



APPROVAL SHEET

802.11b/g Wireless LAN USB Module

**LR802UKG
(RoHS)**

Ver. 2A1
Date: 07/16/2007

Customer: FIRICH ENTERPRISE CO., LTD.

Part Number: _____

Prepared by: Qcom Technology Inc.

Approved by: _____

Contents:

Device Overall Description

802.11 Wireless LAN

- Features
- Block Diagram
- Modulation Methods
- Channel Assignment
- Security (WEP Key)
- RF Characteristics
- Software & OS support
- Operating Conditions
- Antenna Connector
- Host Interface Pin Definition And Mechanic Drawing

Device Overall Description

The LR802UKG is designed to provide wireless LAN function on a small form factor with USB interface. The wireless LAN function is based on Ralink **RT2571W** MAC/BBP, **RT2528** transceiver and high gain power amplifier, which implements the full IEEE802.11b/g standard data rates up to 54Mbps.

802.11 Wireless LAN

Features

- Ralink RT2571W MAC/BBP with RT2528 Transceiver
- Support IEEE 802.11b compliant DBPSK, DQPSK, CCK modulation
- IEEE802.11b Standard Data Rates: 1, 2, 5.5 and 11Mbps.
- Support IEEE 802.11g compliant DSSS, CCK, OFDM modulation
- IEEE802.11g Standard Data Rates: 6, 9, 12, 18, 24, 36, 48, 54Mbps
- Embedded WEP (64 or 128 bit) engine for enciphering/deciphering of wireless data
- Support TKIP and AES
- Host Interface supports USB 2.0

Specification Compliance

- IEEE 802.11b/g
- USB spec. 2.0

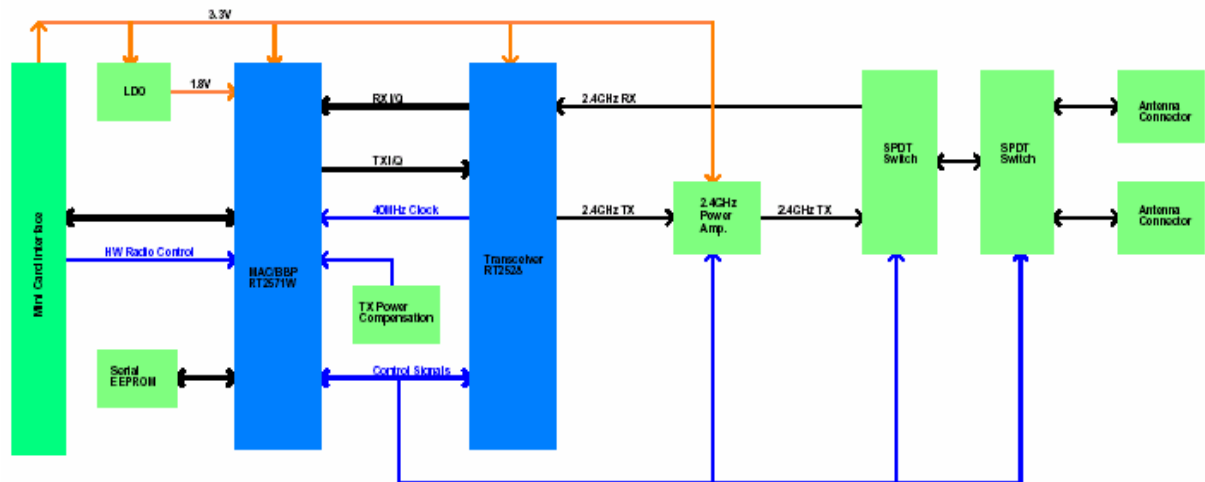
Form factor

- Weight 0.25 oz (7g)
- 60mm Length X 25mm Width X 5.8mm Height

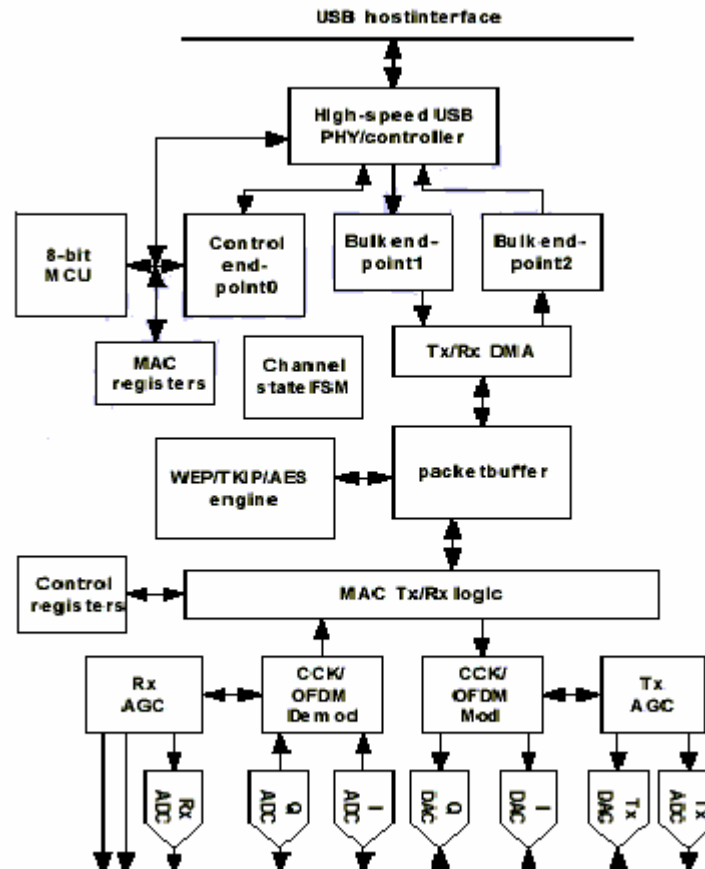
802.11 Wireless LAN Block Diagram

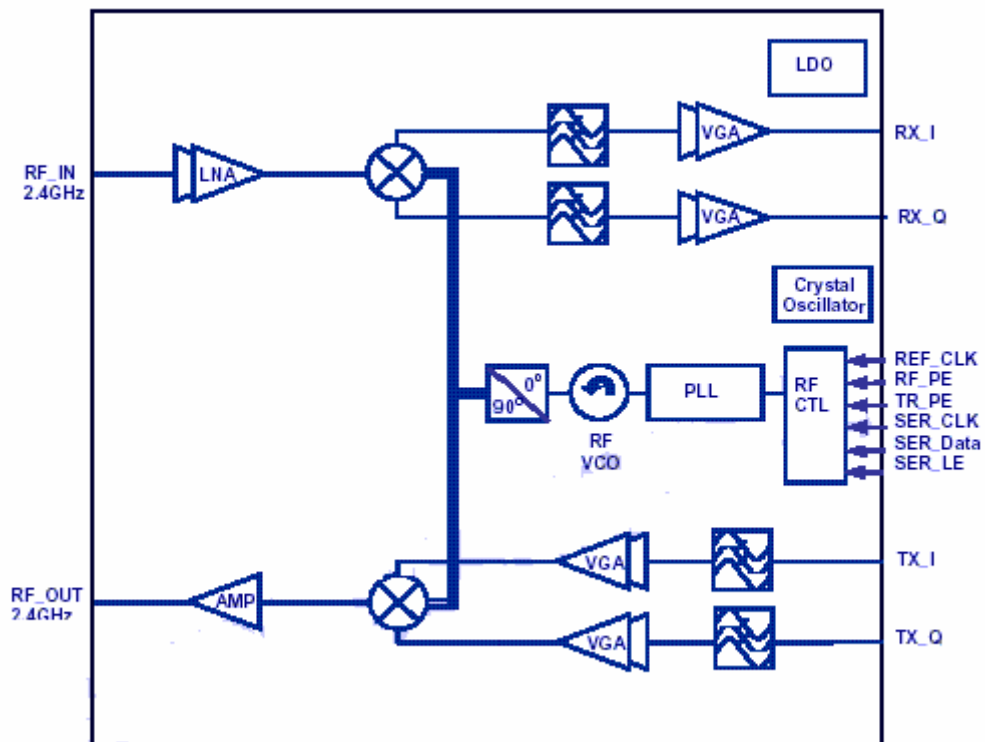
RT2571W: Ralink, Wireless LAN Integrated Medium Access Controller with Baseband Processor

RT2528 : Ralink, 2.4GHz Single chip Transceiver



Ralink RT2571W Chip diagram



Ralink RT2528 Chip diagram**Modulation Methods**

DATA BIT RATE	MODULATION and Encoding Rate
802.11b CCK MODES	
1Mbps	BPSK
2Mbps	QPSK
5.5Mbps	QPSK
11Mbps	QPSK
802.11g OFDM MODES	
6Mbps	BPSK
9Mbps	BPSK
12Mbps	QPSK
18Mbps	QPSK
24Mbps	16QAM
36Mbps	16QAM
48Mbps	64QAM
54Mbps	64QAM

Channel Assignment

Channel	Frequency	FCC (US)	IC (CA)	ETSI (EU)	Japan (JP)
1	2412MHz	X	X	X	X
2	2417MHz	X	X	X	X
3	2422MHz	X	X	X	X
4	2427MHz	X	X	X	X
5	2432MHz	X	X	X	X
6	2437MHz	X	X	X	X
7	2442MHz	X	X	X	X
8	2447MHz	X	X	X	X
9	2452MHz	X	X	X	X
10	2457MHz	X	X	X	X
11	2462MHz	X	X	X	X
12	2467MHz			X	X
13	2472MHz			X	X
14	2484MHz				X

KEY:

US = United States, CA = Canada, EU = European Countries (except France and Spain)

JP = Japan

Many countries and region are currently revising the channel assignment.

X = Supported

Security

- Complete Security Features - WEP 64/128, WPA, WPA2, 802.1x, and 802.11i
- Cisco CCS V1.0, 2.0 and V3.0 Compliant

RF Characteristics

RF Characteristics	Minimum	Typical	Maximum	Units
PC Interface		USB 2.0		
Plug and Play Compatible		Yes		
Internal Antenna Impedance		50		ohms
Operating Temperature Range	0		+65	C
Storage Temperature Range	-10		+85	C
Supply Voltage(option)	4.7(3.0)	5(3.3)	5.3(3.6)	V
RX Supply Current (CCK)		226		mA
RX Supply Current (OFDM)		228		mA
TX Supply Current (CCK)		236		mA
TX Supply Current (OFDM)		238		mA
Power Save Mode Current		124		mA
H/W Disable Radio operation		82		mA
RX Sensitivity, 11 Mbps(CCK)		-89		dBm
RX Sensitivity, 54Mbps(OFDM)		-70		dBm
TX Output Power(CCK)		17		dBm
TX Output Power(OFDM)		14		dBm
TX Carrier Suppression				dB
TX Spectral Mask (CCK)		PASS		
TX Spectral Mask (OFDM)		PASS		
Preamble Length		Long/Short		

*** Option Voltage Range* 3.3V ± 0.3V**



Note: Sensitivity based upon 1 kbyte packet length, 8% PER(CCK), single antenna driven, diversity disabled.

Note: Sensitivity based upon 1 kbyte packet length, 10% PER(OFDM), single antenna driven, diversity disabled.

Note: All measurements at the end of 6" of cable through Murata Connector with local diversity option.

Software & OS support

Operating System	Driver
Windows 98SE	Available
Windows Me	Available
Windows 2000 / XP	Available
Windows Vista	Available
Linux 2.6.x	Available
MAC OS 10.3 & 10.4	Available
Wince 5.0 & 6.0	Available

Operating Conditions

Voltage Range*	5V \pm 5%
Operating Temperature Range	0°C - 65°C
Storage Temperature Range	-20°C - 85°C
Relative Humidity during Operating	95% (Non-Condensing)
Relative Humidity during Storage	95% (Non-Condensing)

*** Option Voltage Range* 3.3V \pm 0.3V**

Antenna Connector

Connector	Vendor	Part#
Antenna	Hirose	CL331-0471-0-10 (U.FL-R-SMT), or compliance

Host Interface Pin Definition And Mechanical Drawing

- Host Interface Connector : 6 pin SMT Male USB Connector
- Connector Product Number (Male): 87213-0600 (Connector Vender Aces Electronic CO., LTD.)
- Pin Definition :

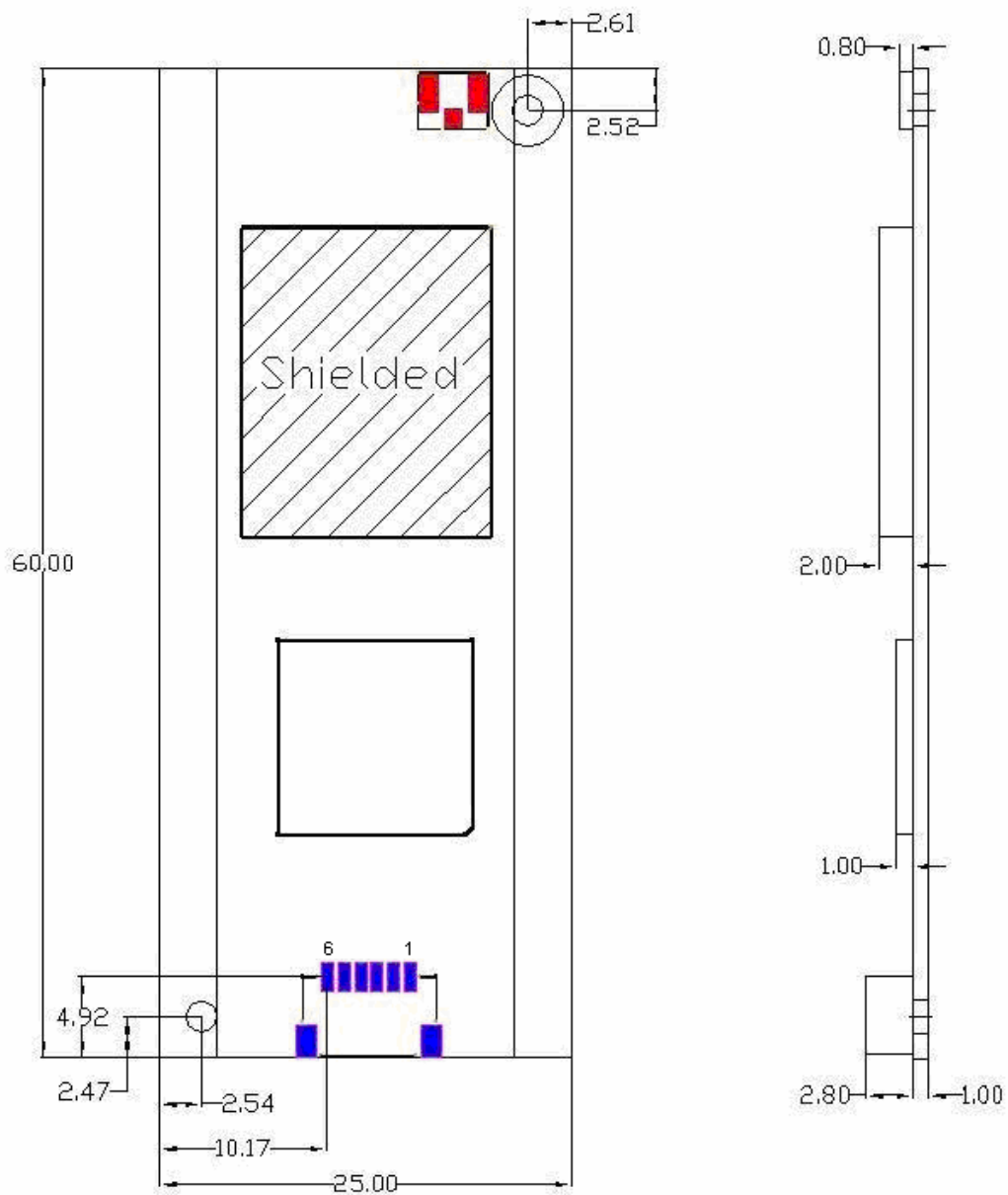
1	VCC 5.0	2	DATA-
3	DATA+	4	GND
5	LINK	6	FAA

Note:

Pin 5 is Low active

Pin 6 is Low voltage to disable RF function.

Mechanical Drawing



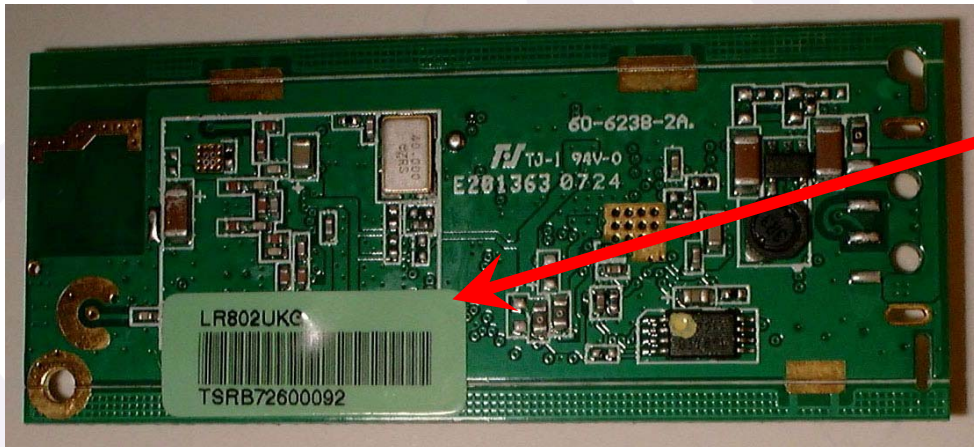
LED Status:

LED status	WLAN card activity
LED on	Associated, and authenticated but not transmitting or receiving
LED Slow Blink	Scanning for AP
LED Intermittent Blink	Activity proportional to transmitting/receiving speed
LED off	All other status

LR802UKG PTT Label Artwork



20x16mm



Green Label
For RoHS

Qcom
LR802UKG/Q802UKG2 Rev.2A1

USB2.0/1.1 802.11B/G Wireless Lan Card
RT2571 WLAN MAC/BBP
RT2528 Transceiver
PA-SST12LP14A
P/N : 60-6238-2A1

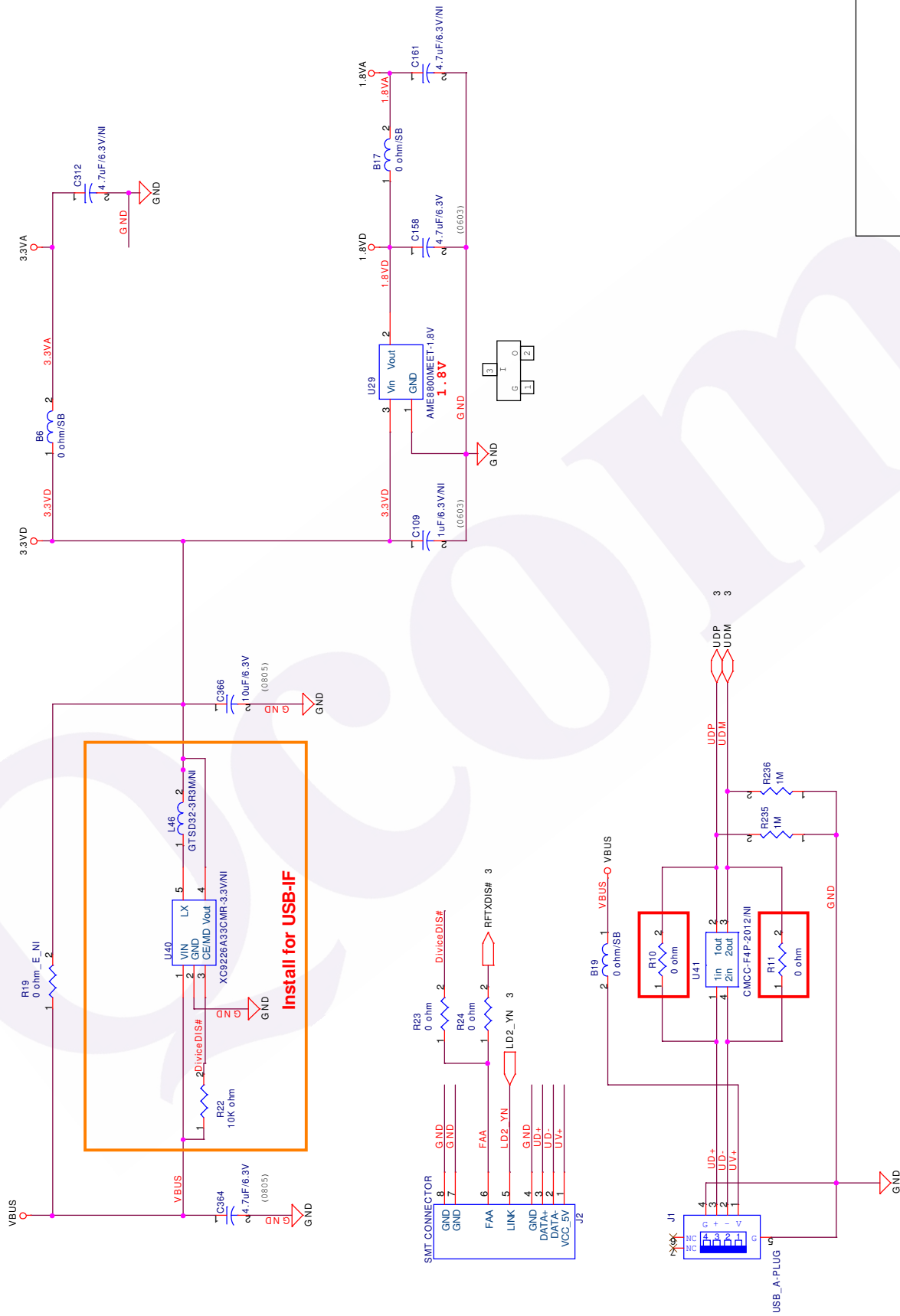
Component Suffix Table

_A	CASE A
_B	CASE B
_C	CASE C
_D	CASE D
_K	0402
_E	0603
_F	0805
_G	1206
_H	1210
_I	1812
_J	2010
_NI	DO NOT INSTALL

PAGE FUNCTION DESCRIPTION

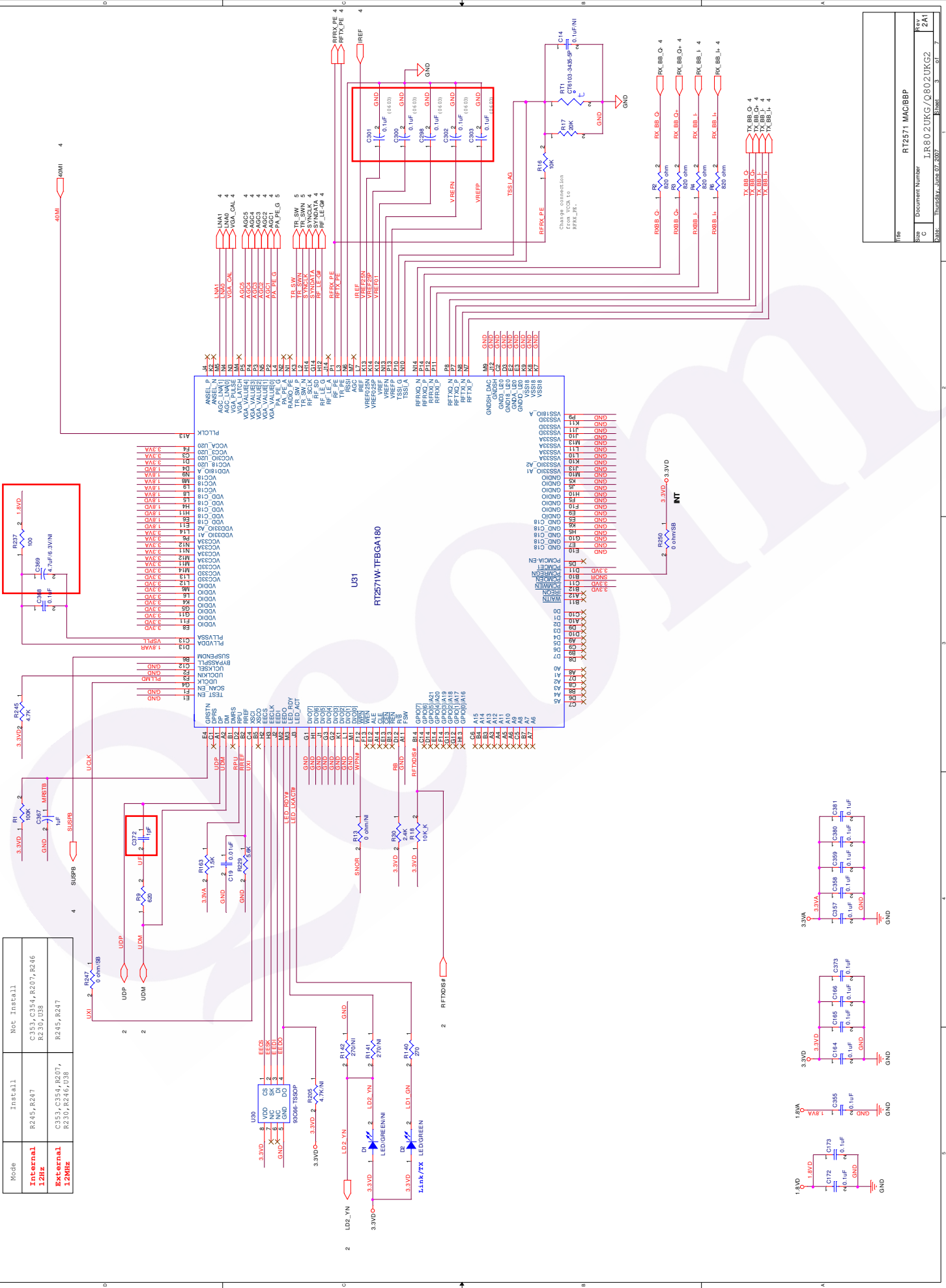
1.	Cover
2.	CONN/POWER
3.	MAC/BBP
4.	Transceiver
5.	PA-SST12LP14A
6.	Chang Note
7.	Block Diagram

Title		Cover Page	
Size	Document Number	Rev	
B	LR802UKG/Q802UKG2	2A1	
Date:	Thursday, June 07, 2007	Sheet	1 of 7

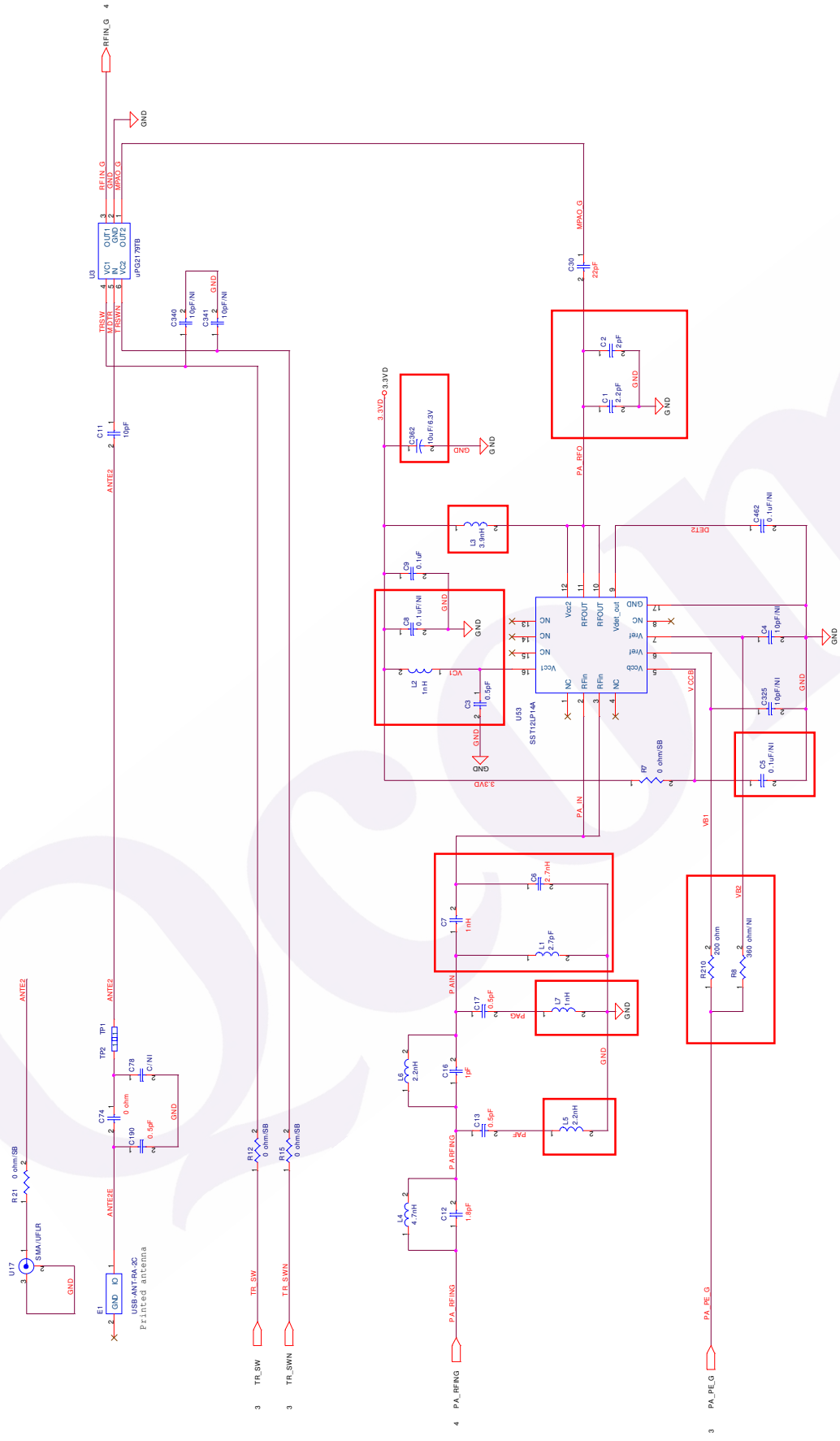


Title		CONN/POWER	
Size	Document Number	Rev	
B	LR802UKG/Q802UKG2	2A1	
Date:	Thursday, June 07, 2007	Sheet	2 of 7

Mode	Install	Not Install
Internal 12MHz	R245, R247	C353, C354, R207, R246 R230, U38
External 12MHz	C353, C354, R207, R230, R245, R247	



Title	RT2571 MACBBP
Size	Document Number
Rev	IR802UKG/Q802UKG2
File	Thru35V June 07 2007
	3
	7



Chang Note

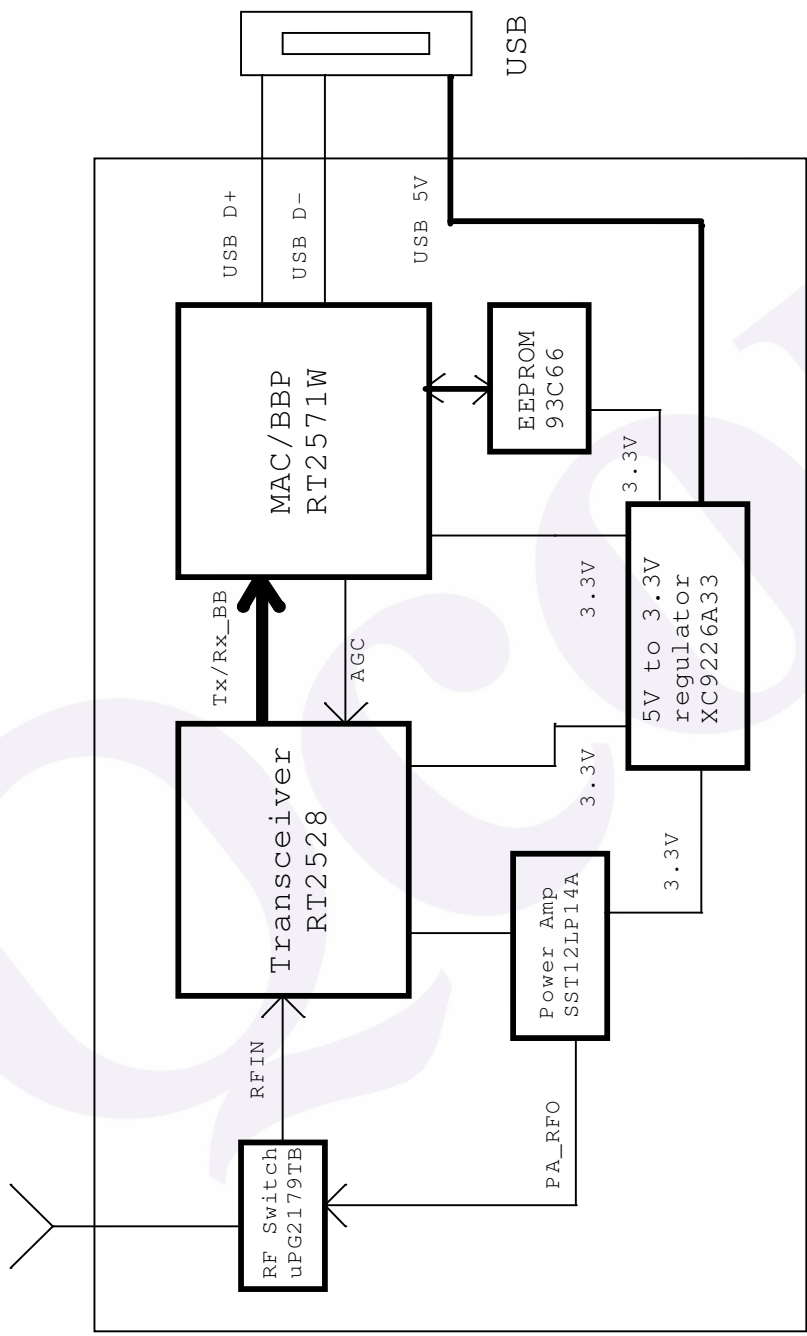
1A-->2A

- 1. J2 Pin6<-->Pin5 (Pin6=FAA, Pin5=LED)
- 2. J2 Pin2<-->Pin3 (Pin2=D-, Pin3=D+)
- 3. C321-->10pF
- 4. C21-->NI
- 5. C74-->0 ohm
- 6. C190-->0.5pF
- 7. C16-->1pF
- 8. C7-->1nH
- 9. L5-->2.2nF
- 10. C30-->22pF
- 11. C2-->2pF
- 12. R210-->200 ohm

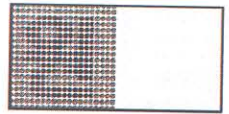
2A-->2A1

- 1.ADD R22 10K ohm
- 2.ADD R23 0 ohm
- 3.ADD R24 0 ohm
- 4.Divice Disable

Title				Change Note			
Size	A	Document Number	LR802UKG/Q802UKG2		Rev	2A1	
Date:	Thursday, June 07, 2007			Sheet	6	of	7



Title				Block Diagram			
Size		Document Number		Rev		Date	
A		LR802UKG/Q802UKG2		2A1		Thursday, June 07, 2007	
Sheet		7		of		1	



정보통신기기인증서

Certificate of Information and Communication Equipment

인 증 의 종 류 : 형식등록(Type Registration)
Certification Type

상 호 또 는 성 명 : QCOM TECHNOLOGY INC.
Trade Name or Applicant

기 기 의 명 칭 : 무선데이터통신시스템용 무선기기
Equipment Name

기 본 모 델 명 : LR802UKG
Basic Model Number of Equipment

과 생 모 델 명 :
Series Model Number of Equipment

인 증 번 호 : QCM-802UKG
Certification No

제 조 자 및 제조국 가 : QCOM TECHNOLOGY INC./중국
Manufacturer and Country of Origin

형 식 기 호 : LARN8-IO2Q2412/2472TR0.01G1DD2D13
Type Identification

인 증 연 월 일 : 2007년(Year) 06월(Month) 20일(Date)
Date of Certification

기 타 :
Others

위 기기는 정보통신기기 인증규칙에 의해 인증되었음을 증명합니다.

It is certified that foregoing equipment has been certificated under the provisions of the Regulations on Certification of Information and Communication Equipment.

2007년(Year) 06월(Month) 20일(Date)

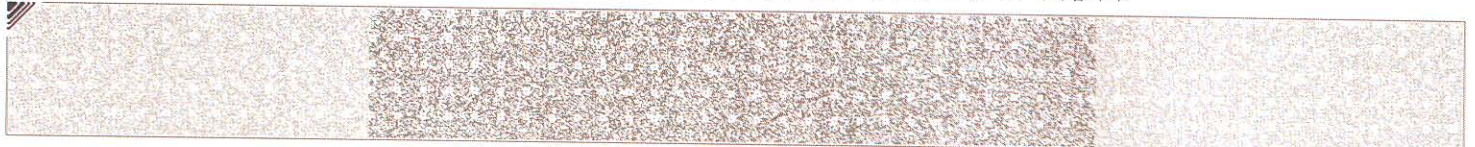
전파연구소장 [인]



Director General of Radio Research Laboratory
Ministry of Information and Communication Republic of Korea

※ 진위여부는 www.emic.go.kr에서 확인할 수 있습니다.

※ 복사본은 상단 복사방지마크의 '원' 또는 '본' 글자가 사라집니다.





技術基準適合認定等証書

Qcom Technology Inc.
社長

曾 俊 仁 殿

財団法人 電気通信端末機器審査協会

理事長 武 智



下記のとおり電気通信事業法第56条第2項の規定に基づく端末機器の設計についての認証を行ったものであることを証します。

設計認証を受けた者	Qcom Technology Inc.		
機 器 名	LR802UKG		
展開機器名			
機器の種類	専用通信回線設備等端末		
認 証 番 号	D07-0227001	認証年月日	平成 19年 6月 8日
備 考	1. 電波法に規定するところにより、特定無線設備の技術基準適合証明を取得する必要があります。		
<p>端末機器の取扱については、下記事項を了承願います。</p> <p>① 本品は、申込書類等に基づき、回線へ接続するための技術基準に適合しているかどうか及び当該設計に合致するものとなることができるかどうか審査したもので、機器の品質、性能を保証するものではありません。</p> <p>② 機器への認証の表示は、端末機器の技術基準適合認定等に関する規則第21条（業務規程第20条参照）の検査記録を作成の後、機器の外面の見やすい箇所に容易に消えない方法で行って下さい。</p> <p>③ 本機器設置時に必要な機器の直流抵抗値等を取扱説明書等に明記して下さい。</p>			

Certificate

of

Radio Equipment in JAPAN

No: 07215103/AA/00

Telefication, operating as Conformity Assessment Body (CAB ID Number: 201) with respect to Japan, declares that the listed product complies with the Technical Regulations Conformity Certification of Specified Radio equipment (ordinance of MPT N° 37,1981)

Product description: **802.11b/g Wireless LAN USB Module**
Trademark: **Qcom Technology Inc.**
Family name: --
Type designation: **LR802UKG**
Serial No: --
Software release No: --

Manufacturer: **Qcom Technology Inc.**
Address: **7F, No. 178, Ming Chuan E. Road., Sec. 3**
City: **105 Taipei**
Country: **Taiwan R.O.C.**

This certificate is granted to:

Name: **Qcom Technology Inc.**
Address: **7F, No. 178, Ming Chuan E. Road., Sec. 3**
City: **105 Taipei**
Country: **Taiwan R.O.C.**

This certificate has THREE Annexes.

Zevenaar, 24 May 2007

CAB



M.H. Koop
Manager Certification



- The validity of this Certificate is limited to products, which are equal to the one examined in the type-examination.
- When the manufacturer (or holder of this certificate) is placing the product on the Japanese market, the product must be affixed with the following Specified Radio Equipment marking:



R 201 GZ
07215103

Remarks and observations

The following conditions are applicable:

Antennas for IEEE 802.11b/g:

- Firich OA-24-2.5-01, Dipole antenna, max. gain of 2.0 at 2.4 GHz
- High-Tek New T700-1, PIFA antenna, max. gain of 2.3 at 2.4 GHz
- Tyco S37, PIFA antenna, max. gain of 0.82 at 2.4 GHz
- Wha Yu C678-520002-A, PIFA antenna, max. gain of -1.48 at 2.4 GHz
- Wha Yu C678-520006-A, PIFA antenna, max. gain of 2.05 at 2.4 GHz

Annex 2 to Certificate of Radio Equipment in Japan
Number: 07215103/AA/00

24 May 2007
Annex 2, Page 1 of 2

Documentation lodged for this type-examination

Test Reports:

- Advance Data Technology Corporation: RJ960323L04, 03 May 2007

Product Documentation:

- Assembly drawings
- Bill of materials
- Block diagram
- Electric diagrams
- Antenna specifications
- Photos
- User manual

Technical Standards and Specifications

The product shows no non-compliances with:

- Equipment Radio Regulations 2006

Chapter I, General Provisions
Chapter II, Transmitting Equipment
Chapter IV, section 4.17 article 49.20

Radio equipment specified in item (19)-2 of article 2, paragraph 1

Technical features and characteristics

The product includes the following features and characteristics:

IEEE 802.11b:

- Operating frequency range: 2484 MHz (1 channel)
- Operating frequency band: 2400-2483.5 MHz
- ITU designation: 16M8G1D
- Maximum output power: 3.5 mW/MHz rated
- Maximum antenna gain: 2.3 dBi
- Modulation method(s): DSSS: DBPSK, DQPSK, CCK

Annex 3 to Certificate of Radio Equipment in Japan
Number: 07215103/AA/00

24 May 2007
Annex 3, Page 1 of 1

The product as described in this Certificate includes the following type designations:

Product description:	802.11b/g Wireless LAN USB Module
Type designation:	LR802UKG
Trademark:	Qcom Technology Inc.
Serial No:	--
Hard- / Softw. release No:	--

Certificate

of

Radio Equipment in JAPAN

No: 07215102/AA/00

Telefication, operating as Conformity Assessment Body (CAB ID Number: 201) with respect to Japan, declares that the listed product complies with the Technical Regulations Conformity Certification of Specified Radio equipment (ordinance of MPT N° 37,1981)

Product description: **802.11b/g Wireless LAN USB Module**
Trademark: **Qcom Technology Inc.**
Family name: --
Type designation: **LR802UKG**
Serial No: --
Software release No: --

Manufacturer: **Qcom Technology Inc.**
Address: **7F, No. 178, Ming Chuan E. Road., Sec. 3**
City: **105 Taipei**
Country: **Taiwan R.O.C.**

This certificate is granted to:

Name: **Qcom Technology Inc.**
Address: **7F, No. 178, Ming Chuan E. Road., Sec. 3**
City: **105 Taipei**
Country: **Taiwan R.O.C.**

This certificate has THREE Annexes.

Zevenaar, 24 May 2007

CAB

A blue ink signature of M.H. Koop, written in a cursive style.

M.H. Koop
Manager Certification



- The validity of this Certificate is limited to products, which are equal to the one examined in the type-examination.
- When the manufacturer (or holder of this certificate) is placing the product on the Japanese market, the product must be affixed with the following Specified Radio Equipment marking:



R 201 NY
07215102

Remarks and observations

The following conditions are applicable:

Antennas for IEEE 802.11b/g:

- Firich OA-24-2-2.5-01, Dipole antenna, max. gain of 2.0 at 2.4 GHz
- High-Tek New T700-1, PIFA antenna, max. gain of 2.3 at 2.4 GHz
- Tyco S37, PIFA antenna, max. gain of 0.82 at 2.4 GHz
- Wha Yu C678-520002-A, PIFA antenna, max. gain of -1.48 at 2.4 GHz
- Wha Yu C678-520006-A, PIFA antenna, max. gain of 2.05 at 2.4 GHz

Annex 2 to Certificate of Radio Equipment in Japan
Number: 07215102/AA/00

24 May 2007
Annex 2, Page 1 of 2

Documentation lodged for this type-examination

Test Reports:

- Advance Data Technology Corporation: RJ960323L04, 03 May 2007

Product Documentation:

- Assembly drawings
- Bill of materials
- Block diagram
- Electric diagrams
- Antenna specifications
- Photos
- User manual

Technical Standards and Specifications

The product shows no non-compliances with:

- Equipment Radio Regulations 2006

Chapter I, General Provisions
Chapter II, Transmitting Equipment
Chapter IV, section 4.17 article 49.20

Radio equipment specified in Item (19) of article 2, paragraph 1

Technical features and characteristics

The product includes the following features and characteristics:

IEEE 802.11b:

- Operating frequency range: 2412-2472 MHz (13 channels)
- Operating frequency band: 2400-2483.5 MHz
- ITU designation: 15M1G1D
- Maximum output power: 5.0 mW/MHz rated
- Maximum antenna gain: 2.3 dBi
- Modulation method(s): DSSS: DBPSK, DQPSK, CCK

IEEE 802.11g in OFDM mode:

- Operating frequency range: 2412-2472 MHz (13 channels)
- Operating frequency band: 2400-2483.5 MHz
- ITU designation: 16M8D1D
- Maximum output power: 2.5 mW/MHz rated
- Maximum antenna gain: 2.3 dBi
- Modulation method(s): OFDM: BPSK, QPSK, 16QAM, 64QAM

Annex 3 to Certificate of Radio Equipment in Japan
Number: 07215102/AA/00

24 May 2007
Annex 3, Page 1 of 1

The product as described in this Certificate includes the following type designations:

Product description:	802.11b/g Wireless LAN USB Module
Type designation:	LR802UKG
Trademark:	Qcom Technology Inc.
Serial No:	--
Hard- / Softw. release No:	--

TCB**GRANT OF EQUIPMENT
AUTHORIZATION****TCB**

Certification
Issued Under the Authority of the
Federal Communications Commission
By:

Curtis-Straus LLC
527 Great Road
Littleton, MA 01460

Date of Grant: 05/25/2007

Application Dated: 05/25/2007

Qcom Technology Inc.
7F, No. 178, Ming Chuan E. Rd. SEC 3,
Taipei,
Taiwan

Attention: Clark Tsai , engineer Manager

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and
is VALID ONLY for the equipment identified hereon for use under the
Commission's Rules and Regulations listed below.

FCC IDENTIFIER: RUJ-LR802UKG

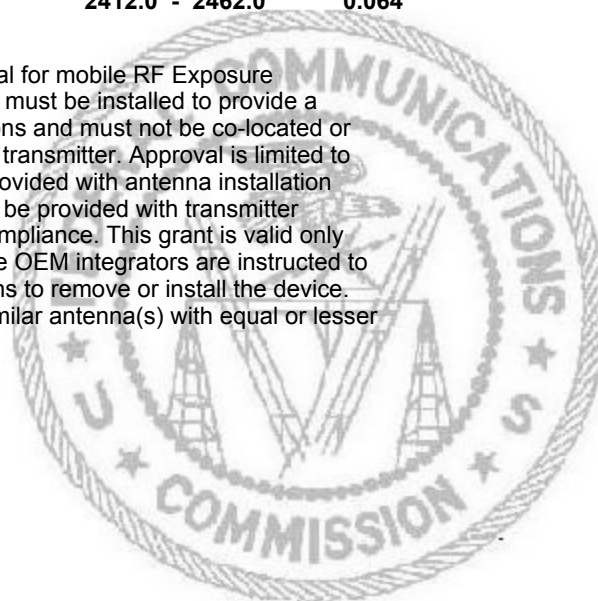
Name of Grantee: Qcom Technology Inc.

Equipment Class: Digital Transmission System

Notes: 802.11b/g Wireless LAN USB Module

<u>Grant Notes</u>	<u>FCC Rule Parts</u>	<u>Frequency Range (MHZ)</u>	<u>Output Watts</u>	<u>Frequency Tolerance</u>	<u>Emission Designator</u>
	15C	2412.0 - 2462.0	0.064		

Output power listed is conducted. Modular Approval for mobile RF Exposure conditions, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Approval is limited to OEM installation only. OEM integrators must be provided with antenna installation instructions. OEM integrators and end-Users must be provided with transmitter operation conditions for satisfying RF exposure compliance. This grant is valid only when the device is sold to OEM integrators and the OEM integrators are instructed to ensure that the end user has no manual instructions to remove or install the device. Only those antenna(s) tested with the device or similar antenna(s) with equal or lesser gain may be used with this transmitter.





无线电发射设备
Radio Transmission Equipment
型号核准证
Type Approval Certificate

迈智电脑股份有限公司（台湾）：

根据中华人民共和国无线电管理条例

In accordance with the provisions on the Radio

例，经审查，下列无线电发射设备符合中
Regulations of the People's Republic of China, the following

华人民共和国无线电管理规定和技术标
radio transmission equipment, after examination, conforms to

准，其核准代码为：CMII ID: 2007DJ1995

the provisions with its CMII ID :

有效期： 五年
Validity



Sealed by issuing authority

2007年 06月 23日

Year Month Date

编号: 2007-1995

Number

设备名称: 2.4GHz无线局域网卡

Equipment Name

设备型号: LR802UKG

Equipment Type

主要功能: 数据传输

Main Functions

调制方式: DBPSK/DQPSK/CCK (DSSS) BPSK/QPSK/16QAM/64QAM (OFDM)

Modulation Mode

主要技术参数及其指标值:

Main Technical Parameters

频率范围: 2400-2483.5MHz

Frequency Range

频率容限: $\leq 20\text{ppm}$

Frequency Tolerance

发射功率: $\leq 20\text{dBm}$ (EIRP)

Transmitting Power

占用带宽: $\leq 22\text{MHz}$

Occupied Bandwidth

杂散发射限值: $\leq -30\text{dBm}$

Spurious Emission Limits

(核发单位章)

Sealed by issuing authority

2007年 06月 23日

Year Month Date

Statement

of Opinion

No: 07214082/AA/00

With respect to Chapter 10 of the Telecommunications Act of The Netherlands, Telefication declares that to our opinion the listed product complies with the essential requirements, in accordance with Article 3 of the Directive 1999/5/EC, as indicated under Annex 1 of this statement.

Product description: **802.11b/g Wireless LAN USB Module**
Trademark: **Qcom Technology Inc.**
Family name: --
Type designation: **LR802UKG**
Serial No: --
Software release No: --

Manufacturer: **Qcom Technology Inc.**
Address: **7F, No. 178, Ming Chuan E. Road., Sec. 3**
City: **105 Taipei**
Country: **Taiwan R.O.C.**

This statement is granted to:

Name: **Qcom Technology Inc.**
Address: **7F, No. 178, Ming Chuan E. Road., Sec. 3**
City: **105 Taipei**
Country: **Taiwan R.O.C.**

This statement has THREE Annexes.

Zevenaar, 30 May 2007



M.H. Koop
Manager Certification



For each product to which this Statement of Opinion relates (see annex 3) our opinion with respect to the essential requirements is as follows:

Article 3.1

- C (a) The protection of the health and safety of the user and other person, including the objectives with respect to safety requirements contained in Directive 73/23/EEC, but with no voltage limit applying.
- C (b) The protection requirements with respect to electromagnetic compatibility contained in Directive 89/336/EEC.

Article 3.2

- C The radio product shall be so constructed that it effectively uses the spectrum allocated to terrestrial/space radio communication and orbital resources so as to avoid harmful interference.

Article 3.3

- NA (a) The product shall be so constructed that it interworks via networks with other apparatus and that it can be connected to interfaces of the appropriate type throughout the Community.
- NA (b) The product shall be so constructed that it does not harm the network or its functioning nor misuse network resources, thereby causing an unacceptable degradation of service.
- NA (c) The product shall be so constructed that it incorporates safeguards to ensure that the personal data and privacy of the user and of the subscriber are protected.
- NA (d) The product shall be so constructed that it supports certain features ensuring avoidance of fraud.
- NA (e) The product shall be so constructed that it supports certain features ensuring access to emergency services.
- NA (f) The product shall be so constructed that it supports certain features in order to facilitate its use by users with a disability.

Opinions

- C = Conform
- NC = Not Conform
- NA = Not applicable (for this product)
- NP = Not performed (in this type examination)

- The validity of this Statement of Opinion is limited to products, which are equal to the one examined in the type-examination.
- When the manufacturer (or holder of this statement) is placing the product on the European market or the countries of the EEA, the marking of this product must contain (among other elements) the Notified Body number of Telefication: 0560
- This Statement of Opinion does not imply that the product can be used in the European Union or the countries of the EEA. If the product can not be identified as 'class-1' in accordance with Commission Decision 2000/299/EC, then:
 - Placing the product on the market may be subject to notification to the national radio agencies.
 - Putting the product into service is subject to national frequency regulation and may be subject to licencing.

Remarks and observations

The following conditions are applicable:

None.

Documentation lodged for this Statement of Opinion

Test Reports:

- Advance Data Technology Corporation: LD960323L04, 16 May 2007
- Advance Data Technology Corporation: RE960323L04, 15 May 2007
- Advance Data Technology Corporation: RM960323L04, 17 May 2007
- Advance Data Technology Corporation: SE960323L04, 15 May 2007

Product Documentation:

- Assembly drawings
- Bill of materials
- Block diagram
- Electric diagrams
- Photos
- User manual

Technical Standards and Specifications

The product shows no non-compliances with:

- | | | |
|------------------|----------------|--------|
| - EN 300 328 | November 2004 | V1.6.1 |
| - EN 301 489-1 | September 2005 | V1.6.1 |
| - EN 301 489-17 | August 2002 | V1.2.1 |
| - EN 50371 | March 2002 | |
| - EN 60950-1 | 2001 | |
| - EN 60950-1/A11 | 2004 | |

Technical features and characteristics

The product includes the following features and characteristics:

IEEE 802.11b:

- Operating frequency range: 2412-2472 MHz (13 channels)
- Operating frequency band: 2400-2483.5 MHz
- Maximum output power: 19.96 dBm EIRP average (measured)
- Maximum antenna gain: 2.3 dBi
- Modulation method(s): DSSS: DBPSK, DQPSK, CCK

IEEE 802.11g in OFDM mode:

- Operating frequency range: 2412-2472 MHz (13 channels)
- Operating frequency band: 2400-2483.5 MHz
- Maximum output power: 18.63 dBm EIRP average (measured)
- Maximum antenna gain: 2.3 dBi
- Modulation method(s): OFDM: BPSK, QPSK, 16QAM, 64QAM

Annex 3 to Statement of Opinion
Number: 07214082/AA/00

30 May 2007
Annex 3, Page 1 of 1

The product as described in this Statement of Opinion includes the following type designations:

Product description:	802.11b/g Wireless LAN USB Module
Type designation:	LR802UKG
Trademark:	Qcom Technology Inc.
Serial No:	--
Hard- / Softw. release No:	--

NOTIFICATION REGULATED IN R&TTE DIRECTIVE ARTICLE 6.4

We, ADT, acting on your behalf for performing the Annex IV procedures in article 10.5 of R&TTE directive 99/5/EC, would like to inform you that the notification shall be given no less than 4 weeks in advance of the start of placing on the market. The notification regulated in article 6.4 of 99/5/EC has been sent to the authorities of spectrum management in the countries listed below.

Company:	Qcom Technology Inc.
Product:	802.11b/g Wireless LAN USB Module
Model Name:	LR802UKG (Brand: Qcom Technology Inc.)
ADT No.:	960323L04
Notified Countries:	Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland & UK
Date of Notification:	28 May, 2007


Stephanie Hung / Supervisor

Issued Date: 28 May, 2007

CERTIFICATE OF ACCEPTANCE FOR CANADA



CURTIS-STRAUS

Certificate No. : **CS02679**

Certification (label) No. : **4654A-LR802UKG**

Certificate issued to (holder) : **Qcom Technology Inc.
7F, No. 178, Ming Chuan E. Rd., Sec. 3,
Taipei, Taiwan,R.O.C.**

Model name : **LR802UKG**

Type of equipment : **Mobile Modular Approval
WILAN: 802.11b/g Wireless LAN USB Module**

Specifications : **RSS-Gen, Issue No. 1, Issue Date: September 2005
RSS102, Issue No. 2, Issue Date: November 2005
RSS210, Issue No. 6, Issue Date: September 2005**

Frequency range : **2412MHz – 2462MHz**

R.F. power rating/field strength : **0.064W**

Antenna information : **PIFA antenna with 2.30dBi maximum gain
Dipole antenna with 2dBi gain**

Emission designator : **18M0G1D**

Test laboratory : **Advance Data Technology Corporation
No.19, Hwa Ya 2nd Rd., Kwei Shan Hsiang
Taoyuan Hsien, Taiwan,R.O.C.
Tel:886-3-318-3232/Fax:886-3-327-0892
Email: ic_cert@adt.com.tw**

Test lab company No. : **4924A**

Certification of the equipment means only that the equipment has met the requirements of the above noted specification. License applications where applicable to use certified equipment, are acted on accordingly by the issuing office and will depend on the existing radio environment, service and location of operation. This certificate is issued on condition that the holder complies and will continue to comply with the requirements of the radio standards specifications and procedures issued by Industry Canada. Certified radio equipment shall not be distributed, leased, sold, or offered for sale in Canada prior to the listing of the device in the Industry Canada radio equipment list (REL).

Date of issue: May 25, 2007

Authorized by:

For Curtis-Straus LLC
Yunus Faziloglu
Certifier

Curtis-Straus LLC ~ A Bureau Veritas Company, 527 Great Road, Littleton, MA 01460, USA
Tel: (978) 486-8880, Fax: (978) 486-8828, Email: certification@curtis-straus.com
Rev 5 Certification Body No. US0106

誠信科技股份有限公司 函

公司地址：33383 桃園縣龜山鄉文化村華亞二路 19 號

承辦人：奚慶慶 電話：(03) 318-3232 分機 1894

傳真：(03) 211-5834 電子郵件信箱：linda_hsi@adt.com.tw

受文者：邁智電腦股份有限公司

速別：普通件

密等及解密條件：

發文日期：中華民國九十六年六月十二日

發文字號：誠字第 096166 號

附件：如文

主旨：有關貴公司「802.11b/g Wireless LAN USB Module」器材申請低功率射頻電機型式認證乙案，覆如說明，請查照。

說明：一、依 貴公司九十六年六月七日審驗認證申請書辦理。

二、旨揭器材之廠牌：Qcom Technology Inc.，型號：LR802UKG，工作頻率：2.412 GHz ~ 2.462GHz (IEEE 802.11b/g Normal mode 11 Channels)，經審核合格，發給「低功率射頻電機型式認證證明」乙紙（隨本函檢附）；審驗合格標籤號碼為「CCAD07LP1080T8」，請自製標籤黏貼或印鑄於該機材明顯處。

三、請將「低功率電波輻射性電機管理辦法」第十二條及第十四條（如附件一），加印於旨揭器材使用說明書內。

四、為保障消費者權利，依消費者保護法第二十四條第二項：「輸入之商品或服務，應附中文標示及說明書，其內容不得較原產地之標示及說明書簡略。」之規定，廠商輸入低功率射頻器材除經本驗證中心審驗合格外，須另附中文說明書，始得於市場銷售。

正本：邁智電腦股份有限公司（臺北市松山區民權東路三段一七八號七樓）

副本：國家通訊傳播委員會、北區監理處、中區監理處、南區監理處（均含型式認證證明影本及審驗認證資料光碟片各乙份）

董事長 奧立偉

依據分層負責規定授權審定業務主管決行



(附件一)

低功率電波輻射性電機管理辦法

第十二條

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。






誠信科技股份有限公司

低功率射頻電機型式認證證明

- (1) 申請者：邁智電腦股份有限公司
(臺北市松山區民權東路三段一七八號七樓)
- (2) 製造廠商：Global Brands Manufacture Ltd
- (3) 器材名稱：802.11b/g Wireless LAN USB Module
- (4) 廠牌型號：Qcom Technology Inc. / LR802UKG
- (5) 發射功率(電場強度)：14.08dBm (IEEE 802.11b Normal mode)；天線增益：2.30dBi
18.09dBm (IEEE 802.11g Normal mode)
- (6) 工作頻率：2.412GHz ~ 2.462GHz (IEEE 802.11b/g Normal mode 11 Channels)
- (7) 審驗日期：96 年 6 月 12 日
- (8) 審驗合格標籤式樣：

 CCAD07LP1080T8



說明：

- 1、請依上列標籤式樣自製標籤，標貼或印鑄於器材本體明顯處，始得販賣或公開陳列。
- 2、經型式認證合格之低功率射頻電機，其型號、設計、射頻性能如有變更，應重新申請型式認證。
- 3、違反低功率電波輻射性電機管理辦法之規定，擅自使用或變更無線電頻率、電功率者，除依電信法規定處罰外，驗證機關(構)並得廢止其型式認證證明或型式認證標籤。
- 4、送審廠商應保留送審樣品供日後核對。
- 5、本型式認證證明及其合格標籤使用權專屬取得本證明者。本證明持有人檢附同意書報請國家通訊傳播委員會備查後，得授權他人於同廠牌同型號之器材，使用其合格標籤。

備註：

- 1、本器材符合低功率射頻電機技術規範 LP0002 (3.10.1 節)之規定。
- 2、本公司係經國家通訊傳播委員會委託，核發本型式認證證明。
- 3、本器材詳細工作頻率對應如下：802.11b/g Normal mode：2.412GHz、2.417GHz、2.422GHz、2.427GHz、2.432GHz、2.437GHz、2.442GHz、2.447GHz、2.452GHz、2.457GHz、2.462GHz。

(續下頁)


(承上頁)

4、本器材屬於模組認證，可適用於各種平台，安裝者或使用應確保其使用符合國家通訊傳播委員會之規定。

5、本器材的本體端 RF 接頭型式為 UFL type。

6、天線規格

項次	製造廠商(廠牌)	型號	天線型式	天線增益	天線本體端接頭型式
1	WHA YU INDUSTRUAL CO., LTD.	C-687-520002-A	PIFA Antenna	-1.48dBi	UFL
2	WHA YU INDUSTRUAL CO., LTD.	C-687-520006-A	PIFA Antenna	2.05dBi	UFL
3	TYCO	S37	PIFA Antenna	0.82dBi	UFL
4	HIGH-TEK	NEW T700-1	PIFA Antenna	2.30dBi	UFL
5	Firich Enterprises Co., Ltd.	OA-24-2.5-01	Dipole Antenna	2.00dBi	RSMA

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