Technical Specifications

Specification			
Functions	Range	Resolution	Accuracy
Solar Irradiance Measurement	0~1400W/m² 0~500 Btu/(ft² · h)	1	±(5.0%rdg+5dgts)
Temperature Measurement	-40~120℃	0.1	±1℃ (-10~75℃) ±2℃ (others)
	–40~248°F	0.2/1 (>100℉)	±2℉ (14~167℉) ±4℉ (others)
Inclination Measurement	–90.0~+90.0°	0.1	±1.5°(-50~+50°) ±2.5°(-85~50°,+50~+85°) ±3.5°(others)
Azimuth Measurement	0~360°	1	±7°
Data Storage	12800 sets		
Storage interval	1s~60min		
LED Indicator	√		
Sound Prompts	√		
Auto Power Off	30 minutes (no operations)		
Compass Calibration	√		
Mobile APP	√		
Time Setting	√		
Bluetooth wireless transmission distance	100m		
Working Height	≤2000 meters		
Working Environment	-20℃~60℃, ≤90%RH(non-condensing)		
Storage Environment	-30℃~70℃, ≤80%RH(non-condensing)		
IP Rating	IP65		
Drop Test	2 meters		
General Characteristics			
Battery	2×AA		
Battery Life	About 95h		
Size	201×54.2×33.7mm		
Weight	About 212g(Battery not included)		
Accessories	Solar Irradiance Meter*1, Cloth Bag*1, User Manual*1, Safety Guide*1, AA Battery*2, Suction-Cup Temperature Probe*1, Solar Panel Mounting Bracket*1, General Download Operation Guide*1		
Standard Quantity Per Carton	2pcs		

Applications

PV Plant Maintenance

PV Plant Siting

Meteorological Research

Agri-Environmental Monitoring

UNI-TREND TECHNOLOGY

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UT381PV

Solar Irradiance Meter

The UT381PV Solar Irradiance Meter measures solar irradiance in natural and simulated sunlight. It features dual temperature channels, a built-in tilt/azimuth sensor, and connects to the iENV app and UT541 Analyzer. Ideal for PV panel installation, maintenance, and lab testing.

Multiple Targets

UV-Resistant Housing

Dustproof Waterproof

Dropproof

Quick-Release Bracket

Transmission Distance 100m

Specialized Anti-UV Housing(F1)

Prevents UV-induced aging and housing cracks.

One Device, Four Dimensions

Features a integrated sensor and supports an external probe for complete visibility.

Irradiance	Temperature	Inclination	Direction
0～1400W/m²	-40～120℃	–90.0～+90.0°	0～360°

Simultaneous Dual Temperature Display

Features a integrated sensor and supports an external probe for complete visibility.

T1

T2

Bluetooth APP Connection

Real-time measurement and PDF/CSV report export.

Bluetooth Connectivity to the UT541

The analyzer acquires data from the meter via wireless transmission.

Audio-Visual Tilt Alarm Mode

Alerts when the tilt angle deviates from the set value.

Large Storage Capacity

Wirelessly connect to a mobile app for data viewing and analysis.

Defying Harsh Environments

IP65 rating, 2m Drop Protection