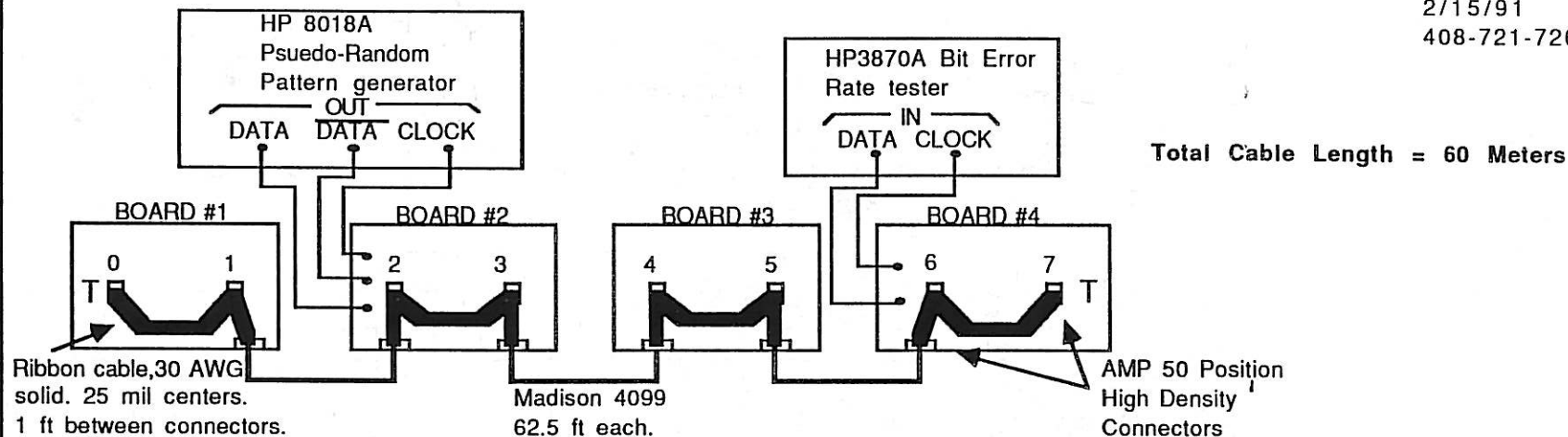


X379.2/4 0

INTERFACE APPLICATIONS

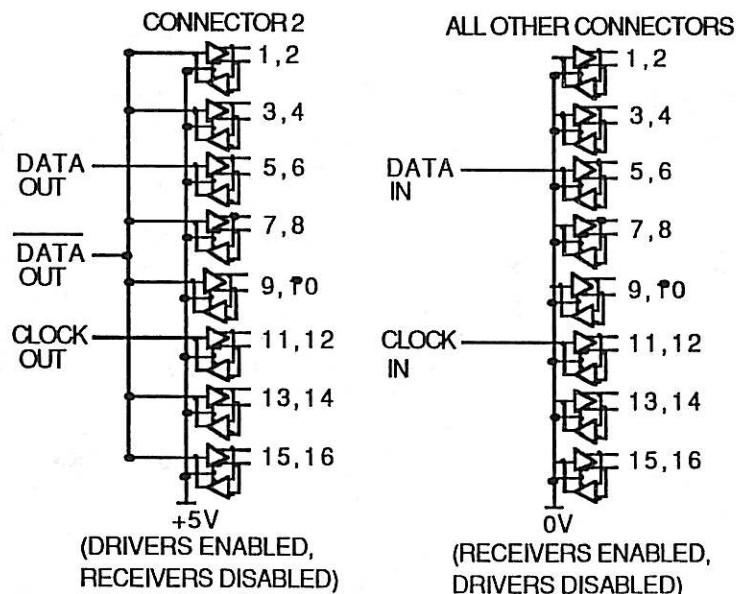
TEST SETUP

GARY MURDOCK
2/15/91
408-721-7269

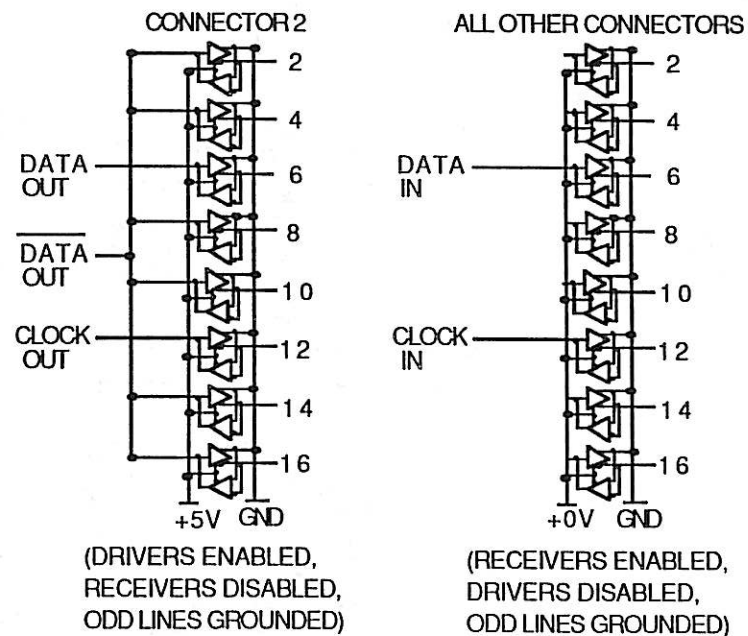


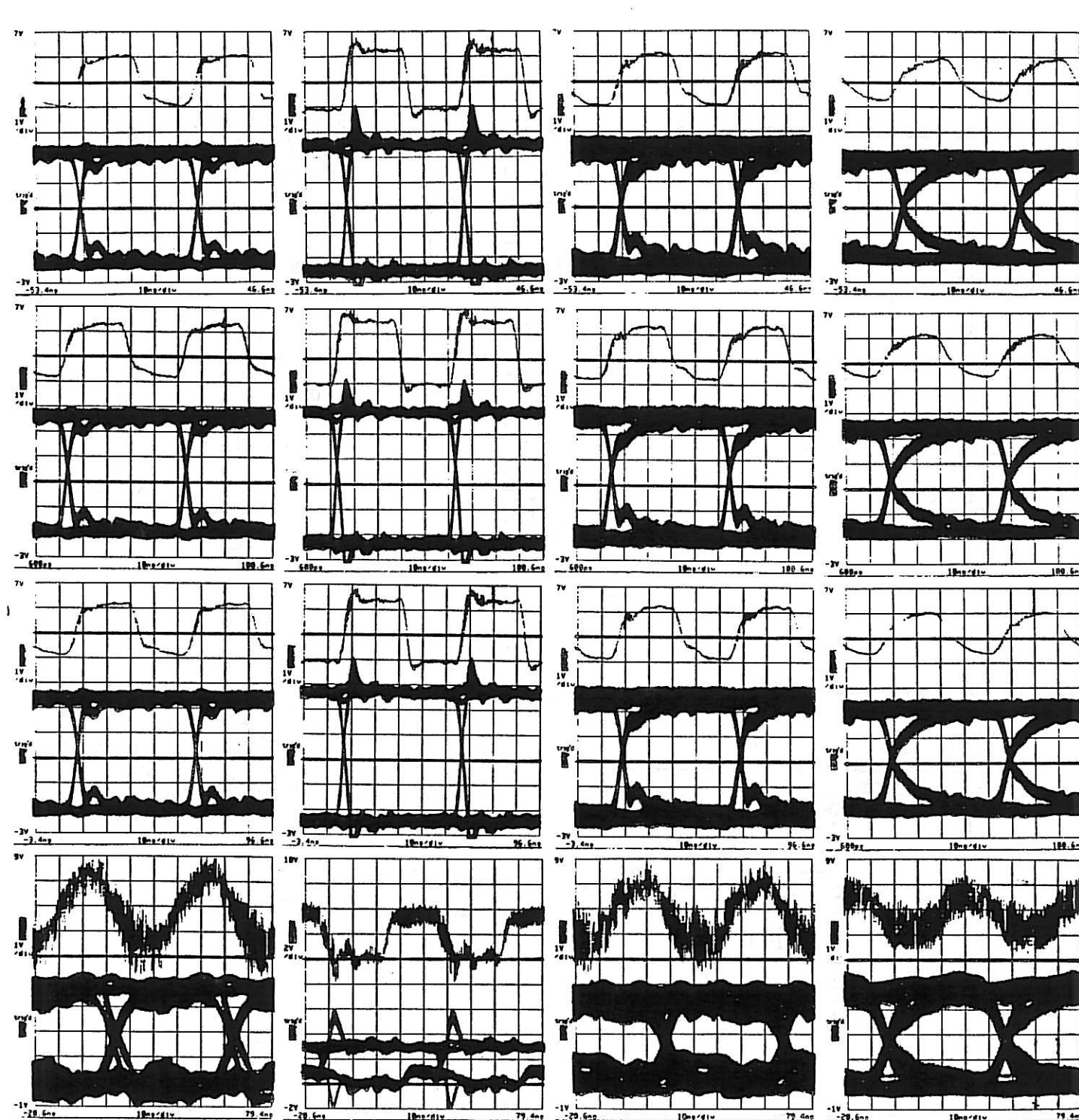
CABLE CONNECTIONS

DIFFERENTIAL TESTS



SINGLE-ENDED TEST





BOARD #1
CONN. OR 1

BOARD #2
CONNECTOR 3

BOARD #3
CONNECTOR

BOARD #4
CONNECTOR 7

CLOCK

<- DIFF GND

DIFFERENTIAL TEST

DATA

<- DIFF GND

Termination: $\begin{matrix} - & 120 \\ + \end{matrix}$

CLOCK

<- DIFF GND

DIFFERENTIAL TEST

DATA

<- DIFF GND

Termination: $\begin{matrix} - & 330 \\ + & 150 \\ & 330 \end{matrix}$

CLOCK

<- DIFF GND

DIFFERENTIAL TEST

DATA

<- DIFF GND

Termination: $\begin{matrix} - & 650 \\ + & 135 \\ & 650 \end{matrix}$

CLOCK

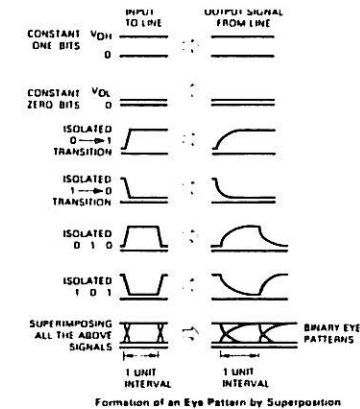
<- GND

SINGLE-ENDED TEST

DATA

Termination: $\begin{matrix} - & 220 \\ + & 330 \end{matrix}$

<- GND



20 MEGABYTE/SEC
DATA RATE.

CLOCK FREQUENCY = 20 MHz
(20 MEGABYTE/SEC DATA RATE)

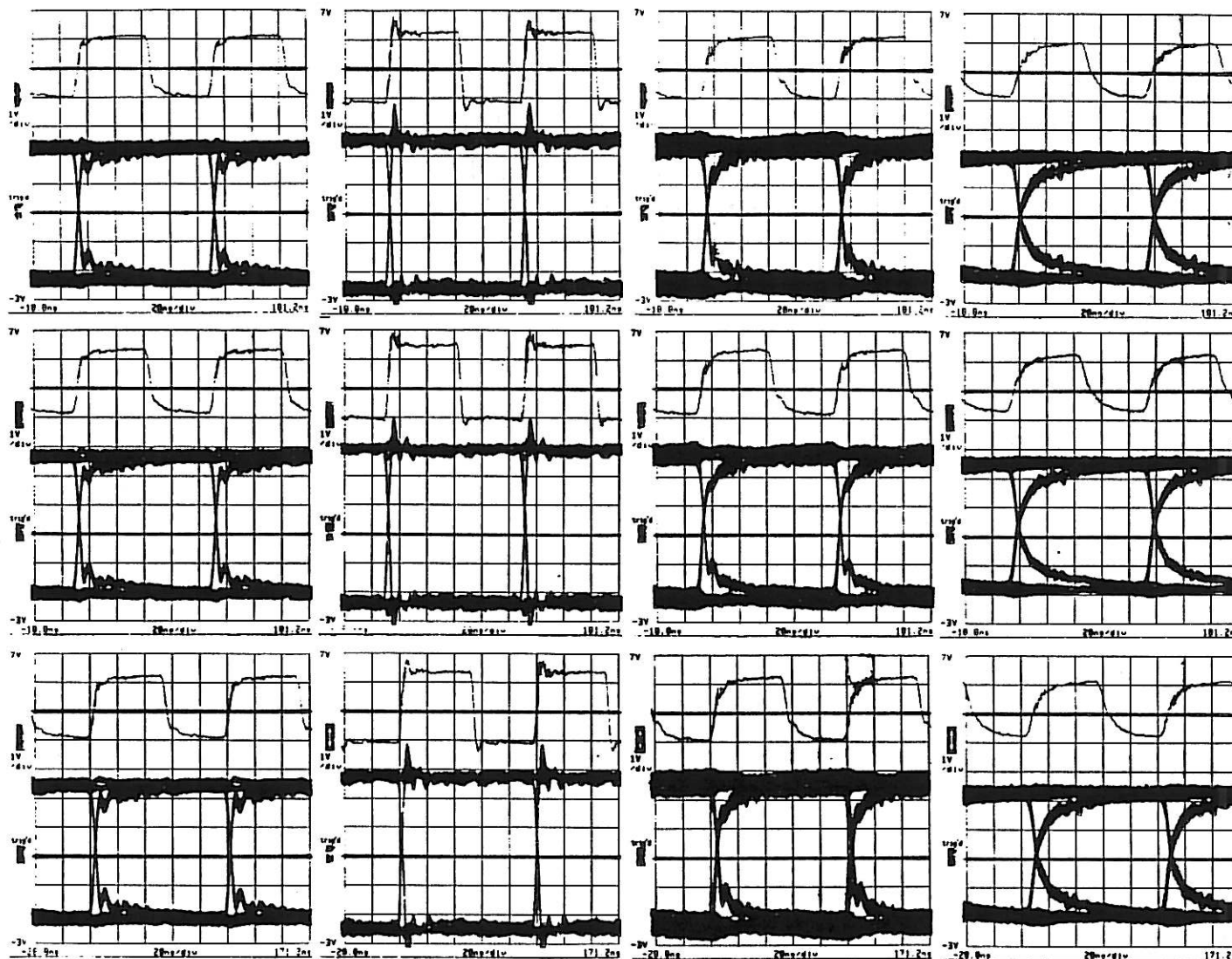
HORIZONTAL SCALE = 10 NS/DIV
VERTICLE SCALE = 1V/DIV

Differential Tests: No pattern errors
below 25 MHz.

Single-ended test: Pattern errors
above 500 KHz.

THESE WAVEFORMS
ARE THE BUS
SIGNALS SEEN AT
THE CLOCK AND
DATA RECEIVER
INPUTS.

The single-ended
driver is active
pull-up and sinks
48 mA 0.5V



BOARD #1
CONNECTOR 1

BOARD #2
CONNECTOR 3

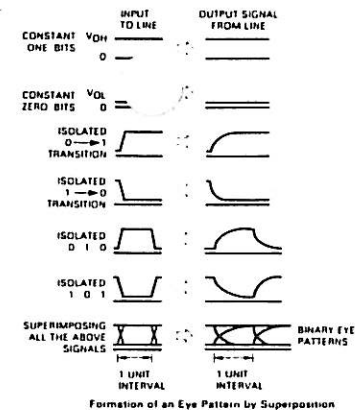
BOARD #3
CONNECTOR 5

BOARD #4
CONNECTOR 7

CLOCK
<- DIFF GND
DIFFERENTIAL TEST
DATA
<- DIFF GND
Termination: $\frac{+}{-} 120$

CLOCK
<- DIFF GND
DIFFERENTIAL TEST
DATA
<- DIFF GND
Termination: $\frac{+5V}{-330}$
 $\frac{+150}{-330}$

CLOCK
<- DIFF GND
DIFFERENTIAL TEST
DATA
<- DIFF GND
Termination: $\frac{+5V}{-650}$
 $\frac{+135}{-650}$



10 MEGABYTE/SEC
DATA RATE.

CLOCK FREQUENCY = 10 MHz
(10 MEGABYTE/SEC DATA RATE)

HORIZONTAL SCALE = 20 NS/DIV
VERTICLE SCALE = 1V/DIV

Differential Tests: No pattern errors
below 25 MHz.

THESE WAVEFORMS
ARE THE BUS
SIGNALS SEEN AT
THE CLOCK AND
DATA RECEIVER
INPUTS.