DATA SET 208A,L1
TRANSMITTER-RECEIVER
SUMMARIZING SPECIFICATION
DATA SYSTEMS

1. GENERAL

Scope

1.01 This specification, together with the supplementary information listed herein, summarizes for ordering purposes, the design requirements for circuit packs, framework, assembly, and circuits covering data set 208A,L1, which is for use in private line data service for point-to-point or multipoint applications.

Use and Features

1.02 Data set 208A,L1 is a synchronous, phase-modulated, voiceband transmitter and receiver for binary serial data, which operates at 4800 bits per second (bps) on a basic 3002-type, 4-wire private line telephone channel. This data set is compatible for use only with another data set 208A,L1. The set includes provision for local tests and for remote tests from a test center. The output level of the data set is 0 dBm $\pm$1 dB. The receiver provides adequate dynamic range for operation on a basic 3002 channel.

Description

1.03 Data set 208A,L1 consists of 17 plug-in circuit boards (HG1 through HG9, HG11, two HG12, HG13 through HG17), an 83A power unit, and a backplane assembly mounted in an extruded anodized aluminum housing. Front and rear molded black plastic covers are mounted on the housing. The overall dimensions of the data set are approximately 16 inches wide, 4-1/4 inches high, and 11-1/2 inches deep. The weight is approximately 20 pounds.

1.04 The data set status lamps and test switch are mounted on a circuit board immediately behind the front cover. The status lamps monitor the power unit, certain interface leads, and the test switch position. Each lamp illuminates a two-letter symbol on the front cover, which indicates the control lead or condition being monitored. The test switch, which is accessed through a hole in the front cover, is a 3-position switch which puts the set in local (analog loopback) test, remote (digital loopback) test, or run mode.

1.05 The back cover of the data set has openings which allow access to the channel (telephone) and customer interface connectors and to the power cord receptacle. The 25-pin customer interface connector is a KS-19087,L2. The customer data equipment must be equipped with a cable terminated in a Cinch or Cannon DB-19604-432 plug equipped with a hood, such as a DB-51226-1 hood. The 25-pin channel (telephone) interface connector is a KS-19088,L2. Connection between the data set and data auxiliary set (DAS) 828A, if used, and to the line are made with an M8K-61 cord which must be ordered separately.

> ***Note:*** Both DAS 828A and the M8K-61 cord must be ordered separately.

Power

1.06 Power for the data set is provided by the 83A power unit mounted in the data set. This power unit provides +12, −12, +5, and −6 volts. The power unit requires 105- to 130-volt ac power at 60 Hz. A P3BJ power cord, 5-1/2 feet in length, is provided with the data set. The cord is terminated with a Twist-lock connector body at the data set end to prevent inadvertent removal of the cord. If a different power cord is desired, it must be ordered separately and must be terminated at the data set end with a connector body compatible with the Hubbell BL-12583 Twist-lock receptacle mounted at the back of the 83A power unit, such as Hubbell No. 7593 connector body. The power unit contains a self-resetting thermal overload switch which shuts off the power unit if the transformer temperature rises excessively. An overvoltage

circuit is also included, which shuts off the power unit when the output voltage becomes excessive.

Options

1.07 Data set 208A,L1 is provided with a number of options which must be installed prior to placing the data set in service. The option settings are controlled by rotary switches mounted on a circuit pack, which are accessible when the front cover is removed. The options to be installed in the data set should be specified on the service order. Refer to Sections 592-027-100 and 592-027-200 for description and location of options.

Environment

1.08 The data set operates in an environment of 40 to 120°F (5 to 50°C) ambient temperature and 20 to 95 percent relative humidity.

2. SUPPLEMENTARY INFORMATION

X-17879—Manufacturing Testing Requirements for Data Set 208A,L1
CD-1D232-01—Data Set 208A,L1—Circuit Description
800-610-158—Packaged Electronic Products
800-610-159—Printed Wire Board Assemblies—Requirements
590-010-200—General Installation and Connection Information
590-002-110—Data Set 208A,L1—Reference Guide
592-027-100—Data Set 208A,L1—Transmitter-Receiver—Description and Operation
592-027-150—Data Set 208A,L1—Transmitter-Receiver—Theory of Operation and Supplementary Information
592-027-200—Data Set 208A,L1—Transmitter-Receiver—Installation and Connections
592-027-300—Data Set 208A,L1, Transmitter-Receiver—Maintenance
592-027-500—Data Set 208A,L1—Transmitter-Receiver—Test Procedures
TI-360—Test of Services Provided by Data Set 208 From a Private Line Data Test Room

3. DRAWINGS

SD-1D232-01—Data Set 208A,L1 (also covers circuit packs HG1 through HG9, HG11 through HG17)
SD-82134-01—83A Power Unit

4. PRODUCT

Data Set 208A

List 1—Assembly and wiring for one data set 208A,L1 per SD-1D232-01.

TABLE OF AUTHORIZED ORDERABLE CODES

DATA SET	RATING	REPLACED BY
208A-L1	AT&TCo Std	—

5. GENERAL NOTES (MULTIPLE ARRANGEMENTS AND MAINTENANCE)

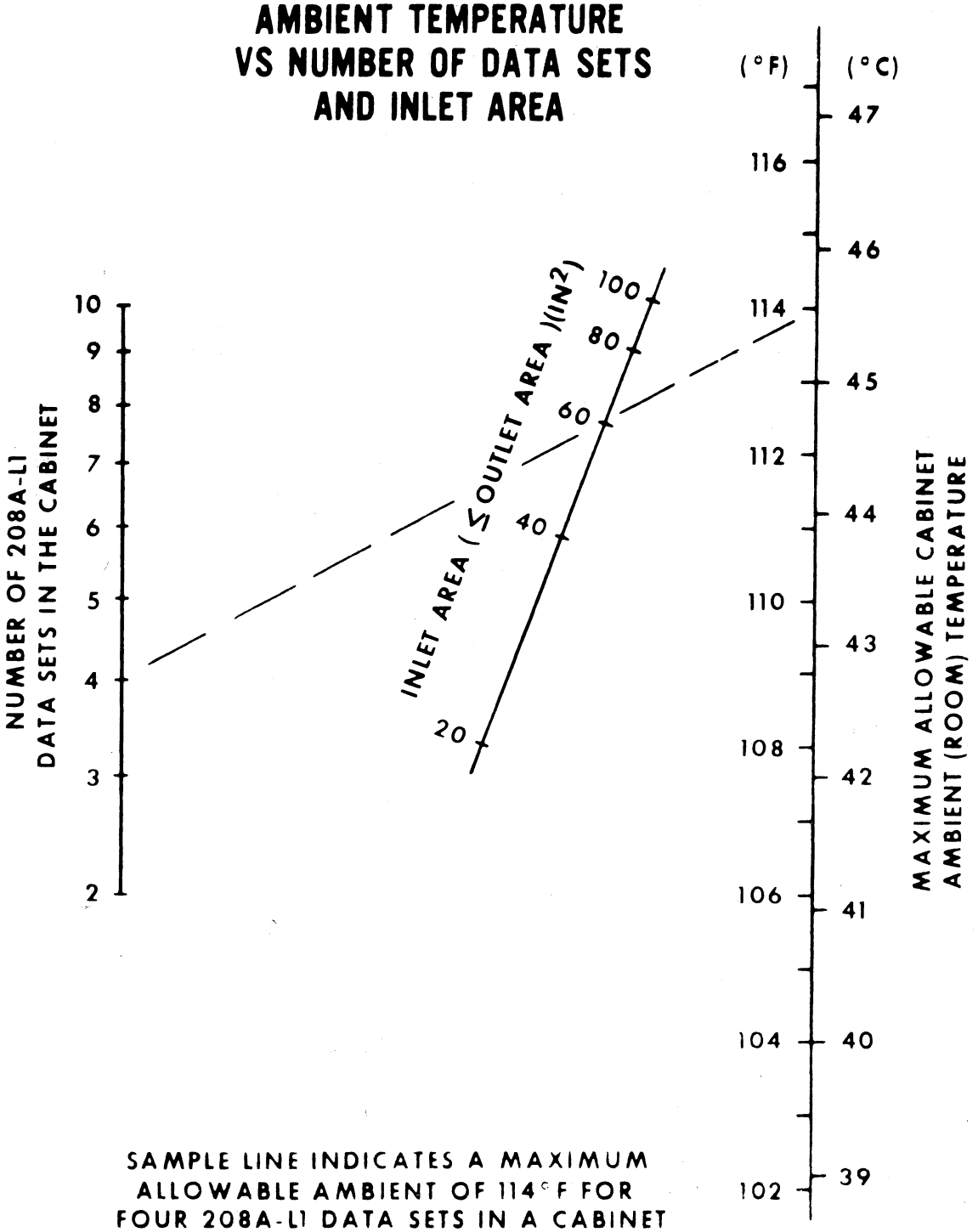
5.01 Data set 208A,L1 can be installed for multiple arrangements on 19-inch or 23-inch rack mountings or in a cabinet with 19-inch or 23-inch rack mounting, which allows front and rear access to the data sets. The following brackets are required for each data set and must be ordered separately:

ONE D-180467(102214962) Mounting Brackets for Data Set 208A,L1

5.02 When the data sets are mounted in a cabinet, the maximum cabinet ambient temperature should be limited as indicated in Fig. 1.

5.03 A D-180468(102214970) spare parts and tool kit is available which contains one each of circuit packs HG1 through HG9, HG11 through HG17, and two sets of test pins for use with data test set 914B.

AMBIENT TEMPERATURE VS NUMBER OF DATA SETS AND INLET AREA



SAMPLE LINE INDICATES A MAXIMUM ALLOWABLE AMBIENT OF 114°F FOR FOUR 208A-LI DATA SETS IN A CABINET WITH AN INLET AREA OF 60 IN^2

Fig. 1