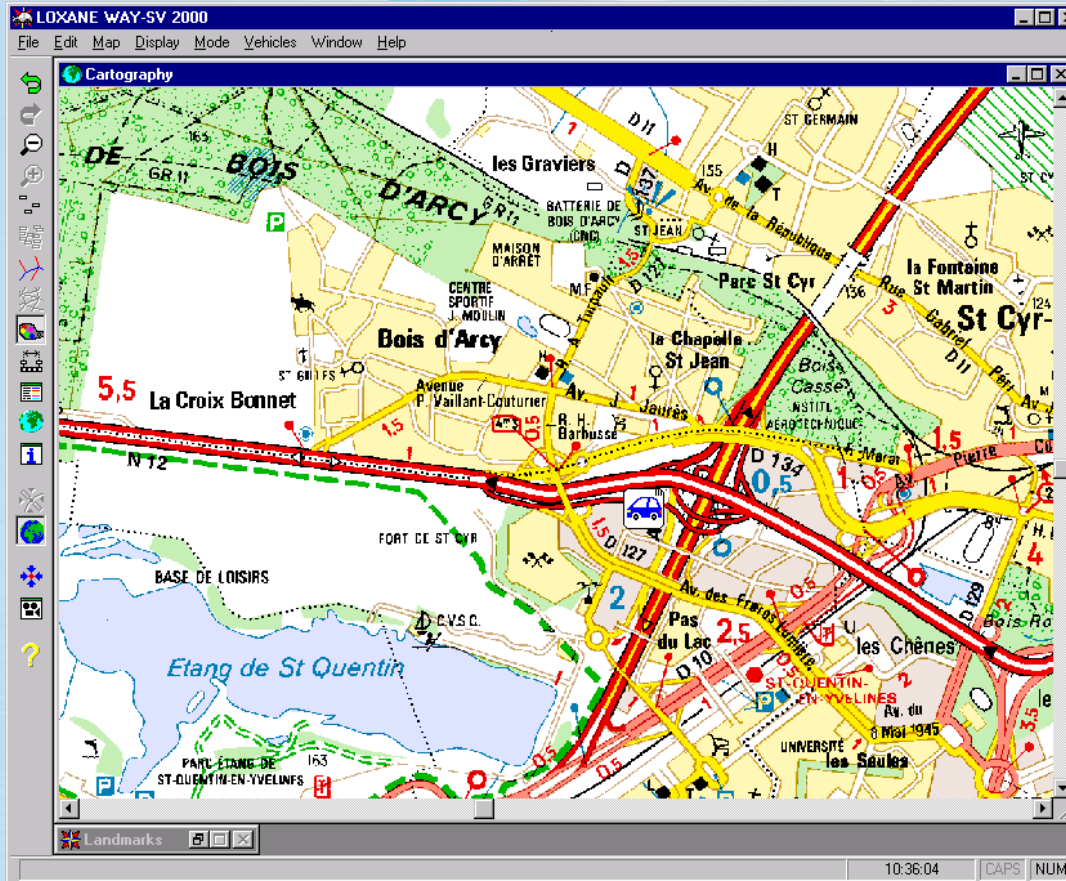


M9648 AVL - V3.0.3

TETRAPOL Automatic Vehicle Location Application



- ✓ Real time display of vehicle locations on a digitalized map.
- ✓ Vehicles tracking
- ✓ Vehicle localization done by COTS GPS (NMEA 0183) or EADS GPS Control Box. (GCB)
- ✓ Playback of routes of vehicles
- ✓ Operational geo-located status management with acknowledgement
- ✓ Geo-located Emergency status fully integrated in TETRAPOL
- ✓ Emergency handling process
- ✓ User login managed by a supervisor
- ✓ AVL Display Work Position could be proposed by EADS or Market AVL Display or GIS Work Position could be interfaced with EADS AVL server (thanks to External AVL Interface)
- ✓ User friendly MMI in a Windows™ environment
- ✓ AVL system strength comes from interwoven products (AVL server, Mobile and its Control Panel) fully integrated in TETRAPOL solution.
- ✓ Enhancement of location accuracy thanks to the D-GPS sub-system (option coupled with GCB option)

Features

- **Supervisor management on Location Server**
 - ✓ Access control by supervisor login
 - ✓ Database management (creation, modification, deletion)
 - Vehicle type object : attributes of a vehicle type as icon, description, ...
 - Vehicle object : attributes of a vehicle as identifier, radio profile, registration, ...
 - User object : attributes of an user as name, user rights, ...
 - Fleet object : attributes of a fleet as identifier, allocation to the users, ...
 - ✓ Storage of vehicle locations in database
 - ✓ Supervision
 - Display of connected AVL Dispatch Position
 - Display of warning and alarms
 - Watch of D-GPS Server and D-GPS Reference Station Units (if DGPS option is available)
- **Display Position (option)**
 - ✓ Access control by user login
 - ✓ Subscription of fleets to track
 - ✓ Map facilities (zoom – unzoom, change of scales, adding of landmarks, raster over vector map, object highlights, ...)
 - ✓ Vehicle tracking (request for location, present status, real time tracing, remote control of digital outputs (with GCB option), ...)
 - ✓ Replay of vehicle journeys
- **D-GPS Server management (option only available with EADS GCB option)**
 - ✓ Supervision of D-GPS Reference Station Units
 - ✓ Display of warnings and alarms
 - ✓ Broadcast of UTC hour

Components and interfaces

- Software / Dongle / Licences :
 - ✓ **M9648L AVL0** : Software licence for AVL server without Display Position
 - ✓ **M9648L AVL1** : Software licence for AVL Server + 1 EADS AVL Display Position
 - ✓ **M9648L AVL2** : Software licence for AVL Server + 2 to 5 EADS AVL Display Positions
 - ✓ **M9648L AVL3** : Software licence for AVL Server + 6 to 10 EADS AVL Display Positions

Additional elements to be ordered separately

D-GPS Software

- **Software / dongle / licence**
 - ✓ **M9648L D-GPS** : Software licence for D-GPS Server
- **Hardware**
 - ✓ **M9648 PC DGPS** : D-GPS Server
 - PC / Windows NT 4 / Ethernet interface
 - Parallel Port
 - + 4 serial links extension board
 - ✓ **M9648 D-GPS** : Differential GPS kit
 - 1 GPS Receiver MIRA-14™
 - 1 GPS Antenna Choke-ring L1 active™
 - 1 Power supply converter
 - 1 Wiring kit MIRA-14

Technical specifications

PC configurations (minimum required)

AVL Display position

Microprocessor	≥ PIII 700
RAM	512 M bytes
Display	17"
Resolution	1024x768
Colours	64k
HDD	4 Go UDMA
Operating System	Windows 2000

Location Server - M9648 Server

Microprocessor	≥ PIII 700
RAM	512 M bytes
Display	15"
Resolution	800x600
Colours	256
HDD	4 Go SCSI
DAT reader	
Operating System	W2000 Srv/SP4
Database	SQL Server 7.0

D-GPS Server - M9648 PC DGPS

AVL Display Position configuration +
4 serial links extension board

Map data requirement

Vector map : ArcView, ARC/INFO, MIF/MID MapInfo,
AutoCAD (DXF) formats

Raster map : bitmap 256 colours format

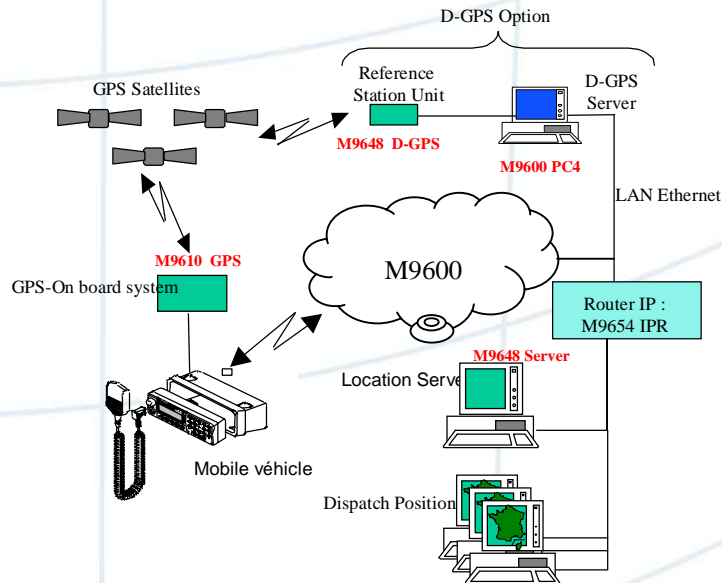
Features of the Differential GPS kit : M9648 D-GPS

General features

14 channels GPS L1 code and phase tracking
Warm start : 30 seconds
Cold start : 40 seconds
RE-acquisition time : 1 second
Standard output NMEA 0183 V.2.01
Standard output RTCM SC104
Selection of datum
Measurement period : 5 Hz max
Choke-ring Antenna (reduction of multi path)
-
<u>Physical & environmental features</u>
Functional climatic : -30° to 70°C
Storage climatic : - 40° to 85 °C
Power : 2,5 W max
Supply : 9 to 32 VDC
Weight of MIRA-14 : 610 g (1,1 kg with AC/DC converter and wiring kit)
Size : 168 x 105 x 60 mm

NOTE :

- Maps are not supplied with the AVL application M9648 AVL
- Integration of raster and vector maps **requires** a service support of EADS SN



Position of components within the network