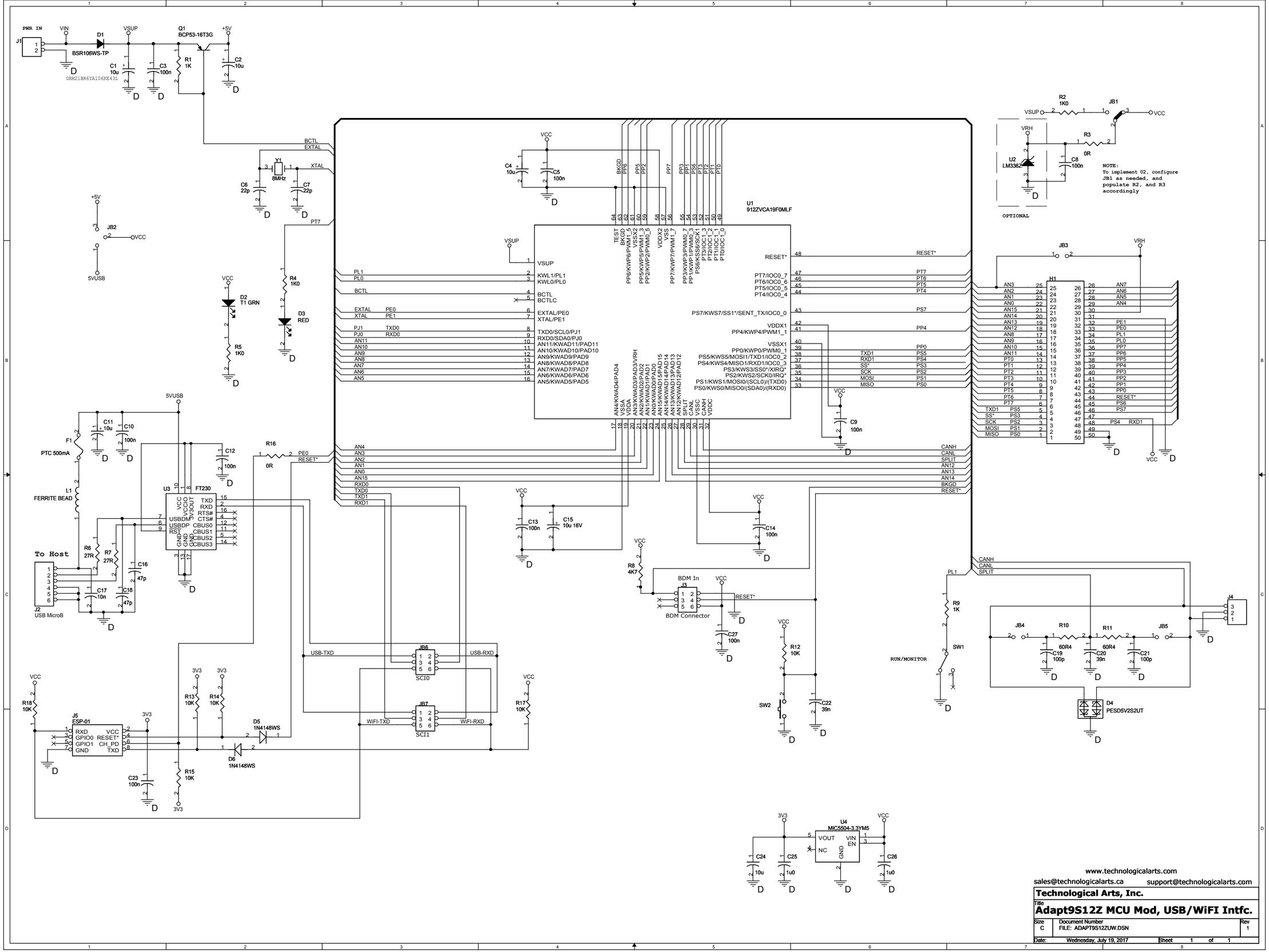
PWR IN
J1
VIN
D1
BSR106WS-TP
VSUP
Q1
BCP53-16T3G
+5V
C1
10u
GRM21BR61A106KE43L
C3
100n
R1
1K
C2
10u
BCTL
EXTAL
XTAL
Y1
8MHz
C6
22p
C7
22p
PT7
+5V
JB2
VCC
5VUSB
VCC
D2
T1 GRN
R4
1K0
D3
RED
R5
1K0
5VUSB
F1
PTC 500mA
C11
10u
C10
100n
L1
FERRITE BEAD
C12
100n
R16
0R
PE0
RESET*
U3
FT230
VCC
VCCIO
3V3OUT
USBDM
USBDP
RST
GND
TXD
RXD
RTS#
CTS#
CBUS0
CBUS1
CBUS2
CBUS3
R6
27R
R7
27R
C16
47p
C17
10n
C18
47p
To Host
J2
USB MicroB
VCC
C4
10u
C5
100n
U1
912ZVCA19F0MLF
VSUP
KWL1/PL1
KWL0/PL0
BCTL
BCTLC
EXTAL/PE0
XTAL/PE1
TXD0/SCL0/PJ1
RXD0/SDA0/PJ0
AN11/KWAD11/PAD11
AN10/KWAD10/PAD10
AN9/KWAD9/PAD9
AN8/KWAD8/PAD8
AN7/KWAD7/PAD7
AN6/KWAD6/PAD6
AN5/KWAD5/PAD5
AN4/KWAD4/PAD4
VSSA
VDDA
AN3/KWAD3/PAD3/VRH
AN2/KWAD2/PAD2
AN1/KWAD1/PAD1
AN0/KWAD0/PAD0
AN15/KWAD15/PAD15
AN14/KWAD14/PAD14
AN13/KWAD13/PAD13
AN12/KWAD12/PAD12
SPLIT
CANL
VSSC
CANH
VDDC
TEST
BKGD
PW6/KWP6/PWM1_5
VSSX2
PP5/KWP5/PWM1_3
PP2/KWP2/PWM0_5
VDDX2
VSS
PP7/KWP7/PWM1_7
PP3/KWP3/PWM0_7
PP1/KWP1/PWM0_3
PS6/KSS6/SCK1
PT3/IOC1_3
PT2/IOC1_2
PT1/IOC1_1
PT0/IOC1_0
RESET*
PT7/IOC0_7
PT6/IOC0_6
PT5/IOC0_5
PT4/IOC0_4
PS7/KWS7/SS1*/SENT_TX/IOC0_0
VDDX1
PP4/KWP4/PWM1_1
VSSX1
PP0/KWP0/PWM0_1
PS5/KWS5/MOSI1/TXD1/IOC0_2
PS4/KWS4/MISO1/RXD1/IOC0_3
PS3/KWS3/SS0*/XIRQ*
PS2/KWS2/SCK0/IRQ*
PS1/KWS1/MOSI0/(SCL0)/(TXD0)
PS0/KWS0/MISO0/(SDA0)/(RXD0)
TXD1
RXD1
SS*
SCK
MOSI
MISO
C9
100n
C13
100n
C15
10u 16V
C14
100n
R8
4K7
BDM In
J3
BDM Connector
C27
100n
R12
10K
SW2
C22
39n
USB-TXD
USB-RXD
JB6
SCI0
WiFi-TXD
WiFi-RXD
JB7
SCI1
R17
10K
R18
10K
J5
ESP-01
RXD
GPIO0
GPIO1
GND
VCC
RESET*
CH_PD
TXD
3V3
R13
10K
R14
10K
D5
1N4148WS
D6
1N4148WS
C23
100n
R15
10K
R2
1K0
JB1
VSUP
VCC
VRH
R3
0R
U2
LM336Z
C8
100n
NOTE:
To implement U2, configure JB1 as needed, and populate R2, and R3 accordingly
OPTIONAL
JB3
H1
AN3
AN2
AN1
AN0
AN15
AN14
AN13
AN12
AN8
AN9
AN10
AN11
PT0
PT1
PT2
PT3
PT4
PT5
PT6
PT7
PS5
PS4
PS3
PS2
PS1
PS0
PE1
PE0
PL1
PL0
PP7
PP6
PP5
PP4
PP3
PP2
PP1
PP0
RESET*
PS6
PS7
AN7
AN6
AN5
AN4
CANH
CANL
SPLIT
AN12
AN13
AN14
BKGD
RESET*
R9
1K
SW1
RUN/MONITOR
JB4
R10
60R4
C19
100p
R11
60R4
C20
39n
C21
100p
JB5
J4
D4
PESD5V2S2UT
U4
MIC5504-3.3YM5
VOUT
VIN
EN
NC
GND
C24
10u
C25
1u0
C26
1u0
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Rev
1
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Sheet 1 of 1