

Technical Specification

ProGlove MAI

DEVICE

OS	Proprietary Embedded Operating System (closed-source)
DISPLAY	Capacitive Touch Color Display, High Resolution
PHYSICAL BUTTONS	4x buttons, programmable
DEVICE UI	UI/UX optimized, pre-defined but customizable high-resolution color templates, with static or dynamic content and interactive widgets, for advanced operations with low integration effort (80+ customizable templates).
LED FEEDBACK	4x LED (color)
SOUND FEEDBACK	Speaker, 85dB(A) at 10 cm distance, volume configurable
VIBRATION FEEDBACK	Versatile configurable vibration patterns
SENSORS	9-axis IMU (Accelerometer, Gyrometer, and Compass), Barometer
SCAN ENGINE	Multi Range (details see below)

WIRELESS COMMUNICATION

BLUETOOTH	Bluetooth Low Energy (5.4) Transmission Range Free field: 75 m* Transmission Range Indoor: 30 m*
WLAN	IEEE 802.11 a/b/g/n/ac/ax compliant Dual band 2.4 GHz and 5 GHz Support of WPA3, WPA2, and WPA Bandwidth support 2.4 GHz: 20 MHz Bandwidth support 5 GHz: 20 MHz Transmission Range Free field 2.4 GHz: 70 m* Transmission Range Free field 5 GHz: 35 m* Transmission Range Indoor 2.4 GHz: 25 m* Transmission Range Indoor 5 GHz: 15 m*
FREQUENCY RANGE	WLAN Channels: U-NII-1/U-NII-2A/U-NII-2C/U-NII-3/U-NII-4 sub bands Frequency band used BLE & WLAN 2.4GHz: 2400-2483.5 MHz Frequency band used WLAN 5GHz: 5150-5895 MHz; DFS Support
MAX RADIO-FREQUENCY POWER TRANSMITTED	< 20dBm

*may decrease in industrial environments (e.g. due to walls, metal shelving, machines).

BARCODE DECODING CAPABILITIES

1D	Auto decodes all standard 1D codes including Code 128, Interleaved 2 of 5, GS1 DataBar linear codes et al.
2D	PDF417, MicroPDF417, Data Matrix, QR Code, Micro QR Code, Aztec, MaxiCode, et al.
POSTAL	US PostNet, US Planet, UK Postal, Australia Postal, Japan Postal, Dutch Postal (KIX) et al.

DISPLAY

DISPLAY SIZE	Full color AMOLED 1.95-inch 31.37 x 38.40 mm active area
RESOLUTION & BRIGHTNESS	High resolution (332 ppi, 410 x 502 pixel), high contrast and brightness (900nits max)
REFRESH	< 50ms

ELECTRICAL PROPERTIES

BATTERY	1250 mAh Li-Po (rechargeable)
CHARGING TIME	~120 min with ProGlove Charging Station Gen 2 (room temperature)
OPERATING TIME / SCANS	Supports 1-2 shifts operations with display, touch, buttons interaction with BLE connectivity. Performance varies by application and environment.
LIFETIME	≥ 80% of original capacity after 500 charging cycles
TRANSPORTATION COMPLIANCE	UN 38.3 certified for transport

MECHANICAL PROPERTIES

DIMENSIONS	59.6 mm x 52.1 mm x 21.4 mm (2.35 in x 2.05 in x 0.84 in)
WEIGHT	68 g (2.39 oz)

ENVIRONMENTAL CONDITIONS

DROP RESISTANCE	Resists multiple drops from 2 m (6.5 ft) onto concrete
TUMBLES	1000 tumbles from 1 m
PROTECTION AGAINST DUST AND WATER	IP 65 (Dust tight and protected against water jets from any direction)
DISPLAY ROBUSTNESS	Impact-resistant display optimized for wearable applications. Optional scratch-resistant protective film available.
TEMPERATURE	Operating Temperature: -10 °C to +50 °C (14 °F to 122 °F) Storage Temperature: -20 °C to +60 °C (-4 °F to 140 °F) Charging Temperature: +5 °C to +40 °C (41 °F to 104 °F) Optimal Charging Temperature Range for Battery Longevity: +18 °C to +30 °C (64 °F to 86 °F)
HUMIDITY	10% - 90% non-condensing
ELECTROSTATIC DISCHARGE (ESD)	±8kVdc air discharge ±4kVdc contact discharge

INTERFACES

ANDROID	Insight Mobile Android (App) (SDK, Intent, MQTT, WebSocket, Keyboard)
IOS	Insight Mobile iOS SDK
USB, RS232, Ethernet	ProGlove Gateway, Gateway Plus (USB HID, USB CDC, MQTT, WebSocket, TCP/IP)
WLAN	Additional information will be provided in subsequent updates.***

SCANNER PROPERTIES

RESOLUTION	2688 x 1520
READING FIELD OF VIEW	Horizontal: 37°, vertical: 21°
SKEW, PITCH & ROLL	Skew tolerance: ±60° Pitch tolerance: ±60° Roll tolerance: 360°
AMBIENT LIGHT	0 – 107,639 lux
AIMER	Green Laser 520nm

SCAN RANGES

Minimum and maximum distance determined by symbol length, scan-angle and environmental conditions. Orientation from field applications: 5cm – 600cm.

3 mil Code 39	Near Distance: 2.7 in./6.9 cm; Far Distance: 16.2 in./41.1 cm
5 mil Code 39	Near Distance: 2.5 in./6.4 cm; Far Distance: 26.6 in./67.6 cm
5 mil PDF417	Near Distance: 2.8 in./7.1 cm; Far Distance: 19.6 in./49.8 cm
6.7 mil PDF417	Near Distance: 2.6 in./6.6 cm; Far Distance: 25.6 in./65.0 cm
10 mil DataMatrix	Near Distance: 2.2 in./5.6 cm; Far Distance: 27.1 in./68.8 cm
100% UPCA (13 mil)	Near Distance: 2.5 in./6.4 cm; Far Distance: 71 in./180 cm
15 mil Code 128	Near Distance: 7.2 in./18.2 cm; Far Distance: 72 in./182.9 cm
20 mil Code 39	Far Distance: 109 in./276.9 cm
55 mil Code 39	Far Distance: 293 in./744.2 cm
100 mil Code 39	Far Distance: 554 in./1407.2 cm
100 mil DataMatrix	Far Distance: 270 in./685.8 cm

UTILITIES & ACCESSORIES

CONFIGURATION & DEVICE MANAGEMENT	https://insight.proglove.com
DIGITAL DOCUMENTATION	https://docs.proglove.com
ANDROID INTEGRATION	Insight Mobile (Android): Provides a full featured integration for Android enterprise applications.
IOS INTEGRATION	Insight Mobile (iOS): Provides a full featured SDK integration for iOS enterprise applications based.
GATEWAY INTEGRATION	ProGlove Gateway: Hardware connector to enable the full capabilities of the ProGlove Ecosystem via USB-interface, WLAN and Ethernet.
WLAN INTEGRATION	Additional information will be provided in subsequent updates.***
SCAN TRIGGER	Scanner can be only triggered with ProGlove wearable Hand Strap Gen2 (G020-R-10; G020-L-10; G020-MIX-3). Scan trigger supports double and triple trigger based on integration. Alternatively touch or physical buttons can be configured for scanning.
CHARGING STATION	2-Slot Charging Station (C021)

*** available within 18months after launch.

WARRANTY, SLA & LICENSE

WARRANTY	12 months factory warranty
PROGLOVE CARE	36 and 60 months maintenance contracts available. For more information please contact your ProGlove representative or visit https://proglove.com
NOTE	In case you have purchased the device bundled/coupled with our software solution license, you have 90 days to activate it, otherwise ProGlove will consider it active after this period. For any support on activation, please reach out to support@proglove.de.

SAFETY & REGULATORY

RADIO AND ELECTROMAGNETIC COMPATIBILITY	EU: 2014/53/EU Radio Equipment Directive (RED) US: FCC ID: 2A0JL-MAI (Part 15, Class B) Canada: IC: 23450-MAI (RSS compliance) Standards (Radio): EN 300 328 v2.2.2:2019, EN 301 893 v2.1.1:2017, EN 301 893 v2.2.1:2024
EMC STANDARDS	EN 300 440 v2.1.1:2017, EN 300 440 v2.2.1:2018, EN 301 489-1 v2.2.3:2019, EN 301 489-3 v2.3.2:2023, EN 301 489-17 v3.3.1:2024
ELECTRICAL SAFETY	EU: EN 62368-1:2014 / A11:2017 International: IEC 62368-1:2014 US/CA: UL 62368-1, 3rd Ed., 2021; CAN/CSA C22.2 No. 62368-1-21
LASER CLASSIFICATION	Class 2 Laser Product According to IEC 60825-1:2014 (Ed. 3.0) and EN 60825-1:2014 + A11:2021 Max. 1mW @ 520 nm, beam divergence 0.5 mrad Caution: Do not stare into beam
ENVIRONMENTAL	EU: RoHS Directive 2011/65/EU + Amendment 2015/863/EU; REACH SVHC (1907/2006); WEEE Directive 2012/19/EU US: FDA Laser Notice No. 56 (2019) compliance

COUNTRY CERTIFICATION

Regulatory markings are affixed to the device, indicating that the radio modules are approved for use in the following regions: European Economic Area, United States of America, Canada, United Kingdom. Detailed information on the regulatory markings can be found in the Declaration of Conformity (DoC) at www.proglove.com.

CE is valid in the European Economic Area and additional countries: Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom, Iceland, Liechtenstein, Switzerland and Norway.