



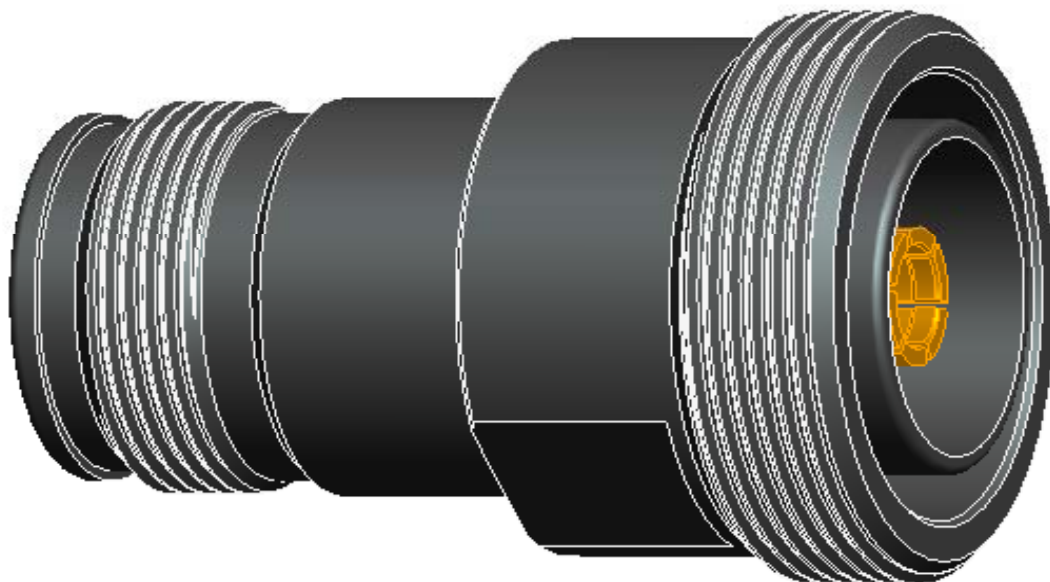
NPI Qualification Test Report

新品导入认证报告

Report No(报告编号): DDE8612 EARXXXX

Date: 04-25-2016

**7/16 JACK TO 4.3-10 JACK GRADE 2 ADAPTOR
AMPHENOL RF P/N:716F-4310F1-ATS-50 Rev 03**




Environmental, Mechanical and Electrical Performance Test Results

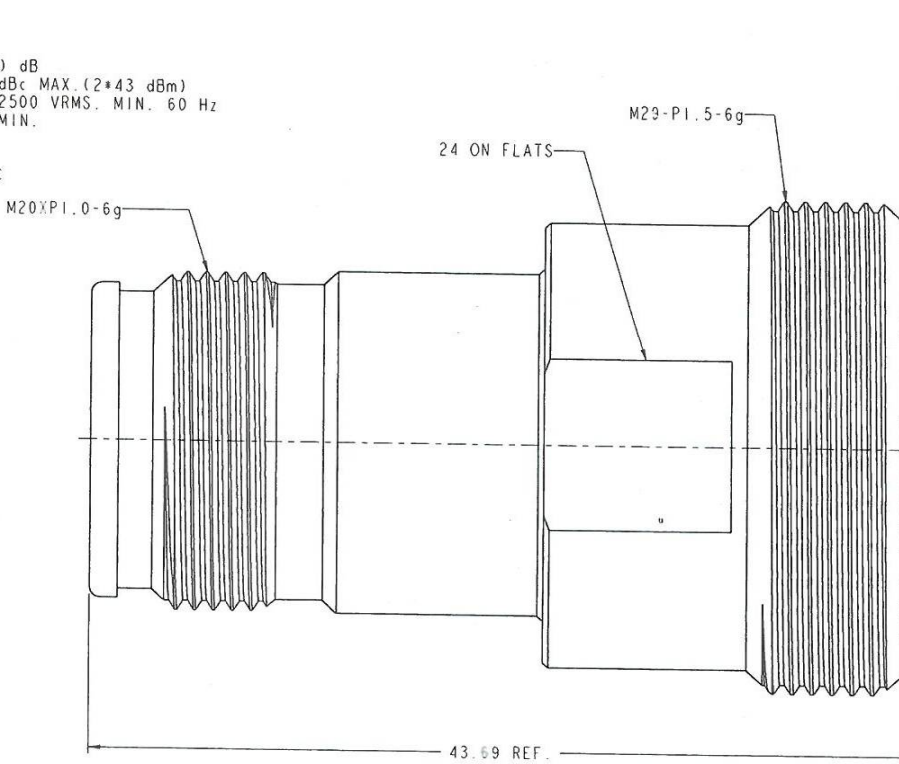
NOTES:

- MATERIAL AND FINISH (PLATING THICKNESS IN MICRO-INCHES):
BODY - BRASS, ALBALOY PLATING
CONTACT - BERYLLIUM COPPER, SILVER PLATING
INSULATOR - PTFE, NATURAL
- ELECTRICAL:
A. IMPEDANCE: 50 OHM
B. FREQUENCY RANGE: DC-6 GHz

D. INSERTION LOSS: $0.05 + 0.05 \cdot \sqrt{f}$ dB
E. INTERMODULATION 3RD ORDER: -166 dBc MAX. (2*43 dBm)
F. DIELECTRIC WITHSTANDING VOLTAGE: 2500 VRMS, MIN. 60 Hz
G. INSULATION RESISTANCE: 5000 M Ω MIN.
- MECHANICAL:
A. DURABILITY: 500 CYCLES MIN.
B. TEMPERATURE RANGE: -65°C TO +165°C

THIRD ANGLE PROJ. 

REVISIONS			
REV	DESCRIPTION	DATE	ECO
1	PRELIMINARY RELEASE.	21-Oct-14	JC
2	SEE SHEET 1.	02-Dec-14	JC
3	SEE SHEET 1. AND BODY PLATING UPDATE	14-Oct-15	JC



24 ON FLATS

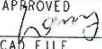
M20xP1.0-6g

M29-P1.5-6g

43.69 REF.

SCALE 1.000

CUSTOMER OUTLINE DRAWING
ALL OTHER SHEETS ARE FOR INTERNAL USE ONLY

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN METRIC AND TOLERANCES ARE:		DRAWN		DATE		TITLE		Amphenol RF	
< 0.5mm	0.5 - 6mm	JEKY C	14-Oct-15	7/16 JACK TO 4.3-10 JACK		Danbury CT USA, Tainan, Taiwan, Shenzhen, China		www.amphenolrf.com	
± 0.05mm	± 0.1mm	ENGINEER	14-Oct-15	(GRADE 2) ADAPTER		DRAWING NO. 716F-4310F-ATS-50		ITEM NO. 07F-85F-AB-5-F	
NOTICE: These drawings, specifications, or other data (1) are, and remain the property of Amphenol Corp. (2) must be returned upon request; and (3) are confidential and not to be disclosed to any person other than those to whom they are given by Amphenol Corp. The furnishing of these drawings, specifications, or other data by Amphenol Corp., or to any other person to anyone for any purpose is not to be regarded by implication or otherwise in any manner licensing, granting rights to permitting such holder or any other person to manufacture, use or sell any product, process or design, patented or otherwise, that may in any way be related to or disclosed by said drawings, specifications, or other data.		REFERENCE AND CONFIGURATION LEVEL:	APPROVED 	DATE 14-Oct-15	SCALE: 4.0:1.0	SHEET 2 OF 2	PART NO.		
		FINISH	CAD FILE		DWG SIZE B	REV 3			

DESIGN VERIFICATION AND VALIDATION TEST PLAN

Customer:	R-031
Design Engineer:	Nick Lu
Amphenol Part Number and Revision:	716F-4310F1-ATS-50 Rev 3
Quantity Needed to Ship to Customer:	10 PCS
Total Test Assemblies Needed to Satisfy Test Plan:	
Target Date for Completion of Test Plan Below:	

* Individual Dimensional, Mechanical, Electrical and Environmental tests are part specific and not controlled by this document

Testing Required by Design Engineer to Verify Design and Validate Product Performance (设计工程师提出测试要求验证设计及产品性能)		Description of Testing Requirement (测试要求描述)	Test Assy's Req. (测试数量)	Assy's that will be lost (样品破坏数量)	Avg. Time (hrs) (平均时间)	Est. Cost (\$) (费用)	Result (结果)
	Dimensional Tests (尺寸测试)						
1A	First Article Inspection (首件检验)	per drawing	5				PASS
1B	Critical Dimension Inspection (关键尺寸检验)	per drawing	5				PASS
	Mechanical Tests (机械测试)						
1C	Component Weight (元件重量)	per actual test result	1				/
1D	Plating Thickness (镀层厚度)	per drawing	3				PASS
1N	Contact Captivation - Radial (中心针扭力)	1 N.cm Min.	3	3			PASS
2A	Contact Captivation - Axial (中心针保持力)	80 N Min	3	3			PASS
	Electrical Tests (电性能测试)						
1E	Contact Resistance(接触电阻)	per actual test result	3				/
1F	Insulation Resistance (绝缘电阻)	Verify insulation resistance of at least 5000 Megaohms minimum is maintained	3				PASS
1G	Dielectric Withstanding Voltage(绝缘耐电压)	2500 VRMS. MIN.	3				PASS
1H	VSWR/Return Loss (驻波比/回损)	Record datas DC-4G Record datas 4-6G	3				/
1I	Insertion Loss(插损)	per actual test result	3				/
1J	PIM(无源互调测试)	≤-117 dBm@2.1GHz, 2*20w	3				PASS
	Other(其他)						
	Design Engineer Comments:						
	Total Testing Requirements Identified for Verification of Design Intent and Validation of Customer Requirements		Parts Destroyed	Time (Hrs)	Est. Cost		
6			0	\$0.00			

Amphenol®RF <small>Global RF Solutions</small>		FIRST ARTICLE / PART EVALUATION INSPECTION (首件评估检验)		
Amphenol P/N & Rev	Mfg Order #	Mfg Location	Evaluated BY	Date
716F-4310F1-ATS-50 Rev 3	5525-160328014	Amphenol RFA - Shenzhen, China	Michael Li	04/25/16
Customer P/N & Rev	EAR #	Design Eng	Marketing	Sales
		Nick Lu	Mike Cao	Amy
Part Description		PO #	Quality Engineer	
7/16 JACK TO 4.3-10 JACK GRADE 2 ADAPTOR			Michael Li	

☒ **First Article Inspection (all dimensions on COD)**
☐ **Critical Dimension Inspection Only (defined by Engineering)**
☐ **Material Environmental Compliance Documented**
☐ **AQL Supplier Verification**

Item	Nominal	Up Tol.	Low Tol.	Sample #1	Sample #2	Sample #3	Sample #4	Sample #5	Method or Gage Used
1	24.000	0.200	0.200	23.940	23.940	23.940	23.930	23.930	Digital Cal
2	43.690	REF	REF	43.690	43.700	43.690	43.690	4.3.68	Digital Cal
3	3.300	0.100	0.100	3.280	3.310	3.360	3.280	3.300	Height Gage
4	3.300	0.100	0.100	3.310	3.290	3.320	3.290	3.300	Height Gage
5									
6									
7									
8									
9									
10									
11									
12									
13									
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15									
16									
17									
18									
19									
20									
21									

Comments: Appearance is ok.

Threads(M20XP1.0-6g&M29xP1.5-6g) have been verified with GO- NOGO gauge result is acceptable.

Item 3 and 4 are 4.3/10 JACK interface , item 3 interface from contact pin to body, item 4 interface from out contact to body.

Item 7 is 7/16 JACK interface dimension from contact pin to body

PROTOTYPE ENGINEERING VALIDATION

- ☒ Processed through all assembly steps without major issue
☐ Additional manufacturing testing and validation required
☒ Manufacturing equipment is production ready
☐ Manufacturing Process is ready (Including Work Instructions as needed.)

QUALITY ENGINEERING VALIDATION

- ☒ Measurements and DVT Plan are adequate for product quality
☐ Process controls (Including inspection plans in place as needed)

PART EVALUATION REPORT DISPOSITION

(see comments section for detailed REPAIR or REWORK instructions)

Department	Initials	Date	Signature	Pass	Rework	Fail
Design Engineer	NL	April 25, 2016	Nick Lu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manufacturing Engineer	DW	April 25, 2016	Dico Wang	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality Engineer	ML	April 25, 2016	Michael Li	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality Technician	HQ	April 25, 2016	HF QIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Bao An District, Shen Zhen City, China (深圳宝安区公明镇塘尾工业区DM2 座)

Part Number(产品编号)

716F-4310F1-ATS-50 Rev 3

part Name (品名)

7/16 JACK TO 4.3-10 JACK GRADE 2 ADAPTOR

Date of Test(测试日期)

April 25, 2016

Test Method and Specification (测试方法及标准):

per actual test result

[illegible]

Amphenol RF Asia's JADEVER JBX-1.5K Electronic Balance can test the Component Weight.

The range of the instrument is:
0 ~ 1500g.



Signature (簽名)

RX ZHAO

Title(职位)

Assistant Engineer

CONTACT CAPTIVATION-RADIAL

(中心针扭力)

Amphenol RF Asia (安费诺 射频 亚洲) Block DM2 Tang Wei Industrial, General CO.Gong Ming Town, Bao An District, Shen Zhen City, China (深圳宝安区公明镇塘尾工业区DM2 座)		
Supplier(供应商) Amphenol RF Asia (安费诺 射频 亚洲)	Part Number(产品编号) 716F-4310F1-ATS-50 Rev 3	
Name of Laboratory(实验室) Amphenol RF Asia(安费诺 射频 亚洲)	part Name (品名) 7/16 JACK TO 4.3-10 JACK GRADE 2 ADAPTOR	Date of Test(测试日期) April 25, 2016
Test Method and Specification (测试方法及标准): <p style="text-align: center;">1 N.cm Min.</p>		

SAMPLE # (样品编号)	REQUIREMENTS(测试要求)	QTY TESTED (测试次数)	TORQUE(扭力) (N.cm)	RESULT (结果)	
1	1 N.cm Min.	1	25.4	PASS	
2		1	23.5	PASS	
3		1	21.6	PASS	

TOHNICHI 1200ATG & 6BTG Torque Gauge

Amphenol RF Asia's TOHNICHI 1200ATG & 6BTG Torque Gauge can test the Torque Force.

The range of the instrument is:
 Torque Force: 100 ~ 1200 gf.cm.
 0.5 ~ 6 Kgf.cm.



Signature (签名) RX ZHAO	Title(职位) Assistant Engineer
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CONTACT CAPTIVATION-AXIAL

(中心针保持力)

Amphenol RF Asia (安费诺 射频 亚洲) Block DM2 Tang Wei Industrial, General CO.Gong Ming Town, Bao An District, Shen Zhen City, China (深圳宝安区公明镇塘尾工业区DM2 座)		
Supplier(供应商) Amphenol RF Asia (安费诺 射频 亚洲)	Part Number(产品编号) 716F-4310F1-ATS-50 Rev 3	
Name of Laboratory(实验室) Amphenol RF Asia(安费诺 射频 亚洲)	part Name (品名) 7/16 JACK TO 4.3-10 JACK GRADE 2 ADAPTOR	Date of Test(测试日期) April 25, 2016
Test Method and Specification (测试方法及标准): 80 N Min		

SAMPLE # (样品编号)	REQUIREMENTS(测试要求)	QTY TESTED (测试次数)	FORCE(力) (Nw)	RESULT (结果)	
1	80 N Min	1	119.5	PASS	
2		1	135.7	PASS	
3		1	121.3	PASS	

KQL® KD / Series Mechanical Force Tester

Amphenol RF Asia's KQL® KD / Series Mechanical Force Tester is utilized for tensile and compression testing up to 200 Kg capacities.



Signature (签名) RX ZHAO	Title(职位) Assistant Engineer
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CONTACT RESISTANCE(接触电阻)

Amphenol RF Asia (安费诺 射频 亚洲) Block DM2 Tang Wei Industrial, General CO.Gong Ming Town, Bao An District, Shen Zhen City, China (深圳宝安区公明镇塘尾工业区DM2 座)		
Supplier(供应商) Amphenol RF Asia (安费诺 射频 亚洲)	Part Number(产品编号) 716F-4310F1-ATS-50 Rev 3	
Name of Laboratory(实验室) Amphenol RF Asia(安费诺 射频 亚洲)	part Name (品名) 7/16 JACK TO 4.3-10 JACK GRADE 2 ADAPTOR	Date of Test(测试日期) April 25, 2016

Test Method and Specification (测试方法及标准):

per actual test result

SAMPLE # (样品编号)	REQUIREMENTS(测试要求)	INNER LLCR (内导体 接触电阻)	OUTER LLCR (外导体 接触电阻)	QTY Tested (测试次数)	
1	per actual test result	0.18	0.16	1	
2		0.21	0.21	1	
3		0.18	0.15	1	

GW INSTEK® GOM-810G Milli-Ohmmeter

Amphenol RF Asia's GOM-801G Milli-Ohmmeter is designed for simplicity in measuring the contact resistance of switches, relays, plugs, connectors, etc.



Signature (签名) RX ZHAO	Title(职位) Assistant Engineer
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DIELECTRIC WITHSTANDING VOLTAGE

(绝缘耐电压)

Amphenol RF Asia (安费诺 射频 亚洲) Block DM2 Tang Wei Industrial, General CO.Gong Ming Town, Bao An District, Shen Zhen City, China (深圳宝安区公明镇塘尾工业区DM2 座)		
Supplier(供应商) Amphenol RF Asia (安费诺 射频 亚洲)	Part Number(产品编号) 716F-4310F1-ATS-50 Rev 3	
Name of Laboratory(实验室) Amphenol RF Asia(安费诺 射频 亚洲)	part Name (品名) 7/16 JACK TO 4.3-10 JACK GRADE 2 ADAPTOR	Date of Test(测试日期) April 25, 2016
Test Method and Specification (测试方法及标准): <div style="text-align: center; color: blue; font-weight: bold;">2500 VRMS. MIN.</div>		

SAMPLE # (样品编号)	REQUIREMENTS(测试要求)	VRMS(电压)	HZ(频率)	TIME (时间)	RESULT (结果)
1	2500 VRMS. MIN.	2500	50	60s	PASS
2		2500	50	60s	PASS
3		2500	50	60s	PASS

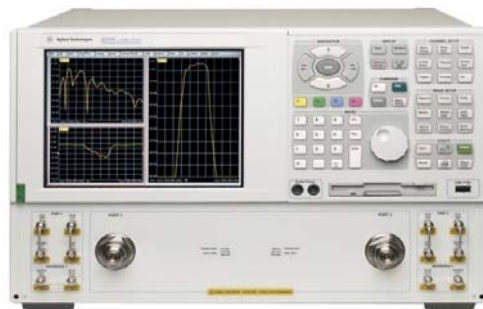
GW INSTRON ® GPI-735A AC/DC Withstand Voltage/Insulation Tester

Amphenol RF Asia's GPI-735A AC/DC Withstand Voltage/Insulation Tester can test the Dielectric Withstanding Voltage, Insulation Resistance and Contonuity according to setting, and also displays pass or fail.



Signature (签名) RX ZHAO	Title(职位) Assistant Engineer
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Amphenol®RF Global RF Solutions		VSWR / RETURN LOSS(驻波比/回损)	
Amphenol RF Asia (安费诺 射频 亚洲) Block DM2 Tang Wei Industrial, General CO.Gong Ming Town, Bao An District, Shen Zhen City, China (深圳宝安区公明镇塘尾工业区DM2 座)			
Supplier(供应商) Amphenol RF Asia (安费诺 射频 亚洲)		Part Number(产品编号) 716F-4310F1-ATS-50 Rev 3	
Name of Laboratory(实验室) Amphenol RF Asia(安费诺 射频 亚洲)		part Name (品名) 7/16 JACK TO 4.3-10 JACK GRADE 2 ADAPTOR	Date of Test(测试日期) April 25, 2016
Test Method and Specification (测试方法及标准): Record datas DC-4G Record datas 4-6G			
SAMPLE # (样品编号)	REQUIREMENTS(测试要求)	QTY TESTED(测试次数)	RESULT(结果)
1	Record datas DC-4G	1	1.07
	Record datas 4-6G	1	1.14
2	Record datas DC-4G	1	1.07
	Record datas 4-6G	1	1.14
3	Record datas DC-4G	1	1.07
	Record datas 4-6G	1	1.14
Agilent® N5230C Network Analyzer Amphenol RF Asia's N5230C Network Analyzer apply to test the electrical characteristics, include: Voltage Standing Wave Ratio, Insertion Loss, Return Loss, Smith Chart, etc. The frequency range of the instrument is 10 MHZ to 40GHZ.			
Signature (签名) RX ZHAO		Title(职位) Assistant Engineer	



INSERTION LOSS(插损)

per actual test result

[illegible]

**REVISION HISTORY(版本记录)**

Amphenol RF Asia (安费诺 射频 亚洲)

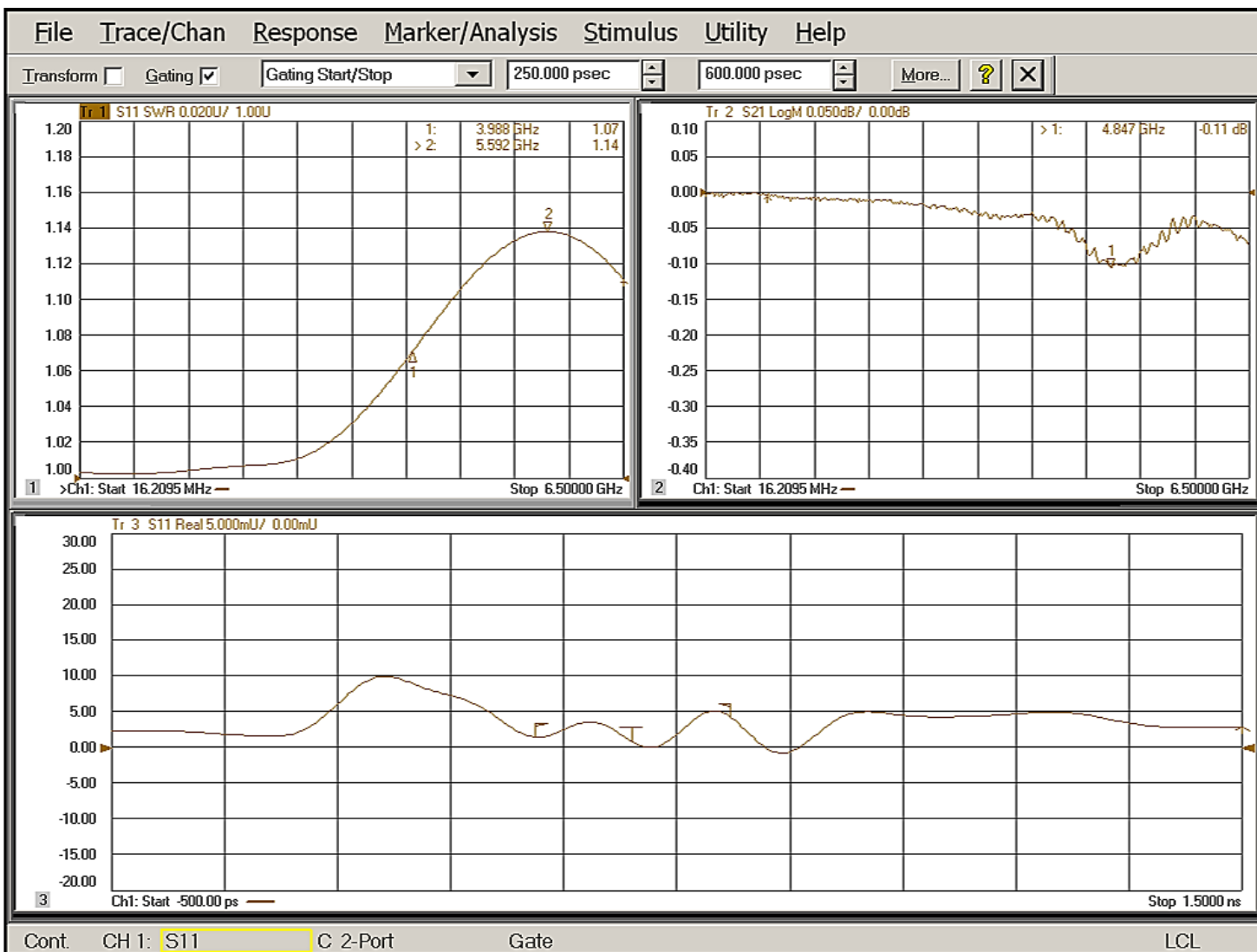
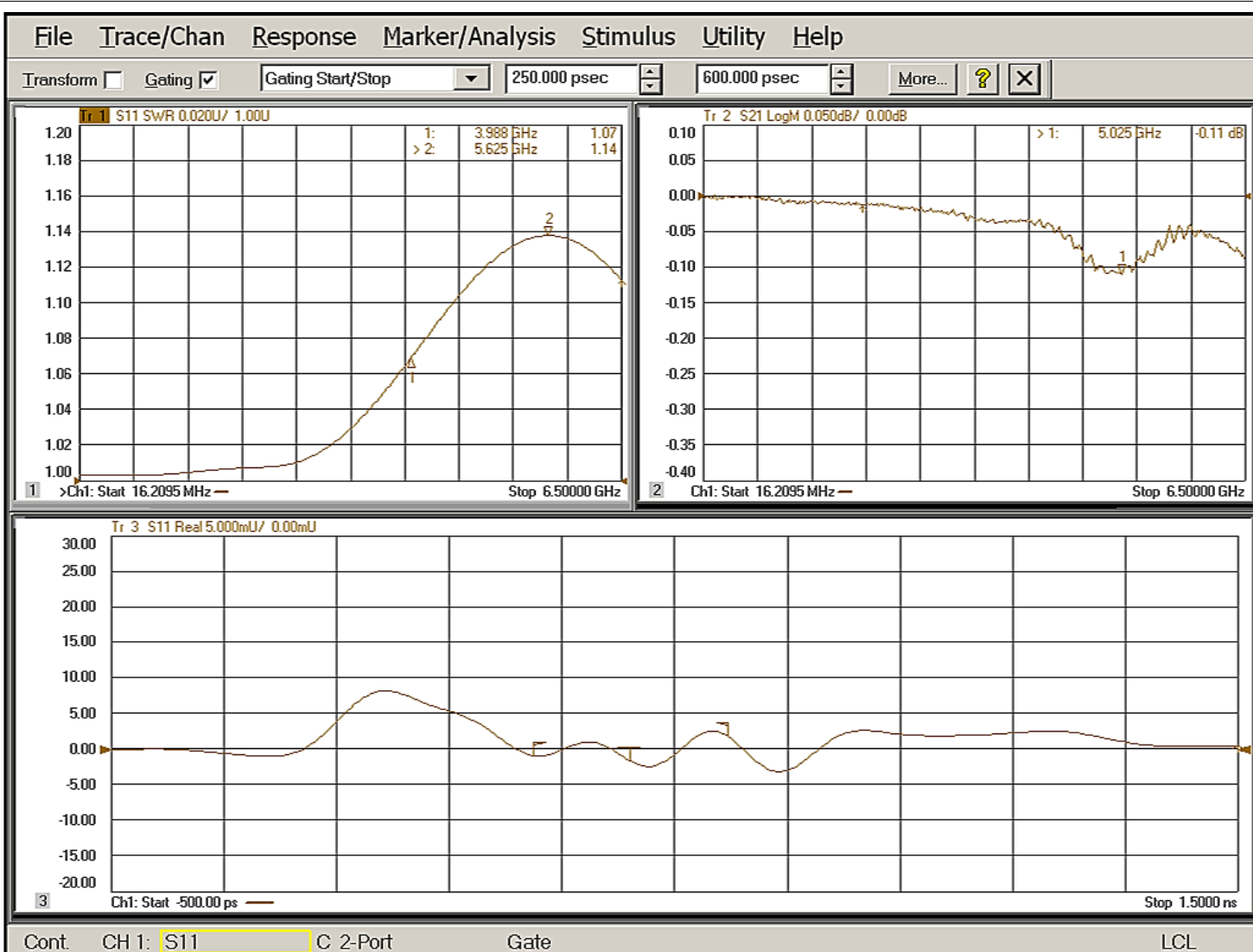
Block DM2 Tang Wei Industrial, General CO.Gong Ming Town,

Bao An District, Shen Zhen City, China(深圳宝安区公明镇塘尾工业区DM2 座)

Dates		Signatures	
Prepared by:			
RX ZHAO	25-Apr-16		
ENG Approval:			
	25-Apr-16		
NPI Approval:			
Lucux Li	25-Apr-16		

Design Verification Test Report (设计认证报告)**Report No(报告编号): DDE8612****Revision History (版本记录)**

03	Refer to Drawing	25-Apr-16
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Transform ☐Gating ☒

Gating Start/Stop

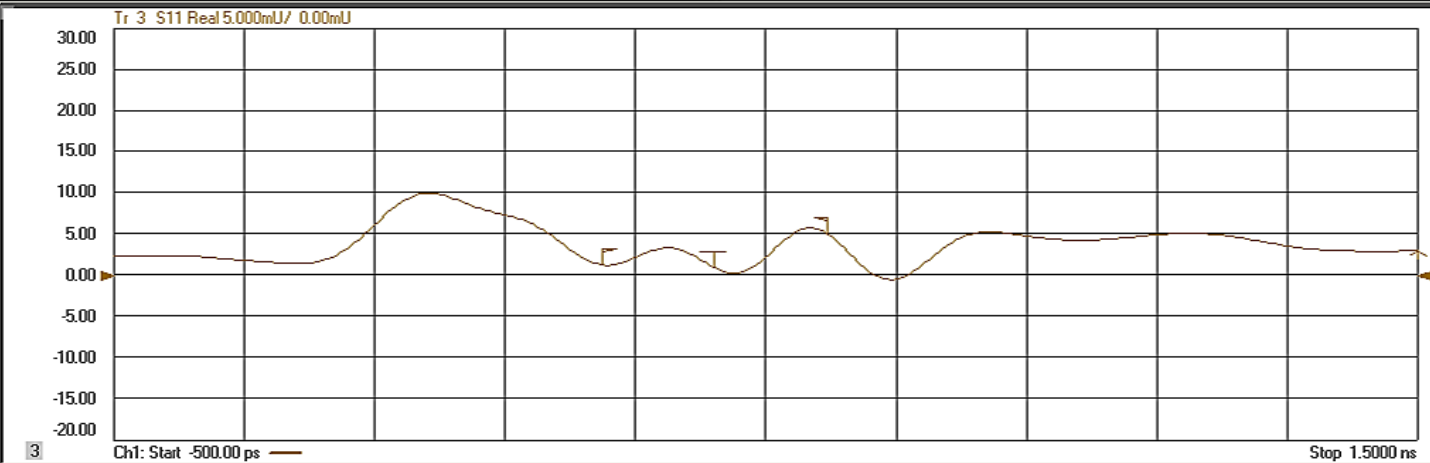
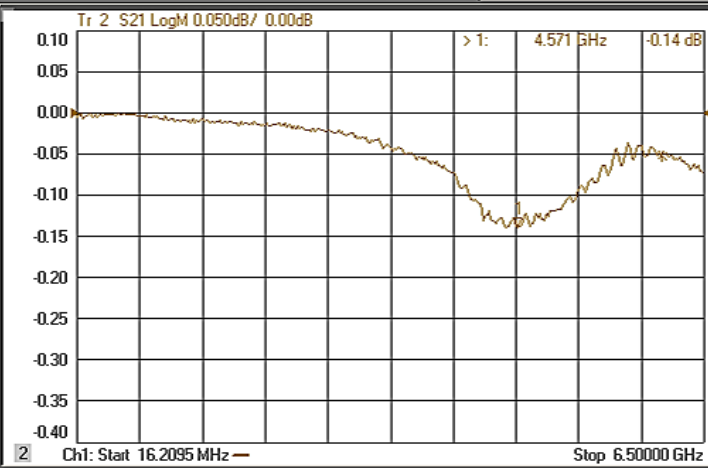
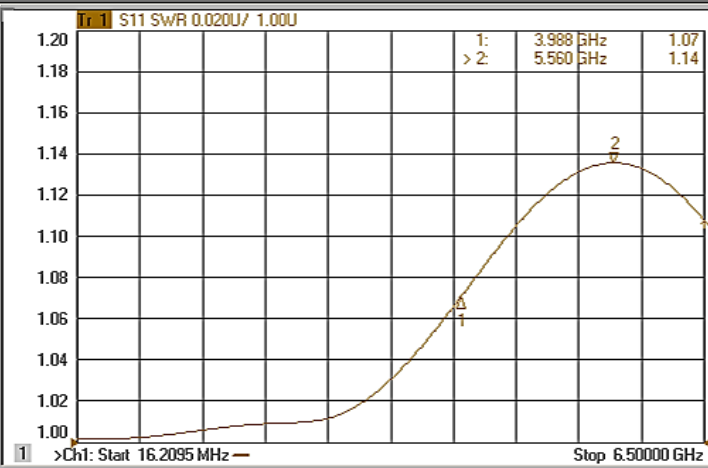
250.000 psec

600.000 psec

More...

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X



Cont. CH 1: S11 C 2-Port

Gate

LCL