



中国认可
检测
TESTING
CNAS L0462

Ref. No.	ETB180459
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TEST REPORT

(No part of the Report can be duplicated without permission)

Sample Description : Low permittivity supporting material

Style / Item No. : LF225/LF125/ LF525

Test Category : Commission Test

Manufacturer : Guangzhou CHANGEN Electronic Technology Co., Ltd.

Client : Guangzhou CHANGEN Electronic Technology Co., Ltd.



工业和信息化部电子第五研究所
元器件检测中心

The Fifth Electronics Research Institute of the
Ministry of Industry and Information Technology
The Electronic Component Testing Center



POINTS FOR ATTENTION

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2. The duplicated report is invalid without Special Seal for Testing or the official seal of Test Center again.
3. The Test Report is invalid without signature of the final approval.
4. The Test Report is invalid if being altered.
5. Any objections must be raised against to Test Center within 15 days since the date the report is received. It will not be taken into consideration beyond this limit.
6. For commission test we are only responsible for the submitted samples.
7. Information of samples are declared by client.

Address: No.110, Dongguanhuang Road, Tianhe District, Guangzhou, Guangdong Province,
P.R. China

Post Address: P.O.Box 1501 Guangzhou P.R. China

Post Code: 510610

Tel: 0086-20-87237292

Complain Tel: 0086-20-87237255, 87236881

Fax: 0086-20-87237181

Website:<http://www.test.ceprei.com>

E-mail:component@ceprei.com




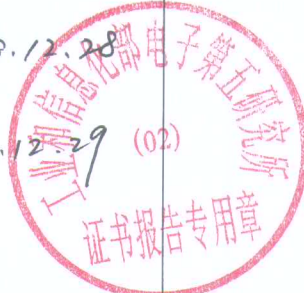
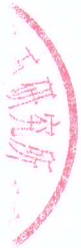
Sample Description	Low permittivity supporting material	Style / Item No.	LF225/LF125/ LF525
Manufacturer	Guangzhou CHANGEN Electronic Technology Co., Ltd.		
Manufacturer Address	Rm 318,Bldg G5,NO.31,KeFeng Rd, Guangzhou Hi-tech industrial Development Zone,Guangdong,P.R.China		
Client	Guangzhou CHANGEN Electronic Technology Co., Ltd.		
Client Address	Rm 318,Bldg G5,NO.31,KeFeng Rd, Guangzhou Hi-tech industrial Development Zone,Guangdong,P.R.China		
Place of sampling: /	Production Date / Lot: 201812		
Sample Quantity: 1Pcs	Sample No.: 1 [#]		
Sampling method: Submitted by Guangzhou Changen Electronic Technology Co., Ltd.			
Date of Submitting Samples: 2018.12.14		Date of Testing: 2018.12.28	
Qualification in accordance with: <ol style="list-style-type: none"> GB/T 1409-2006 Recommended methods for the determination of the permittivity and dielectric dissipation factor of electrical insulating materials at power, audio and radio frequencies including meter wavelengths Requirements of the Client 			
Test Item	Relative permittivity		
Conclusion	The test result that the samples submitted by Guangzhou Changen Electronic Technology Co., Ltd. refers to the test logbook.		
Signature: Responsible Engineer:  Date: 2018.12.28 Author:  Date: 2018.12.28 Approver:  Date: 2018.12.29 (02)  (Seal)			

TABLE WITH TEST RESULTS

No.	Test Item	Description	Requirements	Samples/ No.	Accept criterion	Failure	Result
1	Relative permittivity	<p>In accordance with GB/T 1409-2006 and the requirements of the client</p> <p>Oscillator Level:100mV, Frequency:10MHz~300MHz</p> <p>Measure the thickness(t) of sample.</p> <p>Record the measured values at 10MHz, 30MHz, 50MHz, 100MHz,300MHz.</p>	Record the measured values.	1pcs (1#)	/	/	/
Remark:							

Main instruments used for this test			
No.	Description	Model	Cal. Date~Cal. due date
1	RF Impedance/Material Analyzer	E4991A	2018.07.04~2019.07.03
2	Vernier Calliper	(0~200) mm/0.01mm	2018.04.08~2019.04.07
/	/	/	/
Environmental conditions			
Field	Temperature(°C)	RH(%)	Atm. (kPa)
For testing	15~35	45~75	86~106
For measurement	23±2	50±5	86~106
Remark: All the tests are operated before the due date of calibration.			



--END OF THE TEST REPORT--



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TEST LOGBOOK

Sample Description : Low permittivity supporting material

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Test Category : Commission Test

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Inspection Record

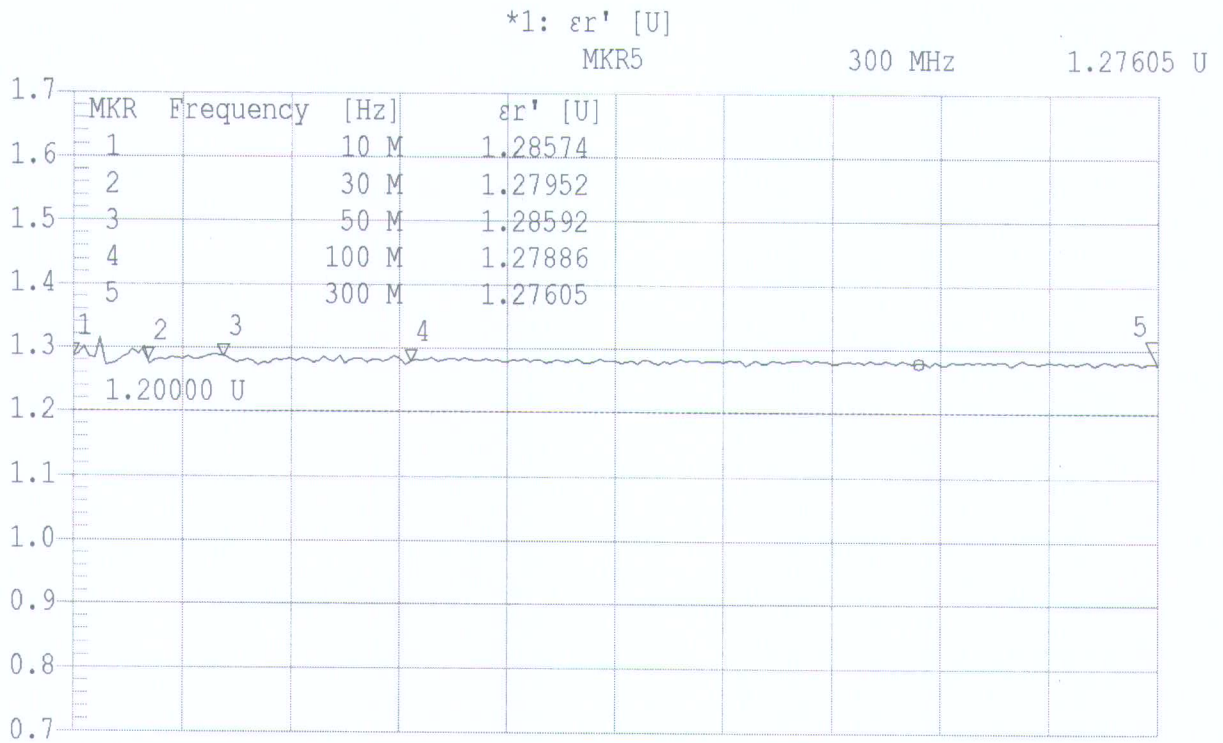
Client: Guangzhou CHANGEN Electronic Technology Co., Ltd.

Sample name and type	Low permittivity supporting material LF225/LF125/ LF525		Group	/	
Inspection Item	Relative Permittivity ϵ_r		Ambient	Temp.: 24 °C Humidity: 48 %RH	
Inspection Instrument	E4991A RF Impedance/Material Analyzer	SN.	7531040007	Period of Validity of Cal.	2018.07.04~2019.07.03
	(0~200) mm/0.01mm Vernier Calliper		K17H045939		2018.04.08~2019.04.07
Inspection Basis	In accordance with GB/T 1409-2006 and the requirements of the client			Quantity	1
Inspection Condition	Oscillator Level:100mV. Frequency:10MHz~300MHz. Measure the thickness(t) of sample. Record the measured values at 10MHz, 30MHz, 50MHz, 100MHz, 300MHz.				
Requirement	Record the measured values				
Sample No.	Inspection Result				
1#	See attached figure				
Remark					

Tested By: 水春生 **Date:** 2018.12.28 **Checked By:** 李君 **Date:** 2018.12.28

电子五所
 (02)
 报告专

测试原始记录 (续页)



OSC 100.00 mV
START 10 MHz

SAvg OFF

BIAS OFF
STOP 300 MHz

1# (t=1.16mm)



测试人员: 水清生 测试日期: 2018.12.28 审核: 常怡德 审核日期: 2018.12.28