

Type1VY-002 Installation Manual

FCC ID of this product is as follows.

FCC ID: VPYLB1VY002

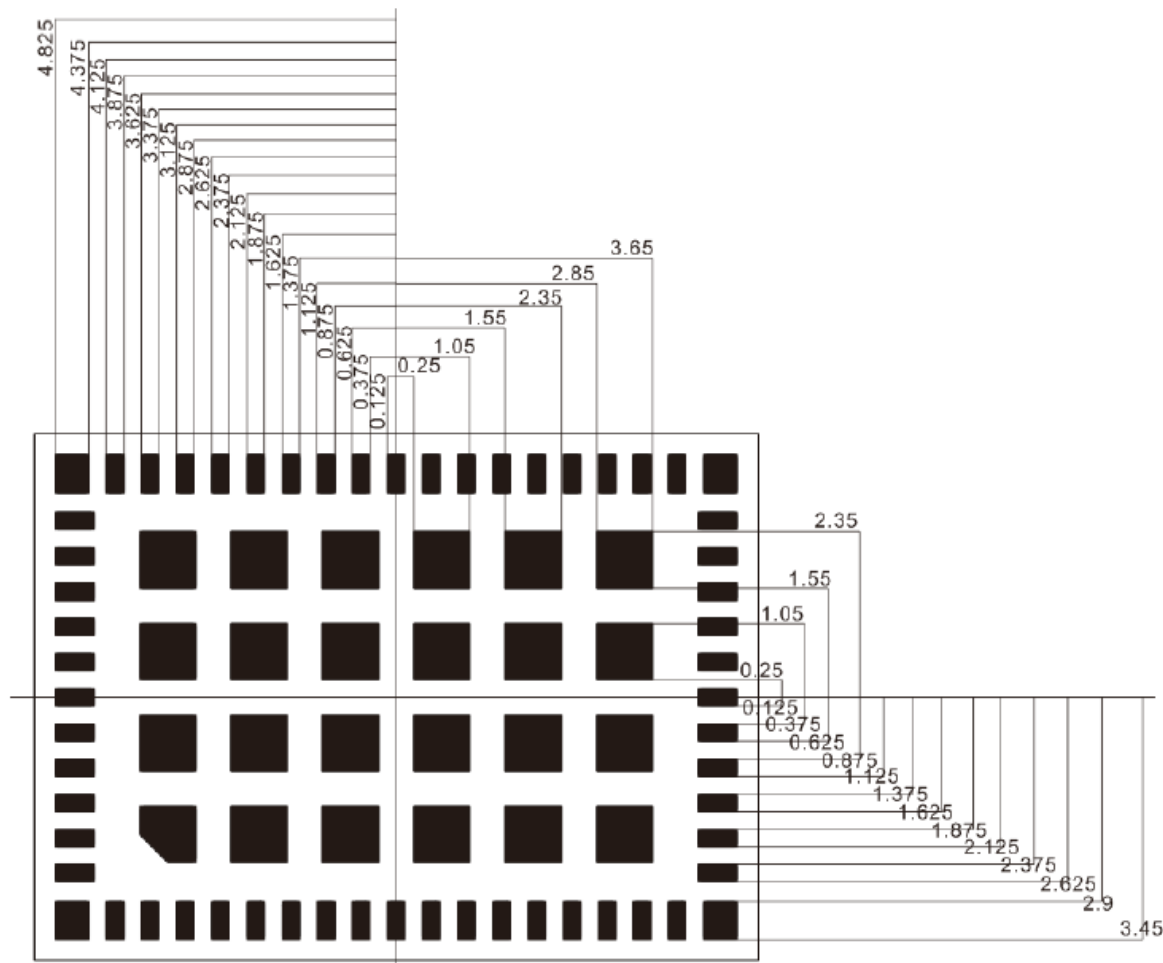
IC No. of this product is as follows.

IC: 772C-LB1VY002

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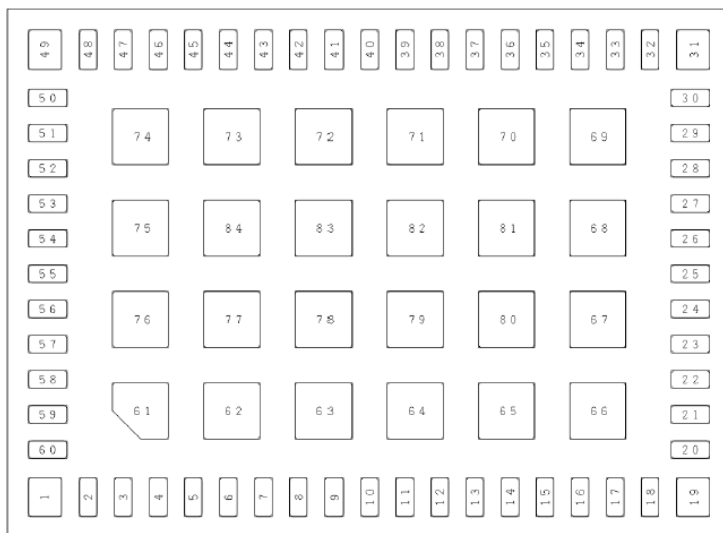
1.Land Pattern TOP View (Recommended)



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 0.3mm away from module outline as above figure.

2.PIN Layout

TOP VIEW



No	PIN NAME	No	PIN NAME	No	PIN NAME	No	PIN NAME
1	GND_SWREG	23	GPIO1	45	PCIE_TX_N	67	EXPGND
2	SWREG_IN	24	VDD_FEM	46	GND	68	EXPGND
3	SWREG_IN	25	VDD_FEM	47	PCIE_REFCLK_P	69	EXPGND
4	GPIO10	26	GND	48	PCIE_REFCLK_N	70	EXPGND
5	BT_RF_KILL	27	ANT1	49	GND	71	EXPGND
6	VDDIO_GPIO1	28	GND	50	PCIE_RX_N	72	EXPGND
7	VDDIO_GPIO0	29	LTE_SYNC	51	PCIE_RX_P	73	EXPGND
8	VDD_3P3	30	LTE_PRI	52	GND	74	GPIO7
9	VDD_3P3	31	GND	53	GPIO3	75	GPIO8
10	PCIE_CLKREQ_L	32	LTE_ACTIVE	54	GPIO4	76	GPIO9
11	PCIE_RST_L	33	BT_UART_TXD	55	GPIO5	77	EXPGND
12	PCIE_WAKE_L	34	BT_UART_CTS	56	GPIO6	78	EXPGND
13	GPS_COEX	35	BT_UART_RXD	57	SWREG_FB	79	EXPGND
14	QoW	36	BT_UART_RTS	58	SWREG_FB	80	EXPGND
15	BT_WAKE_HOST	37	PCM_SYNC	59	SWREG_OUT	81	EXPGND
16	BT_WAKE_SLAVE	38	PCM_IN	60	SWREG_OUT	82	EXPGND
17	BT_EN	39	PCM_CLK	61	GPIO0	83	EXPGND
18	WL_EN	40	PCM_OUT	62	EXPGND	84	EXPGND
19	GND	41	VDDIO_AO	63	EXPGND		
20	ANT0	42	CLK_REQ_OUT	64	EXPGND		
21	GND	43	GND	65	EXPGND		
22	GPIO2	44	PCIE_TX_P	66	WLAN_RF_KILL_L		

3. Supply Voltage

Type1VY-002_PIN_Name	Min.	Typ.	Max.	unit
VDD3P3	3.135	3.3	3.465	V
SWREG_IN	3.135	3.3	3.465	V
VDD_FEM	3.135	3.3	3.465	V
VDDIO_GPIO0/1 *	3.14 1.71	3.3 1.8	3.46 1.89	V
VDDIO_AO *	3.14 1.71	3.3 1.8	3.46 1.89	V

*VDDIO_GPIO and VDDIO_AO don't influence the RF characteristic.

6. 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.

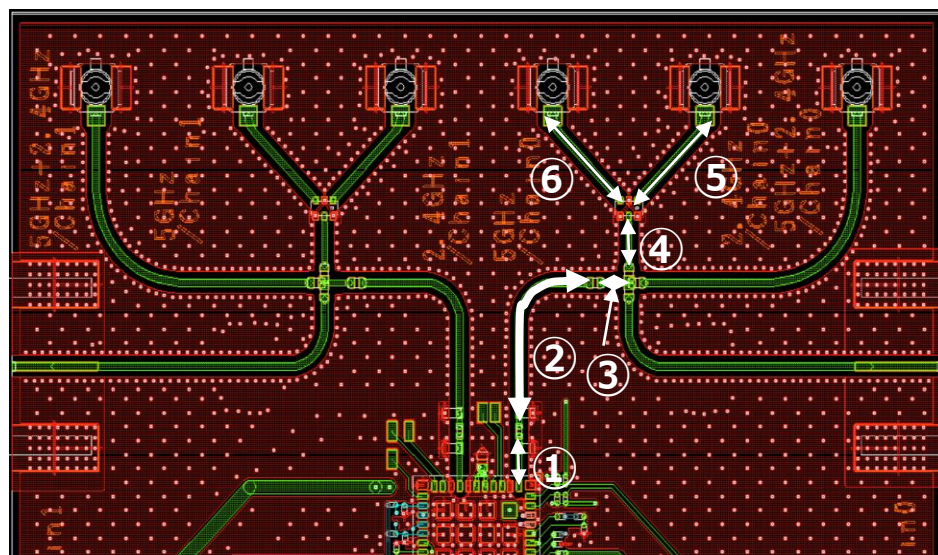
- 1) It is the same type as the antenna type of antenna specifications.
- 2) An antenna gain is lower than a gain given in antenna specifications.
- 3) The emission level is not getting worse.

6. Antenna

■ Antenna

	Type	BAND	Vender	Part number	Peak Gain
Chain0	Mono	5GHz	SONY	chain0_mono_5GHz	+0.96 dBi
		2.4GHz	SONY	chain0_mono_2.4GHz	+0.82 dBi

■ 50-ohm line(microstrip line length)



No.	Length
①	2.250
②	10.903
③	1.513
④	2.388
⑤	6.066
⑥	6.066

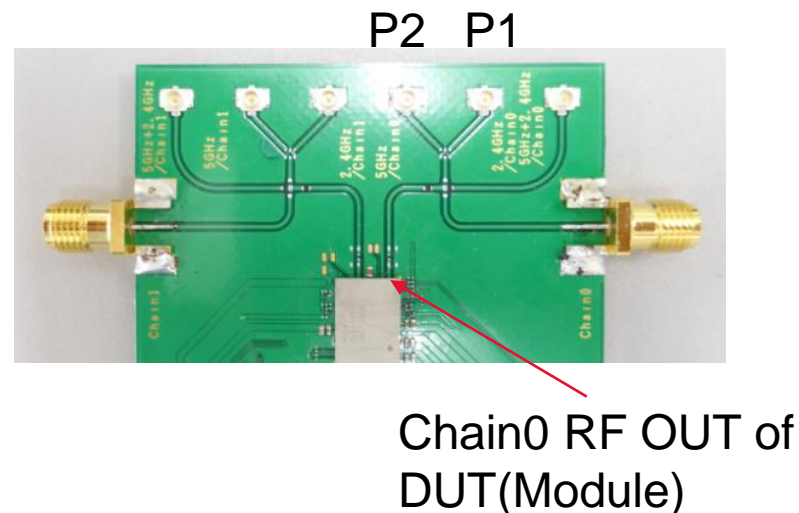
[mm]

Representative design /
Loss value for this module certification.

6.Antenna

From the RF OUT of the module Line loss information to each Port of board[dB]

	2.4GHz	5GHz
Between Chain0 RF OUT and P1	0.75	---
Between Chain0 RF OUT and P2	---	1.62



Representative design / Loss value for this module certification.

Antennas must be installed in the end product.