MT106-101

SCAN DOUBLER CARD FOR

MULTI-TASKER[TM] USER'S GUIDE

=ALTINEX

SIGNAL
MANAGEMENT
SOLUTIONS[TM]

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TABLE OF CONTENTS

PRECAUTIONS / SAFETY WARNINGS　　1

Please read this manual carefully before using your **MT106-101**. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **MT106-101** and to prevent fire and shock hazard. Please read them carefully and heed all warnings.

1.1 GENERAL

- Qualified ALTINEX service personnel, or their authorized representatives must perform all service.

1.2 INSTALLATION

- To prevent fire or shock, do not expose this unit to rain or moisture. Do not place the **MT106-101** in direct sunlight, near heaters or heat radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.

- Handle the **MT106-101** carefully. Dropping or jarring can damage the card.

- Do not pull the cables that are attached to the **MT106-101**.

- Insert the card carefully into the slots of the Multi-Tasker™ without bending any edges.

- When removing a card, pull it halfway through to avoid damage to internal cables. If an Expansion card is being removed, please make sure that the Main card to which it is attached is also pulled out simultaneously.

1.3 CLEANING

- Clean only the connector area with a dry cloth. Never use strong detergents or solvents, such as alcohol or thinner. Do not use a wet cloth or water to clean the card. Do not clean or touch any component or PCB.

1.4 FCC / CE NOTICE

- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- Any changes or modifications to the unit not expressly approved by ALTINEX, Inc. could void the user's authority to operate the equipment.

MT106-101 Scan Doubler Card

The **MT106-101** is a Scan Doubler Card designed for use with the Multi-Tasker™ system. When installed in a Multi-Tasker™ enclosure, this card allows the connection of an S-Video or one of three Composite Video (NTSC/PAL) sources to a data-grade monitor or projector. The **MT106-101** doubles the scan rate from 15.7 kHz to 31.5 kHz, while converting the interlaced broadcast video type signal to a non-interlaced VGA-type signal. The selection of an input source is accomplished by RS-232 control through the Multi-Tasker™ enclosure.

A/V presentation systems often require the use of monitors that are designed specifically to handle computer video signals. The **MT106-101** allows the integration of composite video or S-Video into these systems. The **MT106-101** can also help to simplify systems that would otherwise require switching between video and RGB inputs on a projector or large screen display. Furthermore, the **MT106-101** improves the quality of a composite video signal, resulting in a steadier image with higher definition.

The **MT106-101** provides a number of features that can be controlled via RS-232 through the Multi-Tasker Basic Enclosure. These features include controls for horizontal and vertical positioning, horizontal and vertical sizing, black level, color, contrast and brightness.

The **MT106-101** offers 3 composite video inputs on female BNC connectors and an S-Video input on a standard 4-pin mini-DIN connector. The latter may be adapted to 2 BNC connectors using ALTINEX adapter cables. The **MT106-101** output is provided on a 15-pin HD female (VGA-type) computer video connector. This output may also be easily adapted to 5 BNC connectors for RGBHV using an ALTINEX adapter cable. Using the **MT104-101** 8-in Video Switcher expansion cards, up to 32 additional composite inputs can be connected internally to the **MT106-101**, and controlled via RS-232 control to the Multi-Tasker™ enclosure.

FEATURES/DESCRIPTION	MT106-101
GENERAL	
Inputs	
Composite Video	(3) BNC Female Connectors
S-Video	(1) 4-pin Mini-DIN Connector
Internal Input Connector	(1) 10-pin IDC
Outputs	
Output Connector	(1)15-pin HD Female
Compatibility	Composite Video, S-Video (NTSC/PAL)

Table 1. **MT106-101** General

MECHANICAL	MT106-101
Basic Enclosure Slots Required	One
Weight	1.0 lb (0.45 kg)
Connector Panel	Black
T° Operating	10°C to 35°C
T° Maximum	0°C to 50°C
Humidity	90% non-condensing
MTBF (calc.)	40,000 hrs

Table 2. **MT106-101** Mechanical

ELECTRICAL		MT106-101	
Input Video/S-Video Signals			
Analog		-.3V to +1.5V	
Impedance		75 Ohms	
Type		Differential	
Output Video Signals			
Analog		1.7V p-p max. (terminated)	
Impedance		75 Ohms	
Output Sync Signals			
Horizontal, Vertical		TTL (-/+)	
Impedance		22 Ohms	
Power			
Power from MT100-100	**+6V**	**-6V**	**Power Consumption**
MT106-101	300 mA	10 mA	1.9 watts

Table 3. **MT106-101** Electrical

TOP RETAINER SCREW

MT106-101

POWER/SIGNAL
LED

RED POWER/
GREEN SIGNAL

INPUT

S-VIDEO

S-VIDEO INPUT

1

2

3

C-VIDEO

3 C-VIDEO INPUTS

VGA OUT

VGA OUTPUT

SCAN
DOUBLER

BOTTOM RETAINER SCREW
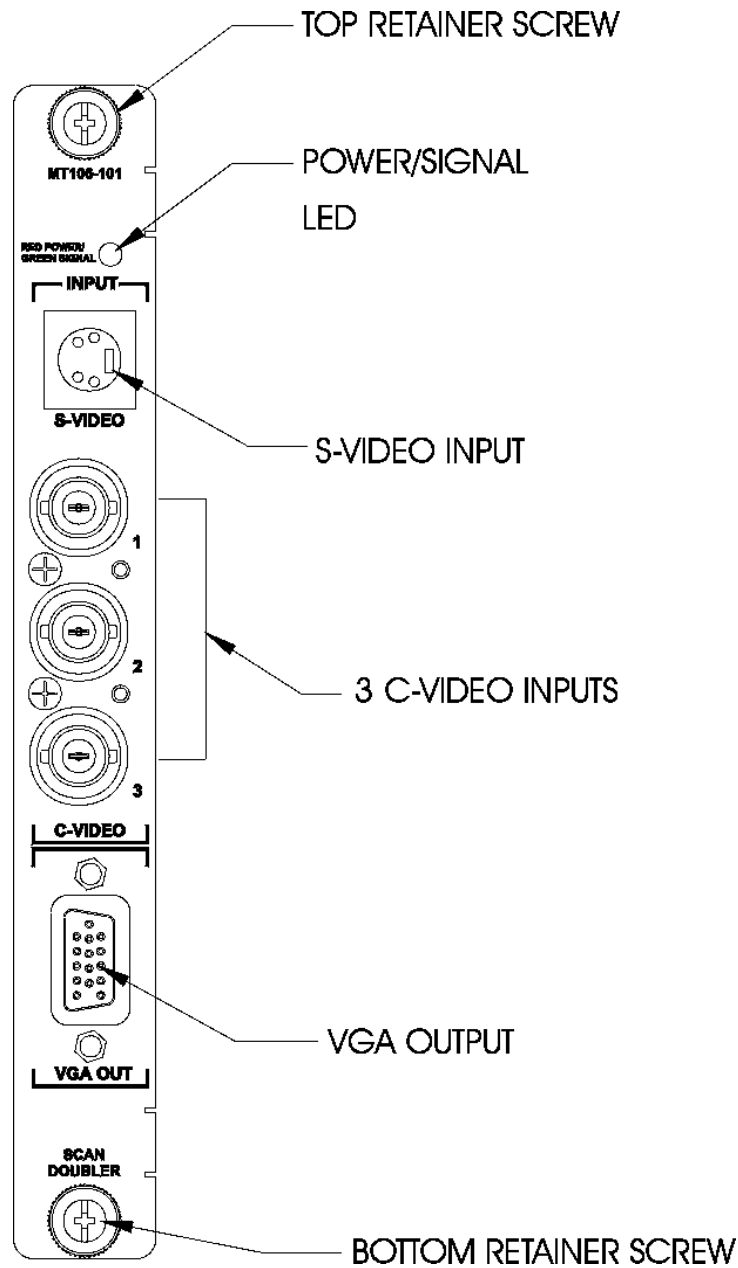
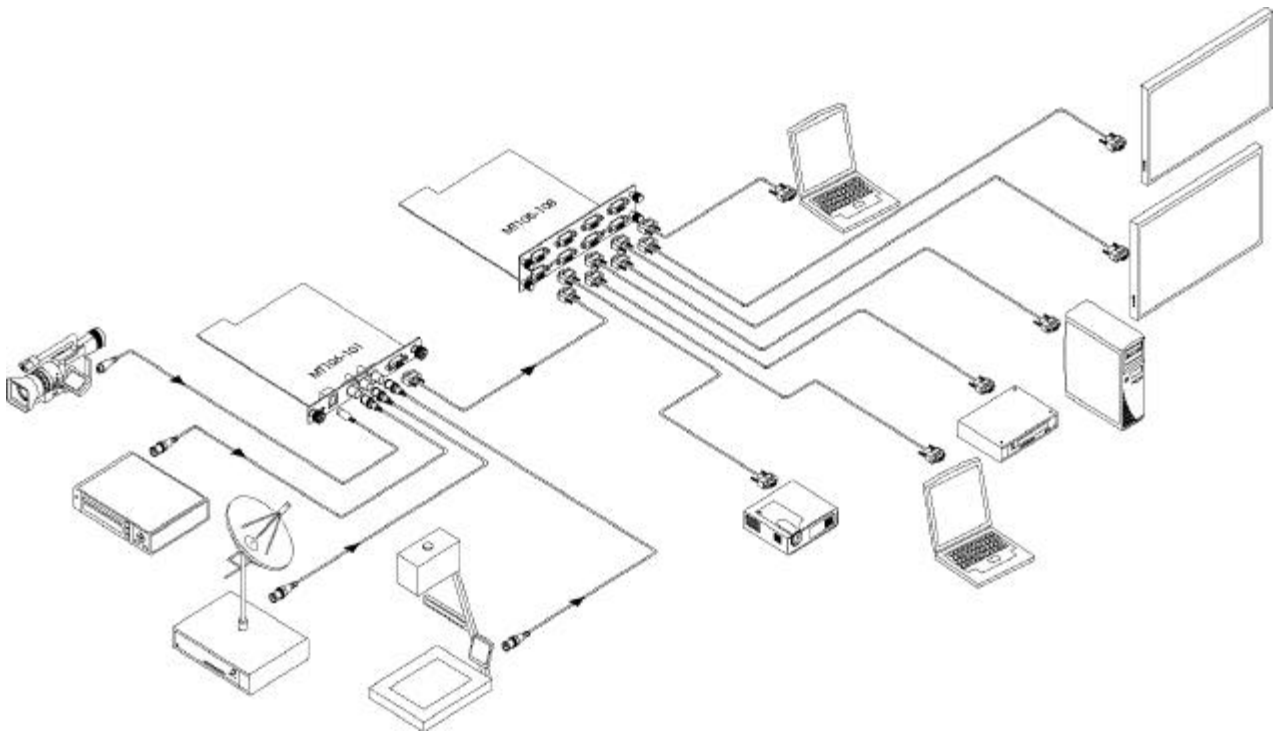## APPLICATION DIAGRAM   5
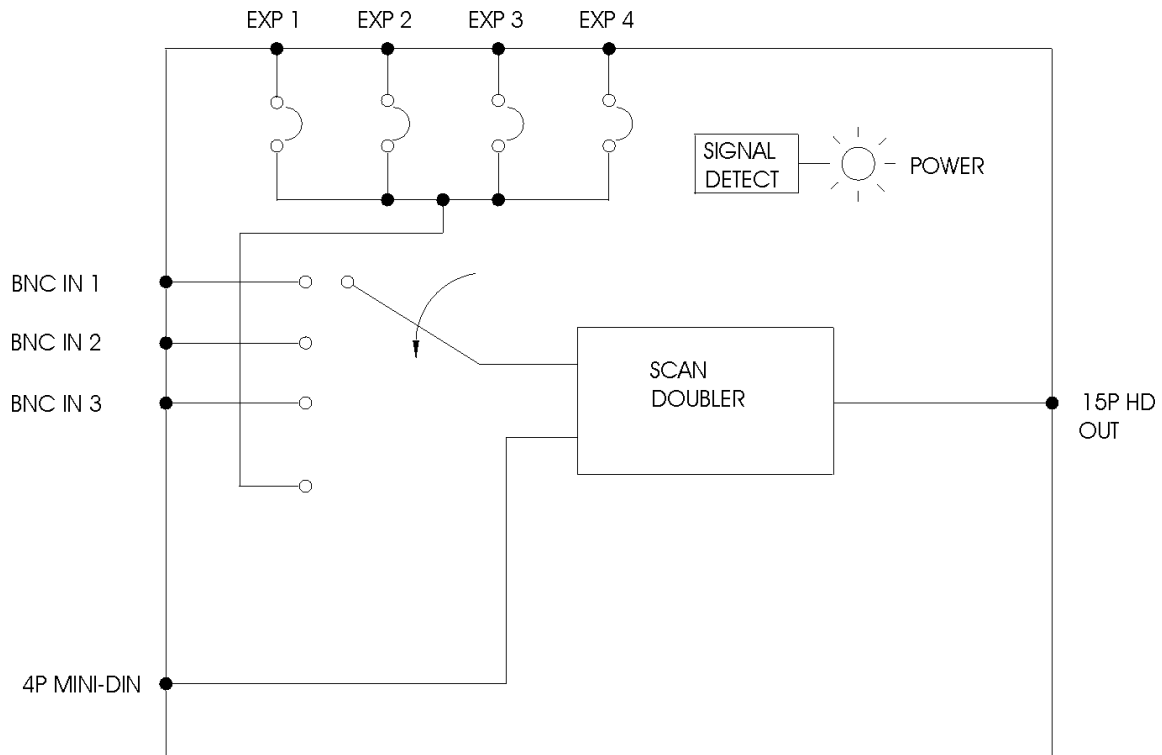
Application 1

Application 2

≡ALTINEX
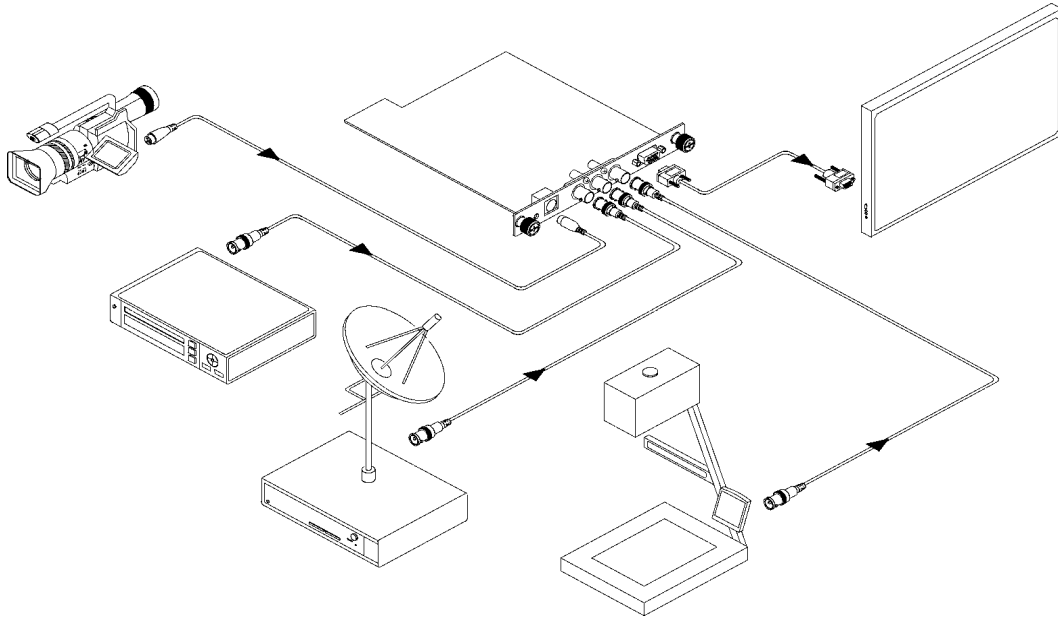
Application 2: Internal View of MT106-101

INSTALLING YOUR MT106-101   6

Step 1. Slide the **MT106-101** into an available slot in the Multi-Tasker™ Basic Enclosure in order to connect to the bus. Make sure that the **MT106-101** Scan Doubler card fits into place. Secure the card to the Multi-Tasker™ by tightening the retainer screws located on the top and bottom of the **MT106-101** Scan Doubler card.

Step 2. The LED on the card panel will turn red indicating that the card is in full operation. A green LED indicates that an input signal is present. An LED that is blinking red indicates that the card is experiencing a problem. If the LED is blinking, see the Troubleshooting Guide in section 10.

Step 3. Connect an S-Video cable or C-Video cable (coaxial cable) from the video source to the input connectors of the **MT106-101**. Connect the output connector of the **MT106-101** to the display device through a VGA cable.

Step 4. Starting from the left, identify the slot number where the **MT106-101** card is plugged into the Enclosure. Note that the slot number is required for RS-232 control.

OPERATION   7

7.1 RS-232 CONTROL

When used in the Multi-Tasker™ Basic Enclosure, the **MT106-101** has many advanced remote control capabilities, which are accessible through standard RS-232 communication. The actual control may be accomplished through a computer control system or any other device capable of sending RS-232 commands.

7.1.1 RS-232 INTERFACE

The RS-232 commands for the **MT106-101** are in a simple ASCII character format.

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1. **Square brackets "[ ]" are part of the command.**

2. **Use uppercase letters for all commands.**

After processing a command, an OK or ER string will be returned as feedback if "F" is included at the end of a command string or if the unit ID is zero.

7.2 DESCRIPTION OF COMMANDS

Each command consists of three parts: function, card ID, and unit ID. [Function, Card ID, Unit ID].

Example:

[VERC3U2]

VER = Function
C3 = Card ID
U2 = Unit ID

For Function, see a detailed explanation under each command description.

The Card ID is an assigned value from 1 to 19, based on which slot the card is put in. The Card ID 0 (C0) is used for the controller (see user's guide for the MT100-100). Changing the position of a card will significantly affect the commands recorded on software definitions or a third party control system.

The Unit ID has a value from 0 to 9. The Unit ID 0 should be used for single unit operation. If the Unit ID is set to 0, then each command can be used without Ui (use command **[SETU0]**; see user's guide for the MT100-100).

Example:
[VERC3]: for unit ID zero
[VERC3Ui]: for unit ID other than zero
[VERC3]: equivalent to [VERC3U0]

1. **[VER]**

This command displays the software version and card type for the Scan Doubler card.

Command Format: [VERCnUi]

Cn = card ID No. (n = slot # from 1 to 19)

Ui = Unit ID (i = # from 0 to 9) (*refer to the MT100-100 user's guide for explanation*)

Example:
If one Scan Doubler Card is in slot #2 of unit 3. Send the command **[VERC2U3]**, and the Multi-Tasker™ Basic Enclosure will return the following:

MT106-101 690-0155-003

MT106-101 = card type
690-0155-003 = software version

2. [C]

This command receives the status of the card.

Command Format: [CnUi]

Cn = card ID (n = a slot # from 1 to 19)
(1-8 for MT100-101 or 1-4 for MT100-106)

Ui = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
If there is one MT106-101 card in slot #2 of unit 3 set for NTSC outputs, sending the command **[C2U3]** to the Multi-Tasker™ will yield the following feedback:

INPUT: 640x480; OUTPUT: NTSC C02

INPUT: 640x480 = Input resolution
OUTPUT: NTSC = Output mode
C02 = card is in slot 2

If there is no card in slot #2 of unit 3, sending the **[C2U3]** command will not return any feedback from either card.

3. [SIGCi]

The Signal Present command tests for the presence of a signal on the input. After sending the command, the feedback will be either "1" signifying a signal is present, or "0" indicating no signal was detected.

Ci = card number

Example:
To check for the presence of an input signal on card 4, send the command [SIGC4] and verify

feedback of "1" or "0".

4. [CLR]

This command resets the card configuration to factory defaults.

Command Format: [CLRCi]

Ci = card ID (n = a slot # from 1 to 19)
(1-8 for MT100-101 or 1-4 for MT100-106)

Example:

There is an MT106-101 in slot 4 of unit 0. All controls are set to various levels and the output is in PAL mode. Sending the command [CLRC4] will set the level controls to their default values and place the output in NTSC format.

5. [ON]

The ON command selects one of four possible input sources to connect to the output.

INPUT Number (*n*)	INPUT Signal Name
0	S-Video
1	C-Video #1
2	C-Video #2
3	C-Video #3

Command Format: [ONnCiUy]

n = value from 0 to 3

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
Connect the S-Video signal input on the MT106-101 located in slot 4 of unit ID 2 to the VGA output connector.

[ON0C4U2]

6. [+] or [-]

These commands allow the user to increase or decrease the value of the selected attribute. They must be used immediately following one of the following STATUS commands.

STATUS Command	MIN Value	MAX Value	Default Value
[HPOS]	0	20	5
[VPOS]	0	20	19
[HSIZE]	0	20	19
[VSIZE]	0	20	19
[BRIG]	0	20	10
[SHARP]	0	3	2
[COLOR]	0	10	10
[HUE]	0	10	10

Attempting to cycle past the minimum or maximum values will have no effect on the attribute's value.

Any command other than [+] or [-] will reset the previous selection and the STATUS command will need to be reissued.

Example:
There is an MT106-101 in slot 4 of unit ID 2. The current Horizontal Position is set to a value of 10. Use the [+] and [-] controls to find the best horizontal position. Starting from 10, first increment the value to 12. Next, decrement the value back down to 8 for the best picture.

[HPOSC4U2] 10 [+][+][-][-][-][-]

[HPOSC4U2]   = STATUS/Current value
10   = Feedback of current value
[+][+]   = Increment twice to 12
[-][-][-][-] = Decrement 4 times to 8
[HPOSC4U2]   = STATUS/Current Value
8   = Feedback of new value

7. [HPOSnCi] - Set Value

This command sets the Horizontal Position to an absolute value. It also makes the Horizontal Position adjustment the active control.

Command Format: [HPOSnCiUy]

n = a value from 0 to 20 (Default = 5)

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 7 of unit ID 4. Set the Horizontal Position to the maximum value of 20 by sending the command [HPOS20C7U4].

8. [HPOSCi] - Status/Adjust

This command selects the Horizontal Position adjustment and makes it the active control. It is also used to return the status of the current Horizontal Position. As the active control, it may be adjusted using the [+] and [-] commands.

Command Format: **[HPOSCiUy]**

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 4 of unit ID 1. View the current Horizontal Position and adjust for the best image.

[HPOSC4U1] 10

[HPOSC4U1] = STATUS command
10   = Feedback of current value
[+] & [-] = Adjust as required

9. [VPOSnCi] - Set Value

This command sets the Vertical Position to an absolute value and makes the Vertical Position adjustment the active control.

Command Format: **[VPOSnCiUy]**

n = a value from 0 to 20 (Default = 19)

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 2 of unit ID 3. Set the Vertical Position to the value of 12 by sending the command [VPOS12C2U3].

10. [VPOSCi] - Status/Adjust

This command selects the Vertical Position adjustment and makes it the active control. It also returns the status of the current Vertical Position. As the active control, it may be adjusted using the [+] and [-] commands.

Command Format: **[VPOSCiUy]**

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 2 of unit ID 3. View the current Vertical Position and adjust the image for the best vertical position.

[VPOSC2U3] 10

[VPOSC2U3] = STATUS/Current value
10 = Feedback of current value
[+] & [-] = Adjust as required

11. [HSIZEnCi] - Set Value

This command sets the Horizontal Size to an absolute value and makes the Horizontal Size adjustment the active control.

Command Format: **[HSIZEnCiUy]**

n = a value from 0 to 20 (Default = 19)

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 2 of unit ID 3. Set the Horizontal Size to the value of 12 by sending the command [HSIZE12C2U3].

12. [HSIZECi] - Status/Adjust

This command selects the Horizontal Size adjustment and makes it the active control. It also returns the status of the current Horizontal Size. As the active control, it may be adjusted using the [+] and [-] commands.

Command Format: **[HSIZECiUy]**

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 2 of unit ID 3. View the current Horizontal Size and adjust the image to the center of the screen.

[HSIZEC2U3] 10

[HSIZEC2U3] = STATUS/Current value
10 = Feedback of current value
[+] & [-] = Adjust as required

13. [VSIZEnCi] - Set Value

This command sets the Vertical Size to an absolute value and makes the Vertical Size adjustment the active control.

Command Format: **[VSIZEnCiUy]**

n = a value from 0 to 20 (Default = 19)

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 1 of unit ID 1. Set the Vertical Size to the value of 6 by sending the command [VSIZE6C1U1].

14. [VSIZECi] - Status/Adjust

This command selects the Vertical Size adjustment and makes it the active control. It also returns the status of the current Vertical Size. As the active control, it may be adjusted using the [+] and [-] commands.

Command Format: **[VSIZECiUy]**

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 2 of unit ID 3. View the current Vertical Size and adjust the vertical size for the best fit.

[VSIZEC2U3] 10

[VSIZEC2U3] = STATUS/Current value
10 = Feedback of current value
[+] & [-] = Adjust as required

15. [BRIGnCi] - Set Value

This command selects the Brightness adjustment and makes it the active control. It also returns the status of the current Brightness level. As the active control, it may be adjusted using the [+] and [-] commands.

Command Format: **[BRIGnCiUy]**

n = a value from 0 to 20 (Default = 10)

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 4 of unit ID 2. Set the Brightness to the value of 2 by sending the command [BRIG2C4U2].

16. [BRIGCi] - Status/Adjust

This command selects the Brightness adjustment and makes it the active control. It is also used to return the value of the current Brightness level. As the active control, it may be adjusted using the [+] and [-] commands.

Command Format: **[BRIGCiUy]**

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 2 of unit ID 3. View the current Brightness and adjust the brightness for a good image.

[BRIGC2U3] 2

[BRIGC2U3] = STATUS/Current value
2 = Feedback of current value
[+] & [-] = Adjust as required

17. [SHARPnCi] - Set Value

This command sets the Sharpness to an absolute value. It also makes the Sharpness adjustment the active control.

Command Format: **[SHARPnCiUy]**

n = a value from 0 to 3 (Default = 2)

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 4 of unit ID 2. Set the Sharpness to the value of 2 by sending the command [SHARP2C4U2].

18. [SHARPCi] - Status/Adjust

This command selects the Sharpness adjustment and makes it the active control. It is also used to return the status of the current Sharpness level. As the active control, it may be adjusted using the [+] and [-] commands.

Command Format: **[SHARPCiUy]**

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 2 of unit ID 3. View the current Sharpness and adjust the sharpness for a clean, clear image.

[SHARPC2U3] 2

[SHARPC2U3] = STATUS/Current value
2 = Feedback of current value
[+] & [-] = Adjust as required

19. [COLORnCi]

The COLOR command sets the Color to an absolute value. It also makes the Color adjustment the active control.

Command Format: **[COLORnCiUy]**

n = a value from 0 to 10 (Default = 10)

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
If there is an MT106-101 in slot 4 of unit ID 2, the color may be set to a value of 2 by sending the command [COLOR2C4U2].

20. [COLORCi] - Status/Adjust

The COLOR command, with no value, selects the Color adjustment and makes it the active control. It is also used to return the status of the current Color level. As the active control, it may be adjusted using the [+] and [-] commands.

Command Format: **[COLORCiUy]**

Ci = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 2 of unit ID 3. View the current Color level and adjust the color for the best possible picture.

[COLORC2U3] 2

[COLORC2U3] = STATUS/Current value
2   = Feedback of current value
[+] & [-]   = Adjust as required

21. [HUE] - Set Value

This command sets the Hue to an absolute value. It also makes the Hue adjustment the active control.

Command Format: **[HUEnCiUy]**

n   = a value from 0 to 10 (Default = 10)

Ci   = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
An MT106-101 is in slot 4 of unit ID 2. Set the Hue to the value of 7 by sending the command [HUE7C4U2].

22. [HUE] - Status/Adjust

This command selects the Hue adjustment and makes it the active control. It is also used to return the value of the current Hue level. As the active control, it may be adjusted using the [+] and [-] commands.

Command Format: **[HUECiUy]**

Ci   = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

Example:
There is an MT106-101 in slot 2 of unit ID 3. View the current Hue and set the hue for a good image.

[HUEC2U3] 2

[HUEC2U3]   = STATUS/Current value
2   = Feedback of current value
[+] & [-]   = Adjust as required

23. [HELP]

In MTSetup.exe, this command displays a list of the commands available for the MT106-101 along with a brief description.

Command Format: **[HELPCiUy]**

Ci   = card ID (i = slot number)

Uy = unit id (i = 0 to 9) *(refer to the MT100-100 user's guide for explanation)*

24. [WR]

This command groups multiple cards in the Enclosure. Each unit contains a maximum of nine groups.

Command Format: [WRCn…GkUi]

Cn = card ID No. (n = slot # from 1 to 19) *(1-8 for MT100-101 or 1-4 for MT100-106)*

Gk = group number (k = # from 1-9)

Ui = unit number (i = # from 0-9)

Example:
To group cards #1, 2, and 3 as group 5 of unit #1, send the command [WRC1C2C3G5U1]. After executing this command, cards 1, 2 and 3 will be grouped together as group 5 of unit 1.

25. [CLR]

This command clears the members for a single group or for all nine groups.

Command Format: [CLRGkUi]

Gk = group number (k = # from 1-9)

Ui = unit number (i = # from 0-9)

Example:
1) To clear group #1, send the [CLRG1U1] command. This command clears the members for the specified group only.

2) To clear all groups of unit 1, send the [CLRG✳U1] command.

26. [G]

This command is used to request group data. With the command, the user can identify which input or output of a particular group is on.

Command Format: [GkUi]

Gk = group number (k = # from 1-9)

Ui = unit number (i = # from 0-9)

Example:
In unit ID0, if group 1 has DA Cards with outputs 1 and 2 on, while group 2 has SW Cards with input 2 on:

[G1]: will return feedback as **ON12 G1U0.**
[G2]: will return feedback as **ON2 G2U0.**

27. [RD]

This command displays the members in each group.

Command Format: [RDGkUi]

Gk = group number (k = # from 1-9)

Ui = unit number (i = # from 0-9)

member = C1 - C19 (card 1 to 19)
(1-8 for MT100-101 or 1-4 for MT100-106)

Example:
The cards in slots 1, 2 and 19 are part of group 5 in unit 1. Read the member data for group 5 of unit 1, by sending the command [RDG5U1]. The system will return feedback as follows:

C1C2C19 G5U1.

7.3 SUMMARY OF COMMANDS

1)	**[VER]**	**Receives software version**
2)	**[Ci]**	**Receives status of the card**
3)	**[SIG]**	**Signal present command**
4)	**[CLR]**	**Resets card to defaults**
5)	**[ON]**	**Select Input Source**
6)	**[+]** **[-]**	**Increments and Decrements** **selected commands**
7)	**[HPOS]**	**Set the Horizontal Position**
8)	**[HPOS]**	**Horiz. Position Adjust/Status**
9)	**[VPOS]**	**Set the Vertical Position**
10)	**[VPOS]**	**Vert. Position Adjust/Status**
11)	**[HSIZE]**	**Set the Horizontal Size**
12)	**[HSIZE]**	**Horizontal Size Adjust/Status**
13)	**[VSIZE]**	**Set the Vertical Size**
14)	**[VSIZE]**	**Vertical Size Adjust/Size**
15)	**[BRIG]**	**Set Brightness level**
16)	**[BRIG]**	**Brightness Adjust/Status**
17)	**[SHARP]**	**Set Sharpness level**
18)	**[SHARP]**	**Sharpness Adjust/Status**
19)	**[COLOR]**	**Set Color value**
20)	**[COLOR]**	**Color Adjust/Status**
21)	**[HUE]**	**Set Hue value**
22)	**[HUE]**	**Hue Adjust/Status**
23)	**[HELP]**	**Display available commands**
24)	**[WR]**	**Group multiple cards**
25)	**[CLR]**	**Clear group configurations**
26)	**[G]**	**Request group data**
27)	**[RD]**	**Display group members**

We have carefully tested and have found no problems in the supplied **MT106-101**; however, we would like to offer suggestions for the following:

- 8.1 LED IS NOT LIT
- 8.2 LED IS BLINKING RED
- 8.3 NO DISPLAY

8.1 LED IS NOT LIT

Cause 1:   Card cage is not plugged in.

Solution: Plug the card cage in. If the LED lights, the problem is solved. If the LED is still not ON, see Cause 2.

Cause 2:   Card is not plugged in all the way.

Solution: Push the card in all the way. If the LED is still not ON, see Cause 3.

Cause 3:   Card cage slot has a problem.

Solution 1: Test the card in other slots of the card cage. If the slot was damaged, the card may work in other slots. If other slots work and the LED lights, the problem is the card cage slot. The card cage may require service. Call ALTINEX at (714) 990-2300. If the other slots do not work and the LED is still not lit, see Solution 2.

Solution 2: Take any other known good card with an LED and verify that the slot used is good by seeing if the other card's LED lights in that slot. If it lights, then the original card may be the source of the problem. Call ALTINEX at (714) 990-2300.

8.2 LED IS BLINKING RED

Cause 1:   The CPU on the card is not working properly.

Solution 1: Look at the card and verify that there is no damage. If there is no damage, see Solution 2.

Solution 2: Verify that all IC's are seated in their sockets. If the LED is still blinking red, see Cause 2.

Cause 2:   The card and its serial device are not communicating.

Solution 1: Turn the system OFF and then ON again. If there is still an error, see Cause 3.

Cause 3:   RS485 communication error

Solution 1: Make sure that the card is pushed all the way into the slot. If there is still an error, see Solution 2.

Solution 2: Turn the system OFF and then ON again. If there is still an error, see Solution 3.

Solution 3: Call ALTINEX at (714) 990-2300.

8.3 NO DISPLAY

Cause 1:   The source has a problem.

Solution: Check the source and make sure that there is a signal present and all source connections are correct. If the source is working and there is still no display, see Cause 2.

Cause 2:   The card output is not selected.

Solution: Select the card output. See RS-232 accessible commands in Section 7. If no display is present, see Cause 3.

Cause 3:   Cable connections are incorrect.

Solution: Make sure that cables are properly connected. Also, make sure that the continuity and wiring are good. If there is still no display present, see Cause 4.

Cause 4:   The display has a problem.

Solution: Make sure the display has power and is turned ON. If there is still no display, please call Altinex at (714) 990-2300.

ALTINEX POLICY 9

9.1 LIMITED WARRANTY/RETURN POLICY

Please see the Altinex website at www.altinex.com for details on warranty and return policy.

9.2 CONTACT INFORMATION

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