

# MUI benchmark

## @mui/material

*Synthetic benchmark*

yarn server:core

ButtonBase x 40,724 ops/sec  $\pm 1.58\%$  (189 runs sampled)  
HocButton x 166,229 ops/sec  $\pm 1.04\%$  (191 runs sampled)  
NakedButton x 228,473 ops/sec  $\pm 0.99\%$  (187 runs sampled)  
ButtonBase enable ripple x 56,019 ops/sec  $\pm 0.87\%$  (189 runs sampled)  
ButtonBase disable ripple x 61,748 ops/sec  $\pm 0.35\%$  (190 runs sampled)  
Markdown x 954 ops/sec  $\pm 1.35\%$  (187 runs sampled)

## @mui/docs

*Synthetic benchmark*

yarn server:docs

Markdown x 946 ops/sec  $\pm 4.04\%$  (176 runs sampled)  
MarkdownElement x 3,941 ops/sec  $\pm 5.53\%$  (185 runs sampled)

## @mui/styles

*Synthetic benchmark*

yarn server:styles

Box x 3,850 ops/sec  $\pm 3.58\%$  (178 runs sampled)  
JSS naked x 35,493 ops/sec  $\pm 2.29\%$  (183 runs sampled)  
WithStylesButton x 16,844 ops/sec  $\pm 0.34\%$  (191 runs sampled)  
HookButton x 23,213 ops/sec  $\pm 0.88\%$  (191 runs sampled)  
StyledComponentsButton x 7,442 ops/sec  $\pm 2.09\%$  (180 runs sampled)  
EmotionButton x 11,345 ops/sec  $\pm 2.45\%$  (185 runs sampled)  
EmotionCssButton x 53,807 ops/sec  $\pm 0.40\%$  (191 runs sampled)  
EmotionServerCssButton x 43,701 ops/sec  $\pm 1.04\%$  (190 runs sampled)  
Naked x 58,694 ops/sec  $\pm 0.86\%$  (188 runs sampled)

## @mui/system

*Synthetic benchmark*

yarn server:system

@styled-system/css x 64,606 ops/sec  $\pm 0.45\%$  (188 runs sampled)  
@chakra-ui/system/css x 126,272 ops/sec  $\pm 0.21\%$  (191 runs sampled)  
@mui/system styleFunctionSx x 40,867 ops/sec  $\pm 0.50\%$  (191 runs sampled)

## Real-world benchmark

```
yarn server:server
```

```
bombardier \
  -c 100 \
  -l \
  -d 30s \
  -m GET \
  '0.0.0.0:3001/avatar'
```

Statistics	Avg	Stdev	Max
Reqs/sec	442.47	55.44	547.63
Latency	225.64ms	17.11ms	471.31ms

Latency Distribution

50%	221.98ms
75%	230.69ms
90%	241.19ms
95%	247.87ms
99%	273.88ms

HTTP codes:

1xx	- 0
2xx	- 26642
3xx	- 0
4xx	- 0
5xx	- 0
others	- 0

Throughput: 11.61MB/s

## Resources

- Bombardier