SCAN-2B DATASHEET

C.A. Designs SCAN-2B video scan doubler enables systems with standard or low frequency scanning systems to be coupled to a standard monitor of the type normally used for VGA / XGA signals.

Video monitors designed to operate from RGB video or old PC standards, such as EGA or CGA, have become expensive and difficult to source and they are not future upgrade compatible. The problem is due to the low frequency of their horizontal deflection or scanning system. These scan doublers read the original video signals into a solid state memory at the original frequency and, almost simultaneously, write this signal out again at twice the original rate. The output signal is processed to be made compatible with standard, low-cost and easily available monitors used with current PCs.

The **SCAN-2B** accepts a range of different input configurations to interface with both RGB TV type signals and legacy computer generated signals such as CGA or EGA graphics cards.

They are suitable for many different process controllers or test equipment displays.

Particularly appropriate for applications where conversion or replacement of CRT monitors to LCD panels is desired, but note that these units do not change the vertical scan rate – check LCD spec.

The standard units are programmed with default parameters suitable for a typical PC monitor output. They also have a range of manual adjustments to modify the signal capture and picture position (see application note). These adjustments are made with a standard PC keyboard (PS/2 style). Adjustments made are stored in non-volatile memory and retained when power is off (default settings can be restored if required).

Power is supplied by a 9 to 12v external PSU on a DC coaxial connector with centre pin positive.

Video is output via a 15-way high density D female socket.

SCAN-2B accepts either RGB analogue video input signals or TTL video signals (8, 16 or 64 colour), syncs may be composite on the green channel or separate (H & V or mixed HV, see application note).

C.A. Designs make other video scan converters for different requirements.

Typical System Configuration
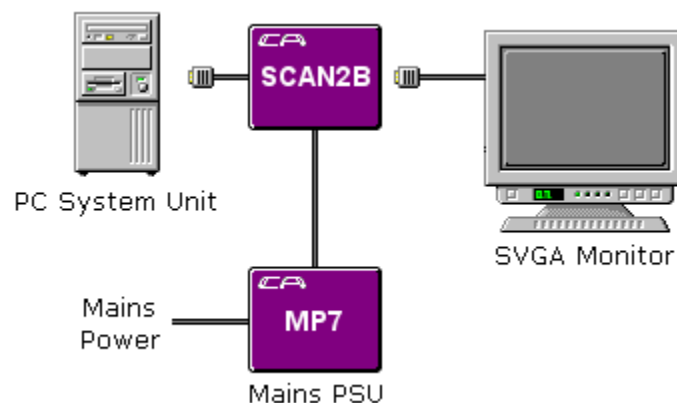
Specification

INPUT :

SCAN2B	• 6-bit TTL video (up to 64 colours) • Digital Input Connector : 9-way 'D' male – see note above Note that the TTL input lead is very sensitive to length and quality – 1.8m max. • RGB Analogue video (16-bit colour) • Sync-on-green • Separate TTL H & V, or composite HV syncs. • Analogue Input Connectors : 5 @ BNC sockets

OUTPUT:

Description	• Analogue RGB video } similar to SVGA signals • Separate TTL H & V syncs. }
Connector	• 15-way HDD female

SCAN FREQUENCY RANGE:

Horizontal Input	• Typically 640 active pixels per line • 15.5kHz to 26kHz (31kHz to 52kHz output)
Vertical	• 50Hz to 60Hz (input & output) • Maximum 512 lines per frame ($fH / fV < 512$)

PROGRAMMING INTERFACE (for setup adjustment if required):

Description	• PS/2 type PC keyboard
Connector	• 6-pin mini-DIN socket

POWER SUPPLY:

Description	• +9v to 12v regulated
Connector	• 2.1mm DC coaxial connector • Centre pin positive

MECHANICAL:

Description	• Beige ABS plastic case, flame retardant to UL94-V0 • 130mm wide x 100mm deep x 30mm high