



# Speech Technology Center

**Compact Device Protecting Telephone Conversations from Unauthorised** Interception at Receiver Side on Analog Phone Lines

## **Applications**

- Phone Shield is designed to protect confidential information transmitted through telephone channels from unauthorized cross talk.
- The main principle of this protection lies in adding to the communication channel a strong speech-like noise, which reliably masks the useful speech.
- Phone Shield is unique, as it is used only on one subscriber's side, for instance in the office.
- The user who is transmitting the confidential information may use any non-protected telephone including even pay phones (street call boxes).

### Overview

- Phone Shield is a unique stand-alone device designed to protect duplex analog voice channels (for example, public telephones) from unauthorized listening.
- Phone Shield provides with confidentiality of telephone conversations transmitted through unprotected communication channels without digitalizing of information.
- It differs from the devices like scramblers as there is no need to have the same equipment on the other side of the call, since Phone Shield protects the call working on one side.

# Advantages

- The operation principle of Phone Shield is based on the following. At first Phone Shield generates the noise and transmits it to the communication channel. Then completely removes that noise.
- The main advantage of this device as compared to its counterparts is that in other devices it is often impossible to detect the source of noise signal.
- The concealed speech signal could not be filtered even with the help of another Phone Shield.

Protection integrity of telephone lines has always been a focal point in security in offices as well as in private homes. Phone Shield is the device which solves this problem.

#### **Functional Features**

The device has two modes of operation: normal and protective.

- In normal (unprotected) mode Phone Shield has no influence on the work of the telephone apparatus. To switch on the protective mode the user should press ON on the front panel.
- After the protective mode is on, the user on the other side can transmit confidential information, which meaning that all conversation said during this period will be heard only by the Phone Shield user.
- The connection in the protective mode is one-way connection (the Phone Shield user can only listen, his partner on the other side - only speak).
- To return to the duplex connection the user should switch off by pressing ON the second time and then the device will work in normal (unprotected) mode.

#### **Technical Data**

- Noise signal swing: 8 V p-p
- Generated noise cancelling: 55dB
- Power supply:
  - Alternating current 90-240V
  - Direct current 110-240V
- Power consumption: 20 W

