



SpecsCore AI

DATASHEET COMPLIANCE · LOCAL-FIRST

PRODUCT DOCUMENTATION

User Guide

Check manufacturer datasheets against your board design limits, open every citation in a local PDF preview, and keep API keys on your computer. Bring your own Gemini, OpenAI, or Anthropic key — SpecsCore does not host a model.

LOCAL-FIRST · BRING YOUR OWN KEY · NO SPECS CORE
CLOUD

Evaluation build · v0.1
Windows · macOS · Linux

SpecsCore is a desktop app that checks whether a part's **datasheet** meets **your board's design limits**.

You load a manufacturer PDF and a table of targets (voltage, current, temperature, and so on). SpecsCore builds a comparison matrix, then lets you click a citation to jump to that page in a local PDF preview.

Important privacy points

- SpecsCore does **not** run its own cloud or store your files on a SpecsCore server.
 - Your API key stays on **this computer**.
 - When you click **Run**, only the datasheet text you selected (plus your design limits) is sent to the AI provider **you** chose: Google Gemini, OpenAI, or Anthropic.
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01 Install

You do **not** need Node.js, npm, Rust, or Visual Studio. The installer includes the SpecsCore app.

Requirements

System	Minimum	Notes
Windows	Windows 10 or 11 , 64-bit	WebView2 draws the app UI. It is already on most PCs. If it is missing, the SpecsCore installer installs it automatically while you are online — you do not install WebView2 yourself.
macOS	10.15 Catalina or newer	When a Mac build is available
Linux	64-bit desktop	Prefer the AppImage first. <code>.deb</code> / <code>.rpm</code> installs may need extra WebKit packages depending on your distro.

Phase 0 evaluation builds may be **Windows-only**. macOS and Linux installers will follow when those builds are published.

Install steps

- 1 Get the installer for your system from the SpecsCore release page (or from whoever sent you the build).
- 2 Install it using the table below.
- 3 Open **SpecsCore AI** from the Start menu (Windows), Applications (macOS), or your app launcher (Linux).

System	File	Steps
Windows 10 / 11	<code>SpecsCore AI_..._x64-setup.exe</code> (or <code>.msi</code>)	Double-click and follow the prompts. If Windows SmartScreen appears on an unsigned build, use More info → Run anyway only if you trust the source of the file.
macOS	<code>SpecsCore AI_... .dmg</code>	Open the disk image and drag SpecsCore AI into Applications . If macOS blocks the first launch on an unsigned build, right-click the app → Open .
Linux	<code>.AppImage</code> , <code>.deb</code> , or <code>.rpm</code>	AppImage: <code>chmod +x</code> the file, then run it. deb: <code>sudo dpkg -i ...</code> rpm: <code>sudo rpm -i ...</code>

After install you still need

These are **not** inside the installer:

You need	Why
An API key from Google Gemini, OpenAI, or Anthropic	SpecsCore does not host an AI model
Datasheet PDFs with selectable text	Scanned / image-only PDFs are not supported yet
Your design limits as a table	Paste from a spreadsheet, or upload CSV / Excel

Uninstall

System	How
Windows	Settings → Apps → SpecsCore AI → Uninstall
macOS	Drag the app from Applications to Trash
Linux	Delete the AppImage, or remove the package (<code>sudo apt remove ...</code> / <code>sudo rpm -e ...</code>)

API keys saved by the app are removed with that app’s local data when you uninstall.

02 First-time setup (API key)

SpecsCore does **not** ship an AI model and does **not** bill you for model use. You bring a key from Google, OpenAI, or Anthropic (**bring your own key**). You pay that provider directly under their terms.

You do not need software-engineering experience — an API key is just a password-like string from a website.

In the app

- 1 Open SpecsCore AI.
- 2 Left sidebar: choose **Provider** (start with **Google Gemini** if unsure).
- 3 Choose a **Model** from the list.
- 4 Paste the **API key** into the key box.
- 5 Or click **Get a key** — SpecsCore opens the correct website for the selected provider.

The key is saved on **this computer** only (one slot per provider). Switching provider does not erase other keys.

How to create a Google Gemini key (easiest for first use)

- 1 Go to <https://aistudio.google.com/apikey> in your browser.
- 2 Sign in with a Google account.
- 3 Choose **Create API key**.
- 4 Copy the key and paste it into SpecsCore (Provider = Google Gemini).

Keep the key private. If **Run** fails with a billing or quota message, open that Google page and follow any prompts to enable the API or billing.

How to create an OpenAI key

1 Go to <https://platform.openai.com/api-keys>.

2 Sign in → **Create new secret key** → copy it (it may be shown only once).

3 In SpecsCore: Provider = **OpenAI** → paste the key.

Your OpenAI account usually needs billing enabled for API calls.

How to create an Anthropic key

1 Go to <https://console.anthropic.com/settings/keys>.

2 Sign in → create a key → copy it.

3 In SpecsCore: Provider = **Anthropic** → paste the key.

If you only want to explore the UI

You can install SpecsCore, load **Load NE555 sample**, and browse the PDF preview **without** a key.
You need a key only to click **Run verification audit**.

03 Your design limits (Slot 2)

Design limits are the targets your board or system requires — not the datasheet’s marketing summary.

How to provide them

Use any one of these:

- Drag & drop a file onto **Slot 2**, or use **Upload file**
- Paste a table copied from Excel / Google Sheets (include the header row)
- Upload **CSV**, **TSV**, **JSON**, **TXT**, or **Excel** (`.xlsx`)
- Click **Load NE555 sample** to try a built-in example

Example table

parameter	min	max	nominal	notes
Supply Voltage (VCC)	4.75 V	5.25 V	5.0 V	5 V rail ±5%
Operating Free-Air Temperature (TA)	0 °C	70 °C		Commercial enclosure

Tips:

- Use clear parameter names (the same language you would use in a design checklist).
- Include units in the cells (`5.0 V` , `70 °C`) when you can.
- Extra columns (notes, nominal) are fine.

04 Check one datasheet (Single mode)

- 1 **Slot 1 — Datasheet:** drag & drop PDF(s), choose files, or click **Load NE555 sample**.
- 2 **Slot 2 — Design limits:** drag & drop a limits file, paste or upload your table (see above).
- 3 If the PDF is large (about **80+ pages**, or too much text to send at once), an **Audit scope** list appears. Select the sections that matter (for example Electrical Characteristics, Absolute Maximum Ratings).

Optional: **Suggest from design limits** tries to tick useful sections from words in your table (supply voltage, BLE, NFC, and similar).

- 1 Under the Run button, check the **size / token estimate**. This is a rough guide to how much text will be sent to the AI provider (and thus cost/latency).
- 2 Click **Run verification audit**.
- 3 Read the short summary lines, then the comparison **matrix**.
- 4 In the matrix, click a **Page N** or **Section** link to jump in the PDF preview on the right.

05 **Understanding the results**

After a run you typically see:

Label	Meaning
Note	Short context about how the comparison was done or what to watch for
Best fit	Which part looks closest to your limits (most useful in cross-compare)
Blockers	Hard fails against your limits, or “none”
Open	Items that need a human decision (missing data, ambiguous wording, etc.)
Matrix	Row-by-row comparison of parameters vs datasheet values

Always verify important rows in the PDF preview. The matrix is an assistant, not a substitute for engineering judgment.

06 **Compare several parts (Cross-compare)**

Use this when you are choosing between 2–6 candidate parts against the **same** design limits.

- 1

Add **2 to 6** datasheet PDFs in Slot 1 (or click **Load 3-part compare demo**).
- 2

SpecsCore switches to **Cross-compare** when two or more PDFs are loaded. You can still force **Single** if you only want one active sheet.
- 3

For each large PDF, set **Audit scope** separately if asked.
- 4

Click **Run**. You get a side-by-side matrix plus Best fit / Blockers / Open.

07 Large datasheets

Long PDFs (wireless SoCs, application manuals) cannot always be sent in full.

- SpecsCore prefers the PDF's **table of contents / outline** when present.
- If the outline is thin, it also looks for common headings such as RADIO, NFC, or GPIO.
- A single section is limited to roughly **45 pages** so one TOC entry cannot pull in half the book.
- If the selected text is still too large, you will see a **truncation** warning. Untick unused sections and run again.

08 Save and reopen a project

Save project writes a `.specscore.json` file that includes:

- Your datasheet PDFs
- Design limits
- Which sections you selected
- The last matrix (when available)

Open project restores that work later.

Treat project files like the datasheets themselves: store them only where you trust the access controls.

09 Export results

From the matrix area:

- **Copy MD** — copy Markdown to the clipboard
- **Export CSV** — save a spreadsheet-friendly file
- **Export JSON** — save structured results

Your OS save dialog appears for file exports.

10 Privacy summary

Item	Where it goes
PDF files and preview	Stay on this computer
Design limits	Stay on this computer until you click Run
API key	Saved on this computer (per provider)
Text sent on Run	Selected pages + design limits → your chosen AI provider
SpecsCore servers	None

11 Troubleshooting

What you see	What to try
“Could not extract text...” / scanned PDF	Use a PDF that contains real text (not only images). SpecsCore does not OCR scans yet.
API key rejected	Create a new key for the same provider shown in the sidebar. Check that billing or the product API is enabled in that provider’s console.
Rate limit / quota errors	Wait and retry, or check usage limits in the provider’s console.
Truncation warning	Select fewer sections; keep Electrical, Absolute Maximum, and radio/NFC sections you actually need.
Section link does not jump	Select the correct part tab (in cross-compare), or use a Page N link instead.
Windows SmartScreen / macOS Gatekeeper warning	Common for unsigned builds. Use “More info → Run anyway” / right-click → Open only if you trust the source of the installer.

Privacy reminder. PDF files stay on this computer. When you click Run, only the pages you selected (plus your design limits) go to the AI provider you chose. SpecsCore does not operate a middleman API.