



5285 PROGRAMMABLE DATA STATION

Purpose: A single, tabletop, programmable keyboard/display station with standard controller and diskette capability for data entry, associated processing and/or data communications. Part of the 5280 Distributed Data System.

Models: 5285 models are available depending on main storage capacity and the type and number of diskette drives. The 3-character model number is determined by combining the alphabetic main storage capacity identifier (ID) with the numeric identifier (ID) for type and number of diskette drives.

To determine model number:

- 1. Select main storage capacity required. Corresponding ID becomes first character of model number.
2. Select type and number of diskette drives required. Corresponding ID becomes last two characters of model number.

Table with columns: Main Storage (ID, Capacity), Diskette (ID, Number of Drives: Diskette 1, Diskette 2D). Rows A-D for Main Storage, 01-10 for Diskette.

Example: Main storage capacity required: 48K
Diskette drives required: One diskette 1 and one diskette 2D
Model number: B06

Model Changes: Field Installable. All features may be field installed.

Purchase Considerations

- 1. The upgrade purchase prices for model changes may be greater than the purchase price differentials.
2. Replaced parts from any model change become the property of IBM.
3. Replaced parts from any Special Feature installation or removal remain the property of the customer.

Notes

- 1. Device Attachments: Appropriate special features are required to attach auxiliary data stations (5281, 5282) and some I/O units ... see "Special Features."
2. IBM 5280 System Control Programming (5708-SC1) should be ordered at equipment order entry time.
3. For physical planning information, see IBM 5280 Planning and Site Preparation Guide, GA21-9351.

Highlights:

- Multiple microprocessors provide independent processing and I/O control.
• Stored program function.
• Multiprogramming capability with multiple main storage partitions.
• Powerful and extensive data editing function.

- Multi-chip technology and compact diskette drives allow compact tabletop system packaging.
• Two types of compact diskette drives, housed within the 5285, support either IBM diskette 1 or IBM diskette 1, 2, and 2D and provide up to 2.4M bytes of storage capacity.
• Front-loading diskette drives provide convenience and ease of access.
• Movable keyboard with palm rest for operator comfort.
• Display size of 480, 960, or 1920 characters.
• Multiple data station capability and additional diskette capacity with attachment of one 5281 Data Station or one 5282 Dual Data Station.
• Printer attachment available for one 5222, 5225, or 5256 Printer.
• Security features for data asset protection.
• Independent data station operation through multiprogramming and system resource sharing.
• Communications adapters provide both SDLC and BSC capability.
• Communications programming support available for RJE, batch, and interactive communications via SNA/SDLC or BSC.

5285 Components

Controller: Provides processing capability, control, main storage, and optional I/O attachments and communications features. Controls all functions of the 5285 and an optionally attached 5281 Data Station or 5282 Dual Data Station. Multiple microprocessor architecture allows processing and I/O operations (e.g., diskette, keyboard/display, communications) to operate independently.

The 5285 provides 32K of main storage that can be expanded to a maximum of 96K. Multiprogramming capability is available through partitioned memory. The number of partitions and their size (6K minimum) are user-specified with a facility provided in 5280 System Control Programming (5708-SC1).

Special features provide for the attachment of an auxiliary data station (5281 or 5282), a printer (5222, 5225, or 5256), and the communications adapters which each provide both SDLC and BSC communications under stored program control.

Display: Displays up to 480 characters (six lines of 80 characters). Optionally available are display sizes of 960 characters (12 lines of 80 characters) or 1920 characters (24 lines of 80 characters). Characters are presented within an 8x16 dot matrix. The standard, upper/lower case, 94-character EBCDIC character set, 94-character ASCII character set, and the 185-character Multinational Character Set are included (see Type Catalog). The character set is user-selectable.

Extended highlighting provides screen attributes such as reverse image, high intensity, blink, underline, nondisplay, and column separator. Screen attributes are under program control and can be applied on a field basis. Brightness and contrast controls are provided to meet individual requirements.

Keyboard: A choice of three keyboard types provide input flexibility to meet individual user requirements: data entry, data entry with proof arrangement, and typewriter (see "Special Features" below). See Type Catalog for keyboard layout. Each keyboard has cursor movement keys, special function keys,



field exit keys, and data keys (alphabetic and numeric). All data keys are typamatic. The keyboard is movable and has a palm rest for operator comfort.

The keyboards contain only a subset of the characters in the Multinational Character Set. When the Multinational Character Set is used, the additional characters may be entered via multiple key sequence.

Typewriter Keyboards provide for direct entry of upper and lowercase characters. Data entry keyboards provide for direct entry of uppercase only. Lowercase characters may be entered via multiple key sequence.

Diskette: Two types of compact diskette drives are available with the 5285: a diskette drive which can read/write IBM diskette 1 and a diskette drive which can read/write IBM diskette 1, 2, and 2D. Capacity per drive ranges from .25M bytes to 1.2M bytes. The formats for the diskettes are:

Diskette 1

Format	Bytes/Sector	Capacity
1	128	246KB*
2	256	284KB
3	512	303KB

Diskette 2

Format	Bytes/Sector	Capacity
4	128	492KB
5	256	568KB
6	512	606KB

Diskette 2D

Format	Bytes/Sector	Capacity
7	256	985KB
8	512	1136KB
9	1024	1212KB

*243KB when used for Basic Exchange

For diskette data exchange with other systems, the following exchange types are supported: Basic Exchange (Formats 1 and 4 above), H Exchange (Format 7 above), and I Exchange (all of the above formats). Diskettes can be interchanged with other IBM systems and devices which support a compatible diskette exchange type. Examples are the IBM System/3, System/32, System/34, System/38, Series/1, System/370, 303X, 4300, 3540, 3740, 3747, 3770, 3790, 5110, 5230, 5260, and 8100.

The instantaneous data transfer rate using IBM diskette 1 or 2 is 31.2K bytes/sec; for IBM diskette 2D: 62.5K bytes/sec. Rotational speed of both types of drives is 360 RPM. Diskette read or write is overlapped with seek. Diskette operations are overlapped with processing and other I/O device operations.

Auxiliary Data Station: One 5281 Data Station or 5282 Dual Data Station can be attached to the 5285 (see "Special Features" below). The 5281 or 5282 is cable attached at a maximum distance of 61 meters (200 feet). The 5285 provides control and main storage in support of the auxiliary data station. Each keyboard/display (including the 5285) is assigned to a separate partition and operates independently. Each diskette drive on the 5285 and an attached data station is available to any program and any keyboard/display.

The auxiliary data station must have the same display size(s) as the 5285. The auxiliary data station display size(s) is determined by the Auxiliary Data Station Attachment (special feature) on the 5285. An auxiliary data station cannot be

attached if the 5285 has a communications adapter feature (#2500) or (#3270).

Printers: One 5222 Printer, one 5225 Printer, or one 5256 Printer can be attached to the 5285 (see "Special Features").

Security: A nondisplay input mode allows data to be entered from the keyboard without being displayed on the screen. A security keylock (special feature) prevents keyboard entry or display of data, and on a communicating 5285, prevents initiation of communications. In addition, a communicating 5285 can exchange identification sequences with the host, which assists the user in controlling access to data. A Magnetic Stripe Reader (special feature) is available which may be used to enter user identification. This assists user program routines in auditing and controlling operator access to data. Also, diskette media can be removed from the system and secured separately.

Communications: The Communications Adapter (#2500) operates under stored program control and allows for either SDLC or BSC data link control over a single communications line. The feature allows the 5285 to communicate on a switched point-to-point or non-switched point-to-point or multipoint line at speeds up to 4800 bps. On a multipoint line, the 5285 operates as a tributary station.

The 3270 Emulation Communications Adapter (#3270) provides the same function as #2500 (above) and in addition, provides support for the 5280-3270 Emulation (5708-EM1) licensed program.

Connection to the line is supported by a Line Interface feature.

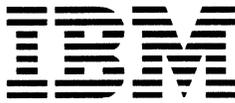
Operation is half-duplex mode over switched network facilities or half-duplex mode over non-switched (or equivalent private) communications lines which may be duplex or half-duplex facilities.

Switched network support includes manual dial and manual or auto-answer (where the attached modem supports this capability).

The 5285 at each termination (drop point) of a communications line must use the same clocking source (modem or business machine). Units must be set to operate at the same transmission rate, use the same transmission code, and the same two- or four-wire connection to the line. Compatible modems must be used at all terminations on a network.

The 5285 using stored program control communicates using BSC protocol with:

- A System/38 with appropriately configured BSC Adapter and subfeatures (point-to-point only).
- A System/34 equipped with #2500, #3500, or #4500.
- A System/32 equipped with #2074.
- A System/3 equipped with #2074, #2084, or #2094.
- A System/370 via an Integrated Communications Adapter, a 4331 via a Communications Adapter, or a System/370, 303X, or 4300 via a 2701 Data Adapter Unit, or a 3704/3705 Communications Controller with the Network Controller Program (ACF/NCP) or the Partitioned Emulation Program (PEP), any of which are equipped with a binary synchronous communications adapter and appropriate subfeatures.
- A Series/1 equipped with #2074, #2075, #2093/#2094.
- A 3741 Model 2 or 4.



- A 3747 Data Converter equipped with #1660.
- A 5265 communicating model (XX2).
- A 5280 equipped with #2500 or #3270.

The 5285 using stored program control communicates in SNA/SDLC mode with a System/370, 303X, or 4300 via a 3704 or 3705 Communications Controller equipped with appropriate features. See M3704 or M3705 in the *DPD Sales Manual*.

See the IBM 5280 programming pages for a description of the communications program support available, and any special feature requirements. The communications adapters are mutually exclusive and cannot be installed on a 5285 with either an attached auxiliary data station or the Second Application Microprocessor (#6800).

Problem Determination Procedures: Significant function has been designed into this unit to provide greater availability to the customer. This has been done through the use of the problem determination procedures and recovery routines that are easily understood and used by the operator. The procedures are described in the *IBM 5280 Machine Verification Manual*, (GA21-9357).

Customer Set-Up (CSU): The 5285 is designated Customer Set-Up, and offers customers ease of setup and relocation flexibility. The Customer Set-Up Allowance is two days. For additional information on CSU, refer to the General Information (GI) section of the sales manual. One copy of *IBM 5280 User's Setup Procedures* (GA21-9365) is included with each 5285.

Customer Responsibility: The customer is responsible for:

- Adequate site, system, and other vendor preparation.
- Obtaining a firm installation date for the start of communications facilities and services (including any required modems). The IBM Marketing Representative must assure that a firm installation date is established prior to Order Confirmation.
- Providing a desk, counter, or tabletop to support the 5285.
- Receipt, unpacking, and placement of the 5285.
- Installation and maintenance of signal cables and associated parts for attaching a 5222, 5225, 5256, 5281, or 5282 to the 5285.
- The installation and maintenance of common carrier facilities/services. For further information, see M2700 pages and "Teleprocessing" in the General Information section of the sales manual.
- Physical setup, connection of cables to communications lines/modems and IBM devices incorporating protected access areas, modem attenuation setting and checkout in accordance with instructions supplied by IBM.
- To provide an FCC registered protective circuit when attaching an integrated modem to the public switched telephone network. This registered protective circuit should be equivalent to either the CBS type coupler (for manual/automatic answering) or the CDT type coupler (for manual only answering).
- Using and following the 5280 problem determination procedures prior to calling for IBM service.
- Notifying IBM of intent to relocate and following IBM instructions for relocation of the 5285.

- Relocation of the 5285, if required, to allow IBM service access.
- When adding a 5281 or 5282 to the 5285, the customer may have to modify the system configuration specifications. See *IBM 5280 System Control Programming Reference/Operation Manual*, (GC21-7824).
- Disconnecting, packing, and removal to the customer's shipping dock at the time of discontinuance. Removal instructions and packing materials (if required) will be ordered by the Branch Office.

Publications: *IBM 5280 General Information*, GA21-9350 and *IBM 5280 Planning and Site Preparation Guide*, GA21-9351.

Supplies: For IBM diskettes and magnetically striped and encoded identification cards, see *IRD Sales Manual*.

AAS Ordering Instructions: The 5285 is a Computer System.

SIU = 5285 ID = N10

SPECIFY

1. Voltage (115 V AC, 1-Phase, 60 Hz): #9881 for a standard nonlocking plug (uses customer standard type receptacle) or #9880 for a locking plug (requires customer locking type receptacle).
2. A keyboard must be selected (see "Special Features").
3. Color: Pearl White only (no specify required).
4. Primary host system that will process the data captured by the 5285:

System/3	#9501
System/32	#9502
System/34	#9503
System/38	#9504
Series/1	#9505
Other GSD System	#9506
System/360	#9507
System/370-Model 138 and below	#9508
System/370-Model 145 and above	#9509
3031, 3032, 3033	#9510
4331, 4341	#9511
8100	#9512
Other DPD System	#9513
Non-IBM System	#9514
Host System Unknown	#9515
No Host System	#9516

5. Communications Cable Length (with #2500 or #3270): Required when attaching the 5285 to the communications facility. #9010 for a 6 meter (20 foot) cable or #9015 for a 12 meter (40 foot) cable. Specify this cable length only once per system.

SPECIAL FEATURES

Keyboard (#4600, #4601, #4602, #4603): One of the following must be selected:

- #4600: 83-key keyboard with the EBCDIC character set, typewriter-like layout, movable, with 49 alphameric keys, 24 function keys, and 10-key numeric pad.
- #4601: 66-key data entry style keyboard, movable, with 36 alphameric keys, and 30 function keys.
- #4602: 66-key data entry style keyboard with proof arrangement, movable, with 36 alphameric keys, and 30



function keys. The numeric keys are arranged similar to those of an adding machine.

#4603: 83-key keyboard with ASCII character set, typewriter-like layout, movable, with 49 alphameric keys, 24 function keys, and 10-key numeric pad.

Maximum: One of the above.

Optional 960-Character Display Size (#3500): Provides a maximum display capacity of 960 characters with 12 lines of 80 characters each. This feature or the Optional 1920-Character Display Size (#3505) is required for the 5280 Communications Utilities Licensed Program (5708-DC1). **Limitations:** Cannot be installed with Optional 1920-Character Display Size (#3505) or with Auxiliary Data Station Attachment (#1200, #1210, or #1215). **Maximum:** One.

Optional 1920-Character Display Size (#3505): Provides a maximum display capacity of 1920 characters with 24 lines of 80 characters each. This feature or the Optional 960-Character Display Size (#3500) is required for the 5280 Communications Utilities Licensed Program (5708-DC1). **Limitations:** Cannot be installed with Optional 960-Character Display Size (#3500) or with Auxiliary Data Station Attachment (#1200, #1205, #1215, or #1220). **Maximum:** One.

Twinax Printer Attachment (#1150): To attach one 5225 Printer Model 1, 2, 3, or 4, or one 5256 Printer Model 1, 2, or 3. Attachment is by twinax cable. The maximum cable length is 1525 meters (5000 feet). **Limitations:** Only one printer can be attached to a 5285. Cannot be installed with 5222 Printer Attachment (#1152). **Maximum:** One.

5222 Printer Attachment (#1152): To attach one 5222 Printer. Attachment is by a double twisted pair cable. A 6 meter (20 foot) cable is provided with the printer. An extension cable accessory is available to provide a total cable length of up to 61 meters (200 feet) (see M5222 "Accessories"). **Limitations:** Only one printer can be attached to a 5285. Cannot be installed with Twinax Printer Attachment (#1150). **Maximum:** One.

Auxiliary Data Station Attachment (#1200, #1205, #1210, #1215, #1220): To attach one 5281 Data Station or one 5282 Dual Data Station to a noncommunicating 5285. *This feature also determines the display size of the auxiliary data station.* The 5281 or 5282 must have the same display size(s) as the 5285. Attachment is by cable (see M5281 or M5282 "Accessories"). The maximum cable length is 61 meters (200 feet). Only one feature may be selected.

#1200: To attach one 5281 Data Station with a display size of 480 characters. **Limitations:** Cannot be installed with Optional 960-Character Display Size (#3500) or Optional 1920-Character Display Size (#3505).

#1205: To attach one 5281 Data Station with a display size of 960 characters. **Prerequisite:** Optional 960-Character Display Size (#3500).

#1210: To attach one 5281 Data Station with a display size of 1920 characters. **Prerequisite:** Optional 1920-Character Display Size (#3505).

#1215: To attach one 5282 Dual Data Station with display sizes of 480 characters. **Limitation:** Cannot be installed with Optional 960-Character Display Size (#3500) or Optional 1920-Character Display Size (#3505).

#1220: To attach one 5282 Dual Data Station with display sizes of 960 characters. **Prerequisite:** Optional 960-Character Display Size (#3500).

Maximum: One of the above. **Limitation:** Cannot be installed with the communications adapters (#2500 or #3270).

Remote Diskette Drive Attachment (#1240): Required if an attached 5281 Data Station or 5282 Dual Data Station has either one or two diskette drives. A cable is required (see M5281 or M5282 "Accessories"). **Prerequisite:** Auxiliary Data Station Attachment (#1200, #1205, #1210, #1215, or #1220). **Maximum:** One.

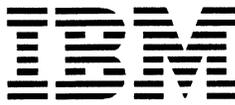
Magnetic Stripe Reader (#4950): Provides the capability of reading numeric encoded information from a magnetic stripe on a wide range of credit cards, identification cards and documents. The magnetic stripe may be encoded with up to 128 ABA numeric characters, including control characters. This feature enhances system data security by providing the ability to read an operator identification card without being displayed. See *IRD Sales Manual* for magnetically striped and encoded identification cards. **Limitations:** Valid for numeric-only data. Cannot be installed with the Elapsed Time Counter (#3610). **Prerequisite:** Magnetic Stripe Reader Adapter/Elapsed Time Counter (#4955 or #4960). **Maximum:** One.

Elapsed Time Counter (#3610): Used to measure elapsed real time. It is required for SNA operations under the 5280 Communications Utilities (5708-DC 1) and 5280—3270 Emulation (5708-EM1) Licensed Programs. It is required by DE/RPG (5708-DE1) and the Key Entry Utility (part of the 5280 Utilities—5708-UT1) if the user desires to maintain the elapsed time production statistic. **Limitation:** Cannot be installed with the Magnetic Stripe Reader Adapter/Elapsed Time Counter (#4955) or (#4960). **Maximum:** One.

Magnetic Stripe Reader Adapter/Elapsed Time Counter (#4955, #4960): Provides the Elapsed Time Counter and control for from one to three Magnetic Stripe Readers (#4950). The Elapsed Time Counter is used to measure elapsed real time.

#4955: For a noncommunicating 5285, provides the Elapsed Time Counter and control for up to three Magnetic Stripe Readers (#4950) on the 5285 and on an attached 5281 Data Station or 5282 Dual Data Station. The Elapsed Time Counter is required by DE/RPG (5708-DE1) and the Key Entry Utility (part of 5280 Utilities—5708-UT1) if the user desires to maintain the elapsed time production statistic. **Limitations:** Cannot be installed with the Elapsed Time Counter (#3610), the Communications Adapter (#2500) or the 3270 Emulation Communications Adapter (#3270).

#4960: For a communicating 5285, provides the Elapsed Time Counter and control for one Magnetic Stripe Reader (#4950). The Elapsed Time Counter is required for SNA operations under the 5280 Communications Utilities (5708-DC1) and 5280—3270 Emulation (5708-EM1) Licensed Programs. It is required by DE/RPG (5708-DE1) and the Key Entry Utility (part of the 5280 Utilities—5708-UT1) if the user desires to maintain the elapsed time production statistic. **Limitations:** Cannot be installed with the Elapsed Time Counter (#3610) or the Auxiliary Data Station Attachment (#1200, #1205, #1210, #1215, or #1220). **Prerequisite:** Communications Adapter (#2500) or 3270 Emulation Communications Adapter (#3270).



Maximum: One of the above.

Security Keylock (#6340): Provides a single, key-operated switch with three positions for controlling operations on the 5285 and on an attached 5281 Data Station or 5282 Dual Data Station:

"Lock" position prevents operator entry and display of data and prevents initiation of communications.

"Local" position allows operator entry and display of data.

"Normal" position allows initiation of communications in addition to operator entry and display of data.

Two unique keys are provided: One allows selection of "Lock"/"Local"; the other allows selection of "Lock"/"Normal". On a noncommunicating 5285, both operating positions ("Local" and "Normal") provide "Local" positioning operation. **Maximum:** One.

Second Application Microprocessor (#6800): A microprocessor which performs identical function and operates concurrently with the first (base) application microprocessor. This feature provides more processing power and is designed as an aid to performance improvement in a multiprogramming environment which has heavy processor utilization. **Limitation:** Cannot be installed with the Communications Adapter (#2500) or the 3270 Emulation Communications Adapter (#3270). **Maximum:** One.

Communications Adapter (#2500): Required to attach a communications line via appropriate interface or modem. In conjunction with stored program control, this feature permits the 5285 to function on a switched or non-switched public, or private communications line. The adapter provides both BSC and SDLC. The proper line protocol is enabled at program execution time. The adapter also provides a 1200 bps clocking capability for use with the 1200 bps Integrated Modem (#5500, #5501, #5502, #5507, #5508) or an external modem. A Communications Utilities (5708-DC1) parameter activates this capability. **Limitation:** Cannot be installed with Auxiliary Data Station Attachment (#1200, #1205, #1210, #1215, or #1220) or the Second Application Microprocessor (#6800) or the 3270 Emulation Communications Adapter (#3270). **Prerequisites:** [1] A line interface special feature consisting of one of the 1200 bps Integrated Modems (#5500, #5501, #5502, #5507, or #5508), EIA Interface (#3701) or DDS Adapter (#5650 or #5651) must be ordered; [2] See the Programming section of the sales manual for 5280 Communications Utilities Licensed Program (5708-DC1) minimum system and feature requirements. See "Specify" for required communications cable length. See "Additional Communications Information" for Mandatory Specify Codes. **Maximum:** One.

3270 Emulation Communications Adapter (#3270): Supports the 5280—3270 Emulation (5708-EM1) licensed program, and in conjunction with stored program control, permits the 5285 to function on a switched or nonswitched public or private communications line. This adapter is required to attach to a communications line via the appropriate interface or modem and provides both BSC and SDLC. The proper line protocol is enabled at program execution time. The adapter also provides a 1200 bps clocking capability for use with the 1200 bps Integrated Modem (#5500, #5501, #5502, #5507, #5508) or an external modem. A Communications Utilities (5708-DC1) parameter activates this capability. Keyboard interpretation functions are provided in support of the 5280—3270 Emulation licensed program. **Limitation:** Cannot be installed with Communications Adapter (#2500), Auxiliary

Data Station Attachment (#1200, #1205, #1210, #1215, or #1220), or the Second Application Microprocessor (#6800).

Prerequisites: [1] A line interface special feature consisting of one of the 1200 bps Integrated Modems (#5500, #5501, #5502, #5507, or #5508), EIA Interface (#3701), or DDS Adapter (#5650 or #5651) must be ordered; [2] Optional 1920-Character Display Size (#3505); [3] See the programming section of the sales manual for 5280 Communications Utilities (5708-DC1) and 5280-3270 Emulation (5708-EM1) minimum system and feature requirements. See "Specify" for required communications cable length. See Additional Communications Information for Mandatory Specify Codes. **Maximum:** One

Line Interfaces

One of the following line interface features must be ordered for the type of communication facility and modem to be used.

EIA Interface (#3701): Provides the appropriate cable and interface logic necessary to attach an external modem (either an IBM or non-IBM modem meeting RS-232C characteristics). Non-IBM modems may be attached subject to the Multiple Suppliers System Policy. **Limitation:** Cannot be installed with Digital Data Service (DDS) Adapter feature (#5650 or #5651) or 1200 bps Integrated Modem (#5500, #5501, #5502, #5507, #5508). **Prerequisites:** Communications Adapter (#2500) or 3270 Emulation Communications Adapter (#3270) and Power Supply Expansion (#5810). **Maximum:** One.

Digital Data Service (DDS) Adapter (#5650 for Point-to-Point Operation...#5651 for Multipoint Operation): An adapter for SDLC or BSC data transmission at speeds of 2400 or 4800 bps over AT&T non-switched Data-Phone[†] digital data service. The DDS Adapter provides the appropriate cable and interface to the DDS channel service unit, the customer site termination of the DDS network.

The DDS Adapter may also be used to locally connect a 5285 to another supported device which has a compatible DDS Adapter. This connection requires a special DDS Adapter Connector (see "Accessories") and supports point-to-point connections only. The maximum length of the connection is the sum of the modem cable lengths supported by the two devices. No modem or channel service unit is required. **Limitation:** Cannot be installed with EIA Interface (#3701) or 1200 bps Integrated Modem (#5500, #5501, #5502, #5507, or #5508). **Prerequisite:** Communications Adapter (#2500) or the 3270 Emulation Communications Adapter (#3270). **Maximum:** One.

1200 bps Integrated Modem (#5500, #5501, #5502, #5507, #5508): A modem for SDLC or BSC data transmission at 600/1200 bps over non-switched or switched facilities. Half-speed operation at 600 bps is indicated via a 5280 Communications Utilities (5708-DC1) parameter. Available in five different versions: #5500—non-switched, #5501—switched with auto-answer, #5502—switched without auto-answer, #5507—non-switched with Switched Network Backup manual answer capability, and #5508—non-switched with Switched Network Backup Auto-answer capability. The non-switched versions (#5500, #5507, #5508) provide a cable for attachment directly to a non-switched (2 or 4-wire) line, Type 3002. The switched with auto-answer versions (#5501 and #5508) provide a cable for attachment to the switched network via an FCC registered protective circuitry of the CBS type (or equivalent) provided by the user. The switched with manual answer versions (#5502 and #5507) provide a cable for

† Trademark of American Telephone and Telegraph Co (AT & T)



attachment to the switched network via an FCC registered protective circuitry of the CDT type (or equivalent) provided by the user. The devices communicating with the 5285 must also be equipped with a compatible 1200 bps modem. Limitation: Cannot be installed with EIA Interface (#3701) or Digital Data Service (DDS) Adapter (#5650 or #5651). Prerequisites: Communications Adapter (#2500) or the 3270 Emulation Communications Adapter (#3270). Power Supply Expansion (#5810) is required for #5501 and #5508. Maximum: One.

Power Supply Expansion (#5810): Additional power for communications. Required for EIA Interface (#3701) and 1200 bps Integrated Modem (#5501 and #5508). Maximum: One.

Additional Communications Information

Mandatory Specify Codes for Communications: One selection must be specified from each of the following tables. Entries selected from Tables E and F will be used to preset hardware functions during manufacture. Selection from each of the other tables should be based on prime usage.

Table A — Line Control

Table with 2 columns: Line Control type and code. BSC #9400, SDLC #9401

Table B — Transmission Code

Table with 2 columns: Transmission Code type and code. EBCDIC #9060, ASCII #9061

Table C — Prime Usage

Table with 2 columns: Prime Usage type and code. System/360 3031 or S/370 #9570, Mdl 138 & Below 3032, 3033, or S/370 #9277, Mdl 145 & Up #9278, 4300 #9596, Series/1 #9599, S/3 #9580, S/32 #9591, S/34 #9593, S/38 #9594, 3740/3747 #9579, 5260 #9600, 5280 #9598, Other IBM #9275, Non-IBM #9276

Table D — Transmission Rate

Table with 2 columns: Transmission Rate type and code. 600 bps #9750, 1200 bps #9751, 2000 bps #9752, 2400 bps #9753, 4800 bps #9754

Table E — Network Attachment

Table with 2 columns: Network Attachment type and code. Point-to-Point (non-switched) #9481, Point-to-Point (switched) #9483, Multipoint Tributary #9482, Local Attach #9485

Table F — Line Facility Attachment

Table with 2 columns: Line Facility Attachment type and code. Duplex (4-wire only) #9391, Half Duplex #9392

Table G — Host Application

Table with 2 columns: Host Application type and code. RJE, MRJE, SRJE #9440, CICS/VS #9441, IMS/VS #9442, Other #9443

IBM Modems: One IBM modem can be attached to the Communications Adapter (#2500) or 3270 Emulation Communications Adapter (#3270). Prerequisite: EIA Interface (#3701).

Table with 2 columns: Modem and Speed (bps). 3863 2400, 3864 4800, 3872 2400/1200, 3874 4800/2400

Note: The 5285 does not support Automatic Call Originate (#1091) on the 3872 or 3874. For communication capabilities, product utilization and special features, see M2700, M3863, M3864, M3872, and M3874 pages.

Customer Responsibilities: The customer must be advised, in writing, of certain responsibilities related to the installation and maintenance of common carrier facilities/services as well as the IBM equipment. For further information, see M2700 pages and "Teleprocessing" in the General Information sections of the sales manual.

IBM Data Encryption Devices: An IBM 3845 or 3846 Data Encryption Device may be attached between the 5285 Communications Adapter and the external modem. Prerequisite: EIA Interface (#3701).

Note: Refer to M2700, M3845, and M3846 pages for information on 3845 or 3846 configuration and communication capability. The IBM 3845 or 3846 device operating with SDLC will not operate with NRZI transmission mode.

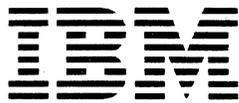
Communications References

- See the System Programming pages of the DP Sales Manual for possible restrictions with DP products.
See M2700 pages for additional information concerning modems, communications facility, machine attachment requirements, terminal intermix, operating capabilities, and customer responsibilities.
Refer to the IBM Data Communications Handbook ZZ20-1939 for information concerning external modems attachable to the IBM 5285 Communications Adapter. This handbook also contains information related to common carrier facilities and tariffs.
Refer to the IBM 5280 Planning and Site Preparation Guide, GA21-9351 for physical planning information.

Communications Cable: A communications cable length is required. See "Specify."

ACCESSORIES

Keylock, Keys: The 5285 with Security Keylock #6340 is shipped with two unique keys. Additional keys may be purchased from IBM. (Vendor will supply additional keys only to original purchaser.) With each order of quantity of one, the customer receives two keys (one key of each type). Order via MSORDER (Category = Accessories/Supplies) (Group Code = DP Supply Order) on AAS. Key identification numbers must accompany each order. Specify P/N 4177799. Allow 6 to 8 weeks for delivery.



DDS Adapter Connector: A specially designed connector allows the cable from a 5285 DDS Adapter to be connected to the cable of another supported device which has a compatible DDS Adapter. This provides for the local connection of two devices without the use of any modems or channel service units. Only one DDS Adapter Connector is required per connection. The maximum length of the connection is the sum of the modem cable lengths of the two devices. This is a purchase only item. Order via MSORDER (Category = Accessories/Supplies; Group Code = DP Supply Order) on AAS. Specify P/N 4236967. Allow 6 to 8 weeks for delivery.

Maximum: One per connection. **Field Installable:** Yes.

Display Screen Filter (#3300): An optically coated glass filter which attaches to the display, specifically designed to aid operator comfort by reducing reflected glare and providing improved display readability. Character contrast may also be enhanced. The filter is a CSU accessory. For shipment with the machine, order by feature number on AAS. For shipment to the field, order by feature number via MSORDER on AAS.