/RESET
+5V
U1
RESET
VCC
AVCC
XTAL2
XTAL1
AREF
(PCINT0/ADC0)PA0
(PCINT1/ADC1)PA1
(PCINT2/ADC2)PA2
(PCINT3/ADC3)PA3
(PCINT4/ADC4)PA4
(PCINT5/ADC5)PA5
(PCINT6/ADC6)PA6
(PCINT7/ADC7)PA7
(PCINT8/T0/XCK)PB0
(PCINT9/CLKO/T1)PB1
(PCINT10/AIN0/INT2)PB2
(PCINT11/AIN1/OC0)PB3
(PCINT12/OC0B/SS)PB4
(PCINT13/MOSI)PB5
(PCINT14/MISO)PB6
(PCINT15/SCK)PB7
DIL40
(PCINT16/SCL)PC0
(PCINT17/SDA)PC1
(PCINT18/TCK)PC2
(PCINT19/TMS)PC3
(PCINT20/TDO)PC4
(PCINT21/TDI)PC5
(PCINT22/TOSC1)PC6
(PCINT23/TOSC2)PC7
(PCINT24/RXD0)PD0
(PCINT25/TXD0)PD1
(PCINT26/RXD1/INT0)PD2
(PCINT27/TXD1/INT1)PD3
(PCINT28/XCK1/OC1B)PD4
(PCINT29/OC1A)PD5
(PCINT30/OC2B/ICP)PD6
(PCINT31/OC2A)PD7
GND
ATMEGA1284P-P
Q1
20MHz
C13
18pF
C14
18pF
MOSI
MISO
SCK
JP4
ISP
JP3
JTAG
C15
100nF
RxD
TxD
JP5
UART
R6
220
TTL_MIDI_TX
TTL_MIDI_RX
MIDI
R4
220
R8
3.3K
OC1 6N136
1N4148
D1
R5
220
R9
220K
DIP-8
X1
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
C12
100nF
IC9D
74LS08
IC7B
74LS74
IC8C
IC8D
IC8E
IC8F
74LS04
R7
4.7K
74LS374
Housings_DIP:DIP-20_W7.62mm
R1
R2
74LS09
IC9C
IC6A
IC6B
IC7A
74LS74
74LS244
IC3
DRR
/DSR
IC9A
IC9B
74LS08
IC4
/DW
/CW
/DR
/CR
74LS138
Housings_DIP:DIP-16_W7.62mm
IC5
JP1
300
310
320
330
I/O
BA00
BA01
BA02
BA03
BA04
BA05
BA06
BA07
BA08
BA09
BA10
BA11
BA12
BA13
BA14
BA15
BA16
BA17
BA18
BA19
AEN
IO_READY
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
IO
BUSPC
BUS?
GND
OSC
VCC
ALE
TC
DACK2
IRQ3
IRQ4
IRQ5
IRQ6
IRQ7
CLK
DACKO
DRQ1
DACK1
DRQ3
DACK3
IOR
IOW
MEM
+12V
UNUSED
-12V
DRQ2
-5V
INQ2
RESET
IRQ
JP2
IRQ3
IRQ4
IRQ5
IRQ6
IRQ7
IRQ9
ICBA
ICBB
74LS04
R3
4.7K

Sheet: /
File: HardMPU-fromscratch.sch
Title:
Size: A2
Date:
Rev:
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