

# Grating Spectroradiometer



WISER-35170 can obtain contiguous and high resolution spectral data from 350nm to 1700nm by using two grating spectroradiometers, MS-710 covering visible to near-infrared range and MS-712 for near-infrared band.

The models with blower fan, MS-710F and MS-712F can be also provided.

## FEATURES

- Continuous outdoor measurements (weatherproof)
- Spectral radiation measurements ( $W/m^2/\mu m$ ) from visible to near-infrared range
- Traceable with NIST (National Institute of Standard and Technology) standard lamp

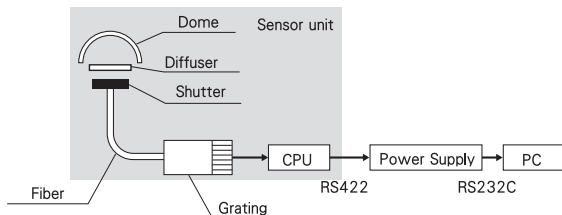
### MS-710 features

- Increased channels  
(4 times in comparison with conventional model, MS-700)
- Short wavelength interval (0.73nm)
- High spectral resolution (<5nm)

### MS-712 features

- Short wavelength interval (1.56nm)
- High spectral resolution (<7nm)
- High A/D resolution (16 bit)

## STRUCTURE block diagram



## APPLICATION

- Long term and continuous observation with weatherproof feature
- Investigate power generation of PV modules
- Remote sensing ground truth checking
- Solar spectrum measurement
- Research of aerosol
- Research of vegetation (PAR, Photon)
- Oceanographic (the effect of plankton and red tide etc.)

## Specifications

	MS-710, MS-710F	MS-712, MS-712F
Wavelength range	For visible and NIR 350 ~ 1000 nm	For NIR 900 ~ 1700 nm
Pixel number	1024ch	512ch
Wavelength interval	0.73nm	1.56nm
Spectral resolution(FWHM)	< 5nm	< 7nm
Wavelength accuracy	±0.2nm	±0.2nm
Sensor	Si	InGaAs
A/D resolution	16bit	16bit
Accumulating time (Signal measurement time)	10ms~500ms Dark current is measured in same accumulating time after each signal measurement.	
Traceability	NIST standard lamp	
Communication interface	RS422/RS232C	
Operating temperature	-10~+40°C	
Weight (main unit)	4.5kg (MS-710)	7.5kg (MS-712)
	7.5 kg (MS-710F)	12kg (MS-712F)
Dimensions (mm)	φ220x175 (MS-710)	φ300x200 (MS-712)
	φ260x240 (MS-710F)	φ310x270 (MS-712F)
Power requirements	100~240V AC, 50/60Hz	
	50W (MS-710) 66W (MS-710F)	65W (MS-712) 81W (MS-712F)
Software	Measurement function (One time measurement, Scheduled measurement) Analysis function (Data display, Various data calculation, CSV output)	