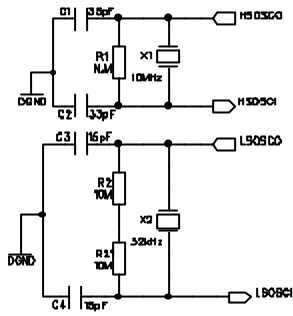
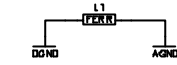


Main Schematic

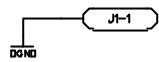
High and low speed oscillators



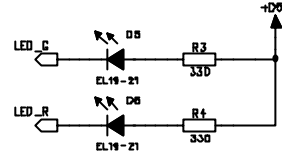
Ferrit beads to control ground current in the design.



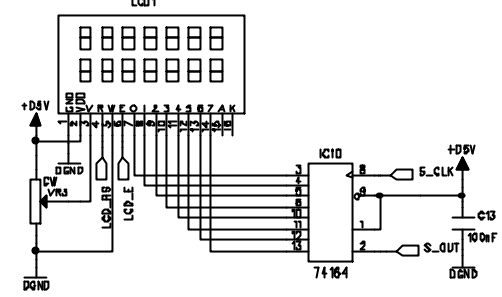
Ground PIN



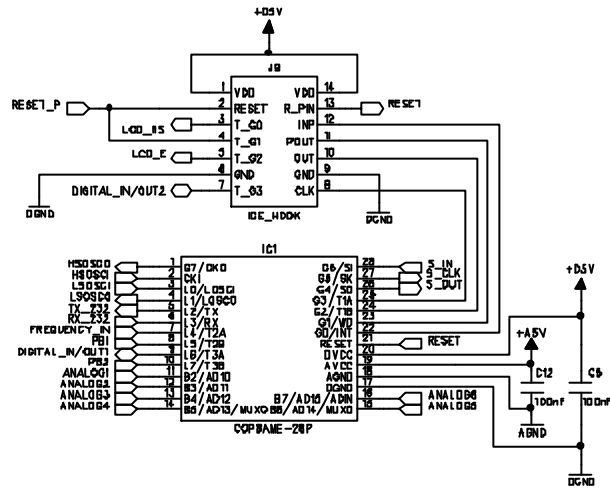
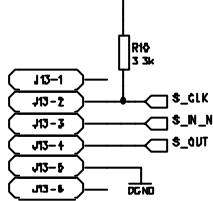
LED's connected to I/O



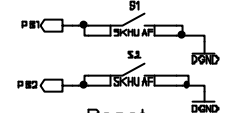
LCD display



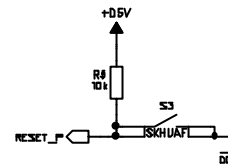
ISP interface



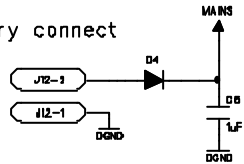
Push buttons



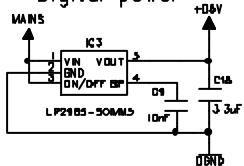
Reset



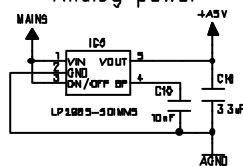
Battery connect



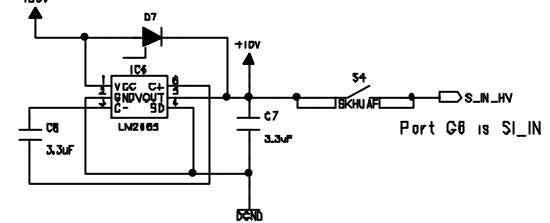
Digital power



Analog power



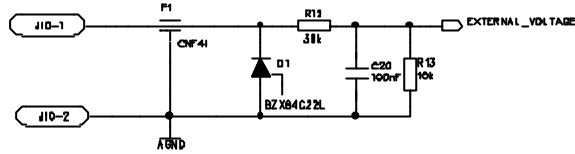
Hardware reset for ISP



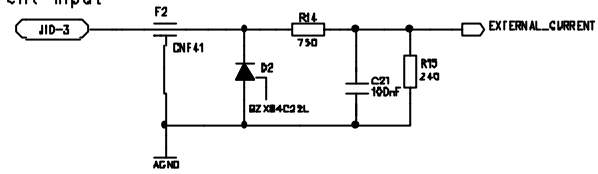
ABNW A Brand New World	Description: COP8AME reference design			
	File: COPB-REF-AME_Rev11.sch	Project no: NS4DXDD-Ranner	Scale: 1:1	
Prepared: FL	Checked: BC	Status: First Board	Rev: 1.1	Date: 010912
			Page: 1/3	

Analog Schematic

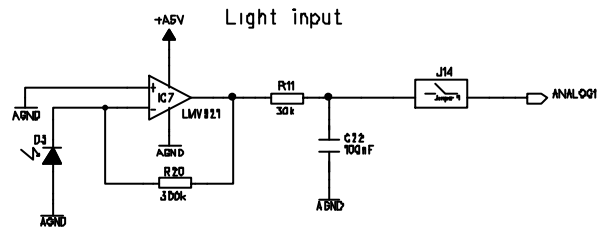
Voltage input



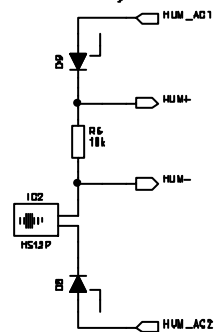
Current Input



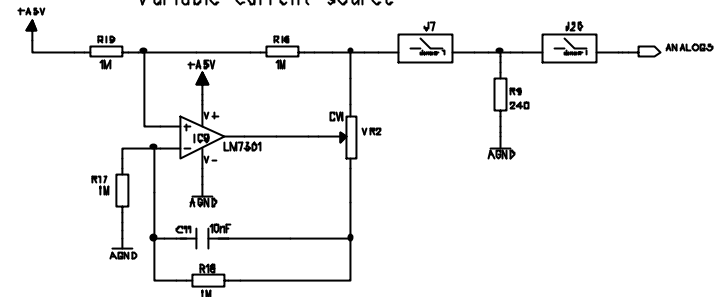
Light input



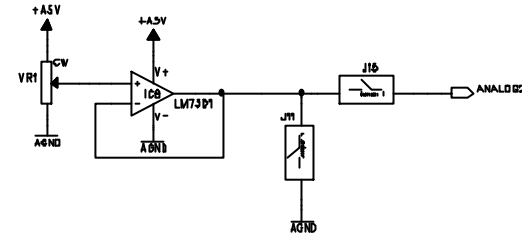
Humidity



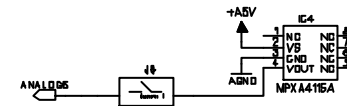
Variable current source



Variable voltage source

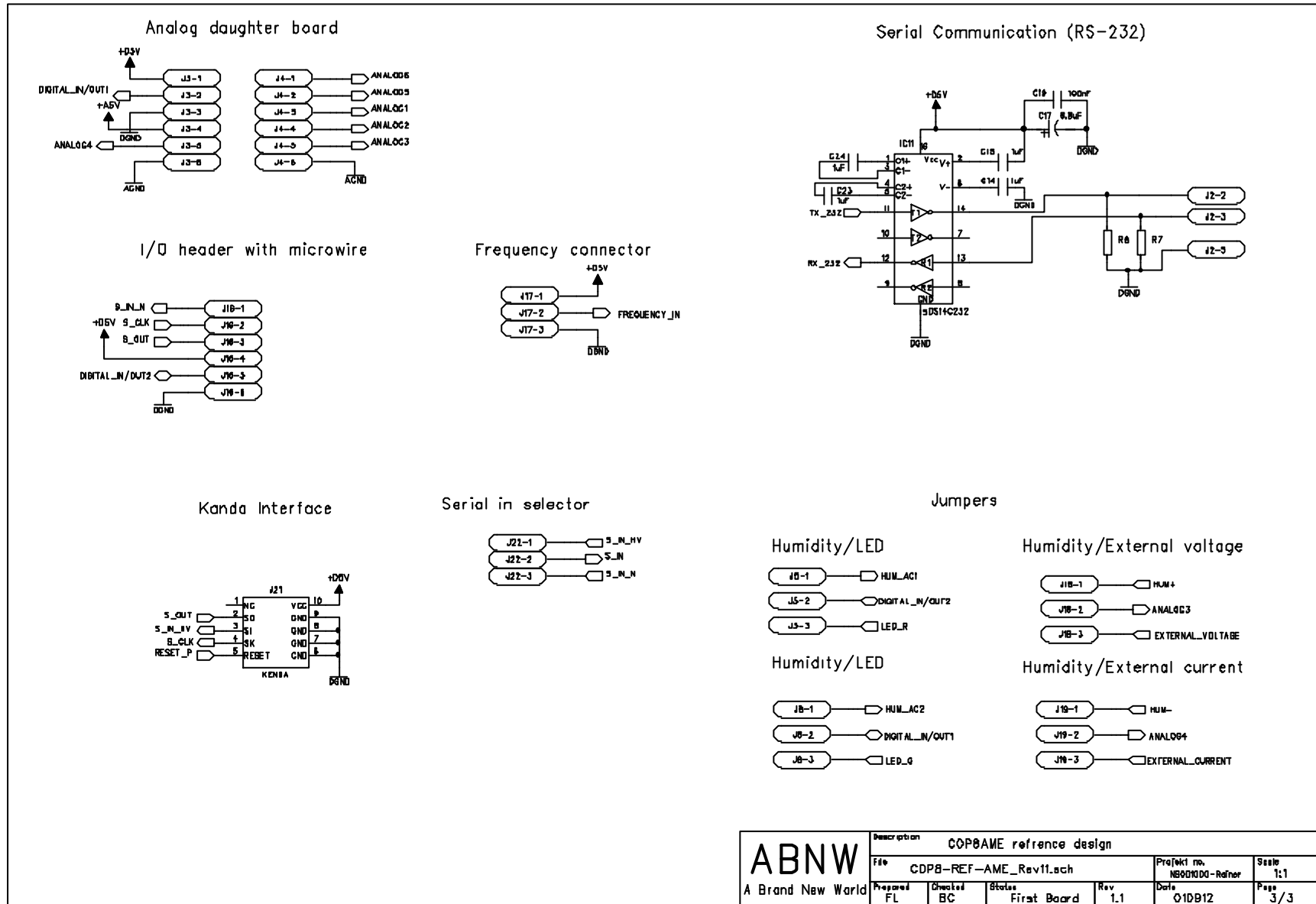


Atmospheric pressure



ABNW A Brand New World	Description COP8AME reference design			
	File GDP8-REF-AME_Rev11.sch	Project no. NSD01000-Romer	Scale 1:1	Date 01/09/12
Prepared FL	Checked BC	Status First Board	Rev 1.1	Page 2/3

Interface Schematic

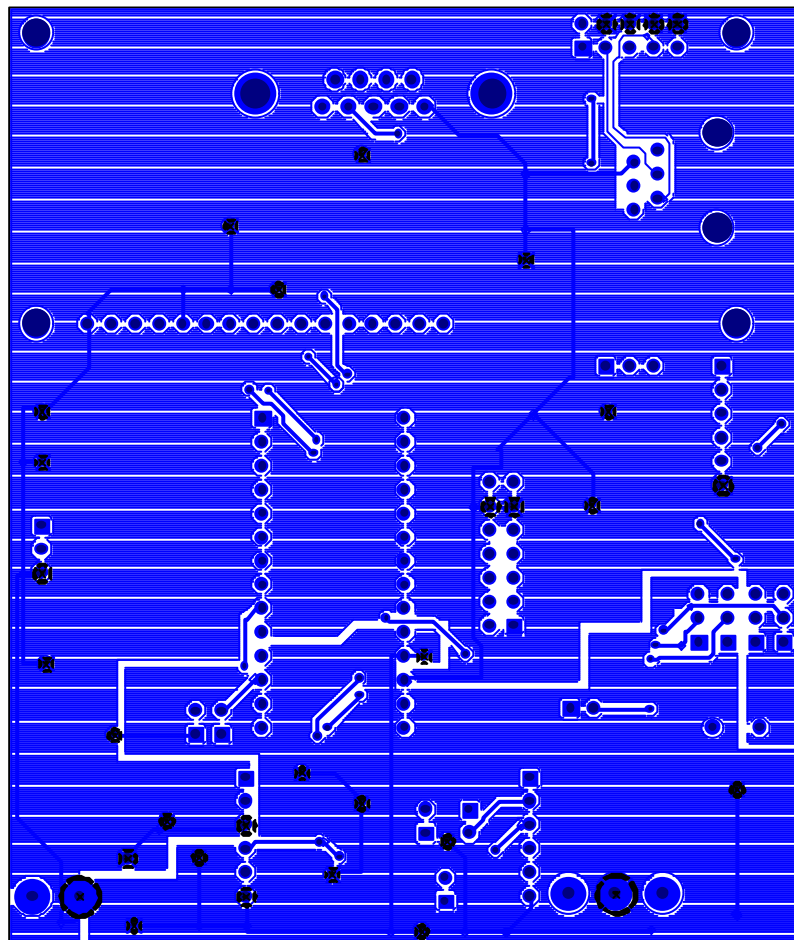


 ABNW A Brand New World	Description: COP0AME reference design						
	File: CDP8-REF-AME_Rev11.sch				Projekti no: NB00N000-Rafner		Scale: 1:1
	Prepared: FL	Checked: BC	Status: First Board	Rev: 1.1	Date: 01D012	Page: 3/3	

Bill of Material

Item	Qty	REF-DES	Value	Decal	Part Number	Manufacturer	Description
1	2	C1,C2	33pF	0603		Generic	0603 Capaitor
2	2	C3,C4	15pF	0603		Generic	0603 Capaitor
3	7	C5,C12,C13,C19-C22	100nF	0603		Generic	0603 Capaitor
4	5	C6,C14,C15,C23,C24	1uF	0805		Generic	0805 Capaitor
5	4	C7,C8,C16,C18	3.3uF	0805		Generic	0805 Capaitor
6	3	C9-C11	10nF	0603		Generic	0603 Capaitor
7	1	C17	6.8uF	3528		Generic	Tantalum cap. Body size 3528
8	2	D1,D2		SOT23	BZX84C22L	MOTOROLA	Zener, VZ=22V
9	1	D3		1206T2	EL-PT15-22	Everlight	Light sensetive diode
10	1	D4		SOD87WP	1N4148	MOTOROLA	Std. Diode
11	1	D5	Green	0603	EL19-21	Everlight	Light emitting diode green
12	1	D6	Red	0603	EL19-21	Everlight	Light emitting diode Red
13	1	D7		SOT23-3	BAT54	Phillips	Small signal schottky
14	2	D8,D9		SOT23-3	BZX84C3V3L	MOTOROLA	Zener, VZ=3.3V
15	2	F1,F2	10nF	CNF41	CNF41	Mitsubishi	EMI-filter
16	1	IC1		DIP28	COP8AME-28P	National Semiconductor	COP8 w.Flash 6-ch A/D, OP-amps
17	1	IC2		HS12P	HS12P	Bowthorpe	Non-refresh type humidity sensor
18	2	IC3,IC5		SOT23-5	LP2985-50IMM5	National Semiconductor	LDO Regulator regulated 5V output
19	1	IC4		MPXA4115A	MPXA4115A6U	Motorola	Integrate Pressure Sensor
20	1	IC6		SOT23-5	LM2665	National Semiconductor	Switched capacitor Voltage converter
21	1	IC7		SOT23-5	LMV921	National Semiconductor	Low power OP-amp Rail-to-Rail I/O
22	2	IC8,IC9		SOT23-5	LM7301	National Semiconductor	General Purpose Op-amp
23	1	IC10		SO14NB	74HC164	Texas Instruments	8-BIT Parallell output serial shift register
24	1	IC11		SO16M1	DS14C232	National Semiconductor	5V Powered RS-232 Driver/Reciver
25	1	J1		SIP-1		Generic	Sip pin
26	1	J2		DB9-HF		Generic	Female 9pol D-sub
27	4	J3,J4,J16,J17		SIP-6P		Generic	Single line 2.54 spacing header
28	6	J5,J8,J17-J19,J22		SIP-3P		Generic	Single line 2.54 spacing header
29	6	J6,J7,J11,J14,J15,J20		SIP-2P		Generic	Single line 2.54 spacing header
30	1	J9		SIP-7*2		Generic	Dual line 2.54 spacing header
31	1	J10		CONRA-3	CMM5/3	Generic	4 PIN PCB connector
32	1	J12		CONRA-2	CMM5/2	Generic	2 PIN PCB connector
33	1	J13		RJ11	RJ11	Generic	RJ11 female connector
34	1	J21		SIP-5*2	0-103311-1	AMP	Cable connector 90 deg angle
35	a	L1		0805		Murata	SURFACE MOUNT Ferrite bead
36	1	LCD1		PC1602-D	PC1602-DSO-A	Power Tip	2 row LCD display
37	1	R1	Not M	0603		Generic	SMR 0603 size
38	1	R2,R21	10M	0805		Generic	SMR 0805 size
39	4	R16-R19	1M	0603		Generic	SMR 0603 size
40	2	R3,R4	330	0603		Generic	SMR 0603 size
41	3	R5,R6,R13	10k	0603		Generic	SMR 0603 size
42	2	R7,R8	Not M	0603		Generic	Protection possible
43	2	R9,R15	240	0603		Generic	SMR 0603 size
44	1	R10	3.3K	0603		Generic	SMR 0603 size
45	2	R11,R12	30k	0603		Generic	SMR 0603 size
46	1	R14	750	0603		Generic	SMR 0603 size
47	1	R20	300k	0603		Generic	SMR 0603 size
48	4	S1,S2,S3,S4		SKHUAF		Alps	SMD Push button
49	3	VR1-VR3	10k	21Z	21Z	Bi Technologies	Variable resistor
50	1	X1	10MHz	HC49		Koyama	10MHz crystal
51	1	X2	32kHz	SM-26F			32 kHz Crystal

Bottom Copper



Silkscreen

