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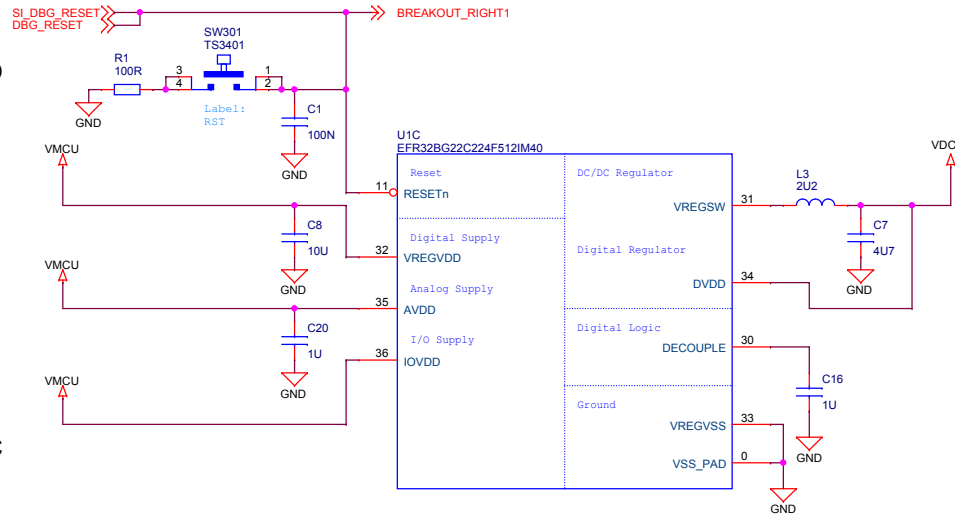
PCB4108A

## Revision History

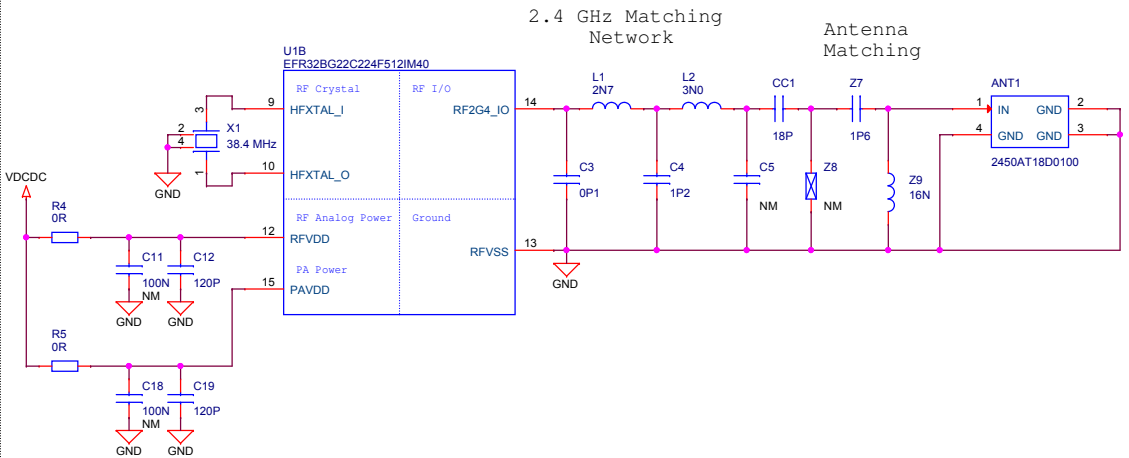
| Rev. | Description                                                     |
|------|-----------------------------------------------------------------|
| A00  | Initial production release.                                     |
| A01  | Added U901, R916 changed to 10k, updated RF section and EEPROM. |
| A02  | Matching update.                                                |
| A03  | Updated matching network for IC and antenna.                    |
|      |                                                                 |
|      |                                                                 |
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|--------------------------------------------------------------------------------------------------------------|------------------------------------------------|----------------------------------------|------------------------|
| <br><b>SILICON LABS</b> |                                                | Board Name<br><b>BG22 Explorer Kit</b> |                        |
|                                                                                                              |                                                | Page Title<br><b>Title Page</b>        |                        |
| Designed<br>MAH                                                                                              | Approved<br>RGU                                | Board Number<br><b>BRD4108A</b>        | Revision<br><b>A03</b> |
| Size<br>A3                                                                                                   | Sheet Modified Date<br>Monday, August 09, 2021 |                                        | Sheet<br>1 of 5        |
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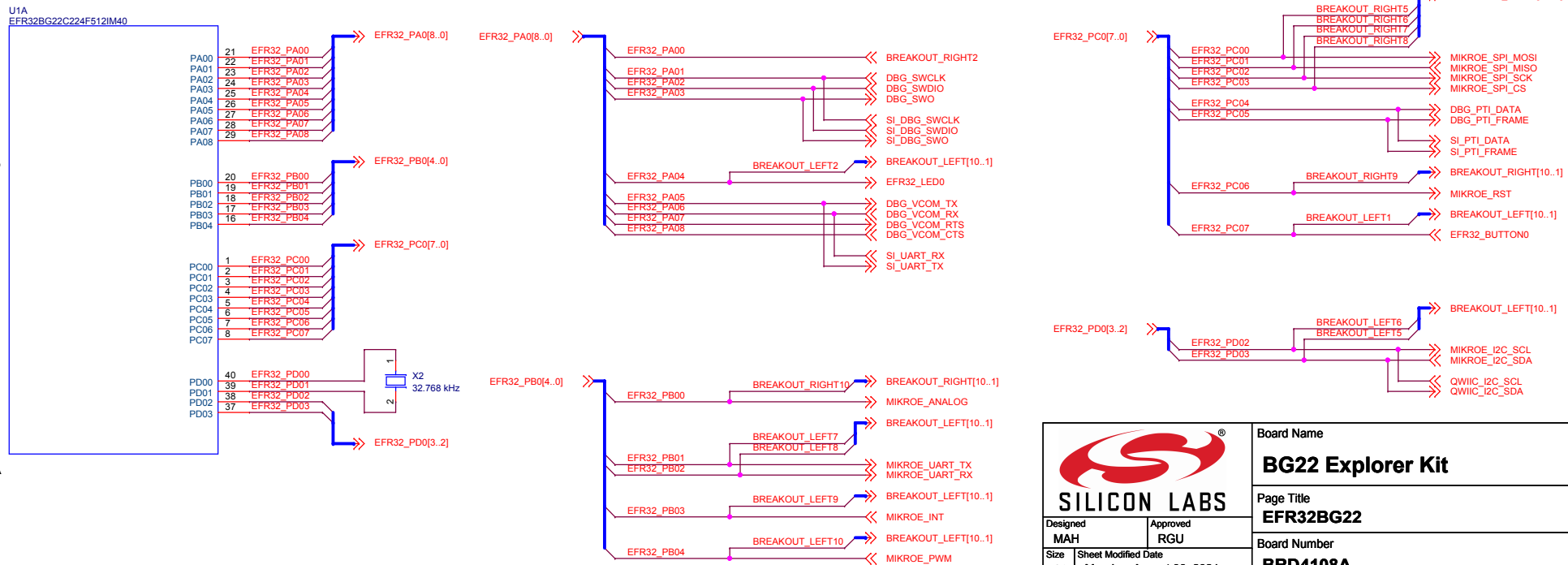
## EFR32BG22 Power Section



## EFR32BG22 RF Section

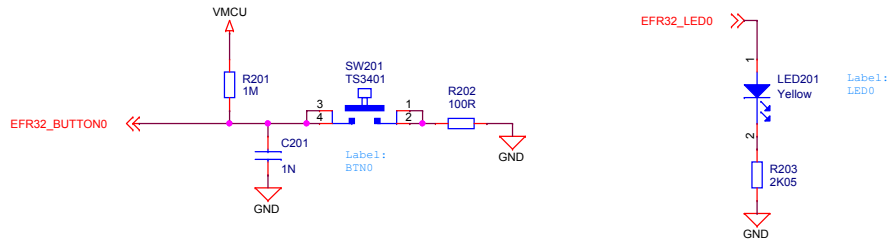


## EFR32BG22 IOs & Signal Assignments

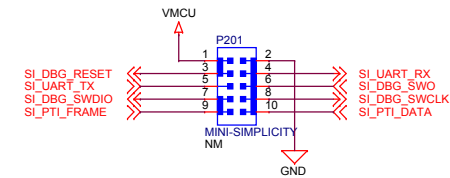


|                                                                                       |  |                   |  |
|---------------------------------------------------------------------------------------|--|-------------------|--|
|  |  | Board Name        |  |
|                                                                                       |  | BG22 Explorer Kit |  |
| Designed MAH                                                                          |  | Page Title        |  |
| Size A3                                                                               |  | EFR32BG22         |  |
| Sheet Modified Date Monday, August 09, 2021                                           |  | Board Number      |  |
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|                                                                                       |  | Revision          |  |
|                                                                                       |  | A03               |  |
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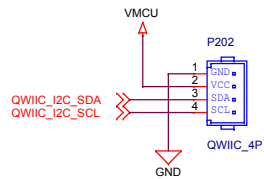
## Push Button & LED



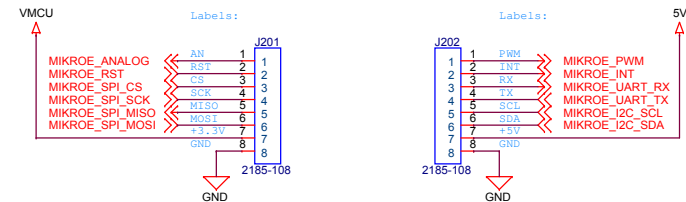
## Mini Simplicity Connector



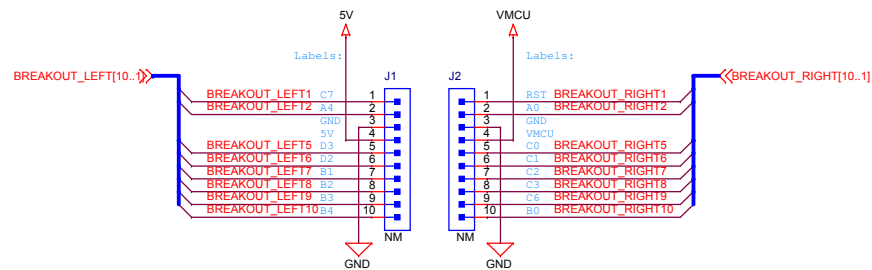
## Qwiic Connector



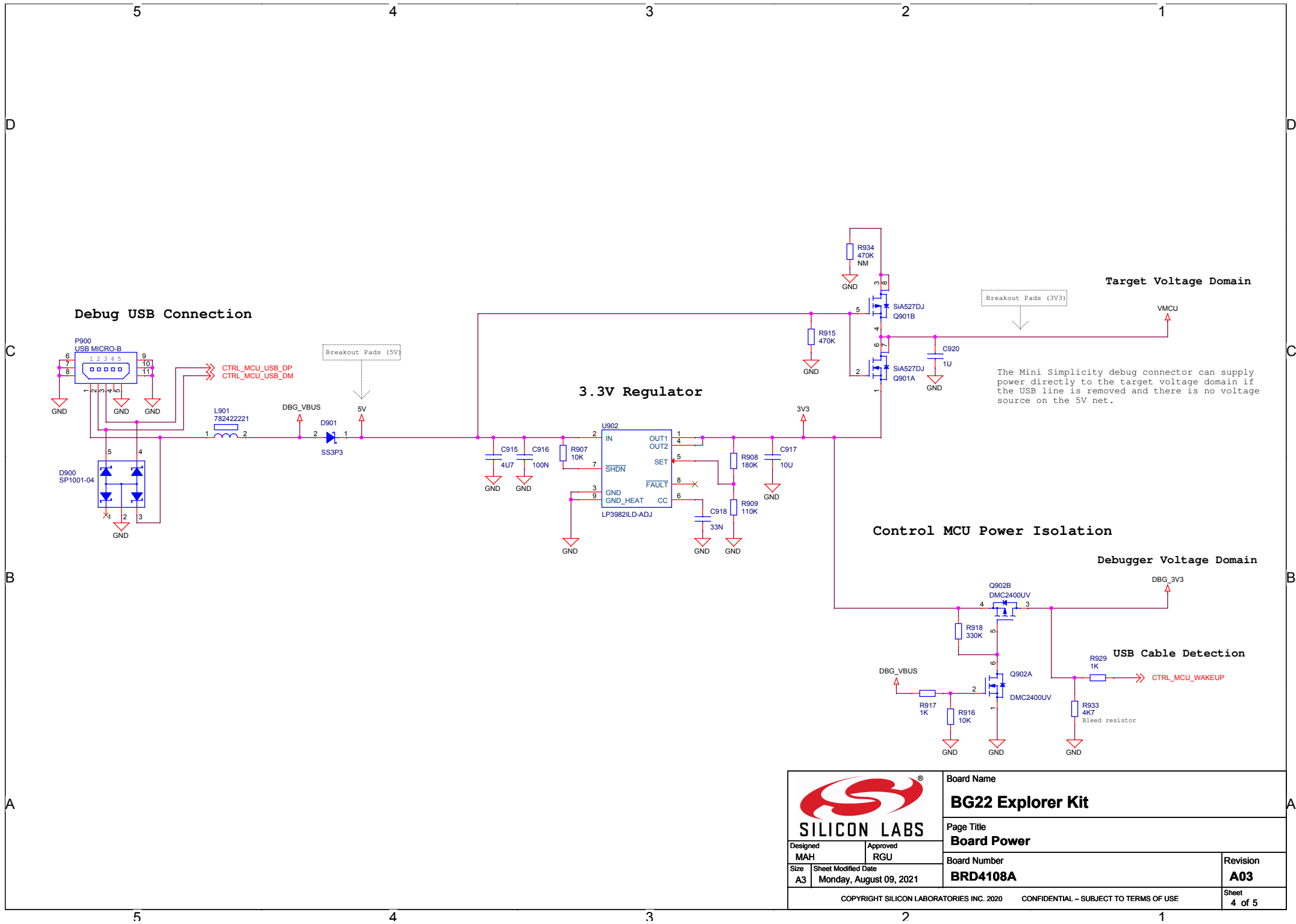
## MikroE Socket



## Breakout Pads



|                                                                                       |  |                          |                 |
|---------------------------------------------------------------------------------------|--|--------------------------|-----------------|
|  |  | Board Name               |                 |
|                                                                                       |  | <b>BG22 Explorer Kit</b> |                 |
| Designed<br>MAH                                                                       |  | Page Title               |                 |
| Size<br>A3                                                                            |  | <b>User Interface</b>    |                 |
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|                                                                                       |  | <b>BRD4108A</b>          | <b>A03</b>      |
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|                                                                                                              |                                                |                                        |                        |
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| <br><b>SILICON LABS</b> |                                                | Board Name<br><b>BG22 Explorer Kit</b> |                        |
|                                                                                                              |                                                | Page Title<br><b>Board Power</b>       |                        |
| Designed<br>MAH                                                                                              | Approved<br>RGU                                | Board Number<br><b>BRD4108A</b>        | Revision<br><b>A03</b> |
| Size<br>A3                                                                                                   | Sheet Modified Date<br>Monday, August 09, 2021 |                                        |                        |
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## Test Points

TPJ1 CTRL\_MCU\_SWDIO

TPJ2 CTRL\_MCU\_SWCLK

TPJ3 CTRL\_MCU\_SWO

TPJ17 CTRL\_MCU\_RESET

TPJ5 CTRL\_MCU\_TXD

TPJ6 CTRL\_MCU\_RXD

TPJ14 BOARD\_ID\_SCL

TPJ15 BOARD\_ID\_SDA

TPJ16 BOARD\_ID\_WP

TPJ18 CTRL\_MCU\_USB\_DP

TPJ19 CTRL\_MCU\_USB\_DM

TPJ11 CTRL\_MCU\_TEST\_MODE

TPJ12

TPJ13

## Mechanical

M900  
MECH\_PP\_FIXTURE

### Serial Flash

DBG\_3V3 DBG\_3V3

CTRL\_MCU\_SPI\_MOSI  
CTRL\_MCU\_SPI\_SCLK

R906 330K

CTRL\_MCU\_SPI\_CS  
CTRL\_MCU\_SPI\_MISO

U901A  
MX25R8035F

D2 SI / SIO0  
E1 SCLK  
A3 CS#  
E3 WP# / SIO2  
C1 RESET# / SIO3

U901B  
MX25R8035F

VCC  
GND

A1  
B2

C914 100nF

DBG\_3V3

M901 2.2 MM  
M902 2.2 MM

|                                                                                                              |                                                       |                                        |                        |
|--------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------|------------------------|
| <br><b>SILICON LABS</b> |                                                       | Board Name<br><b>BG22 Explorer Kit</b> |                        |
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| Size<br><b>A3</b>                                                                                            | Sheet Modified Date<br><b>Monday, August 09, 2021</b> | Board Number<br><b>BRD4108A</b>        | Revision<br><b>A03</b> |
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MECHANICAL



M901 2.2 MM      M902 2.2 MM

|                                                                                       |                                                       |                                        |                        |
|---------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------|------------------------|
|  |                                                       | Board Name<br><b>BG22 Explorer Kit</b> |                        |
|                                                                                       |                                                       | Page Title<br><b>On-Board Debugger</b> |                        |
| Designed<br><b>MAH</b>                                                                | Approved<br><b>RGU</b>                                | Board Number<br><b>BRD4108A</b>        | Revision<br><b>A03</b> |
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