

ÔÛ7328 / ÔÛ7340

ANALOG OSCILLOSCOPE

20MHz / 40MHz



CHARACTERISTIC:

- 20MHz/40MHz Dual Channel
- High Sensitivity 1Mv/DIV
- 5mV/div Sensitivity on Both Channels
- CH1 & CH2 Independent Channels
- CH1 Signal Output
- Unique Digital Filter function and Waveform recorder function
- Two waveforms in different frequency can be observed via alternative trigger function
- High-speed sweep
- Algebraic Addition and Subtraction
- X-Y Operation
- 0.2 μ s/div to 0.5s/div Time Base(Uncal upto 20ns)
- Z Modulation TTL Level
- 8 x 10 cm Display Internal Graticule
- TV signal synchronous function, TV Triggering Frame (V) & Line (H)
- Line Trigger
- ALT Triggering

VERTICAL AXIS

Sensitivity	5mV~5V/DIV, 10 steps in 1-2-5 sequence (X5 MAG: 1mV/DIV)
Sensitivity accuracy	$\leq 3\%$ (x5MAG: $\leq 5\%$)
Vernier vertical sensitivity	continuously variable to 1/2.5 or less of panel-indicated value
Frequency bandwidth	DC-20MHz (x5MAG:DC-7MHz) DC-40MHz (x5MAG:DC-15MHz)
AC coupling	Low limit frequency 10Hz. (With reference to 100KHz,8DIV.Frequency response with-3dB)
Rise time	Approx.17.5Ns (x5MAG:Approx.50Ns) / 9.5nS (X5MAG: Approx.25nS)
Input impedance	Approx. 1M ohm//Approx. 25pF
Square wave characteristics	Overshoot: $\leq 5\%$ (At 10Mv/DIV range) other distortions and other ranges: 5% added to the above value DC balance shift: 5mV~5V/DIV; ± 0.5 DIV, 1mV~2mV/DIV ± 2.0 DIV Linearity: $< \pm 0.1$ DIV of amplitude change when waveform of 2 DIV at graticule center is moved vertically.
Vertical modes	CH1 single channel. CH2 single channel

DUAL	CH1 and CH2 are displayed ALT or CHOP selectable at any sweep rate.
ADD	CH1+CH2 algebraic addition
Chopping repetition frequency	Approx.250KHz
Input coupling	AC, GND , DC
Maximum input voltage	300V peak (AC: frequency 1KHz or lower) When set probe switch at 1:1, the maximum effective readout is 40Vp p(14Vrms at sine wave); or set probe switch at 10:1, the maximum effective readout is 400Vpp(140Vrms at sine wave)
Common mode rejection ratio	50:1 or better at 50KHz sinusoidal wave.(when sensitivities of CH1 and CH2 are set equally)
Isolation between channels (at 5Mv/DIV range)	> 1000:1 at 50 MHz; > 30:1 at 20MHz; > 30:1 at 40MHz
CH1 signal output	At least 20Mv/DIV into a 50 ohm termination, Bandwidth is 50Hz to at least 5MHz.
CH2 INV BAL	Balanced point variation: ≤1DIV(Reference at center graticule)

HORIZONTAL AXIS

Sweep time	0.2μSec-0.5Sec/DIV,20Steps in 1-2-5sequence
Sweep time accuracy	±3%
Vernier sweep time control	≤1/2.5 of panel-indicated value
Sweep magnification	10 times
×10MAG sweep time accuracy	±5%(20nsec-50nsec are uncalibrated)
Linearity	±3%,×10MAG: ±5%(20ns and 50ns are uncalibrated)
Position shift caused by×10MAG	Within 2 DIV, at CRT screen center

TRIGGERING

Triggering source	CH1, CH2, LINE, EXT
Coupling	AC:20Hz to full bandwidth
Slope	+/-
Sensitivity	20Hz-2MHz: 1.0 DIV, TRIG-ALT: 2DIV,EXT:200Mv; 2MHz-20MHz: 1.5DIV; 20MHz or higher: 2.0DIV TRIG-ALT: 3DIV,EXT:800mv
TV	Sync pulse more than 1 DIV (EXT:1V)
Triggering modes	AUTO; NORM; TV-V; TV-H. (Both TV-V and TV-H synchronize only when the synchronizing signal is negative)
Input impedance	Approx:1M ohm//approx.25pF
Max input voltage	300V(DC+AC peak), AC: frequency not higher than 1KHz

X-Y MODE

Sensitivity	Same as vertical axis.(X-axis:CH1 input signal,Y-axis:CH2 input signal)
Frequency bandwidth	DC to at least 500KHz
X-Y phase difference	≤3°at DC-50KHz

Z AXIS

Sensitivity	5Vp-p (positive-going signal decreases intensity)
Frequency bandwidth	DC-2MHz

	Input resistance	Approx. 47k ohm
	Maximum input voltage	30V (DC+AC peak, AC frequency $\leq 1\text{KHz}$)
CALIBRATION VOLTAGE		
	Waveform	positive-going square wave
	Frequency	Approx, 1KHz
	Output voltage	2Vp-p $\pm 2\%$
	Output impedance	Approx, 1K ohm
CRT		
	Type	6-inch rectangular type, internal graticule
	Phosphor	P31
	Acceleration voltage	approx 2KV
	Effective screen size	8x10 DIV(1 DIV=10mm(0.39in))
	Graticule	Internal
	Trace rotation	provided
OPTIONALS		
	GPIB Communication Module, Serial Interface Communication Module, Pass/Fail Interface Module	

We pursue a policy of continuous development and product improvement. Thus the specifications and picture in this Spec sheet and control location on the front Panel may be changed.