



MAG. LAYERS Scientific- Technics Co., Ltd.



MSCDRI - 5D28 - 100M Reliability Report

TEL : 886-3-5972488

Fax : 886-3-5972477

[http : //www.maglayers.com.tw](http://www.maglayers.com.tw)



DESCRIPTION

1. Mag.Layers Co., Ltd. is executing the testing process seriously, All the test data is attached.
2. To use the report in whole, can't be separated.
3. The report can't be used by other way.
4. The report is in vain when separately.
5. Please see the attached data for comparision and reference.



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ENVIRONMENT TEST DATA

TEST ITEM	THERMAL SHOCK							
TEST P/N	MSCDRI-5D28-100M							
TEST CONDITION	TEMPERATURE CYCLES -25°C THEN +85°C FOR 30 MINUTES EACH. CYCLES : 10							
THE PERIOD OF TEST	FROM Sep 25, 2006 PM3: 00 TO Sep 27, 2006 PM3: 30							
DATA BEFORE TEST			DATA AFTER TEST			VARIATION(%)		REMARK
SAMPLE	L(μH)		SAMPLE	L(μH)		L(μH)		DESCRIPTION
1	8.89		1	8.96		0.81%		1-10pcs
2	8.93		2	9.11		2.09%		
3	9.06		3	9.15		0.92%		
4	9.38		4	9.44		0.63%		
5	8.85		5	8.86		0.10%		
6	9.05		6	9.15		1.08%		
7	8.80		7	8.89		1.05%		
8	9.26		8	9.46		2.13%		
9	9.22		9	9.32		1.12%		
10	9.18		10	9.22		0.53%		
11			11			#DIV/0!		
12			12			#DIV/0!		
13			13			#DIV/0!		
14			14			#DIV/0!		
15			15			#DIV/0!		
16			16			#DIV/0!		
17			17			#DIV/0!		
18			18			#DIV/0!		
19			19			#DIV/0!		
20			20			#DIV/0!		
21			21			#DIV/0!		
22			22			#DIV/0!		
23			23			#DIV/0!		
24			24			#DIV/0!		
25			25			#DIV/0!		
26			26			#DIV/0!		
27			27			#DIV/0!		
28			28			#DIV/0!		
29			29			#DIV/0!		
30			30			#DIV/0!		

REMARK The value of L should be within ±10%
TEST RESULT: PASS (The value of L all within ±10%)

Approved: _____ *Miin* _____ Prepared : _____ *Kinway* _____



ENVIRONMENT TEST DATA

TEST ITEM	HUMIDITY RESISTANCE						
TEST P/N	MSCDRI-5D28-100M						
TEST CONDITION	40°C 、 90~95%RH FOR 1000 HOURS						
THE PERIOD OF TEST	FROM Oct 17, 2006 PM 5:00 TO Dec 4, 2006 AM 8:30						
DATA BEFORE TEST		DATA AFTER TEST			VARIATION(%)		REMARK
SAMPLE	L(μH)	SAMPLE	L(μH)		L(μH)		DESCRIPTION
1	8.50	1	8.58		0.88%		11-20pcs
2	9.83	2	9.80		-0.26%		
3	9.06	3	9.16		1.09%		
4	8.71	4	8.53		-2.09%		
5	9.42	5	9.44		0.22%		
6	8.50	6	8.56		0.71%		
7	8.77	7	8.82		0.49%		
8	9.82	8	9.91		1.00%		
9	9.16	9	9.22		0.68%		
10	8.83	10	8.92		1.04%		
11		11			#DIV/0!		
12		12			#DIV/0!		
13		13			#DIV/0!		
14		14			#DIV/0!		
15		15			#DIV/0!		
16		16			#DIV/0!		
17		17			#DIV/0!		
18		18			#DIV/0!		
19		19			#DIV/0!		
20		20			#DIV/0!		
21		21			#DIV/0!		
22		22			#DIV/0!		
23		23			#DIV/0!		
24		24			#DIV/0!		
25		25			#DIV/0!		
26		26			#DIV/0!		
27		27			#DIV/0!		
28		28			#DIV/0!		
29		29			#DIV/0!		
30		30			#DIV/0!		

REMARK The value of L should be within ±10%

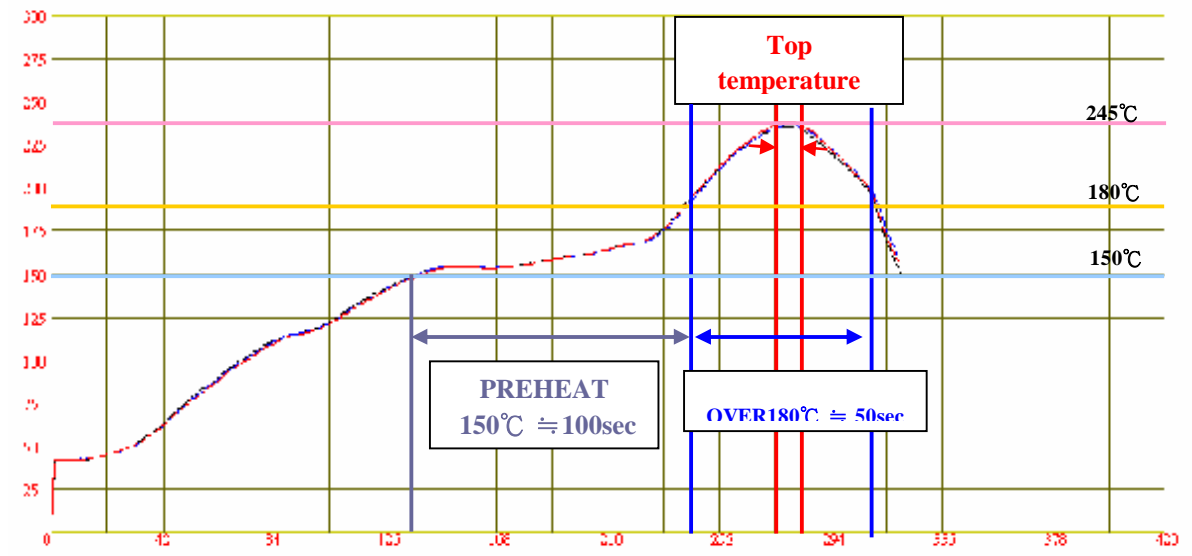
TEST RESULT: PASS (The value of L all within ±10%)

Approved Miin Prepared : Kinway



REFLOW 240°C

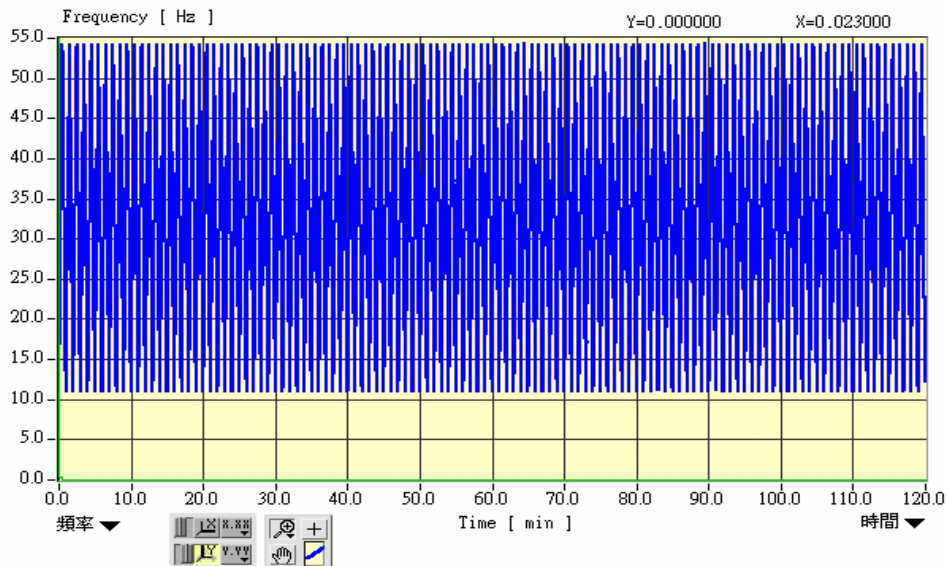
IR REFLOW 240°C (240°C ± 5°C/Time max 10sec)





VIBRATION TEST REPORT

1. Company Name : MAG. LAYERS Scientific-Technics Co., Ltd.
2. Date : Sep 28, 2006
3. Lot No. : Experimentation
4. TIME : PM 05:18:17
5. Test type : Vibration Test
6. Test time : 120.0min
7. The beginning of Frequency : 10.0Hz
8. Vibration Mode : Linear Vibration Frequency test
9. The ending of Frequency : 55.0Hz
10. The amplitude of vibration : 1.5mm
11. Cycle times : 120.0cycles
12. Test time : 1.0min/cycle
13. Vibrate times : 3.510E+5cycles
14. Test Part No. : MSCDRI-5D28-100M



TESTER : kinway

TEST RESULT : OK



ENVIRONMENT TEST DATA

TEST ITEM	HIGH TEMPERATURE RESISTANCE							
TEST P/N	MSCDRI-5D28-100M							
TEST CONDITION	85°C FOR 1000 HOURS WITH CURRENT(430mA)							
THE PERIOD OF TEST	FROM Sep. 15, 2006 PM 5 : 30 TO Oct. 27, 2006 AM 8: 30							
DATA BEFORE TEST			DATA AFTER TEST			VARIATION(%)		REMARK
SAMPLE	L(μ H)		SAMPLE	L(μ H)		L(μ H)		DESCRIPTION
1	9.65		1	9.82		1.76%		31-60PCS
2	9.71		2	9.87		1.65%		
3	9.71		3	9.47		-2.47%		
4	9.65		4	9.90		2.59%		
5	9.84		5	9.46		-3.86%		
6	9.67		6	9.45		-2.28%		
7	9.91		7	9.77		-1.41%		
8	9.87		8	9.51		-3.65%		
9	9.94		9	9.64		-3.02%		
10	9.79		10	9.67		-1.23%		
11	9.81		11	9.36		-4.59%		
12	9.92		12	9.55		-3.73%		
13	9.75		13	9.34		-4.21%		
14	9.86		14	9.48		-3.85%		
15	9.88		15	9.53		-3.54%		
16	9.71		16	9.45		-2.68%		
17	9.83		17	9.46		-3.76%		
18	9.72		18	9.39		-3.40%		
19	9.68		19	9.26		-4.34%		
20	9.76		20	9.43		-3.38%		
21	9.85		21	9.47		-3.86%		
22	9.88		22	9.53		-3.54%		
23	9.57		23	9.29		-2.93%		
24	9.71		24	9.34		-3.81%		
25	9.68		25	9.34		-3.51%		
26	9.81		26	9.42		-3.98%		
27	9.64		27	9.28		-3.73%		
28	9.74		28	9.37		-3.80%		
29	9.61		29	9.23		-3.95%		
30	9.65		30	9.25		-4.15%		

REMARK: The value of L should be within $\pm 10\%$ TEST RESULT: PASS (The value of L all within $\pm 10\%$)Approved Miin Prepared : Kinway



SAMPLES P/N	MSCDRI-5D28-100M		TEST CONDITION			
TESTED SAMPLES	30	PCS.	<ul style="list-style-type: none"> • <input checked="" type="checkbox"/> Operate TEMP(T1) : 25 °C • <input checked="" type="checkbox"/> Hasten TEMP(T2) : 85 °C 	Test Times	START	2006/09/15
TEST HRS	1000	HRS	<ul style="list-style-type: none"> • <input checked="" type="checkbox"/> Operate CURRENT(A1) : 360 mA • <input checked="" type="checkbox"/> Hasten CURRENT(A2) : 430 mA 		FINISHED	2006/10/27

PRODUCT SPECIFICATION & FAILURE DEFINITION	TEST RESULT
ΔL/L within ± 5 %	<ul style="list-style-type: none"> • TEST RESULT = PASS • A.F = (A2/A1) ^ 3 * 2 ^ ((T2-T1) / 10) = 109.06 • TOTAL TEST HRS = 3,271,893 HRS. • FIT(Failure In Time) = 702.96 (Failure / 10⁹ Hrs) • CONFIDENT LEVEL 90% MTTF= 1,422,562 HRS.

TEST PROCEDURE INTERPRETATION :

1. The life test is not reach 10% failure

2. r= 0 pcs

r	TIME (HRS)	r	TIME (HRS)
r1		r6	
r2		r7	
r3		r8	
r4		r9	
r5		r10	

TEMP.	25	°C
R. H.	60	%

APPROVED BY : *Min*

PREPARED BY : *Kinway*