UNISOC

5G Solutions

UNISOC 5G Product Portfolio

Overview

5G is playing an increasingly important role in the evolution of the global digital economy as one of its core technologies. As a top 3 company in the global open market and the only full-scenario communication technology chip company in mainland China, UNISOC has been committed to innovative 5G technology, application innovation, and frontier research, resulting in platform-based technology and a comprehensive product lineup.

In the field of 5G technology, UNISOC has proactively participated in the evolution of global 5G standards, continuously releasing pioneering technologies and solutions, and achieving several global firsts. As 5G-A commercial deployment enters a new stage, UNISOC is collaborating closely with ecosystem partners to accelerate the adaptation of cell phones, PC, XR devices, watches, and other terminals to 5G-A networks. This effort keeps expanding the variety and supply of 5G-A standard terminals, unleashing the potential of 5G and creating new value to contribute to the high-quality development of the digital economy.

UNISOC has developed a complete and mature series of 5G products. The company not only offers a portfolio of chip products to meet consumer demand, but also provides 5G IoT solutions to empower digital transformation across industries.

UNISOC has been rooted in China while branching out globally. Its 5G chips have been shipped to 76 countries and territories, and over 100 brands with UNISOC's 5G chips have entered the markets in India, Southeast Asia, Europe, Latin America, and more, with continuous efforts for global expansion.

Going forward, UNISOC is committed to creating more innovative and high-value products and solutions, connecting everything with 5G to empower a wide range of industries.

5G Technology

5G Network Slicing

5G network slicing technology divides a single physical network into multiple virtual networks, catering to the diverse needs of massive terminals and various scenarios. This allows 5G networks to integrate more closely with different verticals. In this field, UNISOC has achieved the world's first business demonstration of a 5G terminal slicing target solution, as well as an end-to-end multi-slice module solution for 5G. These advancements lower the barrier for industries to adopt 5G slicing technology, enabling widespread 5G deployment.

5G New Calling

5G New Calling is a next-gen product based on 5G networks. It leverages the ultra-clear voice and video calling services, as well as related value-added services of the 5G network, to offer a range of innovative calling-enhancement services and applications. These include 5G VoNR ultra-clear calls, fun calls, smart customer service, content sharing, and remote assistance, providing a visual, multimedia, high-sensitivity, and fully interactive experience. UNISOC has built an open 5G New Calling ecosystem with the ability to support full-stack integration of chip and software platforms. Customers only need to integrate the solution to enable 5G New Calling functionalities, significantly reducing development costs and improving deployment efficiency.

- The world's first to complete end-to-end 5G New Calling capability verification based on IMS Data Channel
- The world's first to complete a live 5G New Calling call based on IMS Data Channel

5G Industrial Internet

The Industrial Internet consists of two parts: OT networks and IT networks. OT networks connect production site equipment and systems, supporting process control, equipment monitoring, and maintenance, forming the production network for industrial manufacturing. IT networks handle information management, business processing, data analysis, and other areas, acting as the auxiliary and management network for industrial manufacturing. As corporate R&D and management operations extend into industrial scenarios, the integration of IT and OT networks has become a trend.

From the perspective of the three major 5G use cases, the eMBB feature supports data transmission for high-bandwidth applications such as visual inspection, AGV, and cloud-based robots. The mMTC feature addresses the needs of massive connection scenarios, such as data collection, whereas the uRLLC feature caters to low-latency, high-reliability applications, such as remote control of industrial machinery and flexible robotic arms. Additionally, the 5G network offers many industry-specific capabilities, including 5G LAN, 5G TSN, high-precision time synchronization, and positioning, to meet the diverse needs of different industry applications. UNISOC, through its scenario-driven approach, closely integrates standard pre-research, product development, and industry convergence. It boasts comprehensive connectivity capabilities across sectors, offering a diversified product portfolio and solutions that span areas such as 5G, Cat.6, Cat.4, Cat.1, and NB-IoT. These innovations act as a core driving force for the industrial upgrade of the Industrial Internet.

Achieved the world's first end-to-end business verification based on the 3rd Generation Partnership Project R16 standard for eMBB+uRLLC+IIoT

- The first in China to complete all testing items for 5G LAN, laying the groundwork for deep integration of Industrial Internet and 5G
- Supports 5G network time synchronization with an accuracy of up to 1us, enabling precise machine collaboration and applications like smart grid differential protection
- Enhanced positioning technology enables accurate location services for network scenarios, forming the basis for integrated sensing

5G NTN Satellite Communication

UNISOC has been deeply involved in NTN satellite communication and the integration of space and ground research, while also conducting fruitful exploration and practice in the 3GPP technology framework. We are advancing IoT NTN technological innovation and commercial product deployment, conducting NR NTN research and test verification, and further unlocking the value potential of technological evolution and application.

UNISOC has also conducted in- significantly enhancing the ability of 5G smartphones to connect to satellite networks, bringing ubiquitous connectivity to the entire globe.

- Completed the world's first satellite verification of L-band and S-band 5G NTN technology
- Achieved the first 5G NTN mobile direct satellite connection field verification in China
- Completed IoT service verification tests on Tiantong and Inmarsat satellites, as well as Tracker dual-mode service
- Conducted the industry's first IoT-NTN RF consistency testing use case verification
- Successfully completed NR NTN low-earth orbit satellite end-to-end data transmission simulation verification
- Based on V8821, the world's first GEO satellite two-way data transmission technology verification was completed
- Completed the world's first end-to-end satellite-based two-way voice call trial using IoT NTN, with call quality meeting expectations
- Pioneered the development of NTN voice technology based on a streamlined IMS SIP signaling set, making V8821 the world's only IoT NTN chip currently supporting IMS voice calling capabilities
- Completed in-orbit testing and certification for 5.5G-based low-Earth orbit satellite internet

5G RedCap

As 5G empowers verticals, challenges such as high terminal chip module costs and power consumption have become increasingly prominent. In response, 3rd Generation Partnership Project introduced the low-cost terminal type RedCap in R17, specifically designed for verticals. RedCap can be applied video surveillance, wearable devices, industrial internet, and more. It represents a simplified approach by 3rd Generation Partnership Project that reduces costs and power consumption through terminal trimming while still meeting the needs of target applications. Now, UNISOC is actively developing commercially viable 5G R17 RedCap products to help drive 5G technology across industries, supporting high-quality development for vertical sectors.

- Completed China Mobile's first functional and performance verification of the 5G R17 RedCap base station and terminal chip, as well as key technology verification for 5G R17 RedCap by the IMT-2020 (5G) promotion group
- Led the completion of 5G R17 RedCap network VoNR technology verification, with voice services successfully implemented in China's RedCap tests for the first time
- Collaborated with industry partners such as China Broadnet and ZTE to complete end-to-end capability testing for RedCap technology
- Partnered with China Unicom to complete RedCap chip V517 incubation testing, supporting Unicom's full-band 5G network compatibility
- Successfully completed key technology and field performance testing for 5G R17 RedCap under IMT-2020 and conducted interoperability tests with mainstream system equipment manufacturers
- Advanced the evolution of the enhanced RedCap (R18 eRedCap), covering low-speed IoT technologies for applications with speeds up to 10 Mbps

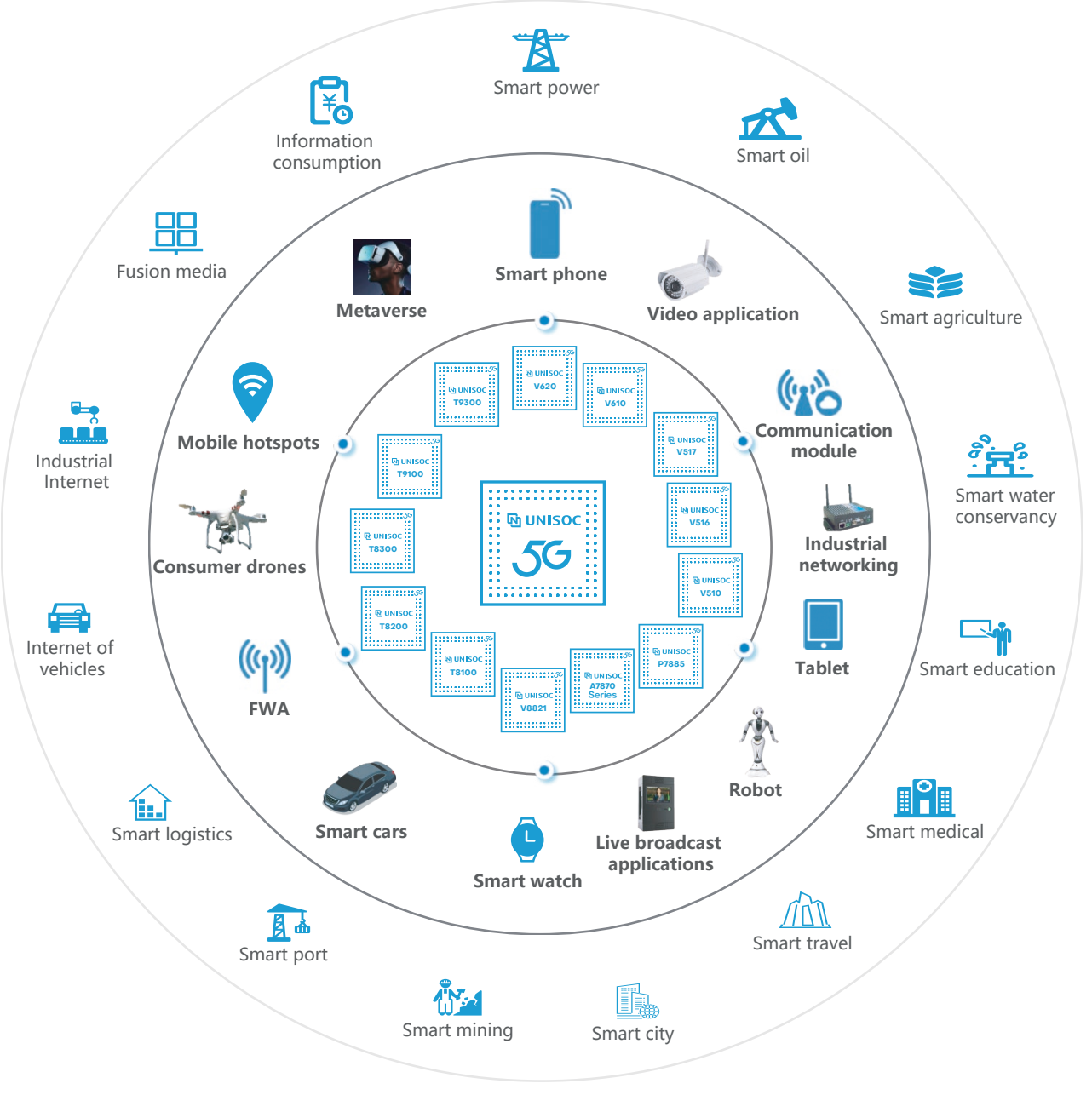
5G Broadcasting

Broadcast television is characterized by its wide coverage, diverse content, fast transmission speeds, and real-time information delivery. "5G Broadcasting + 5G Communication" combines the low-latency and efficient transmission advantages of broadcasting networks with the flexible nature of mobile communication networks to create new broadcast and television services. This model offers differentiated services to mobile terminal users, such as the ability to watch broadcast television programs or receive data services anytime and anywhere, without consuming any audio or video data communication traffic, thus saving phone battery power. UNISOC closely follows the evolution of 3rd Generation Partnership Project and other standardization processes, actively collaborating with upstream and downstream partners in the industry chain to expand the application space for verticals.

- Industry-first completion of MBS functionality testing based on the 3rd Generation Partnership Project R17 protocol version
- Supports TV viewing on mobile phones without a SIM card, based on the broadcasting service platform
- Supports concurrent broadcasting and unicast, allowing users to watch TV and make phone calls without interference

5G Applications

5G applications in all scenarios



5G Applications

5G+ smart devices
Serve Intelligent Needs of Individuals

5G Applications

5G+ IoT terminals
Support Industrial System and Social Intellectualization

Application Scenarios

5G+ Smart City

With the continuous progress in construction and coverage of 5G networks, 5G commercial deployment and large-scale applications are advancing rapidly. 5G's role in driving economic and social development is becoming broader and deeper, and city governance is an important pillar in this evolution.

In the project "Shaping an optimal 5G solution for Chinese-style city governance", UNISOC has extended its 5G product applications to smart city social governance, enhancing both efficiency and modernization to create a model for contemporary city governance.

This project won first prize in the 5G Converged Application Competition Finals at the "2023 World 5G Convention - 5G Application Design Competition", and was recognized as one of the "Top 10 5G Applications of 2023".

5G+ Smart Photovoltaics

As one of the earliest pioneers to focus on the application of 5G with distributed photovoltaics, UNISOC V510 helped an old industrial park in Xiamen meet all the power needs of its manufacturing enterprises and even allowed surplus electricity to be fed back into the grid.

Leveraging 5G's high bandwidth, high reliability, and low latency, we provided a safer transmission channel, enabling real-time monitoring of grid operating status and rapid feedback on any supply instability. Meanwhile, the combination of 5G with various smart sensors and smart terminals offers new approaches to operation and maintenance. With the support of digital twins, data visualization and risk prediction have become a reality.

5G+Smart Internet of Vehicles

UNISOC, together with partners, has developed a 5G smart connected vehicles project using Nanjing's "New Public Transportation Metropolis" pilot area as a test bed. By equipping existing buses with 5G industry application terminals, the vehicles become connected. Drawing on5G's ultra-low latency, high reliability, and high bandwidth, this approach has significantly improved data collection and transmission speeds in various scenarios. The on-board devices improved the operational efficiency and passage safety of vehicles and roadside equipment.

Application Scenarios

5G+Smart Grid

Traditional power distribution networks require utility companies to build their own fiber optic communication facilities. However, fiber optic communication in the distribution network sector involves large-scale construction, high costs, and is difficult to maintain, making it unsuitable for widespread deployment. The integration of 5G+ Smart Grid allows wireless connectivity to replace traditional wired fiber connections, empowering power distribution systems. The low latency and high reliability of 5G can fully meet the precise timing requirements of power distribution line differential protection and other network needs, enabling the digital upgrade of power grids.

At the "2023 World 5G Convention - 5G Design Application Competition", the "Shandong Power 5G Scale Application Project", jointly developed by UNISOC and industry partners, won the First Prize in the 5G Integration Application Competition Finals. It was also selected as one of the "Top 10 5G Application Cases of 2023". This project leverages 5G technology to empower new power systems, achieving significant breakthroughs in the energy sector, with application scenarios covering all aspects of power generation, transmission, transformation, distribution, and usage.

5G+Smart Medical

The 5G application innovation project "5G Smart Medical Illuminates Hainan Health Island", jointly developed by UNISOC, Hainan Unicom, and Unicom IoT, is the Chinese first remote diagnosis information project based on 5G technology, covering all grassroots institutions across the province. It focuses on 5G smart applications in scenarios such as remote consultations, intelligent tiered diagnosis and treatment, smart hospitals, and emergency systems. UNISOC enhances medical efficiency and simplifies healthcare processes through 5G technology: enabling minor ailments to be treated locally and major illnesses to be diagnosed remotely, ensuring residents don't need to leave the island. This initiative supports Hainan in achieving Chinese leadership in grassroots health services

5G+Smart Warehousing

With the rapid development of the logistics industry, various smart warehousing devices have emerged to improve efficiency and reduce costs. The communication requirements between smart devices and systems in logistics warehousing are becoming increasingly demanding. 5G technology brings new opportunities for upgrading and transforming logistics warehousing. UNISOC, in collaboration with JD Logistics, has developed a 5G smart unmanned warehouse. This initiative uses a warehousing brain, cloud-based business deployment, edge computing platforms, customized 5G private networks, and deep integration of 5G chip modules and terminals to achieve fully automated management and operation of the entire process, including storage, handling, and sorting of goods.

Application Scenarios

5G+ Smart Logistics Park

The "5G-Enhanced Digital Twin Scalable Integrated Architecture" solution, jointly proposed by UNISOC and JD Logistics, offers a systematic approach to addressing operational management issues related to personnel, vehicles, sites, production, and safety in logistics parks. The digital twin of the logistics park enhances intelligent decision-making through real-time smart monitoring and achieves a significant transformation from "passive traditional management" to "proactive intelligent management" by integrating across devices, systems, and processes for unified decision-making and control.

5G+Smart Mining

Safety is the top priority in the mining industry. 5G technology provides intelligent solutions for improving the working environment and monitoring operational safety. UNISOC, in collaboration with Hisense, has developed a smart mining digital solution that enables unmanned inspections, intelligent tunneling, precise equipment and personnel positioning, real-time data reporting, and operational monitoring. This approach reduces equipment failure rates by 18%, making mining operations safer and management more intelligent.

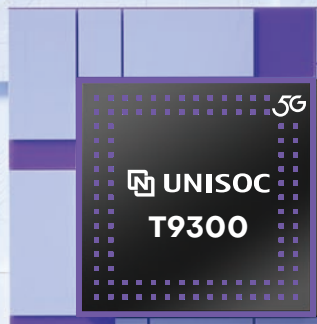
*Showcase selected cases only

UNISOC

T9300

A high-performance 5G SoC for advanced imaging and gaming

T9300 is a high-performance 5G SoC for advanced imaging and gaming. It supports dual 5G SIM standby and Android 16. Powered by the 7th-gen Vivimagic Image Engine with 200MP camera support, it also features a 144Hz high-refresh display, HiFi-grade audio quality, and the UNISOC Miracle Gaming Engine. It achieves an AnTuTu V10 benchmark score of 550,000. Integrating 5G NR NTN satellite communication and 5G MBS broadcast capabilities, it delivers an immersive and powerful 5G experience for users.



Product Strengths

Performance

- 6nm Octa-core CPU architecture with A78 performance cores, up to 2.4GHz; 38% better energy efficiency than the previous generation.
- Mali-G57 dual-core GPU, UFS 2.2 storage, and LPDDR4X RAM; It scores 550,000 on AnTuTu V11.

Connectivity

- Supports 3GPP R17, integrated NR NTN satellite communication, and 5G MBS broadcasting.
- Enhanced all-scenario coverage and smart network switching; 20% lower power consumption in typical 5G scenarios.
- Multi-mode 2G–5G full network support, 100MHz 5G NR bandwidth, SA/NSA dual-mode, dual SIM VoNR and VoWiFi.

Imaging

- 7th-gen Vivimagic engine with upgraded specs: 4-core ISP supports up to 200MP, 32MP@25fps ZSL, 20M+20M dual-camera.
- Hardware multi-frame and temporal noise reduction for clearer images.
- Advanced 3A 5.0 algorithms for better brightness, focus, and dynamic range via XTM3.0.
- New multi-frame RAW Super Night XDR and low-light performance.
- Refined smart portrait segmentation and depth estimation for superior portrait shots.
- Next-gen HDR for improved dynamic range, contrast, and faster performance.

Audio

- Calls: Smart noise suppression (ECNS 1.0) and Echo Cancellation 3.0.
- Playback: Stereo enhancement and Spatial Audio 3.0.
- Recording: 2–3 MIC AudioZoom 3.0 and AudioFocus 1.0.
- Voice Wakeup: Dedicated VTS ADC with seamless sleep-to-wake transitions, customizable wake words, and voiceprint recognition.
- AudioCodec performance greatly improved, Hi-res certified audio with HiFi4 codec, 3dB SNR/THD advantage over competitors; Delivering Hi-Fi sound with a dedicated HiFi4 DSP.
- DSP software architecture supports customization.

Display

- FHD+/144Hz，1.5K/90Hz, HDR10+, Netflix certification.
- VideoPQ, VRR, and blue-light/sunlight/nightlight eye protection modes.

AI

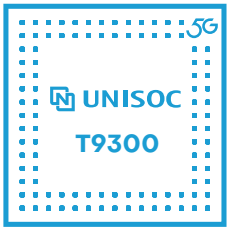
- AI SDK enabling flexible deployment and heterogeneous computing.
- Supports AI creation, intent recognition, summarization, and image search — delivering intelligent proactivity and doubled efficiency.

Gaming

- UNISOC Miracle Gaming engine for high frame rates and stability with optimized networking.
- Enhanced voice clarity in weak networks.
- Image quality enhancements, Super HDR visuals, and game super resolution.

Specifications

Processor	CPU	2×A78@2.4GHz + 6×A55@2.2GHz
	Max CPU Frequency	2.4GHz
	Cores	Octa
	Process	6nm
Graphics	GPU	Arm Mali G57 MC2 @1.1G
	Display Resolution	FHD+@144Hz 1.5K@90Hz
	Video Decode	4K @30fps
	Video Encode	2K @30fps
Memory	Memory Type	LPDDR4X
	Max Memory Size	LPDDR4X 2133MHz
	Storage Type	eMMC 5.1+UFS 2.2
Camera	Camera	Up to 200M normal 32M@25fps ZSL 20M+20M@30fps
	MIPI	4CD+4D(2+2)+4D(2+2)
Connectivity	Cellular	NSA/SA/GSM/WCDMA/TDD-LTE/FDD-LTE
	Category	NR R17, LTE DL Cat13/UL Cat13
	GNSS	GPS+Glonass+Beidou+Galileo, L1+L5(option) Frequency Band
	Wi-Fi	802.11 b/g/n/ac/ax(option)
	BT	Bluetooth®5.4
	FM	Yes
Security	Solution	TEE



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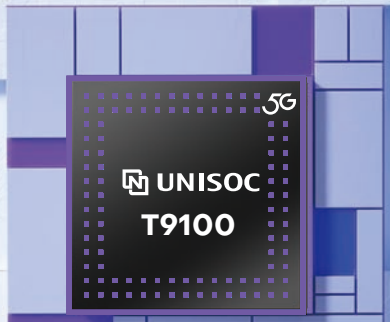
UNISOC

T9100



High-performance 5G SoC with integrated secure element

T9100 utilises the advanced 6nm EUV manufacturing process, an integrated high-performance application processor, and built-in financial security measures to provide users with a new performance experience in the 5G era. Moreover, T820 supports 4K ultra-high-definition video recording, 108 million ultra-high pixel photography, and 120 frame high refresh rate display, enabling the terminal to enhance the multimedia and entertainment experience in an all-round way.

Feature

Specifications

- "1+3+4" three-cluster CPU architecture with a main frequency up to 2.7GHz
- ARM Mali-G57 4-core GPU
- LPDDR4X memory + UFS3.1 flash memory

Technology

- Advanced 6nm EUV process

Communication

- Full scene coverage enhancement, 5G dual carrier aggregation
- 2G to 5G multi-mode FAKON, new multi-mode fusion architecture, scene power consumption is reduced by 40% compared to the previous generation of platform
- SA and NSA dual mode, dual card and dual VoNR

Safety

- Adopt trusted execution environment and independent hardware encryption and decryption engine to form a complete security solution, thereby providing users with high-level terminal security protection scheme. Compared with SE, the iSE solution can improve performance by two times and storage capacity by 20 times, as well as supporting hundreds of financial scenarios, such as bank cards and digital currencies.

Image

- The latest Vivimagic 6.0 image engine, new generation of 4 core ISP architecture (2 main +2 auxiliary), support 100 million pixel HD lens and multi-camera combination
- Brand new self-developed multi-frame noise reduction MFNR and HDR photography technology, supporting night shooting, enabling better photography in dark environment
- Full channel 4K ultra HD video recording, EIS video stabilization, support DCI contrast enhancement in terms of video display
- AI technology enhanced camera, support AI noise reduction, AI-Bokeh, Face ID unlocking, AI beauty, more accurate AI face recognition

AI

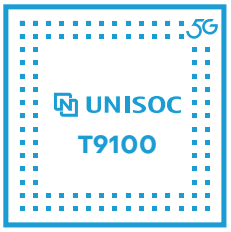
- 8.0TOPS AI computing power
- Support mainstream AI models, such as image classification, semantic segmentation, object detection, etc
- Innovative AI development platform, efficient and fast application empowering

Ultra HD display

- Support FHD+ 120 frames and QHD+ 60 frames high refresh rate, and enable more smooth game experiences
- HDR10+ display
- Double screen expansion display, support foldable screen and other screen innovations
- Support VRR (dynamic refresh rate), screen blue light & sun light & night light eye protection display, resolution switch

Specifications

Central processing unit	CPU	1×A76@2.7GHz + 3×A76@2.3GHz +4×A55@2.1GHz
	Maximum CPU frequency	2.7GHz
	Number of cores	8-core
	Process technology	6nm EUV
Image	GPU	Arm Mali G57 Manhattan ES3.0 60fps
	Resolution	FHD+@120fps, QHD+@60fps
	Video decoding	4K @60fps, 10bit
	Video coding	4K @60fps
Storage	Memory	LPDDR4X
	Storage	LPDDR4X2133MHz
	Flash memory	eMMC5.1+UFS3.1
Camera	camera	Up to 108M normal 32M@25fps 20M+20M@30fps 108M(9in1) + 20M(UW) + 13M(T)
	MIPI	4CD+4CD+4D(2+2)+4D(2+2)
Connection	Cellular	NSA/SA/GSM/WCDMA/ TDD-LTE/FDD-LTE
	Category	NR R15, LTE DL Cat15/UL Cat18
	GNSS	GPS+Glonass+Beidou+Galileo
	Wi-Fi	b/g/n/11ac
	Bluetooth	Bluetooth®5.0
	FM	yes
AI	NPU	8.0 TOPS
	VDSP	VQ7
safety	Scheme	iSE



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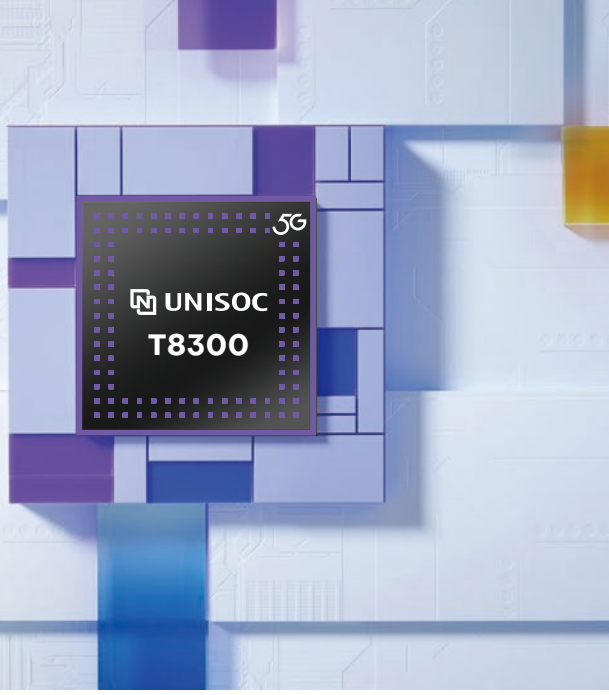
GNSS/Wi-Fi/Bluetooth/FM: UMW2651 or UMW2652

UNISOC

T8300

The 5G SoC Enables an Enjoyable Media and Gaming Experience for Global Users

It supports dual 5G SIMs, the latest Android 15, the 7th-gen Vivimagic imaging engine, and HiFi-grade audio for a next-level audiovisual experience. With integrated 5G NR NTN satellite communication and 5G MBS broadcasting, it delivers a revolutionary 5G experience.



Feature

Performance

- 6nm Octa-core CPU architecture with A78 performance cores, up to 2.2GHz; 28% better energy efficiency than the previous generation.
- Mali-G57 dual-core GPU, UFS 2.2 storage, and LPDDR4X RAM; AnTuTu V10 score exceeds 510,000.

Connectivity

- Supports 3GPP R17, integrated NR NTN satellite communication, and 5G MBS broadcasting.
- Enhanced all-scenario coverage and AI-driven network switching; 20% lower power consumption in typical 5G scenarios. Multi-mode 2G–5G full network support, 100MHz 5G NR
- bandwidth, SA/NSA dual-mode, dual SIM VoNR and VoWiFi.

Imaging

- 7th-gen Vivimagic engine with upgraded specs: 4-core ISP supports up to 108MP, 32MP@25fps, and 16M+16M dual-camera ZSL.
- Hardware multi-frame and temporal noise reduction for clearer images.
- Advanced 3A 5.0 algorithms for better brightness, focus, and dynamic range via XTM3.0.
- New multi-frame RAW Super Night XDR and AI-enhanced low-light performance.
- Refined AI portrait segmentation and depth estimation for superior portrait shots.
- Next-gen HDR for improved dynamic range, contrast, and faster performance.

Audio

- Calls: AI noise suppression (ECNS 1.0) and Echo Cancellation 3.0.
- Playback: Stereo enhancement and Spatial Audio 2.0. Recording: 2–3 MIC AudioZoom 3.0 and AudioFocus 1.0.
- Voice Wakeup: Dedicated VTS ADC with seamless sleep-to-wake transitions, customizable wake words, and voiceprint recognition.
- Hi-res certified audio with HiFi4 codec, 3dB SNR/THD advantage over competitors.
- DSP software architecture supports customization.

Display

- FHD+, 120Hz, HDR Vivid, HDR10+, Netflix certification.
- VideoPQ, VRR, and blue-light/sunlight/nightlight eye protection modes.

Gaming

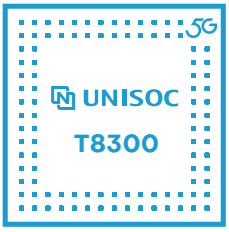
- UNISOC Miracle Gaming engine for high frame rates and stability with optimized networking.
- AI Codec for enhanced voice clarity in weak networks.
- Image quality enhancements, Super HDR visuals, and game super resolution.

Full-stack AI capabilities

- AI SDK for flexible deployment and heterogeneous computing.
- AI-based creative tools, intent recognition, summarization, image search, and proactive smart assistance.

Specifications

Processor	CPU	2×A78@2.2GHz + 6×A55@2.0GHz
	Max CPU Frequency	2.2GHz
	Cores	Octa
	process	6nm
Graphics	GPU	Arm Mali G57 MC2 @950MHz
	Display Resolution	FHD+@120Hz
	Video Decode	4K @30fps
	Video Encode	2K @30fps
Memory	Memory Type	LPDDR4X
	Max Memory Size	LPDDR4X 2133MHz
	Storage Type	eMMC 5.1+UFS 2.2
Camera	Camera	Up to 108M normal 32M@25fps 16M+16M@30fps
	MIPI	4CD+4D(2+2)+4D(2+2)
Connectivity	Cellular	NSA/SA/GSM/WCDMA/TDD-LTE/FDD-LTE
	Category	NR R17, LTE DL Cat13/UL Cat13
	GNSS	GPS+Glonass+Beidou+Galileo
	Wi-Fi	802.11 b/g/n/ac
	Bluetooth	Bluetooth®5.4
	FM	Yes
Security	Solution	TEE



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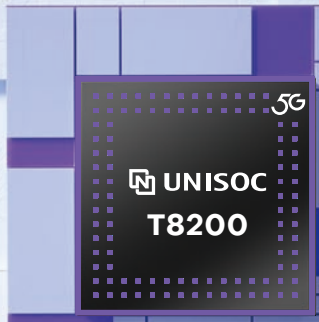
T8200

Mid-range 5G mobile platform with enhanced visual-audio experience

Support up to 108 MP camera, 4K high-definition video recording, FHD+ display, 120Hz refresh rate and 5G dual-SIM dual-standby capabilities, this platform will offer excellent multimedia experience.



Product Advantages

Multimedia

- Vivimagic 6.0 image engine, quad-core ISP architecture (2 main + 2 auxiliary), supports up to 108 MP camera and triple cameras with 64MP+20MP+13MP;
- Equipped with dedicated XDR multi-frame and multi-exposure shooting capabilities for super night mode, T765 is able to restore greater detail and provide higher-quality night scene effects;
- 4K high-definition video recording;
- Provide AI FaceID, AI-scene recognition and gesture control for taking photos, AI Face Detection, AI-Bokeh, etc.

Display

- FHD+ display, 120Hz refresh rate;
- Display stream compression;
- HDR10+ image quality;
- Uses variable refresh rate (VRR) and intelligent resolution switching technology, enabling the display refresh rate on the device to sync intelligently with that within the games, movies, or other content, providing users with a smooth, high-definition experience, while improving battery life.

Audio

- Features AI noise reduction and smart PA power amplifier technologies，which ensure enhanced bass and better sound quality;
- Digital audio technology to ensure the quality of professional audio-visual recording;
- Low-power voice wake-up system, supporting voice assistant applications;

Modem

- Coverage enhancement for all scenarios;
- 2G to 5G networks;
- TDD+FDD CA in the Sub-6GHz spectrum with 130MHz bandwidth;
- SA and NSA networking modes, dual SIM dual VoNR and VoWiFi;

Performance

- Octa-core CPU clocked up to 2.3 GHz;
- Mali-G57 MC2 @ 850MHz GPU;
- Dual-channel UFS 3.1 storage, LPDDR4x memory, with faster read/write speeds;

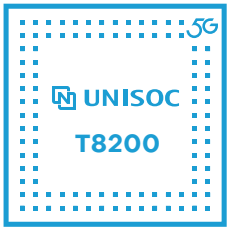
Process

- TSMC 6nm EUV;

Specifications

Processor	CPU	2×A76@2.3GHz + 6×A55@2.1GHz
	Max CPU Frequency	2.3GHz
	Cores	Octa-core
	Process	6nm EUV
Graphics	GPU	Arm Mali G57 MC2 @850MHz
	Display Resolution	FHD+@120Hz
	Video decoding	4K @30fps
	Video coding	4K @30fps
Memory	Memory Type	LPDDR4X
	Max Memory Size	LPDDR4X 2133MHz
	Storage Type	eMMC 5.1/UFS 3.1/UFS2.2
Camera	Camera	Up to 108M normal 32M@25fps 20M+20M@30fps
	MIPI	4CD+4D(2+2)+4D(2+2)
Connectivity	Cellular	NSA/SA/GSM/WCDMA/ TDD-LTE/FDD-LTE
	Category	NR R15, LTE DL Cat15/UL Cat18
	GNSS	GPS+Glonass+Beidou+Galileo
	Wi-Fi	802.11 b/g/n/ac
	BT	Bluetooth ® 5.0
	FM	Yes
Security	Solution	TEE

GNSS/Wi-Fi/BT/FM： UMW2652

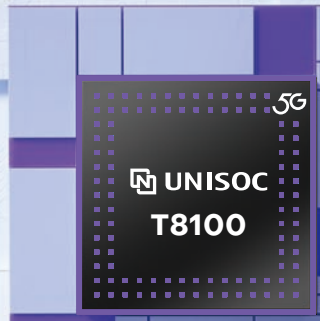


UNISOC

T8100

5G SoC chip platform with more balanced battery life and performances

UNISOC' s 5G T8100 chip uses 6nm EUV advanced technology to provide increased density and lower power consumption. Through energy efficiency improvement and multi-mode integration of innovative modem architecture and AI intelligent regulation technology, it takes into account the balance of performance, power consumption, security, and productivity, as well as significantly enhances the quality of user experience.



Feature

Power consumption

- Innovative architecture with multi-mode integration and is supported by AI intelligent adjustment.
- Under 5G data scenarios, the overall power consumption is 37% lower than that of the T740.
- Under a 5G standby scenario, the overall power consumption is 18% lower than that of the T740.

Multimedia

- Vivimagic 6.0 image engine with Acutelogic 3A technology
- 64 megapixel super HD four-camera
- High refresh rate of 120Hz, clear and smooth

AI

- 3.2 TOPS computing power
- Innovative AI development platform enabling efficient and quick application empowering

Safety

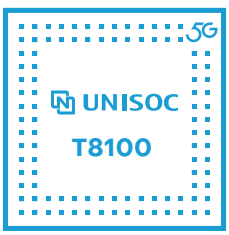
- Full built-in financial-level security solutions
- Compared with other security solutions, the processing capacity is doubled
- Ultra-large capacity, able to support hundreds of applications at the same time

Communication

- Full scene coverage enhancement
- 2G to 5G multi-mode FAKON
- SA and NSA dual-mode
- Dual cards and dual VoNR

Specifications

Central processing unit	CPU	4xA76@+4xA55
	Maximum CPU frequency	2.2GHz
	Number of cores	8-core
	Process technology	6nm EUV
Image	GPU	Arm Mali G57 Manhattan ES3.046fps
	Resolution	FHD+@120FPS.QHD+@60FPS
	Video decoding	4K @30fps 10bit
	Video coding	4K@30fps
Storage	Memory	LPDDR4X
	Storage	LPDDR4X2133MHz
	Flash memory	eMMC5.1+UFS3.1
Camera	Camera	Up to 64M NORMAL32M@25FPS 20M+ 16M@30FPS
	MIPI	4CD+4CD+4D(2+2)+4D(2+2)
Connection	Cellular	NSA/SA/GSM/WCDMA/TDD-LTE/FDD-LTE
	Category	NR R15,LTE DL CAT15/UL CAT18
	GNSS	GPS+Glonass+Beidou+Galileo
	Wi-Fi	b/g/n/11ac
	Bluetooth	Bluetooth®5.0
	FM	yes
AI	NPU	3.2 TOPS
	VDSP	VQ7
Safety	Scheme	iSE



Note: The data on this page are from the test data of UNISOC Laboratory. The actual situation may vary slightly depending on the version and test environment.
GNSS/Wi-Fi/Bluetooth/FM：UMW2651 or UMW2652

UNISOC

V620

The Industry's First Chip Platform Fully Supporting 5G R16 Broadband IoT Features

V620 is the industry's first chip platform fully supporting 5G R16 broadband IoT features, widely applicable in a range of devices including 5G FWA, handheld terminals, 5G modules, laptops, and gateways. It brings excellent 5G connectivity to vertical industries globally, such as broadband applications, power, energy, high-end manufacturing, etc.

Product Strengths

Powerful RF capability and fit for all kinds of networks

- The single chip supports network standards such as TDD NR, FDD NR, FDD-LTE, TDD-LTE, WCDMA and GSM
- It supports the frequency bands of Sub-7GHz, NR, LTE, WCDMA, GSM, with more than 70 bands, supports LTE CA, NR CA, and has more than 1000 combinations of ENDC, adapting to the main networks around the world
- Supports global carrier 5G bands such as n78/n41/n79/n1/n28/n8/n5/n66, etc
- Supports PC1.5, which improves coverage and signal transmission quality by 3db compared to PC2

Ultra-high-speed experience

- With SA network, the downlink rate can reach 4.67Gbps and the uplink rate up to 1.875Gbps, 100% higher than those of previous generation UNISOC products
- Super Uplink Technology：supports rich NUL and SUL combinations

Superb OPENCPU Architecture

- The computing power of 4-core ARM Arm®Cortex®-A55 CPU is nearly 200% higher than that of the previous generation
- LPDDR4/4x has more than 100MB resources, meeting the memory requirements of more third-party application development

Industry-leading R16 key features

- The first to support 5G TSN, which is suitable for 5G in industrial TSN networks
- Support for indoor 5G high-precision positioning, with an error of less than 3 meters (90% probability), enabling precise positioning of indoor personnel, materials, AGVs, etc
- URLLC achieves low-latency and high-reliability communication with an average RTT delay of approximately 8ms
- Support for R16 low power consumption feature: WUS, UAI, etc., with the power consumption 20% lower than that of UNISOC’s previous generation 5G products

Better dual SIM capability

- Supports DSDS/eDSDS(5G+5G, 5G+4G)
- More dual SIM scenarios：support eSIM and 5/4G SoftSIM

Rich interfaces, suitable for various industry terminals

- More abundant interfaces: USXGMII/PCIE3.0/USB3.1/SDIO3.0/UART/SPI/I2S/I2C/GPIO

Product Specifications

CPU	Arm®Cortex®-A55@2.0GHz *4
DDR	LPDDR4/4x @2133MHz
Memory	Nand/eMMC
Operating system	Yocto Linux@Kernel 5.15
Interface	PCIE3.0 1Lane*2,RC&EP mode; USB3.1*1, USB2.0*1; Ethernet USXGMII*1 SPI/I2S/I2C/UART/SDIO3.0/ADC/GPIO SIM/USIM*2
Package Size	10.3mm*10.3mm

Memory solution：

- MCP(LPDDR4x/Nand)
- LPDDR4/4x + Nand

  LPDDR4/4x + eMMC

Note: The data on this page are from the test data of UNISOC Laboratory. The actual situation may vary slightly depending on the version and test environment.
GNSS/Wi-Fi/Bluetooth/FM：UMW2651 or UMW2652

UNISOC

V527

UNISOC 's new generation of high performance 5G RedCap IoT communication chip

V527 is a stable, sophisticated and mass-produced 5G communication platform by UNISOC based on the 3GPP Release 17 technology. It is a brand-new next-generation RedCap product platform with ultimate performance, developed using UNISOC' s third-generation 5G modem high-performance integrated architecture.

Product advantages

- Maximum speed: DL - 226Mbps, UL - 120Mbps
- Supports dual mode, fully compatible with 5G RedCap and LTE networks
- 1T2R dual-antenna simplified design reduces terminal costs
- Supports 5G industry features: 5G LAN, NPN, network slicing, high-precision timing, URLLC, etc.
- Supports R17 SDT
- Supports R17 UE Energy-saving technology
- Supports R17 Coverage enhancement technology
- 5G positioning
- Supports TSN
- Supports security algorithms of the State Cryptography Administration
- Supports 5G SUL

Application scenarios

The V527 platform achieves optimal balance between cost efficiency, minimal complexity, power saving, and robust performance, fully meeting the communication and networking needs in different 5G development phases. By expanding the entry-level MBB, IPC and the more widespread 5G IOT application scenarios, the platform delivers more balanced connectivity to consumers.

Product specifications

Processor	A7@1.5GHz	
Frequency bands	TDD, FDD(20MHz)	
	5G NR SA	N1/N5/N8/N28/N41/N78 /N79
	LTE-FDD	B1/B3/B5/B8
	LTE-TDD	B34/B38/B39/B40/B41
Modulation	NR:DL 256QAM/UL 256QAM	
	LTE:DL 64QAM/UL 16QAM	
Audio	VoNR/VoLTE	
Display	WVGA 800*480@30fps	
Camera	0.3M@SPI	
HPUE	supports PC2	
Interface	USB2.0/SDIO3.0/RGMII/UART/SPI/GPIO/ MIPI	
Operating temperature range	Operating temperature-20°C～ +70°C Extended temperature-40°C～ +85°C	
OS	Yocto/RTOS	
IPv4, IPv6, and IPv4/IPv6 Dual Stack Support OpenAT/OpenCPU		

UNISOC

V517

First-generation Mass-produced 5G RedCap IoT SoC

Utilizing Release 17 technology and UNISOC's well-established, reliable, and widely manufactured 5G platform, this solution achieves a harmonious combination of simplicity and high performance. It fulfills the communication and networking requirements of 5G at various stages of development, broadens the range of application scenarios, and provides clients with a more equitable and satisfactory connectivity experience.

Core Features

- **Maximum velocity: DL - 226Mbps, UL - 120Mbps**
- **Dual-mode adaptation is completely compatible with 5G RedCap and LTE networks**
- **Bandwidth: 20MHz**
- **Simplified design of the 1T2R dual antenna reduces terminal costs**
- **Voice Calling: VoNR \VoLTE**
- **Supports 5G industry functions: 5G LAN, network slicing, high-precision timing, CAG**
- **Enables UE energy-saving technologies such as C-DRX, thus reducing overall terminal energy consumption**

Application Scenarios

RedCap V517 is built on the established 5G platform developed by UNISOC, facilitating rapid and efficient development of R17-based RedCap products for module and end clients. It can be seamlessly integrated with existing 5G industrial routing, industrial gateways, high-definition network video IPC, smart power terminals, and entry-level MBB terminals. It also enables the expansion of 5G vertical application scenarios and speeds up the transition from LTE CAT4 to 5G terminal applications.

Product Specifications

Frequency band	5G NR SA	N1/N3/N5/N8/N28/ N41/N78/N79
	LTE-FDD	B1/B3/B5/B8
	LTE-TDD	B34/B38/B39/B40/B41
Audio	VoNR \VoLTE	
Modulation	DL 256 QAM	
	UL 256 QAM	
HPUE provides support for PC2		
Interface	PCIE2.0/USB3.0/SDIO3.0/OTG/ UART/SPI/IIC/IIS/GPIO	
Operating temperature range	Operating temperature: -20°C～+70°C Extended temperature: -40°C～+85°C	
OS	Yocto	
IPv4, IPv6, and IPv4/IPv6 Dual Stack		

UNISOC

V516

Industry's first 5G R16 Ready chip platform

UNISOC' s V516 chipset platform is the most pioneering baseband chipset for IoT applications on the market, specifically designed to enable the latest 5G R16 Ready technology. It is compatible with 5G LAN, CAG, and 5G network multi-slices. V516 has a reliability rate of 99.99%, can accomplish air interface latency in milliseconds, and 5G network timing with an accuracy of 1 microsecond. V516 aims to specifically focus on vertical industries, reducing the barrier for adopting 5G R16 technology in these fields. This will enable 5G to have a greater impact on various aspects of society, creating a new digital ecosystem and facilitating the growth of multiple industry sectors by utilizing the benefits of 5G R16.

Product Strengths

5G R16 Vertical Industry Characteristics

- Supports all R16 features required by the industry: 5G LAN, URLLC, ms-level air interface delay, and more.

Able to function in the operating environments of the industrial internet, and can be customized to match different industry terminals.

- Various interfaces: Compatible with PCIE/USB.30/SDIO 3.0/UART/SPI/I2S/I2C/GPIO
- Supports extended operating temperature range: -40~85 °C

Advanced Dual A55 OPENCPU Architecture

- Supports OPEN CPU architecture, eliminating the need for third-party MCU/MPU chipsets
- DDR provides over 60 megabytes of resources, fulfilling the memory requirements to create third-party applications.

Single Chipset Supports Full Network Communication

- TDD NR/FDD NR/FDD-LTE/TDD-LTE/TD-SCDMA/WCDMA/GSM
- Supports Sub-6GHz, the world' s mainstream 5G frequency band
- Supports 5G frequency bands for Chinese mobile service providers, including n78/n41/n79/n1/n28/n8, and more.
- n77/n3/n20 and other frequency bands used by overseas carriers
- Supports LTE 3CC + NR 1CC ENDC combination widely used in overseas 5G NSA networks

5G Dual Mode

- Automatically adapts to 5G NSA and SA dual-mode networks with no need for manual user configuration

Inclusive Solution

- Flexible matching of RFFE
- Flexible matching of mainframe computer

Product Specifications

CPU	CPU	Dual core
	Maximum CPU frequency	1.35GHz
	Number of cores	Dual core
	Process technology	12nm
Interface	USB	USB3.0
	PCIE	PCIE Gen2.0
	SDIO	SDIO 3.0
Storage	Storage type	LPDDR4x
	DDR maximum frequency	1866MHz
Commu-nication	Cellular technology	3GPP Rel.16
		TDD NR/FDD NR/FDD-LTE/ TDD-LTE/TD-SCDMA/WCDMA/ GSM/GPRS/EDGE
	5G NR	Sub-6GHz
		DL 2Gbps/UL 1Gbps
		NSA&SA
		HPUE
	LTE-A	Cat12 DL,CAT13 UL,3CC DL,2CC UL,
		600Mbps DL,150Mbps UL

UNISOC

V510

World-leading Mass-produced 5G IoT SoC

The V510 is a globally recognized 5G baseband chipset platform widely sold on the global market. It is compatible with 2G, 3G, 4G, and 5G networks, as well as SA and NSA dual architectures. This allows it to cater effectively to various communication and networking requirements during the 5G development phase. The platform provides support for a range of product types, including smartphones, home CPE, MiFi, and IoT terminals, and is extensively utilized in various applications, delivering a groundbreaking 5G connectivity experience to clients worldwide.

Product Strengths

Single Chipset Supports Full Network Communication

- TDD NR/FDD NR/FDD-LTE/TDD-LTE/WCDMA/GSM
- Sub-6GHz, the world’ s mainstream 5G frequency band
- Dual SIM dual standby DSDS
- VONR/VOLTE
- Auxiliary uplink SUL
- HPUE（PC2）
- Dynamic spectrum Sharing(DSS)
- Network slicing

5G Ultra-Fast, Dual-Mode Adaptation

- Automatically adapts to 5G, NSA, and SA dual-mode networks
- Nearly 400 ENDC combinations make it especially suitable for overseas 5G networks
- LTE 3 carrier aggregation + NR single carrier.
- 5G downlink 4 Layer MIMO, uplink 2 Layer MIMO
- 4G downlink Layer 2 MIMO
- 5G downlink peak rate 2.45Gbps (@100MHz, 4RX, 256QAM)
- 5G uplink peak rate 1.25Gbps (@100MHz, 2TX, 256QAM)
- LTE DL CAT 12 with 600Mbps(256QAM)
- LTE UL CAT13 with 150Mbps(256QAM)
- IPV4, IPV6 and IPV4/IPV6 Dual Stack

Standard Industrial Specifications, Multiple Interfaces

- Operating temperature: -20°C～ +70°C
- Extended temperature: -40°C～ +85°C
- PCIE2.0/USB3.0/SDIO3.0/OTG/UART/SPI/I2S/I2C/GPIO
- Process 12nm
- CPU A55*2 @1.35G
- LPDDR4x 4Gb RAM(SIP)+Up to 4Gb Nand Flash ROM
- OS Yocto
- Package Size 12.9mm²*12.9mm²

Inclusive Solutions for Flexible Matching

- Flexible matching of RFFE
- Flexible matching of Wi-Fi AP, access to mainstream WIFI5/WI-
- FI6
- Flexible matching of mainframe computers
- OPENCPU architecture
  Various application solutions are supported, including CPE/MI-FI/Dongle/industrial modules

Specifications

CPU	CPU	Dual core
	CPU's maximum frequency	1.35GHz
	Number of cores	Dual core
	Process technology	12nm
Interface	USB	USB3.0
	PCIE	PCIE Gen2.0
	eMMC	eMMC 5.1
	SDIO	SDIO 3.0
Storage	Storage type	LPDDR4x
	DDR maximum frequency	1866MHz
Commu-nication	Cellular technology	3GPP Rel.15 TDD NR/FDD NR/FDD-LTE/ TDD-LTE/TD-SCDMA/WCDMA/ GSM/GPRS/EDGE
	5G NR	Sub-6GHz
		DL 2Gbps/UL 1Gbps
		NSA&SA
		SUL HPUE
	LTE-A	Cat12 DL,CAT13 UL,3CC DL,2CC UL,
		600Mbps DL,150Mbps UL

UNISOC

P7885

Balanced 5G industry smart solution in performance, specifications, and cost

P7885, UNISOC's first 5G industry solution intelligent SoC platform, adopts a 6nm EUV technology to facilitate the enhancement of 5G full scene coverage, thereby addressing the intelligent upgrade demand of vertical industries. It has strong AI computing power and is able to support a 100 million pixel HDR+ display, achieve excellent battery life enhancement, and support a number of peripheral interfaces.

Product Strengths

High performance (Antutu V9 benchmarking 46W+1)

- Octa-core architecture
  1*A76@2.7GHz+3*A76@2.3GHz+4*A55@2.1GHz
- ARM NATT-4core @ 850MHz image processor
- 2G/3G/4G/5G, 5G full-field coverage, supports network slicing
- DSP: VQ7@1GHz; NPU 8TOPS AI computing power
- TSMC's utilization of advanced 6nm EUV technology results in reduced power consumption and a 30% increase in battery life compared to the preceding 5G generation.

High Security

- iSE-Built-in financial-grade security solution
- National Cryptography Level II Certification
- Performance, storage capacity, communication bandwidth and security have all been comprehensively improved compared with the SE chipset solution.

High expansion (multiple external expansion interfaces)

- High-speed interface is compatible with PCIE 3.0/USB3.1/DP1.4
- Conventional interface supports 2*DSI MIPI/4*CSI MIPI/SDIO/UART/SPI/I2S/I2C/GPIO
- Available in UFS3.1

Outstanding multimedia capabilities

- 4K@60fps Encode/Decode encoding and decoding
- Maximum 100 megapixel HDR+ vision, 108M 9in1/64M ZSL
- Proprietary Vivimagic 6.0 visual engine to optimize image quality
- Four cameras can record and take photos simultaneously 20M+20M+2M+2M
- MIPI interface can handle a maximum resolution of FHD+ 120fps, DP1.4 interface can handle a maximum resolution of 4K@60fps
- Supports dual screen/triple screen display solution based on 2*MIPI DSI and DP

Customized Software and Hardware

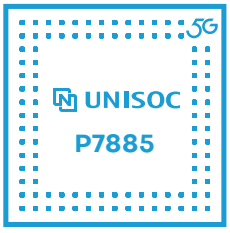
- Compatible with Android version 13 and long-term future Android updates.
- The ideal choice for industry 5G base platforms, offering tailored software and hardware solutions for various industry scenarios.
- Compatible with open source operating systems and ecology

Mature Technology

- Comprehensive support for domestic 5G networks and carriers to access the network
- Covers the network frequency bands of all major overseas 5G mobile service providers, including major ENDC/CA combinationst

Product Specifications

CPU		1*A76@2.7GHz+3*A76@2.3GHz +4*A55@2.1GHz
GPU		ARM NATT-4core @ 850MHz
AI（INT8+FP32）		NPU：8 TOPS；VDSP：VQ7@1GHz
Memory		eMMC 5.1；UFS3.1
		LPDDR4x @ 2133MHz
Modem		3GPP R15，NSA/SA，2CC，SUL；
		LTE DL Cat15 + UL Cat18；
Display		FHD+ 120fps/4K 60fps
Camera		108M 4in1/64M ZSL W+T 20M+20M full size MIPI : 4CD+4CD+4D(2+2) +4D(2+2)
Video	Decode	4K@60fps，10bit，H.264/H.265/VP9
	Encode	4K@60fps，H.264/H.265
WCN	11AC Bluetooth 5.0	UMW2651/2652
Interface	UART	UART×8
	SDIO	SDIO3.0×3
	USB	USB 2.0/USB3.1 GEN2/ USB3.0 OTG
	PCIe-PCIE	PCIE3.0，1 lane × 1
	SPI	SPI×4
	I2C	I2C×10
	I2S	I2S×6
	MIPI CSI	4×MIPI CSI 4 lane
	MIPI DSI	2×MIPI DSI 4 lane（DSI V1.2，D-PHY V1.2）
	Process	6nm



1.Data taken from third-party websites

UNISOC

V8821

UNISOC first 5G IoT-NTN satellite communication SoC

The V8821 is UNISOC' s first satellite communication SoC, utilizing advanced 22nm process. It integrates baseband, transceiver, PMIC, FLASH/SRAM, and supports the R17 IoT-NTN standard. It enables two-way voice calls and data transmission, featuring low power consumption and a compact size. It is suitable for applications such as direct-to-satellite mobile devices, wearable products, satellite IoT devices, and satellite-connected automotive products.

IoT-NTN Universal Satellite Communication Chip

- Supports IoT NTN R17
- Currently supports L-band maritime satellites and S-band Tiantong satellites
- Expandable to support access to other NTN satellite systems
- Flexible adaptation to IoT applications, IoV, cell phones and wearable products
- Supports voice function

Advanced Solution

- Variety of interfaces, supporting LPUART, UART, GPIO, I2C and more
- Supports TCP/IP protocol, suitable for a variety of upper layer services, inheriting the commonly used IoT
- Protocols, and supports access to existing data platforms

Field Tested

- Suitable for various application environments: ocean, edge of city, city center, city parks

Flexible Hardware Configuration

- Can reuse hardware resources from customer's original design, such as PA, etc.
- Can be used with UNISOC RFA solutions

Low power consumption, wide voltage and temperature rage, suitable for different battery types and temperature environments

- Low power consumption, with transmitting power as low as 23dBm.
- Supports 2.1V~4.2V wide voltage range
- Wide temperature range: -20 to 75 degrees

V8821

Communication	3GPP Rel-16/Rel-17 IoT-NTN specification compilant
	3GPP defined NTN band n255 and n256
Interfaces	UART, SPI, I2C
Manufacturing process	22nm

UNISOC

A7870 Series

Flagship smart cockpit solution platform

The A7870 series is an automotive-grade smart cockpit processor chip independently developed by UNISOC that offers advantages such as high performance, low power consumption, and a high level of integration. It complies with the AEC - Q100 automotive-grade process system and guarantees suitability for on-board ambient temperatures between -40 and 85°C. Due to its NATT 4 core @ 850 MHz configuration, the GPU provides excellent support for high-definition rendering requirements in commonly encountered cockpit or cockpit parking scenarios. The A7870 series features a built-in high-performance NPU with up to 8 TOPS AI computing power, providing powerful AI capabilities for cockpit parking, cockpit driving, etc.

5G-based unmatched computing power

- CPU: 1 * A76 @ 2.7 GHz + 3 * A76 @ 2.3 GHz + 4 * A55 @ 2.1 GHz, 93k DMIPS
- GPU: NATT 4 core @ 850 Mhz, 217 GFLOPS
- NPU: IMG AX3596 @8 TOPS
- LTE supported: DL Cat.7 & UL Cat.13; 5G NR
- 6 nm process

Plenty of interfaces

- MIPI DSI 4lane*2, DP1.4, and CSI 4lane*4
- UFS 3.0, PCIE 3.0, and I2S*6
- 6 HD screen outputs + 12 HD camera inputs

Automotive-grade certification ensuring security and reliability

- Support for rigorous AEC-Q100 automotive-grade certification

Complete adaptable cockpit software solutions

- Integrated solutions: Smart cockpit/cockpit parking in one + T-Box all-in-one machine
- One chip for multiple cross-domain systems: QNX, Linux, Android Automotive, and Virtual Machine Multi-Baseline
- Built-in iSE financial-grade security solution
- Top-notch multimedia capability:
  - QHD+/60Hz super screen dominator
  - Recording and playback of ultra-high-definition 4K videos across all channels
  - Multi-register voice interaction

A7870 Series Specification

CPU		1 * A76 @ 2.7 GHz + 3 * A76 @ 2.3 GHz + 4 * A55 @ 2.1 GHz, 93k DMIPS
GPU		NATT 4 core @ 850 Mhz, 217 GFLOPS
NPU		IMG AX3596 @8 TOPS
Multimedia	ISP	48M@30fps (lane4+4+4+4/4+4+2+2+2+2)
	VDSP	2 TOPS
	Display	6 screens, DSI (3360*1440) @ 60 fps, DP(3840*2160) @ 60 fps
	Video Coding	4K*2K @ 30 fps, 10 bit, H.264/H.265
	Video Decoding	4K*2K @ 30 fps, 10 bit, H.264/H.265
Memory	RAM	LPDDR 4 / 4x @ 2133 Mhz up to 32 GB
	ROM	eMMC 5.1, UFS3.0
Communication (Optional)	System	3GPP, NSA, SA, VONR, LTE TDD&FDD, WCDMA, GSM
	Capacity	LTE: DL Cat.7 & UL Cat.13; 5G NR
Interface		PCIe3.0 1lanex1, USB 2.0x1, USB 3.1x1, I2C*10, SPI*4, SDIO*3, UART*9, I2S*6, TDM*1
Technology		TSMC 6nm EUV