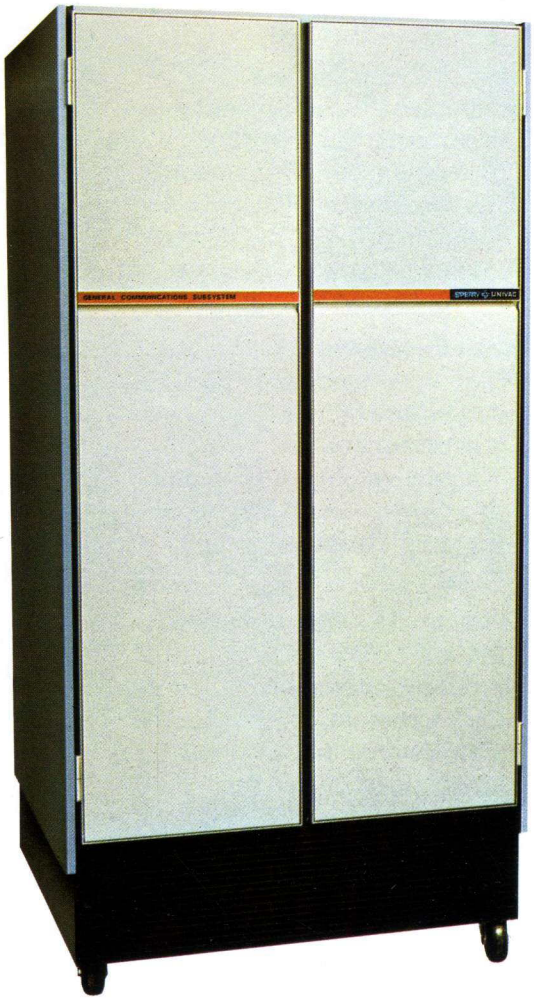
General Communication Subsystem



The SPERRY UNIVAC General Communications Systems (GCS) is the new communications handling device which has both more features and increased throughput over its predecessor. It operates under processor control to fulfill all the input/output requirements of its associated communications system.

The GCS offers the user modular expansion, in one-line increments, and flexibility in the choice of speeds, codes and data security features. While it is compatible with previous SPERRY UNIVAC Communications Controllers, so that it can be used as a direct replacement, its exceptionally high data throughput and new features to support all the major communications control procedures make it an outstanding product.

The SPERRY UNIVAC GCS accommodates up to 32 lines, each half or full duplex and can communicate concurrently with almost any mix of telegraph, low, medium and high speed lines, synchronous or asynchronous, at rates from 45.45 to 56000 bits per second. Security provision includes parity generation and checks on both blocks and characters and cyclic redundancy checking. Additional features include bit oriented protocol handling, automatic polling, automatic dialing and communication interfaces ranging from the telex interface to new digital interfaces.

GCS follows the recommendations of the EIA and the major world standards organizations such as ISO and CCITT, enabling it to meet the stringent requirements of American and international markets.

Design of the GCS reflects the optimization of high performance with low cost. The sales price has been kept at a minimum, along with the space, power and cooling requirements, without sacrifice of any of the functionality expected of this new SPERRY UNIVAC General Communications System. With the GCS, data transfer between terminal equipment and the central processor is efficient, reliable and convenient for the communications system user.

SPERRY UNIVAC

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Released October, 1976

SPERRY UNIVAC
Type 8583 General
Communications Subsystem

COLORS

Standard Colors[1]

Frame . . . . . slate gray
Front/rear . . . . . pale gray
Accent . . . . . red ocher
End Panel . . . . . twilight blue

Customer Color Selection[2]

End Panels . . . . . dark green
slate gray
earth brown
grayish blue

[1]Definition of these colors is given in Color Selection Brochure—U5329.

[2]Not available on all systems.

FUNCTIONAL CHARACTERISTICS

The GCS consists of a Communications Terminator Controller (CTC), 1 to 32 Communications Terminators (CT), 1 to 32 Communications Interfaces (CI), and the power supplies required to operate the subsystem.

Major Functions:

- High speed multiplexing CT's can be selected every 4 microseconds.
- Transfers eight data bits plus one or two control bits in ESI (External Specified Index) mode.
- Functions performed upon request from a CT or a processor command.
- Data transfers, interrupt status words and external function words can be transferred.
- Can contain up to 8 clock sources and drivers for asynchronous output CT's.

FEATURES

- Communications Terminators
  - —Asynchronous
    - CTA—Standard
    - CTA—VII
    - CTA—ISO
  - —Synchronous
    - CTS—Standard
    - CTS—VII
    - CTS—ISO
    - CTS—Trans
    - CT—Hi Level
  - —Dialer
    - CT—Dialer
- Communications Interface (CI)
  - —Low-Medium Speed
    - CI—Telegraph—(Standard)
    - CI—Modem
      - —(Async. or Sync.)
    - CI-AIBD—Automated Inbound Baud Detection
    - CI—Modem with Internal Sync. Timing
    - CI—MIL Standard Synchronous
  - —Wide Band
    - CI—High Speed/RS232
    - CI—High Speed/CCITT
  - —Dialer
    - CI—Dialer

PHYSICAL CHARACTERISTICS*

Width:	33″ (838 cm)
Height:	67″ (170.2 cm)
Depth:	25.8″ (65.5 cm)
Weight:	715 lbs. (324 Kg)

ENVIRONMENTAL CHARACTERISTICS

Temperature:	45°F to 90°F 7°C to 32°C
Humidity:	25% to 80%
Cooling:	1,824 m^3/hr.

POWER REQUIREMENTS

Nominal Voltage: 208/240 VAC

Nominal Frequency: 60 Hz

50 Hz, 220/230/240 VAC model also available.

*Consult your Sperry Univac Representative for further details.

FUNCTIONAL CHARACTERISTICS

CT TYPE / FUNCTION	CTA STD	CTA VII	CTS STD	CTS VII	CTD	CTA ISO	CTS ISO	CTS TRANS	CT HIGH LEVEL
Transmission Mode	Bit Serial	Bit Serial	Bit Serial	Bit Serial	Bit parallel	Bit Serial	Bit Serial	Bit Serial	Bit Serial
Transmission Method	Asynchronous	Asynchronous	Synchronous	Synchronous	–	Asynchronous	Synchronous	Synchronous	Synchronous
Input/Output Rate	45 to 2,400 BPS	45 to 2,400 BPS	2,000 to 56,000 BPS	2,000 to 56,000 BPS	–	45 to 2,400 BPS	2,000 to 56,000 BPS	2,000 to 56,000 BPS	up to 56,000 BPS
Character Capability	4, 5, 6, 7 & 8 bits	4, 5, 6, 7 & 8 bits	5, 6, 7 & 8 bits	5, 6, 7 & 8 bits	4 bits (BCD code)	5, 6, 7 & 8 bits	5, 6, 7 & 8 bits	5, 6, 7 & 8 bits	5, 6, 7, 8 & 9 bits
Parity Check & Generation Method	No	VRC/LRC	No	VRC/LRC	–	VRC/LRC (Odd, or Even selectable)	VRC/LRC (Odd, or Even selectable)	CRC (Any polynomials)	CRC (Any polynomials)
Control Code Variable	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Characters Number of Code Detection	2	1	3	2	1	12	12	12	Bit Oriented
External Interruption	• Time Out • Ring Indicator • Control Characters • Carrier off	• Time Out • Ring Indicator • Control Characters • Carrier off	• Time Out • Ring Indicator • Control Characters • Carrier off	• Time Out • Ring Indicator • Control Characters • Carrier off	• Successful • Connection • Unsuccessful Connection Abandon • Unsuccessful Connection Retry	• Time Out • Ring Indicator • Control Characters • Carrier off	• Time Out • Ring Indicator • Control Characters • Carrier off	• Time Out • Ring Indicator • Control Characters • Carrier off	• Time Out • Ring Indicator • Carrier off
Others	• Local Test	• Local Test	• Local Test	• Local Test	• Local Test	• Local Test made • Automatic Poll	• Local Test made • Automatic Poll	• Local Test made • Automatic Poll	• Local Test made • Automatic Poll
Adaptable CI's	• CI-MODEM • CI-TELEGRAPH • CI-AIBD	• CI-MODEM • CI-TELEGRAPH • CI-AIBD	• CI-MODEM • CI-MODEM with SYNC timing • CI-HS/RS232 • CI-MIL STD • CI-HS/CCITT	• CI-MODEM • CI-MODEM with SYNC timing • CI-HS/RS232 • CI-MIL STD • CI-HS/CCITT	• CI-DIALER	• CI-MODEM • CI-TELEGRAPH • CI-AIBD	• CI-MODEM • CI-MODEM with SYNC timing • CI-HS/RS232 • CI-MIL STD • CI-HS/CCITT	• CI-MODEM • CI-TELEGRAPH with SYNC timing • CI-HS/RS232 • CI-HS/CCITT • CI-MIL STD	• CI-MODEM • CI-HS/CCITT • CI-HS/RS232

SPERRY UNIVAC

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