

The KEK Accelerator Test Facility, H. HAYANO,
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Accelerator Test Facility (ATF) under construction in
the TRISTAN Assembly Hall consists of 1.54 GeV S-
band Linac, beam transport line, damping ring and
extraction line for linear collider R&D. The S-band
Linac is an injector of the damping ring supplies a
multi-bunch beam train which is 20 bunches with
 2×10^{10} electrons/bunch and 2.8 ns bunch spacing. The
newly developed techniques which are high gradient
accelerating unit, precise alignment system, beam
energy compensation system, compact modulators,
multi-bunch beam monitors are introduced. The
commissioning of the linac was held in November
1995. The beam experiment on a high gradient
acceleration and a beam energy compensation for the
transient beam loading are performed. The result of
these experiments will be shown. Also the
development and construction status of the damping
ring is described.