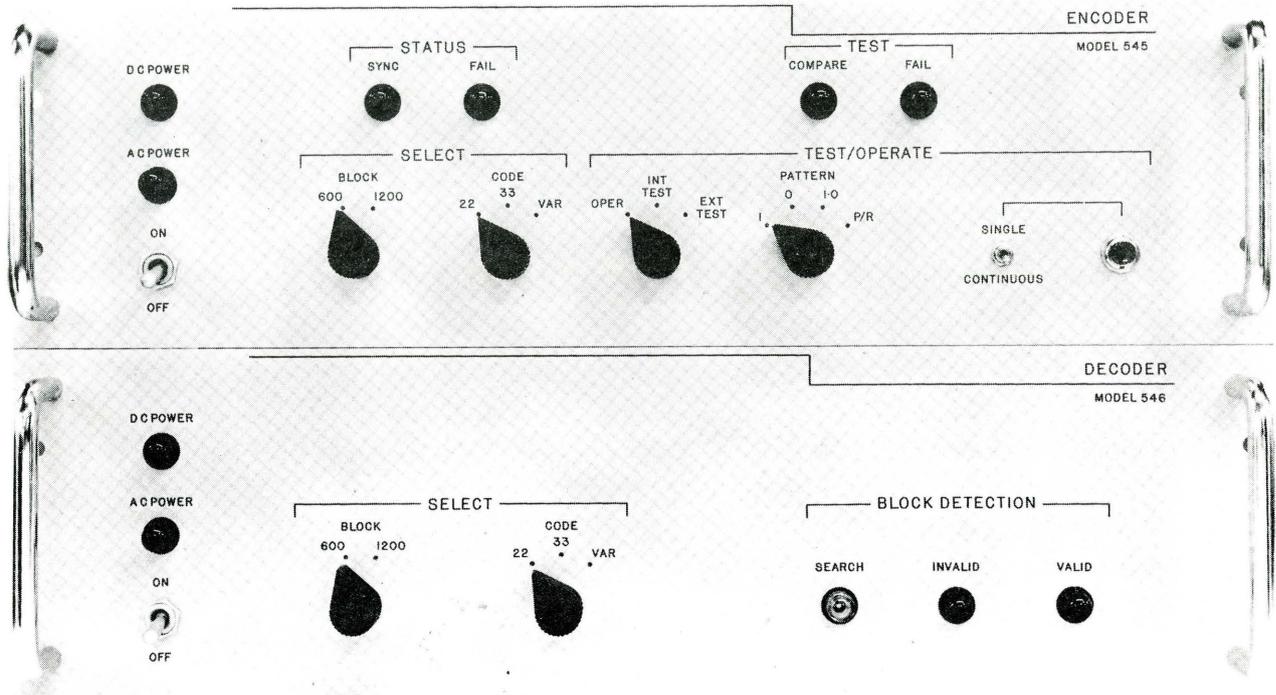


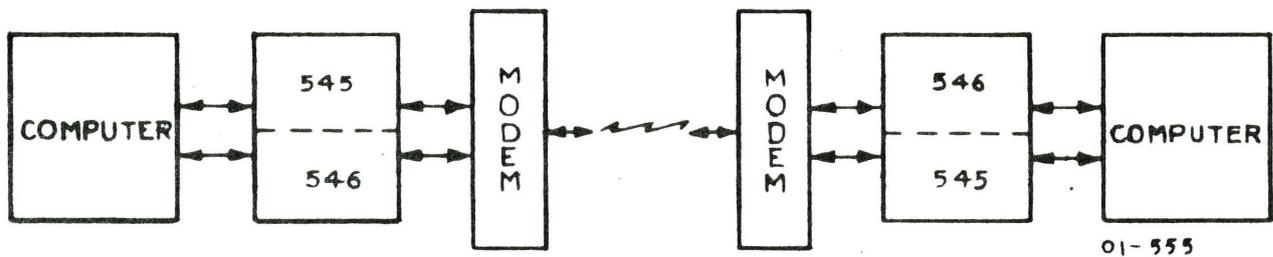
TECHNICAL INFORMATION



The MONITOR Model 545/546 encoding/decoding system is designed to provide an error detection capability consistent with today's communication requirements. With increasing data transmission volumes it is mandatory to achieve efficient use of available communication circuits and maintain high reliability of data content. The MONITOR system provides for highly reliable block formatted data transmission. Data blocks of 600 or 1200 bits are transmitted depending on the mode selected.

The MONITOR encoding/decoding system makes possible highly efficient and reliable data communications at a very economical cost.

The MONITOR Models 545/546 interface with any data source which operates in accordance with EIA Standard RS-232-A and any standard data modem.



Typical Configuration

SYSTEM FEATURES

- Automatic generation and checking of error-code polynomials.
- Data Rate up to 50,000 bits per second.
- Manual selection of 600- or 1200-bit block size.
- Manual selection of code size.
- Error Status Tag with each block.
- Standard interface with Data Modems and Data Source.
- Display of error indicators.
- Self contained test mode.

ENCODER/DECODER MODELS 545/546

SPECIFICATIONS:

Data Format

600 or 1200 bit blocks.
Data block consists of a 24 bit sync;
540 or 1140 data bits; 3 bit error status;
and 33 bit error detection code.

Data Rates

Baud rates up to 10,000 per second.

Undetected Error Rate

At 2400 baud, 600 bit clock block (NASCOM format),
undetected error rate is 1 undetected error in 2-3/4
years at 10^{-3} line error rate; in 35 years at 10^{-4}
line error rate; and more than 100 years at 10^{-5} line
error rate.

Error Code Generation and Checking

Polynomial Division process using error generating
polynomial up to degree 33. Two fixed code lengths
(22 and 33 bits) plus a variable programming patch
plug are provided.

Controls

Power ON/OFF (545 and 546)
Block Size Selector, 600 or 1200 bits (545 and 546)
Code 22 or 33 or variable (545 and 546)
INTERNAL TEST/EXTERNAL Switch (545)
TEST PATTERN - All "1", all "0", (545)
 alternating "1" and "0", 63 bit
 repeated pseudo-random.
TEST MODE - Single Block or Continuous (545)

Indicators

Sync Status 545
Error Code Test 545
AC-DC Power on 545 and 546
Error Indication (546)

Physical Characteristics

Size.....Slide Mounted drawer fits
standard 19" equipment rack.

Height - 5-1/4"

Width - 19"

Depth - 18-1/2"

Power.....115 volts $\pm 10\%$ at 60 Hz $\pm 5\%$
single phase at 0.5 ampere.

Environmental (Operating)

Temperature.....40°F to 100°F

Relative Humidity.....0 to 90% (no condensation)

Altitude.....Sea level to 15,000 feet

A Model 547 Decoder is also available which provides a 240-bit block size instead of the variable program code. A Model 548 Encoder is available as the companion to the Model 547, except for the variable program and the 240-bit block. The Models 546 and 547 Decoders can be operated interchangeably with the Models 545 and 548 Encoders.