TypeZF Mother Board Quick Start Guide

This Quick-Start Guide provides instructions for basic procedure to use TypeZF Mother Board.

1. Contents List

Check that the following components are included.

- Mother Board 1 pc
- J-Link Lite ARM with cable 1 pc
- TypeZF Daughter Board 1pc

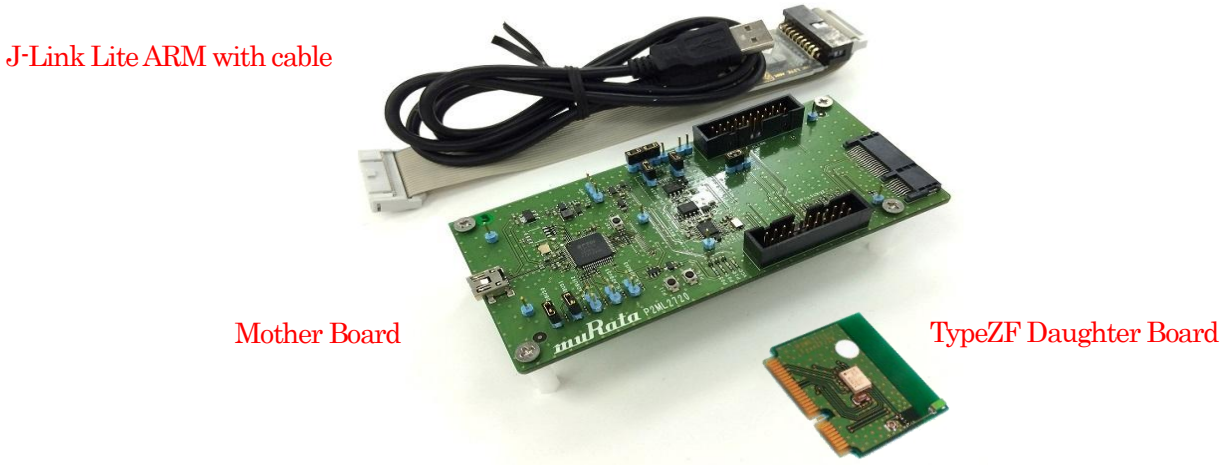


Figure 1 Contents overview

Need to prepare by yourself.

- Please prepare USB-mini B Cable to connect the Mother Board to PC.

2. Schematics and layout reference

Mother Board

- Schematics: SDKMother_v2.1_schema_131228.pdf
- Layout: SDKMother_v2.1_layout_131228.pdf

TypeZF Daughter Board

- Schematics: ZF-SDKDaughter_schema_131228.pdf
- Layout: ZF-SDKDaughter_layout_140106pdf

3. Hardware description

3.1. Hardware description

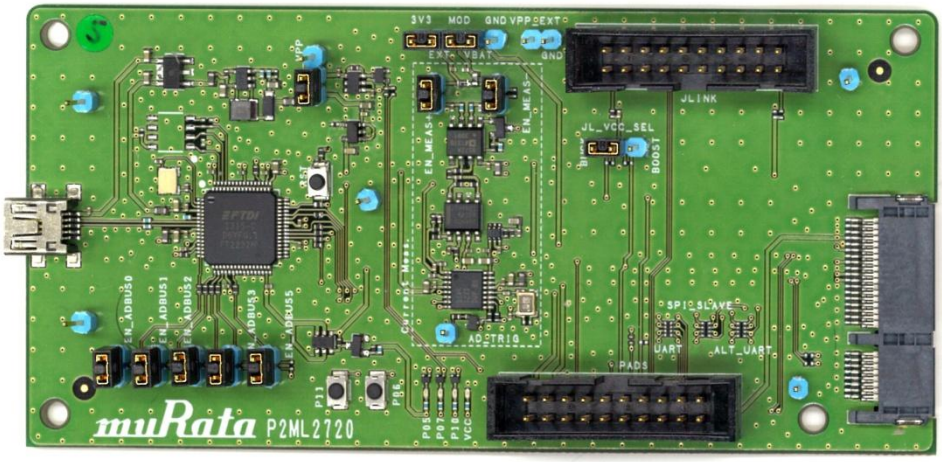


Figure 2 Overview of the Mother Board

Table 1 Jumpers of the Mother Board

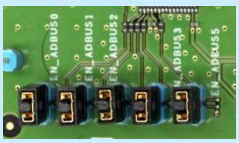
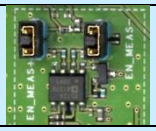
Name	Function	Description	Default Settings	Photo
3V3	Output	Regulated 3.0V output generated internally by Mother Board.	Tied	
EXT	Input	Input for the *Current Measurement* circuit block. (should be connected to 3V3 pin directly or external power supply)		
MOD	Output	Output from the *Current Measurement* circuit block.	Tied	
VBAT	Input	Power input for Daughter Board		
GND	Ground	Ground		
VPP_EXT	Input	Power input for External VPP (only used when VPP is supplied externally.)	Open	
GND	Ground	Ground		
EN_ADBUS0	Jumper	Should be tied to enable RXD/CK	Tied	
EN_ADBUS1	Jumper	Should be tied to enable TXD/DI	Tied	
EN_ADBUS2	Jumper	Should be tied to enable CTS/WAKE/DO	Tied	
EN_ADBUS3	Jumper	Should be tied to enable RTS/RDY/CS	Tied	
EN_ADBUS5	Jumper	Should be tied to enable DTR/INT	Tied	
SEL_VPP	Jumper	Select VPP source, internal or external (VPP_EXT)	Select “INT”	
AD_TRIG	Input	TBD. Can be left open if not used.	Open	
EN_MEAS+	Jumper	Should be tied to enable input of the *Current Measurement* circuit block.	Tied	
EN_MEAS-	Jumper	Should be tied to enable output of the *Current Measurement* circuit block.	Tied	
JL_VCC_SEL	Jumper	Select J-Link VCC source. Should be tied center pin and either of “BUCK” / ”BOOST” depends on the Daughter Board schematics.	Select “BUCK”	

Table 2 Connectors and Pin headers of the Mother board

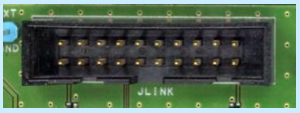
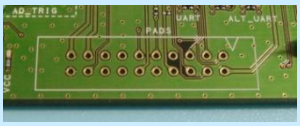
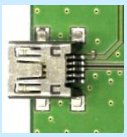
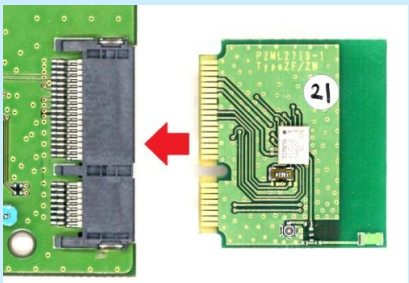
Name	Function	Description	Default Settings	Photo
JLINK	I/O	JLINK connector		
PADS	I/O	Debug pins		
USB	I/O	USB connector		
Daughter	I/O	Connect to the Daughter Board		

Table 3 Buttons and LEDs of the Mother board

Name	Function	Description	Photo
RST	Input	Connected to RST of the Daughter Board	
P11	Input	Connected to P1_1 of the Daughter Board	
P06	Input	Connected to P0_5 of the Daughter Board (*1)	
P05	LED	Connected to P0_5 of the Daughter Board	
P07	LED	Connected to P0_7 of the Daughter Board	
P10	LED	Connected to P1_0 of the Daughter Board	
VCC	LED	Connected to VCC_EXT of the Mother Board	

Note: (*1) will be fixed to be connected to P0_6 in the next release

3.2. Configurations of the Mother board

Table 4 Mother Board configuration

#	Description	Related Pins	To do
1	UART connection	EN_ADBUS0 EN_ADBUS1	Both pins are tied by jumpers.
2	Select internal/external Power Supply	3V3 EXT	When using internal 3.0V supply: - 3V3-EXT and MOD-VBAT are tied by jumpers. When using external power supply: - 3V3-EXT is open. - External power is supplied to EXT pin. - MOD-VBAT is still tied.
3	Current Measurement (Internally)	EN_MEAS+ EN_MEAS-	Both pins are tied by jumper.
4	OTP write	SEL_VPP VPP_EXT	When using internal VPP source: - SEL_VPP is set to "INT" When using external VPP source: - SEL_VPP is set to "EXT" - External 6.8V is supplied to VPP_EXT pin

4. Quick Start

This chapter shows how to quickly set up the environment of Mother Board.

1. Connect the Daughter Board to the Mother Board.
2. Connect J-Link adapter to the Mother Board. (Only if J-Link debugging is used)
3. Connect the Mother Board and PC by USB cable.

About Software and other things, please refer following document by Dialog.
"DA14580_SDK_v_2.0.4_ES4_User_Guide.pdf"