



10235A

1645A Specifications

Bit Rate

Internal

Transmitter bits per second: selectable 75, 150, 200, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200, 9600.

Crystal frequency: 5.75 MHz \pm 0.03%, <0.01% jitter.

Receiver with bit synchronizer: same as internal transmitter.

External: transmitter and receiver, to 5 MHz.

Data Outputs/Inputs

Front panel

Input: data input required TTL levels; max input 5.5 V.

Outputs: receiver sync, transmitter sync, and event at TTL levels; data output is >2 V into 50 ohms; jitter/total peak is 1 V p-p for each 10% of p-p distortion from waveform causing distortion.

Rear panel

Inputs: backward channel data, external transmitter and receiver clock require TTL levels; max input 5.5 V.

Outputs: bits lost at TTL levels; internal transmitter clock is >2 V into 50 ohms.

Multipin connectors: 25 pin female connector for interfacing with standard RS-232C communications systems. 36 pin female printer output at TTL levels in BCD 8421 code.

General

Power: 115 or 230 V ac, 48 to 440 Hz, 150 VA max.

Operating environment: temperature, 0 to +55°C (+32°F to +130°F); humidity, to 95% relative humidity at +40°C (+104°F); altitude, to 4600 m (15 000 ft); vibration, vibrated in three planes for 15 min. each with 0.254 mm (0.010 in.) excursion, 10 to 55 Hz.

Dimensions: 133 H x 425 W x 286 mm D (5 1/4" x 16 3/4" x 11 1/4").

Weight: net, 8.2 kg (18 lb). Shipping, 10.9 kg (24 lb).

Accessories supplied: one 3 m (10 ft) RS-232C interconnecting cable to connect the 1645A to the modem, connects to 10235A when used in the 1645S configuration (HP P/N 01645/61605), one 2.3 m (7.5 ft) 3 wire power cord (HP P/N 8120-1378); one Operating and Service Manual.

1645A Indicators and Controls

Indicators

Out of lock; received data inverted; bit error; carrier loss; clock slip; block error; data set ready (DSR); clear to send (CTS); loss of data; test on.

Selector Switches

Clock; pattern; data/data; exponent range; single/cycle (printer); DTR/RTS/backward channel; start/stop; off/look; off/xmit errors; off/filter; event, bit error, carrier loss, clock slip, block error, skew, jitter/total peak.

10235A Specifications

Time Interval

Range: 999 ms full scale.

Resolution: 1 ms.

Accuracy: \pm 2% of measured interval \pm 1 count.

Start-Stop: TP1 & TP2 input, LED indicates event start at TP1 or TP2.

Trigger slope: positive edge.

Trigger amplitude: \pm 3 V.

Input resistance: approx. 4 k Ω .

DC Digital Voltmeter

Ranges: 19.99 V, 199.9 V full scale.

Accuracy: \pm 1% of reading, \pm 1 count.

Digital units: 3 1/2 digits.

Input resistance: 1 M Ω .

Overload protection: to 1000 V.

General

Interface connectors: three 25 pin female connectors for connecting the 10235A to the 1645A, modem, and business machine. Interface conforms to RS-232C standard.

Power requirements: +15 V to 25 V and -15 V to -25 V supplied by the 1645A.

Dimensions: 132 H x 399 W x 48 mm D (5.2" x 15.7" x 1.9").

Weight: net, 1.8 kg (4 lb). Shipping, 3.2 kg (7 lb).

Accessories supplied: one 46 cm (18") RS-232C interconnecting cable connects 10235A to 1645A (HP P/N 10235-61606); one accessory pouch, attaches to side of 1645A (HP P/N 1540-0385); one Operating Note.

Indicator and Control Functions

Indicators: eight light emitting diodes (LED) provide logic HI or LO indications for corresponding patch pins in the programming matrix, +3 V lights LED.

Audio: built-in loudspeaker and volume control.

Control switches: eight switches supply control signals through the program matrix to business machine/modem connectors. ON is +5 V, OFF is -5 V.

Interfaces

Model	Price
Model 10387A for Type 303 modems (with cable)	\$510
Model 10388A for CCITT V35 (with cable)	\$390
Model 10389A Breakout Box (RS-232C)(with cable)	\$300
Model 18062A MIL-STD-188C Interface	\$240

Accessories

Printer interconnecting cable: Model 10233A cable connects the 1645A to HP Model 5055A or 5150A printers; 36 pin male connector on one end and 50 pin male connector on the other	\$50
Front panel cover: protects 1645A front panel during transit and provides convenient carrying handle (HP P/N 5060-8767). This cover is not needed when a 10235A Interface Cover is ordered with a 1645A, or with a 1645S Data Transmission Test Set.	\$80

Ordering Information

1645A Data Error Analyzer	\$2800
Opt 908: includes rack mounting kit	add \$10
Opt 910: additional set of manuals	add \$15.50
10235A Interface Cover	\$1650
1645S Data Communications Test Set*	\$5000
Opt 910: additional set of manuals	add \$25

*Includes 10387A, 10388A 10389A, and interconnecting cables.