



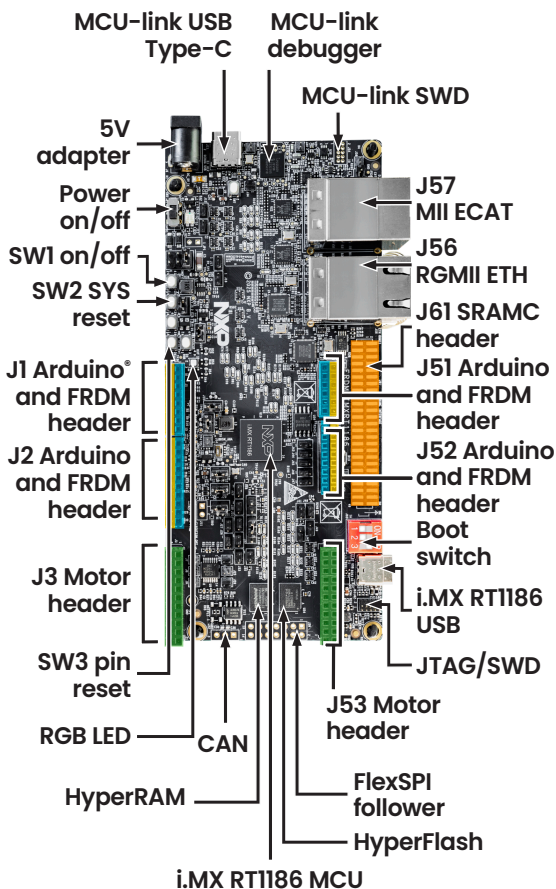
Quick Start Guide
FRDM-IMXRT1186

FRDM i.MX RT1186 development platform



In partnership with:

winbond



- FRDM header
- Arduino header
- Motor header
- SRAMC header

Get to know FRDM-IMXRT1186

NXP's FRDM development platform provides you with cost-effective MCU development boards.

Easy I/O access supports expansion board use for fast prototyping and rapid evaluation.



Getting started

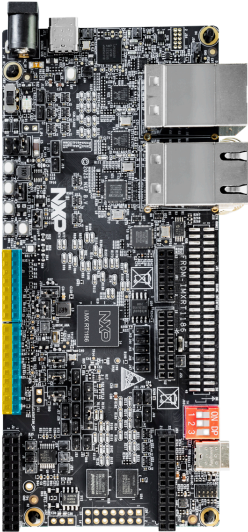
1. Connect the FRDM-IMXRT1186 board to a PC using the USB Type-C cable
2. The board comes preprogrammed with a blinky LED demo
3. Get started at nxp.com/FRDM-IMXRT1186

Software and expansion boards

4. Access software and tools through nxp.com/MCUXpresso
 - Expansion Board Hub
mcuxpresso.nxp.com/eb-hub to find add-on boards from NXP and our partners with related MCUXpresso SDK-compatible drivers and examples
 - Application Code Hub
mcuxpresso.nxp.com/appcodehub to browse application code examples from our experts to help kick start your project
5. Explore our entire FRDM platform of MCUs and MPUs at nxp.com/FRDM

J1 Arduino
and FRDM
header

J2 Arduino
and FRDM
header

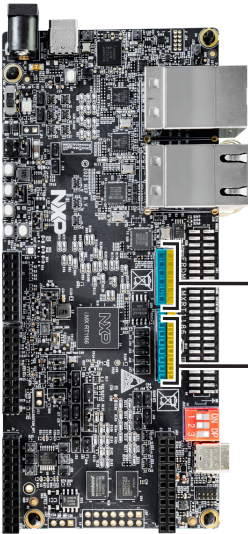


J1 Arduino header and FRDM headers

J1	D0/UART_RX	GPIO_AON_09	2	1	GPIO_EMC_B1_03
	D1/UART_TX	GPIO_AON_08	4	3	GPIO_EMC_B1_02
	D2/INT0	GPIO_EMC_B1_12	6	5	GPIO_SD_B2_04
	D3/INT1/PWM	GPIO_EMC_B1_13	8	7	GND
	D4/T0/XCK	GPIO_EMC_B1_14	10	9	GPIO_EMC_B1_17
	D5/T1/PWM	GPIO_EMC_B1_15	12	11	GPIO_EMC_B1_16
	D6/AIN0/PWM	GPIO_AD_13	14	13	GPIO_SD_B2_00
	D7/AIN1	GPIO_AD_12	16	15	GND

J2 Arduino header and FRDM headers

J2	D9/OC1A/PWM	GPIO_EMC_B1_17	2	1	GPIO_AD_12
	D9/OC1A/PWM	GPIO_EMC_B1_16	4	3	GPIO_AD_13
	D10/SPI_CS/PWM	GPIO_EMC_B1_25	6	5	GPIO_AD_29
	D11/OC2A/PWM/ SPI_MOSI	GPIO_EMC_B1_24	8	7	GPIO_AD_14
	D12/SPI_MISO	GPIO_EMC_B1_23	10	9	GPIO_AD_15
	D13/SPI_CLK	GPIO_EMC_B1_22	12	11	GPIO_AD_16
	GND	GND	14	13	GPIO_AD_17
	AREF	VDD_3V3	16	15	GPIO_AD_18
	D14/I2C_SDA	GPIO_EMC_B2_20	18	17	GND
	D15/I2C_SCL	GPIO_EMC_B2_19	20	19	GND



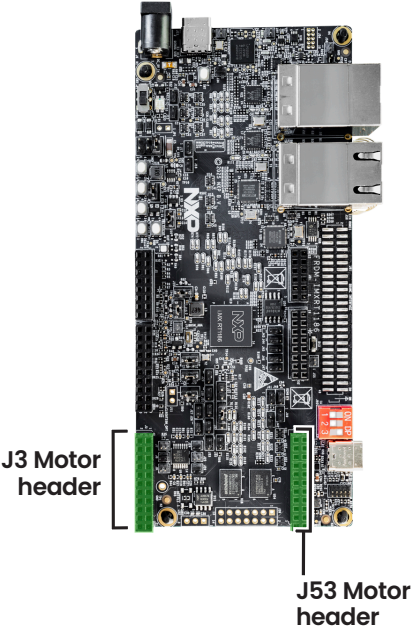
J51 Arduino and FRDM header
J52 Arduino and FRDM header

J51 Arduino header and FRDM headers

J51	GPIO_AON_07	11	12	GPIO_AD_18	A5/ADC5/SCL
	GPIO_AON_06	9	10	GPIO_AD_19	A4/ADC4/SDA
	GPIO_AON_05	7	8	GPIO_AD_14	A3/ADC3
	GPIO_AON_04	5	6	GPIO_AD_17	A2/ADC2
	GPIO_AON_08	3	4	GPIO_AD_16	A1/ADC1
	GND	1	2	GPIO_AD_15	A0/ADC0

J52 Arduino header and FRDM headers

J52	GPIO_EMC_B1_12	15	16	5V	VIN
	GPIO_EMC_B1_13	13	14	GND	GND
	GPIO_EMC_B1_14	11	12	GND	GND
	GPIO_EMC_B1_15	9	10	5V_SYS	5V
	GPIO_EMC_B1_17	7	8	VDD_3V3	3V3
	GPIO_EMC_B1_16	5	6	POR_B	RESET_b
	GPIO_EMC_B1_00	3	4	VDD_3V3	IOREF
	GPIO_EMC_B1_01	1	2	NC	NC

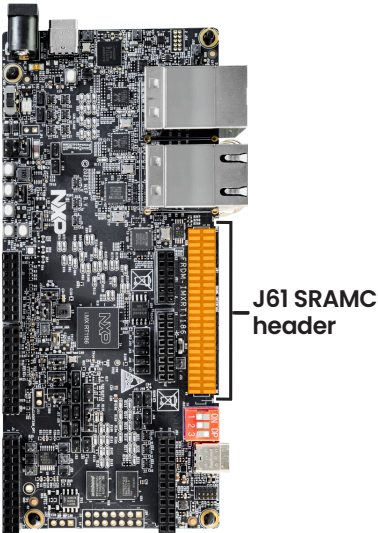


J3 Motor header

J3	GPIO_EMC_B1_10	2	1	GPIO_EMC_B1_09
	GPIO_EMC_B1_08	4	3	GPIO_EMC_B1_07
	GPIO_EMC_B1_06	6	5	GPIO_EMC_B1_05
	GPIO_EMC_B1_04	8	7	GPIO_EMC_B1_03
	GPIO_AON_15	10	9	GPIO_B2_05
	GPIO_AON_16	12	11	NC
	GPIO_AON_17	14	13	NC
	GPIO_AON_18	16	15	NC
	GPIO_AON_19	18	17	NC
	NC	20	19	NC
	GPIO_EMC_B1_39	22	21	GPIO_SD_B1_03

J53 Motor header

J53	NC	21	22	GPIO_EMC_B1_25
	NC	19	20	GPIO_EMC_B1_24
	GPIO_EMC_B1_21	17	18	GPIO_EMC_B1_05
	GPIO_EMC_B1_20	15	16	GPIO_EMC_B1_04
	GPIO_EMC_B1_19	13	14	GPIO_EMC_B1_11
	GPIO_EMC_B1_18	11	12	NC
	NC	9	10	GPIO_B2_04
	NC	7	8	NC
	NC	5	6	NC
	GPIO_B2_11	3	4	GPIO_B2_10
	GPIO_B2_09	1	2	GPIO_B2_08



J61 SRAMC header

J61	VDD_3V3	1	2	VDD_3V3
	SRAMC_DAT01	3	4	SRAMC_DAT00
	SRAMC_DAT03	5	6	SRAMC_DAT02
	SRAMC_DAT05	7	8	SRAMC_DAT04
	SRAMC_DAT07	9	10	SRAMC_DAT06
	GND	11	12	SRAMC_LBB
	SRAMC_DAT09	13	14	SRAMC_DAT08
	SRAMC_DAT11	15	16	SRAMC_DAT10
	SRAMC_DAT13	17	18	SRAMC_DAT12
	SRAMC_DAT15	19	20	SRAMC_DAT14
	GND	21	22	SRAMC_UBB
	SRAMC_ADDR01	23	24	SRAMC_ADDR00
	SRAMC_ADDR03	25	26	SRAMC_ADDR02
	SRAMC_ADDR05	27	28	SRAMC_ADDR04
	SRAMC_ADDR07	29	30	SRAMC_ADDR06
	SRAMC_ADDR09	31	32	SRAMC_ADDR08
	SRAMC_ADDR11	33	34	SRAMC_ADDR10
	SRAMC_ADDR13	35	36	SRAMC_ADDR12
	SRAMC_ADDR15	37	38	SRAMC_ADDR14
	GND	39	40	SRAMC_ADDR16
	SRAMC_WE	41	42	SRAMC_ADV
	SRAMC_OEB	43	44	SRAMC_CS0
	SRAMC_CS1	45	46	SRAMC_CS2
	SRAMC_CS3	47	48	GND
	GND	49	50	GND



Get started

Download installation software
and documentation at

nxp.com/FRDM-IMXRT1186

Support

Visit **nxp.com/support** for a list of phone
numbers within your region.

Warranty

Visit **nxp.com/warranty** for complete
warranty information.

Home page

Visit **nxp.com/FRDM-IMXRT1186** for
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