AMPLYFIRES OF MICOWAVE FREQUENCY

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When radiators of Microwave frequency understand electromagnetic radiation with decimeter and millimeter wavelengths. However, the clear distinction between the distribution of infrared, terahertz, microwave and conventional ultra high waves can be framed differently. Let's take into consideration two main groups of amplifies: high power and low power.

The high power microwave radiation is using for radar and non-contact heating bodies. The basis for appliance of heating bodies is magnetron. As for the low intensity the radiation of microwave frequencies is based virtually all wireless devices – radios, cellular phones, devices based on WiFi, WiMax, Bluetooth technologies. The main objective of the present in the amplification of ultrahigh frequency radiation is to increase the efficiency of existing plants and reduce energy consumption.

The following samples of classic amplifies are: traveling-wave tube, klystron, pentode. Among them only klystron – Vacuum super power amp is used. It converts the continuous flow of electrons in to alternating modulation by electrical field at microwave frequencies. Pentode low-power radio is used in Hi-Fi sound amps. Platynotron – super radio, single sample is the amplytron which is base on the crossed fields. It's efficiency reaches about 90%.

Modern power amps such as delta-sigma band amps are operating in the module key to minimize the loss efficiency and provide more than 70%. Optimized microwave transistor called MOSFET is also use in modern high frequency devices. Also you can see the bipolar transistors with low charge storage mode saturation called HBT. One of the new devices are the devices based on the indium phosphide.