

# Aurora Works — Atlas 108 (100%)

Product Specification Sheet ■ Rev 1.0

Atlas 108 is Aurora Works’ flagship full-size (100%) mechanical keyboard engineered for uncompromising typing feel, work-grade reliability, and enthusiast-level customization. With a rigid aluminum chassis, per-key RGB, and tri-mode connectivity, Atlas 108 blends premium acoustics with low-latency performance for creation, coding, and gaming.

## Mechanical & Dimensions

Parameter	Value
Layout	ANSI 100% (104 keys); ISO kit optional; dedicated media cluster + aluminum volume wheel
Dimensions (LxWxH)	441 × 138 × 38 mm (front height 20 mm without feet)
Typing Angle	Adjustable 4° / 6° / 8° with dual-stage feet
Weight	≈ 1.65 kg (fully assembled)
Case Material	CNC 6063 aluminum top & bottom, bead-blasted anodized (Space Gray, Midnight Blue)
Plate Options	Brass (mirror), FR4, or Polycarbonate — tool-less swap
Mounting System	Poron gasket mount; 50A gaskets; daughterboard with JST cable
Stabilizers	PCB screw-in (Durock v2 style), pre-lubed; 2U, 6.25U, 7U supported
Feet	NBR anti-slip pads; replaceable

## Electronics & PCB

Parameter	Value
PCB	1.6 mm FR4, ENIG finish, south-facing LEDs, 5-pin MX support, ESD protection
Hot-swap Sockets	Kailh v2, 3-pin/5-pin compatible
Microcontroller	ARM Cortex-M4 (STM32F411) @ 100 MHz, 512 KB Flash, 128 KB SRAM
Onboard Storage	8 MB for profiles/macros/effects
Daughterboard	USB-C 2.0 HS with ESD/OC protection; JST cable
NKRO	Full N-key rollover; anti-ghosting matrix

## Connectivity & Performance

Parameter	Value
USB	USB-C (detachable 1.8 m cable), 1000 Hz polling, <1 ms typical latency
2.4 GHz Wireless	Low-latency dongle (included), 1000 Hz polling, channel hopping
Bluetooth	Bluetooth 5.3; pair up to 3 devices; 125 Hz; quick-toggles (Fn+1/2/3)

Battery	5000 mAh Li-Po; up to 180 h no-RGB / 40 h mixed use (est.)
OS Compatibility	Windows, macOS, Linux; Win/Mac mode hardware switch

### Firmware, Layers & Macros

Parameter	Value
Firmware	QMK / VIA compatible, DFU bootloader
Layers	4 default layers (Base, Fn1, Fn2, Mac); unlimited user-defined via VIA
Macro Engine	On-device recording (Fn+Rec), per-key or sequence; delay granularity 1 ms
Profiles	5 onboard profiles; hot-swap without software
Key Scan	1 kHz scan rate with dynamic debouncing

### Keycaps & Lighting

Parameter	Value
Keycaps	Doubleshot PBT, Cherry profile, 1.5 mm walls, shine-resistant
Legend Method	Injection doubleshot; centered legends; homing bars (F, J)
Backlighting	Per-key RGB (south-facing) + underglow light strip; 16.8M colors
Effects	Wave, Ripple, Reactive, Breathing, Static; per-key mapping in VIA
LED Driver	IS31FL3731 class; 256-level brightness per channel

### Acoustics & Damping

Parameter	Value
Plate Foam	Poron 2.5 mm
Case Foam	EVA 3.0 mm
Switch Sheet	IXPE/PE foam for marbly 'pop' (removable)
Stabilizer Pads	Pre-installed EVA shims to reduce rattle

### Packaging & Compliance

Parameter	Value
In the Box	Keyboard, 2.4G dongle, USB-C cable, keycap puller, switch puller, spare gaskets, screws
Warranty	24 months limited warranty
Compliance	FCC, CE, RoHS, REACH
Operating Range	0–40 °C, 20–80% RH (non-condensing)

Model / SKU	Atlas 108 / AW-AT108-BLU / UPC 88999-00108
Support	VIA JSON & firmware at <a href="http://auroraworks.local/support">auroraworks.local/support</a>

Note: Battery life varies by brightness, effect, polling rate, and 2.4 GHz usage.