Default Bus Connectors

First 104 pins follow pumpkin CSK bus (Rev E) pins Some user and IO pins have been assigned by SLI (that are not used by any other peripherials)

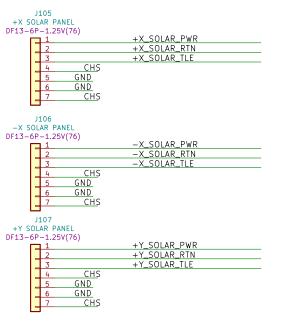
PCB BOTTOM J2	PCB TOP	J20	10_4	J2	200_6	J2	00_8	
	01-S-DV-A-K-TR		-S-DV-A-K-TR		1-S-DV-A-K-TR		1-S-DV-A-K-TR	
SEP1 1	2 SEP2 4 +X SOLAR TLE	SEP1 1 F	2 SEP2	SEP1 1	2 SEP2 4 +X SOLAR	SEP1 1	2 SEP2	
Z_SOLAR_TLE 3 _Z_SOLAR_RTN 5	4 +X_SOLAR_TLE 6 +X_SOLAR_RTN	-Z_SOLAR_TLE 3 -Z SOLAR RTN 5	4 +X_SOLAR_TLE 6 +X SOLAR RTN	-Z_SOLAR_TLE 3 -Z SOLAR RTN 5			4 +X_SOLAR_TLE 6 +X SOLAR RTN	
-Z_SOLAR_RIN 5	8 +X_SOLAR_PWR	-Z_SOLAR_PWR 7	8 +X_SOLAR_PWR	-Z_SOLAR_RTN 5	6 +X_SOLAR_ 8 +X_SOLAR_F		8 +X_SOLAR_PWR	
H1-1 9	10 H1-2	H1-1 9	10 H1-2	H1-1 9	10 H1-2	H1-1 9	10 H1-2	
H2-1 11	12 H2-2	H2-1 11	12 H2-2	H2-1 11	12 H2-2	H2-1 11	12 H2-2	
H1-3 13	14 H1-4	H1-3 13	14 H1-4	H1-3 13	14 H1-4	H1-3 13	14 H1-4	
H2-3 15	16 H2-4	H2-3 15	16 H2-4	H2-3 15	16 H2-4	H2-3 15	16 H2-4	
H1-5 17	18 H1-6	H1-5 17	18 H1-6	H1-5 17	18 H1-6	H1-5 17	18 H1-6	
H2-5 19	20 H2-6	H2-5 19	20 H2-6	H2-5 19	20 H2-6	H2-5 19	20 H2-6	
H1-7 21	22 H1-8	H1-7 21	22 H1-8	H1-7 21	22 H1-8	H1-7 21	22 H1-8	
H2-7 23	24 H2-8	H2-7 23	24 H2-8	H2-7 23	24 H2-8	H2-7 23	24 H2-8	
H1-9 25	26 H1-10	H1-9 25	26 H1-10	H1-9 25	26 H1-10	H1-925	26 H1-10	
H2-9 27	28 H2-10	H2-9 27	28 H2-10	H2-9 27	28 H2-10	H2-9 27_	28 H2-10	
H1-11 29	30 H1-12	H1-11 29	30 H1-12	H1-11 29	30 H1-12	H1-11 29	30 H1-12	
H2-11 31	32 H2-12	H2-11 31	32 H2-12	H2-11 31	32 H2-12	H2-11 31	32 H2-12	
H1-13 33	34 H1-14	H1-13 33	34 H1-14	H1-13 33	34 H1-14	H1-13 33	34 H1-14	
H2-13 35	36 H2-14	H2-13 35	36 H2-14	H2-13 35	36 H2-14	H2-13	36 H2-14	
RBF 37	38 H1-16	RBF 37	38 H1-16	RBF 37	38 H1-16		38 H1-16	
H2-15 39 H1-17 41	40 H2-16	H2-15 39 H1-17 41	40 H2-16	H2-15 39	40 H2-16	H2-15 39	40 H2-16	
H1-17 41 H2-17 43	42 H1-18 44 H2-18	H2-17 41 H2-17 43	42 H1-18 44 H2-18	H1-17 41 H2-17 43	42 H1-18 44 H2-18	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	42 H1-18 44 H2-18	
H1-19 45	44 H1-20	H1-19 45	46 H1-20	$\frac{-12-17}{H1-19}$ 45	46 H1-20	$\frac{-17}{11-19}$	46 H1-20	
H2-19 47	48 H2-20	H2-19 47	48 H2-20	H2-19 47	48 H2-20	H2-19 47	48 H2-20	
H1-21 49	50 H1-22	H1-21 49	50 H1-22	H1-21 49	50 H1-22	H1-21 49	50 H1-22	
H2-21 51	52 H2-22	H2-21 51	52 H2-22	H2-21 51	52 H2-22	H2-21 51	52 H2-22	
H1-23 53	54 H1-24	H1-23 53	54 H1-24	H1-23 53	54 H1-24	H1-23 53	54 H1-24	
H2-23 55	56 H2-24	H2-23 55	56 H2-24	H2-23 55	56 H2-24	H2-23 55	56 H2-24	
H1-25 57	58 H1-26	H1-25 57	58 H1-26	H1-25 57	58 H1-26	H1-25 57	58 H1-26	
H2-25 59	60 H2-26	H2-25 59	60 H2-26	H2-25 59	60 H2-26	H2-25 59	60 H2-26	
H1-27 61	62 H1-28	H1-27 61	62 H1-28	H1-27 61	62 H1-28	H1-27 61	62 H1-28	
H2-27 63	64 H2-28	H2-27 63	64 H2-28	H2-27 63	64 H2-28	H2-27 63	64 H2-28	
BUS_RESET 65	66 H1-30	BUS_RESET 65	66 H1-30	BUS_RESET 65	66 H1-30	BUS_RESET65	66 H1-30	
GND67	68 GND		68 GND		68 GND	GND67	68GND	
H1-31 69	70 5V_USB	H1-31 69	70 5V_USB	H1-31 69	70 5V_USB	H1-31 69		
AGND 71	72 GND	AGND 71	72 GND	AGND 71	72 GND	AGND	72 GND	
H1-33 73	74 H1-34	H1-33 73	74 H1-34	H1-33 73	74 H1-34	H1-33 73	74 H1-34 76 H2-34	
H2-33 75 H1-35 77	76 H2-34 78 H1-36	H2-33 75 H1-35 77	76 H2-34 78 H1-36	H2-33 75 H1-35 77	76 H2-34 78 H1-36	H2-33 75 H1-35 77	76 H2-34 78 H1-36	
$\frac{H1-35}{H2-35}$ 79	80 H2-36	H2-35 79	80 H2-36	H2-35 79	80 H2-36	$\frac{-1235}{-12}$	80 H2-36	
H1-37 81	82 H1-38	H1-37 81	82 H1-38	H1-37 81	82 H1-38	H1-37 81	82 H1-38	
H2-37 83	84 H2-38	H2-37 83	84 H2-38	H2-37 83	84 H2-38	H2-37 83	84 H2-38	
H1-39 85	86 H1-40	H1-39 85	86 H1-40	H1-39 85	86 H1-40	H1-39 85	86 H1-40	
H2-39 87	88 H2-40	H2-39 87	88 H2-40	H2-39 87	88 H2-40	H2-39 87	88 H2-40	
H1-41 89	90 H1-42	H1-41 89	90 H1-42	H1-41 89	90 H1-42	H1-41 89	90 H1-42	
H2-41 91	92 H2-42	H2-41 91	92 H2-42	H2-41 91	92 H2-42	H2-41 91	92 H2-42	
H1-43 93	94 H1-44	H1-43 93	94 H1-44	H1-43 93	94 H1-44	H1-43 93	94 H1-44	
H2-43 95	96 H2-44	H2-43 95	96 H2-44	H2-43 95	96 H2-44	H2-43 95	96 H2-44	
H1-45 97	98 H1 – 46	H1-45 97	98 H1 – 46	H1-45 97	98 H1-46	H1-45 97_	98 H1-46	
H2-45 99	100 H2-46	H2-45 99	100 H2-46	H2-45 99	100 H2-46	H2-45 99	100 H2-46	
SELF_TEST 101	102 USER_1	SELF_TEST 101	102 USER_1	SELF_TEST 101	102 USER_1	SELF_TEST 101	102 USER_1	
GND 103 USER_2 105	104 GND 106 USER_3	GND 103 USER_2 105	104 GND 106 USER_3	GND 103 USER_2 105	104 GND 106 USER_3	GND 103 USER_2 105	104 GND 106 USER_3	
H2-49 105	106 USER_3 108 H2-50	H2-49 107	106 USER_S 108 H2-50	H2-49 107	106 USER_3 108 H2-50	H2-49 107	108 H2-50	
H1-51 109	110 H1-52	H1-51 109	110 H1-52	-12-49 107 109	110 H1-52	$\frac{-107}{-109}$	110 H1-52	
H2-51 109 H2-51 111	110 H1-52 112 H2-52	H2-51 109 H2-51 111	110 H1-52 112 H2-52	$\frac{-11-51}{111}$	110 H1-52 112 H2-52	$\frac{-109}{-109}$	110 H1-52 112 H2-52	End of CSK B
+Y_SOLAR_TLE 113	114 -X_SOLAR_TLE_	+Y_SOLAR_TLE 113	114 -X_SOLAR_TLE	+Y_SOLAR_TLE 113	114 -X_SOLAR_TL		114 -X_SOLAR_TLE	OI CSK D
+Y_SOLAR_RTN 115	116 -X_SOLAR_RTN	+Y_SOLAR_RTN 115	116 -X_SOLAR_RTN	+Y_SOLAR_RTN 115	116 -X_SOLAR_R		116 -X_SOLAR_RTN	
+Y_SOLAR_PWR 117	118 -X_SOLAR_PWR	+Y_SOLAR_PWR 117	118 -X_SOLAR_PWR	+Y_SOLAR_PWR 117	118 -X_SOLAR_P		118 -X_SOLAR_PWR	
SEP3 119	120 SEP4	SEP3 119	120 SEP4	SEP3 119	120 SEP4	SEP3 119	120 SEP4	
_		_				_		

	200_1		J200_3			J200_5				J200_7	
	D1-S-DV-A-K-TR		C8-160-01-S-D		HSEC8-160	-01-S			HSEC8-160	-01-S-D\	
SEP1 1	2 SEP2	SEP1	1 2	SEP2	SEP1 1			P2	SEP1 1	- 2	SEP2
Z_SOLAR_TLE 3		OLAR_TLEZ_SOLAR_		+X_SOLAR_TLE	Z_SOLAR_TLE	—		X_SOLAR_TLE	Z_SOLAR_TLE 3		+X_SOLAR_TLE
-Z_SOLAR_RTN 5		OLAR_RTNZ_SOLAR_				<u> </u>		X_SOLAR_RTN	Z_SOLAR_RTN		+X_SOLAR_RTN
Z_SOLAR_PWR7		DLAR_PWRZ_SOLAR_			Z_SOLAR_PWR	_ =		<u>SOLAR_PWR</u>	Z_SOLAR_PWR		+X_SOLAR_PWR
H1-1 9	10 H1-2		9 10					2	H1-1 9		
H2-1 11	12 H2-2		11 12		H2-1 1			2-2	H2-1 1		
H1-3 13	14 H1-4		13 14		H1-3 1			. – 4	<u>H1-3</u> 1		
H2-3 15	16 H2-4		15 16		H2-3 1			2-4	<u>H2-3</u> 1		
<u>H1-5</u> 17	18 H1-6		17 18		<u>H1-5</u> 1			. – 6	<u>H1-5</u> 1		
H2-5 19	20 H2-6		19 20		H2-5 <u>1</u>			2-6	H2-5		
H1-7 21	22 H1-8		21 22		<u>H1-7</u> 2			. – 8	<u>H1-7</u> 2		
H2-7 23	24 H2-8		23 24		<u>H2-7</u> 2			2-8	<u>H2-7</u> 2		
<u>H1-9 25</u>	26 H1-1		25 26		<u>H1-9</u> 2			10	<u>H1-9</u> 2		
H2-9 <u>27</u>	28 H2-1		27 28		<u>H2-9</u> 2			2-10	<u>H2-9</u> 2		
H1-11 29	30 H1-1		29 30		H1-11 2			_12	H1-112		
H2-11 31	32 H2-1	2 H2-11	31 32	H2-12	H2-113		32 H2	2-12	H2-113	1 32	H2-12
H1-13 33	34 H1-1		33 34		H1-13 3	3		. – 14	H1-133	3 34	H1-14
H2-13 35	36 H2-1	4 H2-13	35 36	H2-14	H2-13 3	5	36 H2	2-14	H2-13 3		
RBF 37	38 H1-1	6 RBF	37 38		RBF 3	7	38 H1	-16	RBF 3		
H2-15 39	40 H2-1		39 40		H2-15 3			2-16	H2-15 3		
H1-17 41	42 H1-1		41 42		H1-17 4			18	H1-17 4		
H2-17 43	44 H2-1		43 44		H2-17 4			2-18	H2-17 4		
H1-19 45	46 H1-2		45 46		H1-19 4			20	H1-19 4		
H2-19 47	48 H2-2		47 48		H2-19 4			2-20	H2-19 4		
H1-21 49	50 H1-2		49 50		H1-21 4			22	H1-21 4		
H2-21 51	52 H2-2		51 52		H2-21 5			2-22	H2-21 5		
H1-23 53	54 H1-2		53 54		H1-23 5	₹		24	H1-23 5		
H2-23 55	56 H2-2		55 56		H2-23 5			2-24	H2-23 5		
H1-25 57	58 H1-2		57 58		H1-25 5			.–26	H1-25 5	7 58	
H2-25 59	60 H2-20		59 60		H2-25 5			2-26	H2-25 5		
H1-27 61	62 H1-2		61 62		H1-27 6			28	H1-27 6		
$\frac{11-27}{H2-27}$ 63	64 H2-2		63 64		$\frac{11-27}{H2-27}$ 6			2-28	H2-27 6		
BUS_RESET 65	66 H1-30		65 66		BUS_RESET 6			-30	BUS_RESET 6		
GND 67	68 GND	GND	67 68		GND 6		68 GN		GND 6		
H1-31 69	70 5V_USE		69 70		H1-31 6			USB	H1-31 6		
AGND 71	72 GND 74 H1-34	AGND	71 72		AGND 7		72 GN 74 H1-		AGND 7		GND H1-34
H1-33 73									H1-33 7		
H2-33 75	76 H2-34		75 76		H2-33 7		76 H2-		H2-33 7		
H1-35 77	78 H1-36		77 78		H1-35 7		78 H1-		H1-35 7		
H2-35 79	80 H2-36		79 80		H2-35 7		80 H2-		H2-35 7		
H1-37 81	82 H1-38		81 82		H1-37 8		82 H1-		H1-37 8		
H2-37 83	84 H2-38		83 84		H2-37 8		84 H2-		H2-37 8		
H1-39 85	86 H1-40		85 86		H1-39 8		86 H1-		H1-39 8		
H2-39 87	88 H2-40		87 88		H2-39 8		88 H2-		H2-39 8		
H1-41 89	90 H1-42		89 90		H1-41 8		90 H1-		<u>H1-41</u> 8		
H2-41 91	92 H2-42		91 92		H2-41 9		92 H2-		H2-41 9		
H1-43 93	94 H1-44		93 94		H1-43 9		94 H1-		H1-43 9		
H2-43 95	96 H2-44		95 96		H2-43 9		<u>96</u> H2-		H2-439		
H1-45 97	98 H1-46		97 98		<u>H1-45</u> 9		<u>98</u> H1-		<u>H1-45</u>		
H2-45 99	100 H2-46		99 10		H2-45 9		<u> 100</u> H2-		<u>H2-45</u> 9		
SELF_TEST 101	102		101 10		SELF_TEST 10		<u> 102</u> USE		SELF_TEST 10		
GND 103	104 GND	GND	103 10	4 GND	GND 10		L04 GN	D	GND 10	3 104	
USER_2 105	106 USER_3	3 USER_2	105 10		USER_2 10)5		R_3	USER_2 10	5 106	
H2-49 107	108 H2-50	H2-49	107 10	8 H2-50	H2-49 10		108 H2-	-50	H2-49 10		
H1-51 109	110 H1-52		109 11		H1-51 10		110 H1-		H1-51 10		
H2-51 111	112 H2-52		111 11		H2-51 11		L12 H2-		H2-51 11		
+Y_SOLAR_TLE 113		LAR_TLE +Y_SOLAR_			+Y_SOLAR_TLE 11			SOLAR_TLE	+Y_SOLAR_TLE 11		
+Y_SOLAR_RTN 115		LAR_RTN +Y_SOLAR_			+Y_SOLAR_RTN 11			SOLAR_RTN	+Y_SOLAR_RTN 11		
+Y_SOLAR_PWR 117	118 -X_SOI	LAR_PWR +Y_SOLAR_			+Y_SOLAR_PWR 11			SOLAR_PWR	+Y_SOLAR_PWR 11		
SFP3 119	120 SEP4	SFP3	119 12		SEP3 11		120 SEE		SEP3 11		

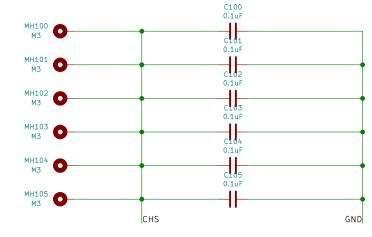
BACKPLANE CONNECTORS ARE NUMBERED FROM BOTTOM OF STACK CONTACT RATING 2.8A PER PIN

COPPER THICKNESS: 20Z TRACE WIDTH: 0.5mm VIA SIZE: 0.2mm DRILL, 0.5mm PAD

Solar Connectors

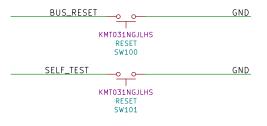


Mounting Holes



User Switches

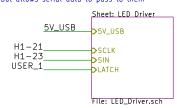
Configure pin on PPM/Motherboard/mainboard to have an internal pull up for H1—47 (USERO) for SELF_TEST input.



CHS CHS GND GND

LED Driver

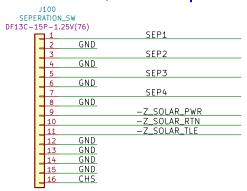
SIN and SCLK are connected to the SD00 and SCK0 pins on the bus respectively USER.1 (active high) not only activates the latch on $\rm U600-601$ but allows serial data to pass to them



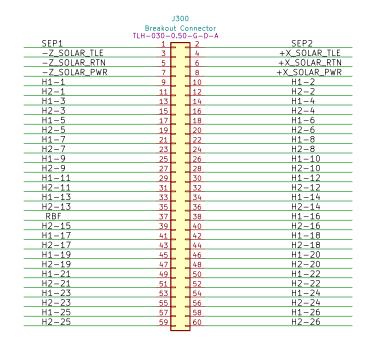
CHS, GND Jumper



Seperation Switches, -Z solar panel Connector









BACKPLANE BREAKOUT CONNECTOR IS ONLY USED FOR GROUND TESTING CONTACT RATING 2.1A PER PIN TRACE WIDTH: 0.25mm VIA SIZE: 0.2mm DRILL, 0.5mm PAD

BACKPL	ANE	todo: add burn wire connectors?		
C. Kornowski				
C. Hillis				
Sierra Lobo, Ir	ıc.			
Sheet: / File: backplane	e.sch			
Title: back	plane-	SchDoc		
Size: C	Date	: 2021-12-10	R	ev: A1

