

Laser Nova

Turning learning into fun!

The Laser Nova is the CTOUCH newest interactive touch screen specifically designed to stimulate the development of the 21st century skills in education. It focuses on turning classroom learning and knowledge sharing into fun and preparing students for the ever changing school and work environment of tomorrow. Students and teachers can now enjoy maximum ease of use by wirelessly streaming what's on their phones, tablets or notebooks.

- ✓ COS™ – CTOUCH Operating System
- ✓ Versatile annotation app - annotate over any software
- ✓ Barco MirrorOp licence - for wireless multiplatform screen sharing with two-way touch functionality (up to 64 users)
- ✓ Built-in JBL(R) 80 watts speakers - for impressive digital surround sound
- ✓ Over-the-air updates - your display will always be up-to-date
- ✓ Wake-on-LAN and Wake-on-wireless-LAN - making it Mobile Device Management (MDM) ready
- ✓ Low power consumption - certified with Energy Star
- ✓ Remote control over IP - for easy adjustment of the display settings over distance.
- ✓ Adaptive Touch - simulates natural handwriting
- ✓ Specially designed OPS slot - for faster image processing (UHD @ 60Hz)

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Building further on the successes of the Laser air+, we proudly present the new Laser Nova. The tablet like user experience combined with the Android 7.1 operating system, pre-installed apps and excellent JBL® sound system make it a one of a kind plug and play solution.

Increased student and teacher participation

The integrated wireless presentation and collaboration solution allows for sharing with any device and all operating systems: Windows/Mac, tablet or smartphone. CTOUCH uses Barco's MirrorOp app to ensure easy and fast wireless sharing. The unique two-way mirroring touch functionality enables easy control of devices.

Easy and efficient use

COS™

The CTOUCH Operating System is based on Android 7. Within COS™ we included some really easy to use pre-installed apps including an extensive Whiteboard, APK installer, Aqua Mail, File Commander & Office Suite. You can also easily install your own favourite apps via the CTOUCH app store.

Increase your efficiency with useful functionalities like split-screen to work on different content, reordering apps, creating and renaming your folders. You can also add different user accounts so that even when different teachers use the same touchscreen, they can still access their own work and profile, preferred apps, or settings easily and securely.

Controlling the display with just one button

When pressing the button on the front of the display, an on-screen Float Bar will appear. This Float Bar gives you access to the display menu, allows you to change source or to adjust the volume. It also gives access to all other apps on the display as well as to the annotation app. This versatile annotation app enables you to easily annotate over any software.

Improve communication

JBL® Live Stage (Virtual) Surround Sound

The CTOUCH Laser Nova is equipped with a built-in JBL® speaker system. This audio system offers 80 watts sound, enabling you to fully captivate your audience. Experience clear high and mids, plus exceptional bass tones. The integrated 80W JBL® speakers bring Live Stage (virtual) Surround sound, which widens the sound stage and sharpens the location of sound.

Adaptive Touch

The Adaptive Touch simulates natural handwriting, as it has the power to adjust to the writing speed. When increasing the speed of writing, the touch frame will accelerate the speed of data processing. This creates a fluent line, even when writing fast, with an accuracy of less than 2 mm.

Dynamic Pen

The dynamic pen allows you to easily adjust volume, open programs or simply use it as an air mouse.

Always up to date technology

CTOUCH offers free over-the-air-updates for the latest firmware, so that you can always count on the latest updates. Updates are just one click away.

Low cost of ownership

Mobile Device Management (MDM) ready

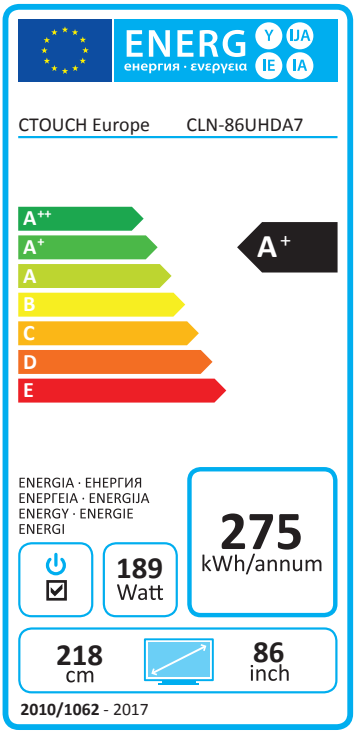
With the Wake-on-LAN and Wake-on-Wireless-LAN functions, the Laser Nova is ready for any MDM software you want to install on the touchscreen. Both on the CTOUCH Operating System as on the Windows OS of the OPS.

Control your display over distance

Change settings of the display, such as switching sources, turning on and off the display, changing sound and image settings from a remote location.

Energy Star

The Laser Nova is certified with the Energy Star certificate, making it a perfect choice for environmentally conscious customers. Topped off by the free Priority Care service programme and the up to 7 year warranty*, CTOUCH reduces the cost of ownership to one of the lowest in the market.



* go to http://support.ctouch.eu for detailed warranty conditions

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Extra features

Cable Management

The Laser Sky is equipped with a Cable Management System. This easy to use system will allow you to stash unwanted cables from underneath the display out of sight.

Intelligent Connectivity Platform (ICP)

Intelligent connectivity platform (ICP) enables easy USB switching between internal and external display sources. No need to manually switch USB devices to connected display sources.
The Laser Sky also includes three internal ethernet to USB adapters to ensure all internal modules are able to reach the connected network simultaneously.

OPS-slot UHD@60Hz ready

The specially designed modular OPS slot allows for faster image processing (supports UHD@60Hz) and brings a highly flexible solution for learning institutions.

Optional accessories

Upgrade your Laser Nova touchscreen with convenient accessories:

1. **Extended streaming licence (AirPlay/Google Cast)**
   If you also want to stream via AirPlay and/or Google Cast, you can buy the extended streaming licence. You can stream directly from AirPlay or Google Cast without installing the MirrorOp app.



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Product number

- Laser Nova 86 inch: **10052186**

Touch system

- Touch System: Adaptive touch
- Touch Point: 32 Point
- Touch tools: Hands or other solid (soft tip) object
- Accuracy: <2 mm
- Touch Resolution: 32768 x 32768 (pixels)
- Interface: USB 2.0 compatible (full speed) HID compliant, Plug & Play compatible. Backwards compatible with USB 1.1
- Supported OS: Windows, Mac, Android and Chrome
- Touch driver: Not required for 32 touch points (under Windows); OSX needs drivers for gestures.

Panel

- Diagonal size: 85,6" (2174 mm)
- Panel technology: TFT LCD
- Panel resolution: 3840 x 2160
- Frame rate: 60 Hz
- Brightness: 350 cd/m^2
- Aspect Ratio: 16:9
- Contrast Ratio (Static): 1200:1
- Contrast Ratio (Dynamic): 5000:1
- Response time: 8 ms
- Display Colours: 1.07 Billion (10 bits)
- Pixel pitch (W x H): 0.496X0.372 mm
- Pixel pitch (WxH): 0.372 x 0.372
- Viewing Angle: 178° / 178°
- Backlight type: Direct LED
- Service Life: > 30.000 Hours
- Installation: Landscape

Connectivity

- Video input (digital): 3x HDMI 2.0, 1x DP 1.2
- Video input (analog): 1x VGA
- Audio input: 1x Mini Jack
- Audio output: 1x S/PDIF Optical, 1x Mini Jack
- USB: 1x USB 3.0, 1x USB-C, 5x USB 2.0
- Touch: 2x USB-B
- RS232C: 1x DB-9
- LAN port: 1x RJ45 10/100/1000 BaseT
- Wi-Fi module: 1x 802.11a/b/g/n/ac
- Bluetooth: 1x Version 4.1

Video

- PSM: Cool / Normal / Warm / User
- Picture Mode: Game / Writing / Dynamic / Standard / Soft / User
- Freeze function: Yes
- Backlight mute function: Yes

Sound - Designed, tuned and built by HARMAN

- Transducers: 2 Stereo JBL® 3-Way Speakers (tweeter, mid-range and woofer)
- Amplifier power: 80 watts
- Frequency range: 60Hz - 20kHz
- JBL® LiveStage (Virtual) surround sound

Features

- Pre-installed apps: Aqua Mail, File Commander, Office Suite, MirrorOp, UBoardMate
- Internal OPS slot: Yes, supports UHD@60Hz
- Annotation: Yes, annotate over any software application
- Gesture recognition: Yes, refer to the CTOUCH manual
- HDCP compliance 2.2
- Thickness of safety glass: 4 mm, hardness of safety glass: Mohs 7
- Network controllable input: 1x RS232C & 1x LAN IN

Android

- System version: 7.1
- Chipset: Rockchip 3399
- CPU: ARM Cortex A72x2@2GHz; Cortex A53x4@1.5 GHz
- GPU: Mali-T860MP4
- Memory: 2 GB
- On-Board Storage: 16 GB

OSD

- Touch OSD: Yes
- OSD Language Function: Danish, Dutch, English, French, German, Spanish

Power

- Power Supply: AC 100-240 V 50 / 60Hz
- Power Consumption (in Operation): 189 W
- Power Consumption (in Standby): <= 0.5 W
- Ambient light sensor: Yes

Quality approvals

- Regulatory approvals: CE, FCC
- Green approval: Energy Star, RoHS complaint, WEEE
- ISO Standard: ISO9001 and ISO14001

Dimensions & Weight

- Product dimensions (WxHxD): 1990.4 x 1173 x 113 (mm)
- Product weight: 100 kg
- Vesa Mount (WxH): 800 x 600 (mm), M8 screw

Product accessories included

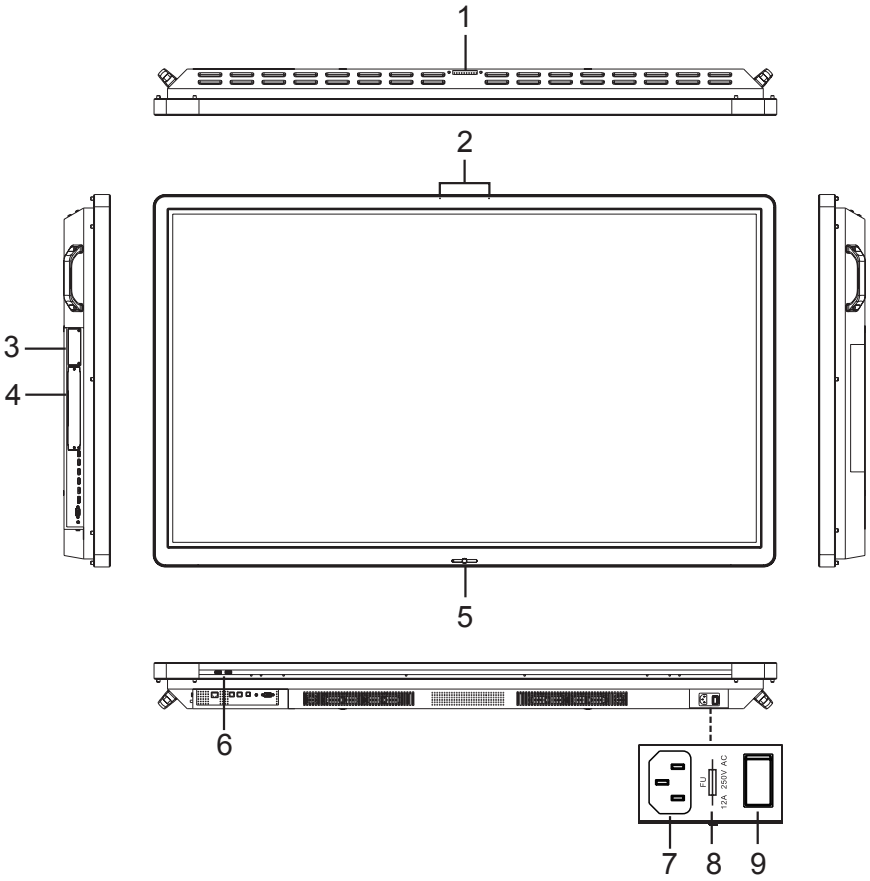
- Accessories: power cable, USB cable, HDMI cable, remote control, Dynamic Pen, 2 passive pens, Quick Start Guide & Warranty Card

Logistics information

- Box size (WxHxD): 2118 x 1324 x 290 (mm)
- Gross weight: 112 kg
- EAN no.: 8719481480318

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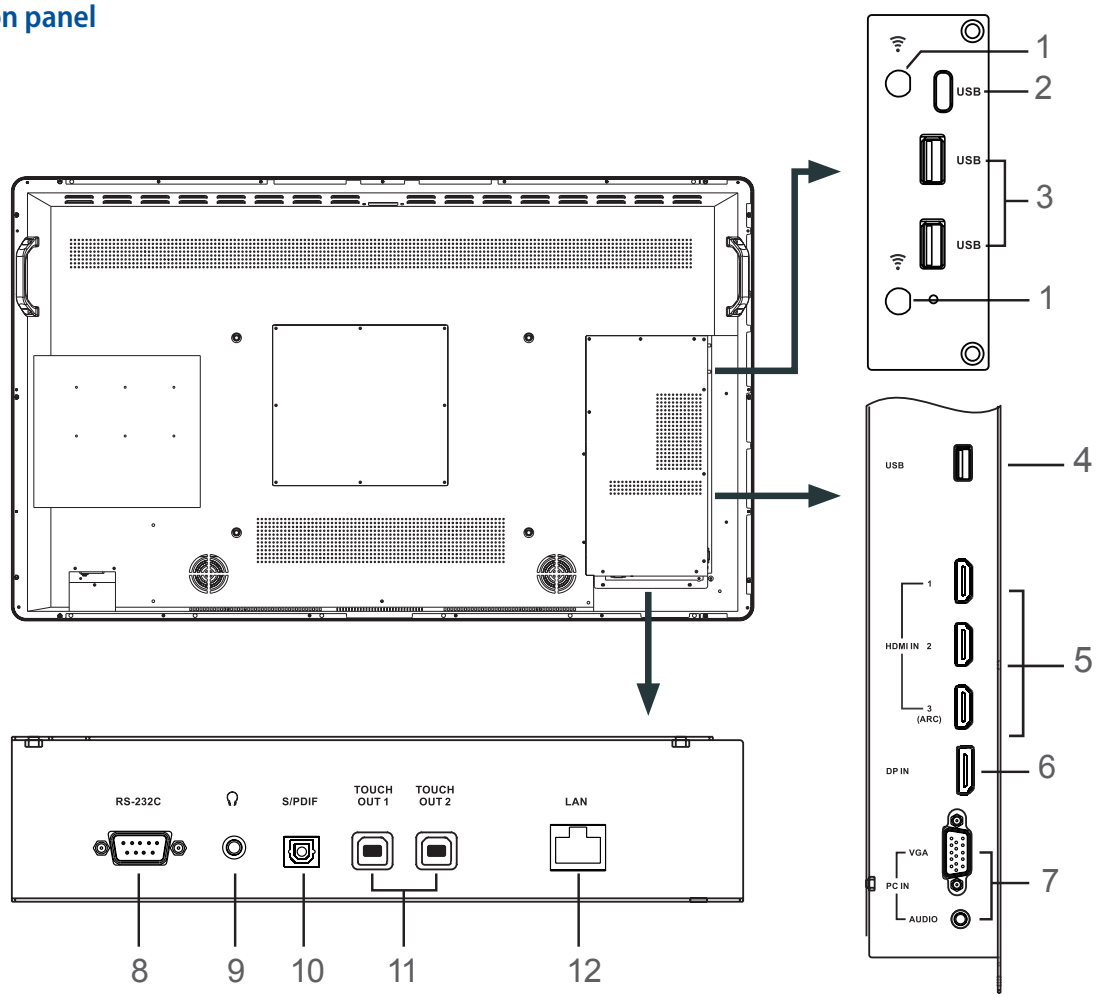
Control panel



nr.		Description
1	**USB(2.0)(for camera)**	This port is for connecting a camera. **Notes:** 1. Please open the dust cover before being used. 2. It can perfectly support cameras up to 720p.
2	**Microphone**	Voice input.
3	**UP-Android Module**	Insert an UP-Android module.
4	**OPS module slot**	Insert an OPS module (Optional).
5 CTOUCH Button	**Power LED**	Red: In standby mode. Blue: In power on mode.
	Remote control sensor	Aim the remote control towards this spot on the CTOUCH interactive display.
	Power	Press to switch the CTOUCH interactive display on or off. **Note:** When the CTOUCH interactive display is turned on, press the button in the middle to show the Float Bar. Press the button for about 2 seconds and the screen will go into stand-by mode.
6	**USB**	Connect USB devices to this port for OPS and Android.
7	**AC IN**	Plug the AC cord into this jack and into a power outlet. (AC 100-240V 50/60Hz)
8	**Fuse**	12A 250V
9	**Power Switch**	Push (I) to turn on the power, push (O) to cut off the power. **Note:** Don't cover the power switch.

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Connection panel

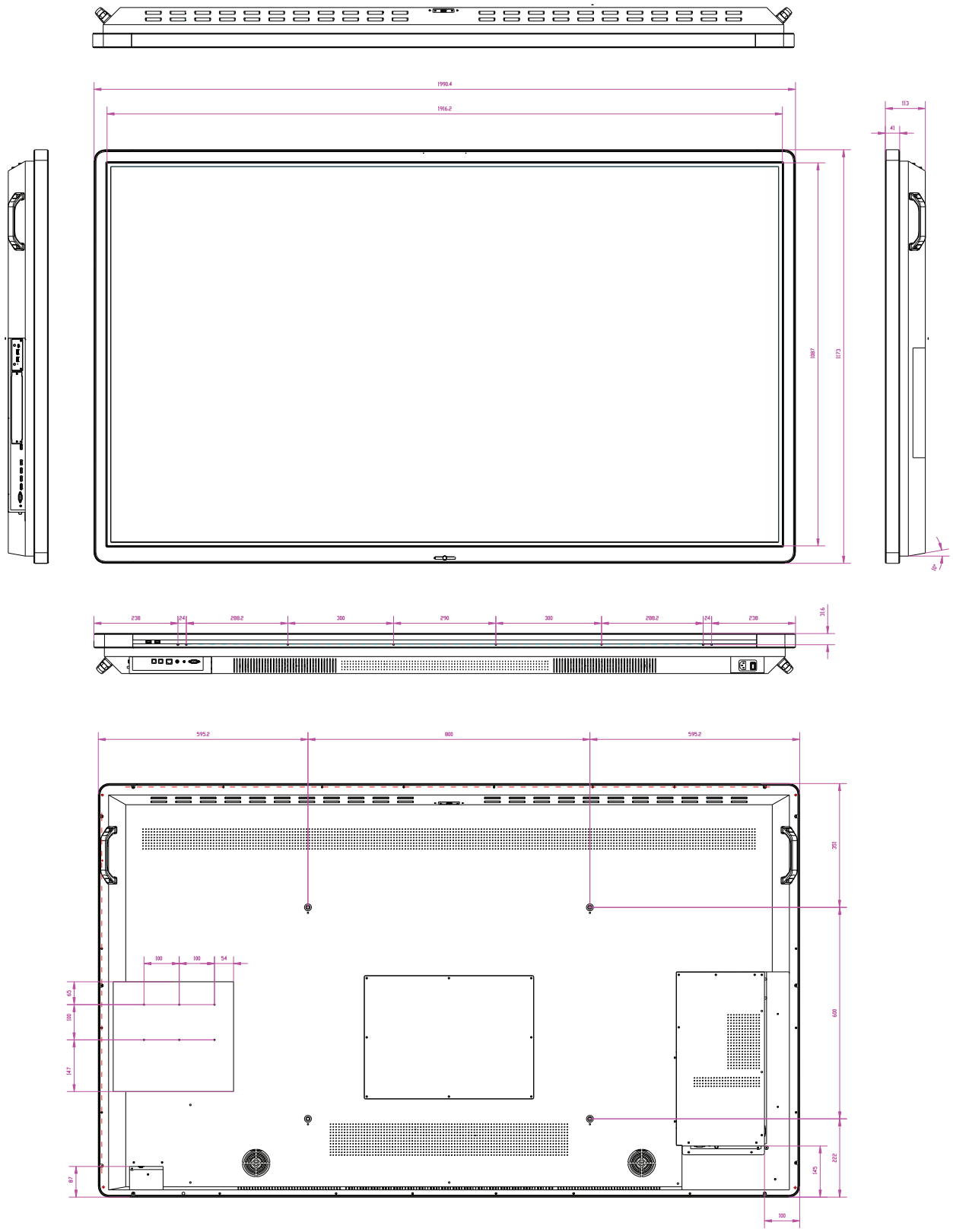


nr.		Description
1	**Antenna**	WiFi antenna. (Tighten the WiFi antenna clockwise).
2	**USB (Type-C)**	Connect USB devices to this port for Android.
3	**USB**	Connect USB devices to these ports for Android.
4	**USB**	Connect USB devices to this port for Android. **Note:** use this USB-port for software updates.
5	**HDMI1/2/3 IN**	Connect an HDMI or DVI device to this HDMI port. HDMI 3 (ARC): Connect an ARC enabled home theatre receiver to this HDMI port.
6	**DP(DisplayPort) IN**	Connect a DP device to this DP port.
7	**PC IN**	Connect the video/audio of a computer to these ports.
8	**RS-232C**	For remote control, service and other uses.
9	🎧	Connect headphones to this jack. The current selected source is audible.
10	**S/PDIF digital audio OUT**	Connect a digital sound system to this S/PDIF jack.
11	**TOUCH OUT 1/2**	Output for external devices connected to PCx, HDMIx or DP ports, which support touch systems.
12	**LAN**	Connects the external network or router.

Note: If the CTOUCH display is on the VGA source and does not get any signal, it will go into stand-by mode after two minutes.
When the CTOUCH display is on others sources and does not get any signal, it will go into stand-by mode after 10 minutes.

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Technical drawings



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