Test Tool

User Manual

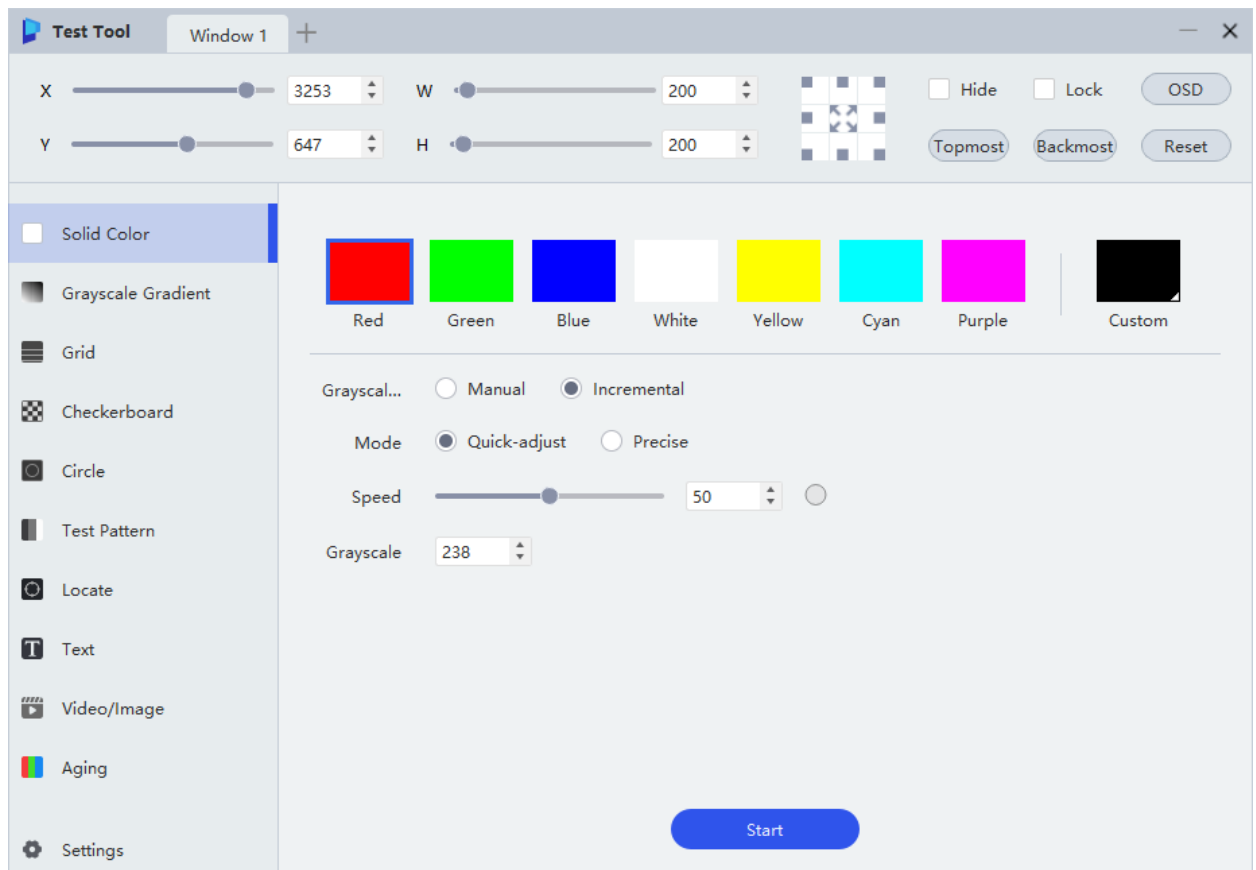# Contents

1 Software Introduction

The Test Tool offers a wide range of test patterns to facilitate screen testing, including assessments of display effects, aging, problem identification, and more.

2 Test Patterns

2.1 Set Test Window

Open the Test Tool and perform the corresponding operations to complete the window settings.

Figure 2-1 Window settings

- Add window

  Click ➕ on the right side of the window tab to add a new window. The window name cannot be changed.

- Delete window

  Click ✕ on the right to the window name to delete the window. **Window 1** is the default window and cannot be deleted.

- Adjust window position

  − Adjust the values of **X** and **Y** to adjust the window coordinates.

- Drag the window directly to the desired position.
- Click on the grid with the square in the image below to adjust the window to the corresponding position on the screen.


- **Adjust window size**

    - Adjust the values of **W** and **H** to adjust the width and height of the window.
    - Adjust the window size directly by dragging its edges.
    - Double-click the window to enter/exit full-screen.
    - Click in the center of the image below to maximize the current window.

- **Hide/Show window**

    To hide the current window, select the **Hide** option. To display the window, simply deselect the **Hide** option.

- **Lock/Unlock window**

    To prevent modifications to the current window, select the **Lock** option. To unlock, right-click the window and deselect **Lock** from the popup menu.
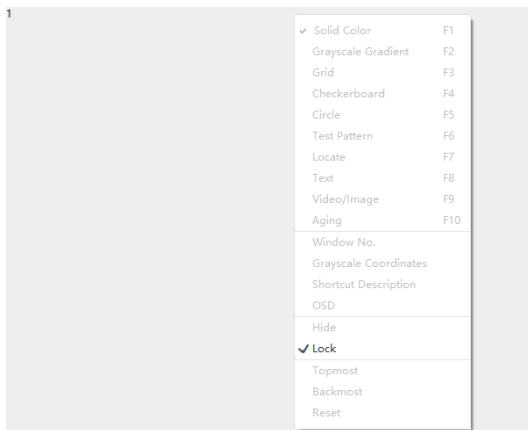
- **Topmost/Backmost**

    Click **Topmost** to bring the current window to the front; click **Backmost** to send the current window to the back.

- **On Screen Display**

    Click **OSD** to open a pop-up dialog box where you can set the on screen display content and its properties.

- **Reset**

    Click **Reset** to restore the position and size of the current window to the default values.

2.2 Set Test Pattern

The Test Tool offers a wide range of test patterns. Please configure the settings to suit your needs.

Solid Color

Set the color (customizable) and grayscale adjustment method to test the accuracy of the displayed color on the screen.

Grayscale adjustment method:

- Manual: Drag the slider to adjust the grayscale manually.

- Incremental: Set the grayscale increment method and transition interval. Click **Start** to enable automatic changes.

Figure 2-2 Solid color settings and the corresponding pattern
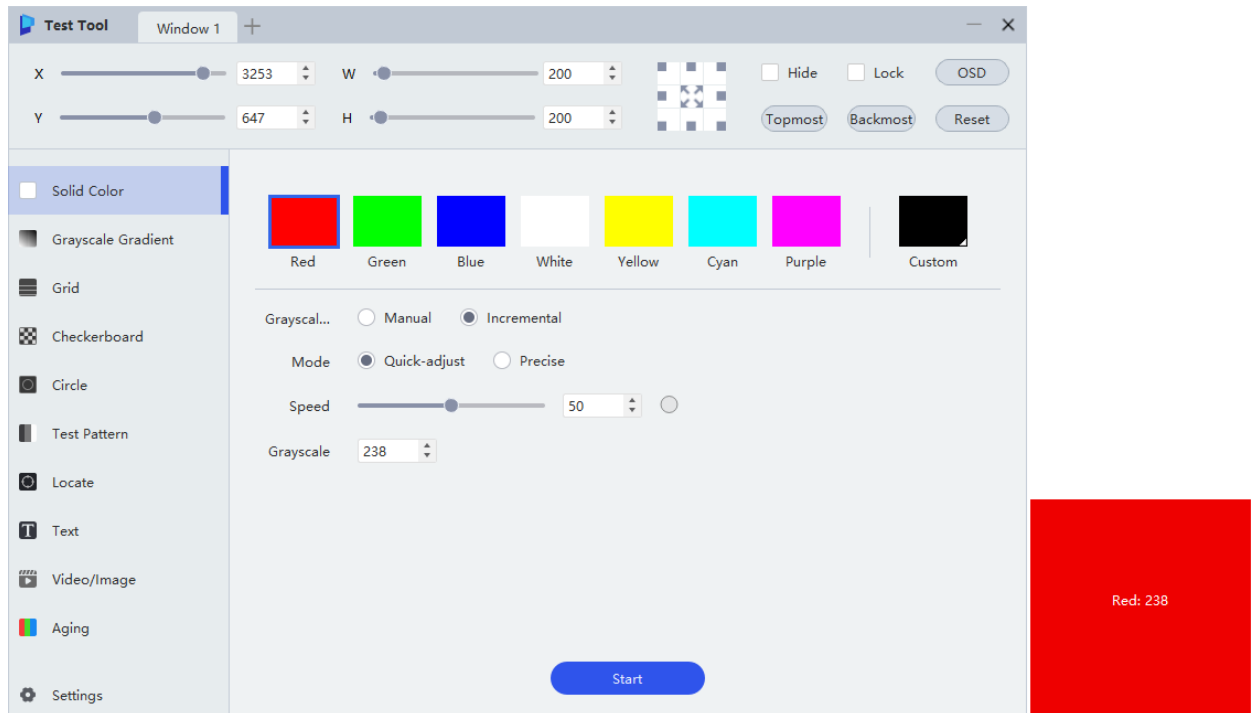
Grayscale Gradient

Set the properties of the pattern, including screen color, gradient stretch, stripe height, levels, gradient direction, moving direction and speed to test the uniformity of grayscale gradient on the screen.

Toggle on **Group** to 🔵, where you can select the desired number of levels to group and the layout of the screen.
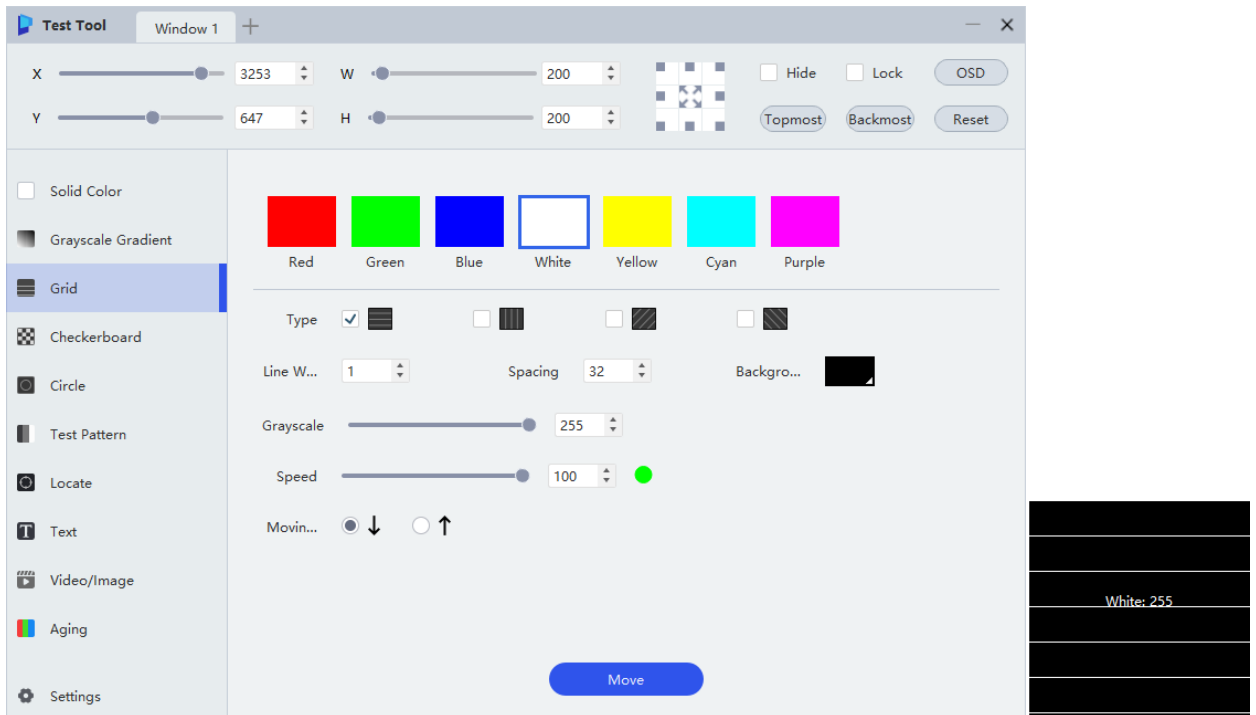
Figure 2-3 Grayscale gradient settings and the corresponding pattern
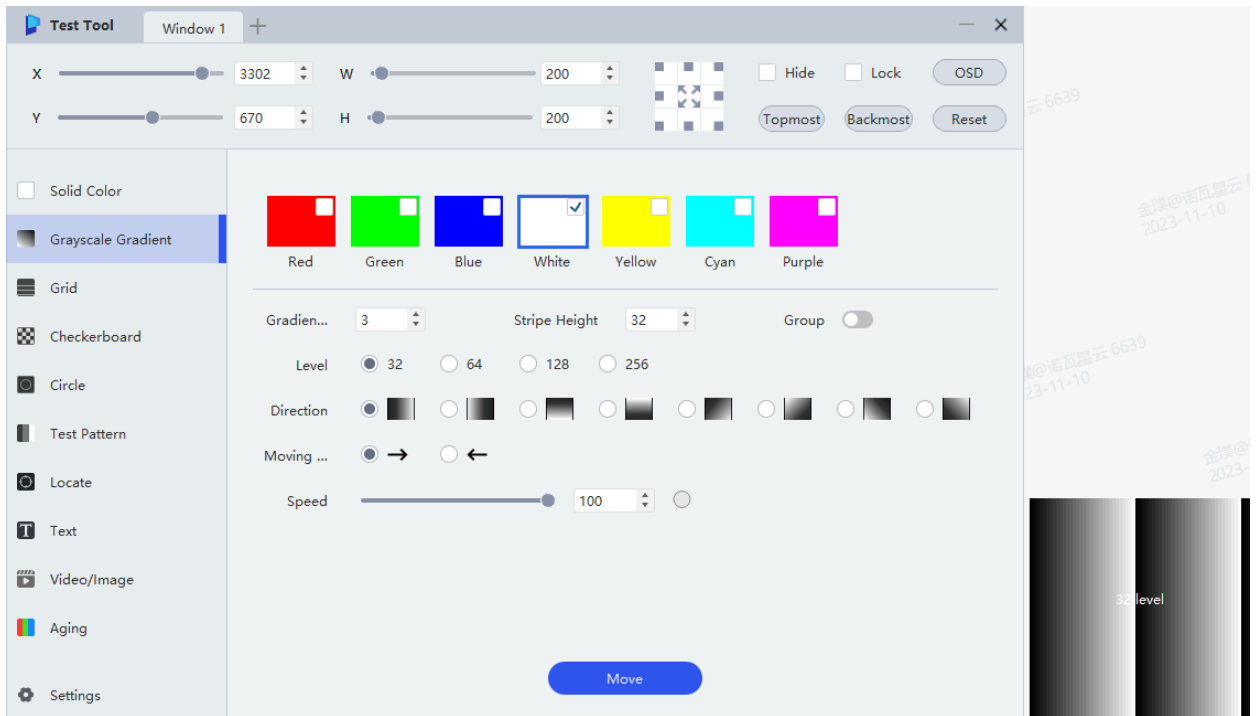
Grid

Set the color, type, line width, spacing, background color, grayscale, speed, and moving direction of the grid lines to test the display effects at different angles on the screen and perform a simple test for dead pixels.
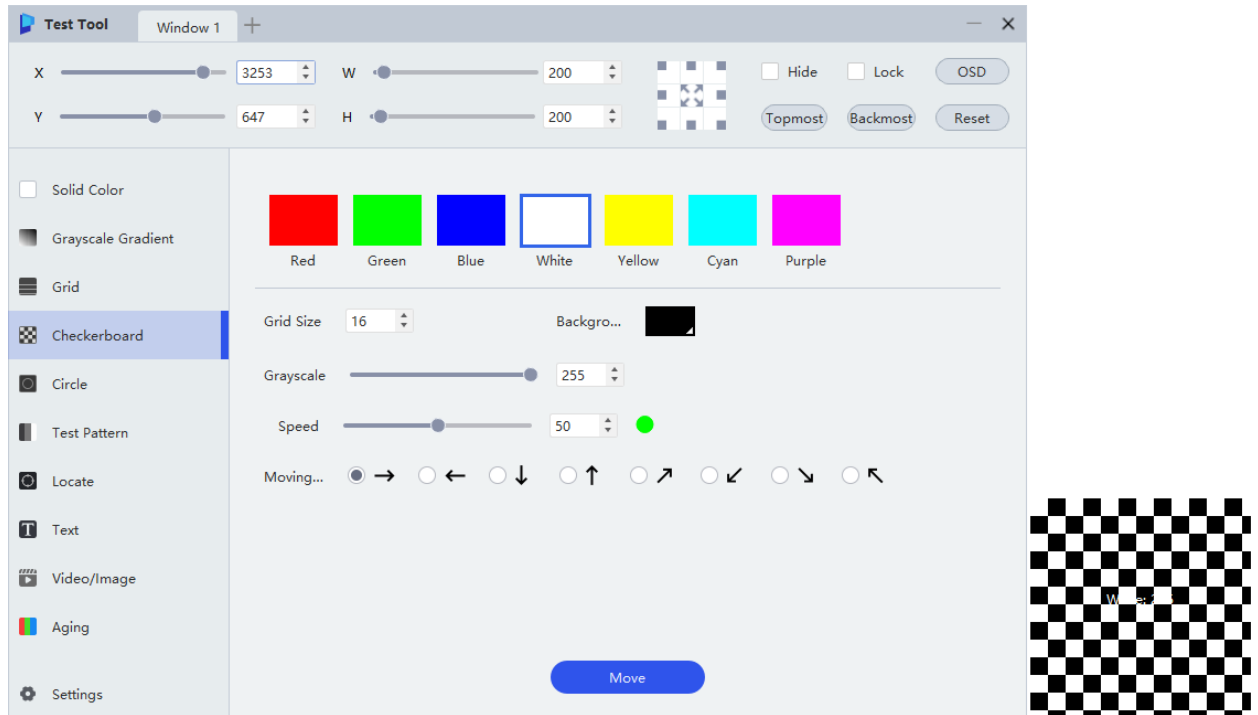
Figure 2-4 Grid settings and the corresponding pattern

Checkerboard

Set the grid color, grid size, background color, grayscale, moving direction, and moving speed to examine the level of display screen coupling.

Figure 2-5 Checkerboard settings and the corresponding pattern

Circle

Set the color, line width, spacing, background color, grayscale, moving direction, and moving speed to examine the ghosting level of the screen.

Figure 2-6 Circle settings and the corresponding pattern
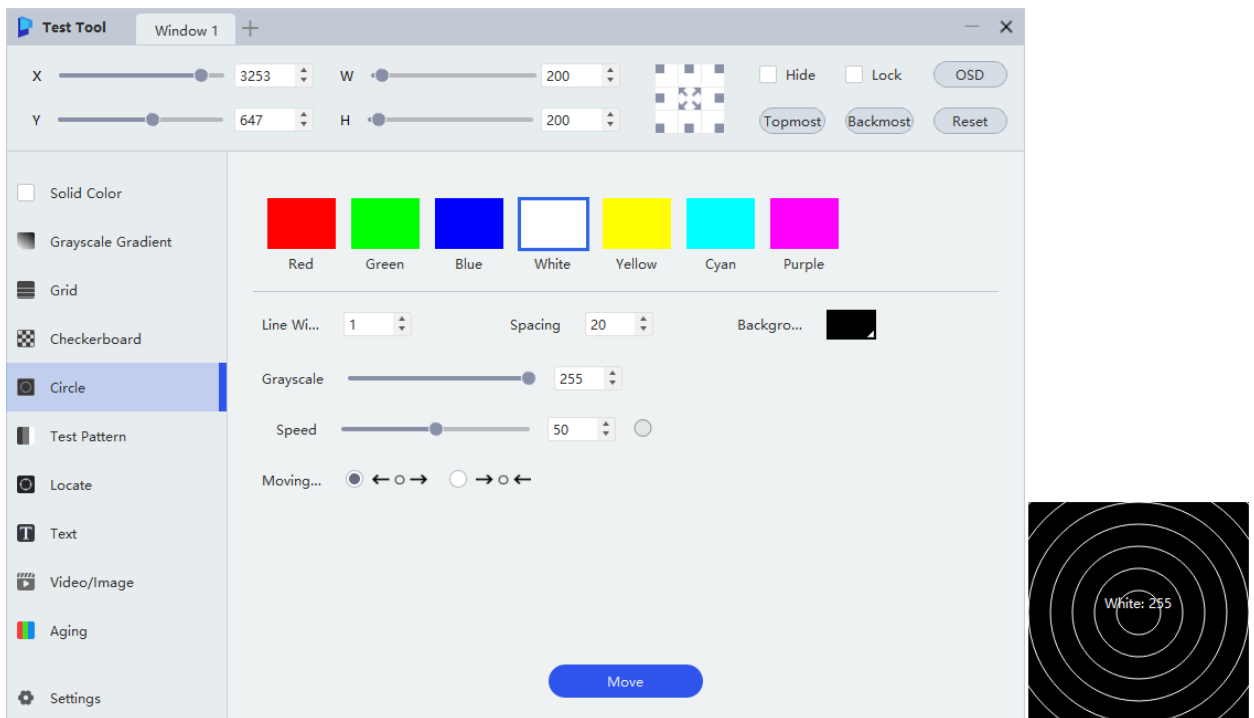
Test Pattern

Set the pattern type, stripe width, rotation angle, moving direction, grayscale, and speed to test the display effect on the screen and camera shooting results.

Figure 2-7 Test pattern settings and the corresponding pattern
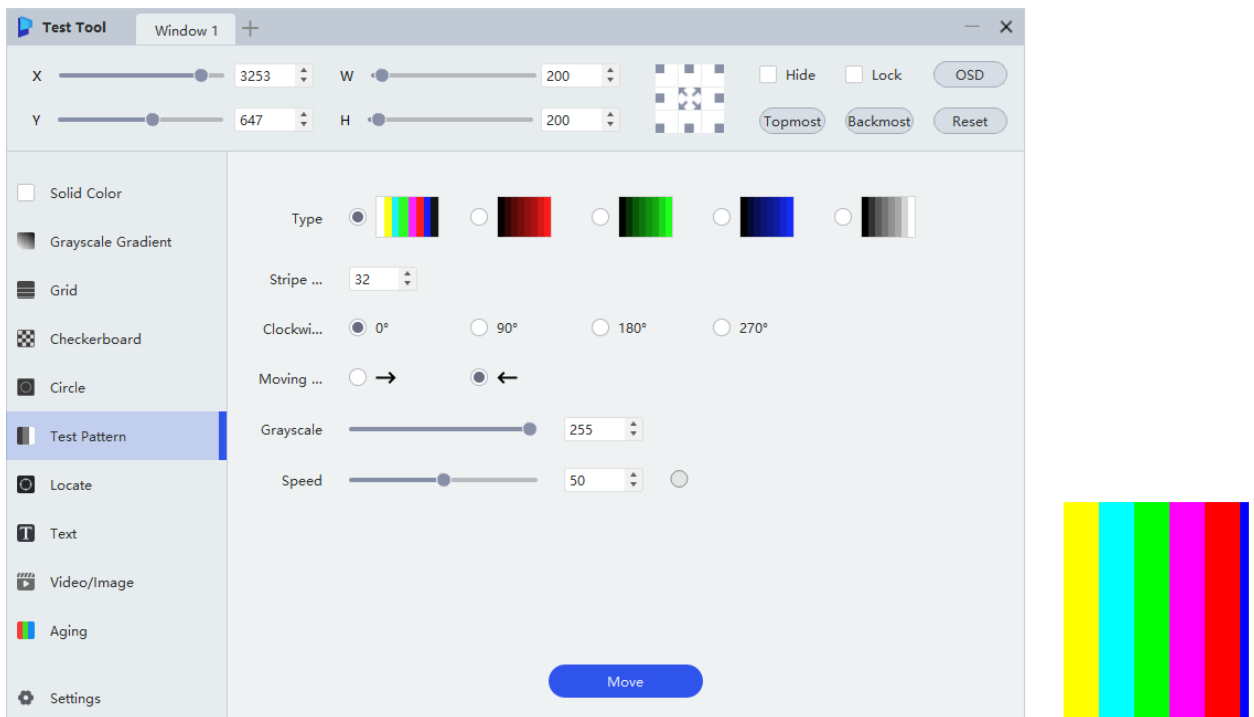
Locate

Set up a test pattern that corresponds to the actual positions of the cabinets and the modules. The pattern includes cabinet numbers, cabinet borders, and module borders to examine the accuracy of data group.

- Module: Set the width and height of the modules, and the width and color of the module lines.
- Loaded Module of Receiving Card: Set the number of rows and columns of the cabinet and the width and color of the lines.
- Number: Set the start row and start column of the cabinet number, the font size and font color.
- Other: Set the order of the cabinet number and background.

Figure 2-8 Locate settings and the corresponding pattern
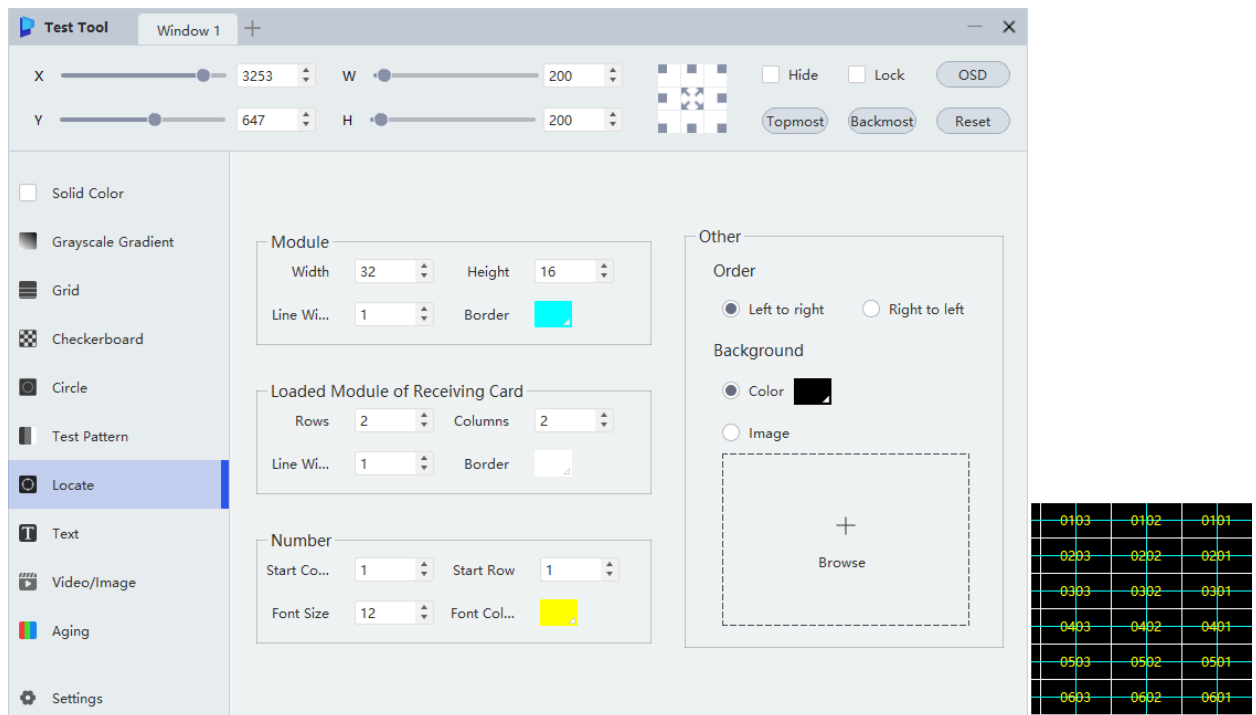
Text

Set the font name, font size, bold, italic, underline, alignment, spacing, text color, background color, and content of the text.

Figure 2-9 Text settings and the corresponding pattern
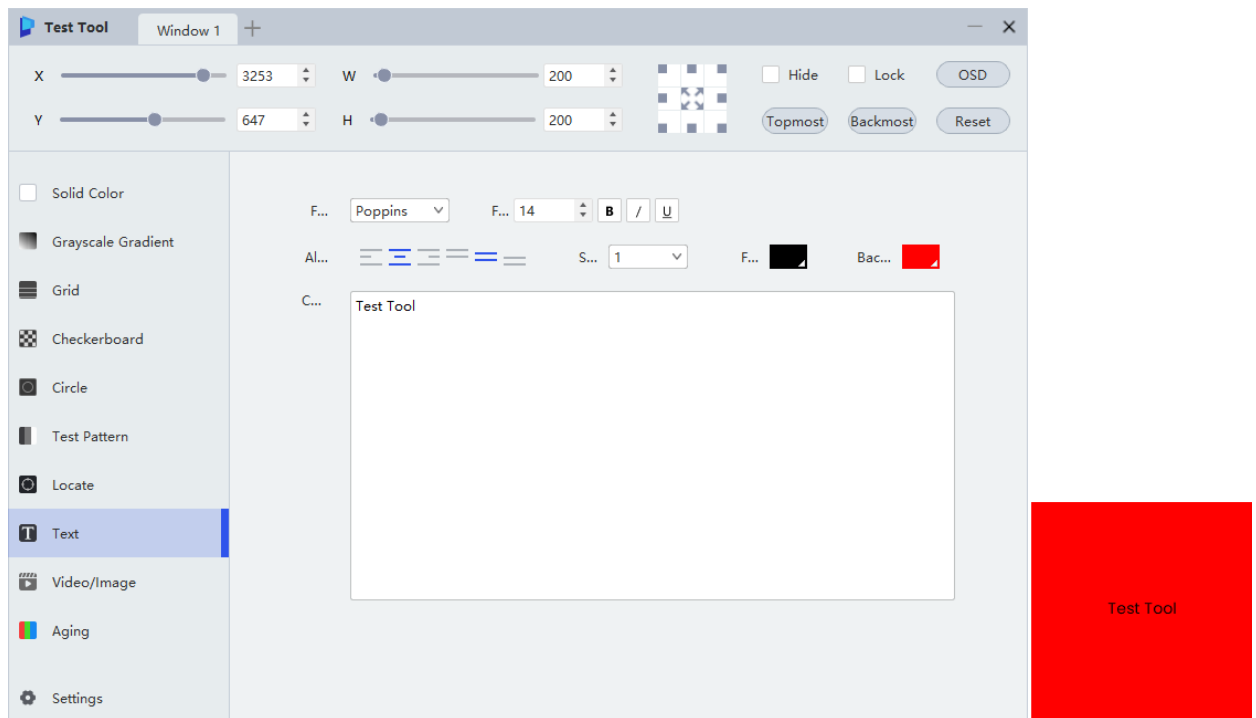
Video/Image

Configure the playlist and adjust the playback settings for videos and images to conduct video aging tests or assess display effects.

> **Note**
>
> - 4K to 8K videos can only be played in one window at a time, and cannot be played in multiple windows simultaneously.
> - The smoothness of video playback is related to the hardware performance of the computer.
> - The video playback function is exclusively intended for screen testing and cannot be used for commercial or professional video playback.

You can perform the following operations as required:

- Add video/image: Click **Add** and select a video or image in the pop-up dialog box, then click **Open** to add it to the playlist.
- Set loop: Select **Repeat List** or **Repeat One** from the drop-down menu. This will allow you to loop the video or image either by the playlist as a whole or by a single item.
- Adjust file index: Click ⬆ or ⬇ to adjust the file index in the list.
- Remove file: Click ⊗ to remove the file from the list.
- Set playback parameters: Specify the image's display mode and duration, as well as the video's display mode, playback progress, and pause/play functionality.
- Play a file: Click the target file to initiate playback. The currently playing file will be indicated by the 🟢 displayed next to its filename.

- Pause playback: During video playback, click ⏸ on the right side of playback progress to pause and the ❚❚ icon will be displayed on the right side of the video name.

- Resume playback: Click ▶ on the right side of the playback progress to resume.
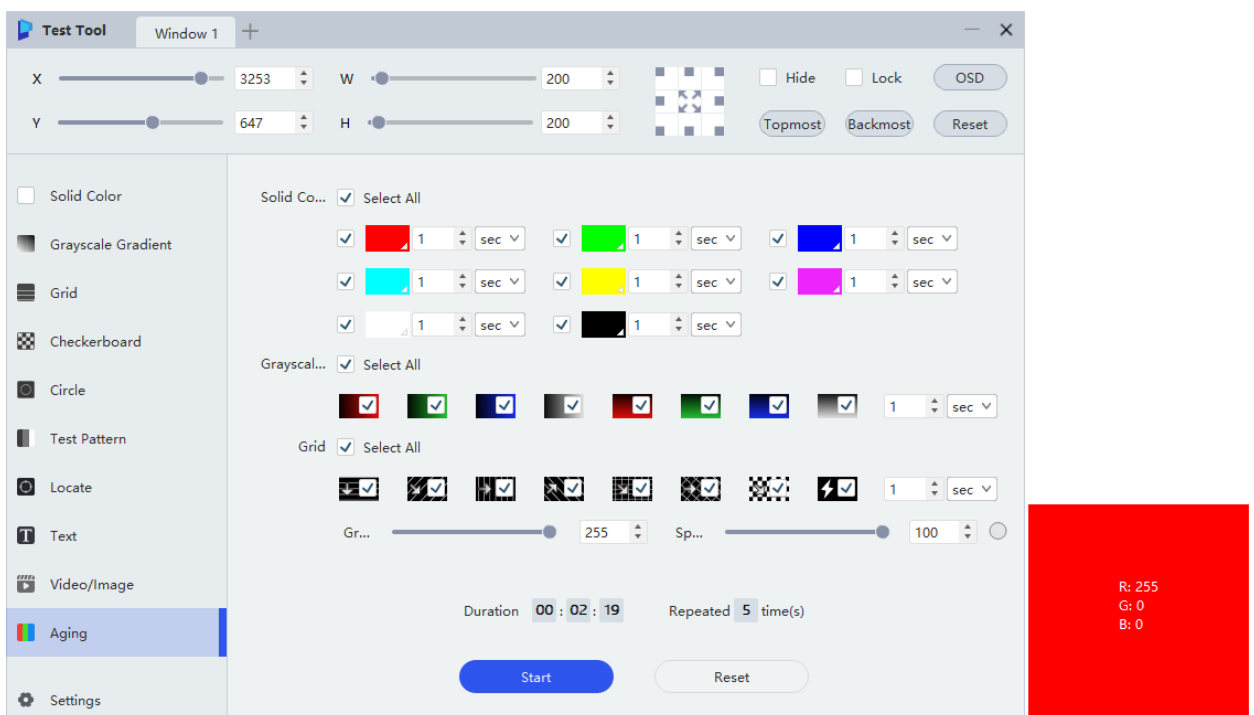
Figure 2-10 Video/Image settings

Aging

Set the color and duration for solid color patterns, the type and transition interval for grayscale gradient patterns, and the type, transition interval, grayscale, and speed for grid patterns. This feature is designed for conducting aging tests on LEDs through continuous playback and for aging tests on the power supply unit of the cabinet using black and white flickering patterns that induce current pulses.

The aging test duration and pattern repeat times will be displayed on the software interface. To reset, simply click **Reset**.
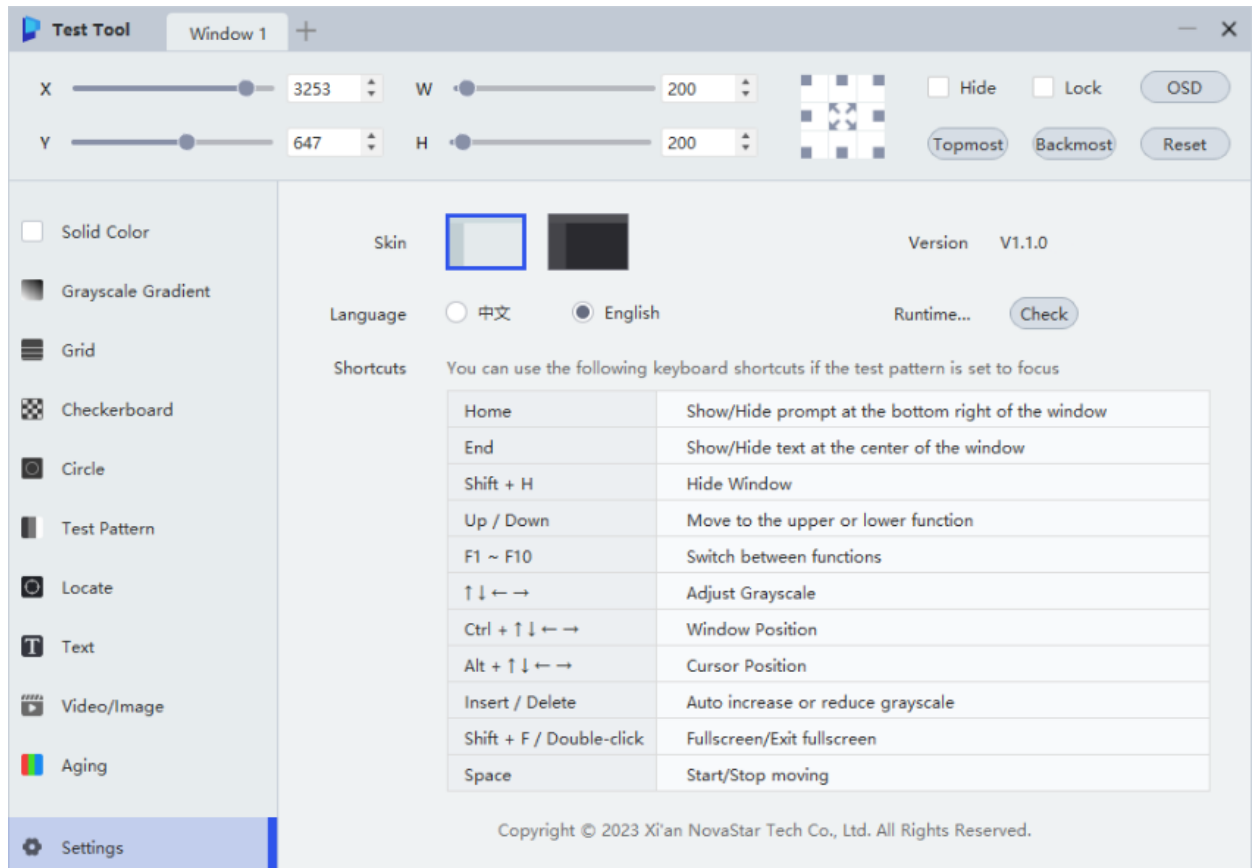
Figure 2-11 Aging settings and the corresponding pattern

3 Software Settings

Click **Settings** located in the lower-left corner of the interface and then customize the options for the Test Tool.

Figure 3-1 Settings

- Change skin

  To change the visual appearance, simply click on a skin theme of your preference.

- Change language

  For language selection, choose either 中文 or **English** to switch to the corresponding language.

- Check runtime environment

  To view pertinent information about the software's operating environment, such as the operating system, local IP, and DirectX version, click **Check** to open a dialog box with the details.

- View shortcut keys

  View the instructions for keyboard shortcut keys.

- View copyright information

  View the copyright information of the software.

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