HS402 DIY Oscilloscope Components List

Revision: 1.5

| Designator | Quantity | Value | Description | Footprint | Comment |
|------------|----------|-------------|-----------------------|---------------|--------------------|
| R1, R5, R8 | 2 | 1K | Resistor | C0805 | |
| R8 | 1 | 1K | Resistor | C0805 | Option 1 |
| R2, R6 | 2 | 910K | Resistor | C0805 | |
| R3, R7 | 2 | 100K | Resistor | C0805 | |
| R9 | 1 | 1K | Potentiometer | VR5 | Option 1 |
| C1, C5 | 2 | 30pF var | Adjustable Capacitor | Capacitor Var | 3*4mm |
| C2, C6 | 2 | 100nF | Capacitor | C0805 | |
| C3, C7 | 2 | 47pF | Capacitor | C0805 | |
| C4 | 1 | 0.1uF | Capacitor | C0805 | Option 2 |
| C8 | 1 | 47uF - 6.3V | Capacitor | C0805 | Option 1 |
| C9 | 1 | 470nF | Capacitor | C0805 | |
| D1, D2 | 2 | BAV99 | Diodes | SOT23 | |
| U1, U3 | 2 | MCP6S21 | PGA | MSOP-8 | |
| U2 | 1 | AMS1117-1.2 | Linear Regulator | SOT223 | Option 1 |
| U4 | 1 | REF2033 | Header, 5-Pin | SOT23-5 | Option 2 |
| K1, K2 | 2 | AQY210EH | PhotoMOS | PNSC- | |
| MCU | 1 | STM32F411 | STM32 Black Pill Dev. | Black Pill | (or STM32F401) |
| P2, P5 | 2 | BNC | BNC Elbow Connector | BNC | |
| J1 | 1 | Header 1 | Header, 1-Pin | PIN1 | Vref, Option 2 |
| IN | 1 | Header 5 | Header, 5-Pin | HDR1X5 | I2C Buttons Module |
| OUT | 1 | Header 4 | Header, 4-Pin | HDR1X4 | I2C Modules |
| PWM | 1 | Header 1 | Header, 1-Pin | PIN1 | Output |