

SPiRiT WI-NC Vocoder

WI-NC, a new class of speech codecs developed by SPiRiT, opens up a new level of quality, providing Near-Toll Quality speech at low bit rates in the range of 2000 to 4000 bps and even lower.

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.

The new technology is similar to the Waveform Interpolation (WI) model, where the signal is decomposed into two components (SEW and REW), which are then encoded separately. However, the new SPiRiT technology uses unique proprietary signal decomposition and parameter encoding methods, ensuring high speech quality at high compression ratios, while requiring low computing resources.

The speech quality of WI-NC-class codecs, as estimated by independent listeners, is similar to that provided by standard codecs running at bit rates above 4000 bps, while the computational complexity is only slightly increased in comparison with the complexity of other widely used codecs running at similar bit rates.

Benefits

- Easy portable
- Highly optimized

Key Features

- Model similar to Waveform Interpolation
- Low bitrates (from 2000 to 4000)

Applications

- Trunking systems
- Wireless communications
- Digital voice over HF
- Call-logging systems
- Answering machines
- Terminal equipment for DMR based systems

Availability

- PC Now
- TI C55xx Call

Specifications

CODEC	WI-NC 2400 bps
Rate	2400 bps
Frame Size	20 ms
Algorithmic Delay	40 ms
Sampling Rate	8 KHz
Speech Signal Format	Linear 16-bit
Bit Stream Format	48 bits

Resource Requirements

PLATFORM	TI C5xx	
CODEC	WI-NC 2400 bps	
	Encoder	Decoder
Peak MIPS	22	10
Program Memory, KWords	16	
Constant Memory, KWords	17	
Dynamic Memory, KWords	1	
Scratch, KWords	1	

CONTACTS

www.spiritdsp.com
sales@spiritdsp.com

RU & EU: +7-499-995-23-85
 USA: +1-916-955-4507
 Japan: +81-3-6361-8086

India: +91-9833-894005
 China: +86-136-0192-2495
 Taiwan: +886-2-2888-1010 ext. 100

Korea: +82-17-232-3878
 Singapore: +65-9380-4061
 Vietnam: +84-24-3772-7766