



UP0 Line Extender for Siemens TDM Systems

Product Overview

The UP0 Line Extender for Siemens TDM systems is designed to extend Siemens UP0 digital subscriber lines over distances of several kilometres, enabling deployment of Siemens TDM system telephones in remote locations far beyond the standard operating range of the UP0 subscriber lines.

The solution consists of two extender units operating as a transparent link between the PBX and the system telephone. Voice traffic is retransmitted bit-perfectly, while signalling data is protected by dedicated transmission mechanisms ensuring reliable operation over long cable distances.

Key Features

- Extends Siemens UP0 digital lines up to 12 km (verified on AWG22 twisted-pair cable)
- Supports Siemens OptiPoint and OpenStage TDM telephones
- Transparent transmission of voice and signalling
- Local clock synchronisation using DPLL technology
- Low power consumption (< 1 W per extender)
- Firmware upgrade via microSD card
- Suitable for industrial environments

Typical Applications

- Remote offices and gatehouses
- Industrial plants
- Warehouses
- Campus installations
- Security and access control facilities
- Any location where a Siemens UP0 telephone must operate far away from the PBX



Technical Specifications

Parameter	Value
Interface	Siemens UP0 digital line, RJ12 connectors
Dimensions	73 x 26 x 94 mm (W x H x D)
Number of extenders per line	2
Power supply	PBX-side unit: directly from UP0 line phone-side unit: external 20–60 VDC (48VDC typ.)
Power consumption	< 1 W
Firmware update	microSD card
Compatibility	Siemens OptiPoint, OpenStage TDM telephones

System Architecture

The solution requires two interconnected extenders:

- PBX-side extender powered directly from the UP0 line.
- Telephone-side extender powered from an external power source together with the system telephone.

The communication link between the extenders operates over a single twisted-pair cable.

Compatibility

Tested with:

- Siemens OptiPoint series
- Siemens OpenStage T series

Compatible with Siemens TDM systems using the UP0 subscriber interface.

Compliance

- EMC Directive 2014/30/EU