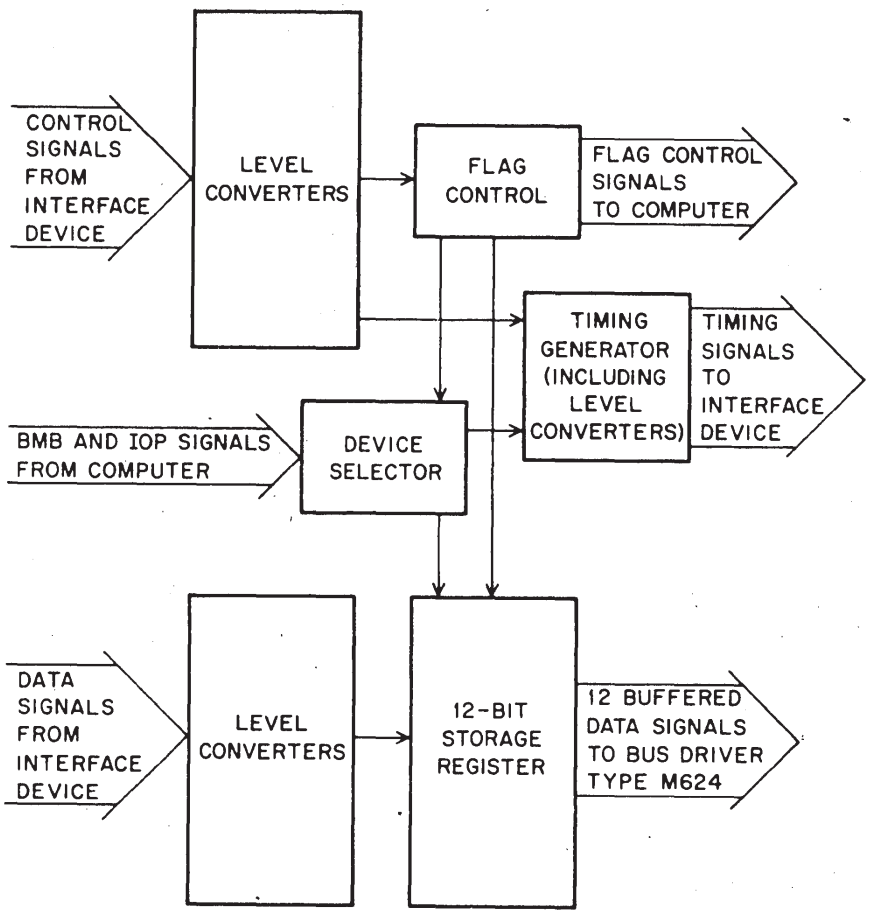
BUS INTERFACE
TYPES M732 & M733

M SERIES



The M732 and M733 interface modules provide extremely flexible interface control logic to connect devices, systems, and instruments to the input half of the programmed I/O transfer bus of either a positive bus PDP8/I or PDP8/L computer. Peripheral equipment which operates either asynchronously or synchronously to a computer and expects to transmit data to that computer, can to a large degree be interfaced by either the M732 or M733. Basic restrictions on the device or system to be interfaced are simply that it transmit data in parallel, provide one or more control lines, and operate at a data transfer rate of less than 20KHZ. Complete interfaces to such peripheral gear as card readers and other repetitive devices is possible using the M732 and M733; however, part of the controlling functions such as counting, etc., must be performed by computer software.

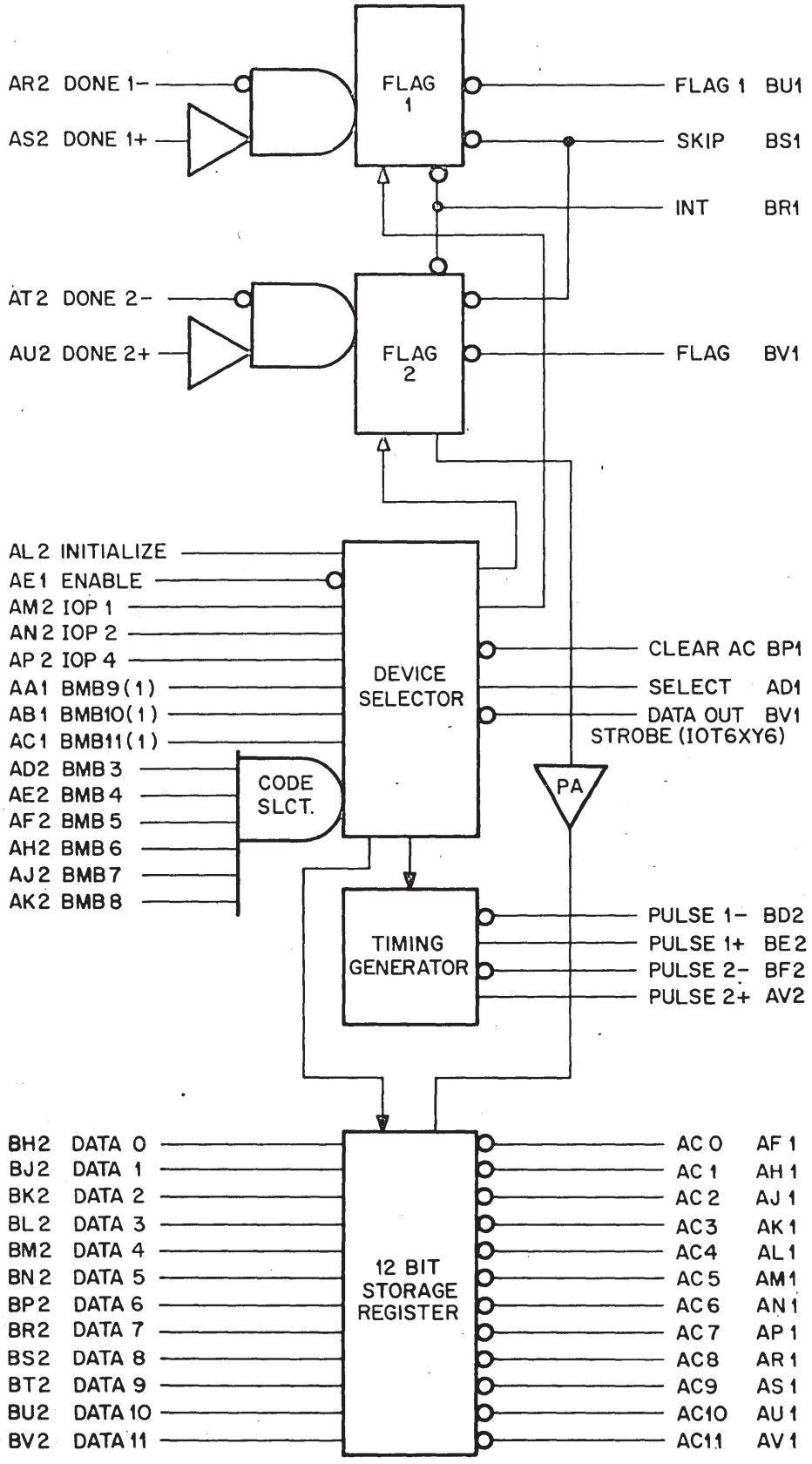


Figure 1

BUS INTERFACE — M732 (POSITIVE INPUT)

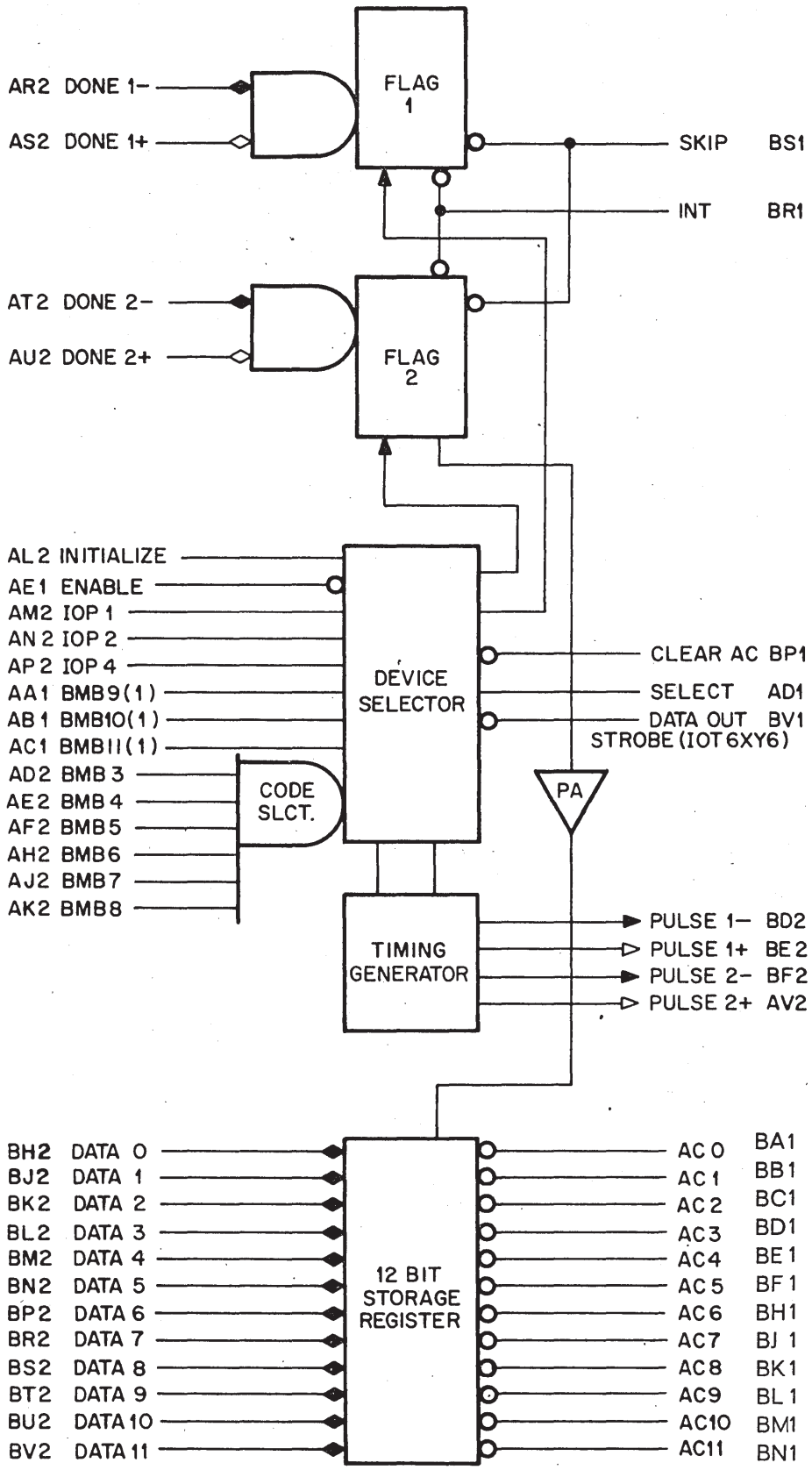


Figure 2

BUS INTERFACE — M733 (NEGATIVE INPUT)

Functionally, these modules contain five distinct sections which are as follows:

1. Device Selector—This logic network converts the buffered memory buffer (BMB) signals and IOP timing pulses from the computer into internal module control pulses.

2. Timing Generator—Through the use of device selector signals, control signals from the interfaced device, and module jumpers, this unit can supply variable width pulses or synchronous control levels at amplitudes specified in section 5 below.

3. Storage Register—This 12-bit flip-flop buffer register provides input data storage of information received from the interfaced device. Information is loaded into this register by a control line from the peripheral.

4. Flag Control—Provisions for generation of I/O Skip and Program Interrupt signals for the computer are made in this area.

5. Level Converters—All level converters from the timing generator are open collector transistor types which can drive 30 ma at ground. The M732 has npn drivers and can interface loads returned to a maximum positive supply of +20 volts and the M733 has pnp drivers which can interface to a maximum negative supply of −20 volts. Level converters which input control and data signals to these modules can receive signals of the same polarity and magnitude as the output drivers can sustain. Thresholds on the input converters are +1.5 volts and −1.5 volts for the M732 and M733 respectively.

   All positive voltage levels are compatible with K and M Series and all voltage signals are compatible with R, B, and W Series.

For additional information, technical specifications and applications assistance, a Digital module specialist can be contacted at any Digital Sales Office. Application Note AP-M-018 contains useful information concerning the use of the M732 and M733.

M732 — $160
M733 — $165