Power Input and Supplies

Voltage Input:
9V - 36V

J8
PJ-102BH

J9
P1
P2
1715721

PM1
On/Off NC.
+Vo NC.
+Vin +Vo
-Vin -Vo
EC4SAW-24S05N

C1 100uF
C2 10uF
C3 0.1uF
5V_Ext

JP2
JP2:
Remove Jumper to Isolate
DSP and Ext Source Gnds.

U2
En Vout
Vin Gnd.
NR/FB Gnd.
TPS79533
5V   3V3

C6 10uF
C8 0.1uF
C7 0.1uF
R6 470
D1 LED-G

JP1
5V_USB
5V_Ext
JP1:
Pins 1-2 for USB Powered
Pins 2-3 for Ext Powered
5V

C4 10uF
C5 0.1uF

USB Input and TVS

J10
5V
D-
D+
Gnd
670687041

TVS1
GND1
GND2
GND3
GND4
SN75240PWR

R2 27 USB_D-
R3 27 USB_D+
5V_USB

FTDI Chip (JTAG and Serial Int)

Note:
EEPROM must be programmed
prior to first use using MProg3.5 or later.

L1 22uH
C12 1uF
C11 1uF
C10 0.1uF
C9 0.1uF
R1 470
R10 47k
R11 1k
R4 2.2k
R5 1Meg
6 MHz
U5
PIN3
PIN2
PIN1

U1 FT2232D
AVCC
VCC1
VCC2
VCCIOB
VCCIOA
3V3OUT
ADBUS0
ADBUS1
ADBUS2
ADBUS3
ADBUS4
ADBUS5
ADBUS6
ADBUS7
ACBUS0
ACBUS1
ACBUS2
ACBUS3
USBDP
USBDM
RESET#
RSTOUT#
XTIN
XTOUT
EECS
EESK
EEDATA
TEST
AGND
GND1 GND2 GND3 GND4
PWREN#
BDBUS0
BDBUS1
BDBUS2
BDBUS3
BDBUS4
BDBUS5
BDBUS6
BDBUS7
BCBUS0
BCBUS1
BCBUS2
BCBUS3
SI/WUA
SI/WUB

TCK
TDI
TDO
TMS
TRSTN

JP5
JP5:
Jumper not used
FTDI_Rst

JP4
JP4:
Jumper must be connected
for Serial communications.
It must be unconnected for initial
EEPROM Programming.

RX_Slave
TX_Slave

U6
VCC
CS DO
CLK DI
GND
93LC46BT-I/OT
R7 2.2k
R8 10k
C15 0.1uF
3V3

U4
VCC
CLK D
NOT Q PRE
Q NOT CLR
GND
SN74LVC2G74
C16 0.1uF
C17 0.1uF
R9 1k
3V3

40-Pin IDC Interconnects

Notes:
PWM Modules 1-6 Duplicated on both connectors.
ADC_A present on IDC_A connector.
GPIOs 13 - 27 present on IDC_A connector.
ADC_B present on IDC_B connector.
GPIOs 30-34,48,49,58-63 present on IDC_B connector.

J14
AWHW 40G-0202-T
IDC_A

J15
AWHW 40G-0202-T
IDC_B

DSP DIMM 100 Header

J1
F28335_DIMM

J4 Header_1x22
J5 Header_1x25
J6 Header_1x8
J7 Header_1x8

DSP Boot Mode

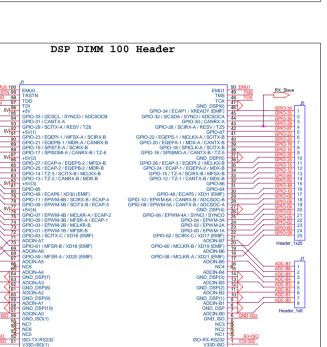F2833X
JP6-JP9:
All Open = Flash Boot
JP6 Closed = SCI-A Boot
JP7 Closed = SPI-A Boot
Other Modes see Datasheet

GPIO-84
GPIO-85
GPIO-86
GPIO-87

JP6 JP7 JP8 JP9
R12 2.7k R13 2.7k R14 2.7k R15 2.7k

F2803X
JP10-JP12:
All Open = Flash Boot
Other Modes see Datasheet
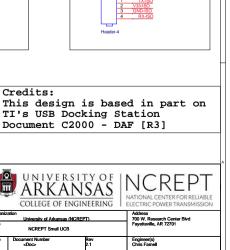
GPIO-18
GPIO-29
GPIO-34

JP10 JP11 JP12
R16 2.7k R17 2.7k R18 2.7k

Mounting Holes

MECH1 MECH3
MECH2 MECH4

Ext Voltage Outputs

3V3
J11
5V
J12
J13
J16
J17
J18

Ext JTAG Header

J2
TMS TRSTN
TDI
TDO
TCK
EMU0 EMU1
AWHW 14G-0202-T

JP3
JP3:
Remove Jumper to Isolate
3.3V Supply from JTAG Connector.
Not Needed for ControlCard.

Serial Header

NOTE:
RS232 interface not isolated by default.
For F28335 ControlCardR2.2-
Remove R13 and R24 on ControlCard.
Close switch SW1.
Provide isolated 3.3V source at connector.

J3
TX-ISO
V33-ISO
GND-ISO
RX-ISO
Header-4

Credits:
This design is based in part on
TI's USB Docking Station
Document C2000 - DAF [R3]

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NCREPT Small UCB		
Size C	Document Number <Doc>	Rev 2.1
Engineer(s) Chris Farnell		
Date: Saturday, August 13, 2016	Sheet 1 of 1	

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