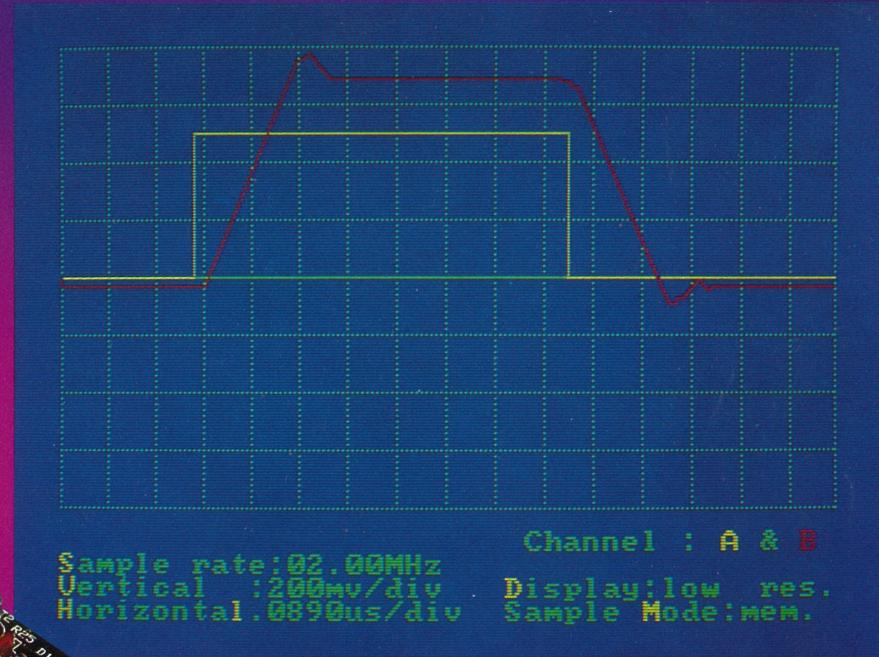
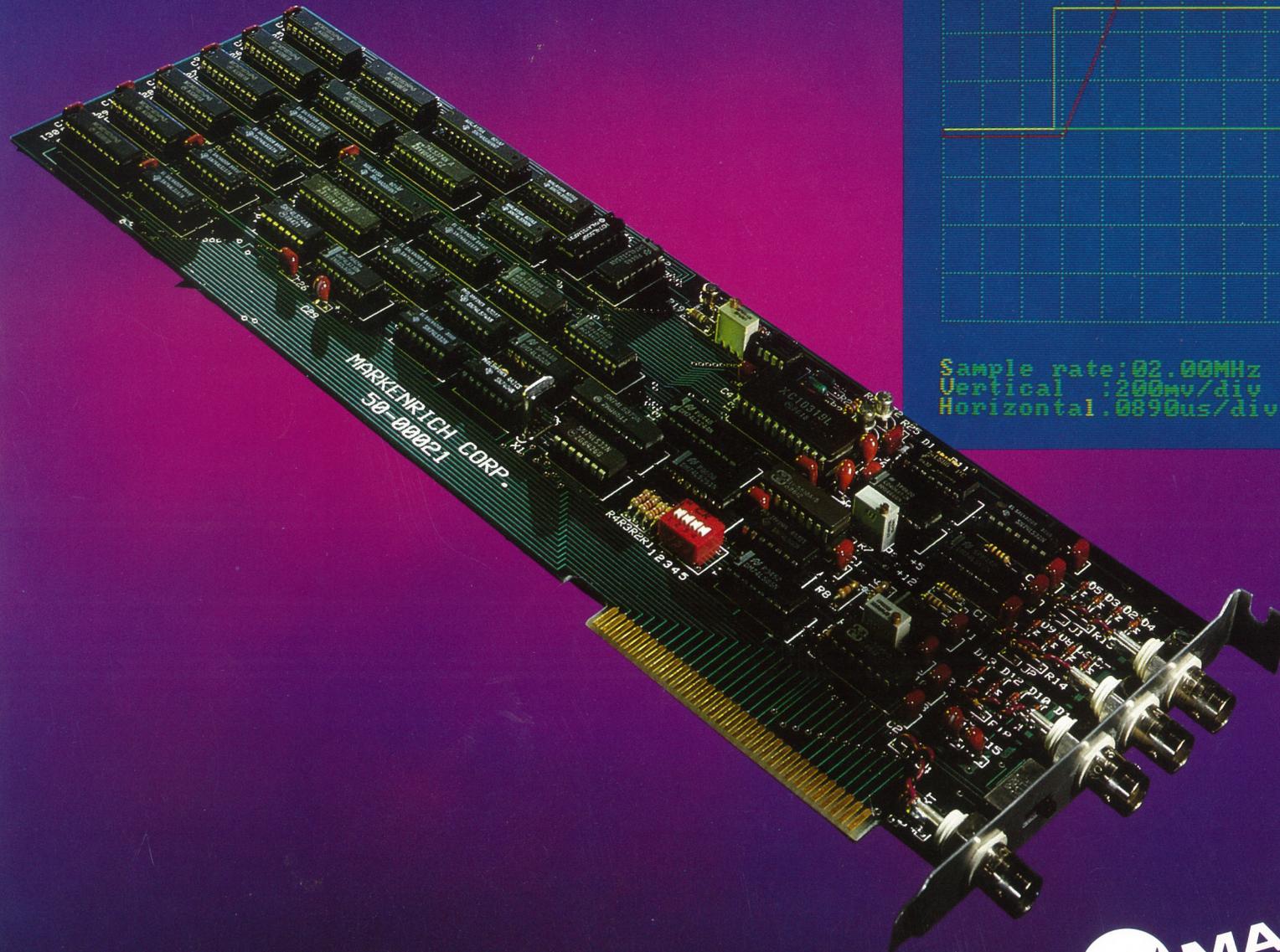


HIGH SPEED DATA ACQUISITION



WAVEFORM ACQUISITION AND ARBITRARY GENERATOR BOARD (WAAG)

With the Markenrich Waveform Acquisition and Arbitrary Generator (WAAG) plug-in board and accompanying software, your IBM-compatible PC can serve as a dual-channel scope and an arbitrary-waveform generator. Just plug the WAAG board into a single-size expansion slot and, with the help of our powerful software program, you will be able to do the following:

Acquire and display waveforms in color, singly or in pairs (Data Acquisition Mode).

Create and display new waveforms (in color) one at a time (Signal Generating Mode).

Vary your horizontal-axis scale for more waveform and less detail, or vice versa.

Store acquired or generated waveforms on disk when you wish to save them for later use.

When in the Data Acquisition Mode, you will have two input channels—Channels A and B for data sampling at rates of 2 KHZ to 20 MHZ. WAAG's 16-K Byte buffer will enable you to retain for display up to 16,384 data points; 8,192 per channel when both channels are used, or all 16,384 for a single channel. You may program your screen for displaying either or both channels at the same time.

A triggering event may be used to start the waveform display while capturing up to 16,383 samples prior to the event. The triggering is from Channel A or B, or it may be external. The total number of captured samples is programmable, as are the sample rate and horizontal scale. With maximum compression of the horizontal scale, you can display all 16,384 points; for greater detail, you can spread the horizontal scale and display a selected portion.

When in the Signal Generating Mode, you can create a new arbitrary waveform by first defining the period and then "drawing" the waveform on the screen. In this way, you can generate a complex waveform with frequency, amplitude, and shape completely determined.

SPECIFICATIONS

DATA ACQUISITION

Channels	Two; A, B
Full-scale input	+ 1.27 to - 1.28 V
Maximum Samples	Single Channel: 16,384 Dual Channel: 8,192/Channel
Resolution	8 bits
Triggering	Channel A or B, or external
Maximum Sample Frequency	Single Channel: 20 MHZ Dual Channel: 10 MHZ/channel
Sample Rate/Time Base	Hardware programmable as 20 MHZ, 2 MHZ, 200 KHZ, 20 KHZ or 2 KHZ (provision for external time base). Displayed time base is programmable from 500 ns per division to approximately 0.8 s per division

WAVEFORM GENERATION

Output	Single channel, bipolar, ± 5 V peak
Waveform Shape	Arbitrary, programmed by user disk file or interactively
Memory	Same as data acquisition (16 K).
Clock Frequency	Same as data acquisition. Waveform frequency is determined by clock rate and number of samples in envelope.

GENERAL

Board dimensions	13.2 in. x 4.8 in.
Connector Types	Standard IBM PC, 62-PIN. 3 BNC connectors (Female)
Power Required	+ 5 V, ± 12 V
Display Colors	Four per display—user selectable from palette of 16
Included	Circuit board, software, and instruction manual

