

A Double High Current, High Gradient Electrons Accelerating Structure, G. BIENVENU, J. GAO, LAL ORSAY - LAL is in charge of the study and the construction of a pair of electrons accelerating sections, so-called High Current Structure (HCS), intended for the CLIC Test Facility (CTF-2) at CERN. This structure must accelerate a train of high charge electron bunches ($1 \mu\text{C}$). It consists of two 0.7 meter long constant gradient S-band sections operating on the $11\pi/12$ mode with an accelerating field of 60 MV/m. The sections are designed to exhibit a low beam loading and minimized wakefield effects. A frequency shift between the two short electron-linacs allows to reduce the effects of beam energy spread. Here we present the choice of HCS section parameters, simulations and final design. Some experimental measurements are also given.