

SPiRiT Robust ALCWI Vocoder

Robust ALCWI (Advanced Low Complexity Waveform Interpolation) is developed according to the DMR (Digital Mobile Radio) recommendation. It comprises ALCWI algorithm with intellectual Forward Error Correction method providing Near-Toll Quality speech at 3600 bitrate.

SPiRiT Robust ALCWI provides Near-Toll Quality speech at low bit rates. Until recently, this level of speech quality couldn't be achieved at bit rates lower than 4000 bps. Now this is possible by virtue of new and efficient speech coding technology developed by SPiRiT.

SPiRiT Robust ALCWI is based on Advanced Low Complexity Waveform Interpolation technology applying unique proprietary methods such as:

- Signal decomposition
- Speech parameters quantization
- Joint Source-Channel Coding
- Error concealment

The codec has different redundancy modes using three internal bit rates (2050 bps, 2400 bps, 2750 bps). After adding Forward Error Correction (FEC) data the output bitrate is 3600 bps.

Features

- External bitrate 3600 bps
- 16-bit format can be reduced to 13-bit without noticeable quality degradation
- Audio frame size: 20 ms (160 samples)
- Channel frame size: 216 bits (3 audio frames)
- 3 different redundancy modes
- Recursive systematic convolutional encoder
- Viterbi decoder with soft decision
- Intra-burst interleaver
- VAD/DTX/CNG functionality
- Tonal signals transmission functionality (DTMF, single tones)

Benefits

- DMR compatible
- High speech quality at low bit rates in erroneous channels
- Easy portable
- Highly optimized

Key Features

- 3600 bps bitrate
- Joint Source channel coding
- Unequal error protection
- Error concealment

Applications

- Terminal equipment for DMR based systems

Availability

- PC Now
- Hyperstone Now
- TI C55xx Call
- TI C64xx Call

CONTACTS

General: 1-408-540-6033
www.spiritdsp.com

Russia: 7-495-661-21-78
 France: 33-623-021-563
 Israel: 972-3-736-9763
 Italy: 39-02-6680-2557

Germany: 49-641-48-08300
 USA: 1-888-374-4410
 Canada: 1-888-374-4410
 Japan: +81-3-6361-8080

Taiwan: 886-2-2888-1010, 886-2-2696-0055
 Korea: 82-70-7780-9910, 82-2-33473-5080
 China: 86-21-63502288-820
 Singapore: 65-6744- 9789