

Title Schematic, Bus Interface, Power Switch Board, Coastal Profiling Float			Document Number 100221094	Rev D
Size B	Date: Wednesday, July 19, 2017	Engineer Mellinger	Sheet 1	of 5
Design File X:\CPF\ELECTRICAL ENGR\ORCAD PROJECTS\ED'S STUFF\SCHEMATICS\100221094-CPF-POWERSWITCH.DSN				
Schematic Name 100221094CPF-PwrSwitchSchematic		Page Name 01BusInterface	Layout File <Layout File>	

5D1 CH1/CH4/CH13:PA28
5D1 CH1/CH4/CH13:PC29

5D1 Com A Tx
5D1 Com A Rx

Local3V3
Local1V8
Local3V3

5C1,5D3,5D4
NRs

Local3V3
SigCom

Local3V3
SigCom

5D1 NIRQ

4A1,5B3,5C4 1.84_MHz

5B3,5C1,5C4 I2C_SCL
5B3,5B4,5C1 I2C_SDA

5D1 NFLT
5D1 Pwr

Local12V
Local5V
PwrCom

Note -- Alternate parts for 2.5A Current Limit
Q1: IRFR7440TRPBF 40V/ 2.4 mohm
R21: WSL2512R0200FEA 20 mohm
Clearly mark board "2.5A Current Limit"

U2
Do Not Stuff
Vcc_Core
Vcc_Bus
Vcc_UART
Vcc_GPIO
Gnd
Gnd Pad
Reset#
Sleep/PwrDn#
SDA
SCL
A0
A1
En485#
I2C/SPI#
EnIR
NC1
NC2

Tx

Rx

RTS#

CTS#

DTR#

DSR#

CD#

RI#

GPIO4

GPIO5

GPIO6

GPIO7

SPI SDO

IRQ#

Xial1

Xial2

R7

R8

R9

R10

R11

R12

R13

R14

R15

R16

R17

R18

R19

R20

R21

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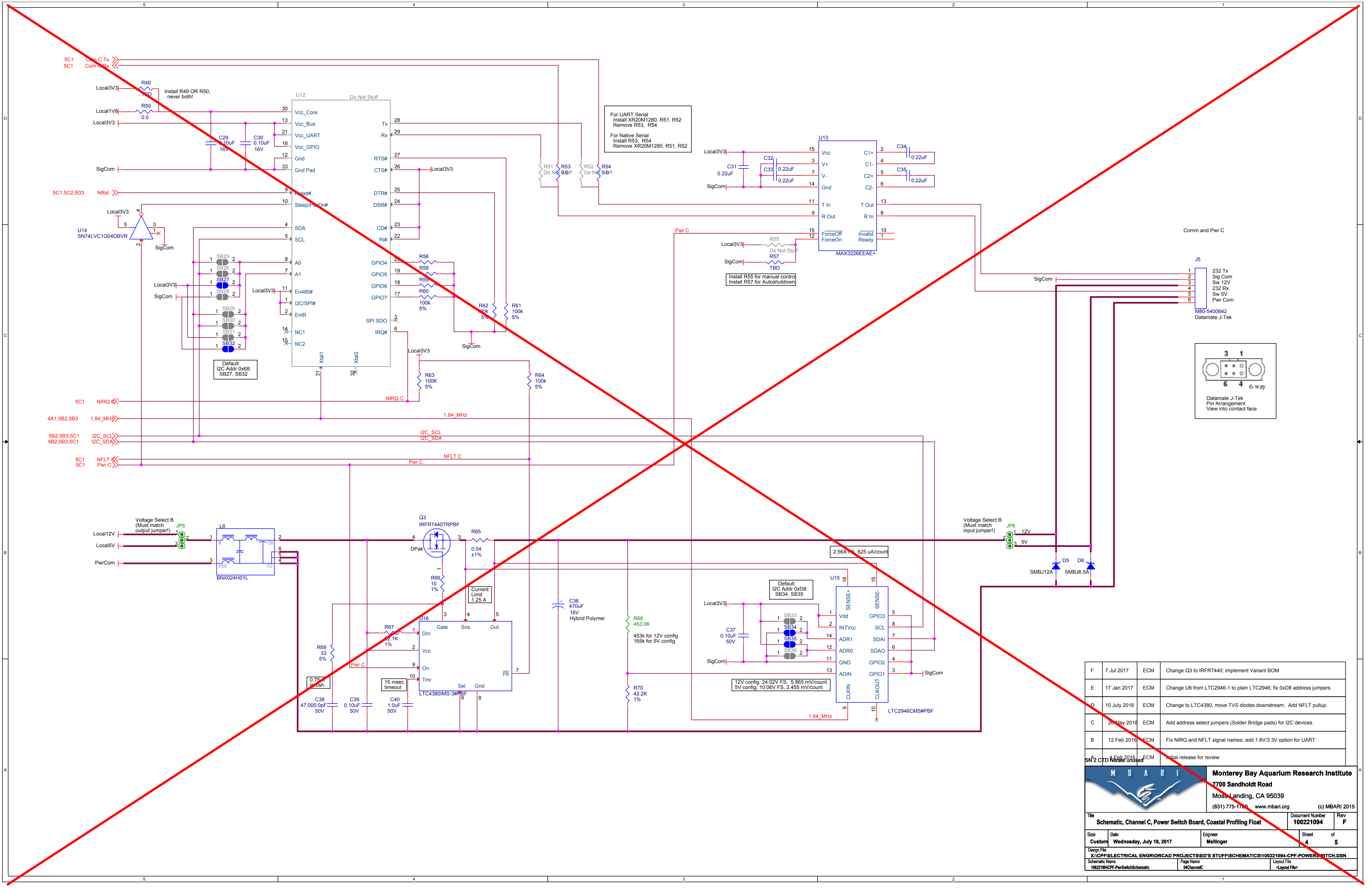
R297

R298

R299

R300

R301



F	7 Jul 2017	ECM	Change Q3 to IRRFR7440; implement Variant BOM
E	17 Jan 2017	ECM	Change U6 from LTC2946-1 to plain LTC2946; fix 0x08 address jumpers
D	10 July 2016	ECM	Change to LTC4380, move TVS diodes downstream. Add NFLT pullup.
C	20 May 2016	ECM	Add address select jumpers (Solder Bridge pads) for I2C devices.
B	12 Feb 2016	ECM	Fix NIRQ and NFLT signal names; add 1.8V/3.3V option for UART
A	1 Feb 2016	ECM	Initial release for review



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Title		Schematic, Channel C, Power Switch Board, Coastal Profiling Float		Document Number	100221094	Rev	F
Size	Custom	Date:	Wednesday, July 19, 2017	Engineer	Mellinger	Sheet	4 of 5
Design File							
X:\CPPELECTRICAL ENGR\ORCAD PROJECTS\DESIGN STUFF\SCHEMATICS\100221094-CPF-POWER SWITCH.DSN							
Schematic Name		Page Name		Layout File			
100221094-CPF-PwrSwitchSchematic		04ChannelC		<Layout File>			

	01 Bus Interface	02 Channel A	03 Channel B	04 Channel C	05 Release Notes	notes
Release A	A	A	A	A	A	2 Feb 2016 Initial Release for design review. BOM not reconciled with CIS yet.
Release B	B	B	B	B	B	18 Feb 2016 Release for PCB Layout and procurement
Release C	C	C	C	C	C	26 May 2016: Change backplane signal names, add address jumpers
Release D	C	D	D	D	D	12 July 2016: Change to LTC4380, move TVS diodes downstream. Add NFLT pullup.
Release E	D	D	D	D	E	24 Aug 2016: Correct separation of Com and SigCom nets. PWB from this Release.
Release F	D	E	E	E	F	17 Jan 2017: replace LTC2946-1 with plain LTC2946.
Release G	D	E	E	E	?	25 May 2017 Release for Manufacture
Release H	D	F	F	F	H	17 Jan 2017: replace LTC2946-1 with plain LTC2946.

SN 2 CTD Nitrate unused

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Title Release Notes, Power Switch Board, Coastal Profiling Float		Document Number 100221094	Rev H
Size A	Date: Wednesday, July 19, 2017	Engineer Mellinger	Sheet of 5 5
Design File X:\CPF\ELECTRICAL ENGR\ORCAD PROJECTS\ED'S STUFF\SCHEMATICS\100221094-CPF-POWERSWITCH.DSN			
Schematic Name 100221094CPF-PwrSwitchSchematic		Page Name 05 Release Notes	Layout File <Layout File>