KW47-EVK

Getting started

Setup

1. Connect the KW47-EVK board to a PC using the USB Type-C cable. When the board is powered up, the RGB LED starts with a white color.

2. The board comes preprogrammed with a wireless demo. Using a smartphone, install and open the NXP IoT Toolbox app. Open 'Wireless UART' and the KW47-EVK Wireless UART device named 'NXP_WU' will be displayed.

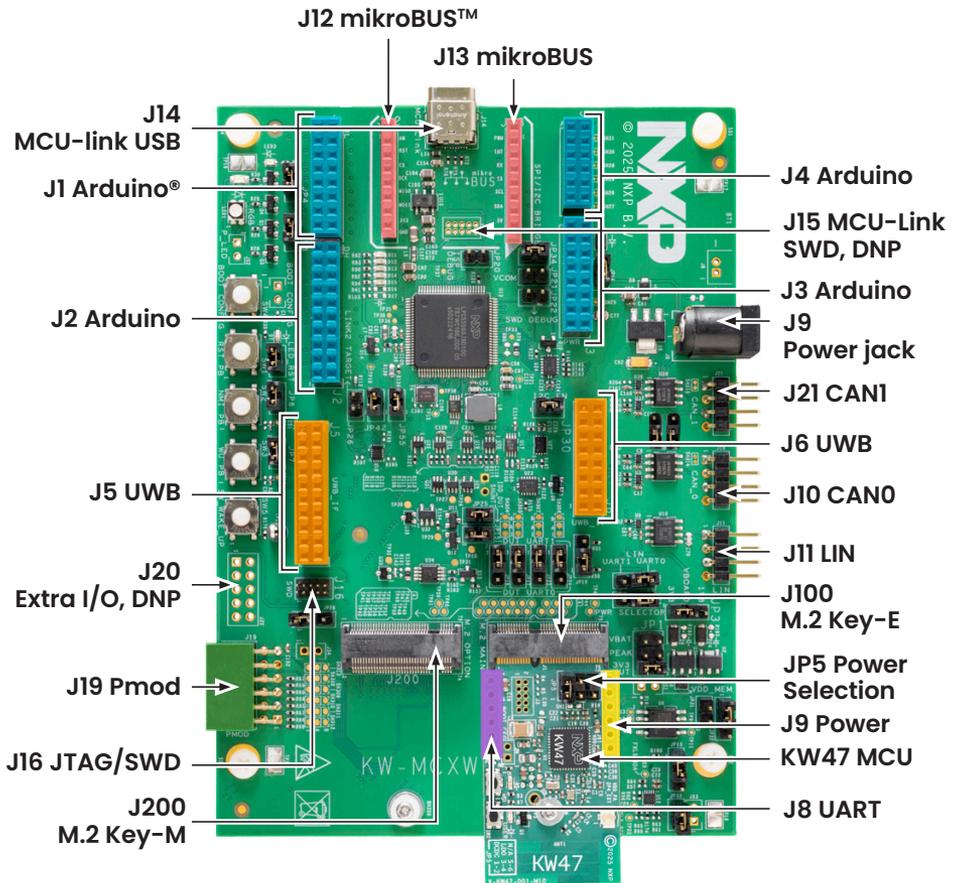3. For further guidance, please refer to the Getting Started web page at **nxp.com/KW47-EVK**.

Software and expansion boards

4. Use different headers to connect sensors, Arduino shields and more.

5. 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.

J12 mikroBUS™

J13 mikroBUS

J14 MCU-link USB

J1 Arduino®

J2 Arduino

J5 UWB

J20 Extra I/O, DNP

J19 Pmod

J16 JTAG/SWD

J200 M.2 Key-M

J4 Arduino

J15 MCU-Link SWD, DNP

J3 Arduino

J9 Power jack

J21 CAN1

J6 UWB

J10 CAN0

J11 LIN

J100 M.2 Key-E

JP5 Power Selection

J9 Power

KW47 MCU

J8 UART

Get to know the KW47-EVK development board

NXP's MCUXpresso Developer Experience provides you with cost-effective MCU development boards.
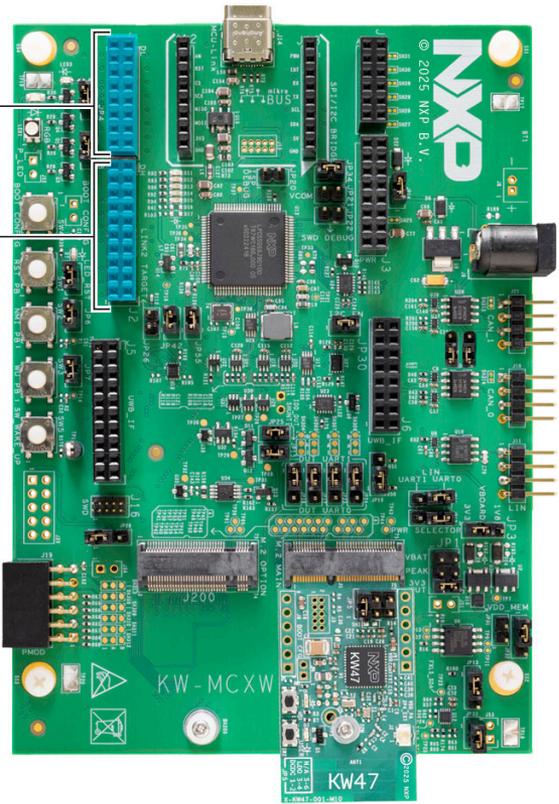
Easy I/O access supports expansion board use for fast prototyping and rapid evaluation.

Enjoy your KW47-EVK.

- 🟦 Arduino header
- 🟥 mikroBUS
- 🟧 UWB
- 🟩 Pmod header
- 🟪 UART
- 🟨 Power

J1 Arduino

J2 Arduino

J1/J2 Arduino headers

J1	ARD_D0	PTA16	1	2	PTA27	FLEXIO0_D5
	ARD_D1	PTA17	3	4	PTA26	FLEXIO0_D4
	ARD_D2	PTC4	5	6	PTA25	FLEXIO0_D3
	ARD_D3	PTC5	7	8	PTA24	FLEXIO0_D2
	ARD_D4	PTA19	9	10	PTA23	FLEXIO0_D1
	ARD_D5	PTC1	11	12	PTA22	FLEXIO0_D0
	ARD_D6	PTA20	13	14	PTC19	FLEXIO0_D19
	ARD_D7	PTA21	15	16	PTC18	FLEXIO0_D18
J2	ARD_D8	PTC0	19	20	PTC17	FLEXIO0_D17
	ARD_D9	PTA18	17	18	PTC16	FLEXIO0_D16
	ARD_D10	PTB0	15	16	PTC15	FLEXIO0_D31
	ARD_D11	PTB3	13	14	PTC14	FLEXIO0_D30
	ARD_D12	PTB1	11	12	PTC13	FLEXIO0_D29
	ARD_D13	PTB2	9	10	PTC12	FLEXIO0_D28
	GND	GND	7	8	PTC11	FLEXIO0_D27
	VREF	VREF	5	6	PTC10	FLEXIO0_D26
	ARD_D14	PTB4	3	4	PTC9	FLEXIO0_D25
	ARD_D15	PTB5	1	2	PTC8	FLEXIO0_D24

🟦 Arduino header
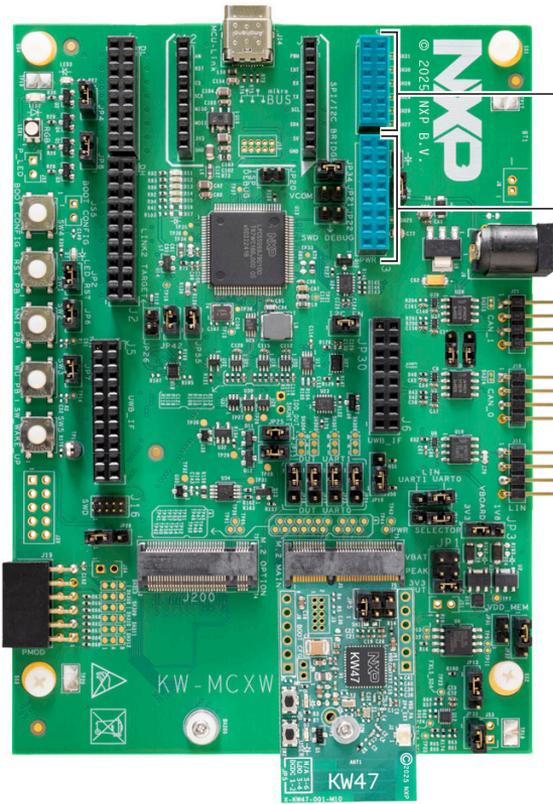
J4 Arduino

J3 Arduino

J4/J3 Arduino headers

J4					
RF_GPO_11	PTA2	2	1	PTC2	ARD_A0
RF_GPO_10	PTA3	4	3	PTC3	ARD_A1
FLEXIO0_D9	PTA5	6	5	PTA4	ARD_A2
FLEXIO0_D10	PTA6	8	7	PTD3	ARD_A3
FLEXIO0_D11	PTA7	10	9	PTA2	ARD_A4
FLEXIO0_D12	PTA8	12	11	PTD1	ARD_A5

J3					
FLEXIO0_D13	PTA9	16	15	VIN	VIN
FLEXIO0_D14	PTA10	14	13	GND	GND
FLEXIO0_D15	PTA11	12	11	GND	GND
CAN1_RX_KEY_M	PTB6	10	9	5V0	5V0
CAN1_TX_KEY_M	PTB7	8	7	3V3	VBOARD
FLEXIO0_D12	PTB8	6	5	RESET	RESET
FLEXIO0_D13	PTB9	4	3	3V3	VBOARD
TPM1_CH4	PTB10	2	1	NC	NC

■ Arduino header

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J12 mikroBUS™

J13 mikroBUS

J6 UWB

J5 UWB

J19 Pmod

J9 Power

J8 UART
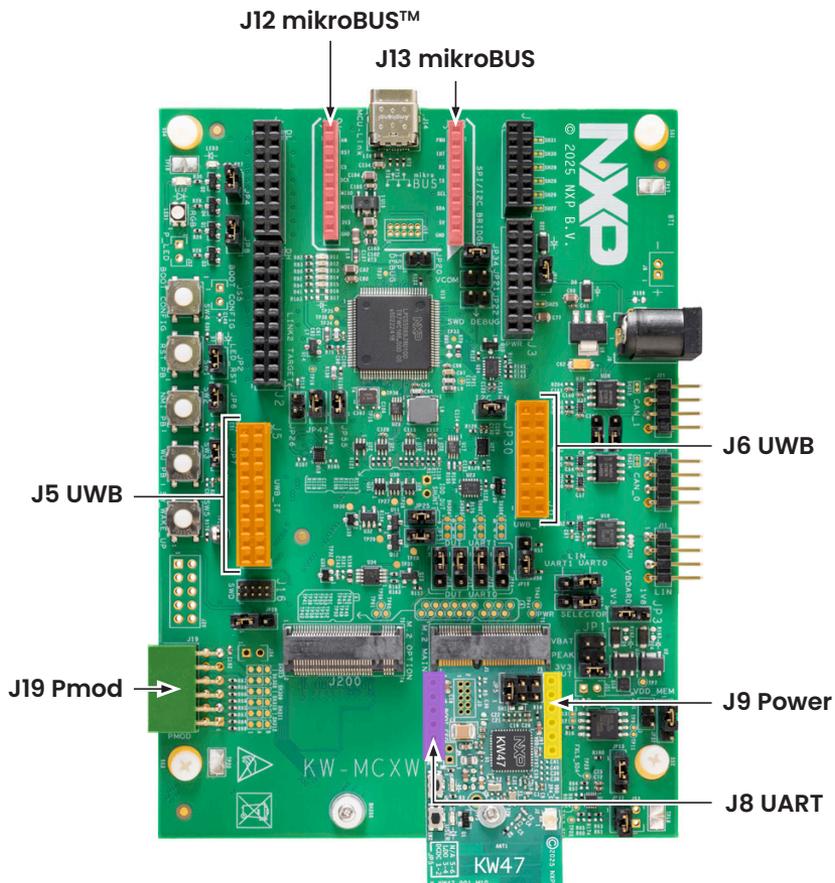
J12/J13 mikroBUS headers

mikroBUS		J12	J13		
AN	PTD2	1	1	PTC4	PWM
RST	RST	2	2	PTD1	INT
CS	PTB0	3	3	PTA16	RX
SCK	PTB2	4	4	PTA17	TX
MISO	PTB1	5	5	PTB5	SCL
MOSI	PTB3	6	6	PTB4	SDA
3V3	3V3	7	7	5V0	5V0
GND	GND	8	8	GND	GND

J19 Pmod

Pmod		J19			
VCC	3V3	12	11	3V3	VCC
GND	GND	10	9	GND	GND
SDA	PTB4	8	7	PTB2	SCK
SCL	PTB5	6	5	PTB1	DC
RESET	PTD1	4	3	PTB3	MOSI
INT	PTC0	2	1	PTC6	CS

J5 UWB header

UWB		J5			
NC	NC	2	1	NC	NC
NC	NC	4	3	NC	NC
NC	NC	6	5	PTC6	CS
NC	NC	8	7	PTB3	SOUT
NC	NC	10	9	PTB1	SIN
NC	NC	12	11	PTB2	SCK
NC	NC	14	13	GND	GND
NC	NC	16	15	NC	NC
NC	NC	18	17	NC	NC
NC	NC	20	19	NC	NC

J6 UWB header

UWB		J6			
NC	NC	15	16	NC	NC
NC	NC	13	14	NC	NC
NC	NC	11	12	NC	NC
P5V	5V0	9	10	PTC7	RESET
3V3	3V3	7	8	PTA18	INT
NC	NC	5	6	PTC0	RDY
NC	NC	3	4	NC	NC
NC	NC	1	2	NC	NC

J8 UART header

J8 UART		
I²C1_SCL	PTB5	6
UART1_TX	PTC3	5
UART1_RX	PTC2	4
3V3	P3V3_DUT	3
I²C_SDA	PTB4	2
GND	GND	1

J9 Power header

J9 Power		
GND	GND	6
P3V3_DUT	3V3	5
GND	GND	4
P1V8_LDO	1V8	3
GND	GND	2
P1V1_EXT	1V1	1

Get started

Download installation software and documentation under "Jump Start Your Design" at **nxp.com/KW47-EVK**

iOS App Store
IoT Toolbox

Google Play Store
IoT Toolbox

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/KW47-EVK** for more information.