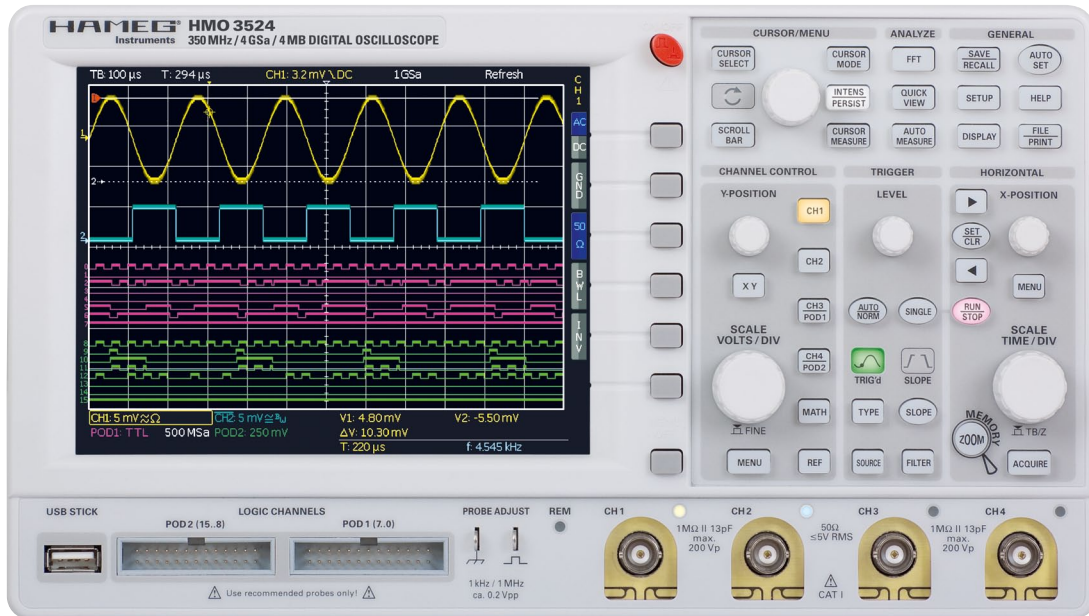


# HAMEG Oscilloscopes

## HAMEG - Innovations to our customers' profit



HAMEG is a German company of long tradition in the measuring instrument market and especially in the oscilloscope field. With the HMO series instruments HAMEG introduces its first pure Digital Storage Oscilloscopes. The product portfolio still comprises the Combiscopes, HAMEG is the only renowned manufacturer which offers oscilloscopes which can be switched from pure analog to pure DSO operation by just pushing a key. HAMEG pursued its philosophy of easy operation also in these Digital Storage Oscilloscopes of the HMO series. The addition of the cursor implementation, of Quick View and Virtual Screen prove that extensions of standard measuring and display functions are still possible.

Traditionally, there are vertical and horizontal cursors which can be used for absolute and relative measurements. However, it is not possible to characterize pulse signals with only one measurement. This problem is solved for the first time by the additional cursor functions with 3 cursors provided in the HMO series. As demonstrated in Fig. 1 the duty cycle can be measured in one step. A very useful function is the menu function „SET TO TRACE“ which automatically adjoins the cursors to the respective signals. The user is spared from the duty of selecting and placing the cursors.

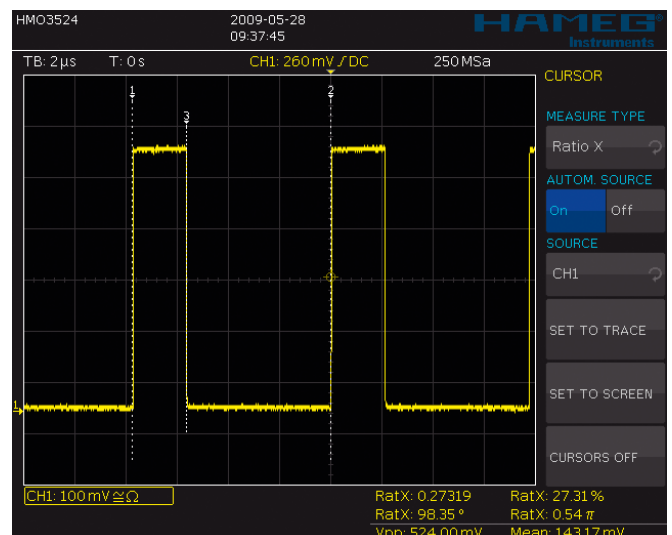


Fig. 1 Quotient cursors for the measurement of duty cycles.

This cursor measurement function is, of course, also available in Y direction.

Another highlight is the measurement function Quick View which can be started by pushing a dedicated key. This

simple action displays the most important parameters (positive and negative peak voltages, rise and fall times, average value) directly in the signal display. Additionally, the parameters frequency, period, peak-to-peak voltage, rms voltage will be shown. As presented in Fig. 2 this display of the parameters and the auxiliary reference lines coordinates them very clearly and unambiguously to the actual signal.

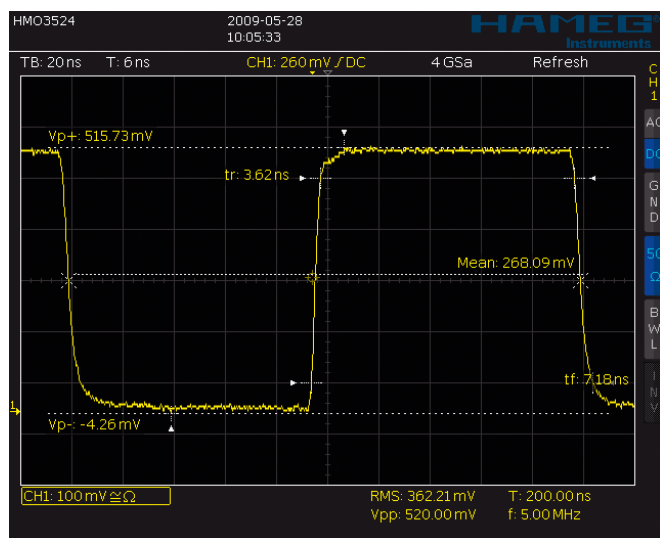


Fig. 2 Transparent measurement function Quick View.

In this class of oscilloscopes the VGA (480 x 640) display already constitutes a distinct advantage over a QVGA (240 x 320) display; the Virtual Screen function of the HMO now offers a virtual resolution of 1200 x 640 and 20 divisions in Y direction. This function is as well simple and effective: the physical resolution of the LED back-lighted VGA display with 8 divisions vertically is virtually extended by 12 divisions. The principle is explained in Fig. 3. Pushing a key will add a scroll bar, by turning the universal knob the visible 8 divisions (grey in Fig. 3) will be shifted.

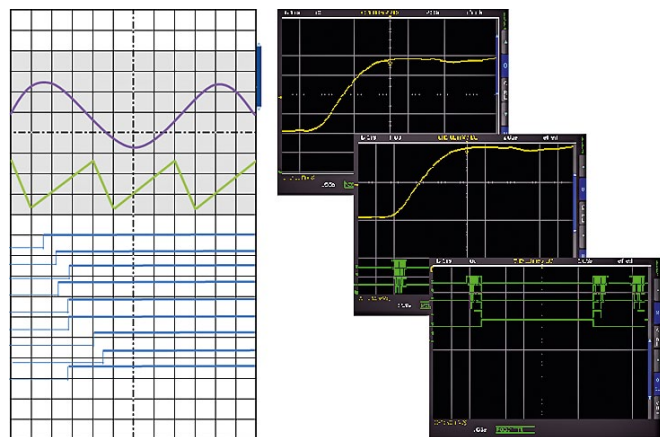


Fig. 3 Principle and example of the Virtual Screen function.

This comes in especially handy and represents an invaluable comfort function when the optional 16 digital inputs are used.