The NC1500 is a Hybrid Fiber Coax (HFC) Network Controller that enables interactive applications with Motorola’s DCT2000 terminals. The NC1500 enables interactive sessions between application servers and the DCTs by translating Internet Protocols (IP) to deliver data packets through the out-of-band data channel. The return path serves as the upstream data path where the NC1500 aggregates demodulated data bursts and routes the data to the appropriate server.

The NC1500 also provides advanced features such as set-top provisioning (assigns terminal IP addresses), upstream frequency management, and statistical monitoring of key upstream parameters. With the NC1500, application servers can communicate directly with DCT set-top terminals using UDP/IP protocols. The applications require no knowledge of the HFC network that exists as the NC1500 facilitates the processing necessary for successful communications. The NC1500 has an integrated Java™ Console that provides for both configuration and status of this device.

The DCT2000 utilizes the NC1500 for enabling interactive sessions with any 3rd party application server (VOD, Web Browsing, etc). The OM1000 and RPD2000 serve as the downstream and upstream data paths for this interactive network.

**HIGHLIGHTS INCLUDE:**

**Features**
- Powerful 850 MHz Pentium III Platform
- 1 GB Memory
- Capable of handling 10 Out-of-Band Modulators (OM1000)
- Capable of handling up to 32 Return Path Demodulators (RPD2000)
- 50,000 Interactive DCTs managed by one NC1500
- 1U Rack Space
- Front Panel Interfaces

**Functions**
- Signs DCTs onto Interactive Network
- Assigns IP address to DCTs
- Routes Interactive Data
- Routes Polling Data
- Calibrates DCT Upstream Power
- Statistical monitoring of key upstream parameters
### GENERAL SPECIFICATIONS

**Electrical**
- AC Voltage: 100 - 120/200 - 240 Vac + 10%
- AC Line Frequency: 47 - 63 Hz
- AC Line Current: 6A/3A
- Power Supply Rating:
  - 230 Watt, autoswitching
  - +5 Vdc at 25 Amps
  - +12 Vdc at 9 Amps
  - -5 Vdc at 1 Amp
  - -12 Vdc at 1 Amp
- Power: 220 W continuous

**Operating**
- Ambient Temperature: 0 to 50°C
- Ambient Humidity: 10% to 90% Non-condensing
- Altitude: 0 to 10,000 feet above sea level
- Storage Temperature: -10°C to 60°C
- Cooling: Four 5.3-cfm variable speed cooling fans and one 32-cfm power-supply fan

**Physical**
- Dimensions: 44.45 mm H x 428.6 mm W x 495.3 mm D
- Weight: 7.3 kg (16.06 lbs.)
- Mounting: Rack mount

### INTERACTIVE SYSTEM ELEMENTS

- **OM1000**
- **NC1500**
- **DCTs**
- **RPD2000**
- **SERVER LINK**
- **VOD SERVER**

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