



2.2 **Compatibility**

All pin assignments and register assignments are the same as those of the VIC068A, therefore the VIC64 will work flawlessly when used to replace a VIC068A. In fact, several of the VIC068's functions have been enhanced in the VIC64, allowing VIC068A applications to run faster in some cases. Naturally, some attention must be paid to the additional controls for the improved functionality to ensure that the original hardware and software supports the improvements. Therefore, several bits have been added to the VIC068A registers to control the enhancements. They map into the unused bits within the VIC068A register space; assuming that the VIC068A developer has not inadvertently set the bits, VIC068A code will run on the VIC64 without modification.

To add 64-bit functionality to the VIC family and still retain plug compatibility, the SCON* pin has been modified in the VIC64. Whereas previously it performed only the input function of selecting VIC068A to be the system controller, in VIC64 the pin is sensed and latched during reset to determine whether the system controller function is enabled. After reset the pin becomes an output to control external circuitry during 64-bit transfers. The new name for the pin is SCON*/D64. If you simply replace the VIC068A with the VIC64, the VIC64 will function in an identical manner to the VIC068A, whether it is the system controller or not. It is recommended that the VIC64 SCON*/D64 pin be connected via a resistive pull-down/up of greater than 4.7 k Ω to enable/disable the system controller function.