

- ✓ Part supply
- ✓ Repair & Refurbishment
- ✓ Technical Support

## Alcatel 1000 E10



Alcatel-Lucent 

Carritech offer a wide range of support services for the Alcatel 1000 E10, including repair and refurbishment, part supply and ongoing technical support.

The Alcatel 1000 E10 (OCB283) exchange, also known by its shorter name as the E10, is designed to cater for evolving networks and the need to rationalise equipment operation.

The E10 is constructed according to the following principles; It has a modular architecture; System functions are distributed over its component modules; The principle of modularity is applied to both hardware and exchange software; The system's modular architecture means; Ease of adaptation-Reliability-Dependability-Easy upgrades.

### Key Features

#### Control stations

The SMs (control station) are the hardware module of E10. There are five types of SM:

- SMCs (main control stations) supporting the switching functions(translation, charging, etc).
- SMTs (trunk control stations) connecting the PCM links.
- SMAs (auxiliary equipment control stations) supporting auxiliary (service-circuit) functions.
- SMXs (matrix control stations) for operating and maintaining the system.
- SMM (maintenance station) for system management.

### Technical Information

#### Main characteristics

#### Applications

The E10 can be used for all switching applications: Local exchange, Transmit exchange, Signalling transfer point, Service switching point (intelligent network access) and Mobile service switching point.

#### Performance

The performance of an exchange is closely linked to its environment. The performance of the E10 is therefore calculated against a benchmark environment defined by:- a MIX of calls (percentage of completed calls, unanswered calls, busy conditions, false seizures, etc).- operating conditions (percentage usage of different signalling types, itemized billing, meter pulse transmission etc).

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### Maximum call handling capacity

The E10 maximum call handling capacity is 1200000 BHCA (busy hour call attempts) which is equivalent of 336 call attempts per second. In a maximum configuration, the switching matrix can connect 2048PCM links or 6000 circuits. So it can handle of 25000 erlangs. Such handling capacity provides the capability to connect: 200000 fixed subscribers or 400000 to 900000 mobile subscribers.

### Hardware characteristics

The Alcatel E10 consists of SMs (control station) which communicate via a local network. The SMs and ancillary equipment are housed in sub-racks installed in racks.

### Racks

Rack dimensions with their EMC (electromagnetic compatibility) cladding are: Height: 2200mm; Width: 900mm; Depth: 650mm. Each rack has five or six sub-racks separated by air baffles. Cooling is by natural convection. Each rack has a duplicated power supply system. The converters have two power sources using independent routes.

### Sub-racks

Sub-rack dimensions are; Height: 234mm; Width: 782mm. The sub-rack backplanes are multi-layer printed circuits.

### Connection

All links between sub-racks and between racks are via shielded cables.

### Boards

There are 32 types of boards with the following dimensions; Height: 234mm; Length: 350mm; Thickness: 1.6mm. The boards are multi-layer. For handling, the boards have a hard plastic strip that prevents direct electrostatic discharge. The strip has a latching and release device with two extraction levers. The boards are fitted the CMOS technology surface mount components. On average, a board consumes less than 7 watts.

### Local area network

The local area network consists of multiplexes. Each multiplex has two token rings complying with the IEEE standard.

### Software characteristics

The Alcatel 1000 E10 (OCB283) software is organized into software machines that are totally independent of SMs (control stations) that support them. Depending on the configuration and operating environment, an SM supports one or more software machines. The software is stored on disk where it is organized into archives. It is loaded into the SMs via the local network the system is initialized.

**Need support for Alcatel  
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