

# UT210E Clamp Multimeter Tests

## CLAMP MULTIMETER UT-210E

## TEST RESULTS

s/n C150430597

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### AC RMS Voltage Tests

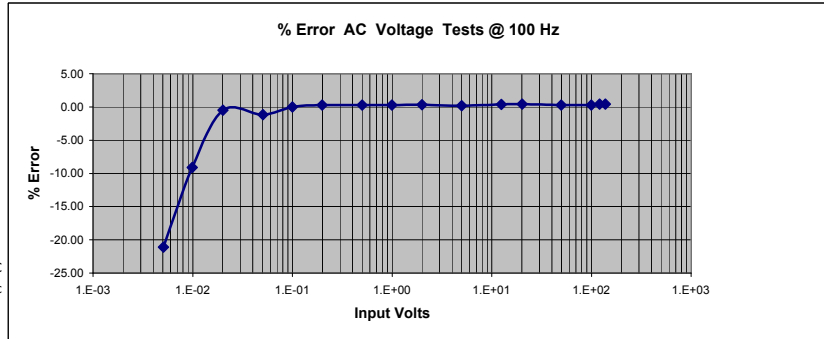
Input cap = 47 pF @ 1 KHz

AC response @ 5 V RMS    -3 dB @ 3.4 KHz    Sine

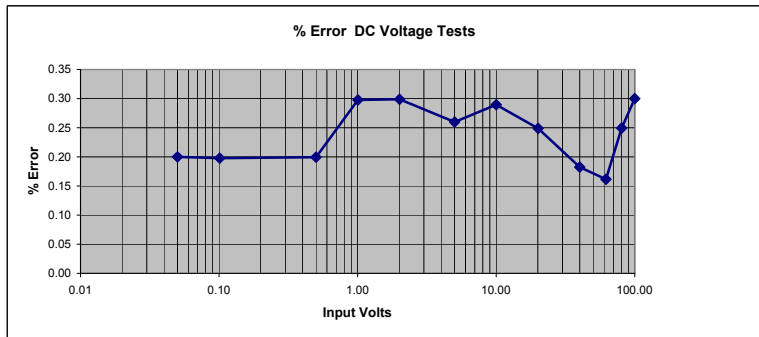
AC response @ 1 V RMS    -3 dB @ 3.0 KHz    Sine

Reference	Volts	DELTA
HP 34401A	AC TESTS	
Vin @ 100 Hz	V UT-210E	%
0.0051	0.004	-21.10
0.0099	0.009	-9.09
0.0201	0.020	-0.50
0.0506	0.050	-1.19
0.1000	0.100	0.00
0.1994	0.200	0.30
0.5015	0.503	0.30
0.9990	1.002	0.30
2.0010	2.008	0.35
4.9900	5.000	0.20
12.46	12.51	0.40
20.24	20.33	0.44
49.85	50.00	0.30
99.90	100.20	0.30
120.30	120.80	0.42
138.00	138.60	0.43

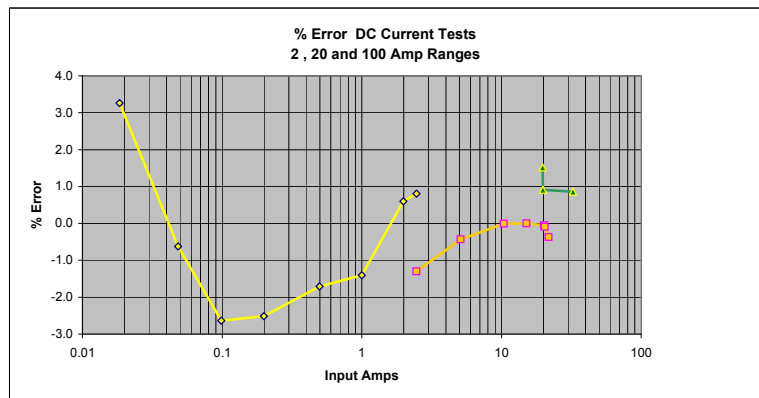
100 Hz  
Sine  
  
from 60 Hz AC  
line & variac



Reference	Volts	DELTA
HP 34401A	DC TESTS	
Vin DC	V UT-210E	%
0.0500	0.0501	0.20
0.1011	0.1013	0.20
0.5020	0.503	0.20
1.0080	1.011	0.30
2.0070	2.013	0.30
5.0070	5.02	0.26
10.0210	10.05	0.29
20.0900	20.14	0.25
40.027	40.1	0.18
62.000	62.1	0.16
80.200	80.4	0.25
100.000	100.3	0.30



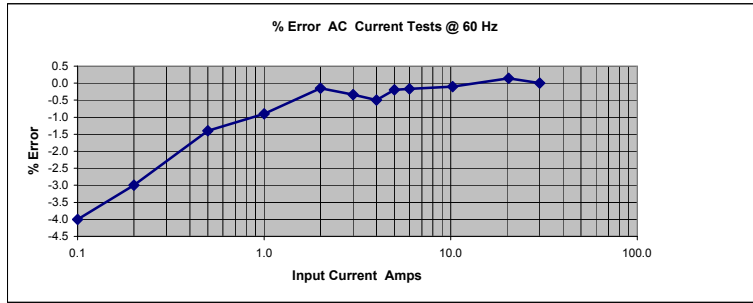
HP 34401A	DC CURRENT TESTS	Uses 50 A shunt
DC Amps	V UT-210E	Delta %
0.0184	0.019	3.3
0.0483	0.048	-0.6
0.0986	0.096	-2.6
0.199	0.194	-2.5
0.4985	0.490	-1.7
0.999	0.985	-1.4
1.990	2.002	0.6
2.466	2.486	0.8
2.462	2.43	-1.3
5.092	5.07	-0.4
10.401	10.4	0.0
15.120	15.12	0.0
20.180	20.17	0.0
20.440	20.42	-0.1
21.770	21.69	-0.4
19.70	20.0	1.5
19.82	20.0	0.9
32.52	32.8	0.9



# UT210E Clamp Multimeter Tests

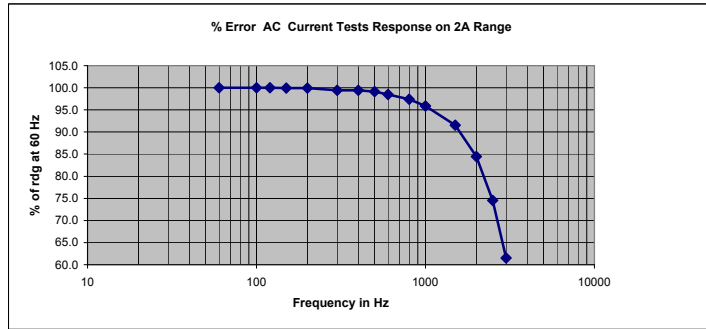
HP 34401A AC RMS CURRENT 60 Hz Uses 50 A shunt + X10 gain amp

AC Amps	V UT-210E	Delta %	
0.100	0.096	Amps	-4.0 Sine
0.200	0.194	Amps	-3.0 Sine
0.500	0.493	Amps	-1.4 Sine
1.000	0.991	Amps	-0.9 Sine
2.000	1.997	Amps	-0.1 Sine
3.000	2.99	Amps	-0.3 Sine
4.000	3.98	Amps	-0.5 Sine
5.000	4.99	Amps	-0.2 Sine
6.000	5.99	Amps	-0.2 Sine
10.26	10.25	Amps	-0.1 AC Line
20.40	20.43	Amps	0.1 AC Line
30.00	30	Amps	0.0 AC Line



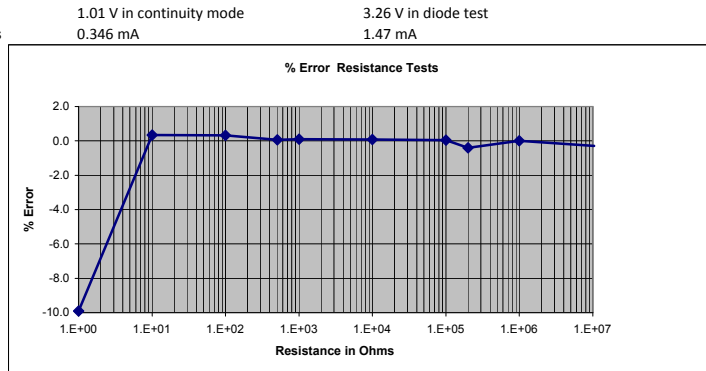
HP 34401A AC RMS CURRENT Response 2A range

Freq. Hz	V UT-210E	Revised response	Delta %
60	0.992	Amps	100.0
100	0.992	Amps	100.0
120	0.992	Amps	100.0
150	0.991	Amps	99.9
200	0.991	Amps	99.9
300	0.986	Amps	99.4
400	0.986	Amps	99.4
500	0.983	Amps	99.1
600	0.977	Amps	98.5
800	0.966	Amps	97.4
1000	0.951	Amps	95.9
1500	0.908	Amps	91.5
2000	0.838	Amps	84.5
2500	0.739	Amps	74.5
3000	0.610	Amps	61.5



Resistance tests

HP 34401A	V UT-210E	Delta %	Reference ohms
0.999	0.9	ohms	-9.9 0.999
10.065	10.1	ohms	0.3 10.065
99.47	99.8	ohms	0.3 99.47
508.7	509	ohms	0.1 508.7
998.02	999	ohms	0.1 998.02
9.972	9.98	Kohms	0.1 9972
100.46	100.5	Kohms	0.0 100460
199.81	199	Kohms	-0.4 199810
996.89	997	Kohms	0.0 996890
10.41	10.38	Mohms	-0.3 10410000



Capacitance Tests

Reference	V UT-210E	Delta %	Reference	Reference (pF)
22.43	23	pF	2.5	AADEIIB 22.43
100.6	102	pF	1.4	AADEIIB 100.6
486	489	pF	0.6	AADEIIB 486
1025	1027	pF	0.2	AADEIIB 1025
2.817	2.81	nF	-0.2	UT612 2817
10.18	10.09	nF	-0.9	UT612 10180
25.48	25.4	nF	-0.3	UT612 25480
100.9	100.5	nF	-0.4	UT612 100900
0.9755	0.972	uF	-0.4	UT612 975500
10.523	10.49	uF	-0.3	UT612 10523000
39.06	39.8	uF	1.9	UT612 39060000
70.62	73.3	uF	3.8	UT612 70620000
200.0	215.8	uF	7.9	UT612 200000000
594.7	675	uF	13.5	UT612 594700000
907.5	1004	uF	10.6	UT612 907500000
1944.5	2028	uF	4.3	UT612 1944500000
13030	12750	uF	-2.1	UT612 1.303E+10

