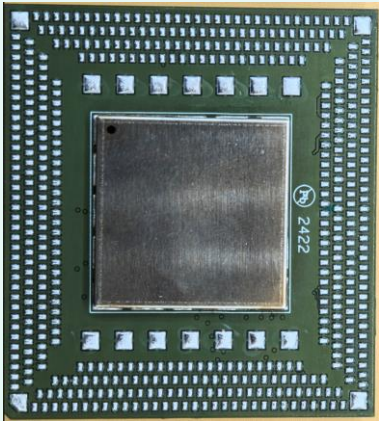


# Q01\_RKSOM(RK3588S2 SOM)

(System on Module with RockChip 3588S2 SoC)



PIN compliant with  
Q01\_RKSOM(RK3588  
SOM)  
RoHS compliant



## Technical Detail (released on 24-06-05)

|                    |                                                                                                                                                   |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                | Quad-core Cortex-A76 + Quad-core Cortex-A55, Neon and FPU                                                                                         |
| GPU                | Arm Mali-G610 MC4 with support for OpenGL ES3.2, OpenCL 2.2, Vulkan1.2                                                                            |
| NPU                | RKNN, 6 TOPS NPU with support for TensorFlow, Caffe, TFLite, PyTorch, ONNX NN, Android NN                                                         |
| Memory             | 4 GB, 8 GB, 16 GB, or 32 GB 64-bit LP4/LP4X/LP5                                                                                                   |
| Storage            | 32 GB, 64 GB, 128 GB, or 256 GB eMMC 5.1 flash storage                                                                                            |
| Supported OS       | Debian 11, Android 12, Ubuntu 22.04                                                                                                               |
| Supply power       | 4 V DC                                                                                                                                            |
| Video codec        | 8Kp60 video decoding (H.264/H.265/VP9)<br>8Kp30 video encoding (H.264/H.265)                                                                      |
| Display            | 1x HDMI2.1 TX + 1x DP/eDP combo interface, up to 7680 x 4320@60 Hz for HDMI and DP, and 3840 x 2160@60 Hz for eDP                                 |
| Camera             | 1xMIPI-CSI DPHY 4Lane /CPHY 3Lane,2xMIPI-CSI DPHY 2Lane                                                                                           |
| ISP                | 48M ISP, HDR                                                                                                                                      |
| Network            | 10/100/1000M BASE-T, up to 10G                                                                                                                    |
| USB                | 1x USB 3.0 (Gen1)<br>2x USB 2.0 Host<br>1x USB 3.1 +1x USB2.0 OTG(One full function Type C)                                                       |
| Others             | – UART DEBUG x1, UART+flow control x2<br>– SPI x2<br>– I2C x4<br>– CAN x1<br>– I2S x4<br>– SD 4.0, SDHOST 4.0, and SDIO 3.0<br>– PWM x3, GPIO x15 |
| Compatibility      | Compatible with Jetson TX2 NX(+ Q01W_MXM_Adapator)                                                                                                |
| OTP                | Size: 8K                                                                                                                                          |
| Optional accessory | Heatsink fan                                                                                                                                      |
| Dimensions         | 50 mm x 45 mm                                                                                                                                     |
| Temperature        | – Operating: -20°C to 80°C<br>– Storage: -20°C to 80°C                                                                                            |
| Relative Humidity  | – Operating: 10% to 90%<br>– Storage: 5% to 95%                                                                                                   |

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