

Keithley 2001 repair - Support #817

Support # 816 (Closed): Schematics recovery for analog board Keithley 2001

Схема платы A/D (Keithley 2001-162-01G)

10/01/2013 02:02 AM - tin

Status:	Closed	Start date:	10/01/2013
Priority:	Normal	Due date:	10/03/2013
Assignee:	tin	% Done:	90%
Category:		Estimated time:	8.00 hours
Target version:			

Description

Черновик схемы восстановлен, коммит [r81](#).

Текущий этап:

- перерисовать схему на чистовую.
- разобраться в функциональном назначении входов/выходов CPLD на интерфейсный порт.
- подключить отладочный разъем Misoг на дискретные сигналы для захвата данных анализатором.

Associated revisions

Revision 86:be3bdf254dd2 - 10/06/2013 04:05 AM - tin

Added datasheets for OPamps, sch update for ADC board ID #817 @10h

Revision 86:be3bdf254dd2 - 10/06/2013 04:05 AM - Ilya Tsemenko

Added datasheets for OPamps, sch update for ADC board ID #817 @10h

Revision 95:ba5cbbc39d97 - 12/10/2013 01:26 AM - tin

Added schematics block for ADC board for Revision H,J ID #817 @0.8h

Revision 95:ba5cbbc39d97 - 12/10/2013 01:26 AM - Ilya Tsemenko

Added schematics block for ADC board for Revision H,J ID #817 @0.8h

Revision 122:b9b11851ca61 - 12/28/2013 02:55 AM - tin

Split 04 page ID #817 @2h and started Multisim model ID #883 @2h

Revision 122:b9b11851ca61 - 12/28/2013 02:55 AM - Ilya Tsemenko

Split 04 page ID #817 @2h and started Multisim model ID #883 @2h

Revision 123:d8d12bb85c3e - 12/29/2013 05:39 AM - tin

Rev 0.1 schematics pages 04a,04b,04c, ADC Board ID #817 @8h

Revision 123:d8d12bb85c3e - 12/29/2013 05:39 AM - Ilya Tsemenko

Rev 0.1 schematics pages 04a,04b,04c, ADC Board ID #817 @8h

Revision 124:732591b4a305 - 12/30/2013 01:16 AM - tin

Rev 0.1 analog curcuitry finished on ADC Board ID #817 @5h

Revision 124:732591b4a305 - 12/30/2013 01:16 AM - Ilya Tsemenko

Rev 0.1 analog curcuitry finished on ADC Board ID #817 @5h

Revision 125:01d492e3955e - 12/30/2013 01:34 AM - tin

Added function combined page file for ADC Board ID #817 @0.1h

Revision 125:01d492e3955e - 12/30/2013 01:34 AM - Ilya Tsemenko

Added function combined page file for ADC Board ID #817 @0.1h

Revision 132:b3d23865ac4d - 01/08/2014 06:36 PM - tin

Rev 0.2 for ADC board, ID #817 @4h

Revision 132:b3d23865ac4d - 01/08/2014 06:36 PM - Ilya Tsemenko

Rev 0.2 for ADC board, ID #817 @4h

Revision 133:9601014cdf8 - 01/08/2014 06:45 PM - tin

Rev 0.2 for ADC board, merge, ID #817 @4h

Revision 133:9601014cdf8 - 01/08/2014 06:45 PM - Ilya Tsemenko

Rev 0.2 for ADC board, merge, ID #817 @4h

History

#1 - 10/06/2013 04:09 AM - tin

- % Done changed from 30 to 70

[ADC board in PNG](#)

#2 - 12/10/2013 01:30 AM - tin

- % Done changed from 70 to 90

Added Revision H,J information, fixed connector signal names per Rev H ADC board silkscreen

#3 - 12/28/2013 02:59 AM - tin

VR801 section fixed

U811 checked

#4 - 12/29/2013 04:45 AM - tin

- File *Keithley_2001J_04a_SLOPE GE.pdf* added

- File *Keithley_2001J_04B_ZERO-CRO.pdf* added

Final schematics for ADC section:

U811, U810 + precision passives

7.680MHz clock generator

74HC74 logic and associated FET gates

Gain amp?

Zero-cross comparator after intergator?

#5 - 12/29/2013 04:46 AM - tin

- File *zerocross_1.png* added

- File *zerocross_2.png* added

- File *zerocross_3.png* added

#6 - 12/29/2013 05:36 AM - tin

- File *Keithley_2001J_04C_INTEGRATO.pdf* added

#7 - 12/30/2013 01:40 AM - tin

- File *Keithley_2001J_ADC_Rev01.pdf* added

- Status changed from *In Progress* to *Feedback*

Analog section is updated for final checks.

iZerg, please help to review attached PDF.

All works suspended now until review/feedback received.

#8 - 01/08/2014 02:41 AM - tin

- File *kei2001_intg_adc_fast.png* added

- File *kei2001_intg_adc_hiaccuracy.png* added

- File *kei2001_intg_adc_medium.png* added

- File *kei2001_intg_adc_normal_speed.png* added

- File *kei2001_intg_adc1.png* added

- File *kei2001_intg_adc2.png* added

- File kei2001_intg_adc3.png added

DCV voltage measurement mode, 20V range
U816.6 output - cyan channel
U813.6 output - yellow channel

#9 - 01/08/2014 04:45 AM - tin

- File US4574271.pdf added

Added US patent covering multislope ADC.
Thanks to [Neskeatos](#)

#10 - 01/08/2014 06:14 PM - tin

- File Keithley_2001J_ADC_Rev02.pdf added

- File Keithley_2001J_ADC_Rev02.png added

Rev 0.2 ADC schematics.
Clean up, redraw CPLD symbol, redraw digital signaling from registers.

#11 - 04/07/2015 02:24 AM - tin

- Status changed from Feedback to Resolved

#12 - 04/11/2015 08:20 PM - tin

- Status changed from Resolved to Closed

Files

Keithley_2001J_04a_SLOPE GE.pdf	132 KB	12/29/2013	tin
Keithley_2001J_04B_ZERO-CRO.pdf	94.2 KB	12/29/2013	tin
zerocross_1.png	10.8 KB	12/29/2013	tin
zerocross_2.png	15.2 KB	12/29/2013	tin
zerocross_3.png	10.1 KB	12/29/2013	tin
Keithley_2001J_04C_INTEGRATO.pdf	123 KB	12/29/2013	tin
Keithley_2001J_ADC_Rev01.pdf	127 KB	12/30/2013	tin
kei2001_intg_adc_fast.png	12.7 KB	01/08/2014	tin
kei2001_intg_adc_hiaccuracy.png	14.6 KB	01/08/2014	tin
kei2001_intg_adc_medium.png	17.9 KB	01/08/2014	tin
kei2001_intg_adc_normal_speed.png	21.7 KB	01/08/2014	tin
kei2001_intg_adc1.png	14 KB	01/08/2014	tin
kei2001_intg_adc2.png	14.6 KB	01/08/2014	tin
kei2001_intg_adc3.png	15.9 KB	01/08/2014	tin
US4574271.pdf	1.51 MB	01/08/2014	tin
Keithley_2001J_ADC_Rev02.pdf	67 KB	01/08/2014	tin
Keithley_2001J_ADC_Rev02.png	1.04 MB	01/08/2014	tin