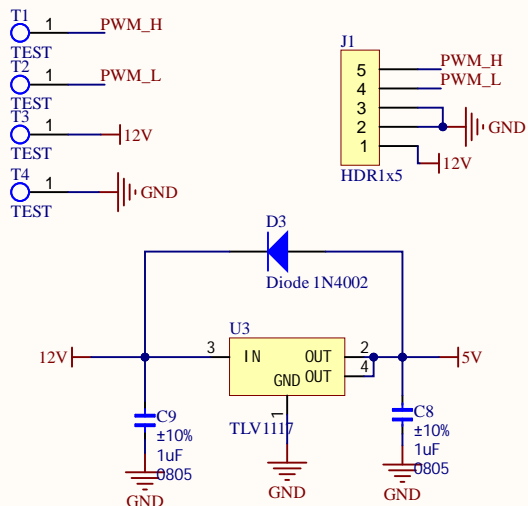
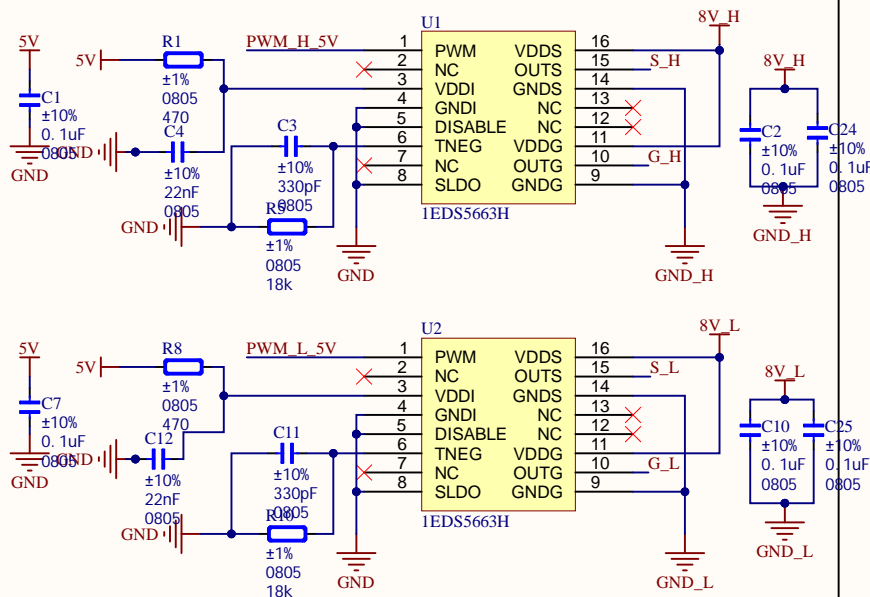


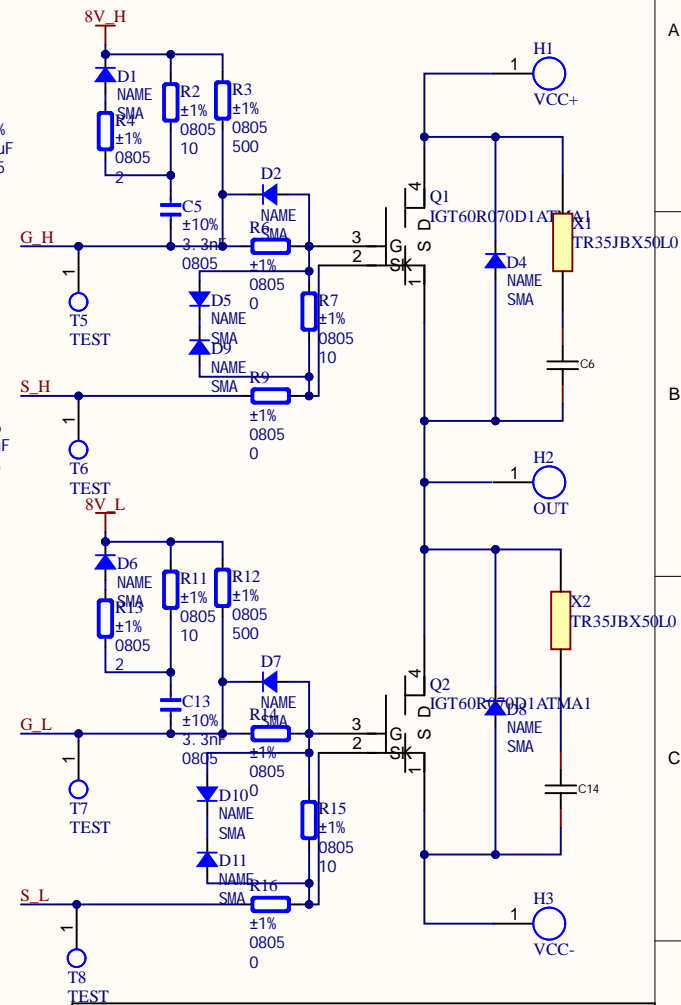
## Power\_Support



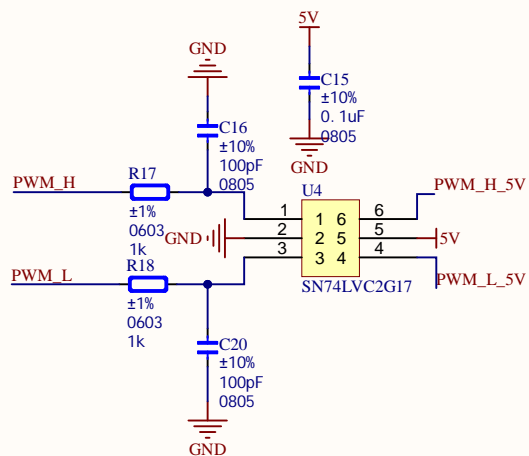
## Gate\_Drive\_Circuit



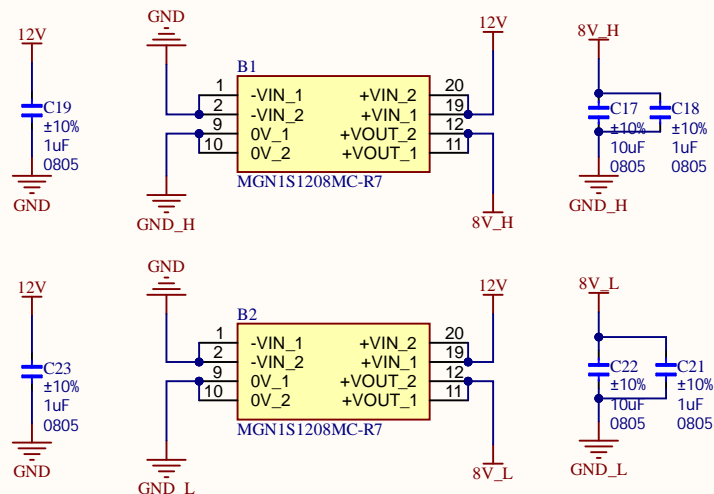
## Main\_Power\_Bridge



## Snubber\_Circuit



## Isolated\_Voltage\_Circuit



Title: GaN\_Single\_Bridge

Date: 2025.10.15

Author: Jisaye

Revision: V1.0

ShenZhen University

Organization: S213A

GaN\_Single\_Bridge.SchDot

| Comment                | Description  | Designator   | Footprint        | LibRef           | Quantity |
|------------------------|--|--|------------------|------------------|----------|
| MGN1S1208MC-R7         | Isolated Module DC<br>DC Converter 1<br>Output 8V 125mA<br>10.8V - 13.2V Input | B1, B2   | MGN1S1208MCR7    | MGN1S1208MC-R7   | 2        |
| C0805                  | Capacitor  | C1, C2, C3, C4, C5,<br>C7, C8, C9, C10, C11,<br>C12, C13, C15, C16,<br>C17, C18, C19, C20,<br>C21, C22, C23, C24,<br>C25 | CAP_0805         | Cap_0805         | 23       |
| GR442QR73D102KW<br>01L |  | C6, C14  | 1808             | 1808             | 2        |
| NAME                   | Diode  | D1, D2, D4, D5, D6,<br>D7, D8, D9, D10, D11  | DO-214AC         | Diode_SMA        | 10       |
| Diode 1N4002           | 1 Amp General<br>Purpose Rectifier   | D3   | DO-41            | Diode 1N4002     | 1        |
| VCC+                   |  | H1   | HOLE             | HOLE             | 1        |
| OUT                    |  | H2   | OUT              | HOLE             | 1        |
| VCC-                   |  | H3   | HOLE             | HOLE             | 1        |
| HDR1x5                 | Connector  | J1   | PIN-5-2.54-1.0   | HDR1x5           | 1        |
| IGT60R070D1ATMA1       |  | Q1, Q2   | IGT60R070D1ATMA1 | IGT60R070D1ATMA1 | 2        |
| R0805                  | Resistor,<br>Resistor_uncertain  | R1, R2, R3, R4, R5, R6,<br>R7, R8, R9, R10, R11,<br>R12, R13, R14, R15,<br>R16   | RES_0805         | Res_0805         | 16       |
| R0603                  | Resistor   | R17, R18   | RES_0603         | Res_0603         | 2        |
| TEST                   |  | T1, T2, T3, T4, T5, T6,<br>T7, T8  | TESTPOINT        | TEST             | 8        |
| 1EDS5663H              |  | U1, U2   | 1EDS5663H        | 1EDS5663H        | 2        |
| TLV1117                | Power  | U3   | SOT223-3         | TLV1117          | 1        |
| SN74LVC2G17            |  | U4   | SOT-23-6         | SOT-23-6         | 1        |
| TR35JBX50L0            | RES, TO-220, 0.05<br>ohm, 5%, 35W  | X1, X2   | TR35JBX50L0      | TR35JBX50L0      | 2        |