VDD_EB VDDS VDDS Decoupling Capacitors

BLM18HE152SN1
FL1
2 1 Pin 11 Pin 28 Pin 18
C10 C16 C18 C26 C17
DNM 100nF 100nF 10uF 100nF

VDDR VDDR Decoupling Capacitors
DCDC_SW L5 Pin 29 Pin 32
10uH C15 C11 C14
10uF 100nF 100nF

Place L5 and
C8 close to pin 15

U1
VDDS VDDR

DIO_0 6 DIO_0 VDDS 28
DIO_1 7 DIO_1 VDDS2 11
DIO_2 8 DIO_2 VDDS_DCDC 18
DIO_3 9 DIO_3 VDDR 29
DIO_4 10 DIO_4 VDDR 32
DIO_5/JTAG_TDO 15 DIO_5
DIO_6/JTAG_TDI 16 DIO_6 DCDC_SW 17 DCDC_SW
DIO_7 20 DIO_7
DIO_8 21 DIO_8
DIO_9 22 DIO_9 RX_TX 3
DIO_10 23 DIO_10 RF_N 2
DIO_11 24 DIO_11 RF_P 1
DIO_12 25 DIO_12
DIO_13 26 DIO_13 X24M_P 31 X24M_P
DIO_14 27 DIO_14 X24M_N 30 X24M_N

VDDS
R13 100k

nRESET RESET_N 19
JTAG_TCK 14 JTAG_TCKC X32K_Q2 4
JTAG_TMS 13 JTAG_TMSC X32K_Q1 5

C28 100nF
DCOUPL 12

C21 VSS 33
1uF
CC2650F128RHB

J1
SMA-10V21-TGG
4 3
5
1 R31 0

FL2
3 BP1 UBP 1
4 BP2
2 GND
5 GND
6 GND
LFB182G45BG5D920

R30 DNM R14 0
C23 DNM

A1
2 3
1
2.4GHz

R14 and C23 for
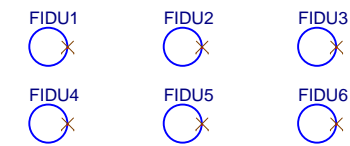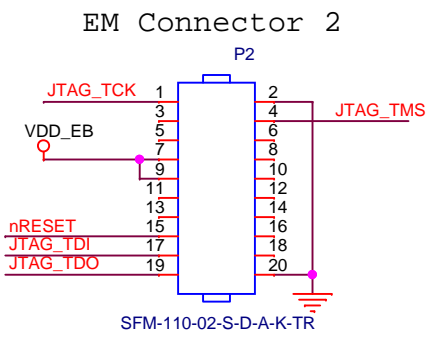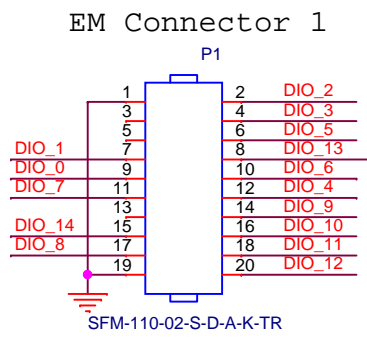antenna matching

Mount either
R30 or R31
To select SMA
or PCB ant.

Y1
1 2
32.768kHz
C8 C9
22pF 22pF DNM

Y2
24MHz
1 3
C20 C19
DNM DNM
2 4
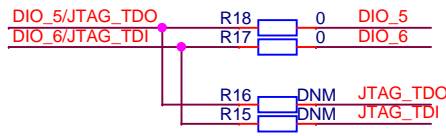
NOTE:
The CC2650 is a superset of CC2610, CC2620, CC2630
and CC2640. This design can thus be considered a
reference design for all of these devices.

Likewise, the CC2650EM board can be used to evaluate
the performance for all the above mentioned devices.

DIO_5/JTAG_TDO R18 0 DIO_5
DIO_6/JTAG_TDI R17 0 DIO_6
R16 DNM JTAG_TDO
R15 DNM JTAG_TDI

EM Connector 1
P1
1 2 DIO_2
3 4 DIO_3
5 6 DIO_5
DIO_1 7 8 DIO_13
DIO_0 9 10 DIO_6
DIO_7 11 12 DIO_4
13 14 DIO_9
DIO_14 15 16 DIO_10
DIO_8 17 18 DIO_11
19 20 DIO_12
SFM-110-02-S-D-A-K-TR

EM Connector 2
P2
JTAG_TCK 1 2
3 4 JTAG_TMS
VDD_EB 5 6
7 8
9 10
11 12
13 14
nRESET 15 16
JTAG_TDI 17 18
JTAG_TDO 19 20
SFM-110-02-S-D-A-K-TR

FIDU1 FIDU2 FIDU3
FIDU4 FIDU5 FIDU6

Title: CC2650EM-MurBal

TEXAS INSTRUMENTS

Drawn: FGK
Checked:
Size: A3 Rev: 1.0.1 Sheet: 1 of 1
Date: Friday, February 06, 2015