What is Windows IoT Enterprise ?

Windows IoT Enterprise is a full version of Windows Enterprise that delivers enterprise-class manageability and security to IoT solutions. It shares all the benefits of the global Windows ecosystem. ([more info](#))

Windows IoT Enterprise LTSC is designed for specialized devices and use cases where functionality and features remain constant throughout the device's lifecycle. These devices are typically found in industries such as banking, healthcare, hospitality, manufacturing, and retail. For devices requiring regulatory certification and performing critical business functions that cannot accept frequent feature updates, Microsoft provides the LTSC (Long-Term Servicing Channel) version with **10 years of support**, during which features do not change. ([more info](#))

IoT LTSC Version Comparison:

	Windows 10 Enterprise	Windows 10 IoT Enterprise LTSC
Main Feature	Full-featured Windows OS Supports Win32 & Universal Windows Apps Built-in advanced embedded lockdown features	Full-featured Windows OS Supports Win32 & Universal Windows Apps Built-in advanced embedded lockdown features
License Sticker	One type	Three types (base on CPU tier)
Kiosk Mode ([more info](#))	✅	✅
Soft Real-Time ([more info](#))	❌	✅
Microsoft Store/Cortana	✅	❌
Windows Universal app (Outlook/Calendar/OneNote/Weather/News/Sports/Photos/Camera…)	✅	❌
Security Support	22H2 ends 2025/10/14	10-year support (up to 2032) (21H2 ends 2032/1/13) (1809 ends 2029/1/9)
Feature Updates	✅ Frequent updates	❌ Stability & security focused

Comparison:

# Windows 10 vs. Windows 11 IoT Enterprise LTSC

	Windows 10 IoT Enterprise LTSC	Windows 11 IoT Enterprise LTSC
Lifecycle	21H2 version until 2032	24H2 version until 2034
OS Core	Windows 10 Core	Windows 11 Core (Security & Arch optimization)
Windows Store / App Store	No	No
.Net F . Framework	.NET Framework 4.8	.NET Framework 4.8.1
WinForms / WPF	✅	✅
.NET 6 LTS	✅	✅
.NET 8 LTS	✅	✅
Future .NET（10+）	⚠️ Compatible but conservative	✅ Primary target for future updates
HMI / Web UI	✅WPF ⚠️Web UI（WebView2）	✅WPF ✅Web UI（WebView2）

Windows 10/11 IoT Enterprise LTSC 版本說明(授權貼紙)

Microsoft Product key	CPU	Product		
Win10 IoT Enterprise LTSC Entry 1809	E3845	XP-9181-IoT XP-9381-IoT XP-9781-IoT (OS V1.0.0 2022/09/28)		
Win10 IoT Enterprise LTSC Entry 21H2	E3845	XP-9181-IoT XP-9381-IoT XP-9781-IoT (OS V2.0.0 2024/10/10)	iPPC-4801-IoT iPPC-6801-IoT iPPC-6831-IoT	
Win10 IoT Enterprise LTSC Value 21H2	I5-8365UE	AXP-9051-IoT AXP-9251-IoT AXP-9651-IoT		EMP-9051-16, EMP-9051-32 EMP-9251-16, EMP-9251-32 EMP-9651-16, EMP-9651-32 EMP-9058-16, EMP-9058-32 EMP-9258-1,6 EMP-9258-32 EMP-9658-16, EMP-9658-32
Windows 11 IoT Enterprise LTSC 2024 Entry	x7211RE	XP-9161-IoT11 XP-9361-IoT11 XP-9761-IoT11		

Windows 10 IoT Enterprise PKEA (Product Key Application)

Single activation key (one-to-one key), each device has its own unique key, printed on the Certificate of Authenticity sticker, and affixed to the hardware casing.
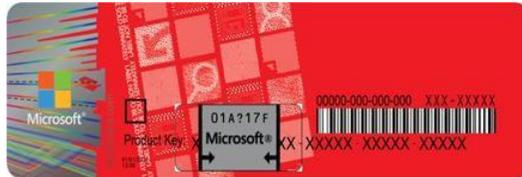
Activation Key input method

Activation keys is pre-entered at the time of manufacture. If you need to restore the operating system, you can follow these steps to input the key.