



New

DISPLAY PRODUCTS
Scan Converter 4503



- LINKS DATA AND SIGNAL SOURCES TO LARGE-SCREEN TV MONITORS
- STORE, INTEGRATE, DIFFERENTIATE, ADD, SUBTRACT, SCAN-CONVERT, DIGITIZE, COMPOSE AND SELECTIVELY ERASE
- GRAY SCALE STORAGE, VARIABLE PERSISTENCE, SELECTIVE ERASE, FRAME FREEZE

The 4503 Scan converter is a high performance instrument with at least 500 lines resolution per picture height at 50% modulation. The primary application is to process digital and video signals with storage tube image writing and read-out.

The CRT target may be written by XY positioning the beam at random and writing at each point, or a series of points by staircase stepping. The beam may be scanned linearly, fast or slow, with modulation of the beam by a video signal or digital pulses. Analog waveforms may be written, preceded by a continuous erase bar.

CHARACTERISTICS DISPLAY

Displayed Resolution—At least 500 lines at 50% modulation per picture height. (1000 lines optional).

Line Writing Time—25 microseconds.

Dot Writing Time—25 nanoseconds.

Read Storage Time—At least 45 minutes (saturated signal). At least 15 minutes for full gray scale.

VERTICAL AND HORIZONTAL AMPLIFIERS

Bandwidth—1 MHz.

Deflection Factor—Vertical: 1 V full screen, Horizontal: 1 V full screen.

Input Resistance—1 Megohm.

Input Capacitance—100 pF or less.

Maximum Safe Input Voltage—200 VDC.

Common Mode Rejection Ratio—minimum, 500:1 at 10 kHz, 100:1 at 1 MHz.

Z AXIS AMPLIFIER

Bandwidth—30 MHz.

Input Amplitude—1 V (beam full on).

Input Resistance—1 Megohm (loop-through unterminated).

Input Capacitance—100 pF or less.

Maximum Safe Input Voltage—200 VDC.

Minimum Pulse Width—40 nanoseconds with 1 V input.

Common Mode Signal Range—plus or minus 2 V.

Full Frame Z Signal—Composite Video 75 ohm (loop-through terminated).

TTL Z Signal—Logic "Lo" unblanks the writing beam.

OTHER CHARACTERISTICS

Power Requirements—100 watts maximum at 115 V or 230 V, 50/60 Hz.

Composite Sync Out—Amplitude; 0 V to -4 V. Return loss; at least 30 dB.

Composite Video Output—Video information can be displayed at any TV line rate from 525 to 1225 lines. Instrument timing can be internally generated or externally synchronized.

Composite Sync In—Amplitude; 0 V to -4 V. Return loss; at least 40 dB at 5 MHz. The external sync circuit will derive sync from a composite video waveform and will automatically phase lock to any TV line rate from 525 to 2048 lines.

Included Accessories—75-ohm terminator; 25-pin connector, operator's manual.

ORDERING INFORMATION

4503 SCAN CONVERTER UNIT	\$2950
R4503 SCAN CONVERTER UNIT (rackmount model)	\$2950
Option 1 1000 LINE RESOLUTION	Add \$500
Option 2 RF MODULATOR	Add \$100