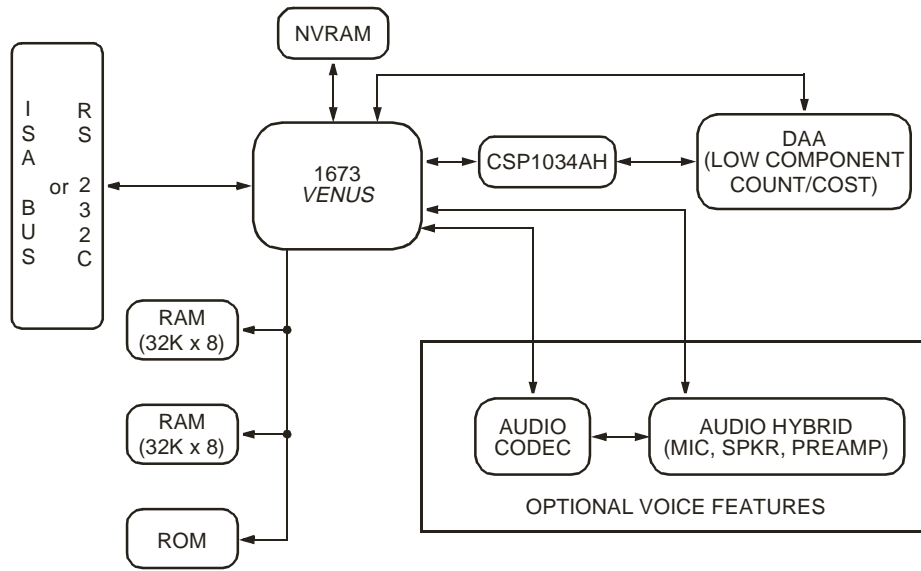


Agere Systems *Venus*[®] Controller-Based Modem DSP

Features

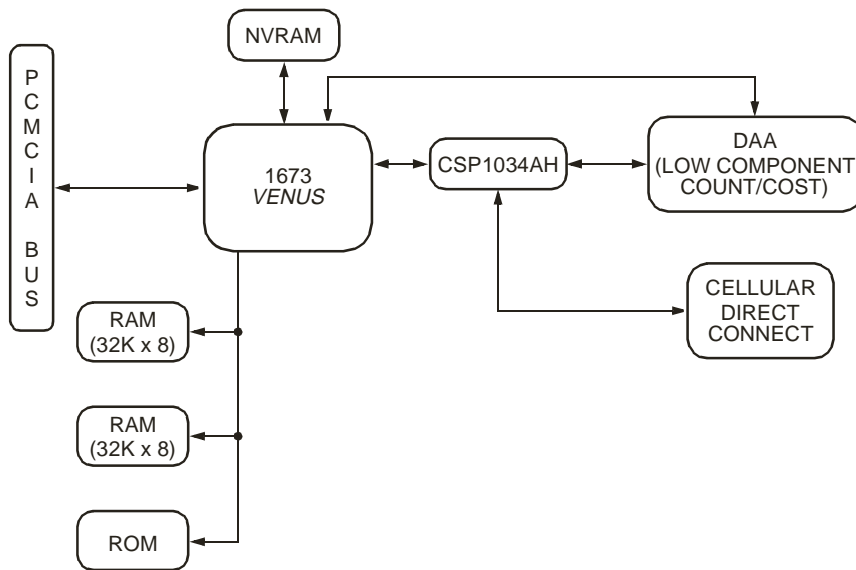
- Single-chip integrated DSP and controller:
 - 1673: 56 kbits/s 5 V devices
 - 1675: 56 kbits/s 3.3 V devices
 - 1670: 33.6 kbits/s 5 V and 3.3 V devices
- Data mode capabilities:
 - ITU-T V.90: 28,000 bits/s—56,000 bits/s
 - ITU-T V.34: 33,600 bits/s—2,400 bits/s
 - V.32terbo, V.32bis, and fallbacks
 - V.42 error correction (LAPM and *MNP*[®])
 - V.44, V.42bis and *MNP* class 5 data compression
- FAX mode capabilities:
 - ITU-T V.17, V.29, V.27ter, and V.21 Ch 2
 - Class 1/class 2 FAX
- Enhanced voice features:
 - IS-101 AT+V commands with extensions
 - Telephone answering machine (TAM)
 - Record/playback
 - Distinctive ring
 - Call screening
 - Ring detect
 - Data/FAX/voice call discrimination
- *SIMULTALK*[®] full-duplex speakerphone (FDSP) capabilities:
 - Adaptive acoustic echo canceller for dynamic speaker/microphone positioning
 - Concurrent DTMF tone detections
- Compatible with transformer-based and silicon DAA circuits:
 - High-precision sigma delta codec (CSP1034C)
 - Line powered silicon DAA (CSP1035A)
- Extensive bit I/O control for homologation control and cellular direct connect
- Internal PLL for single low-speed crystal support
- Flash-programming support
- Single package (plastic) option: 128-pin TQFP, 144-pin TQFP, or 160-pin PBGA
- Integrated serial V.24 interface capabilities:
 - Autobaud up to 230K baud
 - Full support of RS-232C asynchronous protocol
- Integrated PCMCIA interface capabilities:
 - Fully PC card compliant
 - 16-bit multifunction card support for external logical devices
 - Independent power management per logical device
- USB support with USB interface chip:
 - Fully compliant with Universal Serial Bus specification Revision 1.0 including power management
 - Targeted for *Windows*[®] 98, *Windows* 2000, and *Macintosh*[®] operating systems
- PCI support with PCI interface chip:
 - Meets *Microsoft*[®] PC 98 requirements
 - ACPI power management

Description



5-8755(F)

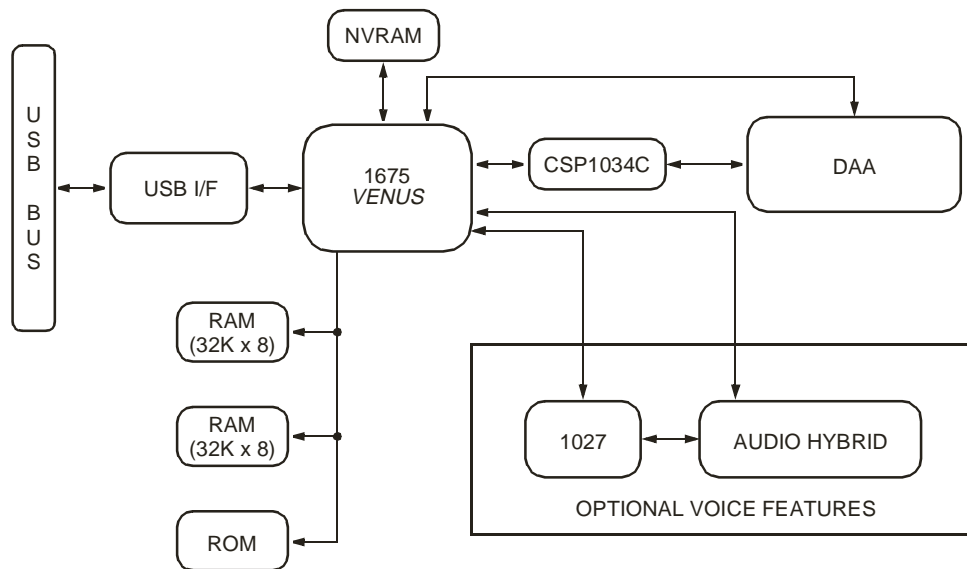
Figure 1. V.90 Embedded Modem and V.90 Serial Box Modem Block Diagram



5-8755(F).b

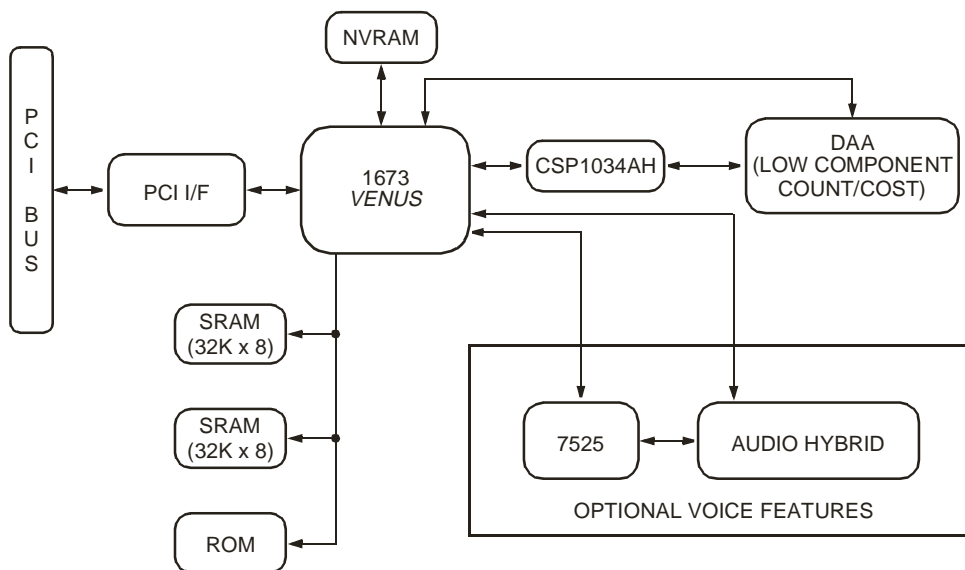
Figure 2. V.90 PC Card Block Diagram

Description (continued)



5-8755(F).c

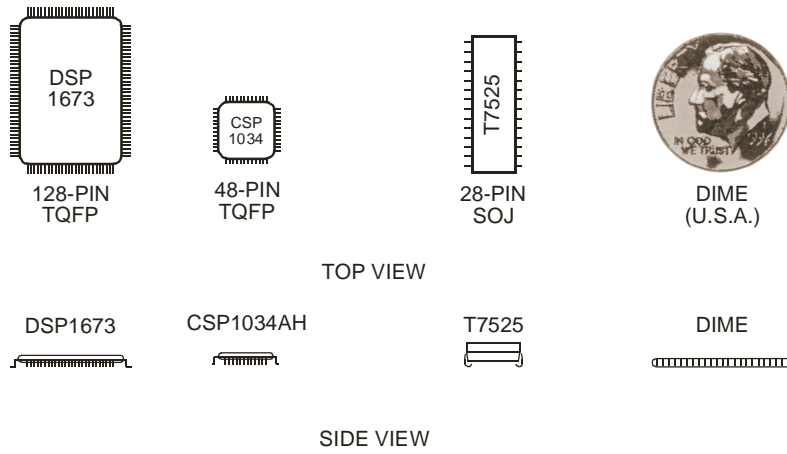
Figure 3. V.90 Venus USB Block Diagram



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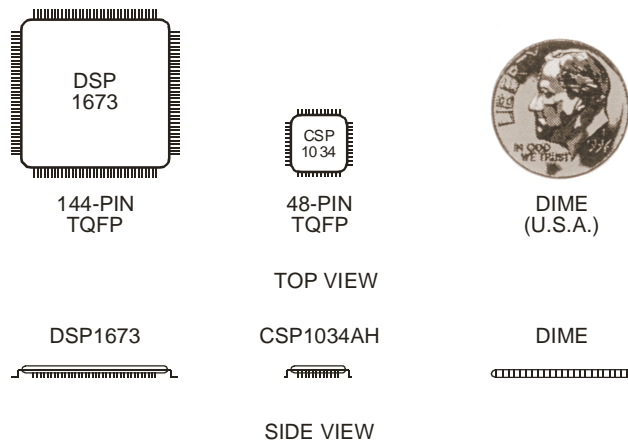
Figure 4. V.90 Venus PCI Block Diagram

Package Information



5-6394(F).z

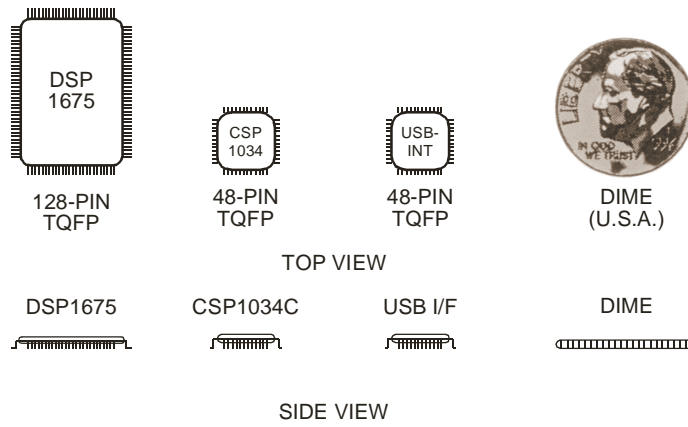
Figure 5. Serial Box Modem Chip Set



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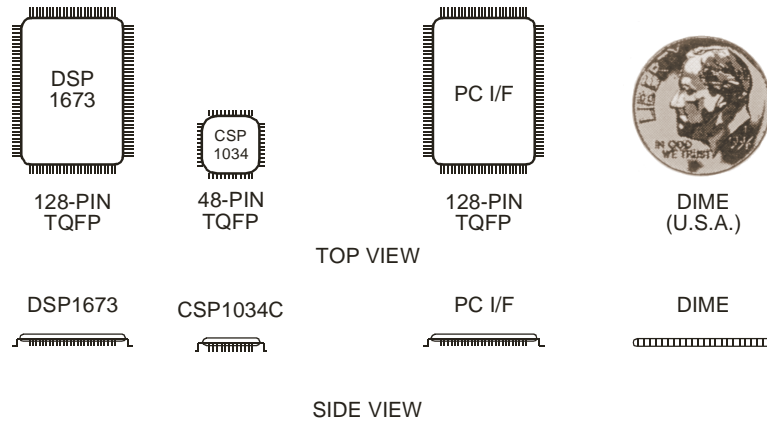
Figure 6. PC Card Chip Set

Package Information (continued)



5-6394(F).bb

Figure 7. USB Modem Chip Set



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Figure 8. Controller-Based PCI Chip Set

Package Ordering Information

Table 1. DSP Ordering Information

Device	Speed	Voltage	128TQFP	144TQFP	160PBGA
1673	V.90	5 V	1673TV8-28RDD-DB	1673TV8-44RDD-DB	Not Available
1675	V.90	3 V	1675TV3-28RDDV-DB	1675TV3-44RDD-DB	1675BAV2RDD12V-DB
1670	V.34	5 V	1670TV8-28RDD-DB	Not Available	Not Available
1670	V.34	3 V	1670TV3-28RDDV-DB	Not Available	Not Available

Notes:

PCMCIA designs require the 144TQFP.

Serial designs require the 128TQFP.

When ordering, make sure that devices from multiple fabs are qualified.

Table 2. Chip Set Names and Part Numbers

Platform	Feature	Chip Set	Package
Serial/Embedded	V.90/V.92 Data/FAX/Speaker-phone	DSP1673 CSP1034AH CSP1029	128 TQFP 48 TQFP 48 TQFP
PC Card	V.90/V.92 Data/FAX/Cell	DSP1673 Cell CSP1034AH	144 TQFP 48 TQFP
USB	V.90/V.92 Data/FAX	DSP1675 CSP1034C USB INT	128 TQFP 48 TQFP 48 TQFP
PCI	V.90/V.92 Data/FAX	DSP1673 CSP1034AH PCI INT	128 TQFP 48 TQFP 128 TQFP

Notes:

Please provide device number and package when placing orders.

Data/FAX support does not require the T7525.

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