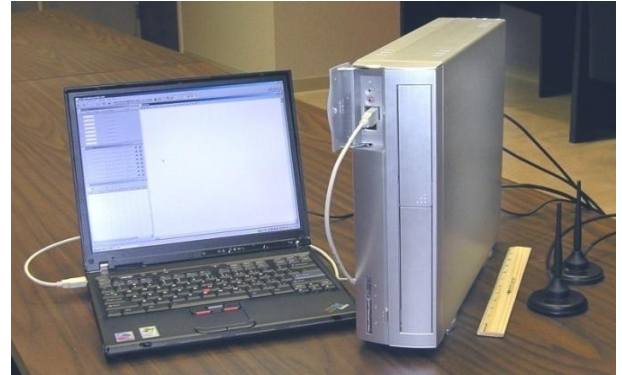


# ARROW GSM-8/16

## GSM Cellular Monitoring Systems (A5.2 Encryption), 850/1900 and 900/1800 MHz

ARROW cellular monitoring systems are U.S. export controlled and sold to U.S. Government and authorized foreign government agencies only.



### System Description

ARROW GSM-8/16 Cellular Network Monitoring Systems intercept cellular telephone transmissions and provide passive real-time decryption, monitoring and recording of cellular telephone conversations. ARROW GSM-8/16 systems cover commercially available operating frequency ranges and support FR, ERF, HR and HER voice codes (aka VOCODERS).

### Applications

ARROW GSM-8/16 intercepts cellular phone calls and transmissions which can be monitored in real-time, recorded and archived for future evaluation. It can target specified mobile phone numbers for all calls in and out; and using a local cellular network map determines cellular phone's location.

### Features

- Passively captures and archives encrypted voice and SMS transmissions in real-time over the A5.2 decryption protocol
- Searches and identifies IMSI, TMSI, IMEI, CLI and subscriber cellular numbers (including incoming cell phone number)
- Receives BCCH, CCCH, SACCH, SDCCH, FACCH, TCH, etc.
- Detects Cell / BTS section ID
- Scans for specific cellular mobile phone numbers
- Identifies active channel by number
- Displays broad range of subscriber's conversations data in real-time, including: LAC, Serving Cell ID, frequency channel number, cellular phone's transmitter power, distance between cellular phone and base stations
  - Cellular ID (MSISDN) and (ESN)
  - Frequency channel number
  - Power of cellular phone's transmitter
  - Distance between cellular phone and base station

## Specifications & Functions

- Frequency Operation Range: 850/900/1800/1900 MHz
- Operates in:
  - fixed and mobile environments; and
  - in frequency-hopping environments

## Features

ARROW systems have three operational modes:

- Search of active subscriber in the nearest zone (at a distance of 1 to 600 meters from the system, 'Search Mode')
- Random Search, 'Fixed Mode'
- Search for Subscriber of Interest, 'Fixed with Target List Mode'

**Search:** ARROW GSM-8/16 scans all frequency channels, searching for an active subscriber. Operators can record intercepted conversations and listen to them simultaneously. If the operator decides to cease monitoring of a particular conversation, the system automatically reverts to scanning the frequency channel, searching for another active subscriber.

**Random Search:** ARROW GSM-8/16 enters 'Fixed Mode' and selects channels according to maximum base station signal. The system monitors conversations intercepted in each of these particular channels, and the operator can record intercepted conversations and listen to them simultaneously switching over the channels. If the operator decides to cease monitoring a call, the system automatically enters standby mode and waits for the next conversation on that frequency channel.

**Search for the Subscriber of Interest:** ARROW GSM-8/16 enters 'Fixed Mode' and the system chooses channels according to maximum base station signal. Using a pre-loaded target list containing cellular features for subscribers of interest, the system monitors conversations intercepted for the targeted subscribers. The operator can record these intercepted conversations and listen to them simultaneously.

