



MediaTek Kompanio 520 vs. Intel N100

A Smarter Choice for Education?

A head-to-head comparison of the **MediaTek Kompanio 520** and **Intel N100** processors reveals some key differences that could impact Chromebook device selection, especially in educational settings.



Performance:

The Intel N100 scores higher in single-tasking processing, while the gap in multi-tasking performance between the two is minimal.



User Experience:

When launching Google Workspace apps, both processors provide a smooth experience with little to no noticeable delay even under load.



Battery Life & Heat Management:

The MediaTek Kompanio 520 outshines the Intel N100 with significantly longer battery life and lower heat generation, ensuring a lightweight design without added bulk from extra cooling solutions or larger batteries.



Cost-Effectiveness:

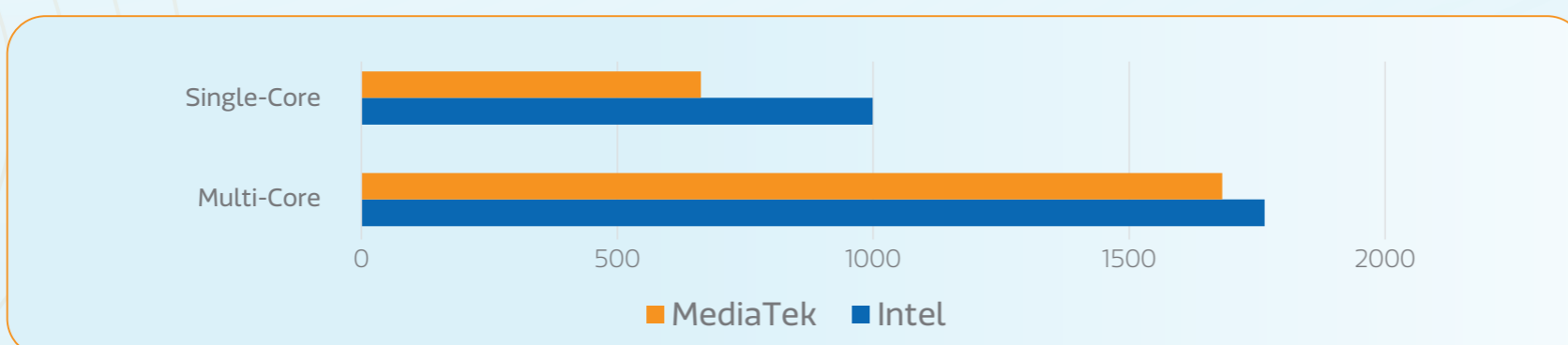
The MediaTek Kompanio 520 is the more budget-friendly option, delivering solid performance without the premium price tag.

This independent benchmarking study is based on a comparison between two K12 student Chromebooks—one powered by the MediaTek Kompanio 520 and the other by the Intel N100. Both devices were tested under identical conditions in a controlled lab environment, ensuring an unbiased evaluation of performance, efficiency, and battery life.

Processor	Device Price (USD)	RAM	Display	WiFi	Device Weight
MediaTek Kompanio 520	\$299.99	4GB	11" 1366 x 768	Wi-Fi 6	1.28 kg
Intel N100	\$436.99	4GB	11" 1366 x 768	Wi-Fi 6	1.45 kg

Pricing based on CDW website list price on 02/28/25

Geekbench 6 tests revealed that while the Intel device scored higher in single-core performance, the MediaTek device matched it in multi-core performance, which better reflects real-life student workloads.



Geekbench 6 Results



Next, the launch times of Google Workspace applications, such as Google Sheets, Google Docs, and Google Slides were evaluated based on user experience. The evaluation values are categorized into four levels: A to D. Measurements are also made under two conditions: no-load and load with Google Meet and Google Classroom running.

Under no-load conditions, the MediaTek device performed commendably with a B rating, while the Intel device received an A rating. The difference was minimal and not a cause for concern. Under load conditions, both the MediaTek and Intel devices achieved a B rating for Google Sheets and Google Slides, meeting expectations and ensuring a satisfactory user experience.

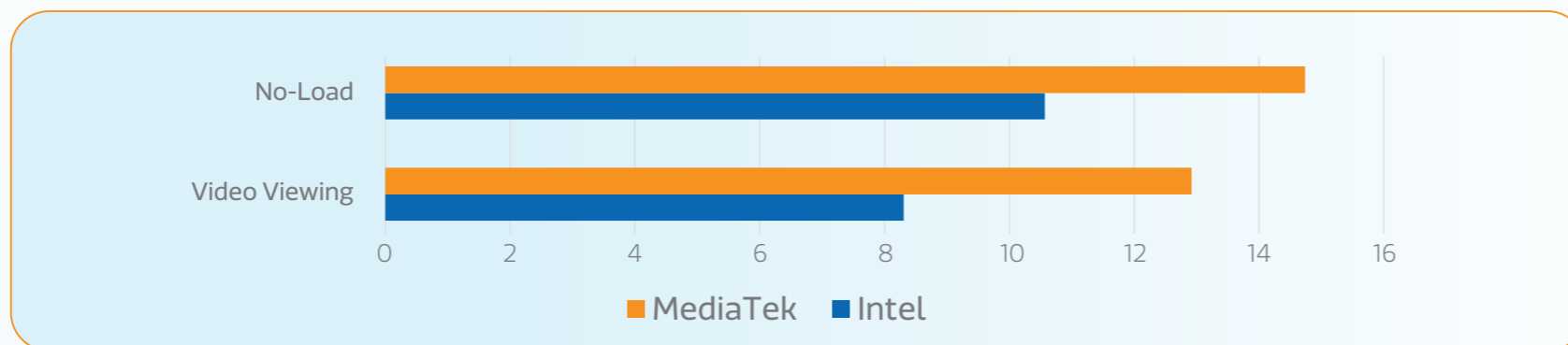
Application	Google Sheets		Google Docs		Google Slides	
	No Load	Load	No Load	Load	No Load	Load
MediaTek	B	B	B	B	B	B
Intel	A	B	A	A	A	B

Speed (Application Launch Perceived Time)

A Rating	No noticeable lag, no issues
B Rating	Slight lag felt, but not bothersome
C Rating	Noticeable lag, slightly bothersome
D Rating	Significant lag felt, causing frustration

Evaluation Value Legend

Lastly, normalized battery life tests were conducted under two conditions: no-load and load with continuous video playback. In both conditions, the MediaTek device significantly outperformed (up to 1.5X) the Intel device.



Battery Life (s/mAh)



Why This Matters for Education

With the rise of one-device-per-student initiatives, Chromebooks are used extensively for **multitasking**—whether it's keeping Google Classroom open, creating documents, conducting research, streaming educational videos, or participating in Google Meet sessions from home. Given these workloads, a **cost-effective, energy-efficient, and lightweight solution like the MediaTek Kompanio 520 stands out as an ideal choice for student devices.**



While the Intel device has a slight advantage in single-tasking performance, the MediaTek device delivers **solid performance** in real-world use cases, **much longer battery life**, **lower heat output**, **lighter weight**, and **superior overall value**, making it a compelling option for education-focused Chromebooks.



Scan the QR code below to read the full Allion benchmarking report.