Measurement of Cavities of the Side Coupled Drift Tube Linac (SCDTL)*, L. PICARDI, C. RONSIVALLE, A. VIGNATI, ENEA - The 3 GHz SCDTL structure has been developed at ENEA Frascati Laboratories to be used as the intermediate energy part of the Compact High Frequency Linac, envisaged by the TERA foundation for proton therapy. The compact linac is composed of a 5 MeV, 750 MHz RFQ, followed by the 70 MeV, 3 GHz SCDTL and ending with a 200 MeV, 3 GHz Side Coupled Linac (SCL). A 5-cavity model of the SCDTL has been built and measured on a RF test bench. In addition, a 7-cavity prototype (accelerating till 12.5 MeV) is under construction and will be tested with beam at the INFN Laboratories at Legnaro in 1996. The paper describes the SCDTL structure, gives the results of RF measurements on the model and presents the experimental layout at Legnaro.

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