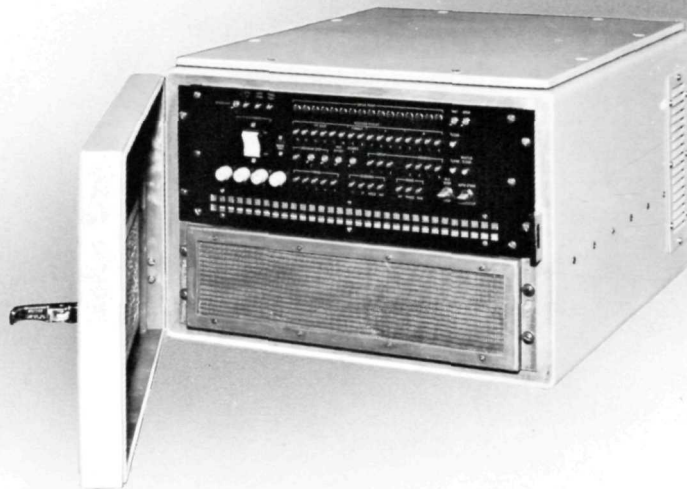# data sheet

AN/UYK-15 (V)
COMPUTER

■ Militarized construction (MIL-E-16400F) ■ General purpose 16-bit digital computer ■ Physically and functionally modular and expandable ■ MSI (medium scale integrated) elements ■ Integral cooling blowers and power supplies ■ 19-Inch rack mountable ■ Plug-in options

applications

Command and control
Signal processing
Message handling
Radar processing
Air traffic control
Navigation
Management information
Logistics
Telemetry
Ship instrumentation
Range tracking
Data management

SPERRY ✦ UNIVAC
DEFENSE SYSTEMS

FEATURES

Central Processor

Two's complement arithmetic
8-bit byte, 16-bit and 32-bit operands
1 to 4 sets of 16-bit general purpose registers
Program status register
Single bus functional interface
Direct addressing capability to 65K words or 131K bytes
4-level interrupt processing (hardware serviced)
16-bit and 32-bit instructions — in any mix
Basic instructions — 4 formats

Add	750 nanoseconds
Multiply	3.75 microseconds
Divide	3.75 microseconds

Indexing via general registers
Load and store multiple registers
Processor — peripheral channel
    Up to 16 peripheral controllers (multiplexed)
Processor — interrupt serial channel
    Up to 4 asynchronous serial channels per
    EIA-STD-RS232

Main Storage

Expandable — 8K to 65K words in 8K increments
Word size (bits): 16 + 2 parity
Independently accessible memory banks
Read/restore cycle time — 750 nanoseconds is optimal
Asynchronous timing — request and acknowledge signals
Multiport interface in 32K word increments

Input-Output Controller (1 to 4 Optional)

Processor-initiated program chain
21 instructions; format same as for CP
IC buffer control memory for each channel
Parallel channels — asynchronous operation
    16-bit channel interface
    8-bit byte, 16-bit word or 32-bit dual-channel transfers
    4 input and output channel groups (4 groups
       maximum)
    Interface voltage levels by 4 channel groups
       -3.0 volts, +3.5 volts, or -15.0 volts
Serial channels — synchronous or asynchronous
    operation
    MIL-STD-188 or EIA STD-RS232 interface
    8-bit byte or 16-bit word transfers
    2 full-duplex channel groups (8 groups maximum)
    Input channel parity checking
I/O channel operation priority
    First level by channel
    Second level by function

Power Supply

115V, 1 phase, 60 Hz input (blowers)
115V, 1 phase, 47 Hz to 500 Hz input (logic) with regulated
    dc output to CP, IOC and Memory

Physical

Ship/shore environment: MIL-E-16400F
Temperature Range
    Operating : 0°C to 50°C
    Storage: -62°C to 75°C
Relative Humidity: to 95%
Size (inches)
    Height: 14.4 plus 3.5" shock mounts
    Width: 20.75
    Depth: 25.75
Weight: Approximately 170 pounds

Software

16-bit support software operating on the SPERRY
    UNIVAC™ 1100 series computers

16-bit standard support software:
    Core resident routines
    Basic assembler
    Macro assembler
    Text editor
    Librarian
    Batch monitor
    FORTRAN IV compiler
    FORTRAN IV subroutine library
    Linking loader
    System tape generator
    Debug aids
    Utility routines

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