

PINTEK

40MHz Oscilloscope With Frequency Counter

CS-406



OSCILLOSCOPE

- **Trigger:** Auto, Norm, TV-V, TV-H, Line, Alt.
- **Time/DIV:** 0.1us/DIV ~ 2s/DIV 23 Step
- **Vert/DIV:** 5mV/DIV ~ 5V/DIV 10 Step
- **40MHz Dual Trace, Dual Trigger**
- **10ns Resolution.**
- **1mV Sensitivity.**

COUNTER

- **5 Digits 0.36" Red LED Display.**
- **0.1Hz ~ 60MHz Auto Range.**
- **Auto Detect, Auto Reset.**
- **0.001Hz Resolution.**
- **Auto Gate Time.**
- **1mV Sensitivity.**

Pintek Electronic Co., Ltd
www.pintek.com.tw

CE

CS-406 40MHz Oscilloscope With Frequency Counter

SPECIFICATIONS

CRT

Type : Rectangular with integral graticule.
Display Area : 8 x 10 div (1 div = 1 cm)
Accelerating Voltage : 2.1 kV.
Phosphor : P31.

VERTICAL AMPLIFIERS (CH 1 and CH 2)

Sensitivity :

5 mV / div to 5 V / div (X1 mode).
1 mV / div to 1 V / div (X5 mode).
1-2-5 sequence, 10 step attenuator. Vernier control provides fully adjustable attenuation between steps.

Accuracy : $\pm 3\%$ (X1 mode); $\pm 5\%$ (X5 mode).

Input Resistance: $1\text{ M}\Omega \pm 2\%$.

Input Capacitance: $25\text{ pF} \pm 10\text{ pF}$.

Frequency Response:

5 mV to 5 V / div (CAL): DC to 40 MHz (-3 dB).
1 mV / div (CAL): DC to 15 MHz (-3 dB).

Rise Time: Approximately 8.8 ns.

Operating Modes:

CH1: CH 1, single trace.
CH2: CH 2, single trace.
ALT: dual trace, alternating.
CHOP: dual trace, chopped.
ADD: algebraic sum of CH1 + CH2

Polarity Reversal(Invert): Ch2 only

Maximum Input Voltage: 400V dc+ac pack

HORIZONTAL AMPLIFIER

(Input through channel 1 input)

X-Y mode : switch selectable using X-Y switch.

CH 1 : X axis; CH 2 : Y axis

Sensitivity: Same as vortical channel 2

Accuracy: Y-Axis : $\pm 3\%$; X-Axis : $\pm 6\%$

Input Impedance: Same as vortical channel 2

Frequency Response: DC to 1 MHz typical (-3 dB)

X-Y Phase Difference: Approximately 3° at 50 kHz.

Maximum input Voltage: Same as vortical channel 2

SWEEP SYSTEM

Sweep Speed:

0.1 $\mu\text{s}/\text{div}$ to 2.0 s/div in 1-2-5 sequence, 23 steps. Vernier control provides fully adjustable sweep time between steps.

Accuracy: $\pm 3\%$.

Sweep Magnification: 10X, $\pm 10\%$

Holdoff: Continuously adjustable from norm to 5 times normal.

TRIGGERING

Trigger Modes: AUTO (free run) or NORM

Trigger Source: CH 1, CH 2, ALT, EXT, LINE

Maximum External Trigger Voltage: 300 V dc + ac peak

Trigger Coupling:

AC : 30 Hz to 40 MHz.

TV - H : Used for triggering from horizontal sync pulses.

TV - V : Used for triggering from vertical sync pulses.

Trigger Sensitivity:

Internal: 0.5 division(1 division with TV Coupling).

External: 500 mV

Calibration Voltage:

1 kHz (nominal) Positive Square Wave, 2.0 V p-p ($\pm 3\%$)

Trace Rotation: Electrical, front panel adjustable.

COUNTER

Display: 5 digits, 0.36" Red LED, display at "Hz" or "KHz" unit, autorange.

Gate Time:

Auto Select: from 10s to 0.25s according to the frequency of the input signal auto select.

Auto Detect: The gate time LED will "FLASH" when with input and will "OFF" without input signal, auto detect.

Auto Re-set: The data will hold 10s Max. After the input signal is stop and then auto re-set.

Resolution: 0.001Hz to 1KHz according to the frequency of the input signal, auto select.

MAX. Counter Range: 0.1Hz to 60MHz

Accuracy: $\pm 0.01 + 1$ digit or $1/99999 + 1$ digit

Time Base: $18.432\text{MHz} \pm 10\text{ppm}(23^\circ\text{C} \pm 5^\circ\text{C})$

Sensitivity:

Note: The counter must be set at "DC Coupling" operation when the input signal is less than 10Hz.

MODE	RANGE	SENSITIVITY
INT	2Hz~40MHz	$\geq 1\text{DIV}$
	1Hz~45MHz	$\geq 2\text{DIV}$
	0.2Hz~50MHz	$\geq 3\text{DIV}$
EXT	10Hz~50MHz	$\geq 200\text{mVrms}$
	1Hz~60MHz	$\geq 400\text{mVrms}$

OTHER SPECIFICATIONS

Power Requirements:

115, 230 V $\pm 10\%$, 50/60 Hz, approximately 40W

Dimensions: 324 x 132 x 398 mm (12.8 x 5.2 x 15.6")

Weight: Approximately 7.8 kg (17.2 lbs)

Rated Range of Use: $10^\circ\text{C} - 35^\circ\text{C}$, 10-80% RH

Limits of Operation: $0^\circ\text{C} - 50^\circ\text{C}$, 10-80% RH

Storage Environment: $-30^\circ\text{C} - 70^\circ\text{C}$, 10-90% RH

CE STANDARD:

E.M.C. Regulations-1992 (E.C. Directive 89/336/EEC)

EN 50081-1 Emissions; EN 49082-1 Immunity

SALES AGENT

PINTEK

Pintek Electronic Co., Ltd

2F No.32 Tai-Pen Rd., Shulin City, Taipei Hsien, Taiwan

Tel: 886-2-86859562~3 Fax: 886-2-86852081

<http://www.pintek.com.tw>

E-Mail : pintek@pintek.com.tw ; pintek@ms26.hinet.net