

OHSP Spectral Color Luminance Meter

OHSP series portable spectrum color illuminance meter is the research and production of Hangzhou OhomeSmart Technology Co Ltd, set of spectra, color, illumination, radiation, stroboscopic measuring functions. The 5 inch big screen, the measurement parameters and curve of real-time display, convenient use, can be tested directly in the lighting scene, can measure a wide spectrum light source, LED light source can also measure energy-saving lamp CFL, high low pressure sodium lamp HID narrow spectrum, can be used for the design, construction stage lights, plant growth lamp, engineering application environmental light testing.

1、Product advantage

Long telephoto optical system, the optical resolution of 2nm, a wider wavelength range, LED can measure a wide spectrum light source, light source measurement can also CFL energy saving lamp and high low pressure sodium lamp HID the narrow spectrum;

Those with automatic zero and zero compensation technology, the largest integral time can be longer, can measure the weak light signal;

Those with electronic shutter technology, the minimum integration time can be less than 50uS, can measure more light signal;

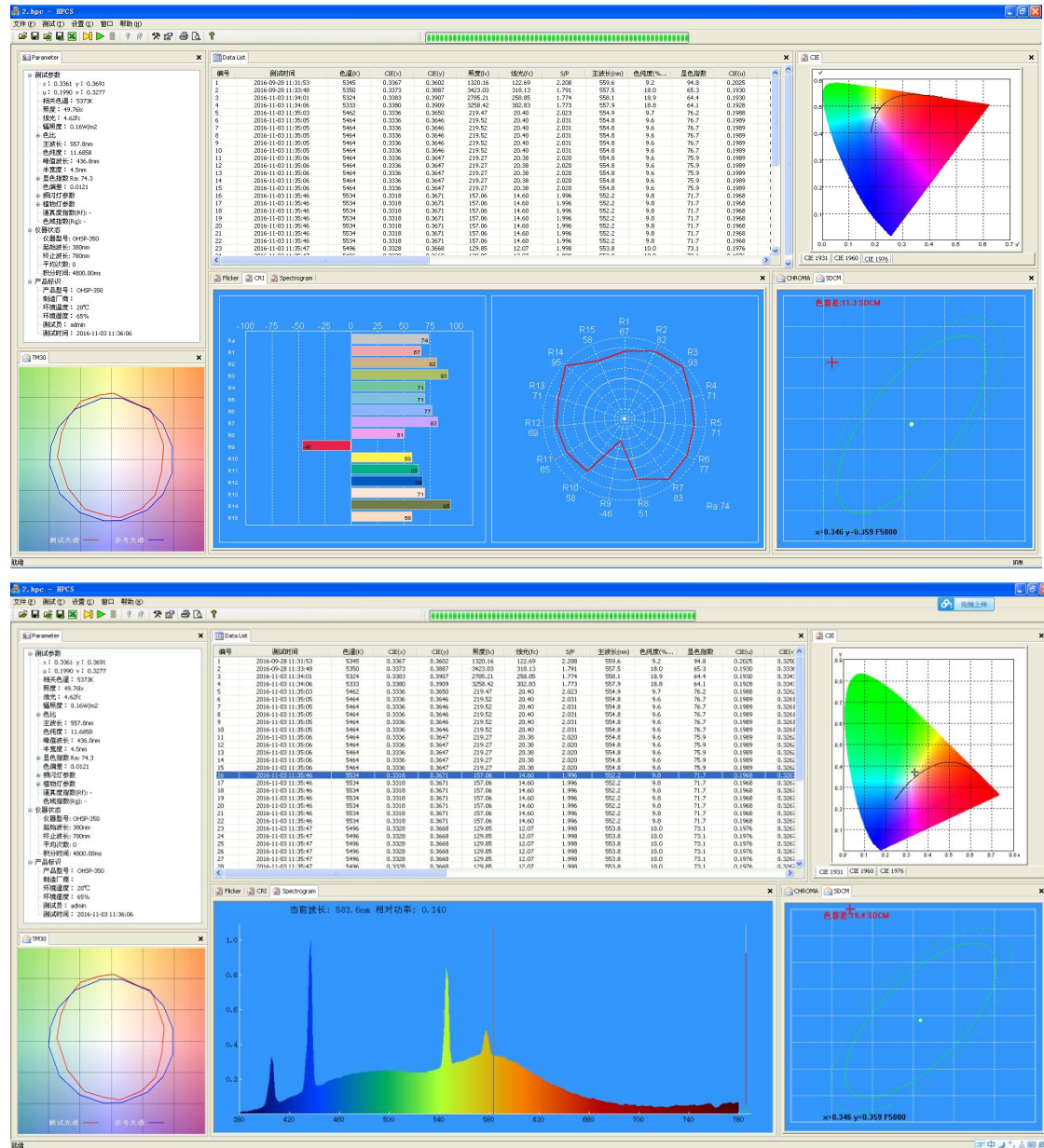
The fast switch machine, a key test, use more convenient,;

The large size HD IPS capacitive touch screen, high resolution display, the screen display more content, bright color, can be used outdoors;

The large capacity battery, 24 hours long test time;



2、Software Interface



3、Comparison with other brands

Parameter	OHSP350	Other brands A	Other brands B
Spectral platform	Telephoto cross asymmetric CT spectral system	Short focal one-piece spectral platform	Short focal one-piece spectral platform
Spectral bandwidth (FWHM)	2nm	About 12 nm	14nm
Wavelength range	380-780nm	380 ~ 780 nm	380-760nm
Sensor	CCD	CMOS	CMOS
Spectral resolution	0.2nm	1-2nm	1-2nm
Sensor array points	3648 point	256 point	256 point

Zero way	Auto	Manual	Manual
Integration time	50us-20000ms	6 ~ 5000 ms	5-10000ms
LCD Display	5 inch high-definition IPS capacitive touch screen	3.5"	4.2"
Distinguishability	480X854	320*240	320*240
Continuous working time	>10hours	≅ 4 hours / fully charged	≅ 4 hours / fully charged
Battery capacity	4000mAh	2500 mAh	2300 mAh
Whole structure	Aluminium engraving	Plastic shell	Plastic shell
Illumination measurement range	5-200000lx	20 ~ 70000 Lux	10-200000lx
Color temperature measurement range	1000-100000K	1500-25000K	1000-100000K
Probe window	Ø 10mm	Ø 6.6mm	Ø 6.6mm

4、Product model

Name	Spectral Color Luminance Meter	Spectral Color Luminance Meter	Plant light analyzer	Spectrum flicker meter
Model	OHSP350	OHSP350S	OHSP350P	OHSP350F
Version	Essence version	flagship version	Plant growth lamp test	Flash version
Wavelength range	380-780nm	350-950nm	300-800nm	350-950nm
Test parameters	OHSP350	OHSP350S	OHSP350P	OHSP350F
IlluminanceE(lx)	Y	Y	Y	Y
Candlelight E(fc)	Y	Y	Y	Y
CCT(K)	Y	Y	Y	Y
Blackbody deviation Duv	Y	Y	Y	Y
Coordinates x,y	Y	Y	Y	Y
Coordinates u,v	Y	Y	Y	Y
Coordinatesu',v'	Y	Y	Y	Y
Color tolerance SDCM	Y	Y	Y	Y
CRI Ra	Y	Y	Y	Y
R1-R15	Y	Y	Y	Y
Irradiance Ee(W/m2)	Y	Y	Y	Y
Ratio between light vision and dark visual S/P	Y	Y	Y	Y
Dominant wavelength (nm)	Y	Y	Y	Y
Color purity (%)	Y	Y	Y	Y
Half width(nm)	Y	Y	Y	Y
Peak wavelength (nm)	Y	Y	Y	Y

Central wavelength (nm)	Y	Y	Y	Y
Centroid wavelength(nm)	Y	Y	Y	Y
Red ratio(%)	Y	Y	Y	Y
Green ratio (%)	Y	Y	Y	Y
Blue ratio (%)	Y	Y	Y	Y
Eb(W/m2)	N	Y	Y	Y
Ey(W/m2)	N	Y	Y	Y
Er(W/m2)	N	Y	Y	Y
Erb Ratio	N	Y	Y	Y
PAR(W/m2)	N	Y	Y	Y
Eq(umol/m2/s)	N	Y	Y	Y
Ep(W/m2)	N	Y	Y	Y
Fidelity index	N	Y	N	N
Color area index	N	Y	N	N
Scintillation index	N	N	N	Y
Scintillation percentage	N	N	N	Y
Fluctuations depth	N	N	N	Y
Flicker frequency	N	N	N	Y

5、Measured parameters

Light splitting platform	Long cross asymmetric CT optical system		Illumination measurement range	5-20000lx	
Spectral bandwidth (FWHM)	2nm		Temperature measurement range	1000-100000K	
Spectral resolution	0.2nm		x,y Accuracy	±0.001	Standard A light source
Sensor	CCD		x,y Repetitiveness	±0.0005	
Sensor array point	3648point		Illumination Accuracy	±4%(Class 1)	2856K, illuminance under
Zero alignment method	Auto zero		Color Rendering Accuracy	±1.5%	10000lx
Integration time	50us-20000ms		Wavelength Accuracy	±0.5nm	
LCD display screen	5 inch high definition IPS capacitive touch screen		Wavelength data output interval	1nm	
Resolution ratio	480x854		AD Resolution Ratio	16bits,250kSPS	
Measurement model	Single/Continuous		Language	simplified style/ complex font/ English	
Exposure mode	Automatic/Manual		File Saveing	8GB SD Card	
Spectrum display mode	6 optional display parameters		Data Output Interface	SDCard/USB2.0	
	Spectral distribution curve		Size(LxWxH)	163x81x25.8mm	
Data display mode	All parameters can be displayed up and down		Probe window	Ø 10mm	
Graphic display mode	CIE1931 chromatic diagram		Weight(Including battery)	500g	
(Swipe left and right to	CIE1960 chromatic diagram		Service Temperature	0~35°C	
display a variety of pattern	CIE1976 chromatic diagram		Storage temperature	-10~40°C	
selection)	The color tolerance of elliptic type		Continuous working time	>10hours	
	Color index chart		Battery capacity	4000mAh	
	Color index histogram		Whole structure	All aluminum alloy engraving	

一、OHSP350C/OHSP350/OHSP350S SPECTRAL IRRADIANCE COLCOIMETER

(Note:350C No software、350basic model)

Application: the illumination and spectrum measurement of light source like LED,OLED,CFL energy saving lamp and HID high low pressure sodium lamp etc.

Characteristics:

Long focal length optical system, 2 nm optical resolution

High performance linear CCD sensor 3648 points;

Automatic zero and zero compensation technology, boot no manual zero;

Electronic shutter technology, the minimum integration time 50 us, measurable stronger light signal;

Quick switch machine, a key test, the use of more convenient
5 inch high-definition IPS screen, capacitive touch screen, display more content;
Bring 4000mAh large-capacity lithium battery, 24 hour long test time;

CHARACTERISTICS AND SPECIFICATIONS

Correlated color temperature (CCT)

Illumination candlelight Spectral Irradiance

Chromaticity Coordinates

The Relative Spectral power distribution

Color Rendering Index

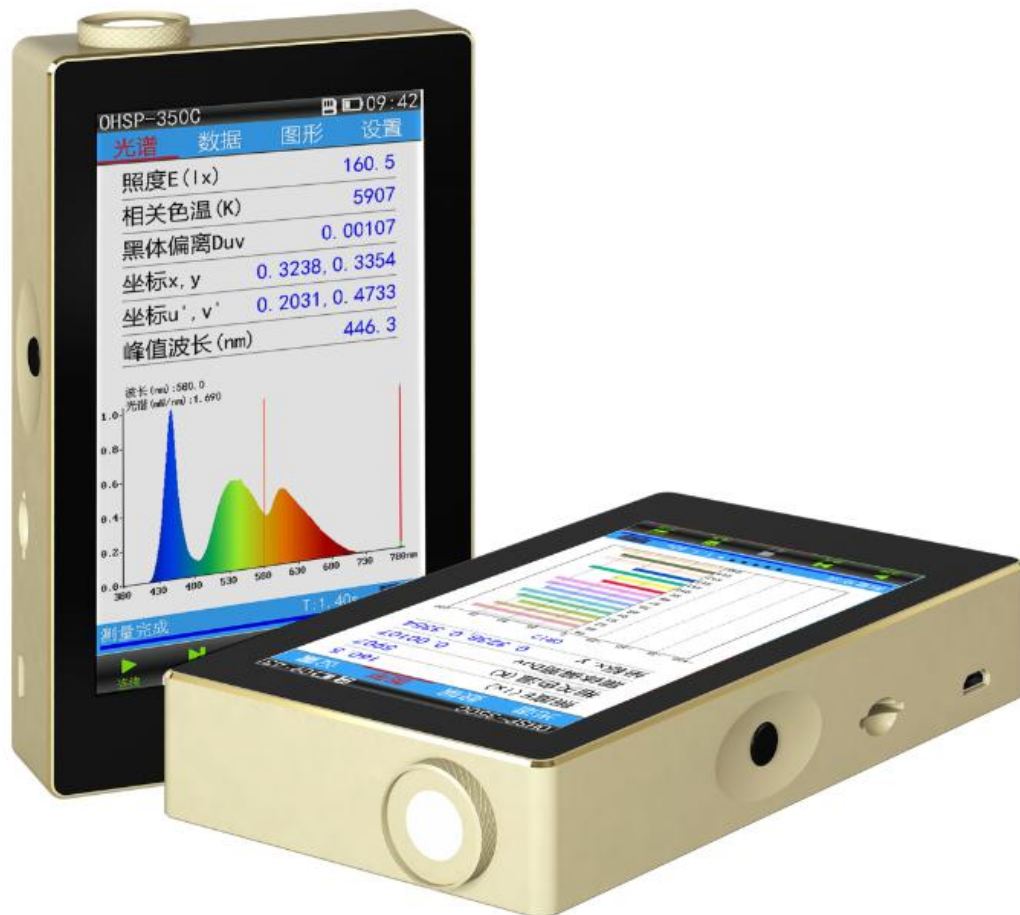
Rf,Rg as per IES TM-30

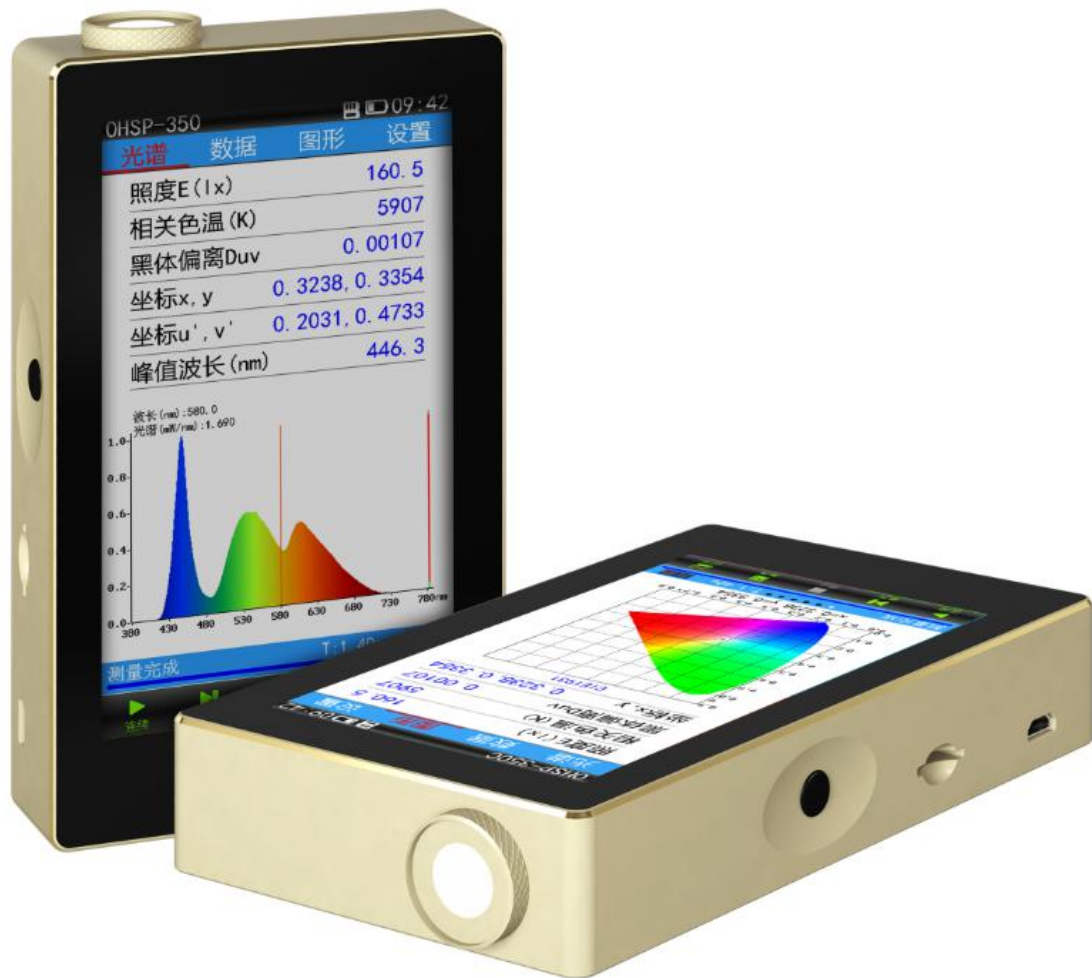
SDCM Color Tolerance

Dominant Wavelength Peak Wavelength

Radiophotopic vision scotopic vision S/P

Color purity、red ratio、green ratio、blue ratio、CIE1931 tricolor stimuli X、Y、Z





二、OHSP350P PLANT LIGHTING ANALYZER CHARACTERISTICS AND SPECIFICATIONS

- PAR photosynthetically active radiation
- Photosynthetic photon flux density PPF
- Yield Photon Flux Density
- Blue-purple irradiance E_b
- Yellow-green irradiance E_y
- Red-orange irradiance E_r
- Ratio of red and blue radiation



三、OHSP350F SPECTRAL FLICKERING IRRADIANCE METER

CHARACTERISTICS AND SPECIFICATIONS

Scintillation Index

Flicker Percentage

scintillation depth

Flicker frequency

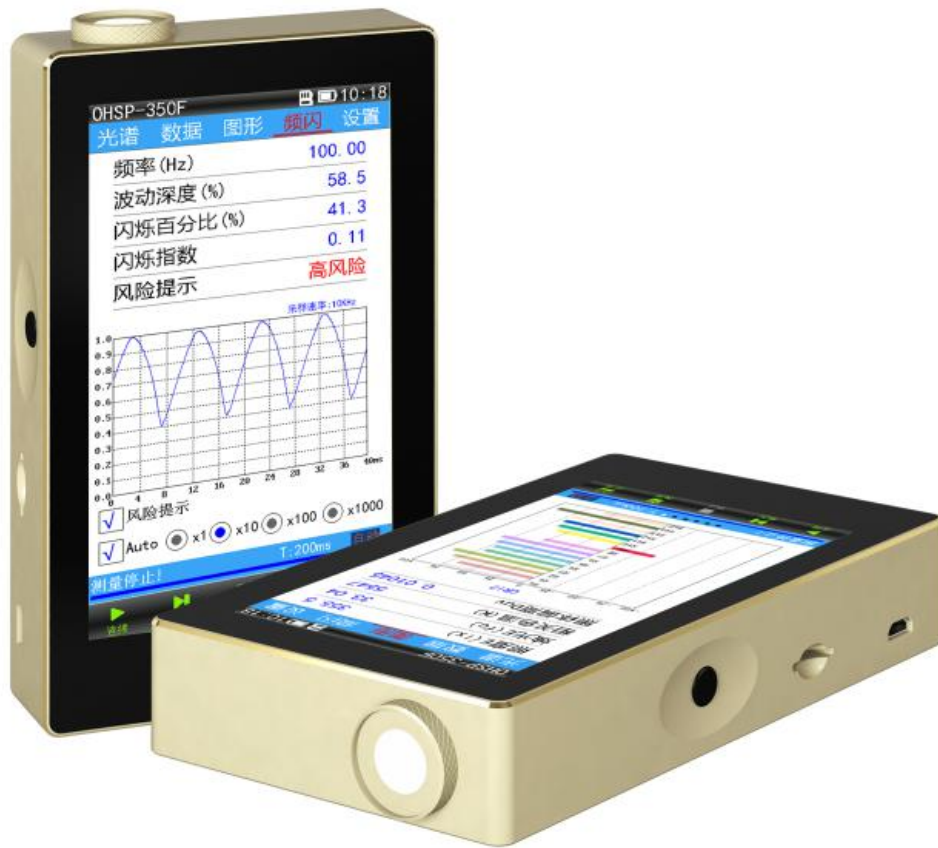
E (lx) Illumination

IES EVE Illumination

FFT Frequency Spectrum

Tc (K) Correlated Color Temperature (CCT)

Color Rendering Index



四、OHSP350L SPECTRAL RADIANCE COLORMETER CHARACTERISTICS AND SPECIFICATIONS

Correlated color temperature (CCT)

Luminance

(x, y) 、 (u, v) 、 (u', v')

Chromaticity Coordinates

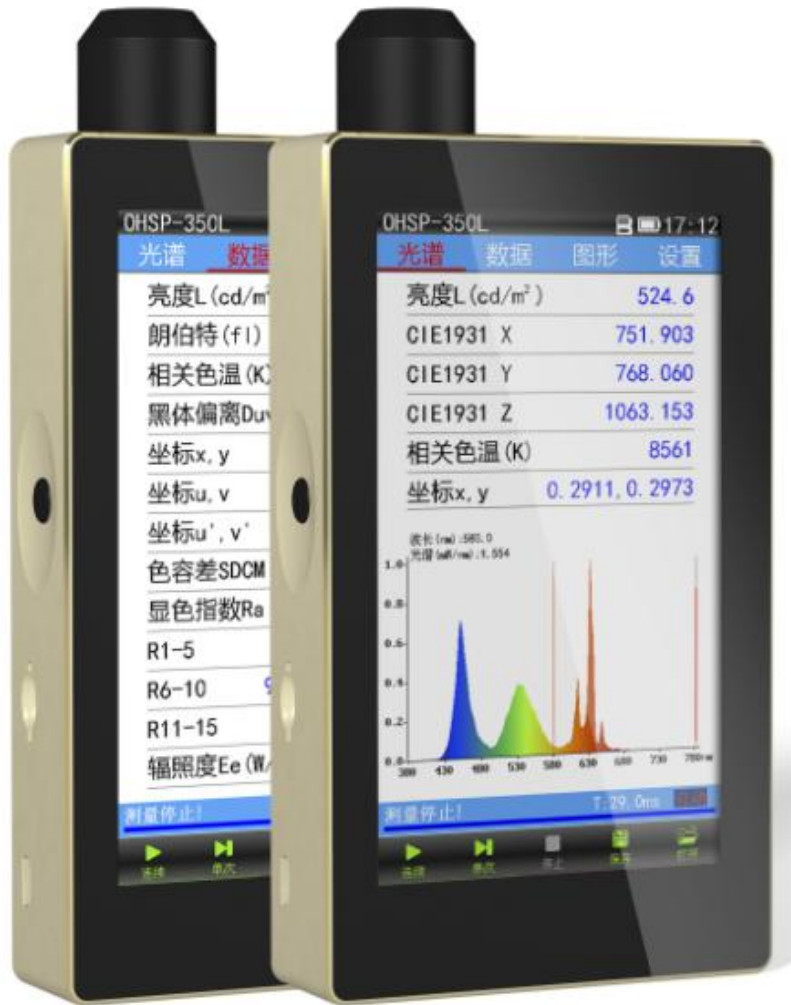
The Relative Spectral power distribution $P(\lambda)$

Color Rendering Index R_a, R_i ($i=1\sim 15$)

R_f, R_g as per IES TM-30

SDCM Color Tolerance

Dominant wavelength Peak wavelength



五、 OHSP350B Rapid test instrument for retina blue light hazard

CHARACTERISTICS AND SPECIFICATIONS

Blue Light Hazard Weighted Irradiance

GB/T20145-2006/CIE S 009/E:2002

Tc (K)、Duv

Correlated color temperature (CCT)

E (lx)、E (Fc)、Ee (W/m²)

Illumination candlelight Spectral Irradiance

Dominant wavelength Peak wavelength

六、 OHSP250W/OHSP250 Wifi Production line intelligent spectrum acquisition system

