DESCRIPTION

4018 is a system module for double board computer applications to service system interval timing. It is used to control periodic program monitoring and in general to supply real time to the software system. Optional on-board crystal oscillator is available for the users that require rigid timing. The option grants an accuracy of 1. PPM.
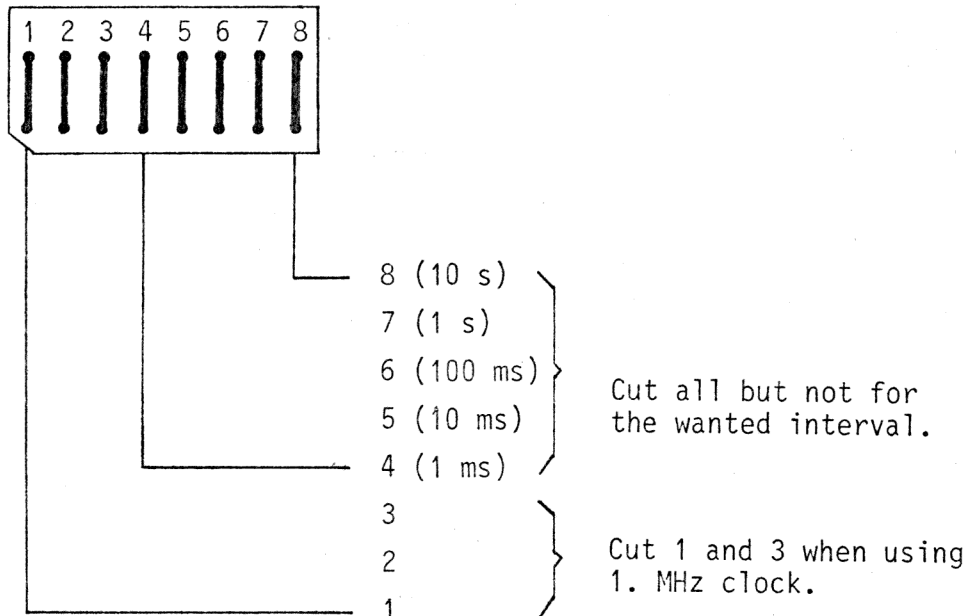
Alternative intervals for most applications requirements are available. The user selects the timing interval on an on-board jumper plug. The selections depends on the incoming clock frequency. A direct time-base (pin 25A) or a system clock (pin 4A) is used. The time-base goes straight to the interval selection - the secondary frequency divider. The system clock is connected to a primary frequency divider, which is the case when using the 1. MHz clock of the bus or the on-board crystal controlled clock. Refer to the block diagram. Normally systems make use of the 1. MHz clock, which is prewired and ready to be used at the first I/O slot position of the standard backplanes. The on-board 10 MHz clock is jumpered in the backplane from pin 3A to 4A at the slot position used (the 1. MHz clock must be removed if the first I/O slot).

The block diagram shows the intervals to your disposal when using the 10 MHz or 1 MHz clocks. In the former case you use four divider steps i.e. cuts the jumpers 1 and 2. In the latter case you cut the jumpers 1 and 3. The you select, as shown, the interval from the secondary divider group.

OPTIONAL FUNCTIONS

The interval timing is selected by jumpers on the on-board jumper
plug, location 3B.

```
 1  2  3  4  5  6  7  8
 |  |  |  |  |  |  |  |
```

```
            8 (10 s)   ⎫
            7 (1 s)    ⎪
            6 (100 ms) ⎬  Cut all but not for
            5 (10 ms)  ⎪  the wanted interval.
            4 (1 ms)   ⎭

            3          ⎫
            2          ⎬  Cut 1 and 3 when using
            1          ⎭  1. MHz clock.
```

STATUSBIT D0

b o⌒o B1   The jumper B1 provides alternative D0 reading
                   as follows:
       o a
                   Jumper B1/a) The interval status is read
                                 on every STAT-command.

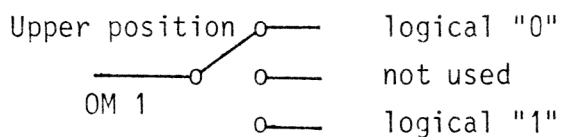   Jumper B1/b) The interval status is available
                                 only when the appropriate channel
                                 selections is valid.

                   No jumper)   The interval timing is not
                                 available in the statusword.

The jumper B1 is located at the crosspoint of the IC:s 1A - 2B and 1B - 2A.

PROGRAMSWITCH - OM1

The state of the switch is indicated by D1 in the statusword.

Upper position o⸺   logical "0"
         ⸺o o⸺   not used
    OM 1
                o⸺   logical "1"

CHANNEL SELECTION

The channel selection, performed by the CS-command, is determined by the card
identity code, which is selected on the code plug - location 2D. See further
about coding the System Manual.