



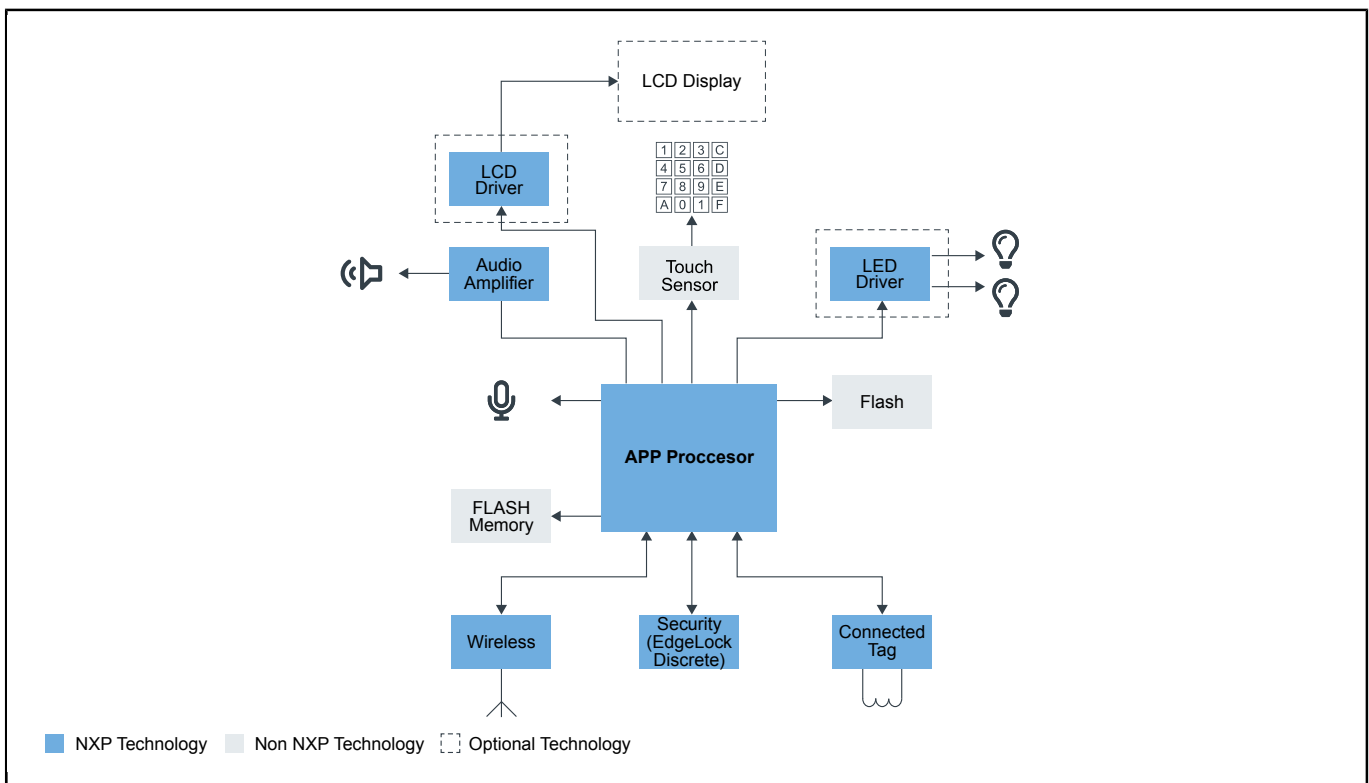
# Set Top Boxes

Last Updated: Oct 13, 2023

Set-top-boxes range from very simple audio and video gateways to complex information gateways. NXP offers the right products to create and connect in parallel different types of set-top-boxes.

- Support for FullHD and 4K video.
- Support for 5.1 Dolby ATMOS audio
- Support for S/PDIF to directly connect a speaker array.
- NXP's zero power loop-through switches enable TV reception
- ESD protections for HDMI, USB and SATA.
- Wireless connectivity including WiFi and Bluetooth Low Energy.
- Content access secure authentication
- Voice-enabled remote control

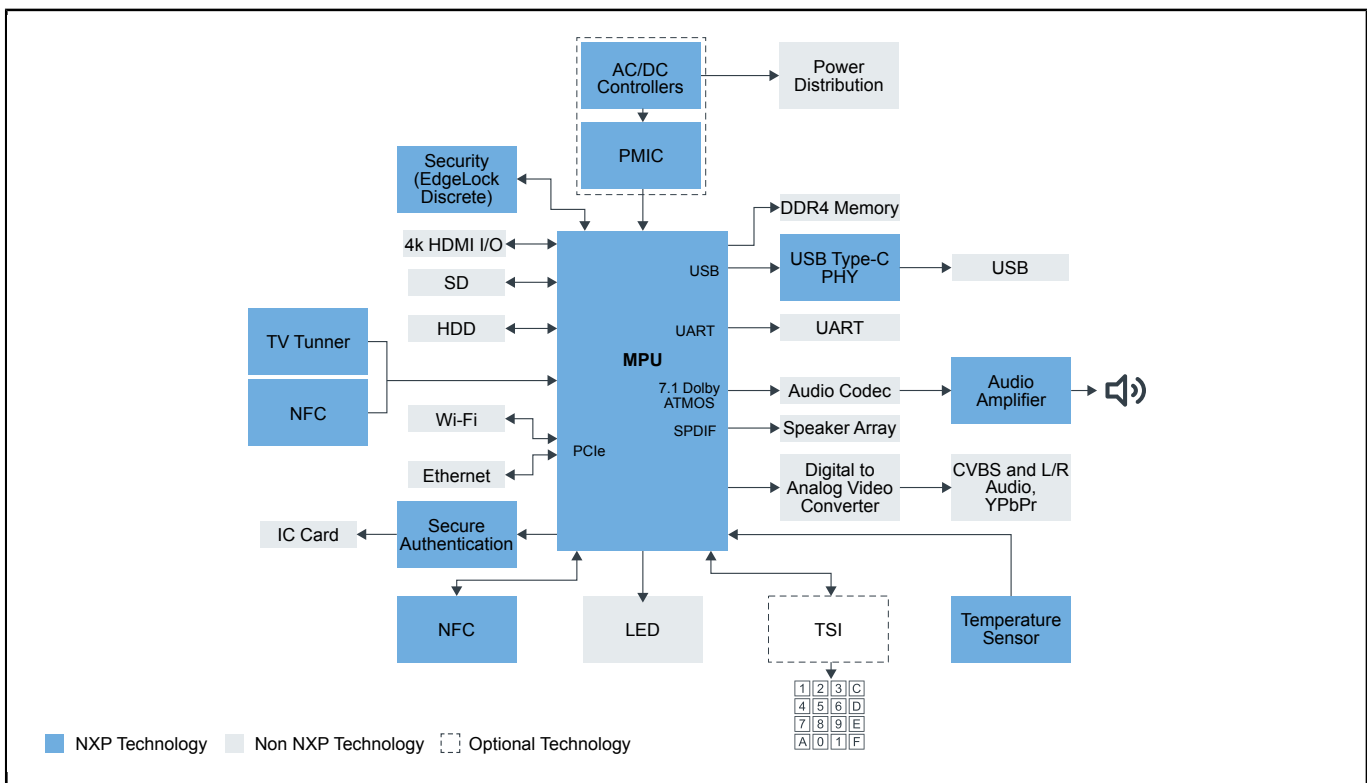
## Single Tuner Block Diagram



## Recommended Products for Single Tuner

MPU	<ul style="list-style-type: none"> <li>• <a href="#">i.MX-RT1060</a>: i.MX RT1060: Crossover MCU with Arm® Cortex®-M7</li> </ul>
Wireless	<ul style="list-style-type: none"> <li>• <a href="#">KW41Z</a>: Kinetis® KW41Z-2.4 GHz Dual Mode: Bluetooth® Low Energy and 802.15.4 Wireless Radio Microcontroller (MCU) based on Arm® Cortex®-M0+ Core</li> <li>• <a href="#">88W8897</a>: 2.4/5 GHz Dual-Band 2x2 Wi-Fi® 5 (802.11ac) + Bluetooth® 5.0 Solution</li> <li>• <a href="#">QN9090-30</a>: QN9090/30: Bluetooth Low-Energy MCU with Arm®Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option</li> </ul>
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> <li>• <a href="#">SE050</a>: EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT security with high flexibility</li> </ul>
Connected Tag	<ul style="list-style-type: none"> <li>• <a href="#">NTAG_I2C</a>: NTAG I²C Plus 2K: NFC Forum Type 2 Tag with I²C Interface</li> </ul>
LED Driver (Voice Control Remote)	<ul style="list-style-type: none"> <li>• <a href="#">PCA9955BTW</a>: 16-Channel Fm+ I²C-Bus 57 MA/20 V Constant-Current LED Driver</li> </ul>
LCD Driver	<ul style="list-style-type: none"> <li>• <a href="#">PCF85176</a>: 40 X 4 Universal LCD Driver for Low Multiplex Rates</li> </ul>
Audio Amplifier	<ul style="list-style-type: none"> <li>• <a href="#">TFA9879HN</a>: TFA9879HN, Mono BTL Class D Audio Amplifier for Portable Applications with Digital Input</li> </ul>

## Multi Tuner Block Diagram



Recommended Products for Multi Tuner	
SoC	<ul style="list-style-type: none"> <li>• <a href="#">i.MX8M</a>: i.MX 8M Family - Arm® Cortex®-A53, Cortex-M4, Audio, Voice, Video</li> </ul>
Secure Authentication	<ul style="list-style-type: none"> <li>• <a href="#">SMARTMX2-P60</a>: SmartMX2 P60: Single/Dual Contact Interface Controllers</li> </ul>
AC/DC	<ul style="list-style-type: none"> <li>• <a href="#">TEA1721DT</a>: HV Start-up Flyback Controller with Integrated MOSFET for 5 W Applications, F~Burst = 1270 Hz</li> <li>• <a href="#">TEA1723DT</a>: HV Start-up Flyback Controller with Integrated MOSFET for 11 W Applications, F~Burst = 1270 Hz</li> </ul>
PMIC	<ul style="list-style-type: none"> <li>• <a href="#">PF1550</a>: PMIC with 1A Li+ Linear Battery Charger for Low Power Processor Systems</li> </ul>
TV Tuner	<ul style="list-style-type: none"> <li>• <a href="#">TDA18250_18254</a>: Cable Silicon Tuner</li> </ul>
USB Type C PHY	<ul style="list-style-type: none"> <li>• <a href="#">PTN5150</a>: CC Logic for USB Type-C Applications</li> </ul>
Temperature Sensor	<ul style="list-style-type: none"> <li>• <a href="#">PCT2075</a>: I²C-Bus Fm+, 1 Degree C Accuracy, Digital Temperature Sensor and Thermal Watchdog</li> </ul>
NFC	<ul style="list-style-type: none"> <li>• <a href="#">PN7160</a>: NFC Plug and Play Controller with Integrated Firmware and NCI Interface</li> </ul>
Audio Amplifier	<ul style="list-style-type: none"> <li>• <a href="#">TFA9879HN</a>: TFA9879HN, Mono BTL Class D Audio Amplifier for Portable Applications with Digital Input</li> </ul>
Security (EdgeLock Discrete)	<ul style="list-style-type: none"> <li>• <a href="#">SE050</a>: EdgeLock® SE050: Plug and Trust Secure Element Family – Enhanced IoT security with high flexibility</li> <li>• <a href="#">SE051</a>: EdgeLock® SE051: Proven, Easy-to-Use IoT Security Solution with Support for Updatability and Custom Applets</li> <li>• <a href="#">EDGELOCK-A5000</a>: EdgeLock® A5000 Plug and Trust Secure Authenticator: Authentication Made Secure, Scalable and Easy</li> </ul>

View our complete solution for [Set Top Boxes](#).

**Note:** The information on this document is subject to change without notice.

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