

Market Specifications for Product DRCM-81

WLAN 802.11g eModule



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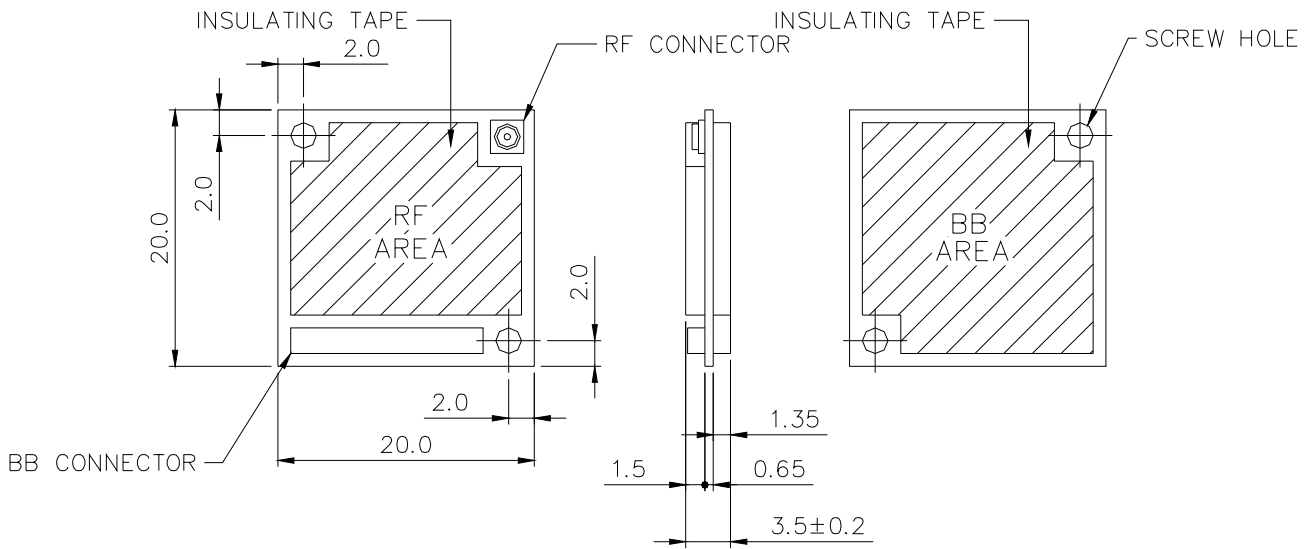
Feature List

1. Embedded Module for consumer electronic devices
2. Chipset Solution : Marvell 88W8385(MAC/BB) + 88W8015(RF+PA)
3. IEEE 802.11g standard support and Backward compatible with 802.11b
4. Standard CF Interface (connector is proprietary type)
5. Support Ad Hoc and Infrastructure modes
6. Support for 802.11e Quality of Service (QoS)
7. Support Roaming
8. Support 64/128/152-bit WEP Key
9. Support WPA (WiFi Protected Access)
10. Support 802.1x Authentication support
11. Support AES-CCM & TKIP Encryption
12. Support WinCE 4.2 driver or above
13. Support Linux driver

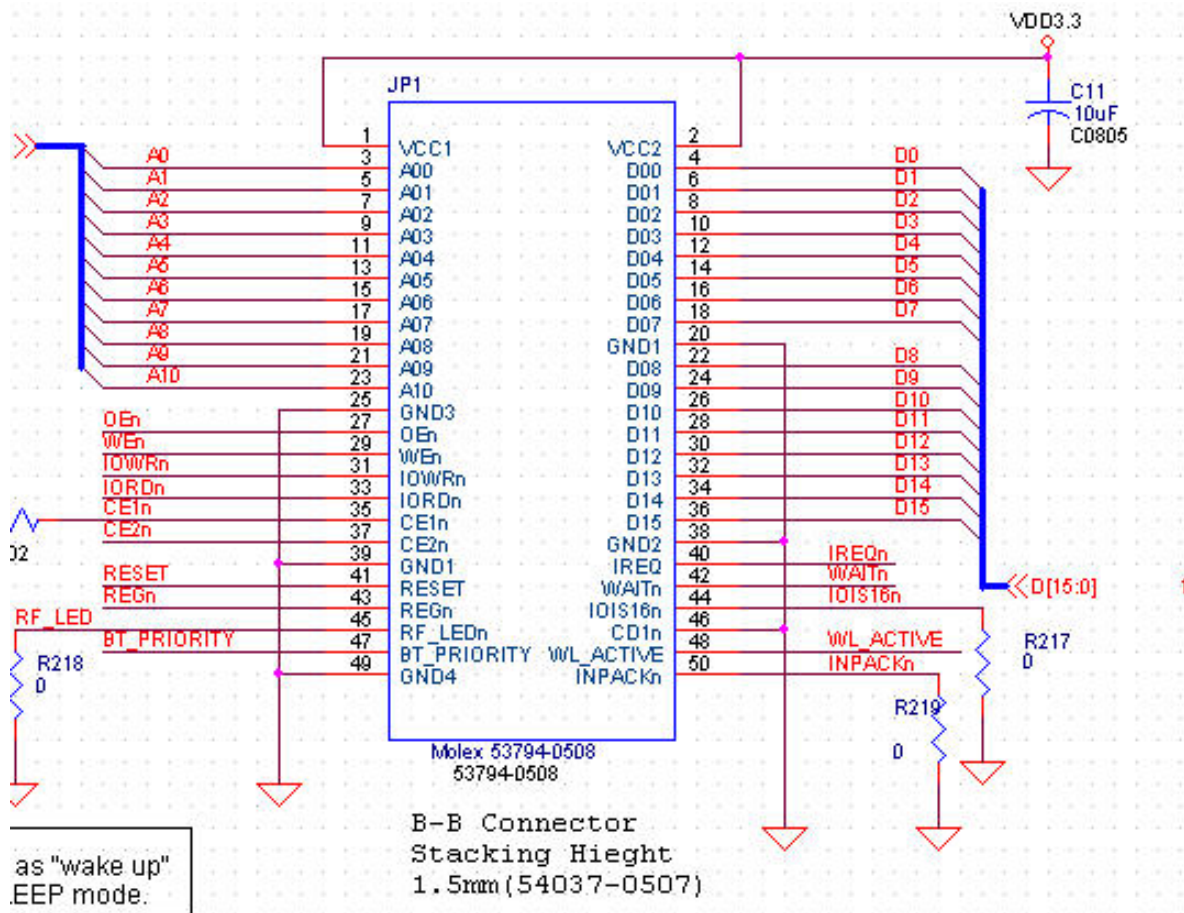
DRCM-81, Market Product Specification, WLAN 802.11g® eModule

Item	Key specifications
Main Chipset	➤ Marvell 88W8385 (MAC/BB) + 88W8015 (RF + PA)
Frequency range	➤ USA: 2.400 – 2.483GHz, ➤ Europe: 2.400 – 2.483GHz, ➤ Japan: 2.400 – 2.483GHz,
Modulation technique	➤ 802.11b/g DSSS (DBPSK, DQPSK, CCK) OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
Host interface	➤ CF Interface ➤ Proprietary Connector Type on WLAN module
Dimension	➤ Two side components SMT : 20(L) x 20(W) x 3.5(H) in mm
Driver Supporting	➤ WinCE v4.2 DLL I/F (wince 5.0 supported on Q2/2005) ➤ Linux Source Code & Porting Guide
Channels support	➤ 802.11b/g US/Canada: 11 (1 ~ 11) Major European country: 13 (1 ~ 13) France: 4 (10 ~ 13) Japan: 11b: 14 (1~13 or 14 th), 11g: 13 (1 ~ 13) China: 13 (1 ~ 13)
Operation voltage	➤ 3.3V +/- 5%
FTP Power consumption	➤ Tx mode : 280mA (typical) ➤ Rx mode : 250mA (typical)
Output Power	➤ 11b mode : 15dBm ➤ 11g mode : 13 dBm
Rx Sensitivity	➤ 11b mode @1Mbps : -91dBm, @11Mbps : -86dBm ➤ 11g mode @6Mbps : -90dBm, @54Mbps : -73dBm
Operation distance	➤ 802.11b Outdoor: 200m@11Mbps, 250m@1Mbps Indoor: 30m@11Mbps, 50m@1Mbps ➤ 802.11g Outdoor: 80m@54Mbps, 200m@6Mbps Indoor: 15m@54Mbps, 35m@6Mbps
Security	➤ 64-bit, 128-bit, 152-bit WEP Encryption ➤ 802.1x Authentication ➤ AES-CCM & TKIP Encryption ➤ WPA
Operation mode	➤ Infrastructure & Ad-hoc mode
Transfer data rate	➤ 802.11b/g 11, 5.5, 2, 1 Mbps, auto-fallback, up to 54 Mbps
Operation temperature	➤ 0° ~ 55° C
Storage temperature	➤ -20° ~ 70° C
Wi-Fi® Alliance	➤ WECA Compliant
EMC certificate	➤ FCC part 15 (USA) ➤ IC RSS210 (Canada) ➤ Telec (Japan) ➤ ETSI, EN301893, EN60950 (Europe)

PCBA Drawing Reference



WLAN Module Side Connector Pin Definition



WLAN Module Side Connector Type

FEATURES AND SPECIFICATIONS

Features and Benefits

- Stacking height: 1.5mm
- Size 28 to 120 contacts
- Latching feature provides secure mating
- High temperature housing
- Durable slide on beam contact interface
- Anti-flux design

Reference Information

Packaging: Embossed tape
 Note With: 54037 and 54137
 Designed in: Millimeters

Electrical

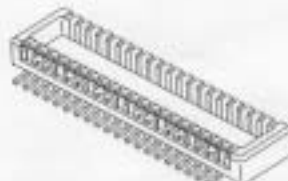
Voltage: 50V
 Current: 0.5A
 Contact Resistance: 40mΩ max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 1000 MΩ min.

Physical


Housing: Black glass-filled LCP, UL 94V-0
 Contact: Brass
 Plating: Gold over nickel
 Temperature: -25 to +85°C

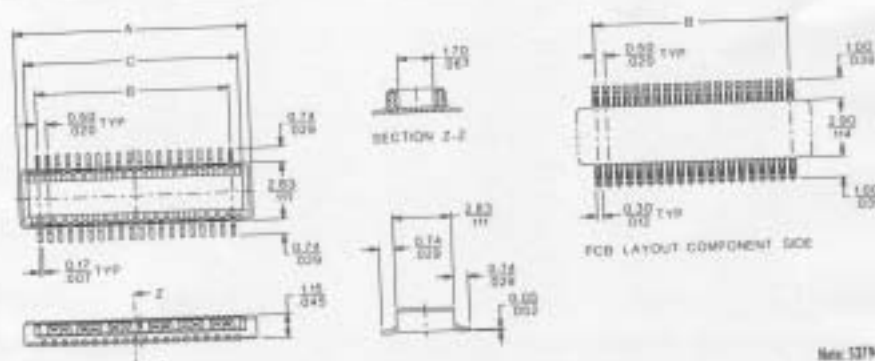
molex 0.50mm (.020") Pitch
**Board-to-Board
 Plug**

53794/53929
**SMT, Dual Row
 Vertical Stacking**



Making Dimensions
 53794 + 54137
 14.1 (0.55) x 14.0 (0.55)





Note: 53794 alone

ORDERING INFORMATION AND DIMENSIONS

Order No.	Order No.		Dimension			Contact Type Width
	Without solder tab	With solder tab	A	B	C	
36	53794-0008		9.41 (0.37)	4.58 (0.18)	5.55 (0.22)	11.00 (0.43)
38	53794-0008		9.71 (0.38)	7.38 (0.29)	8.95 (0.35)	31.00 (1.22)
40	53794-0404		12.45 (0.49)	9.50 (0.37)	10.75 (0.42)	31.00 (1.22)
42	53794-0528		13.91 (0.55)	11.00 (0.43)	13.01 (0.51)	34.00 (1.34)
44	53794-0648		16.43 (0.65)	14.50 (0.57)	15.52 (0.61)	38.24 (1.50)
46	53794-0808	53794-0808	17.41 (0.69)	17.50 (0.69)	20.52 (0.81)	46.00 (1.81)
48	53794-0908	53794-0908	20.45 (0.81)	20.50 (0.81)	25.51 (1.00)	49.00 (1.93)

Note: Contact leads only for embossed tape specifications.
 Note: Use only one connector per design/stacked in order to insure proper mating alignment.

Plating on WLAN module

990 1-5

Main-PCB Side Connector Type

FEATURES AND SPECIFICATIONS

Features and Benefits

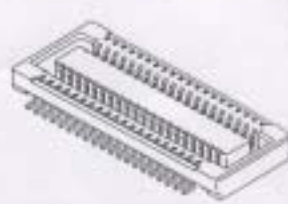
- Stacking height: 1.5mm
- Sizes 20 to 100 circuits
- Locking feature provides secure mating
- High temperature housing
- Durable blade on lower contact interface
- Anti-flux design

Reference Information

Packaging: Embossed tape
 Metric Wtts: 52194 and 52192
 Designed In: Millimeters

molex 0.50mm (.020") Pitch
**Board-to-Board
 Receptacle**

54037/54137
**SMT, Dual Row
 Vertical Stacking**



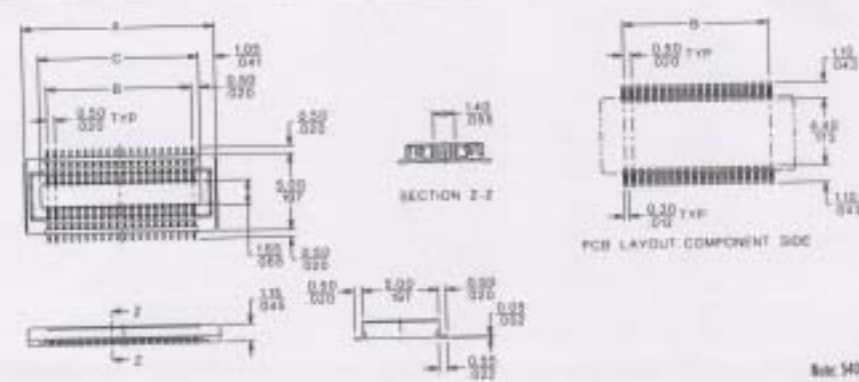
Electrical

Voltage: 50V
 Current: 0.5A
 Contact Resistance: 48mΩ max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 1000 MΩ min.

Physical

Housing: Black glass-filled PPS, UL 94V-0
 Contact: Phosphor Bronze
 Plating: Gold over nickel
 Temperature: -25 to +85°C

Micro Connectors



Note: 54037 dim

ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension			Center Tape Width
	Without Solder Tab	With Solder Tab	A	B	C	
20	54037-020T	54137-020T	1.60 (1.290)	4.30 (3.771)	1.30 (1.270)	14.00 (1.400)
25	54037-025T	54137-025T	1.875 (1.297)	4.90 (3.875)	1.30 (1.270)	15.00 (1.500)
40	54037-040T	54137-040T	2.60 (1.894)	5.30 (4.270)	1.30 (1.270)	16.00 (1.600)
50	54037-050T	54137-050T	2.80 (1.887)	5.50 (4.370)	1.30 (1.270)	17.00 (1.700)
60	54037-060T	54137-060T	3.10 (1.899)	5.70 (4.547)	1.30 (1.270)	18.00 (1.800)
100	54037-100T	54137-100T	3.70 (2.080)	6.50 (5.140)	1.30 (1.270)	21.00 (2.100)

Note: Contact leads refer to standard tape specifications
 Note: Use only one connector per depth/board in order to insure proper mating alignment

Plating on the daughter board of the PCA