Certificate/Report of Calibration

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CalNet®

Manufacturer:	FLUKE	**Test Result:**	PASS
Model:	45	**Cal Date:**	11-Sep-2002
UUT Description:	DIGITAL MULTIMETER	**Cal Due Date:**	11-Sep-2003
Serial Number:	6351007	**Data Type:**	FOUND-LEFT
Asset Number:	10969	**Received:**	IN TOLERANCE
Customer Name:	STATE OF SOUTH CAROLINA	**Returned:**	IN TOLERANCE
Customer P.O.#:		**Failed Tests:**	0
Calibrated by:	Michael Kidd	**Temperature:**	23°C
Technician #	73671	**Relative Humidity:**	43 %
Procedure Name:	FLUKE 45: (1 YEAR) RS-232C CAL VER/ALT FLUKE 5700A		
Procedure Revision:	1.2		

Fluke Certifies that the above listed instrument meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). It has been calibrated using measurement standards traceable to the National Institute of Standards and Technology (NIST), or to NIST accepted intrinsic standards of measurement, or derived by the ratio type of self-calibration techniques. This calibration complies with MIL-STD-45662A and ANSI/NCSL Z540-1-1994. This instrument has been calibrated IAW the current revision of CSS PD 400.

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Note: Any Test Uncertainty Ratio (TUR) that is less than four to one will appear under the "TUR" heading on the data record. If the TUR meets or exceeds four to one, the field is left blank.

Remarks:

Standards Used

Asset	Manufacturer	Model	Description	Cal Date	Due Date
L101	FLUKE	5700A-02 W/O3	CALIBRATOR	15-Oct-2001	15-Oct-2002
J181	FLUKE	5725A	AMPLIFIER	17-Oct-2001	17-Oct-2002

Test Data

DIRECT VOLTAGE PERFORMANCE VERIFICATION

100mV Range

0.000mV	-0.001	-0.006	0.006
90.000mV	90.012	89.971	90.029

1000mV Range

900.00mV	900.12	899.71	900.29

PARAMETER	TRUE VALUE	TEST RESULT	ACCEPTANCE LIMITS LOW	HIGH	TUR
300mV Range					
0.00mV		0.00	-0.02	0.02	
300.00mV		300.04	299.90	300.10	
3V Range					
3.0000V		3.0004	2.9990	3.0010	
-3.0000V		-3.0003	-3.0010	-2.9990	
30V Range					
30.000V		30.004	29.990	30.010	
-30.000V		-30.004	-30.010	-29.990	
300V Range					
300.00V		300.04	299.90	300.10	
-300.00V		-300.04	-300.10	-299.90	
1000V Range					
1000.0V		1000.1	999.5	1000.5	
-1000.0V		-1000.1	-1000.5	-999.5	
DIODE TEST PERFORMANCE VERIFICATION					
0.0000V		0.0000	-0.0008	0.0008	
0 Ohm	1000000000.0	1000000000	999999999	1000000001	
ALTERNATING VOLTAGE PERFORMANCE VERIFICATION					
300mV Range					
0.00mV		0.09	0.00	0.75	
15.00mV @ 1kH		15.01	14.87	15.13	
15.00mV @ 100kH		14.03	13.75	16.25	
300.00mV @ 1kH		300.06	299.30	300.70	
300.00mV @ 100kH		291.87	284.50	315.50	
3V Range					
3.0000V @ 1kH		3.0006	2.9930	3.0070	
30V Range					
30.000V @ 1kH		30.005	29.930	30.070	
300V Range					
300.00V @ 1kH		300.06	299.30	300.70	
750V Range					
750.0V @ 1kH		750.3	747.5	752.5	

PARAMETER	TRUE VALUE	TEST RESULT	ACCEPTANCE LIMITS LOW	HIGH	TUR
RESISTANCE PERFORMANCE VERIFICATION					
300Ω Range					
0.00 Ohm		0.00	0.00	0.04	
190.00 Ohm	189.992	190.01	189.86	190.13	
3kΩ Range					
0.0000K Ohm		0.0001	0.0000	0.0002	
1.9000 kOhm	1.89998	1.9000	1.8988	1.9012	
30kΩ Range					
19.000 kOhm	18.9992	18.998	18.987	19.011	
300kΩ Range					
190.00 kOhm	189.993	189.99	189.87	190.11	
3MΩ Range					
1.9000 MOhm	1.89995	1.8994	1.8986	1.9012	
30MΩ Range					
19.000 MOhm	18.9983	18.990	18.947	19.049	
300MΩ Range					
100.0 MOhm	100.01	100.1	98.0	102.0	
FREQUENCY PERFORMANCE VERIFICATION					
9.000kHz@ 1V		9.000	8.995	9.005	
LOW CURRENT PERFORMANCE VERIFICATION					
30mA Range					
30.000mA		30.007	29.982	30.018	
30.000mA @ 1kH		30.010	29.840	30.160	
100mA Range					
100.00mA		100.02	99.93	100.07	
100.00mA @ 1kH		100.02	99.40	100.60	
HIGH CURRENT PERFORMANCE VERIFICATION					
10A Range					
10.000A		9.997	9.975	10.025	
10.000A @ 1kH		9.996	9.890	10.110	

PARAMETER	TRUE VALUE	TEST RESULT	ACCEPTANCE LIMITS LOW	HIGH	TUR

End of Test Data

Michael Kidd
Technician

Technical Manager