PRODUCT SPECIFICATION

802.11a/b/g/n 2Tx2R + BT V4.1LE USB Combo Module

WCBN4516R

MediaTek MT7632TU

Version 1.0

Change History

Revision	Date	Author	Change List
Version 1.0	2016/08/03	Ben J Chen	Preliminary

PRODUCT SPECIFICATION

802.11a/b/g/n 2Tx2R + BT V4.1LE USB Combo Module

WCBN4516R

MediaTek MT7632TU

Version 1.0

Networking B.U.
Lite-on Technology Corporation
4F, No. 90, Chien 1 Rd.,
Chung Ho, New Taipei City 235, Taiwan, R.O.C.

Customer Approval:_____(Signature)

_____(Title)

_____(Company)

_____(Date)

(Please Sign Back by FAX. For Confirming the Spec Only, not an Official Agreement for OEM/ODM Business)

CONTENT

PRODUCT FEATURES

BT FEATURE:

- Bluetooth V4.1 LE system
  Backwards compatible with BT version of 1.1, 1.2, 2.0, 2.1, 3.0+HS and 4.0
- Bluetooth Class 1 transmission power
- Best-in-class BT/Wi-Fi coexistence performance
- Support for Simple Pairing (SP) and Enhanced Inquiry Response (EIR) function
- Support for SCATTERNET and up to piconets simultaneously with background inquiry/page scan
- Support wide-band speech and hardware accelerated SBC codec for A2DP streaming
- Support Wake On Bluetooth

WI-FI FEATURE:

- Operate at ISM frequency Band (2.4/5GHz)
- IEEE Standards Support, 802.11a ,802.11b, 802.11g, 802.11n
- Support for both 20 MHz/35 MHz channel width in 2.4GHz and 20 MHz/35 MHz channel width in 5GHz
- Enterprise level security supporting: WPS2.0,WAPI, WPA, WPA2
- Dual-stream IEEE 802.11n support for 40MHz channels provides PHY layer rates up to 300Mbps
- QoS support of WFA WMM, WMMPS
- Support for WI-Fi Direct
- Support Wake On WLAN

COMMON FEATURE:

- MT7632TU is a single chip integrated IEEE 802.11 a/b/g/n and Bluetooth 4.1LE with a single USB interface
- PA, LNA, and T/R switch integration for Wi-Fi and Bluetooth
- Best-in-class active and idle power consumption performance
- Fully compliance with USB v2.0 specification
- Support OS: Linux based
- RoHS compliance
- Low Halogen compliance

PRODUCT SPECIFICATIONS

MAIN CHIPSET

MediaTek MT7632TU

FUNCTIONAL SPECIFICATIONS

BT Function	
Standard	Bluetooth V4.1LE
Bus Interface	USB2.0
Data Rate	1 Mbps, 2Mbps and Up to 3Mbps
Modulation Scheme	GFSK, π/4-DQPSK and 8-DPSK
Frequency Range	2.402~2.480 GHz
Transmit Output Power	+4 ≤ Output Power ≤ +10dBm; Class 1 Device
Receiver Sensitivity	< 0.1% BER at -80dBm

Wi-Fi Function	
Standard	IEEE802.11a; IEEE802.11b; IEEE 802.11g; IEEE 802.11n
Bus Interface	USB2.0
Data Rate	***802.11a:*** 54, 48, 36, 24, 18, 12, 9, 6 Mbps ***802.11b:*** 11, 5.5, 2, 1 Mbps ***802.11g:*** 54, 48, 36, 24, 18, 12, 9, 6 Mbps ***802.11n:*** MCS 0 to 15 for HT20MHz MCS 0 to 15 for HT40MHz
Media Access Control	CSMA/CA with ACK
Modulation Technique	***802.11a***: 64QAM, 16QAM, QPSK, BPSK ***802.11b***: CCK, DQPSK, DBPSK ***802.11g***: 64QAM, 16QAM, QPSK, BPSK ***802.11n***: 64QAM, 16QAM, QPSK, BPSK
Network Architecture	Ad-hoc mode (Peer-to-Peer) Infrastructure mode
Operation Channel	***2.4GHz*** 11: (Ch. 1-11) – United States 13: (Ch. 1-13) – Europe 14: (Ch. 1-14) – Japan ***5GHz***

	21: USA 19: EU 8: Japan
Frequency Range	***802.11bg*** 2.400 ~ 2.4835 GHz ***802.11a*** 5.15 ~ 5.85 GHz
Receiver Sensitivity	***802.11a:*** -86 dBm@6Mbps -70 dBm@54Mbps ***802.11b:*** -88 dBm@1Mbps -82 dBm@11Mbps ***802.11g:*** -86 dBm@6Mbps -71 dBm@54Mbps ***802.11n:*** ***2.4G/5G*** **20MHz** -86 dBm@MCS0 -70 dBm@MCS7 -68 dBm@MCS15 **40MHz** -83 dBm@MCS0 -67 dBm@MCS7 -65 dBm@MCS15
Security	WPS, WPA, WPA2, WEP 64bit & 128bit, IEEE 802.1X, IEEE 802.11i

Common Function	
Operating Voltage	5 V ±5% I/O supply voltage
OS Supported	Linux Based

Power Consumption

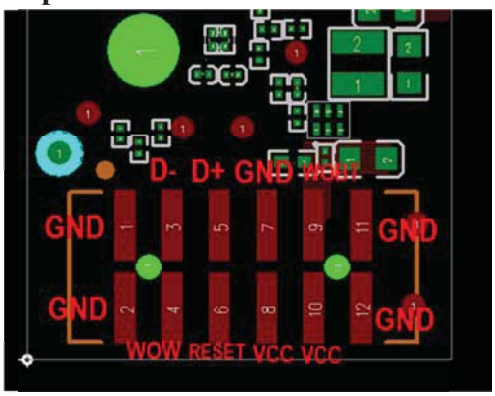
Mode	***Average***		***Peak***	
	2.4G	***5G***	***2.4G***	***5G***
TX	*560mA*	*690mA*	*850mA*	*920mA*
RX	*290mA*	*325mA*		
Idle	*30mA*			
WiFi+BT @wake up mode	*4.5mA*			

Antenna Type	Triple U.FL connectors for plugging WiFi&BT external antenna

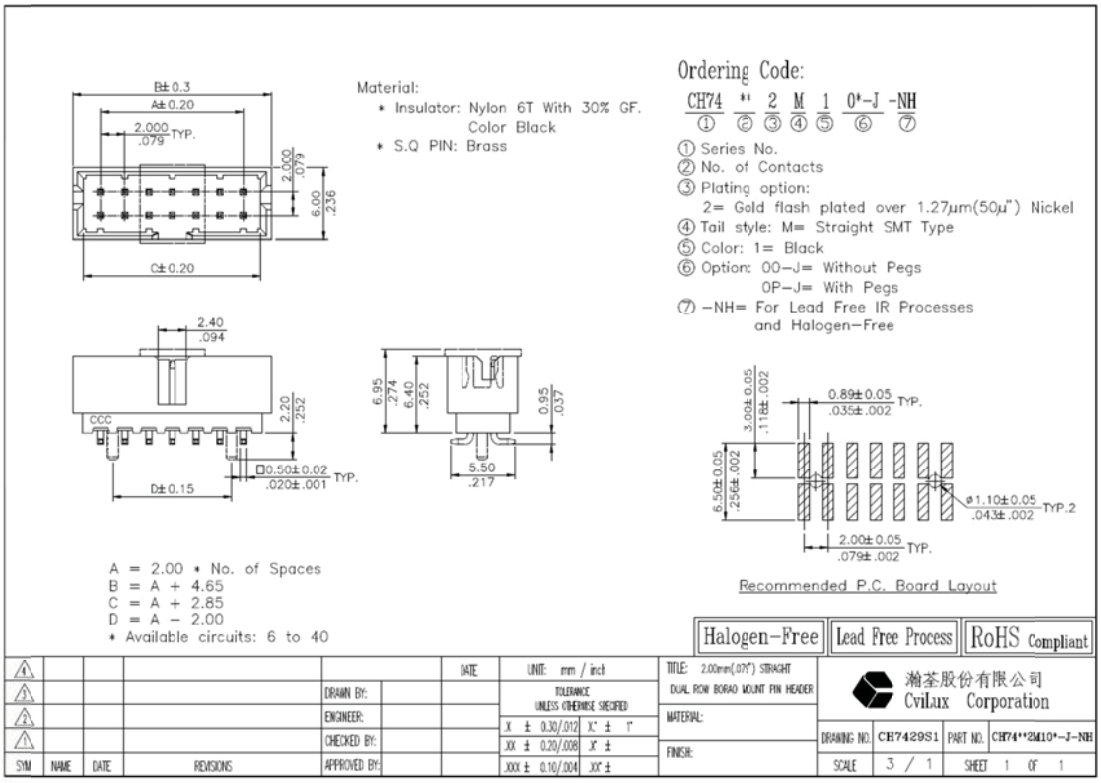
PIN ASSIGMENT

Pin.	Pin Define	Pin.	Pin Define
1	GND	2	GND
3	D-	4	WOW
5	D+	6	RESET#
7	GND	8	VCC
9	WOB	10	VCC
11	GND	12	GND

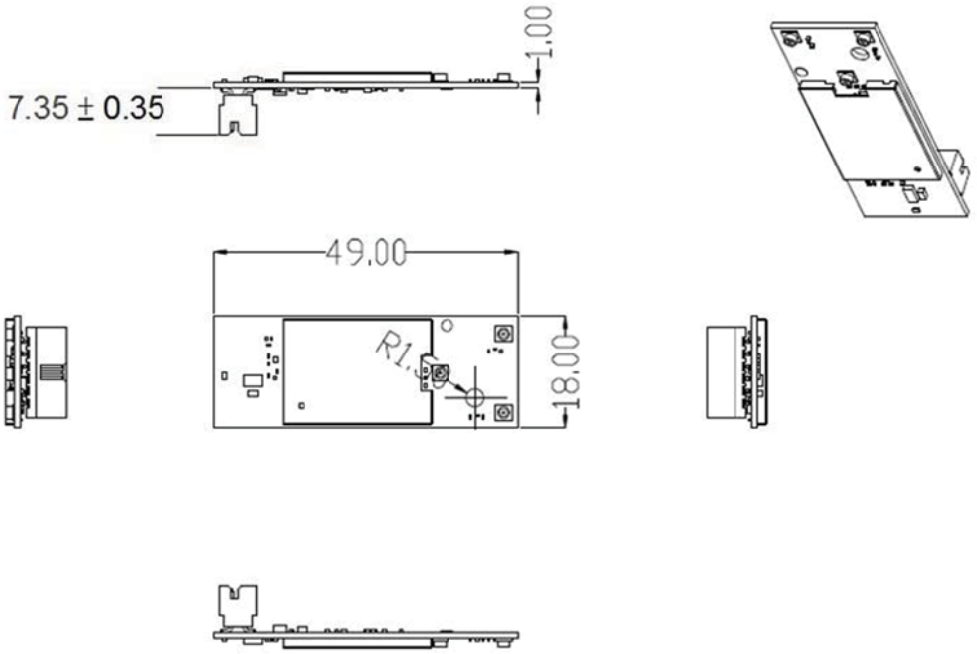
Top View



USB CONNECTOR SPEC



MECHANICAL



Tolerance:

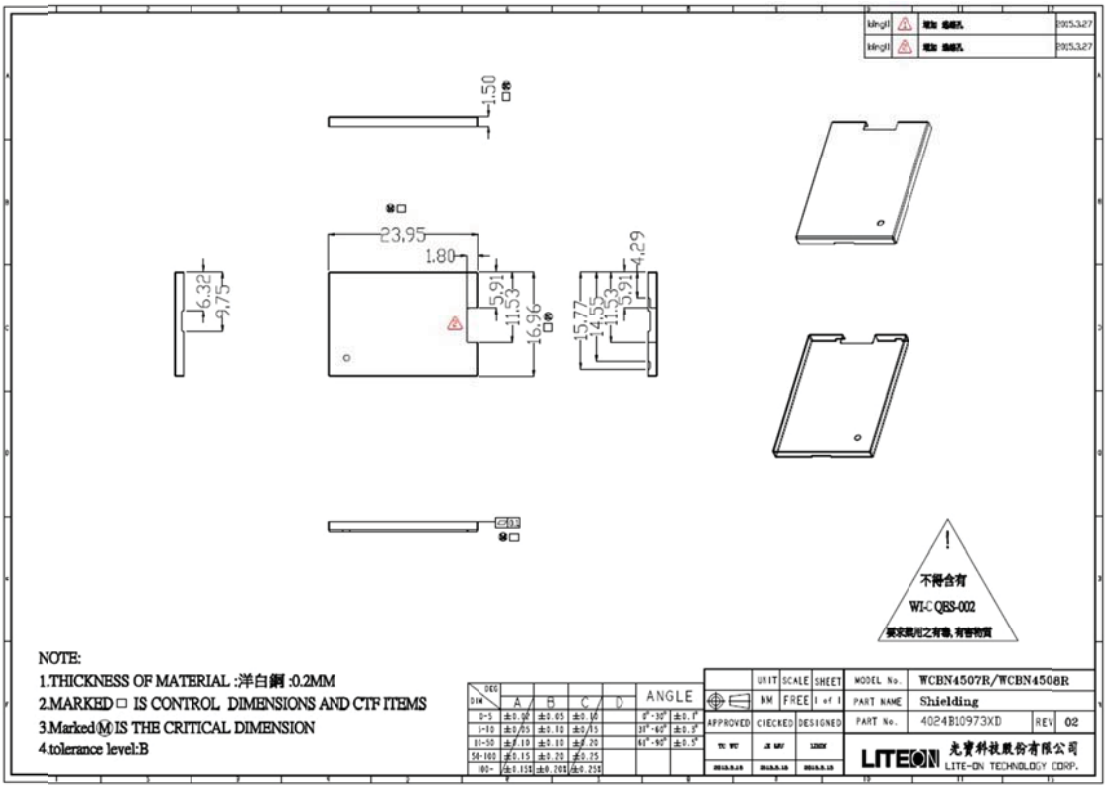
DIM \ DEG	A	B	C	D	ANGLE	
0-5	±0.05	±0.05	±0.10		0°-30°	±0.1°
5-10	±0.05	±0.10	±0.15		31°-60°	±0.3°
10-50	±0.10	±0.15	±0.20		61°-90°	±0.5°
50-100	±0.15	±0.20	±0.25			
100-	±0.15%	±0.20%	±0.25%			

Unit:mm

SHIELDING CASE SPEC

Manufacture: Hun Pai(宏湃)

Approval Sheet: see Appendix A(page32~page39)



Material Certification

試 験 成 績 表
TEST REPORT

4

御客先名 CUSTOMER NAME　TAIPLUS ENTERPRISE CO., LTD.　御中

代理店名 AGENT NAME　岡谷鋼機株式会社　東京本店　御中

三菱電機メテックス株式会社
〒252-5295 神奈川県相模原市中央区宮下1丁目1番57号
電話 042 (779) 5583
MITSUBISHI ELECTRIC METECS Co., Ltd.
1-1-57 MIYASHIMO, CHUO, SAGAMIHARA,
KANAGAWA 252-5295, JAPAN

品名 PRODUCT NAME	C7521R	H	製造番号 LOT No.	2634512	発行年月日 ISSUE DATE	2011/07/12
寸法 SIZE	0.152* 438.000*		納入数量 QUANTITY		試験年月日 TEST DATE	2011/07/12

化学成分 CHEMICAL COMPOSITION

成分記号 ELEMENT		Ni	Cu				Zn				
規格 SPEC. (%)	MAX.	19.50	66.00				—				
	MIN.	16.50	62.00				—				
分析値 ANALYSIS VALUE		16.770	65.080				17.794				

試験 TEST RESULT

項目 ITEM		引張強さ Tensile Strength N/mm2	伸び Elongation %	硬さ Hardness			
規格 SPEC	条件 CONDITION			HV			
	MAX.	—	—	205.0000			
	MIN.	540.0000	3.0000	150.0000			
測定値 MEASUREMENT VALUE		627.000	5.800	199.000			

項目 ITEM							
規格 SPEC	条件 CONDITION						
	MAX.						
	MIN.						
測定値 MEASUREMENT VALUE							

項目 ITEM	条件 CONDITION	測定値 MEASUREMENT VALUE

備考 REMARKS

パレットNo.1 : No.1/438W

検査合格／PASS

規格番号 SPEC. NO.	1257000009 A
顧客仕様書番号 CUSTOMER'S SPEC. NO.	JIS H 3110

y. maruyama
MANAGER of QUALITY ASSURANCE SECTION

責任者	担当者
丸山	松本

Manufacturer: APCB

ONLINE CERTIFICATIONS DIRECTORY

ZPMV2.E85792
Wiring, Printed - Component

Enhanced searching capability for this category can be found in UL's iQ Family of Databases (iq.ul.com).

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Wiring, Printed - Component

See General Information for Wiring, Printed - Component

APCB INC
6 LANE 84 CHUN YING ST
SHU LIN
NEW TAIPEI, 238 TAIWAN

E85792

	Cond Width				Max			Max			
		Min	Cond	SS/	Area	Solder		Oper		Meets	C
	Min	Edge	Thk	DS/	Diam	Limits		Temp	Flame	UL796	T
Type	mm(in)	mm(in)	mic(mil)	DSO	mm(in)	C	sec	C	Class	DSR	I
Multilayer metal base printed wiring boards, flammability only Recognition.											
33B	-	-	-	SS	-	288	10	-	V-0	-	-
Multilayer printed wiring boards.											
77	0.06 (0.002)	0.06 (0.002)	17 (0.67) Int:34	DS	76.2 (3.0)	288	20	130	V-0	All	-
77-1	0.10 (0.004)	0.10 (0.004)	17 (0.67) Int:34	DS	76.2 (3.0)	288	20	130	V-0	All	-
77A	0.06 (0.002)	0.07 (0.003)	17 (0.67) Int:34	DS	76.2 (3.0)	288	20	130	V-0	All	-
77B	0.07 (0.003)	0.07 (0.003)	17 (0.67) Int:68	DS	76.2 (3.0)	288	20	130	V-0	All	-
99	0.1 (0.004)	0.2 (0.008)	17.3 (0.68)	DS	76.2 (3.0)	260	10	105	V-0	All	-
Multilayer printed wiring boards, flammability only Recognition.											
77C	-	-	-	DS	-	288	20	-	V-0	-	-
Single layer metal base printed wiring boards.											
33A-1	(1) (0.0000)	(1) (0.0000)	17 (0.67)	SS	76.2 (3.0)	300	60	110	V-0	All	0
Single layer metal base printed wiring boards, flammability only Recognition.											
33A	-	-	-	SS	-	288	10	-	V-0	-	-
AC-89	-	-	-	SS	-	288	30	-	V-0	-	-
AP2	-	-	-	SS	-	300	60	-	V-0	-	-
AP4	-	-	-	SS	-	300	60	-	V-0	-	-
AP8	-	-	-	SS	-	300	60	-	V-0	-	-
Single layer printed wiring boards.											
66	0.1 (0.004)	0.17 (0.007)	17 (0.67)	DS	76.2 (3.0)	274	15	130	V-0	All	-
66-1	0.10 (0.004)	0.17 (0.007)	17 (0.67)	DS	76.2 (3.0)	274	15	130	V-0	All	*
66A	0.1 (0.004)	0.18 (0.007)	17 (0.67)	DS	25.4 (1.0)	274	15	105	V-0	All	-
66B	0.1 (0.004)	0.17 (0.007)	17 (0.67)	DS	25.4 (1.0)	274	15	130	V-0	All	-
66C	0.1 (0.004)	0.1 (0.004)	34.3 (1.35)	SS	25.4 (1.0)	260	15	130	V-0	All	-
66D	0.06 (0.002)	0.07 (0.003)	17 (0.67)	DS	76.2 (3.0)	288	20	130	V-0	All	-
66E	0.07 (0.003)	0.07 (0.003)	17 (0.67)	DS	76.2 (3.0)	288	20	130	V-0	All	-
88	0.1 (0.004)	0.18 (0.007)	17.3 (0.68)	DS	25.4 (1.0)	260	10	105	V-0	All	-
CKV-0	0.18 (0.007)	0.18 (0.007)	33 (1.30)	DS	25.4 (1.0)	270	10	130	V-0	All	-
D-1	0.1 (0.004)	0.17 (0.007)	17 (0.67)	DS	25.4 (1.0)	274	15	130	V-0	All	-
Single layer printed wiring boards, flammability only Recognition.											

30	-	-	-	DS	-	274	15	-	V-0	-	-
66F	-	-	-	DS	-	288	20	-	V-0	-	-

(1) - Conductor/Edge Conductor Width: 0.06 mm/0.18 mm (Cu thickness = 17~102 mics); 0.21 mm/0.21 mm (Cu thickness = 102~136 mics)

* - CTI PLC is marked on individual board.

Marking: Company name or tradename "CK" or file number and type designation. May be followed by a suffix to denote factory identification or burning test classification.

Last Updated on 2012-03-13

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ONLINE CERTIFICATIONS DIRECTORY

ZPMV2.E198991
Wiring, Printed - Component

Enhanced searching capability for this category can be found in UL's iQ Family of Databases (iq.ul.com).

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Wiring, Printed - Component

See General Information for Wiring, Printed - Component

BROAD TECHNOLOGY INC E198991
18 BAOYING AVE
GUANGZHOU FREE TRADE ZONE
GUANGZHOU, GUANGDONG 510730 CHINA

	Cond Width				Max			Max			
		Min	Cond	SS/	Area	Solder		Oper		Meets	C
	Min	Edge	Thk	DS/	Diam	Limits		Temp	Flame	UL796	T
Type	mm(in)	mm(in)	mic(mil)	DSO	mm(in)	C	sec	C	Class	DSR	I
Multilayer printed wiring boards.											
ML-1	0.1 (0.004)	0.22 (0.009)	17 (0.67) Int 34	DS	76.2 (3.0)	260	10	130	V-0	All	-
ML-2	0.075 (0.003)	0.075 (0.003)	17 (0.67) Int 68	DS	76.2 (3.0)	288	30	130	V-0	All	-
ML-3	0.07 (0.003)	0.10 (0.004)	15 (0.59) Int 34	DS	50.8 (2.0)	288	30	130	V-0	All	-
Single layer metal base printed wiring boards.											
SS-2	0.095 (0.004)	0.100 (0.004)	17 (0.67)	SS	76.2 (3.0)	288	10	50	V-0	All	-
SS-3	0.075 (0.003)	0.100 (0.004)	17 (0.67)	SS	76.2 (3.0)	288	10	50	V-0	All	-
Single layer printed wiring boards.											
DS-1	0.1 (0.004)	0.22 (0.009)	17 (0.67)	DS	76.2 (3.0)	260	10	130	V-0	All	-
DS-2	0.075 (0.003)	0.075 (0.003)	17 (0.67)	DS	76.2 (3.0)	288	30	130	V-0	All	-
SS-1	0.1 (0.004)	0.22 (0.009)	17 (0.67)	SS	76.2 (3.0)	260	10	130	V-0	All	-

Marking: Company name or tradename "BTI" or file number and type designation. May be followed by a suffix to denote factory identification or burning test classification.

Last Updated on 2011-09-30

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ONLINE CERTIFICATIONS DIRECTORY

ZPMV2.E187565
Wiring, Printed - Component

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Wiring, Printed - Component

See General Information for Wiring, Printed - Component

TRIPOD TECHNOLOGY CO LTD E187565
21 INDUSTRIAL 5TH RD
PING-CHENG INDUSTRIAL ZONE
PING-CHENG, TAOYUAN HSIEN 324 TAIWAN

	Cond Width				Max			Max			
		Min	Cond	SS/	Area	Solder		Oper		Meets	C
	Min	Edge	Thk	DS/	Diam	Limits		Temp	Flame	UL796	T
Type	mm(in)	mm(in)	mic(mil)	DSO	mm(in)	C	sec	C	Class	DSR	I
Multilayer printed wiring boards.											
2	0.03 (0.001)	0.03 (0.001)	17 (0.67) Int:102	DS	25.4 (1.0)	260	20	130	V-0	All	-
2-10	0.04 (0.002)	0.04 (0.002)	12 (0.47) Int:68	DS	50.8 (2.0)	288	20	130	V-0	All	*
2-3	0.04 (0.002)	0.04 (0.002)	11 (0.43) Int:35	DS	25.4 (1.0)	288	20	120	V-0	All	-
2-4	0.04 (0.002)	0.04 (0.002)	11 (0.43) Int:35	DS	25.4 (1.0)	288	20	120	V-0	All	-
2-5	0.04 (0.002)	0.04 (0.002)	11 (0.43) Int:35	DS	25.4 (1.0)	288	20	105	V-0	All	-
2-6	0.05 (0.002)	0.18 (0.007)	17 (0.67) Int:17	DS	25.4 (1.0)	260	20	120	V-0	All	-
2-7	0.03 (0.001)	0.03 (0.001)	17 (0.67) Int:70	DS	25.4 (1.0)	260	20	120	V-0	All	-
2-8	0.06 (0.002)	0.06 (0.002)	11 (0.43) Int:17	DS	25.4 (1.0)	288	20	120	V-0	All	-
2-9	0.04 (0.002)	0.04 (0.002)	12 (0.47) Int:70	DS	50.8 (2.0)	288	20	130	V-0	All	*
2A	0.04 (0.002)	0.04 (0.002)	17 (0.67) Int:70	DS	25.4 (1.0)	260	20	130	V-0	All	*
2B	0.03 (0.001)	0.03 (0.001)	17 (0.67) Int:70	DS	25.4 (1.0)	260	20	130	V-0	All	-
2C	0.06 (0.002)	0.06 (0.002)	17 (0.67) Int:70	DS	25.4 (1.0)	288	20	130	V-0	All	*
2D	0.06 (0.002)	0.18 (0.007)	16 (0.63) Int:68	DS	25.4 (1.0)	288	20	130	V-0	All	*
2E	0.25 (0.010)	0.75 (0.030)	12 (0.47) Int:102	DS	25.4 (1.0)	288	20	130	V-0	All	3
2G	0.06 (0.002)	0.06 (0.002)	17 (0.67) Int:68	DS	25.4 (1.0)	288	20	130	V-0	All	4
2K	0.04 (0.002)	0.04 (0.002)	12 (0.47) Int:70	DS	76.2 (3.0)	288	20	130	V-0	All	3
2N	0.04 (0.002)	0.12 (0.005)	12 (0.47) Int:70	DS	50.8 (2.0)	288	20	130	V-0	All	-
2P	0.04 (0.002)	0.04 (0.002)	11 (0.43) Int:68	DS	50.8 (2.0)	288	30	90	V-0	All	-
2S	0.04 (0.002)	0.04 (0.002)	12 (0.47) Int:70	DS	50.8 (2.0)	288	20	130	V-0	All	-
2U	0.04 (0.002)	0.04 (0.002)	9 (0.35) Int:170	DS	50.8 (2.0)	288	20	130	V-0	All	*
3	0.05 (0.002)	0.05 (0.002)	17 (0.67) Int:70	DS	25.4 (1.0)	260	20	120	V-0	All	3
3A	0.05 (0.002)	0.05 (0.002)	17 (0.67) Int:70	DS	25.4 (1.0)	260	20	105	V-0	All	2
5	0.04 (0.002)	0.04 (0.002)	12 (0.47) Int:34	DS	25.4 (1.0)	260	20	105	V-0	All	*
5-1	0.04 (0.002)	0.05 (0.002)	12 (0.47) Int:35	DS	25.4 (1.0)	288	30	100	V-0	All	-
5-2	0.04 (0.002)	0.04 (0.002)	17 (0.67) Int:102	DS	25.4 (1.0)	260	20	130	V-0	▲	-
5-3	0.04 (0.002)	0.04 (0.002)	11 (0.43) Int:35	DS	25.4 (1.0)	288	20	120	V-0	All	-
5B	0.04 (0.002)	0.04 (0.002)	12 (0.47) Int:68	DS	25.4 (1.0)	260	20	105	V-0	All	3
7-1	0.04 (0.002)	0.04 (0.002)	17 (0.67) Int:102	DS	25.4 (1.0)	260	20	130	V-0	All	4
7-2	0.03 (0.001)	0.03 (0.001)	17 (0.67) Int:70	DS	25.4 (1.0)	260	20	105	V-0	All	-

7-3	0.04 (0.002)	0.04 (0.002)	11 (0.43) Int:35	DS	25.4 (1.0)	288	20	105	V-0	All	-
7-4	0.04 (0.002)	0.04 (0.002)	17 (0.67) Int:102	DS	25.4 (1.0)	260	20	130	V-0	All	-
8	0.07 (0.003)	0.06 (0.002)	17 (0.67) Int:68	DS	25.4 (1.0)	300	30	140	V-0	All	-
A	0.04 (0.002)	0.04 (0.002)	17 (0.67) Int:102	DS	25.4 (1.0)	260	20	110	V-0	All	*
M-2	0.04 (0.002)	0.04 (0.002)	11.3 (0.44) Int:34	DS	50.8 (2.0)	288	20	130	V-0	All	4
M-3	0.04 (0.002)	0.04 (0.002)	12 (0.47) Int:70	DS	50.8 (2.0)	288	20	130	V-0	All	3
M-4	0.04 (0.002)	0.04 (0.002)	12 (0.47) Int:70	DS	50.8 (2.0)	288	20	130	V-0	All	3
M-7	0.04 (0.002)	0.04 (0.002)	17 (0.67) Int:70	DS	50.8 (2.0)	288	20	130	V-0	All	3
M-8	0.04 (0.002)	0.04 (0.002)	11 (0.43) Int:68	DS	50.8 (2.0)	288	20	105	V-1	All	1
M-9	0.04 (0.002)	0.04 (0.002)	12 (0.47) Int:70	DS	50.8 (2.0)	288	20	130	V-0	All	3
Multilayer printed wiring boards, employing HDI (High Density Interconnect) insulation, flammability only Recognition..											
3-3	-	-	-	DS	-	260	30	-	V-0	-	-
3-4	-	-	-	DS	-	260	30	-	V-0	-	-
3-5	-	-	-	DS	-	260	20	-	V-1	-	-
3-6	-	-	-	DS	-	260	20	-	V-1	-	-
3-7	-	-	-	DS	-	260	20	-	V-0	-	-
3-9	-	-	-	DS	-	260	20	-	V-0	-	-
R-1	-	-	-	DS	-	260	20	-	V-0	-	-
R-2	-	-	-	DS	-	288	20	-	V-0	-	-
R-3	-	-	-	DS	-	288	20	-	V-0	-	-
R-4	-	-	-	DS	-	288	20	-	V-0	-	-
R-5	-	-	-	DS	-	288	20	-	V-0	-	-
Multilayer printed wiring boards, employing HDI (High Density Interconnect) insulation..											
3-1	0.04 (0.002)	0.04 (0.002)	12 (0.47) Int:68	DS	25.4 (1.0)	260	20	105	V-0	All	-
3-2	0.04 (0.002)	0.04 (0.002)	12 (0.47) Int:68	DS	25.4 (1.0)	260	20	105	V-0	All	-
Multilayer printed wiring boards, flammability only Recognition.											
2T	-	-	-	DS	-	288	40	-	V-0	-	-
M-1	-	-	-	DS	-	288	20	-	V-0	-	-
Single layer metal base printed wiring boards.											
L1	0.04 (0.002)	0.04 (0.002)	17 (0.67)	SS	50.8 (2.0)	260	20	110	V-0	All	0
L2	0.04 (0.002)	0.04 (0.002)	17 (0.67)	SS	50.8 (2.0)	260	20	90	V-0	-	1
L3	0.04 (0.002)	0.04 (0.002)	17 (0.67)	SS	50.8 (2.0)	260	20	110	V-0	-	2
L4	0.04 (0.002)	0.04 (0.002)	17 (0.67)	SS	50.8 (2.0)	260	20	115	V-0	All	0
L5	0.04 (0.002)	0.12 (0.005)	17 (0.67)	SS	50.8 (2.0)	260	20	130	V-0	All	0
L7	0.04 (0.002)	0.04 (0.002)	17 (0.67)	SS	50.8 (2.0)	260	20	50	V-0	All	0
L8	0.04 (0.002)	0.04 (0.002)	17 (0.67)	SS	50.8 (2.0)	260	20	50	V-0	All	0
L9	0.05 (0.002)	0.06 (0.002)	30 (1.18)	SS	50.8 (2.0)	260	20	50	V-0	All	0
Single layer printed wiring boards.											
1	0.04 (0.002)	0.04 (0.002)	17 (0.67)	DS	25.4 (1.0)	260	20	130	V-0	All	-
1-1	0.06 (0.002)	0.06 (0.002)	11 (0.43)	DS	25.4 (1.0)	288	20	120	V-0	All	-
1-2	0.06 (0.002)	0.06 (0.002)	11 (0.43)	DS	25.4 (1.0)	288	20	120	V-0	All	-
1-3	0.06 (0.002)	0.06 (0.002)	11 (0.43)	DS	25.4 (1.0)	288	20	120	V-0	All	-
1-5	0.04 (0.002)	0.04 (0.002)	11 (0.43)	DS	50.8 (2.0)	260	20	105	V-0	All	-
1-9	0.04 (0.002)	0.04 (0.002)	12 (0.47)	DS	50.8 (2.0)	288	20	130	V-0	All	*
1A	0.04 (0.002)	0.04 (0.002)	12 (0.47)	DS	25.4 (1.0)	260	20	120	V-0	All	3
1B	0.06 (0.002)	0.06 (0.002)	17 (0.67)	DS	25.4 (1.0)	288	20	130	V-0	All	*

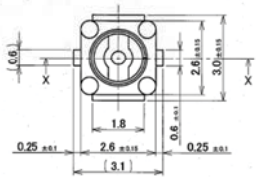
	0.04 (0.002)	0.04 (0.002)	12 (0.47)	DS	25.4 (1.0)	260	20	105	V-0	All	*
1D	0.06 (0.002)	0.06 (0.002)	9 (0.35)	DS	25.4 (1.0)	288	20	120	V-0	All	3
1E	0.06 (0.002)	0.18 (0.007)	16 (0.63)	DS	25.4 (1.0)	288	20	130	V-0	All	*
1H	0.25 (0.010)	0.75 (0.030)	12 (0.47)	DS	25.4 (1.0)	288	20	130	V-0	All	3
1L	0.25 (0.010)	0.28 (0.011)	102 (4.02)	DS	25.4 (1.0)	288	20	130	V-0	All	3
1N	0.04 (0.002)	0.12 (0.005)	12 (0.47)	DS	50.8 (2.0)	288	20	130	V-0	All	-
1P	0.04 (0.002)	0.04 (0.002)	11 (0.43)	DS	50.8 (2.0)	288	30	90	V-0	All	-
1S	0.04 (0.002)	0.04 (0.002)	12 (0.47)	DS	50.8 (2.0)	288	20	130	V-0	All	-
1U	0.04 (0.002)	0.04 (0.002)	9 (0.35)	DS	50.8 (2.0)	288	20	130	V-0	All	*
4	0.03 (0.001)	0.1 (0.004)	35.1 (1.38)	DS	25.4 (1.0)	260	20	105	V-1	-	-
4-1	0.06 (0.002)	0.06 (0.002)	11 (0.43)	DS	25.4 (1.0)	288	30	120	V-0	All	-
6	0.05 (0.002)	0.18 (0.007)	35.1 (1.38)	DS	25.4 (1.0)	260	20	50	V-0	-	-
D-2	0.04 (0.002)	0.04 (0.002)	11 (0.43)	DS	50.8 (2.0)	288	20	125	V-0	All	*
D-3	0.04 (0.002)	0.04 (0.002)	12 (0.47)	DS	50.8 (2.0)	288	20	130	V-0	All	3
D-4	0.04 (0.002)	0.04 (0.002)	12 (0.47)	DS	50.8 (2.0)	288	20	130	V-0	All	0
D-5	0.04 (0.002)	0.04 (0.002)	17 (0.67)	DS	50.8 (2.0)	288	20	130	V-0	All	0
Single layer printed wiring boards, flammability only Recognition.											
1T	-	-	-	DS	-	288	40	-	V-0	-	-
1V	-	-	-	DS	-	288	30	-	V-0	-	-
D-1	-	-	-	DS	-	288	20	-	V-0	-	-

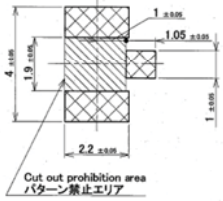
* - CTI PLC value is marked on each individual board.

Marking: Company name or tradename "E187565" or trademark  or file number and type designation. May be followed by a suffix to denote factory identification or burning test classification.
Last Updated on 2014-04-28

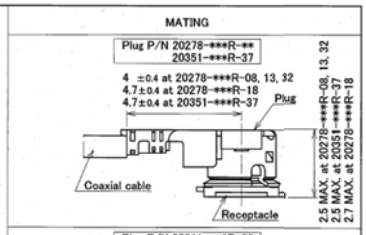
U.FL CONNECTOR SPEC

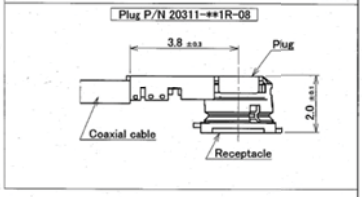
PART NO.	Packing reel	QTY
20279-001E-01	Corrugated paper reel	2500
20279-001E-02	Plastic reel	2500
20279-001E-03	Plastic reel	5000

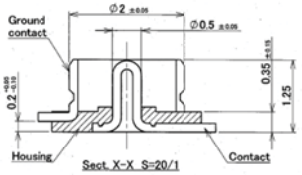




RECOMMENDED FOOTPRINT PATTERN







Notes.

1. Material
(1) Housing : LCP, UL94V-0, white
(2) Contact : brass
Au 0.1 μm MIN. over Ni 1.27 μm MIN.
(3) Ground Contact : phosphor bronze
Au 0.05 μm MIN. over Ni 1.27 μm MIN.
2. Coplanarity : 0.1mm MAX.
3. Packing : emboss tape
4. Mating partner Part No. :
20278-***R-**
20311-**1R-08
5. This is "Pb-free" connector.
6. RoHS compliant.

Notes.

1. 材料
(1) ハウジング : LCP, UL94V-0, 白色
(2) コンタクト : 黄銅
金メッキ 0.1 μm MIN. 下地 ニッケルメッキ 1.27 μm MIN.
(3) グランドコンタクト : りん青銅
金メッキ 0.05 μm MIN. 下地 ニッケルメッキ 1.27 μm MIN.
2. コプラナリティ : 0.1mm MAX.
3. 梱包 : エンボステープ
4. 嵌合相手 Part No. :
20278-***R-**
20311-**1R-08
5. 本コネクタは"Pb-free"である
6. RoHS指令を満足している

GENERAL TOLERANCE	
6 MAX.	±0.2
6 OVER MAX. 30	±0.3
30 OVER MAX. 120	±0.5
ANGLE	±2°

REV	ECN	BY	DATE	APP
10	Z0101	Y.H	May/08/'10	E.K
9	Z09317	H.M	Jul./01/'09	E.K
8	Z07672	D.J	Feb./29/'08	E.K
7	Z05283	K.O	Jun./20/'05	E.K
6	Z04457	K.O	Dec./20/'04	E.K
5	Z04412	K.O	Nov./24/'04	E.K
4	Z04337	K.O	Sep./30/'04	T.H
3	Z2134	K.O	Jun./11/'02	K.K
2	Z2052	A.H	Mar./07/'02	K.K
1	Z1197	K.O	Aug./27/'01	K.K
0	Z1103	K.O	Jun./07/'01	

REV RECORD

SERIES No.

DESIGNED BY	K.Ohbayashi	DATE Jun./07/'01
CHKD BY	E.Kawabe	DATE Jun./07/'01
APPD BY	K.Katabuchi	DATE Jun./07/'01

CUSTOMER COPY

PROJECTION

I-PEX Advanced and Packaging Electronics TOKYO,JAPAN

TITLE: MHF series micro coaxial connector receptacle vertical

SCALE	UNIT	DWG. No.	SHEET	REV.
10:1	mm	20279	1/1	10

EEPROM INFORMATION

BT

Vendor ID	0x0E8D
Product ID	0x76A1

WI-FI

Reg Domain	World Wide **2.4G/5G** Read from registry; Control by driver
	Offset 0x38 for 5G: 0xFF Offset 0x39 for 2.4G: 0xFF
Vendor ID	0x0E8D
Device ID	0x76A1

ENVIRONMENTAL

OPERATING

Operating Temperature: 0 to 70 °C (32 to 158 °F)

Relative Humidity: 5-90% (non-condensing)

STORAGE

Temperature: -40 to 80 °C (-40 to 176 °F)

Relative Humidity: 5-95% (non-condensing)

PART LIST

Item	Component_Description	Location
1	CHIP MONO 0201 2.7pF/50V +-0.25pF NPO GR M0335C1H2R7CA01D SMD(MURATA)	C1
2	CHIP MONO 0201 1.5pF/50V +-0.25pF NPO GR M0335C1H1R5CA01D SMD(MURATA)	C10
3	CHIP MONO 0201 0.5pF 50V +-0.25pF NPO GR M0335C1HR50CA01D SMD(MURATA)	C11
4	CHIP MONO 0201 2.7pF/50V +-0.25pF NPO GR M0335C1H2R7CA01D SMD(MURATA)	C13
5	CHIP MONO 0201 10pF/50V +-5% NPO GRM0335 C1H100JA01D SMD(MURATA)	C14
6	CHIP MONO 0201 0.1uF 10V +-10% X5R CC020 1KRX5R6BB104 SMD(YAGEO)	C15
7	CHIP MONO 0201 0.1uF 10V +-10% X5R C0603 X5R104KDTS SMD(DARFON)	C15
8	CHIP MONO 0201 0.1uF/10V +-10% X5R GRM03 3R61A104KE15D SMD(MURATA)	C15
9	CHIP MONO 0201 1.5pF/50V +-0.25pF NPO GR M0335C1H1R5CA01D SMD(MURATA)	C17
10	CHIP MONO 0201 2.7pF/50V +-0.25pF NPO GR M0335C1H2R7CA01D SMD(MURATA)	C18
11	CHIP MONO 0201 1.5pF/50V +-0.25pF NPO GR M0335C1H1R5CA01D SMD(MURATA)	C2
12	CHIP RES 1/20W +-5% 0ohm 0201 RM02JTN0 S MD(TA-I)	C21
13	CHIP RES 1/20W +-5% 0ohm 0201 WR02X000 P AL SMD(WALSIN)	C21
14	CHIP RES 1/20W +-5% 0ohm 0201 RR0306S-00 0-XNH SMD(CYNTEC)	C21
15	CHIP RES 1/20W +-5% 0ohm 0201 RM02JTN0 S MD(TA-I)	C23
16	CHIP RES 1/20W +-5% 0ohm 0201 WR02X000 P AL SMD(WALSIN)	C23
17	CHIP RES 1/20W +-5% 0ohm 0201 RR0306S-00 0-XNH SMD(CYNTEC)	C23
18	CHIP RES 1/20W +-5% 0ohm 0201 RM02JTN0 S MD(TA-I)	C25
19	CHIP RES 1/20W +-5% 0ohm 0201 WR02X000 P AL SMD(WALSIN)	C25
20	CHIP RES 1/20W +-5% 0ohm 0201 RR0306S-00 0-XNH SMD(CYNTEC)	C25
21	CHIP MONO 0201 10pF/50V +-5% NPO GRM0335 C1H100JA01D SMD(MURATA)	C3
22	CHIP MONO 0201 0.6pF/50V +-0.1pF NPO GRM 0335C1HR60BA01D SMD(MURATA)	C32
23	CHIP MONO 0201 4.7pF/50V +-0.25pF NPO GR M0335C1H4R7CA01D SMD(MURATA)	C33
24	CHIP MONO 0201 10pF/50V +-5% NPO GRM0335 C1H100JA01D SMD(MURATA)	C35
25	CHIP MONO 0201 0.1uF 10V +-10% X5R CC020 1KRX5R6BB104 SMD(YAGEO)	C36
26	CHIP MONO 0201 0.1uF 10V +-10% X5R C0603 X5R104KDTS SMD(DARFON)	C36
27	CHIP MONO 0201 0.1uF/10V +-10% X5R GRM03 3R61A104KE15D SMD(MURATA)	C36
28	CHIP MONO 0603 4.7uF 10V +-10% X5R 0603X 475K100CT SMD(WALSIN)	C37
29	CHIP MONO 0603 4.7uF/10V +-10% X5R LMK10 7BJ475KA-T SMD(TAIYO YUDEN)	C37
30	CHIP MONO 0603 4.7uF 10V +-10% X5R C1608 X5R475KDTS SMD(DARFON)	C37
31	CHIP MONO 0201 100pF/25V +-5% NPO CC0201 JRNPO8BN101 SMD(YAGEO)	C38
32	CHIP MONO 0201 100pF 25V +-5% NPO C0603N P0101JFTS SMD(DARFON)	C38
33	CHIP MONO 0201 100pF 25V +-5% NPO GRM033 5C1E101JA01D SMD(MURATA)	C38
34	CHIP MONO 0201 0.1uF 10V +-10% X5R CC020 1KRX5R6BB104 SMD(YAGEO)	C39
35	CHIP MONO 0201 0.1uF 10V +-10% X5R C0603 X5R104KDTS SMD(DARFON)	C39

36	CHIP MONO 0201 0.1uF/10V +-10% X5R GRM03 3R61A104KE15D SMD(MURATA)	C39
37	CHIP MONO 0201 2.7pF/50V +-0.25pF NPO GR M0335C1H2R7CA01D SMD(MURATA)	C4
38	CHIP MONO 0402 1uF/10V +-10% X5R 0402X10 5K100CT SMD(WALSIN)	C40
39	CHIP MONO 0402 1uF/10V +-10% X5R C1005X5 R105KDTS SMD(DARFON)	C40
40	CHIP MONO 0402 1uF/10V +-10% X5R GRM155R 61A105KE15D SMD(MURATA)	C40
41	CHIP MONO 0402 1uF/10V +-10% X5R 0402X10 5K100CT SMD(WALSIN)	C41
42	CHIP MONO 0402 1uF/10V +-10% X5R C1005X5 R105KDTS SMD(DARFON)	C41
43	CHIP MONO 0402 1uF/10V +-10% X5R GRM155R 61A105KE15D SMD(MURATA)	C41
44	CHIP MONO 0201 22pF/25V +-5% NPO 0201N22 0J250CT SMD(WALSIN)	C42
45	CHIP MONO 0201 22pF/25V +-5% NPO C0603NP 0220JFTS SMD(DARFON)	C42
46	CHIP MONO 0201 22pF/25V +-5% NPO GRM0335 C1E220JA01D SMD(MURATA)	C42
47	CHIP MONO 0402 1uF/10V +-10% X5R 0402X10 5K100CT SMD(WALSIN)	C44
48	CHIP MONO 0402 1uF/10V +-10% X5R C1005X5 R105KDTS SMD(DARFON)	C44
49	CHIP MONO 0402 1uF/10V +-10% X5R GRM155R 61A105KE15D SMD(MURATA)	C44
50	CHIP MONO 0402 1uF/10V +-10% X5R 0402X10 5K100CT SMD(WALSIN)	C45
51	CHIP MONO 0402 1uF/10V +-10% X5R C1005X5 R105KDTS SMD(DARFON)	C45
52	CHIP MONO 0402 1uF/10V +-10% X5R GRM155R 61A105KE15D SMD(MURATA)	C45
53	CHIP MONO 0603 10uF/10V +-20% X5R LMK107 BJ106MALTD SMD(TAIYO YUDEN)	C47
54	CHIP MONO 0603 10uF/10V +-20% X5R GRM188 R61A106ME69D SMD(MURATA)	C47
55	CHIP MONO 0402 1uF/10V +-10% X5R 0402X10 5K100CT SMD(WALSIN)	C48
56	CHIP MONO 0402 1uF/10V +-10% X5R C1005X5 R105KDTS SMD(DARFON)	C48
57	CHIP MONO 0402 1uF/10V +-10% X5R GRM155R 61A105KE15D SMD(MURATA)	C48
58	CHIP MONO 0402 4700pF/50V +-10% X7R 0402 B472K500CT SMD(WALSIN)	C55
59	CHIP MONO 0402 4700pF/50V +-10% X7R GRM1 55R71H472KA01D SMD(MURATA)	C55
60	CHIP MONO 0201 0.1uF 10V +-10% X5R CC020 1KRX5R6BB104 SMD(YAGEO)	C57
61	CHIP MONO 0201 0.1uF 10V +-10% X5R C0603 X5R104KDTS SMD(DARFON)	C57
62	CHIP MONO 0201 0.1uF/10V +-10% X5R GRM03 3R61A104KE15D SMD(MURATA)	C57
63	CHIP MONO 0402 1uF/10V +-10% X5R 0402X10 5K100CT SMD(WALSIN)	C58
64	CHIP MONO 0402 1uF/10V +-10% X5R C1005X5 R105KDTS SMD(DARFON)	C58
65	CHIP MONO 0402 1uF/10V +-10% X5R GRM155R 61A105KE15D SMD(MURATA)	C58
66	CHIP MONO 0201 0.5pF 50V +-0.25pF NPO GR M0335C1HR50CA01D SMD(MURATA)	C6
67	CHIP MONO 0603 2.2uF/10V +-10% X5R 0603X 225K100CT SMD(WALSIN)	C60
68	CHIP MONO 0603 2.2uF/10V +-10% X5R CC060 3KRX5R6BB225 SMD(YAGEO)	C60
69	CHIP MONO 0603 2.2uF/10V +-10% X5R GRM18 8R61A225KE34D SMD(MURATA)	C60
70	CHIP MONO 0402 1uF/10V +-10% X5R 0402X10 5K100CT SMD(WALSIN)	C61
71	CHIP MONO 0402 1uF/10V +-10% X5R C1005X5 R105KDTS SMD(DARFON)	C61
72	CHIP MONO 0402 1uF/10V +-10% X5R GRM155R 61A105KE15D SMD(MURATA)	C61
73	CHIP MONO 0201 0.1uF 10V +-10% X5R CC020 1KRX5R6BB104 SMD(YAGEO)	C62
74	CHIP MONO 0201 0.1uF 10V +-10% X5R C0603 X5R104KDTS SMD(DARFON)	C62
75	CHIP MONO 0201 0.1uF/10V +-10% X5R GRM03 3R61A104KE15D SMD(MURATA)	C62
76	CHIP MONO 0603 2.2uF/10V +-10% X5R 0603X 225K100CT SMD(WALSIN)	C68
77	CHIP MONO 0603 2.2uF/10V +-10% X5R CC060 3KRX5R6BB225 SMD(YAGEO)	C68

78	CHIP MONO 0603 2.2uF/10V +-10% X5R GRM18 8R61A225KE34D SMD(MURATA)	C68
79	CHIP MONO 0201 0.1uF 10V +-10% X5R CC020 1KRX5R6BB104 SMD(YAGEO)	C69
80	CHIP MONO 0201 0.1uF 10V +-10% X5R C0603 X5R104KDTS SMD(DARFON)	C69
81	CHIP MONO 0201 0.1uF/10V +-10% X5R GRM03 3R61A104KE15D SMD(MURATA)	C69
82	CHIP MONO 0201 10pF/50V +-5% NPO GRM0335 C1H100JA01D SMD(MURATA)	C7
83	CHIP MONO 0201 0.1uF 10V +-10% X5R CC020 1KRX5R6BB104 SMD(YAGEO)	C70
84	CHIP MONO 0201 0.1uF 10V +-10% X5R C0603 X5R104KDTS SMD(DARFON)	C70
85	CHIP MONO 0201 0.1uF/10V +-10% X5R GRM03 3R61A104KE15D SMD(MURATA)	C70
86	CHIP MONO 0402 1uF/10V +-10% X5R 0402X10 5K100CT SMD(WALSIN)	C71
87	CHIP MONO 0402 1uF/10V +-10% X5R C1005X5 R105KDTS SMD(DARFON)	C71
88	CHIP MONO 0402 1uF/10V +-10% X5R GRM155R 61A105KE15D SMD(MURATA)	C71
89	CHIP MONO 0201 0.1uF 10V +-10% X5R CC020 1KRX5R6BB104 SMD(YAGEO)	C72
90	CHIP MONO 0201 0.1uF 10V +-10% X5R C0603 X5R104KDTS SMD(DARFON)	C72
91	CHIP MONO 0201 0.1uF/10V +-10% X5R GRM03 3R61A104KE15D SMD(MURATA)	C72
92	CHIP MONO 0201 0.1uF 10V +-10% X5R CC020 1KRX5R6BB104 SMD(YAGEO)	C73
93	CHIP MONO 0201 0.1uF 10V +-10% X5R C0603 X5R104KDTS SMD(DARFON)	C73
94	CHIP MONO 0201 0.1uF/10V +-10% X5R GRM03 3R61A104KE15D SMD(MURATA)	C73
95	CHIP MONO 0201 0.1uF 10V +-10% X5R CC020 1KRX5R6BB104 SMD(YAGEO)	C74
96	CHIP MONO 0201 0.1uF 10V +-10% X5R C0603 X5R104KDTS SMD(DARFON)	C74
97	CHIP MONO 0201 0.1uF/10V +-10% X5R GRM03 3R61A104KE15D SMD(MURATA)	C74
98	CHIP MONO 0402 1uF/10V +-10% X5R 0402X10 5K100CT SMD(WALSIN)	C75
99	CHIP MONO 0402 1uF/10V +-10% X5R C1005X5 R105KDTS SMD(DARFON)	C75
100	CHIP MONO 0402 1uF/10V +-10% X5R GRM155R 61A105KE15D SMD(MURATA)	C75
101	CHIP MONO 0201 1.5pF/50V +-0.25pF NPO GR M0335C1H1R5CA01D SMD(MURATA)	C8
102	CHIP MONO 0201 100pF/25V +-5% NPO CC0201 JRNPO8BN101 SMD(YAGEO)	C80
103	CHIP MONO 0201 100pF 25V +-5% NPO C0603N P0101JFTS SMD(DARFON)	C80
104	CHIP MONO 0201 100pF 25V +-5% NPO GRM033 5C1E101JA01D SMD(MURATA)	C80
105	CHIP MONO 0201 100pF/25V +-5% NPO CC0201 JRNPO8BN101 SMD(YAGEO)	C81
106	CHIP MONO 0201 100pF 25V +-5% NPO C0603N P0101JFTS SMD(DARFON)	C81
107	CHIP MONO 0201 100pF 25V +-5% NPO GRM033 5C1E101JA01D SMD(MURATA)	C81
108	CHIP MONO 0603 10uF/10V +-20% X5R LMK107 BJ106MALTD SMD(TAIYO YUDEN)	C85
109	CHIP MONO 0603 10uF/10V +-20% X5R GRM188 R61A106ME69D SMD(MURATA)	C85
110	CHIP MONO 0201 22pF/25V +-5% NPO 0201N22 0J250CT SMD(WALSIN)	C86
111	CHIP MONO 0201 22pF/25V +-5% NPO C0603NP 0220JFTS SMD(DARFON)	C86
112	CHIP MONO 0201 22pF/25V +-5% NPO GRM0335 C1E220JA01D SMD(MURATA)	C86
113	CHIP MONO 0603 10uF/10V +-20% X5R LMK107 BJ106MALTD SMD(TAIYO YUDEN)	C87
114	CHIP MONO 0603 10uF/10V +-20% X5R GRM188 R61A106ME69D SMD(MURATA)	C87
115	CHIP MONO 0201 22pF/25V +-5% NPO 0201N22 0J250CT SMD(WALSIN)	C88
116	CHIP MONO 0201 22pF/25V +-5% NPO C0603NP 0220JFTS SMD(DARFON)	C88
117	CHIP MONO 0201 22pF/25V +-5% NPO GRM0335 C1E220JA01D SMD(MURATA)	C88
118	CHIP MONO 0201 22pF/25V +-5% NPO 0201N22 0J250CT SMD(WALSIN)	C89
119	CHIP MONO 0201 22pF/25V +-5% NPO C0603NP 0220JFTS SMD(DARFON)	C89

120	CHIP MONO 0201 22pF/25V +-5% NPO GRM0335 C1E220JA01D SMD(MURATA)	C89
121	CHIP MONO 0201 10pF/50V +-5% NPO GRM0335 C1H100JA01D SMD(MURATA)	C9
122	CHIP MONO 0201 22pF/25V +-5% NPO 0201N22 0J250CT SMD(WALSIN)	C90
123	CHIP MONO 0201 22pF/25V +-5% NPO C0603NP 0220JFTS SMD(DARFON)	C90
124	CHIP MONO 0201 22pF/25V +-5% NPO GRM0335 C1E220JA01D SMD(MURATA)	C90
125	CHIP MONO 0201 22pF/25V +-5% NPO 0201N22 0J250CT SMD(WALSIN)	C91
126	CHIP MONO 0201 22pF/25V +-5% NPO C0603NP 0220JFTS SMD(DARFON)	C91
127	CHIP MONO 0201 22pF/25V +-5% NPO GRM0335 C1E220JA01D SMD(MURATA)	C91
128	CHIP MONO 0201 22pF/25V +-5% NPO 0201N22 0J250CT SMD(WALSIN)	C92
129	CHIP MONO 0201 22pF/25V +-5% NPO C0603NP 0220JFTS SMD(DARFON)	C92
130	CHIP MONO 0201 22pF/25V +-5% NPO GRM0335 C1E220JA01D SMD(MURATA)	C92
131	CHIP MONO 0201 22pF/25V +-5% NPO 0201N22 0J250CT SMD(WALSIN)	C93
132	CHIP MONO 0201 22pF/25V +-5% NPO C0603NP 0220JFTS SMD(DARFON)	C93
133	CHIP MONO 0201 22pF/25V +-5% NPO GRM0335 C1E220JA01D SMD(MURATA)	C93
134	ANT CON ULTRAMINI COAX RECEPTACLE 3P 202 79-001E-03 SMD (日商愛伯 I-PEX)	CON1
135	ANT CON MINI COAX RECEPTACLE SMD 3P AM 4-1000-000-3(順連)	CON1
136	ANT CON ULTRAMINI COAX RECEPTACLE 3P 202 79-001E-03 SMD (日商愛伯 I-PEX)	CON2
137	ANT CON MINI COAX RECEPTACLE SMD 3P AM 4-1000-000-3(順連)	CON2
138	ANT CON ULTRAMINI COAX RECEPTACLE 3P 202 79-001E-03 SMD (日商愛伯 I-PEX)	CON3
139	ANT CON MINI COAX RECEPTACLE SMD 3P AM 4-1000-000-3(順連)	CON3
140	Pin Header Male 2*6 12PIN SMD+R 2mm SMD CH79122M10P CVILUX	J1
141	Inductors 2.7nH@600MHz 0.5A +-0.1nH 0201 SMD LQP03TN2N7B02D MURATA	L1
142	Inductors 1.0nH@500MHz 0.75A +-0.1nH 0201 SMD LQP03TN1N0B02D MURATA	L14
143	INDUCTOR 5.1nH +-3% 350mA 0201 LQP03TN5N 1H02D SMD(MURATA)	L15
144	Inductors 2.2uH@100KHz 1.5A +-20% 2.5*2.0*1.0 SMD	L16
145	Inductors 2.2uH@100KHz 1.5A +-20% 2.5*2.0*1.0 SMD	L17
146	Inductors 2.7nH@600MHz 0.5A +-0.1nH 0201 SMD LQP03TN2N7B02D MURATA	L2
147	INDUCTOR 1.8nH +-0.1nH 600mA 0201 LQP03T N1N8B02D SMD(MURATA)	L3
148	INDUCTOR 1.8nH +-0.1nH 600mA 0201 LQP03T N1N8B02D SMD(MURATA)	L4
149	INDUCTOR 1.8nH +-0.1nH 600mA 0201 LQP03T N1N8B02D SMD(MURATA)	L6
150	Inductors 2.7nH@600MHz 0.5A +-0.1nH 0201 SMD LQP03TN2N7B02D MURATA	L7
151	Inductors 2.7nH@600MHz 0.5A +-0.1nH 0201 SMD LQP03TN2N7B02D MURATA	L8
152	INDUCTOR 1.8nH +-0.1nH 600mA 0201 LQP03T N1N8B02D SMD(MURATA)	L9
153	CHIP RES 1/20W +-5% 0ohm 0201 RM02JTN0 S MD(TA-I)	R100
154	CHIP RES 1/20W +-5% 0ohm 0201 WR02X000 P AL SMD(WALSIN)	R100
155	CHIP RES 1/20W +-5% 0ohm 0201 RR0306S-00 0-XNH SMD(CYNTEC)	R100
156	CHIP RES 1/20W +-5% 0ohm 0201 RM02JTN0 S MD(TA-I)	R104
157	CHIP RES 1/20W +-5% 0ohm 0201 WR02X000 P AL SMD(WALSIN)	R104
158	CHIP RES 1/20W +-5% 0ohm 0201 RR0306S-00 0-XNH SMD(CYNTEC)	R104
159	CHIP RES 1/20W +-1% 5.1K 0201 RC0201FR-0 75K1L SMD(YAGEO)	R15
160	CHIP RES 1/20W +-1% 5.1K 0201 RM02FTN510 1 SMD(TA-I)	R15
161	CHIP RES 1/20W +-1% 5.1K 0201 WR02X5101F AL SMD(WALSIN)	R15
162	CHIP RES 1/16W +-1% 20ohm 0402 RC0402FR- 0720RL SMD(YAGEO)	R20

163	CHIP RES 1/16W +-1% 20ohm 0402 WR04X20R0 FTL SMD(WALSIN)	R20
164	CHIP RES 1/20W +-5% 1K 0201 RM02JTN102 S MD(TA-I)	R7
165	CHIP RES 1/20W +-5% 1K 0201 WR02X102 JAL SMD(WALSIN)	R7
166	CHIP RES 1/20W +-5% 1K 0201 RR0306S-102- JNH SMD(CYNTEC)	R7
167	CHIP RES 1/20W +-5% 0ohm 0201 RM02JTN0 S MD(TA-I)	R91
168	CHIP RES 1/20W +-5% 0ohm 0201 WR02X000 P AL SMD(WALSIN)	R91
169	CHIP RES 1/20W +-5% 0ohm 0201 RR0306S-00 0-XNH SMD(CYNTEC)	R91
170	CHIP RES 1/20W +-5% 0ohm 0201 RM02JTN0 S MD(TA-I)	R92
171	CHIP RES 1/20W +-5% 0ohm 0201 WR02X000 P AL SMD(WALSIN)	R92
172	CHIP RES 1/20W +-5% 0ohm 0201 RR0306S-00 0-XNH SMD(CYNTEC)	R92
173	CHIP RES 1/20W +-5% 100K 0201 RC0201JR-0 7100KL SMD(YAGEO)	R95
174	CHIP RES 1/20W +-5% 100K 0201 RM02JTN104 SMD(TA-I)	R95
175	CHIP RES 1/20W +-5% 100K 0201 WR02X104 J AL SMD(WALSIN)	R95
176	CHIP RES 1/20W +-5% 100K 0201 RC0201JR-0 7100KL SMD(YAGEO)	R96
177	CHIP RES 1/20W +-5% 100K 0201 RM02JTN104 SMD(TA-I)	R96
178	CHIP RES 1/20W +-5% 100K 0201 WR02X104 J AL SMD(WALSIN)	R96
179	CHIP RES 1/20W +-1% 22.1K 0201 RC0201FR- 0722K1L SMD(YAGEO)	R97
180	CHIP RES 1/20W +-1% 22.1K 0201 RM02FTN22 12 SMD(TA-I)	R97
181	CHIP RES 1/20W +-1% 22.1K 0201 WR02X2212 FAL SMD(WALSIN)	R97
182	Band Pass Filter 5.0GHz 1.6*0.8mm SMD DP1608-A2455DGT/LF ACXC	U1
183	Band Pass Filter 5.0GHz 1.6*0.8mm SMD DP1608-A2455DGT/LF ACXC	U2
184	(Amtran) WLAN+Bluetooth QFN 76PIN SMD MT7632TUN MEDIATEK	U4
185	Crystals_SMD 40MHz 10.0ppm 11.5pF 3.2*2.5*0.7 SMD TZ2746A TAI-SAW	U5
186	Low Pass Filter 2.4GHz DEA162500LT-5033A2 TDK	U7
187	Regulator IC 2.5-5.5V 1A 0.W DFN 6.0PIN SMD (ADJACENT	U8
188	Rigid PCB WCBN4507R WLAN FR4 OSP 1oz 4 49*18*1 1 TRIPOD	
189	Rigid PCB WCBN4507R WLAN FR4 OSP 1oz 4 49*18*1 1 BROAD TECH	
190	Rigid PCB WCBN4507R WLAN FR4 OSP 1oz 4 49*18*1 1 APCB	
191	Stamping_Alloy WCBN4503R B:shielding 洋白銅 FOR WCBN4503R AND	

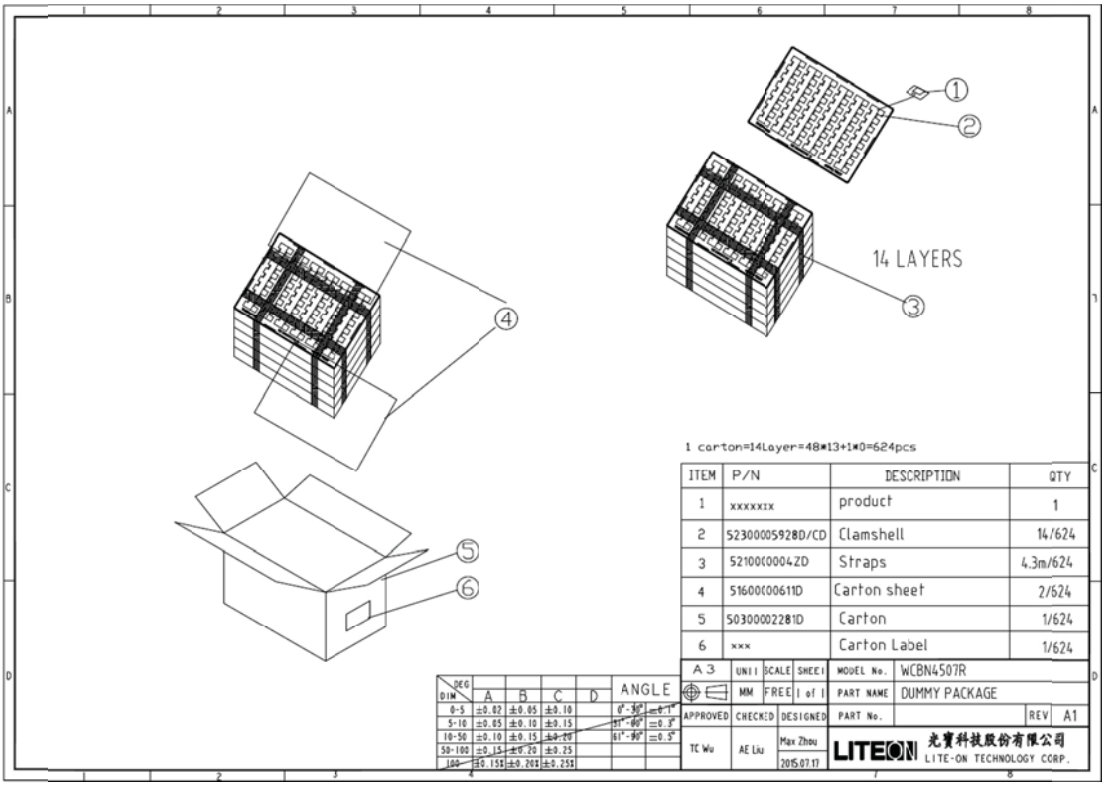
RELIABILITY TEST ITEM

Test Report: see Appendix C(page45~page78)

Test Item	Test Time	Test Condition	Test Q'ty	Estimated Date of Completion
1. Environmental Test				
1.1 Thermal measurement test	21hrs	Temperature 25°C&40°C&60°C, 6hrs/Temp	1	Completed
1.2 High Temperature Test (Operating)	96hrs	Temperature 60°C	10	Completed
1.3 Low Temperature Test (Operating)	96hrs	Temperature 0°C		Completed
1.4 Temp. and Humidity Cyclic Test (Operational)	96hrs	Temperature 60°C, Humidity 90%RH.		Completed
1.5 High Temperature Test (Storage)	96hrs	Temperature 80°C	10	Completed
1.6 Low Temperature Test (Storage)	96hrs	Temperature -25°C		Completed
1.7 High Temperature & High Humidity (Storage)	96hrs	Temperature 60°C, Humidity 90%RH		Completed
1.8 Thermal Shock Test (Storage)	24hrs	Low temperature: -40°C 30min High temperature: 100°C 30min Test cycles: 20cycles		Completed
1.9 Cold Start Testing	6hrs	Temperature 0°C		Completed
1.10 Longtime Connection Test (Operating)	168hrs	Temperature 60°C	10	Completed
1.11 MTBF Demonstration	76days	1. Temperature Condition: 40°C. 2. To check DUTs' function everyday 3. Change ART mode and auto radiate during the test event	25	Completed
101.12 Open Short Test	3hrs	3.3V	5	Completed
1.13 Electrostatic Discharge(ESD) Test	3hrs	Air +/- 8KV Contact +/- 4KV	2	Completed
2. Mechanical Test				
2.1 Drop Test (Unit and Package)	24hrs	Unit 1. Drop height: 78cm 2. Drop Plane: steel plate 3. Sample: 10PCS 4. Drop Sequences: 6 sides, 4 edges Package 1. Drop height: 91cm 2. Drop Plane: steel plate 3. Sample: 1 Carton 4. Drop Sequences: 1 corner, 3 edge and 6 face	10	Completed

2.2 Vibration Test (Unit and Package)	5.5hrs	Unit and Package (Random) 1. Frequency: 5 ~ 250Hz 2. Acceleration = 1.0Grms 3. Each of X, Y, Z axis/ 60 min 4. Sample: 10Units and 1 Carton Unit and Package (Sine) 1. Frequency: 5 ~ 250Hz 2. Acceleration = 1.0Grms 3. Each of X, Y, Z axis/ 30 min 4. Sample: Units and 1 Carton Unit (Random) 1. Frequency: 10 ~ 1000Hz 2. Acceleration = 6~8Grms 3. Each of X, Y, Z axis/ 20 min 4. Sample: Units	10	Completed
2.3 Power ON/OFF Cycling Test	50hrs	1. System ON Time: Power on Time 5 sec + Op 5 sec System 2. OFF Time: 10 seconds 3. ON/OFF Cycle Time: 15 seconds 4. Test Cycle: 12000 Cycles	10	Completed
2.4 Salt Mist Test	48hrs	Salt Solution: 5 wt.% NaCl solution PH of solution: 6.5~7.2 Temperature: 35±2°C Quantity of fog: 1.0~2.0 ml/ 80 cm2/ hour Exposing duration: 48 hours	2	Completed

PACKING DRAWING



ITEM	P/N	DESCRIPTION	QTY
1	xxxxxix	product	1
2	52300005928D/CD	Clamshell	14/624
3	52100(00042D	Straps	4.3m/624
4	51600(00611D	Carton sheet	2/624
5	50300002281D	Carton	1/624
6	xxx	Carton Label	1/624

DEG DIM	A	B	C	D	ANGLE
0-5	±0.02	±0.05	±0.10		0°-30° ±0.1°
5-10	±0.05	±0.10	±0.15		31°-60° ±0.3°
10-50	±0.10	±0.15	±0.20		61°-90° ±0.5°
50-100	±0.15	±0.20	±0.25		
100-	±0.15	±0.20	±0.25		

A3	UNIT	SCALE	SHEET	MODEL No.	WCBN4507R
	MM	FREE	1 of 1	PART NAME	DUMMY PACKAGE
APPROVED	CHECKED	DESIGNED		PART No.	REV A1
TC Wu	AE Liu	Max Zhou	2015.07.17	LITEON 光寶科技股份有限公司 LITE-ON TECHNOLOGY CORP.	

APPENDIX A: SHIELDING CASE SGS REPORT

SGS

測試報告
Test Report

號碼(No.) : CE/2013/31511　日期(Date) : 2013/03/13　頁數(Page) : 1 of 8

泰瑞發股份有限公司
TAIPLUS ENTERPRISE CO., LTD.
台北市敦化南路二段128號15樓之2
15F-2, NO. 128, SEC. 2, TUN HWA S. RD., TAIPEI, TAIWAN

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

申請廠商(Applicant)	:	泰瑞發股份有限公司 (TAIPLUS ENTERPRISE CO., LTD.)
樣品名稱(Sample Description)	:	洋白銅
樣品型號(Style/Item No.)	:	C7521
收件日期(Sample Receiving Date)	:	2013/03/06
測試期間(Testing Period)	:	2013/03/06 TO 2013/03/13

測試需求(Test Requested) : (1) 依據客戶要求，參考RoHS 2011/65/EU Annex II 指令進行鎘，鉛，汞，六價鉻，多溴聯苯，多溴聯苯醚測試. (As specified by client, with reference to RoHS Directive 2011/65/EU Annex II to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs contents in the submitted sample.)
(2) 依據客戶指定，進行鹵素-氟、氯、溴、碘測試. (As specified by client, to test Halogen-Fluorine, Chlorine, Bromine, Iodine contents in the submitted sample.)

測試方法(Test Method) : 請見下一頁 (Please refer to next pages).

測試結果(Test Results) : 請見下一頁 (Please refer to next pages).

結論(Conclusion) : 根據客戶所提供的樣品，其鎘，鉛，汞，六價鉻，多溴聯苯，多溴聯苯醚的測試結果符合RoHS指令2002/95/EC的更新指令2011/65/EU之要求 (Based on the performed tests on submitted samples, the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.)

SGS TAIWAN LTD

Chenyu Kung / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory – Taipei

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泰瑞發股份有限公司
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台北市敦化南路二段128號15樓之2
15F-2, NO. 128, SEC. 2, TUN HWA S. RD., TAIPEI, TAIWAN

測試結果(Test Results)

測試部位(PART NAME) No.1 : 銀色金屬片 (SILVER COLORED METAL SHEET)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	法規限值 (Limit)
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321: 2008方法，以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.	100
鉛 / Lead (Pb)	mg/kg	參考IEC 62321: 2008方法，以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321: 2008方法，以感應耦合電漿原子發射光譜儀檢測. / With reference to IEC 62321: 2008 and performed by ICP-AES.	2	n.d.	1000
六價鉻 / Hexavalent Chromium Cr(VI)	**	參考IEC 62321: 2008方法，以沸水萃取法檢測. / With reference to IEC 62321: 2008 and performed by Boiling water extraction Method.#	#	Negative	#
鹵素 / Halogen					
鹵素 (氟) / Halogen-Fluorine (F) (CAS No.: 14762-94-8)	mg/kg	參考BS EN 14582:2007，以離子層析儀分析. / With reference to BS EN 14582:2007. Analysis was performed by IC.	50	n.d.	-
鹵素 (氯) / Halogen-Chlorine (Cl) (CAS No.: 22537-15-1)			50	n.d.	-
鹵素 (溴) / Halogen-Bromine (Br) (CAS No.: 10097-32-2)			50	n.d.	-
鹵素 (碘) / Halogen-Iodine (I) (CAS No.: 14362-44-8)			50	n.d.	-

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測試報告
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台北市敦化南路二段128號15樓之2
15F-2, NO. 128, SEC. 2, TUN HWA S. RD., TAIPEI, TAIWAN

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測極限值 (MDL)	結果 (Result) No.1	法規限值 (Limit)
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321: 2008方法，以氣相層析/質譜儀檢測. / With reference to IEC 62321: 2008 and performed by GC/MS.	-	n.d.	1000
一溴聯苯 / Monobromobiphenyl			5	n.d.	-
二溴聯苯 / Dibromobiphenyl			5	n.d.	-
三溴聯苯 / Tribromobiphenyl			5	n.d.	-
四溴聯苯 / Tetrabromobiphenyl			5	n.d.	-
五溴聯苯 / Pentabromobiphenyl			5	n.d.	-
六溴聯苯 / Hexabromobiphenyl			5	n.d.	-
七溴聯苯 / Heptabromobiphenyl			5	n.d.	-
八溴聯苯 / Octabromobiphenyl			5	n.d.	-
九溴聯苯 / Nonabromobiphenyl			5	n.d.	-
十溴聯苯 / Decabromobiphenyl			5	n.d.	-
多溴聯苯醚總和 / Sum of PBDEs			-	n.d.	1000
一溴聯苯醚 / Monobromodiphenyl ether			5	n.d.	-
二溴聯苯醚 / Dibromodiphenyl ether			5	n.d.	-
三溴聯苯醚 / Tribromodiphenyl ether			5	n.d.	-
四溴聯苯醚 / Tetrabromodiphenyl ether			5	n.d.	-
五溴聯苯醚 / Pentabromodiphenyl ether			5	n.d.	-
六溴聯苯醚 / Hexabromodiphenyl ether			5	n.d.	-
七溴聯苯醚 / Heptabromodiphenyl ether			5	n.d.	-
八溴聯苯醚 / Octabromodiphenyl ether			5	n.d.	-
九溴聯苯醚 / Nonabromodiphenyl ether			5	n.d.	-
十溴聯苯醚 / Decabromodiphenyl ether			5	n.d.	-

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司 | 33, Wu Chuan Rd., New Taipei Industrial Park, New Taipei City, Taiwan / 新北市新北產業園區五權路33號
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測試報告
Test Report

號碼(No.) : CE/2013/31511　日期(Date) : 2013/03/13　頁數(Page) : 4 of 8

泰瑞發股份有限公司
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15F-2, NO. 128, SEC. 2, TUN HWA S. RD., TAIPEI, TAIWAN

備註(Note)：

1. mg/kg = ppm；0.1wt% = 1000ppm
2. n.d. = Not Detected (未檢出)
3. MDL = Method Detection Limit (方法偵測極限值)
4. "-" = Not Regulated (無規格值)
5. **= Qualitative analysis (No Unit) 定性分析(無單位)
6. # = a. Positive means the presence of CrVI on the tested areas
   (Positive表示測試區域偵測到六價鉻)
   b. Negative means the absence of CrVI on the tested areas
   (Negative表示測試區域未偵測到六價鉻)
   The detected concentration in boiling-water-extraction solution is equal or greater than 0.02 mg/kg with 50 cm^2 tested areas. / 該溶液濃度≧0.02 mg/kg with 50 cm^2 (tested areas)

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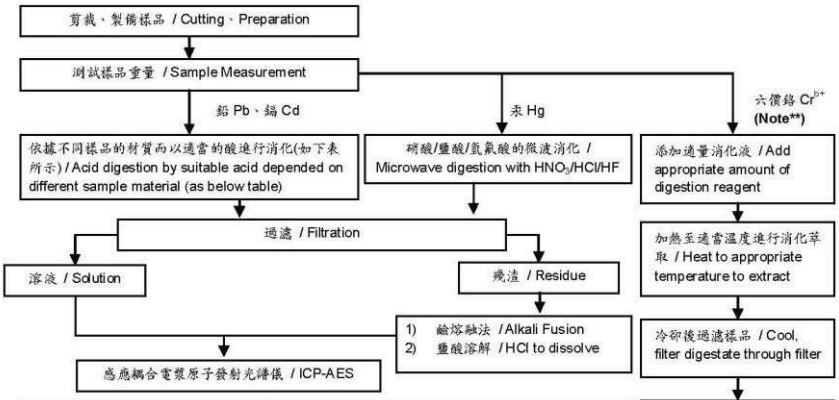
測試報告
Test Report

泰瑞發股份有限公司
TAIPLUS ENTERPRISE CO., LTD.
台北市敦化南路二段128號15樓之2
15F-2, NO. 128, SEC. 2, TUN HWA S. RD., TAIPEI, TAIWAN

1) 根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外) / These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr^{6+} test method excluded)
2) 測試人員：楊登偉 / Name of the person who made measurement: Climbgreat Yang
3) 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



樣品材質 / Sample Material	消化酸液種類 / Digestion Acid
鋼, 銅, 鋁, 焊錫 / Steel, copper, aluminum, solder	王水, 硝酸, 鹽酸, 氫氟酸, 雙氧水 / Aqua regia, HNO_3, HCl, HF, H_2O_2
玻璃 / Glass	硝酸,氫氟酸 / HNO_3/HF
金, 鉑, 鈀, 陶瓷 / Gold, platinum, palladium, ceramic	王水 / Aqua regia
銀 / Silver	硝酸 / HNO_3
塑膠 / Plastic	硫酸, 雙氧水, 硝酸, 鹽酸 / H_2SO_4, H_2O_2, HNO_3, HCl
其他 / Others	加入適當的試劑至完全溶解 / Added appropriate reagent to total digestion

Note:** (1) 針對非金屬材料加入鹼性消化液，加熱至 90~95℃ 萃取. / For non-metallic material, add alkaline digestion reagent and heat to 90~95℃.
(2) 針對金屬材料加入純水，加熱至沸騰萃取. / For metallic material, add pure water and heat to boiling.

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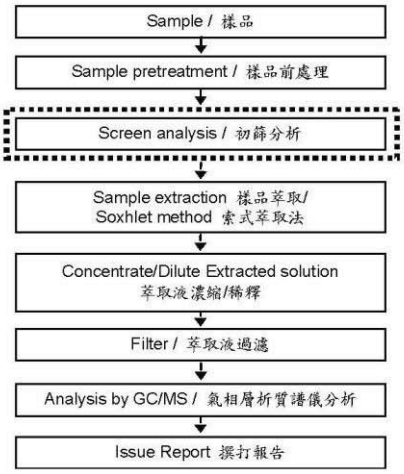
多溴聯苯/多溴聯苯醚分析流程圖 / PBB/PBDE analytical FLOW CHART

- 測試人員：翁賜彬 / Name of the person who made measurement: Roman Wong
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang

初次測試程序 / First testing process ——→
選擇性篩檢程序 / Optional screen process ▪▪▪▪▪▪▪▪▪
確認程序 / Confirmation process —·—→



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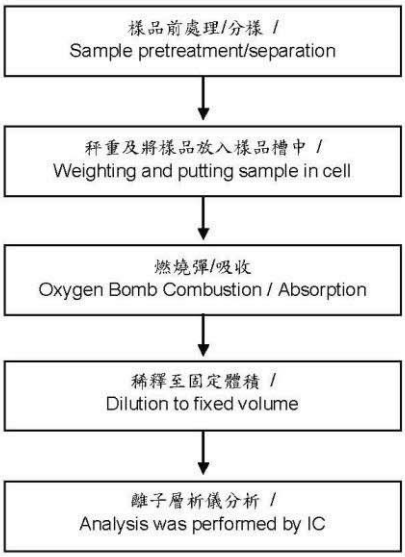
鹵素分析流程圖 / Analytical flow chart of halogen content

- 測試人員：陳恩臻 / Name of the person who made measurement: Rita Chen
- 測試負責人：張啓興 / Name of the person in charge of measurement: Troy Chang



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測試報告
Test Report

號碼(No.) : CE/2013/31511　日期(Date) : 2013/03/13　頁數(Page) : 8 of 8

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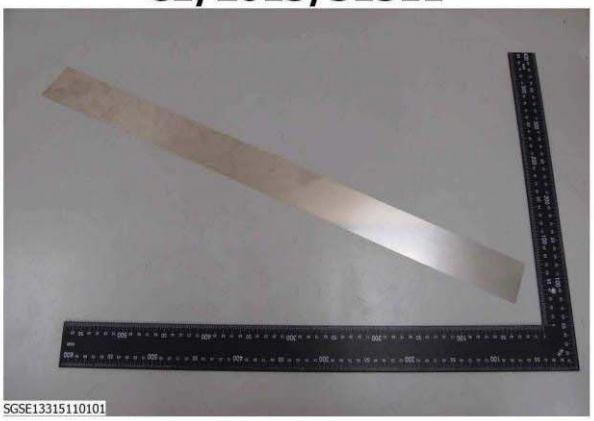
TAIPLUS ENTERPRISE CO., LTD.
台北市敦化南路二段128號15樓之2
15F-2, NO. 128, SEC. 2, TUN HWA S. RD., TAIPEI, TAIWAN

*** 照片中如有箭頭標示，則表示為實際檢測之樣品/部位. ***
(The tested sample / part is marked by an arrow if it's shown on the photo.)

CE/2013/31511



** 報告結尾(End of Report) **

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APPENDIX B: RELIABILITY TEST REPORT

LITEON Technology Corp.

LITE-ON TECHOLOGY (CHANG ZHOU) CO., LTD TEST CENTER

Test Report

Model : WCBN4507R
Version : 01

Approver: TC WU
Auditor: Hero Wang
Tester： Max Zhou
Date: 2015.10.28
Report NO.: P-R201509004

A9 Building, No. 88, Yanghu Road, Wujin Hi-Tech Industrial Development Zone,
Changzhou City, Jiangsu Province, P.R. China
Tel:+86-0519-83068888 Ext:20804
Website: http://www.Liteon.com
Email: Hero.Wang@liteon.com
Postcode: 213166

FCC Statement:

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

● Reorient or relocate the receiving antenna.

● Increase the separation between the equipment and receiver.

● Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

● Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

This device and its antenna(s) must not be co-located with any other transmitters except in accordance with FCC multi-transmitter product procedures.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

IMPORTANT NOTE:

This module is intended for OEM integrator. The OEM integrator is responsible for the

compliance to all the rules that apply to the product into which this certified RF module is integrated.
Additional testing and certification may be necessary when multiple modules are used.

20 cm minimum distance has to be able to be maintained between the antenna and the users for the host this module is integrated into. Under such configuration, the FCC radiation exposure limits set forth for an population/uncontrolled environment can be satisfied.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

USERS MANUAL OF THE END PRODUCT:
In the users manual of the end product, the end user has to be informed to keep at least 20 cm separation with the antenna while this end product is installed and operated. The end user has to be informed that the FCC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. If the size of the end product is smaller than 8x10cm, then additional FCC part 15.19 statement is required to be available in the users manual: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

LABEL OF THE END PRODUCT:
The final end product must be labeled in a visible area with the following " Contains TX FCC ID: PPQ-WCBN4516R ". If the size of the end product is larger than 8x10cm, then the following FCC part 15.19 statement has to also be available on the label: This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

OEM Integrator Checklist

The party below will implement the LITE-ON Module in host systems in accordance with the instructions specified in this document and the documents referenced herein.

1. The OEM integrator will ensure the Module is integrated in a host systems using only the approved antenna model(s) described in this document.

BT：Walsin / RFPCA291503IMAB301 / PCB Antenna / Gain: 4.85 dBi

WiFi_1：Walsin / RFPCA251523IMLB301 / PCB Antenna / 2.4G Gain: 3.94 dBi, 5G Gain: 5.52 dBi

WiFi_2：Walsin / RFPCA361507IMLB301 / PCB Antenna / 2.4G Gain: 4.4 dBi, 5G Gain: 5.67 dBi

2. The OEM integrator will ensure the antenna placement inside the host system will maintain the required spacing to end user for RF Exposure compliance, as specified in this document.

3. If other radios are integrated inside the host with the LITE-ON Module, the OEM integrator will contact its test lab, TCB or LITE-ON to determine if additional FCC compliance evaluation is required to meet FCC collocation rules.

4. The OEM integrator will ensure end user documentation will contain the specified regulatory wording and ensure the host system and the Module itself are labeled as specified in this document.

5. The OEM integrator will ensure the Module is programmed in the factory with compliant transmit power not exceeding the levels specified in this document.

LITE-ON requests that the OEM integrator acknowledge its receipt of this document and the above instructions. You may contact LITE-ON with any questions concerning this document or the responsibilities of the OEM integrator.

IC Statement:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

Pour les produits disponibles aux États-Unis / Canada du marché, seul le canal 1 à 11 peuvent être exploités. Sélection d'autres canaux n'est pas possible.

This device and its antenna(s) must not be co-located with any other transmitters except in accordance with IC multi-transmitter product procedures.

Refering to the multi-transmitter policy, multiple-transmitter(s) and module(s) can be operated simultaneously without reassessment permissive change.

Cet appareil et son antenne (s) ne doit pas être co-localisés ou fonctionnement en association avec une autre antenne ou transmetteur.

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate.

le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5850 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

Dynamic Frequency Selection (DFS) for devices operating in the bands 5250- 5350 MHz, 5470-5600 MHz and 5650-5725 MHz.

Sélection dynamique de fréquences (DFS) pour les dispositifs fonctionnant dans les bandes 5250-5350 MHz, 5470-5600 MHz et 5650-5725 MHz.

The maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit.
le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.

Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.
De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Pour une utilisation en intérieur uniquement.

IMPORTANT NOTE:
IC Radiation Exposure Statement:
This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled
environment. This equipment should be installed and operated with minimum distance 20 cm
between the radiator & your body.
Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

This module is intended for OEM integrator. The OEM integrator is still responsible for the IC compliance requirement of the end product, which integrates this module.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

USERS MANUAL OF THE END PRODUCT:
In the users manual of the end product, the end user has to be informed to keep at least 20 cm separation with the antenna while this end product is installed and operated. The end

user has to be informed that the IC radio-frequency exposure guidelines for an uncontrolled environment can be satisfied. The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

LABEL OF THE END PRODUCT:
The final end product must be labeled in a visible area with the following " Contains TX IC: 4491A-WCBN4516R ".