

SAMSUN LIGHT RAIL SYSTEM

The transport modernisation plan promoted by Greater Samsun Municipality (Turkie) lead, in 2008, to the selection of a Consortium headed by Alsim Alarko Group for the construction works of the new Light Rail System. This consortium in turn awarded Project Automation S.p.A. of supplies and commissioning of Signalling & Telecommunication works.



SAMSUN BÜYÜKŞEHİR BELEDİYESİ

HAFİF RAYLI SİSTEM PROJESİ



The system layout is as whole a double-track alignment with a length of 16 km, mostly in a segregated right of way and with 20 stops. The system is in operation since october, 2010. Currently peak time headway is 4'.

Tram positions are automatically detected by an AVL system, deploying GPS coordinates, supplied by a satellite signals receiver built-in in the radio terminal.

Tramway headway is regulated with respect to time-table and supervised by a computerised operations support system. A traffic operator in the Operations Control Centre sends over via radio all needed dispatches to trams drivers. In doing this supervision is supported by a line display, feeded with AVL data and SMARTRAMS® diagnostics information.

In standard operations the vehicle communicates its assigned route code to ground inductive transponders by means of an embarqued transponder. The code is deployed for route selection.

Each route is overlayed with track circuits, thus can be successively occupied and locked. A local signalling equipment appropriately sets the needed signal aspects. Depot routes are formed and locked by a computerised signalling central equipment.

The radio coverage to support operations is TETRA standard (Terrestrial European Trunked Radio), which carries voice & data signals transmission of mobile user registered groups.

Communication platform is supplemented with a digital SDH (Synchronous Digital Hierarchy) network, operated at a 155 Mbit/sec rate over a single mode fiber optic. This is built as a double ring topology for path re-routing services. SDH nodes serve eleven electrical substations, three TETRA radio base station, a depot and connect to Operations Control Centre all SCADA functions of the various field equipment.

Passenger information is operated with audio/announcement device and next stop signs embarqued on the tranway. On station platforms an Emergency Call telephony is provided.

