

Cooper Pinout 07/21/2004

Pin #	Signal name	I/O	OD (ma)
E20	x2_usb_osc	OSC	
F18	x1_usb_osc	OSC	
E19	usb_osc_vdd	OSC +3.3V	
P3	x2_sys_osc	OSC	
R2	x1_sys_osc	OSC	
T1	sys_osc_vdd	OSC +3.3V	
R3	sys_pll_dvdd	PLL +1.5V	
T2	sys_pll_kvss	PLL GND	
U1	sys_pll_kvss	PLL GND	
U2	sys_pll_kvdd	PLL +3.3V	
T3	pll_lpf	O	
W3	sreset_n	I	
U5	reset_n	I	
Y3	scan_en_n	I	
W4	reset_done	I/O	2
V5	bist_en_n	I	
U6	pll_test_n	I	
Y4	rtck	I/O	2
G19	tdo	O	2
F20	trst_n	I	
G18	tck	I	
F19	tms	I	
D20	tdi_in	I	
A18	usb_dp	USB+	
B17	usb_dm	USB-	
L2	mdc	O	4
V2	tx_clk	I	
V4	rx_clk	I	
W5	gpio[0]	I/O	2
V6	gpio[1]	I/O	2
Y5	gpio[2]	I/O	2
W6	gpio[3]	I/O	2
V7	gpio[4]	I/O	2
Y6	gpio[5]	I/O	2
W7	gpio[6]	I/O	2
Y7	gpio[7]	I/O	2
V8	gpio[8]	I/O	2
W8	gpio[9]	I/O	2
Y8	gpio[10]	I/O	2
V9	gpio[11]	I/O	2
W9	gpio[12]	I/O	2
Y9	gpio[13]	I/O	2
W10	gpio[14]	I/O	2
V10	gpio[15]	I/O	2
Y10	gpio[16]	I/O	2

Y11	gpio[17]	I/O	2
V11	gpio[18]	I/O	4
W11	gpio[19]	I/O	4
Y12	gpio[20]	I/O	8
W12	gpio[21]	I/O	4
V12	gpio[22]	I/O	4
Y13	gpio[23]	I/O	4
W13	gpio[24]	I/O	4
V13	gpio[25]	I/O	4
Y14	gpio[26]	I/O	4
W14	gpio[27]	I/O	4
Y15	gpio[28]	I/O	4
V14	gpio[29]	I/O	4
W15	gpio[30]	I/O	4
Y16	gpio[31]	I/O	4
V15	gpio[32]	I/O	4
W16	gpio[33]	I/O	4
Y17	gpio[34]	I/O	4
U15	gpio[35]	I/O	4
V16	gpio[36]	I/O	4
W17	gpio[37]	I/O	4
Y18	gpio[38]	I/O	4
U16	gpio[39]	I/O	4
V17	gpio[40]	I/O	4
W18	gpio[41]	I/O	4
U18	gpio[42]	I/O	2
V20	gpio[43]	I/O	2
U19	gpio[44]	I/O	2
U20	gpio[45]	I/O	2
T19	gpio[46]	I/O	2
R18	gpio[47]	I/O	2
T20	gpio[48]	I/O	2
R19	gpio[49]	I/O	2
K2	gpio[50]	I/O	2
U3	gpio[51]	I/O	2
V1	gpio[52]	I/O	2
N3	gpio[53]	I/O	2
N2	gpio[54]	I/O	2
N1	gpio[55]	I/O	2
M3	gpio[56]	I/O	2
M2	gpio[57]	I/O	2
M1	gpio[58]	I/O	2
L3	gpio[59]	I/O	2
L1	gpio[60]	I/O	2
K1	gpio[61]	I/O	2
K3	gpio[62]	I/O	2
P2	gpio[63]	I/O	2
R1	gpio[64]	I/O	2
P1	gpio[65]	I/O	2
H19	gpio[66]	I/O	8
E18	gpio[67]	I/O	8
D19	gpio[68]	I/O	8

C20	gpio[69]	I/O	8
A17	gpio[70]	I/O	8
B16	gpio[71]	I/O	8
J1	gpio[72]	I/O	8
P18	addr[0]	O	8
R20	addr[1]	O	8
P19	addr[2]	O	8
P20	addr[3]	O	8
N18	addr[4]	O	8
N19	addr[5]	O	8
N20	addr[6]	O	8
M18	addr[7]	O	8
M19	addr[8]	O	8
M20	addr[9]	O	8
L19	addr[10]	O	8
L18	addr[11]	O	8
L20	addr[12]	O	8
K20	addr[13]	O	8
K18	addr[14]	O	8
K19	addr[15]	O	8
J20	addr[16]	O	8
J19	addr[17]	O	8
J18	addr[18]	O	8
H20	addr[19]	O	8
H18	addr[20]	O	8
G20	addr[21]	O	8
C15	clk_out[0]	O	8
A16	data[0]	I/O	8
B15	data[1]	I/O	8
C14	data[2]	I/O	8
A15	data[3]	I/O	8
B14	data[4]	I/O	8
A14	data[5]	I/O	8
C13	data[6]	I/O	8
B13	data[7]	I/O	8
A13	data[8]	I/O	8
C12	data[9]	I/O	8
B12	data[10]	I/O	8
A12	clk_out[1]	O	8
B11	data[11]	I/O	8
C11	data[12]	I/O	8
A11	data[13]	I/O	8
A10	data[14]	I/O	8
C10	data[15]	I/O	8
B10	data[16]	I/O	8
A9	data[17]	I/O	8
B9	data[18]	I/O	8
C9	data[19]	I/O	8
A8	data[20]	I/O	8
B8	data[21]	I/O	8
C8	data[22]	I/O	8
A7	clk_out[2]	O	8

B7	data[23]	I/O	8
A6	data[24]	I/O	8
C7	data[25]	I/O	8
B6	data[26]	I/O	8
A5	data[27]	I/O	8
C6	data[28]	I/O	8
B5	data[29]	I/O	8
A4	data[30]	I/O	8
C5	data[31]	I/O	8
B4	dy_cs_n[0]	O	8
A3	dy_cs_n[1]	O	8
D5	dy_cs_n[2]	O	8
C4	dy_cs_n[3]	O	8
B3	st_cs_n[0]	O	8
C1	st_cs_n[1]	O	8
D2	st_cs_n[2]	O	8
E3	st_cs_n[3]	O	8
D1	byte_lane_sel_n[0]	O	8
E2	byte_lane_sel_n[1]	O	8
F3	byte_lane_sel_n[2]	O	8
E1	byte_lane_sel_n[3]	O	8
F2	data_mask[0]	O	8
G3	data_mask[1]	O	8
F1	data_mask[2]	O	8
G2	data_mask[3]	O	8
G1	clk_out[3]	O	8
H3	we_n	O	8
H2	st_oe_m	O	8
H1	cas_n	O	8
J3	ras_n	O	8
J2	clk_in	I	
A2	vss	GND	
A1	vss	GND	
B2	vss	GND	
B1	vss	GND	
C3	vss	GND	
D4	vss	GND	
W1	vss	GND	
Y1	vss	GND	
W2	vss	GND	
Y2	vss	GND	
V3	vss	GND	
U4	vss	GND	
Y19	vss	GND	
Y20	vss	GND	
W19	vss	GND	
W20	vss	GND	
V18	vss	GND	
U17	vss	GND	
B20	vss	GND	
A20	vss	GND	
B19	vss	GND	

A19	vss	GND	
C18	vss	GND	
D17	vss	GND	
E4	vss	GND	
H4	vss	GND	
J4	vss	GND	
C16	vss	GND	
H17	vss	GND	
E17	vss	GND	
M17	vss	GND	
N17	vss	GND	
T17	vss	GND	
D13	vss	GND	
D12	vss	GND	
D9	vss	GND	
D8	vss	GND	
U12	vss	GND	
U9	vss	GND	
T4	vss	GND	
N4	vss	GND	
C2	vss	GND	
D3	vss	GND	
D16	vss	GND	
C17	vss	GND	
D18	vss	GND	
B18	vss	GND	
C19	vss	GND	
V19	vss	GND	
J9	vss	GND	
J10	vss	GND	
J11	vss	GND	
J12	vss	GND	
K9	vss	GND	
K10	vss	GND	
K11	vss	GND	
K12	vss	GND	
L9	vss	GND	
L10	vss	GND	
L11	vss	GND	
L12	vss	GND	
M9	vss	GND	
M10	vss	GND	
M11	vss	GND	
M12	vss	GND	
F4	vdds	+3.3V	
G4	vdds	+3.3V	
P4	vdds	+3.3V	
R4	vdds	+3.3V	
U8	vdds	+3.3V	
U7	vdds	+3.3V	
U13	vdds	+3.3V	
U14	vdds	+3.3V	

P17	vdds	+3.3V	
R17	vdds	+3.3V	
F17	vdds	+3.3V	
G17	vdds	+3.3V	
D15	vdds	+3.3V	
D14	vdds	+3.3V	
D7	vdds	+3.3V	
D6	vdds	+3.3V	
K4	vddc	+1.5V	
L4	vddc	+1.5V	
M4	vddc	+1.5V	
U10	vddc	+1.5V	
U11	vddc	+1.5V	
J17	vddc	+1.5V	
K17	vddc	+1.5V	
L17	vddc	+1.5V	
D11	vddc	+1.5V	
D10	vddc	+1.5V	
T18	NC		