The REX-ISOLDE LINAC, D. HABS, O. KESTER, R. RAO, K. RUDOLPH, T. SIEBER, Univ. München; R. VON HAHN, H. PODLECH, R. REPNOW, D. SCHWALM, MPI Heidelberg; A. SCHEMPP, UNI Frankfurt; U. RATZINGER, GSI, Darmstadt, and the REX-ISOLDE COLLABORATION - The linear accelerator of the Radioactive beam Experiment (REX-ISOLDE) [1] at ISOLDE/CERN is under progress and the first structures are ready for first tests. The radioactive ions from the online mass separator ISOLDE will be cooled and bunched in a Penning trap charge breeded in an electron beam ion source (EBIS) and finally accelerated in a short LINAC to the final energy between 0.8 and 2.2 MeV/u. The LINAC consisting of a Radio Frequency Quadrupole (RFQ) accelerator, which accelerates the ions up to 0.3 MeV/u, an interdigital H-type structure (IH) with a final energy between 1.1 and 1.2 MeV/u and three seven gap resonators, which allow a variation of the final beam energy in the range mentioned above [2,3]. In this paper the design of the LINAC, model measurements of the structures and first low level measurements of the REX-RFQ will be presented.

[1] Proposal to the ISOLDE Committee, CERN-ISC94-2
[2] O. Kester, et al., CAARI 96, Denton , Texas, USA, 1996
[3] R. von Hahn, et al., PAC 97, Vancouver, Canada, 1997