This paper presents the first, off chip, class DE (resonant half bridge) converter working in the Very High Frequency (VHF) range. The benefits of using half bridge circuits both in the inverter and rectifier part of a VHF resonant dc/dc converter are analyzed and design equations for all components in the power stage are given. The circuit has been simulated to verify the accuracy of the presented equations and an efficiency of 89% has been shown. A prototype has been implemented with self-oscillating resonant gate drives driving the switches. The prototype has been used to drive an LED string and shows an efficiency of 85% at 29 MHz with 130 V input and 13.4 W output. The efficiency was above 82% in the range 110-150 V input with output power between 10.3 W and 16.5 W.