

**CROWN****OSCILLOSCOPE****CES - 620/620BF/640****FEATURES:**

- \* 20MHz/40MHz
- \* High sensitivity 1mV/div.
- \* Expanded vertical sensitivity to 10V~20V/div.
- \* ALT Triggering Function.
- \* Z-axis input, Ch1 output.
- \* Encoder for sweep & vertical sensitivity switch.
- \* 10 times sweep magnification.
- \* TV synchronization, X-Y mode.
- \* Triggering level lock function, automatic synchronize function.
- \* Build-in 6 digit frequency counter. (BF Model)

**SPECIFICATION:****CRT:**

**TYPE** : 6-inch rectangular with internal graticule 8x10div (1div=1cm).  
**Z-AXIS INPUT** :  $Z_{in} \approx 47k\Omega$  ;  $V_{in} \geq 5V$  p-p; Bw: DC~2MHz

**VERTICAL:**

**Y-ATT SWITCH** : Encoder.  
**SENSITIVITY(12 step)** : X1 - +3% - 5mV~20V/div.  
 X5 - +5% - 1mV~4V/div.  
**BAND WIDTH** : X1 - DC (AC 10Hz)~20MHz (-3dB). (CES - 620/620BF)  
 DC (AC 10Hz)~40MHz (-3dB) (CES - 640)  
 X5 - DC (AC 10Hz)~7MHz (-3dB).  
**RISE TIME** : X1 -  $< 17.5ns$  -  $< 8.75/7ns$ .  
 X5 -  $< 50ns$  -  $< 25/23ns$ .  
**INPUT IMPEDANCE** :  $\approx 1M\Omega/25PF$ .  
**MAX. INPUT VOLT.** : 300V (DC + AC P-P)  
**INPUT COUPLING** : AC, DC, GND.  
**VERT. OPERATION MODE** : Ch1, Ch2, DUAL (ALT/CHOP) ADD, Ch2 INV.

**HORIZONTAL:**

**SWEEP TIME** : 0.2us~0.5s/div +3%: MAG x 10:100ns~50ms/div +5%.

**TRIGGER SYSTEMS:**

**MODE** : AUTO, NORM, TV-V, TV-H.  
**LEVEL LOCK** : OK.  
**SOURCE** : Ch1, Ch2, ALT, LINE, EXT.  
**COUPLING** : AC.  
**SLOPE** : +ve or -ve.

**X-Y AXIS:**

**SENSITIVITY** : 5mV~5V/div,  $\pm 4\%$ .  
**X-AXIS BANDWIDTH** : DC~500KHz.  
**PHASE ERROR** :  $\leq 3^\circ$  DC~50KHz

**OUTPUT SIGNAL:**

**Ch1 OUTPUT** : OK.  
**CALIBRATOR O/P** : 1KHz square wave, 2V p-p  $\pm 2\%$

**BUILT IN FREQ. COUNT.:** 10Hz~10/40/50MHz; 6Digit LED (BF Model Only).

**POWER SOURCE** : AC 110/200V  $\pm 10\%$ , 50Hz/60Hz, 35w.

**SIZE** : 310(W) x 150(H) x 455(D) mm.

For further details please contact :

**CROWN ELECTRONIC SYSTEMS**

An ISO 9001: 2000 CERTIFIED COMPANY

JG-1/7A.VIKAS PURI, NEW DELHI - 110018

WORKS: WZ-139C/3, BHANU COMPLEX, NEW MAHAVIR NAGER, NAJAFGARH ROAD NEW DELHI-110018

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**CROWN OFFERS YOU A WIDE RANGE OF:** OSCILLOSCOPE , AUDIO OSCILLATOR , FUNCTION GENERATOR , DC REGULATED POWER SUPPLY, DIGITAL FREQUENCY COUNTER/ MILLI OHM METER/ pH METER/ DPM,s FOR V,A, Hz., AND WATT/VTM, LCR METER, HIGH VOLTAGE BREAK DOWN TESTER, AF POWER OUTPUT METER, AND ALL OTHER INSTRUMENTS, COMPONENTS AND ACCESSORIES, FOR ELECTRONICS AND ELECTRICAL LAB.