NEWLY DESIGNED REALTIME OSCILLOSCOPES
OS-5020

GENERAL : The LG's new realtime oscilloscopes OS-5020 & OS-5100 are designed with various functions including ALT-Triggering function, and also designed to meet low cost requirements for the field of school and hobbyists.

FEATURES

- 6" large size high luminance CRT
- ALT. Triggering function (Vert mode)
- Adoption of SMT for high performance and reliability
- TV sync. separation and hold-off circuit useful in video signal observation
- Sweep magnification(X 10)

OS-5020

- DC to 20 MHz Band width
- 2 channels and Dual trace, X-Y mode
- 6" rectangular CRT with internal graticule
- Compact size, outstanding features
- High sensitivity triggering
- Sweep magnification, X10 (20nS/div)
- ALT. Triggering
- TV sync. separator circuit for stable
  TV signal observation
- Compliance with international safety standards
  UL-1244(U.S.A), CSA-C22.2(CANADA), IEC 1010-1 (EUROPE)CE Mark:
  EMC(Electromagnetic Compatibility)
  LVD(Low Voltage Directive)

Description		Specifications
CRT	Configuration and useful screen	6-inch rectangular screen with internal graticule :8X10 Div (1 div=1Cm). marking for measurement of rise time 2mm subdivisions along the central axis.
	Acceleration potential	+1.9KV approx.(ref. cathode)
	Phosphor	P43
	Focussing	Possible
	Trace rotation	provided

Z-AXIS INPUT (INTENSITY MODULATION)	Intensity control	provided
	Input signal	Positive going signal decreases intensity +5Vp-p or more signal cases noticeable modulation at normal intensity settings.
	Band-width	DC to 2MHz(-3dB)
	Coupling	DC
	Input impedance	20kΩ-30kΩ typical
	Maximum input voltage	30V(DC+peak AC)
VERTICAL DEFLECTION	Band Width(-3dB) DC coupled	DC to 20MHz normal / DC to 10MHz magnified(CH1 only)
	Band Width(-3dB) AC coupled	10Hz to 20MHz normal / 10Hz to 10MHz magnified(CH1 only)
	Modes	CH1,CH2,ADD,DUAL(CHOP; Time/div switch -0.2s to 1mS, ALT ; Time/div switch -0.5mS to 0.2μS)
	Deflection Factor	5mV/div to 5V/div in 10 calibrated steps of a 1-2-5 sequence. Continously variable between steps at least 1:2.5 x5 MAG ; 1mV/div to 1V/div in 10 calibrated steps. (CH1 only) 50mv/div to 50V/div(with 10:1 Probe used)
	Accuracy	normal ; ±3%, magnified:±5% (CH1 only)
	Input impedance	approx. 1MΩ in parallel with 30pF
	Maximum input voltage	Direct;250V(DC+peak AC), with probe; refer to probe specification
	Input coupling	DC - GND - AC
	Rise time	17.5nS or less(35nS or less; x5 MAG)
	CH1 out	25mV/div into 50Ω ; DC to 10MHz(-3dB)
	Polarity invertion	CH2 only
HORIZONTAL DEFECTION	Display modes	NORM , X-Y, x10, VARIABLE
	Time base	0.2us/div to 0.2S/div in 19 calibrated steps, 1-2-5 sequence. uncalibrated continuous control between steps at least 1:2.5
	Sweep magnification	10 times (maximum sweep rate ; 20nS/div)
	Accuracy	±3%, ±5% (0°C to 40°C), additional error for magnifier ±2% Note ; 50nS/div, 20nS/div (±10%)
TRIGGER SYSTEM	Modes	auto, norm, TV-V, TV-H
	Source	VERT, CH1, LINE, EXT
	Coupling	AC
	Slope	+ or -
	Sensitivity and Frequency AUTO, NORM	20Hz-2MHz(VERT) / 20Hz-20MHz (VERT) INT 0.5 div (2 div) / 1.5 div (3 div) EXT 0.2 Vp-p 0.6Vp-p
	Sensitivity and Frequency TV-V, TV-H	at least 1div or 1.0Vp-p
	External trigger input impedance	1MΩ ±10%
	Max. input voltage	250V (DC + peak AC)
X-Y OPERATION	X-axis	(same as CH1 except for the following) Deflection factor ; same as that of CH1 / Accuracy ; ±5% / Frequency response ; DC to 500KHz (-3dB)
	Y-axis	same as CH2
	X-Y phase difference	3° or less (at DC to 50KHz)
CALIBRATOR	Probe Adjustment	approx. 1KHz frequency (±20%), 0.5V(±10%)square wave duty ratio ; 40-50%
POWER SUPPLY	Voltage Range	voltage range / fuse(250V) 115(98-125V) / 125V 1A 230(198-250V) / 250V 0.5V
	Frequency	50 Hz / 60 Hz
	Power consumption	Approx. 42w
PHYSICAL CHARACTERISTIC	Dimension	316mm (W) X 143mm (H) x 406mm (L)
	Weight	7.8Kg
		Temperature range for rated operation : +10°C to +35°C(+50°F to 95°F)

ENVIRONMENTAL	Temperature	Max. ambient operation temperature : °C to +40°C(+32°F to +104°F) MAX. storage temperature : -20°C to +70°C(-4°F to +158°F)
	Humidity	Humidity range for rated operation: 45% to 85% RH Max. ambient operating humidity : 35% to 85% RH
SAFETY&EMC	SAFETY	UL-1244, CSA-C22.2, IEC-1010-1
	EMC	UEC-801-2.3.4.5