
Glassboard / WFM1MW Installation Manual

FCC ID of this product is as follows:

FCC ID: **2AWBKWFM1MW**

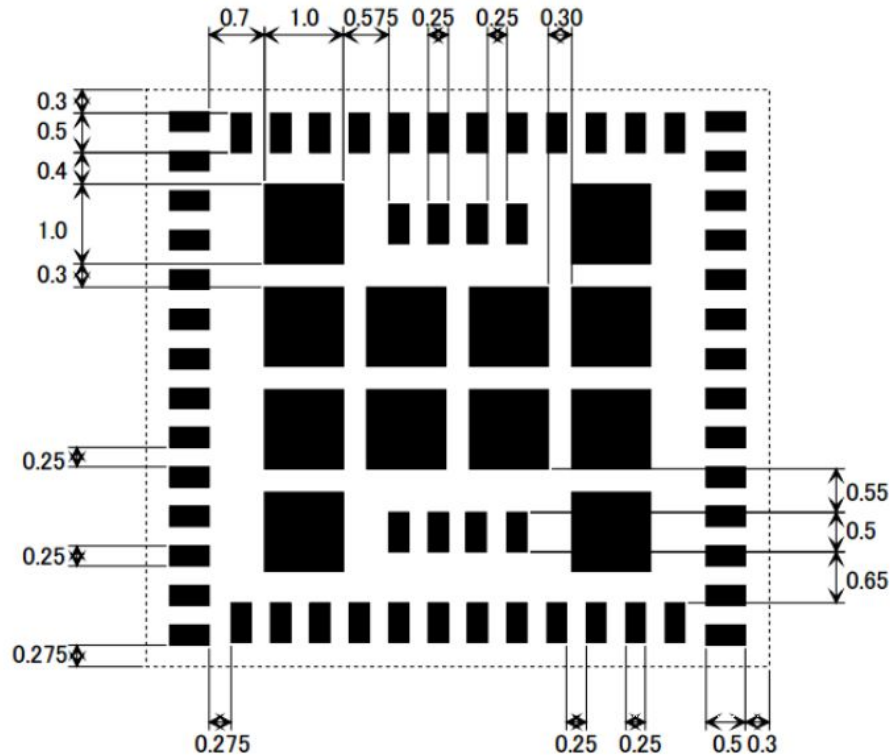
IC No. of this product is as follows:

IC: **26068-WFM1MW**

WFM1MW Installation Manual for FCC - Contents

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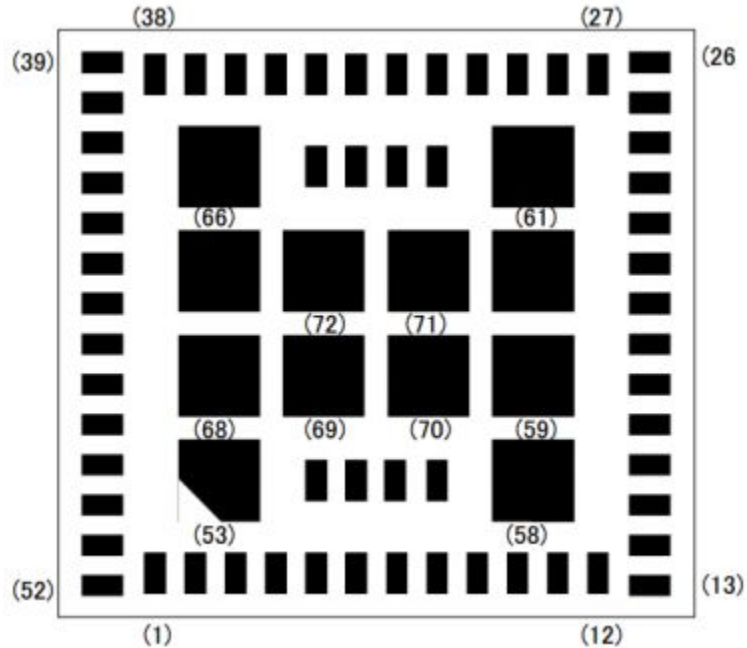
Land Pattern Top View



To avoid the short-circuit between the side shielding and a solder on the module land after the reflow, please locate the module land at 0.2mm away from module outline as above figure.

Unit: mm

Pin Layout



Pin No.	Description	Pin No.	Description	Pin No.	Description	Pin No.	Description
1	GPIO_6	19	GND	37	I2S_CLK	55	GND
2	GPIO_0	20	SDIO_CLK	38	I2S_WS	56	GND
3	GPIO_3	21	GND	39	GND	57	JTAG_SEL
4	GPIO_5	22	VBAT_LDO	40	BT_DEV_WAKE	58	GND
5	GPIO_1	23	VBAT_SR	41	BT_HOST_WAKE	59	GND
6	GPIO_4	24	SR_PVSS	42	I2S_DI	60	GND
7	GPIO_2	25	VIN_LDO	43	NC	61	GND
8	BT_REG_ON	26	SR_PVSS	44	GND	62	BT_GPIO_4
9	WL_REG_ON	27	SR_PVSS	45	BT_UART_RXD	63	BT_GPIO_3
10	GND	28	SR_VLX	46	BT_UART_TXD	64	BT_GPIO_2
11	VIO	29	GND	47	BT_UART_RTS_N	65	BT_GPIO_5
12	GND	30	LPO_IN	48	BT_UART_CTS_N	66	GND
13	GND	31	GPIO_7	49	GND	67	GND
14	SDIO_DATA0	32	BT_PCM_IN	50	ANT	68	GND
15	SDIO_CMD	33	BT_PCM_SYNC	51	GND	69	GND
16	SDIO_DATA1	34	BT_PCM_OUT	52	GND	70	GND
17	SDIO_DATA2	35	BT_PCM_CLK	53	GND	71	GND
18	SDIO_DATA3	36	I2S_DO	54	NC	72	GND

Supply Voltage

Parameter		Min.	Typ.	Max.	Unit
Operating Temperature *		-30	25	+85	deg. C
Supply Voltage	VBAT	3.2	3.3	4.8	V
	VIO# 1.8V/3.3V	1.62	-	3.63	V

*: Surface temperature of the shield case. Functionality is guaranteed but specifications require derating at extreme temperatures.

#: VIO don't influence the RF characteristic. Tolerance of 1.8V and 3.3V is $\pm 10\%$.

Theory of Operation-Software Security and Channel List

Frequency of operation			Scan	Ad-hoc mode
2.4GHz	11b/g/n (HT20)	2412-2462MHz	Active	Yes
	BT	2402-2480MHz	N/A	N/A
	BLE	2402-2480MHz	N/A	N/A
W52	11a/n/ac ((V)HT20)	5180-5240MHz	Active	Yes
	11n/ac ((V)HT40)	5190-5230MHz	Active	Yes
	11ac (VHT80)	5210MHz	Active	Yes
W53	11a/n/ac ((V)HT20)	5260-5320MHz	Passive	No
	11n/ac ((V)HT40)	5270-5310MHz	Passive	No
	11ac (VHT80)	5290MHz	Passive	No
W56	11a/n/ac ((V)HT20)	5500-5720MHz *	Passive	No
	11n/ac ((V)HT40)	5510-5710MHz *	Passive	No
	11ac (VHT80)	5530-5690MHz *	Passive	No
W58	11a/n/ac ((V)HT20)	5745-5825MHz	Active	Yes
	11n/ac ((V)HT40)	5755-5795MHz	Active	Yes
	11ac (VHT80)	5775MHz	Active	Yes

The frequency band 5600MHz-5640MHz (11a/n/ac 20M band), 5590MHz-5630MHz (11n/ac 40M band) and 5610MHz (11ac 80M band) is restricted in ISCED.

Notes: End users can not modify the software because F/W & driver are installed in device.

Antenna

- Please perform the antenna design that followed the specifications of the antenna.
- About the signal line between an antenna and a module
 - It is a 50-ohm line design.
 - Fine tuning of return loss etc. can be performed using a matching network.
 - However, it is required to check "Class1 change" and "Class2 change" which the authorities define then.
 - The concrete contents of a check are the following three points.
 - It is the same type as the antenna type of antenna specifications.
 - An antenna gain is lower than a gain given in antenna specifications.
 - The emission level is not getting worse.
- 50-ohm line(microstrip line length)

	Antenna
Antenna type	Dipole pattern antenna chip or external PCB
50-ohm feed line length	We test it at 0mm as a representative



Thank You

