

## DESCRIPTION



The ADTRAN® MX2820 Clock Card is a plug-in card, which generates a timing signal synchronized to either of two external BITS clock references. If both BITS clock references fail, the Clock Card meets Sonet Minimum Clock (SMC) holdover requirements to produce the clock reference. This signal is used by the MX2820 to synchronize its STS-1 transmit. Two Clock Cards provide 1-to-1 redundancy in the MX2820 system.

## FEATURES

The MX2820 Clock Card has the following features:

- Provides a redundant SMC source with clock holdover to the MX2820 STS-1 Multiplexer
- Communicates to the redundant Clock Card through an asynchronous data link directly between the two cards
- Provides another direct link to the redundant card for protection management
- Maintains full duplex link to the System Controller Unit (SCU) for management, alarm notification, and card provisioning
- Displays status using a single front panel LED, labeled **ACT**
- Supports downloading of FLASH program data to the active and protection card simultaneously or individually
- Meets NEBS Level 3 requirements
- Interfaces to backplane through a 24-pin Future Bus connector
- Supports TL1 and SNMP

## INSTALLATION

After unpacking the unit, inspect it for damage. If damage is found, file a claim with the carrier and then contact Customer Service. For more information, refer to the warranty.

This module occupies a Clock Card slot in the MX2820 chassis.

Follow these steps to install the Clock Card:

1. Pull the ejector tab into the down position.
2. Gently but firmly push the Clock Card into the selected Clock Card slot.
3. Apply thumb pressure at the top and at the bottom of the unit to ensure a good seat of the Clock Card into the backplane connector.
4. Push the ejector tab up and closed against the front panel.

Upon installation, the Clock Card begins a self-test. When the self-test is complete, the LEDs indicate the current status of the hardware.

### LED Status for Active MX2820 Clock Card

The following table provides the LED indications for the active card in a redundant pair.

Label	Status	Description
ACT	● Green	Normal (all OK)
	● Yellow	Software update in progress
	* Yellow Flashing	Console open
	● Red	Major or Minor alarm in progress
	* Red Flashing Slow	Clock Card has failed
	* Red Flashing Fast	Critical alarm in progress

### LED Status for Standby MX2820 Clock Card

The following table provides the LED indications for the standby card in a redundant pair.

Label	Status	Description
ACT	● Green	Normal (all OK)
	● Yellow	Software update in progress
	● Red	Self-test failure

## OPERATIONAL SPECIFICATIONS

- Operates from -42 VDC to -56 VDC input voltage power feeds
- Operational temperature range of 0°C to +50°C with fans
- Storage -40°C to +85°C; Relative humidity to 95 percent, noncondensing

## SAFETY AND REGULATORY COMPLIANCE

Refer to the Safety and Regulatory Compliance Notice for this product (P/N 61186004F1-17) for detailed safety and regulatory information.

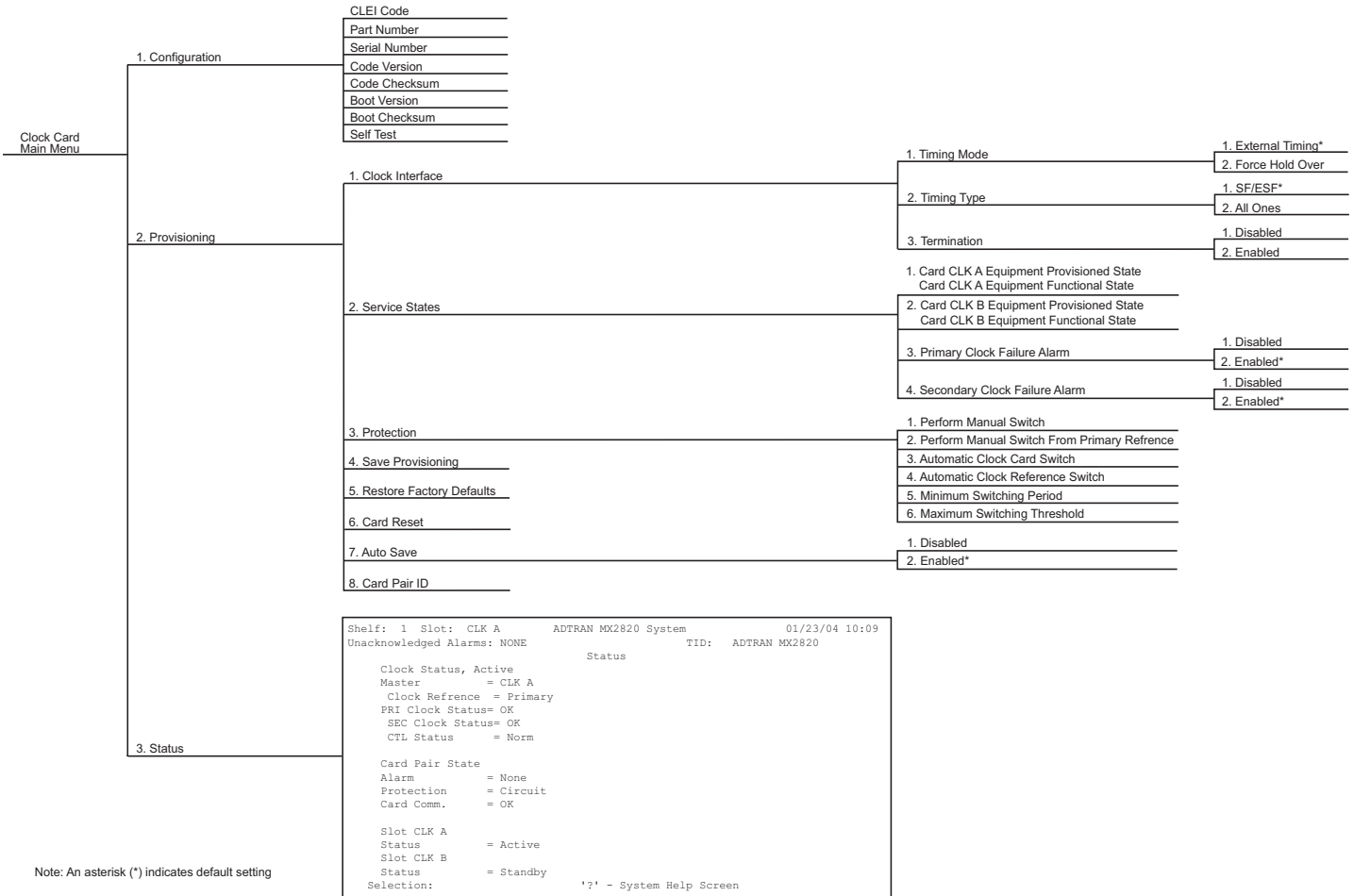
Consultez l'avis sur la sécurité et la conformité à la réglementation pour ce produit (61186004F1-17) pour obtenir des renseignements détaillés sur la sécurité et la réglementation.

Ausführliche Sicherheits- und regulatorische Informationen sind in der Konformitätserklärung zur Sicherheit und Einhaltung von Normen zu diesem Produkt (61186004F1-17) aufgeführt.

# PROVISIONING

MX2820 Clock Card provisioning is available through the MX2820 System menu by selecting Access Modules, Type C, and press ENTER to access the active MX2820 Clock Card.

The menu tree below illustrates the options and default settings for the MX2820 Clock Card.



**Warranty:** ADTRAN will replace or repair this product within the warranty period if it does not meet its published specifications or fails while in service. Warranty information can be found online at [www.adtran.com/warranty](http://www.adtran.com/warranty).



**ADTRAN CUSTOMER CARE:**  
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