TIM Manufacturer Brief

Product Name: TIM (This Is Mine)
Category: Compact Mini-PC for Private File Serving, VPN Gateway, Smart Home Control,
Streaming, Safety Net, and More
Core Principle: User data ownership – no third-party data harvesting, no forced cloud services.

Product Vision

TIM is a locally manufactured, privacy-first mini-PC that merges file server, VPN, smart home hub, streaming, and home safety monitoring into a single, compact device. The goal is to provide a low-power, always-on computing hub with premium design, durability, and full local control — ensuring the user truly owns both the hardware and their data.

Target Customer Priorities

Absolute control over data — nothing stored or processed outside the user's control.
Reliable, continuous operation — designed for 24/7 uptime.
Low running costs — 6W average target for Tiny TIM & Just TIM.
Premium, minimalist aesthetic — suitable for desktop or living space.
No vendor lock-in — open software compatibility.
Fixed hardware spec — only RAM and HDD/SSD upgradeable.

Core Functional Requirements

Multi-Function Hub – File serving, VPN, smart home automation, streaming, safety net/security monitoring, additional apps in pipeline
Always-On Operation – Stable, thermally safe, quiet, 5 year warranty period w/ continuous use
Local Processing – No cloud dependency for core functions.
Hardware Restrictions – Units cannot be customised beyond RAM and HDD/SSD upgrades.
Passive Cooling for Low-Power Models – Tiny TIM & Just TIM at ~6W average.

Hardware Guidelines

Form Factor:

Four models — Tiny TIM, Just TIM, TIM Pro, TIM Max (with Launch, Freedom & Open Editions).

Materials:

- Base: durable black hard plastic.
- Higher models: aluminium (brushed finish) or Gorilla Glass top panel based on model.

Power Input:

- USB-C (power only) for low-power models; DC barrel acceptable for higher power models.

Cooling:

- Passive (Tiny, Just) / low-noise active (Pro, Max).

Serviceability:

- User-accessible RAM and HDD/SSD slots only; warranty void if opened further.

Bluetooth:

- All models carry Bluetooth 5.4 compatibility

WiFi:

- WiFi 5: Tiny, Just
- WiFi 6: Pro, Max (incl. variants)

Model Port Configurations

Tiny TIM	Just TIM
1× Gigabit Ethernet 2× USB-A (USB 3.0) 1× USB-C (data) 1× USB-C (power only) 1× HDMI	1× Gigabit Ethernet 4× USB-A (3 x USB 3.0, 1 x USB 2.0) 1× USB-C (data) 1× USB-C (power only) 1× HDMI
TIM Pro:	TIM Max
1× Gigabit Ethernet 4× USB-A (3 x USB 3.0, 1 x USB 2.0) 2× USB-C (data) 1× DC power input (preferred) or USB-C power 2× HDMI - Expandable RAM & HDD	1× Gigabit Ethernet 4× USB-A (3 x USB 3.0, 1 x USB 2.0) 4× USB-C (data) 1× DC power input (preferred) or USB-C power 2× HDMI 1 x Display Port - Expandable RAM & HDD

Max TIM Variants

Launch Edition:

- Identical hardware to Max TIM base model.
- Black brushed aluminium chassis, brass band wrapping just below the top face, power switch "Launch", in hero font using the same brass character colour as the Launch Edition, wrapped in neon blue led when powered on.
- "Launch Edition" engraved on the front panel, lower right side.
- "001/250", sequential numbering of the first 250 production units (founder signatures on underside)
- includes additional apps to the 3 core, Safety Net (internet monitor, similar to iKidz) and Media Streaming

Freedom Edition:

- Identical hardware to Max TIM base model.
- Off silver brushed aluminum chassis.
- Freedom Edition insignia (US flag, stars and stripes engraving top panel, back left).
- Marketed as the ultimate privacy device
- Includes an app additional to the 3 core, Safety Net (internet monitor, similar to iKidz).

Open Edition:

- Identical hardware to Max TIM base model.
- Transparent or semi-transparent polycarbonate casing, Gorilla Glass top panel.
- Symbolises TIM's transparency-first ethos.
- Includes an app additional to the 3 core, Safety Net (internet monitor, similar to iKidz).

Warranty & Compliance

- Warranty: Void if opened beyond RAM/HDD slots, void if jail-broken / side loaded
- Compliance: CE marking, electrical safety certification, EMI compliance.
- Environmental: Recyclable materials, RoHS/WEEE compliance.

Hardware platform (indicative)

- Compute class:
  - Tiny/Just: low-power x86 (e.g., Intel N100) or efficient ARM SoC/SOM capable of 24/7 service at ~6W avg
  - Pro/Max: higher-performance x86 (e.g., Intel Core i3/i5 low TDP) or ARM SoC w/ active cooling
- Memory: user-accessible SODIMM (Tiny/Just: 8–16 GB; Pro/Max: 16–32 GB)
- Storage: user-accessible M.2 NVMe/SATA; optional 2.5" bay in Pro/Max if thermals allow
- TPM/security: firmware TPM or discrete TPM where applicable
- I/O per model: see above table

- Power and thermals
  - Power input:
    - Tiny/Just: USB-C power only (target 5–12V per design; external certified PSU)
    - Pro/Max: DC barrel (preferred) or USB-C PD; external certified PSU
- Cooling:
  - Tiny/Just: fully passive heatsink/enclosure architecture
  - Pro/Max: low-noise active cooling (quality fan, low-RPM profile)
- Targets:
  - Tiny/Just: ~6W average (idle + light home services)
  - Pro/Max: balanced performance within acoustic limit ≤25–30 dBA at 1 m
- Enclosure and materials
  - Base: durable black hard plastic (Tiny/Just)
  - Pro/Max: metal (brushed aluminum) with premium finish
    - Open Edition: transparent/semi-transparent polycarbonate with Gorilla Glass top;
    - Freedom Edition: off-silver brushed aluminum w/ engraved insignia
    - Launch Edition: black brushed aluminium, brass band, blue power LED ring, sequential numbering, Launch Edition on front face plate
- Serviceability
  - User-accessible panels for RAM and storage only; tamper evidence elsewhere
- Dimensions (targets):
  - Tiny/Just: ≤130×130×45 mm
  - Pro/Max: ≤180×180×55 mm
- Mounting:
  - Rubber feet;
  - VESA plate
- Security:
  - Software posture (high-level)
  - Open software compatibility; no cloud dependency for core functions

- - Secure boot where feasible; signed OS images; encrypted storage option
- Compliance and environmental
  - CE marking (EMC and safety as applicable), EMI compliance
  - External certified PSU approach to reduce safety burden
  - RoHS/WEEE compliance
  - Materials and finishes compatible with recyclability goals
- Production and test
  - Build categories: prototype (10–25 per model), pilot (50–100 per model), production (500+ combined)
  - Tests: functional burn-in (e.g., 4–8 hours), thermal soak at worst-case ambient, port enumeration tests, NIC throughput sanity, storage SMART/IO tests, acoustic and fan profile verification (Pro/Max)
- Serialization: label + QR; firmware image hash tracked; golden units per model
- Commercial and constraints
  - Fixed spec by model; user-upgrade only for RAM and storage
- Warranty: void if opened beyond user-accessible slots
- Target costs by model: to be quoted; emphasize local manufacturing and quality

RFQ email and vendor comparison matrix

RFQ email draft

Subject: RFQ | Irish based Box Build Manufacturer for "TIM" (Compact Mini-PC), Proto/Pilot/Production

Hello [Name/Team],

My name is Stephen Mullins, founder of TIM ("This Is Mine"). We're seeking an Ireland-based manufacturing partner to build TIM, a privacy-first compact mini-PC designed for 24/7 home operation as a file server, VPN gateway, smart home hub, streaming node, and safety net device.

Scope

- System assembly/box build of four models:

    o Tiny TIM, Just TIM (passive cooling, ~6W avg target, USB-C power only)

    o TIM Pro, TIM Max (low-noise active cooling, DC jack preferred)

    o Max TIM; Launch, Freedom and Open Editions with distinct enclosures/finishes

- Fixed hardware spec per model; only RAM and storage slots are user-accessible

- Services required: materials procurement, PCB/system integration (if applicable), enclosure machining/finishing, firmware/OS image load, functional test, burn-in, labeling, and packaging

Model I/O overview (high level)

- [See table attached](#)

Volumes and timelines

- Prototypes: 10–25 units per model (target dispatch: [date])

- Pilot: 50–100 units per model (target dispatch: [date])

- Production: 500+ units combined (target dispatch: [date])

Compliance and quality

- CE marking, EMI compliance; RoHS/WEEE

- External certified PSUs preferred to simplify safety

- Golden unit per model; serialized test and image tracking

- Acoustic targets for Pro/Max; passive thermal validation for Tiny/Just

Deliverables from us

- One-page spec per model, CAD (STEP) for enclosure, labeling artwork

- Approved components list; RAM/SSD SKUs; external PSU spec

- OS/firmware image and load procedure; functional test plan and limits

- Packaging requirements and serialization scheme

Please provide

- Capability fit (box build, machining/finish, test engineering)

- Certifications (ISO 9001, ISO 13485/AS9100 if applicable), traceability

- NPI approach (DFM/DFS/DFT) and typical lead times (proto/pilot/production)

- Quotation: NRE (fixtures, jigs, setup), unit pricing at quantities above, packaging, MOQs/lead times

- Suggested BoM risk assessment and alternates (e.g., fans, connectors, storage, RAM)

- Case studies for similar small-form-factor PCs or electronics appliances

- Standard warranty/RMA, shipping terms

NDA is available on request. Happy to arrange a call this week.

Best regards,

Stephen Mullins

sfmullins@gmail.com

[phone]

Vendor comparison matrix (template)

Score 1–5 per criterion; weights in parentheses are suggestions.

- Capability fit (25%): mini-PC/boxed electronics, enclosure work, cable harness, imaging, test jigs

- Certifications and quality (20%): ISO 9001; ISO 13485/AS9100 if applicable; traceability; documented yields

- NPI/DFM/DFT (15%): formal review steps, pilot build process, change control

- Thermal/acoustic competence (10%): passive design experience; fan profile/acoustic testing

- Lead time and capacity (10%): proto/pilot/production throughput; scheduling transparency

- Google reviews (10%): stars × review count normalization

- Communication/responsiveness (10%): single POC, clarity, speed

- Cost (bonus dimension tracked separately): NRE and unit pricing by quantity

Matrix example (placeholders—replace after quotes and ratings)

- Realtime Technologies: 5, 5, 5, 4, 4, [TBD], [TBD]

- RTR Electronics: 4, 4, 4, 4, 4, [TBD], [TBD]

- Smart Electronics: 4, 5, 4, 4, 4, [TBD], [TBD]

- ECS Circuits: 4, 4, 4, 3, 4, [TBD], [TBD]

- Lenalea: 4, 4, 3, 3, 4, [TBD], [TBD]

- Curtronics: 3, 3, 3, 3, 4, [TBD], [TBD]

- EPS Global: 2, 4, 3, 3, 5, [TBD], [TBD]

- Trio Manufacturing (EU): 4, 4, 4, 3, 4, [TBD], [TBD]