

Keithley 2001 repair - Bug #854

Fix error 402.1 - Signal switching; frequency switch

11/12/2013 20:37 - tin

Status:	Closed	Start date:	11/12/2013
Priority:	Normal	Due date:	14/12/2013
Assignee:	tin	% Done:	50%
Category:		Estimated time:	0.00 hour
Target version:	Keithley 2001 #6		

Description

Failure analysis - Cannot measure $0.032V \pm 0.005V$ at A/D IN.

OUT B of the DAC (U531) is set up to output 4.33V at PRECOMP+ (U528 pin 1). The operation of the frequency switch, U522 (FREQ pulled low), is verified by dividing the PRECOMP+ voltage by the voltage ratio across R560 and R558. The On resistance (approximately 25 ohm) of the analog switch (U522) is added to the resistance of R558 since it is part of the ratio. Again, as in the 400 series tests, this voltage is routed to the A/D buffer (U322) which is configured for x1 gain. Measure 32mV at A/D IN.

History

#1 - 11/12/2013 22:06 - tin

- Status changed from New to Resolved

- % Done changed from 0 to 50

Fixed itself during schematics probing.

#2 - 15/12/2013 03:36 - tin

- Status changed from Resolved to In Progress

#3 - 13/07/2014 01:38 - tin

- Target version changed from Keithley 2001 #7 to Keithley 2001 #6

#4 - 07/06/2016 01:10 - tin

- Status changed from In Progress to Closed