工作频率:	300 MHz	
湿度敏感性:	Yes	
逻辑数组块数量——LAB:	752 LAB	
收发器数量:	4 Transceiver	
产品类型:	FPGA - Field Programmable Gate Array	
工厂包装数量:	40	
子类别:	Programmable Logic ICs	
商标名:	Virtex	