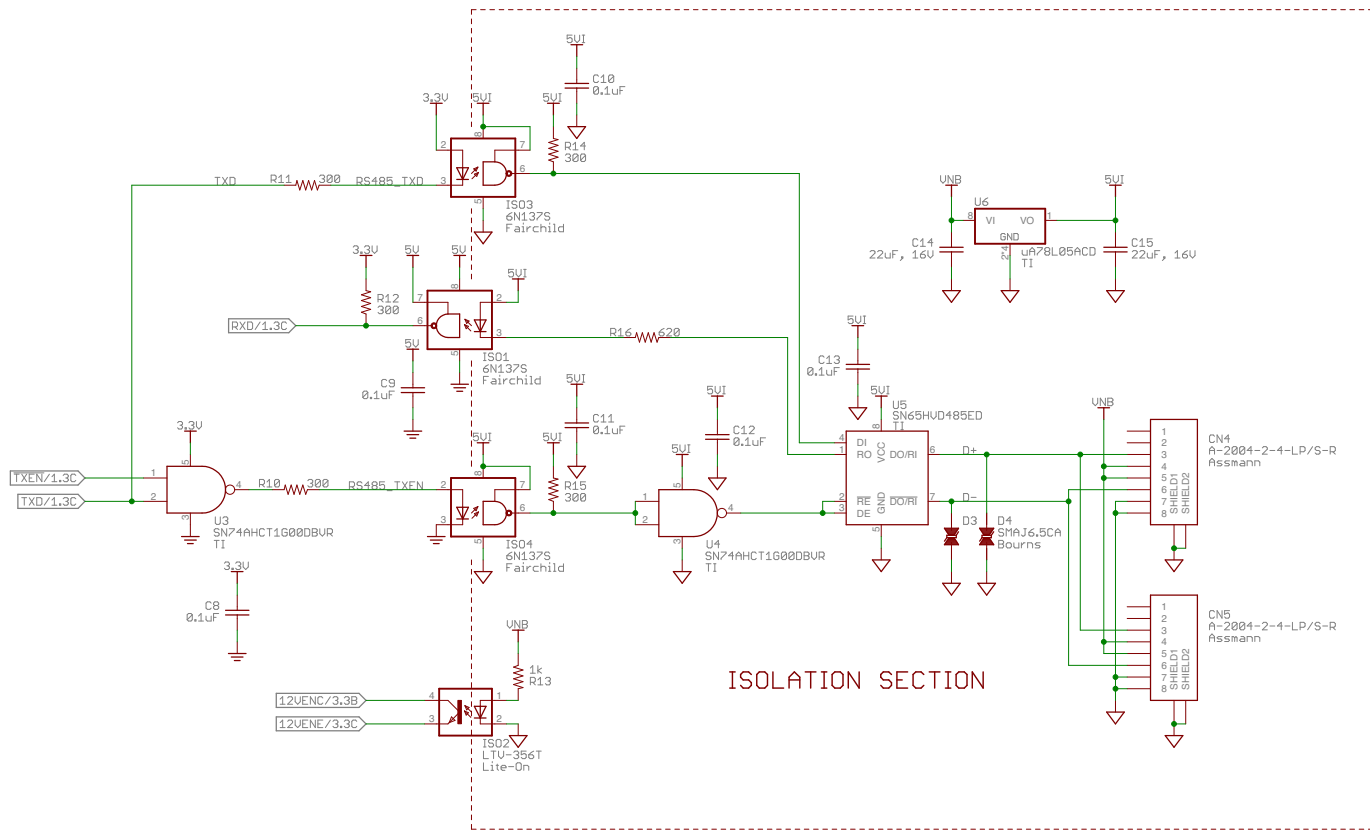


STERN Pinball 2001 Lunt Ave
Elk Grove, Ill 60007
708-345-7700

TITLE: 520-7017-72D

Document Number: Processor and Serial Interface REV: D

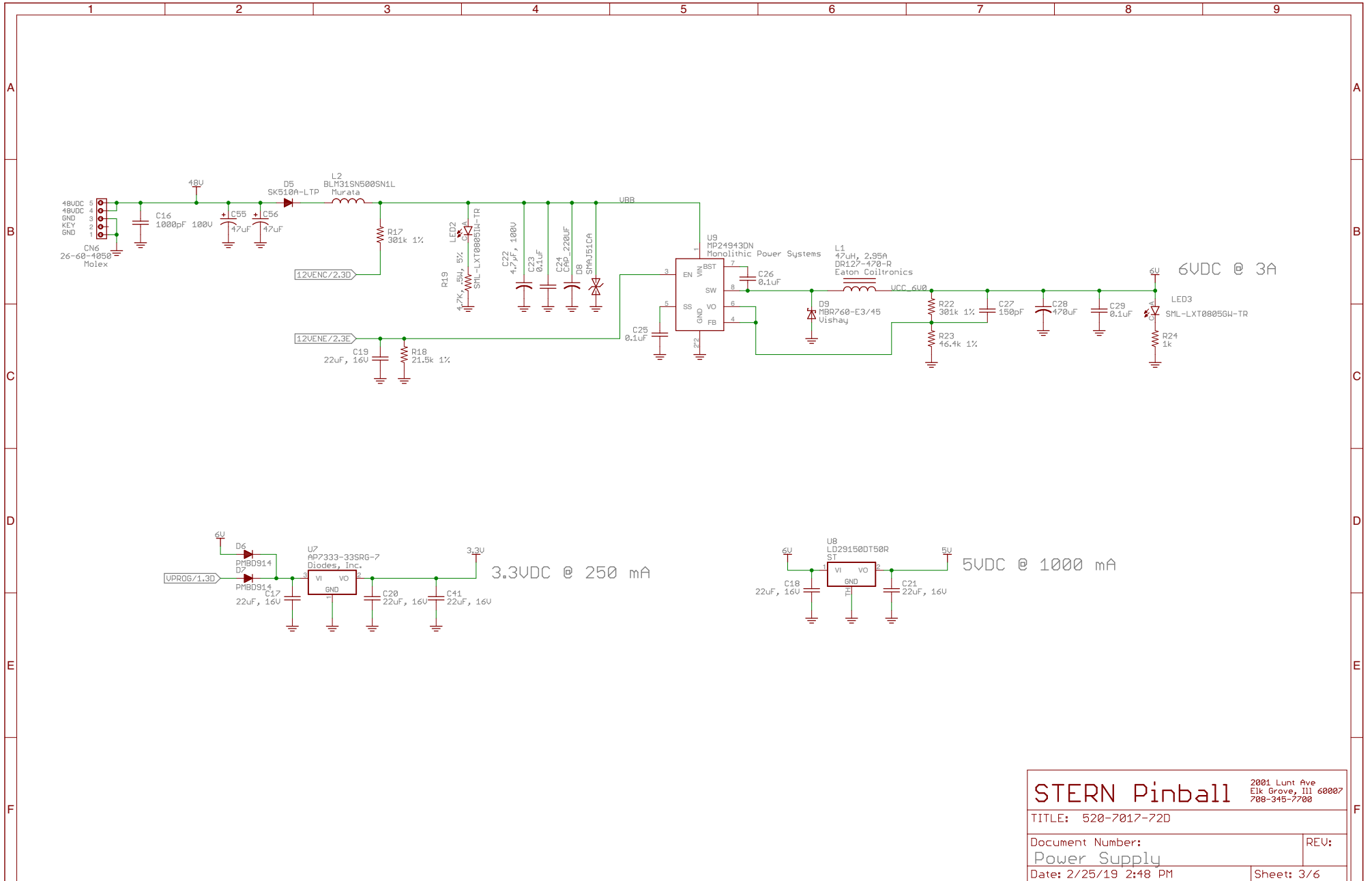
Date: 2/25/19 2:48 PM Sheet: 1/6



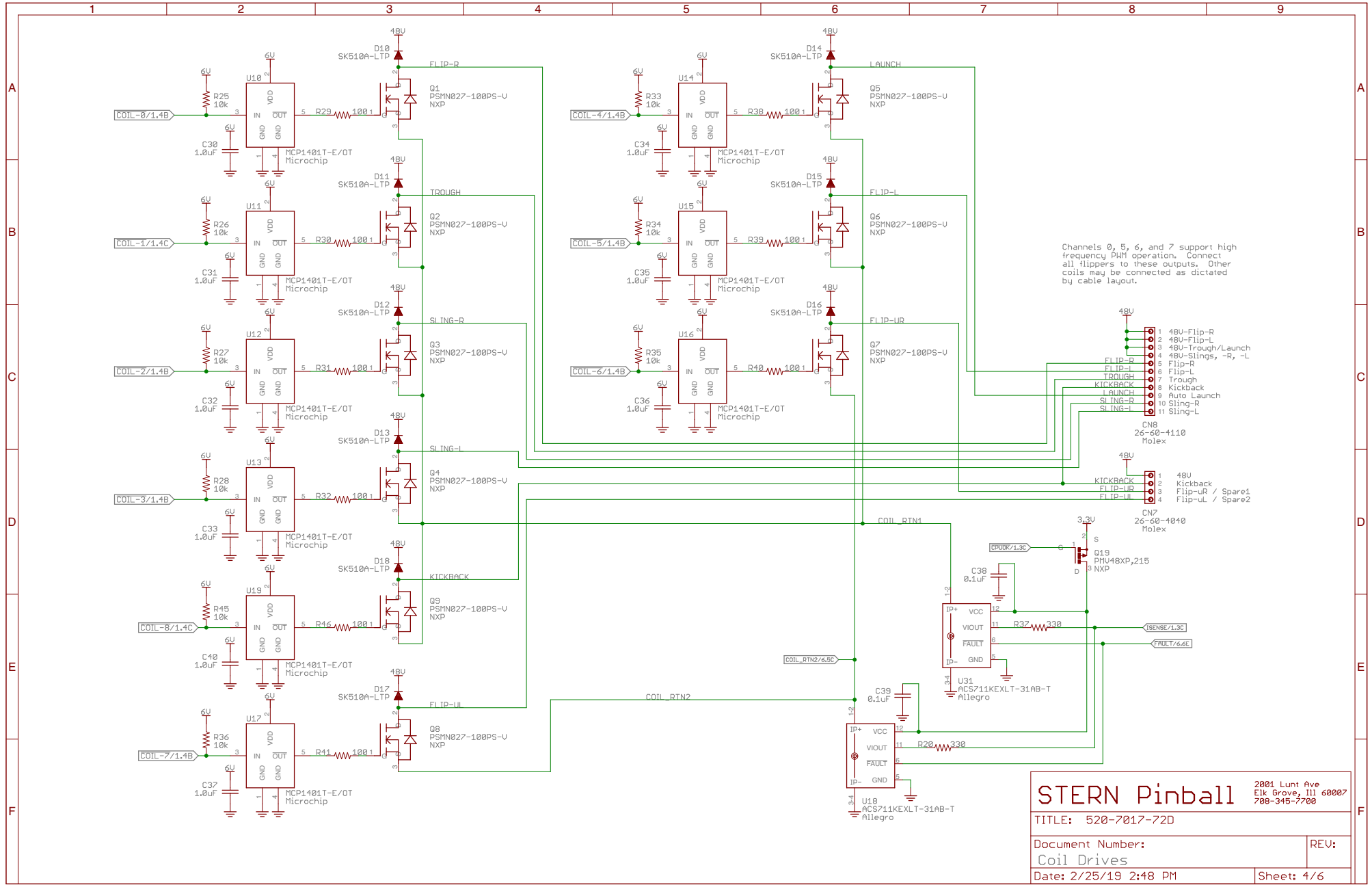
ISOLATION SECTION

LED current limiting resistors:
 $V_f(\text{max}) = 1.8\text{V}$, $I_f(\text{con})(\text{max}) = 5.0\text{mA}$
 $(3.3\text{V} - 1.8\text{V}) / 5.0\text{mA} = 300\Omega$
 $(5.0\text{V} - 1.8\text{V}) / 5.0\text{mA} = 640\Omega$ (use 620 Ω)

STERN Pinball 2001 Lunt Ave Elk Grove, Ill 60007 708-345-7700	
Document Number:	REV:
Date: 2/25/19 2:48 PM	
Sheet: 2/6	



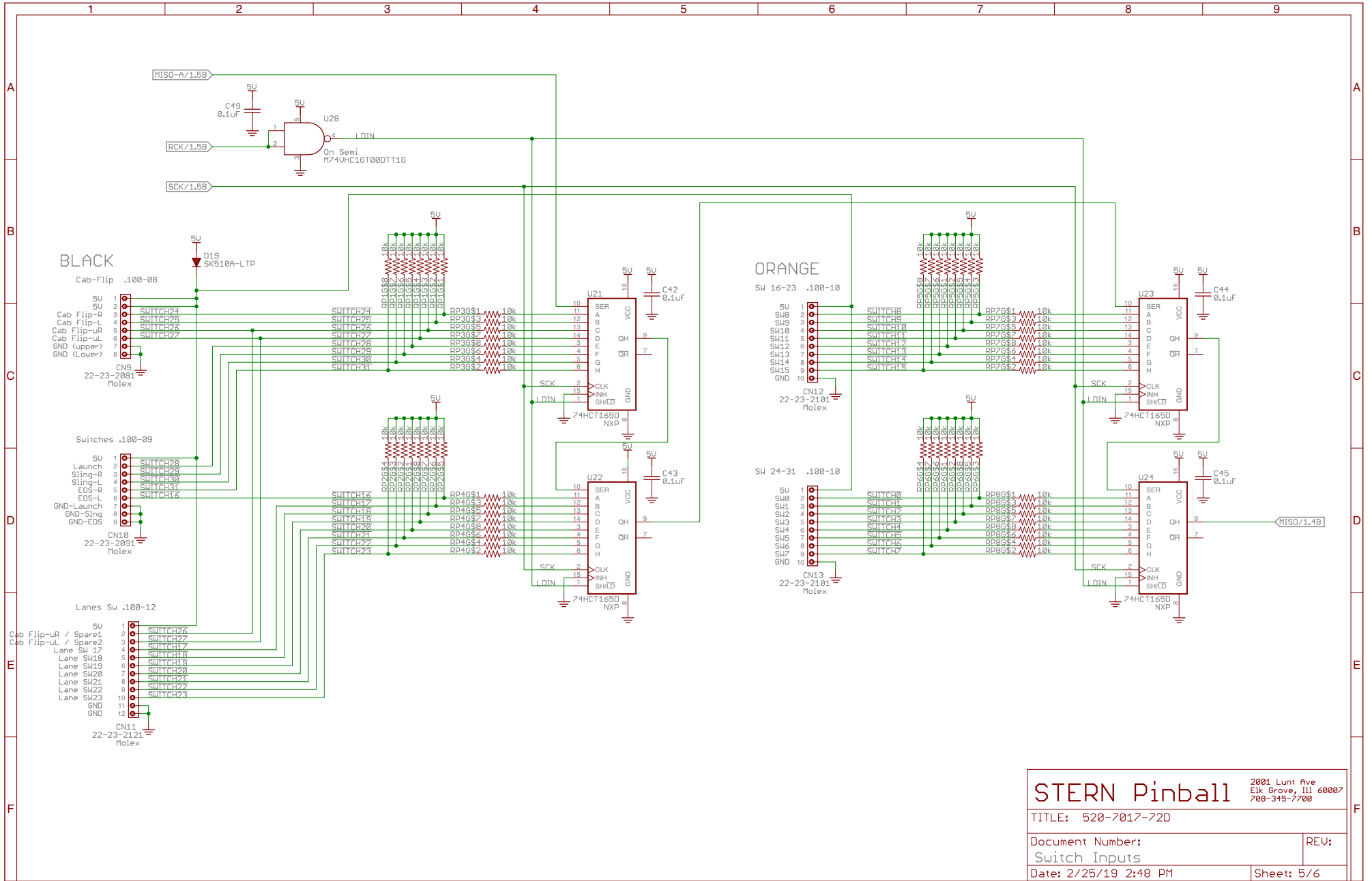
STERN Pinball		2001 Lunt Ave Elk Grove, Ill 60007 708-345-7700
TITLE: 520-7017-72D		
Document Number:	REV:	
Power Supply		
Date: 2/25/19 2:48 PM	Sheet: 3/6	



STERN Pinball 2001 Lunt Ave
Elk Grove, Ill 60007
708-345-7700

TITLE: 520-7017-72D

Document Number:	REV:
Coil Drives	
Date: 2/25/19 2:48 PM	Sheet: 4/6

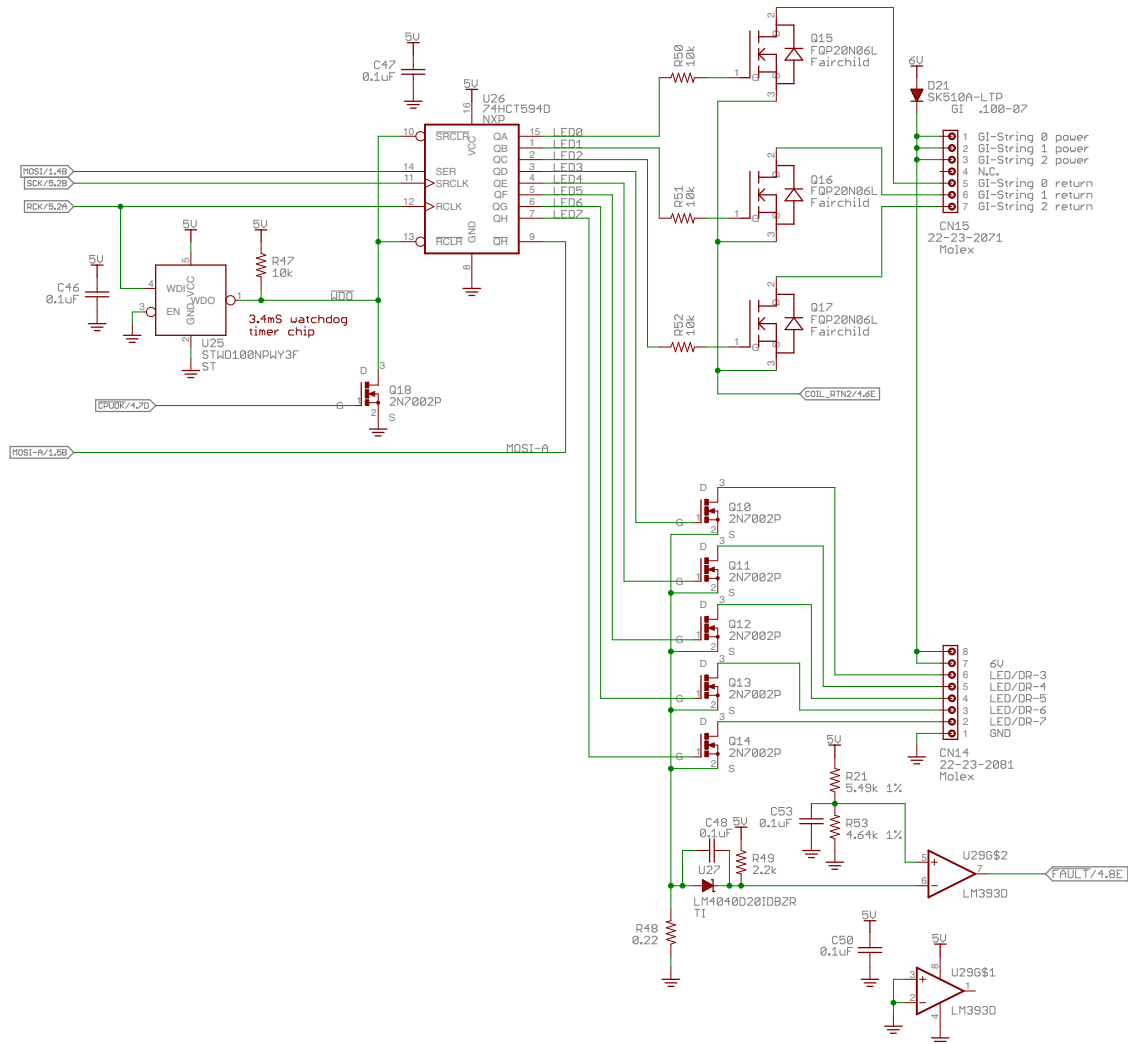


STERN Pinball 2001 Lunt Ave
Elk Grove, Ill 60007
708-345-7700

TITLE: 520-7017-72D

Document Number: REV:
Switch Inputs

Date: 2/25/19 2:48 PM Sheet: 5/6



$I_{sense} = 2.048U + I_{led} \times 0.22\Omega$ (\leftarrow input of comparator)
 $U_{ref} = 5.0U \times 4.64k / (5.49k + 4.64k) = 2.29U$
 $I_{trip} = (2.29U - 2.048U) / 0.22\Omega = 1.1A$

STERN Pinball		2001 Lunt Ave Elk Grove, Ill 60007 708-345-7700
TITLE: 520-7017-72D		
Document Number:	REV:	
GI and LED/General Drives		
Date: 2/25/19 2:48 PM	Sheet: 6/6	