

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
A	TL_INSERT	SAT_TXD	CP0_QACK*	SAT_RXD	CP1_QACK*	GND	I2C_SAT_DAT	OVDD	I2C_SAT_CLK	GND	TBEN	OVDD	PROCID_1	GND	CHKSTOP*	OVDD	ML_INSERT	GND	PROCID_0	OVDD	CP0_INT*	GND	CP1_SRESET*	OVDD	CP0_SRESET*	GND	CORE_SLEWING*	CP1_QREQ*	CP0_QREQ*	BL_INSERT
B	PP3V3_RUN_MLB	VDNAP	OVERTEMP*	SAT_MRESET*	OVDD	ADIN_37	GND	ADIN_36	OVDD	ADIN_43	GND	ADIN_41	OVDD	ADIN_16	GND	ADOUT_29	OVDD	ADOUT_40	GND	ADOUT_24	OVDD	ADOUT_22	GND	ADOUT_20	OVDD	ADOUT_26	GND	POWERFAIL*	PP1V2_OVDD_RUN_MLB	PP1V2_OVDD_RUN_MLB
C	TRIGGER_OUT	PP3V3_RUN_MLB	CP1_INT*	GND	ADIN_23	OVDD	ADIN_33	GND	ADIN_38	OVDD	ADIN_39	GND	ADIN_19	OVDD	ADIN_5	GND	ADOUT_17	OVDD	ADOUT_34	GND	ADOUT_25	OVDD	CLKOUT*	GND	ADOUT_12	OVDD	ADOUT_10	GND	TDI	PP1V2_OVDD_RUN_MLB
D	PP3V3_PWRON_MLB	SAT_CLK	OVDD	ADIN_24	GND	ADIN_31	OVDD	ADIN_32	GND	ADIN_27	OVDD	ADIN_26	GND	ADIN_40	OVDD	ADOUT_19	GND	ADOUT_38	OVDD	ADOUT_21	GND	ADOUT_37	OVDD	CLKOUT	GND	ADOUT_13	OVDD	PSYNC	TMS	PP1V2_OVDD_RUN_MLB
E	OVDD_ENABLE	SV_PP12V	SYSCLK	OVDD	ADIN_20	GND	ADIN_2	OVDD	ADIN_21	GND	ADIN_34	OVDD	ADIN_29	GND	ADIN_15	OVDD	ADOUT_18	GND	ADOUT_42	OVDD	ADOUT_43	GND	ADOUT_11	OVDD	ADOUT_9	GND	ADOUT_8	OVDD	TCK	PP1V2_OVDD_RUN_MLB
F	SV_PROC_SENSE_I	SYSCLK*	GND	ADIN_12	OVDD	ADIN_7	GND	ADIN_0	OVDD	ADIN_22	GND	ADIN_42	OVDD	ADIN_28	GND	ADOUT_28	OVDD	ADOUT_14	GND	ADOUT_30	OVDD	ADOUT_31	GND	ADOUT_2	OVDD	SROUT1*	GND	ADOUT_1	OVDD	TDO
G	AGND_SAT	OVDD	CLKIN*	GND	ADIN_8	OVDD	ADIN_3	GND	ADIN_1	OVDD	ADIN_25	GND	ADIN_35	OVDD	ADIN_4	GND	ADOUT_41	OVDD	ADOUT_35	GND	ADOUT_36	OVDD	ADOUT_5	GND	ADOUT_6	OVDD	SROUT1	GND	NC	NC
H	GND	CLKIN	OVDD	ADIN_10	GND	SRIN0*	OVDD	ADIN_6	GND	ADIN_11	OVDD	ADIN_30	GND	ADIN_17	OVDD	ADOUT_15	GND	ADOUT_39	OVDD	ADOUT_33	GND	ADOUT_32	OVDD	SROUT0	GND	SROUT0*	OVDD	ADOUT_7	GND	SV_CORE_VSNS
J	CPU1_TEMP	GND	ADIN_13	OVDD	SRIN0	GND	SRIN1*	OVDD	SRIN1	GND	ADIN_9	OVDD	ADIN_14	GND	ADIN_18	OVDD	ADOUT_16	GND	ADOUT_27	OVDD	ADOUT_23	GND	ADOUT_0	OVDD	ADOUT_4	GND	ADOUT_3	OVDD	NC	AGND_VCORE
K	TR_INSERT	NC	GND	CP0_HRESET*	OVDD	CP1_HRESET*	GND	BYPASS*	OVDD	NC	GND	NC	OVDD	MR_INSERT	GND	NC	OVDD	NC	GND	NC	OVDD	NC	GND	NC	OVDD	NC	GND	NC	CPU0_TEMP	BR_INSERT

NOTE: {SIGNAL}* means the inverse of {SIGNAL}

NOTE: Signal terminology is borrowed from PPC970MP datasheet & user manual

Processor Board Power Signals

SMU Sat Signals

SMU Sat I2C

SMU Sat UART?

Insert Detect

NOTE: insert detect signals should be shorted on the board, which allows the motherboard to recognize that processor board is properly seated due to the change in resistance (resistor on MB vs dead short on PB); BL_INSERT to ML_INSERT, TL_INSERT to TR_INSERT, MR_INSERT to BR_INSERT.

Processor Status/Control

Clock Control

Interrupts/Reset

Debug/Test Interface

Processor JTAG

Processor Interface Input (North Bridge to 970MP)

Processor Interface Output (970MP to North Bridge)

ACHTUNG: the ADIN29 and ADIN35 signals are swapped in the G5 Cypher version of the 300-pin connector compared to the G5 Omega; PI connections are otherwise identical. (Dicks!)

NOTE: while ADIN/ADOUT signals are 44-bit, they only carry 36 bits of data per clock edge; 8 out of 44 bits are used for the checksum, for more information on how the checksum is computed see 970FX User Manual