

EMC Technologies Pty Ltd - Report No. M030725_Certification_Mace_Broadcom

APPENDIX C: EUT SPECIFICATION (BLOCK DIAGRAM)



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WLL3010-D50 OVERVIEW

1. Specifications

Host Interfaces	Mini PCI
Form factor	Type III B
Chipset	Broadcom BCM 4306 & BCM 2050
Operation Voltage	3.3VDC
Network Standards	IEEE 802.11b (Wi-Fi™) standard and IEEE 802.11g draft standard (54G)
Modulation Techniques	DBPSK,DQPSK,CCK,16QAM,64QAM
Modulation Technology	OFDM,DSSS
Data Rate	802.11b: 11, 5.5, 2, 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps
Network Architectures	Infrastructure and Ad Hoc
Operating Frequencies	2.4-2.497 GHz
Operating Channels	802.11b: 14 for Japan, 802.11g: 13 for Japan
RF Output Power	15 dBm maximum output power (14 dBm nominal $\pm$ 1 dBm over operating temperature)
Receiver sensitivity (PER <10%)	-80dBm @ 6Mbps
Antenna Type	Hardware diversity support: transmit and receive on Main and Auxiliary antenna connectors.
Range	802.11b: 11 Mbps up to 180m LOS, 60m indoors; 1 Mbps up to 570m LOS, 125m indoors 802.11g: 54 Mbps up to 50m LOS, 20m indoors; 18 Mbps up to 150m LOS, 75m indoors
Power Consumption	Tx peak: 550 ma @ 3.3VDC; Rx peak: 350 ma @ 3.3VDC; Idle: 225mA @ 3.3VDC
Security	Hardware 64/128-bit WEP engine; WEP weak-key avoidance, TKIP, hardware AES engine supporting CCM and OCB, 802.1x, SSN
Delay Tolerance	802.11b: Multipath R.M.S Delay Spread @ 1% FER: 11 Mbps > 250 nsec; 5.5 Mbps > 300 nsec
Client Utility	Automatic location profile, site monitor, current link status, and diagnostics
Software Support	Microsoft WHQL certified for Windows XP, 2000, and ME. Linux and VxWorks embedded drivers.
LED Indicators	WLAN Activity Monitor, WLAN Radio Status Indicators
Switch	Manual radio on/off disables transmit and receive to comply with aviation in-flight restrictions
Temperatures	Operates from 0 to 70 °C Storage from -40 to 90 °C
Humidity (non-condensing)	5 to 95%
Certifications	Wi-Fi; FCC part 15C/15.247; ETS 300 328-2; UL; IEC60950; EN 301 489-1,17; prEN50371 ;CE Mark; TELEC



2. Pin Assignment

1	NC	43	RESERVED	85	AD[08]
2	NC	44	AD[26]	86	C/BE[0]#
3	NC	45	C/BE[3]#	87	AD[07]
4	NC	46	AD[24]	88	3.3V
5	NC	47	AD[23]	89	+3.3V
6	NC	48	IDSEL	90	AD[06]
7	NC	49	GND	91	AD[05]
8	NC	50	GND	92	AD[04]
9	NC	51	AD[21]	93	NC
10	NC	52	AD[22]	94	AD[02]
11	LED_RESERVED	53	AD[19]	95	AD[03]
12	LED_RESERVED	54	AD[20]	96	AD[00]
13	ENABLE/DISABLE	55	GND	97	NC
14	NC	56	PAR	98	ENABLE/DISABLE
15	NC	57	AD[17]	99	AD[01]
16	NC	58	AD[18]	100	NC
17	NC	59	C/BE[2]#	101	GND
18	NC	60	AD[16]	102	GND
19	3.3V	61	IRDY#	103	NC
20	INTA#	62	GND	104	M66EN
21	NC	63	+3.3V	105	NC
22	NC	64	FRAME#	106	NC
23	GND	65	CLKRUN#	107	NC
24	3.3VAUX	66	TRDY#	108	NC
25	CLK	67	SERR#	109	NC
26	RST#	68	STOP#	110	NC
27	GND	69	GND	111	NC
28	3.3V	70	3.3V	112	NC
29	REQ#	71	PERR#	113	NC
30	GNT#	72	DEVSEL#	114	GND
31	3.3V	73	C/BE[1]#	115	NC
32	GND	74	GND	116	NC
33	AD[31]	75	AD[14]	117	NC
34	PME#	76	AD[15]	118	NC
35	AD[29]	77	GND	119	NC
36	RESERVED	78	AD[13]	120	NC
37	GND	79	AD[12]	121	NC
38	AD[30]	80	AD[11]	122	MPCIACT#
39	AD[27]	81	AD[10]	123	NC
40	3.3V	82	GND	124	3.3VAUX
41	AD[25]	83	GND		
42	AD[28]	84	AD[09]		

3. block Diagram

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Broadcom Wireless 54g Block Diagram

