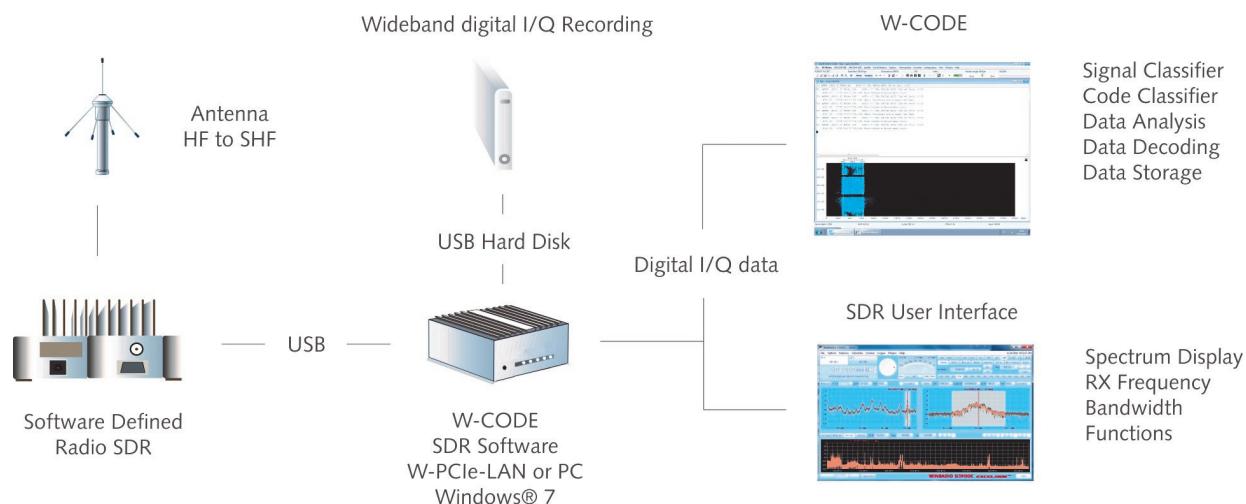


# Digital I/Q Recording

Application Note

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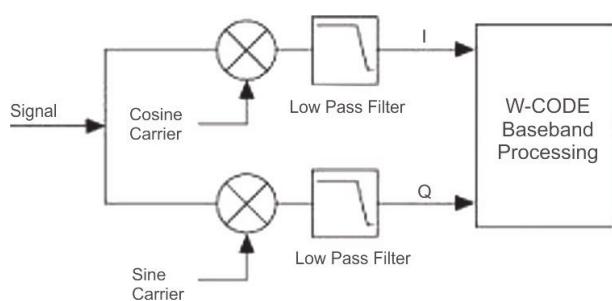
## Example setup for digital recording using W-CODE and an SDR



## 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 (sine) and quadra-

ture (cosine) components. Since these signals are orthogonal 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.



# Digital I/Q Recording

## Application Note

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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>

### System Requirements

	<i>Minimum</i>	<i>Recommended</i>
CPU	Core i5 or Core i7 2.8 GHz	Core i7-6700 3.4 GHz
Memory	4 - 8 GB RAM	16 - 32 GB RAM
OS	Windows 7	Windows 10 32-bit or 64-bit

### Distributors and Regional Contacts

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

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