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Digital Module Division WLAN R&D G.		
WRITTEN	CHECKED	APPROVED
		
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DATA SHEET

(Preliminary)

CUSTOMER	
PRODUCT NAME	Embedded Wireless LAN Module
MODEL NAME	SWL-2460C
Part Number	

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0 Document

0.1 Declaration

This specification is intended for Samsung 54Mbps embedded wireless LAN module.

0.2 Revision History

10/05/2004	Created
11/13/2004	Current Consumption spec was changed

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1 Specification for WLAN CF embedded module

1.1 Identification

1.Samsung Product name	54Mbps WLAN CF embedded module
2.Samsung Model name	SWL-2460C
3.Samsung Part number	

1.2 Hardware Specifications

1.2.1 Card standard

1. Interface Standard	Compact Flash Specification electrically compliant
2. Form Factor	Customized Size
3. Operating voltage	VCC : 3.0V ~ 3.6V VCCD : 1.8V ~ 3.3V

1.2.2 RF Characteristics

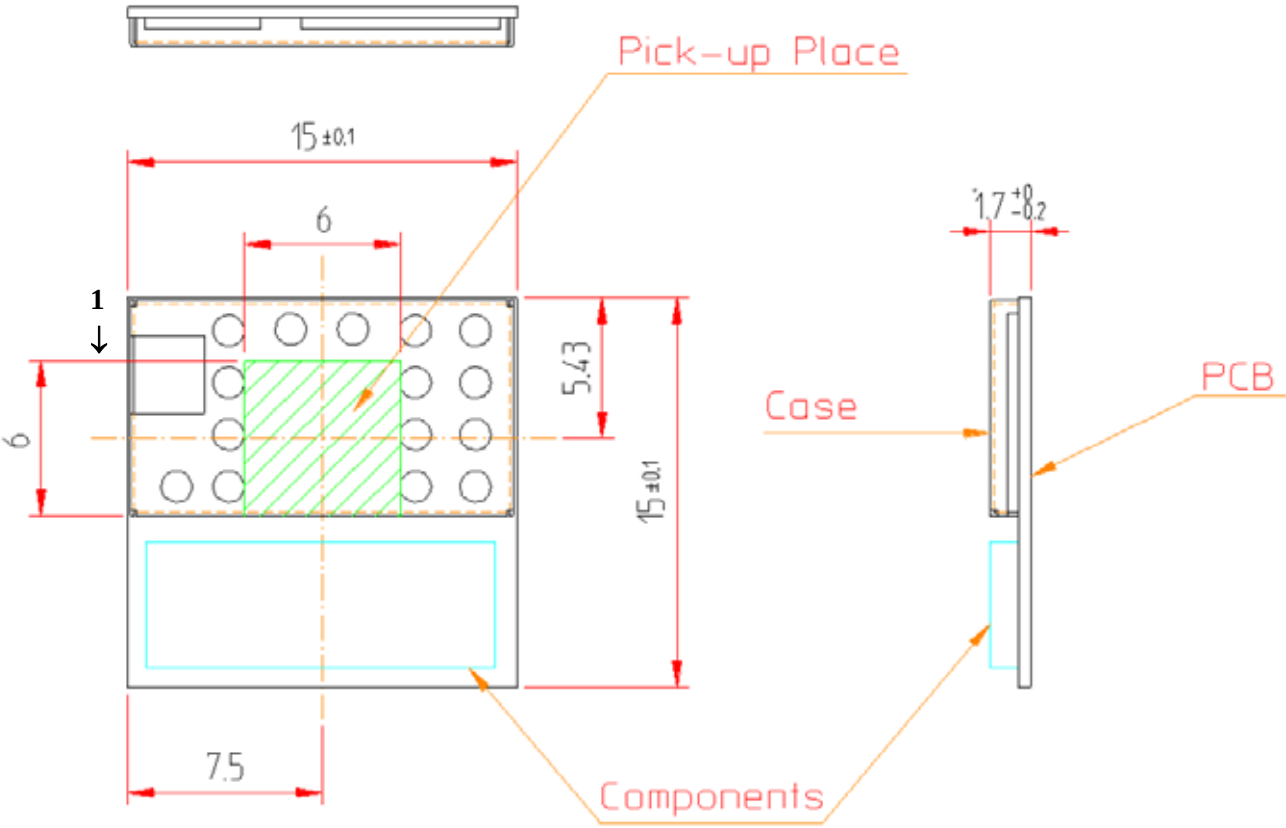
RF Characteristics		Min	Typ	Max
1. Specification Compliance		IEEE 802.11b/g standard protocol (CSMA/CA)		
2. Antenna		External single antenna support		
3. Frequency Range		2.412Ghz~2.484Ghz		
4. TX output power	11b	14dBm	16dBm	18dBm
	11g		11dBm	
5. Current consumption (At max Throughput)	11b		- Transmit : 350mA - Receive : 265mA - Standby : 1mA	- Transmit : 370mA - Receive : 275mA - Standby : 1mA
	11g		- Transmit : 470mA - Receive : 275mA - Standby : 1mA	- Transmit : 485mA - Receive : 285mA - Standby : 1mA
6. Maximum input level		-5dBm		
7. RX sensitivity	11b		- 85dBm	- 84dBm
	11g		-70dBm	

Note : Sensitivity is based upon 1024 Bytes frame length, 11 Mbps(54Mbps) data rate, 8% (10%) PER

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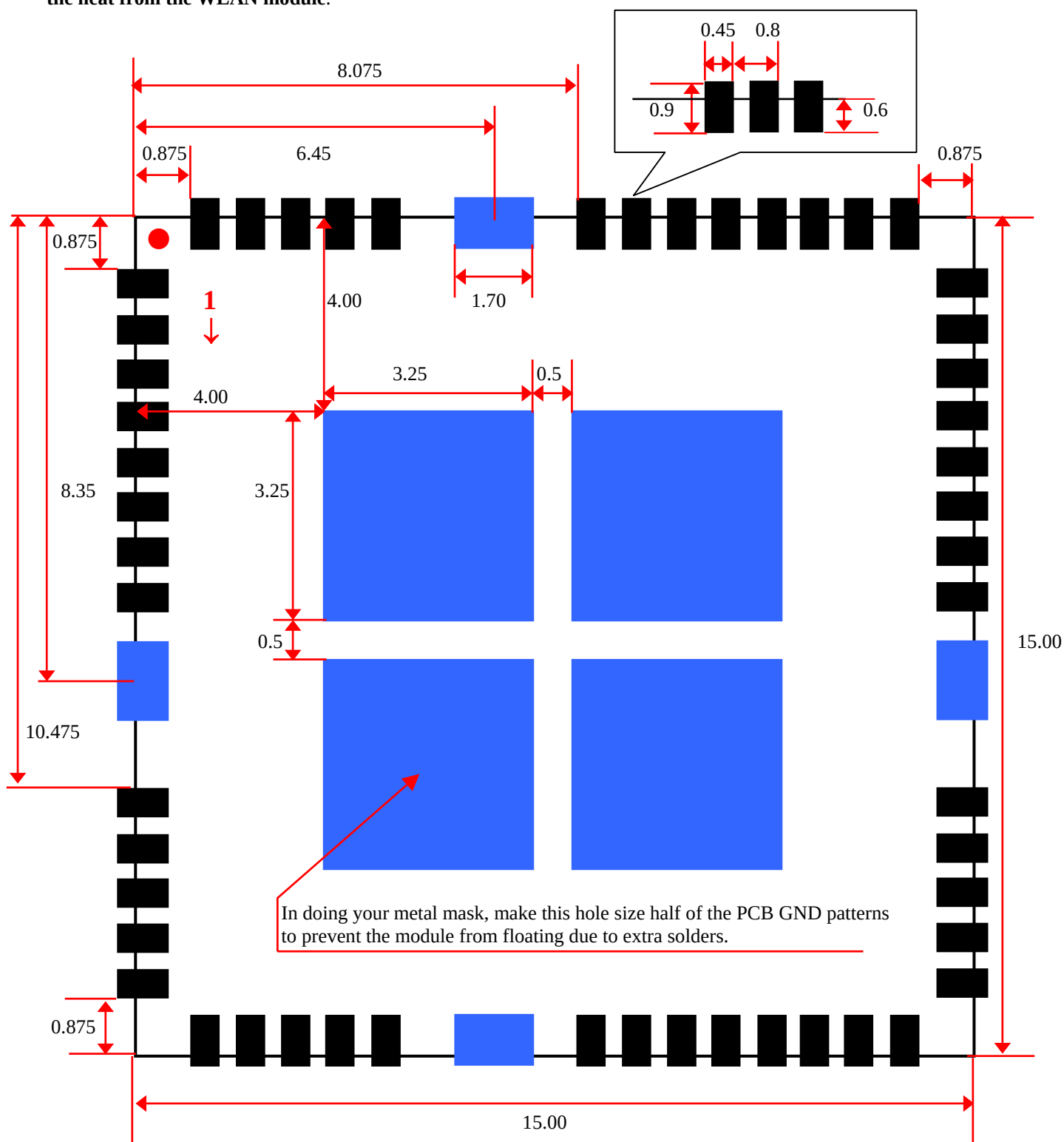
1.2.3 Mechanical specification

1. Dimension	15mm × 15mm × 1.7mm
2. Weight	1g
3. Pin outs	52pin + 8 GND pattern SMT Type
4. Antenna Connector	SMT pads (Pin No.51)



※ This is not a final version. Please check the latest version in doing your design.

- The pattern is symmetrical and some numbers are omitted.
- Refer to the appendix 1 for the pin numbering. Blue patterns are ground patterns and should be a part of **main analogue ground** plain. Blue patterns are excluded from pin numbering. **Place thermal through holes on blue patterns to diffuse the heat from the WLAN module.**



1.2.5 Regulation

1. Europe	Not yet submitted
2. USA,Canada	Not yet submitted
3. Others	Not yet submitted

1.2.6 Environmental requirements

1. Operating temperature	-10°C ~ +70°C
2. Storage temperature	-20°C ~ +80°C
3. Operating humidity	0% ~ 90%(RH)

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2 Software specifications

2.1 OS Support & Driver

2.1.1 Available drivers

- Windows XP(Test purpose Only)
- Windows CE.NET 4.2, 5.0
- Pocket PC 2003(SE) and higher
- Linux

2.2 Security

- WEP
- AES
- 802.1x
- WPA (TKIP,AES)
- CCX –TBD
- WPA2 -TBD

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3 RF test results

* Not yet available.

Appendix 1. Host Interface Pin Map.

No.	Compact Flash		No.	Compact Flash	
1	GND		27	D11	
2	D03		28	D12	
3	D04		29	D13	
4	D05		30	D14	
5	D06		31	D15	
6	D07		32	CE2#	
7	CE1#		33	WL_ACTIVE	
8	NC		34	IORD#	
9	OE#		35	IOWR#	
10	A09		36	WE#	
11	A08		37	IREQ#	
12	A07		38	VCC	
13	VCCD		39	PD#	
14	A06		40	NC	
15	A05		41	RESET	
16	A04		42	WAIT#	
17	A03		43	INPACK#	
18	A02		44	REG#	
19	A01		45	LED_OUT#	
20	A00		46	NC	
21	D00		47	D08	
22	D01		48	D09	
23	D02		49	D10	
24	IOIS16#		50	GND	
25	BT_PRIORITY		51	RF_INOUT	
26	BT_STATE		52	NC	

* '#' means that the signal is low active.

* VCCD power voltage range is from 1.8V to 3.3V. Its current consumption has no relation with its voltage. It means that the lower the input voltage is the smaller power it consumes. It may be tied to the VCC, if you want to use the same voltage for both power inputs.

* PD# signal in CF interface is not matched with CF standard pin outs. This signal replaced the CSEL# signal in CF specification, and is used to set the full power down state. When this signal is connected to 0V, the module will be set to the full power down state. If you don't use this function, just connect this pin to the WLAN module main power.

* LED_OUT# signal in CF interface is not matched with CF standard pin outs. This signal replaced the SPKR signal in CF specification, and is used to control the external LED. Remind this signal is low active.

* Pin No.25,26,33 are for the Bluetooth co-existence interface. If you connect these to the Bluetooth correctly, WLAN and Bluetooth will not conflict each other.

* NC pins are used for test procedure or reserved for future use. This signals replaced the unused signals in CF specification. Just leave them unconnected. **Connect CD1, CD2, VS1 from CF host to GND and leave VS2, SPKR, CSEL, STSCHG, A10 from CF host unconnected.**

Appendix 2. Block Diagram