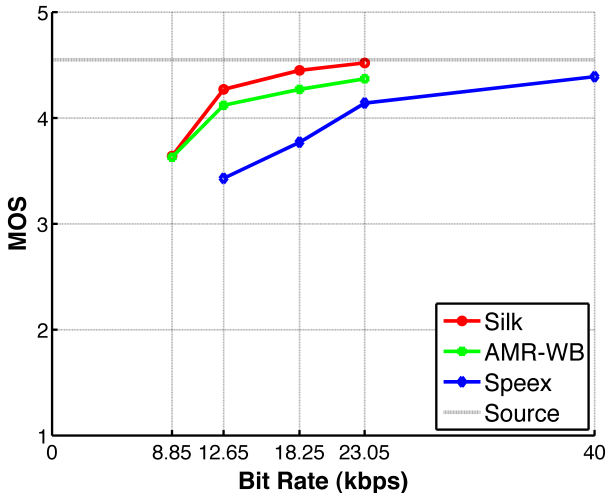
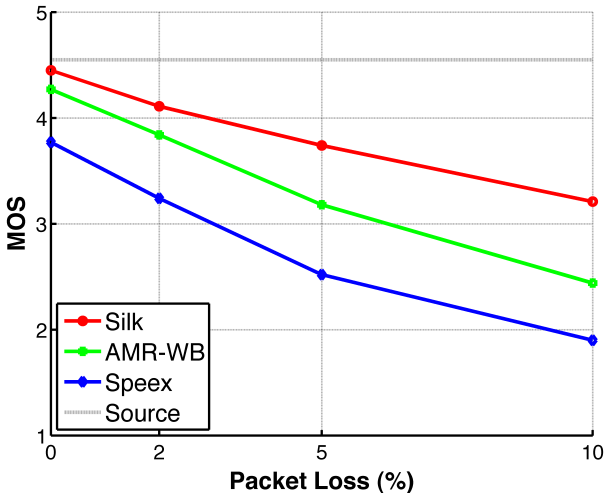
SILK™

- New Skype-designed and developed default audio codec for all Skype-to-Skype calls
- Scalable in audio bandwidth, bit rate and complexity

	Sampling Rate (kHz)	Bit Rate (kbps)	CPU (MHz on x86 core)
Narrowband for PSTN gateways and low end devices	8	6 - 20	12 - 30
Mediumband for devices with limited wideband capability	12	7 - 25	16 - 40
Wideband for all-IP platforms	16	8 - 30	20 - 50
Super-Wideband, a new standard in speech quality	24	12 - 40	30 - 80
Key Advantage	Optimize clarity under hardware and network constraints	Adjust to degraded network conditions in real time	Match complexity to CPU resources in real time

- Highest quality under all conditions[1]





Office Noise, 15 dB SNR	Source	SILK	AMR-WB	Speex
MOS	3.30	3.22	3.14	2.74

- Low Delay: 25 ms (20 ms frame size + 5 ms look-ahead)
- Lightweight and highly portable
  - Data ROM: 14 kWords
  - Data RAM: 9 kWords (static) + 5 kWords (scratch)
  - Fixed Point ANSI C Code
- More information at secure site https://developer.skype.com/silk

[1]MOS (Mean Opinion Score) listening test was performed for Wideband speech signals by Dynastat, an independent 3rd party laboratory. Confidence intervals (95%) are +/- 0.1 MOS. All bitrates are measured and averaged over frames containing active speech. SILK and Speex were run in the highest complexity mode and with variable bitrate. Packet Loss and Office Noise tests were done with all codecs running at 18.25 kbps.