IMACS CPU-7 with 893x Interface Cards

- ✓ *Hot swappable CPU, with near hitless switching: less-than 250us active to redundant CPU switchover*

- ✓ *All critical components duplicated*

  - ▪ *Duplicate Configuration*

  - ▪ *Dual Clock*

  - ▪ *Configuration auto-sync between CPU's*

- ✓ *Hot swappable interface module to replace console, node, modem port*

- ✓ *Improved Security*

- ✓ *Requires new 893x Interface cards.*

The IMACS 880770 CPU provides near hitless (<250us; which is less than two T1 frames) active to redundant CPU switch-over times.

This capability has been achieved by a major redesign of the existing CPU and Interface (IF) card hardware and system firmware. The primary design goal is to provide a more robust platform for mission-critical networks, such as public safety and utilities applications.

Service interruption is eliminated or significantly reduced during maintenance periods, CPU switchover and hardware replacement, firmware upgrade, etc.

Summary of Enhancements:

1. **Improved IF card robustness** by removing all active system controller functions (system clock and system image NVRAM storage) from the IF card and providing a replaceable OAM controller sub-unit half height card to main IF card frame which maintains copper connectivity to the T1/E1 WAN bus.

2. **Mirror system controller functions** (system clock and system image NVRAM storage) on both active/standby CPU cards facilitating hot standby redundancy.

3. **Fully serviceable NVRAM and clock interface** by using a sub-unit module on the main CPU board that can be replaced on the inactive CPU card. To accomplish these goals, the 880770 CPU requires one of the following new Interface Cards:

   - • 893470: 8 T1
   - • 893370: 8 T1, modem
   - • 893270: 8 T1, External clock port

The 880770 CPU is compliant with the European Union's Reduction of Hazardous Substances (RoHS) directive currently with the lead waiver. The 880770 CPU will support all of the features of the 880370 CPU.

Note: Initially, only certain WAN, Server and User cards have been enabled to switch traffic from one CPU to the other in less then 250 micro seconds. These cards are:

   - • Server: IPR*4, ADPCM
   - • WAN: All versions of WAN cards
   - • Data: SRU, LD-SRU, HSU, OHSU
   - • Voice: FXS, FXO, E&M

Technical Specifications

Dimensions

- 8.0in H x 0.94in W x 7.5in D
- 20.32cm H x 2.39cm W x 19.05cm D

Weight

- 0.75 lbs (.34kg)

Power

- CPU-7 3.6Watts (12.28 BTU)
- IMACS Shelf:
- 120 / 240 VAC
- 48 VDC
- 24 VDC (IMACS 600, 800, 900 only)
- 125 VDC (IMACS 200 only)
- Power consumption: 125 W (max)
- Output Power: 55 W continuous
- AC-to-DC power converter (-48 VDC)
- Dual feed & redundancy
- Ring generation

Interfaces

- T1 or E1 (Up to 8)
- V.35, RS-530, RS-232, RS-449, RS-422, V.24,
- DDS, BRI-U, BRI S / T, SLC96, 10BaseT
- Optical HSU (IEEE C37.94)

Standards Support

- ANSI 310-D
- Bellcore GR-63-core (NEBS 3), GR-1089-core
- Bellcore TR-TSY-000008
- IEC 297-1
- ITU-G703, G.704, G.732, G.735, G.736,
- G.823, G.824

Voice Support

- Analog voice (FXS, FXO, E&M)
- ISDN PRI services
- ISDN BRI services (Lease Line, BRITE)
- Voice compression (ADPCM)

Management

- MANAGEMENT INTERFACES
  o Connectivity: modem, SLIP, PPP, FDL time slot 24 (T1) or SAA time slot 31 (E1), ISDN, D-channel, frame relay PVC, SNMP

- ONLINE ELEMENT MANAGEMENT SYSTEM
  o Manages networks of IMACS
  o Centralized management
  o Operates on SUN Solaris/HP OpenView
  o Point & click graphical user interface
  o Management of configurations, alarms, connectivity, diagnostics
  o Multi-user environment
  o SNMP-based
  o Supports TELNET for emulation of craft
  o interface
  o IP addressing for node addresses
  o RS-232, VT-100 craft interface

Operating Requirements

- Operating Temperature: 32ºF to 149ºF (0ºC to 65ºC)
- Storage temperature: 32ºF to 158ºF (0ºC to 70ºC)
- Humidity: Up to 85%, non-condensing
- Altitude: -200ft to 16,500ft (-60m to 5,000m)

Ordering Information

PRM-880770	CPU-7 with NVRAM and Clock daughter card
PRM-893270	IMACS, RDNT, I/F, EXT SYNC, 8P, NO MODEM
PRM-893370	IMACS, RDNT, I/F, 8P, MODEM
PRM-893470	IMACS, RDNT, I/F, W/O MODEM

PSI Technologies
31 DiCarolis Court
Hackensack, NJ 07601
201.488.6000
www.psitec.com

For more information on the new Zhone CPU-7 card, contact PSI

Zhone Technologies, Inc.
7195 Oakport Street
Oakland, CA 94621
1 510.777.7000
www.zhone.com

For more information about Zhone and its products, please visit the Zhone Web site at www.zhone.com or e-mail info@zhone.com

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