Scintillometers for the measurement of heat fluxes and evaporation at small to large scales

Remote measurement by Large Aperture Scintillometry

Invisible light beam between transmitter and receiver does not intrude upon the area being monitored

Rapid measurements allow study of fast processes, such as plant transpiration and canopy resistance

Path-averaged measurement of turbulence and sensible heat fluxes, 1 second response time

Representative of a large area

Comparable to grid box size of numerical models and pixel size of satellite images

No flow distortion caused by the instrument itself

Can measure over terrain which is difficult to access, or which you do not want to disturb

Range from 100 m to 12 km, with eye safe, low power infra-red beam

Easy installation

no moving parts, low operating costs

Low power consumption at 12 VDC allows solar panel and battery power

Stand-alone operation in remote areas

window heater prevents ice and condensation

Digital data processing with real-time display, internal data logger with GPS time-stamp

Optical LAS or X-LAS integrate with a MWSC microwave scintillometer to form an Optical Microwave Scintillometer (OMS) system
<table>
<thead>
<tr>
<th>Application</th>
<th>LAS MkII</th>
<th>X-LAS MkII</th>
<th>X-LAS / LAS MkII + met sensor kit</th>
<th>LAS / X-LAS MkII ET System</th>
<th>OMS (MWSC + LAS / X-LAS)</th>
<th>LAS upgrade</th>
<th>X-LAS upgrade</th>
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<tr>
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**Specifications**

| Range without aperture reducer | 0.25 - 4.5 km | 1 - 12 km | 0.25 - 4.5 / 1 - 12 km | 0.25 - 4.5 km | 0.5 - 10 km | 0.25 - 4.5 km | 1 - 12 km |
| Range with aperture reducer    | 0.1 - 1 km    | 0.25 - 4.5 km | 0.1 - 1 km / 0.25 - 4.5 km | 0.1 - 1 km | 0.1 km | 0.25 - 4.5 km |

Temperature range: -20 to + 50 °C
Power requirement is 12 VDC, suitable for running on battery and solar power
(230 VAC with optional weatherproof power supply)
Data processing and download software included

www.kippzonen.com