DUMMY TAIL PCBS 1 of 2 REV3.0 Tony smith 12/02/05

LONG TAIL A (SHORTEST IN EXPERIMENT with Lpool Hybrid)

JM A,B,C,D ARE 20 PIN HEADERS WHICH ALLOW THE 5 CONTROL LINES ARRIVING ON J4 TO BE CONNECTED ACROSS TO J11 WHEN USING THE NIKHEF HYBRID THE BOARD HAS CUTTABLE LINKS BETWEEN JMA AND JMB TO PROVIDE A DEFAULT FOR THE LIVERPOOL HYBRID. FOR THE NIKHEF HYBRID A 20 WAY RIBBON CABLE IS REQUIRED BETWEEN JMC AND JMB.
EVEN NUMBERED PINS ON THESE CONNECTORS ARE GROUNDED

JM A,B,C,D ARE 20 PIN HEADERS WHICH ALLOW THE 5 CONTROL LINES ARRIVING

PRELIMINARY

AMP 177983-4 receptacle

J1

JMA3 C JMB3
JMA1 C JMB1
JMA7 C JMB7
JMA5 C JMB5
JMA13 C JMB13
JMA15 C JMB15
JMA17 C JMB17
JMA19 C JMB19
JMA9 C JMB9
JMA11 C JMB11

USE MALE PART IF NOT USING FEEDTHROUGHS

50 WAY CANNON FEMALE NUMBERED AS MALE PART

J11

GND	GND	17	50
VCC1	VCC1	33	49
S22_p	sense1+	91	32
S22_n	sense1-	48	15
S21_p	SDA	31	47
S21_n	SDARET	14	30
S20_p	ANA1-3	46	13
S20_n	ANA1-3N	29	45
S19_p	ANA1-2	12	28
S19_n	ANA1-2N	44	11
S18_p	ANA1-1	27	43
S18_n	ANA1-1N	10	26
S17_p	ANA1-0	42	9
S17_n	ANA1-0N	25	41
S16_p	ANA0-3	8	24
S16_n	ANA0-3N	40	7
S15_p	ANA0-2	23	39
S15_n	ANA0-2N	6	22
S14_p	ANA0-1	38	5
S14_n	ANA0-1N	21	37
S13_p	ANA0-0	4	20
S13_n	ANA0-0N	36	3
S12_p	COMPCLK	19	35
S12_n	COMPCLKN	2	18
GND	GND	34	1
VCC1	VCC1		
S11_p	SCL		
S11_n	SCL-RET		
S10_p	ANA3-3		
S10_n	ANA3-3N		
S9_p	ANA3-2		
S9_n	ANA3-2N		
S8_p	ANA3-1		
S8_n	ANA3-1N		
S7_p	ANA3-0		
S7_n	ANA3-0N		
S6_p	ANA2-3		
S6_n	ANA2-3N		
S5_p	ANA2-2		
S5_n	ANA2-2N		
S4_p	ANA2-1		
S4_n	ANA2-1N		
S3_p	ANA2-0		
S3_n	ANA2-0N		
S2_p	CLOCK		
S2_n	CLOCKN		
S1_p	TRIGGER		
S1_n	TRIGGERN		
GND	GND		
VCC1	VCC1		

FT11 FEEDTHROUGH

K11 50 WAY CANNON FEMALE

N.B. NIKHEF HYBRIDS HAVE CONNECTORS ON WRONG SIDE OF TAILS SO THE PINOUT IS DIFFERENT. eSSENTIALLY ALL THE ANALOG CHANNELS ARE IN REVERSE ORDER AND CONTROL LINES ON THE OUTER TWO CABLES ARE SWAPPED BUT THE HT IS ON THE SAME CABLE.

LIVERPOOL HYBRID	NIKHEF HYBRIDS
GND	
VCC1	
sense1+	sense1+
sense1-	sense1-
SDA	
SDARET	
ANA1-3	ANA14-0
ANA1-3N	ANA14-0N
ANA1-2	ANA14-1
ANA1-2N	ANA14-1N
ANA1-1	ANA14-2
ANA1-1N	ANA14-2N
ANA1-0	ANA14-3
ANA1-0N	ANA14-3N
ANA0-3	ANA15-0
ANA0-3N	ANA15-0N
ANA0-2	ANA15-1
ANA0-2N	ANA15-1N
ANA0-1	ANA15-2
ANA0-1N	ANA15-2N
ANA0-0	ANA15-3
ANA0-0N	ANA15-3N
COMPCLK	
COMPCLKN	
GND	
VCC	
SCL	
SCL-RET	
ANA3-3	ANA12-0
ANA3-3N	ANA12-0N
ANA3-2	ANA12-1
ANA3-2N	ANA12-1N
ANA3-1	ANA12-2
ANA3-1N	ANA12-2N
ANA3-0	ANA12-3
ANA3-0N	ANA12-3N
ANA2-3	ANA13-0
ANA2-3N	ANA13-0N
ANA2-2	ANA13-1
ANA2-2N	ANA13-1N
ANA2-1	ANA13-2
ANA2-1N	ANA13-2N
ANA2-0	ANA13-3
ANA2-0N	ANA13-3N
CLOCK	
CLOCKN	
TRIGGER	
TRIGGERN	
GND	
VCC1	

PRELIMINARY

PRELIMINARY

LONG TAIL B

AMP 177983-4 receptacle

J2

USE MALE PART IF NOT USING FEEDTHROUGHS

50 WAY CANNON FEMALE NUMBERED AS MALE PART

J12

GND	GND	17	50
VCC2	VCC2	33	49
S22_p	NTCB	91	32
S22_n	NTCA	48	15
S21_p	NTCA2	31	47
S21_n	NTCB2	14	30
S20_p	ANA5-3	46	13
S20_n	ANA5-3N	29	45
S19_p	ANA5-2	12	28
S19_n	ANA5-2N	44	11
S18_p	ANA5-1	27	43
S18_n	ANA5-1N	10	26
S17_p	ANA5-0	42	9
S17_n	ANA5-0N	25	41
S16_p	ANA4-3	8	24
S16_n	ANA4-3N	40	7
S15_p	ANA4-2	23	39
S15_n	ANA4-2N	6	22
S14_p	ANA4-1	38	5
S14_n	ANA4-1N	21	37
S13_p	ANA4-0	4	20
S13_n	ANA4-0N	36	3
S12_p		19	35
S12_n		2	18
GND	GND	34	1
VCC2	VCC2		
S11_p	TEMPV+		
S11_n	TEMPLEFT		
S10_p	ANA7-3		
S10_n	ANA7-3N		
S9_p	ANA7-2		
S9_n	ANA7-2N		
S8_p	ANA7-1		
S8_n	ANA7-1N		
S7_p	ANA7-0		
S7_n	ANA7-0N		
S6_p	ANA6-3		
S6_n	ANA6-3N		
S5_p	ANA6-2		
S5_n	ANA6-2N		
S4_p	ANA6-1		
S4_n	ANA6-1N		
S3_p	ANA6-0		
S3_n	ANA6-0N		
S2_p	TEMPMID		
S2_n	TEMPRIGHT		
S1_p	sense2+		
S1_n	sense2-		
GND	GND		
VCC2	VCC2		

FT12 FEEDTHROUGH

K12 50 WAY CANNON FEMALE

N.B. NIKHEF HYBRIDS HAVE CONNECTORS ON WRONG SIDE OF TAILS SO THE PINOUT IS DIFFERENT. eSSENTIALLY ALL THE ANALOG CHANNELS ARE IN REVERSE ORDER AND CONTROL LINES ON THE OUTER TWO CABLES ARE SWAPPED BUT THE HT IS ON THE SAME CABLE.

GND	GND
VCC2	VCC2
NTCB	NTCB
NTCA	NTCA
NTCA2	NTCA2
NTCB2	NTCB2
ANA5-3	ANA10-0
ANA5-3N	ANA10-0N
ANA5-2	ANA10-1
ANA5-2N	ANA10-1N
ANA5-1	ANA10-2
ANA5-1N	ANA10-2N
ANA5-0	ANA10-3
ANA5-0N	ANA10-3N
ANA4-3	ANA11-0
ANA4-3N	ANA11-0N
ANA4-2	ANA11-1
ANA4-2N	ANA11-1N
ANA4-1	ANA11-2
ANA4-1N	ANA11-2N
ANA4-0	ANA11-3
ANA4-0N	ANA11-3N
GND	GND
VCC2	VCC2
TEMPV+	
TEMPLEFT	
ANA7-3	ANA8-0
ANA7-3N	ANA8-0N
ANA7-2	ANA8-1
ANA7-2N	ANA8-1N
ANA7-1	ANA8-2
ANA7-1N	ANA8-2N
ANA7-0	ANA8-3
ANA7-0N	ANA8-3N
ANA6-3	ANA9-0
ANA6-3N	ANA9-0N
ANA6-2	ANA9-1
ANA6-2N	ANA9-1N
ANA6-1	ANA9-2
ANA6-1N	ANA9-2N
ANA6-0	ANA9-3
ANA6-0N	ANA9-3N
TEMPMID	
TEMPRIGHT	
sense2+	sense2+
sense2-	sense2-
GND	GND
VCC2	VCC2

PRELIMINARY

PRELIMINARY