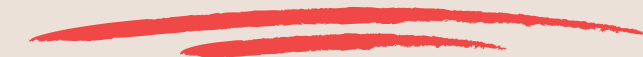




AJAY V. BHATT

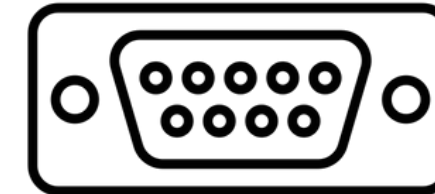
THE **USB** ARCHITECT



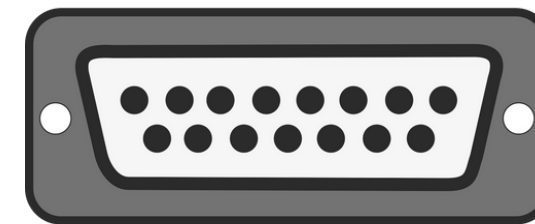
KNOW THY INVENTORS

The Pre-USB Era

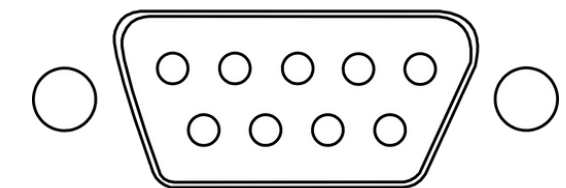
- * Different peripherals supported different connectors
- * Each port/peripheral required separate configuration and troubleshooting



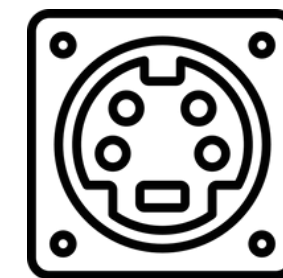
Serial and Parallel Port



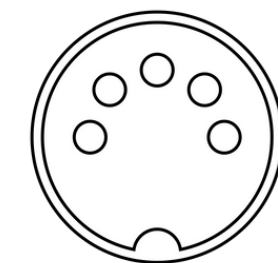
15-Pin Game Port



RS-232 Port



PS/2 Port



5-Pin DIN



Hail The Single Connector



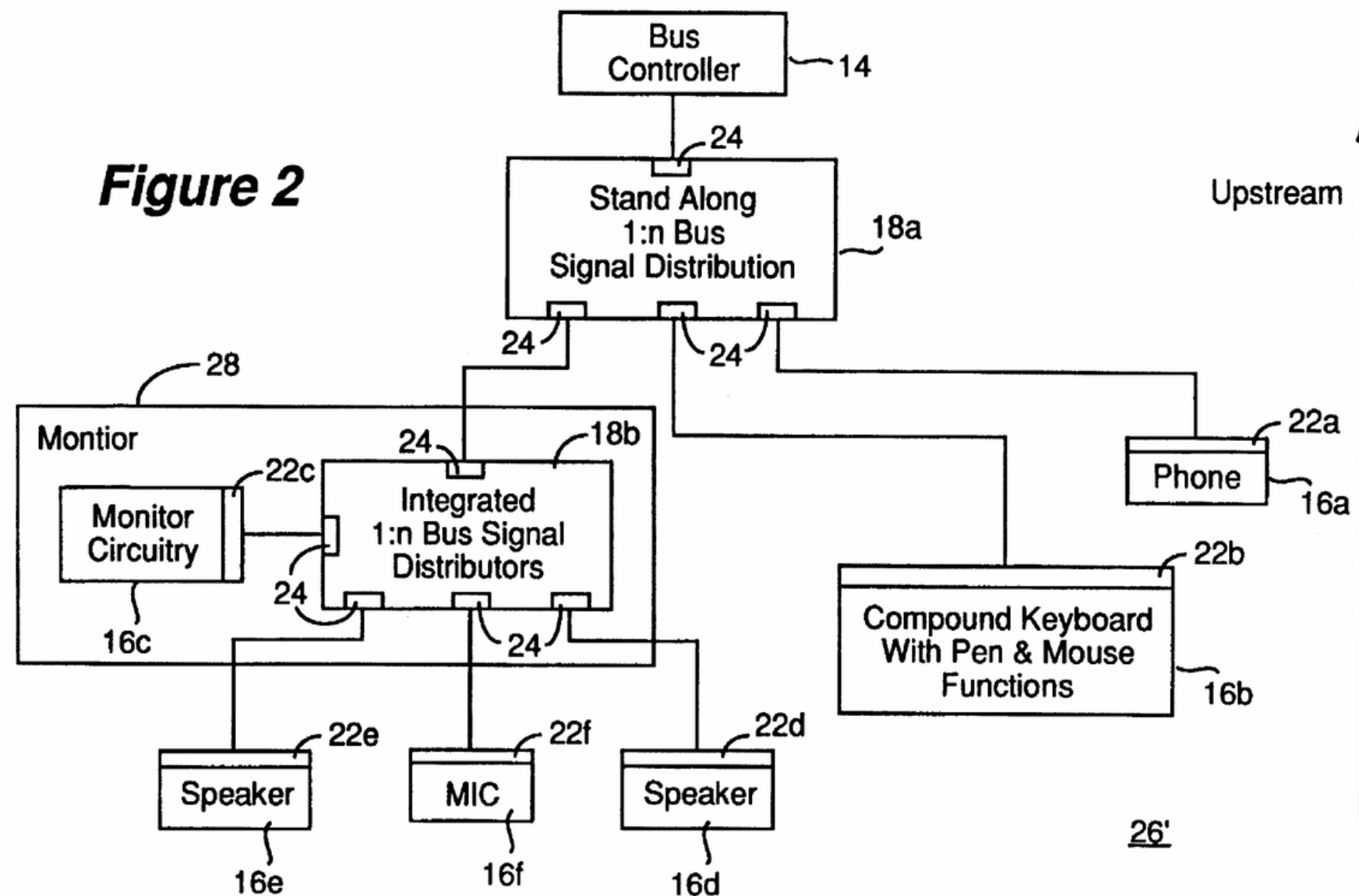
- In 1994, Ajay Bhatt and his team at Intel developed a hierarchical serial bus assembly (later known as the Universal Serial Bus) - a single connector that supported a plug-and-play scheme and supplied both power and data to the peripherals
- It could theoretically allow ~127 peripherals to be simultaneously connected to a computer
- Intel began filing for patents and also partnered with Microsoft, Compaq, Digital, Northern Telecom, NEC and IBM to form a USB Implementers Forum
- Intel began producing the first USB compatible integrated circuits in 1995



United States Patent [19]
Knoll et al.

[11] **Patent Number:** **5,615,404**
 [45] **Date of Patent:** **Mar. 25, 1997**

Figure 2



Exemplary Patent

A hierarchical serial bus assembly that includes a number of **1:n bus signal distributors** for serially interfacing multiple peripherals to a computer system



iMac G3: The First Product Adoption



USB: Ready for Prime Time?

PERHAPS THE BIGGEST VARIABLE IN THE IMAC'S EQUATION IS Apple's renunciation of its old connectivity standbys—SCSI, ADB, and traditional Macintosh serial ports—in favor of the Universal Serial Bus (USB).

