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TEST REPORT

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Sample Description:	Low permittivity supporting material
Style / Item No.:	LF525/LF125/LF225
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

1. The Test Report is invalid without Special Seal for Testing or the official seal of Test Center.
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. The Test Results are only applicable to the tested samples.
7. Informations of samples are declared by client.
8. The documents with CMA logo on their cover can be used to certify the products' test result in society.

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

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Post Code: 510610

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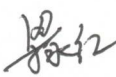

Sample Description	Low permittivity supporting material	Style / Item No.	LF525/LF125/LF225
Manufacturer	Guangzhou CHANGEN Electronic Technology Co., Ltd.		
Manufacturer Address	Rm.101, Bldg.G4, No.31 Kefeng Rd.Guangzhou Hi-tech Industrial Development Zone		
Client	Guangzhou CHANGEN Electronic Technology Co., Ltd.		
Client Address	Rm.101, Bldg.G4, No.31 Kefeng Rd.Guangzhou Hi-tech Industrial Development Zone		
Place of sampling: /	Production Date / Lot: 2020-05-09		
Sample Quantity: 2Pcs	Sample No.: 1#~2#		
Sampling method: Submitted by Guangzhou CHANGEN Electronic Technology Co., Ltd.			
Date of Submitting Samples: 2020.05.13			
Date of Testing: 2020.05.14~2020.05.20		Site of Testing: No.110, Dongguanzhuang Road, Tianhe District, Guangzhou	
Qualification in accordance with: 1. 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 2. Requirements of the Client			
Test Item	Refer to TABLE WITH TEST RESULTS		
Conclusion	The test result that the samples submitted by Guangzhou CHANGEN Electronic Technology Co., Ltd. refers to the test logbook.		
Signature:			
Responsible Engineer:		Date:	2020.05.21
Author:		Date:	2020.05.22. (02)
Approver:		Date:	2020.05.26
		 (Seal)	

TABLE WITH TEST RESULTS

Group /No.	Test Item	Description	Requirements	Samples/ No.	Accept criterion	Failure	Result
1	Relative Permittivity ϵ_r	<p>In accordance with GB/T 1409-2006 and the requirements of the client</p> <p>Oscillator Level:100mV.</p> <p>Frequency:10MHz~1GHz.</p> <p>Measure the thickness(t) of sample.</p> <p>Record the measured values.</p>	Record the measured values	1pcs (1 [#])	/	/	/
2	Relative Permeability μ_r	<p>In accordance with GB/T 1409-2006 and the requirements of the client</p> <p>Oscillator Level: 2mA.</p> <p>Frequency:10MHz~1GHz.</p> <p>Measure the height (h) , inner diameter(b) and outer diameter(c) of sample.</p> <p>Record the measured values.</p>	Record the measured values	1pcs (2 [#])	/	/	/

Remark:

Main instruments used for this test

No.	Description	Model	Cal. Date ~ Cal. due date
1	RF Impedance/Material Analyzer	E4991A	2019.07.08~2020.07.07
2	Digital Calliper	(0~200mm) / (0.01mm)	2020.04.20~2021.04.19

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

Style / Item No.: LF525/LF125/LF225

Test Category: Commission Test

Manufacturer: Guangzhou CHANGEN Electronic Technology Co., Ltd.

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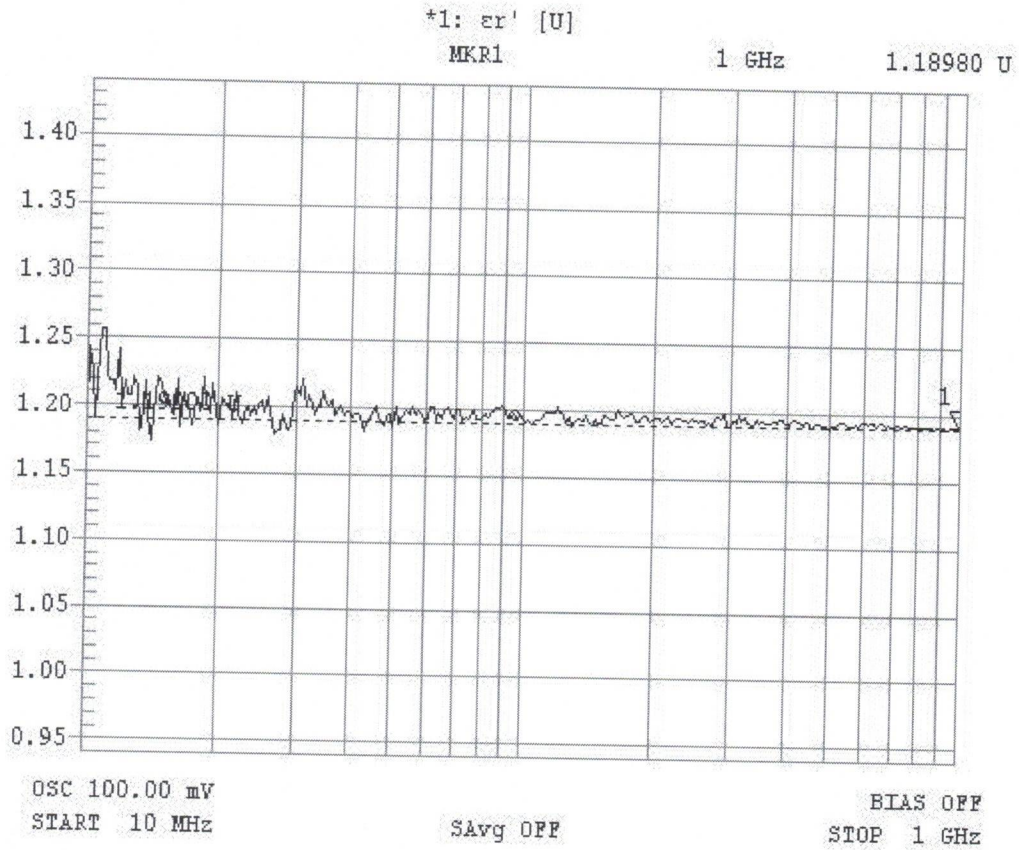
TEST RECORD

Manufacturer: Guangzhou CHANGEN Electronic Technology Co., Ltd.

Quantity : 1 pcs

Product name and type	Low permittivity supporting material LF525/LF125/LF225	Group	/
Test Instrument	RF Impedance/Material Analyzer E4991A	Cal. Date~ Cal. due date	2019.07.08~2020.07.07
	Digital Calliper (0~200mm) / (0.01mm)		2020.04.20~2021.04.19
Test Item	Relative Permittivity ϵ_r		
Test Conditions	In accordance with GB/T 1409-2006 and the requirements of the client Oscillator Level:100mV. Frequency:10MHz~1GHz. Measure the thickness(t) of sample. Record the measured values.		
Requirement	Record the measured values		
Sample No.	Test Result		
1	See attached figure		

Tested by: 李如华 Date: 2020.05.14 Checked by: 李如华 Date: 2020.05.14



1#(t=1.8mm)

Tested by: 李永华 Date: 2020.05.14 Checked by: John Date: 2020.05.14

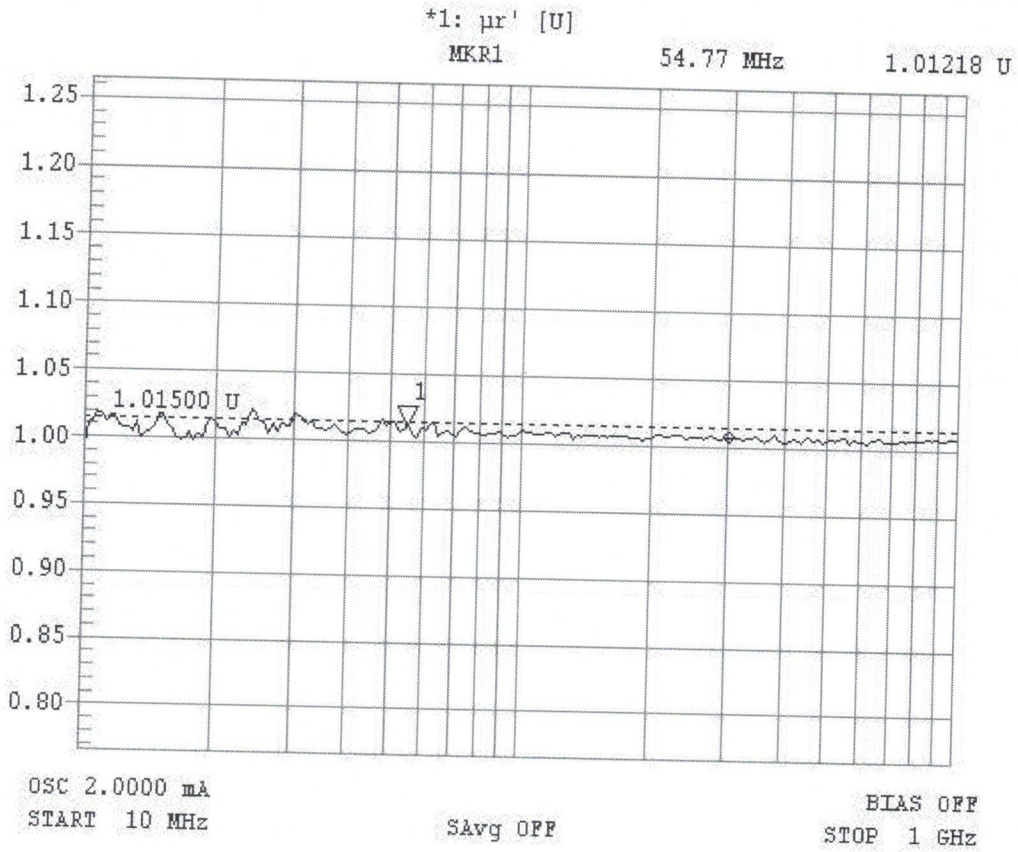


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TEST RECORD**Manufacturer:** Guangzhou CHANGEN Electronic Technology Co., Ltd.**Quantity :** 1 pcs

Product name and type	Low permittivity supporting material LF525/LF125/LF225	Group	/
Test Instrument	RF Impedance/Material Analyzer E4991A	Cal. Date~ Cal. due date	2019.07.08~2020.07.07
	Digital Calliper (0~200mm) / (0.01mm)		2020.04.20~2021.04.19
Test Item	Relative Permeability μ_r		
Test Conditions	In accordance with GB/T 1409-2006 and the requirements of the client Oscillator Level: 2mA. Frequency:10MHz~1GHz. Measure the height (h) 、 inner diameter(b) and outer diameter(c) of sample. Record the measured values.		
Requirement	Record the measured values		
Sample No.	Test Result		
2	See attached figure		

Tested by: 朱永华 Date: 2020.05.20 Checked by: 陈 Date: 2020.05.20



2# (h=8.15mm, b=6.4mm, c=19.6mm)

Tested by: 朱永华 Date: 2020.05.20 Checked by: 张 Date: 2020.05.20

