kurloo

Confidence with millimetre precision

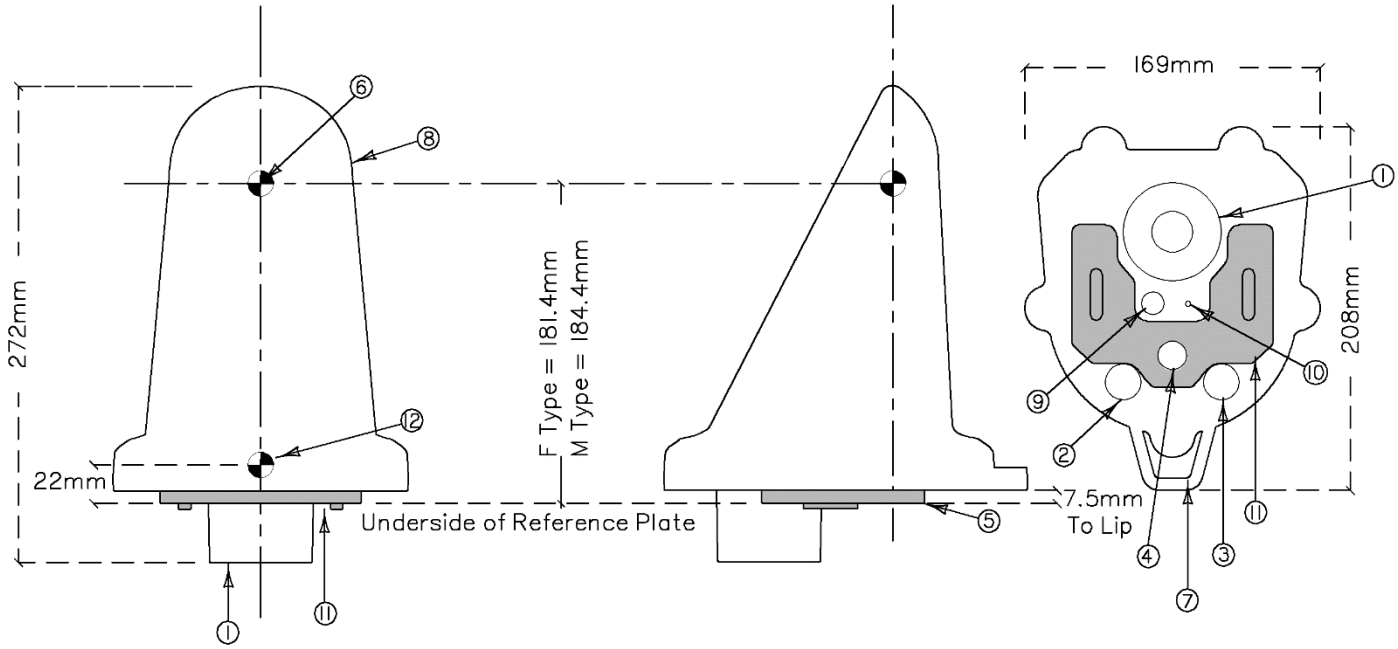
Product Datasheet

Technical Specifications

GNSS Capability		
Model	**Kurloo M2 Monitoring Station**	**Kurloo F2 Reference Station**
Constellations	GPS, Galileo, Beidou, QZSS	GPS, GLONASS, Galileo, Beidou, QZSS
Signal Tracking	L1 of supported satellites	L1, L2, E5b of supported satellites
	Single-band helical antenna	Dual-band helical antenna

GNSS Antenna Phase Centre Calibration for Kurloo F2	
International GNSS Service	IGS Antenna Exchange Format (ANTEX) Link: https://files.igs.org/pub/station/general/igs20.atx
Receiver	IGS Code: KURLOO FTYPE
Antenna	IGS Code: KRL_FTYPE

Mechanical	
Dimensions (LxWxH)	169 x 208 x 272 mm (6.7 x 8.2 x 11 in) -excluding antennas
Weight	1.3 kg (2.87 lb) -including antennas



1. Ultrasonic Distance Sensor
2. LTE-M Connector
3. Wi-Fi HaLow/LTE Connector
4. 5/8" Adapter Thread
5. Antenna Reference Point (ARP)
6. Antenna Phase Centre (APC)
7. Locking Feature
8. Device Housing
9. External Interface Connector
10. On/Off/Status Button
11. Kurloo Reference Plate Accessory
12. Ultrasonic Phase Centre (UPC)

Integrated Sensors	
Environment	Temperature (internal & ambient), humidity, pressure
Tilt	3-axis accelerometer
Heading	3-axis magnetometer (compass)
Height	Down-facing ultrasonic sensor, working range 300 to 5000 mm, 1% accuracy

Automated Static Survey Solution	
Horizontal Accuracy	2 mm + 0.5 ppm RMS [1,2,3]
Vertical Accuracy	3 mm + 1.0 ppm RMS [1,2,3]
Latency	Multiple daily solutions Solution available typically within an hour of data upload
	[1] Accuracy is achievable under ideal data observation environment and conditions [2] Accuracy is based on short baseline distance (< 1 km) between Kurloo F2 & Kurloo M2 [3] Accuracy is based on cloud GNSS data processing of continuous data observation period
Connectivity	
Cellular Radio	Integrated 4G LTE-M modem with support for 700-2200 MHz bands Certified for global[4] operation Dual-SIM capability (integrated global SIM & removable 2FF Standard SIM)
Modular Secondary Radio	Available modules: a. Wi-Fi HaLow: sub-1 GHz radio optimised for long range (up to 1 km) and low power (requires HaLow access point) b. Standard 4G LTE: for areas without LTE-M coverage
External Interface	Serial RS485 communications interface
Data Storage	Internal 32 GB memory card
	[4]Customers should verify compatibility with the cellular service available in their region
Electronic	
Solar	Integrated 1.5 W solar panel for battery charging
Battery	46 Wh LFP ($LiFePO_4$) battery for safe, long-term performance
External Power Input	5-12 V @ 2 A
Operating Conditions	
Temperature	-10 °C to +60 °C (14 °F to +140 °F)
Humidity	90% RH, non-condensing
Ingress Protection	IP67 (dustproof, submersible up to 1 m / 3 feet for 30 min)
Regulatory Compliance	
Australia & NZ	RCM, CISPR32 (EN 55032)
USA & Canada	FCC: 47 CFR Part 15B & C, ICES 003, RSS 247
EU	CE: EN 300 328, EN 301 489, EN 301 908
Safety	Device: IEC 62368-1:2018, EN IEC 62311 | Battery: IEC 62133-2, UN38.3

Scan for more information

AUSTRALIAN MADE

GOOD DESIGN AWARD® WINNER

kurloo

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Safety Instructions

Storage	Store this product in a cool and dry location.
Servicing	Do not disassemble the product. Servicing is to be performed by qualified service personnel only. Incorrect assembly may result in the risk of fire or personal injury.
Battery	The maximum operational temperature limit for the battery is -20°C to +60°C. Do not expose the battery to temperatures outside this range. Battery may cause fire, explosion and severe burn hazards. Do not cut, disassemble, crush, penetrate, incinerate, overheat or expose battery to water.
Disposal	Do not dispose of this product in heat or fire. This symbol on the product or on its packaging indicates that the product must not be disposed of with normal household waste. Instead, it is your responsibility to dispose of discarded equipment by handing it in to a local body recycling station, which manages the recycling of discarded electrical and electronic equipment. The central reception and recycling of discarded equipment in connection with disposal contributes to the conservation of natural resources and ensures that the equipment is recycled in a way that protects both people and the environment. Further information on where you can hand in discarded equipment for recycling can be obtained from the local council/ municipality, the local recycling station, or the supplier from which you bought the product.