

# Static Convergence Adjustment System

静会聚调整系统

VS-5120 -SCON

## Outline

The Static Convergence Adjustment System is specially designed to adjust the center convergence of a TV using a 3 CCD color camera.

This PC-based, semi-automated system makes use of a CP alignment support program to guide the operator to adjust the 4P and 6P magnet until the R, G and B color converge at the center of the screen.

## Features

### 1. "State Of The Art Technology"

- ♣ Employs 16 bits, 500 MHz DSP coupled with Plug & Plug configuration
- ♣ New diamond shape video pattern improve measurement accuracy

### 2. "High Reliability"

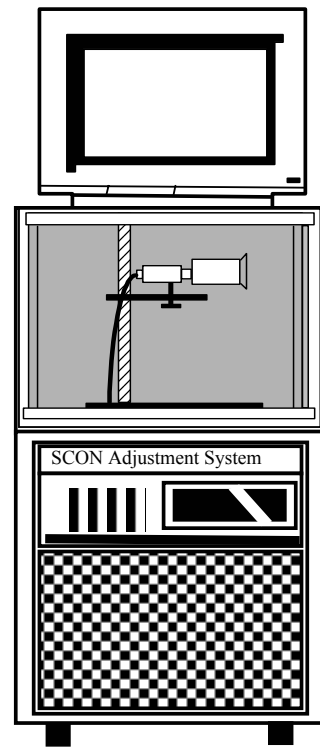
- ♣ Compact & integrated design improve system reliability
- ♣ Industrial PC suitable for use in harsh production environment

### 3. "High Usability"

- ♣ User friendly and easy operation under Windows Graphical User Interface
- ♣ Versatile & flexible design can accommodate 14"~36" TV
- ♣ Open concept design allows future upgrading to other TV measurement
- ♣ Easy calibration by using a test-chart
- ♣ Easy model change

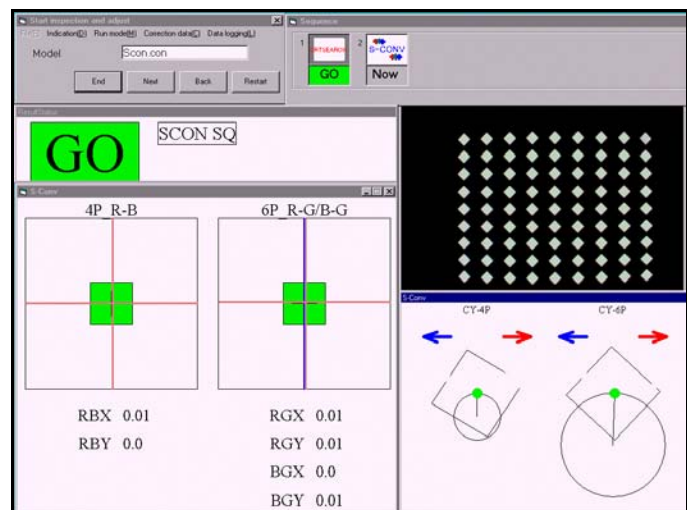
### 4. "Cost Effective"

- ♣ Minimum maintenance required for minimum post investment cost



## Functions

- ♣ Data collection & analysis(Optional)
- ♣ Measurement the convergence between R-G, B-G and R-B by means of central colour gravity measurement
- ♣ Graphical indication of R-G and B-G misconvergence for easy adjustment
- ♣ 4P and 6P magnet correction position indication for fast adjustment

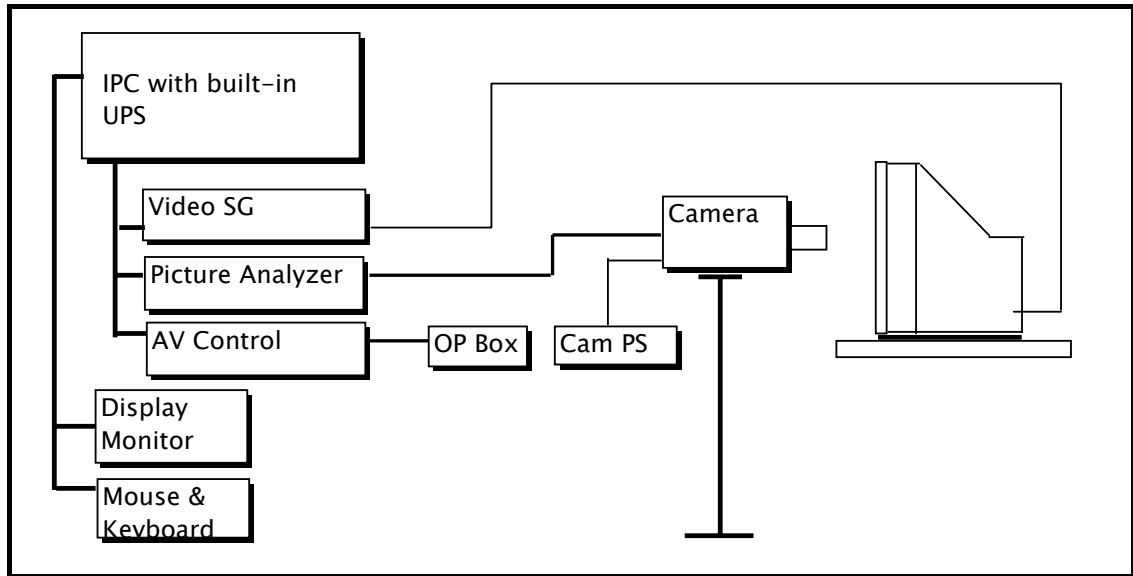


# Technical Specification

## 1. General Specification

<b>System Components</b>		
Industrial Computer (PentiumIV 933MHz or more)		AV Control Module(DIO, IIC Control)
3-CCD Camera (640x480x3) System		Operator Control Box
Picture Analyser Module(16 bits DSP, 60MHz)		Video Signal Generator Module
<b>DUT</b>		<b>Calibration</b>
CRT Size	14" ~ 36"	CC-110
Aspect Ratio	Normal & Wide Screen	<b>Manual</b>
Video Mode	PAL,NTSC, 100Hz, 120Hz, HDTV	Operation and Maintenance
<b>Measurement</b>		<b>Software</b>
Resolution	0.01 mm	Static Convergence Adjustment Software
Accuracy	± 50 μm	(incl. Calibration software)
<b>Power Supply</b>		Measurement Condition File Editor
230 VAC, 50 Hz		( incl Test Spec. Entry)
<b>Measurement Items</b>		Production Data Collection & Analysis
RGx, RGy, BGx, BGy, RBx, RBy		Software (Optional)

## 2. System Configuration



## 3. Color matrix correction

The color leakage between RGB colors due to camera/lens characteristics is compensated through the color matrix data. This method yields improvement of colour separation characteristics and more accurate convergence measurements

The graph shows three peaks representing color channels: R (Red), G (Green), and B (Blue). The R peak is the highest, followed by G, and then B. Arrows point from the R peak to the G and B peaks, labeled 'R leaks to G' and 'R leaks to B' respectively, indicating color leakage.

For future information, please contact:

Manufactory: (Reg. No. 200312647N)  
**VISIONTEC**  
**Industrial Vision Technology (S) Pte Ltd**  
 Blk 67, #06-22/23, Ayer Rajah Crescent  
 Singapore 139950  
 Tel: +65 6563 6110 Fax: +65 6563 1556  
 email: sales@visiontec.com.sg