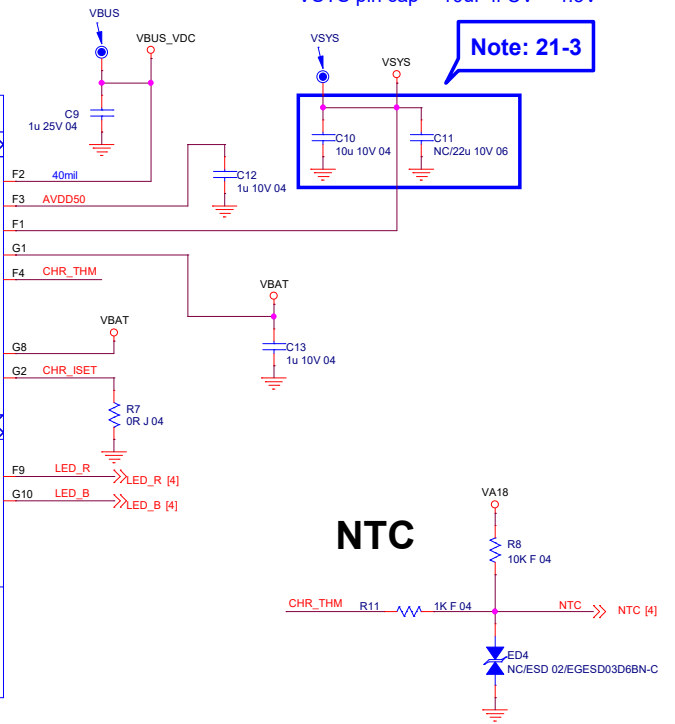
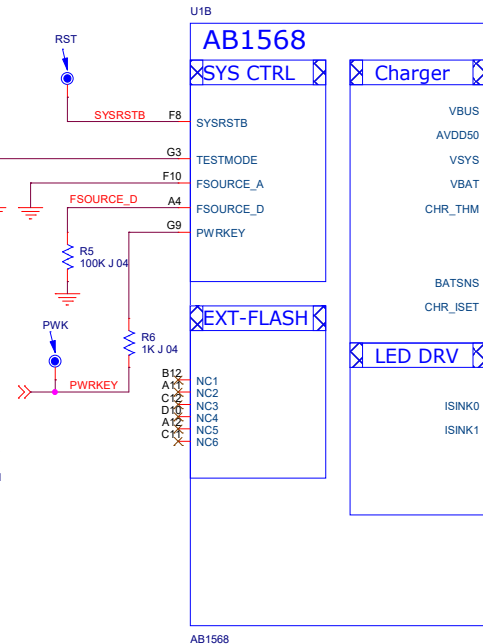
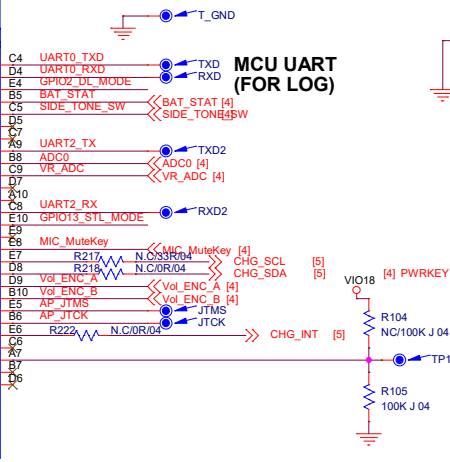
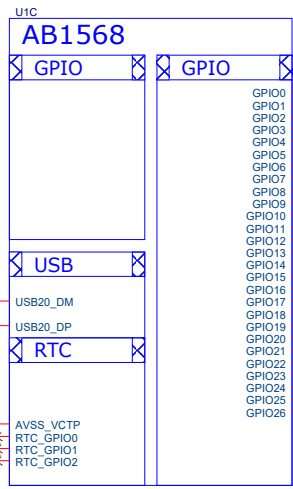


| Approved by | Checked by | Designer | <OrgName>                      |                    |
|-------------|------------|----------|--------------------------------|--------------------|
| Eddie       | Carl       | Boyce    | Project Number                 | AMPACS CORPORATION |
|             |            |          | RIG800ProAB_HX_RX_L            |                    |
|             |            |          | Size                           | Rev                |
|             |            |          | Custom                         | A                  |
|             |            |          | Title                          |                    |
|             |            |          | Block Diagram                  |                    |
|             |            |          | Date: Monday, January 10, 2022 | Sheet 2 of 7       |



Note 21-3: VSYS pin cap = 22uF if CV>4.3V  
 VSYS pin cap = 10uF if CV<=4.3V

Note: 21-3

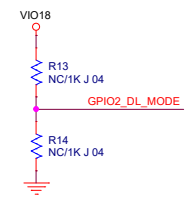
SLT Mode

GPIO13: SLT mode  
 0: normal  
 1: SLT  
 The SLT mode is for debug usage in Airoha side only.  
 Please keep GPIO13 floating.



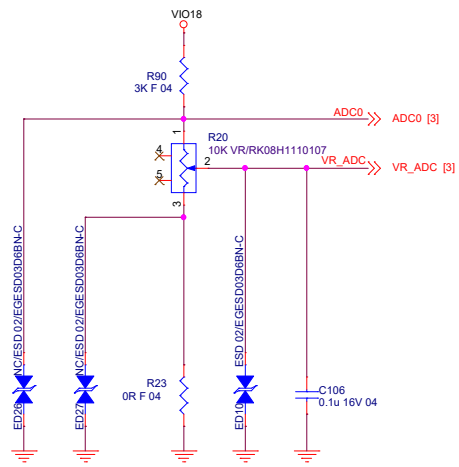
DL Mode and DSP Dump Pin

GPIO2: DL mode  
 0: no USB download  
 1: USB download  
 Reserve the test point if needs DL mode.  
 Please keep GPIO2 floating if don't need DL mode.  
 GPIO2: SPDIF Dump  
 Reserve the test point if needs DSP dump via SPDIF

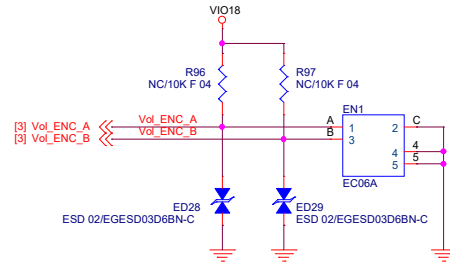


| Approved by | Checked by | Designer | <OrgName>                      |                    |
|-------------|------------|----------|--------------------------------|--------------------|
| Eddie       | Carl       | Boyce    | Project Number                 | AMPACS CORPORATION |
|             |            |          | RIG800ProAB_HX_RX_L            |                    |
|             |            |          | Size Title                     | Rev                |
|             |            |          | Custom AB1568_Power            | A                  |
|             |            |          | Date: Monday, January 10, 2022 | Sheet 3 of 7       |

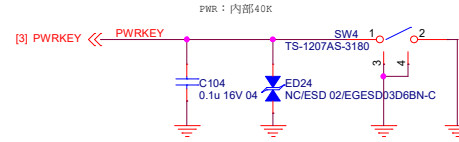
HX: GAME/CHAT VR  
HS: Side Tone VR



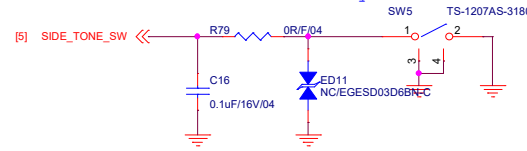
VOLUME ENCODER



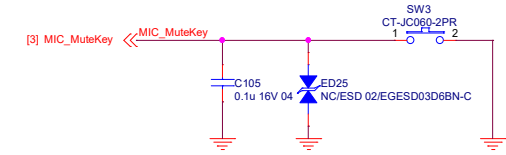
POWER/Pairing Key



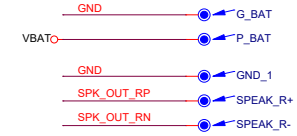
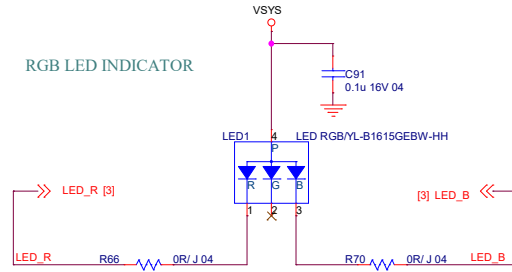
HX: Side Tone on/off Key  
HS: N.C Side Tone on/off Key



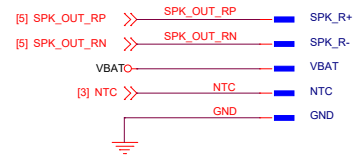
MIC Mute Key



RGB LED INDICATOR

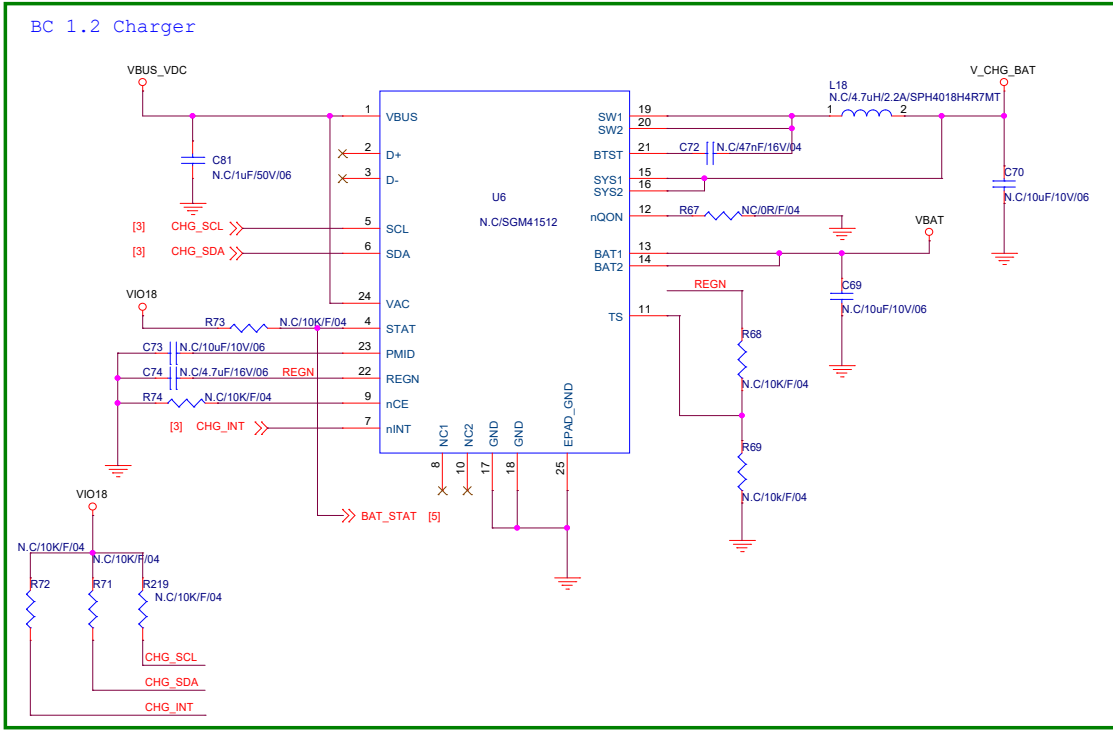
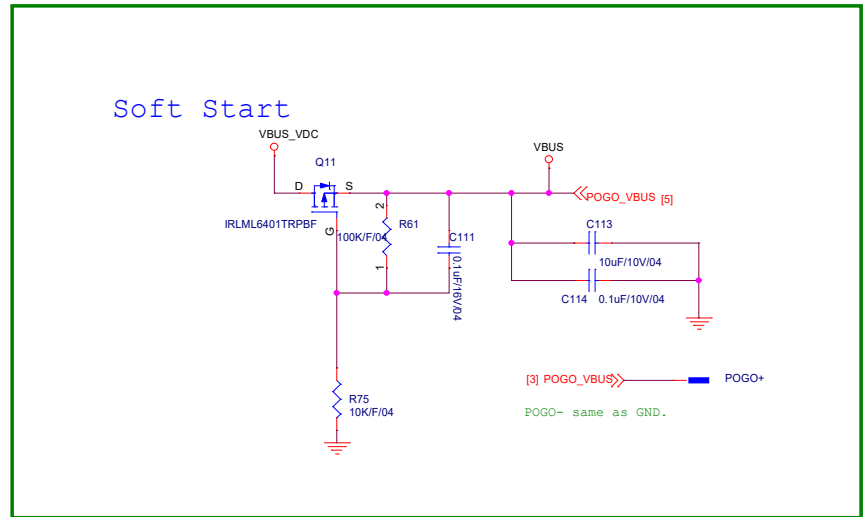
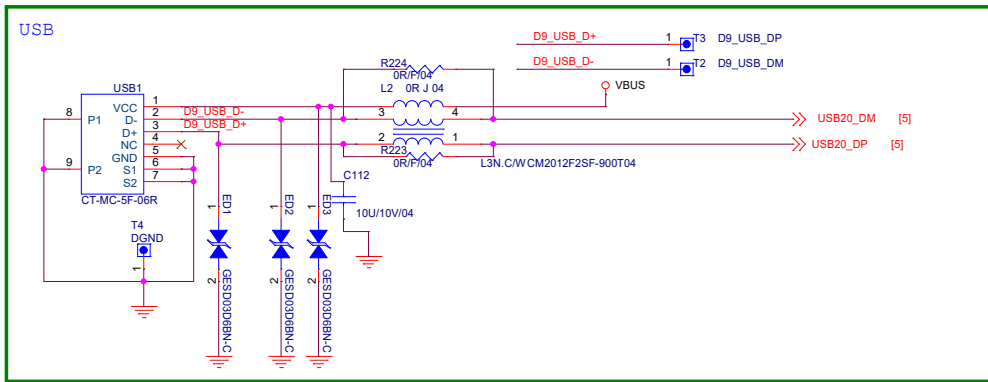


6 SIGNALS PAD FOR HEADBAND WIRE



|                    |                   |                 |                                       |                    |
|--------------------|-------------------|-----------------|---------------------------------------|--------------------|
| <b>Approved by</b> | <b>Checked by</b> | <b>Designer</b> | <b>&lt;OrgName&gt;</b>                |                    |
| Eddie              | Carl              | Boyce           | Project Number<br>RIG800ProAB_HX_RX_L |                    |
|                    |                   |                 | Size<br>Custom                        | Title<br>AB1568_IO |
|                    |                   |                 | Date: Friday, March 18, 2022          | Rev<br>A           |
|                    |                   |                 | Sheet 4                               | of 7               |



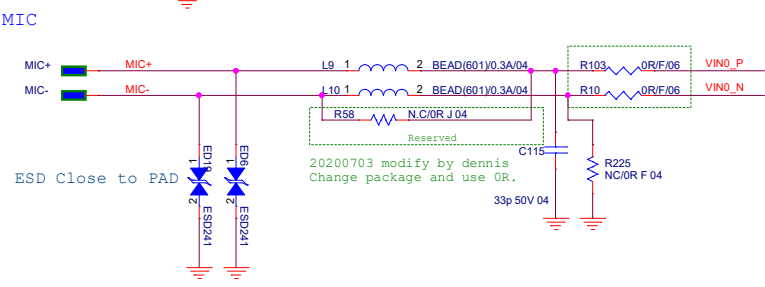
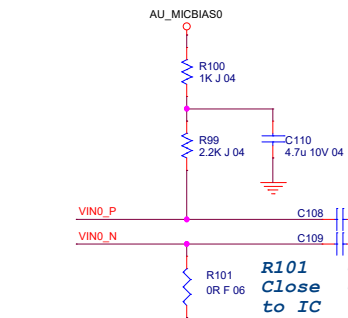
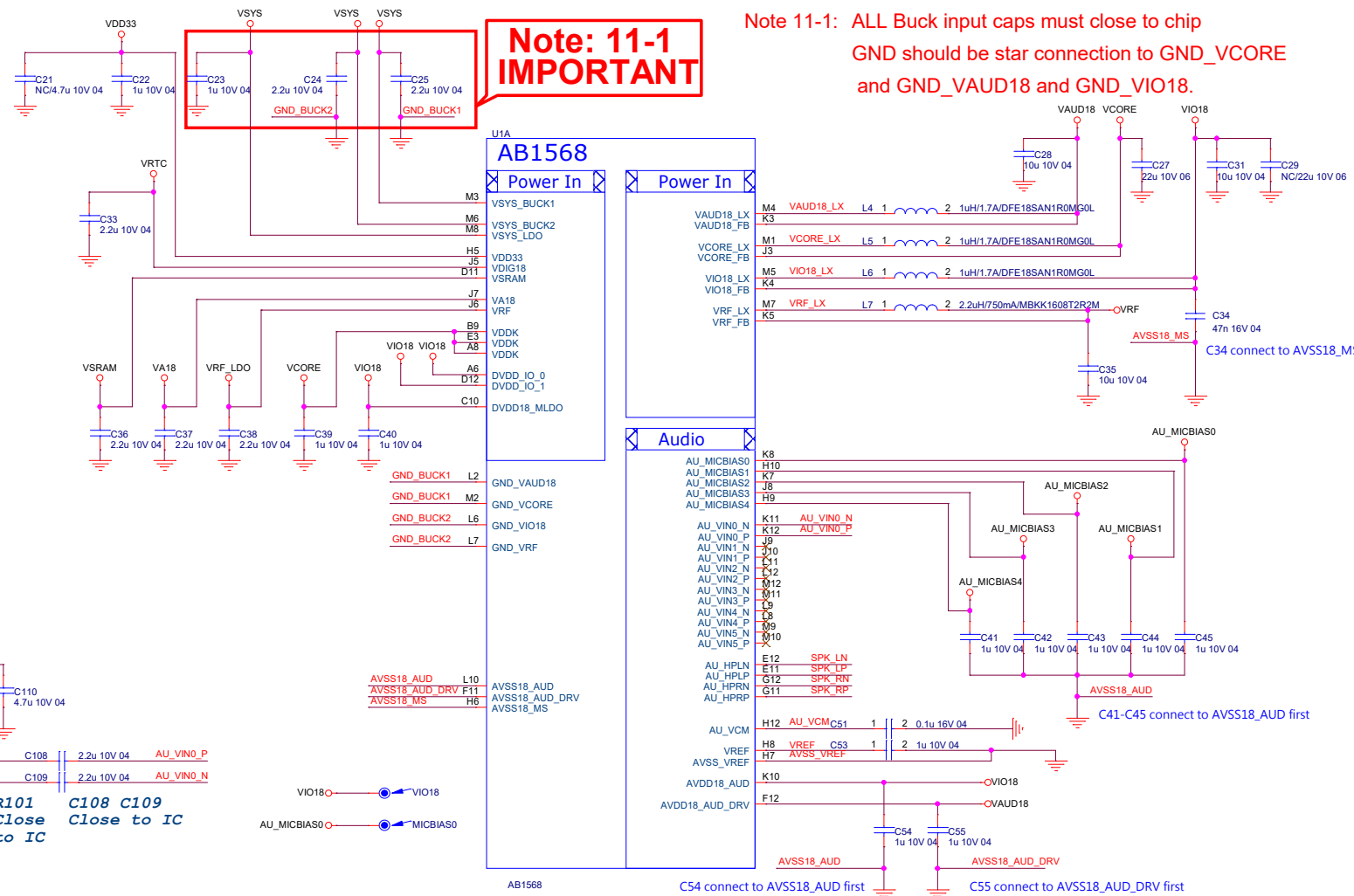


< 0 degree C and > 60 degree C : Stop charging  
 0 degree C ~ 10 degree C : Icc\*0.2 or Icc\*0.5, according REG05 D[0] setting, 0.75A or 0.3A in your case  
 10 degree C ~ 45 degree C : Icc, 1.5A in your case  
 45 degree C ~ 60 degree C : maximum Vout = CV-0.1V

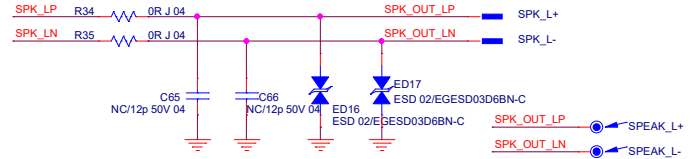
|             |            |          |                                |                    |
|-------------|------------|----------|--------------------------------|--------------------|
| Approved by | Checked by | Designer | AMPACS CORPORATION             |                    |
| Eddie       | Carl       | Boyce    | Project Number                 | AMPACS CORPORATION |
|             |            |          | RIG800 ProAB_HX_RX_L           |                    |
|             |            |          | Size                           | Rev                |
|             |            |          | C Power                        | A                  |
|             |            |          | Date: Monday, January 10, 2022 | Sheet 5 of 7       |

**Note: 11-1  
IMPORTANT**

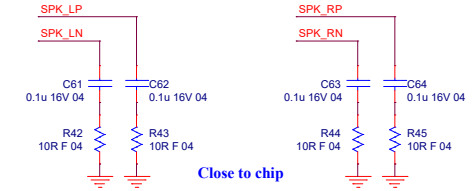
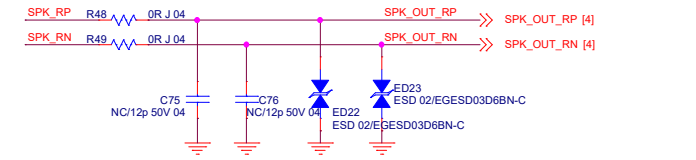
Note 11-1: ALL Buck input caps must close to chip  
GND should be star connection to GND\_VCORE  
and GND\_VAUD18 and GND\_VIO18.



**LEFT SIDE SPEAKER**



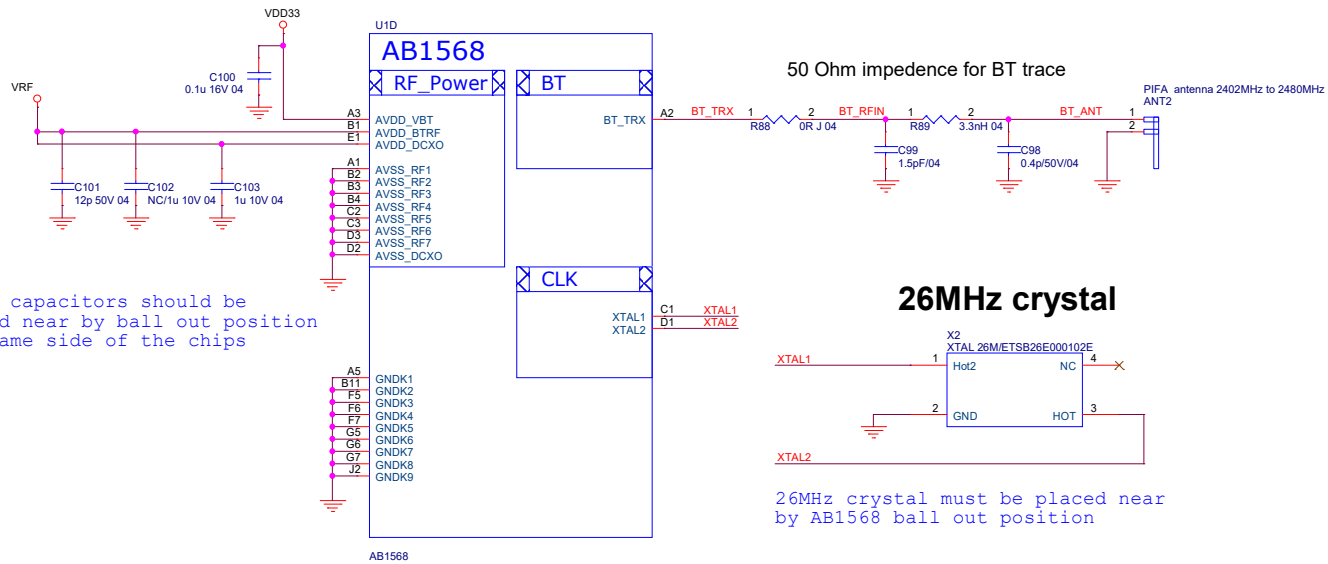
**RIGHT SIDE SPEAKER**



Close to chip  
For class D: C61~C64, R42~R45 NC  
For class AB & G: C61~C64, R42~R45 should be mounted

|   |                   |                 |                                       |
|---|-------------------|-----------------|---------------------------------------|
| <b>Approved by</b>                              | <b>Checked by</b> | <b>Designer</b> | <b>&lt;OrgName&gt;</b>                |
| Eddie   | Carl              | Boyce           | Project Number<br>RIG800ProAB_HX_RX_L |
|   |                   |                 | Size<br>Custom                        |
|   |                   |                 | Title<br>AB1568_Audio                 |
|   |                   |                 | Rev<br>A                              |
| Date: Tuesday, December 21, 2021   Sheet 6 of 7 |                   |                 |                                       |





These capacitors should be placed near by ball out position and same side of the chips

50 Ohm impedance for BT trace

26MHz crystal

26MHz crystal must be placed near by AB1568 ball out position

| Approved by | Checked by | Designer | <OrgName>                       |                    |
|-------------|------------|----------|---------------------------------|--------------------|
| Eddie       | Carl       | Boyce    | Project Number                  | AMPACS CORPORATION |
|             |            |          | RIG800ProAB_HX_RX_L             |                    |
|             |            |          | Size                            | Rev                |
|             |            |          | Custom                          | A                  |
|             |            |          | Title                           |                    |
|             |            |          | AB1568_RF                       |                    |
|             |            |          | Date: Friday, February 25, 2022 | Sheet 7 of 7       |