

UUID v4 specifically

Random-generated UUID version 4.

```
^[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-4[0-9a-fA-F]{3}-[89abAB][0-9a-fA-F]{3}-[0-9a-fA-F]{12}$
```

Token-by-token breakdown

Token	Meaning
^	start of string (or line in multiline mode)
[0-9a-fA-F]{8}	exactly 8 times: any of: digits, a–f, A–F
-	literal text “-”
[0-9a-fA-F]{4}	exactly 4 times: any of: digits, a–f, A–F
-4	literal text “-4”
[0-9a-fA-F]{3}	exactly 3 times: any of: digits, a–f, A–F
-	literal text “-”
[89abAB]	any of: “8”, “9”, “a”, “b”, “A”, “B”
[0-9a-fA-F]{3}	exactly 3 times: any of: digits, a–f, A–F
-	literal text “-”
[0-9a-fA-F]{12}	exactly 12 times: any of: digits, a–f, A–F
\$	end of string (or line in multiline mode)

Quick usage in 7 languages

JavaScript	<pre>const re = /^[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-4[0-9a-fA-F]{3}-[89abAB][0-9a-fA-F]{3}-[0-9a-fA-F]{12}\$/; re.test(value);</pre>
Python	<pre>import re re.match(r"^[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-4[0-9a-fA-F]{3}-[89abAB][0-9a-fA-F]{3}-[0-9a-fA-F]{12}\$", value)</pre>
Java	<pre>Pattern.compile("^[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-4[0-9a-fA-F]{3}-[89abAB][0-9a-fA-F]{3}-[0-9a-fA-F]{12}\$").matcher(value).matches();</pre>
C# / .NET	<pre>Regex.IsMatch(value, @"^[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-4[0-9a-fA-F]{3}-[89abAB][0-9a-fA-F]{3}-[0-9a-fA-F]{12}\$");</pre>
Go	<pre>regexp.MustCompile(`^[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-4[0-9a-fA-F]{3}-[89abAB][0-9a-fA-F]{3}-[0-9a-fA-F]{12}\$`).MatchString(value)</pre>
Ruby	<pre>/^[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-4[0-9a-fA-F]{3}-[89abAB][0-9a-fA-F]{3}-[0-9a-fA-F]{12}\$/ /.match?(value)</pre>
PHP	<pre>preg_match('~^[0-9a-fA-F]{8}-[0-9a-fA-F]{4}-4[0-9a-fA-F]{3}-[89abAB][0-9a-fA-F]{3}-[0-9a-fA-F]{12}\$~', \$value);</pre>

Common pitfalls

- **Anchored to the whole string.** This pattern uses `^` and `$`, so it requires the entire input to match. To find it inside a longer text, drop the anchors and use the global (`g`) flag.
- **Case sensitivity.** Letter ranges are case-sensitive — use the `i` flag if the input case can vary.
- **Validate beyond format.** Matching the format doesn't guarantee the value is real. Confirm the uuid v4 specifically against a source of truth (database, API, or checksum) where it matters.