The **HM1007** offers an Analogue/Digital Oscilloscope with a 100MHz analogue bandwidth, 40mS/s sampling rate, 2kB storage capacity for each channel with a reference memory of similar size and featuring a"Trigger Level Display" which allows precise adjustment of trigger level for the capture and display of single events.

The digital section of the HM1007 is based on a "state-machine" concept.One of the instruments main advantages is the fact that the entire internal control is fully synchronized. Data aquisition is possible in Refresh,Roll, Single and XY mode. Any data entered into the main memory can be compared with reference signals at any given time.
The Y-position of the reference signal can be moved vertically to allow exact comparison with the current signals. Pre-trigger can be activated to obtain "pre-history" information on a transient event. Time-base in digital mode is expandable to a maximum of 50 times with a resolution of 4 points/div. This means that with a resolution of 40 points, a 1MHz signal can be expanded to fill the entire screen, providing enhanced signal recognition through the "Dot-joiner" feature. Two batteries prevent data-loss in case of power failures.With the optional Interface HO79, including software, the HM1007 can be connected to any XT/AT compatable computer.The analogue portion of the instrument is equally well designed. Each of the two channels has 100MHz bandwidth. The delay-line allows the display of the leading edge of waveforms. The transient response over the entire signal path from probe tip to CRT, can be easily and precisely monitored by using the in-built 1kHz/1MHz calibrator (risetime 5nS approx.). Automatic peak-value trigger and 130MHz trigger bandwidth ensure reliable triggering of signals as small as 0.5 div. amplitude.The positive appearence of the instrument is enhanced by the exceptional bright and sharp 14KV CRT which provides clear display even in well lit enviroments.

Specifications:

Vertical Deflection

Operating Modes:	Ch.1 or Ch.11 separate, Ch.1 and 11,Alternate or chop(freq. 0.5MHz)
Frequency Range(Analogue:	DC - 100MHz(±3dB). Risetime: <3.5nS.
Deflection Coefficients:	10 calibrated positions from 5mV/div. to 5V/div. (±3%) on 1-2-5 sequence, variable 2.5:1-12.5V
Y-Expansion x5 (calibrated) to 1mV/div.(±5%) in the freq.range from DC-10MHz	
Input Impedance:	1MR # 25pF. Input Coupling: DC-AC-GND
Input Voltage:	400V (DC + peak AC). Delay-line: 90nS appr.
TriggeringWith automatic (peak to peak):	10Hz - 130MHz (<0.5div. height)
Normal with level control:	DC - 130MHz
Slope:	Positive or Neg. LED indicated for trigger ind.
Coupling:	AC(>10Hz - 40MHz), DC(0 - 40MHz) HF(>2KhZ - 130MhZ), LF(0 - 2kHz)

Horizontal Deflection

Time Coefficients(Analogue):	23 calibrated steps from 50nS to 1S/cm(±3%) in 1-2-5 sequence, variable 2.5:1 to 2.5S/div. with X-Expansion x 10 to 5nS/div. (±5%)
Time Coefficients(Digital):	22 calibrated steps from 5µS - 50mS/div. and 0.1S - 50S/div.±3%), with X-Expansion x 50
Bandwidth X-Amplifier:	0 -2MHz(±3dB), Input X-Amplifier via Ch.11
X-Y Phase Shift (Analogue):	<3º below 120kHz
X-Y Phase Shift (Digital):	<3º below 500kHz

Digital Storage

Operating Modes:	Roll, Refresh, Single, XY-Mode, Hold, Save- Reference, Display-Reference, Dot Joiner
Sampling Rate:	40MS/s per channel (realtime)
Memory-Ref.Memory:	2k x 8 bit per channel
Pre-Trigger:	0 or 50%
Resolution X:	200 points/div. Y: 25 pts./div. XY:25x25 pts./div
X-Expansion:	x 5, x 10 and x 50

XY:	2 x 2k x 8 bit: Ref.Memory: 2 x 2k x 8 bit.
Power Consumption:	47 Watts approx.