

**Volume 17**

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**Transistor Radio**

**L e a d : I n 1 9 5 4 T e x a s Instruments and its partner released for the holiday shopping season a remarkable new product which transformed entertainment and pointed to the electronic future: the transistor radio.**

**Intro.: *A Moment in Time* with Dan Roberts.**

**Content: Just six years earlier, Bell Labs scientists had announced the invention of a primitive replacement for the vacuum tube. The glass enclosed tubes, invented**

**in 1907 propelled the electronic world forward and made possible amplification, radio and long distance telephony, but tubes were slow, hot, bulky, and short-lived. The replacement was called a transistor or “transfer resistor.” It used the element germanium (and later silicon) covered on both sides with another element to create a tiny alternative to the vacuum tube which could act as an amplifier or a on/off switch.**

**TI and its partner Industrial Development Engineering Associates (IDEA), were watching their business evaporate as the demands for military equipment declined after the Korean War.**

**They chose as an alternative, consumer electronics, and decided to apply the new transistor to develop a small portable battery powered radio. It was not easy because at first transistors were expensive and had a high rate of failure, but by the time they released the TR1 in October, 1954, the problems had largely been resolved.**

**It cost \$50.00 and though in that first season only 1500 units were sold, TI had manufactured 100,000 more, but more importantly, had attracted a number of competitors, thus securing a market for TI transistors and expanding the**

**public's enthusiasm for portable gadgets. The success of the TR1 proved the transistor's potential and paved the way for the ever increasingly smaller world of electronic technology.**

**Research by Carter Lyon, in Richmond, Virginia this is Dan Roberts.**

### **Resources**

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