BK7238

ANT
   (L):Murata LQP03TN(0201)/LQG15HS(0402)
   (C):Murata GRM0335C(0201)/GRM1555C(0402)

SPI FLASH DOWNLOAD

ANT1
2.4G

J1 RF

C13 1uF

VBAT

U1

C3 1uF
VBAT

C4,L1,C6,L2,
C19,C16,C5

GND 33

32 VCCIF
31 P0/2TX/TXEN
30 P1/2RX/RXEN/ADC5
29 P11/DL_1TX
28 P10/DL_1RX/ADC6
27 P9/PWM3/TDO/ANT3
26 P8/PWM2/TDI/ANT2/CLK26M
25 P7/PWM1/TMS/ANT1

P0_2TX	
P1_2RX	
P11_DL_TX	
P10_DL_RX	
P9_TDO	
P8_TDI	
P7_TMS	

C9 NC
C7 1pF
C8 NC

R4 NC
R3 0R

C6 1pF
L2 0R
L1 3.6nH

C15 NC
C10 2.2uF
R5 0R

C4 1.5pF

1 VCCRXFE
2 ANT
3 VCCPA
4 VCCTX
5 GND
6 XI
7 XO
8 VCCPLL

24 P6/CLK13M/PWM0/TCK/ANT0
23 P26/PWM5/ANTMSB/SDA/ADC1
22 P17/MISO/ANT3/SDA
21 P15/CSN/ANT1/SCL
20 P16/MOSI/ANT2
19 P14/SCK/ANT0
18 NC
17 P24/PWM4/ANTLSB/SCL/ADC2

P6_TCK	24
P26	23
P17	22
P15	21
P16	20
P14	19
	18
P24	17

200mA
>0.4mm VBAT

C1 NC
X1 26M CL=7.3pF

C11 2.2uF

C2 NC

R2 18R

7~8pF

VBAT

BK7238
QFN32_4X4

RFTP
C16 NC
C5 NC

C19 ESD/NC

H2
1 2
3 4
5 6
7 8
9 10

P9_TDO
P6_TCK
VBAT

P8_TDI

CEN
P7_TMS

H3
VBAT
1
2
3
4
5
6
7
8
9
10
11

BK7238_Module

VBAT

28
27 P0_2TX
26 P1_2RX
25 P11_DL_TX
24 P10_DL_RX
23 P9_TDO

CEN
P28
P20
P21
P22

VDDAON
VBAT
CEN
P28/ADC4
P20/ADC3
P21
P22
P23

9 10 11 12 13 14 15 16

C12 1uF

C20 NC

C14 10uF

R1 10K

VBAT:3.0V~3.6V
:3.3V VBAT

H5
7
6
5
4
3
2
1

P6_TCK
P7_TMS
P8_TDI
P9_TDO
VBAT

JTAG

VBAT H7
H6

H4
VCC VCC 2
4
TXD TXD 6
RXD RXD 8
GND GND

P11_DL_TX
P10_DL_RX

4 X 2 UART

H1
VCC VCC 2
4
TXD TXD 6
RXD RXD 8
GND GND

P0_2TX
P1_2RX

4 X 2 UART

UART ,UART1 FLASH DOWNLOAD

GPAD1 GPAD2 GPAD3

Layout
1.
2.   C4,L1,C6,L2,C19,C16,C5   ANT   C7,C8,C9
          PCB   PAD   PAD
3.   4 PCB   2
VBAT VCCRXFE
4.   VBAT,VCCPA   VCCPA   0.4mm

BK7238 SCH and PCB layout Version Change List

Data	Version	Author	Description
2022.05.30	V1.0	Beken	MP Initial Version
2023.04.15	V1.1	Beken	BK7238 Pin Name and Matching Update
2023.05.19	V1.2	Beken	Update RF components' description