

Tellabs® 1000 Multi-Service Access Series Central Processing Unit (CPU-3)

Overview

The Central Processing Unit 3 (CPU-3) plug-in card enables ATM end-to-end systems in the Tellabs® 1000 Multi-Service Access Series from the primary shelf at both the LET and RST nodes. The card supports both Native ATM and AoT connections while performing system initialization, provisioning, alarm reporting, maintenance, diagnostics, and fault detection for the Tellabs 1000 system.

The CPU-3 plug-in card contains the menu-driven Tellabs 1000 Craft Interface software. Connect to the Craft Interface with a simple terminal, such as a VT100, to perform system administration, maintenance, testing, and provisioning. Access the Craft Interface using the standard RS-232 port located on the air ramp portion of the CBA, through wire-wrap backplane pins, or through a LAN connection using the IPMI plug-in card.

In addition, the CPU-3 selects timing sources, synchronizes to external timing sources, and provides a high-stability internal timing reference. The CPU-3 card meets SONET minimum clock requirements for hold-over and free-run accuracy.

The CPU-3 card hosts the systems Connection Admission Control (CAC function). CAC initiates, maintains, and tears down virtual channel connections set up by the user. The CPU-3 manages bandwidth and controls allocation of VPI/VCI resources.

The CPU-3 plug-in card controls call processing for the Tellabs 1000 system. It allocates timeslots for subscribers who have gone off-hook, cancels time slots for terminated calls, relays provisioning information to and from subscriber interfaces, and provides automatic concentration during span failures.

When building out from the LET to deploy Native ATM systems, install a minimum of one CPU-3 plug-in card in the primary shelf at the LET and at each RST. For redundancy, install an additional CPU-3 card at each terminal. For interconnections to expansion shelves, the CPU-3 card supports ELU/EBC and ELU-3/EBC-3 spans simultaneously.

Features and Benefits

- Craft Interface
- Alarm generation and prioritization
- System maintenance and administration
- Non-volatile provisioning data storage
- Diagnostics and fault localization
- Timing source selection and synchronization
- Order wire and buzzer
- Dual-memory support for non-service affecting upgrade
- Supports both Edge Access ATM and Native ATM connections
- Bundles both ATM and TDM transmission or services

Specifications

CPU

- Microprocessor: Motorola MPC860SAR
- Program and provisioning data store: Flash EPROM (8MB)
- RAM store: SDRAM (16MB)

Timing Generator

Clock sources selection:

- Slot selectable (any service slot)
- External 64-kbps clock
- External 2.048-MHz BITS clock

Internal Clock

- Initial accuracy (freerun): ± 1 ppm @ 25° C (77° F)
- Stability (holdover): ± 2 ppm (over operating temperature)
- Aging: ± 4 ppm (10 yrs)

Environmental

- Operating temperature: -40 to +65° C (-40 to +149° F)
- Humidity: 5–95% relative humidity (non-condensing)
- Maximum power consumption: 10 W
- Typical power consumption: 5 W



Dimensions

- Height: 5.125 in (13.018 cm)
- Width: 0.563 in (1.429 cm)
- Depth: 10.5 in (26.67 cm)
- Weight: 0.5 lb (0.23 kg)

Compliance

- Jitter tolerance:
T-1/E-1 1.2/88-OMR, ANSI
- Office composite clock:
TA-TSY-000378 Telcordia
- Synchronization:
TA-NPL-000436 Telcordia

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