**XMC20 TUXA1**

POTS unit with 12 Foreign eXchange Office (FXO) ports

The POTS FXO unit TUXA1 provides up to 12 FXO ports for the connection of remote applications. Its wide range of configurable parameters ensure easy and reliable interoperation with a large variety of exchanges.

With the multi-service capabilities of XMC20, TUXA1 signalling and voice data can be transmitted via PDH, SDH or Ethernet.

- 12-port FXO 2-wire ports for the connection of remote subscribers
- DTMF and pulse dialling
- CLIP support
- Supports 1+1 path protection
- Configurable voice levels
- Configurable signalling bits
- Configurable line impedance
- All functions from one network management system

**Voice function**

TUXA1 converts voice and signalling from the exchange for the digital transmission in the access network and recreates voice and signalling from the digital access network for the analogue exchange interface.

**Legacy voice services in a PTN infrastructure**

In connection with the circuit emulation unit SATP8 in XMC20, the TUXA1 supports the transport of legacy voice and signalling data via packet networks, using one single platform.

**Protection functions**

TUEM1 supports different protection mechanisms, ensuring that the delivered service persists in case of a failure in subnetworks:

- 1+1 path protection (LTP)
- Subnetwork connection protection (SNCP/I)

**Built-in transmission solution**

TUXA1, in conjunction with XMC20, provides a complete solution for FXO voice services. With its wide range of available interfaces, the XMC20 can easily be deployed in any type of existing network infrastructure. Voice services provided via TUXA1 can be transmitted to the network using the TDM, SDH, and Ethernet (with circuit emulation) transport technologies of the XMC20 platform.

**Management**

The management of the TUXA1 is integrated in the ECST/UNEM management system. By having one element manager for all types of services, operators will accelerate the provisioning process. This powerful and easy-to-use element manager ensures more efficient OAM&P (Operation, Administration, Maintenance and Provisioning) and lower operational costs.
## Technical Data

### FXO-Interface
- Number of FXO interfaces: 12

### Voice and Configuration Parameters
- **CLIP**: Supported
- **Input voice level**: Configurable
- **Output voice level**: Configurable
- **Line impedance**: Configurable (8 commonly used impedances)
- **CAS pattern**: Configurable for upstream and downstream signalling

### Downstream Signalling
- **Polarity reversal**: supported
- **Ringing**: supported
- **Metering pulse**: 12 kHz and 16 kHz

### Upstream Signalling
- **Dialling**: DTMF and pulse
- **On/Off-hook**: Supported
- **Hook flash**: Supported
- **Earth key**: Supported

### Protection
- **1+1 path protection (LTP)**: Supported
- **SNCP/I**: Supported

### Management
- **ECST**: For local management
- **UNEM**: For central management

### Power Supply
- **Input voltage nominal (min/max)**: –48/–60 V DC (–40.5 V DC … –72 V DC)

### Operation Environment
- **Temperature range and humidity**: According to XMC20 environmental specifications