G.165

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VOCAL Technologies G.165 software libraries include a complete range of ITU compliant modulations, optimized for execution on ANSI C and DSP architectures from leading silicon suppliers (ADI, ARM, DSP Group, LSI Logic ZSP, MIPS and TI). This software is modular and can be executed as a single task under a variety of operating systems or it can execute standalone with its own kernel.

G.165 Echo cancellers are voice operated devices placed in the 4-wire portion of a circuit (which may be an individual circuit path or a path carrying a multiplexed signal) and are used for reducing the echo by subtracting an estimated echo from the circuit echo. They may be characterized by whether the transmission path or the subtraction of the echo is by analogue or digital means.

G.165 echo canceller can be combined with other audio codec (G.711, G.722.1, G.722.2, G.723.1, G.726, G.727, G.728, G.729, G.729A, G.729B, G.729AB, GSM AMR, GSM FR, GSM EFR, GSM HR and MELP). G.165 Echo canceller is applicable to the design of echo cancellers using digital or analogue techniques, and intended for use in an international circuit. Echo cancellers designed to this Recommendation will be compatible with each other and with echo suppressors designed in accordance with Recommendation G.164. Compatibility is defined in 1.4/G.164.

Features:

- Fully compliant with ITU G.165 (03/93) Recommendation
- Rapid convergence
- Subjective low returned echo level during single talk
- Low divergence during double talk/li>
- Compliant with Test No. 1 – Steady state residual and returned echo level test
- Compliant with Test No. 2 - Convergence test
- Compliant with Test No. 3 – Performance under conditions of double talk
- Compliant with Test No. 4 – Leak rate test
- Compliant with Test No. 5 – Infinite return loss convergence test
- Compliant with Test No. 6 – Nondivergence on narrow-band signals
- Compliant with Test No. 7 – Nonconvergence of echo cancellers on mono or bifrequency signals transmitted in a handshaking protocol
- Compliant with Test No. 8 – Overload test for Type A and Type D cancellers

G.165 Configurations:

- 8 msec tail.
- 16 msec tail.
- 32 msec tail
- 48 msec tail

Example Resource Requirements (ADSP-2181) fro G.165:

- 2.5 MIPS for 8 msec.
- 3.1 MIPS for 16 msec.
- 4.1 MIPS for 32 msec.
- 5.1 MIPS for 48 msec

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