Anyline SDK Datasheet

Anyline SDK runs on all major **mobile** platforms, supports the most popular **cross-platform technologies** for mobile development and can also be integrated in **web** applications.

Full documentation can be found at https://documentation.anyline.com/

Supported Platforms

	iOS	Android	UWP	JavaScript
Minimum OS Version*	iOS 12	Android 5 (API Level 21)	Windows 10	iOS 10, Android 7, Windows 10
Camera Resolution	1080p video camera	**Minimum**: 720p video camera **Recommended:** 1080p video camera	**Minimum:** 720p video camera **Recommended:** 1080p video camera	**Minimum:** 720p video camera **Recommended:** 1080p video camera
Architecture	armv7/arm64/x86_64	armeabi-v7a, arm64/x86_64	x86	
Recommended Tooling	latest Xcode	latest Android Studio	Visual Studio 2017	
Supported Wrappers	Cordova, Xamarin, React Native	Cordova, Xamarin, React Native		
Recommended Browsers				**Android:** Latest version of Chrome **iOS:** Latest version of Safari **Desktop:** Latest version of Chrome, Safari, Firefox

*subject to change on a yearly basis. We will always strive to support at least the last 3 releases.

SDK Size

Platform	iOS	Android	UWP	JavaScript
SDK Size*	~30 MB*	~70 MB*	~15 MB*	~6 MB*

*actual numbers may vary depending on the platform, operating system and or recognition task

Supported Capabilities

	iOS	Android	UWP	Cordova / React Native/ Xamarin	JavaScript
ID Scanning					
MRZs	✓	✓	✓	✓	✓
Passports	✓	✓	✓	✓	✓
Passports with NFC	✓	✓	-	Xamarin only	-
ID Cards	✓	✓	✓	✓	✓
Drivers Licenses	✓	✓	✓	✓	✓
EHICs	✓	✓	✓	✓	✓
Barcode Scanning					
1D Barcodes	✓	✓	✓	✓	✓
2D Barcodes	✓	✓	✓	✓	✓
Postal Codes	✓	✓	✓	✓	✓
Stacked Linear Codes	✓	✓	-	✓	✓
Tire Scanning					
Tire ID Number (TIN/DOT)	✓	✓	✓	✓	-
Tire Size Specifications	✓	✓	✓	✓	✓
Commercial Tire ID	✓	✓	✓	✓	-
Meter Reading					
Digital Meters	✓	✓	✓	✓	✓
Analog Meters	✓	✓	✓	✓	✓
Digital Dot Matrix Meters	✓	✓	✓	✓	✓
Dial Meters	✓	✓	✓	✓	✓
License Plate Scanning					
License Plates Europe	✓	✓	✓	✓	✓
License Plates US	✓	✓	✓	✓	✓
License Plates Africa	✓	✓	✓	✓	-
Vehicle Identification					
Vehicle ID Number (VIN)	✓	✓	✓	✓	✓
Container Identification					
Container Number	✓	✓	✓	✓	✓
Serial Number Scanning					
Universal Serial Number	✓	✓	✓	✓	✓

Features

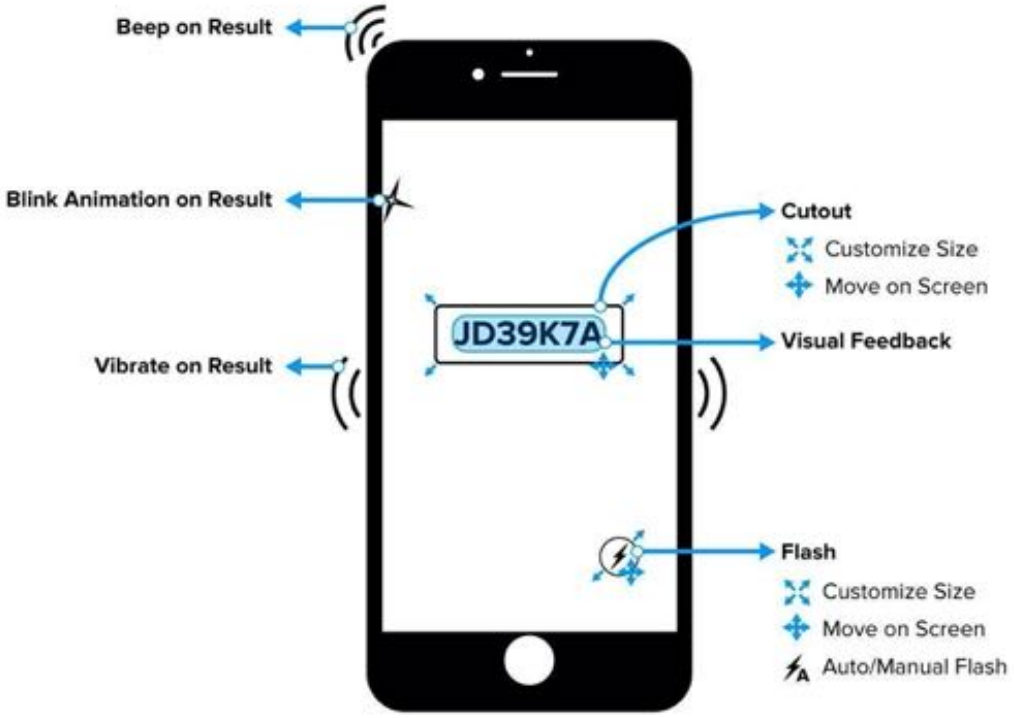
Light Conditions	• Scans in low light conditions (between 100 and 2000 lux recommended) • Camera flash (automatic (ex. UWP); manual on; manual off)
Video Processing	• Real-time video stream processing
Data Processing	• On the device, no server side processing required (internet connection required only for online licenses) • Scanning feedback • Multiframe video stream processing for increased accuracy
Output	• Result object containing all data (digitized text, confidence level) • Result image
Integration	• Ready to use implementation provided • Custom SDK for different use-cases • Available on GitHub • Android Maven / Gradle support • iOS CocoaPods support • NPM and NuGet support • Plug-in software architecture
User Interface	• Ready to use UI with cutout to guide the user in placing the item for optimum results • Fully customizable user-interface • Flash button available • Visual feedback to show character detection while scanning • Audio/vibrate feedback on result (iOS and Android only)

Configurable Parameters

Scan Feedback	• Customize style, animation, size, alignment, color and corner radius of on-screen feedback • Add off-screen feedback such as a vibration (ex. UWP), a beep or a blink
Cutout Configuration	• Customize style, size, alignment, color and corner radius of the overlay-cutout
Flash Parameters	• Customize mode, alignment and image settings for on/off/auto flash button functionality
Camera Parameters	• Adjust size of the input frames from the camera • Change resolution of the full picture taken from the camera

Scanning Feedback

The **rectangular cutout** within the scan view is a guide to help the user enjoy an efficient scanning experience. It allows the user to quickly position the item so that the scanning process can start. The Anyline SDK only receives the part of the image inside the cutout. So anything outside the cutout cannot be scanned.



Visual scan feedback is presented to the user in the cutout to show the detected characters which helps to improve the scanning experience and ensures correct positioning of the camera. Upon obtaining a result, the user can receive **further scan feedback** such as vibration, blink animation and audio feedback to further guide him to conclude the scanning experience.

Through the **Anyline View Configuration** you can define the scan settings (like the resolution), the UI elements of the scan view and the feedback that is presented to the user.

Reliable meter reader that scans analog, digital and dial meter displays in the toughest conditions

Anyline provides multiple features to ensure that scan results are highly accurate and trusted by employees and customers alike. All meter values are captured, processed and stored completely offline, enabling your workforce to stay mobile and scan in the toughest conditions. The parallel scanning feature allows users to read meter values alongside barcodes and serial numbers all on one screen. Sophisticated machine learning models with real-world conditioning give Anyline the advantage when it comes to scanning dirty or partially obscured meter displays. Anyline meter reading solution is available for integration into native mobile apps and web apps to suit the needs of all types of users.

Highlighted Features

Meter Type Detection	Instantly detect meter type, background color and number of digits
Real-World Conditioning	Scan dirty or partially obscured meter displays in low light
Parallel Scanning	Scan meter displays together with barcodes and serial numbers
Data Validation	Scan changing meters values according to OBIS IEC 62056-61 standard
Offline Processing	Read meters without any network or internet connectivity
Composite Scanning	Combine multiple scanning solutions from Anyline on one device

Applications

- Utility Meter Reading

Supported Capabilities

Analog Meters	4-10 pre-decimal digits, up to 3 decimal digits (Gas, Electric, Water), black red, metallic and white backgrounds
Digital Meters	7-segment display with at least 3 digits (Gas, Electric, Water), 4-6 pre-decimal digits, up to 3 decimal digits (Heat), changing/multi-values (often called “OBIS meter”), dot matrix display
Dial Meters	3-5 main dials and up to 1 (red) decimal dial (labeled with numbers), Black or red dials on white background
Selected Meter Types	A49U, C114U, C14U11, G1X4, W6060, MM2600F3, CM160J, CL204, ML262XF6, ML242XF6, C114U, G1Y6U, 7AA3061, 7CA5461, 7AA5041, 7CA5061-7
Selected Meter Brands	AEG, Danubia DZG, Landis + Gyr, Reimer & Seidl, Schlumberger AEG, Schlumberger Danubia, Siemens, Uher

Supported Platforms

Native Mobile	Android, iOS, UWP
Cross-platform Mobile	Cordova, React Native, Xamarin
Web	JavaScript

Device Requirements

Camera Resolution	Minimum: 720p video camera Recommended: 1080p video camera
Recommended Minimum CPU	2 GHz
Minimum Device OS*	Android API Level 21, iOS 12, Windows 10
Size of SDK Integrated in App	iOS: ~ 30 MB Android: ~ 70 MB UWP: ~ 15 MB JavaScript: ~ 6 MB

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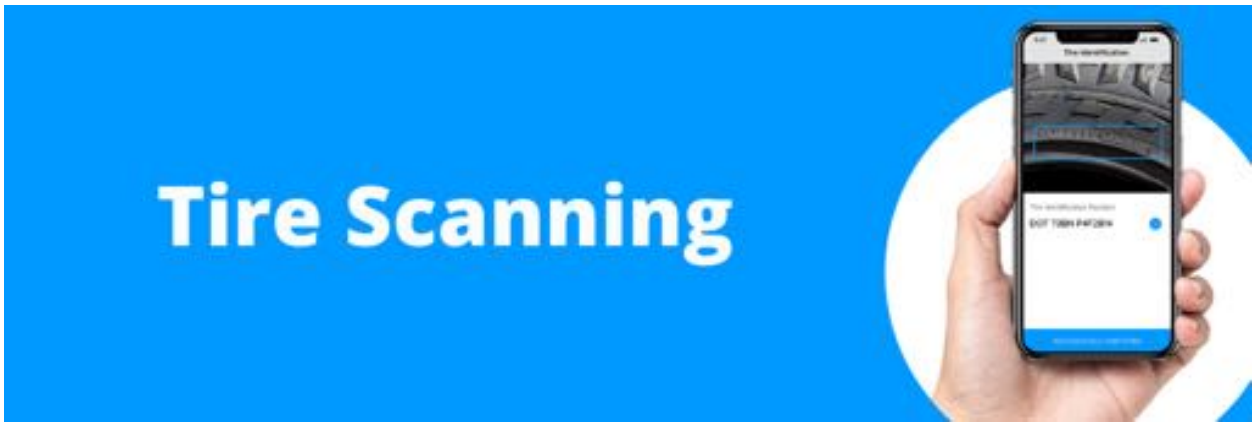

Industry-leading tire scanner that makes your workforce 5x faster and provides new data insights

Anyline tire scanning reads tire identification numbers (also known as DOT-codes), tire size specifications and commercial tire IDs from tire sidewalls. Features such as automatic orientation and continuous scanning make the solution easy to use and speed up the data capture process. All tire sidewall data is captured, processed and stored completely offline, enabling your workforce to stay mobile and scan anywhere. Sophisticated machine learning models with real-world conditioning give Anyline the advantage when it comes to scanning low-contrast tire sidewall numbers. Anyline tire scanning solution is available for integration into native mobile apps to suit the needs of all types of users.

Highlighted Features

Real-World Conditioning	Scan low-contrast tire sidewall numbers
Continuous Scanning	Capture tire data from a vehicle up to 5 times faster than manually
Automatic Orientation	Scan tire sidewall numbers when they are upside down
Offline Processing	Scan tire sidewall numbers without any network or internet connectivity
Composite Scanning	Combine multiple scanning solutions from Anyline on one device

Applications

- Retail Tire Services
- Commercial Tire Services

Supported Capabilities

TIN/DOT	Tire Identification Numbers with and without DOT prefix, only tires produced after the year 2000 Allowed characters: A-Z, 0-9 Minimum length: 4 characters Can be configured to require strict match to NHTSA DOT standard
Tire Size Specifications*	Tire dimensions: Width, aspect ratio, construction, RIM diameter, load index and speed rating. Vehicle type recognition is subject to validation. Allowed characters: A-Z, 0-9, /+ Length: Up to 20 characters (single line only)
Commercial Tire ID	Recognizes manufacturer's ID code from Michelin, Continental, Goodyear, Pirelli/Prometeon, Bridgestone, CEAT, Salva (and more) tires on trucks, buses or trailers. Allowed characters: A-Z (excluding letter O), 0-9 Length: 7 - 14 characters (single line only)

* Supported in JavaScript

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Enterprise-grade barcode scanning you can rely on in the toughest conditions

Anyline barcode scanner gives you the same great performance as dedicated scanning devices but on a low-cost mobile device. With over 40 different types of 1D, 2D and stacked linear barcode symbologies supported, Anyline is the perfect choice for a wide range of use cases in retail and logistics. Advanced features such as multi-barcode capture and composite scanning enable users to scan barcodes in bulk or together with serial numbers and IDs. Sophisticated machine learning models with real-world conditioning give Anyline the advantage when it comes to reading damaged or partially obscured barcodes in the toughest light and weather conditions.

Highlighted Features

Multi-Barcode Capture	Scan up to 30 barcodes simultaneously
Real-World Conditioning	Scan torn, distorted and partially obscured barcodes
Continuous Scanning	Read up to 500 barcodes per minute
Offline Processing	Scan barcodes without any network or internet connectivity
Composite Scanning	Combine multiple scanning solutions from Anyline on one device

Applications

- Last Mile Delivery
- Scan & Go Shopping
- Workforce Meter Reading
- Ticket inspection

Supported Symbologies

1D Barcodes	UPC A, UPC E, EAN 8, EAN 13, EAN 14**, EAN 18**, EAN 99**, EAN 128**, Identcode**, Leitcode**, ISBN 10**, ISBN 13**, ISSN**, ISMN**, ITF-14**, ISBT-128**, Codabar**, Code 11**, Code 32**, Code 39, Code 93**, Code-128, GS1-128**, MSI/Plessey**, Trioptic**, RSS 14, RSS Expanded**
2D Barcodes	Data Matrix, Aztec, Aztec vCard**, QR Code, GS1 QR-Code**, Micro QR Code**
Postal Codes**	US Postnet, US Planet, UK Postal, USPS 4CB
Stacked Linear Codes*	PDF 417, Micro PDF417**

*not supported on UWP
**not supported in JavaScript

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Offline license plate scanner that lets you capture registration data in real time with your mobile device

Anyline license plate scanning solution captures data from European, US and African vehicles using standard mobile devices. All scanned data is processed and stored completely offline, ensuring that personal information remains secure. Automatic license plate type recognition for all US states and EU countries makes the solution fast and easy to use. Sophisticated machine learning models with real-world conditioning give Anyline the advantage when it comes to scanning dirty or partially obscured license plates. Anyline license plate scanning solution is available for integration into native mobile apps and web apps to suit the needs of all types of users.

Highlighted Features

License Type Detection	Automatically recognize license plate's country or state of origin
Real-World Conditioning	Scan license plates in low light and from distance
Offline Processing	Scan license plates without any network or internet connectivity
Composite Scanning	Combine multiple scanning solutions from Anyline on one device

Applications

- Retail Tire Services
- Commercial Tire Services
- Mobile Policing

Supported Capabilities

License Plates Europe	All EU Countries + Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia-Herzegovina, Faroe Islands, Georgia, Gibraltar, Iceland, Kosovo, Liechtenstein, Macedonia, Moldova, Monaco, Montenegro, North Macedonia, Norway, Russia, Serbia, Switzerland, Turkey, Ukraine and United Kingdom
License Plates US	All US states + American Samoa, District of Columbia, Guam and Puerto Rico
License Plates Africa*	License plates with latin characters

*not supported for Web

Supported Platforms

Native Mobile	Android, iOS, UWP
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Offline ID scanning that keeps personal data secure and works wherever you need it

Anyline ID scanning captures data from a range of ID types including passports, identity cards, visas, drivers licenses, US green cards and European health insurance cards. The scanner reads latin, arabic and cyrillic scripts and recognizes IDs from territories around the world. Information can be captured visually from IDs as well as via an MRZ (machine readable zone) or via an RFID tag. All scanned data is processed and stored completely offline, ensuring that personal information remains secure. Sophisticated machine learning models with real-world conditioning give Anyline the advantage when it comes to scanning damaged or partially obscured IDs.

Highlighted Features

Configurable Scanning	Set scanner to record use case-relevant fields of interest only
ID Type Detection	Automatically recognize ID's country or state of origin
Real-World Conditioning	Scan damaged or partially obscured IDs
Offline Processing	Keep scanned personal data secure and private
Composite Scanning	Combine multiple scanning solutions from Anyline on one device

Applications

- Scan & Go Shopping
- Mobile Policing
- Last Mile Delivery

Supported Capabilities

MRZ	TD3 booklet size passport (2 lines of 44 characters each), TD2 ID (2 lines of 36 characters each), TD1 credit card size ID (3 lines of 30 characters each), MRV-A Visa, MRV-B Visa according to ICAO Document 9303 standard, Swiss Drivers License (1 line of 9 characters and 2 lines of 30 characters each), US Green Card (3 lines of 30 characters each).
RFID	RFID on biometric passports as described by ICAO 9303 (only Android, iOS and Xamarin)
ID	Austria, Belgium, Croatia, Czech Republic, Estonia, Finland, France, Germany*, Hungary, Italy, Latvia, Lithuania, Luxembourg, Moldova, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, US (ex. Louisiana and Tennessee), Mexico, Hong Kong, Bahrain, Egypt, Jordan, Kuwait, Morocco, Oman, Qatar, Saudi Arabia, UAE, Pakistan
Drivers License	Austria*, Belgium, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany*, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK*, Bulgaria, Serbia, Russia, Ukraine, US, Canada (Alberta, BC, Manitoba, Nova Scotia, Ontario, Saskatchewan, Quebec), Australia (ex. Tasmania), New Zealand, Botswana, Egypt, Malawi, Mozambique, South Africa, Zambia, Bahrain, Kuwait, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, UAE (Dubai)
EHIC	Austria*, France, Germany, Italy*, Spain, UK

* Supported in JavaScript

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Accurate and reliable VIN scanner that lets you quickly identify vehicles with your mobile device

Anyline vehicle identification solution captures data from 17-digit VINs on windshields, windows, bodywork and printed documents. All scanned data is processed and stored completely offline, ensuring that personal information remains secure. The data validation feature captures multiple images and performs an automatic check to ensure accuracy. Sophisticated machine learning models with real-world conditioning give Anyline the advantage when it comes to scanning dirty or partially obscured VINs. Anyline vehicle identification solution is available for integration into native mobile apps and web apps to suit the needs of all types of users.

Highlighted Features

Real-World Conditioning	Scan dirty or partially obscured VINs in low light
Data Validation	Ensure scan is accurate and protected against fraud
Offline Processing	Scan VINs without any network or internet connectivity
Composite Scanning	Combine multiple scanning solutions from Anyline on one device

Applications

- Tire Services
- Mobile Policing

Supported Capabilities

VIN	Vehicle Identification Numbers 17 characters in length according to ISO 3779

Supported Platforms

Native Mobile	Android, iOS, UWP
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Web	JavaScript

Device Requirements

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Versatile and accurate serial number scanner that helps you capture data from hard to identify objects

Anyline serial number scanning captures data from any alphanumeric serial number on a printed document, banknote or physical item. All scanned data is processed and stored completely offline, ensuring that personal information remains secure. The continuous scanning feature makes the solution easy to use and speeds up data capture. Sophisticated machine learning models with real-world conditioning give Anyline the advantage when it comes to scanning partially obscured serial numbers. Anyline serial number scanning solution is available for integration into native mobile apps and web apps to suit the needs of all types of users.

Highlighted Features

Real-World Conditioning	Scan partially obscured serial numbers
Continuous Scanning	Capture data from multiple pages or items without stopping
Configurable Scanning	Customize to scan whitelisted characters or regular expressions
Offline Processing	Scan serial numbers without any network or internet connectivity
Composite Scanning	Combine multiple scanning solutions from Anyline on one device

Applications

- Tire Services
- Mobile Policing

Supported Capabilities

Universal Serial Number	Any uppercase alphanumeric code

Supported Platforms

Native Mobile	Android, iOS, UWP
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Device Requirements

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Robust BIC and ILU reporting mark scanning that helps you keep track of containers wherever they are

Anyline container identification solution captures data from ISO 6346 (BIC) and DIN EN-13044-1 (ILU) intermodal container reporting marks. Features such as automatic orientation and container number detection make the solution fast and easy to use. Sophisticated machine learning models with real-world conditioning give Anyline the advantage when it comes to scanning dirty or partially obscured reporting marks. Anyline container identification solution is available for integration into native mobile apps and web apps to suit the needs of all types of users.

Highlighted Features

Automatic Orientation	Scan reporting marks without repositioning camera
Real-World Conditioning	Scan dirty or partially obscured reporting marks from distance
Container No. Detection	Automatically recognize ISO 6346 compliant numbers with check digit
Offline Processing	Scan container numbers without any network or internet connectivity
Composite Scanning	Combine multiple scanning solutions from Anyline on one device

Applications

- Logistics

Supported Capabilities

Reporting Marks	BIC-Codes (ISO 6346) and ILU-Codes (DIN EN 13044-1) in one or two horizontal lines, BIC-Codes (ISO 6346) in one vertical line

Supported Platforms

Native Mobile	Android, iOS, UWP
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