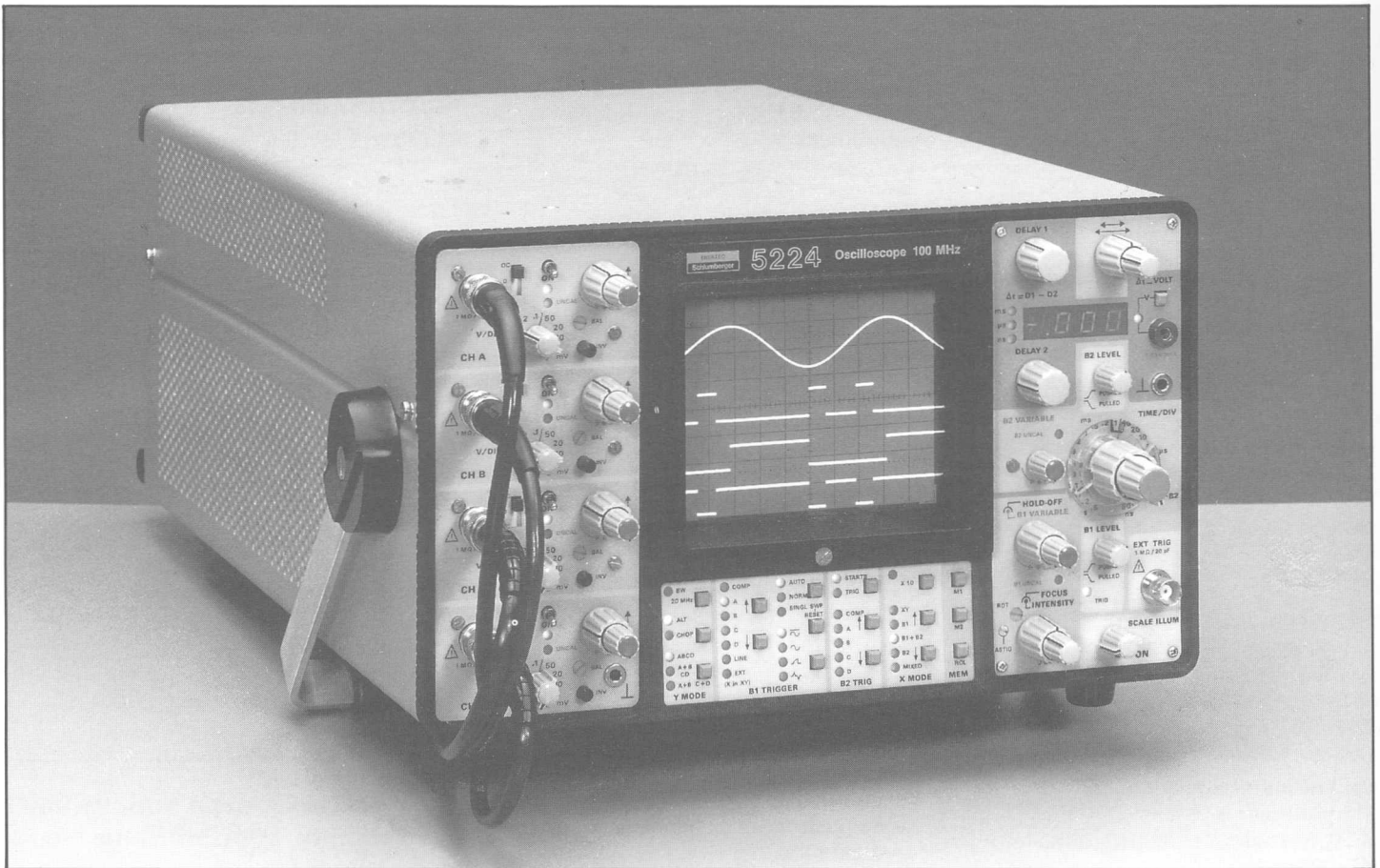


COMPACT OSCILLOSCOPES 5220 - 5224 100MHz

1987/88



2 channels (5220)

4 channels (5224)

High-brightness 12kV CRT

Built-in multimeter

Function keyboard

Set-up configuration storage

CATHODE RAY TUBE

Screen : rectangular, blue filter, flat face, 8 × 10 cm usable area, with internal graticule scaled with 1 cm division and adjustable illumination.

Phosphor : P31 standard.

Post-deflection acceleration : 12kV.

External beam modulation :

Spot is blanked by about + 5V.

Bandwidth : DC to 20MHz.

Input impedance : 2kΩ.

Maximum input voltage : 50Vp-p AC.

VERTICAL DEFLECTION

• MODEL 5220

2 amplifier channels A and B, and trigger channel C.

Bandwidth (to - 3dB) : DC to 100MHz. 20MHz filter.

Sensitivity :

Channels A and B :

5mV/div. to 5V/div. up to 100MHz.

2mV/div. up to 50MHz.

Selected by switch, in 1 - 2 - 5 sequence ; calibration accuracy : ± 3 %.

Continuous gain adjustment by 2.5 : 1 ratio vernier with CAL switch and uncal indicator lamp.

Channel C :

100mV/div. and 1V/div., with shift and continuous gain adjustment by 2.5 : 1 ratio vernier with CAL switch and uncal indicator lamp.

Input coupling : DC, 0, AC/2Hz.

Input impedance :

without probe : 1MΩ//about 20pF,
with probe : 10MΩ//12pF.

Maximum permissible input voltage :

without probe : 350V DC + PAC,
700Vp-p AC.
with probe : 750V DC or p-p AC.

Delay line : visible delay of about 20ns.

Vertical display modes :

channels : A, B, C ;

channels ± A ± B and C ;

channels A, A ± B, B, C (4 traces).

Polarity of channels A and B can be inverted. Channels A, B and C can be viewed separately or simultaneously, alternately or chopped at a fixed frequency of about 1MHz.

Lamps signal the channels in service. Each channel can be turned off with a switch (lamp out), so that 1, 2, 3 or 4 traces can be viewed.

Trigger source is not affected by this channel switching.

• MODEL 5224

4 amplifier channels A, B, C and D.

Bandwidth (to - 3 dB) :

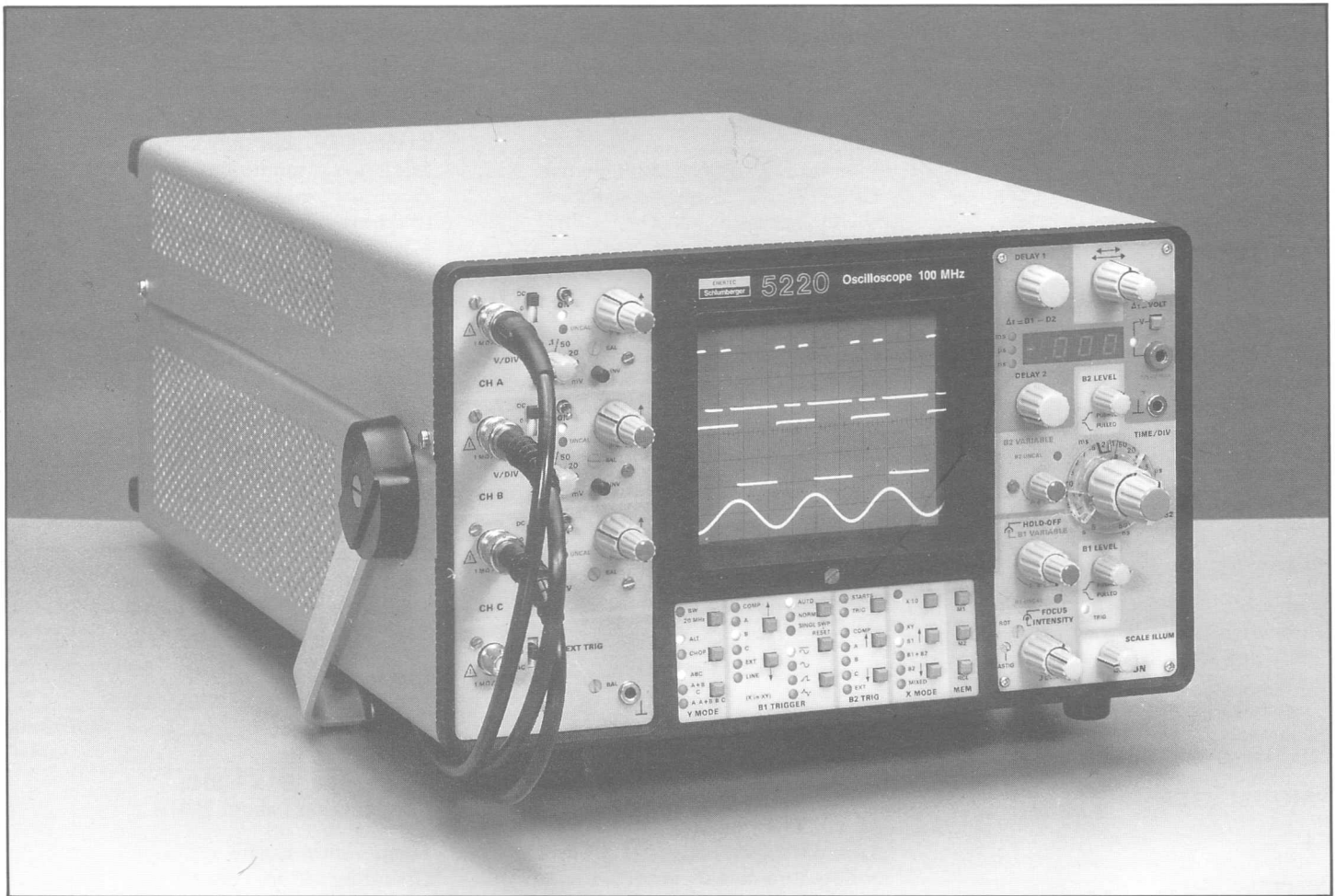
DC to 100MHz
20MHz filter.

Sensitivity

5mV/div. to 5V/div. up to 100MHz.
2mV/div. up to 50MHz.

Selected by switch, in 1 - 2 - 5 sequence ; calibration accuracy : ± 3 %.
Continuous gain adjustment, for each channel, by 2.5 : 1 ratio vernier with CAL switch and uncal indicator lamp.

COMPACT OSCILLOSCOPES 5220 - 5224 100MHz



Input coupling :
DC, 0, AC/2Hz.

Input impedance :
without probe : $1M\Omega$ //about 20pF,
with probe : $10M\Omega$ //12 pF.

Maximum permissible input voltage :
without probe : 350V DC + PAC ;
700Vp-p AC.
with probe : 600V DC or p-p AC.

Delay line : visible delay of about 20ns.

Vertical display modes :
Channels A, B, C, D (4 channels).
 $A \pm B$ and $C D$; $A \pm B$ and $C \pm D$.
Polarity of each channel can be inverted.
Channels A, B, C, D can be viewed
separately or simultaneously, alternately
or chopped at a fixed frequency of about
1MHz.

Lamps signal the channels in service.
Each channel can be turned off with a
switch (lamp out), so that 1, 2, 3
or 4 channels can be viewed.
Trigger source is not affected by this
channel switching.

HORIZONTAL DEFLECTION
• MODELS 5220 and 5224

Time base :
main B1, delayed B2, B1 and B2 mixed.

Sweep rates :
B1 : 50ns/div. to 0.5s/div.
B2 : 50ns/div. to 50ms/div.
Sequence : 1 - 2 - 5.
 $\times 10$ magnifier : 5ns/div.
B1 and B2 sweep rates can be
continuously adjusted by 2 verniers with
2.5 : 1 ratio giving range overlap ; they
have CAL switches and uncal warning
lamps.

B1 and B2 calibration accuracy : $\pm 3\%$
on all ranges.
 $\times 10$ magnifier : $\pm 2\%$.

Horizontal display modes :
B1 only : B1 delaying and intensified by
B2 ; B2 only, delayed by B1 ; B1 and B2
mixed.

Delay system :
Two 10-turn controls R1 and R2 release
B2 at any two points along B1.

Delay R1 initializes B2 or enables B2
trigger. Delay time : 0.5s/div. to
0.1 μ s/div. $\pm 2\%$ of B1.
Jitter : 1/20 000th of B1 duration.

TRIGGERING
• MODEL 5220
B1

Source :
Internal : signal picked off channel A, B
or C or composite signal of channels A,
B, C.
Sensitivity : ≤ 0.5 div. at 1kHz, ≤ 1.5 div.
at 100MHz.
Line : frequency of mains supply.
External : sensitivity : ≤ 100 mV at 1kHz,
 ≤ 200 mV at 100MHz.
External 1/10 (divided by 10) :
sensitivity : ≤ 1 V at 1kHz,
 ≤ 2 V at 100MHz.
Input impedance : $1M\Omega$ //20pF.
Maximum input voltage :
350V DC + peak AC.

Coupling : DC, AC, integrated,
differentiated.

Polarity : positive or negative.