VisuaLink 128/384
Engineering Guide

JANUARY, 1999

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Printed in USA
FCC REQUIREMENTS

NEC America, Inc.
VisuaLink 128/VisuaLink 384

TYPE OF SERVICE

The VisuaLink 128 and the VisuaLink 384 are stand-alone devices that allow multimedia conferencing by transmitting video, audio and data to remote locations over the ISDN Basic Rate interface. The VisuaLink 128 and VisuaLink 384 connect to the ISDN digital network through separately-registered NTI equipment. They provide POTS ports which allow a customer-provided 2500-type telephone access to the digital network.

This equipment complies with Part 68 of the FCC Rules. The equipment label will appear on the rear exterior panel of the unit and will provide the FCC Registration Number, NEC trade name, model number, serial number or date of manufacture and the country of origin.

TELEPHONE COMPANY PROCEDURES

The goal of the telephone company is to provide you with the best service it can. In order to do this, it may occasionally be necessary for them to make changes in their equipment, operations, or procedures. If these changes might affect your service or the operation of your equipment, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

If you have any questions about your telephone line, such as how many pieces of equipment you can connect to it, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

In certain circumstances, it may be necessary for the telephone company to request from you concerning the equipment which you have connected to your telephone line. Upon request of the telephone company, provide the FCC registration number and the ringer equivalence number (REN) of the equipment which is connected to your line; both of these items are listed on the equipment label. The sum of all of the REN's on your telephone lines should be less than five in order to assure proper service from the telephone company. In some cases, a sum of five may not be usable on a given line.
IF PROBLEMS ARISE

If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone lines, as it may cause harm to the telephone network. If the telephone company notes a problem, they may temporarily discontinue service. When practical, they will notify you in advance of this disconnection. If advance notice is not feasible, you will be notified as soon as possible. When you are notified, you will be given the opportunity to correct the problem and informed of your right to file a complaint with the FCC.

In the event repairs are ever needed on your Visualink 128 or VisuaLink 384, they should be performed by NEC America, Inc. or an authorized representative of NEC America, Inc. For information contact:

NEC America, Inc.
1555 W. Walnut Hill Lane
Irving, Texas 75038-3797
USA
972-751-7000

FCC REQUIREMENTS FOR CONNECTION OF TELEPHONE SYSTEMS

In order to connect this system to the telephone network, provide the telephone company with:

- the quantities and USOC numbers of the required jacks (shown below);
- the sequence in which the trunks are to be connected;
- the facility interface codes by position; and
- the ringer equivalence number or service code, as applicable, by position

<table>
<thead>
<tr>
<th>MFG’s Port ID</th>
<th>USOC Jack Connector</th>
<th>REN/Service Code</th>
<th>Facility Interface Code</th>
<th># CO Ports</th>
<th># Stations</th>
<th>Registration #</th>
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<td>N/A</td>
<td>6.0P</td>
<td>02IS5</td>
<td>1</td>
<td>1</td>
<td>AY5JPN-32617-XD-N</td>
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<tr>
<td>Visualink 384</td>
<td>N/A</td>
<td>6.0P</td>
<td>02IS5</td>
<td>3</td>
<td>1</td>
<td>AY5JPN-32617-XD-N</td>
</tr>
</tbody>
</table>
CSA Requirement

To ensure that certified equipment is attached correctly, and only to the networks of participating carriers, the following statement shall accompany each unit of certified equipment offered for sale. This statement must be included conspicuously in written or electronic format, at or near the front of each copy of the operating manual, or accompany other technical information, or be included as a separate sheet. The required statement is:

CP-01, Issue 8, Part I
Section 14.1

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection

<table>
<thead>
<tr>
<th>MODEL</th>
<th>CERTIFICATE NUMBER</th>
<th>CERTIFICATION NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>VisuaLink 128</td>
<td>19318</td>
<td>140 9004A</td>
</tr>
<tr>
<td>VisuaLink 384</td>
<td>19603</td>
<td>140 9104A</td>
</tr>
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</tr>
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</table>
Chapter 1: VisuaLink Command Fundamentals

Preface

Thank you very much for purchasing the VisuaLink 128 or VisuaLink 384.

VisuaLink is suitable for a conference with one to three people on a site, and it is a device to realize a multimedia communication of video, voice, and graphic information by connecting to an ISDN line.

This document explains the external console of the VisuaLink from a console such as a personal computer.

NEC Corporation

Notes to Remember:

(1) It is prohibited to copy a part of or the whole of the contents of this document without permission.

(2) The contents of this document may be modified without notice.

(3) We did our best in creation of this document; however, if you notice any problems, errors, and omissions, please let us know.

(4) We are not responsible for the result of any operation of the device regardless of the above note.

(5) Please prepare countermeasures such as recovery and backup for possible failures on a system side when you use this device in a system in which a superior reliability is expected.

1.1 Summary

VisuaLink is equipped with a serial external control port that enables a control from a console such as a personal computer.

The VisuaLink executes a command and returns a response based on the inputting of a command that consist of 4 characters or one character and three numbers.

1.2 Communication Outline

Communication protocol between the VisuaLink and a console are consisted of the following:

[1] Command: A protocol issued by a console executes a process on VisuaLink.

[2] Response: A protocol that issues a result for a command to a console. It is always issued at a command reception. Responses are normal ending response and error response.

[3] Report: When a status is changed inside VisuaLink, a change notice such as an alarm is issued to a console. Message protocol is issued independently from a command.
1.3 Physical/Electrical Interface

The external control port is at the back of the VisuaLink and uses DIN8 pin connectors. The maximum length of the control cable shall be no more than 20 ft. (6.1 meter) due to electric characteristics. Connector pin positions are as follows:

<table>
<thead>
<tr>
<th>NO</th>
<th>Name</th>
<th>Direction</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RS</td>
<td>OUT</td>
<td>Request to Send</td>
</tr>
<tr>
<td>2</td>
<td>CS</td>
<td>IN</td>
<td>Clear to Send</td>
</tr>
<tr>
<td>3</td>
<td>SD</td>
<td>OUT</td>
<td>Send Data</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
<td>-</td>
<td>Signal Ground</td>
</tr>
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<td>5</td>
<td>RD</td>
<td>IN</td>
<td>Receive Data</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>DTK</td>
<td>OUT</td>
<td>Data Terminal Ready</td>
</tr>
<tr>
<td>8</td>
<td>DSR</td>
<td>IN</td>
<td>Data Set Ready</td>
</tr>
</tbody>
</table>

*Note:* Directions of signals are output from VisuaLink.
### 1.4 Communication Format

Communication between a console and VisuaLink 128/384 is done in a start-stop synchronization of the following format.

**Data Format**

<table>
<thead>
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<th>START</th>
<th>AS</th>
<th>CII</th>
<th>8bit</th>
<th>PTY</th>
<th>STOP</th>
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<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Data Length: 7, 8 bit ASCII code  
Stop Bit: 1 bit  
Parity: Even, Odd, NONE parity  
Baud: 1200, 2400, 4800, 9600bps

**Note:** Default setting for VisuaLink is 9600, 8, none, 1.

To change the default setting use the SSPR command.

- **A:** Connect terminal to VisuaLink Serial 2  
- **B:** Set terminal application to:  
  - Baud: 9600  
  - Parity: Even  
  - Bit: 8  
  - Stopbit: 1  
- **C:** Calculate the Baud, Parity, and Bit

```
+---------------+---------------+---------------+---------------+  
<table>
<thead>
<tr>
<th>b7</th>
<th>b6</th>
<th>b5</th>
<th>b4</th>
<th>b3</th>
<th>b2</th>
<th>b1</th>
<th>b0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not in use</td>
<td>Not in use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

- 00: 1200bps  
- 01: 2400bps  
- 10: 4800bps  
- 11: 9600bps

- 00: 7 bit | EVEN | STOP  
- 01: 7 bit | ODD | STOP  
- 10: 8 bit | EVEN | STOP  
- 11: 8 bit | NONE | STOP

- **D:** Set system parameter command for the appropriate setting  
  - Example: `SSPR\square 168=21`  
  - Means: Your VL in now set up for 2400, 8, EVEN, 1

- **E:** Reset the VL.
Command Format

<table>
<thead>
<tr>
<th>Command Name</th>
<th>Space</th>
<th>Parameter</th>
<th>CR+LF</th>
</tr>
</thead>
</table>

Command: Transmit 4-character commands (only upper case can be used)
Space: More than one space is transmitted between a command and a parameter
Parameter: If a command requires a parameter, a parameter is assigned. (Only upper case can be used)
However, if parameters are more than one, more than one space is transmitted between parameters.
CR: Transmit **Carriage Return Code** (ODH).
LF: Transmit **Line Field** (OAH)

Response Format

When the VisuaLink 128/384 is provisioned and controlled with a console, VisuaLink 128/384 always sends a response. Responses are normal response and error response. When sending a command from a console, please transmit the next command after checking a response. A response is transmitted in the following format.

Normal Ending

<table>
<thead>
<tr>
<th>Response Parameter (when required)</th>
<th>OK</th>
<th>CR+LF</th>
</tr>
</thead>
</table>

Parameter: If a command is inquiring a provisioned value, a response parameter is returned. If there is no parameter, it is omitted. However, if parameters are more than one, more than one space is transmitted between parameters.
Space: More than one space is transmitted between a command and a parameter.
CR: Transmit **Carriage Return Code** (ODH).
LF: Transmit **Line Field** (OAH)

Error Ending

<table>
<thead>
<tr>
<th>ERRxx</th>
<th>CR+LF</th>
</tr>
</thead>
</table>

ERRxx: Three-character **ERR** and a 2-digit error number are transmitted indicating a failure.
CR: Transmit **Carriage Return Code** (ODH).
LF: Transmit **Line Field** (OAH)

Report Format

<table>
<thead>
<tr>
<th>Command Name</th>
<th>Space</th>
<th>Parameter</th>
<th>CR+LF</th>
</tr>
</thead>
</table>

Command: Transmit 4-character reports Command (only upper case can be used)
Space: More than one space is transmitted between a command and a parameter
Parameter: If a command requires a parameter, a parameter is assigned. (Only upper case can be used)
However, if parameters are more than one, more than one space is transmitted between parameters.
CR: Transmit **Carriage Return Code** (ODH).
LF: Transmit **Line Field** (OAH)
1.5 Communication Procedure

There is no procedure for communication between a console and VisuaLink as a rule. Therefore, a communication line is presumed to be error-free. When it is remotely operated with a modem, efficient operation may not be expected when a line error occurs. Because of this, in a remote control, a modem with error correction feature shall be used, or VisuaLink shall be checked for operation.

Command/Response Procedure

VisuaLink transmits a confirmation on whether a command is received and the process is completed. After sending a command, please always analyze the transmitted response before issuing a next command. If the next command is issued before a response, an error response such as "currently processing" may be returned.

1. Command 1 is issued using the external control port rather than a personal computer.
2. Analysis of a received command (parameter error, etc.) is implemented.
3. After an analysis, if it is normal, a normal response is transmitted to a personal computer after transmitting to the remote in communication. However, if it is error response, the error shall be analyzed, and a command shall be either suspended or re-issued.
4. After verifying that Response 1 is normal, issue Command 2.

Note: After issuing a command from a console, if an alarm emits in VisuaLink, an alarm report may be transmitted before a response to the command.

Abnormal Handshake Procedure

When the VisuaLink receives a report command from a remote unit at a time the VisuaLink is sending a command to the remote unit in communication, the VisuaLink transmits an indication to a PC using the external control port and then transmits a command to the remote unit.
(1) Command 1 is issued using the external control port rather than a personal computer.
(2) If a report is received from the remote unit before a transmission of Command 1, it transmits a report to a PC and then transmits Command 1 to the remote unit. It transmits Response 1 to the PC after the transmission. However, in parameter error and etc., it immediately transmits an error response. When an error response is received, it analyzes the error contents and suspends the command issuance or reissues a command.
1.6 Connecting and Incoming Call Control Basic Sequence

Connecting and incoming call control basic sequence (when the incoming call mode of the VisuaLink receiving a call is set to the manual incoming call setting) is shown in the following.

**Note 1:** Detailed sequence in a network is omitted in this description.

**Note 2:** Parameters of each command is omitted in this description.
This page is for your notes.
Chapter 2: Console Command List

### Table 1: VIDEO Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1</td>
<td>Setting Video Format</td>
<td>SVFM</td>
<td>Setting</td>
</tr>
<tr>
<td>1-2</td>
<td>Checking Video Format Setting</td>
<td>RVFM</td>
<td>Status</td>
</tr>
<tr>
<td>1-3</td>
<td>Setting Picture-in-Picture</td>
<td>SPIP</td>
<td>Setting</td>
</tr>
<tr>
<td>1-4</td>
<td>Checking Picture-in-Picture Setting</td>
<td>RPIP</td>
<td>Status</td>
</tr>
<tr>
<td>1-5</td>
<td>Setting Video Input Switch</td>
<td>SNDS</td>
<td>Setting</td>
</tr>
<tr>
<td>1-6</td>
<td>Checking Video Input Setting</td>
<td>RSND</td>
<td>Status</td>
</tr>
<tr>
<td>1-7</td>
<td>Setting Monitor Output Video</td>
<td>SDSP</td>
<td>Setting</td>
</tr>
<tr>
<td>1-8</td>
<td>Checking Monitor Output Video Setting</td>
<td>RDSP</td>
<td>Status</td>
</tr>
<tr>
<td>1-9</td>
<td>Setting/Checking PIP Display Format</td>
<td>SPDP</td>
<td>Setting/Status</td>
</tr>
<tr>
<td>1-10</td>
<td>Setting/Checking PIP During Snapshot</td>
<td>SPSW</td>
<td>Setting/Status</td>
</tr>
<tr>
<td>1-11</td>
<td>Setting/Checking Video Priority</td>
<td>SCPI</td>
<td>Setting/Status</td>
</tr>
<tr>
<td>1-12</td>
<td>Setting H.263</td>
<td>S263</td>
<td>Setting</td>
</tr>
<tr>
<td>1-13</td>
<td>Checking H263 Setting</td>
<td>R263</td>
<td>Setting</td>
</tr>
</tbody>
</table>

### Table 2: AUDIO Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-1</td>
<td>Setting Audio Mode</td>
<td>SAMD</td>
<td>Setting</td>
</tr>
<tr>
<td>2-2</td>
<td>Checking Audio Mode Setting</td>
<td>RAMD</td>
<td>Status</td>
</tr>
<tr>
<td>2-3</td>
<td>Setting Audio Delay</td>
<td>SADL</td>
<td>Setting</td>
</tr>
<tr>
<td>2-4</td>
<td>Checking Audio Delay</td>
<td>HADL</td>
<td>Status</td>
</tr>
<tr>
<td>2-5</td>
<td>Setting MIC On/Off</td>
<td>SMIC</td>
<td>Setting</td>
</tr>
<tr>
<td>2-6</td>
<td>Checking MIC On/Off Setting</td>
<td>RMIC</td>
<td>Status</td>
</tr>
<tr>
<td>2-7</td>
<td>Setting Volume</td>
<td>SVOL</td>
<td>Setting</td>
</tr>
<tr>
<td>2-8</td>
<td>Checking Volume Setting</td>
<td>RVOL</td>
<td>Status</td>
</tr>
<tr>
<td>2-9</td>
<td>Setting Audio Input/Output Port</td>
<td>SASW</td>
<td>Setting</td>
</tr>
<tr>
<td>2-10</td>
<td>Checking Audio Input/Output Port Setting</td>
<td>RASW</td>
<td>Status</td>
</tr>
<tr>
<td>2-11</td>
<td>Setting Audio Mute Operation at start of Communications</td>
<td>SMMT</td>
<td>Setting</td>
</tr>
<tr>
<td>2-12</td>
<td>Reads the current Mute mode setting at start of Communications</td>
<td>RMMT</td>
<td>Status</td>
</tr>
<tr>
<td>2-13</td>
<td>Sets the Audio and Audio/Video Mute mode at start of Communications</td>
<td>SMTC</td>
<td>Setting</td>
</tr>
<tr>
<td>2-14</td>
<td>Reads the current Mute control at start of Communications</td>
<td>RMTC</td>
<td>Status</td>
</tr>
</tbody>
</table>

### Table 3: LINE Setting Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-1</td>
<td>Setting Network Type (P x 64/56)</td>
<td>SNET</td>
<td>Setting</td>
</tr>
<tr>
<td>3-2</td>
<td>Checking Network Type Setting (P x 64/56)</td>
<td>RNET</td>
<td>Status</td>
</tr>
<tr>
<td>3-3</td>
<td>Setting Transmission Line Type</td>
<td>NNSS</td>
<td>Setting</td>
</tr>
<tr>
<td>3-4</td>
<td>Checking Transmission Line Type Setting</td>
<td>NNSI</td>
<td>Status</td>
</tr>
<tr>
<td>3-5</td>
<td>Setting Transmission Line Speed</td>
<td>SLSP</td>
<td>Setting</td>
</tr>
<tr>
<td>3-6</td>
<td>Checking Transmission Line Speed Setting</td>
<td>RLSP</td>
<td>Status</td>
</tr>
</tbody>
</table>
### Table 4: DATA Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1</td>
<td>Setting LSD Speed</td>
<td>SAM2</td>
<td>Setting</td>
</tr>
<tr>
<td>4-2</td>
<td>Checking LSD Speed Setting</td>
<td>RAM2</td>
<td>Status</td>
</tr>
<tr>
<td>4-3</td>
<td>Setting MLP Speed</td>
<td>SDM3</td>
<td>Setting</td>
</tr>
<tr>
<td>4-4</td>
<td>Checking MLP Speed Setting</td>
<td>RDM3</td>
<td>Status</td>
</tr>
</tbody>
</table>

### Table 5: ISDN Registering/Setting Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-1</td>
<td>Registering My Number</td>
<td>NDSS</td>
<td>Setting</td>
</tr>
<tr>
<td>5-2</td>
<td>Checking My Number Registration</td>
<td>NDSR</td>
<td>Status</td>
</tr>
<tr>
<td>5-3</td>
<td>Registering Speed Dial</td>
<td>MDSST</td>
<td>Setting</td>
</tr>
<tr>
<td>5-4</td>
<td>Checking Speed Dial Registration</td>
<td>MDRD</td>
<td>Status</td>
</tr>
<tr>
<td>5-6</td>
<td>Setting Incoming Call Buzzer</td>
<td>NBZS</td>
<td>Setting</td>
</tr>
<tr>
<td>5-7</td>
<td>Checking Incoming Call Buzzer Setting</td>
<td>NBZT</td>
<td>Status</td>
</tr>
<tr>
<td>5-8</td>
<td>Setting Incoming Call Mode</td>
<td>SINC</td>
<td>Setting/Status</td>
</tr>
<tr>
<td>5-9</td>
<td>Setting/Checking Incoming Call Buzzer at Auto Answer Mode</td>
<td>SRNG</td>
<td>Setting/Status</td>
</tr>
<tr>
<td>5-10</td>
<td>Registering SPID</td>
<td>SPIID</td>
<td>Setting</td>
</tr>
<tr>
<td>5-11</td>
<td>Checking SPID</td>
<td>RPID</td>
<td>Status</td>
</tr>
</tbody>
</table>

### Table 6: Camera related Registering/Setting Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-1</td>
<td>Registering Camera Preset Position</td>
<td>CPPS</td>
<td>Setting</td>
</tr>
<tr>
<td>6-2</td>
<td>Registering Talker Name</td>
<td>CPNS</td>
<td>Setting</td>
</tr>
<tr>
<td>6-3</td>
<td>Setting Camera Model</td>
<td>SCMK</td>
<td>Setting</td>
</tr>
<tr>
<td>6-4</td>
<td>Checking Camera Model Setting</td>
<td>RCMK</td>
<td>Status</td>
</tr>
</tbody>
</table>

### Table 7: Communication Status Reading Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-1</td>
<td>Read Manufacturer Code</td>
<td>RMAC</td>
<td>Status</td>
</tr>
<tr>
<td>7-2</td>
<td>Read Common Mode During Communication</td>
<td>RMOD</td>
<td>Status</td>
</tr>
<tr>
<td>7-3</td>
<td>Read H.221 Synchronous Status</td>
<td>R221</td>
<td>Status</td>
</tr>
<tr>
<td>7-4</td>
<td>Read Remote Site Name (at Point-to-Point)</td>
<td>RPNA</td>
<td>Status</td>
</tr>
<tr>
<td>7-5</td>
<td>Read Participating Conference Status</td>
<td>RCST</td>
<td>Status</td>
</tr>
</tbody>
</table>

### Table 8: Alarm related Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-1</td>
<td>Read Alarm Status</td>
<td>CALM</td>
<td>Status</td>
</tr>
</tbody>
</table>

### Table 9: History Reading Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-1</td>
<td>Read Communication/Alarm History</td>
<td>RLMAM</td>
<td>Status</td>
</tr>
</tbody>
</table>
### Table 10: Registering Local Location Name Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-1</td>
<td>Registering Local Site Name</td>
<td>MRNS</td>
<td>Setting</td>
</tr>
</tbody>
</table>

### Table 11: Serial Port Control Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-1</td>
<td>Setting Serial Port</td>
<td>SSIO</td>
<td>Setting</td>
</tr>
<tr>
<td>11-2</td>
<td>Checking Serial Port Setting</td>
<td>RSIO</td>
<td>Status</td>
</tr>
</tbody>
</table>

### Table 12: Acquiring Version Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-1</td>
<td>Requesting Software Version</td>
<td>RVER</td>
<td>Operation</td>
</tr>
</tbody>
</table>

### Table 13: Maintenance Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-1</td>
<td>Setting Local Loopback</td>
<td>SLLB</td>
<td>Operation</td>
</tr>
<tr>
<td>13-2</td>
<td>Checking Local Loopback Setting</td>
<td>RLLB</td>
<td>Status</td>
</tr>
</tbody>
</table>

### Table 14: Report Response Control Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-1</td>
<td>Conference Status Report Control</td>
<td>ITCS</td>
<td>Operation</td>
</tr>
<tr>
<td>14-2</td>
<td>Multi-point Conference Status Report Control</td>
<td>IMCU</td>
<td>Operation</td>
</tr>
<tr>
<td>14-3</td>
<td>H.243 Report Control</td>
<td>I243</td>
<td>Operation</td>
</tr>
<tr>
<td>14-4</td>
<td>Command Generator Related Report Control</td>
<td>ICGP</td>
<td>Operation</td>
</tr>
</tbody>
</table>

### Table 15: Maintenance and Other Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-1</td>
<td>Setting Parameter Initialization</td>
<td>ISPR</td>
<td>Operation</td>
</tr>
<tr>
<td>15-2</td>
<td>Clearing Backup Memory</td>
<td>CRAM</td>
<td>Operation</td>
</tr>
<tr>
<td>15-3</td>
<td>System Reset Request</td>
<td>RRST</td>
<td>Operation</td>
</tr>
<tr>
<td>15-4</td>
<td>Setting System Clock</td>
<td>WCLK</td>
<td>Setting</td>
</tr>
<tr>
<td>15-5</td>
<td>Checking System Clock Setting</td>
<td>RCLK</td>
<td>Status</td>
</tr>
</tbody>
</table>

### Table 16: Maintenance and Other Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-1</td>
<td>Read Multi-point Conference Participating Location Name</td>
<td>RMNA</td>
<td>Status</td>
</tr>
<tr>
<td>16-2</td>
<td>Read Multi-point Conference Operation Status (NEC Specific)</td>
<td>RMST</td>
<td>Status</td>
</tr>
<tr>
<td>16-3</td>
<td>Read Multi-point Conference Operation Status</td>
<td>RMPS</td>
<td>Status</td>
</tr>
<tr>
<td>16-4</td>
<td>Read Multi-point Conference Mode Status</td>
<td>RMMD</td>
<td>Status</td>
</tr>
</tbody>
</table>
### Table 17: Model Identification Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-1</td>
<td>Read Model Identification</td>
<td>RMES</td>
<td>Status</td>
</tr>
</tbody>
</table>

### Table 18: Audio Training Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-1</td>
<td>Initiate Audio Training</td>
<td>ECTS</td>
<td>Operation</td>
</tr>
</tbody>
</table>

### Table 19: ISDN Control Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>19-1</td>
<td>Requesting Connection</td>
<td>NCRN</td>
<td>Operation</td>
</tr>
<tr>
<td>19-2</td>
<td>Request Disconnection</td>
<td>NDSC</td>
<td>Operation</td>
</tr>
<tr>
<td>19-3</td>
<td>Incoming Call Permit/Reject</td>
<td>NCIC</td>
<td>Operation</td>
</tr>
<tr>
<td>19-4</td>
<td>Communication Status Inquiry</td>
<td>NSTQ</td>
<td>Operation</td>
</tr>
</tbody>
</table>

### Table 20: Camera Control Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-1</td>
<td>Request for Camera Direction Change</td>
<td>CAMS</td>
<td>Operation</td>
</tr>
</tbody>
</table>

### Table 21: Option Control Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-1</td>
<td>Pointer Control</td>
<td>POCS</td>
<td>Operation</td>
</tr>
<tr>
<td>21-2</td>
<td>Talker Detection Control</td>
<td>VCTS</td>
<td>Operation</td>
</tr>
<tr>
<td>21-3</td>
<td>SnapShot Transmission Request</td>
<td>STPR</td>
<td>Operation</td>
</tr>
<tr>
<td>21-4</td>
<td>Standard Display Screen Setting Request</td>
<td>SXMR</td>
<td>Operation</td>
</tr>
<tr>
<td>21-5</td>
<td>Request to Acquire Composite Screen Setting</td>
<td>SXST</td>
<td>Operation</td>
</tr>
</tbody>
</table>

### Table 22: Multi-point Conference Control

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>22-1</td>
<td>Request to Chairman Control</td>
<td>COPR</td>
<td>Operation</td>
</tr>
<tr>
<td>22-2</td>
<td>Multiple Address Transmission Request</td>
<td>CSPR</td>
<td>Operation</td>
</tr>
<tr>
<td>22-3</td>
<td>Specific Picture Reception Request</td>
<td>CRPR</td>
<td>Operation</td>
</tr>
<tr>
<td>22-4</td>
<td>Request to Switch Multiple Address Originator Monitor</td>
<td>CMPR</td>
<td>Operation</td>
</tr>
</tbody>
</table>

### Table 23: Opening Message Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>23-1</td>
<td>Opening Message at Unit Activation</td>
<td>OMES</td>
<td>Report</td>
</tr>
</tbody>
</table>
## Table 24: Communication Status Report Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>24-1</td>
<td>H.221 Synchronous Status Report</td>
<td>H221 Report</td>
<td></td>
</tr>
<tr>
<td>24-2</td>
<td>Manufacturer Code Report</td>
<td>IMAC Report</td>
<td></td>
</tr>
<tr>
<td>24-3</td>
<td>Report of Common Mode in Communication</td>
<td>IMOD Report</td>
<td></td>
</tr>
</tbody>
</table>

## Table 25: Alarm Status Report Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-1</td>
<td>Alarm Status Change Report</td>
<td>RALM Report</td>
<td></td>
</tr>
</tbody>
</table>

## Table 26: Video Status Report Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>26-1</td>
<td>Incoming Video Synchronous Status Report</td>
<td>RVSR Report</td>
<td></td>
</tr>
</tbody>
</table>

## Table 27: Participating Status Report Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>27-1</td>
<td>Participating Conference Status Report</td>
<td>ICST Report</td>
<td></td>
</tr>
</tbody>
</table>

## Table 28: ISDN - Report Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>28-1</td>
<td>Display During Calling</td>
<td>NALT Report</td>
<td></td>
</tr>
<tr>
<td>28-2</td>
<td>Incoming Call Report</td>
<td>NINC Report</td>
<td></td>
</tr>
<tr>
<td>28-3</td>
<td>On-line Report</td>
<td>NONL Report</td>
<td></td>
</tr>
<tr>
<td>28-4</td>
<td>Disconnection Report</td>
<td>NDCI Report</td>
<td></td>
</tr>
</tbody>
</table>

## Table 29: Camera Control Report Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>29-1</td>
<td>Camera Status Report</td>
<td>CAMI Report</td>
<td></td>
</tr>
<tr>
<td>29-2</td>
<td>Talker Name Display Report</td>
<td>CPNI Report</td>
<td></td>
</tr>
</tbody>
</table>

## Table 30: Option Control Report Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-1</td>
<td>SnapShot Transmission Ending Report</td>
<td>STEI Report</td>
<td></td>
</tr>
<tr>
<td>30-2</td>
<td>SnapShot Reception Report</td>
<td>RFVR Report</td>
<td></td>
</tr>
</tbody>
</table>

## Table 31: Other Report Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>31-1</td>
<td>Automatic Activating File Starting Report</td>
<td>CGSI Report</td>
<td></td>
</tr>
<tr>
<td>31-2</td>
<td>Automatic Activating File Ending Report</td>
<td>CGEI Report</td>
<td></td>
</tr>
</tbody>
</table>
### Table 32: Multi-point Related Report Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>32-1</td>
<td>Multi-point Conference Operation Status Report</td>
<td>IMPS</td>
<td>Report</td>
</tr>
<tr>
<td>32-2</td>
<td>Multi-point Conference Mode Status Report</td>
<td>IMMD</td>
<td>Report</td>
</tr>
<tr>
<td>32-3</td>
<td>Acquisition of Right to Operate Report</td>
<td>COPI</td>
<td>Report</td>
</tr>
<tr>
<td>32-4</td>
<td>Multiple Address Transmission Report</td>
<td>CSPI</td>
<td>Report</td>
</tr>
<tr>
<td>32-5</td>
<td>Specific Picture Reception Report</td>
<td>CRPI</td>
<td>Report</td>
</tr>
<tr>
<td>32-6</td>
<td>Talker Detection Control Report</td>
<td>CVCI</td>
<td>Report</td>
</tr>
<tr>
<td>32-7</td>
<td>SnapShot Transmission Permit Report</td>
<td>CSSC</td>
<td>Report</td>
</tr>
<tr>
<td>32-8</td>
<td>Multiple Address Originator Monitor Video Switch Report</td>
<td>CMPI</td>
<td>Report</td>
</tr>
<tr>
<td>32-9</td>
<td>Terminal Connection Report</td>
<td>CJNI</td>
<td>Report</td>
</tr>
<tr>
<td>32-10</td>
<td>Conference Status Report</td>
<td>CSTI</td>
<td>Report</td>
</tr>
</tbody>
</table>

### Table 33: Multi-Screen Related Report Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>33-1</td>
<td>Composite Screen Setting Report</td>
<td>XMII</td>
<td>Report</td>
</tr>
<tr>
<td>33-2</td>
<td>Standard Display Screen Setting Report</td>
<td>XMCI</td>
<td>Report</td>
</tr>
<tr>
<td>33-3</td>
<td>Response to Composite Screen Setting Request</td>
<td>XSCI</td>
<td>Report</td>
</tr>
</tbody>
</table>

### Table 34: Microphone Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>34-1</td>
<td>Voice Activate Microphone Report</td>
<td>PPNI</td>
<td>Report</td>
</tr>
</tbody>
</table>

### Table 35: System Error Command

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>35-1</td>
<td>System Error Report</td>
<td>ERRI</td>
<td>Report</td>
</tr>
</tbody>
</table>

### Table 36: On-Screen Display

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>36-1</td>
<td>Setting On-Screen Display</td>
<td>SOSD</td>
<td>Operation</td>
</tr>
</tbody>
</table>

### Table 37: Current Power OFF Condition

<table>
<thead>
<tr>
<th>NO</th>
<th>Feature</th>
<th>Command Name</th>
<th>Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>37-1</td>
<td>Set and read the current Power Off Condition</td>
<td>CSTB</td>
<td>Status/Report</td>
</tr>
</tbody>
</table>
# Chapter 3: Command Detailed Format

Command details are described in this section according to the following format.

<table>
<thead>
<tr>
<th>Command Name</th>
<th>Command Number</th>
</tr>
</thead>
</table>

**Description:** Describe command features.

**Command Format:** Describe command input format.

**Response:** Describe a response to a command.
3.1 VIDEO Commands

SVFM Setting Video Format

Description: This sets video format. VisuaLink 128/384 is equipped with a feature to code active video with kinds of resolution. The formats are QCIF and CIF (FCIF in parameter) based on the ITU-T Recommendation H.261 and H.263. Resolution setting affects transmitted video. Received video format follows a specification from the transmitting side. If FCIF is specified in the remote unit, it automatically receives with FCIF resolution.

Command Format: SVFM p1

<table>
<thead>
<tr>
<th>p1:</th>
<th>QCIF: QCIF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FCIF: FCIF</td>
</tr>
</tbody>
</table>

Response: Normal Response: OK

Error Response: ERR01
               ERR07
               ERR14
               ERR21
               ERR87

RVFM Checking Video Format Setting

Description: Checks the current video format setting.

Command Format: RVFM

Response: Normal Response: p1 OK

<table>
<thead>
<tr>
<th>p1:</th>
<th>QCIF: QCIF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FCIF: FCIF</td>
</tr>
</tbody>
</table>

Error Response: ERR01
               ERR07
               ERR87
**SPIP**  
**Setting Picture-in-Picture**

Description: Sets PIP (small screen) display

Command Format: SPIP p1 p2

- **p1:**
  - ON: PIP output ON
  - OFF: PIP output OFF
- **p2:**
  - RT: Display at top right
  - RB: Display at bottom right
  - LT: Display at top left
  - LB: Display at bottom left

*Note:* p2 is omitted when p1 = Off

Response:
- Normal Response: OK
- Error Response: ERR01, ERR07, ERR85, ERR87

**RPIP**  
**Checking Picture-in-Picture Setting**

Description: Checks the current PIP display status

Command Format: RPIP

Response:
- Normal Response: p1 p2 OK

- p1:
  - ON: PIP output ON
  - OFF: PIP output OFF
- p2:
  - RT: Display at top right
  - RB: Display at bottom right
  - LT: Display at top left
  - LB: Display at bottom left

Error Response:
- ERR01
- ERR01
- ERR87
SSND  Setting Video Input Switch

Description: This sets video input switch.

Command Format: SSND p1 p2

- p1: L : local site
  R : remote site

- p2: C1 : Camera 1
  C2 : Camera 2

Response: Normal Response: OK

Error Response: ERR01
ERR07
ERR20
ERR85
ERR87

RSND  Checking Video Input Setting

Description: Checks the current video input sending status.

Command Format: RSND p1

- p1: L: local site
  R: remote site

Response: Normal Response: p1 OK

- p1: C1: Camera 1
  C2: Camera 2

Error Response: ERR01
ERR07
ERR20
ERR87
**SDSP Setting Monitor Output Video**

Description: Sets output video image.

Command Format: `SDSP p1`

- **p1:** TX : Transmission Video
- RX : Reception Video
- STL : Still-picture

Response: Normal Response: OK

Error Response: ERR01
- ERR07
- ERR85
- ERR87

**Note:** User will be unable to switch to STILL PICTURE if STILL PICTURE graphics has not been sent.

---

**RDSP Checking Monitor Output Video Setting**

Description: Checks the current video output setting

Command Format: `RDSP`

Response: Normal Response: `p1 OK`

- **p1:** TX : Transmission Video
- RX : Reception Video
- STL : Still-picture

Error Response: ERR01
- ERR07
- ERR87
SPDP  Setting/Checking PIP Display Format  1-9

Description: Setting the display image seen in the picture-in-picture (PIP) window.

Command Format: SPDP [p1]

p1: M : mirror image is displayed
    N : non-mirror image is displayed

Note: When p1 is omitted, the current setting is reported.

Response: Normal Response:
    If p1 is set: OK
    If p1 is omitted:
        p1 OK
        p1: M : mirror display
            N : non-mirror display

Error Response: ERR01

SPSW  Setting/Checking PIP Image when Snapshot is Viewed  1-10

Description: Setting the display image seen in the picture-in-picture (PIP) window when a snapshot is viewed.

Command Format: SPSW [p1]

p1: 1 : Receiving video
    3 : Transmitting video

Note: When p1 is omitted, the current setting is reported.

Response: Normal Response:
    If p1 is set: OK
    If p1 is omitted:
        p1 OK
        p1: 1 : Receiving video
            3 : Transmitting video

Error Response: ERR01
**SCPI**  Setting/Checking Video Priority  1-11

Description: The VisuaLink has a function to automatically optimize the picture quality, (e.g., number of frames, resolution, coding, noise, etc.). In low bit rate coding there is characteristic for resolution and frame to oppose each other. If resolution is imposed, the number of frames (motion) becomes less. If however the number of frames increases, resolution quality is degraded. This requires a trade off.

Command Format:  

```
SCPI [p1]
```

```
p1:  R : Resolution
     M : Motion
```

*Note:* When p1 is omitted, the current setting is reported.

Response:  

Normal Response:  

- If p1 is set: OK
- If p1 is omitted:
  - p1 OK
  - p1: R : Resolution
  - M : Motion

Error Response: ERR01

---

**S263**  Setting H.263  1-12

Description: Setting video coding mode to ITU-T Recommendation H.263

Command Format:  

```
S263  p1
```

```
p1:  ON : H.263 available
     OFF : H.263 not available
```

Response:  

Normal Response: OK

Error Response: ERR01
R263 Checking H.263 Setting

Description: Reporting the current setting by S263 command

Command Format: R263

Response: Normal Response: p1 OK

p1: ON : H.263 available
     OFF : H.263 not available

Error Response: ERR01
               ERR07
               ERR14
               ERR21
               ERR87
3.2 AUDIO Command

### SAMD Setting Audio Mode

**Description:** Sets the audio coding format. The VisuaLink is capable of µ-Law PCM, SBADPCM and LP-CELP.

**Command Format:** SAMD p1

<table>
<thead>
<tr>
<th>p1:</th>
<th>OFF : OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ULW :</td>
<td>G711 (µ-Law PCM) (56 kbps)</td>
</tr>
<tr>
<td>SBA :</td>
<td>G722 (SB-ADPCM) (48 kbps, 56 kbps)</td>
</tr>
<tr>
<td>LDC :</td>
<td>G728 (LD-CELP) (16 kbps)</td>
</tr>
</tbody>
</table>

**Response:**
- Normal Response: OK
- Error Response: ERR01, ERR07, ERR14, ERR21, ERR87

### RAMD Checking Audio Mode Setting

**Description:** Check current audio mode setting

**Command Format:** RAMD

**Response:**
- Normal Response: p1 OK

<table>
<thead>
<tr>
<th>p1:</th>
<th>OFF : OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ULW :</td>
<td>G711 (µ-Law PCM) (56 kbps)</td>
</tr>
<tr>
<td>SBA :</td>
<td>G722 (SB-ADPCM) (48 kbps, 56 kbps)</td>
</tr>
<tr>
<td>LDC :</td>
<td>G728 (LD-CELP) (16 kbps)</td>
</tr>
</tbody>
</table>

**Error Response:** ERR01, ERR07, ERR87
**SADL Setting Audio Delay**

**Description:** Sets audio delay (lip sink). Delay is generated when video is coded in transmission, and the amount of delay differs depending on a transmission speed. On the contrary, audio coding delay is about 1/1000 ~ 1/100, so a problem that a person’s lips and audio cannot be synchronized (lip sink). VisuLink is equipped with a feature to insert a delay in audio to compensate lip sink by adjusting a mount of delay.

**Command Format:**

```
SADL  p1  p2  p3
```

- **p1:**
  - 64 : 56/64 kbps
  - 2x64 : 2x56/2x64 kbps
  - 3B : 168/192 kbps
  - 4B : 224/256 kbps
  - 5B : 280/320 kbps
  - 6B : 336/384 kbps

- **p2:**
  - 000-024 : 3-digit in decimal fixed (10msec step)

- **p3:**
  - TX : Transmission side

**Response:**

- Normal Response: OK

**Error Response:**

- ERR01
- ERR05
- ERR49
- ERR87

**Note:** If VL128, setting 3B to 6B at p1 results in error.
RADL  Checking Audio Mode Setting  2-4

Description: Checks the current audio delay setting

Command Format: RADL  p1 p2

  p1:  64 : 56/64kbps
       2x64 : 2x56/2x64 kbps
       3B : 168/192kbps
       4B : 224/256kbps
       5B : 280/320kbps
       6B : 336/384kbps

  p2:  TX : Transmission side

Response: Normal Response:  p1 OK

  p1: 000 - 024:3-digit in decimal fixed (10msec step)

Error Response:  ERR01
                ERR05
                ERR49
                ERR87

Note: If VL128, setting 3B to 6B at p1 results in error.

SMIC  Setting MIC ON/OFF  2-5

Description: Sets transmitted audio from a microphone to either ON or OFF

Command Format: SMIC  p1

  p1:  ON : MIC ON
       OFF : MIC OFF

Response: Normal Response:  OK

Error Response:  ERR01
                ERR07
                ERR85
                ERR87
RMIC  Checking MIC ON/OFF Setting  2-6

Description: Checks the current microphone setting

Command Format: RMIC

Response: Normal Response: p1 OK

  p1: ON  : MIC ON
  OFF  : MIC OFF

Error Response: ERR01
               ERR07
               ERR87

SVOL  Setting Volume  2-7

Description: Sets (adjusts) received volume during a communication.

Command Format: SVOL  p1

  p1: Volume: 0-F (16 stages)
        +  : Volume up
        -  : Volume down

Response: Normal Response: OK

Error Response: ERR01
                ERR07
                ERR85
                ERR87

RVOL  Checking Volume Setting  2-8

Description: Checks the current volume setting.

Command Format: RVOL

Response: Normal Response: p1 OK

  p1: Volume: 0-F

Error Response: ERR01
                ERR07
                ERR87
SASW  Setting Audio Input/Output Port  2-9

Description:  Sets the audio input port and output port.

Command Format:  SASW p1

p1:  LINE : LINE  
     HEAD : Headset  
     TEL : Telephone  
     AUTO : Automatic

Response:  Normal Response: OK

Error Response:  ERR01  
                 ERR07  
                 ERR87

RASW  Checking Audio Input/Output Port Setting  2-10

Description:  Checks the current audio input and output setting.

Command Format:  RASW

Response:  Normal Response:  p1 OK

p1:  LINE : LINE  
     HEAD : Headset  
     TEL : Telephone  
     AUTO : Automatic

Error Response:  ERR01  
                 ERR07  
                 ERR87
SMMT  Sets Audio or Audio/Video Outgoing Mute Setting  2-11

Description: Sets whether the audio or audio and video outgoing is muted or unmuted at the start of communication when the VisuaLink automatically answers or manual answered calls.

Command Format: SMMT p1

p1: ON: Mute outgoing audio or audio and video at the start of communication
OFF: Donot Mute audio at the start of communication (Default)

Response: Normal Response: OK

RMMT  Checking Audio or Audio/VideoOutput Mute Setting  2-12

Description: Reads the current MUTED mode setting.

Command Format: RMMT

Response: Normal Response: p1 OK

p1: ON : Mute outgoing audio or audio and video at the start of communication
OFF : Donot Mute audio at the start of communication
SMTC  Sets Audio or Audio/Video Mute Setting  2-13

Description:  Sets whether the audio or audio and video outgoing is muted or unmuted at the start of communication when the VisuaLink automatically answers or manual answered calls.

Command Format:  SMTC p1

    p1:  A:  Audio is set to be Muted (Default)
         AV:  Video/Audio is set to be Muted

Response:  Normal Response:  OK

RMTC  Checking Audio or Audio/Video Output Mute Setting  2-14

Description:  Reads what is to be MUTED at the start of communication.

Command Format:  RMTC

Response:  Normal Response:  p1 OK

    p1:  A  :  Audio is set to be Muted
         AV :  Video/Audio is set to be Muted
### 3.3 LINE Setting Command

#### SNET  Setting Network Type (P x 64/56)  3-1

**Description:** Sets a network type (P x 64/56). Some networks use 8 kbps out of the 64 kbps for network control information, so the network available for users may be limited to P x 56 kbps. When connecting to the network, check if it is a limited network (P x 56) or clear network (P x 64).

**Command Format:**
```
SNET p1
```

**p1:**
- Px64: Clear Network Type
- Px56: Limited Network Type

**Response:**
- Normal Response: OK
- Error Response: ERR01, ERR05, ERR07, ERR21, ERR45, ERR87

**Note:** The command can only be issued when the VisuaLink is not in a call.

#### RNET  Checking Network Type Setting (P x 64/56)  3-2

**Description:** Checks the current network setting (P x 64/56).

**Command Format:**
```
RNET
```

**Response:**
- Normal Response: p1 OK
  - p1: Px64: Unlimited network
    - Px56: Limited network
- Error Response: ERR01, ERR07, ERR87
NNSS  Setting Transmission Line Type

Description: Sets the line interface: High speed digital basic leased line (128k Interface) or National ISDN-1 Basic Rate Interface

Command Format: NNSS  p1

p1: D2B : *High speed digital basic leased line (128k Interface)
     I2B : National ISDN-1 Basic Interface Rate

Response: Normal Response: OK

Error Response: ERR01
               ERR05
               ERR07
               ERR87

Note: High Speed digital basic leased lines are currently only available in Japan.

NNSI  Checking Transmission Line Type Setting

Description: Checks the current line interface setting.

Command Format: NNSI

Response: Normal Response: p1 OK

p1: D2B : High speed digital basic leased line (128k Interface)
     I2B : National ISDN-1 Basic Interface Rate

Error Response: ERR01
                ERR05
                ERR07
                ERR87
### SLSP  Setting Transmission Line Speed

**Description:** Sets transmission speed.

**Command Format:** `SLSP p1`

- **p1:**
  - B : 56/64 kbps
  - 2B : 2x56/2x64 kbps
  - 3B : 168/192 kbps
  - 4B : 224/256 kbps
  - 5B : 280/320 kbps
  - 6B : 336/384 kbps

**Response:**
- **Normal Response:** OK
- **Error Response:** ERR01, ERR05, ERR07, ERR21, ERR45, ERR87

*Note:* If VL128, setting 3B to 6B results in error.

### RLSP  Checking Transmission Line Speed Setting

**Description:** Checks the current transmission speed setting.

**Command Format:** `RLSP`

**Response:**
- **Normal Response:** p1 OK

- **p1:**
  - 64 : 56/64 kbps
  - 2x64 : 2x56/2x64 kbps
  - 192 : 168/192 kbps
  - 256 : 224/256 kbps
  - 320 : 280/320 kbps
  - 384 : 336/384 kbps

**Error Response:** ERR01, ERR07, ERR87

*Note:* The response will always be a 64 kbps increment. It is recommended that the RNET command be used combined with RLSP.
3.4 DATA Command

SDM2 Setting LSD Speed

Description: Setting Low Speed Data (LSD) port speed
- Allows for H.281 far-end camera control
- PC-to-PC data transmission

Command Format: SDM2 p1

<table>
<thead>
<tr>
<th>p1:</th>
<th>OFF</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>1.2 kbps</td>
<td></td>
</tr>
<tr>
<td>4.8</td>
<td>4.8 kbps</td>
<td></td>
</tr>
<tr>
<td>6.4</td>
<td>6.4 kbps</td>
<td></td>
</tr>
<tr>
<td>9.6</td>
<td>9.6 kbps</td>
<td></td>
</tr>
<tr>
<td>14.4</td>
<td>14.4 kbps</td>
<td></td>
</tr>
</tbody>
</table>

Response: Normal Response: OK
Error Response: ERR01 ERR05 ERR07 ERR21 ERR87
RDM2 Checking LSD Speed Setting

Description: Reporting the current LSD speed by SDM2 command

Command Format: RDM2

Response: Normal Response: p1 OK

p1: OFF : OFF
    1.2 : 1.2 kbps
    4.8 : 4.8 kbps
    6.4 : 6.4 kbps
    9.6 : 9.6 kbps
    14.4 : 14.4 kbps

Error Response: ERR01
                ERR05
                ERR07
                ERR21
                ERR87

SDM3 Setting MLP Speed

Description: Sets the Multi Layer Protocol (MLP) data port speed
             • Allows for NEC far-end camera and system control
             • Allows for T.120 transmission

Command Format: SDM3 p1

p1: OFF : OFF
    4.0 : 4.0 kbps
    6.4 : 6.4 kbps
    14.4 : 14.4 kbps
    24.0 : 24.0 kbps

Response: Normal Response: OK

Error Response: ERR01
                ERR05
                ERR07
                ERR21
                ERR87
## RDM3 Checking MLP Speed Setting

**Description:** Checks the current MLP speed setting.

**Command Format:** RDM3

**Response:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value (kbps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>p1</td>
<td>OFF</td>
</tr>
<tr>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>6.4</td>
<td>6.4</td>
</tr>
<tr>
<td>14.4</td>
<td>14.4</td>
</tr>
<tr>
<td>24.0</td>
<td>24.0</td>
</tr>
</tbody>
</table>

**Normal Response:** p1 OK

**Error Response:** ERR01, ERR07, ERR87
3.5 ISDN Registering/Setting Command

NDSS Registering My Number

Description: Registers a local dial number. In a communication, a local dial number is reported to the remote site at a call origination. The local number to report at this time is registered. The number of digit that can be registered is 20 digits for dial number and 8 digits for a sub address at a maximum.


- **p1:**
  - L11: line 1 dial No. 1
  - L12: line 1 dial No. 2
  - L21: line 2 dial No. 1
  - L22: line 2 dial No. 2
  - L31: line 3 dial No. 1
  - L32: line 3 dial No. 2

- **p2:**
  - 0-9: dial Number (within 20 digits)
  - : sub address (within 8 digits)
  - *: dial number/sub address separating code
  - Off: Registration Deleted

Local Dial Format: dial number * Sub Address

- **p3:** 0-9

**Note 1:** If p1 is omitted, the default is L11.

**Note 2:** If VL128, setting L21 to L32 results in error.

Response: Normal Response: OK

Error Response: ERR01
**NDSR  Checking My Number Registration**

**Description:** Checks the current local dial number setting. In a communication, a local dial number is reported to the remote site at a call origination. This is used to check a local dial number set by a NDSS command.

**Command Format:**

NDSR [p1]

- **p1:**
  - L11 : line 1 dial No. 1
  - L12 : line 1 dial No. 2
  - L21 : line 2 dial No. 1
  - L22 : line 2 dial No. 2
  - L31 : line 3 dial No. 1
  - L32 : line 3 dial No. 2

**Response:**

Normal Response: p1 p2 OK

- **p1:**
  - L11 : line 1 dial No. 1
  - L12 : line 1 dial No. 2
  - L21 : line 2 dial No. 1
  - L22 : line 2 dial No. 2
  - L31 : line 3 dial No. 1
  - L32 : line 3 dial No. 2

- **p2:**
  - 0-9 : dial Number (within 20 digits)
  - * : dial number/sub address separating code
  - : sub address (within 8 digits)
  - : Registration Deleted
  - : Registration Deleted
  - Local Dial Format: dial number * Sub Address

**Error Response:**

- ERR01
- ERR05
- ERR07
- ERR41
- ERR87

**Note:** If p1 is omitted, the default is L11.
Description: VisuaLink can register a maximum of 130 speed dial numbers. A dial number that can be registered shall be 20-digit at a maximum with a sub address of a maximum of 8 digits, and a line speed must be set.

Command Format: MDST p1 p2 [p3] [p4] [p5]

- p1: #xxx : speed dial number (xxx: speed dial number 1-130)
- p2: 0-9 : dial Number (within 20 digits)
- * : sub address (within 8 digits)
- ** : address/subaddress
- Off : Registration Deleted

- p3: B : 64 kbps
  2B : 2x64 kbps
  3B : 192 kbps
  4B : 256 kbps
  5B : 320 kbps
  6B : 384 kbps
  TEL : Telephone

- p4: 64 : Px64 Network
  56 : Px56 Network

- p5: xxx : Remote Site Name (8-character)

Note 1: If p4 is omitted, “64” is set.
Note 2: If p2 = Off, p3, p4 and p5 are omitted.
Note 3: If p3 = TEL, p4 is omitted.

Response: Normal Response: OK

Error Response: ERR01
ERR05

Note: If VL128, setting 3B to 6B results in error.
MDRD  Checking Speed Dial Registration  5-4

Description:  Checks the current registers speed dial number.

Command Format:  MDRD p1

p1:  #xxx: speed dial number (xxx: speed number)

Response:  Normal Response: p1 p2 p3 p4 p5
              OK

  p1:  #xxx : speed dial number (xxx: speed number 1-130)
  p2:  0-9 : dial Number (within 20 digits)
          : sub address (within 8 digits)
          * : address/subaddress
          ** : Ch1/Ch2 separating code
  p3:  B : 64 kbps
        2B : 2x64 kbps
        3B : 192 kbps
        4B : 256 kbps
        5B : 320 kbps
        6B : 384 kbps
        TEL : Telephone
  p4:  64 : Px64 Network
        56 : Px56 Network
  p5:  xxx : Remote Site Name (Shift JIS 8-character)

Note 1:  If p1 is omitted, all speed dials are displayed.
Note 2:  If non-registration, only p1 is displayed.
Note 3:  If p3 = TEL, p4 is omitted.

Response:  ERR01
          ERR05
### NBZS  Setting Incoming Call Buzzer  

**Description:** Sets the incoming call buzzer in a communication using BRI ISDN, this sets an incoming call bell to rumble when a request for a incoming call from a remote office is received. This setting is valid only when the incoming call setting is manual.

**Command Format:**

```
NBZS  p1
```

- **p1:**
  - ON : ring
  - OFF : no ring

**Response:**

- Normal Response: OK
- Error Response: ERR01, ERR05

**Note:** This command is ineffective when setting incoming mode is set to Automatic. Utilize this command only in the Manual Answer mode.

### NBZI  Checking Incoming Call Buzzer Setting  

**Description:** Checks the current incoming call ring indication setting.

**Command Format:**

```
NBZI
```

**Response:**

- Normal Response: p1 OK

- **p1:**
  - ON : ring
  - OFF : no ring

- Error Response: ERR01, ERR05
SINC Setting Incoming Call Mode

Description: Sets the incoming call mode. There are three ways to receive an incoming call: manual incoming call mode, automatic incoming call mode, and selective incoming call mode. In a manual incoming call mode, an operation to receive a call is required. In an automatic incoming call mode, a communication starts when a request for an incoming call is received. In a selective incoming call mode, only those calls that are registered are received. All others are rejected.

Command Format: SINC p1

p1:  M : manual incoming call mode
     A : automatic incoming call mode
     S : selective incoming call mode

Note 1: When p1 is omitted, the current setting status is displayed in a normal response.

Note 2: When p1 = S, an incoming call from the dial number other than those ISDN numbers registered as speed dial numbers.

Response: Normal Response: If p1 is set:
          OK

          If p1 is omitted:
          p1 OK

          p1:  M : manual incoming call mode
               A : automatic incoming call mode
               S : selective incoming call mode

Error Response: ERR01
                ERR05
### SRNG  
#### Setting/Checking Incoming Call Buzzer at Auto Answer Mode

**Description:** Setting ringing times of incoming call buzzer in auto answer mode or selective answer mode

**Command Format:**
```
SRNG [p1]
```

- **p1:**
  - 0-9: not ringing
  - 1-9: ringing times

*Note:* When **p1** is omitted, the current setting is reported.

**Response:**
- **Normal Response:**
  - If **p1** is set: OK
  - If **p1** is omitted:
    - **p1** OK
    - **p1:** 0: not ringing
    - 1-9: ringing times

**Error Response:** ERR01

### SPID  
#### Registering SPID

**Description:** Setting Service Profile ID (SPID)

**Command Format:**
```
SPID p1 p2
```

- **p1:**
  - L11: Line1 Channel1
  - L12: Line1 Channel2
  - L21: Line2 Channel1
  - L22: Line2 Channel2
  - L31: Line3 Channel1
  - L32: Line3 Channel2

- **p2:**
  - SPID: 0-9 (up to 20 digits)
  - OFF: Delete

**Response:**
- **Normal Response:** OK

**Error Response:** ERR01

*Note:* If VL128, setting L21 ~ L32 in **p1** are not valid and will create an error.
RPID Checking SPID

Description: Reporting current SPID

Command Format: RPID p1

\[
p1: \begin{align*}
    &L11 : \text{Line1 Channel1} \\
    &L12 : \text{Line1 Channel2} \\
    &L21 : \text{Line2 Channel1} \\
    &L22 : \text{Line2 Channel2} \\
    &L31 : \text{Line3 Channel1} \\
    &L32 : \text{Line3 Channel2}
\end{align*}
\]

Response: Normal Response: p1 p2 OK

\[
p1:L11 : \text{Line1 Channel1} \\
    L12 : \text{Line1 Channel2} \\
    L21 : \text{Line2 Channel1} \\
    L22 : \text{Line2 Channel2} \\
    L31 : \text{Line3 Channel1} \\
    L32 : \text{Line3 Channel2}
\]

p2:SPID

Error Response: ERR01

Note: If VL128, setting L21 ~ L32 in p1 are not valid and will create an error.
3.6 Camera Related Registering/Setting Command

**CPPS**          Registering Camera Preset Position  6-1

**Description:** Registers a camera preset position.

**Command Format:** CPPS p1 p2 p3 [p4]

- **p1:** L1-2 : Local Camera Number
  R1-2 : Remote Camera Number
- **p2:** 1-9 : Preset Number
- **p3:** ON : Register
  OFF : Release
- **p4:** x ... x : Talker Registration (alphabet 16-character)

**Note 1:** When p3 is OFF, p4 is omitted.
**Note 2:** A talker name is deleted in p4 = “ “

**Response:**
- Normal Response: p1 OK
- Error Response: ERR01, ERR10

**CPNS**          Registering Talker Name  6-2

**Description:** Registers a preset talker name.

**Command Format:** CPNS p1 p2 = [p3]

- **p1:** L1-2 : Local Camera Number
- **p2:** 1-9 : Talker Name Number
- **p3:** x ... x : Talker Name Registration (alphabet 16-character)

**Note 1:** When p2 is OFF, the contents of registration of a talker name number is displayed.
**Note 2:** A talker name is deleted in p2 = “ “
**Note 3:** When p1 and p2 are omitted, all the registered contents are displayed. When a talker name is not registered, No Entry is displayed.

**Response:**
- Normal Response: OK
- Error Response: ERR01, ERR10
SCMK Setting Camera Model 6-3

Description: Sets types of camera which will be controlled.

Command Format: SCMK p1

   p1: S : EVI-D30
       C : VC-C1

Response: Normal Response: OK
           Error Response: ERR01

RCMK Checking Camera Model Setting 6-4

Description: Checks current camera control setting.

Command Format: RCMK

Response: Normal Response: p1 OK
           Error Response: ERR01
3.7 Communication Status Reading Command

**RMAC   Read Manufacturer Code  7-1**

**Description:** Acquires manufacturer code of a remote site.

**Command Format:** RMAC

**Response:** Normal Response: p1 p2 p3 p4 p5 OK

- p1: 00-FF: Manufacturer code 49: NEC Else: other vendor
- p2: 00-FF: Division code 00: NEC Else: other division of NEC
- p3: 00-FF: Unit code 01: TC5000EX7/10 02: MMVC 03: VL128/384 10: MCU5000A Else: Reserved
- p4: 00-FF: Own Capability code
  - D7 D6 D5 D4 D3 D2 D1 D0
    - D0: Kanji Display Capability 0: Off (option) 1: On (option)
    - D1: Composite Screen Display Capability 0: Off 1: On
    - D2: H281 Camera Control Capability 0: Off (option) 1: On (option)
- p5: 00-FF: Reserved

**Error Response:** ERR01 ERR07 ERR42 ERR46 ERR47 ERR85 ERR87
**RMOD**  
**Read Common Mode During Communication**  

**Description:** Reads negotiated parameter setting.

**Command Format:** RMOD

**Response:** Normal Response: p1 p2 p3 p4 p5 p6 p7 p8 OK

- **p1:**  
  - 64 : 56/64 kbps
  - 2x64 : 2x56/2x64 kbps
  - 192 : 168/192 kbps
  - 256 : 224/256 kbps
  - 320 : 280/320 kbps
  - 384 : 336/384 kbps

- **p2:**  
  - 56 : 56 kbps network
  - 64 : 64 kbps network

- **p3:**  
  - QCIF/FCIF : video format

- **p4:**  
  - ULW/ SBA/ LDC/ OFF : audio mode

- **p5:**  
  - 4.0/6.4/14.4/24.0/VMLP/Off : MLP speed

- **p6:**  
  - On/Off : MBE capability

- **p7:**  
  - On/Off : T120 capability

- **p8:**  
  - 1.2/4.8/9.6/14.4/OFF : LSD speed

**Error Response:** ERR01, ERR07, ERR42, ERR46, ERR47, ERR85, ERR87
R221 Read H.221 Synchronous Status

**Description:** This reads a status of the H.221 frame specified in ITU-T Recommendation.

**Command Format:** R221

**Response:**
- **Normal Response:** p1 OK
  - p1: AI: frame synchronization established
  - p2: DI: frame not in synchronization

**Error Response:**
- ERR01
- ERR07
- ERR42
- ERR46
- ERR47
- ERR85
- ERR87

RPNA Read Remote Site Name (at Point-to-Point)

**Description:** This reads the remote site name in Point-to-Point (P-P) connection.

**Command Format:** RPNA

**Response:**
- **Normal Response:** p1 OK
  - p1: xx ... xx: alphabet location name (within 16 characters)

**Error Response:** ERR01
RCST  Read Participating Conference Status  7-5

Description: This reads conference participating status.

Command Format: RCST

Response: Normal Response: p1 p2 OK

p1: PP : point to point connection
     MP : multi-point connection

p2: H243 : multi-point conference based on ITU-T H243
        MLP : NEC specific multi-point conference

Note: When p1 = PP, p2 is omitted.

Error Response: ERR01
### 3.8 Alarm Related Command

#### CALM  
**Read Alarm Status (1 of 2)**

**Description:** Acquires alarm status. This is used to check the information of a generated alarm and the loopback status.

**Command Format:** CALM

**Response:** Normal Response: p1 p2 p3 p4 p5 p6 OK

- **p1:** CPU/VIDEO alarm
  - D7-D0: Unused
  - D0: CPU alarm 0: normal 1: abnormal
  - D1: FAN alarm 0: normal 1: abnormal
  - D2-3: Unused 0: fixed
  - D4: VIDEO alarm 0: normal 1: input cut
  - D5-7: Unused 0: fixed

- **p2:** LINE alarm
  - D0-3: Unused 0: fixed
  - D4: Line 1 SYNC alarm 0: normal 1: abnormal
  - D5: Line 2 SYNC alarm 0: normal 1: abnormal
  - D6: Line 3 SYNC alarm 0: normal 1: abnormal
  - D7: Unused 0: fixed

- **p3:** H221 alarm
  - D0: REC alarm 0: normal 1: abnormal
  - D1: CRC alarm 0: normal 1: abnormal
  - D2-7: Unused 0: fixed
Response

**p4: Bonding alarm**

<table>
<thead>
<tr>
<th>D7</th>
<th>D6</th>
<th>D5</th>
<th>D4</th>
<th>D3</th>
<th>D2</th>
<th>D1</th>
<th>D0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D0: Bonding frame loss 0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D1: Bonding speed negotiation fail 0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2: Network type negotiation fail 0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3: Dialing number negotiation fail 0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4: Additional channel connection fail 0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D5-7: Unused 0: fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p5: TEST status**

<table>
<thead>
<tr>
<th>D7</th>
<th>D6</th>
<th>D5</th>
<th>D4</th>
<th>D3</th>
<th>D2</th>
<th>D1</th>
<th>D0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D0-3: Unused 0: fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4-5: Local Loopback 00: Off 01: Video 10: Audio 11: LINE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D6-7: Unused 0: fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**p6: TEST status 2**

<table>
<thead>
<tr>
<th>D7</th>
<th>D6</th>
<th>D5</th>
<th>D4</th>
<th>D3</th>
<th>D2</th>
<th>D1</th>
<th>D0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D0-1: Video mute 0: OFF 1: ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2-3: Unused 0: Fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4: Audio mute 0: OFF 1: ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D5: Line 1 loopback 0: OFF 1: ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D6: Line 2 loopback 0: OFF 1: ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D7: Line 3 loopback 0: OFF 1: ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Error Response: ERR01 ERR07 ERR87
3.9 History Reading Command

**RLAM**  Read Communication/Alarm History

**Description:** Acquires communication history and alarm history.

**Command Format:**

```
RLAM  p1  p2  p3
```

- **p1:**  
  - L: communication history
  - A: alarm history
- **p2:** yyyy/mm/dd/hh:mm: starting date
- **p3:** yyyy/mm/dd/hh:mm: ending date
  - yyyy: year
  - mm: month
  - dd: date
  - hh: hour
  - mm: minute

**Note:** p2 and p3 can be omitted. If so, all the histories are output.

**Response:**

- **Normal Response:** p1 p2 OK
  
  - **p1:** [yyyy/mm/dd hh:mm]: date
  - **p2:** xxxxxxxxxx: contents of history (xx is moved to a new line after 50 byte)

- **Error Response:** ERR01

**Example 1:** Communication history

```
RLAM L
[1997/10/20/09:46] NALT
[1997/10/20/09:47] NONL 2B
[1997/10/20/09:57] NDCI 00:10:00 ¥110#016#016
OK
```

**Example 2:** Alarm history

```
RLAM A
[1997/10/20/09:35] RALM 10 00 00 00 00 00
[1997/10/20/09:37] RALM 00 00 01 00 00 00
[1997/10/20/09:38] RALM 00 00 00 00 00 00
OK
```
3.10 Registering Local Location Name Command

MRNS Registering Local Site Name

Description: Registers a local site location name.

Command Format: MRNS p1 p2

- p1: xxxxxxxx : alphabet location name (within 16 characters)
- p2: XXXXXXXX : character location name (within 16 characters)

Note 1: When p1 is omitted, a location name is deleted.
Note 2: When p1 is omitted, p2 is omitted.

Response: Normal Response : when parameter is specified OK
          : when parameter is omitted p1 p2 OK

- p1: xxxxxxxx : alphabet location name (within 16 characters)
- p2: XXXXXXXX : character location name (within 16 characters)

Error Response: ERR01
3.11 Serial Port Control Command

### SSIO Setting Serial Port

**Description:** VisuaLink is equipped with two serial ports, and four possible settings:
- T120 data conference
- Camera control
- External console control
- User data (Not compliant to T.120)

**Command Format:**

```
SSIO  p1
```

* p1: 1  Serial 1 = T120  Serial 2 = Console
  2  Serial 1 = Camera  Serial 2 = Console
  3  Serial 1 = T120  Serial 2 = Camera
  4  Serial 1 = Console  Serial 2 = Camera
  5  Serial 1 = User data  Serial 2 = Console
  6  Serial 1 = User data  Serial 2 = Camera

**Response:** Normal Response OK

**Error Response:** ERR01

### RSIO Checking Serial Port Setting

**Description:** Checks the current serial port configuration.

**Command Format:**

```
RSIO
```

**Response:** Normal Response p1 OK

```
p1: 1  Serial 1 = T120  Serial 2 = Console
  2  Serial 1 = Camera  Serial 2 = Console
  3  Serial 1 = T120  Serial 2 = Camera
  4  Serial 1 = Console  Serial 2 = Camera
  5  Serial 1 = User data  Serial 2 = Console
  6  Serial 1 = User data  Serial 2 = Camera
```

**Error Response:** ERR01
3.12 Acquiring Version Command

**RVER Requesting Software Version**

<table>
<thead>
<tr>
<th>Description:</th>
<th>Acquires the VisuaLink software version.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command Format:</td>
<td>RVER</td>
</tr>
<tr>
<td>Response:</td>
<td>Normal Response:p1 p2 OK</td>
</tr>
</tbody>
</table>

- p1: xxxxxxxx : F/W version
- p2: xxxxxxxx : DSP version

Error Response:  
- ERR01  
- ERR07  
- ERR87
3.13 Maintenance Command

SLLB  Setting Local Loopback

Description: Sets local loopback process.
VisuaLink is equipped with a loopback test point inside a terminal for autonomous diagnosis as a maintenance feature. Loopback points are as follows:
- AUDIO: analog audio section loopback
- VIDEO: analog video section loopback
- LINE: line interface section loopback

Command Format: SLLB p1

p1: Off : release
    AUDIO : audio loopback
    VIDEO : video loopback
    LINE : line loopback

Response: Normal Response OK

Error Response:
- ERR01
- ERR07
- ERR13
- ERR14
- ERR38
- ERR45
- ERR47
- ERR87

RLLB  Checking Local Loopback Setting

Description: Checks the current loopback status.

Command Format: RLLB

Response: Normal Response: p1 OK

Error Response:
- ERR01
- ERR87
3.14 Report Response Control Command

**ITCS** Conference Status Report Control

| Description: | Activation/deactivation of conference status reporting for things such as: CAMI/CPNI/STEI |
| Command Format: | ITCS p1 |
| p1: | ON : report |
| | OFF : not report |

**Note:** p1 can be omitted. If so, the current set value is displayed.

| Response: | Normal Response: When parameter is omitted: p1 OK |
| | p1: ON : report |
| | OFF : not report |

| Error Response: | ERR01 |

**IMCU** Multi-point Conference Status Report Control

| Description: | Activation/deactivation of multipoint conference status reporting for things such as: COPI/CSPI/CRPI/CVCI/CSSC/CMPI/CJNI/CSTI |
| Command Format: | IMCU p1 |
| p1: | ON : report |
| | OFF : not report |

**Note:** p1 can be omitted. If so, the current set value is displayed.

| Response: | Normal Response: When parameter is omitted: p1 OK |
| | p1: ON : report |
| | OFF : not report |

| Error Response: | ERR01 |
I243  H.243 Report Control  14-3

Description: Activation/deactivation of H.243 multipoint conference status reporting for such things as: COPI/CSPI/CRPI/CVCI/CSSC/CMPI/CJNI/CSTI

Command Format: I243 p1

p1: ON : report
    OFF : not report

Note: p1 can be omitted. If so, the current set value is displayed.

Response: Normal Response: When parameter is omitted: p1 OK

p1: ON : report
    OFF : not report

When parameter is specified: OK

Error Response: ERR01

ICGP  Command Generator Related Report Control  14-4

Description: Activation/deactivation of the command generator status reporting for things such as: CGSI/CGEI

Command Format: ICGP p1

p1: ON : report
    OFF : not report

Note: p1 can be omitted. If so, the current set value is displayed.

Response: Normal Response: When parameter is omitted: p1 OK

p1: ON : report
    OFF : not report

When parameter is specified: OK

Error Response: ERR01
### 3.15 Maintenance and Other Command

#### ISPR  Setting Parameter Initialization  15-1

<table>
<thead>
<tr>
<th>Description</th>
<th>Initializes all VisuLink values to factory default.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command Format</td>
<td>ISPR</td>
</tr>
<tr>
<td>Response</td>
<td>Normal Response OK</td>
</tr>
<tr>
<td>Error Response</td>
<td>ERR01</td>
</tr>
</tbody>
</table>

#### CRAM  Clearing Backup Memory  15-2

<table>
<thead>
<tr>
<th>Description</th>
<th>Initializes registered data.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command Format</td>
<td>CRAM p1</td>
</tr>
<tr>
<td>p1: T:</td>
<td>abbreviated speed dial registration</td>
</tr>
<tr>
<td>S:</td>
<td>camera preset registration</td>
</tr>
<tr>
<td>Note:</td>
<td>If not specified, both registered contents are initialized.</td>
</tr>
<tr>
<td>Response</td>
<td>Normal Response OK</td>
</tr>
<tr>
<td>Error Response</td>
<td>ERR01</td>
</tr>
</tbody>
</table>

#### RRST  System Reset Request  15-3

<table>
<thead>
<tr>
<th>Description</th>
<th>Resets the VisuLink.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command Format</td>
<td>RRST</td>
</tr>
<tr>
<td>Response</td>
<td>Normal Response OK</td>
</tr>
<tr>
<td>Error Response</td>
<td>ERR01</td>
</tr>
</tbody>
</table>
### WCLK Setting System Clock

#### Description:
Sets the VisuaLink built-in system clock, date and time.

#### Command Format:
WCLK p1-p2-p3 p4:p5:p6 (p7)

- `p1`: `yyyy` : year
- `p2`: `01-12` : month
- `p3`: `01-31` : date
- `p4`: `01-24` : hour
- `p5`: `00-59` : minute
- `p6`: `00-59` : second
- `p7`: `xxx` : day of the week (MON/ TUE/ WED/ THU/ FRI/ SAT/ SUN)

#### Response:
Normal Response OK

#### Error Response:
ERR01

### RCLK Checking System Clock Setting

#### Description:
Reads the VisuaLink built-in system clock, date and time.

#### Command Format:
RCLK

#### Response:
Normal Response p1-p2-p3 p4:p5:p6 (p7) OK

- `p1`: `yyyy` : year
- `p2`: `01-12` : month
- `p3`: `01-31` : date
- `p4`: `01-24` : hour
- `p5`: `00-59` : minute
- `p6`: `00-59` : second
- `p7`: `xxx` : day of the week (MON/ TUE/ WED/ THU/ FRI/ SAT/ SUN)

#### Error Response:
ERR01
3.16 Mutli-point Conference Status Command

**RMNA Read Multi-point Conference Participating Location Name**

Description: Acquires location name of all location participating locations in multi-point conference.

Command Format: RMNA p1

p1: 1-255 : conference room number (can be specified in multiple)

Response: Normal Response p1 p2 p3 OK

p1: 1-999 : conference room number
p2: xxxxxxxx : location name in alphabet
p3: XXXXXXXX : location name in Japanese character

Error Response: ERR01
ERR24
RMST  Read Multi-point Conference Operation Status (NEC Specific)  16-2

Description: Acquires a status of a multi-point conference status when in activated for NEC specific multi-point conference.

Command Format: RMST p1 p2 p3 p4 p5 p6 ........... p18

- p1: 1-14 : local site conference number
- p2: 0000-FFFF : conference participating status 1: participate 0: not participate
- p3: 0000-FFFF : terminal connection status 1: connect 0: not connected
- p4: 0000-FFFF : audio switch status 1: switch 0: not switch
- p5: 0000 : fixed
- p6 0000 : fixed
- p7: 1-14 : operator conference room number 00: no operator
- p8: 1-14 : conference room number of the originator of multiple address transmission
- p9: 1-14 : conference room number of a location receiving multiple address transmission.
- p10: 1-14 : conference room number of the originator of a transmission at a specify video reception. It is not a specific video reception if it is 00.
- p11: 0 : fixed
- p12: 0 : fixed
- p13: 0 : fixed
- p14: 0 : fixed
- p15: 0 : fixed
- p16: 0 : fixed
- p17: 1111 : fixed
- p18: 0-1 : local office in transmission 0: not transmitting 1: transmitting

Note 1: When p1 = 0, a local site withdraw from a multi-point conference.

Note 2: Bit assignment of 0000-FFFF is as follows:

```
X X 14 13 12 11 10 9 8 7 6 5 4 3 2 1
        |     |     |     |     |     |     |     |     |     |     |     |     |  
        | Master Only  
        | Slave      
        | Master    
```
**RMPS**  
Read Multi-point Conference Operation Status  

| Description: | Acquires the multi-point conference status. |
| Command Format: | RMPS |
| Response: | Normal Response p1 p2 p3 p4 p5 p6 OK |
| p1: | 1-255 : local site conference room number |
| p2: | 0/1 : status of acquisition of a right to operate in a local site |
| p3: | 1-255 : location number of a video being received |
| p4: | 0/1 : local site video transmitting status 0: OFF 1: ON |
| p5: | 1-255 : a number of multi-point conference participants |
| p6: | 0/1 : screen composite capability 0: none 1: yes |

Error Response: ERR01

**RMMD**  
Read Multi-point Conference Mode Status  

| Description: | Acquires the multi-point conference mode status. |
| Command Format: | RMMD |
| Response: | Normal Response p1 OK |
| p1: | 1 : audio switch |
| 2 : local site video transmission |
| 3 : chairman control |
| 4 : selective receive |
| 5 : a status of multiple address transmission by operator |

Error Response: ERR01
3.17 Model Identification Command

RMES     Read Model Identification

Description: Read model identification
Command Format: RMES
Response: Normal Response p1 p2 OK
          p1: TC2000_EC : VL128
               TC2000_6B : VL384
          p2: F/W version: ex. V01.01.01
Error Response: ERR01
### 3.18 Audio Training Command

<table>
<thead>
<tr>
<th>ECTS</th>
<th>Audio Training Command</th>
<th>18-1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
<td>Initiate audio training. White noise is generated while 7 seconds.</td>
<td></td>
</tr>
<tr>
<td><strong>Command Format:</strong></td>
<td>ECTS</td>
<td></td>
</tr>
<tr>
<td><strong>Response:</strong></td>
<td>Normal Response OK</td>
<td></td>
</tr>
<tr>
<td><strong>Error Response:</strong></td>
<td>ERR01</td>
<td></td>
</tr>
</tbody>
</table>
### 3.19 ISDN Control Command

**NCRN Requesting Connection**

<table>
<thead>
<tr>
<th>Description:</th>
<th>Placing a BRI ISDN call. A call can be requested by either directly specifying a remote number or using a speed dial number. If using a speed dial number, it must be registered in advance with MDST command.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command Format:</td>
<td>NCRN p1 p2 p3</td>
</tr>
</tbody>
</table>
| **p1:** | #xx : speed dial call (xx : speed dial number)  
0-9 : dial number (within 20-digit)  
Sub address (within 8-digit)  
* : address/ sub address  
** : ch1/ ch2 separating code  
R : redial |
| **p2:** | B : 64 kbps  
2B : 2x64 kbps  
3B : 192 kbps  
4B : 256 kbps  
5B : 320 kbps  
6B : 384 kbps  
TEL : telephone |
| **p3:** | 64 : P x 64 k network  
56 : P x 56 k network |

**Note 1:** With p1: speed dial, p2 and p3 are omitted.  
**Note 2:** When p3: is omitted, “64” is set.  
**Note 3:** When p3 = TEL, p4 is omitted.

**Response:** Normal Response OK

**Error Response:** ERR01  
ERR05  
ERR33  
ERR34  
ERR35  
ERR41  
ERR43  
ERR44  
ERR45  
ERR47  
ERR48  
ERR86  
ERR87

**Note:** If VL128, setting 3B - 6B in p1 results in error.
**NDSC**  
**Requesting Disconnection**

| Description: | A disconnect in an BRI ISDN call. This command is used to execute a disconnection request and ending communication. |
| Command Format: | NDSC |
| Response: | Normal Response: **OK**  
**Error Response:**  
**ERR01**  
**ERR41**  
**ERR46**  
**ERR48**  
**ERR87** |

**NCIC**  
**Incoming Call Permit/Reject**

| Description: | Permits or rejects incoming call on the BRI ISDN live. When a manual incoming call mode is selected with a SINC command, NCIC command permits or rejects an incoming call for NINC indication. |
| Command Format: | NCIC p1  
    p1: YES : permit  
    NO : reject |
| Response: | Normal Response: **OK**  
**Error Response:**  
**ERR01**  
**ERR05**  
**ERR41**  
**ERR42**  
**ERR87** |
NSTQ  Communication Status Inquiry  19-4

Description: Gives a status on the ISDN communication.

Command Format: NSTQ

Response: Normal Response p1 p2 p3 p4 p5 p6 p7 OK

p1: B : communication speed B
    2B : communication speed 2B
    3B : communication speed 3B
    4B : communication speed 4B
    5B : communication speed 5B
    6B : communication speed 6B
    TEL : communication speed TEL

p2: xx : ch1 communication status (see below)
p3: xx : ch2 communication status (see below)
p4: xx : ch3 communication status (see below)
p5: xx : ch4 communication status (see below)
p6: xx : ch5 communication status (see below)
p7: xx : ch6 communication status (see below)

Communication Status xx =  
01: no communications
02: dialing
03: waiting to connect
04: calling
05: checking a response
06: communicating
07: disconnecting

Error Response: ERR01
    ERR05
    ERR41
    ERR87

Note: If VL128, p4 ~ p7 are not reported.
3.20 Camera Control Command

CAMS Request for Camera Direction Change

Description: Sets camera head swing control. This command is valid only when an preset or auto mode camera is in use. A control of Camera 2 is only valid when the camera is the EVI-D30 type.

Command Format: CMAS p1 p2

- p1: L1-2 : local camera 1/2 control
  R1-2 : remote camera 1/2 control
- p2: 1-9 : preset number
  Z x : zoom change
  F x : focus change
  P x : pan change
  T x : tilt change
  UP x : diagonally upper direction
  DP x : diagonally lower direction
  H : center

Note: x: + : positive direction
  - : negative direction
  0 : stop moving (changing)

Response: Normal Response OK

Error Response: ERR01
               ERR11
               ERR12
               ERR16
               ERR20
               ERR27
### 3.21 Option Control Command

#### POCS  
**Pointer Control**

**Description:** Activates or deactivates the on-screen pointer. The pointer is displayed at the remote monitor. This pointer can only be activated when both systems (Remote/Local) are set to a NEC mode.

**Command Format:**

```
POCS p1 p2 p3
```

- **p1:** ON/OFF : control on/off
- **p2:** 1-99 : X-axis
- **p3:** 1-99 : Y-axis

**Response:**

- **Normal Response:** When Parameter is Omitted: p1 p2 p3 OK
- **When Parameter is Specified:** OK

**Error Response:** ERR01

#### VCTS  
**Talker Detection Control**

**Description:** Activates or deactivates talker detection. When audio is detected the camera will move to a selected preset (1-3). This command is valid only with preset or auto mode camera.

**Command Format:**

```
VCTS p1
```

- **p1:** ON : speaker detection control ON
- **p2:** OFF : speaker detection control OFF

**Response:**

- **Normal Response:** When Parameter is Omitted: p1 OK
- **When Parameter is Specified:** OK

**Error Response:** ERR01
**STPR**  **SnapShot Transmission Request**  21-3

Description: Sends a snapshot (still graphic) image to the remote site.

Command Format:  STRP

Response:  Normal Response: OK

Error Response: ERR01

**SXMR**  **Standard Display Screen Setting Request**  21-4

Description: Requests for a display setting change when going through the MCU. This command is only valid when going through an NEC multi-point control unit, that has multi-screen control capability.

Command Format:  SXMR p1

- **p1**:  
  - S : single screen
  - M : multiple composite screen

Response:  Normal Response: When Parameter is Omitted: p1 OK

- **p1**:  
  - S : single screen
  - M : multiple composite screen

When Parameter is Specified: OK

Error Response: ERR01
**SXST**  
**Request to Acquire Composite Screen Setting**  

**Description:** Request for status on the various video screens displays. This command is only valid when going through an NEC multi-point control unit MCU5000A, that has multi-screen control capability.

**Command Format:** SXST p1 p2 p3

- **p1:** Composite Screen Status
  
<table>
<thead>
<tr>
<th>D7</th>
<th>D6</th>
<th>D5</th>
<th>D4</th>
<th>D3</th>
<th>D2</th>
<th>D1</th>
<th>D0</th>
</tr>
</thead>
<tbody>
<tr>
<td>D7-D5</td>
<td>0 fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4-D3</td>
<td>re-lineup 00: none 10: in the order of terminal number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td>speaker display 0: none 1: yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D1-D0</td>
<td>0 fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **p2:** Number of Composite Screen
  - 04: 4 screens
  - 09: 9 screens
  - 16: 16 screens

- **p3:** Composite Pattern
  - A fixed

**Response:** Normal Response: When Parameter is specified: OK

When Parameter is omitted:

p1 p2/p3 p4=p5; p6

OK

- **p1:** Composite Screen Status

<table>
<thead>
<tr>
<th>D7</th>
<th>D6</th>
<th>D5</th>
<th>D4</th>
<th>D3</th>
<th>D2</th>
<th>D1</th>
<th>D0</th>
</tr>
</thead>
<tbody>
<tr>
<td>D7-D5</td>
<td>0 fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4-D3</td>
<td>re-lineup 00: none 10: in the order of terminal number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td>speaker display 0: none 1: yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D1-D0</td>
<td>0 fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **p2:** Number of Composite Screen
  - 04: 4 screens
  - 09: 9 screens
  - 16: 16 screens

- **p3:** Composite Pattern
  - A fixed

- **p4:** Composite Screen Position
  - 01~16

- **p5:** MCU number
  - 00-FF

- **p6:** Terminal number
  - 00-FF

**Example:** SXST

00 04/A 01=01:01 02=01:02 03=01:03

OK

**Error Response:** ERR01
3.22 Multi-point Conference Control

COPR Request to Chairman Control

Description: Acquires or deletes chairman control. Command is only valid when the VisuaLink is in a multi-point conference.

Command Format: COPR p1 p2

- p1: 1-14 : conference room number (specified only in a NEC specific multi-point conference)
- p2: ON : acquire
      OFF : release

Note 1: When p1 is omitted, it becomes a local office conference room number.

Note 2: p1 is omitted in H.243 multi-point conference.

Response: Normal Response OK

Error Response: ERR01
               ERR20
               ERR22
               ERR23
               ERR24
               ERR26
**CSPR**  Multiple Address Transmission Request

**Description:** Acquires the simulcast transmission.

**Command Format:** CSPR p1

p1: 0-255: conference room number to be received
     *: composite screen display

**Note 1:** When p1 is omitted, it becomes a local office conference room number. Also in a NEC specific multi-point conference, 1-14 only can be specified.

**Note 2:** In p1, * is valid only when a MCU to connect has a capability of screen composition.

**Note 3:** In p1, “0” is valid in H.243 multi-point conference. It means a release of simulcast transmission.

**Response:**

Normal Response  OK

**Error Response:**

ERR01
ERR20
ERR22
ERR23
ERR24
ERR26
**CRPR**  
**Specific Picture Reception Request**  
22-3

**Description:** Activates or deactivates selective receive mode.

**Command Format:** CRPR p1 p2 p3

- **p1:** 1-255 : reception side conference room number
- **p2:** 1-255 : transmission side conference room number
- **p3:**
  - ON : reception selection setting/release
  - OFF : reception selection release

**Note 1:** When p1 is omitted, it becomes a local office conference room number.

**Note 2:** p1 is omitted in H.243 multi-point conference.

**Note 3:** In p2, * is valid only when a MCU to connect has a capability of screen composition. Also in a NEC specific multi-point conference, 1-14 only can be specified.

**Response:** Normal Response OK

**Error Response:** ERR01
ERR20
ERR22
ERR23
ERR24
ERR26

---

**CMPR**  
**Request to Switch Multiple Address Originator Monitor**  
22-4

**Description:** Request to switch the broadcasting video image at the originator’s monitor. This command is only available when it is in a NEC specific conference mode.

**Command Format:** CMPR p1

- **p1:** 1-14 : conference room number

**Response:** Normal Response OK

**Error Response:** ERR01
ERR20
ERR22
ERR23
ERR24
ERR26
3.23 Opening Control Command

OMES Opening Message at Unit Activation

Description: Report opening message at power up. This is reported when the unit is automatically re-start due to some failure. In the case of automatic reset, please perform necessary procedures to reconnect the line.

Command Format: OMES p1 p2

p1: TC2000-EC : VL128
TC2000-6B : VL384
p2: F/W version (ex) V01.00.00
3.24 Communication Status Report Command

**H221**  
**H.221 Synchronous Status Report**

**Description:**  
H.221 reporting status change.

**Command Format:**  
H221 p1

- **p1:**
  - AI: synchronization established
  - DI: out of synchronization

**IMAC**  
**Manufacturer Code Report**

**Description:**  
Reports a manufacturer code for the remote site.

**Command Format:**  
IMAC p1 p2 p3 p4 p5 OK

- **p1:**  
  - 00-FF: Manufacturer code
  - 49: NEC
    - Else: other vendor
  - 00-FF: Division code
  - 00: NEC
    - Else: other division of NEC
  - 00-FF: Unit code
  - 00: TC5000EX7
    - 01: TC5000EX10
    - 02: MMVC
    - 03: VL128/384
    - 10: MCU5000A
    - Else: Reserved

- **p4:**  
  - 00-FF: Own Capability code

- **p5:**  
  - 00-FF: Reserved
IMOD Report of Common Mode in Communication

Description: Reports the negotiated mode during a communication.

Command Format: RMOD p1 p2 p3 p4 p5 p6 p7 p8

p1:  B/2B/3B/4B/5B/6B : communication speed
p2:  56/64 : network TYPE
p3:  QCIF/FCIF : video format
p4:  ULW/ SBA/ LDC/ OFF : audio mode
p5:  4.0/6.4/14.4/24.0/VMLP/OFF : MLP speed
p6:  ON/OFF : MBE capability
p7:  ON/OFF : T120 capability
p8:  1.2/4.8/9.6/14.4/OFF : LSD SPEED
3.25 Alarm Status Report Command

RALM Alarm Status Change Report (1 of 2)

Description: Reports the VisuaLink alarm status. This is reported when alarm and loopback status is changed.

Command Format: RALM p1 p2 p3 p4 p5 p6

p1: 00-FF: CPU/VIDEO alarm
    D0: CPU alarm 0: normal 1: abnormal
    D1: FAN alarm 0: normal 1: abnormal
    D2-3: Unused 0: fixed
    D4: VIDEO alarm 0: normal 1: input cut
    D5-7: Unused 0: fixed

p2: LINE alarm
    D0-3: Unused 0: fixed
    D4: SYNC alarm 0: normal 1: abnormal
    D5: SYNC alarm 0: normal 1: abnormal
    D6: SYNC alarm 0: normal 1: abnormal
    D7: Unused 0: fixed

p3: H221 alarm
    D0: REC alarm 0: normal 1: abnormal
    D1: CRC alarm 0: normal 1: abnormal
    D2-7: Unused 0: fixed
p4: Bonding alarm

<table>
<thead>
<tr>
<th>D7</th>
<th>D6</th>
<th>D5</th>
<th>D4</th>
<th>D3</th>
<th>D2</th>
<th>D1</th>
<th>D0</th>
</tr>
</thead>
<tbody>
<tr>
<td>D0</td>
<td>Bonding frame loss</td>
<td>0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D1</td>
<td>Bonding speed negotiation fail</td>
<td>0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td>Bonding type negotiation fail</td>
<td>0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3</td>
<td>Dial number negotiation fail</td>
<td>0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4</td>
<td>Additional channel connecting error</td>
<td>0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D5-7</td>
<td>Unused</td>
<td>0: fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p5: TEST status

<table>
<thead>
<tr>
<th>D7</th>
<th>D6</th>
<th>D5</th>
<th>D4</th>
<th>D3</th>
<th>D2</th>
<th>D1</th>
<th>D0</th>
</tr>
</thead>
<tbody>
<tr>
<td>D0-3</td>
<td>Unused</td>
<td>0 fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4-5</td>
<td>Local Loopback</td>
<td>00: Off</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>01: Video</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10: Audio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>11: LINE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D6-7</td>
<td>Unused</td>
<td>0 fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P6: TEST status 2

<table>
<thead>
<tr>
<th>D7</th>
<th>D6</th>
<th>D5</th>
<th>D4</th>
<th>D3</th>
<th>D2</th>
<th>D1</th>
<th>D0</th>
</tr>
</thead>
<tbody>
<tr>
<td>D0-1</td>
<td>Video mute</td>
<td>0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2-3</td>
<td>Unused</td>
<td>0: fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D4</td>
<td>Audio mute</td>
<td>0: normal 1: abnormal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D5</td>
<td>Line 1 loopback</td>
<td>0: OFF 1: ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D6</td>
<td>Line 2 loopback</td>
<td>0: OFF 1: ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D7</td>
<td>Line 3 loopback</td>
<td>0: OFF 1: ON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.26 Video Status Report Command

<table>
<thead>
<tr>
<th>RVSR</th>
<th>Incoming Video Synchronous Status Report</th>
</tr>
</thead>
</table>

Description: VisuaLink monitors a synchronization status of a received video, and a report is made when a received video synchronization status changes.

Command Format: RVSR p1

- **p1:**
  - AI : synchronization established
  - DI : out of synchronization
### 3.27 Participating Status Report Command

<table>
<thead>
<tr>
<th>ICST</th>
<th>Participating Conference Status Report</th>
</tr>
</thead>
</table>

**Description:** Reports participating conference status.

**Command Format:**

```
ICST p1 p2
```

- **p1:**
  - PP : point – point connection
  - MP : multipoint connection

- **p2:**
  - H243 : multi-point conference based on ITU-T H243
  - MLP : NEC specific multi-point conference

**Note:** When p1 = PP, p2 is omitted.
3.28 ISDN Report Command

**NALT** Display During Calling

- **Description:** Call report status an origination point. This means calling to remote site.
- **Command Format:** NALT

**NINC** Incoming Call Report

- **Description:** Incoming call report. This is a report to indicate a request for connection from a remote unit has been received.
- **Command Format:** NINC p1 p2 p3

  - p1: M : manual incoming call mode
  - A : automatic incoming call mode
  - S : selective incoming call mode

  - p2: Remote site number

  - p3: B : 64 kbps
  - TEL : TEL

**NONL** On-line Report

- **Description:** This is an on-line report. This report to shows the VisuaLink is in communications.
- **Command Format:** NONL p1

  - p1: B : 64 kbps
  - 2B : 2x64 kbps
  - 3B : 192 kbps
  - 4B : 256 kbps
  - 5B : 320 kbps
  - 6B : 384 kbps
  - TEL : TEL
Description: Reports disconnecting the ISDN line. This is a report to show that communication is disconnected. Section 9 describes the disconnection reason.

Command Format: NDCI p1 p2 p3 p4 p5 p6 p7 p8

- p1: hh:mm:ss : communication time (hour: minute: seconds)
- p2: xxxxx : communication fee (0-99, 999)
- p3: #000-#999 : Reason for CH1 disconnection
- p4: #000-#999 : Reason for CH2 disconnection
- p5: #000-#999 : Reason for CH3 disconnection
- p6: #000-#999 : Reason for CH4 disconnection
- p7: #000-#999 : Reason for CH5 disconnection
- p8: #000-#999 : Reason for CH6 disconnection

Note: If VL128, p5 ~ p8 do not apply.
### 3.29 Camera Control Report Command

**CAMI Camera Status Report**

*Description:* This is a status report on the remote camera condition. (When remote camera control is used)

*Command Format:* CAMI p1

- **p1:**
  - 0: not connected
  - 1: fixed camera
  - 3: preset camera

**CPNI Talker Name Display Report**

*Description:* This is a report on a conference room number of a remote camera and a preset talker name.

*Command Format:* CPNI p1 p2

- **p1:**
  - 0-99: conference room number

- **p2:**
  - xxxxx: preset talker name (alphabet 16-character)
### 3.30 Option Control Report Command

#### STEI SnapShot Transmission Ending Report

<table>
<thead>
<tr>
<th>Description</th>
<th>Command Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is a report notifying a snapshot transmission is completed.</td>
<td>STEI p1</td>
</tr>
<tr>
<td>p1: OK : normal ending</td>
<td></td>
</tr>
<tr>
<td>p1: NG : failure</td>
<td></td>
</tr>
</tbody>
</table>

#### RFVR SnapShot Reception Report

<table>
<thead>
<tr>
<th>Description</th>
<th>Command Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is a report when receiving a snapshot picture.</td>
<td>RFVR p1</td>
</tr>
<tr>
<td>p1: 01: receiving</td>
<td></td>
</tr>
<tr>
<td>p1: 00: receiving is completed</td>
<td></td>
</tr>
</tbody>
</table>
3.31 Other Report Command

**CGSI**  
**Automatic Activation File Starting Report**

Description:  This is a report to show the start of auto executed file.

Command Format:  
```
CGSI p1
```

p1: 0-7 : number of file for auto executed file

**CGEI**  
**Automatic Activating File Ending Report**

Description:  This is a report to show the completion of auto executed file.

Command Format:  
```
CGEI p1 p2
```

p1: 0-7 : number of file for auto executed file  
p2: xxxxx : ending result  

xxxx :  
OK : normal ending  
EMPTY : no data  
EX ERR : access error  
CMD ERR : command execution error
3.32 Multi-Point Related Report Command

**IMPS**  Multi-point Conference Operation Status Report  32-1

Description: This is a report on the status of multi-point conference.

Command Format: IMPS p1 p2 p3 p4 p5 p6

- p1: 1-255 : local site conference room number
- p2: 0/1 : status of acquisition of a right to operate in a local site
  - 1: acquired
  - 0: released
- p3: 1-255 : location number of a video transmitting
- p4: 0/1 : local site transmitting status
  - 0: OFF
  - 1: ON
- p5: 1-255 : a number of multi-point conference participants
- p6: 0/1 : screen composite capability
  - 0: none
  - 1: yes

**IMMD**  Multi-point Conference Mode Status Report  32-2

Description: This is a report on the status of multi-point conference mode.

Command Format: IMMD p1

- p1: 1: audio switch
  - 2: local site transmission
  - 3: operator
  - 4: reception selection
  - 5: a status of multiple address transmission by operator

**COPI**  Acquisition of Right to Operate Report  32-3

Description: This is a report on the acquisition or release of right of chairman mode.

Command Format: COPI p1 p2

- p1: 1-255 : conference room number
- p2: ON/OFF : acquire/ release
**CSPI**  
**Multiple Address Transmission Report**  
32-4

Description: This is to report the completion of a simulcast transmission.

Command Format:  
CSPI p1  

p1: 0-255, *: conference room number

*Note 1:* When p1 = 0, it indicates a release of a multiple address transmission in H.243 multi-point conference.

*Note 2:* When p1 = *, it indicates a screen composition.

---

**CRPI**  
**Specific Picture Reception Report**  
32-5

Description: This report on a completion of specific video reception process.

Command Format:  
CRPI p1 p2 p3  

p1: 1-255: reception side conference room number  
p2: 1-255/*: transmission side conference room number  
p3: ON/OFF: reception selection setting/release

*Note 1:* In a NEC specific multi-point conference, 1-14 only can be specified.

*Note 2:* In p2, * indicates a screen composition.

---

**CVCI**  
**Talker Detection Control Report**  
32-6

Description: This report the execution of an audio switch process.

Command Format:  
CVCI p1 p2  

p1: 0-255: audio switch control conference room number  
p2: ON/OFF: audio switch execution/release

*Note:* When p1 = 0, it indicates a general setting.
CSSC    SnapShot Transmission Permit Report 32-7

Description: This report is a request to transmit a snapshot.

Command Format: CSSC  p1

p1: 1-255 : conference room number where a still-picture transmission request was made.

CMPI    Multiple Address Originator Monitor Video Switch Report 32-8

Description: This report a conference room number for a monitor of a simulcast transmission originator.

Command Format: CMPI p1 p2

p1: 1-255/* : conference room number of simulcast transmission originator
p2: 1=255/*: conference room number to be monitored by simulcast transmission originator

Note: In p1 and p2, * indicates screen composition.

CJNI    Terminal Connection Report 32-9

Description: This is a terminal connection report.

Command Format: CJNI  p1

p1: 1-255 : conference room number of participating terminal
Description: This is to report the multi-point conference status. This is reported only in a NEC specific multi-point conference.


p1: 1-14 : local site conference number
p2: 0000-FFFF : conference participating status 1: participate 0: not participate
p3: 0000-FFFF : terminal connection status 1: connect 0: not connected
p4: 0000-FFFF : audio switch status 1: switch 0: not switch
p5: 0000 : fixed
p6: 0000 : fixed
p7: 1-14 : operator conference room number 00: no operator
p8: 1-14 : conference room number of the originator of multiple address transmission
p9: 1-14 : conference room number of a location receiving multiple address transmission.
p10: 1-14 : conference room number of the originator of a transmission at a specified video reception. It is not a specific video reception if it is 00.
p11: 0 : fixed
p12: 0 : fixed
p13: 0 : fixed
p14: 0 : fixed
p15: 0 : fixed
p16: 0 : fixed
p17: 1111 : fixed
p18: 0-1 : local site in transmission 0: not transmitting 1: transmitting

Note 1: When p1 = 0, a local office withdraw from a multi-point conference.

Note 2: Bit assignment of 0000-FFFF is as follows.
### 3.33 Multi-Screen Related Report Command

**XMII**  
**Composite Screen Setting Report**

**Description:** Reports a composite screen setting.

**Command Format:**  
XMII p1 p2/p3 p4=p5: p6

- **p1:** Composite Screen Status
  - D7-D5: 0 fixed
  - D4-D3: re-lineup 00: none 10: in the order of terminal number
  - D2: speaker display 0: none 1: yes
  - D1-D0: 0 fixed

- **p2:** Number of Composite Screen: 04: 4 screens 09: 9 screens 16: 16 screens

- **p3:** Composite Pattern: A fixed

- **p4:** Composite Screen Position: 01~16

- **p5:** MCU number: 00-FF

- **p6:** Terminal number: 00-FF

**Example:** XMII

00 04/A 01=01:01 02=01:02 03=01:03

**Note:** p4=p5:p6 is reported only when received from a MCU.

---

**XMCI**  
**Standard Display Screen Setting Report**

**Description:** Reports a standard display screen setting.

**Command Format:**  
XMCI p1

- **p1:**  
  - S: single screen
  - M: multiple composite screen
Description: This is a response report of composite screen setting/acquisition request.

Command Format: XSCI p1

p1: OK : normal
    ERRxx : NG
3.34 Microphone Command

**PPNI Voice Activate Microphone Report**

<table>
<thead>
<tr>
<th>Description:</th>
<th>Report microphone that inputs the voice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command Format:</td>
<td>PPNI p1</td>
</tr>
</tbody>
</table>

   p1: 1 to 3
3.35 System Error Command

**ERRI**  
*System Error Report*

<table>
<thead>
<tr>
<th>Description:</th>
<th>Report system error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command Format:</td>
<td><strong>ERRI p1</strong></td>
</tr>
</tbody>
</table>

**p1:**
- [S_RAM] BACKUP ERROR: SRAM error
- [SYSTEM] BACKUP ERROR: System parameter error
- [M.Dial] BACKUP ERROR: Speed dial information error
- [S_Name] BACKUP ERROR: Preset talker name error
- [C_PRIS] BACKUP ERROR: VC-C1 preset error
- [CG File] BACKUP ERROR: CG file error
- [S_PRIS BACKUP ERROR]: EVI-D30 preset error
- [R.Dial] BACKUP ERROR: Redial information error
- [AEC_7K] INITIAL ERROR: Echo canceller initialize failure
### 3.36 On-Screen Command

**SOSD**  **Setting On-Screen Display**

<table>
<thead>
<tr>
<th>Description</th>
<th>Sets the On-Screen displays for the VisuaLink</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command Format</td>
<td>SOSD p1</td>
</tr>
<tr>
<td>p1:</td>
<td><strong>ON:</strong> Activates the On-Screen Message</td>
</tr>
<tr>
<td></td>
<td><strong>OFF:</strong> Deactivates the On-Screen Message</td>
</tr>
<tr>
<td>Response</td>
<td>Normal Response: OK</td>
</tr>
<tr>
<td>Error Response</td>
<td>ERR01, ERR07, ERR85, ERR87</td>
</tr>
</tbody>
</table>

**Description:**
Sets the On-Screen displays for the VisuaLink.

**Command Format:**
SOSD p1

- **p1:**
  - **ON:** Activates the On-Screen Message
  - **OFF:** Deactivates the On-Screen Message

**Response:**
Normal Response: OK

**Error Response:**
ERR01, ERR07, ERR85, ERR87
3.37 Current Power OFF Condition

<table>
<thead>
<tr>
<th>CSTB</th>
<th>Current Power OFF Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Description:** Set and read the current Power OFF Condition. The CODEC outputs black video when no user intervention has been acted on for a period of time.

**Command Format:**

```
CSTB p1
```

**p1:** 00 - 10: up to 10 minutes with one minute intervals

**Response:**

- Normal Response: OK
- Normal Response: 05 OK
This page is for your notes.
4: Error Response Table

If a command input from console is not understandable or has a different configuration, an error response is transmitted to the console. Error responses are shown in the following table.

<table>
<thead>
<tr>
<th>ERR Number</th>
<th>Contents</th>
<th>Countermeasures</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERR01</td>
<td>Syntax error.</td>
<td>Check the format of a command</td>
</tr>
<tr>
<td>ERR05</td>
<td>It is a command that cannot be accepted by the current system.</td>
<td>Check current system settings</td>
</tr>
<tr>
<td>ERR06</td>
<td>It is during an initial setting.</td>
<td>Try again</td>
</tr>
<tr>
<td>ERR07</td>
<td>Time out</td>
<td>Try again</td>
</tr>
<tr>
<td>ERR09</td>
<td>It is a command that cannot be executed in the current mode.</td>
<td>Check current system settings</td>
</tr>
<tr>
<td>ERR10</td>
<td>A camera is not connected.</td>
<td>Check current system settings</td>
</tr>
<tr>
<td>ERR11</td>
<td>This is not a preset camera.</td>
<td>Check current system settings</td>
</tr>
<tr>
<td>ERR12</td>
<td>The displayed screen is not a received video, so a remote camera control cannot be performed.</td>
<td>Check current system settings</td>
</tr>
<tr>
<td>ERR16</td>
<td>NEC specific features cannot be performed.</td>
<td>Check current system settings</td>
</tr>
<tr>
<td>ERR17</td>
<td>The remote terminal has no capability to perform this command.</td>
<td>It is impossible in the current configuration</td>
</tr>
<tr>
<td>ERR18</td>
<td>Cannot be controlled for it is set for a pass-through mode.</td>
<td>VL is in remote maintenance.</td>
</tr>
<tr>
<td>ERR20</td>
<td>MLP port has not yet been established.</td>
<td>Check communication status and execute command again.</td>
</tr>
<tr>
<td>ERR21</td>
<td>Error in data speed setting combination.</td>
<td>Check current system settings</td>
</tr>
<tr>
<td>ERR22</td>
<td>The local site is not participating in the conference room.</td>
<td>Check communication status</td>
</tr>
<tr>
<td>ERR23</td>
<td>A specified conference room is not participating in a multi-point conference.</td>
<td>Check communication status and execute command.</td>
</tr>
<tr>
<td>ERR24</td>
<td>Multi-point command is either invalid or overlapping.</td>
<td>Check communication status and execute command.</td>
</tr>
<tr>
<td>ERR26</td>
<td>VL is not in multi-point conference.</td>
<td>Check communication status and execute command.</td>
</tr>
<tr>
<td>ERR32</td>
<td>It cannot be set in the current network.</td>
<td>Check communication status and execute command.</td>
</tr>
<tr>
<td>ERR37</td>
<td>The remote terminal cannot be recognized as a NEC model.</td>
<td>Check communication status and execute command.</td>
</tr>
<tr>
<td>ERR38</td>
<td>Local loopback cannot be done since it is processing a remote loopback.</td>
<td>Execute a command after release of the remote loopback.</td>
</tr>
<tr>
<td>ERR40</td>
<td>It is in a telephone communication mode.</td>
<td>Command to execute is impossible.</td>
</tr>
<tr>
<td>ERR41</td>
<td>Network in use is not an ISDN line.</td>
<td>Check current system settings</td>
</tr>
<tr>
<td>ERR42</td>
<td>No incoming call</td>
<td>Check communication status and execute command.</td>
</tr>
<tr>
<td>ERR43</td>
<td>Currently originating a call.</td>
<td>Check communication status and execute command.</td>
</tr>
<tr>
<td>ERR44</td>
<td>Incoming call</td>
<td>Check communication status and execute command.</td>
</tr>
<tr>
<td>ERR45</td>
<td>On line.</td>
<td>Check communication status and execute command again.</td>
</tr>
<tr>
<td>ERR Number</td>
<td>Contents</td>
<td>Countermeasures</td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>ERR46</td>
<td>Off line.</td>
<td>Check communication status and execute command again.</td>
</tr>
<tr>
<td>ERR47</td>
<td>Currently processing.</td>
<td>Try again</td>
</tr>
<tr>
<td>ERR48</td>
<td>Disconnecting.</td>
<td>Check communication status and execute command again.</td>
</tr>
<tr>
<td>ERR49</td>
<td>Specified delay time is not in decimal.</td>
<td>Check the format of command.</td>
</tr>
<tr>
<td>ERR50</td>
<td>Specified delay time is not in 10 ms step.</td>
<td>Check the format of command.</td>
</tr>
<tr>
<td>ERR51</td>
<td>It cannot be executed since a command generator is in execution.</td>
<td>Try again</td>
</tr>
<tr>
<td>ERR85</td>
<td>Execution is impossible.</td>
<td>Re-start VL unit</td>
</tr>
<tr>
<td>ERR86</td>
<td>File overflow of the command generator</td>
<td>Try again</td>
</tr>
<tr>
<td>ERR87</td>
<td>CODEC processing.</td>
<td>Try again</td>
</tr>
<tr>
<td>ERR88</td>
<td>Exchanging capabilities.</td>
<td>Try again</td>
</tr>
<tr>
<td>ERR90</td>
<td>Command not currently supported.</td>
<td>Command to execute is impossible.</td>
</tr>
</tbody>
</table>
### 5: List of Factors for Disconnection in Table

#### Location of Factors for Disconnection
- **LU**: Local User  
- **LN**: Local Network  
- **TN**: Transit Network  
- **RU**: Remote User  
- **RN**: Remote Network

<table>
<thead>
<tr>
<th>Number</th>
<th>Message</th>
<th>Factors for Disconnection</th>
<th>Countermeasure (Example)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td># 1</td>
<td>Unassigned number</td>
<td>Call cannot come in since it is currently a unassigned number.</td>
<td>Check the remote number.</td>
<td>LN/RU</td>
</tr>
<tr>
<td># 2</td>
<td>No route to specified transit network</td>
<td>Specified transit network cannot be recognized.</td>
<td>Check the remote number.</td>
<td>TN/LN</td>
</tr>
<tr>
<td># 3</td>
<td>No route to destination</td>
<td>No route to remote site.</td>
<td>Check the remote number.</td>
<td>LN/RU</td>
</tr>
<tr>
<td># 6</td>
<td>Cancel unacceptable</td>
<td>A channel cannot be accepted in a network.</td>
<td>After a while, retry connection.</td>
<td>LN</td>
</tr>
<tr>
<td># 7</td>
<td>Remote is busy</td>
<td>Connected channel is used.</td>
<td>After a while, retry connection.</td>
<td>LN</td>
</tr>
<tr>
<td># 16</td>
<td>Normal is busy</td>
<td>A restoration of a disconnection of a call is requested.</td>
<td>Try again</td>
<td>RU</td>
</tr>
<tr>
<td># 17</td>
<td>User busy</td>
<td>It is currently in a communication with others.</td>
<td>After a while, make a connection again.</td>
<td>RU/RN</td>
</tr>
<tr>
<td># 18</td>
<td>No user response</td>
<td>No response</td>
<td>Check status of remote unit.</td>
<td>RN</td>
</tr>
<tr>
<td># 19</td>
<td>User alerting, no answer</td>
<td>No response after a call message is received.</td>
<td>Check status of remote unit.</td>
<td>RN</td>
</tr>
<tr>
<td># 21</td>
<td>Call rejected</td>
<td>Communication is rejected.</td>
<td>Check status of remote unit.</td>
<td>RU</td>
</tr>
<tr>
<td># 22</td>
<td>Number changed</td>
<td>Remote terminal number has been changed.</td>
<td>Check remote number, make another connection.</td>
<td>LN/RU</td>
</tr>
<tr>
<td># 26</td>
<td>Non-selected user clearing</td>
<td>No incoming bell</td>
<td>After a while, retry.</td>
<td>LN</td>
</tr>
<tr>
<td># 27</td>
<td>Destination out of order</td>
<td>Remote terminal is OFF</td>
<td>Check status of remote unit.</td>
<td>RU</td>
</tr>
<tr>
<td># 28</td>
<td>Invalid number format (address incomplete)</td>
<td>Invalid format or incomplete number.</td>
<td>Check remote number and retry.</td>
<td>LN/RU/RN</td>
</tr>
<tr>
<td># 29</td>
<td>Facility rejected</td>
<td>Requested facility is not allowed.</td>
<td>Check remote number.</td>
<td>LN/RU/RN</td>
</tr>
<tr>
<td># 30</td>
<td>Response to STATUS ENquiry</td>
<td>Inquiry for status was received.</td>
<td>Check remote number and retry.</td>
<td>LU/LN</td>
</tr>
<tr>
<td># 31</td>
<td>Normal, unspecified</td>
<td>Normal status was reported.</td>
<td>After a while, retry.</td>
<td>RN</td>
</tr>
<tr>
<td># 34</td>
<td>Circuit/channel congestion</td>
<td>No line or channel is available.</td>
<td>Check communication status.</td>
<td>LN/RN/TN</td>
</tr>
<tr>
<td># 38</td>
<td>Line failure</td>
<td>Network is not functioning normally.</td>
<td>After a while, retry.</td>
<td>LU/LN/RU</td>
</tr>
<tr>
<td># 41</td>
<td>Temporary failure</td>
<td>Network is temporarily not available.</td>
<td>After a while, retry.</td>
<td>RU</td>
</tr>
<tr>
<td># 42</td>
<td>Switching equipment congestion</td>
<td>Switch is busy.</td>
<td>After a while, retry.</td>
<td>RN</td>
</tr>
<tr>
<td># 43</td>
<td>Access information discarded</td>
<td>Requested information element cannot be transmitted to a remote.</td>
<td>After a while, retry.</td>
<td>RN</td>
</tr>
<tr>
<td># 44</td>
<td>Requested channel not available</td>
<td>Reported line or channel cannot be provided.</td>
<td>After a while, retry.</td>
<td>LN/RU</td>
</tr>
<tr>
<td># 47</td>
<td>Resource unavailable, unspecified</td>
<td>Report status that other network is busy.</td>
<td>Contact a retailer or a service center.</td>
<td>RN</td>
</tr>
<tr>
<td># 49</td>
<td>This service is currently not available</td>
<td>QOS cannot be provided.</td>
<td>After a while, retry.</td>
<td>RN/RN/LN</td>
</tr>
</tbody>
</table>
### Factors of Disconnections

<table>
<thead>
<tr>
<th>Number</th>
<th>Message</th>
<th>Factors for Disconnection</th>
<th>Countermeasure (Example)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td># 50</td>
<td>Requested facility not subscribed</td>
<td>Procedure for a requested facility is not taken.</td>
<td>Contact a retailer or a service center.</td>
<td>LN</td>
</tr>
<tr>
<td># 57</td>
<td>Bearer capability not authorized</td>
<td>Unauthorized transmission capability was requested.</td>
<td>Contact a retailer or a service center.</td>
<td>LN</td>
</tr>
<tr>
<td># 58</td>
<td>Bearer capability not presently available</td>
<td>Transmission capability currently not available for use.</td>
<td>Contact a retailer or a service center.</td>
<td>LN</td>
</tr>
<tr>
<td># 63</td>
<td>Service or option not available</td>
<td>Report that other services cannot be used.</td>
<td>Contact a retailer or a service center.</td>
<td>LN</td>
</tr>
<tr>
<td># 65</td>
<td>Bearer capability not implemented</td>
<td>Requested transmission capability is not supported.</td>
<td>Contact a retailer or a service center.</td>
<td>LN</td>
</tr>
<tr>
<td># 66</td>
<td>This service is currently not available</td>
<td>Requested channel class is not supported.</td>
<td>Contact a retailer or a service center.</td>
<td>RU/RN/LN</td>
</tr>
<tr>
<td># 69</td>
<td>Requested facility not implemented</td>
<td>Requested additional service is not supported.</td>
<td>Contact a retailer or a service center.</td>
<td>LN</td>
</tr>
<tr>
<td># 70</td>
<td>A connection could not be made</td>
<td>Limited digital transmission capability among requested transmission capabilities is supported.</td>
<td>Contact a retailer or a service center.</td>
<td>LU/LN</td>
</tr>
<tr>
<td># 79</td>
<td>Service or option not implemented</td>
<td>Report that a service cannot be provided.</td>
<td>After checking a remote number, retry.</td>
<td>LN</td>
</tr>
<tr>
<td># 81</td>
<td>Invalid call reference value</td>
<td>Different dial number from the currently used number is used.</td>
<td>After checking a remote number, retry.</td>
<td>LN</td>
</tr>
<tr>
<td># 82</td>
<td>Please dial again</td>
<td>Invalid channel number is used.</td>
<td>After checking a remote number, retry.</td>
<td>LN</td>
</tr>
<tr>
<td># 83</td>
<td>A connection could not be made</td>
<td>A different number from the interrupt call discriminating number is used.</td>
<td>After checking a remote number, retry.</td>
<td>LN</td>
</tr>
<tr>
<td># 84</td>
<td>A connection could not be made</td>
<td>The interrupt call discriminating number currently in use is used.</td>
<td>After checking a remote number, retry.</td>
<td>LN</td>
</tr>
<tr>
<td># 85</td>
<td>A connection could not be made</td>
<td>Call discriminating number is not used.</td>
<td>After checking a remote number, retry.</td>
<td>RU</td>
</tr>
<tr>
<td># 86</td>
<td>A connection could not be made</td>
<td>Interrupt call has already been disconnected.</td>
<td>After checking a remote number, retry.</td>
<td>TN/LN</td>
</tr>
<tr>
<td># 88</td>
<td>Incompatible destination</td>
<td>Attribute of a terminal unit does not match.</td>
<td>After checking a remote number, retry.</td>
<td>LN</td>
</tr>
<tr>
<td># 91</td>
<td>No available line for use</td>
<td>Format of a transit network is not normal.</td>
<td>After checking a remote number, retry.</td>
<td>LN</td>
</tr>
<tr>
<td># 95</td>
<td>A connection could not be made</td>
<td>Report of other invalid messages.</td>
<td>After checking a remote number, retry.</td>
<td>LU/LN</td>
</tr>
<tr>
<td># 96</td>
<td>Mandatory information element is missing</td>
<td>Required information element is in short.</td>
<td>Contact a retailer or a service center.</td>
<td>LU/LN</td>
</tr>
<tr>
<td># 97</td>
<td>A connection could not be made</td>
<td>Undefined or not-provided message is received.</td>
<td>Contact a retailer or a service center.</td>
<td>LU/LN</td>
</tr>
<tr>
<td># 98</td>
<td>A connection could not be made</td>
<td>Message mismatch.</td>
<td>Contact a retailer or a service center.</td>
<td>LU/LN</td>
</tr>
<tr>
<td># 99</td>
<td>A connection could not be made</td>
<td>Information element is undefined.</td>
<td>Contact a retailer or a service center.</td>
<td>LU/LN</td>
</tr>
<tr>
<td># 100</td>
<td>Invalid information element contents</td>
<td>The contents of information element is invalid.</td>
<td>Contact a retailer or a service center.</td>
<td>LU/LN</td>
</tr>
<tr>
<td># 101</td>
<td>Message not compatible with call state</td>
<td>Received message and a call status mismatch.</td>
<td>After checking a remote number, retry.</td>
<td>LU/LN</td>
</tr>
<tr>
<td># 102</td>
<td>Recovery on timer expiry</td>
<td>Restoration due to an expiration of timer.</td>
<td>After checking a remote number, retry.</td>
<td>LU/LN</td>
</tr>
<tr>
<td>Number</td>
<td>Message</td>
<td>Factors for Disconnection</td>
<td>Countermeasure (Example)</td>
<td>Location</td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td># 111</td>
<td>Protocol error, unspecified</td>
<td>Report of other protocol error.</td>
<td>After checking a remote number, retry.</td>
<td>RN</td>
</tr>
<tr>
<td># 127</td>
<td>Interworking, unspecified</td>
<td>Inter-work occurrence in a network that cannot display a reason for operation.</td>
<td>After checking a remote number, retry.</td>
<td></td>
</tr>
<tr>
<td># 901</td>
<td>No response from the remote terminal</td>
<td>Automatic Dial timed out</td>
<td>Check a remote unit status.</td>
<td></td>
</tr>
<tr>
<td># 903</td>
<td>Network failure</td>
<td>Line (layer 1) failure (Physical connection error).</td>
<td>Contact a retailer or a service center.</td>
<td></td>
</tr>
<tr>
<td># 904</td>
<td>Network failure</td>
<td>Line (layer 2) failure (Electric interface error)</td>
<td>Contact a retailer or a service center.</td>
<td></td>
</tr>
<tr>
<td># 905</td>
<td>Network failure or wrong contact</td>
<td>TEI error</td>
<td>Contact a retailer or a service center.</td>
<td></td>
</tr>
<tr>
<td># 906</td>
<td>Network failure</td>
<td>Layer 3 (Appreciation layer) calling timed out</td>
<td>Contact a retailer or a service center.</td>
<td></td>
</tr>
<tr>
<td># 907</td>
<td>Disconnected by initialization</td>
<td>Not used</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 908</td>
<td>Disconnected by initialization</td>
<td>Not used</td>
<td>Contact a retailer or a service center.</td>
<td></td>
</tr>
<tr>
<td># 909</td>
<td>Disconnected by initialization</td>
<td>Not used</td>
<td>Contact a retailer or a service center.</td>
<td></td>
</tr>
<tr>
<td># 912</td>
<td>Disconnected by initialization</td>
<td>Message inconsistent with the current condition is received.</td>
<td>After a while, retry.</td>
<td></td>
</tr>
<tr>
<td># 913</td>
<td>Disconnected by initialization</td>
<td>Connect and disconnect during a re-start response waiting.</td>
<td>After a while, retry.</td>
<td></td>
</tr>
<tr>
<td># 914</td>
<td>Network failure</td>
<td>Lower layer in failure</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 915</td>
<td>network failure</td>
<td>Lower layer in failure</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 916</td>
<td>The provisioned communication time expired</td>
<td>Calling condition is NG</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 917</td>
<td>A connection could not be made</td>
<td>Layer 3 initialization not completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 918</td>
<td>A connection could not be made</td>
<td>Layer 3 initialization missed</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 919</td>
<td>A connection could not be made</td>
<td>CES pointing error</td>
<td></td>
<td></td>
</tr>
<tr>
<td># 980</td>
<td>Disconnected</td>
<td>VCP (Video chip hang-up)</td>
<td>After a while, retry.</td>
<td></td>
</tr>
</tbody>
</table>
This page is for your notes.
Appendix A: Pin-out Specification

Pin-out specifications for all the VL 128/384 connectors.

### SERIAL 1 PORT

<table>
<thead>
<tr>
<th>NO</th>
<th>Symbol</th>
<th>Direction</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RS</td>
<td>OUT</td>
<td>Request to Send</td>
</tr>
<tr>
<td>2</td>
<td>CS</td>
<td>IN</td>
<td>Clear to Send</td>
</tr>
<tr>
<td>3</td>
<td>SD</td>
<td>OUT</td>
<td>Send Data</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
<td>-</td>
<td>Ground</td>
</tr>
<tr>
<td>5</td>
<td>RD</td>
<td>IN</td>
<td>Receive Data</td>
</tr>
<tr>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>ER</td>
<td>OUT</td>
<td>Data Terminal Ready</td>
</tr>
<tr>
<td>8</td>
<td>DR</td>
<td>IN</td>
<td>Data set Ready</td>
</tr>
</tbody>
</table>

**Note:** The signal direction shown is seen from the VisuaLink 128 (DTE).

### SERIAL 2 PORT

<table>
<thead>
<tr>
<th>NO</th>
<th>Symbol</th>
<th>Direction</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>RS</td>
<td>OUT</td>
<td>Request to Send</td>
</tr>
<tr>
<td>2</td>
<td>CS</td>
<td>IN</td>
<td>Clear to Send</td>
</tr>
<tr>
<td>3</td>
<td>SD</td>
<td>OUT</td>
<td>Send Data</td>
</tr>
<tr>
<td>4</td>
<td>GND</td>
<td>-</td>
<td>Ground</td>
</tr>
<tr>
<td>5</td>
<td>RD</td>
<td>IN</td>
<td>Receive Data</td>
</tr>
<tr>
<td>6</td>
<td>+5V</td>
<td>OUT</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>ER</td>
<td>OUT</td>
<td>Data Terminal Ready</td>
</tr>
<tr>
<td>8</td>
<td>DR</td>
<td>IN</td>
<td>Data set Ready</td>
</tr>
</tbody>
</table>

**Note:** The signal direction shown is seen from the VisuaLink 128 (DTE).

### Headset

<table>
<thead>
<tr>
<th>Name</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIP</td>
<td>Input from microphone</td>
</tr>
<tr>
<td>RING</td>
<td>Output to ear piece</td>
</tr>
<tr>
<td>SLEEVE</td>
<td>Ground</td>
</tr>
</tbody>
</table>

### MIC Connection (1 - 3)

<table>
<thead>
<tr>
<th>Name</th>
<th>Function</th>
<th>Polarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIP</td>
<td>Input from microphone</td>
<td>+</td>
</tr>
<tr>
<td>RING</td>
<td>Output to ear piece</td>
<td>-</td>
</tr>
<tr>
<td>SLEEVE</td>
<td>Ground</td>
<td></td>
</tr>
</tbody>
</table>
**S/T Line (ISDN Connection)**

<table>
<thead>
<tr>
<th>PIN #</th>
<th>Symbol</th>
<th>Function</th>
<th>Polarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>c</td>
<td>Transmit Tip</td>
<td>+</td>
</tr>
<tr>
<td>4</td>
<td>d</td>
<td>Receive Tip</td>
<td>+</td>
</tr>
<tr>
<td>5</td>
<td>e</td>
<td>Receive Ring</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>f</td>
<td>Transmit Ring</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>g</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note 1:* The signal direction shown is seen from the VisuaLink 128 (DTE).

*Note 2:* Pins 1, 2, 7, and 8 are not used.

---

**Telephone Connection**

<table>
<thead>
<tr>
<th>NO</th>
<th>Symbol</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>L2</td>
<td>2W RING PIN</td>
</tr>
<tr>
<td>4</td>
<td>L1</td>
<td>2W TIP PIN</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**S-Video Socket Input/Output**

<table>
<thead>
<tr>
<th>NO</th>
<th>PIN NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>AG (Analog GND)</td>
</tr>
<tr>
<td>A2</td>
<td>AG (Analog GND)</td>
</tr>
<tr>
<td>A3</td>
<td>Y Signal IN</td>
</tr>
<tr>
<td>A4</td>
<td>O Signal IN</td>
</tr>
<tr>
<td>B1</td>
<td>AG (Analog GND)</td>
</tr>
<tr>
<td>B2</td>
<td>AG (Analog GND)</td>
</tr>
<tr>
<td>B3</td>
<td>Y Signal OUT</td>
</tr>
<tr>
<td>B4</td>
<td>O Signal OUT</td>
</tr>
</tbody>
</table>
## Appendix B: Line Speed Specifications

### 1B (64kbps) Line Speed

<table>
<thead>
<tr>
<th>Audio Algorithms</th>
<th>G.711 µ-Law PCM</th>
<th>G.722 SB-ADPCM</th>
<th>G.728 LD-CELP</th>
<th>Mute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Byte Rate (kbps)</td>
<td>56.0</td>
<td>48.0</td>
<td>16.0</td>
<td>0.0</td>
</tr>
<tr>
<td>MLP OFF</td>
<td>6.4</td>
<td>14.4</td>
<td>46.4</td>
<td>62.4</td>
</tr>
<tr>
<td>MLP 4kbps</td>
<td>2.4</td>
<td>10.4</td>
<td>42.4</td>
<td>58.4</td>
</tr>
<tr>
<td>MLP 6.4kbps</td>
<td>D</td>
<td>8.0</td>
<td>40.0</td>
<td>56.0</td>
</tr>
<tr>
<td>MLP 14.4 kbps</td>
<td>X</td>
<td>D</td>
<td>32.0</td>
<td>48.0</td>
</tr>
<tr>
<td>MLP 24kbps</td>
<td>X</td>
<td>X</td>
<td>22.4</td>
<td>38.4</td>
</tr>
</tbody>
</table>

- X : cannot set
- Δ : can set but video is not transmitting
- ☘ : snapshot not available

### 2B (128kbps) Line Speed

<table>
<thead>
<tr>
<th>Audio Algorithms</th>
<th>G.711 µ-Law PCM</th>
<th>G.722 SB-ADPCM</th>
<th>G.728 LD-CELP</th>
<th>Mute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio Byte Rate (kbps)</td>
<td>56.0</td>
<td>48.0</td>
<td>16.0</td>
<td>0.0</td>
</tr>
<tr>
<td>MLP OFF</td>
<td>68.8</td>
<td>76.8</td>
<td>108.8</td>
<td>124.8</td>
</tr>
<tr>
<td>MLP 4kbps</td>
<td>64.8</td>
<td>72.4</td>
<td>104.8</td>
<td>120.8</td>
</tr>
<tr>
<td>MLP 6.4kbps</td>
<td>62.4</td>
<td>70.4</td>
<td>102.4</td>
<td>118.4</td>
</tr>
<tr>
<td>MLP 14.4 kbps</td>
<td>X</td>
<td>62.4</td>
<td>94.4</td>
<td>110.4</td>
</tr>
<tr>
<td>MLP 24kbps</td>
<td>X</td>
<td>X</td>
<td>84.8</td>
<td>100.8</td>
</tr>
</tbody>
</table>

- X : cannot set
This page is for your notes.
Appendix C: ISDN Q.931 Cause Code Definitions

The following table defines the Q.931 cause codes that the VisuaLink 128/384 writes to event files. Q.931 specification defines the layer-3 protocol for two connected ISDN devices.

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unallocated (unassigned) number</td>
<td>The requested destination can not be reached because the number is not currently assigned.</td>
</tr>
<tr>
<td>2</td>
<td>No route to specified transit network</td>
<td>The route to the destination network is not recognized, either because it does not exist or because it does not serve the equipment sending the message.</td>
</tr>
<tr>
<td>3</td>
<td>No route to destination</td>
<td>The network through which the call has been routed does not serve the desired destination.</td>
</tr>
<tr>
<td>8</td>
<td>Preemption</td>
<td>A call is being cleared because the B-channel is being preempted for a call of higher priority. If the preempted B-channel is not needed for the preempted call, it is released for prior use.</td>
</tr>
<tr>
<td>9</td>
<td>Preempted - circuit reserved for reuse</td>
<td>A call is being cleared because the B-channel is being preempted for a call of higher priority. The B-channel is dedicated to the preempted call.</td>
</tr>
<tr>
<td>16</td>
<td>Normal call clearing</td>
<td>A call is being cleared at the request of one of the users.</td>
</tr>
<tr>
<td>17</td>
<td>User busy</td>
<td>The user line is busy.</td>
</tr>
<tr>
<td>18</td>
<td>No user responding</td>
<td>No alert or connect indication was received within the prescribed period of time.</td>
</tr>
<tr>
<td>19</td>
<td>No answer from user (user alerted)</td>
<td>Connection has not been established in the specified time period, and an alert has been received. (Internal network timers may generate this cause.)</td>
</tr>
<tr>
<td>21</td>
<td>Call rejected</td>
<td>The call was rejected despite the equipment being compatible and not in use.</td>
</tr>
<tr>
<td>22</td>
<td>Number changed</td>
<td>The number of the called party is no longer assigned: the new number may be reported in the message. Cause code 1 is assigned if the network does not support this function.</td>
</tr>
<tr>
<td>27</td>
<td>Destination out of order</td>
<td>A signaling message could not be delivered to the user, indicating that the interface to the destination is not functioning correctly.</td>
</tr>
<tr>
<td>28</td>
<td>Invalid number format (address incomplete)</td>
<td>The user cannot be reached because the number is incomplete or in the wrong format.</td>
</tr>
<tr>
<td>30</td>
<td>Response to STATUS ENQUIRY</td>
<td>A message has been received in response to a STATUS ENQUIRY.</td>
</tr>
<tr>
<td>31</td>
<td>Normal, unspecified</td>
<td>A normal event has occurred for which no other cause applies.</td>
</tr>
<tr>
<td>34</td>
<td>No circuit/channel available</td>
<td>No appropriate circuit or channel is currently available to handle the call.</td>
</tr>
<tr>
<td>41</td>
<td>Temporary failure</td>
<td>The network is temporarily not functioning correctly.</td>
</tr>
<tr>
<td>42</td>
<td>Switching equipment congestion</td>
<td>The switching equipment is experiencing a period of high traffic.</td>
</tr>
<tr>
<td>Code</td>
<td>Meaning</td>
<td>Explanation</td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>43</td>
<td>Access information discarded</td>
<td>The network could not deliver access information; the type of information discarded - for example, sub-address or protocol - may be provided in the message.</td>
</tr>
<tr>
<td>44</td>
<td>Requested circuit/channel not available</td>
<td>The requested circuit or channel is not available.</td>
</tr>
<tr>
<td>47</td>
<td>Resource unavailable, unspecified</td>
<td>A resource is unavailable, and no other cause code applies.</td>
</tr>
<tr>
<td>50</td>
<td>Requested facility not subscribed</td>
<td>The user has not subscribed to the requested service.</td>
</tr>
<tr>
<td>52</td>
<td>Outgoing calls barred</td>
<td>The caller is not authorized to make calls.</td>
</tr>
<tr>
<td>54</td>
<td>Incoming calls barred</td>
<td>The recipient has rejected the call.</td>
</tr>
<tr>
<td>57</td>
<td>Bearer capability not authorized</td>
<td>The user is not authorized to use the requested capability.</td>
</tr>
<tr>
<td>58</td>
<td>Bearer capability not presently available</td>
<td>The requested capability is not currently available.</td>
</tr>
<tr>
<td>65</td>
<td>Bearer capability not implemented</td>
<td>The equipment does not support the requested capability.</td>
</tr>
<tr>
<td>66</td>
<td>Channel type not implemented</td>
<td>The equipment does not support the requested channel type.</td>
</tr>
<tr>
<td>69</td>
<td>Requested facility not implemented</td>
<td>The equipment does not support the requested supplemental service.</td>
</tr>
<tr>
<td>70</td>
<td>Only restricted digital information bearer capability is available</td>
<td>The equipment supports only the restricted version of a service capability.</td>
</tr>
<tr>
<td>79</td>
<td>Service or option not implemented, unspecified</td>
<td>The service or option is not implemented, and no other cause code applies.</td>
</tr>
<tr>
<td>81</td>
<td>Invalid call reference value</td>
<td>The call reference value does not match an existing call.</td>
</tr>
<tr>
<td>82</td>
<td>Identified channel does not exist</td>
<td>The requested channel can not be assigned to the call - for example, channel 13 through 23 have been requested, and the user has subscribed only to channels 1 through 12.</td>
</tr>
<tr>
<td>83</td>
<td>A suspended call exists, but this call identify does not</td>
<td>The requested call can not be resumed because it does not correspond to a suspended call.</td>
</tr>
<tr>
<td>88</td>
<td>Incompatible destination</td>
<td>The requested call can not be accommodated because of protocol differences or other incompatibilities, such as data rate.</td>
</tr>
<tr>
<td>96</td>
<td>Mandatory information element is missing</td>
<td>The call can not be completed because a mandatory information element is missing.</td>
</tr>
<tr>
<td>97</td>
<td>Message type non-existent or not implemented</td>
<td>The received message is not a recognized message type.</td>
</tr>
<tr>
<td>98</td>
<td>Message not compatible with call state, or message type non-existent or not implemented</td>
<td>The message can not be received while in the call state.</td>
</tr>
<tr>
<td>100</td>
<td>Invalid information element contents</td>
<td>Information received could not be processed because of incorrectly coded elements.</td>
</tr>
<tr>
<td>101</td>
<td>Message not compatible with call state</td>
<td>The message received is not compatible with the call state.</td>
</tr>
<tr>
<td>102</td>
<td>Recovery on time expiry</td>
<td>A recovery procedure has been initiated after the prescribed time.</td>
</tr>
<tr>
<td>127</td>
<td>Interworking, unspecified</td>
<td>The message was triggered by internetworking with a network that does not provide cause codes.</td>
</tr>
</tbody>
</table>
### Table C: ISDN Q.931 Cause Code Definitions

<table>
<thead>
<tr>
<th>Code</th>
<th>Meaning</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>901</td>
<td>No response from the remote terminal</td>
<td>Automatic dialer has timed out. Please check number and try again.</td>
</tr>
<tr>
<td>903</td>
<td>Network failure</td>
<td>Layer 1 failure. Verify physical network connection.</td>
</tr>
<tr>
<td>904</td>
<td>Network failure</td>
<td>Layer 2 failure. Verify the pin out between the CODEC and the network termination device is correct.</td>
</tr>
<tr>
<td>905</td>
<td>Network Failure or wrong contact</td>
<td>TEI error. If failure continues contact your carrier.</td>
</tr>
<tr>
<td>906</td>
<td>Network Contact</td>
<td>Layer 3 (caller timer timed out). Try again.</td>
</tr>
<tr>
<td>907</td>
<td>Disconnected by initialization</td>
<td>Negotiation between switch and CODEC has failed. Power the unit off and on again.</td>
</tr>
<tr>
<td>908</td>
<td>Disconnected by initialization</td>
<td>Negotiation between switch and CODEC has failed. Power the unit off and on again.</td>
</tr>
<tr>
<td>912</td>
<td>Disconnected by initialization</td>
<td>Software processing other task. Power the unit off and on again.</td>
</tr>
<tr>
<td>913</td>
<td>Disconnected by initialization</td>
<td>Software processing other task. Power the unit off and on again.</td>
</tr>
<tr>
<td>914</td>
<td>Network failure</td>
<td>Lower layer negation has failed. Try again. If problem continues contact your carrier.</td>
</tr>
<tr>
<td>915</td>
<td>Network failure</td>
<td>Lower layer negation has failed. Try again. If problem continues contact your carrier.</td>
</tr>
<tr>
<td>916</td>
<td>The provisioned communication timer expired</td>
<td>Call condition is No Good. Please check number and try again.</td>
</tr>
<tr>
<td>917</td>
<td>Running Network Initialize Procedure</td>
<td>Layer 3 initialization has not completed. Wait a few minutes and try again.</td>
</tr>
<tr>
<td>918</td>
<td>Incorrect registered SPID numbers</td>
<td>Check SPID registration.</td>
</tr>
<tr>
<td>919</td>
<td>A connection could not be made</td>
<td>CES pointing error. Wait a few seconds and try again. If problem continues contact your carrier.</td>
</tr>
<tr>
<td>980</td>
<td>Disconnected</td>
<td>VCE (Video Chip has hung up). Reset the unit and try again.</td>
</tr>
</tbody>
</table>
This page is for your notes.