Combo NTSC Waveform Monitor /Vectorscope w/EYE Pattern

- *450 MHz Equivalent Bandwidth*
- *10 Hz, 100 Hz, 1kHz PLL Filters*
- *Level Cursors (± 5%)*
- *Jitter Measurements in ns and UI*
- *Indicated and Actual Rise/Fall Time Measurements*
- *Sweep Speeds of 3 ns, 1 ns, 500 ps/div + Field*
- *All of the Digital/Analog Monitoring Features of the LV5100D*

LV5100DE

CE
Upon request

The LV5100DE expands all the features of the LV5100D to include analysis of the SDI data stream using the EYE pattern. It employs equivalent time sampling to achieve a bandwidth of 450 MHz to produce a bright, steady display.

Cursor measurements are provided to measure both levels and time. The latter is effective in measuring jitter and the readout is given in either ns p-p or as a decimal fraction of the UI (Unit Interval). Jitter measurements are augmented by a choice of PLL filters to help establish the range of jitter frequencies. Rise and fall times are measured againste electronic crosshairs at 20 and 80% of the overall signal span. And the results are given as the measured tiem between thos marks.

The measured value is converted into *actual* readings by an automatic computation that factors in the rise time of the instrument itself.

The choice of sweep speeds allows observation of parallel-related effects (3 ns/div) and close observation of the unit interval (500 ps/div). And a field sweep time helps to spot low frequency effects, such as power-line hum, in the data stream

The use of user-stored PRESETs extends into EYE observations as well, and all setups including cursor placement is stored in memory..

key specifications

CRT
Type
150 mm rectangular, P31 Phosphor
Accelerating Potential
16.5 kV
Scales
Internal, illuminated graticule (waveforms)
Electronically-generated (vector and (audio)

SIGNAL HANDLING
Digital
Applicable standards: ITU-R601-3, ITU-R656-1, SMPTE 125M-1992, SMPTE 295M
Analog
3-wire analog component
GBR or YPbPr

SERIAL DIGITAL INPUTS
Number of Inputs
2 sets, passive loop-through
Return Loss
≥ 25 dB min, 1 to 270 MHz

ANALOG INPUTS
Number of Analog Inputs
1 set of 3 inputs, passive loop-through
REF Input
1 set, passive loop-through

OUTPUT
Serial Digital Active Output
Retransmission of selected serial input
Analog Picture Monitor Output
Format: GBR or YPbPr
Frequency Response
25 Hz to 6 MHz

VERTICAL SECTION
Deflection Accuracy
± 1% referenced to 1 V p-p full scale
± 2% x5
± 0.5% cursor measurements
Filter Characteristics
Flat
Within 2% 25Hz to 6 MHz
Lowpass
35 dBm min. at 3.58 MHz
Dif'd Step
400 kHz bandpass

EYE PATTERN DISPLAY
Frequency Range
50 kHz to 450 MHz within +1/-3 dB
Amplitude Accuracy
800 mV ± 5 %
Jitter Filters (High Pass - 3 dB Points)
10 Hz, 100 Hz, 1 kHz

HORIZONTAL SECTION
Operating Modes
Overlay, Parade, Timing, Eye, Waveform, Vector, Picture, Audio

EDH FUNCTION
Applicable Standard
SMPTE RP-165
Equivalent Line-Length Function
Reads out serial signal strength in terms of equivalent length of 5C-2V or Belden 8281 coaxial cable

DATA READOUT
Address 0000-1715 in hex line select or error trigger

CAL
Amplitude
1 V ± 0.5%

LINE SELECTOR

	525 lines	625 lines
FLD 1 & 2	Lines 1 to 262	Lines 1 to 312
FRAME	Lines 1 to 525	Lines 1 to 625

PRESET FUNCTION
Ten sets of front panel settings can be stored and recalled with exception of INTEN, READOUT INTEN, ROTATION, FOCUS, ILLUM and POWER (on-off)

CURSOR MEASUREMENTS
Available Cursors
2 horz, Δ and REF
2 vert, Δ and REF
Accuracy
0.5%

POWER REQUIREMENTS
90 V - 250 V ac, 48 to 440 Hz, 70 W

PHYSICAL
Size (W x H x D)
$8^3/8$ x $5^1/4$ x $16^5/8$ in.
215 x 132 x 423 mm
Weight
11 lbs., 5 kg (not including cabinet)

SUPPLIED ACCESSORIES
5 Spare Illumination Lamps
2 8-32 Rackmount Screws
Spare Fuse

AVAILABLE OPTIONS
Carrying Case with Handle & Feet (LR-2427I-U)
Rackmount Adapter (LR-2400VI)
White Phosphor CRT (NS-305)
RGB WFM Sequence (GBR normal) (NS-298)