

Teensy 4.1 Pin Usage on T41 v12

T41 v12 Pin Usage		Teensy 4.1 Pin Reference										T41 v12 Pin Usage			
Ground	GND						Teensy 4.1	VIN						VIN	5V Power
ATtiny85 PB1/2	in	PWM	CRX2	CS1	RX1	0		GND						GND	Ground
	out	PWM	CTX2	MISO1	TX1	1		3.3V						3.3V to front panel	
	(1)	PWM	OUT2			2		23	A9	CRX1	MCLK1	PWM	MCLK	Audio Adapter	
	(1)	PWM	LRCLK2			3		22	A8	CTX1		PWM	out	RXTX	
		PWM	BCLK2			4		21	A7	RX5	BCLK1		BCLK	Audio Adapter	
		PWM	IN2			5		20	A6	TX5	LRCLK1		LRCLK	Audio Adapter	
ADC Out	I2S RX (2)	PWM	OUT1D			6		19	A5		SCL	PWM	SCL	Audio Adapter/RF	
Audio Adapter	DIN	PWM	OUT1A	RX2		7		18	A4		SDA	PWM	SDA	Audio Adapter/RF	
Audio Adapter	DOUT	PWM	IN1	TX2		8		17	A3	TX4	SDA1		SDA1	Front Panel (6)	
NC	(4)	PWM	OUT1C			9		16	A2	RX4	SCL1		SCL1		
RA8875 CS	CS	PWM	MQSR	CS		10		15	A1	RX3	SPDIF IN	PWM	INT	Front Panel interrupt (7)	
RA8875 MOSI	MOSI	PWM	CTX1	MOSI		11		14	A0	TX3	SPDIF OUT	PWM	INT		
RA8875 MISO	MISO	PWM	MQSL	MISO		12		13	LED	SCK		PWM	SCK	RA8875 SCLK	
NC							3.3V	GND						GND	Ground
LPF Ctrl/BPF	SCL2	PWM	SCL2	TX6	A10	24	41	A17						(8)	
	SDA2	PWM	SDA2	RX6	A11	25	40	A16						(9)	
Detected pwr analog	(5)			MOSI1	A12	26	39	A15	MISO1	OUT1A			out	Calibration	
	(10)	PWM			SCK1	A13	38	A14	CS1	IN1			in	PTT	
		PWM			RX7			37			CS	PWM	INT	Keyer Tip/Ring	
	(10)	PWM			TX7			36			CS	PWM	INT		
				CRX3				35			TX8				
				CTX3				34			RX8				
DAC DIN	I2S TX (3)			OUT1B				33			MCLK2	PWM	out	TX mode SSB/CW CW on/off	

Color Key	PWM	Digital Audio	Serial	Digital	Analog	I2C	SPI	CAN Bus	Power
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- NC = No Connection; INT = Interrupt; in/out = Digital input/output
- * Front Panel assumed. Some I2C functions might not be identified
- (1) Broken out to encoder connector. These are Vol/FT encoder pins w/o front panel.
- (2) For default I2S pin usage see <https://www.pjrc.com/teensy/gui/?info=AudiolInputI2SQuad>
Pin assignment is handled in AudiolInputI2SQuad::begin
See pg 869 of IMXRT1060 manual (https://www.pjrc.com/teensy/IMXRT1060RM_rev3.pdf)
- (3) For default I2S pin usage see <https://www.pjrc.com/teensy/gui/?info=AudioOutputI2SQuad>
Pin 32 is AudioOutputI2SQuad TX ch 3+4 (I couldn't trace this assignment in the Teensy Audio library)
See pg 516 of IMXRT1060 manual (https://www.pjrc.com/teensy/IMXRT1060RM_rev3.pdf)
- (4) This pin is assigned to RA8875_RESET in the T41 code but is only used in the object construction.
The RA8875 library notes "In some modules you can leave unconnected but check if it's needed!"
It seems as that is what's been done on the T41.
- (5) Optional. Pins can be repurposed if unused.
- (6) These are Tune Encoder A/B without front panel.
- (7) These are Filter Encoder A/B without front panel.
- (8) These are broken out through J3 Acc conector on the main board.
- (9) Broken out to front panel, but not connected. This is Busy SM Button without front panel.
- (10) Broken out to bands connector. These are Filter 20m, Filter 15m, Filter 80m and Filter 40m in v11.