

beflo

Project Name: Tenon

Product Specification - Main Board Box

Rev.1.0



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1. Introduction

1.1. Scope

This document is the Product Specification Document for the Nonet beflo Main Board Box – referred to as the “product” in this document. The Main Board Box is a function control box with WiFi 6, Bluetooth 5.0, one USB Type-A (Charging), one USB Type-C (Charging), one 3.5mm Audio Jack and a Capacitive touch OLED Display.

1.2. Confidentiality

The information in that document is part of the knowledge of Nonet Inc. (referred to as “Nonet” in this document). It must be considered confidential. All users of this document are responsible for taking all precautions so that this document is never read by any unauthorized user.

2. Features

2.1. Firmware

- Adjustment Range, Home height range: 750mm-1190mm
- Controller: Controlled by APP with Bluetooth connection, also can be controlled by touch panel with OLED.
- Cloud: Data collected, bugs and errors reported, and release the latest version for updating.
- Connectivity features: Bluetooth for usage with smartphone app/ sedentary reminder condition.

2.2. List of mandatory components

Nonet defines a list of main components that must be used by the hardware design.

2.2.1. Input power

Support Input AC Rated Voltage with full range from 100-240V, 50-60Hz
Rated Input Voltage

2.2.2. WiFi 6

- IEEE 802.11 1T1R a/b/g/n/ac/ax 5GHz and 2.4GHz
- Support uplink and downlink MU-OFDMA
- Supports 1x1 20MHz bandwidth, MCS0~8 in 2.4G/5GHz band

2.2.3. Bluetooth 5.0

Low Energy, transform long-distance, data transfer 2Mbps.

2.2.4. USB Type-C

Type-C port allows to charge (5V/3A 15W)

2.2.5. USB Type-A

Type-A port allows to charge (5V/2A 10W)

2.2.6. 3.5mm Audio Aux

Support One 3.5 microphone/stereo headphone jack for speakers and headsets.

2.2.7. Capacitive touch OLED display

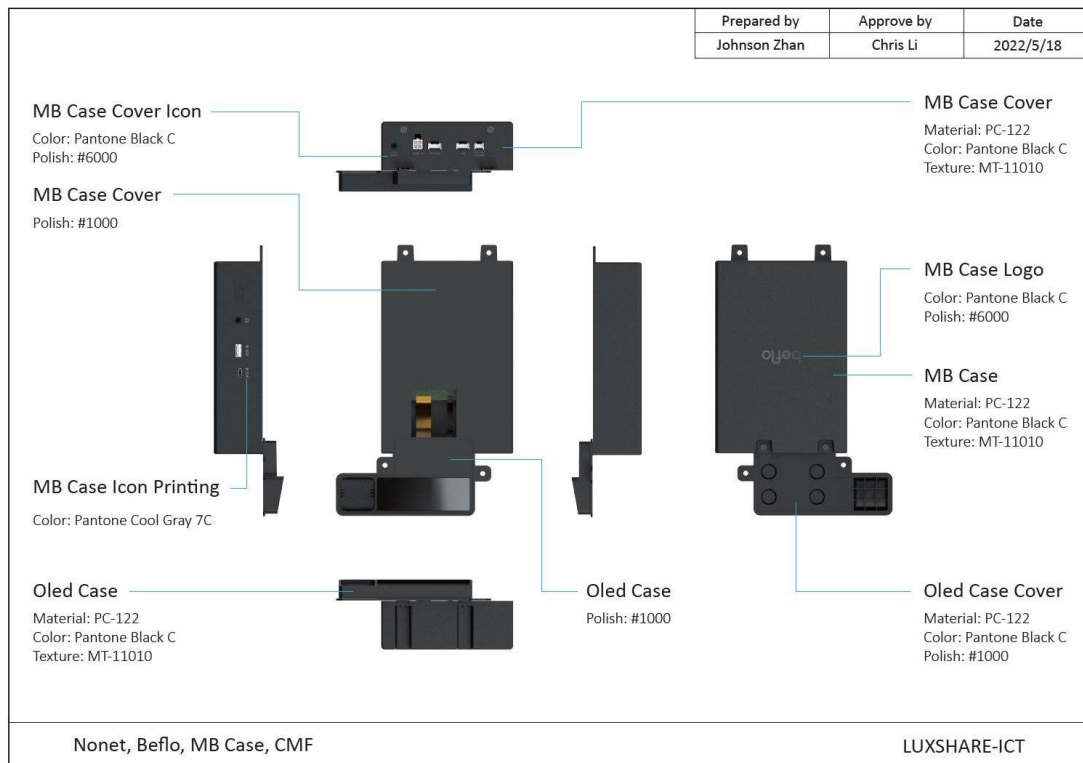
- The display is 3.12" OLED panel in white color and resolution of 256 x 64 dots, refresh rate 105Hz.
- The touch is capacitive type and support single point touch.
- The front cover is made by translucent black glass with hardness up to 7H and added surface treatment including anti-glare and anti-fingerprint.

3. Mechanical requirement

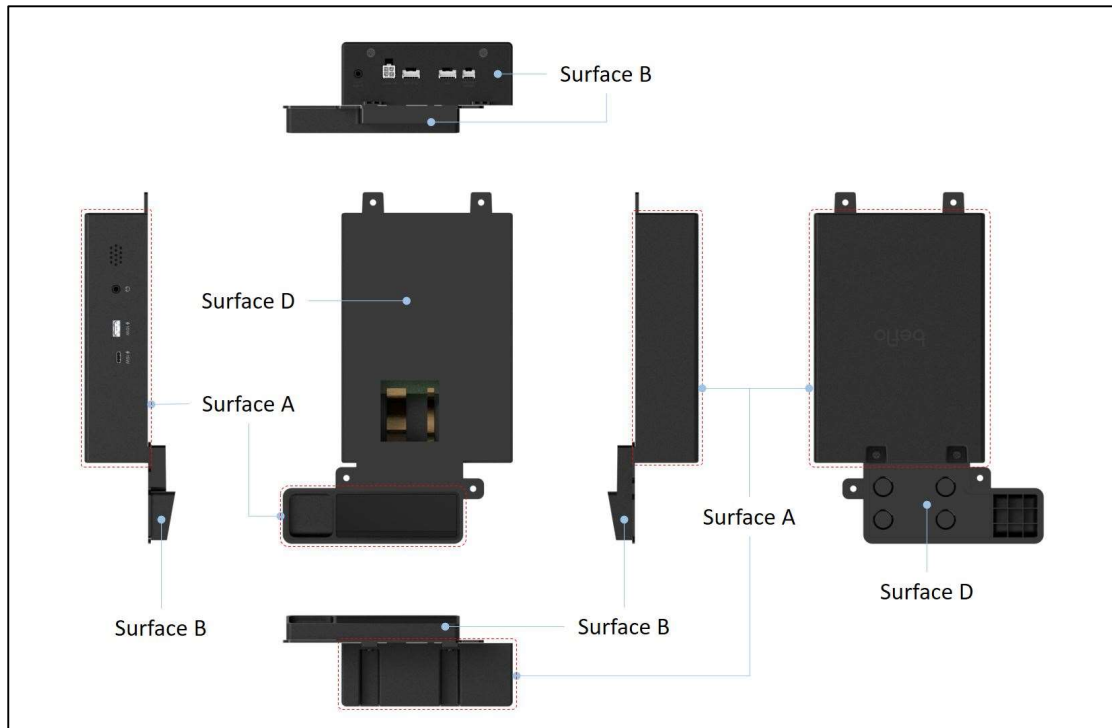
3.1. Cosmetic and quality standards for injection molded plastic parts

3.1.1. Surface quality

The surface quality of Tenon shall be compliant to beflo outline drawing, applied to each surface and feature based upon its cosmetic classification.



3.1.2. Surface Area Definitions



3.2. Physical specifications

3.2.1. Overall dimensions

- Size : 281.32mm (L) x 184.16mm (W) x 72.98mm(H)
- Weight : 447 ± 10 g

3.2.2. Explode drawing

| | | | | | | | | | | |
|-----------------------|---|---|---|-----|-------|------|----------------------|------|----------|------------|
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | | | |
| CONFIDENTIAL DOCUMENT | | | | NO. | ECO # | REV. | REVISION DESCRIPTION | ZONE | DATE | DRAWN BY |
| | | | | 1. | | 1 | INITIAL RELEASE | | 20220518 | Hungsul Wu |

SCALE 0.500

| | | | |
|----|-----------------|----------------------|---|
| 7. | B31-WZBKJ351701 | BRFLO_C_M3_L8_BN | 8 |
| 6. | B31-BNGAQ252701 | BEFLO_MB_CASE | 1 |
| 5. | B24-NNNTAA0100 | BEFLO_PCB | 1 |
| 4. | B34-A0000000001 | BEFLO_SPEAKER | 1 |
| 3. | B34-A3000000001 | BEFLO_ANTENNA | 1 |
| 2. | B31-HTLOU430501 | BEFLO_MB_CASE_COVER | 1 |
| 1. | B31-MLBHW157901 | BEFLO_OLED_CASE_ASSY | 1 |

SCALE 0.400

| | | | | |
|-----------|-------------|-------------|--------------|----------|
| ITEM NO. | PART NUMBER | DESCRIPTION | QUANTITY/SET | MATERIAL |
| X.±0.30 | X.°±60' | | | |
| .X±0.20 | .X°±45' | 1 PC | | N/A |
| .XX±0.10 | .XX°±30' | | | |
| .XXX±0.05 | .XXX°±15' | mm | 2022/05/18 | |

| | |
|-----------------------|---------------------------------------|
| LUXSHARE ICT | |
| APPROVED BY: Chris Li | ITEM NAME: BEFLO_FUNCTION_CONTROL_BOX |
| CHECK BY: Chris Li | ITEM NUMBER: B31-ALRXL536701 |
| DRAWN BY: Hungsul Wu | SCALE: 0.400 |
| | SHEET: 1 of 5 |
| | REV: 01 |

Note:
 01. Inspection Dimensions Outlined.
 02. Material: N/A
 03. Color: N/A
 04. Finish: N/A
 05. Print shall follow the CMF document.
 06. Appearance refers to OEM/ODM product appearance tested standard.
 07. All dimensions/tolerances refer to limits table unless specified in drawing.
 08. This is a partially dimensioned drawing. Controlling geometry is defined by supplied 3D database.
 09. Parting line mismatch shall not exceed 0.10 mm.
 10. Cosmetic surfaces to be free of imperfections such sink marks, gate marks, ejector marks, blush, splay, and burn marks.
 11. Gate Scar Must Be Sub-Flush Than Label Surface.
 12. Allowed deformation: or Core (Cavity) surface upward.
 13. Part should be clean and free from foreign material, dirt, oil, grease, mold release, or other contaminants are not allowed.
 14. Part cosmetic requirement shall conform to the sample signed by RD.
 15. Release liner required on all cosmetic surfaces.
 16. Part number, revision, vendor, tool, and cavity information location.
 17. Date code wheel location.
 18. Recycle symbol location.
 19. Prohibited the use undefined of material specifications in drawings and approval sheets, and mixed proportion of re-grinding materials without RD approval.
 20. Material must be compliant to ROHS and Halogen Free technical standard.
 21. Joining parts shall follow the below methods:
 A.Screw
 B.Hook mechanism
 C.Adhesive
 22.Assembly parts list showed as right side table.
 23.Inspection dimensions shall follow approval sheet and drawing defined unless otherwise specified.

3.2.3. Six viewer drawing

| | | | | | | | | | | |
|-----------------------|---|---|---|-----|-------|------|----------------------|------|----------|------------|
| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | | | |
| CONFIDENTIAL DOCUMENT | | | | NO. | ECO # | REV. | REVISION DESCRIPTION | ZONE | DATE | DRAWN BY |
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SCALE 0.400

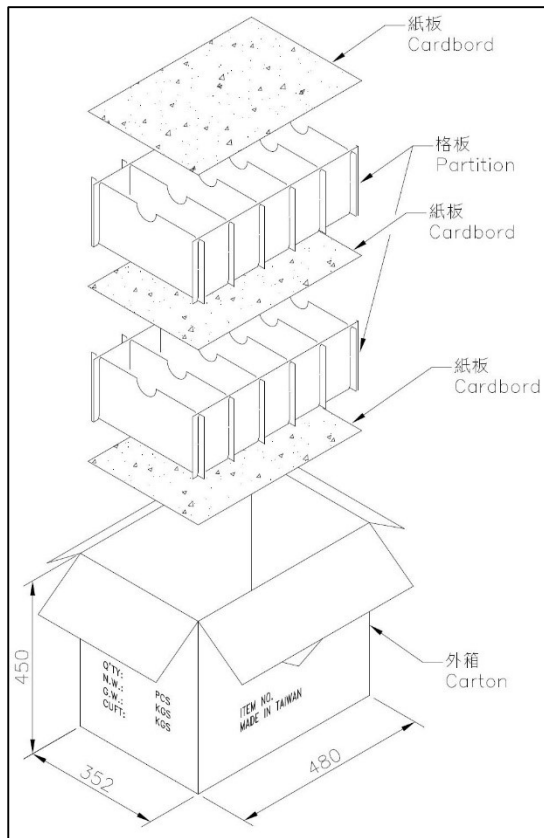
| | | | |
|-----------|-----------|---------------------------------------|---------------|
| X.±0.30 | X.°±60' | LUXSHARE ICT | |
| .X±0.20 | .X°±45' | ITEM NAME: BEFLO_FUNCTION_CONTROL_BOX | |
| .XX±0.10 | .XX°±30' | ITEM NUMBER: B31-ALRXL536701 | |
| .XXX±0.05 | .XXX°±15' | SCALE: 0.400 | SHEET: 3 of 5 |
| | | | REV: 01 |

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4. Packaging specification

4.1. Carton specifications

Each layer of the carton can put 5 samples, there are two layers in total.



4.2. Carton label & printing sample

| | | | | | | |
|-------|-------------|-------------|-------------|--------|-----------|---------------|
| beflo | Project | Prepared by | Approved by | Date | Unit : mm | TOL : ± 0.2mm |
| | Tenon Label | Beico | Beico | 220627 | Scale 1:1 | |

The label printing sample is a rectangular label with the following content:

- Icons: FC, UL LISTED, Model: Tenon
- Text: PN: 12345678901, FCC ID: 12345678, SN: 123456789012, Made in Taiwan
- QR code
- Logo: beflo

 The dimensions of the label are 100.0 (width) and 15.0 (height). A photograph shows the label applied to the rear side of a device.

黏貼位置 (Mother Board Case Rear side)

The diagram shows the label placement on the rear side of a Mother Board Case. The label is positioned in the bottom right corner of the case. The dimensions for the label placement are 10.0 (width) and 10.0 (height).

5. Standards

RoHS, UL, FCC, and BSMI are certified as minimum requirements. If any certificate is mandatory but not listed here, please list them and have Nonet Marketing and Engineering teams noticed and approved.

6. Mechanical environment tests

Test Description

- Storage (Non-Operational)

Test Conditions, Limits, References

- Phase 1: Hot

Condition: +65 °C, uncontrolled RH

Ramp: 1 Hour Up, 72 Hours Dwell, 1 Hour Down

Number of Cycles: 1

- Phase 2: Hot/Humid

Condition: +40 °C, 90% RH

Ramp: 1 Hour Up, 72 Hours Dwell, 1 Hour Down

Number of Cycles: 1

- Phase 3: Cold

Condition: -40 °C, uncontrolled RH

Ramp: 1 Hour Down, 72 Hours Dwell, 1 Hour Up

Number of Cycles: 1

- Test duration (reference): Approximately 222 Hours

Acceptance Criteria

- After test completion, the unit must pass all functional tests.
- Note and photograph (with SN) any cosmetic damage to the unit enclosure.
- After the test, there shall be no obvious color change on the test samples (Cases, Ethernet Jacks, etc.)

Sample quantity

- 1 carton

7. Reliability and lifetime

Warranty issue: 3years.

FCC

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions.

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

"This equipment has been tested and found to comply with the limits for a Class B digital device.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help."

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be located or operating in conjunction with any other antenna or transmitter.