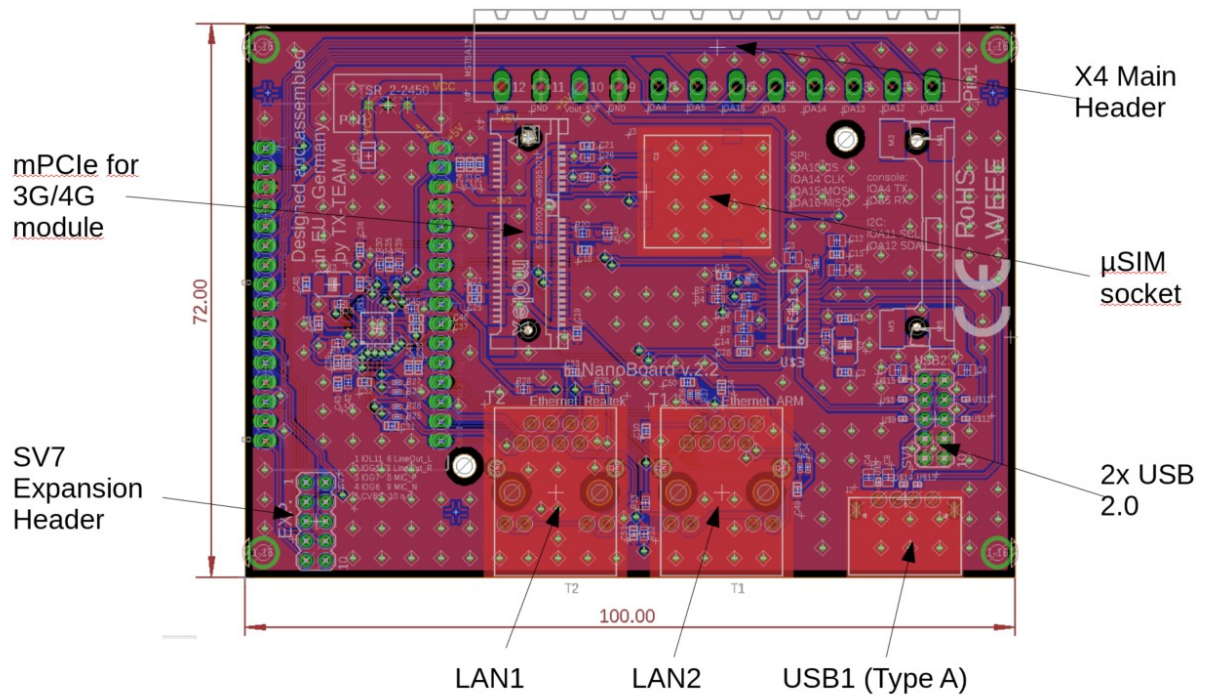


NanoBoard

Manual





| | |
|----------------------------------|---|
| Application | Networking Appliance / Server for Embedded Applications and IoT, in-vehicle applications |
| Type | Board-Level-Product |
| Dimensions (WxDxH) | 100x72 mm, 2,5" PicoITX formfactor |
| Weight | 0,1 kg |
| Cooling | without |
| Operating condition | 0..70°C / 80% rel. humidity |
| CPU | Allwinner H3 |
| RAM | 512 MB DDR3 |
| Mainboard | TX-Team carrier board + Friendlyarm NanoPi Duo2 SOM |
| I/O sideA | 2x RJ45, 1x USB 2.0 |
| I/O sideB | 1x 12pin PhoenixContact terminal: serial console, GPIO, SPI, I ² C, 5V DCOut, 7..35V DC-In Receptacle connector in scope of delivery |
| I/O internal (pin header) | 1x mPCIe full size (for 3G/4G modem), 1x SIM socket, 2x USB 2.0, 1x camera interface for OV5640 |
| Storage | 1x µSD-Card slot |
| Graphics | - |
| Wireless LAN | 802.11 b/g/n |
| Power-In | DC Wide-Input 7..35V, PhoenixContact screw terminal |
| Power consumption | Idle 1 Watt 100% load (Cel.) 3 Watt |
| OS compatibility | IPFire OpenWRT Ubuntu Core Linux |
| Scope of delivery | Please ask for further compatibilities TX-Team carrier board + Friendlyarm NanoPi Duo2 SOM pre-assembled, PhoenixContact Receptacle connector, Quick-Start-Manual |
| Compliance | CE, RoHS |
| Long term availability | until 2022 |
| Warranty | 36 months bring-in |
| Miscellaneous | Note: You'll need a serial console cable to access system's terminal. There is no graphic output. Please refer to "recommendation" - section to find a corresponding cable |



| X4 Main Header | Type: PhoenixContact 1757569 | function |
|-----------------------|--|-------------------------------|
| Pin# | Signal name (first option, second option) | |
| Pin1 | IOA11, SCL | I ² C |
| Pin2 | IOA12, SDA | |
| Pin3 | IOA13, CS | SPI |
| Pin4 | IOA14, CLK | |
| Pin5 | IOA15, MOSI | |
| Pin6 | IOA16, MISO | |
| Pin7 | IOA5, RX | Debug UART ser. console |
| Pin8 | IOA4, TX | |
| Pin9 | GND | |
| Pin10 | 5V Output | |
| Pin11 | GND | |
| Pin12 | 7..35V DC Input | |

| SV7 Exp. Header | Type: 2.54 mm Pinheader | |
|------------------------|--|-------|
| Pin# | Signal name (first option, second option) | |
| Pin1 | IOL11, IRRX | |
| Pin2 | IOG11 | |
| Pin3 | IOG7, RX | UART1 |
| Pin4 | IOG6, TX | |
| Pin5 | CVBS | |
| Pin6 | LineOut_L | |
| Pin7 | LineOut_R | |
| Pin8 | MIC_P | |
| Pin9 | MIC_N | |
| Pin10 | n.c. | |



| | |
|-------------------------|--|
| 2x USB2.0 header | Type: 2.54 mm Pinheader |
| Pin# | Signal name (first option, second option) |
| Pin1 | VCC |
| Pin2 | VCC |
| Pin3 | D-_1 |
| Pin4 | D-_2 |
| Pin5 | D+_1 |
| Pin6 | D+_2 |
| Pin7 | GND |
| Pin8 | GND |
| Pin9 | GND (shield) |
| Pin10 | GND (shield) |