

## V.91 Modem Software

# Digital modem operating up to 64 kbps for use on a 4-wire circuit switched connection and on leased point-to-point 4-wire digital circuits

<http://www.vocal.com>

VOCAL Technologies, Ltd. software libraries include a complete range of ETSI / ITU / IEEE compliant and other standard and proprietary data modem algorithms for execution on ANSI C and optimized for leading DSP architectures (ADI, AMD, ARM, DSP Group, LSI Logic ZSP, MIPS and TI).

V.91 specifies the operation of a duplex digital modem for use on a 4-wire circuit switched connection and on leased point-to-point 4-wire digital circuits at data signaling rates of up to 64 kbps. The modem is specified in terms of coding, start-up sequences, operating procedures and DTE-DCE interface functionalities.

V.91 modem includes an optional control channel and support for transparent mode on unrestricted 64 kbps channels. The network interface of the modem and the signaling rate that is used to connect the modem locally to a 4-wire connection are considered to be national matters and are hence not specified

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### Applications:

- Digital connected data communications
- Encrypted Lines
- Digital phone lines
- Modem over IP

### Features:

- Duplex mode of operation on a 4-wire digital connection;
- Channel separation by 4-wire connection;
- PCM modulation at a rate of 8 ksymbols per second;
- Synchronous channel data signaling rates from 28 kbit/s to 64 kbit/s in increments of 8/6 kbit/s;
- An optional control channel that uses 125 bit/s of the primary channel data signaling rate and allows for a 67.5 bit/s secondary channel data signaling rate;
- Adaptive techniques that enable the modem to achieve close to the maximum data signaling rate that the channel can support on each connection;
- Support of transparent mode on unrestricted 64 kbit/s channels;
- Exchange of rate sequences during start-up to establish the data signaling rate;
- Auto mode to devices supporting V.8, and optionally V.8 bis, procedures.

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