

CUSTOM HOLOGRAM GUIDE

Avansia Printer

MUCH MORE THAN CARD PRINTERS



Signature pads



Software



Card printers



Accessories



Services



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1. INTRODUCTION

National ID Cards, driving licences and other official documents require very high security standards.

In those cases, it is important to add security to the cards to fight forgeries.

The purpose of this document is to help our customers to better understand the Hologram Industry and to help them to develop and launch a hologram ribbon solution with the Evolis Card Printers.

Each hologram ribbon solution is unique and involves a number of decisions to be taken before full implementation. That is the reason why you will find hereafter information about the hologram itself, the elements that a hologram can contain, the Evolis ribbon offer and some indications to have a design adapted to your needs.

2. THE HOLOGRAM INDUSTRY

A BIT OF HISTORY



Holography dates back to 1947, when British/Hungarian scientist Dennis Gabor developed the theory of holography while he was working on improving the resolution of an electron microscope. Dennis Gabor coined the term hologram from the Greek words "holos", meaning "whole", and "gramma", meaning "message".

The development of laser technology in 1960 made of holography a reality.

WHAT IS A HOLOGRAM?

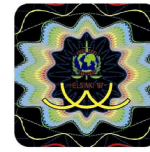


A hologram is a three-dimensional image, created with photographic projection. Unlike 3D or virtual reality on a two-dimensional computer display, a hologram is a truly three-dimensional and free-standing image that does not simulate spatial depth or require a special viewing device.

To reproduce the image of an object, the hologram is illuminated by coherent light, ideally the original reference beam. The hologram produces two sets of diffracted waves; one set forms a virtual image coinciding with the original object position and the other set forms a real image on the other side of the plate. Both are three-dimensional.

A hologram is an optical device which produces an image:

- Which exhibits variable colours (rainbow)
- With variable image content
- Which can be animated
- Which appears as stereoscopic



National ID cards, driving licenses and other official documents require very high security standards to fight forgeries and wear. Plastic cards are therefore the ideal solution for any official document that comes with a credit card size.

WHY USE A HOLOGRAM AS A SECURITY FEATURE?

- A hologram is impossible to duplicate with a scanner or a colour copier.
- It is not possible to imitate with standard printing technologies.
- The initial levels of visual security can be used to integrate additional levels of control for a card.
- The optical images of the ribbons are shiny, very high definition, 3D animated and with very high resistance against counterfeiting.
- Ribbons are used to seal the information contained on the plastic cards. The information is therefore authenticated and protected from falsification or substitution.

WHAT IS A SECURITY HOLOGRAM?

A combination of:

- A holographic image
- A carrier to support the image and manufacturing process (hot stamping foil, laminate, self-adhesive label...)
- A device produced in a secure environment and under strict security procedures.

THE TARGETED MARKETS

- **Protection of fiduciary documents:** Banknotes, checks, credit cards, tickets...
- **Protection of identity documents:** Passports, identity cards, visas, driving licenses, event badges
- **Authentication of brand products:** Luxury goods, industrial spare parts, sportswear...



THE CUSTOMERS

- **Government organizations:** Central banks, Ministries of Interior, Ministries of Finance, Ministries of Foreign Affairs, Ministries of Transport, National Elections Authorities...
- **Integrators:** Security printers, credit cards manufacturers, packaging companies...
- **Industry Suppliers:** Consultants, machine manufacturers...
- **Brand Owners:** Automobiles, Perfumes, Jewellery, Watches, Industrial Parts, Sportswear...



3. THE EVOLIS CUSTOM HOLOGRAM

Adding security to your badge can require designing a custom hologram film. Managed as a special project at Evolis, this film will be designed according to your company requirements. This is the guarantee that it will not be sold by anyone else.

Customized hologram will help you to reach a significant security level thanks to its unique and registered design to protect the data against falsification. Any attempt of falsification will therefore become very obvious and visible.

To create your own Custom Hologram, you have to consider several elements such as the type of ribbon, the level of security and features.

To help you in your choices, this is a description of the Evolis offer on Avansia:

4. AVAILABLE HOLOGRAM FEATURES

Please consider the security level that you need:

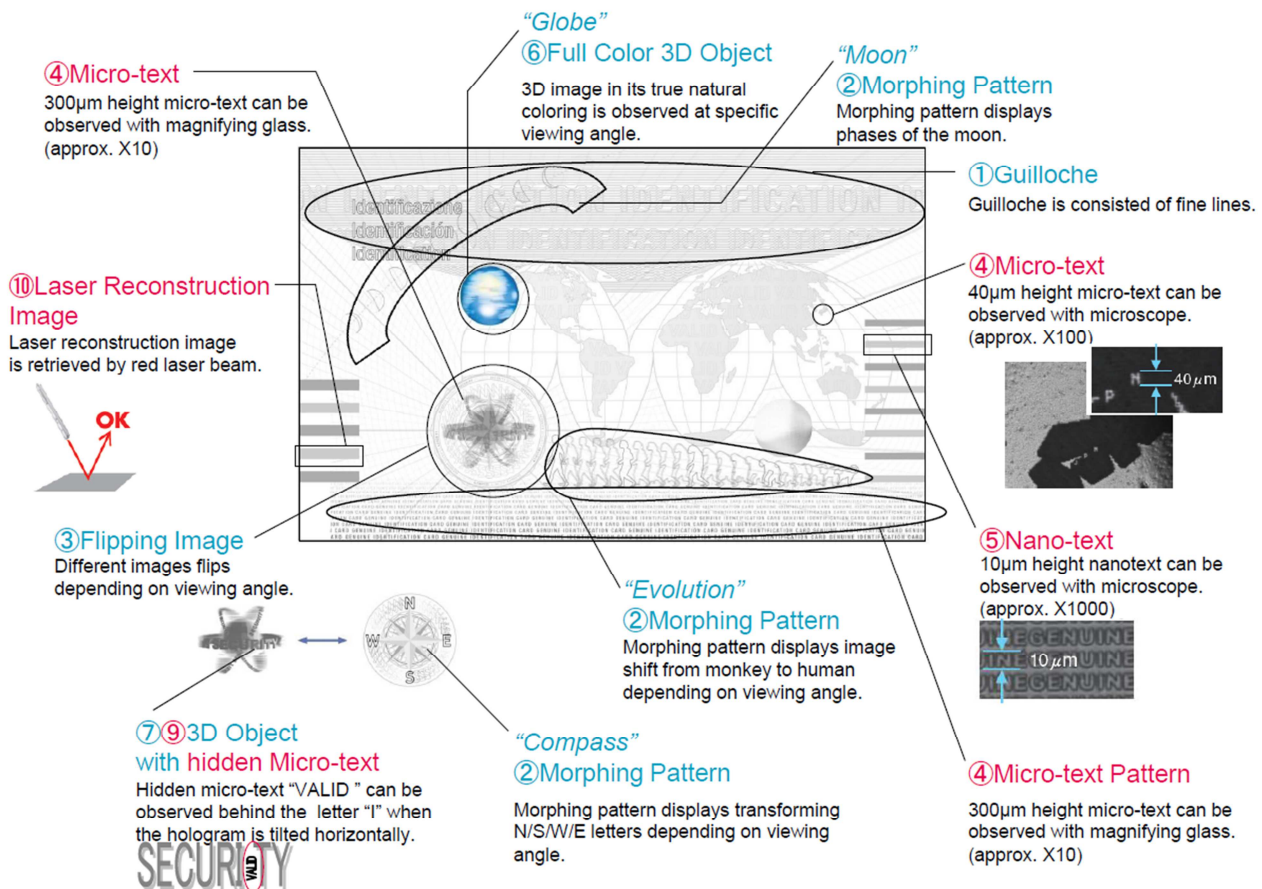
Overt Security

Covert Security

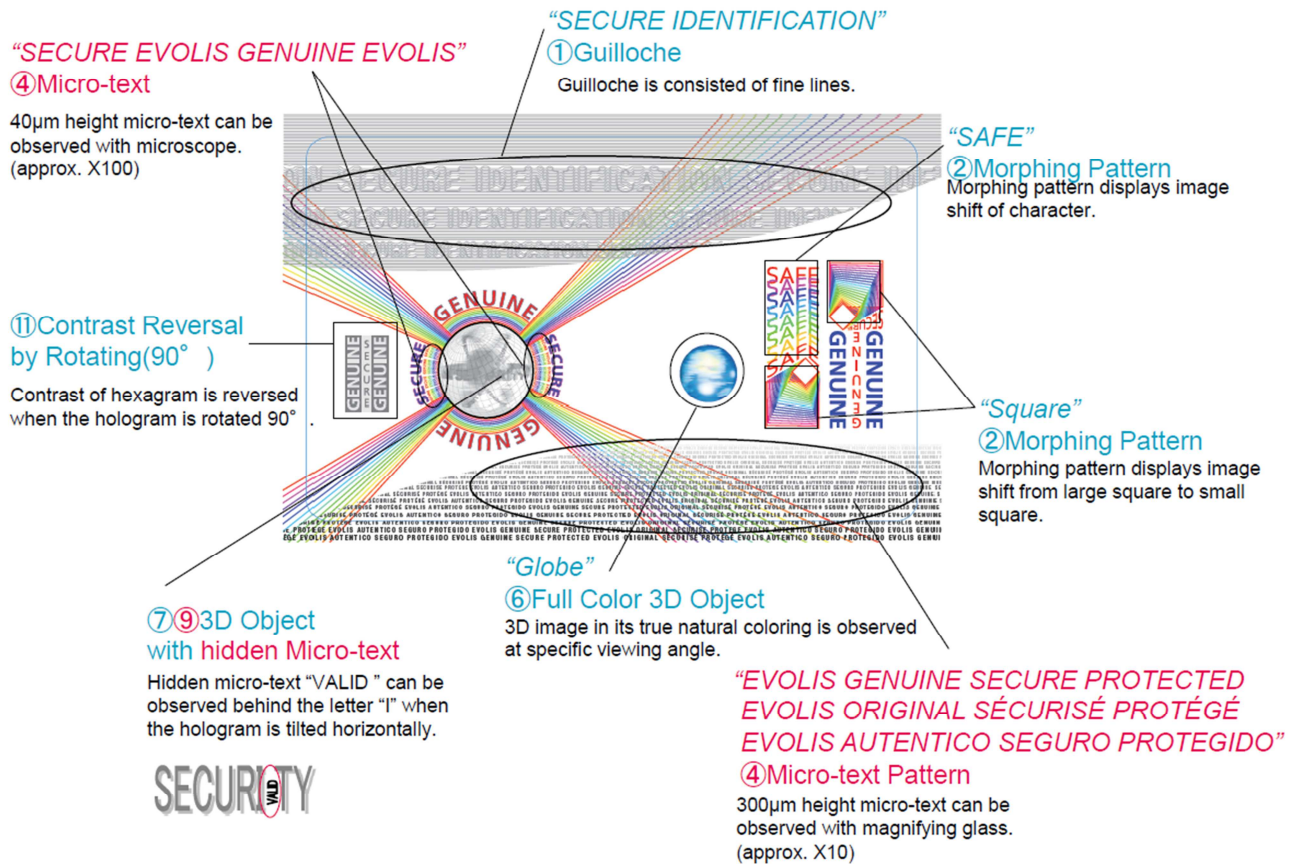
K*	V**	No	Security Features	Instrument	Security Level
☑		①	Guilloche(Fine Line Pattern)		1
☑		②	Morphing Pattern		1
☑		③	Flipping Images		1
☑		④	Micro-text	Magnifying Glass (approx. X10)	1
☑		⑤	Nano-text	Microscope (approx. X1000)	2
	☑	⑥	Full Color 3D-CG Object		3
	☑	⑦	3D-CG Object		3
	☑	⑧	3D-Micro-text(CG)	Magnifying Glass (approx. X10)	3
	☑	⑨	Hidden Micro-text(CG)	Magnifying Glass (approx. X10)	3
☑		⑩	Laser reconstruction(1image)	Laser Pointer (red laser beam)	3
☑		⑪	Contrast reversal by rotating(90°)		3

K*: KALEIDOGRAM (bright & precise 2D images)

V**: VERTUREGRAM (3D computer-generated images at ultrahigh resolution)



Below is the Evolis Generic Retransfer Hologram:



5. ORDERING PROCESS

Ordering your custom hologram

- Decide the type of image(s) you want to use as custom hologram.
- Decide the security level you want to apply and which type of features.
- Design artwork (in Adobe Illustrator format) and submit it for analysis and review.
- Evolis will confirm the feasibility and submit a quotation (Set-up fee depends on the features and security levels required).
- The customer will pass and order based on the attached order form.

Artwork approval process

- Evolis will review artwork, confirm origination fees (depending on the security level required) and provide customer with an artwork proof of custom image. This proof will only show accurate size of images and dimensions and card layout. It shows the graphical elements but the effects will not be available at this stage.
- A shadow box can be requested for approval with extra process lead time.
- Reseller will obtain end-users approval and return signed artwork proof of Evolis.
- Reseller to send back signed proof to Evolis for process to continue.

Production of Materials

- Origination fees payment. Production of your material will begin upon receipt of approved artwork.

Timeframe

- The complete process to get custom holograms takes about 14 weeks, assuming that approvals occur according to schedule. Evolis will up to date you on the expected shipping date once the artwork is agreed.
- Repeat orders: about 8 weeks

EVOLIS CUSTOM HOLOGRAM ORDER FORM

Please fill-in the following form. This will help us to come back to you with information such as minimum quantity order, setup fee cost, price per roll and accurate lead time.

PROJECT ID (EVOLIS INTERNAL)

Project ID: _____ Product P/N: _____

Short description: _____

Volume of cards: _____

Submission date: _____ From: _____

END USER INFORMATION

Company Name: _____

Company Address: _____

Contact Person: _____

Email: _____

Phone*: _____ Fax*: _____
(incl. country and local codes) *(incl. country and local codes)*

EVOLIS PARTNER DETAILS

Company name:

Company address:

Contact Person:

Email:

Phone*:

(incl. country and local codes)

Fax*:

(incl. country and local codes)

SHIPPING ADDRESS (IF DIFFERENT FROM THE EVOLIS PARTNER'S ONE)

Company name:

Company Address:

Contact Person:

Email:

Phone*:

(incl. country and local codes)

Fax*:

(incl. country and local codes)

SECURITY LEVEL AND FEATURES

Please select the hologram features you would like to get on your card:

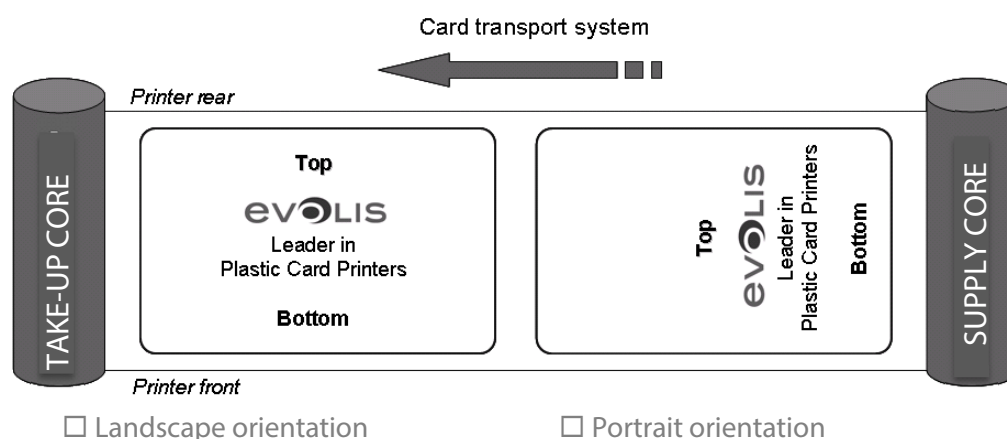
1. BASIC SECURITY TYPE <ul style="list-style-type: none"> • 1 Guilloche (Fine Line Pattern) • 2 Morphing Pattern • 3 Flipping Image • 4 Microtext 	2. HIGH SECURITY TYPE <ul style="list-style-type: none"> • 5 Nanotext • 6 Full Color Object • 7 3D CG Object • 8 3D-Microtext (CG) • 9 Hidden Microtext (CG) • 10 Laser reconstruction (1 image) • 11 Contrast reversal by rotating (90°)
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According to the selected hologram features above, the origination fee will be different as explained below. Please select the type of origination you want.

- ☐ Basic Security
1-2-3-4
- ☐ Basic Security and High Security with Nanotext and Contrast Reversal by Rotating (EK)
1-2-3-4 + 5-11
- ☐ Basic Security and High Security with existing 3D Object, 3D-Microtext and Hidden Microtext
1-2-3-4 + 7-8-9
- ☐ All features and existing design with 3D- CG Object, 3D-Microtext and Hidden Microtext
1-2-3-4 + 5-6-7-8-9-10-11
- ☐ All features and with original design (including customized CG Design)
1-2-3-4 + 5-6-7-8-9-10-11 + custom CG Design

RIBBON LAYOUT

Based on the drawing below, please select the picture orientation you need for your hologram ribbon.



ARTWORK REQUIREMENT

If you wish to proceed with an order, please note the following:

- Features with text(s) require a text file to be attached to this description form.
- To create a design proof for a hologram, thank you to provide native vector in Adobe Illustrator format.
- To create a customized design proof for a stereogram (or Computer Graphic Design) very specific files types are required and this must be discussed at length before the design work begins. Please note that design proofs containing stereograms can take longer to produce and finalize than other artwork files.