The LV5152DA builds on the NAB 98 Broadcast Engineering “Pick Hit” award winner, LV5152D, to add the following features: extended HDTV format coverage, automatic colorimetry selection to match the selected format, separation and delivery of eight channels of embedded audio, detection and logging of color-gamut errors, hex readout of all data points on a line selected manually or by error, and a refinement of the preset system that allows one-tough recall of stored observation setups. Features retained from the LV5152D include analog component as well as two digital inputs with an active digital output from the selected input. Waveforms may be viewed as YPbPr or GBR in both overlay and parade forms.

Extensive menu-operations afford far reaching control of sweep, response, timing, DC clamp parameters, vector setup, preset assignment and naming, clock/calendar setup, cursor units, line-select properties and instrument calibration. EAV/SAV may be blanked or shown and the latter also shows the presence of data codes and embedded audio. An extensive error detection system captures the time of first data error, total errors since that time and time elapsed since the first error. Error details are spotted in Y or C, ANC and embedded audio.
**KEY SPECIFICATIONS LV5152DA**

**APPLICABLE STANDARDS**
BTA S-004B, S-005B, S-006B
SMPTE 274M, 291M, 292M, 296M, 299M

**SERIAL DIGITAL INPUTS**
Number of Inputs: 2 BNC
Impedance: 75 Ω, internally terminated
Return Loss: ≥15 dB, 5 MHz to 742.5 MHz
≥10 dB, 742.5 MHz to 1.485 GHz
Max Input: ±12 V dc or ac peak

**DC RESTORER SPEED**
Frequency Response, Analog: 48 kHz
Deflection Accuracy: Within ±1%, GAIN x1
GAIN Matrix: Within ±1%, GAIN x5
Frequency Response, Analog: Flat: Within 1% 25 Hz to 30 MHz
Low Pass: ≥20 dB at 20 MHz
DIFF D Step: ≥20 dB at 30 kHz
≥20 dB at 7 MHz
DC Restorer Speed: Slow: ≤20% at 60 Hz
Fast: ≥80% at 60 Hz
Transient Response: 2 T Pulse & Bar
Pulse-bar Ratio, Overshoot, Pre-shoot, Ringing, Sag: Within ±1%

**DC RESTORER CLAMP TIMING**
Fixed: Back porch
Variable: 0.5 to 12 µs relative to sync rising edge
Field: 1V, 2V, 3V (Parade)
1V MAG, 2V MAG, 3V MAG (Parade)

**HORIZONTAL SECTION**
Modes:
Overlay, Parade, Timing (for use with Bowtie signal).
Use of the Bowtie authorized by Tektronix, Inc.
Sweep Displays:
Line: 1H, 2H, 3H (Parade)
1H MAG, 2H MAG, 3H MAG (Parade)
Time Base Accuracy: Within ±3%

**VECTOR MODE**
Amplitude Accuracy: ±1% (YPbPr and GBR inputs)
Polarity Accuracy: ±2% (YPbPr and GBR inputs)
XY Phase Accuracy: Within 1° at 20 kHz
CALIBRATION SIGNAL:
1 V ±0.5%

**DIGITAL FUNCTIONS**
Error Display:
Time of first error
Total error count from first error
Elapsed time from first error
Error Details: Video Y/C, Audio, Audio
Settable Alarms: Video, Audio, Audio
Alarm Display: Front panel LED, remote
Data Dump Function:
10 bit data converted to Hex
Equivalent Cable Length:
Based on cable LS-5CFB

**LINE SELECT**
Trigger:
Field 1, Field 2, All (interlaced signal)
frame for progressive
Selectable Lines:
1 to 1125 or 1 to 750
Line Window:
1 to 15 lines

**PRESET FUNCTION**
Number of Presets:
10 front panel settings
Controls Covered:
All controls and mode selections including DIGITAL, CURSORS, LINE SELECT
Control settings not stored: INTEN, READOUT INTEN, ROTATION, FOCUS, scale ILLUM, POWER ON/OFF
On-screen display of preset identifiers for single keystroke recall

**REMOTE CONTROL**
Remote Preset Selection:
8 presets
Control Signal:
TTL low active
Control Input:
D-sub 25-pin (REMOTE), rear panel

**CURSOR MEASUREMENTS**
Configuration:
2 horizontal REF, Δ
2 vertical REF, Δ
Vertical Measurement Range:
0-2000 mV, 0-280.0 %
Accuracy:
±0.5%
Resolution:
1 mV or 0.1%
Ratio Measurement: X% with respect to 100% REF
Time Measurement Range:
At least ±6 div from screen center
Accuracy:
±3%
Resolution:
1/80 div
Time Ratio:
X% with respect to 100% REF

**PHYSICAL**
Effective Display Area:
80 x 100 mm
Grap ticule:
Internal and External (vector)
Electronic (vector and audio)
Phosphor:
White standard

**POWER REQUIREMENTS**
90 V - 250 V ac, 48 to 440 Hz, 130 VA max

**ENVIRONMENTAL**
Guaranteed Accuracy:
10 to 35°C, 10 to 80% RH
Operating Temperature:
0 to 40°C, 10 to 90% RH

**SUPPLIED ACCESSORIES**
Carrying Case with Handle & Feet (LR-2427FU)
CH1, 2 & 3 Level p-p Readouts (NS-323)
NTSC Analog Composite Waveform (NS-325)
525/60 & 625/50 Analog Component Waveform (NS-333)
Continuous Overlaid Error Display (NS-334)
RS-232C Data Dump (NS-335)