

DGT 7508 EL

The mobile digital telephone exchange



Portable, compact telephone exchange

Provide all the necessary telecommunication services

Integration of the most advanced telecommunication technologies

Work in the most difficult climate conditions

Resistant to shocks, strokes and vibrations typical for the transportation

The mobile digital telephone exchange DGT 7508 EL, is a portable, compact telephone exchange dedicated for using in difficult environmental conditions.

The high level of versatility of the DGT exchange was achieved as result of integration of the most advanced telecommunication technologies in a compact and portable chassis. It is resistant to shocks, strokes and vibrations typical for the transportation in field conditions (load, reload, air-drop etc.). DGT 7508 EL is prepared to work in the most difficult climate conditions: extremely high or low temperatures (-40 to +55 °C), changes of the altitude and atmospheric pressure, high humidity, dust and sand, the enclosure provides IP 65 protection level.

The back-up battery power supply enables equipment to work for 8 hours without external power.

The combination of the unique hi-tech and mechanical features makes the exchange the ideal equipment for various uniform forces like:

- quick reaction forces
- mobile units
- air forces
- border protection forces
- patrols in the regions with no telecommunication infrastructure
- catastrophe rescue services in cases of natural and civilization catastrophes
- humanitarian aid services

DGT 7508 EL is dedicated for the following applications:

- main switching equipment in a telecommunication shelter/container,
- in open field
- mounted on vehicle
- in stand-alone configuration
- in network configuration as:
 - * terminal exchange
 - * transit exchange
 - * main exchange
- or in combination of the above functionalities.

Due to its mobility, the product can immediately replace any type of telecommunication exchange in case of damage or breakdown of the installed equipment.

General characteristic

DGT 7508 EL can provide all the necessary telecommunication services in both ISDN and VoIP. It enables connecting of voice or video phones. Video conferences are possible between the users in any place of the telecommunication network, including those connected through the satellite link.

DGT 7508 EL offers VoIP functionality to provide SIP and H.323 subscribers connectivity and VoIP networking. The product can be connected to any type of HF radio communication system (walkie-talkie). By this, fixed line users can talk to walkie-talkie users.

DGT 7508 EL can be equipped in accordance with customer needs in BRI ports, PRI ports, digital E1 ports with various signaling types, e.g. QSIG, DSS1, SS7, R2 or in analog subscribers ports FXS, FXO, E&M, Radio, Ethernet with VoIP (SIP, H.323) functionality.

Such a wide scale of possible equipment configuration and signaling types allows working with the most telecommunication networks in the world. Operational parameters of DGT 7507 EL can be easily programmed and monitored from the operator console. That ensures simple and easy traffic bypasses in case of breakdown of any link.

Selected features of DGT 7508 EL

- working without operator's assistance,
- software configuration of the exchange can be pre-programmed or changed by the operator at any time,
- integrated system console with handset and speakerphone optional headset,
- interoperability with all standardized telecommunication systems,
- increased availability by internal redundancy of the most important modules.

All electronic components of DGT 7508 EL are fit within dedicated cabinet shelves, which in turn are assembled in a housing equipped with metal nets protecting the components against electromagnetic radiation and appropriately grounded. The whole structure of the product is suspended on shock absorbers enclosed in special purpose housing. The housing is designed for special applications with increased resistance to mechanical, atmospheric and electromagnetic influences such as: thermal, vibration, shock and electromagnetic interference.

Standard functions of DGT 7508 EL

- Automatic set up of the internal connections with the registration of each event,
- Automatic or semi automatic set up of the connections in the outgoing and incoming traffic,
- Smooth switch-over between automatic traffic into manual traffic,
- Individual access rights and categories for every subscriber line,
- Separation of closed users group,
- Conference up to 64 subscribers,
- Automatic or manual diagnostics,
- Possibility of voice announcements instead of calling signal,
- Voice announcements for ordered services,
- Flexible system of voice announcements and tone signals,
- Creation of the dispatcher sub-systems, independent or dependent on each other,
- Creation of distributed structures with uniform numbering plan and uniform central management system, management centre,
- Signaling conversions:
 - every digital 2 Mbps stream with a certain signaling type can be conversed to another stream with different signaling,
 - a digital 2 Mbps stream can be conversed to an analog form with an analog signaling.

Basic services of DGT 7508 EL

DGT 7508 EL provides automatic connections as follow:

- local connections between the subscribers of one exchange
- outgoing connections with subscribers of other exchanges in the public network
- connections to local or central emergency services (by zones, regions)
- incoming connections from other exchanges
- transit connections
- access to additional services
- connections to and from the testing equipment
- semi-permanent connections between specified in and out ports

DGT 7508 EL includes:

- up to 4xE1 trunks bifurcated into 2 streams: nx64 for automatic switched channels and 30 - nx64 for data channels
- up to 32 analog FXS ports
- up to 8 Central Office ports
- up to 8 Local Battery ports
- up to 8 ISDN lines
- up to 8 E&M ports (2W/4W)
- VoIP gateways: SIP & H.323
- inbuilt digital operator console

The protection level of the closed chassis of the product is:

IP 65
EN 60529:2003.

Environmental conditions:

- working temperature – from -40°C to +55°C,

- the relative humidity – from 30% to 98%,
- the atmospheric pressure – from 800 hPa to 1100 hPa,
- permitted humidity condensation types – dew, hoarfrost (at closed cover).

Dimensions and weight:

- Width - 350mm, Height - 360mm, Depth - 410mm,
- Weight - about 18kg. The exact weight depends on detailed configuration.

Power supply:

- 24 VDC from external dedicated power supply,
- power consumption about 200W.

Accessories:

- transporting chassis,
- transporting harness,
- distribution frames,
- cables.

Basic technical data of DGT 7508 EL



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