



Board number

G7AKQ / 134-836180 / 134-855995-5-6

## Jumpers DX0, DX1, DX2 and DX3

The DX0 to DX3 jumpers determine the *Drive Select* signal the drive should react to.

Only one of the jumpers must be placed.

For PC-AT interfaces only DX0 and DX1 will function, for Shugart interfaces DX0 to DX3 will work.

When using the drive in a system with PC-AT interface, it should be noted that the *Motor Enable* input signal is only taken from pin number 16. There are two options to handle this issues. The first option is to use a ribbon cable with a twist and place the DX1 jumper on all drives. In this case the drive that is connected behind the twist will be drive 0 and the drive that is connected before the twist will be drive 1. The second option is to use a untwisted ribbon cable and shorting the pin number 10 and pin number 16 together, the DX0 or DX1 jumper of the connected drives can then be placed.

When using the drive in a systems with Shugart interface DX0, DX1, DX2 or DX3 can be placed to make it drive 0, drive 1, drive 2 or drive 3 respectively.

The jumper DX1 will be placed in the default setting.

## Jumpers DCG1 and DCG2

The DCG1 and DCG2 jumpers select what signal shall be output on pin number 34.

When DCG1 is placed the *Ready* signal will be used.

When DCG2 is placed the *Disk Change* signal will be used.

For PC-AT interfaces the DCG2 jumper should be placed, this is also the default setting.

## Jumpers DEN1, DEN2 and DEN3

The DEN1, DEN2 and DEN3 jumpers configure how drives density mode shall be determined.

When the DEN1 jumper is placed a high signal on the *Density Select* pin switches the drive into low density mode and a low signal switches the drive into high density mode.

When the DEN2 jumper is placed the behavior is inverted, a high signal on the *Density Select* pin switches the drive into high density mode and a low signal switches the drive into low density mode.

When the DEN3 jumper is placed the drive will always be in high density mode.

When no jumper is placed the drive will always be in low density mode.

In the default setting no jumper is placed.

## Jumper VC

The VC jumper connects or disconnects the 3300hm termination resistors from all input data lines except *Drive Select*.

When VC is not placed the termination resistors are isolated from the input data lines.

When VC is placed all input data lines except *Drive Select* are pulled up to 5V via the termination resistors.

This jumper is not placed in the default setting.

## Jumper VS

The VS jumper connects or disconnects the 3300hm termination resistor from the *Drive Select* input data line.

When VS is not placed the termination resistor is isolated from the *Drive Select* input data line.

When VS is placed the *Drive Select* input data line is pulled up to 5V via the termination resistor.

This jumper is placed in the default setting. When the VS header is not soldered, the default setting is implemented with a breakable trace on the backside of the PCB.

## Jumpers HDE1 and HDE2

The HDE1 and HDE2 jumpers controls the drives rotational speed when it's in low density mode.

When the HDE1 jumper is placed the rotational speed in low density mode will always be 360 RPM.

When the HDE2 jumper is placed the rotational speed in low density mode will always be 300 RPM.

In the default setting the HDE2 jumper is set, either with a solder bridge or with a breakable trace on the backside of the PCB.

## Jumpers LM10 LM11, LM20 and LM21

The LM10 LM11, LM20 and LM21 jumpers determine the behavior of the drives activity LED in the front panel.

When the LM10 and LM20 jumpers are placed the activity LED will light up when both the *Drive Select* signal and the *In Use* signal (pin number 4) are active.

When the LM11 and LM20 jumpers are placed the activity LED will light up when the *In Use* signal (pin number 4) signal is active.

When the LM10 and LM21 jumpers are placed the activity LED will light up when the *Drive Select* signal is active.

When the LM11 and LM21 jumpers are placed the activity LED will light up when either the *Drive Select* signal or the *In Use* signal (pin number 4) is active.

In the default setting the LM10 and LM21 jumpers are placed.

## Jumpers LM00 LM01, DWN0 and DWN1

Function unknown.

In the default setting jumpers LM00 and DWN1 jumpers are set, either with a solder bridge or with a breakable trace on the backside of the PCB.

## Jumpers MON1, MON2 and MON3

The MON1, MON2 and MON3 jumpers control under what conditions the drive motor should turn on.

When the MON1 jumper is placed the motor will only turn on when the *Motor Enable* signal is active.

When the MON2 jumper is placed the motor will only turn on when the *Head Load* signal is active.

When the MON3 jumper is placed the motor will only turn on when the *Drive Select* signal is active.

For PC-AT interfaces the MON1 jumper should be placed, this is also the default setting.

## Jumper M1, USE1 and USE2

The M1, USE1 and USE2 jumpers determine the source of the internal *Head Load* signal.

When only the USE1 jumper is placed the signal will be active when the *Head Load* signal (pin number 4) is active.

When only the USE2 jumper is placed the signal will be active when the *Motor Enable* signal is active.

When the M1 and USE1 jumpers are placed the signal will be active when both the *Head Load* signal (pin number 4) and the *Drive Select* signal are active.

When the M1 and USE2 jumpers are placed the signal will be active when both the *Motor Enable* signal and the *Drive Select* signal are active.

The jumper USE1 may be placed when the floppy controller generates a valid *Head Load* signal. In the default setting only the USE2 jumper is placed.

## Jumper MX

The MX jumper defines if the drive is in multiplex mode or if it is in regular drive select mode. In multiplex mode the drive is permanently active, as if its *Drive Select* signal was active.

When the MX jumper is not placed the drive will function in regular drive select mode, only being active when its *Drive Select* signal is active.

When the MX jumper is placed the drive will always be active regardless of its *Drive Select* signal.

For PC-AT interfaces the MX jumper should not be placed, this is also the default setting.