



# Release Notes for Cisco INA2320 Interactive Network Adapter for Release 2.1B

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**July 28, 2000**

These release notes for the Cisco INA2320 Interactive Network Adapter support Cisco INA2320 Software Release 2.1B. These release notes are updated as needed to describe new features; memory requirements; hardware support; and changes to the microcode, configuration software, and related documents.

For a list of caveats that apply to Release 2.1B, see the “Open Caveats—Release 2.1B” section on page 4.

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## Introduction

The Cisco INA2320 Interactive Network Adapter is the headend unit controlling the bidirectional broadband data communication over the hybrid fiber coaxial (HFC) network to the customer premises equipment (CPE) that is connected to the HFC network. The Cisco INA2320 Interactive Network Adapter is based on the open Digital Video Broadcast (DVB) standards.



The Cisco INA2320 interfaces to DVB-compliant CPE and provides the link to the backbone network toward the Internet Protocol (IP) hosts using an Ethernet interface.

You can configure and monitor the Cisco INA2320 using the Cable DVB/DAVIC Management Program; this program is based on Simple Network Management Protocol (SNMP) standard.

The Cisco INA2320 complies with the DVB standard ETS 300800 and the SNMP v.2c.

## System Requirements

### Hardware Supported

The hardware components supported in this release include:

- Cisco INA2320 chassis
- CPU-LAN module
- Modulator module (1 downstream channel)
- Demodulator module 1 and 2 (4 upstream channels per module)
- Power supply unit
- Upconverter module 1 and 2
- Power connector

### EMC Considerations

Unless properly installed, the Cisco INA2320 Demodulators are sensitive to RF signals induced on the cables at the upstream frequencies.

To ensure the immunity of the Cisco INA2320 Demodulator module all cables connected to the INA must be of a high quality with double screening or solid outer conductor. RG216 cables or bamboo cables are recommended.

Signal couplers should be located as close to the Cisco INA2320 as possible, preferably in the same rack section, and connected to the Cisco INA2320 by the shortest possible sections of cable.

The CPU-LAN, Modulator modules, and Demodulator modules are equipped with contact springs at the front panels. When replacing the modules, it is important that the springs remain undamaged. Even small openings in the front panel make the Cisco INA2320 sensitive to electrostatic discharge.

### Safety

The Cisco INA2320 must be mounted with an air separation plate beneath it to meet the safety requirements. It is mandatory that the front edge of the air separation plate be equipped with a device collecting particles coming from the Cisco INA2320 mounted above the air separation plate.

For further instructions how to mount forced cooling devices and how to ventilate the Cisco INA2320 correctly, see the *Cisco DVB INA2320 Installation and Configuration Guide*.

## Forced Cooling

To meet the temperature requirements, the Cisco INA2320 must be mounted with a fan tray above it to ensure forced cooling of the unit.



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Make sure that the fan tray secures airflow on all modules in the Cisco INA2320, that is, across the full width of the Cisco INA2320.

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## New and Changed Information

### Performance Limitations

The downstream FTP performance of the Cisco INA2320 in Release 2.1B has been measured to approximately 16 Mbps (payload data).

The upstream FTP performance of the Cisco INA2320 in Release 2.1B has been measured to approximately 1.25 Mbps per upstream (payload data).

## Upgrading the INA2320 to Software Version 2.1B

### Saving the Current Configuration

Before performing a software upgrade it is recommended to save the current Cisco INA2320 configuration in a file. See Chapter 3, “To Save the INA Configuration in a File,” of the *Cisco DVB Interactive Network Adapter INA2320 Installation and Configuration Guide*.

### Performing the Software Upgrade

How to perform the software upgrade is described in Chapter 5, “Upgrading the INA Software,” of the *Cisco DVB Interactive Network Adapter INA2320 Installation and Configuration Guide*.

### Loading the INA2320 Configuration

When the Cisco INA2320 has loaded the new Software Release 2.1B, you can reload the previous configuration into the unit. See Chapter 3, “To Load the INA Configuration from a File,” of the *Cisco DVB Interactive Network Adapter INA2320 Installation and Configuration Guide*.

The INA2320 is now operating with the new software and the unchanged individual settings.

# Caveats

## Open Caveats—Release 2.1B

- CSCdr26390  
Spectral inversion has no effect in the Release 2.1B.
- CSCdr27136  
Some MIB-II variables cannot be set from SNMP. These MIB variables are defined as write variables in the MIB file, but they cannot be changed:
  - sysContact
  - sysName
  - sysLocation
  - ipForwarding
  - ipDefaultTTL
  - snmpEnableAuthenTraps
- CSCdr72034  
Multicast messages are not relayed from the HFC network to the Ethernet.

## Closed or Resolved Caveats—Release 2.1B

All the caveats listed in this section are closed or resolved in Cisco INA2320 Software Release 2.1B.

- CSCdr25370  
The demodulator number and the channel number for a configured modem are now stored as separate fields in the Flash memory instead of a combined field.
- CSCdr28072  
The demodulator number and the channel number for a configured modem are now stored as separate fields in the flash instead of a combined field.
- CSCdr29022 and CSCdr61638  
If multiple demodulator channels were configured to be operated on the same upstream frequency, some of the upstream channels were disabled after a period of time due to a caveat in the software.
- CSCdr29027  
Special characters can now be used in the Cable DVB/DAVIC Management Software, section “INA Software”, entry “Path”, showing the FTP path to the INA software files on the FTP server.
- CSCdr30145  
When the INA is set to the default settings, the FLASH image is removed.  
Workaround: Boot the Cisco INA2320 from an FTP server as described in the *Cisco DVB Interactive Network Adapter INA2320 Installation and Configuration Guide*.
- CSCdr68262  
In the Cable DVB/DAVIC Management Software the functionality of saving and loading of INA configuration files has been updated to correctly save and load filter, routing and modem tables.

# Documentation Update

## General Precautions

### AC Power Level

Make sure that the AC power source voltage corresponds to the power input voltage for the unit; the voltage must be in the range of 115 through 230 VAC.

## Cable DVB/DAVIC Management Program

The following additions have been made to the management program. They are not described in the *Cisco DVB Interactive Network Adapter INA2320 Installation and Configuration Guide*.

### MIB File Changes

The Software Release 2.1B contains various minor SNMP changes to the MIB II group. A confirmation is now sent when the Log file is cleared from the Cable DVB/DAVIC Management Program.

### Reboot Replaces Reset

The command *Reset* has been renamed to *Reboot* in the Cable DVB/DAVIC Management Program. When performing a reboot, the Cisco INA2320 is powered up keeping the individual Cisco INA2320 settings in its memory.

## MAC Section

### Round Trip Delay

Use this field to add an additional round-trip delay for long distance networks. The default value is 0. Active after INA Reboot.

## IP Section

### DHCP Server Address

This field is used as a DHCP helper address, that allows the DHCP server to be placed in a subnet different than the subnet on the Ethernet side of the Cisco INA2320. The default value is 0.0.0.0, which indicates that no DHCP helper address is used.

### DHCP Backup Server Address

This field is used when there is a backup DHCP server in the network. The default value is 0.0.0.0, which indicates that no DHCP backup server is used.



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This field is used only if the DHCP server address is different from 0.0.0.0.

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# Related Documentation

## Platform-Specific Documents

These documents are available for the Cisco DVB INA2320 Interactive Network Adapter on CCO:

- *Cisco DVB INA2320 Installation and Configuration Guide*

# Obtaining Documentation

## World Wide Web

You can access the most current Cisco documentation on the World Wide Web at <http://www.cisco.com>, <http://www-china.cisco.com>, or <http://www-europe.cisco.com>.

## Documentation CD-ROM

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