

THE MATADOR

The MATADOR family of Passive Cellular Network Monitoring Systems are intended for the authorized interception of voice and data. The MATADOR was designed to passively intercept the voice and data to avoid detection of the systems operation and interference to the cellular systems network operation. The MATADOR system supports FR, EFR, HR, HER voice codecs. Other codecs will be implemented upon customer's request.

A WINDOWS® based personal computer controls the unit via the serial port or RS-422 HDLC communications cards. This user friendly system can monitor one to twenty channel units and includes the control and monitoring software, an antenna and a personal computer. An auxiliary computer is recommended to process archive files.

THE MATADOR'S BASIC CONFIGURATIONS:

- 2 channels (1 forward and 1 reverse)
 - A portable briefcase version is available
- 6 channels (3 forward and 3 reverse)
 - Housed in a standard 19 inch case
- 8 channels (4 forward and 4 reverse)
 - Housed in a standard 19 inch case
- 12 channels (6 forward and 6 reverse)
 - Housed in two standard 19 inch cases
- 16 channels (8 forward and 8 reverse)
 - Housed in three standard 19 inch cases
- 20 channels (10 forward and 10 reverse)
 - Housed in three standard 19 inch cases

THE MATADORS Data Storage and Archive Processing Abilities:

All data (voice and data) intercepted by the system can be recorded to the hard drive. To review and process archived files, it is expedient to use an auxiliary personal computer connected to the system computer via a LAN connection. It is advisable to download / backup the files from the system computer to an auxiliary computer for archiving and processing. THE MATADOR software displays all service data to the corresponding voice messages including who called, time of call, call duration, etc.

THE MATADOR'S BASIC FUNCTIONALITY:

- The system can intercept separate numbers of interest (target list mode) or randomly scan the cellular network (search mode).
- The system can further search for a target subscriber according to:
 - TMSI
 - IMSI
 - IMEI
 - Ki
- Decoding of LPT-RTE and EFR
- Receives the BCCH, CCCH, SACCH, SDCCH, FACCH, TCH, etc.
- Intercepts SMS
- Evaluates the quality and signal levels of the base station
- During the interception of the subscribers conversation, the system displays the following data in real time mode:
 - LAC
 - MCC
 - MNC
 - ID
 - Frequency Channel Number
 - Signal power levels of the cell phone transmitter
 - Distance between cellular phone and the corresponding base station (based upon the above information, one can determine the active cellular phone location by utilizing a local cellular network map).

The system can ensure the following:

- Automatic interception of the frequency channels for subsequent storage, analysis and playback of the voice and data captured
- Ensures interception of encrypted voice messages in A5.1 and A5.2 protocols (if subscribers Ki is known).
- Interception of voice messages in a Frequency Hopping environment

The system is capable of determining the following:

- Subscribers TMSO during mobile phone registration and call placement
- Subscribers IMSO and IMEI
- Incoming number (if Caller ID is enabled)
- Phone number called from the mobile phone
- Call origination time
- Call duration
- Call direction and cell ID

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THE MATADOR'S Operational Modes:



- Search of active subscriber(s) in the nearest zone.
- Random search / Fixed mode:
 - The system generally chooses a minimum of three frequency channels, based upon base station signal levels, to monitor.
 - The system operator (user) can elect to record intercepted conversations and listen to them while simultaneously switching to other channels.
- Fixed with target list mode:
 - THE MATADOR allows the operator to maintain up to two different target lists. Each target list may contain the following parameters:
 1. TMSI
 2. IMSI
 3. IMEI
 4. Ki
 5. Real phone numbers (or parts thereof)
 - When the subscriber(s) of interest appear on the air, THE MATADOR automatically begins recording to the systems hard drive.
 - If the mobile phone signal cannot be intercepted at the systems position, only the conversation transmitted by the base station will be recorded.

THE MATADOR'S Environmental Parameters

Temperature:

+5°C to +40°C

Humidity:

Up to 90% @ +20°C