PCTEL

advancing connectivity & telecommunications

56K - V.90

HSP56 World MicroModem™

The HSP56 World MicroModem PCT1789W chip set provides a highly integrated modem solution consisting of the PCT789T-C, PCT303D and PCT303W. PCTEL has integrated over half of the discrete DAA into a silicon DAA PCT303D and PCT303W two-chip solution. The PCT1789W chip set provides a programmable, multi-country compliant PCI modem solution. This high level of integration of the HSP56 World MicroModem chip set and the reduction in circuit board size makes the HSP56 World MicroModem the most compact, power saving (55mW total solution @3.3V), and cost-effective solution for 56Kbps internal modems available for the desktop, notebook and sub-notebook market.
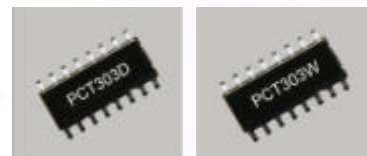
PCT1789W

PCT1789W

PCT789T-C

- ♦ V.90 (56K) D/F/V/Spkr Phn
- ♦ 15mA @ 3.3V operation
- ♦ Designed to meet worldwide PTT requirements
- ♦ PCI Interface complies with PCI v2.2
- ♦ Supports Windows 95, Windows98, Windows NT, Win CE 2.0 and Linux operating systems
- ♦ On chip PnP logic
- ♦ PC 97/ 98/99 compliant – Unimodem/V compliant
- ♦ PCT789T-C comes in 100-pin LQFP package
- ♦ LQFP 100 pin 14 x 14 x 1.4mm

PCT303D/PCT303W

- ♦ 86dB dynamic range TX/RX paths
- ♦ 2-4 –wire hybrid
- ♦ Integrated ring detector
- ♦ 4000V Isolation
- ♦ Integrated modem CODEC
- ♦ Compliant with FCC Part 68, CTR21, and JATE
- ♦ Low power standby
- ♦ Low profile SOIC package
- ♦ SOIC 16 pin 10x3x1.55mm

HSP56 World MicroModem™

The PCT1789W provides a PCI bus interface, CODEC/DAA interface, input/output port, interrupt control, and power management function. This device was designed to work efficiently with PC-TEL's advanced *Host Signal Processing* (HSP) Modem software to perform V.90 data/fax/voice functions. The figure below shows the 1789W-hardware block diagram using the PCT789T-C, coupled with the PCT303D and PCT303W. This solution is compliant with ACPI D3 Cold Wake on Ring function.

The HSP Modem reference design, evaluation units, user's manual, schematics and Gerber files will be provided on request to qualified customers.

Specifications

- **Data Modulation Standards**
  ITU-T V.90/K56Flex, V.34, V.32bis, V.32, V.23, V.22bis, V.22A/B, V.21
  Bell 212A and 103

  Data Compression V.42bis, MNP Class 5
  Error Correction V.42 LAPM and MNP 2-4

- **Video Conferencing**
  V.80
  H.324 interface support (200MHz MMX, external camera, video application required)

- **System Requirements**
  Pentium class CPU (166MHz), AMD K6 200 MHz+, 200 MHz+ Cyrix 6x86MX Processor
  16MB RAM/256K L2 cache with PCI bus expansion slot

- **Fax Modulation or Protocol Standards**
  V.17, V.29, V.27ter, V.21 Channel 2
  Group 3 and EIA Class 1

Telecom Approvals

Argentina*	Chile*	Greece*	Malta*	Singapore*
Australia*	Cyprus	Iceland*	Mexico*	South Africa*
Austria	Denmark	Ireland	Netherlands	Spain
Belgium	Ecuador*	Israel*	New Zealand*	Sweden
Brazil*	Finland	Italy	Norway	Switzerland
Bulgaria*	France	Japan	Peru*	United Kingdom
Canada	Germany	Luxembourg*	Portugal	USA

Approvals pending in countries marked with *