www.holoprint.ae

HOLOPRINT

Ensuring Supreme
Brand Protection

SECURITY HOLOGRAMS

Special Features with Description

PRODUCT CATALOGUE

(AN ISO 9001:2015 & HALAL CERTIFIED COMPANY)

Authenticating Brands Across the Globe

HOLOPRINT

With us, brands and their consumers feel secured.

Holoprint Security Solutions established its first manufacturing plant for holographic products in the Middle East. From its location in Dubai, UAE, it offers cutting-edge holographic security solutions to some of the leading brands in the region and exports its services to more than 40 countries.

Holoprint is an organization built on Indian values, and motivated by a professional, global vision. Established in the UAE in 2015, Holoprint Security Solutions is empowered by decades of experience in delivering exemplary holographic solutions to customers from all domains and industries.

Technology

Combination of latest technologies with decades of innovation to develop unparalleled authentication, anti-counterfeiting and anti-tampering solutions.

Infrastructure

Fully integrated and modern manufacturing facilities.

Equipped with state-of-the-art laboratory to promote innovation and R&D.

Quality Assurance

Professional quality team for stringent product testing against pre-defined industry parameters.

Advanced process control systems ensure zero defects from design, development to application.

Experience

Experience in developing some of the most robust security parameters in the world.

3-tier security system at all manufacturing locations for confidentiality of information.

Authentication - Technologies and Categorisation

According to ISO, there are different kinds of authentication technologies available in the market, although all these technologies are applied in the three main areas of:

Anti-Counterfeiting | Anti-Tampering | Track and Trace

All these technologies can be categorised as either overt, covert, forensic or digital.

OVERT TECHNOLOGIES

All devices built into labels, documents and packaging which are visible to the user and show dynamic visual effects fall under this category. These are meant for fast and easy on the spot visual authentication.

COVERT TECHNOLOGIES

Apart from the requirement of a special reader or detector to verify their presence and validity, it also requires trained professionals. These include ultraviolet & infrared inks, micro text, unique synthetic tagging etc.

FORENSIC TECHNOLOGIES

Forensic technologies, being covert, are not readily recognisable and require special tools for detection and validation. These must often be taken to a laboratory with specialised equipment for validation.

DIGITAL TECHNOLOGIES

Digital technologies may be either overt or covert, but all require an electronic means for detection and validation. These are mostly associated with RFID tags or with serialised numbers that can be compared to a remote database.

Security Holograms

A hologram is made not by engraving or using some special kind of ink as is commonly assumed, but by sophisticated technology known as laser optics through an intricate and complex process called holographic recording with the aid of light from a specialised laser.

The holograms are made of discrete holographic diffraction gratings, which can illuminate at different angles under any type of natural or artificial light. It diffracts seven colours of the spectrum giving it an extraordinary visual appeal.

All holograms offered by Holoprint incorporate specialised and sophisticated visual images, requiring complex and expensive optical equipment and highly advanced technologies for its manufacturing. The high quality origination provides considerable barriers to counterfeit due to inherent advancement of holographic techniques. Visual features are designed using extremely unusual and tightly controlled origination techniques and expertly incorporated onto the security image. They are specially designed to protect against image re-origination even by the well-equipped secured laboratories. These features are also designed to provide obvious and memorable variable movement and image shifts to encourage public recognition and authentication.

Hologram Master Origination

We offer different options for hologram master origination by incorporating different security features and create various kinds of depths or layers within a single hologram.

1. ### Real Object Shooting

   In this origination, real object is kept as subject in mastering machine and its image is recorded in hologram with depth.

2. ### Advanced Dot-Matrix Setup

   In this origination, machine artwork is created and vector files are further used to create several covert and overt features. This machine records the file in the form of pixels to create an image on the hologram.

3. ### Lithography

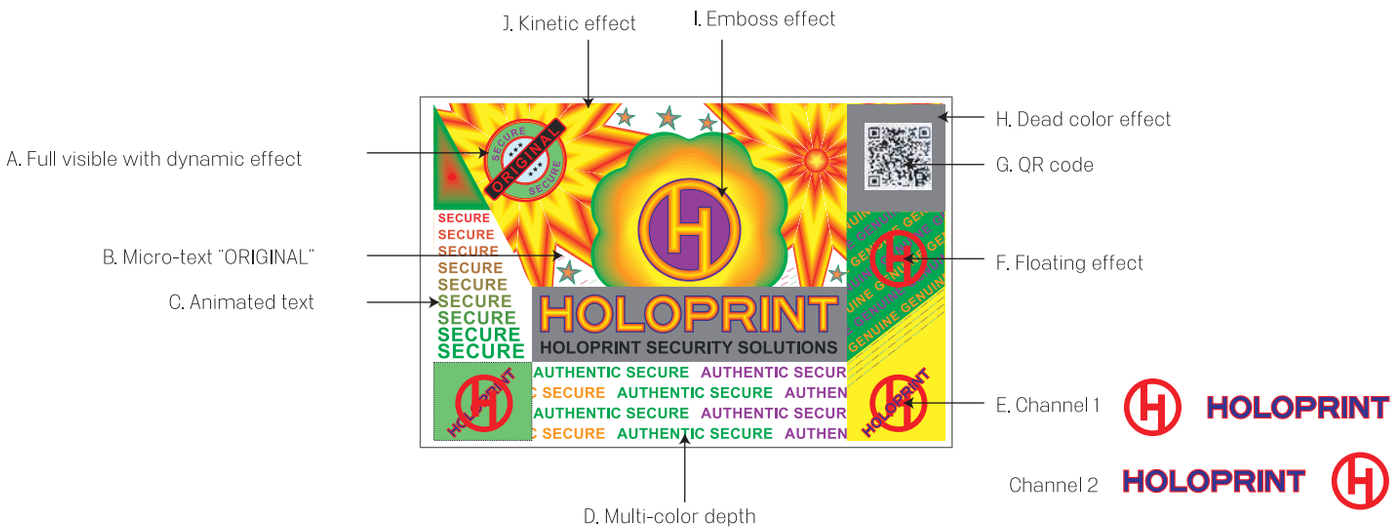
   This is an advanced feature over the dot matrix setup. Previous origination method creates features in only colours of spectrum of rainbow, whereas in lithography, it goes as high as 120,000 DPI in order to create dead or no colour features in hologram like fresnel effect, bas relief effects, etc.

4. ### E-Beam

   This is highest level of security origination where there is no use of pixels and features through electronic beam. This is not counted in resolution as lines have no resolution like in case of pixels. Very minute (as low as 5 microns) and unique features can be created though this machine. It is said that due to its extremely high standards and limited availability, it can never be replicated.

User Industries:

Level 1
Security Hologram



Level 1
Security Hologram

A) Full Visible with dynamic effect
It is an effect in which the image lies in the foreground of the hologram and appears very bright to naked eye.

A. Full visible with dynamic effect

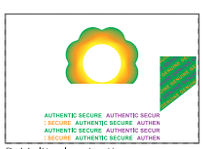
B) Microtext "ORIGINAL"
Text is visible to naked eye only when observed with biological microscope.


B. Microtext "ORIGINAL"

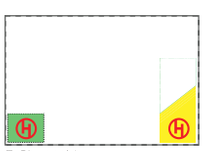
C) Animated Text
In this feature, the text is placed in such a way that the image appears to be visible and a movement can be seen at a particular angle.

C. Animated text

D) Multicolor Depth
In this effect, the image is kept in middle or third layer of hologram with multi-coloured feature.


D. Multicolor depth

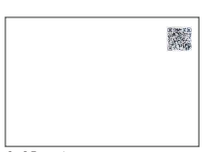
E) Channel Effect
Two images or text are placed at the same area where one dissapears and other appears on changing the viewing angle of the hologram.


E. Channel 1

F) Floating Effect
In this effect, the image in hologram appears to be moving vertically or horizontally when inclined at diferent angles.


F. Floating text

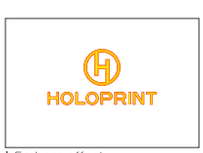
G) QR Code
A machine readable code consisting of an array of black and white squares, typically used for storing URLs or other information for reading by barcode handheld /automatic reading devices and by camera on apps in smartphones.


G. QR code

H) Dead Color Effect
In holography, rainbow color appears only but by special method this dead color has been achieved to enhance the security of a hologram.

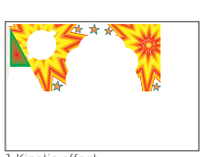
H. Dead color effect

I) Emboss Effect
This unique technique uses images which are created by computer graphics which appear to be embossed in nature i.e. they are slightly raised from the ground.

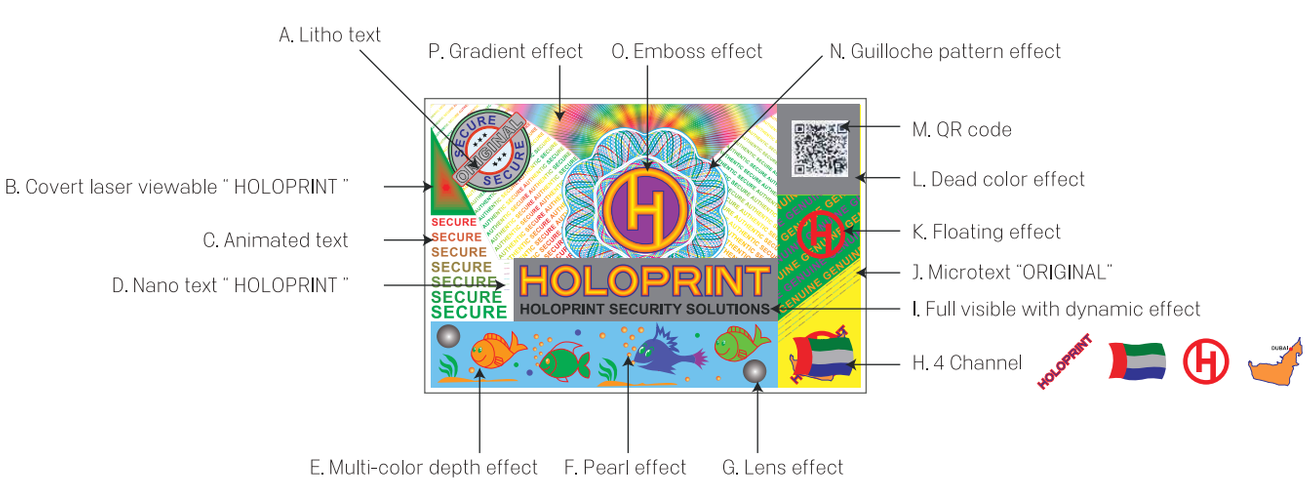


I. Emboss effect

J) Kinetic Effect
This is the patten of line which moves in linear, radial, conical or any angle when the hologram is tilted.


J. Kinetic effect

Level 2
High-security Hologram

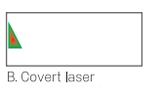


Level 2
High-security Hologram

A) Litho Text
It involves quick generation of dense features over a wide area without loss of focus. It is a technique for patterning regular arrays of fine features without the use of complex optical features.


A. Litho text

B) Covert Laser Viewable "HOLOPRINT"
CLR images produce certain images on the screen of the controlling device, which differ in the first and minus first orders of laser light diffraction.


B. Covert laser viewable "HOLOPRINT"

C) Animated Text
In this feature, the text is placed in such a way that the image appears to be visible and a movement can be seen at a particular angle.


C. Animated text

D) Nano Text "HOLOPRINT"
It is one millionth of a micrometer, the text can be visible only through microscope. It cannot be seen through naked eye.


D. Nano text "HOLOPRINT"

E) Multicolor Depth Effect
In this effect, the image is kept in middle or third layer of hologram with multicoloured feature.


E. Multicolor depth effect

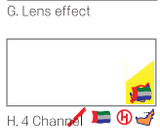
F) Pearl Effect
It is a an effect wherein some part of the image is adjusted to appear like real pearl.


F. Pearl effect

G) Lens Effect
These are optical lenses and simulate an extra-ordinary depth. These holographic lens designs also produce highly noticeable light reflection and color plays. This appears to be eye catching in the hologram.


G. Lens effect

H) Four Channel
Image or text is placed in four layers. To add security, these four are provided in flip-flop effect wherein one image disappears when the other appears. Hence, four images can be seen at different angles.


H. 4 Channel

I) Full visible with Dynamic Effect
It is an effect in which the image lies in the foreground of the hologram and appears very bright to naked eye.

I. Full visible with dynamic effect

J) Micro Text "ORIGINAL"
Text is visible to naked eye only when observed with biological microscope.


J. Microtext "ORIGINAL"

K) Floating Effect
In this effect, the image in hologram appears to be moving vertically or horizontally when inclined at different angles.


K. Floating text

L) Dead Color Effect
In holography, rainbow color appears only but by special method this dead color has been achieved to enhance the security of a hologram.

L. Dead color effect

M) QR Code
A machine readable code consisting of an array of black and white squares, typically used for storing URLs or other information for reading by barcode handheld /automatic reading devices and by camera on apps in smartphones.


M. QR code

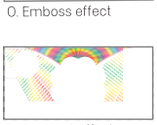
N) Guilloche Pattern Effect
These are set of thin lines of complicated geometry drawn with high resolution. The technology allows continuous visual changes of color along each separate lines. These patterns are created through a special software, and once created the same pattern cannot be created again.


N. Guilloche pattern effect

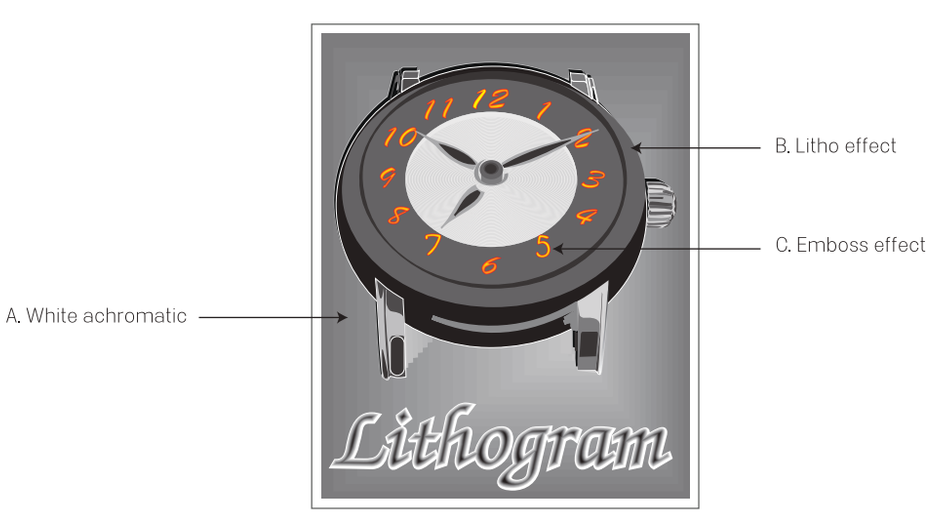
O) Emboss Effect
This unique technique uses images which are created by computer graphics which appear to be embossed in nature i.e. they are slightly raised from the ground.

O. Emboss effect

P) Gradient Effect
Different varities of computer generated random pattern design and each graphical design has been provided with colour changing effect in the form of gradations. This cannot be achieved with any kind of printing.


P. Gradient effect

Level 3
Lithogram



Level 3
Lithogram

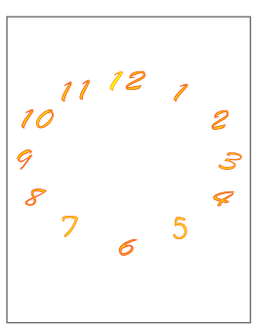
A) White Achromatic

A Unique holographic feature created through white beam which does not reflect spectrum of rainbow like in other holograms. It appears to be like a dead area and seems to be white. This feature can only be created through Lithography technique and requires 120000 DPI of resolution to be created.

A. White achromatic

B) Emboss Effect

This unique technique uses images which are created by computer graphics which appears to be embossed in nature i.e. they are slightly raised from the ground.



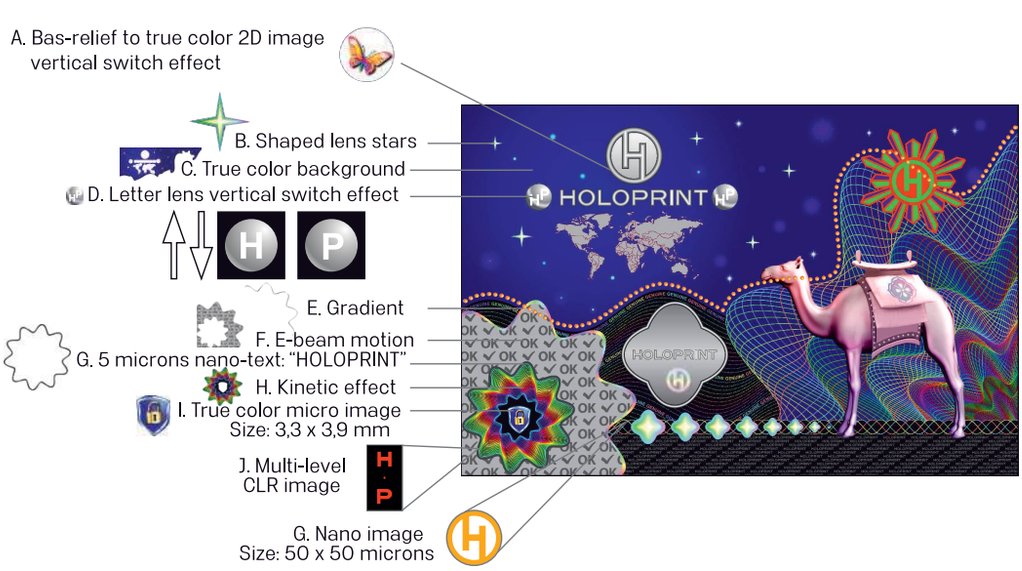
B. Emboss effect

C) Litho Effect

It involves quick generation of dense features over a wide area without loss of focus. It is a technique for patterning regular arrays of fine features without the use of complex optical features.

C. Litho effect

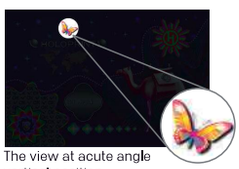
Level 4
E-beam



Level 4
E-beam

A) Bas-relief to true color 2D image vertical switch effect

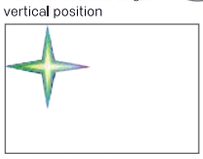
With electronic beam exposure it is possible to achieve special effects which are not directly "holographic", but also work with the micro-structure of a hologram. E-beam technology allows synthesising special bas-relief 3D images. Such images do not depend on the parameters of the light source. This feature is with switch effect.



The view at acute angle vertical position

B) Shaped Lens Star (Diffractive Bas-Relief)

These are optical lenses and simulate an extra ordinary depth. These holographic lens designs also produce highly noticeable light reflection and color plays. This appears to be eye catching in the hologram. Holoprint with E-beam technology has introduced shapes in this effect. No other technology can create the shapes in lens.



B. Shaped lens stars

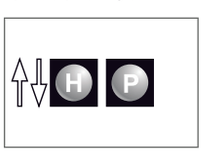
C) True Color Background

It is made up of photographic quality artwork, and recorded at resolution of more than 1,000,000 DPI (Dot Per Inches). In this case, counterfeiters cannot achieve the required accuracy of micro-structures forming in the background of the hologram.

C. True color background

D) Letter lens Vertical Switch Effect

The security element (a flat lens) is computed and manufactured so as to make an additional image visible when viewed under a point source. The letter lens element is thus a nano optical element with a pre-defined scattering pattern. The optical element forms full parallax movement of the symbols with switching between them (here between H and P letters). The effect requires spot or small light source



D. Letter lens vertical switch effect

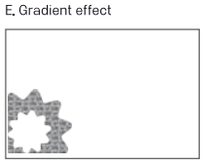
E) Gradient Effect

Different varieties of computer generated random pattern designs and each graphical design has been provided with colour changing effect in the form of gradations. This cannot be achieved with any other kind of printing.

E. Gradient effect

F) E-Beam Motion

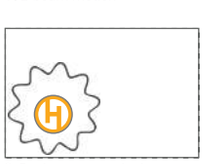
The computer synthesised optical effect creates symbols with full ortho-parallax movement. (Inclination left/right gives up/down movement, inclination up/down gives left/right movement of the symbols.) Such a special horizontal/vertical motion of image can be created only by E-beam technology. The same motion cannot be achieved by any other dot-matrix technology.



F. E-beam motion

G) Nano Text & Nano Image

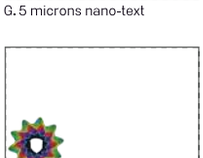
E-beam technology allows nano texts as small as several microns to be incorporated into holograms. Five to ten micron high nano texts can be seen through a good optical microscope. Similar to Nano text, E-beam technology allows incorporation of nano images in holography.



G. 5 microns nano-text

H) Kinetic Effect

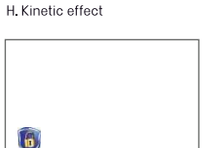
This is the patten of line which moves in linear, radial, conical or any angle when the hologram is tilted.



H. Kinetic effect

I) True Color Micro Image

It is made up of photographic quality artwork, and recorded at resolution of more than 1,000,000 dpi (Dot Per Inches). In this case, counterfeiters cannot achieve the required accuracy of micro-structures forming in the Image.



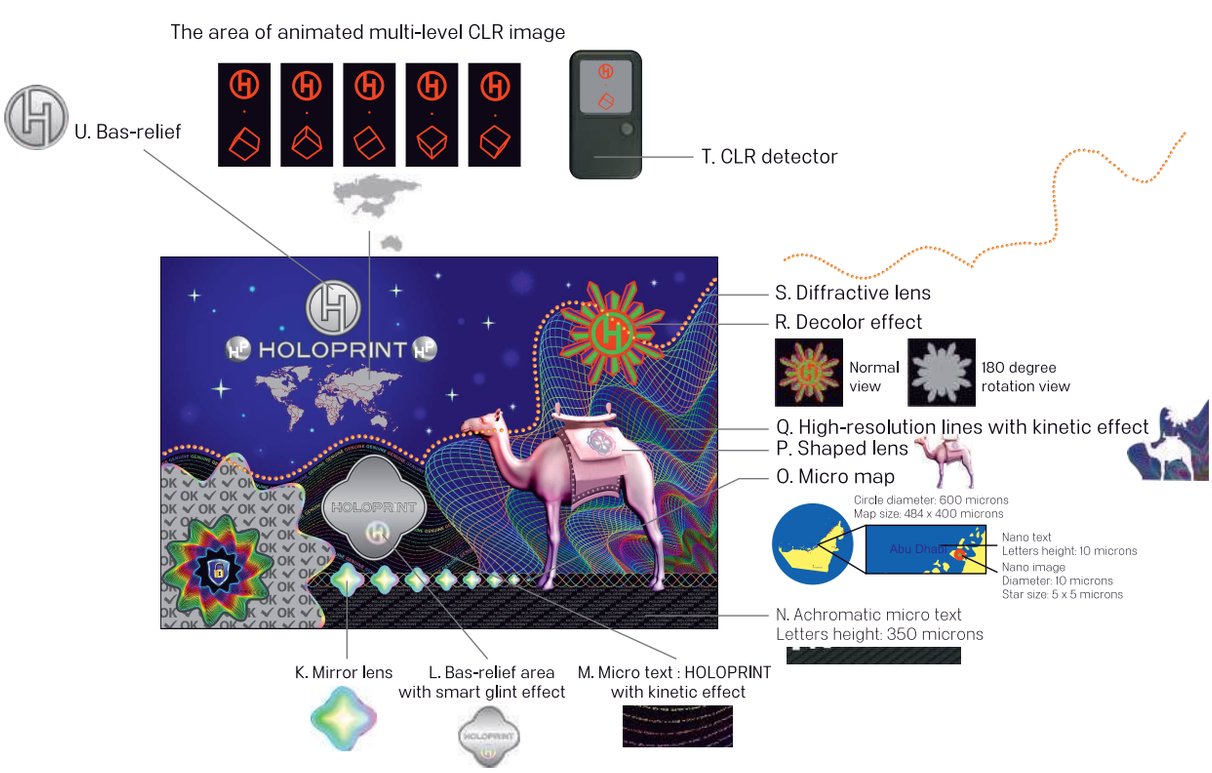
I. True color micro image

J) Multi-color CLR Image

The asymmetrical microrelief of the optical element forms different images at once at reflect laser light. This is an image that can not be seen with a naked eye. The image can be visualised by the use of a diode laser or a specially designed compact reader. The feature requires very high accuracy of microrelief fabrication and reproduction, the asymmetrical multi-level shape of the microrelief is recorded at 10 nanometers resolution in depth, so the feature forms different covert images at diffraction orders, which can be verified surely by the compact reader.

J. Multi-level CLR image

Level 4
E-beam



Level 4
E-beam

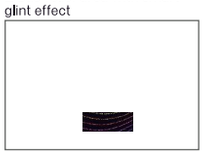
K) Mirror Lens
It is designed to give fascinating 3-D holographic effects, which is visible at wide view angle range.


K. Mirror lens

L) Bas-Relief Effect with Smart Glint Effect
An additional image (the sign "H") can be seen under a bas-relief image, when viewed under a point light source. The symbol has full parallax movement in big range of the entire area of bas-relief effect.


L. Bas-relief area with smart glint effect

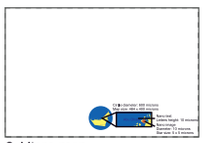
M) Micro Text with Kinetic Effect
Micro text cannot be seen with naked eyes, its close visual inspection can be done by magnifier. When seen under a magnifier they reflect different colours on different angles.


M. Micro text with kinetic effect

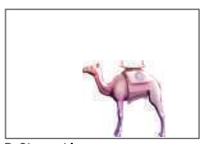
N) Achromatic Micro Text Letters
These are colourless micro text letters which do not reflect holographic rainbow colours.


N. Achromatic micro text letters height: 350 microns

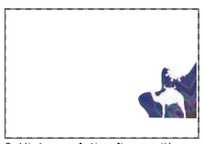
O) Micro Map
In this effect, a map is given in size which can only be seen through a microscope.


O. Micro map

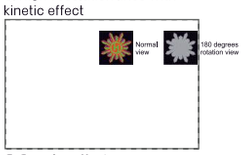
P) Shaped Lens
These are optical lenses and simulate an extra ordinary depth. These holographic lens designs also produce highly noticeable light reflection and color plays. This appears to be eye catching in the hologram. Holoprint with E-beam technology has introduced shapes in this effect. No other technology can create the shapes in lens.


P. Shaped lens

Q) High-Resolution Lines with Kinetic effect
High-resolution line patterns are the sets of thin lines of complicated geometry drawn with high resolution. The technology allows continuous visual changes of color along each separate line.

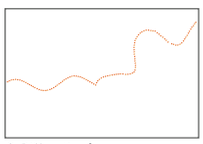

Q. High-resolution lines with kinetic effect

R) Decolor Effect
The asymmetric shape of micro-relief recorded at 10 nanometers resolution in depth allows switch effects to be created that can be seen when the object is turned 180 degrees. It can be given in two ways:
1) In the normal position colorful and contrast image is visible.
2) Whereas a no color and no contrast image appears when an object is turned by 180 degrees.



R. Decolor effect

S) Diffractive Lens
It is a process of designing a lens to meet a set of performance requirements and constraints. These parameters include surface profile types like spherical, aspheric and diffractive.


S. Diffractive lens

T) CLR Detector
Security features are impossible to record optically. Multi-level CLR image technology requires very high accuracy of micro-relief reproduction. Images seen in the "CLR" device differ in the plus one and minus one orders of diffraction.


T. CLR detector

U) Bas-Relief
With electronic beam exposure it is possible to achieve special effects which are not directly "holographic", but also work with the micro-structure of a hologram. E-beam technology allows synthesising special bas-relief 3D images. Such images do not depend on the parameters of the light source.


U. Bas-relief

Product Offerings

Made with ultra-modern technologies, anti-counterfieiting products
find usage within a wide gamut of local and international brands and their products

SECURITY HOLOGRAMS

SECURITY LABELS

TAX / REVENUE STAMPS

HOT STAMPING FOIL

WADS

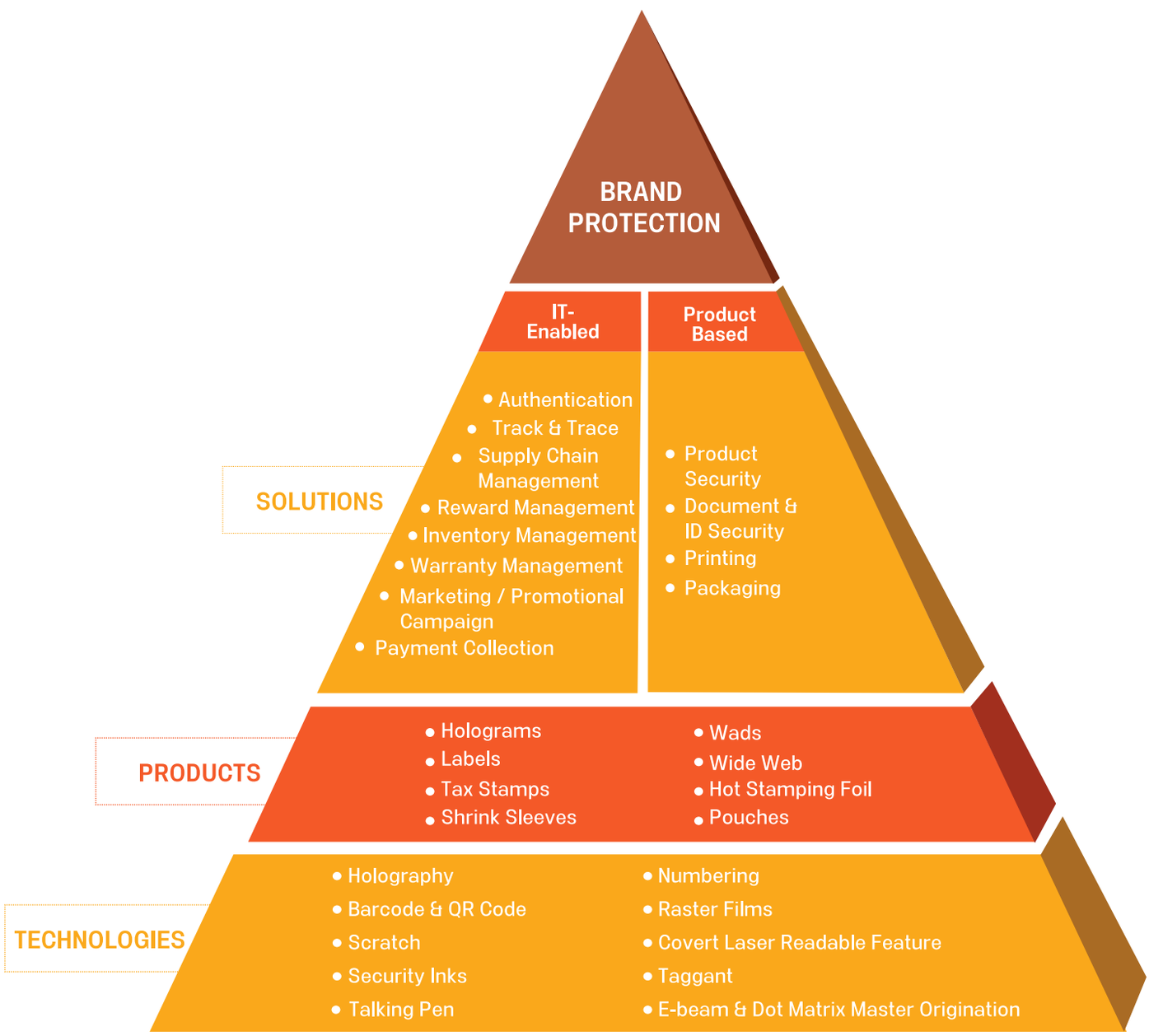
SHRINK SLEEVES

SECURITY POUCHES

HOLOGRAPHIC WIDE WEB FILMS

Brand protection is the reason we exist.

An extensive range of holographic products and services keeping the diversified requirement of the end customer in mind.



Integrated Security Solutions To Meet Your Brand Protection Needs

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(AN ISO 9001:2015 & HALAL CERTIFIED COMPANY)

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