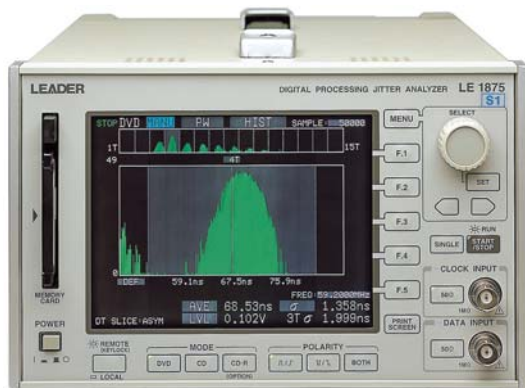


Digital Processing Jitter Meter



LE-1875 S1

- Time Interval Analyzer (TIA) Handles DVD, CD and CD-R/RW
- Histogram Color LCD Display Shows Jitter History, RF Data, Amplitude, Average Sigma Reading and Clock
- Measures Jitter at 3T Through 11T + 14T
- Jitter Readings in % Clock Frequency and Sigma
- Measurements at Rise, Fall and Both Data Edges
- Response up to Double Speed
- Long Time Measurements Shows Variation of Sigma and Average Readings Versus Time
- High Sensitivity - Accurate Readings at 50 mV or More
- 50Ω and 10MΩ Inputs Allow the Use of 10:1 Probe to Minimize Circuit Loading
- GO/NO-GO Judgements Against Preset Entries
- Auto Slicer Conforms to DVD Documentation
- Inhibit Input Suspends Tests Due to Malfunctions
- RS-232C Standard

Leader's most advanced jitter analyzer combines digital time sampling and processing combined with a full color LCD display to provide fast, complete and accurate tracking of DVD, CD and CD-R/RW R&D, production and QC. Optional equalizers facilitate testing via direct pickup connections.

key specifications

INPUT SECTION

DATA Input (EFM 8-16 Modulation Signal Input)
 Input Coupling
 AC (2 Hz / 1 kHz, selectable)
 Measurement Voltage Range
 50 mV to 5 V p-p
 Input Impedance
 1 MΩ / 50Ω, selectable
 Slice Level
 Variable
 ± 2.5 V
 Auto (Asymmetry On)
 20 Hz / 1 kHz / 5 kHz / 10 kHz, selectable
 Maximum Input Voltage
 ± 5 V
 Clock Signal
 Input Coupling
 AC
 Measurable Voltage Range
 0.1 V to 2.5 V p-p
 Input Impedance
 1 MΩ / 50Ω, selectable
 Slice Level
 0 V (fixed)
 Clock Delay
 ≥ 10 ns for each polarity
 Maximum Input Voltage
 ± 5 V
 Measurement Control (GATE IN)
 Input Impedance
 10 kΩ
 Input Signal Level
 TTL

Maximum Input Voltage

-0.7 V to +5.7 V

JITTER MEASUREMENT SECTION

Applicable Speed
 DVD
 Clock Frequency: 24.3 MHz to 59.4 MHz
 (Frequency is fixed to 27/54 MHz in one signal input mode, DATA to CLOCK mode)
 CD
 x1, x2, x4, x8, x10, x12 speed
 Measurement Mode
 DVD
 Measurements for PERIOD, sum of all T-data in PERIOD mode, PULSE WIDTH, sum of all T-data in PULSE WIDTH mode, DATA to CLOCK
 CD
 Measurements for, PULSE WIDTH and sum of all T-PERIOD data
 Units Displayed
 ns or %
 Measurement Resolution
 0.15 ns
 Display Resolution
 0.01 ns
 Measurement Accuracy
 Sigma Value
 ± 4% ± 0.15 ns
 Average Value
 ± 1 ns
 Polarity Section
 DATA
 \square / \square , \square / \square , BOTH

CLOCK

+,-
 Measurement Item
 AVERAGE, max, min, σ , σ max, σ min, σ/T , σ/T max, σ/T min
 Measurement Display
 value, bar graph, histogram, TIME DEVIATION, BOTH for separate display
 Number of Samples
 1,000,000 max
 Control Function (ON/OFF, selectable)
 Inhibit
 Logic State Selection
 ENABLE: HIGH/LOW
 Number of Gating Operations
 GATE COUNT: 1 to 50
 Arming
 Polarity Selection
 SLOPE: RISE/FALL
 Start Delay
 START DLY: 1 to 9999 μ s in 1 μ s steps
 Measurement Time Settings
 LEN MODE: SAMPLE/TIME
 (0.1 ms to 99.9 ms in 0.1 ms steps)
 Number of Gating Operations
 GATE COUNT
 0 to 50

LEVEL MEASUREMENT SECTION

Measurement Method
 Peak to peak value of DATA signal
 Measurable Voltage Range
 50 mV to 5 V p-p
 (0.5 to 9.999 V p-p in 10:1 probe conversion mode)

key specifications - Cont.

Display Digit

4 (3 digits after decimal point)

Measurement Resolution

1 mV min

Measurement Accuracy

± 5%

Display

Item name in level measurement mode

1:1 mode — LVL

10:1 mode —*LVL

CLOCK FREQUENCY MEASUREMENT

SECTION (DVD, DATA to CLOCK mode only)

Measurement Range

24.3 MHz to 59.4 MHz

Measurement Accuracy

± 0.5%

CLOCK REGENERATOR (DVD, DATA to CLOCK mode only)

Regenerates reference clock signal from DATA (RF) signal input

Applicable Speed

DVD x1 speed (27 MHz ± 10%)

DVD x2 speed (54 MHz ± 10%)

OUTPUT SECTION

Monitor Output (Probe CAL)

DATA (Used for DATA signal monitoring and probe calibration)

Bandwidth

50 MHz, ≤ -3 dB

Output Impedance

50Ω

CLOCK (Used for CLOCK signal monitoring and probe calibration)

Bandwidth

60 MHz, ≤ -3 dB

Output Impedance

50Ω

EQUALIZER OUT

Used for equalized RF signal monitoring

Output Impedance

50Ω

DC OUT

Output Accuracy

± 2%

Output Item

Level, Jitter

(Full scale voltage variable)

Maximum Output Voltage

2 V

GATE MONITOR

Used for arming and inhibit control signal monitoring

Output Level

TTL level

Output Impedance

1 kΩ

REMOTE CONTROL SECTION

Dedicated Remote Control Connector

Outputs judgement results

RS-232C

Controls function and outputs data

MEMORY CARD

Interface: Conforms to PC CARD ATA standards

ENVIRONMENTAL CONDITIONS

Operating Temperature

0 to 40° C, 30 to 85% RH

(without condensation)

Spec Guaranteed Temperature

10 to 30° C, 30 to 85% RH

(without condensation)

Storage Temperature

0 to 50°C, 0 to 90% RH

(without condensation)

Operating Environment

Indoor Use

Altitude

Up to 2000 m

Overvoltage Category

II

Pollution Degree

2

POWER REQUIREMENTS

90 to 250 V ac universal, 50/60 Hz

Max. 35 W, 50 VA max.

PHYSICAL

Size (W x H x D)

8³/₈ x 5¹/₄ x 11³/₄ in.,

213 x 132 x 300 mm

Weight

11 lbs., 5 kg

SUPPLIED ACCESSORIES

Instruction Manual

Spare Fuse

Power Cord

AVAILABLE OPTIONS

OP71 - CD-R/RW Measurement

OP72 - GPIB

OP74 - Fixed Equalizer

OP75 - Variable Equalizer

OP76 - Variable Equalizer