

Anyline products are designed to capture data from a variety of physical objects. Anyline can be integrated into mobile apps, web apps and websites. Each Anyline product supports modules that cover a wide range of data capture scenarios such as tire scanning, meter reading, barcode scanning, etc. You can choose the product that best suits your use case, and then build a solution using the modules that fulfill the requirements of your user workflow. This datasheet gives an overview of which modules are supported in which Anyline products. It also gives details about the features and technical capabilities of individual modules. This datasheet contains technical information about the following Anyline products:

Anyline Mobile SDK (v43)

Anyline Web SDK (v42)

Anyline Cloud API

Anyline products are built to deliver fast and reliable data capture solutions. There are however, certain factors that can limit or negatively impact data capture speed and accuracy. These are factors for which we are not responsible and cannot assume any warranty or liability. These include, for example:

- Non-compliance with technical requirements for the specific product and/or module, as set forth in this Datasheet or otherwise agreed
- An unsuitable scanning environment, such as scanning an object under extreme lighting conditions or from a far distance
- Any obstructions on the object that you wish to scan, such as obscured text or a very shiny surface
- The quality of an image you try to scan, for example images that are blurry, out of focus or low resolution images
- Incorrect handling by users, such as using the products with a lack of sufficient experience or unsteady hands

Furthermore, each module is conceived for certain applications and has a specific set of features and capabilities. Please read the module sections carefully to understand for which use cases you can deploy modules and what the module can and cannot do. Any use of our products beyond such scope is something we do not warrant or assume any liability for.



Anyline Mobile SDK (v43)

Anyline Mobile SDK is designed to be integrated into mobile apps on native environments like iOS, Android, and Universal Windows Platform (UWP), and a variety of cross-platform technologies like React Native, Flutter, Cordova, Xamarin, and .NET MAUI. Anyline Mobile SDK is built to handle all data processing on the user's device, making data capture possible without an internet connection.

Requirements

	iOS	Android	UWP
Minimum OS Version*	iOS 12	Android 5 (API Level 21)	Windows 10
Camera Resolution	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
Wrappers	Cordova, Flutter, React Native, Xamarin, .NET MAUI	Cordova, Flutter, React Native, Xamarin, .NET MAUI	
Minimum SDK Size**	16.5 MB	41.5 MB	70 MB
Maximum SDK Size**	85 M	118 MB	70 MB

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

Modules

	iOS	Android	UWP	Cordova / Flutter / React Native / Xamarin / .NET MAUI
Tire Scanning				
Tire DOT/TIN	✓	1	✓	√
Tire Size	✓	1	✓	√
Tire Commercial ID	✓	1	✓	√

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





	ios	Android	UWP	Cordova / Flutter / React Native / Xamarin / .NET MAUI
Meter		•		
Digital Meters	✓	✓	1	1
Analog Meters	✓	✓	1	1
Digital Dot Matrix Meters	✓	1	1	✓
Dial Meters	√	1	1	√
Meter Serial Number	√	1	1	/
Barcode				
1D Barcodes	√	1	√	/
2D Barcodes	√	1	1	/
Postal Codes	/	1	1	1
Stacked Linear Codes	√	1	-	/
ID		I		
MRZ	✓	1	1	✓
Passports	/	1	1	1
Passports with NFC	√	1	-	Xamarin only
ID Cards	✓	✓	1	✓
Drivers Licenses	✓	✓	1	✓
EHICs	✓	✓	1	✓
License Plate				
License Plates Europe	✓	✓	1	✓
License Plates US	✓	✓	1	✓
License Plates Africa	✓	✓	1	✓
VIN		•	-	•
Vehicle ID Number (VIN)	✓	1	1	1
Container				
Shipping Container Number	✓	1	1	/
Vehicle Registration Certificate		1		'
German Fahrzeugschein	√	/	-	-



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 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 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)

Configurability

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



Anyline Web SDK (v42)

Anyline Web SDK is based on JavaScript and designed to be integrated into websites or web apps. This flexibility enables end users to experience all the benefits of data capture without needing to install a dedicated app on their mobile device. Anyline Web SDK is built to handle all data processing on the user's device, making data capture possible without an internet connection.

Requirements

	Web SDK
Programming Language	JavaScript
Recommended Browsers	Latest version of Chrome, Safari, Firefox
Camera Resolution	Minimum: 720p video camera Recommended: 1080p video camera
SDK Size*	50 MB

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

Modules

	Web SDK
Tire Scanning	
Tire DOT/TIN	✓
Tire Size	✓
Tire Commercial ID	✓
Meter	
Digital Meters	√
Analog Meters	✓
Digital Dot Matrix Meters	✓
Dial Meters	✓
Meter Serial Number	✓
Barcode	
1D Barcodes	✓



2D Barcodes	√
Stacked Linear Codes	✓
ID	
MRZs	✓
Passports	✓
License Plate	
License Plates Europe	✓
License Plates US	✓
VIN	
Vehicle ID Number (VIN)	✓
Container	
Container Number	✓

Features

Light Conditions	 Scans in low light conditions (between 100 and 2000 lux recommended) Camera flash (automatic; manual on; manual off)
Video Processing	Real-time video stream processing
Data Processing	 On the device, no server side processing required 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 Available on GitHub 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 (no vibration on iOS)

Configurability

Scan Feedback	 Customize style, animation, size, alignment, color and corner radius of on-screen feedback. Add off-screen feedback such as a vibration, 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



Anyline Cloud API

Anyline Cloud API enables users to send images from any source to Anyline for processing. Anyline instantly returns the information captured back to the user. Anyline Cloud API runs on servers managed by Anyline, and is designed for any workflow where internet connection is available. Anyline Cloud API allows customers to choose how data is captured, whether that is via an app, a website, a chatbot, or a messaging service. This means that there are no minimum hardware requirements for using Cloud API.

Requirements

	Cloud API
Architecture	REST
File Types	.jpeg, .png
Text Size	Recommended: 28px

Modules

Cloud API
✓
✓
✓
√
✓
✓
√
✓
✓
✓
√



Features

Data Processing	On cloud-hosted servers managed by Anyline
Output	Result in JSON format
User Interface	Distance guidance for Tire Tread scanning





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

- Retail Tire Services
- Commercial Tire Services
- Dealership Operations

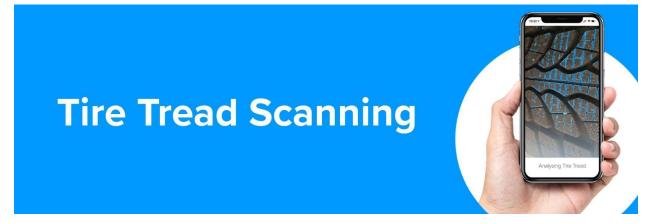


Tire DOT/TIN	Tire Identification Numbers with and without DOT prefix, only tires produced after the year 2000 Allowed characters: A-Z, 0-9 Minimum length: 4 characters Can be configured to require strict match to NHTSA DOT standard
Tire Size	Tire dimensions: Width, aspect ratio, construction, RIM diameter, load index and speed rating. Vehicle type recognition is subject to validation. Allowed characters: A-Z (excluding letters O and I), 0-9, /+-&(). Length: Up to 20 characters (single line only)
Tire Commercial 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 Platforms

Mobile SDK	Native: Android, iOS, UWP Cross Platform: Cordova, Flutter, React Native, Xamarin, .NET MAUI
Web SDK	JavaScript





Industry-first tire tread scanner that makes consistent, accurate wear detection possible on mobile devices

Anyline tire tread scanner measures the depth of the tire tread grooves to alert the technicians of dangerously worn down tread. By replacing subjective manual measurement with objectively collected digital data, the Anyline tire tread scanner reduces compliance risk whilst helping to prevent potential fraud. On-screen guidance and intuitive interface options make the Anyline tire tread scanner easy to use with minimal training and ensures that results are accurate and reliable no matter who is using it. Anyline tire tread scanner is available for integration into native mobile apps and websites.

Highlighted Features

Precision Measurement*	Accurate and consistent tread depth measurement down to 0.1mm /0.004"
3D Digital Evidence	Provides objective digital evidence of each tire measurement
Real-Time Feedback	Receive immediate recommendation if tire needs to be changed

^{*}for best results use mobile devices with high processing power

- Retail Tire Services
- Commercial Tire Services
- Tire E-commerce
- Dealership Operations
- Mobile Policing





Passenger Tires	Supported tires: Summer & winter tires Precision: Down to 0.1 mm / 0.004" Accuracy: +/- 0.1 - 0.3 mm / 0.004 - 0.012"
	Measures 3 separate tread grooves Detects damage & abrasion patterns Checks winter suitability & wheel alignment

Supported Platforms

Native Mobile	Android
Cloud API	REST API



License Plate Scanning



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

- Mobile Policing
- Retail Tire Services
- Commercial Tire Services



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

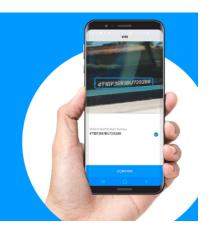
^{*}not supported in Web SDK

Supported Platforms

Mobile SDK	Native: Android, iOS, UWP Cross Platform: Cordova, Flutter, React Native, Xamarin, .NET MAUI
Web SDK	JavaScript



Vehicle Identification



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

- Tire Services
- Mobile Policing





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

Mobile SDK	Native: Android, iOS, UWP Cross Platform: Cordova, Flutter, React Native, Xamarin, .NET MAUI
Web SDK	JavaScript



Vehicle Registration Certificate Scanner



Vehicle registration certificate scanner that lets you capture vehicle and driver data on any mobile devices

Anyline vehicle registration certificate scanner captures driver and vehicle information from paper documents. The Anyline scanner enables you to digitally capture data in seconds, dramatically speeding up processes that previously required manual data input, as well as reducing the number of data entry errors. All scanned data is processed and stored completely offline, ensuring that personal information remains secure. Anyline vehicle registration certificate scanner is available for integration into native mobile apps.

Highlighted Features

Configurable Scanning	Set scanner to record use case-relevant fields of interest only
Multi Page Scanning	Scan all pages simultaneously in a matter of seconds
Real-World Conditioning	Scans even when documents are not fully unfolded
Hardware Agnostic	Works on any Android or Apple device

- Retail Tire Services
- Mobile Policing

Vehicle Registration Certificate Scanner Datasheet





Supported Capabilities

C	 		:
German		nsc	

Document number [Nr], license plate [A Amtliches Kennzeichen], last name [C1.1 Name oder Firmenname], first name [C1.2 Vorname(n)], address [C1.3 Anschrift], first issued [B], manufacturer code [2.1], vehicle type code [2.2], vehicle identification number [E], brand, vehicle type [D.1], displacement [P.1], tire [15.1, 15.2, 15.3]

Supported Platforms

Nativ		

Android, iOS





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

 $^{^*}$ barcode scanning performance achievable on Anyline Mobile SDK

- Shelf Management
- Scan & Go Shopping
- Ticket inspection



1D Barcodes	Bookland EAN, Codabar, Code 11, Code 32, Code 39, Code 93, Code 128, Databar, Databar Expanded, Discrete 2 of 5, EAN-8/JAN 8, EAN-13/JAN 13, EAN-14, EAN-18, EAN-99, GS1-128, GS1 Databar, Identcode, Inverse 1D, ISBN-10, ISBN-13, ISBT 128, ISMN, ISNN, ISSN EAN, Interleaved 2 of 5 (ITF), ITF-14, Leitcode, Matrix 2 of 5, MSI, RSS 14, RSS Expanded, Trioptic Code 39, UCC Coupon Code, UPC-A, UPC-E
2D Barcodes	Aztec, Aztec Inverse, Aztec vCard, Data Matrix, Data Matrix Inverse, DotCode, GS1 QR Code, Maxicode, Micro QR Code, QR Code, QR Inverse
Postal Codes*	Netherlands KIX Code, UK Postal, UPU FICS Postal, US Postnet, US Planet, USPS 4CB
Stacked Linear Codes**	PDF 417, Micro PDF417

^{*}not supported in Web SDK

Supported Platforms

Mobile SDK	Native: Android, iOS, UWP Cross Platform: Cordova, Flutter, React Native, Xamarin, .NET MAUI
Web SDK	JavaScript

^{**}not supported on UWP





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

Use Cases

Utility Meter Reading



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

^{*}not supported in Web SDK

Supported Platforms

Mobile SDK	Native: Android, iOS, UWP Cross Platform: Cordova, Flutter, React Native, Xamarin, .NET MAUI
Web SDK	JavaScript
Cloud API	REST API



Serial Number Scanning



Custom serial number scanner that helps you capture data from hard to identify objects

Anyline custom serial number scanner can be trained to capture data from alphanumeric serial numbers on printed documents or physical items. Training projects require the submission of example sufficient images to achieve high levels of accuracy and reliability. Scanned data can be processed and stored completely offline, ensuring that information remains secure. 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 can be integrated 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



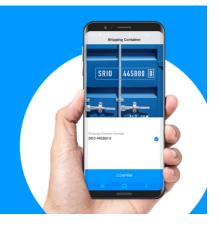
Serial Number	Uppercase alphanumeric codes

Supported Platforms

Mobile SDK	On Request: Android, iOS, UWP On Request: Cordova, Flutter, React Native, Xamarin, .NET MAUI
Web SDK	On Request: JavaScript
Cloud API	On Request: REST API



Container Identification



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

Adjustable Orientation	Scan horizontal or vertical 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

Use Cases

Logistics





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

Mobile SDK	Native: Android, iOS, UWP Cross Platform: Cordova, Flutter, React Native, Xamarin, .NET MAUI
Web SDK	JavaScript