TSE Certificate of Calibration

Trident Systems Engineering
2646 Palma Dr. Ste. 130
Ventura, Ca. 93003
805 - 830 - 8596

Committed to Quality & Service 1995 2019

Certificate 2190091

Based on a Recommended/ agreed on Cal interval of 12 Months

Your Company Name

Test Date of Calibration 16 Jan 2019 The Recall Date is 16 Jan 2020

Your Address

Your City State Zip

Manufacturer	Fluke	PO Number	Your PO Number
Model	73 III	Cal Location	In Laboratory
Description	Digital Multimeter	Procedure	33K8-4-14-1-122015
Serial Number	Serial Number	Technician	10 Quality Assurance
Asset Number	Your Asset Number	Temperature	22 °C
		Humidity:	45 %

Received Condition

Pass + - The measured values of the equipment were observed in specification at the points tested. Additionally, the expanded measurement uncertainty intervals about the measured values could have been out of specification with a PFA of <6.0%

Returned Condition

As Received

Cleaned and Calibrated to Manufacturer's Specifications in accordance with the procedure listed above

See Attached Data

This Calibration is in Compliance with ISO/IEC 17025, ANSI/NCSL Z540-3 and MIL Std. 45662

This Calibration is tracable to NIST, and supporting documentation relative to traceability is on file and available for examination upon request

Lab/Operations Manager

Document Print Date 10 Oct 2019

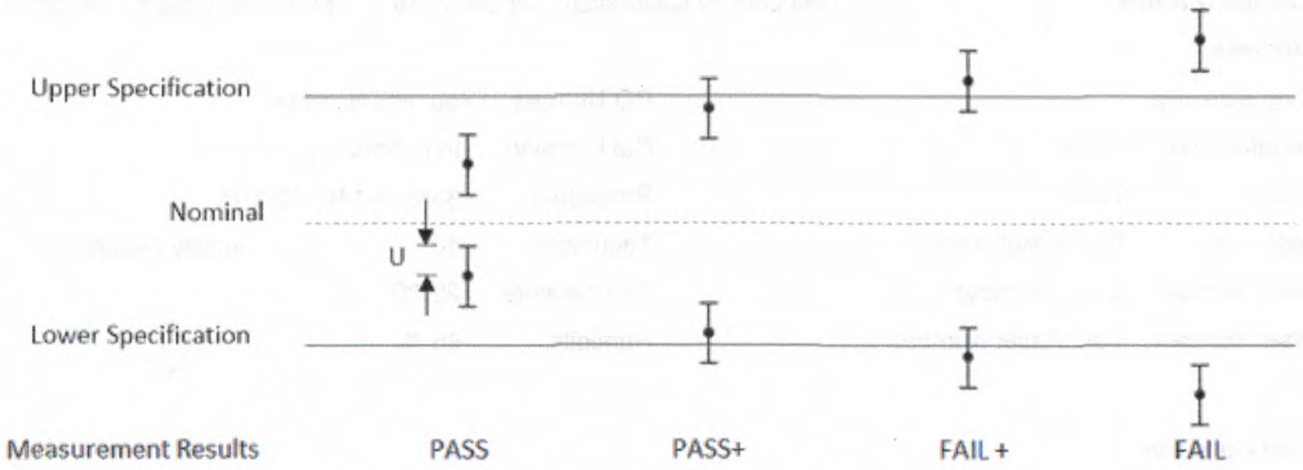
Measurement results are reported as:

• Pass -The measured values of the equipment were observed in specification at the points tested. Additionally, the expanded measurement uncertainty intervals about the measured values were in specification.

• Pass + -The measured values of the equipment were observed in specification at the points tested. Additionally, the expanded measurement uncertainty intervals about the measured values could have been out of specification with a PFA of <6.0%

• Fail + -The measured values of the equipment were observed out of specification at the points tested. Additionally, the expanded measurement uncertainty intervals about the measured values could have been in specification with a PFR of <10.0%

• Fail -One or more measured values of the equipment were observed out of specification at the points tested. Additionally, the expanded measurement uncertainty intervals about one or more measured values were entirely outside the specification



TUR ≥ 1.5 : 1

Zero Guardbanding Employed

Pass < 0.15 % Probability of False Accept (PFA)

Pass + < 6.0 % Probability of False Accept (PFA)

Fail + < 10.0 % Probability of False Reject (PFR)

Fail < 0.15 % Probability of False Reject (PFR)

Standards used in this Calibration

Asset Number	Model Number	Description	Recall Date	Trace Number
TR204	4808	Multifunction Calibrator	10 Dec 2019	1002212237
TR112	5500A	Multi-Product Calibrator	29 Dec 2019	2183022

TSE

TRIDENT SYSTEM & ENGINEERING

2646 Palma Dr. #130
Ventura, Ca. 93003
Website TSECAL.com
Phone 805-830-8596
Fax 805-642-2259

Certificate Number 2190091

DATE 19 Jan, 2019
Tech: 10

Customer Your Company Name

TEMP. °C 22
R.H. % 45

Manufacturer Fluke
Model NO. 73 III
Description Digital Multimeter
Serial NO. Serial Number
Asset NO. Your Asset Number

Procedure 33K8-4-14-1-122015

As Received X
Post Adjustment and /or Repair

VERIFICATION TEST PERFORMED:

TEST	Nominal		Minimum	Measured Reading	Maximum	Manufacturer Specification	EMU ±	Acceptance Criteria PASS/ FAIL	
4.1 DC Volts Calibration									
	300	mV	299.0	**299.0**	301.0	1.0	1.0E-01	**PASS**	+
	3	V	2.990	**3.010**	3.010	0.010	1.0E-03	**PASS**	+
	10	V	9.96	**9.96**	10.04	0.04	1.0E-02	**PASS**	+
	-10	V	-10.04	**-9.96**	-9.96	0.04	1.0E-02	**PASS**	+
	20	V	19.93	**19.93**	20.07	0.07	1.0E-02	**PASS**	+
	-20	V	-20.07	**-19.93**	-19.93	0.07	1.0E-02	**PASS**	+
	30	V	29.90	**30.10**	30.10	0.10	1.0E-02	**PASS**	+
	-30	V	-30.10	**-30.10**	-29.90	0.10	1.0E-02	**PASS**	+
	300	V	299.0	**299.0**	301.0	1.0	1.0E-01	**PASS**	+
	550	V	547	**553**	553	3	1.0E+00	**PASS**	+
4.2 AC Volts Calibration									
45 Hz	3	V	2.938	**2.938**	3.062	0.062	3.0E-03	**PASS**	+
500 Hz	3	V	2.938	**3.062**	3.062	0.062	3.0E-03	**PASS**	+
45 Hz	30	V	29.38	**29.38**	30.62	0.62	3.0E-02	**PASS**	+
1 kHz	30	V	29.38	**30.62**	30.62	0.62	3.0E-02	**PASS**	+
45 Hz	300	V	293.8	**293.8**	306.2	6.2	3.0E-01	**PASS**	+
1 kHz	300	V	293.8	**306.2**	306.2	6.2	3.0E-01	**PASS**	+
45 Hz	550	V	537	**537**	563	13	1.0E+00	**PASS**	+
1 kHz	550	V	537	**563**	563	13	1.0E+00	**PASS**	+
4.3 DC Current Calibration									
	30	mA	29.53	**29.53**	30.47	0.47	1.0E-02	**PASS**	+
	300	mA	293.8	**306.2**	306.2	6.2	1.0E-01	**PASS**	+
	9.5	A	9.34	**9.34**	9.66	0.16	1.0E-02	**PASS**	+
4.4 AC Current Calibration									
45 Hz	30	mA	29.23	**30.77**	30.77	0.77	6.0E-02	**PASS**	+
1 kHz	30	mA	29.23	**29.23**	30.77	0.77	6.0E-02	**PASS**	+
45 Hz	300	mA	292.30	**307.7**	307.70	7.70	6.0E-01	**PASS**	+
1 kHz	300	mA	292.30	**292.3**	307.70	7.70	6.0E-01	**PASS**	+
45 Hz	9.5	A	9.25	**9.25**	9.75	0.25	2.0E-02	**PASS**	+
1 kHz	9.5	A	9.25	**9.75**	9.75	0.25	2.0E-02	**PASS**	+
4.5 Resistance Calibration									
	190	Ω	188.8	**188.8**	191.2	1.2	4.0E-01	**PASS**	+
	1900	Ω	1889	**1911**	1911	11	4.0E+00	**PASS**	+
	19	kΩ	18.89	**18.89**	19.11	0.11	4.0E-02	**PASS**	+
	190	kΩ	188.9	**191.1**	191.1	1.1	4.0E-01	**PASS**	+
	1.9	MΩ	1.889	**1.889**	1.911	0.011	4.0E-03	**PASS**	+
	19	MΩ	18.61	**19.39**	19.39	0.39	6.0E-02	**PASS**	+