CIAO Intelligent Shopper Assistant (ISA)

Redefining Retail: AI-Driven Anti-Fraud, Peak Performance, and Innovative Self-Service Solutions. Designed for the Modern Retailer.

In an era where retail efficiency meets technological brilliance, CIAO emerges as the zenith of the Intelligent Shopper Assistant. Seamlessly merging a vivid 5.0 in. display with groundbreaking WI-FI 6 connectivity, it redefines the in-store browsing experience. Powered by a robust Qualcomm processor, paired with a vast storage, CIAO promises lightning-fast data interactions. But it's not just about performance; its precision scanning and AI-driven fraud detection ensure every product interaction is accurate and trustworthy. With resilience from Gorilla Glass and extended battery life, it's crafted for continuous retail challenges. Also, the seamless synergy with "CIAO AI Connect" Smart Holders and compatibility with universal retailer software amplifies its adaptability. Introducing CIAO - envisioning the future of retail, today.

Secured, Updated & Integrated: CIAO's AER & GMS Advantage

With CIAO's step into a world where Google Mobile Services (GMS) and Android Enterprise Recommended (AER) certifications converge, ensuring top-tier security and adaptability. Retail environments thrive on CIAO's consistency, benefiting from a vast array of GMS apps and a uniform Android experience. Backed by AER, CIAO guarantees extended software and regular security patch support. This seamless union ensures data protection and offers retailers the platform to tap into Android and Google's capabilities, simplifying integrations, and elevating customer engagement.

Elevating Retail Interactions with CIAO's Premium Display

Dive into a visual journey with CIAO's 5.0 in. IPS, 720 x 1280 display. Protected by Corning Gorilla Glass III, it promises resilience and scratch resistance. The Luxibright technology ventures vivid colors, optimal viewing angles, and energy efficiency. Even in sunlight, true blacks shine. The touch panel, responsive in wet conditions or with gloves, enhances in-store browsing, making purchases a tactile delight. A game-changer for retail, this display merges luxury and functionality seamlessly.

Empowered Retail: CIAO's Uninterrupted Power Performance

CIAO transcends the limitations of standard PSS devices. The high-capacity 6800 mAh battery ensures uninterrupted shopping experiences, lasting twice as long. QC 3.0 quick charge technology gets it back to 100% within just 3 hours 20 min. What sets CIAO apart is the fully replaceable battery feature. With a user-friendly design, technicians can effortlessly replace the battery without the hassles of shipping to service centers or extended downtime. No more hefty maintenance costs or stockpiling spare devices; CIAO is built for continuity and convenience in retail operations.

Empowering Retail with CIAO's Superlative Performance

Experience unparalleled speed with CIAO's Qualcomm QCM4490 processor, elevating mobile computing to unprecedented heights. This super-premium component ensures instant data processing, rendering shopping expeditions delightful and memorable. Paired with a massive 6GB LPDDR4 RAM and 128GB UFS storage, it confidently supports any retail store's data needs, guaranteeing a fluid, efficient, and industry-leading shopping experience. Such robust specifications don't just fulfill tasks; they redefine standards, making every purchase interaction feel premium right from the first use.

Effortless Integration with CIAO: Maximizing Existing Infrastructure

CIAO introduces a harmonious transition for retailers. Its ElectroQuick Couplers interface is meticulously designed to be both durable and versatile. These high-quality charging contacts can endure frequent cleanings, even with alcohol-based solutions, ensuring longevity. But the standout feature? Full compatibility with existing on the market Charging Walls and Charging Cradles of Self

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Shopper Devices. Retailers can leverage their existing Charging Walls to install CIAO devices, eliminating the need for costly replacements. Transitioning to CIAO doesn't mean starting from scratch; it means optimizing what you already have, and saving on infrastructure and deployment expenses, all while embracing a superior, intelligent solution.

Enhance Brand Presence: Personalize CIAO to Reflect Your Identity

With CIAO, aesthetics meets functionality. Dive into a palette of customizable color choices designed to tailor CIAO to your store's unique brand. Offering exclusive color customization for both the handle and scanning button, CIAO seamlessly integrates into your retail environment. This isn't just about a device; it's a statement piece that amplifies your brand's presence, enriching the shopping journey for your customers. Let CIAO become a harmonious extension of your brand's identity, ensuring every detail speaks volumes of your commitment to excellence.

Precision Scanning: Superior Barcode Recognition

Harnessing the proawess of leading scanning technologies like Honeywell HS 7 and Zebra SE4710 with groundbreaking PRZM optics, CIAO introduces an unparalleled scanning experience. Enhanced with intelligent barcode and image capture techniques, it guarantees instantaneous data recognition and processing. Whether it's printed or electronic, 1D or 2D barcodes, CIAO ensures a flawless scan every time. Notably, its proximity sensor offers a unique "presentation mode", auto-activating the scanner upon detecting motion within about 30 cm or 1 foot. With CIAO, every scan becomes an effortless gesture, streamlining customers' shopping adventures.

Breakthrough WI-FI 6: Transforming In-Store Experiences

Dive into a world where connectivity knows no bounds. With the cutting-edge WI-FI 6 technology at its core, the device offers robust, high-speed data reception and transmission, crucial for sprawling hypermarkets. Customers enjoy an unrivaled shopping experience, with seamless roaming that facilitates fluid movement between Wi-Fi access points, eliminating signal disruptions. Bid farewell to software lags and data loss. This new-generation wireless prowess, coupled with the device's stellar performance, ensures a hassle-free, superior service level, heightening customer satisfaction during their shopping journey.

Versatile RFID Integration: Enhanced Security & Possibilities

Unlock the multifaceted potential of CIAO's built-in RFID tag.

Whether it's safeguarding against potential theft with alarms and visual alerts, aiding in swift device retrieval in the store if it is lost, or integrating seamlessly with other RFID systems, CIAO amplifies store security and expands data collection capabilities. It's not just about device protection; it's about leveraging RFID to optimize operations, ensure safety, and enhance the overall retail experience. The flexibility of the CIAO RFID integration allows retailers to harness its power in myriad ways.

AI FRAUD DETECTION SOLUTION FOR RETAIL
Advanced Fraud Detection: AI-Powered Security & Assurance. Precision in Every Scan

Discover next-gen shopping assurance with CIAO's AI-enabled solution. At its core:

- **CIAO AI Connect:** Integrating AI Camera, meticulously covers the entire volume of the shopping trolley. Every product placed or removed undergoes an intelligent visual inspection against the CIAO scan data, enhancing accuracy.

- **Dynamic Visual Recognition:** As a shopper scans and places an item into the cart, our advanced AI algorithms cross-verify. This not only identifies the scanned product but also checks for discrepancies, ensuring the right product is in the cart.

- **Intelligent Alerts:** Should there be any mismatch, oversight, or potential fraud detected, the AI system springs into action. Shoppers receive immediate notifications, urging them to correct their actions, while the transaction gets temporarily halted to safeguard the store's interests. It's not just about stopping potential frauds but also assisting genuine customers in avoiding honest mistakes.

- **Seamless Self-check-out (SCO) Support:** Beyond just monitoring, the AI solution effortlessly integrates with Self-Checkout systems, complementing the process and enhancing the overall shopping experience.

With CIAO, every transaction is monitored under the vigilant eyes of cutting-edge AI technology, ensuring an honest, efficient, and streamlined shopping journey for all.

Intuitive Synergy: CIAO's Seamless Interaction with "CIAO AI Connect"

Step into a realm where technology harmoniously collaborates with user intent. CIAO, fortified with a robust 6800 mAh battery, is meticulously designed for prolonged operational hours. When nestled on the "CIAO AI Connect", it automatically and seamlessly recharges the CIAO AI Connect's battery. However, its brilliance truly shines when CIAO is in the user's grasp, enabling the CIAO AI Connect's AI Camera to vigilantly monitor the trolley's contents.

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Committed to uninterrupted shopping experiences and around-the-clock camera operation, CIAO stands as a beacon of efficiency, spearheading the next wave of retail innovation.

Stellar ROI: CIAO's Profound Cost-Efficiency

Venture into a realm where innovation meets profitability. The CIAO Intelligent Shopper Assistant is not just a tool but a strategic investment, ushering in substantial cost savings with a whopping 30% reduction. But the fiscal advantages don't halt there. Enabled with a vigilant Fraud Detection feature, CIAO further slashes fraud-related expenses, curbing instances by an astounding 80%. In a retail landscape that demands both operational efficiency and cost-effectiveness, CIAO stands unparalleled, promising remarkable returns on investment and fortifying your bottom line.

Revolutionary Payment Flexibility: CIAO's Integrated Contactless Feature

Step into the future of retail with CIAO's pioneering contactless payment functionality. This feature propels the CIAO Intelligent Shopper Assistant into a realm beyond mere assistance — it's an all-encompassing shopping companion. Customers can swiftly process bank card transactions and simultaneously tap into integrated loyalty programs, streamlining their shopping experience. This not only supercharges convenience but also fosters deeper customer engagement. As the retail landscape shifts towards mobile-centric solutions, CIAO's upcoming payment feature (set to launch in 2024) is poised to redefine self-service, optimize payment infrastructures, and captivate customers with its unmatched ease and efficiency.

MEFERI's Pinnacle: The CIAO AI Software Unleashed

Step into the forefront of retail technology with MEFERI's CIAO AI Software, the cerebral core of the CIAO ecosystem. Beyond mere hardware, this software orchestrates a symphony between the CIAO Intelligent Shopper Assistant and the AI cameras within the CIAO AI Connect. Tailored to operate either on local or cloud-based servers, it adapts to your specific security and infrastructural needs. With an intuitive interface and a robust API, it facilitates a seamless product recognition process. Simply upload multi-angle images of your store products, and the software's self-learning mechanism meticulously identifies each item. While it's vigilant against fraud, its prime focus is enhancing the shopper experience. By refining self-service processes and eliminating errors, CIAO AI Software ensures that retailers provide a seamless, cutting-edge shopping journey to their customers.

Seamless Synergy: Retailer's Universal Software Compatibility

Transitioning to new technology should never be a hindrance, and with CIAO, it isn't. The Intelligent Shopper Assistant is built with versatility at its core. Effortlessly integrating with a myriad of self-scanning and mobile shopper software platforms, such as Vynamic Mobile Shopper, Revision/Extend, Budget Box, and 4MAX Self-service solutions, CIAO ensures that retailers don't have to overhaul their existing systems. Dive into a realm of real-time shopping insights and unmatched flexibility. With CIAO, experience a harmonious blend of the familiar and the innovative, elevating your retail operations without the growing pains of software transition.

Mastering Mobility: Shadowalk MDM Meets CIAO

Embrace a world where device management is effortless. CIAO's flawless synergy with Shadowalk MDM exemplifies this vision, offering an advanced interface tailored for Android devices with GMS. With MEFERI's MDM, gain panoramic control — from swift OTA OS updates to direct Google Play app installations. It's not just about oversight, but empowerment. Dive into precise client device monitoring, proactive remote support, strategic policy enforcement, and invaluable usage analytics. Influence hardware decisions, assess team output via device metrics, and champion optimal resource use. Whether you're inclined towards a local deployment or prefer a cloud environment, together, CIAO and Shadowalk prioritize your security and organizational prowess.

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Physical Characteristics

Dimensions	248.4 x 80.1 x 87.4 mm 9.78 in. x 3.15 in. x 3.44 in.
Weight	~ 372.5 g. / ~ 13.14 oz.
Display	5.0 in. IPS, 720 x 1280
Display Protection	Corning Gorilla Glass III, 1.1mm thickness. The tough and durable glass that provides exceptional scratch resistance and protection against impacts
Scanner Glass Protection	**Strong Protection of Scanning Module's** The special protective frame (monolith part of the housing) around the glass of the scanning module. It provides maximum protection of the glass of the scanning module from hard impacts, falls, and careless use. The protection frame can withstand strong impacts from hard objects.
Touch Panel	Multi-mode capacitive touch, wet hand operation and glove operation,the screen sinks to prevent the screen from falling and breaking.
Display brightness, NIT	450 NIT
Backlight	**Luxibright technology** provide consumes very less power, best color reproduction, and viewing angles, no limitations for aspect ratios, better contrast levels, best sunlight visibility, true black colors.
Power	High capacity extended battery 6800 mAh. Battery charging time is up to 3 hours 20 minutes from 1% to 100% (full charge).
Battery replacing	Replaceable and rechargeable. Support for safe self-replacement of the battery without contacting the service center.
Extend Memory	Optional
SIM	WI-FI only device
Network Connections	WLAN (WI-FI), WWAN (N/A); WPAN (Bluetooth), Pogo Pin (ElectroQuick Couplers), USB 2.0, High Speed (Host and Client)
Notifications	Three-color (red/green/blue) LED: status/scan indication; Vibrate alert; Ring tone
Keypad	Full screen, On-screen keypad (Menu/Back/Home button)
Buttons	3 on-screen buttons (Menu/Back/Home button); Scan button
Voice and Audio	Silicon Mic; 2W Speaker;
Interface Ports	USB 2.0 with OTG + Bottom pogo 4 pin support charging
ElectroQuick Couplers Feature	ElectroQuick Couplers interface is durable and can withstand wiping with cleaning and alcohol-containing solutions. Additionally, the ElectroQuick Couplers are compatible with existing on the market Charging Walls and Cradles of Self Shopper Devices. ElectroQuick Couplers very easily service.

Performance Characteristics

Processor	Qualcomm QCM4490, Octa-core 2.4 GHz (CPU model: QCM4490)
Operating System	Android 13 Upgradeable to Android 18
Memory	6GB LPDDR4 + 128GB UFS
Security Feature	Supports Verified Boot

User Environment

Operating Temp	-20°C to 60°C -4°F to 140°F
Storage Temp	-30°C to 70°C -22°F to 158°F
Humidity	5% to 95% non-condensing
Sealing	IP54 class protection from water, dust, dirt
Drop Test Report	5 ft./1.5 m. multiple drops to concrete over operating temp
Tumble Test Report	300hits, 1.6ft./0.5m tumbles
Vibration	Yes
Thermal Shock	-35°C to 75°C, 32H -31°F to 167°F, 32H
Electrostatic Discharge (ESD)	±15 kV air discharge; ±8 kV direct discharge

Sensors

Light Sensor	It is not used in the basic configuration, but can be optionally installed depending on the requirements of the project.
Proximity Sensor	Once in "presentation mode", the scanner automatically activates whenever it detects motion within a range of approximately 30 cm (about 1 foot). This function elevates the customer experience, making every trip a seamless journey.
Magnetometer	eCompass to detect direction and orientation
Gyro	Senses linear orientation
Barometer	Yes

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Data Capture

Scanning	Zebra SE4710, Honeywell HS7, Intelligent barcodes and image capture technology, lightning — fast data recognition and processing, optimized visualization provide ultra-fast scanning of printed and electronic 1D and 2D barcodes. PRZM technology in zebra scanners optic, best scanning.
Camera	13MP rear camera supports PDAF and 1080p video shooting. support Torch mode and Flash mode. 5MP front camera - to read the markings on the ceiling of the store to determine the location inside the store and provide the necessary data to the customer.
NFC	ISO 14443 Type A and B; FeliCa and ISO 15693 cards; Card Emulation via Host; Reader mode, Card Emulation and P2P mode.

Wireless WAN (WWAN), Cellular - Data and Voice Communications

Cellular Standards	N/A
Radio Frequency Band	N/A

Wireless LAN(WLAN), WI-FI 6 Features

WI-FI 6 with Extra Benefit	Seamless Roaming Redefined - unsurpassed advantage of uninterrupted communication with new WI-FI 6 standards. CIAO Intelligent Shopper Assistant supports WI-FI 6 with seamless roaming, enabling automatic switching of Wi-Fi signals between access points without communication interruptions or data loss. More faster, more stable, more optimized.
Radio Frequency Band	Support WI-FI 6/6E, MIMO 2*2 IEEE 802.11a/b/g/n/ac Wave1&2 (160MHz option) /d/e/h/i/k/r/v/w/ax; Supports 802.11r fast roaming, OKC, PMKID caching, IPv4, IPv6
Data Rates	**2.4GHz:** 802.11b/g/n/ax — up to 286.8Mbps **5GHz:** 802.11a/n/ac/ax — up to 2402 Mbps **6GHz:** 802.11ax — up to 2402 Mbps
Operating Channels	**Channel 1-13 (2401-2483 MHz):** 1,2,3,4,5,6,7,8,9,10,11,12,13; **Channel 36-165 (5150-5850 MHz):** 36,40,44,48,52,56,60,64, 100,104,108,112,116,120,124,128,132,136,140,144,149,153,157,161, 165; **Channel 1-233 (5925-7125 MHz);** **Channel Bandwidth:** 20/40/80/160 MHz; Actual operating channels/frequencies and bandwidths depend on regulatory rules and certification agency.
Security and Encryption	WEP (40 or 104 bit); WPA/ WPA2 Personal (TKIP and AES); WPA3 Personal (SAE); WPA/WPA2 Enterprise (TKIP and AES)); WPA3 Enterprise (AES) — EAP-TTLS(PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPvOMSCHAPv2, PEAPv1-EAP-GTC, LEAP, EAP-PWD; WPA3 Enterprise 192-bit Mode (GCMP-256) — EAPTLS; Enhanced Open (OWE)

Wireless PAN (WPAN)

Bluetooth	BT5.2+BR/EDR+BLE, Bluetooth profiles includes HFP, PBAP, A2DP, AVRCP, OPP, SPP, GATT

CIAO Intelligent Solution Hardware Components

CIAO Intelligent Shopper Assistant; Charging Wall & Cradles (Powerhouse); CIAO AI Connect with build-in AI Camera for Shopping Trolley (Securely Docked and Fraud Detection); AI Bluetooth Scale Modules for Shopping Trolleys (Optional for Additional Goods Weight Metrics Control and Fraud Detection); MT44 Advanced Mounted Computer for CIAO unlocking/locking on the Charging Wall, Customers Service, Visual Data Presentation. Discover the full capabilities of CIAO.

Dive in at: **www.meferi.com/solutions/ciao**

CIAO Solution Software Components

AI Software Android-based Self Shopping Application for CIAO Intelligent Shopper Assistant (a Full Range of Customer Shopping Service in the Store and Fraud Protection); CIAO AI Vision Frontend Software (Unsurpassed in-store goods recognition capabilities and intelligent data handling); CIAO AI Vision Backend Software with a visual interface and API with extra data exchange options for uploading images of goods and their metrics, a training unique intelligent algorithm for unsurpassed accuracy in the process of identifying goods; ME-Commander Dashboard Software for MT44 Advanced Mounted Computer for CIAO unlocking/locking on the Charging Wall, Loyalty Cards Processing, Advertising Output, Analytic and Devices Monitoring. See what sets CIAO apart.

Dive into details at: **www.meferi.com/solutions/ciao**

CIAO Payment Function Feature

CIAO contactless payment Feature	Unlock the power of contactless payment directly on the CIAO Intelligent Mobile Computer. Process bank card transactions and enhance customer engagement with an integrated loyalty program, all hosted within the CIAO device. The NFC module is placed closer to the device screen, so for payment, it is necessary to bring the plastic card to the device screen, which makes the payment process even more convenient since it is not necessary to remove CIAO from CIAO AI Connect **Note:** Payment functionality set to debut in 2024.

General Certifications

GMS & AER	Android Enterprise Recommended (Certified) with Google Mobile Services (GMS) - Enterprise API and actual updates available. Access to Android security updates for 90 days from the date of their release by Google for at least five years.

GDPR Compliance: MEFERI's Commitment to Privacy

MEFERI GDPR Commitment: Aligning innovation with data protection, CIAO Intelligent Solution ensures transparent, lawful processes. Storage is purposeful and limited, with high-grade security "by design". We prioritize data integrity, collecting only essential data, and regularly update for accuracy. MEFERI doesn't just claim GDPR compliance; we prove it. CIAO awaits your exploration.

Journey with us at: **www.meferi.com/solutions/ciao**

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Environmental Compliance

The RoHS Directive 2011/65/EU, along with its amendment 2015/863, ensures that electrical and electronic products are free from hazardous substances. Compliance with the EN IEC 63000:2018 standard guarantees that products are safe for use and minimizes the environmental impact.

Additional Regulatory

US:

Electrical Safety	UL 60950-1
Radio Frequency Devices	47 CFR Part 15, Subpart B, Class B
Digital Apparatus	ICES-003 Issue 6, Class B

Europe:

Electrical Safety	EN 60950-1 2ed+A11+A1+A12+A2:2013, IEC 60950-1 2ed + A1 + A2
Environmental	EN 55032 (Class B)
IT Immunity	EN 55024
Harmonic Current Emissions	EN 61000-3-2
Voltage Fluctuation and Flicker	EN 61000-3-3

Warranty

MEFERI's hardware warranty statement governs the warranty coverage of the CIAO, protecting it against any defects in workmanship and materials for a duration from the date of shipment: CIAO twelve (12) months; For detailed information regarding the warranty terms and conditions, please refer to the complete warranty statement available at: **www.meferi.com/warranty**

Recommended Services

MEFERI EasyPRO Service+

MEFERI Software Suite

MeOmniSoft — A comprehensive set of industry-specific utilities and applications, designed to unlock maximum productivity and efficiency on all MEFERI devices. Customizable, scalable, powerful.

MeOmniApps — Unleashing the power of industry-specific mobile apps, revolutionizing operations across sectors. Experience the transformative and customizable OmniIndustry AppSuite, of tailored applications for various industries, designed to streamline your operations.

Shadowalk — Reliable assistant for corporate mobile devices. Mobile Device Management (MDM) Solution offering remote device management, streamlined administration, advanced diagnostic tools, and insightful telemetry data analytics. Designed for businesses seeking efficient, centralized control. Ideal for large Enterprises.

Dive deeper into its potential on our website.
www.meferi.com/products/meferi-software-suite

Retail Software Compatibility Features	CIAO seamlessly integrates with any self-scanning and mobile shopper software, including Vynamic Mobile Shopper, Revision / Extend, Budget Box, and 4MAX Self-service solutions. Experience real-time shopping insights with unmatched versatility.

Partners Software Compatibility

SOTI

Additional Features

"CIAO AI" Server Deployment Feature	"CIAO AI" offers flexible deployment: local or cloud-based. MEFERI prioritizes your data preferences, ensuring optimal product recognition, cost savings, and theft prevention. Whether on EU infrastructure or cloud, we guarantee GDPR compliance and utmost security. Your data, under your control. CIAO awaits your exploration.

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📱 +86 400-1818-815   ✉ meferi@meferi.com   🌐 www.meferi.com

Addresss: 103, No. 74, Langkou Industrial Park, Langkou Community, Dalang Street, Longhua District, Shenzhen, China, post code: 518000.