

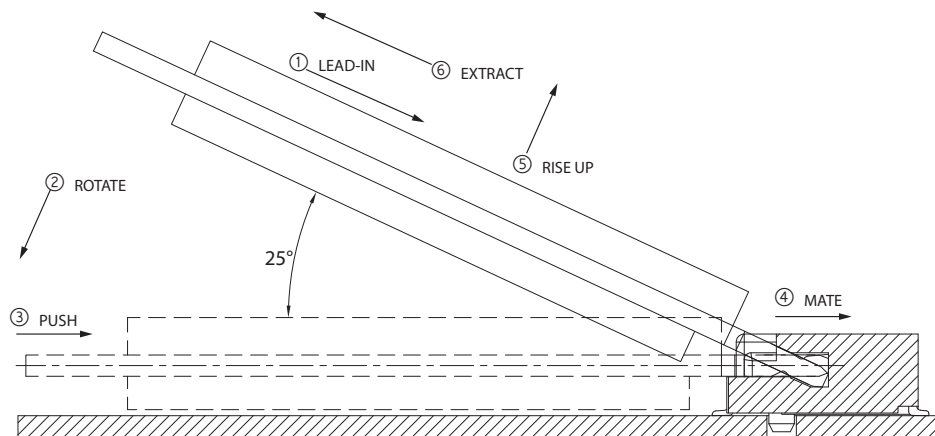
» M.2 Development Kit

Kit Contents

- (1) M.2 development kit printed circuit assembly
- (2) Broadband antennas
- (6) RF cables—MHF4 micro coaxial cables (3 for Main/AUX/GNSS, 3 spares)
- (1) MHF4L connector push/pull tool
- (1) USB cable (Type A to Type-B 3.0)
- (1) AC wall adapter power supply and international plug kit
- (1) micro-SIM to SIM adapter
- (2) Thermal pads (1 to install on heat shield, 1 spare). Pad type: 29.0 x 39.5mm TENNVAC GP5000
- (2) M2x3 Phillips head module screws (1 to install module, 1 spare)

Module Insertion

1. Remove backing from the thermal pad (both sides), and position the thermal pad on the heat sink.
2. Insert the module as shown. (Insert at a 25° angle, rotate down, and push fully into the connector.)



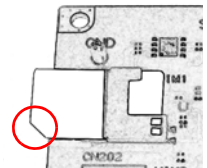
HOW TO MATE (INSTALL) AND EXTRACT

MATE: ① → ④
EXTRACT: ⑤ → ⑥

3. Secure the module with an M2 screw.

SIM Card Connection

1. Slide the SIM card into CN202 (top left corner of the PCB), noting the location of the notched corner. (If ESIM is enabled, DO NOT use a SIM in CN202.)
2. If supporting dual SIMs, insert a second SIM card into CN206.



Power Source Selection

Connector	Jump	Description	Connector(s) to use
CN101 (PWR IN SELECT)	Pins 1 & 2	Power provided by barrel jack (AC adapter)	CN103
	Pins 3 & 4	Power provided by banana jack (3.125–4.4VDC) Disable on-board LDO	CN114 (VCC) & CN116, or CN115 (VCC_MODULE) & CN116
	Pins 5 & 6	Power provided by USB cable	CN105

Switch Settings

Switch	Pin	Default	Operation	Description
SW100	1	Off	3.135V	Select voltage for EM module (When selected power source is barrel jack or USB cable)
	2	On	3.3V	
	3	Off	3.7V	
	4	Off	4.2V	
SW200	1	Off	SIM_DETECT_1	On=Ignore SIM 1; Off=Normal mode
	2	Off	SIM_DETECT_2	On=Ignore SIM 2; Off=Normal mode
	3	Off	ESIM_ENABLE	On=Enable ESIM; Off=Disable ESIM (Note: Leave switch in OFF position; ESIM is not supported.)
	4	Off	W_Disable1_N	On=Set to logic low; Off=Set to logic high
	5	Off	W_Disable2_N	On=Set to logic low; Off=Set to logic high
	6	Off	DPR	On=Set to logic low; Off=Set to logic high
	7	Off	SIM2_DISABLE	On=Disable SIM 2; Off=Enable SIM 2
	8	On	Power_ON	On=Enable module; Off=Disable module
	9	On	Enable 1.8V Supply	On=Enable 1.8V; Off=Disable 1.8V
	10	Off	PCIE_PERST_N	On=Set to logic high; Off=Set to logic low
SW201	Button switch			Reset Module

Test Points

CN207		CN208		CN222	
Pin	Description	Pin	Description	Pin	Description
1	PCIE_PERST_N	1	I2C_CLK	1	VCC
2	POWER_OFF_N	2	GND	2	GND
3	PCIE_CLKREQ_N	3	I2C_DATA	3	VCC
4	W_DISABLE_N	4	VCC	4	GND
5	PCIE_PEWAKE_N	5	PCM_CLK	5	I2C_CLK_CONN
6	W_DISABLE2_N	6	DPR	6	I2C_CLK
7	RESET_N	7	PCM_DIN	7	I2C_DAT_CONN
8	WAKE_ON_WWAN_N	8	COEX3	8	I2C_DAT
9	UIM2_RST	9	PCM_OUT	9	PCM_OUT_CONN
10	UIM1_CLK	10	WWAN_LED	10	PCM_OUT
11	UIM2_CLK	11	PCM_SYNC	11	PCM_CLK_CONN
12	UIM_RST	12	P68	12	PCM_CLK
13	UIM2_DATA	13	PCIE_PERST	13	PCM_DIN_CONN
14	UIM_DATA	14	ANT_CTL0	14	PCM_DIN
15	UIM2_VCC	15	PCIE_PEWAKE	15	PCM_SYNC_CONN
16	UIM_VCC	16	ANT_CTL1	16	PCM_SYNC
17	UIM_DET2	17	UART_TXD	17	NC
18	UIM_DET1	18	ANT_CTL2	18	NC
19	VCC	19	UART_RXD	19	NC
20	GND	20	ANT_CTL3	20	NC

Jumpers (Default Positions)

CN101 (Power Select)		CN221 (MIC Select)	
Pins 1&2	Open	Pins 1&2	Open
Pins 3&4	Open	Pins 5&6	
Pins 5&6	Jumper	Pins 3&4	Jumper
		Pins 7&8	
CN117 (Module Power)		CN222 (Audio Select)	
Pins 1&2	Jumper	Pins 1&2	Open
CN118 (UART Select)		Pins 3&4	Open
Pins 1&3	Open	Pins 5&6	Jumper
Pins 2&4		Pins 7&8	Jumper
Pins 3&5	Jumper	Pins 9&10	Jumper
Pins 4&6		Pins 11&12	Jumper
CN220 (Reset Pull-up)		Pins 13&14	Jumper
Pins 1&2	Open	Pins 15&16	Jumper
		Pins 17&18	Open
		Pins 19&20	Open