



**COLLEGE OF ENGINEERING KIDANGOOR**  
(Under Co-operative Academy of Professional Education, Govt. of Kerala)  
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No: CED/D/1508/2019

25/09/2019

## QUOTATION NOTICE

Competitive quotations are invited from qualified firm for the Purchase of One number of Cathode Ray <sup>Oscilloscope</sup> for Microprocessor lab in Computer Science Dept. at College of Engineering Kidangoor. Specification is attached herewith.

The last date and time for receiving quotations : 03/10/19 , 12.00 Noon  
Date and time for opening quotations : 03/10/19 , 01.00 PM

**For details contact : [www.ce-kgr.org](http://www.ce-kgr.org)**

The rates of Govt. Quotations are applicable for this quotations also . The decision taken in the matter by the undersigned will be final.


  
PRINCIPAL

  
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# CRO SPECIFICATIONS (1)

|                               |   |               |                |
|-------------------------------|---|---------------|----------------|
| <b>CRT</b>                    |   |               |                |
| Type                          | 6" rectangular with internal graticule 8 x 10 Div. (1 Div. = 1 cm.).                        |               |                |
| Accelerating voltage          | 2 KV  |               |                |
| <b>VERTICAL SYSTEM</b>        |   |               |                |
| Sensitivity                   | 5 mV ~ 5 V / Div. ( $\pm 3\%$ )   |               |                |
| Bandwidth                     | DC (AC 10Hz) ~ 30 MHz (-3dB)  |               |                |
| Rise Time                     | $\leq 17.5$ nS  |               |                |
| Max. Input Voltage            | 400 V (DC + AC p-p)   |               |                |
| Input Coupling                | AC, DC, GND   |               |                |
| Input Impedance               | $\approx 1$ M $\Omega$ // 25 pF   |               |                |
| Vertical Mode                 | CH1, CH2, DUAL (ALT/CHOP) ADD, CH2 INV  |               |                |
| <b>HORIZONTAL SYSTEM</b>      |   |               |                |
| Sweep time                    | 0.2 $\mu$ S ~ 0.5 S / Div. ( $\pm 3\%$ ), x10 Mag.: 20 nS ~ 50 mS / Div. ( $\pm 5\%$ )      |               |                |
| Sweep time accuracy           | $\pm 3\%$ ( $\pm 5\%$ in x10 Mag.) (20 nS ~ 50 nS / Div. uncalibrated)                      |               |                |
| Sweep magnification           | 10 times. Max sweep time = 20 nS / Div.   |               |                |
| Linearity                     | $\pm 5\%$ ( $\pm 10\%$ in x10 Mag.)   |               |                |
| <b>TRIGGER</b>                |   |               |                |
| Trigger Modes                 | AUTO, NORM, TV-V, TV-H.   |               |                |
| Trigger Source                | CH1, CH2, ALT, LINE, EXT  |               |                |
| Trigger Coupling & Slope      | AC, "+" or "-"  |               |                |
| Trigger sensitivity           | CH1, CH2  | 20 Hz ~ 2 MHz | 2 MHz ~ 30 MHz |
|                               | ALT.  | 0.5 Div.      | 1.5 Div.       |
|                               | EXT.  | 2.0 Div.      | 3.0 Div.       |
|                               | TV sync pulse $> 1$ Div. or 1V (EXT.)   | 200 mV        | 800 mV         |
| External trigger input        | Max. I/P = 400 V (DC + AC peak) at 1KHz. I/P Imp. : 1M $\Omega$ $\pm 3\%$ , 25pF $\pm 5$ pF |               |                |
| <b>X-Y OPERATION</b>          |   |               |                |
| Sensitivity                   | 5 mV ~ 5 V / Div. ( $\pm 4\%$ ). Phase Error : $\leq 3^\circ$ (DC ~ 50 KHz)                 |               |                |
| X-axis bandwidth              | DC ~ 500 KHz  |               |                |
| <b>CALIBRATOR OUTPUT</b>      | 1 KHz square-wave, 2 V p-p ( $\pm 2\%$ )  |               |                |
| <b>POWER SOURCE</b>           | AC 220 V $\pm 10\%$ , 50Hz, $\approx 35$ W  |               |                |
| <b>ACCESSORIES</b>            | Operating manual & Mains cord. Optional : Oscilloscope Probes (x1 / x10).                   |               |                |
| <b>DIMENSION &amp; WEIGHT</b> | 310 (W) x 150 (H) x 455 (D) mm. Approx. 8 Kg.   |               |                |

  
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