Teledyne Semiconductor is a division of Teledyne, a diversified corporation with over \$1.2 billion annual sales, and products ranging from insurance to steel and electronics. The Teledyne Semiconductor division was formed in 1958. Its principle purpose was to develop and market the JFET (Junction Field Effect Transistor). Many high reliability solid state components have since been developed at Teledyne Semiconductor. These components are now used throughout the electronics industry in military, industrial, and consumer applications.

The Semiconductor division now has an extensive product line that includes bipolar transistors, digital and analog integrated circuits, hybrids, and JFETs. These product technologies, principally hybrid and JFET, have been applied by Teledyne Semiconductor in the development of the FETRON, a solid state device for direct vacuum tube replacement. FETRON production uses the same proven construction methods and quality control procedures as Teledyne's ultra high reliability, military grade electronic components. As a result, the FETRON has out-performed the vacuum tube in its own socket.

Although the required technology was available in 1968, the FETRON development didn't get under way until early 1970. This was partly due to the industry trend toward complete re-design of vacuum tube equipment with all solid state devices. In development of the FETRON, Teledyne's objective was to reverse this trend and develop an economical method for retrofitting vacuum tube equipment in the field.