NZ SERIES · RK3568

7"–23.8" ARM Embedded Industrial Panel PC

An all-in-one ARM computer behind a 3mm ultra-thin, flush-mount touchscreen. The NZ Series pairs a Rockchip RK3568 quad-core processor with a built-in 1 TOPS NPU for HMI, kiosk and lightweight AI applications. It runs Android or Linux in a fanless die-cast aluminum housing with an IP65 front, 12–36V DC power, 4G LTE expansion and RS232/RS485/CAN industrial I/O. There are 17 sizes, each with capacitive, resistive or no touch.

RK3568 · 1 TOPS NPU | Android / Linux | 3mm Flush Bezel | IP65 Front | 12–36V DC | 4G LTE | RS232 · RS485 · CAN

KEY FEATURES

1. **RK3568 + 1 TOPS NPU**
   Quad-core 2.0GHz CPU with Mali-G52 GPU and on-board AI acceleration.
2. **Android or Linux**
   Android 12/14, Linux 5.10, Ubuntu or Debian, with an SDK for custom builds.
3. **3mm flush-mount bezel**
   Ultra-thin front frame sits nearly level with cabinets and enclosures.
4. **Industrial I/O**
   RS232, RS485, CAN, DB9 serial, 4 × USB and 4K HDMI out.
5. **Connected anywhere**
   Gigabit LAN, Wi-Fi/Bluetooth and 4G LTE through Mini PCIe and SIM.
6. **Built for harsh sites**
   Fanless die-cast aluminum, IP65 front, 12–36V DC input.

MODEL LINEUP

Size	Non-Touch	Capacitive	Resistive	Resolution	Aspect	Brightness (nits)	Contrast	Viewing Angle L/R/U/D
7"	NZ70F	NZ70FC	NZ70FR	1024×600	16:9	500	500:1	75/75/70/75
8"	NZ80F	NZ80FC	NZ80FR	1024×768	4:3	250–300	800:1	85/85/85/85
10.1"	NZ101F	NZ101FC	NZ101FR	1280×800	16:10	300	1000:1	85/85/85/85
10.4"	NZ104F	NZ104FC	NZ104FR	1024×768	4:3	400	1000:1	80/80/80/60
11.6"	NZ116F	NZ116FC	NZ116FR	1920×1080	16:9	250–300	1000:1	85/85/85/85
12"	NZ12F-S	NZ12FC-S	NZ12FR-S	1024×768	4:3	500	1000:1	85/85/85/85
12.1"	NZ12F-W	NZ12FC-W	NZ12FR-W	1280×800	16:10	350	1000:1	65/65/65/65
13.3"	NZ133F	NZ133FC	NZ133FR	1920×1080	16:9	400	1000:1	85/85/85/85
15"	NZ15F	NZ15FC	NZ15FR	1024×768	4:3	350	1000:1	89/89/89/89
15.6"	NZ156F	NZ156FC	NZ156FR	1920×1080	16:9	300	800:1	85/85/85/85
17"	NZ17F	NZ17FC	NZ17FR	1280×1024	5:4	250–300	1000:1	85/85/80/70
17.3"	NZ173F	NZ173FC	NZ173FR	1920×1080	16:9	400	600:1	80/80/60/80
18.5"	NZ18F	NZ18FC	NZ18FR	1920×1080	16:9	270	1000:1	89/89/89/89
19"	NZ19F-S	NZ19FC-S	NZ19FR-S	1280×1024	5:4	250–300	1000:1	85/85/80/80
19.1"	NZ19F-W	NZ19FC-W	NZ19FR-W	1440×900	16:10	250–300	1000:1	80/80/80/80
21.5"	NZ215F	NZ215FC	NZ215FR	1920×1080	16:9	250–300	1000:1	89/89/89/89
23.8"	NZ238F	NZ238FC	NZ238FR	1920×1080	16:9	250–300	1000:1	89/89/89/89

APPLICATIONS

Industrial automation HMIs · Self-service kiosks and vending · Edge AI and machine vision · IoT gateways and remote monitoring · Building automation and access control · Energy and EV charging · Medical, retail and transportation terminals

SYSTEM	
CPU	Rockchip RK3568 quad-core 64-bit Cortex-A55, up to 2.0GHz
GPU	ARM Mali-G52 2EE
NPU	1 TOPS AI accelerator
Memory	2GB LPDDR4 (4GB / 8GB optional)
Storage	32GB eMMC (64 / 128 / 256GB optional)
OS	Android 12 / 14, Linux 5.10, Ubuntu 20.04 / 22.04, Debian 11
SDK	Available for app development and firmware customization
NETWORK	
Ethernet	1 × Gigabit LAN (10/100/1000M)
Wireless	Wi-Fi / Bluetooth, Wi-Fi antenna
Cellular	4G LTE via Mini PCIe (module optional), 1 × SIM
TOUCH	
Capacitive (FC)	Projected capacitive, 10-point; 88% light transmission; USB (COM optional)
Resistive (FR)	Single-point, finger or stylus; 78% light transmission; USB (COM optional)
Non-touch (F)	≥92% transmittance

INTERFACES	
USB	4 × USB (2 × USB 3.0, 2 × USB 2.0)
HDMI	1 × HDMI output, up to 4K
Serial	1 × DB9 RS232 (RS232/TTL switchable)
Phoenix terminal	1 × 12-pin: RS232 ×1, RS485 ×1, CAN ×1, NC ×4
Storage slot	1 × microSD (TF), up to 32GB
Audio	1 × 3.5mm in/out; 2 × 8Ω 2W speakers
Other	Power switch, UBOOT, GND terminal
POWER	
Input	12–36V DC, 3.81mm 2-pin Phoenix (DC 2.0 jack optional)
Adapter	24V / 2.5A (included)
MECHANICAL & ENVIRONMENTAL	
Housing	Die-cast aluminum, fanless, fully enclosed
Front frame	3mm ultra-thin, brushed flat finish
Color	Classic black or technical silver
Protection	IP65 (front)
Operating temp.	-10°C to 60°C (-20°C to 70°C optional)
Storage temp.	-20°C to 70°C
Humidity	95% non-condensing

I/O INTERFACE

15" model shown. Port layout may vary by size.

MOUNTING OPTIONS

ORDERING INFORMATION

`NZ[size]F` non-touch · **FC** capacitive · **FR** resistive

- Included: 24V/2.5A power adapter
- Options: RAM/eMMC upgrades, 4G module, COM touch, wide-temp
- Volume and OEM pricing: contact Geekland for a quote

Specifications subject to change without notice. Brightness varies by panel and touch option.

REAR COVER

7"–17.3": small back cover

18.5"–23.8": large back cover