

# RZA1HBitmapConverter

## Description

This document provides a complete list of bitmap formats supported by the RZA1H Target.

These formats define how pixel color and alpha data are stored in memory. The RZA1H extended bitmap formats support **alpha-only**, **RGB**, **ARGB**, and **JPEG compressed images** formats to address different memory, performance, and visual quality requirements.

These bitmap converters are supported only on the target. Windows simulation uses the default bitmap converter.

## Alpha Only Formats

Alpha formats (A1/A4/A8) are primarily used for masking and blending operations.

| Serial No. | Format                      | Description          |
|------------|-----------------------------|----------------------|
| 1          | RZA1HExtendedBitmapFormatA1 | 1-bit alpha mask.    |
| 2          | RZA1HExtendedBitmapFormatA4 | 4-bit alpha channel. |
| 3          | RZA1HExtendedBitmapFormatA8 | 8-bit alpha channel. |

## RGB/ARGB Formats

RGB/ARGB formats balance memory usage and visual quality depending on color depth and transparency needs.

| Serial No. | Format                            | Description                      |
|------------|-----------------------------------|----------------------------------|
| 1          | RZA1HExtendedBitmapFormatRGB565   | 16-bit RGB (5-6-5), no alpha.    |
| 2          | RZA1HExtendedBitmapFormatARGB8888 | 32-bit ARGB, 8 bits per channel. |
| 3          | RZA1HExtendedBitmapFormatARGB1555 | 16-bit ARGB with 1-bit alpha.    |
| 4          | RZA1HExtendedBitmapFormatARGB4444 | 16-bit ARGB, 4 bits per channel. |
| 5          | RZA1HExtendedBitmapFormatXRGB8888 | 32-bit RGB, unused alpha byte.   |

|   |                                   |                                  |
|---|-----------------------------------|----------------------------------|
| 6 | RZA1HExtendedBitmapFormatR8G8B8A8 | 32-bit RGBA, 8 bits per channel. |
|---|-----------------------------------|----------------------------------|

## JPEG Compressed Image Format

JPEG format enables efficient storage of large images with reduced memory requirements.

| Serial No. | Format                       | Description                   |
|------------|------------------------------|-------------------------------|
| 1          | RZA1HExtendedBitmapFormatJpg | JPEG compressed image format. |

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