TDS220
GDM-8055(
DL1740500M
6612C

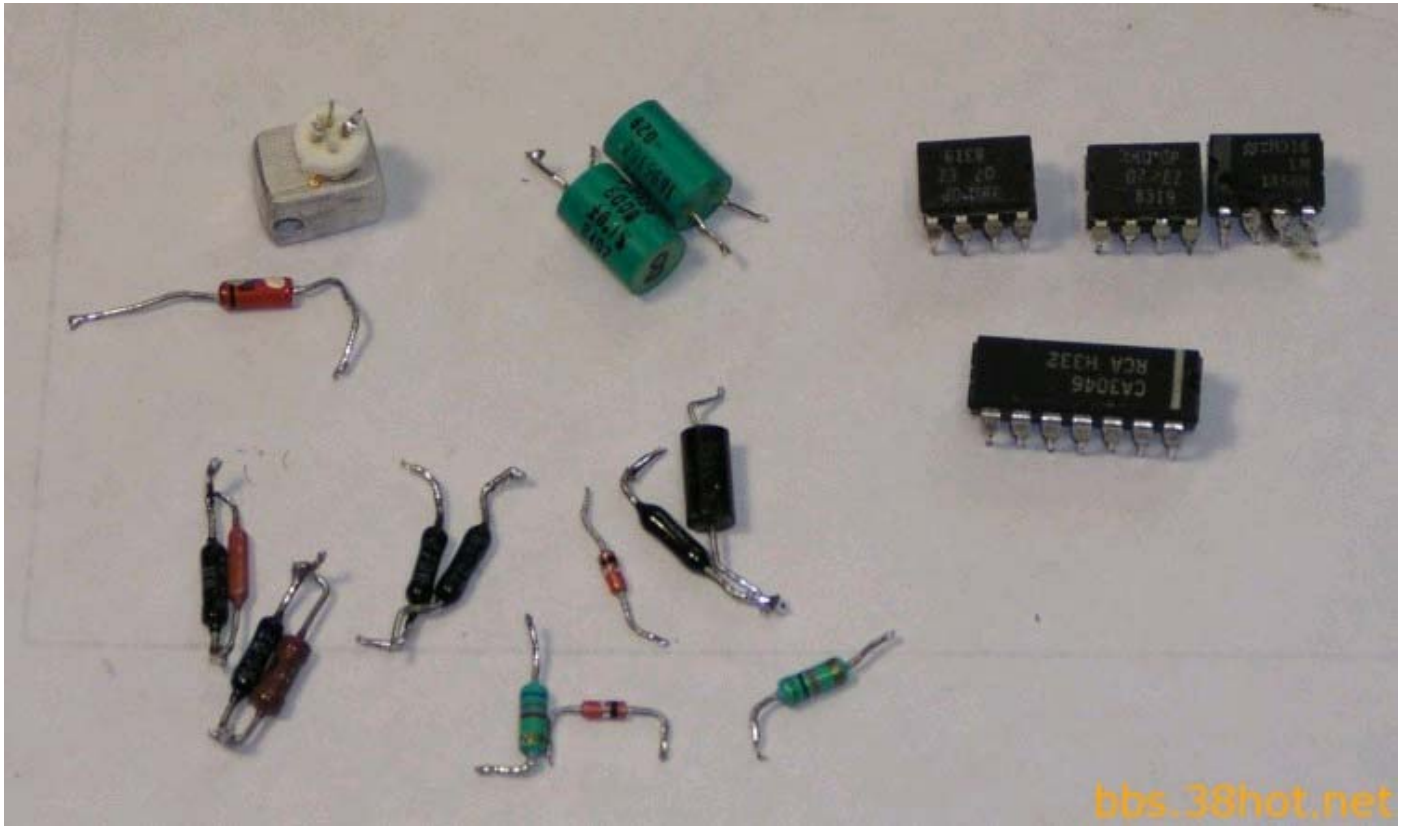
262 9

iddqd2001

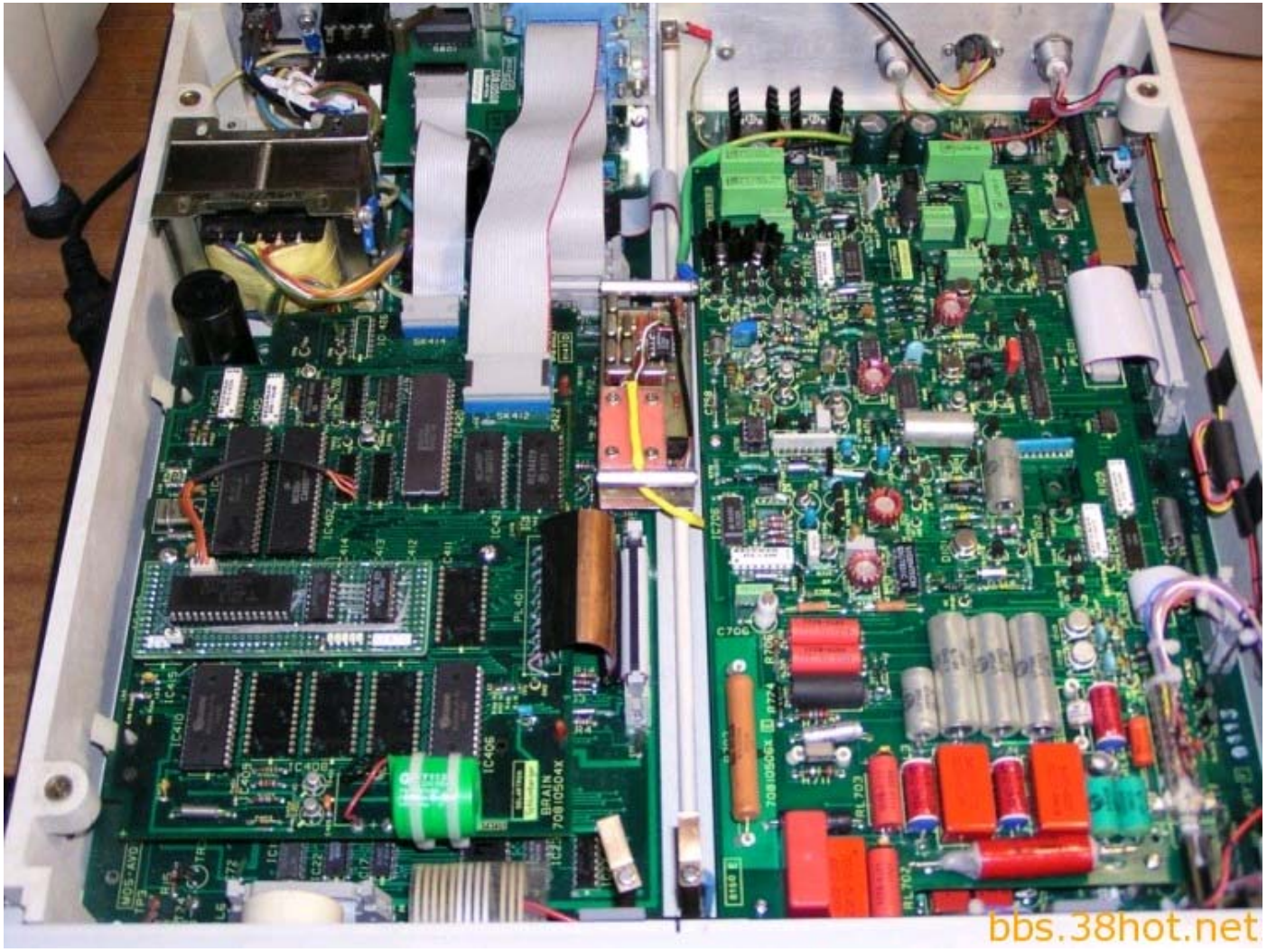
[ ]New life of the Solartron 7081 [ ]

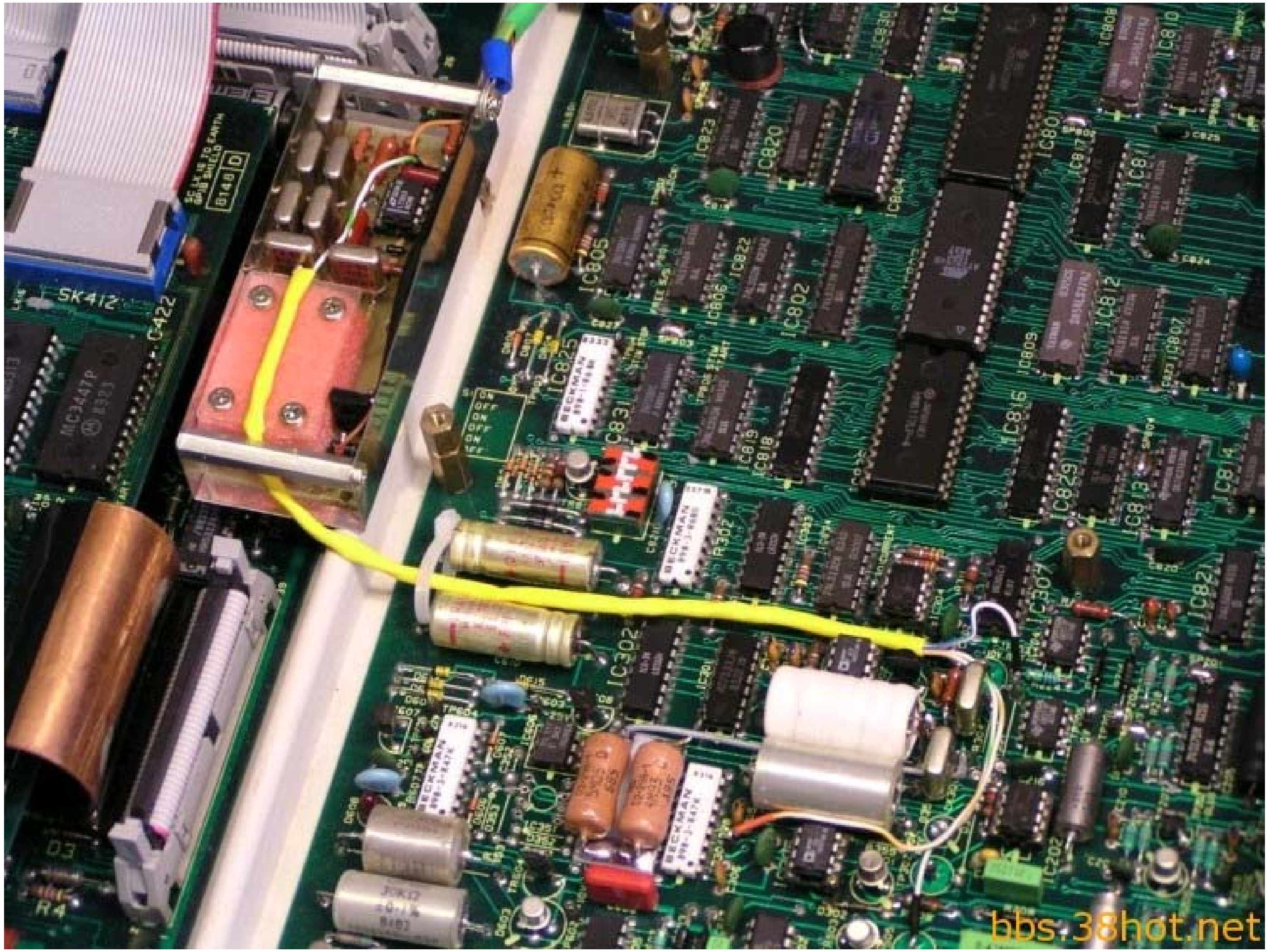
0 : 03:54

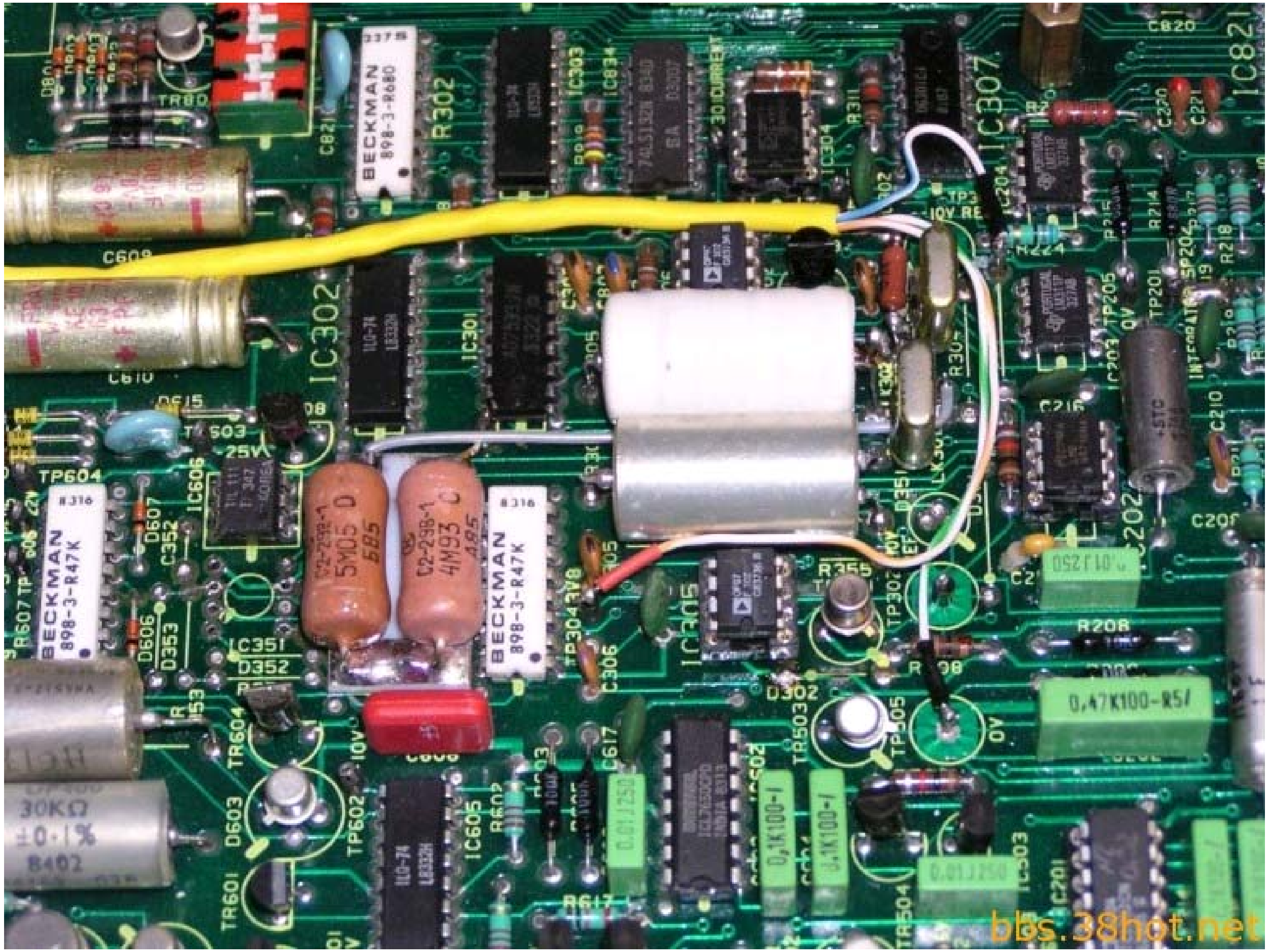
Previous part: http://bbs.38hot.net/read-htm-tid-15406.html

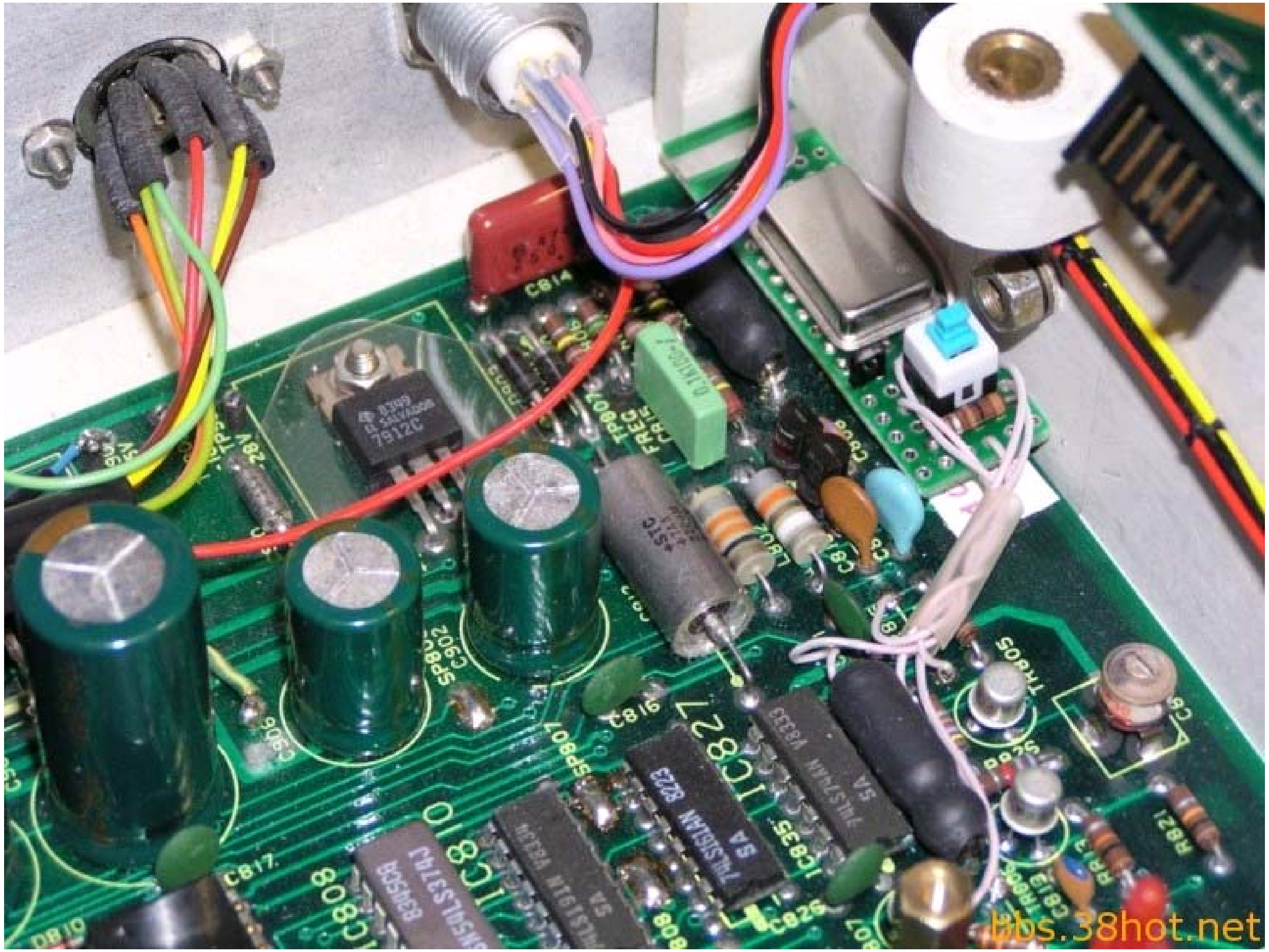


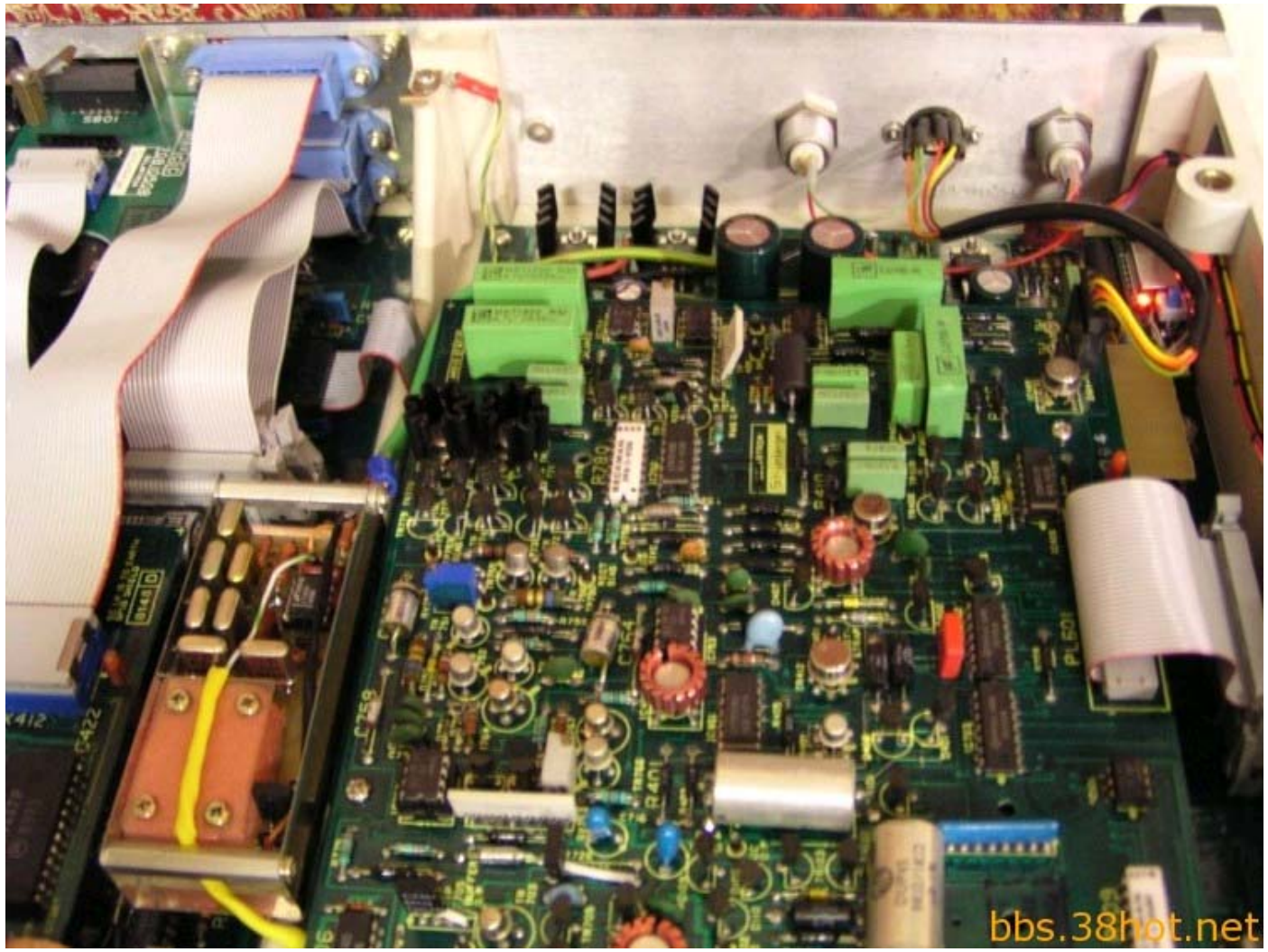
100
334
38

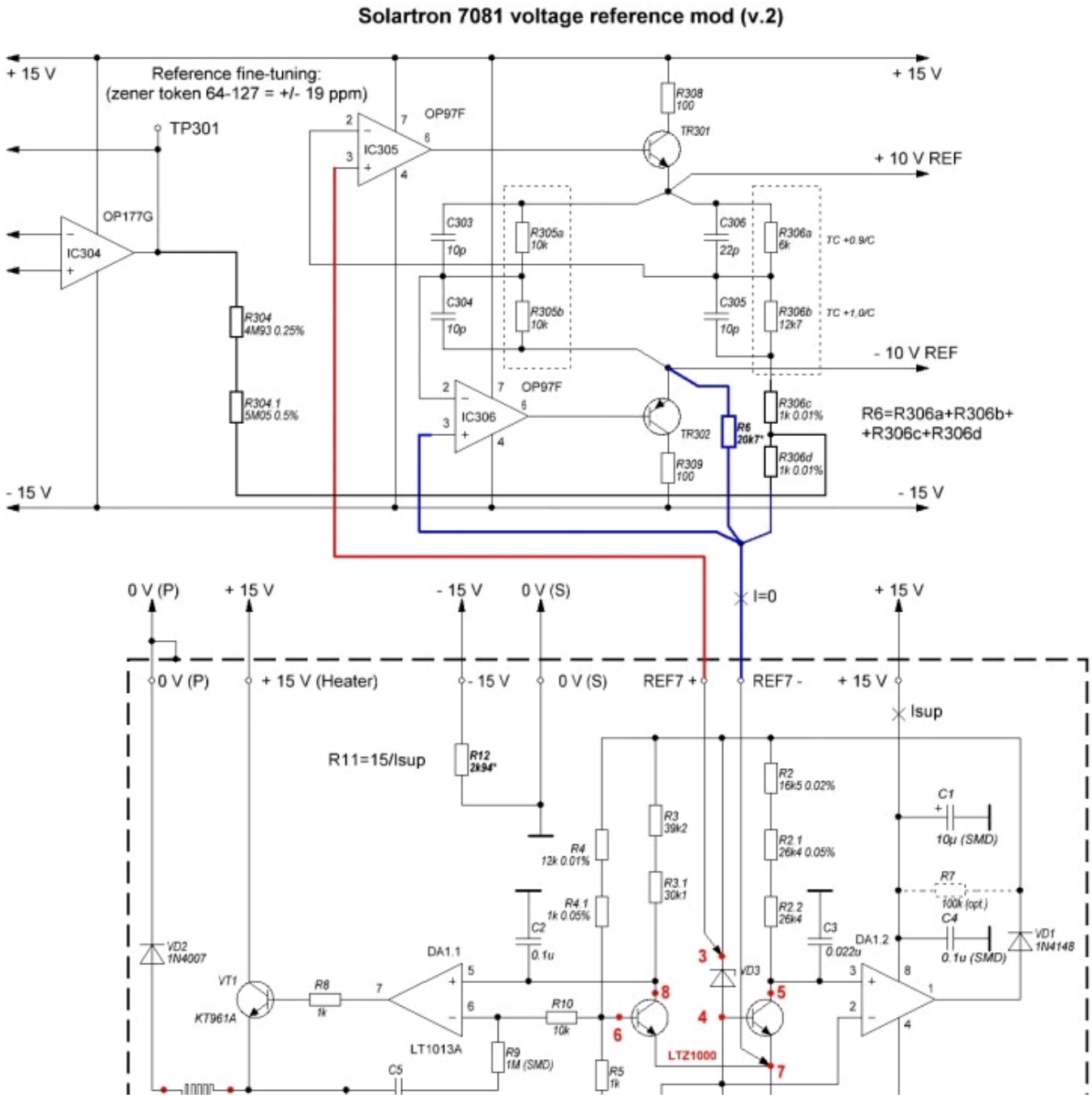

bbs.38hot.net

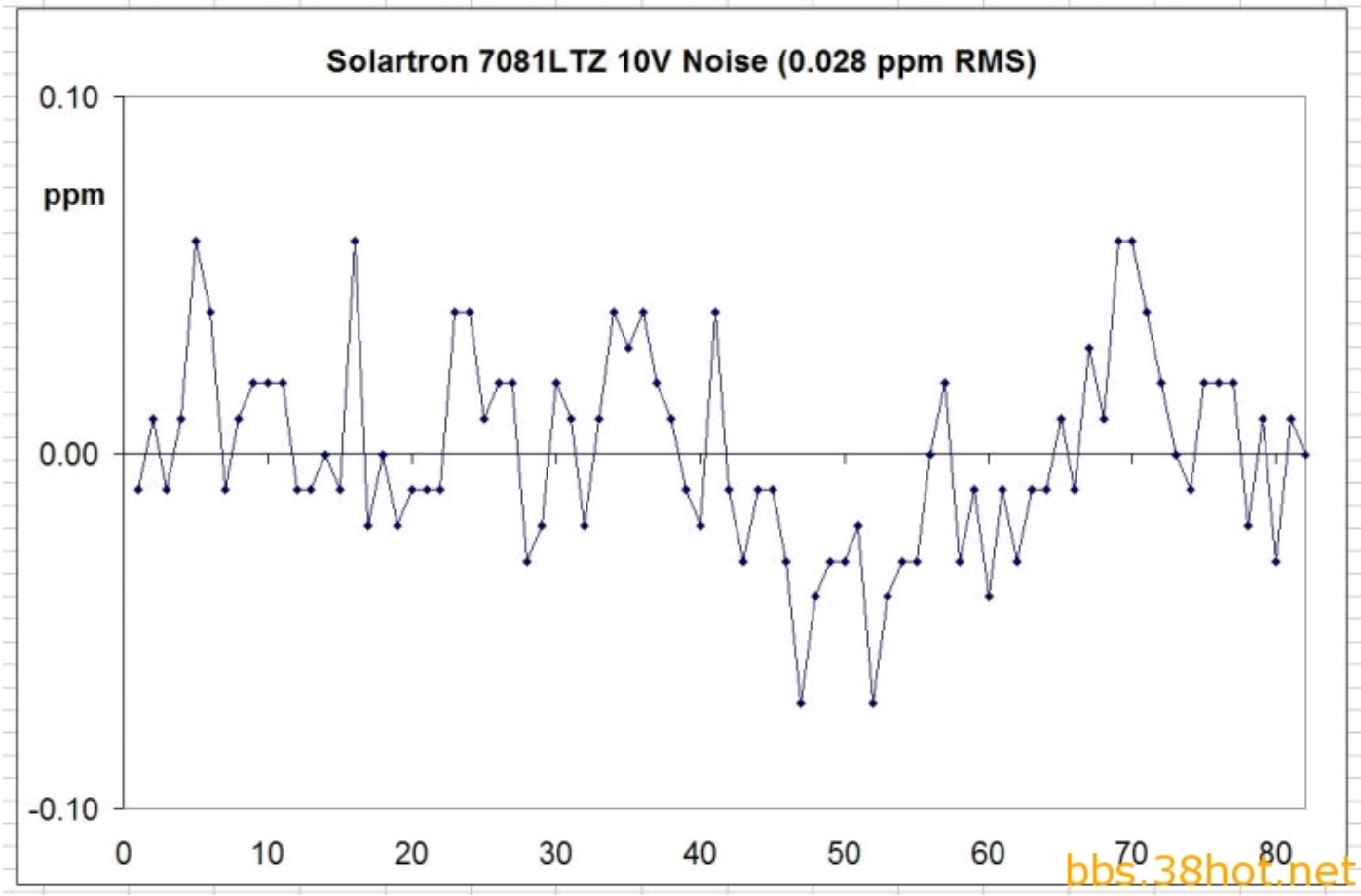

bbs.38hot.net


BECKMAN
898-3-R680
BECKMAN
898-3-R47K
BECKMAN
898-3-R47K
30KΩ
±0·1%
0,47K100-R5/
bbs.38hot.net


C814
7912C
C816
IC827
C817
C826
bbs.38hot.net


bbs.38hot.net


Solartron 7081 voltage reference mod (v.2)
+ 15 V
Reference fine-tuning:
(zener token 64-127 = +/- 19 ppm)
TP301
OP177G
IC304
R304
4M93 0.25%
R304.1
5M05 0.5%
OP97F
IC305
C303
10p
R305a
10k
C304
10p
R305b
10k
R308
100
TR301
+ 10 V REF
C306
22p
R306a
6k
TC +0.9/°C
C305
10p
R306b
12k7
TC +1.0/°C
- 10 V REF
OP97F
IC306
TR302
R6
20k7*
R306c
1k 0.01%
R306d
1k 0.01%
R309
100
R6=R306a+R306b+
+R306c+R306d
- 15 V
0 V (P)
+ 15 V (Heater)
- 15 V
0 V (S)
REF7 +
REF7 -
+ 15 V
I=0
Isup
R11=15/Isup
R12
2k94*
R4
12k 0.01%
R4.1
1k 0.05%
R3
39k2
R3.1
30k1
R2
16k5 0.02%
R2.1
26k4 0.05%
R2.2
26k4
C1
10µ (SMD)
R7
100k (opt.)
C4
0.1u (SMD)
C2
0.1u
C3
0.022u
VD1
1N4148
VD2
1N4007
VT1
KT961A
R8
1k
DA1.1
LT1013A
R10
10k
R9
1M (SMD)
C5
R5
1k
VD3
LTZ1000
DA1.2


Solartron 7081LTZ 10V Noise (0.028 ppm RMS)
0.10
ppm
0.00
-0.10
0
10
20
30
40
50
60
70
80
bbs.38hot.net

Bivariate correlation analysis, with temperature coefficient and aging

lymex, 2009-2-22 iddqd2001, 2013-1

0.42

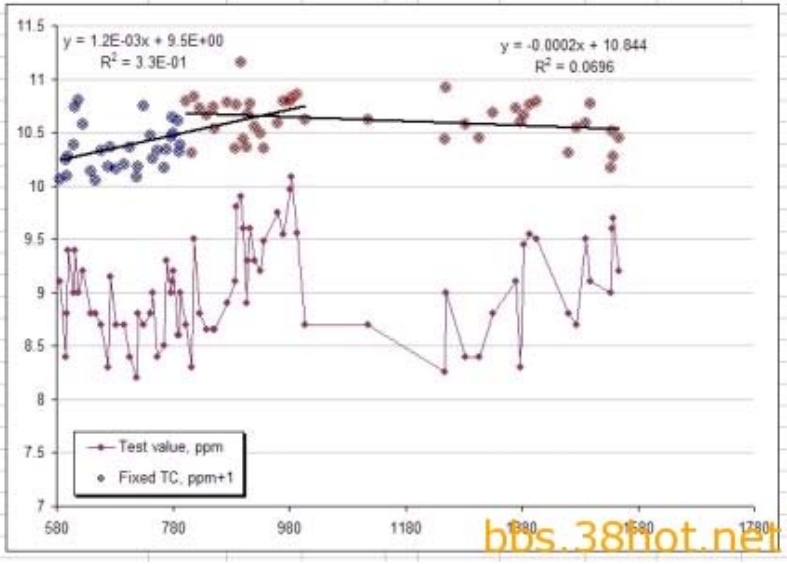
Time, hours	Test temperature	Test value, ppm	Calculated, ppm	Difference, ppm	Fixed TC, ppm+1
586	28.1	9.1	9.23	0.13	10.06
596	26.0	8.4	8.44	0.04	10.24
598	27.3	8.8	8.94	0.14	10.09
600	28.3	9.4	9.32	-0.08	10.27
610	27.1	9	8.88	-0.12	10.38
611	27.2	9.4	8.92	-0.48	10.74
618	26.1	9	8.50	-0.50	10.80
625	27.1	9.2	8.90	-0.30	10.58
640	27.2	8.8	8.95	0.15	10.14
648	27.4	8.8	9.04	0.24	10.05
658	26.5	8.7	8.71	0.01	10.33
669	25.9	8.3	8.49	0.19	10.18
674	27.5	9.15	9.11	-0.04	10.36
682	26.9	8.7	8.89	0.19	10.16
696	26.8	8.7	8.87	0.17	10.20
706	25.7	8.4	8.46	0.06	10.37
718	25.9	8.2	8.55	0.35	10.08
721	27.1	8.8	9.02	0.22	10.18
730	25.5	8.7	8.41	-0.29	10.75
743	26.4	8.8	8.77	-0.03	10.47
745	27.4	9	9.16	0.16	10.25
754	25.8	8.4	8.56	0.16	10.32
766	26.4	8.5	8.80	0.30	10.17
769	27.9	9.3	9.38	0.08	10.34
778	26.9	9	9.01	0.01	10.46
780	26.7	9.1	8.94	-0.16	10.65
781	27.3	9.2	9.17	-0.03	10.49
790	25.6	8.6	8.53	-0.07	10.61
791	26.3	8.6	8.80	0.20	10.31
793	27.1	9	9.11	0.11	10.38
802	25.4	8.7	8.47	-0.23	10.79
813	25.6	8.3	8.56	0.26	10.31
817	27.2	9.5	9.17	-0.33	10.84
826	25.8	8.8	8.65	-0.15	10.72
839	25.6	8.65	8.59	-0.06	10.66
850	25.4	8.65	8.53	-0.12	10.74
852	25.9	8.65	8.72	0.07	10.53
874	25.9	8.9	8.75	-0.15	10.78

	TC	AR	C
Coefficients	**0.38**	**0.0013**	-2.25323
Std. Error	0.03272	0.00024	0.864571
R^2	0.79	0.21	#Н/Д
F statistic	96.576	51.000	#Н/Д
S^2	8.772	2.316	#Н/Д

1.3E-03 ppm/hour
11.0 ppm/year
0.38 ppm/C

	TC	AR	C
	0.41	**-2.0E-04**	-1.646211
	0.02754	0.00012	0.744414
	0.85	0.20	#Н/Д
	111.119	40.000	#Н/Д
	8.758	1.576	#Н/Д

-2.0E-04 ppm/hour
-1.7 ppm/year
0.41 ppm/C



[iddqd2001 2013-01-10 03:57]

3 +8 +3

enquireyhw +3 12:01

enquireyhw +5 12:01

adsnet +3 11:02

liyf

1 : 04:18

?DIY!
diy http://kitebee.meibu.com
qq 41210778

wdexpert

2 : 07:28

94
1430
0

Use LTZ1000 modified~

3 09:38

Very good

QQ490941125 / WWleicamr

1347
1396
46

mercyau

4 09:52

Congratulation!

http://oudaqiang.taobao.com

467
2343
14

gaopeng31

5 10:27

Application of temperature compensation problem is how to solve the

836
688
45

armdsp

6 10:59

great job

78
11233
6

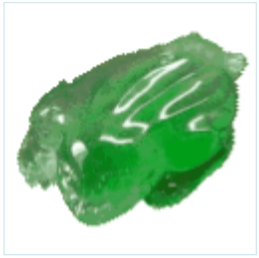
adsnet

7 11:02

280
1000
16

enquireyhw

8 12:01



1736
467391406
76

zy_sh_npk

9 13:06

1173
11260
21

Re:New life of the Solartron 7081

100

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