IDL_14_023_XRM_MOTHERBOARD_REVA

Changed to SCROD REVB
Power levels for SCROD:

RAW1 : 1.87 Volts
RAW2: 3.15 Volts
RAW3: 4.33 Volts

Estimated Power Consumtion (max)

CLK Fanout: 165 mA

Fans: 4 x 130mA = 520 mA

Carriers : 4 x 17.330 W = 69.32 W = 18.864 A

Amplifiers: 4 x 7.5 W = 30 W = 6 A

SCROD RevB :

System total power consumtion = 25.549 A = 128 W

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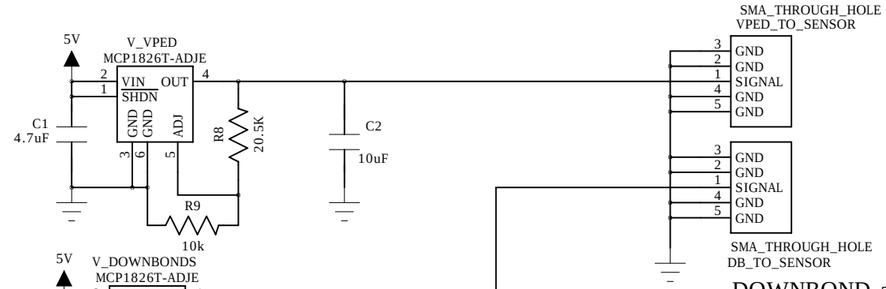
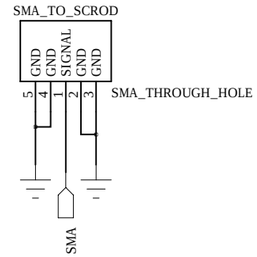
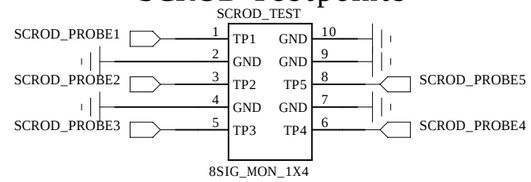


DOWNBOND and VPED to sensor box

Vertical SMA connector to SCROD

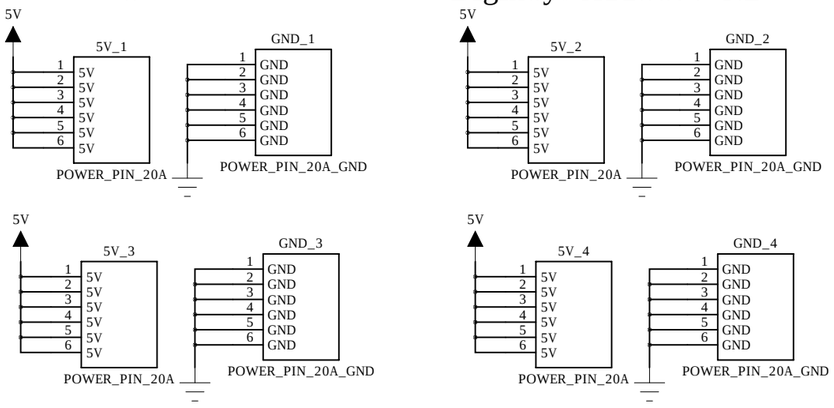


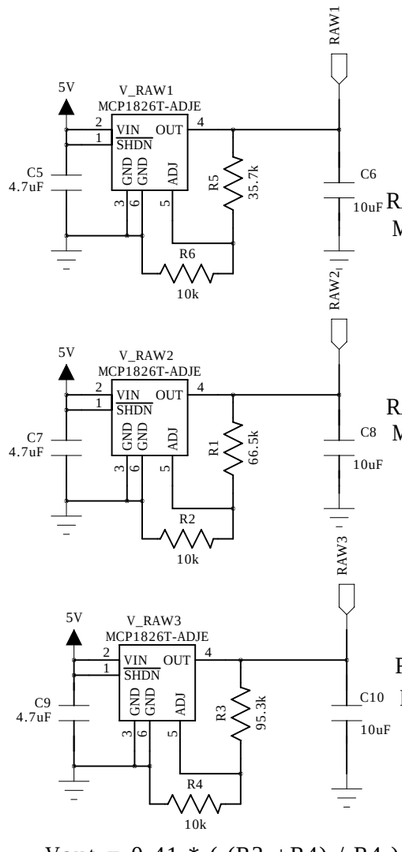
SCROD Testpoints



Power and ground connector

Digikey: A113877-ND





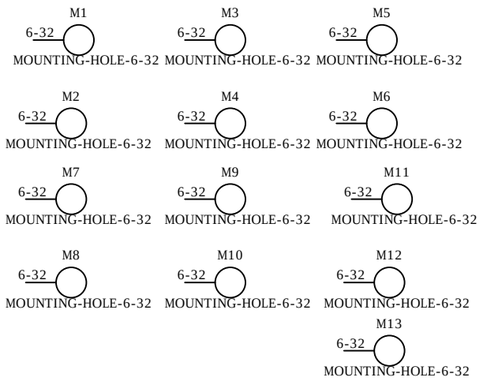
RAW1 : 1.87 Volts
MAX ESR 1 OHM

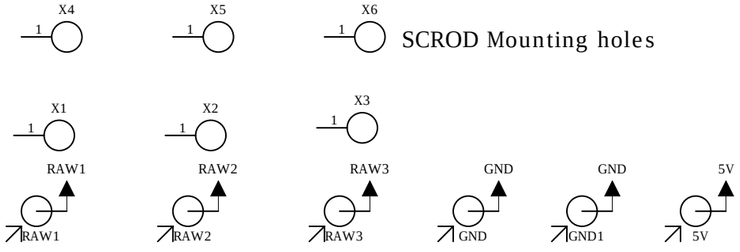
RAW2: 3.15 Volts
MAX ESR 1 OHM

RAW3: 4.33 Volts
MAX ESR 1 OHM

Vout = 0.41 * ((R3 +R4) / R4)
Keep R4 between 10k - 200k

Board mounting holes

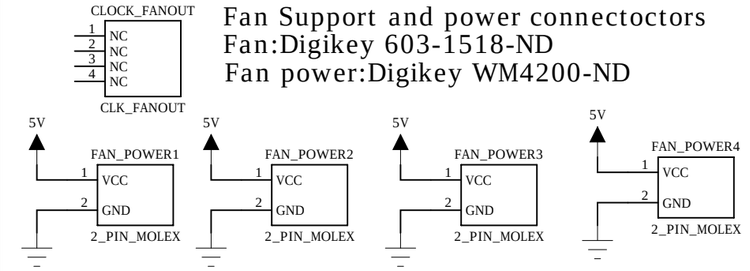




Voltage testpoints

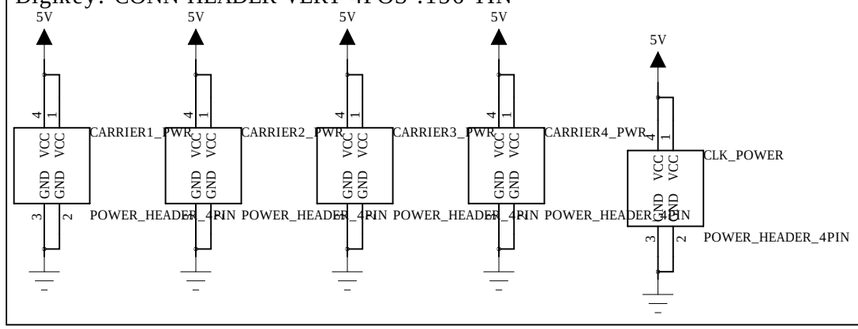
Fan Support and power connectoctors

Fan:Digikey 603-1518-ND
Fan power:Digikey WM4200-ND



Carrier and CLK Fanout power connectors

Digikey: CONN HEADER VERT 4POS .156 TIN



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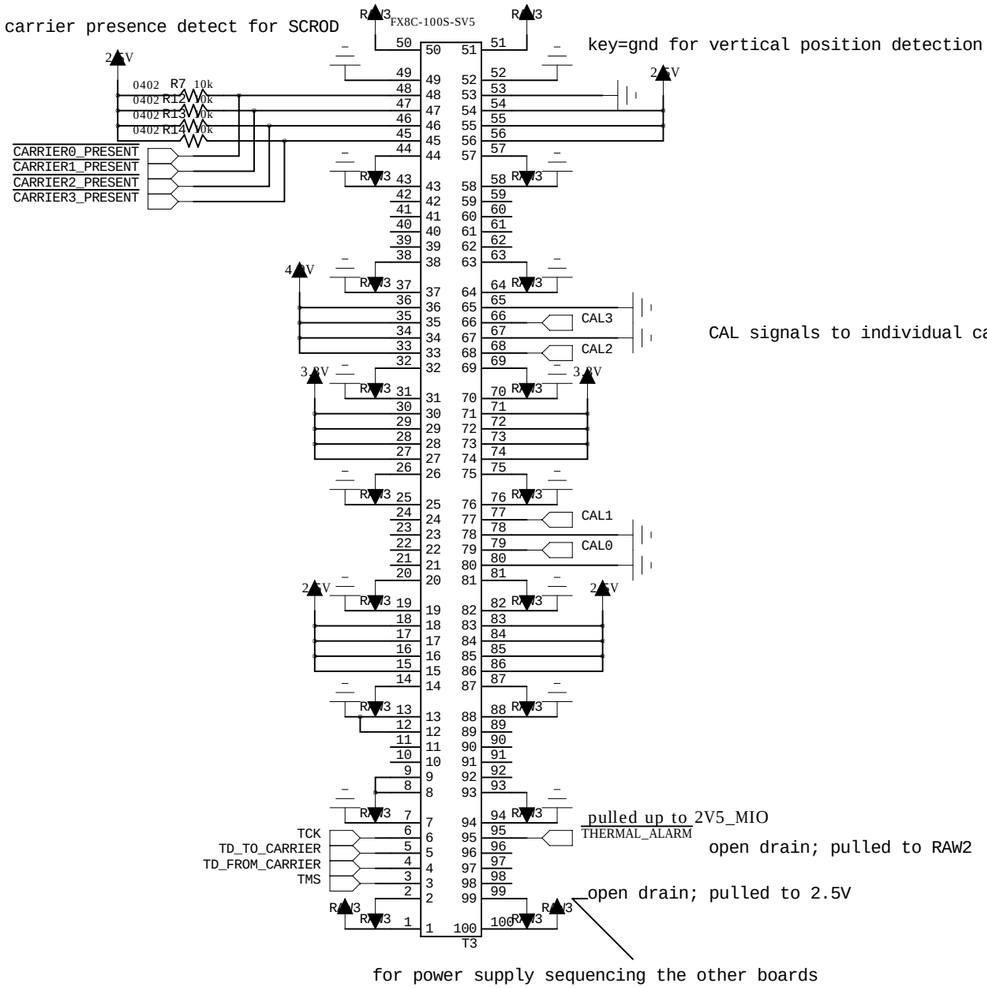
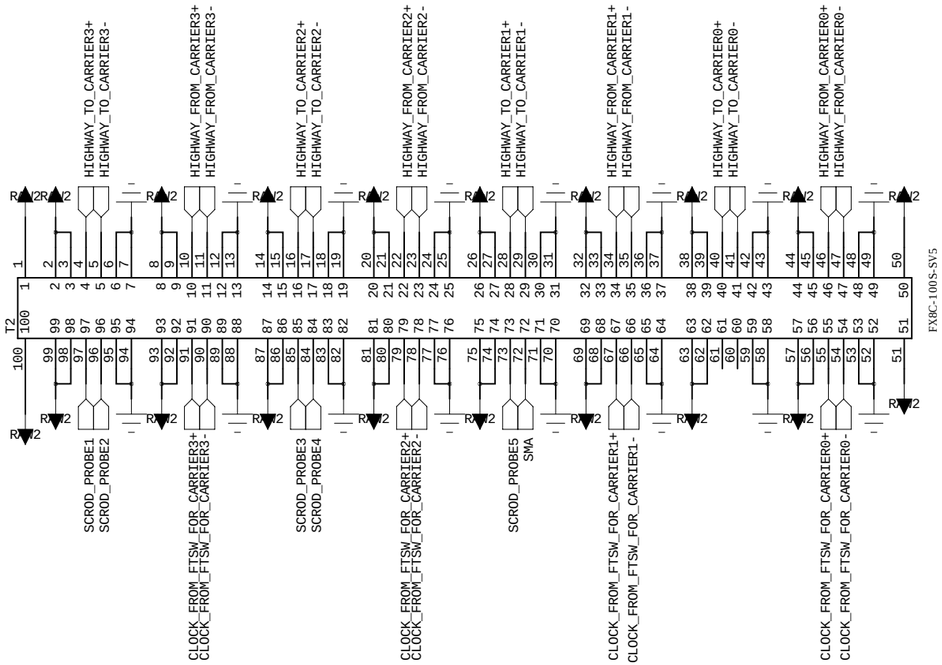
carrier presence detect for SCROD

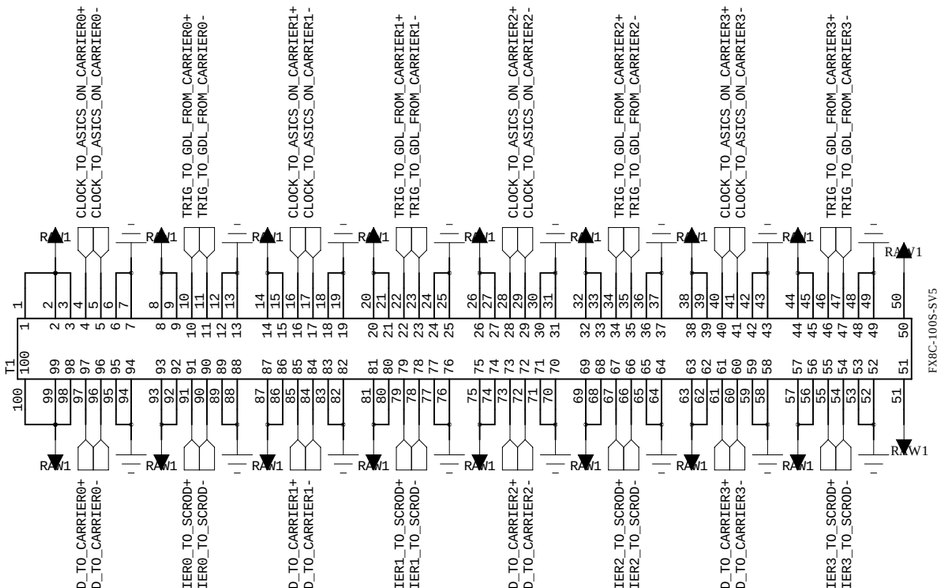
key=gnd for vertical position detection by carrier



CAL signals to individual carrier boards

for power supply sequencing the other boards





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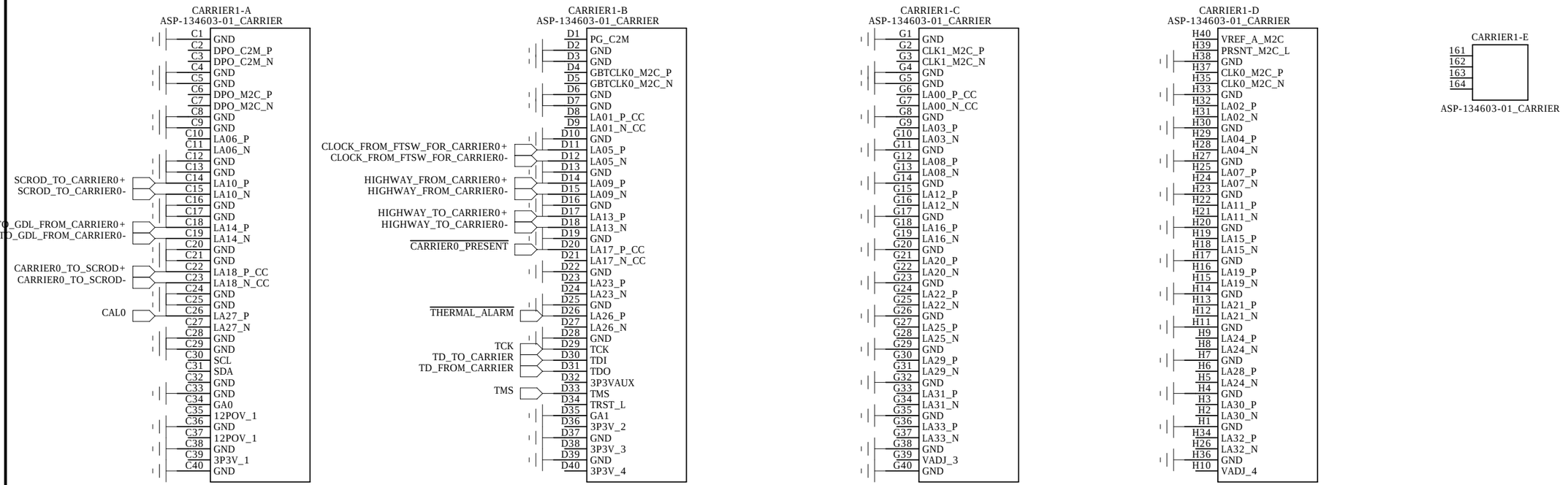

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Last Modified	22-SEPTEMBER-2014

CARRIER3-A
ASP-134603-01_CARRIER

	C1	GND
	C2	DPO_C2M_P
	C3	DPO_C2M_N
	C4	GND
	C5	GND
	C6	DPO_M2C_P
	C7	DPO_M2C_N
	C8	GND
	C9	GND
	C10	LA06_P
	C11	LA06_N
	C12	GND
	C13	GND
SCROD_TO_CARRIER2+	C14	LA10_P
SCROD_TO_CARRIER2-	C15	LA10_N
	C16	GND
	C17	GND
GDL_FROM_CARRIER2+	C18	LA14_P
C_GDL_FROM_CARRIER2-	C19	LA14_N
	C20	GND
	C21	GND
CARRIER2_TO_SCROD+	C22	LA18_P_CC
CARRIER2_TO_SCROD-	C23	LA18_N_CC
	C24	GND
	C25	GND
CAL2	C26	LA27_P
	C27	LA27_N
	C28	GND
	C29	GND
	C30	SCL
	C31	SDA
	C32	GND
GND	C33	GND
	C34	GA0
	C35	12POV_1
GND	C36	GND
	C37	12POV_1
GND	C38	GND
	C39	3P3V_1
GND	C40	GND

CARRIER3-B
ASP-134603-01_CARRIER

	D1	PG_C2M
	D2	GND
	D3	GND
	D4	GBTCLK0_M2C_P
	D5	GBTCLK0_M2C_N
	D6	GND
	D7	GND
	D8	LA01_P_CC
	D9	LA01_N_CC
CLOCK_FROM_FTSW_FOR_CARRIER2+	D10	GND
CLOCK_FROM_FTSW_FOR_CARRIER2-	D11	LA05_P
	D12	LA05_N
	D13	GND
HIGHWAY_FROM_CARRIER2+	D14	LA09_P
HIGHWAY_FROM_CARRIER2-	D15	LA09_N
	D16	GND
HIGHWAY_TO_CARRIER2+	D17	LA13_P
HIGHWAY_TO_CARRIER2-	D18	LA13_N
	D19	GND
CARRIER2_PRESENT	D20	LA17_P_CC
	D21	LA17_N_CC
	D22	GND
	D23	LA23_P
	D24	LA23_N
	D25	GND
THERMAL_ALARM	D26	LA26_P
	D27	LA26_N
	D28	GND
TCK	D29	TCK
TD_TO_CARRIER	D30	TDI
TD_FROM_CARRIER	D31	TDO
	D32	3P3VAUX
TMS	D33	TMS
	D34	TRST_L
	D35	GA1
	D36	3P3V_2
	D37	GND
	D38	3P3V_3
	D39	GND
	D40	3P3V_4

CARRIER3-C
ASP-134603-01_CARRIER

	G1	GND
	G2	CLK1_M2C_P
	G3	CLK1_M2C_N
	G4	GND
	G5	GND
	G6	LA00_P_CC
	G7	LA00_N_CC
	G8	GND
	G9	LA03_P
	G10	LA03_N
	G11	GND
	G12	LA08_P
	G13	LA08_N
	G14	GND
	G15	LA12_P
	G16	LA12_N
	G17	GND
	G18	LA16_P
	G19	LA16_N
	G20	GND
	G21	LA20_P
	G22	LA20_N
	G23	GND
	G24	LA22_P
	G25	LA22_N
	G26	GND
	G27	LA25_P
	G28	LA25_N
	G29	GND
	G30	LA29_P
	G31	LA29_N
	G32	GND
	G33	LA31_P
	G34	LA31_N
	G35	GND
	G36	LA33_P
	G37	LA33_N
	G38	GND
	G39	VADJ_3
	G40	GND

CARRIER3-D
ASP-134603-01_CARRIER

	H40	VREF_A_M2C
	H39	PRSNT_M2C_L
	H38	GND
	H37	CLK0_M2C_P
	H35	CLK0_M2C_N
	H33	GND
	H32	LA02_P
	H31	LA02_N
	H30	GND
	H29	LA04_P
	H28	LA04_N
	H27	GND
	H25	LA07_P
	H24	LA07_N
	H23	GND
	H22	LA11_P
	H21	LA11_N
	H20	GND
	H19	LA15_P
	H18	LA15_N
	H17	GND
	H16	LA19_P
	H15	LA19_N
	H14	GND
	H13	LA21_P
	H12	LA21_N
	H11	GND
	H9	LA24_P
	H8	LA24_N
	H7	GND
	H6	LA28_P
	H5	LA24_N
	H4	GND
	H3	LA30_P
	H2	LA30_N
	H1	GND
	H34	LA32_P
	H26	LA32_N
	H36	GND
	H10	VADJ_4

CARRIER3-E

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163	
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ASP-134603-01_CARRIER

CARRIER4-A
ASP-134603-01_CARRIER

	C1	GND
	C2	DPO_C2M_P
	C3	DPO_C2M_N
	C4	GND
	C5	GND
	C6	DPO_M2C_P
	C7	DPO_M2C_N
	C8	GND
	C9	GND
	C10	LA06_P
	C11	LA06_N
	C12	GND
	C13	GND
SCROD_TO_CARRIER3+	C14	LA10_P
SCROD_TO_CARRIER3-	C15	LA10_N
	C16	GND
	C17	GND
GDL_FROM_CARRIER3+	C18	LA14_P
GDL_FROM_CARRIER3-	C19	LA14_N
	C20	GND
	C21	GND
CARRIER3_TO_SCROD+	C22	LA18_P_CC
CARRIER3_TO_SCROD-	C23	LA18_N_CC
	C24	GND
	C25	GND
CAL3	C26	LA27_P
	C27	LA27_N
	C28	GND
	C29	GND
	C30	SCL
	C31	SDA
	C32	GND
GND	C33	GND
	C34	GA0
	C35	12POV_1
GND	C36	GND
	C37	12POV_1
GND	C38	GND
	C39	3P3V_1
GND	C40	GND

CARRIER4-B
ASP-134603-01_CARRIER

	D1	PG_C2M
	D2	GND
	D3	GND
	D4	GBTCLK0_M2C_P
	D5	GBTCLK0_M2C_N
	D6	GND
	D7	GND
	D8	LA01_P_CC
	D9	LA01_N_CC
CLOCK_FROM_FTSW_FOR_CARRIER3+	D10	GND
CLOCK_FROM_FTSW_FOR_CARRIER3-	D11	LA05_P
	D12	LA05_N
	D13	GND
HIGHWAY_FROM_CARRIER3+	D14	LA09_P
HIGHWAY_FROM_CARRIER3-	D15	LA09_N
	D16	GND
HIGHWAY_TO_CARRIER3+	D17	LA13_P
HIGHWAY_TO_CARRIER3-	D18	LA13_N
	D19	GND
CARRIER3_PRESENT	D20	LA17_P_CC
	D21	LA17_N_CC
	D22	GND
	D23	LA23_P
	D24	LA23_N
	D25	GND
THERMAL_ALARM	D26	LA26_P
	D27	LA26_N
	D28	GND
TCK	D29	TCK
TD_TO_CARRIER	D30	TDI
TD_FROM_CARRIER	D31	TDO
	D32	3P3VAUX
TMS	D33	TMS
	D34	TRST_L
	D35	GA1
	D36	3P3V_2
	D37	GND
	D38	3P3V_3
	D39	GND
	D40	3P3V_4

CARRIER4-C
ASP-134603-01_CARRIER

	G1	GND
	G2	CLK1_M2C_P
	G3	CLK1_M2C_N
	G4	GND
	G5	GND
	G6	LA00_P_CC
	G7	LA00_N_CC
	G8	GND
	G9	LA03_P
	G10	LA03_N
	G11	GND
	G12	LA08_P
	G13	LA08_N
	G14	GND
	G15	LA12_P
	G16	LA12_N
	G17	GND
	G18	LA16_P
	G19	LA16_N
	G20	GND
	G21	LA20_P
	G22	LA20_N
	G23	GND
	G24	LA22_P
	G25	LA22_N
	G26	GND
	G27	LA25_P
	G28	LA25_N
	G29	GND
	G30	LA29_P
	G31	LA29_N
	G32	GND
	G33	LA31_P
	G34	LA31_N
	G35	GND
	G36	LA33_P
	G37	LA33_N
	G38	GND
	G39	VADJ_3
	G40	GND

CARRIER4-D
ASP-134603-01_CARRIER

	H40	VREF_A_M2C
	H39	PRSNT_M2C_L
	H38	GND
	H37	CLK0_M2C_P
	H35	CLK0_M2C_N
	H33	GND
	H32	LA02_P
	H31	LA02_N
	H30	GND
	H29	LA04_P
	H28	LA04_N
	H27	GND
	H25	LA07_P
	H24	LA07_N
	H23	GND
	H22	LA11_P
	H21	LA11_N
	H20	GND
	H19	LA15_P
	H18	LA15_N
	H17	GND
	H16	LA19_P
	H15	LA19_N
	H14	GND
	H13	LA21_P
	H12	LA21_N
	H11	GND
	H9	LA24_P
	H8	LA24_N
	H7	GND
	H6	LA28_P
	H5	LA24_N
	H4	GND
	H3	LA30_P
	H2	LA30_N
	H1	GND
	H34	LA32_P
	H26	LA32_N
	H36	GND
	H10	VADJ_4

CARRIER4-E

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