

Solar B - EIS

**MULLARD SPACE SCIENCE LABORATORY
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PM ICU Camera Control PCB Design Definition

Document Number: MSSL/SLB-EIS/DD/019.01 21 August 2001

Author:

Date:

Authorized by:

Date:

Distributed:

Date:

Distribution

EIS-Science	
EIS-Tech	

ISSUE	DATE	PAGES CHANGED	COMMENTS
01	21/08/01	All new	

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Design Description

1. Engineering Change Requests (ECRs)

ECR 3: Address decoding

ECR 4: RS232 modifications

2. Non-Conformance Reports (NCRs)

None

3. Schematics

3.1 Drawing number A1-5275-010 iss. 1

4. PCB Manufacturing and Assembly

4.1 PCB artwork X-1640-001

4.2 Drawing numbers: A1-5275-010-5 Assembly drawing
A1-5275-010-6 Drill plot**5. Bill Of Materials**

<i>Ref</i>	<i>Description</i>	<i>Quantity</i>
D1 D2	Zener Diode BZX85C4V7	2
R17	Resistor 4K7 RLR05 2%	1
IC26 IC27	Actel A54SX32A_208PQFP	2
IC1 IC2 IC3 IC4 IC5 IC6 IC7 IC8	128k x 8 EEPROM, AT28C010-15JI	8
C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13 C14 C15 C16 C17 C18 C19 C20 C21 C22 C23 C24 C25 C26 C27 C28 C29 C30 C31 C32 C33 C34 C35 C36 C37 C38 C39 C40 C41 C42	Capacitor, 0.01uF 1206	42
SK1	15W D R/A socket, DAM15S1AON	1
PL3	9W D R/A plug, DEM9P_1AON	1
IC29	RS422 line receiver, DS26c32ATN	1
IC28	RS422 line driver, DS26C31TN	1
PL1 PL2	98W R/A plug, HPF098AMBK0020	2
R13 R14 R15 R16	Resistor 75 Ohm 1206 2%	4
R7 R8 R9 R10 R11 R12	Resistor 100 Ohm 1206 2%	6
R18 R19	Resistor 10K 1206 2%	2
R1 R2 R3 R4 R5 R6	Resistor 4K7 1206 2%	6
IC9 IC10 IC11 IC12 IC13 IC14 IC15 IC16 IC17 IC18 IC19 IC20 IC21 IC22 IC23 IC24	512KX8 SRAM, TC554001FL-70	16
PL4 PL5	Test header 1 x 8 W, TSW_18_26_SS	2
IC25	LVDS line receiver, DS90C032TM	1

6. PCB Layout

6.1 Layer definition

1. Component side tracks
2. Ground plane
3. Power Planes
4. Solder side tracks

6.2 Implementation of ECRs

Read ECR 4 before assembly

7. Constructional details

7.1 Construction sequence

No special order

7.2 Select on test items

None

7.3 Wire links

Add two structure connections from W1 to W2 to the near screwlock on the adjacent connector

7.4 Actel fuse files

IC26: msslec:/home/kjr/vhdl_src/EIS_ICU_COMMS_IC/syn/rev_1/icu_comms_top_struct.fse

IC27: msslec:/home/kjr/vhdl_src/EIS_ICU_SCIENCE_DATA_INTERFACE/
rev_1/eis_science_if_top_struct.fse

8. Setup and Test

TBD

9. Design Description

This forms part of the ICU design document, MSSL/SLB-EIS/DD010.