ELECTRONICS REGIONAL TEST LABORATORY (WEST) DEPARTMENT OF INFORMATION TECHNOLOGY	REPORT NO. ERTL (W)/2007 E&S 141		
SUBJECT: TESTING OF DIGITAL MULTI METER	DATE 22/08/07	PAGE 1	OF 18

1. **SCOPE**

1.1 Service Request No : ERTL (W)/ 20070844, Dated: 23rd May 2007.

1.1.1 Service Request finalised on : 23rd May 2007

1.2 Requested by
(Name and address of organisation)

RISHABH INSTUMENTS PVT. LTD.,
F-31, MIDC AREA, SATPUR,
NASIK-422007.

1.3

Description	Qty	Manufacturer	Type No.	Serial Nos.
3& ¾ DIGITS DMM	01	RISHABH INSTRUMENTS PVT. LTD.	15S	074746

1.4 Test specifications

Customer's specification in conjunction with IS 13875.

1.5 Lab Ambient

Temperature: (25 ± 2) ° C
RH : (55± 5) %

1.6 Test Equipment used:

1. UNIVERSAL CALIBRATOR S&C/138
2. HV TESTER COM/122
3. SHOCK MACHINE ENV/109
4. VIBRATION MACHINE ENV/62
5. HUMIDITY CHAMBER ENV/100
6. VARIABLE DC SOURCE E&S/88
7. TEMPERATURE CYCLIC CHAMBER ENV/56

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2.0 Test results

Sr. No.	Test Parameter	Test Condition	Test Requirement	Observation	Remark
2.1	Intrinsic Error Test	As per IS: 13875-1, Cl-4.2, at reference conditions, using standard source, the UUT to be checked for accuracy in various ranges.	Accuracy in respective ranges shall be as specified in user's manual No.30918	Annexure - A	Complied
2.2	Frequency Influence error for AC Voltage Measurements	As per IS: 13875-2, Cl-3.13, at reference conditions, using standard source, the UUT to be checked for accuracy in AC volt and current range.	Variation shall not exceed the limits mentioned in user's manual No. 30918.	Annexure - B	Complied
2.3	Variation due to Operating Temperature				
2.3.1	Variation due to Low Operating Temperature	As per IS: 13875-2, Cl-3.4, at –10 °C, using standard source, the UUT to be checked for accuracy in various ranges.	Variation shall not exceed the limits mentioned in user's manual No. 30918.	Annexure - C	Complied
2.3.2	Variation due to High Operating Temperature	As per IS: 13875-2, Cl-3.4, at 40 °C, using standard source, the UUT to be checked for accuracy in various ranges.	Variation shall not exceed the limits mentioned in user's manual No. 30918.	Annexure - D	Complied

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2.0 Test results (Continued)

Sr. No.	Test Parameter	Test Condition	Test Requirement	Observation	Remark
2.4	Influence due to storage Temperature				
2.4.1	Post Measurement after low temperature storage	Conditioned at –20°C for 2 Hours using standard source, the UUT to be checked for accuracy in various ranges, at reference condition after 2 Hours recovery	Variation shall not exceed the limits mentioned in user's manual No. 30918.	Annexure - E	Complied
2.4.2	Post Measurement after High temperature storage	Conditioned at 70°C for 2 Hours using standard source, the UUT to be checked for accuracy in various ranges, at reference condition after 2 Hours recovery	Variation shall not exceed the limits mentioned in user's manual No. 30918.	Annexure - E	Complied
2.5	Variation due to Humidity	Conditioned at 75% RH, 40°C for 48 Hours, using standard source, the UUT to be checked for accuracy in various ranges at the end of 48hrs. in chamber.	Variation shall not exceed the limits mentioned in user's manual No. 30918	Annexure - F	Complied
2.6	Self Heating	As per IS: 13875-3, Cl-3.11, Apply input of 90% of the full scale and note the reading after 1 min. and after 30 min in respective range as VAC, VDC, mA AC, mA DC, A DC and A AC	Variation shall not exceed the limits mentioned in user's manual No. 30918	Annexure - G	Complied

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2.0 Test results (Continued)

Sr. No.	Test Parameter	Test Condition	Test Requirement	Observation	Remark
2.7	Variation due to Battery Supply voltage	Set battery voltage to 8 V±0.1 V, take reading in various ranges Reduce the battery voltage till the battery symbol appears on display, take reading in various ranges	Variation shall not exceed the limits mentioned in user's manual No. 30918	Annexure - H	Complied
2.8	Influence due to continuous overload	As per IS: 13875-2 Cl.-315, Apply the overload of specified value for specified time as in user manual, take reading in various ranges after 2Hrs recovery	Variation shall not exceed the limits mentioned in user's manual No. 30918	Annexure - I	Complied
2.9	Vibration test	As per IS: 13875(Part 1) & IS: 9000 (part-8) Vibration in the three vertically axes. Amplitude=±0.15mm with maximum result =2g. Frequency range: 10Hz…55Hz....10 Hz Sweep: 1 octave/min. Number of scanning cycles: 2 in each direction of the axes (6 in all)	Conditioning There shall not be any mechanical damage	Conditioned No mechanical damage observed.	Complied
2.9.1	Post vibration accuracy test	As per IS: 13875-1, Cl-4.2, at reference conditions, using standard source, the UUT to be checked for accuracy in various ranges	Variation shall not exceed the limits mentioned in user's manual No. 30918	Annexure - I	Complied

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2.0 Test results (Continued)

Sr. No.	Test Parameter	Test Condition	Test Requirement	Observation	Remark
2.10	Influence resulting from Interference	As per IS: 13875-2 Cl.: 3.11			
2.10. 1.1	Series mode interference voltage rejection test	Apply 1000 V DC to 3 V AC range note Display value as (Ax) Determine the SMR as : S=20 log (1000/Ax) in dB	Variation shall not exceed the limits mentioned in user's manual No. 30918	SMR= 113.97 dB	Complied
2.10. 1.2	Series mode interference voltage rejection test	Apply 1000 V AC to 300 V DC range note Display value as (Ax) Determine the SMR as : S=20 log (1000/Ax) in dB	Variation shall not exceed the limits mentioned in user's manual No. 30918	SMR= 61.93 dB	Complied
2.10. 2.1	Common mode Rejection	Apply 1000 V AC to all AC V range note Display value as (Ax) Determine the CMR as : S=20 log (1000/Ax) in dB	Variation shall not exceed the limits mentioned in user's manual No. 30918	CMR: 100 dB and higher	Complied
2.10. 2.2	Common mode Rejection	Apply 1000 V AC to all DC V range note Display value as (Ax) Determine the CMR as : S=20 log (1000/Ax) in dB	Variation shall not exceed the limits mentioned in user's manual No. 30918	As Ax =0.0 hence CMR is very high in DC range.	Complied

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2.0 Test results (Continued)

Sr. No.	Test Parameter	Test Condition	Test Requirement	Observation	Remark
2.11	High voltage test	Apply high voltage of 6.7 kV,50 Hz f or 1 min between I/P terminals and Foil wrap around the body.	No breakdown, arcing or sparking should occur during the test	No breakdown, arcing or sparking is observed during test	Complied
2.12	Shock Test	As per IS:13875(Part 1) & IS:9000 (part-7/Sec-1) Pulse shape: half sine Pulse duration: 11m Sec Acceleration: 15g 3 shocks in each of three perpendicular axes and each of two directions (total-18 Shocks)	No mechanical damage should be observed. Variation shall not exceed the limits mentioned in user's manual No. 30918	No mechanical damage is observe Annexure: K	Complied
2.13	Variation due to Magnetic filed of external origin	UUT to be exposed to a magnetic field strength of 0.4 kA/mt for max. influence. Record the value of meter reading in absence and in the presence of external magnetic field.	Variation should not be more than 100% of the specified accuracy.	Annexure: L	Complied
2.14	Serial Data Interface test	Switch 'ON' the UUT in data transmission mode by pressing 'DATA/HOLD' key along with ON/OFF key and connect with SI 232 adapter to PC Read the display via rishcom 100 software at different sampling intervals and different baud rates of the SI 232 adapter. Repeat the procedure for all the ranges of all the functions.	DATA read should be the same as the displayed by the meter on its display.	It is observed as DATA display on UUT is captured in computer respectively	Complied

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Annexure - A

FUNCTION	RANGE	TEST POINT	Nominal value	OBSERVED VALUE	Error	PASS/FAIL
V AC	3V	2.7V/50 Hz	2.70	2.698	0.002	PASS
	30V	27V/50Hz	27.00	26.96	0.040	PASS
	300 V	270V/50 Hz	270.00	269.4	0.600	PASS
	1000 V	900 V/50Hz	900.00	897	3.000	PASS
V DC	30mV	27mV	27.00	27.00	0.000	PASS
	300mV	270mV	270.00	269.9	0.100	PASS
	3 V	2.7V	2.70	2.698	0.002	PASS
	30 V	27 V	27.00	26.95	0.050	PASS
	300 V	270V	270.00	269.4	0.600	PASS
	1000 V	900 V	900.00	898	2.000	PASS
FREQUENCY	300 Hz	270 Hz/10 V	270.00	269.9	0.100	PASS
	3000 Hz	2.7 kHz/10 V	2.70	2.700	0.000	PASS
	30 kHz	27 kHz/10 V	27.00	27.07	-0.070	PASS
	100kHz	90 kHz/10 V	90.00	90.2	-0.200	PASS
Duty cycle	2...98%	2% at 1kHz	2.00	2.0	0.000	PASS
		98% at 1kHz	98.00	98.0	0.000	PASS
Resistance	30 Ohm	27 Ohm	27.00	27.01	-0.010	PASS
	300 Ohm	270Ohm	270.00	269.8	0.200	PASS
	3k Ohm	2.7 kOhm	2.70	2.699	0.001	PASS
	30 kOhm	27 kohm	27.00	26.97	0.030	PASS
	300kOhm	270kohm	270.00	269.4	0.600	PASS
	3 Mohm	2.7Mohm	2.70	2.691	0.009	PASS
	30 Mohm	27 Mohm	27.00	26.84	0.160	PASS
Capacitance	30 nF	27 nF	27.00	26.94	0.060	PASS
	300 nF	270 nF	270.00	269.6	0.400	PASS
	3uF	2.7 uF	2.70	2.694	0.006	PASS
	30 uF	27 uF	27.00	26.82	0.180	PASS

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Annexure – A(Continued)

FUNCTION	RANGE	TEST POINT	Nominal value	OBSERVED VALUE	Error	PASS/FAIL
A DC	300 uA	270uA	270.00	269.8	0.200	PASS
	3 mA	2.7mA	2.70	2.697	0.003	PASS
	30mA	27mA	27.00	26.90	0.100	PASS
	300 mA	270mA	270.00	268.8	1.200	PASS
	3A	2.7A	2.70	2.698	0.002	PASS
	10A	9A	9.00	8.99	0.010	PASS
A AC	3 mA	2.7mA/50Hz	2.70	2.695	0.005	PASS
	300 mA	270mA/50Hz	270.00	268.5	1.500	PASS
	10.0A	9.0 A	9.00	8.97	0.030	PASS
TEMP	Pt 100	-200 ° C	-200	-199.7	-0.300	PASS
		0 ° C	0	0.2	-0.200	PASS
		180 ° C	180	180.2	-0.200	PASS
		850 ° C	850	850.5	-0.500	PASS
	Pt 1000	-100 ° C	-100	-100.1	0.100	PASS
		0 ° C	0	0.2	-0.200	PASS
		400 ° C	400	399.80	0.200	PASS
		850 ° C	850	849.80	0.200	PASS

Annexure – B

FUNCTION	RANGE	TEST POINT	nominal value	OBSERVED VALUE	Input Frequency 1k Hz	PASS/FAIL
V AC	3V	2.7V/50 Hz	2.70	2.698	2.703	PASS
	30V	27V/50Hz	27.00	26.96	27.08	PASS
	300 V	270V/50 Hz	270.00	269.4	270.9	PASS
	1000 V	900 V/50Hz	900.00	897	909	PASS
A AC	3 mA	2.7mA/50Hz	2.70	2.695	2.69	PASS
	300 mA	270mA/50Hz	270.00	268.5	268.4	PASS
	10.0A	9.0 A/50Hz	9.00	8.97	8.99	PASS

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Annexure – C

FUNCTION	RANGE	TEST POINT	Nominal value	OBSERVED VALUE at –10 °C	OBSERVED VALUE Ref. Temp.	Deviation	PASS/ FAIL
V AC	3V	2.7V/50 Hz	2.70	2.692	2.698	-0.006	PASS
	1000 V	900 V/50Hz	900.00	896	897	-1	PASS
V DC	30mV	27mV	27.00	26.96	27.00	-0.04	PASS
	1000 V	900 V	900.00	896	898	-2	PASS
FREQUENCY	300 Hz	270 Hz/10V	270.00	269.5	269.9	-0.4	PASS
	100kHz	90 kHz/10V	90.00	90.0	90.2	-0.2	PASS
Duty cycle	2...98%	2% at 1kHz	2.00	2.0	2.0	0	PASS
		98% at 1kHz	98.00	98.0	98.0	0	PASS
Resistance	30 Ohm	27 Ohm	27.00	26.98	27.01	-0.03	PASS
	30 Mohm	27 Mohm	27.00	26.82	26.84	-0.02	PASS
Capacitance	30 nF	27 nF	27.00	26.90	26.94	-0.04	PASS
	30 uF	27 uF	27.00	26.80	26.82	-0.02	PASS
A DC	300 uA	270uA	270.00	269.7	269.8	-0.1	PASS
	10A	9A	9.00	8.96	8.99	-0.03	PASS
A AC	3 mA	2.7mA /50Hz	2.70	2.691	2.695	-0.004	PASS
	10.0A	9.0 A/50Hz	9.00	8.94	8.97	-0.03	PASS
Temperature	Pt 100	-200 ° C	-200	-199.6	-199.7	0.1	PASS
		850° C	850	850.5	850.5	0	PASS
	Pt 1000	-100° C	-100	-100.0	-100.1	0.1	PASS
		850° C	850	849.70	849.80	-0.1	PASS

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Annexure – D

FUNCTION	RANGE	TEST POINT	Nominal value	OBSERVED VALUE Ref. Temp.	OBSERVED VALUE at 40 °C	Deviation	PASS/ FAIL
V AC	3V	2.7V/50 Hz	2.70	2.699	2.700	0.001	PASS
	1000 V	900 V/50Hz	900.00	897	898	1	PASS
V DC	30mV	27mV	27.00	27.01	27.02	-0.010	PASS
	1000 V	900 V	900.00	898	899	1.000	PASS
FREQUENCY	300 Hz	270 Hz	270.00	269.9	269.9	0.000	PASS
	100kHz	90 kHz	90.00	90.2	90.2	-0.000	PASS
Duty cycle	2...98%	2% at 1kHz	2.00	2.0	2.0	0.000	PASS
		98% at 1kHz	98.00	98.0	97.9	0.100	PASS
Resistance	30 Ohm	27 Ohm	27.00	26.99	27.00	0.010	PASS
	30 Mohm	27 Mohm	27.00	26.85	26.86	0.010	PASS
Capacitance	30 nF	27 nF	27.00	26.93	26.92	0.010	PASS
	30 uF	27 uF	27.00	26.82	26.81	0.010	PASS
A DC	300 uA	270uA	270.00	269.9	270.0	0.100	PASS
	10A	9A	9.00	8.99	8.99	0.00	PASS
A AC	3 mA	2.7mA	2.70	2.695	2.697	0.002	PASS
	10.0A	9.0 A	9.00	8.97	8.97	0.000	PASS
Temperature	Pt 100	-200	-200	-199.7	-199.8	0.1	PASS
		850	850	850.5	850.5	0	PASS
	Pt 1000	-100	-100	-100.1	-100.1	0.0	PASS
		850	850	849.8	849.9	-0.1	PASS

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Annexure – E

FUNCTION	RANGE	TEST POINT	nominal value	OBSERVED VALUE Post –20 °C	Error	PASS /FAIL	OBSERVED VALUE Post 70 °C	Error	PASS/ FAIL
V AC	3V	2.7V/50 Hz	2.70	2.698	0.002	PASS	2.699	0.001	PASS
	1000 V	900 V/50Hz	900.00	896	4.000	PASS	897	3.000	PASS
V DC	30mV	27mV	27.00	26.98	0.020	PASS	26.99	0.010	PASS
	1000 V	900 V	900.00	897	3.000	PASS	898	2.000	PASS
FREQUENCY	300 Hz	270 Hz	270.00	269.7	0.300	PASS	269.9	0.100	PASS
	100kHz	90 kHz	90.00	90.1	-0.100	PASS	90.2	-0.200	PASS
Duty cycle	2...98%	2% at 1kHz	2.00	2.0	0.000	PASS	2.0	0.000	PASS
		98% at 1kHz	98.00	98.0	0.000	PASS	98.1	-0.100	PASS
Resistance	30 Ohm	27 Ohm	27.00	26.98	0.020	PASS	26.99	0.010	PASS
	30 Mohm	27 Mohm	27.00	26.83	0.170	PASS	26.85	0.150	PASS
Capacitance	30 nF	27 nF	27.00	26.92	0.080	PASS	26.94	0.060	PASS
	30 uF	27 uF	27.00	26.81	0.190	PASS	26.83	0.170	PASS
A DC	300 uA	270uA	270.00	269.8	0.200	PASS	269.9	0.100	PASS
	10A	9A	9.00	8.98	0.020	PASS	8.99	0.010	PASS
A AC	3 mA	2.7mA	2.70	2.694	0.006	PASS	2.695	0.005	PASS
	10.0A	9.0 A	9.00	8.96	0.040	PASS	8.97	0.030	PASS
Temperature	Pt 100	-200	-200	-199.8	-0.200	PASS	-199.7	-0.300	PASS
		850	850	850.5	-0.500	PASS	850.5	-0.500	PASS
	Pt 1000	-100	-100	-100.2	0.200	PASS	-100.1	0.100	PASS
		850	850	849.8	0.200	PASS	849.8	0.200	PASS

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Annexure – F

FUNCTION	RANGE	TEST POINT	Nominal value	OBSERVED VALUE Ref. Condition	OBSERVED VALUE At 75% RH, 40 °C	Deviation	PASS/ FAIL
V AC	3V	2.7V/50 Hz	2.70	2.697	2.698	-0.001	PASS
	1000 V	900 V/50Hz	900.00	898	899	-1.000	PASS
V DC	30mV	27mV	27.00	27.01	27.03	-0.020	PASS
	1000 V	900 V	900.00	897	898	-1.000	PASS
FREQUENCY	300 Hz	270 Hz	270.00	269.8	269.9	-0.100	PASS
	100kHz	90 kHz	90.00	90.1	90.2	-0.100	PASS
Duty cycle	2...98%	2% at 1kHz	2.00	2	2.0	0.000	PASS
		98% at 1kHz	98.00	97.9	98.0	-0.100	PASS
Resistance	30 Ohm	27 Ohm	27.00	27.02	27.01	0.010	PASS
	30 Mohm	27 Mohm	27.00	26.85	26.86	-0.010	PASS
Capacitance	30 nF	27 nF	27.00	26.95	26.97	-0.020	PASS
	30 uF	27 uF	27.00	26.83	26.84	-0.010	PASS
A DC	300 uA	270uA	270.00	269.8	269.9	-0.100	PASS
	10A	9A	9.00	8.98	8.99	-0.010	PASS
A AC	3 mA	2.7mA	2.70	2.696	2.697	-0.001	PASS
	10.0A	9.0 A	9.00	8.98	8.99	-0.010	PASS
Temperature	Pt 100	-200	-200	-199.8	-199.9	0.100	PASS
		850	850	850.4	850.5	-0.100	PASS
	Pt 1000	-100	-100	-100.2	-100.3	0.100	PASS
		850	850	849.9	849.8	0.100	PASS

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Annexure – G

FUNCTION	RANGE	TEST POINT	Nominal value	OBSERVED VALUE after 1 min.	OBSERVED VALUE after 30 min.	Deviation	PASS/ FAIL
V AC	3V	2.7V/50 Hz	2.7	2.698	2.697	0.001	PASS
	1000 V	900 V/50Hz	900	897	896	1	PASS
V DC	30mV	27mV	27	27.01	27.02	-0.01	PASS
	1000 V	900 V	900	898	897	1	PASS
A DC	300 uA	270uA	270	269.8	269.7	0.1	PASS
	10A	9A	9	8.99	8.98	0.01	PASS
A AC	3 mA	2.7mA/50 Hz	2.7	2.695	2.696	-0.001	PASS
	10.0A	9.0 A/50 Hz	9	8.98	8.97	0.01	PASS

Annexure – H

FUNCTION	RANGE	TEST POINT	Nominal value	OBSERVED VALUE at 8V	OBSERVED VALUE with low battery indication	Deviation	PASS/ FAIL
V AC	3V	2.7V/50 Hz	2.7	2.698	2.697	0.001	PASS
	1000 V	900 V/50Hz	900	897	897	0	PASS
V DC	30mV	27mV	27	27.01	27.02	-0.01	PASS
	1000 V	900 V	900	897	898	-1	PASS
FREQUENCY	300 Hz	270 Hz/10 V	270	269.9	269.8	0.1	PASS
	100kHz	90 kHz/10 V	90	90.2	90.2	0	PASS
Duty cycle	2...98%	2% at 1kHz	2	2.0	2.0	0	PASS
		98% at 1kHz	98	98.0	98	0	PASS
Resistance	30 Ohm	27 Ohm	27	27.02	27.01	0.01	PASS
	30 Mohm	27 Mohm	27	26.85	26.84	0.01	PASS
Capacitance	30 nF	27 nF	27	26.96	26.95	0.01	PASS
	30 uF	27 uF	27	26.84	26.85	-0.01	PASS
A DC	300 uA	270uA	270	269.8	269.9	-0.1	PASS
	10A	9A	9	8.97	8.98	-0.01	PASS
A AC	3 mA	2.7mA/50 Hz	2.7	2.697	2.698	-0.001	PASS
	10.0A	9.0 A/50 Hz	9	8.97	8.98	-0.01	PASS
Temperature	Pt 100	200(-VE) DEG C	-200	-199.8	-199.7	-0.1	PASS
		850 DEG C	850	850.4	850.3	0.1	PASS
	Pt 1000	100 (-VE) DEG	-100	-100.2	-100.3	0.1	PASS
		850 DEG C	850	849.9	849.8	0.1	PASS

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Annexure – I

FUNCTION	RANGE	TEST POINT	NOMINAL VALUE	OBSERVED VALUE Post overloading	Error	PASS/ FAIL
V AC	3V	2.7V/50 Hz	2.7	2.698	-0.002	PASS
	1000 V	900 V/50Hz	900	897	3	PASS
V DC	30mV	27mV	27	27.02	-0.02	PASS
	1000 V	900 V	900	898	-2	PASS
FREQUENCY	300 Hz	270 Hz/10 V	270	269.8	0.2	PASS
	100kHz	90 kHz/10 V	90	90.3	-0.3	PASS
Duty cycle	2...98%	2% at 1kHz	2	2.0	0	PASS
		98% at 1kHz	98	98.0	0	PASS
Resistance	30 Ohm	27 Ohm	27	27.01	0.01	PASS
	30 Mohm	27 Mohm	27	26.88	-0.22	PASS
Capacitance	30 nF	27 nF	27	26.96	0.04	PASS
	30 uF	27 uF	27	26.84	0.16	PASS
A DC	300 uA	270uA	270	269.8	0.2	PASS
	10A	9A	9	8.99	-0.01	PASS
A AC	3 mA	2.7mA/50 Hz	2.7	2.699	-0.001	PASS
	10.0A	9.0 A/50 Hz	9	8.96	0.04	PASS
Temperature	Pt 100	200(-VE) DEG C	-200	-199.7	-0.3	PASS
		850 DEG C	850	850.2	0.2	PASS
	Pt 1000	100 (-VE) DEG	-100	-100.1	-0.1	PASS
		850 DEG C	850	849.7	0.3	PASS

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Annexure – J

FUNCTION	RANGE	TEST POINT	NOMINAL VALUE	OBSERVED VALUE	Error	Remark
V AC	3V	2.7V/50 Hz	2.7	2.697	0.003	PASS
	1000 V	900 V/50Hz	900	896	4.000	PASS
V DC	30mV	27mV	27	27.00	0.000	PASS
	1000 V	900 V	900	897	3.000	PASS
FREQUENCY	300 Hz	270 Hz/10 V	270	269.9	0.100	PASS
	100kHz	90 kHz/10 V	90	90.2	-0.200	PASS
Duty cycle	2...98%	2% at 1kHz	2	2.0	0.000	PASS
		98% at 1kHz	98	98.0	0.000	PASS
Resistance	30 Ohm	27 Ohm	27	26.99	0.010	PASS
	30 Mohm	27 Mohm	27	26.90	0.100	PASS
Capacitance	30 nF	27 nF	27	26.95	0.050	PASS
	30 uF	27 uF	27	26.83	0.170	PASS
A DC	300 uA	270uA	270	269.8	0.200	PASS
	10A	9A	9	8.99	0.010	PASS
A AC	3 mA	2.7mA/50 Hz	2.7	2.698	0.002	PASS
	10.0A	9.0 A/50 Hz	9	8.97	0.030	PASS
Temperature	Pt 100	200(-VE) DEG C	-200	-199.6	-0.400	PASS
		850 DEG C	850	850.3	-0.300	PASS
	Pt 1000	100 (-VE) DEG	-100	-100.2	0.200	PASS
		850 DEG C	850	849.5	0.500	PASS

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Annexure – K

FUNCTION	RANGE	TEST POINT	Nominal value	OBSERVED VALUE Post Shock Test	Error	Remark
V AC	3V	2.7V/50 Hz	2.7	2.697	0.003	PASS
	1000 V	900 V/50Hz	900	897.000	3.000	PASS
V DC	30mV	27mV	27	27.010	-0.010	PASS
	1000 V	900 V	900	897.000	3.000	PASS
FREQUENCY	300 Hz	270 Hz/10 V	270	269.900	0.100	PASS
	100kHz	90 kHz/10 V	90	90.200	-0.200	PASS
Duty cycle	2...98%	2% at 1kHz	2	2.000	0.000	PASS
		98% at 1kHz	98	98.000	0.000	PASS
Resistance	30 Ohm	27 Ohm	27	26.990	0.010	PASS
	30 Mohm	27 Mohm	27	26.91	0.090	PASS
Capacitance	30 nF	27 nF	27	26.97	0.030	PASS
	30 uF	27 uF	27	26.83	0.170	PASS
A DC	300 uA	270uA	270	269.8	0.200	PASS
	10A	9A	9	8.99	0.010	PASS
A AC	3 mA	2.7mA/50 Hz	2.7	2.698	0.002	PASS
	10.0A	9.0 A/50 Hz	9	8.98	0.020	PASS
Temperature	Pt 100	200(-VE) DEG C	-200	-199.7	-0.300	PASS
		850 DEG C	850	850.2	-0.200	PASS
	Pt 1000	100 (-VE) DEG	-100	-100.2	0.200	PASS
		850 DEG C	850	849.6	0.400	PASS

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Annexure – L

FUNCTION	RANGE	TEST POINT	Nominal value	OBSERVED VALUE WITH OUT Magnetic field	OBSERVED VALUE WITH Magnetic field	Deviation	Remark
V AC	3V	2.7V/50 Hz	2.7	2.697	2.698	0.001	PASS
	1000 V	900 V/50Hz	900	897	897	0.000	PASS
V DC	30mV	27mV	27	27.02	27.01	-0.010	PASS
	1000 V	900 V	900	897	898	1.000	PASS
FREQUENCY	300 Hz	270 Hz/10 V	270	269.8	269.9	0.100	PASS
	100kHz	90 kHz/10 V	90	90.1	90.0	-0.100	PASS
Duty cycle	2...98%	2% at 1kHz	2	2.0	2.0	0.000	PASS
		98% at 1kHz	98	98.0	98.0	0.000	PASS
Resistance	30 Ohm	27 Ohm	27	26.98	26.99	0.010	PASS
	30 Mohm	27 Mohm	27	26.91	26.92	0.010	PASS
Capacitance	30 nF	27 nF	27	26.97	26.98	0.010	PASS
	30 uF	27 uF	27	26.83	26.85	0.020	PASS
A DC	300 uA	270uA	270	269.8	269.9	0.100	PASS
	10A	9A	9	8.98	8.99	0.010	PASS
A AC	3 mA	2.7mA/50 Hz	2.7	2.698	2.699	0.001	PASS
	10.0A	9.0 A/50 Hz	9	8.98	8.99	0.010	PASS
Temperature	Pt 100	200(-VE) DEG C	-200	-199.8	-199.9	-0.100	PASS
		850 DEG C	850	850.2	850.1	-0.100	PASS
	Pt 1000	100 (-VE) DEG	-100	-100.1	-100.2	-0.100	PASS
		850 DEG C	850	849.6	849.7	0.100	PASS

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