**HARDWARE WRITE PROTECT ISSUE
OF WINBOND 2M FWH/LPC**

GENERAL DESCRIPTION

In order to enhance the function of 2M FWH/LPC devices, Winbond provides a new 2M FWH/LPC chips in which the hardware write protect feature has been added. The detail specification of this new feature is described as following.

DETAIL DESCRIPTION

There are two key pins, #TBL and #WP, related to this new hardware write protect feature.
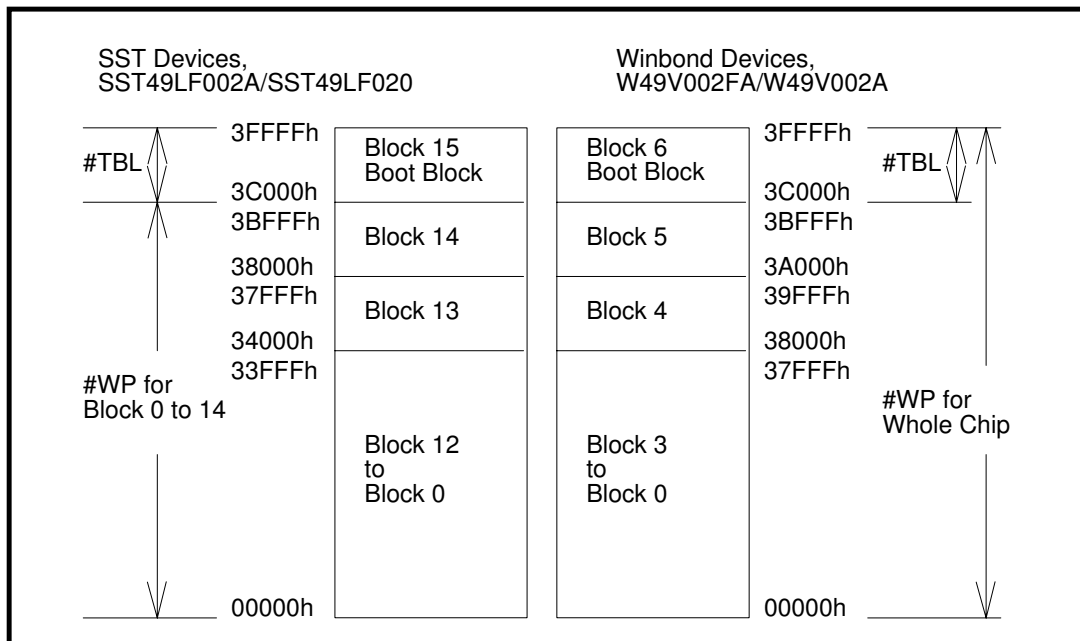
1. #TBL Function:

The #TBL pin is used to protect the top boot block under chip write (program/erase) command. When this pin is set to low before program/erase command, the top boot block will be protected. This function is compatible with SST's SST49LF002A/ SST49LF020.

2. #WP Function:

The #WP pin is used to protect the whole chip, i.e., when the pin is set to low, the whole chip including the top boot block will not be programmed/erased, regardless the state of #TBL. This function is not fully compatible with SST's SST49LF002A/SST49LF020. For SST, the #TBL pin protects the whole chip except the boot block.

The following diagram shows the difference between Winbond and SST devices:

#WP #TBL vs. Memory Map:

CONCLUSION

For hardware designers or software designers, the wirings and usage of these two pins are all the same between Winbond and competitors. But the hardware write protect feature of Winbond devices is not 100% fully compatible with other competitors' devices. When alternatively using these different brand devices, system users who want to protect this device should notice the difference and to prevent any unintentionally mistake occurs.