

Analog Oscilloscope

LOW-COST, 20MHz/40MHz/50MHz



TOS2000C SERIES



MODEL LIST

- TOS-2020BCH/2040BCH/2050BCH: SMT PCB, encoder switch
- TOS-2020CF/2040CF/2050CF: with built-in 6 digits frequency counter
- TOS-2020CT/2040CT/2050CT: with component test function

FEATURES

- Dual channel 20MHz/40MHz/50MHz
- 10 times sweep magnification
- TV synchronization; X-Y mode
- High illumination internal graticule CRT
- Fully sealed durable attenuation switch
- ALT triggering function, enabling simultaneous observation of two independent signals

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SPECIFICATIONS

| Model | 20MHz | | 40MHz | | 50MHz | |
|---|---|---------------------------|--------------------|-------------|--------------------|--|
| Vertical system | | | | | | |
| Sensitivity | 5mV~5V/DIV±3%, 10 steps in 1-2-5 sequence | | | | | |
| Vernier sensitivity | ≤1/2.5 of panel indicated value | | | | | |
| Bandwidth | DC (AC 10Hz)~20MHz | | DC (AC 10Hz)~40MHz | | DC (AC 10Hz)~50MHz | |
| Rise time | Approx. 17.5ns | | Approx. 8.75ns | | Approx. 7ns | |
| Input impedance | Approx. 1MΩ//Approx. 25pF | | | | | |
| Vertical mode | CH1, CH2, DUAL (ALT/CHOP), ADD, CH2 INV | | | | | |
| Chopping repetition frequency | Approx. 250kHz | | | | | |
| Input coupling | AC, GND, DC | | | | | |
| Max. Input voltage | 400V peak-peak, AC frequency≤1kHz | | | | | |
| Common mode rejection ratio | >50:1 at 50kHz sine wave (set CH1 and CH2 at same sensitivity) | | | | | |
| Horizontal system | | | | | | |
| Sweep time | 0.2us~0.5s/DIV±3%, X10MAG: ±5% (20ns~50ns/DIV uncalibrated), 20 steps in 1-2-5 sequence | | | | | |
| Vernier sweep time control | ≤1/2.5 of panel indicated value | | | | | |
| Sweep magnification | X10 (fastest sweep time 20ns/DIV) | | | | | |
| Linearity | ±5%, X10MAG: ±10% (0.2s~1us) | | | | | |
| Trigger system | | | | | | |
| Trigger mode | AUTO, NORM, TV-V, TV-H | | | | | |
| Trigger level lock | Not provided | | | | | |
| Trigger source | CH1, CH2, ALT, LINE, EXT | | | | | |
| Trigger coupling | AC: 20Hz to full bandwidth | | | | | |
| Trigger slope | "+" or "-" | | | | | |
| Sensitivity | Frequency | 20Hz~2MHz | 2MHz~20MHz | 20MHz~40MHz | 40MHz~50MHz | |
| | CH1, CH2 | 1DIV | 1.5DIV | 2.5DIV | 3DIV | |
| | ALT | 2DIV | 3DIV | | | |
| | EXT | 200mV | 800mV | | | |
| | TV | Sync pulse>1DIV (EXT: 1V) | | | | |
| External trigger input | | | | | | |
| Input impedance | Approx. 1MΩ//Approx. 25pF | | | | | |
| Max. input voltage | 400V (DC+AC peak), AC frequency≤1kHz | | | | | |
| X-Y mode | | | | | | |
| Sensitivity | 5mV~5V/DIV±3% | | | | | |
| X-axis bandwidth | DC~500kHz (-3dB) | | | | | |
| Phase error | ≤3° at DC~50kHz | | | | | |
| Calibration signal output | 1kHz square wave; 2Vpp±2%; Output impedance: approx. 1kΩ | | | | | |
| Frequency counter (only for TOS-2020CF, TOS-2040CF, TOS-2050CF) | | | | | | |
| Display | 6 digits LED | | | | | |
| Accuracy | ±0.01% | | | | | |
| Component test (only for TOS-2020CT, TOS-2040CT, TOS-2050CT) | | | | | | |
| Testing subject | Resistor, Capacitor, Coil, Diode, Zener or simple combination of the components | | | | | |
| Testing voltage | Approx. 9Vac pp | | | | | |
| Testing frequency | 50/60Hz | | | | | |
| Testing current | Approx. 0.6mA | | | | | |
| CRT | | | | | | |
| Type | 6-inch rectangular with internal graticule, 8x10DIV (1DIV=1cm) | | | | | |
| Phosphor | P31 | | | | | |
| Accelerating voltage | Approx. 2kV (20MHz); Approx. 12kV (40MHz) | | | | | |
| Trace rotation | Adjustable at front panel | | | | | |
| General | | | | | | |
| Power source | AC110V/220V±10%, 50/60Hz, Max. 35VA | | | | | |
| Accessories | Power cord x1, Operation manual x1, Probe x2 | | | | | |
| Dimension (WxHxD) | 310x150x455mm | | | | | |
| Weight | Approx. 8kg | | | | | |