AAA Calibration Equipment Specialist Inc.
600 Rembert Trail S.W. Albuquerque New Mexico 87121 505-417-1446

CERTIFICATE OF CALIBRATION

Serial Number : 12340-1

is hereby issued to

AAA Equipment Resources Inc.
9828 Stone St.N.W.
Albuquerque NM 87114

For Calibration of
Tektronix PG 502 250 MHz Pulse Generator
Serial # B045409 Asset #

Procedure
Manufactures Manual
Calibration Environment
Temperature: 76° F Humidity: 30%

Condition Received In
Out Of Tolerance: XXX
In Tolerance:
Physical Damage:
Overloaded:

Calibration Date: 12/5/2012
Calibration Due: 12/5/2013

Condition Returned In
In Tolerance: XXX
With Limitations:

Standards Used For Calibration

Manufacture	*Model*	*Serial #*	*Asset#*	*Calibration Due*
Hewlett Packard	5345A	2016A06965	TER 016	11/7/2013
Tektronix	2465B	B052340	CES 001	4/10/2013
Hewlett Packard	3325B	2847A12445	TER 040	3/10/2013
Hewlett Packard	3457A	2703A06615	CES 027	11/17/2013

This Certificate is not to be duplicated without prior written approval of AAA Calibration Equipment Specialist. AAA Calibration Equipment Specialist measurement standards are traceable to National Institute of Standards and Technology .Measurement uncertainty of less than or equal to one quarter of specification of unit under test with a factor of 2 where possible.

Certified By
Ricardo Hernandez
Ricardo Hernandez
On this Date
12-05-2012

07204-1

AAA Calibration Equipment Specialist Inc.
600 Rembert Trail S.W. Albuquerque New Mexico 87121 505-417-1446

CERTIFICATE OF CALIBRATION

Serial Number :12338-8

is hereby issued to

AAA Equipment Resources Inc.
9828 Stone St. N.W.
Albuquerque NM 87114

For Calibration of
Tektronix 7B85 Delaying Time Base
Serial # B083122 Asset #

Procedure
Manufactures Manual
Calibration Environment
Temperature: 76° F Humidity: 30%

Condition Received In
Out Of Tolerance: _____
In Tolerance: XXX
Physical Damage: _____
Overloaded: _____

Calibration Date: 12/3/2012
Calibration Due: 12/3/2013

Condition Returned In
In Tolerance: XXX
With Limitations: _____

Standards Used For Calibration

Manufacture	*Model*	*Serial #*	*Asset#*	*Calibration Due*
Tektronix	TG 501	B011148	TER 065	2/11/2013
Hewlett Packard	3325B	B011148	TER 066	2/11/2013
Tektronix	SG 504	B014011	TER 057	7/23/2013
Hewlett Packard	3457A	2703A06615	CES 027	11/17/2013
Tektronix	7A29	B040552	TER 090	8/10/2013
Tektronix	7104	B084796	TER 068	6/24/2013
Tektronix	7B15	B035892	TER 103	5/4/2013

This Certificate is not to be duplicated without prior written approval of AAA Calibration Equipment Specialist. AAA Calibration Equipment Specialist measurement standards are traceable to National Institute of Standards and Technology .Measurement uncertainty of less than or equal to one quarter of specification of unit under test with a factor of 2 where possible.

Certified By
Ricardo Hernandez
Ricardo Hernandez
On this Date
12-03-2012

07204-1

AAA Calibration Equipment Specialist Inc.
600 Rembert Trail S.W. Albuquerque New Mexico 87121 505-417-1446

CERTIFICATE OF CALIBRATION

Serial Number :12338-7

is hereby issued to

AAA Equipment Resources Inc.
9828 Stone St. N.W.
Albuquerque NM 87114

For Calibration of
Tektronix 7B92A Dual Time Base
Serial # B089045 Asset #

Procedure
Manufactures Manual
Calibration Environment
Temperature: 76° F Humidity: 30%

Condition Received In
Out Of Tolerance: ____
In Tolerance: XXX
Physical Damage: ____
Overloaded: ____

Calibration Date: 12/3/2012
Calibration Due: 12/3/2013

Condition Returned In
In Tolerance: XXX
With Limitations: ____

Standards Used For Calibration

Manufacture	*Model*	*Serial #*	*Asset#*	*Calibration Due*
Tektronix	TG 501	B011148	TER 065	2/11/2013
Hewlett Packard	3325B	B011148	TER 066	2/11/2013
Tektronix	SG 504	B014011	TER 057	7/23/2013
Hewlett Packard	3457A	2703A06615	CES 027	11/17/2013
Tektronix	7A29	B040552	TER 090	8/10/2013
Tektronix	7104	B084796	TER 068	6/24/2013
Tektronix	7B15	B035892	TER 103	5/4/2013

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Certified By
Ricardo Hernandez
Ricardo Hernandez
On this Date
12-03-2012

07204-1

AAA Calibration Equipment Specialist Inc.
600 Rembert Trail S.W. Albuquerque New Mexico 87121 505-417-1446

CERTIFICATE OF CALIBRATION

Serial Number :12338-6

is hereby issued to

AAA Equipment Resources Inc.
9828 Stone St. N.W.
Albuquerque NM 87114

For Calibration of
Tektronix 7A29 Amplifier
Serial # B038937 Asset #

Procedure
Manufactures Manual
Calibration Environment
Temperature: 76° F Humidity: 30%

Condition Received In
Out Of Tolerance: ____
In Tolerance: XXX
Physical Damage: ____
Overloaded: ____

Calibration Date: 12/3/2012
Calibration Due: 12/3/2013

Condition Returned In
In Tolerance: XXX
With Limitations: ____

Standards Used For Calibration

Manufacture	*Model*	*Serial #*	*Asset#*	*Calibration Due*
Tektronix	TG 501	B011148	TER 065	2/11/2013
Hewlett Packard	3325B	B011148	TER 066	2/11/2013
Tektronix	SG 504	B014011	TER 057	7/23/2013
Hewlett Packard	3457A	2703A06615	CES 027	11/17/2013
Tektronix	7A29	B040552	TER 090	8/10/2013
Tektronix	7104	B084796	TER 068	6/24/2013
Tektronix	7B15	B035892	TER 103	5/4/2013

This Certificate is not to be duplicated without prior written approval of AAA Calibration Equipment Specialist. AAA Calibration Equipment Specialist measurement standards are traceable to National Institute of Standards and Technology .Measurement uncertainty of less than or equal to one quarter of specification of unit under test with a factor of 2 where possible.

Certified By
Ricardo Hernandez
Ricardo Hernandez
On this Date
12-03-2012

07204-1

AAA Calibration Equipment Specialist Inc.
600 Rembert Trail S.W. Albuquerque New Mexico 87121 505-417-1446

CERTIFICATE OF CALIBRATION

Serial Number :12338-5

is hereby issued to

AAA Equipment Resources Inc.
9828 Stone St. N.W.
Albuquerque NM 87114

For Calibration of
Tektronix 7A24 Dual Trace Amplifier
Serial # B051250 Asset #

Procedure
Manufactures Manual
Calibration Environment
Temperature: 76° F Humidity: 30%

Condition Received In
Out Of Tolerance: _____
In Tolerance: _____
Physical Damage: _____
Overloaded: XXX

Calibration Date: 12/3/2012
Calibration Due: 12/3/2013

Condition Returned In
In Tolerance: XXX
With Limitations: _____

Standards Used For Calibration

Manufacture	*Model*	*Serial #*	*Asset#*	*Calibration Due*
Tektronix	TG 501	B011148	TER 065	2/11/2013
Hewlett Packard	3325B	B011148	TER 066	2/11/2013
Tektronix	SG 504	B014011	TER 057	7/23/2013
Hewlett Packard	3457A	2703A06615	CES 027	11/17/2013
Tektronix	7A29	B040552	TER 090	8/10/2013
Tektronix	7104	B084796	TER 068	6/24/2013
Tektronix	7B15	B035892	TER 103	5/4/2013

This Certificate is not to be duplicated without prior written approval of AAA Calibration Equipment Specialist. AAA Calibration Equipment Specialist measurement standards are traceable to National Institute of Standards and Technology .Measurement uncertainty of less than or equal to one quarter of specification of unit under test with a factor of 2 where possible.

Certified By
Ricardo Hernandez
Ricardo Hernandez
On this Date
12-03-2012

07204-1

AAA Calibration Equipment Specialist Inc.
600 Rembert Trail S.W. Albuquerque New Mexico 87121 505-417-1446

CERTIFICATE OF CALIBRATION

Serial Number :12338-4

is hereby issued to

AAA Equipment Resources Inc.
9828 Stone St. N.W.
Albuquerque NM 87114

For Calibration of
Tektronix 7104 Oscilloscope
Serial # B020684 Asset #

Procedure
Manufactures Manual
Calibration Environment
Temperature: 76° F Humidity: 30%

Condition Received In
Out Of Tolerance: XXX
In Tolerance:
Physical Damage:
Overloaded:

Calibration Date: 12/3/2012
Calibration Due: 12/3/2013

Condition Returned In
In Tolerance: XXX
With Limitations:

Standards Used For Calibration

Manufacture	*Model*	*Serial #*	*Asset#*	*Calibration Due*
Tektronix	TG 501	B050875	TER 030	5/11/2013
Tektronix	SG 5030	B011148	TER 066	2/11/2013
Tektronix	SG 504	B014011	TER 057	7/23/2013
Tektronix	067-587-02	B032405	TER 052	3/14/2013
Tektronix	7B15	B035892	TER 103	5/4/2013
Tektronix	7B10	B033893	TER 070	2/16/2013
Tektronix	7A24	B071589	TER 108	5/3/2013
Tektronix	7A29	B040552	TER 090	8/10/2013
Tektronix	2465B	B052340	CES 001	4/10/2013

This Certificate is not to be duplicated without prior written approval of AAA Calibration Equipment Specialist. AAA Calibration Equipment Specialist measurement standards are traceable to National Institute of Standards and Technology .Measurement uncertainty of less than or equal to one quarter of specification of unit under test with a factor of 2 where possible.

Certified By
Ricardo Hernandez
Ricardo Hernandez
On this Date
12-03-2012

07204-1

Tektronix (China) Co. Ltd.
1227 Chuan Qiao Road
Pudong New District, Shanghai, China 201206

TRACEABLE CALIBRATION
TDS2022C, C012312
Cal Date: 23-JUN-2011
Cal Due: Lab: Tek
Tektronix

Tektronix

CERTIFICATE OF TRACEABLE CALIBRATION

Certificate No: PCXPRP7SM9 **Revision:** 00
Manufacturer: Tektronix **Model:** TDS2022C **Serial No:** C012312
Description: Oscilloscope; 200 MHz, 2 Channel **Temperature:** 21 °C **Humidity:** 70 %
Cal Date: 23-JUN-2011 **Date Placed In Service:** _____* **Due Date:** _____*

*Optional customer entry fields: The "Due Date" may be established by adding the calibration interval to the "Date Placed In Service." Recommended calibration intervals, for Tektronix products, are available on the Tektronix website at: http://www.tek.com/service/product-support/

INSTRUMENT CONDITION:

Received: Not applicable, initial calibration

Returned: In tolerance, within published measurement specification

Tektronix certifies the above instrument has been calibrated using standards traceable to the PRC National Institute of Metrology (NIM) and/or other National Metrology Institutes (NIST, NPL, PTB) that are linked to the international system of units (SI). The policies and procedures used for the calibration of this product are based on ISO/IEC 17025:2005.
This certificate shall not be reproduced, except in full, without the written approval of the calibration facility.

CALIBRATION PROCEDURE:

MANIFEST:Product_Oscilloscopes_TDS1K2K-SC_Full VERSION:75

CALIBRATION EQUIPMENT USED:

MANUFACTURER/MODEL	MODEL DESCRIPTION	ID NUMBER	DUE DATE
Keithley 2700	Digital Multimeter	CT0343	03-Jul-2012
Wavetek 9100	Calibrator	193743	14-Aug-2011

Issued By: Walter Qian **Certified By:** Lei Li

Quality Manager: Qian, Walter **Date Issued:** 23-JUN-2011

ISO 9001 Registered Quality System

Metrology Services

9927-A Trumbull SE · Albuquerque, NM 87123
Tel: 505-332-2645 · Fax: 505-298-6452

CALIBRATION RECORD

Customer	MS' Job No. ———
Description HOR. P.I.	Calibrated By R. KRANGLE.
Manufacturer TEK	Calibration Date 11-15-11
Model No. 7B92A	Resubmission Date 11-15-12
Serial No. B076424	Calibration Procedure HAND. MAN.
Inventory No. ———	

As Received Item Was [ ] In Tolerance (Green Flag) [✓] Out of Tolerance (Red Flag) [ ] Not Functional (Red Flag)

Ambient Temperature	Relative Humidity	Adjustment Required	Parts Required
70°	26 %	[✓] Yes [ ] No	[ ] Yes [✓] No

ITEM SUBMITTED FOR
- [✓] Certification
- [ ] Periodic Calibration
- [ ] Operational Failure
- [ ] Function Test

SHOWED EVIDENCE OF
- [ ] Overload
- [ ] Physical Damage
- [ ] Severe Environment
- [✓] None of the Above

STANDARDS USED IN THIS CALIBRATION

Mfgr.	Model No.	Serial No.	Control	Cal Due
TEK	7904	B282739	1026	08/12
TEK	2901		1104	08/12
TEK	TG-501		1237	05/12
HP	3468A		1238	05/12
TEK	067-0587-01	B030547	1191	TSD

SERVICE PERFORMED, CALIBRATION DATA, REMARKS, ETC.:

A FEW MINOR ADJ's TO PASS CAL.

THIS UNIT PROBABLY HASN'T SEEN POWER TO IT IN A DECADE. STILL FUNCTIONS FINE AND PASSES CAL. SPEAKS VOLUMES ABOUT THE LONGEVITY AND STABILITY OF THIS GENERATION OF INSTRUMENTS!

AAA Calibration Equipment Specialist Inc.
600 Rembert Trail S.W. Albuquerque New Mexico 87121 505-417-1446

CERTIFICATE OF CALIBRATION

Serial Number :12037-1

is hereby issued to

AAA Equipment Resources Inc.
9828 Stone St.N.W.
Albuquerque, New Mexico 87114

For Calibration of
Fluke 8520A Digital Multimeter
Serial # 4715009 Asset #

Procedure
Manufactures Manual
Calibration Environment
Temperature: 76° F Humidity: 30%

Condition Received In
Out Of Tolerance: _____
In Tolerance: XXX
Physical Damage: _____
Overloaded: _____

Calibration Date: 2/6/2012
Calibration Due: 2/6/2013

Condition Returned In
In Tolerance: XXX
With Limitations: _____

Standards Used For Calibration

Manufacture	*Model*	*Serial #*	*Asset#*	*Calibration Due*
Fluke	720A	5915008	CES 80	10/21/2012
Wavetek	1281	3804	CES 83	8/2/2012
Fluke	732A	4485002	CES 72	10/25/2012
Fluke	845AR	2006025	TER 73	11/12/2012
Fluke	5100B	4095003	TER 63	7/18/2012
Gray Inst.Co.	100 Ohms	17236	TER 77	2/10/2013
Gray Inst.Co.	10k Ohms	17302	TER 78	2/10/2013
General Radio	1433X	29294	TER 60	4/20/2012
General Radio	1433Z	29014	TER 59	4/20/2012

This Certificate is not to be duplicated without prior written approval of AAA Calibration Equipment Specialist. AAA Calibration Equipment Specialist measurements standards are traceable to National Institute of Standards and Technology. Measurement uncertainty of less than or equal to one quarter of specification of unit under test with a factor of 2 where possible.

Certified By
Ricardo Hernandez
Ricardo Hernandez
On this Date
2-6-2012

07204-1

RIGOL
Beyond Measure

Rigol Technologies,Inc.
156# Cai He Village, Sha He Town, Chang Ping District, Beijing, China
102206
China

Certificate Of Calibration

Certificate No: DSA1030132000079

Manufacturer: Rigol Technologies,Inc.
Description: Spectrum Analyzer

Model : DSA1030
Serial No: DSA1B132000079

Date of Calibration: 09-Jun-2011
Temperature: (23 ± 5) ℃
Humidity: (40 to 70)% RH
Procedure: COC03

Tester Test Items: Appearance Test，Function Test，Performance Test and Safety Test
OQA Test Items: Appearance Test and Function Test

The certification as above is applicable to Rigol's products only.

Calibration Equipments Used:

Model	Description	Trace Number	Cal Due Date
Agilent53131A	Universel Counter	S/N KR91203078	06-Nov-2012
Agilent11713B	Attenuator Switch Driver	S/N MY47360836	23-Apr-2012
Agilent E4418B	Single PWR Meter	S/N MY45109646	08-May-2012
Agilent E4405B	Spectrum Analyzer	S/N MY41440445	23-Apr-2012
Agilent N5181A	MXG Analog Signal Generator	S/N MY47420775	18-Apr-2012
Agilent N5181A	MXG Analog Signal Generator	S/N MY47420458	18-Apr-2012

Printed Date: 09-Jun-2011

Certificate of Calibration

CALIBRATION CHECK No. 728

AD587LQ Tolerance: 5 ppm / ° C, 15 ppm / 1000 hours

Vcc = 15.0 V

WITH JUMPER, 'as calibrated' **10.000 00 V** at 21 °C ambient

W/O JUMPER (UNCORRECTED) **10.001 89 V** at 21 °C ambient

Measured Temperature Coefficient (valid for +/-1 °C) ~1.2 ppm / c

Broadband AC Noise (20 Hz – 100 KHz): **< 22 µV or ~** $70\frac{nV}{\sqrt{Hz}}$

Transfer accuracy < ±5 ppm at the reported temperature and supply voltage after warmup

CAUTION: Do not reverse input polarity or apply 15 V to the output!
Avoid temperature gradients caused by direct sunlight.
Keep cell phones > 3 meters away during calibration use

JMG _____ February 1, 2012

GELLER, 105 Hardcastle Ave, Whitesboro, NY 13492

Notes:

Warm up time to 10 ppm tolerance is less than 5 minutes, warm up time to 1 ppm short term repeatable performance is less than 30 minutes.

Calibration is recommended at 6 month intervals.

NIST TRACEABLE CALIBRATION: Calibration Is Traceable Through Fluke 732B, Serial Number 6275009 Certificate Number 869144-6275009:1323080574, December 5, 2011.

Coilcraft

1102 Silver Lake Rd. Cary IL 60013
Phone 847-639-6400 Fax 847-639-1469
E-mail matdec@coilcraft.com Web www.coilcraft.com

Certificate of Compliance

This is to certify that the enclosed units comply with current Coilcraft advertised dimensional and electrical specifications.

Customer: 20101 Coilcraft Credit Card

Customer Part Number: WB1-1SLB

Coilcraft Part Number: WB1-1SLB

Purchase Order Number: 5694421

Ship Date: 12/12/11

Coilcraft Lot #	Quantity
080609D10760M	4

All product(s) supplied under this purchase order is RoHS/ELV compliant.

Chris Strong
Manager of Quality

Hawarden
Coilcraft Plant

Coilcraft

1102 Silver Lake Rd. Cary IL 60013
Phone 847-639-6400 Fax 847-639-1469
E-mail matdec@coilcraft.com Web www.coilcraft.com

Certificate of Compliance

This is to certify that the enclosed units comply with current Coilcraft advertised dimensional and electrical specifications.

Customer: 20101 Coilcraft Credit Card

Customer Part Number: WBC1-1TLB

Coilcraft Part Number: WBC1-1TLB

Purchase Order Number: 5694421

Ship Date: 12/12/11

Coilcraft Lot #	Quantity
112511D10780M	4

All product(s) supplied under this purchase order is RoHS/ELV compliant.

Chris Strong
Manager of Quality

Hawarden
Coilcraft Plant