

5

4

3

2

1



**EFR32MG13 Mighty Gecko Radio Board**

2.4 GHz 19 dBm, VMCU to PAVDD

| Board Function             | Page |
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**Revision History**

| Rev. | Description       |
|------|-------------------|
| A00  | Initial revision. |
|      |                   |
|      |                   |
|      |                   |
|      |                   |
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|      |                   |
|      |                   |
|      |                   |

**SCHEMATIC1**

|   |  |  |               |
|---|--|--|---------------|
| *Path Name*                                 |  | Schematic Title                                |               |
|   |  | <b>EFR32MG13 2.4 GHz 19 dBm Radio Board</b>    |               |
|   |  | Page Title                                     |               |
| Designed: JSH                               |  | Approved: JNO                                  |               |
| Size: A3                                    |  | Document number                                |               |
| BOM Doc No: <Cage Code>                     |  | <b>BRD4168A</b>                                |               |
| Design Created Date: Monday, April 02, 2012 |  | Sheet Created Date: Monday, April 02, 2012     | Revision: A00 |
|   |  | Sheet Modified Date: Wednesday, March 01, 2017 | Sheet: 1 of 4 |

5

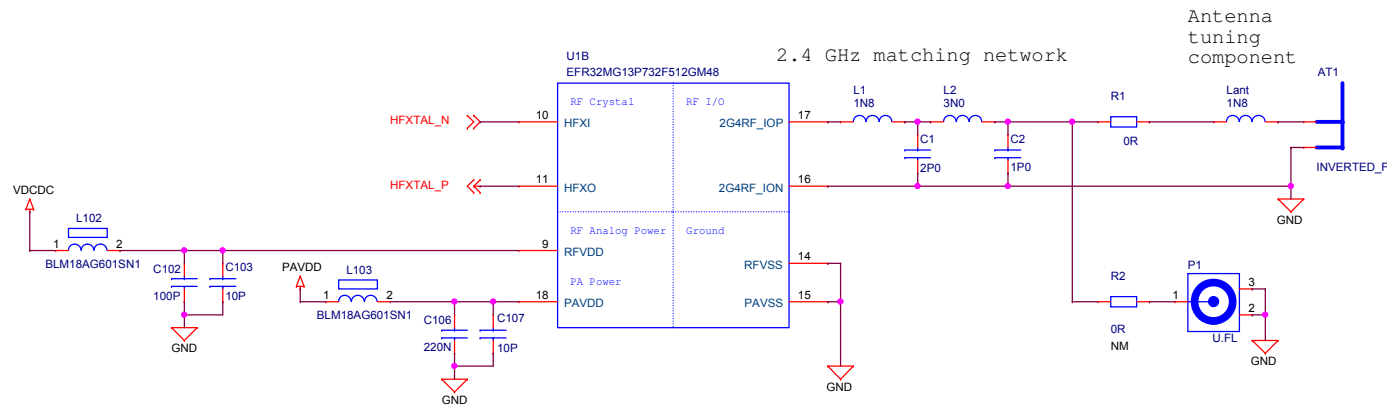
4

3

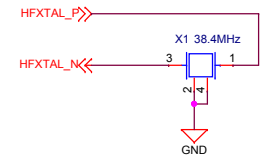
2

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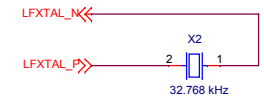
# Antenna & Radio Interface



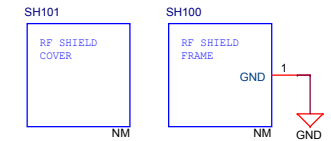
# High Frequency Crystal



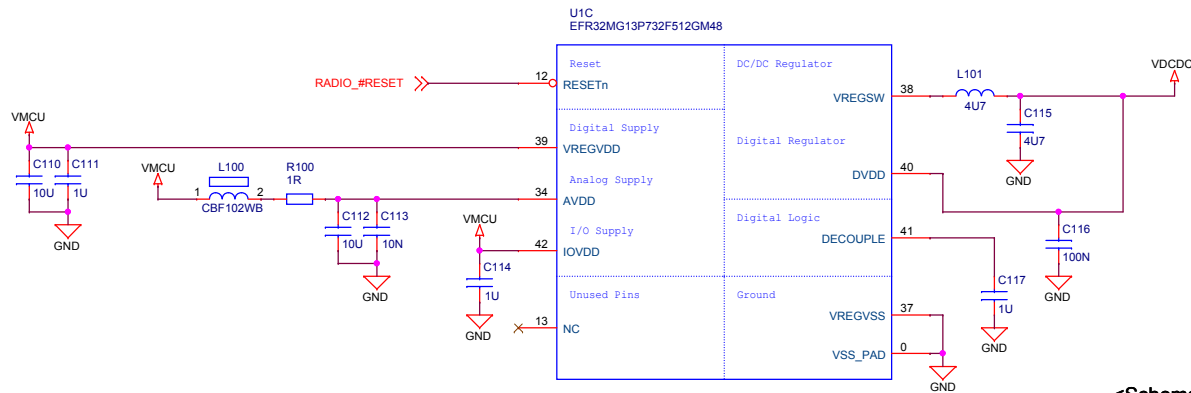
# Low Frequency Crystal



# RF Shielding

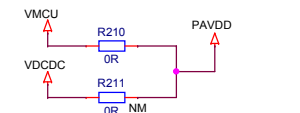


# Power & Decoupling



# PAVDD Configuration

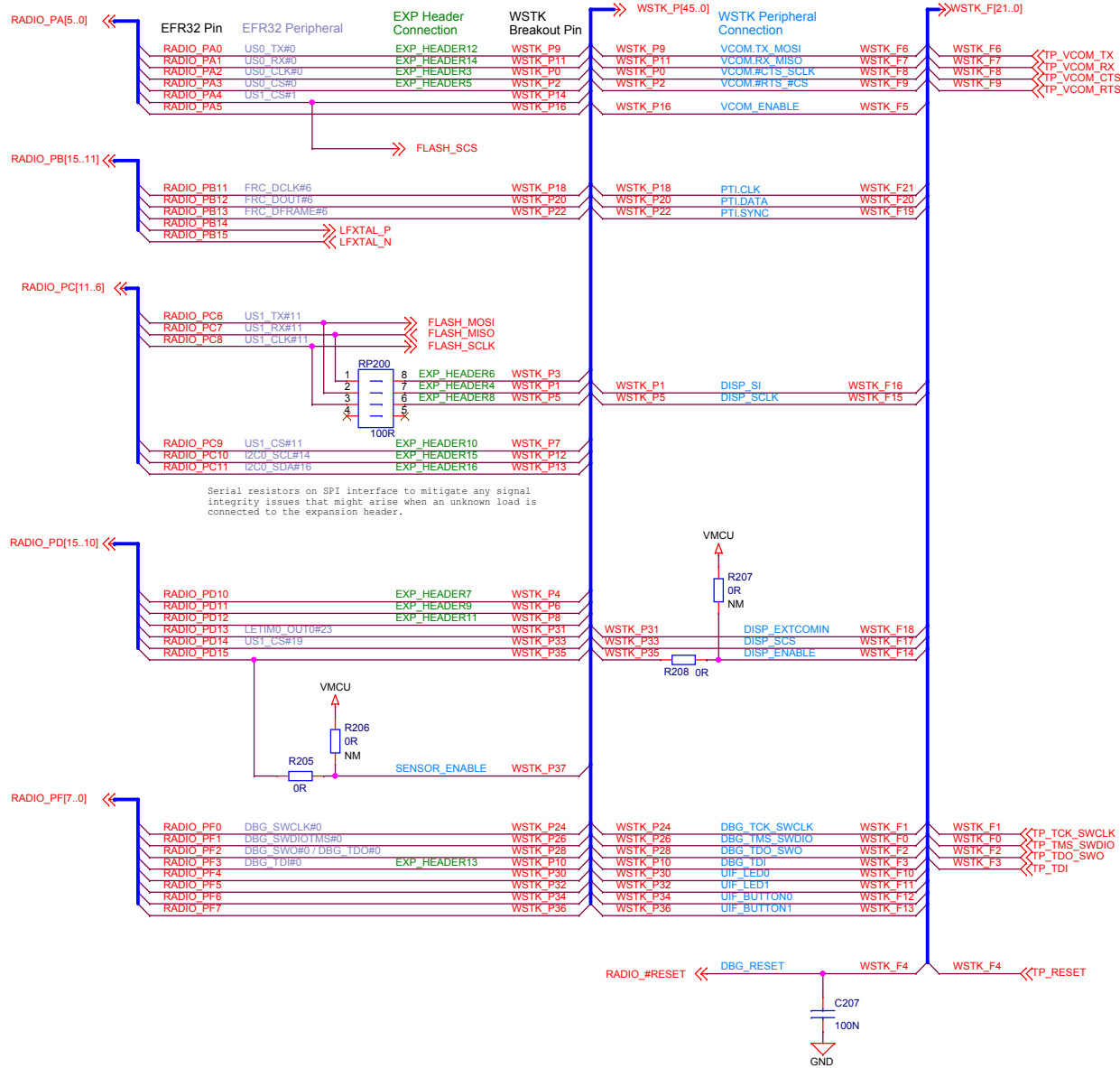
|      | Power Config 1<br>VMCU to PAVDD | Power Config 2<br>DCDC to PAVDD |
|------|---------------------------------|---------------------------------|
| R210 | Mount                           | Not mount                       |
| R211 | Not mount                       | Mount                           |



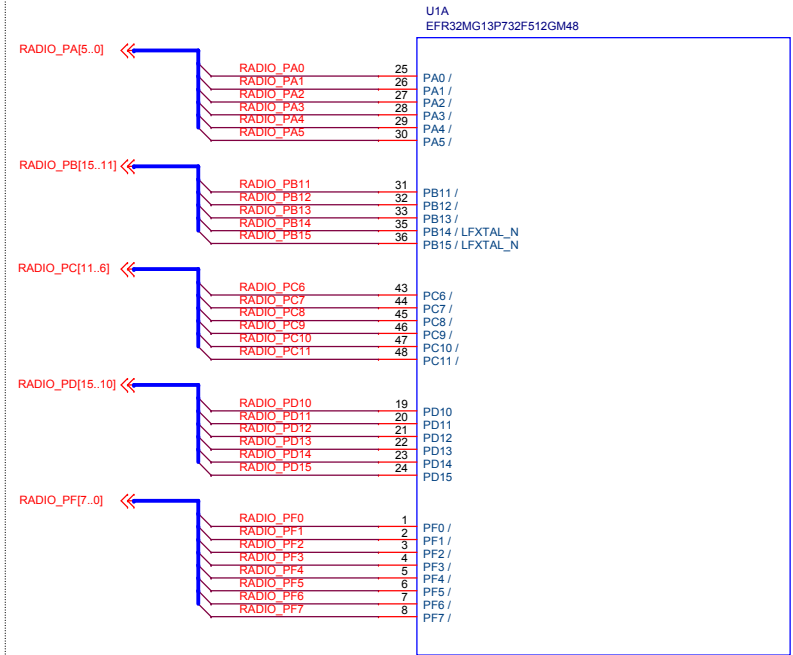
<Schematic Path>  
SCHEMATIC1

|   |  |  |              |
|---|--|--|--------------|
|   |  | Schematic Title                                |              |
|   |  | <b>EFR32MG13 2.4 GHz 19 dBm Radio Board</b>    |              |
| Designed: JSH<br>Approved: JNO              |  | Page Title                                     |              |
|   |  | <b>RF, Antenna and Power</b>                   |              |
| Size: A3<br>BOM Doc No: <Cage Code>         |  | Document number                                | Revision     |
| Design Created Date: Monday, April 02, 2012 |  | <b>BRD4168A</b>                                | <b>A00</b>   |
| Sheet Created Date: Monday, April 02, 2012  |  | Sheet Modified Date: Wednesday, March 01, 2017 | Sheet 2 of 4 |

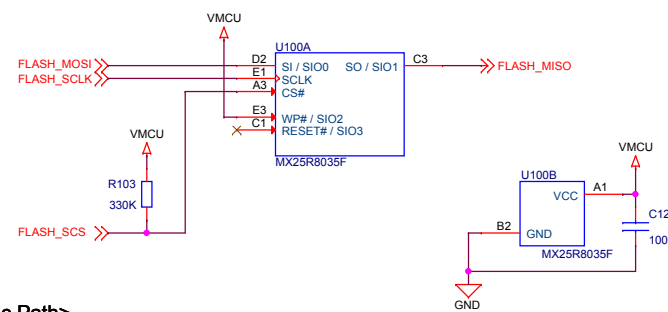
# EFR32 Pin Mapping



# EFR32 I/O Port Pins



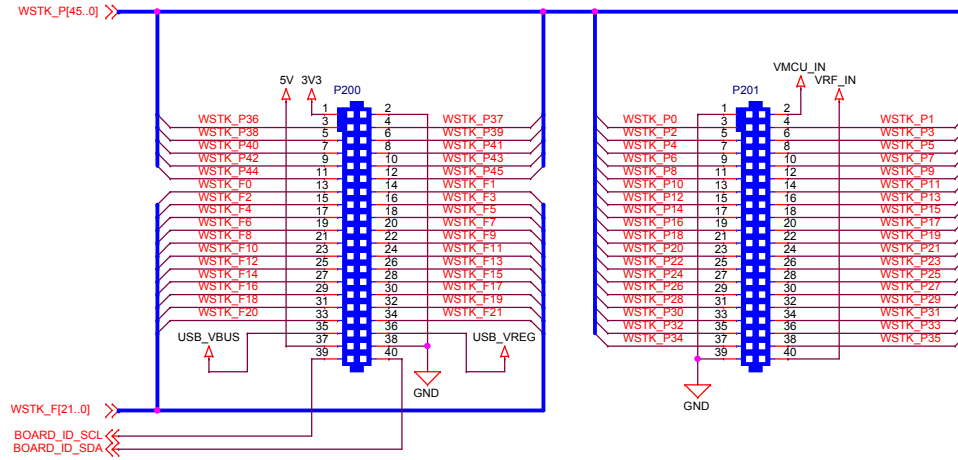
# Serial Flash



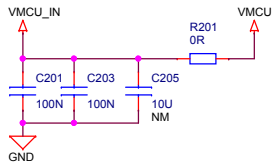
# <Schematic Path> SCHEMATIC1

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|---|--|---|----------------------|
|   |  | Schematic Title                             |                      |
|   |  | <b>EFR32MG13 2.4 GHz 19 dBm Radio Board</b> |                      |
| Designed: JSH<br>Approved: JNO              |  | Page Title                                  |                      |
|   |  | <b>EFR32 I/O Port Connections</b>           |                      |
| Size: A3                                    | BOM Doc No: <Cage Code>                        | Document number                             | Revision             |
| Design Created Date: Monday, April 02, 2012 | Sheet Created Date: Wednesday, April 11, 2012  | Document number: <b>BRD4168A</b>            | Revision: <b>A00</b> |
|   | Sheet Modified Date: Wednesday, March 01, 2017 |   | Sheet 3 of 4         |

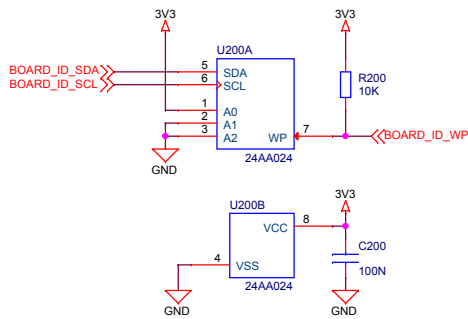
# WSTK Connectors



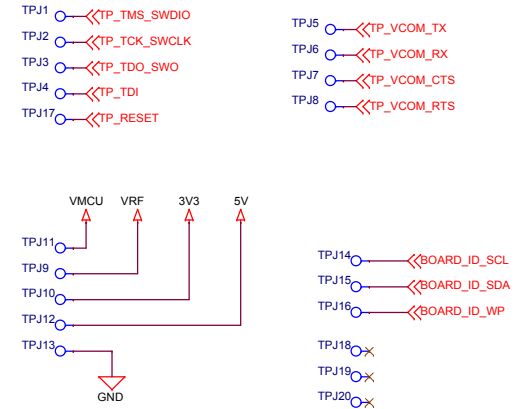
## WSTK Power Decoupling



## Board Identification



## Test Points



<Schematic Path>  
SCHEMATIC1

|   |  |   |                      |
|---|--|---|----------------------|
|   |  | Schematic Title                             |                      |
|   |  | <b>EFR32MG13 2.4 GHz 19 dBm Radio Board</b> |                      |
| Designed: JSH<br>Approved: JNO              |  | Page Title                                  |                      |
|   |  | <b>WSTK Connectors &amp; Board ID</b>       |                      |
| Size: A3                                    | BOM Doc No: <Cage Code>                        | Document number                             | Revision             |
| Design Created Date: Monday, April 02, 2012 | Sheet Created Date: Tuesday, April 03, 2012    | Document number: <b>BRD4168A</b>            | Revision: <b>A00</b> |
|   | Sheet Modified Date: Wednesday, March 01, 2017 | Sheet                                       | 4 of 4               |