

# Converting Colors

XYZ(22.1854, 27.8297,  
149.1950)

Have a look what the booklet for  
XYZ(22.1854, 27.8297, 149.1950)  
contains.

<b>XYZ(31.3255, 33.7709, 99.4752)</b> .....	3
<i><b>Conversions</b></i> .....	4
<i><b>Details</b></i> .....	6
<i><b>Harmonies</b></i> .....	12
<i><b>Previews</b></i> .....	24
<i><b>Color Blindness Simulation</b></i> .....	28
<i><b>CSS Examples</b></i> .....	31

# Color

**XYZ(31.3255, 33.7709,  
99.4752)**

# Conversions

## Conversions Part 1

Format	Color
Hex	00A4FF
RGB	0, 164, 255
RGB Percent	0%, 64%, 100%
CMY	0.9997, 0.3569, 0.0000
CMYK	1.00, 0.36, 0.00, 0.00
HSL	201°, 100%, 50%
HSV	201°, 100%, 100%
XYZ	31.3255, 33.7709, 99.4752
YIQ	125.3380, -126.9550, -6.4670

# Conversions

## Conversions Part 2

<b>Format</b>	<b>Color</b>
R <sub>Y</sub> B	0, 100, 255
Decimal	42239
CIE Lab	64.78, -2.82, -54.79
CIE LCh	65, 54.861, 267.057
Yxy	33.7709, 0.1903, 0.2052
Android (android.graphics.Color)	4278232319 (0xFF00A4FF)
YUV	125.3380, 63.9234, -109.9214
Hunter-Lab	58.1127, -5.4774, -60.8115

# Details

The XYZ color **31.3255, 33.7709, 99.4752** is a dark color, and the websafe version is hex **0099FF**. The color can be described as middle saturated azure. A complement of this color would be **44.9883, 28.7560, 3.1816**, and the grayscale version is **19.4373, 20.4495, 22.2695**.

A 20% lighter version of the original color is **50.0636, 61.3278, 103.8066**, and **16.0982, 15.8875, 55.6442** is the 20% darker color. If you saturate the color by 10%, you get **31.3205, 33.7610, 99.4735**, and if you desaturate by 10%, it is **33.4289, 37.3612, 100.0573**.

# Distribution



- Red (0%)
- Green (64%)
- Blue (100%)



- Red (0%)
- Yellow (39%)
- Blue (100%)



- Cyan (100%)
- Magenta (36%)
- Yellow (0%)
- Black (0%)



- Cyan (100%)
- Magenta (36%)
- Yellow (0%)

# Brightness & Saturation Gradients

These gradients show how the XYZ color 31.3255, 33.7709, 99.4752 changes by changing the brightness by 10 percent. The first figure shows a shift by +10% for each color and the second figure -10%.

Similar to the brightness gradients but the following saturation gradients show a change of the XYZ color 31.3255, 33.7709, 99.4752 by changing the saturation by 10% instead.



31.3255, 33.7709,  
99.4752

31.3255, 33.7709,  
99.4752

299.8353,  
319.1093, 579.7411

20.9999, 22.7177,  
75.2479

61.1245, 65.5772,  
162.4814

13.2364, 14.3852,  
55.3130

81.3287, 87.0991,  
202.0973

7.6696, 8.3890,  
39.2521

105.5563,  
112.8793, 247.6799

3.9343, 4.3449,  
26.6466

134.1729,  
143.3023, 299.6477

1.6650, 1.8683,  
17.0779

167.5437,  
178.7524, 358.4191

0.4342, 0.5292,  
10.1275

206.0342,

0.0000, 0.0000,

219.6140, 424.4128

5.3769

250.0096,  
266.2715, 498.0473

■ 0.0000, 0.0000,  
2.4075

■ 0.0000, 0.0000,  
0.7905

■ 31.3255, 33.7709,  
99.4752

■ 31.3255, 33.7709,  
99.4752

■ 31.3205, 33.7610,  
99.4735

■ 33.4289, 37.3612,  
100.0573

■ 36.1896, 41.4666,  
100.7042

■ 39.7752, 46.1772,  
101.4244

■ 44.2886, 51.5493,  
102.2235

■ 49.8162, 57.6308,  
103.1060

■ 56.4341, 64.4640,  
104.0761

■ 64.2103, 72.0870,  
105.1377

■ 73.2071, 80.5349,  
106.2941

■ 83.4820, 89.8403,  
107.5487

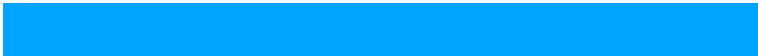
# Harmonies

## Analogous

The Analogous color harmony consists of three colors that are next to each other on the color wheel.



24.5342, 33.7709, 86.6191



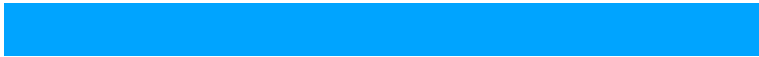
31.3255, 33.7709, 99.4752



39.5062, 33.7709, 90.6293

# Triad

The Triadic color harmony groups three colors that are evenly spaced from another and form a triangle on the color wheel.



31.3255, 33.7709, 99.4752



47.5946, 33.7709, 20.3354



20.9749, 33.7709, 17.8413

# Complementary

The Complementary color scheme is a pair of colors which are on the opposite of each other on the color wheel.



31.3255, 33.7709, 99.4752



44.9883, 28.7560, 3.1816

# Split Complementary

Split-complementary colors differ from the complementary color scheme. The scheme consists of three colors, the original color and two neighbors of the complement color.



25.6795, 33.7709, 10.0613



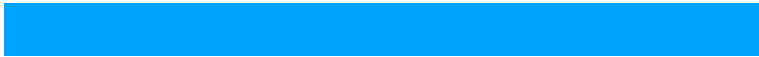
31.3255, 33.7709, 99.4752



41.0762, 33.7709, 11.0312

# Square

The Square scheme is like the rectangle color scheme, but the four colors are evenly spaced on the color wheel.



31.3255, 33.7709, 99.4752



49.7599, 33.7709, 39.0472



32.8836, 33.7709, 8.2081



19.2051, 33.7709, 34.5846



# Rectangle

The Rectangle color scheme consists of four colors that form a rectangle on the color wheel.



31.3255, 33.7709, 99.4752



44.5351, 33.7709, 75.0283



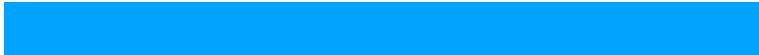
32.8836, 33.7709, 8.2081



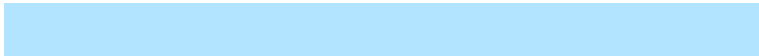
22.2234, 33.7709, 14.4014

# Sweetspot

The Sweet Spot groups the original color and five complimentary colors.



31.3267, 33.7719, 99.4753



64.1837, 72.0616, 105.1342



37.5769, 72.2469, 21.4825



13.0054, 14.7153, 22.4048



0.0000, 0.0000, 0.0000



20.3446, 21.4041, 23.3091

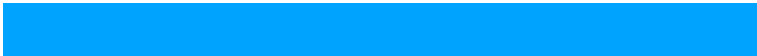


# Same Dimension

The Same Dimension uses a secret algorithm to generate beautiful new colors.



31.3267, 33.7719, 99.4753



31.3205, 33.7610, 99.4735



18.7544, 8.6272, 95.2845



17.9774, 19.3265, 23.0328



16.5119, 17.9334, 52.0258



1.7110, 1.9527, 5.1000



# Inverse Universe

The Inverse Universe completely reimagines the original color for something new.



47.9418, 23.9421, 37.2170



47.9383, 23.9393, 37.2030



65.9920, 70.7633, 10.1829



18.5013, 18.1838, 21.2567



25.1226, 12.5384, 19.8281

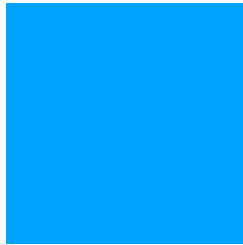


2.4982, 1.2417, 2.2052



# Previews

## White Background



This preview shows how the XYZ color 31.3255, 33.7709, 99.4752 looks on a white background.

## Color Contrast Check

Large Text (above 18pt) WCAG AA × Fail

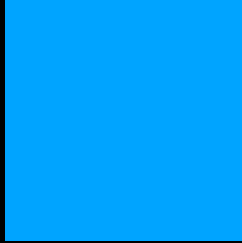
Any Text WCAG AA × Fail

Large Text (above 18pt) WCAG AAA × Fail

Any Text WCAG AAA × Fail



# Black Background



This preview shows how the XYZ color 31.3255, 33.7709, 99.4752 looks on a black background.

## Color Contrast Check

Large Text (above 18pt) WCAG AA ✓ Pass

Any Text WCAG AA ✓ Pass

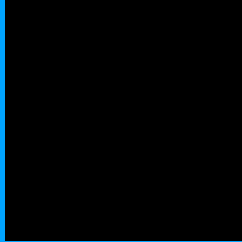
Large Text (above 18pt) WCAG AAA ✓ Pass

Any Text WCAG AAA ✓ Pass

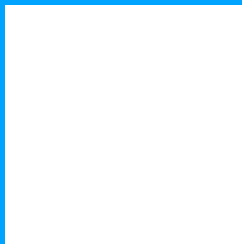
If you want to check with other color combinations, try the [Color Contrast Checker](#).

# XYZ 31.3255, 33.7709, 99.4752

## Background



This preview shows how black text looks on a background with the XYZ color 31.3255, 33.7709, 99.4752.



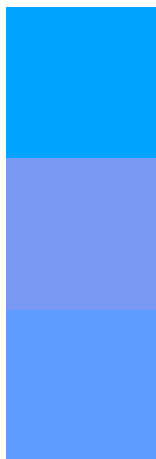
This preview shows how white text looks on a background with the XYZ color 31.3255, 33.7709,



# Color Blindness Simulation

Color vision deficiency is a very complex topic, and I could not describe the different causes any better than Wikipedia does, so if you want to learn more, you should check out their [article about color blindness](#).

## Dichromacy



### Original Color

31.3255, 33.7709, 99.4752

### Protanopia

35.8987, 33.5126, 90.9627

### Deuteranopia

34.7231, 33.7136, 99.2850



## Tritanopia

23.9990, 33.8173, 51.7169

# Trichromacy



**Original Color**

31.3255, 33.7709, 99.4752

**Protanomaly**

32.2977, 32.5732, 94.2075

**Deuteranomaly**

32.4843, 33.3223, 99.3275

**Tritanomaly**

26.1326, 33.4526, 66.7077

# Monochromacy



**Original Color**

31.3255, 33.7709, 99.4752

**Achromatopsia**

19.4927, 20.5079, 22.3331

**Achromatomaly**

19.9873, 23.1493, 42.4445

# CSS Examples

## Text

The CSS property to change the color of the text to XYZ 31.3255, 33.7709, 99.4752 is called "color". The color property can be set on classes, ids or directly on the HTML element.

This example shows how text in the color `rgb(0, 164, 255)` looks like.

```
.text, #text, p{  
    color:rgb(0, 164, 255)  
}
```

If you want to add a text shadow in that color use the text-shadow property, you can generate a text shadow directly with our [CSS Text Shadow Generator](#).

Here you see how black text with a 4 pixel rgb(0, 164, 255) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(0, 164, 255) }
```

## Border

The CSS property to change the border of an element to XYZ 31.3255, 33.7709, 99.4752 is called "border". The border property can be set on classes, ids or directly on the HTML element.

This example shows the color as border, it can be applied via the CSS property "border" or "border-color".

```
.border, #border, table{ border:4px solid rgb(0, 164, 255) }
```



If only the border color should be changed use the property `border-color`.

```
.border{ border-color:rgb(0, 164, 255) }
```

If you want to add a box shadow in that color use:

Here you see how a box with a 4 pixel `rgb(0, 164, 255)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(0, 164, 255); -webkit-box-  
shadow:4px 4px 4px 4px rgb(0, 164, 255);  
box-shadow:4px 4px 4px 4px rgb(0, 164,  
255) }
```

# Background

The CSS property to change the background color of an element to XYZ 31.3255, 33.7709, 99.4752 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(0, 164, 255) }
```

If only the background color should be changed can be used:

```
.background{ background-color: rgb(0, 164,  
255) }
```

This example shows the color as background, it is applied via the CSS property "background".

To optimize and compress your CSS code, you can use our [online CSS compressor and optimizer](#) based on csstidy. If you want to create a linear or radial gradient as background or border, check our [CSS Gradient Generator](#).

Hey! You found this booklet interesting? Support Converting Colors with the new Membership Option!

The pro membership hides all ads, plus gives you double the colors in the color bucket, and more awesome pro features!

**[Learn more, Memberships starting at \\$2.50/m!](#)**

**Follow me  
on Twitter!**

@ConvertingColor