

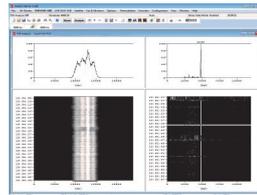
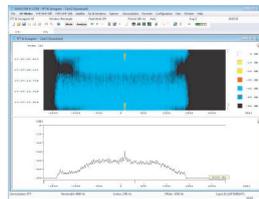
# WAVECOM® W-Signal-Library

19 files; 754,020,352 bytes

```
C:\[ Audio ]\HF-MODES\MIL-STANAG\HF-ACARS
HD-ACARS (New York) (3).wav
HF-ACARS Island (1).mp3
HF-ACARS (Bahrain).wav
HF-ACARS (Canary Island).wav
HF-ACARS (Iceland).wav
HF-ACARS (New York) (1).wav
HF-ACARS (New York) (2).wav
HF-ACARS (New York) (3).mp3
```

8 files; 45,850,828 bytes

```
C:\[ Audio ]\HF-MODES\MIL-STANAG\LINK-11
LINK-11 (1).wav
LINK-11 (2).wav
LINK-11 (3).wav
LINK-11 (4).wav
LINK-11 (5).mp3
LINK-11 (PSK-4).wav
LINK-11 (SLEW) (1).wav
LINK-11 (SLEW) (2).wav
Link11 (USB).wav
```



The identification of signals is one of the main objectives of signal monitoring and surveillance. Thus the W-Signal-Library collection of reference signals is a must for comparative analysis, training of operators or performance tests of equipment and software applications.



## W-Signal-Library Features

- ▶ HF-MODES
  - ▶ FSK
  - ▶ Graphik Modes & CW
  - ▶ MFSK
  - ▶ MIL-STANAG
  - ▶ OFDM
  - ▶ PSK
  - ▶ RADAR-JAMMER-VOICE
  - ▶ SOFTWARE DEFINED RADIO
  - ▶ TESTFILES
  - ▶ LISTING
- ▶ MODEM's FAX-G3
  - ▶ New Audio Files
- ▶ SATELLITE
- ▶ VHF-UHF DIR
  - ▶ AIS
  - ▶ APCO-25
  - ▶ DCS-SEL CAL
  - ▶ DMR
  - ▶ DP-6000
  - ▶ dPMR
  - ▶ DRM
  - ▶ D-STAR
  - ▶ ERMES
  - ▶ FLEX
  - ▶ GOLAY-GSC
  - ▶ GSM
  - ▶ MOBITEX-8000
  - ▶ MODACOM
  - ▶ NXDN
  - ▶ PACKET-9600
  - ▶ POCSAG
  - ▶ SENAO
  - ▶ TETRA
  - ▶ TETRAPOL
  - ▶ VDL-M2
  - ▶ VHF-UHF DIR VARIOUS
- ▶ VHF-UHF SUB
  - ▶ ACARS
  - ▶ ATIS
  - ▶ BIIS
  - ▶ FMS-BOS
  - ▶ GMDSS-DSC VHF
  - ▶ MOBITEX-1200
  - ▶ MPT-1327
  - ▶ NMT-450
  - ▶ NMT-900
  - ▶ NWR-SAME
  - ▶ PACKET-1200
- ▶ SELCAL ANALOG
  - ▶ VHF-UHF SUB VARIOUS
  - ▶ X.25
  - ▶ ZVEI-VDEW

- ◆ Hundreds of source and channel encoding formats
- ◆ Numerous modulation formats
- ◆ All frequency ranges from VLF to EHF represented
- ◆ Real signals, On-the-Air (OTA) recordings
- ◆ Size of recorded signals about 45 GB
- ◆ WAV format

```
GW OFDM (26 - CARRIER).WAV
GW OFDM (28 - CARRIER).WAV
GW OFDM (3).wav
GW OFDM (30 - CARRIER).WAV
GW OFDM (4).wav
GW OFDM (5).wav
GW OFDM (6).WAV
GW OFDM (7).wav
GW OFDM (8).wav
GW OFDM (Error free) (1).wav
GW OFDM (Error free) (2).wav

20 files; 107'914'032 bytes

C: \[ Audio ] \HF - MODES\OFDM\OFDM UNKNOWN
OFDM 44.5 Bd.wav

1 file; 9'288'682 bytes

C: \[ Audio ] \HF - MODES\OFDM\OFDM_112
OFDM_112_22.2 (22.2 Bd, Pilot Tone) (1).wav
OFDM_112_22.2 (22.2 Bd, Pilot Tone) (2).wav
```

W-SIGNAL-LIBRARY

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The signals of this unique collection have been recorded from real transmissions across the entire radio spectrum from VLF to EHF, across all radio services, fixed, maritime mobile, land mobile, civilian and military and including all types of modulation formats, source and channel encodings, encrypted and clear text.

In addition, W-Signal-Library contains a comprehensive collection of fax and modem communication signals as well

as selective call signals.

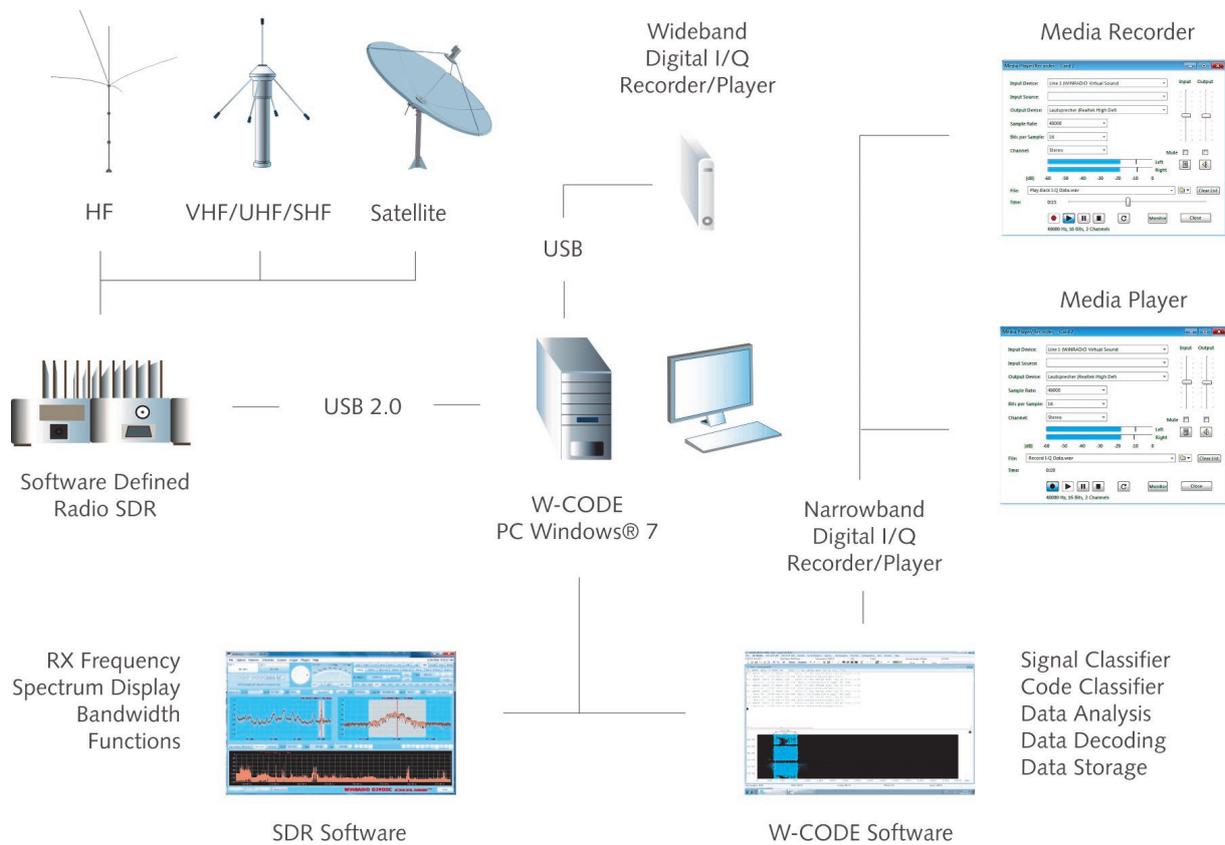
The signals may be played back using the built-in media player of the Wavecom suite of decoders, allowing instant classification and analysis or any other analysis tool or playback application to process the WAV files.

The current size of the library is approximately 45 GB and it is updated regularly. The signal library is available on a 64 GB USB-Stick.

# W-Signal-Library

A Collection of Reference Signals

## Example setup for digital I/Q recording using W-CODE and a SDR



## In-phase and quadrature (I/Q) signal

Advanced modulation formats require that both the phase and amplitude of the demodulated signal is analyzed. The standard analysis method and also the less suitable method interprets a signal in polar coordinates, i.e., in both magnitude and angle. However, it is much easier to analyze a signal by decomposing it in its in-phase (cosine) and

quadrature (sine) components. Since these two signal parts are orthogonal to each other, the decomposition effectively creates two independent signals occupying the same spectral space. The two signals may then be investigated in just magnitude or in both magnitude and angle.

# W-Signal-Library

A Collection of Reference Signals

**WAVECOM**<sup>®</sup>  
NACHRICHTENTECHNIK

Since more than thirty years Wavecom Elektronik AG has developed, manufactured and distributed high quality devices and software for the decoding and retrieval of information from wireless data communication in all frequency bands. The nature

of the data communication may be arbitrary, but commonly contains text, images and voice. The company is internationally established within this industry and maintains a longstanding, world-wide network of distributors and business partners.

## Product Information

Products	<a href="http://www.wavecom.ch/product-summary.php">http://www.wavecom.ch/product-summary.php</a>
Datasheets	<a href="http://www.wavecom.ch/brochures.php">http://www.wavecom.ch/brochures.php</a>
Specifications	<a href="http://www.wavecom.ch/product-specifications.php">http://www.wavecom.ch/product-specifications.php</a>
Documentation	<a href="http://www.wavecom.ch/manuals.php">http://www.wavecom.ch/manuals.php</a>
Online help	<a href="http://www.wavecom.ch/content/ext/DecoderOnlineHelp/default.htm">http://www.wavecom.ch/content/ext/DecoderOnlineHelp/default.htm</a>
Software warranty	One year free releases and bug fixes, update by DVD
Hardware warranty	Two years hardware warranty
Prices	<a href="http://www.wavecom.ch/contact-us.php">http://www.wavecom.ch/contact-us.php</a>

## Ordering Information

Product Code	Description
WSIGLIB	More than 3,500 reference signal recordings. Delivered on a 64 GB USB flash stick

## Distributors and Regional Contacts

You will find a list of distributors and regional contacts at <http://www.wavecom.ch/distributors.php>

**WAVECOM**<sup>®</sup>  
  
NACHRICHTENTECHNIK

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