



承認書

APPROVAL SHEET

客戶名稱

CUSTOMER : 鴻海

品 名

DESCRIPTION : SINGLE 1000 BASE-TX LAN MAGNETIC

型 號

PART NO. : LG1P109RN LF

客戶料號

PART NO. :

帛漢股份有限公司		
DOCU. NO:		APPROVED NO:
檢 測 TEST BY	范文麗	客戶承認簽章 APPROVED SIGNATURES
審 查 CHECK BY	楊鎮杰	
品 管 Q.A.DEPT	張偉榮	
核 准 APPROVED BY	崔卓斌	
日期 DATE:	2019/4/11	日 期 DATE:

2019-04-11

研發發行

帛 漢 股 份 有 限 公 司
BOTH HAND ENTERPRISE INC.

地址：桃園縣 333 龜山鄉(南坎)民生北路一段 538 號 4 樓(光速 21 大樓)

4F, NO. 538, MINSHENG. N. RD. SEC 1, GUEI-SHAN SHIANG (NAN-KAN),

TAO-YUAN SHIEN, TAIWAN, R.O.C.

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帛漢股份有限公司

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APPROVED BY: 崔卓斌

CHECKED BY: 楊鎮杰

TESTED BY: 范文麗



帛漢股份有限公司

承認書修改記錄表

序號	日期	修改原因	修改前說明	修改后說明
1	190411	/	初版所需	

APPROVED BY:崔卓斌

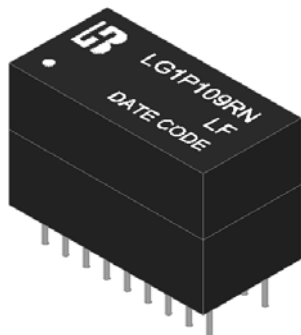
CHECKED BY: 楊鎮杰

TESTED BY:范文麗

SINGLE 1000 BASE-TX LAN
MAGNETIC
P/N: LG1P109RN LF DATA SHEET



Feature



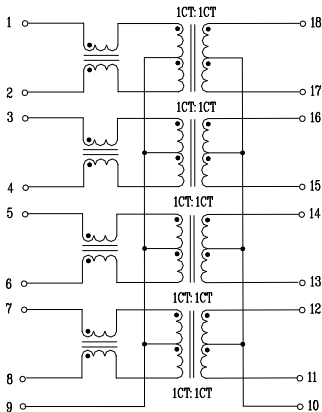
- Designed to meet IEEE 802.3ab requirement, including 350uH OCL with 8mA bias.
- Complying with ROHS requirements.
- Operating temperature range:0℃ to +70℃.
- Storage temperature range:-25℃ to +85℃.

Electrical Specifications @ 25℃							
Part Number	Turns Ratio (±5%)		OCL (uH Min) @100KHz/0.1V with 8mA DC Bias	L.L (uH Max)	C _{w/w} (pF Max)	DCR (Ω Max)	HI-POT
	TX	RX					
LG1P109RN LF	1CT:1CT	1CT:1CT	350	0.5	96	1.2	AC1500V/1mA

Continue						
Part Number	Insertion Loss (dB Max)	Return Loss (dB Min)				
	1-100MHz	1-30MHz	40MHz	50MHz	60-80MHz	100MHz
LG1P109RN LF	-1.1	-18	-16	-14.08	-12.5	-10

Continue						
Part Number	Cross talk (dB Min)			CMR (dB Min)		
	0.3-30MHz	30-60MHz	60-100MHz	1-30MHz	30-60MHz	60-125MHz
LG1P109RN LF	-40	-35	-30	-30	-25	-20

Schematic

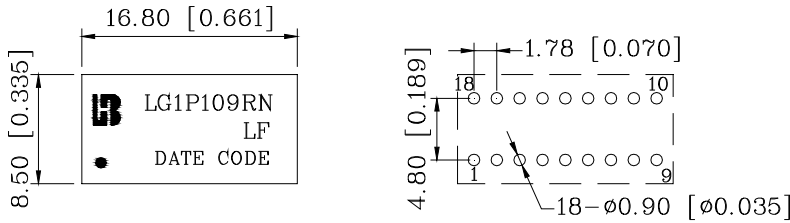


<https://www.bothhandww.com>

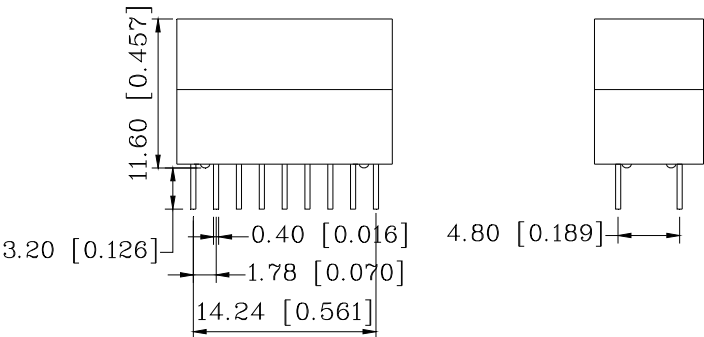
SINGLE 1000 BASE-TX LAN
MAGNETIC
P/N: LG1P109RN LF DATA SHEET



Mechanical



SUGGESTED PAD LAYOUT



Units: mm[Inches] Tolerances : xx.xx±0.25[0.010]
0.xx±0.05[0.002]



BOTHHAND ENTERPRISE INC .
帛漢股份有限公司 *****TEST REPORT*****

CUSTOMER : 鴻海

PULSE TRANSFORMER

PART NO . : LG1P109RN LF

DATE CODE:

TEST DATE : 2019/4/11

UNIT NO .			1	2	3	4	5
ITEM	TEST CONDITIONS	TEST PIN					
OCL (uH) ZX2789	100KHz/0.1V with 8mA DC Bias 350uH(Min)	18-17= 1-2	482	370	497	480	453
		16-15=3-4	485	524	469	465	463
		14-13=5-6	448	517	456	461	435
		12-11=7-8	465	470	473	445	474
L.L(uH) ZX2789	100KHz/0.1V 0.5uH(Max)	1-2(short18-17)	0.28	0.25	0.33	0.38	0.42
		3-4(short 16-15)	0.28	0.25	0.38	0.38	0.40
		5-6(short 14-13)	0.28	0.25	0.41	0.35	0.41
		7-8(short12-11)	0.26	0.24	0.41	0.32	0.38
Cw/w(pF) ZX2789	100 KHz/0.1V 96 pF (Max)	9-10	66	62	70	74	73
DCR(Ω) ZX2789	1.0 Ω (Max)	18-17	0.56	0.57	0.68	0.70	0.67
		16-15	0.56	0.56	0.67	0.68	0.64
		14-13	0.53	0.54	0.64	0.67	0.66
		12-11	0.52	0.54	0.65	0.63	0.63
	1.2 Ω (Max)	1-2	0.81	0.84	0.68	0.66	0.70
		3-4	0.81	0.83	0.65	0.68	0.65
		5-6	0.78	0.78	0.65	0.70	0.69
		7-8	0.77	0.78	0.65	0.62	0.62
TURNS RATIO ($\pm 5\%$) ZX2789	1CT: 1CT	18-17:1-2	PASS	PASS	PASS	PASS	PASS
		16-15:3-4	PASS	PASS	PASS	PASS	PASS
		14-13:5-6	PASS	PASS	PASS	PASS	PASS
		12-11:7-8	PASS	PASS	PASS	PASS	PASS
PHASE ZX2789	IN PHASE	18 &1 16&3	PASS	PASS	PASS	PASS	PASS
		14&5 12&7	PASS	PASS	PASS	PASS	PASS
HI-POT 7470	AC1500V/1mA	PRI/SEC	PASS	PASS	PASS	PASS	PASS
單顆淨重	2.43($\pm 10\%$)g		2.43	2.44	2.42	2.44	2.43

APPROVED BY : 崔卓斌

CHECKED BY : 楊鎮杰

TESTED BY: 范文麗

TEST EQUIPMENT

ZX2789: ZX2789 FUNCTION GENERATOR

ZX2789: ZX2789 TRANSFORMER TESTER

7470: 7470 PUNCTURE/INSULATION TESTER

TEST TEMPERATURE: At 25°C $\pm$ 5°C



帛漢股份有限公司

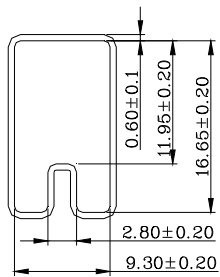
LG1P109RN LF

			Sample1				Sample2				Sample3				Sample4				Sample5			
Insertion Loss (dB Max)	Fre.	Value(max)	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	1MHz	-1.1	-0.13	-0.13	-0.13	-0.13	-0.13	-0.14	-0.15	-0.15	-0.13	-0.15	-0.14	-0.14	-0.14	-0.14	-0.14	-0.14	-0.13	-0.13	-0.12	-0.13
	30MHz		-0.27	-0.29	-0.27	-0.29	-0.29	-0.30	-0.29	-0.29	-0.30	-0.30	-0.31	-0.29	-0.32	-0.29	-0.28	-0.28	-0.29	-0.33	-0.28	-0.30
	40MHz		-0.32	-0.32	-0.32	-0.32	-0.30	-0.32	-0.30	-0.30	-0.32	-0.32	-0.32	-0.30	-0.32	-0.32	-0.32	-0.32	-0.32	-0.34	-0.30	-0.32
	50MHz		-0.33	-0.39	-0.32	-0.33	-0.30	-0.35	-0.36	-0.35	-0.36	-0.36	-0.36	-0.36	-0.37	-0.40	-0.31	-0.34	-0.35	-0.42	-0.35	-0.37
	60MHz		-0.35	-0.39	-0.36	-0.37	-0.37	-0.37	-0.37	-0.36	-0.38	-0.36	-0.37	-0.37	-0.37	-0.44	-0.34	-0.39	-0.38	-0.44	-0.38	-0.38
	80MHz		-0.39	-0.47	-0.39	-0.42	-0.42	-0.40	-0.42	-0.38	-0.44	-0.41	-0.43	-0.42	-0.42	-0.46	-0.42	-0.44	-0.44	-0.51	-0.40	-0.42
	100MHz		-0.41	-0.50	-0.47	-0.46	-0.46	-0.45	-0.44	-0.44	-0.51	-0.47	-0.50	-0.47	-0.48	-0.52	-0.46	-0.46	-0.46	-0.59	-0.46	-0.47
Return Loss (dB Min)	Fre.	Value(min)	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH4
	1MHz	-18	-28.06	-27.90	-28.14	-28.89	-28.51	-27.64	-27.97	-27.76	-27.79	-27.62	-34.50	-34.50	-35.40	-35.40	-35.10	-36.00	-34.80	-34.90	-35.40	-34.60
	30MHz		-21.69	-21.43	-21.69	-21.69	-21.16	-21.17	-23.52	-23.52	-22.85	-21.94	-26.00	-29.62	-29.62	-34.60	-34.60	-35.10	-25.70	-25.70	-29.62	-29.62
	40MHz	-16	-19.70	-18.47	-21.18	-20.89	-19.70	-20.89	-20.27	-20.27	-19.67	-19.67	-19.70	-20.80	-25.50	-26.20	-25.50	-29.62	-21.90	-21.30	-24.70	-22.50
	50MHz	-14.08	-18.70	-18.20	-18.27	-19.70	-18.17	-19.70	-18.28	-19.48	-17.53	-18.85	-16.70	-16.40	-20.60	-21.30	-20.70	-23.70	-18.10	-16.90	-20.30	-18.70
	60MHz	-12.5	-16.81	-16.57	-16.40	-18.17	-16.28	-18.17	-16.63	-16.65	-16.65	-17.53	-16.30	-16.00	-19.80	-20.60	-20.00	-22.90	-18.02	-16.20	-19.50	-18.20
	80MHz		-15.22	-15.10	-16.29	-16.13	-15.10	-16.40	-15.10	-14.84	-15.75	-16.83	-15.30	-15.30	-18.02	-18.02	-18.02	-18.02	-16.90	-15.30	-18.02	-18.02
	100MHz	-10	-14.72	-14.72	-14.83	-14.72	-14.84	-14.86	-14.84	-13.37	-14.84	-15.17	-14.70	-14.70	-16.90	-16.90	-16.90	-16.90	-16.30	-14.70	-16.90	-16.90
Crosstalk (dB Min)	Fre.	Value(min)	CH1	CH2	CH3		CH1	CH2	CH3		CH1	CH2	CH3		CH1	CH2	CH3		CH1	CH2	CH3	
	1MHz	-40	-54.42	-52.12	-52.55		-54.42	-49.10	-60.30		-54.73	-58.74	-56.86		-56.33	-57.60	-46.60		-54.35	-55.89	-55.15	
	30MHz		-48.47	-46.09	-46.49		-48.44	-45.50	-56.90		-47.85	-49.86	-48.97		-48.15	-57.50	-41.60		-48.24	-49.66	-48.92	
	60MHz	-35	-44.19	-41.82	-42.25		-44.14	-43.80	-53.60		-46.36	-47.90	-47.32		-43.15	-50.90	-40.10		-43.88	-45.33	-44.67	
	100MHz	-30	-43.52	-40.32	-41.25		-43.25	-40.21	-46.04		-45.25	-45.26	-43.51		-40.32	-46.22	-39.54		-35.65	-36.50	-34.62	
CMR (dB Min)	Fre.	Value(min)	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4	CH4
	1MHz	-30	-51.20	-48.02	-54.20	-47.66	-52.59	-49.30	-47.00	-55.50	-53.81	-53.65	-55.16	-55.55	-54.16	-53.20	-45.30	-53.20	-53.32	-51.62	-50.90	-52.13
	30MHz		-46.85	-45.38	-46.40	-40.80	-48.66	-46.40	-42.20	-43.60	-53.70	-51.46	-51.57	-51.46	-50.97	-42.20	-41.50	-48.50	-44.15	-45.24	-44.36	-44.12
	60MHz	-25	-45.42	-41.54	-44.23	-39.95	-42.07	-40.04	-42.09	-43.10	-46.10	-40.40	-40.30	-46.80	-41.80	-41.80	-38.10	-35.00	-38.10	-41.80	-36.70	-38.10
	125MHz	-20	-35.65	-36.50	-34.62	-35.65	-36.50	-34.62	-36.50	-34.62	-35.65	-36.50	-34.62	-36.50	-34.62	-35.65	-36.50	-34.62	-35.30	-35.00	-35.65	-36.50
JUDGE	OK/NG		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

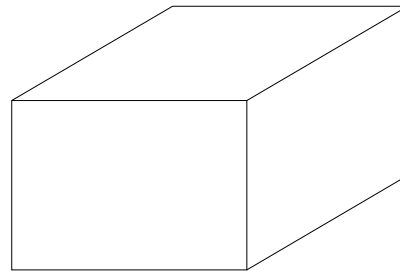
APPROVED BY: 崔卓斌

CHECKED BY: 楊鎮杰

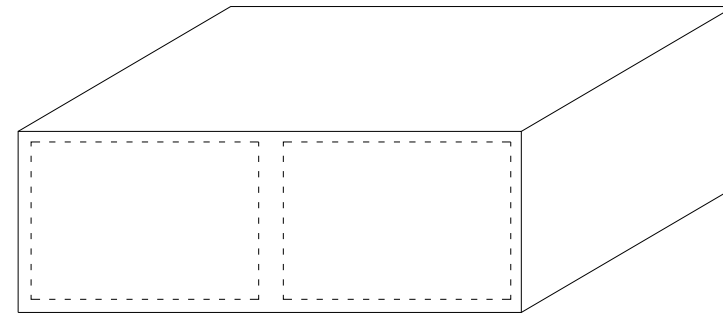
TESTED BY: 范文麗



TUBE



INNER BOX: 567x135x125



OUTER CARTON: 598x287x150

1. 1 TUBE=31PCS
2. 1 INNER BOX=70TUBE=70x31=2170PCS
3. 1 OUTER CARTON=2 INNER BOX=2x2170=4340PCS

Description: LG1P109RN LF TUBE PACKAGE



BOTHHAND ENTERPRISE INC.
NETWORK PARTS & SMPS SUPPLIER

Units

m/m

Apv. by:

崔卓斌

Chk. by :

楊鎮杰

Pre. by :

范文麗

BH P/N:

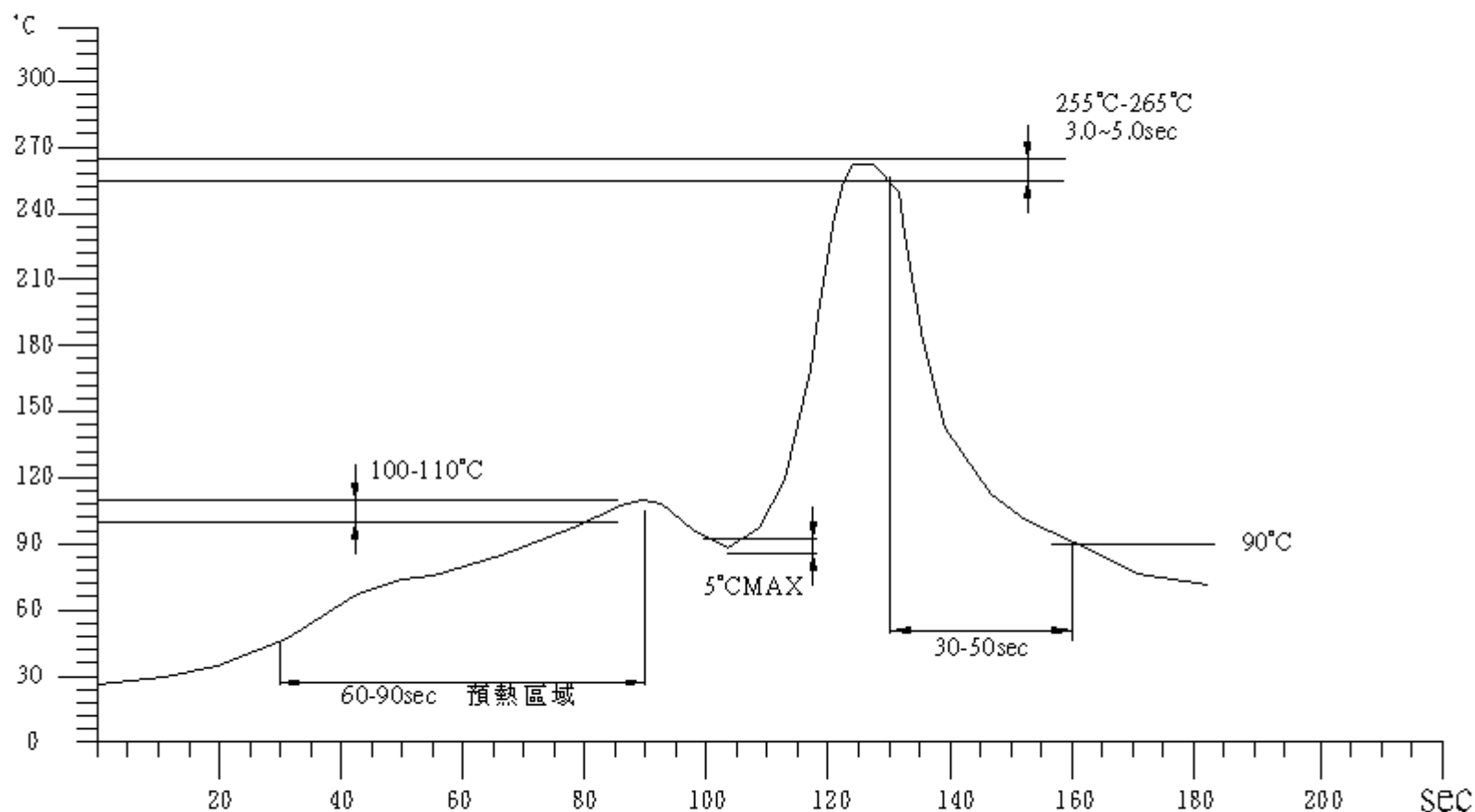
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帛漢股份有限公司

DIP無鉛產品波峰焊溫度曲線圖



注：以上溫度曲線僅供參考

核准：崔卓斌

審核：楊鎮杰

制作：范文麗



帛漢環保情況說明（2）

- 產品符合 ROHS 2.0 2011/65/EU 指令，
- 我司檢驗 ROHS 物質是根據 IEC-62321 方法進行混測的
- 帛漢產品有害物質標準如下：

Pb 鉛 $\leq$ 1000 PPM	PBDE 多溴二苯醚 $\leq$ 1000 PPM
Hg 汞 $\leq$ 1000 PPM	DBP 邻苯二甲酸二丁酯 $\leq$ 1000 PPM
Cd 鎘 $\leq$ 100 PPM	BBP 邻苯二甲酸二丁基苄基酯 $\leq$ 1000 PPM
Cr+6 六價鉻 $\leq$ 1000 PPM	DEHP 邻苯二甲酸二(2-乙基)己酯 $\leq$ 1000 PPM
PBB 多溴聯苯 $\leq$ 1000 PPM	DIBP 邻苯二甲酸二异丁酯 $\leq$ 1000 PPM

BOTHHAND Environmental Protection Statement

- Complying with ROHS2.0 2011/65/EU Directive.
- We will inspect the Restricted hazardous substance with component mixture according to the criteria of IEC-62321
- The directives for prohibited substances of BOTHHAND's products is as follows :

Pb $\leq$ 1000 PPM	PBDE $\leq$ 1000 PPM
Hg $\leq$ 1000 PPM	DBP $\leq$ 1000 PPM
Cd $\leq$ 100 PPM	BBP $\leq$ 1000 PPM
Cr+6 $\leq$ 1000 PPM	DEHP $\leq$ 1000 PPM
PBB $\leq$ 1000 PPM	DIBP $\leq$ 1000 PPM

APPROVED BY: 崔卓斌

CHECKED BY: 楊鎮杰

TESTED BY: 范文麗



帛漢產品儲存條件說明

DIP 類產品

1. 未拆真空包裝儲存條件：
溫度： $\leq 30^{\circ}\text{C}$
濕度： $\leq 60\%\text{RH}$
2. 保存期限：1 年

APPROVED BY: 崔卓斌

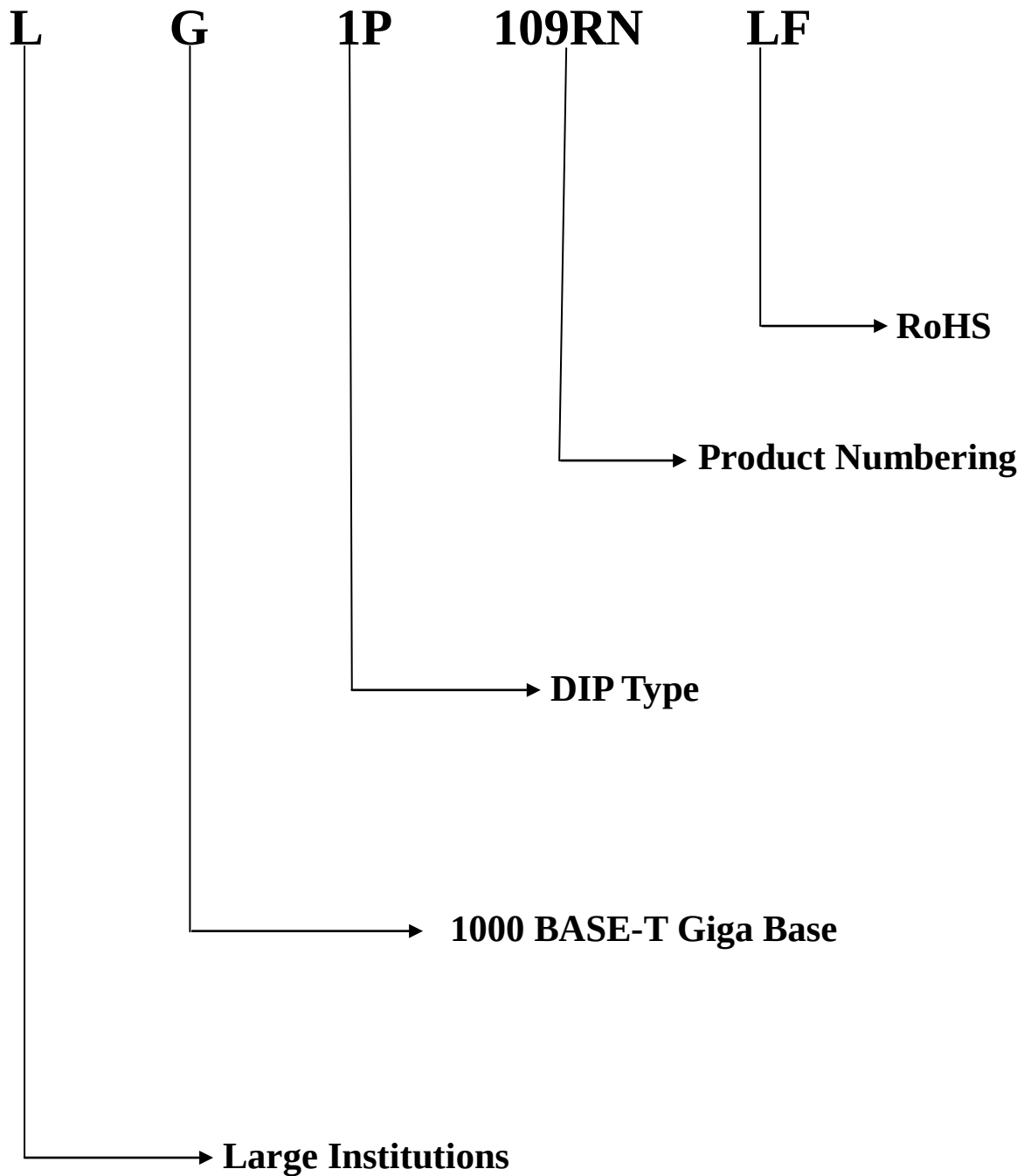
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Bothhand Electronics Co., Ltd.

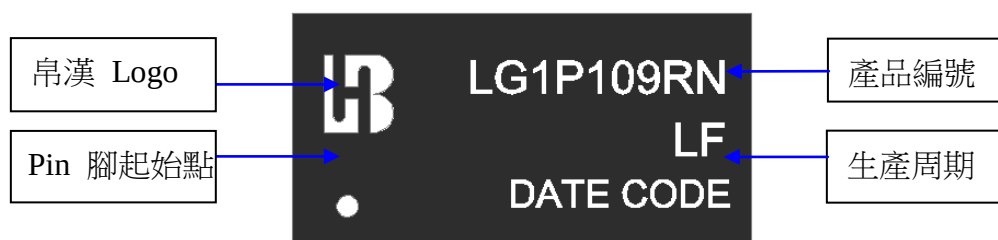
Transformer Coding Principle





帛漢公司產品之辯別方式

LG1P109RN LF



1. 生產周期之注明: XX XX X XXX
其代表流水碼
其代表生產線碼
其代表周期編號
其代表年份編號
2. 年份編號之舉例: XX 之編號代表為 XXXX 之年份。
3. 周期編號之舉例: XX 之周期代表為一整年之第 XX 周。
4. 周期后綴之字母 X 為帛漢公司生產線之分。
5. 最后后綴之字母 XXX 為產品生產制作過程流水碼。
6. 此產品印字為白色油墨噴碼。

APPROVED BY: 崔卓斌

CHECKED BY: 楊鎮杰

DRAWN BY: 范文麗



帛漢股份有限公司
基本材料明細表

產品名稱	變壓器	產品型號	LG1P109RN LF	
項次	材料名稱	料號規格	第一材料供應商	第二材料供應商
1	鐵芯	DC60R HF	研鑫	正峰、艾迪奧
2	漆包線	QPN R HF	松田/E234867	誠信/ E255839
3		QPN N HF		
4		QPN G HF		
5		QPN B HF		
6	膠盒	LG1P109N HF	鑫三連/E136137	奧鑫/E136137& 恒興發/E136137
7	端子連接座	LG1P109N HF		
8	凡立水	THV-510 HF&FXF-1032BOH HF	高周波	富鑫發
9	主墨水（白色）	SIC106 HF	藍新	--
10	高温無鉛錫棒	SnCu HF	力創	翰華、綠志島
11	無鉛錫棒	Sn HF		

APPROVED BY: 崔卓斌

CHECKED BY: 楊鎮杰

TESTED BY: 范文麗

供應廠商 UL 卡明細表

產品型號:LG1P109RN LF

材料名稱	廠商名稱	UL 卡 No.	UL卡附件頁數
漆包線	松田	E234867	15-16
	誠信	E255839	17
膠盒&端子連接座	鑫三連	E136137	18-19
	奧鑫		
	恒興發		



OBMW2.E234867 Magnet Wire - Component

Page Bottom

Magnet Wire - Component

See General Information for Magnet Wire - Component

ZHUHAI SUNTEK WIRE CO LTD

E234867

62 HANQING RD PINGSHA TOWN

JINWAN DISTRICT

ZHUHAI, GUANGDONG 519055 CHINA

Mtl Dsg	Mark Dsg	Coat Type			ANSI Type	Temp Class
		BC	OC	BOND		
@*xUEW 180	(1)	Polyurethane	—	—	MW82	180
@*xUEW 155	(1)	Polyurethane	—	—	MW79#	155
@*xUEW 130	(1)	Polyurethane	—	—	MW75#	130
@*xUEW/Y180 QPN 180 or QPN 200	(1)	Polyurethane	Polyamide	—	MW83	180
@*xUEW/Y155 or QPN 155	(1)	Polyurethane	Polyamide	—	MW80#	155
@*xUEW/Y130, or QPN 130	(1)	Polyurethane	Polyamide	—	MW28#	130
@*xSEIW 180 or QZY -x/180	(1)	Polyamide	—	—	MW77#	180
@*xSPEW155	(1)	Polyamide	—	—	MW26#	155
@*xPEW/130	(1)	Polyamide	—	—	-#	130
@*X SBUEW 180 or @*X HBUEW 180	(1)	Polyurethane	—	Polyamide	&	180
@*X SBUEW/155 or @*X HBUEW/155	(1)	Polyurethane	—	Polyamide	MW131	155
@*X SBUEW/130 or @*X HBUEW/130	(1)	Polyurethane	—	Polyamide	MW130	130
@*X SBUEW/120 or @*X HBUEW/120	(1)	Polyurethane	—	Polyamide	&	120
@*xEIW 200	(1)	Polyester-imide	—	—	MW74-C	200
@*xEIW 180	(1)	Polyester-imide	—	—	MW30-C	180#
@ xEI/AIW 220	(1)	Polyester-imide	Polyamide-imide	—	MW37-C	220
@*xEI/AIW 200	(1)	Polyester-imide	Polyamide-imide	—	MW35-C, MW73-C, MW36-C	200#
@*xAIW 220	(1)	Polyamideimide	—	—	MW81-C	220
@*xAIW 200	(1)	Polyamideimide	—	—	&	200#
@*xPIW 240	(1)	Polyimide	—	—	MW16-C	240
@*xPIW 220	(1)	Polyimide	—	—	&	220#

* May be prefixed by LZ, EL, LZL, USTC or UDTC

LZ - Signifies magnet wires twisted together; EL - signifies base coated magnet wire laid parallel with top coat applied overall; LZL - signifies base coated magnet wire twisted together and covered with top coat overall.

USTC-Include single layer polyester filament yarn covering.

UDTC-Include double layer polyester filament yarn covering.

- The magnet wire may perform better than the rating reflects and may not be suitable for insulation system, varnish or end product testing.

Further consideration is necessary prior to its use in testing.

x May be prefixed by 0, 1, 2, 3 to indicate coating thickness.

& - None ANSI Type.

"@"May have a suffix "\`rectangular size\`" to denote the wire is also suitable for rectangular magnet wire.

Marking: Company name and magnet wire designation or marked designation on package or reel and the UL Recognition Mark  .

Last Updated on 2011-11-07

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OBMW2.E255839 Magnet Wire - Component

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Magnet Wire - Component

[See General Information for Magnet Wire - Component](#)

SHING SHUN MAGNET WIRE (HUIZHOU) CO LTD

E255839

1 AREA

INDUSTRY CENTER AREA

SHUIKOU TOWN

HUIZHOU, GUANGDONG 215164 CHINA

Mtl Dsg	Mark Dsg	Coat Type		ANSI Type	Temp Class
		BC	OC		
EI/AIW or Q(ZY/XY)-	—	Polyester-imide	Polyamide-imide	MW37-C	220
				MW35C#, MW73C#	200
UEW or QA-	—	Polyurethane	—	MW82C	180
				MW79C#	155
				MW75C#	130
UEW/NY or QAN-/180	—	Polyuruthane	Polyamide	MW 83-C	180
UEW/NY or QAN-/155	—	Polyuruthane	Polyamide	MW 80-C#	155
UEW/NY or QAN-/130	—	Polyuruthane	Polyamide	MW 28-C#	130

"*" May be prefixed by 0,1,2,3 to indicate coating thickness.

- This wire may perform better than the rating reflects and hence may not be suitable to use in an insulation system thermal aging program.

Marking: Company name and magnet wire designation or marked designation on package or reel and the UL Recognition Mark



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QMFZ2.E136137 Plastics - Component

Additional information regarding this certification can be found in UL's iQ Family of Databases (iq.ul.com).

For additional information concerning the individual material, click on the material designation.

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Plastics - Component

[See General Information for Plastics - Component](#)

CHANGSHU SOUTH-EAST PLASTIC CO LTD

E136137

SHANMING RD

DAYI TOWN

CHANGSHU, JIANGSU 215557 CHINA

									H	D	
		Min.		H	H	R T I			V	4	C
		Thk	Flame	W	A	Elec	Mech		T	9	T
Material Dsg	Color	mm	Class	I	I		Imp	Str	R	5	I
Melamine Polyester Moulding Compound, furnished as granular??pellets or powder.											
UPM-1430	ALL	1.5	V-0	1	0	130	0	130	0	5	0
		3.0	V-0	0	0	130	0	130			
Melanine Molding Compound, furnished as granules, pellets or powder.											
MF1I-C	ALL	0.75	V-0	0	0	150	150	150	0	4	0
		1.5	V-0	0	0	150	150	150			
		3.0	V-0	0	0	150	150	150			
Phenolic (PF), furnished as granules, pellets or powder.											
PF2D1-851J	BK	1.5	V-0	0	0	150	150	150	4	6	3
		3.0	V-0	0	0	150	150	150			
Phenolic (PF), furnished as pellets.											
PF2A5-151J	BK	0.89	V-0	1	3	150	150	150	3	5	3
		1.5	V-0	1	3	150	150	150			
Phenolic Molding Compound (PMC), furnished as granules, pellets, or powder.											
PF2A5-151J(b)	BK	0.45	V-0	-	-	150	150	150	4	5	3
		0.8	V-0	2	0	150	150	150			
		1.5	V-0	1	0	150	150	150			
		3.0	V-0	0	0	150	150	150			
Phenolic Molding Compound (PMC), furnished as pellets.											
PF2A4-151J	BK	1.5	V-0	1	3	150	150	150	3	7	4
		2.8	V-0	0	2	150	150	150			
Phenolic Molding Compound (PMC), furnished as pellets,granular material and powders.											
PF2C5-7507	BK	1.5	V-0	0	1	150	150	150	0	5	3

		3.0	V-0	0	1	150	150	150			
		0.45	V-0	-	-	150	150	150			
		0.80	V-0	0	1	150	150	150			
Phenolic Molding Compound (PMC), furnished as powder.											
PF2A2-151J	BK	6.4	V-0	-	-	150	150	150	-	-	-
Phenolic Molding Compound (PMC).											
PF2A4-151J(b)	ALL	1.5	V-0	0	0	150	150	150	4	5	3
		3.0	V-0	0	0	150	150	150			
Unsaturated Polyester (UP), furnished as bulk materials.											
BMC-4342	RD	0.8	V-1	-	-	130	130	130	0	4	0
	ALL	1.5	V-0	0	0	130	130	130			
		3.0	V-0	0	0	130	130	130			
Urea Formaldehyde (UF), furnished as granules, pellets or powders.											
UF1P/I	ALL	1.5	HB	2	0	150	150	150	0	4	0
	NC, RD, BK	3.0	V-0	0	0	150	150	150			

Marking: Company name and material designation on container, wrapper or finished part.

Last Updated on 2011-04-04

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編號	KKX-1703006
頁數	共4頁 第1頁



德陽帛漢電子有限公司

可靠性試驗報告

產品名稱: 變壓器

型號規格: LG1P109RN LF

檢驗類別: 委託試驗

生產單位: 開平帛漢電子有限公司 SQE 課

委託單位: 開平帛漢電子有限公司 SQE 課



德陽帛漢電子有限公司可靠性試驗室

德陽帛漢電子有限公司

可靠性試驗報告

產品名稱	變壓器		型號		LG1P109RN LF	
			週期		1702B	
生產單位	開平帛漢電子有限公司 SQE 課				試驗類別	委託試驗
委托單位	開平帛漢電子有限公司 SQE 課				試驗地點	德陽可靠性試驗室
生產方位址	開平帛漢電子有限公司 SQE 課					
委托方地址	開平帛漢電子有限公司 SQE 課					
樣品數量	45PCS		送樣	45PCS	送樣日期	2017.03.01
抽樣地點	-----		基數	-----	試驗時間	2017.03.01~2017.03.06
試驗環境	溫度： ≤30℃ 相對濕度： ≤60% 氣壓： 86kPa~106 kPa					
試驗項目	可靠性試驗(詳見本報告第 3 頁)					
試驗依據	《電工電子產品環境試驗國家標準》 MIL-STD-202G METHOD 201A ISTA 1A (2001) 《美国连接电子学工业标准》					
試驗結論	德陽帛漢電子有限公司 合格 可靠性試驗室					
說明	1、 試驗目的：定期試驗。 2、 試驗結果 OK，試驗前後測試數據及可焊性如附件。  LG1P109RN LF試驗測試數據表  LG1P109RN LF-1702B.pdf					

核准：吳剛

日期：2017.03.10

審核：劉春梅

日期：2017.03.10

試驗人：楊成秀

日期：2017.03.10

試驗專案及技術要求

序號	試驗項目	試驗條件 技術要求	試驗 樣品 數 (只)	允許 不合 格數 (只)	檢驗 不合 格數 (只)	備註
1.	外觀檢查 電氣測試	依產品要求	45	0	0	樣品 序號： 1~45
2.	高溫試驗	1.試驗條件 125±2℃,16 小時 2.試驗後進行外觀檢查及電氣測試	5	0	0	1-5
3.	低溫試驗	1.試驗條件 -40℃±3℃, 16 小時 2.試驗後進行外觀檢查及電氣測試	5	0	0	6-10
4.	恆定濕熱試驗	1.試驗條件 40℃±2℃, 93%±2%RH, 96 小時 2.試驗後進行外觀檢查電氣測試	5	0	0	11-15
5.	熱沖擊試驗	1.試驗條件 最低溫度-40℃, 最高溫度 125℃, 保持時間 30 分鐘, 循環次數 10 次 2.試驗後進行外觀檢查及電氣測試	5	0	0	16-20
6.	鹽霧試驗	1.試驗條件 溫度: 35℃±2℃, 濃度: (5±0.1)% pH 值 6.5~7.2, 時間 16 小時 2.試驗後進行外觀檢查及電氣測試	5	0	0	21-25
7.	振動試驗	1.試驗條件 頻率: 10Hz~55Hz~10Hz, 一个来回扫描时间: 1 分钟 振幅: 1.5mm 掃頻方向: 三個互相垂直的方向 (X,Y,Z)掃頻 2 小時/方向 2.試驗後進行外觀檢查及電氣測試	5	0	0	26-30
8.	自由跌落試驗	1.試驗條件 跌落高度: 0.76 米, 次數: 各 2 次 跌落方式:六個面、三稜線、一角線 2.試驗後進行外觀檢查及電氣測試	5	0	0	31-35
9.	耐焊接熱試驗	1.試驗條件 溫度: 260℃±5℃ 浸漬時間 10±1 秒 2.試驗後進行外觀檢查及電氣測試	5	0	0	36-40
10.	可焊性試驗	試驗條件 溫度: 240℃, 時間: 5+0/-0.05 秒, 浸漬 深度: 0.10mm, 浸漬速度: 1mm/s-5mm/s, 浸漬角度: 20°-45°;	5	0	0	41-45
	以下空白					

附表 2

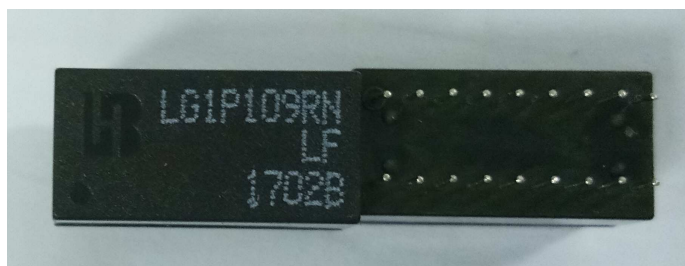
主要檢驗儀器、設備清單

編 號	KKX-1703006
頁 數	共 4 頁 第 4 頁

序 號	儀器、設備名稱	型號、規格	設備編號	計量有效期
1.	高溫試驗箱	PHH-101	DI00000317	2017.02.28-2018.02.27
2.	可程式恒溫恒濕箱	MHK-120NK	DI00000308	2017.02.28-2018.02.27
3.	溫度沖擊試驗箱	TSG-70H-W	DI00000311	2017.02.28-2018.02.27
4.	振動試驗機	DC-300-3	DI00000319	2017.02.28-2018.02.27
5.	跌落台	SH-7003	DI00000312	2017.02.28-2018.02.27
6.	錫爐	3000w	DP00000057	2017.02.28-2018.02.27
7.	鹽霧試驗機	ZH-SH-60	DI00000310	2017.02.28-2018.02.27
8.	可焊性測試儀	SAT-5100	DI00000316	2017.02.28-2018.02.27
	以下空白			

試驗樣品代表性外觀照片

試驗前



試驗后

