

28HPC+/22ULP

TSMC’s 28nm process uses high-k metal gate (HKMG), gate-last technology. The 28nm High-Performance Compact Plus (28HPC+) technology features high-performance and low-power advantages, plus a seamless design ecosystem. It supports a wide range of applications, including digital consumer electronics (DCE), home entertainment, and the Internet of Things (IoT).

The 22nm Ultra-Low Power (22ULP) process is based on TSMC’s 28nm technology. 22ULP provides a 10% area reduction, a greater than 10% speed gain, or a more than 20% power reduction compared to 28HPC+, making it ideal for applications such as digital TVs (DTVs), set-top boxes (STBs), smartphones, image processing, edge AI, and consumer products.

TSMC offer embedded resistive random-access memory (RRAM) technologies to fulfill customers’ needs. TSMC led the world in mass-producing 22nm Ultra-Low Leakage (22ULL) embedded resistive random-access memory (RRAM) technology, featuring a balance of cost and reliability.

N7/N6

Excellent power, Performance and Area (PPA); proven process maturity...

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N16/N12

Power, Performance and Area (PPA) and Value Optimized for Digital Consumer Electronics (DCE)...

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