

MODEL SSC/220

STROKE-TO-VIDEO SCAN CONVERTER MODULE



TECHNICAL SPECIFICATIONS

FEATURES

- Converts XYZ stroke signals (such as radar, sonar, HUD, and spectrum analyzers) to raster video
- NTSC, PAL, RS-343, and SVGA outputs available
- Advanced scaling algorithm provides excellent quality for scan-converted, computer-generated graphics and alpha numerics
- Accepts a wide range of stroke (XYZ) input signals
- Choice of six user-selectable decay times
- Video gen-lock
- Internal test signal confirms proper operation or provides fault isolation

BENEFITS

- Signal can be viewed using low cost, off-the-shelf TV monitors
- Raster format provides for storage using standard TV cassette recorders
- Conversion to video format simplifies transmission and switching



The Model SSC/220 is a VME module that converts stroke video from XYZ vector format to standard TV raster format.

DESCRIPTION

Stroke video is generated by a variety of random deflection devices. Examples include radar and sonar devices, spectrum analyzers, and Heads Up Display (HUD) generators. The Model SSC/220 Stroke-to-Video Scan Converter Module converts stroke video from XYZ vector format to standard TV raster format. After conversion, the video can be recorded using standard TV cassette recorders and viewed using low cost, off-the-shelf TV monitors.

High quality video is generated by a combination of high frequency sampling and an advanced scaling algorithm. Scaling is an important consideration when converting computer-generated graphics or alpha numerics. Scaling on the SSC/220 is done using multitap FIR filtering and advanced horizontal and vertical interpolation to generate an 8-bit (256 level), high resolution video signal. A selection of six different decay rates provides for emulation of a wide variety of stroke monitors.

The SSC/220 can accept signals in a stroke format, raster format, or a mixed stroke and raster format. Some stroke-generating devices have the ability to change the output signal between stroke and raster format in order to accommodate special display information. The SSC/220 can be adjusted to ensure that both the stroke and the raster data appear in their proper locations and intensities in the same output video signal.

To provide a common time base with an external video system, a gen-lock capability is included, which locks the [output] converted signal to either another video or composite sync signal. The SSC/220 also includes an internal test signal generator that can be used to either confirm proper operation or to provide fault isolation.



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MODEL SSC/220

STROKE-TO-VIDEO SCAN CONVERTER MODULE SPECIFICATIONS

SIGNAL INPUTS

X AND Y POSITION INPUTS

- Customer specified
- Typical values:
 - Balanced 1.0 to 10.0V p-p
 - Offset +/- 5V
 - 75 ohm termination
 - Signal inversion via strapping
 - Balanced/Unbalanced via strapping

Z INTENSITY INPUTS (STROKE AND RASTER)

- Customer specified
- Typical values:
 - Unbalanced 0.5 to 5.0V
 - Offset +/- 5V
 - 75 ohm termination
 - Signal inversion via strapping
 - Balanced/Unbalanced via strapping

GEN-LOCK INPUT

- RS-170 or PAL composite video or sync
- 0.2 to 2.0V p-p
- 75 ohm termination

STROKE/RASTER INPUT

- TTL level

SIGNAL OUTPUTS

VIDEO OUTPUTS (2)

- Choice of RS-170A, PAL, 875-line RS-343, or SVGA via strapping
- With or without composite sync via strapping
- 1.0V p-p when terminated with 75 ohms

COMPOSITE SYNC

- 4.0V p-p when terminated with 75 ohms

ADDITIONAL SPECS

XYZ INPUT BANDWIDTH

- Greater than 3 MHz

SAMPLING RATE

- 20 Megasamples per second

DECAY RATES

- Choice of six switch-selectable rates with 3 decay kernels
- Choice of 1/30th or 1/15th second per step

CONTROLS

- Test/Operate
- XYZ amplitude and offset
- XY delay adjustment
- Decay rate

CONNECTORS

- P1 and P2 (96-pin DIN)

POWER REQUIREMENTS (PI CONNECTOR)

- +5.0V @ 2A
- +/- 12.0V @ 200mA

SIZE

- 6U Eurocard format
- Occupies single VME slot [0.8" wide]

ENVIRONMENT

- Operating temperature: 0°C to 40°C

OPTIONS

- Other video standards
- PCI Module (SSC/420)
- Powered, cabled chassis
- Consult manufacturer for other options



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