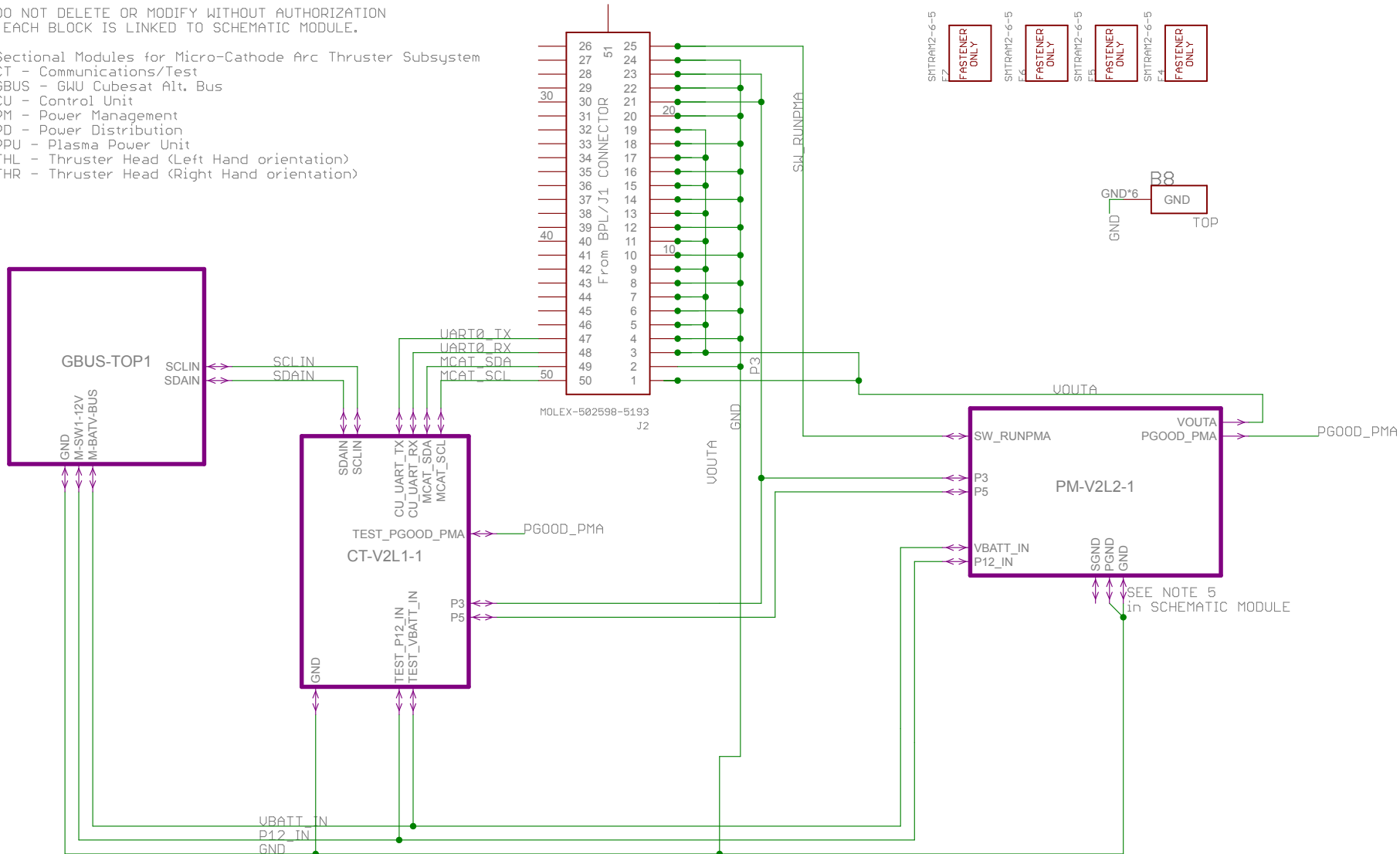


FOR REFERENCE ONLY

DO NOT DELETE OR MODIFY WITHOUT AUTHORIZATION
EACH BLOCK IS LINKED TO SCHEMATIC MODULE.

Sectional Modules for Micro-Cathode Arc Thruster Subsystem
CT - Communications/Test
GBUS - GWU Cubesat Alt. Bus
CU - Control Unit
PM - Power Management
PD - Power Distribution
PPU - Plasma Power Unit
THL - Thruster Head (Left Hand orientation)
THR - Thruster Head (Right Hand orientation)



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CORRECTION 201503150829 - HAQUE - Correct ADJ1/ADJ2/OUT1/OUT2
cross connection of 20150302102847 in PM Section

SECTION:

MCAT SUBSYSTEM CANYVAL TOP PCB

TITLE:

MCAT-CANYVAL-TOP-5X1

Date Code:

201503150829

Author:

SH, N3RDX

REV:

5X1

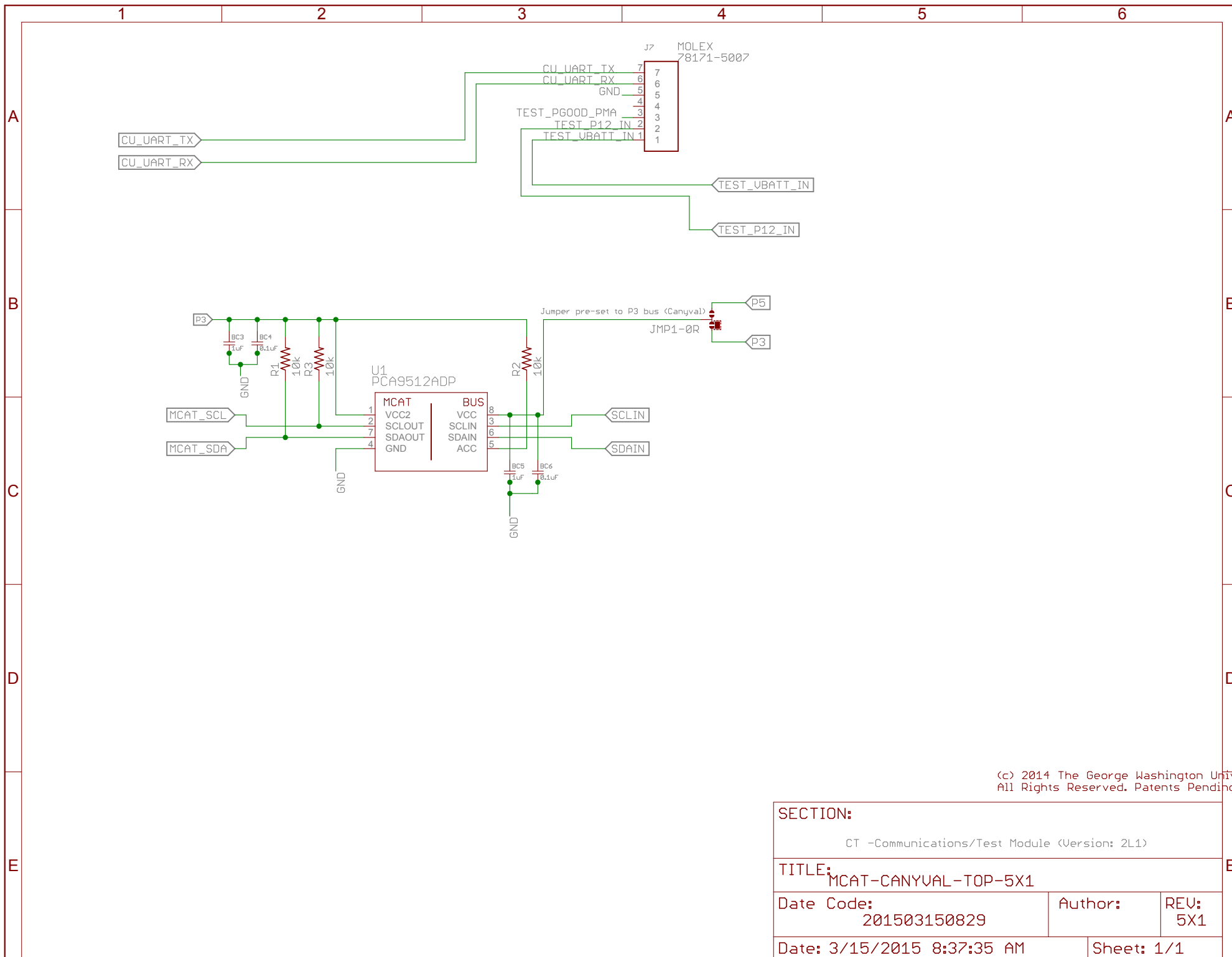
Date: 3/15/2015 8:37:35 AM

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GBUS - GW Bus / Cubesat Kit Bus	
TITLE: MCAT-CANYVAL-TOP-5X1	
Document Number: 201503150829	REV:
Date: 3/15/2015 8:37:35 AM	Sheet: 1/1



Design: Samudra Haque, N3RDX, 2014
Ph.D Candidate (Aerospace Engineering)
Dept. of Mechanical and Aerospace Engineering
The George Washington University
(202) 812-3325

Input Filter Network

From EPS BATTUBUS
Power I/P
6.11-8.26VDC @4.5A Max, SHARED

Shielded Power Inductor

L1
33uH
COILCRAFT
MSS1048T-333ML

Switching Power Regulation

$f = 400 \text{ kHz}$

Input = BATTUBUS (Clydespace EPS 3rd Generation)

Output = 18.04VDC (@17.82VDC, 1.1154A, max.)

Discontinuous Current Mode (DCM) w/Constant Frequency

U1
LTM4609MPU#PBF

Switching Power Regulation

Output Filter Network

Shielded Power Inductor

L3
10uH
PANASONIC
ELL5PS100M

NOTE 3:
PGOOD_PMA
signal unmonitored in this rev.

RUN_PMA is Inhibit
controlled by MTCU SW of CU as
commanded by spacecraft C&DH

KOA SPEER
RN731ETTP2001B25

UISHAY
W5LP0805R0270FEA

TE Connectivity/Holsworthy
RN73C134K64BTDG

PGND SJ3 0R SGND

GND SJ4 0R SGND

U2
LT3030MPFE#PBF

NOTE 5
SGND connected to PGND near/at output capacitor point

PM (Version: 2L2, Canyval)

TITLE: MCAT-CANYVAL-TOP-5X1

Document Number: 201503150829

REV:
5X1

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