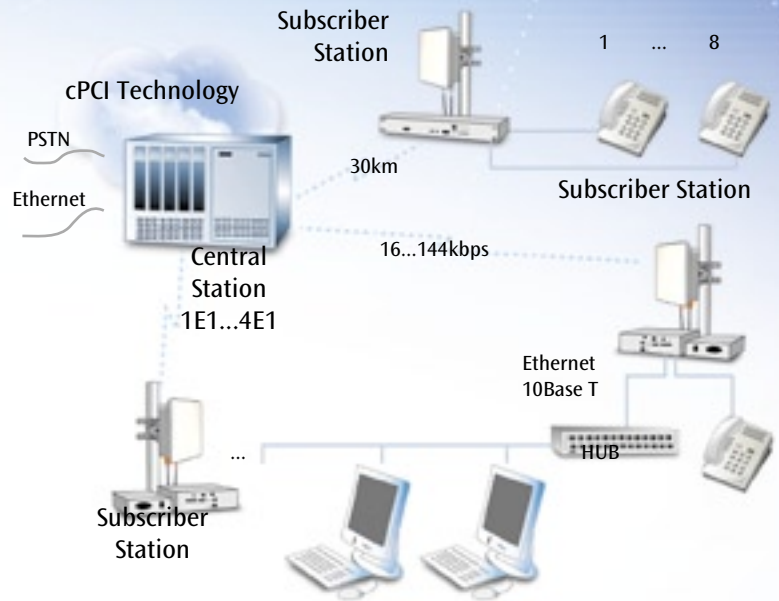


# ASTERPLEX

## FIXED WIRELESS TELECOMMUNICATION SYSTEM



Asterplex is designed to build a fixed-wireless network on a point-to-multipoint and star principle to connect the private automatic exchanges (PAE) or local exchanges (LE) to PSTN via E1 streams. Key distinction of the product is the ability to transmit voice and data simultaneously.

AsterPlex GENERAL TECHNICAL DATA	
Frequency Ranges (GHz)	3.4 – 3.6, 5.1 – 5.9
Modulation	DS-CDMA
Number of Space Sectors	1-60
Subscriber Stations per Sector (128 kbps)	25
64 kbps Channels per Central Station	64
Bit Rate (Mbps)	4.096
Bit Error Rate (BER)	10 <sup>-9</sup>
Rake-receiver	3-beams Rake-receiver
Range (km)	30
Interfaces	E1 (G.703), Ethernet
Voice & Data Integrated Transmission	Yes
Voice Channel's Parameters	PCM, ADPCM
Data Channel's Parameters	Ethernet/IEEE802.3 10Base-T, ISDN, RS-232 (57.600 - 115.200 kbps)
Distant System Quality Control	Yes
Power Central Station	minus 48 V DC
Power Subscriber Station	220 V, 50 Hz
Exploitation Conditions °C)	indoor 5 to 45, outdoor -40 to 60

### Interface: E1, RS-232, Ethernet 10Base-T, PSTN

The system consists of a Central Station (CS) and a Subscriber Station (SS). The CS is connected to the SS in a star topology. The entire system allows ISDN access and IP service and connection to networks like PSTN, IP, LAN, WAN and others. The Subscriber Stations can be connected to regular phones, fax, PC and Bluetooth Piconet.

### "Mezzanine plug-in" principle

This allows the system to be highly flexible and user friendly. In relation to the customer's needs the Subscriber Station can be customized to the requirement of the market demand, such as voice and internet, voice and fax, voice only, etc.

### p-ALOHA

Allows to increase number of voice subscribers, further expanding subscriber base resulting in better coverage and increased revenue.

### RAKE Receiver

Rake receivers are used to operate in multipath mode which enables the system to provide high quality transmission in mountainous surroundings and above water surface. This makes using the AsterPlex system in the following conditions ideal:

- Communication in industrial districts with possible high re-reflections;
- Communication in mountains and hilly surroundings;
- Communication on derricks, ports, between islands, i.e. above smooth surface;
- Communication in cities with dense building structure.

### Advanced monitoring function

Allows functional monitoring, control, management and configuration of parameters from remote stations such as to increase power, delay rectification and others.

### CDMA

The system is using CDMA technology for assurance of high transmission integrity and optimization of capacity.