



Scanner detail

Scanner for MiniMPL Enclosure

The MiniMPL all-sky scanner mounts directly to the NEMA-4 rated all-weather enclosure and is suitable for 24/7 outdoor use. It provides -10° to 90° elevation and -200° to +200° azimuth range scanning. Fully programmable, the scanner enables users to seamlessly run sector scans or stop-stare scan patterns.

MiniMPL Scanner Specifications

PERFORMANCE	
Number of Axis	2
Azimuth range	-200° to +200°
Elevation range	-10° to +90°
Detection range	up to 15 km
Repeatability	0.1°
Scan speed	5°/sec
OPTICS	
Window	100 mm diameter, anti-reflective coating for 532 nm & 1047 nm
DIMENSIONS	
Size	350 x 520 x 200 mm
Weight	~20kg (Enclosure required)

ENVIRONMENT	
Temperature	Operating -20°C to 40°C
Humidity	Operating 0 to 100%
Materials	Powder-coated aluminum
POWER	
Supply	110-240 VAC 50-60 Hz
Consumption	30W





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Enclosure detail



All-Weather Enclosure for MiniMPL

The MiniMPL enclosure is a NEMA-4 rated all-weather enclosure suitable for 24/7 outdoor use. Automatic heat/cool selection enable operation in conditions up to 100% humidity and from -10°C to 40°C. Integrated remote power switch prevents instrument damage beyond normal operating temperatures. The optical-grade window allows for clear laser transmission.

MiniMPL Enclosure Specifications

OPTICS	
Window	100 mm diameter, anti-reflective coating for 532 nm & 1047 nm
DIMENSIONS	
Size	640 x 640 x 770 mm
Weight (portability)	68 kg
COMMUNICATION	
Data transfer	LAN Ethernet
POWER	
Supply	110-240 VAC 50-60 Hz
Consumption	1300W

ENVIRONMENT	
Temperature	Operating -10°C to 40°C
Humidity	Operating 0 to 100%
Heating/Cooling	Heating: 400W Cooling: 700W Auto heat/cool selection
Material	Powder-coated aluminum



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GPS unit detail



GPS for MiniMPL Enclosure

For geolocating your data, a Garmin GPS unit can be mounted directly to the outside of the MiniMPL enclosure. The GPS provides integration of longitude, latitude and altitude directly into the MPL software. When coupled with the MiniMPL all-sky scanner, a powerful data product emerges where propagation of aerosol may be tracked.

MiniMPL GPS Specifications

CONNECTIONS	
GPS Connector Type	USB Type A
Interface	USB 2.0
DIMENSIONS	
Size	61 mm diameter, 19.5 mm height
Weight	105 g
GENERAL	
Connectivity	Garmin Binary, NMEA 0183
Receiver	WAAS enabled
Manufacturer	Garmin
Model	GPS 18x USB
ENVIRONMENT	
Temperature	Operating -30°C to 80°C

Geolocated scan data overlaid on Google Maps.

