

PRODUCT AND SECURITY DOCUMENT VERIFICATION, AUTHENTICATION AND TRACK & TRACE MOBILE APPLICATION

Holograms are one of the most utilized and recognized Brand, Currency and Security Document anti-counterfeiting protection elements. Over the years the complexity of design and security features evolved into a very intricate, sophisticated and eye-catching product. In many cases, the hologram is also an integral part of the overall design of banknotes, packaging and even security documents. Today's origination technologies offer high-security micro and nano elements and other overt and covert high-security features. All of the above makes holograms from DNA Protected virtually impossible to emulate and counterfeit.

All of the technological advances make holograms safer, but very hard to actually authenticate outside of the forensic environment.

Introducing **DNA Pro MAX**, a proprietary mobile phone application to 100% verify and authenticate hologram, product or document originality.

- □ No internet connection is required.
- Optional upgrades add a real-time Track and Trace feature.

Compatible with Android and iOS (coming soon) operating systems





Key advantages:



- ☐ Fully customizable to any brand, government, legal or other entities;
- No costly HW, SW and no wires and batteries needed;
- No internet connection required;
- Easy to use. Results in seconds. No bar code scanning. No data entry (PIN codes);
- □ 100% hologram security overt and covert code recognition and authentication. Covert features are visible to the naked eye. Covert features in micro and nano-text from the size of 4 microns at 100 nanometers resolution. Ask for details;
- Verify and authenticate hologram, product or document originality in seconds;
- Access product and document details and data with one touch of a button;
- □ Link the app to your loyalty program, membership and customer engagement;
- Utilize the app for further marketing of your products and services;
- Full Track and Trace function support

DNA ProMAX mobile application features:



<u>Al OCR</u> – the mobile phone application verifies and authenticates hidden (micro or nano size) or visible code on the hologram. Simply scan the code and all information about the product or security document is at your fingertips. Information can be as little as simple text or photo, or as extensive as required;



<u>BARCODE SCANNER</u> – scans and reads most common barcodes, including the patented DNA PROTECTED DNA ProQR and micro and nano size barcodes embedded into the hologram

DNA ProMAX mobile application features:





<u>Image recognition</u> - the mobile phone application verifies and authenticates hidden (micro or nano size) or visible holographic images on the hologram. Simply scan the image and all information about the product or security document becomes visible. Information can be as little as simple text or photo, or as extensive as required. This feature can also be utilized as a hologram authenticity verification



<u>CAMERA</u> – use the camera to study the intricate details of hologram or security print design features, with or without your phone torch (incorporated within the **DNA ProMAX** app) as a light source. Verify covert security or design features utilizing the apps **400 x magnification ability**. Take photos or videos of the covert and overt security features, design elements, the whole hologram or security print. Measure individual elements seen through the camera lens with the embedded ruler. Or simply use it for standard or micro photography and videos. The camera opens automatically when starting the AI ORC, Barcode scanner or image recognition features



<u>GALLERY</u> – Stores photos and videos taken by the camera in a dedicated **DNA ProMAX** folder. Send or share videos and photos

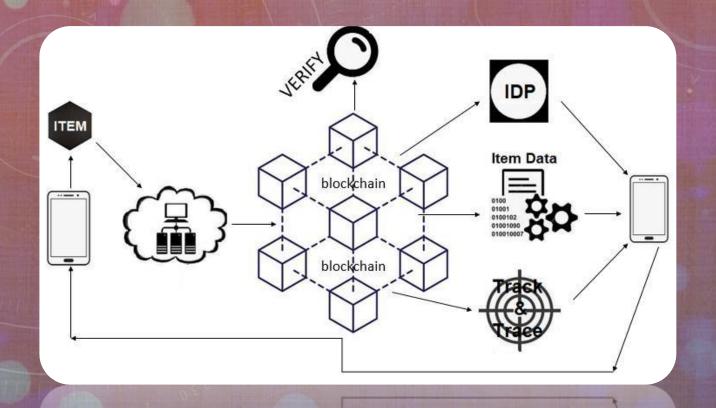


LOG – optional log in to customer's proprietary system.



SETTINGS – manage settings of the **DNA ProMAX** app.





The DNA ProMAX app connects the mobile phone to DNA Protected proprietary **Legitimark VTN (verifythisnow)** authentication and verification system. Legitimark not only authenticates and verifies, but also offers optional Track & Trace, logistics, loyalty program, marketing and advertising modules. The below shows the flow starting from scanning an item utilizing one of the DNA **ProMAX** app functions, connecting to blockchain, verifying the item stored within the IDP (item digital passport) module and displaying the full item details. Item details simple range from text any text/photo/video/sound/animation/URL combinations.

- ☐ Verification & Authentication system –VTN http://www.verifythisnow.com/dna
- □ Track and Trace functions, logistics, loyalty program, marketing and advertising modules into the system.

FEATURE ONE – AI OCR



The **DNA ProMAX** application uses the mobile phone's camera to read, verify and authenticate originality of covert (micro or nano size) text or codes, embedded in the hologram master.

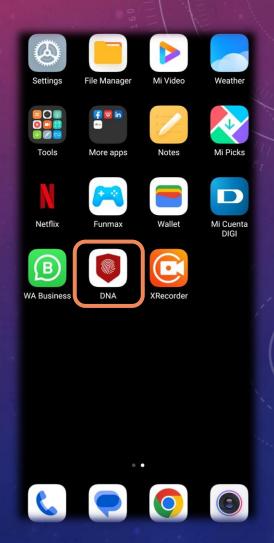
The DNA ProMAX app provides the same function with overt (printed, lasered or embedded) code and text on the hologram, packaging, security document or any other printed matter. Simply scan the code to see all the registered information about the product or security document. The registered information can be a simple text, photo or as extensive data as required.



How does it work?

Install **DNA ProMAX**app on
your mobile phone.

Locate the app and click on the icon to open it.



How does it work?



E R

















E R

G

Welcome screen

Click on the AI OCR Icon













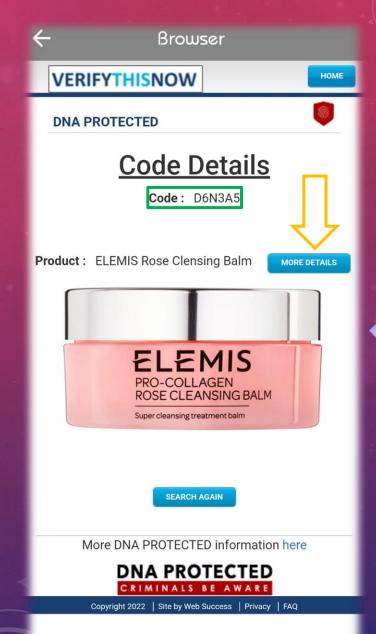
The **DNA ProMAX** app opens the camera.

Place the camera over the hologram with code. The **DNA ProMAX** app will display printed and other text on the screen highlighted by **a white frame**. In this instance the printed code is **D6N3A5**. The same code is in the white frame. Click on the highlighted text frame window.

The app will also read and process any required printed and lasered text on any substrate being paper, plastic, glass, metal etc.

Note that other text may also appears, as the app it reading any and all texts. Choose to verify only the text you want.

Choosing any other than the required text, will return a false reading.





How does it work?

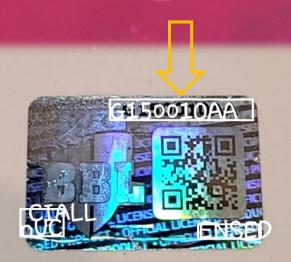
window with a linked item/document will appear. You can verify another product, by simply pressing the **SEARCH AGAIN** button to return to the camera mode.

If you require more details about the product, simply press the MORE DETAILS button. Scroll down the screen and see more information on the product available.

Here the options are endless.

Note that all of the information can be securely stored online utilizing blockchain or offline within the app, at the customer's requirement.





If the text or code is **NOT REGISTERED** with our VTN DNA software then once you click on it, the app will read is as ''**INVALID CODE**'' and no further verification will be done.



FEATURE TWO – BAR CODE READER



This feature of the DNA ProMAX app scans and reads most common printed or lasered barcodes, including DNA PROTECTED's patented DNA ProQR holographic bar codes. The app also enables scanning of micro and nano size barcodes embedded in the hologram.

Simply open the barcode scanning function on the mobile phone, scan the barcode and follow the prompts.

After opening the welcome screen, clock on the Bar code reader icon



How does it work?





Scan the required barcode - in this instance we show scanning of the DNA ProQR.



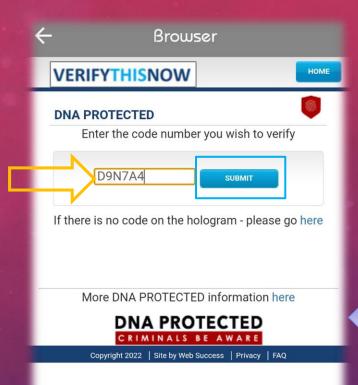
Patented holographic QR code **DNA ProQR**

Face the phone camera over the QR code and the app automatically will read it

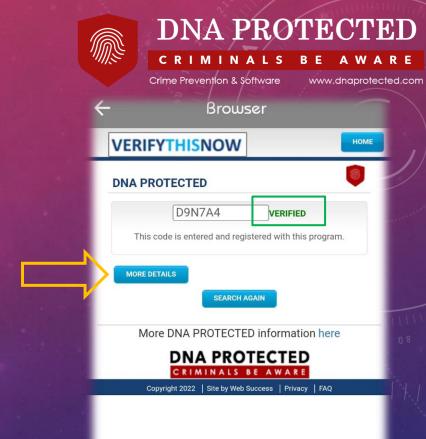


Position QR Code





Then you will be redirected to a registration page where you can verify the embedded hologram code. Simply type the code into the text field and press "SUBMIT" In this example the code is D9N7A4.



If the text or code is registered, the "VERIFIED" window will pop up, with the verified code displayed. To check all the linked information about the lproduct/document, simply press the "MORE DETAILS" button

Browser

Code Details

Code: D9N7A4

Product: Austria Birth Certificate

MORE DETAILS



Brand: DNA Protected



This will take you straight to the registered product/document information

For more detailed information, simply click "MORE DETAILS" button again.

To verify another product pressing the "SEARCH AGAIN" button will re-direct you to camera mode.

> If the text or code is not registered a 'NOT REGISTERED" window will appear. Please read the details and if required, follow the instructions.



DNA PROTECTED

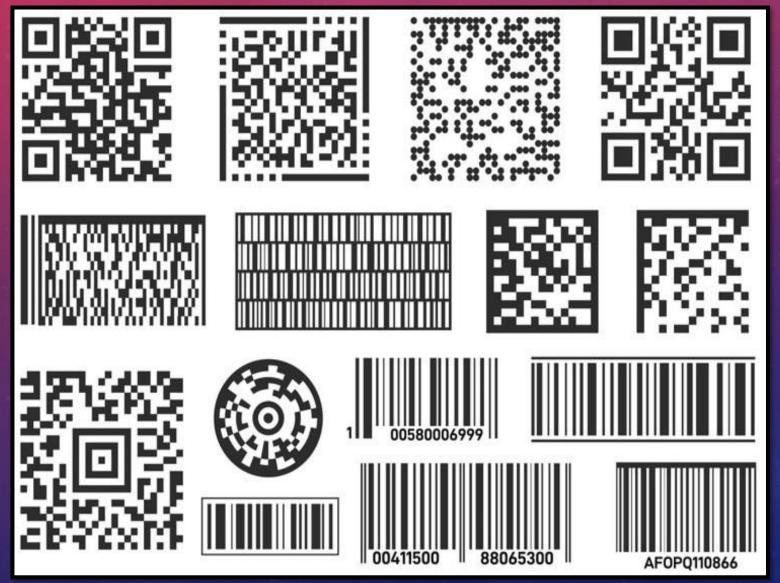
Browser VERIFYTHISNOW **DNA PROTECTED** GF45H7 NOT REGISTERED This number is currently not entered and registered with this This may indicate that this is NOT a Genuine Product Enter your Name and Email Address if you wish us to follow If you have information on suspected counterfeit goods, your details below and we will Email you with further instructions Email What is the sum of 0 + 4 SEARCH AGAIN More DNA PROTECTED information here

DNA PROTECTED

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Below are examples of other barcodes that can be scanned by the DNA ProMAX app



FEATURE THREE – IMAGE RECONGNITION, AUTHENTICATION AND VERIFICATION



This feature of the DNA ProMAX – Track & Trace app, scans and identifies any printed, holographic or photo image that has been programmed into the DNA ProMAX app.

Simply open the Image recognition (AI) function on the mobile phone, scan the image and follow the prompts

After opening the welcome screen, click on the Image reader icon





IMAGE 1 SAMPLES





These images, can be captured with a good quality phone camera





NANO image captured by the phone camera with Microscope 200 X ZOOM.



MICRO image captured by the phone camera with Microscope 60 X ZOOM

There is no need to click on anything else. The app does the scanning and processing automatically.

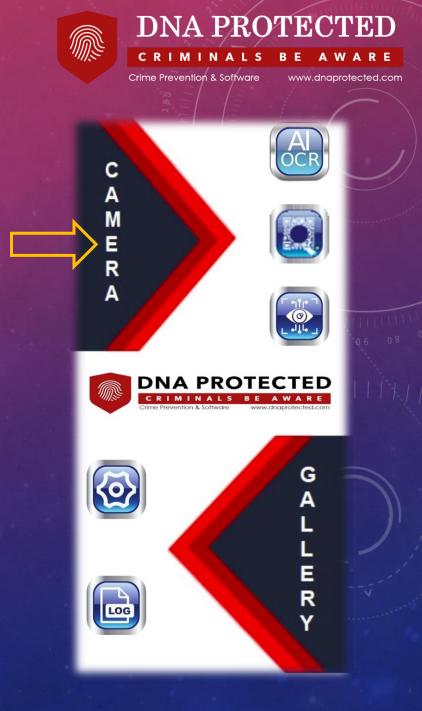
The rest of this feature's functionality works exactly the same as per **FEATURE ONE** and **TWO** above.

FEATURE FOUR - CAMERA

This feature works like your standard mobile phone camera, but will scan for all available information in the hologram and archive your images in the designated folders automatically.

Optional Track and Trace (internet connection needed)

- Track and Trace security documents from print to point of issue. The system includes full document description and document holder data (if applicable), print and security elements explanation, before and after issuance images, fully customizable. Option to connect to government fiscal (tax stamps) and/or other government and corporate departments. All data is protected by Blockchain.
- Track and Trace products from manufacturing (farm) to retail point (table), production to retail and similar. The system includes information about the manufacturer, suppliers and wholesalers/distributors, full product description (including images and videos), expiration dates, ingredients, GMO and sustainability information. Option to connect to licensing, loyalty and other programs, competitions and further marketing. All product data protected by Blockchain.
- Ask about the ability to connect to existing or custom loyalty, marketing, advertising and other modules.



Our industry experience enables us to understand protocols and processes in design, packaging, compliance and distribution.

This enables us to ensure that costs of implementation are managed efficiently. We understand that the perception of cost may challenge budget considerations, however the cost is negligible when amortized in the production process and will save brands considerable revenues by protecting their markets

Let's talk!

We are happy to provide a nonobligatory consultancy service to assess your requirements.



DNA PROTECTED

Crime prevention Technology & Software

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