

## BOM Part-list for NAVIPANEL Midi to CV

| Part           | Value                                  | Detailed Description                                    |
|----------------|----------------------------------------|---------------------------------------------------------|
| C1             | 100nF                                  | CAPACITOR                                               |
| C10            | 10nF                                   | CAPACITOR                                               |
| C11            | 10nF                                   | CAPACITOR                                               |
| C12            | 10nF                                   | CAPACITOR                                               |
| C13            | 10nF                                   | CAPACITOR                                               |
| C14            | 10uF/16V Tantal                        | Capacitor Polarised - Generic                           |
| C2             | 100nF                                  | CAPACITOR                                               |
| C3             | 100nF                                  | CAPACITOR                                               |
| C4             | 10uF/25V                               | Capacitor Polarised - Generic                           |
| C5             | 0,1uF MKS/MKT                          | CAPACITOR                                               |
| C6             | 100uF/16V                              | POLARIZED CAPACITOR, European symbol                    |
| C7             | 10uF/16V Tantal                        | POLARIZED CAPACITOR, European symbol                    |
| C8             | 100uF/16V                              | POLARIZED CAPACITOR, European symbol                    |
| C9             | 100nF                                  | CAPACITOR                                               |
| EURORACK_CABLE | Flatcable_16pol_20cm                   | Flatcable_16pol_20cm                                    |
| GATE-INV       | INV/NOINV                              | PIN HEADER 1x3pol Jumper                                |
| H1             | STANDOFF_M3X15mm_I/A                   | STANDOFF_M3X15mm_I/A                                    |
| H2             | STANDOFF_M3X15mm_I/A                   | STANDOFF_M3X15mm_I/A                                    |
| H3             | STANDOFF_M3X15mm_I/A                   | STANDOFF_M3X15mm_I/A                                    |
| H30-H38        | 9x_WASHER_DIN125A_3,2mm_for_distance   | 9x_WASHER_DIN125A_3,2mm_for_distance                    |
| H4             | STANDOFF_M3X15mm_I/A                   | STANDOFF_M3X15mm_I/A                                    |
| H40-H42        | 3x_NUTS_DIN127_M3_for_Standoff_M3x15mm | 3x_NUTS_DIN127_M3_for_Standoff_M3x15mm                  |
| H5             | STANDOFF_M3X15mm_I/A                   | STANDOFF_M3X15mm_I/A                                    |
| H50-H58        | 9x_SCREWS_M3x5mm_ISO7380-1_V2A         | 9x_SCREWS_M3x5mm_ISO7380-1_V2A                          |
| H6             | STANDOFF_M3X15mm_I/A                   | STANDOFF_M3X15mm_I/A                                    |
| H7             | STANDOFF_M3X15mm_I/A                   | STANDOFF_M3X15mm_I/A                                    |
| H8             | STANDOFF_M3X15mm_I/A                   | STANDOFF_M3X15mm_I/A                                    |
| H9             | STANDOFF_M3X15mm_I/A                   | STANDOFF_M3X15mm_I/A                                    |
| IC-SOCKET_14   | 2x_IC-socket_14-pin                    | 2x_IC-socket_14-pin                                     |
| JP1            | CLOCK/GATE_OUT                         | PIN HEADER 1x3pol 1x Jumper                             |
| JP10           | MCP-23017-I2C ADDRESS 0x20-0x23        | FEMALE HEADER 2x2pol IC2 Address 0x20-0x23              |
| JP2            | NO_DC/DC                               | PIN HEADER 1x3pol 1x Jumper                             |
| JP3            | GATE ON/OFF                            | PIN HEADER 1x2pol 1x Jumper                             |
| JP4            | AGND   GND                             | PIN HEADER 1x2pol 1x Jumper                             |
| JP5            | I2C 3V3 L                              | PIN HEADER 1x2pol 1x Jumper                             |
| JP6            | I2C 3V3 R                              | PIN HEADER 1x2pol 1x Jumper                             |
| JP7            | I2C INT                                | PIN HEADER 1x2pol 1x Jumper                             |
| JP8            | AGND   GND                             | PIN HEADER 1x2pol 1x Jumper                             |
| JP9            | CLK_OUT                                | FEMALE HEADER 3pol                                      |
| JUMPER         | JUMPER 2pol.                           | 9x JUMPER 2pol.                                         |
| L1             | 22uH                                   | Noise /EMI Suppression Filters Inductor Type            |
| L2 (not used)  | 22uH (not used)                        | Noise /EMI Suppression Filters Inductor Type (not used) |
| LED1/PWR       | 3mm_red_low_current                    | 3mm_red_low_current                                     |
| LED2-GATE-OUT  | 3mm_red_low_current                    | 3mm_red_low_current                                     |

| Part         |                                   | Value | Detailed Description                                     |
|--------------|-----------------------------------|-------|----------------------------------------------------------|
| LOGO1        | NO_PB_LOGO                        |       | 3mm_red_low_current                                      |
| LOGO2        | ROHS_LOGO                         |       | 3mm_red_low_current                                      |
| LOGO3        | NO_PB_LOGO                        |       | 3mm_red_low_current                                      |
| LOGO4        | ROHS_LOGO                         |       | 3mm_red_low_current                                      |
| PCB_BREAKOUT | MIDI_TO_CV_V3-R03-v309-21-08-2025 |       | MIDI_TO_CV_V3-R03-v309-21-08-2025                        |
| PCB_MIDItocV | PANEL-Jacks-v26-03-07-2025        |       | PANEL-Jacks-v26-03-07-2025                               |
| R1           | 1K                                |       | RESISTOR, European symbol                                |
| R10          | 10K                               |       | 3296X-1-103LF Bourns 3/8" 10K Potentiometer              |
| R11          | 10K                               |       | 3296X-1-103LF Bourns 3/8" 10K Potentiometer              |
| R12          | 13K7 / 0,1%                       |       | RESISTOR, European symbol                                |
| R13          | 1K                                |       | RESISTOR, European symbol                                |
| R14          | 1K0 / 0,1%                        |       | RESISTOR, European symbol                                |
| R15          | 2K7                               |       | RESISTOR, European symbol                                |
| R16          | 10K / 0,1%                        |       | RESISTOR, European symbol                                |
| R17          | 13K7 / 0,1%                       |       | RESISTOR, European symbol                                |
| R18          | 1K0 / 0,1%                        |       | RESISTOR, European symbol                                |
| R2           | 2K7                               |       | RESISTOR, European symbol                                |
| R20          | 10K / 0,1%                        |       | RESISTOR, European symbol                                |
| R21          | 13K7 / 0,1%                       |       | RESISTOR, European symbol                                |
| R22          | 0R                                |       | RESISTOR, European symbol                                |
| R23          | 13K7 / 0,1%                       |       | RESISTOR, European symbol                                |
| R24          | 10K / 0,1%                        |       | RESISTOR, European symbol                                |
| R25          | 10K                               |       | 3296X-1-103LF Bourns 3/8" 10K Potentiometer              |
| R26          | 10K                               |       | RESISTOR, European symbol                                |
| R29          | 680R                              |       | RESISTOR, European symbol                                |
| R3           | 1K                                |       | RESISTOR, European symbol                                |
| R4           | 1K                                |       | RESISTOR, European symbol                                |
| R5           | 1K                                |       | RESISTOR, European symbol                                |
| R6           | 1K                                |       | RESISTOR, European symbol                                |
| R7           | 10K                               |       | 3296X-1-103LF Bourns 3/8" 10K Potentiometer              |
| R8           | 1K0 / 0,1%                        |       | RESISTOR, European symbol                                |
| R9           | 10K / 0,1%                        |       | RESISTOR, European symbol                                |
| RN2          | 4K7                               |       | SIL RESISTOR 5-pin                                       |
| SW1          | I2C-ADDR                          |       | DIP SWITCH 4 small Version                               |
| TP1          | Testpoint DAC CH.A-D              |       | PIN HEADER 1x5pol                                        |
| TP2          | Testpoint 12V/5V/3V3/AGND/GND     |       | PIN HEADER                                               |
| U1           | TRACO TBA1-0512                   |       | DC/DC CONVERTER 12V 1W                                   |
| U2           | LM324                             |       | Quad Op Amp 4,7V to 12.0V Single Supply CMOS             |
| U3           | CD74HCT14E                        |       | Hex schmitt trigger Inverter                             |
| U4           | DC/DC 5V/12V                      |       | DC/DC CONVERTER 5V-12V 1W                                |
| U5           | GY-MCP4728-4Ch_12Bit_DAC          |       | MCP4728 4x12Bit DAC VCC 3V3 - 5V                         |
| USB-4-CABLE  | 1x USB4_Cable_20cm_4pol           |       | 1x USB4_Cable_20cm_4pol                                  |
| X-USB-C      | PIN2=NC                           |       | PIN HEADER 2pol. RM5.08                                  |
| X1           | NRJ6HF-1-AU                       |       | Phone Connectors 1/4 JACK STEREO SW SLIM-FULL THREAD NSE |
| X10          | I2C-L-POGO                        |       | PIN HEADER 1x5pol                                        |
| X10A         | I2C-L-POGO                        |       | PIN HEADER 1x5pol                                        |

| Part    |                | Value | Detailed Description                                                      |
|---------|----------------|-------|---------------------------------------------------------------------------|
| X11     | I2C-R          |       | PIN HEADER 1x5pol                                                         |
| X11-JST | I2C-R-JST      |       | JST Header-pin footprint for 0.1 inch spaced/<br>style header connections |
| X11A    | I2C-C          |       | PIN HEADER 1x5pol                                                         |
| X12     | I2C-L          |       | LONG PIN HEADER 1x5pol 14mm                                               |
| X12-JST | I2C-L-JST      |       | JST Header-pin footprint for 0.1 inch spaced/<br>style header connections |
| X13     | GY-MCP4728     |       | LOW PROFILE FEMALE HEADER 10pol                                           |
| X14     | SUST-PEDAL     |       | LONG PIN HEADER 1x3pol 14mm                                               |
| X15     | VOL-PEDAL      |       | LONG PIN HEADER 1x3pol 14mm                                               |
| X16     | I2C-R2         |       | PIN HEADER 1x5pol                                                         |
| X17     | I2C-L2         |       | PIN HEADER 1x5pol                                                         |
| X18     | 1503_08        |       | Jack connectors according to JISC 6560, 3.5<br>mm                         |
| X19     | EURORACK 16Pin |       | HARTING                                                                   |
| X2      | NRJ6HF-1-AU    |       | Phone Connectors 1/4 JACK STEREO SW<br>SLIM-FULL THREAD NSE               |
| X21     | 16pol 90° Pins |       | PIN HEADER 2x8pol. 90°                                                    |
| X3      | 1503_08        |       | Jack connectors according to JISC 6560, 3.5<br>mm                         |
| X4      | 1503_08        |       | Jack connectors according to JISC 6560, 3.5<br>mm                         |
| X4A     | USB4-A4        |       | DIP-USB-A-TYPE-FMAL(4+2P-2.0-90D)                                         |
| X4B     | USB4-A4        |       | LONG PIN HEADER 1x4pol 14mm                                               |
| X4B1    | USB4-A4        |       | PIN HEADER 1x4pol 90°                                                     |
| X5      | USB-HOST       |       | LONG PIN HEADER 1x4pol 14mm                                               |
| X5A     | USB-HOST       |       | DIP-USB-A-TYPE-FMAL(4+2P-2.0-90D)                                         |
| X5B     | USB-HOST       |       | PIN HEADER 1x4pol 90°                                                     |
| X6      | I2C-R-POGO     |       | PIN HEADER 1x5pol                                                         |
| X6A     | I2C-R-POGO     |       | PIN HEADER 1x5pol                                                         |
| X7      | 1503_08        |       | Jack connectors according to JISC 6560, 3.5<br>mm                         |
| X8      | VCC Breakout   |       | LONG PIN HEADER 2x5pol 14mm                                               |
| X9      | 1503_08        |       | Jack connectors according to JISC 6560, 3.5<br>mm                         |