

أثر استخدام الشبكات متغيرة التردد على الألوان الطباعية في المطبوعات المحلية The Effect of FM Screens in the Printing Colors In Local Print Houses

أ.م.د/ إبراهيم عصمت والى

أستاذ مساعد بقسم الطباعة والنشر والتغليف - كلية الفنون التطبيقية - جامعة حلوان - مصر

Introduction:

In the printing industry, two types of halftone screens are basically used to express the halftone photos so that photos can be printed using the commercial machines, they are: Amplitude Modulated Screens (AM Screen) which is widely around the world and in the local market and it is simply setup and produced, Frequency Modulated Screens (FM Screen) which is a new trend in the industry and could solve many of the problems associated with printing, and is not used in many print shops locally as it is not that simple type of halftone to be produced.

Key Words:

Color Shift – Printing Screens – Conventional Printing - AM Screen - FM Screen.

Problem:

In the printing industry, two types of inter-changeable screens are dominating the market, a color shift may occur while using both types with the same product, this paper is to study the color shift while switching between the two types of screens.

Overview:

The ability of using the two types of screens for the same product would give the print shop an advantage of solving some problems of the printing process.

Aim:

The aim of this paper is to clarify the amount of color shift while using both types of halftone screens.

Assumption:

1. Using two types of halftone screens would give some sort of color shift.
2. The settings of printing may affect the amount of color shift when printing with two types of halftone screens.

Results:

- 1- Using a high quality commercial offset machine that can print halftone dots less than 10% could give a very small and acceptable color change when printing the same product with two types of halftone screens, which would not affect the reliability of the product.
- 2- A notable amount of color shift will occur with commercial offset printing if the mashie is not capable of print halftone dots less than 10%.