



**Building on the Eco-design Directive,
EuP Group Analysis (I),
Lot 3: Sound & Imaging Equipment**

1st Stakeholder Meeting – Task 1, 2, 3 DPFs

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Task 1 Digital Picture Frames (DPFs)

What is a *Digital Picture Frame* and what specifications are used?

- **Digital Picture Frame (DPF)**
- **stores digital images/video using internal or external memory**
Pictures (JPG), video (MPG and more), sound
- **displays digital images/video from internal or external memory**
- **on a liquid crystal display (LCD) screen.**
- **DPFs entered the market in 2005**
as a second life opportunity for manufacturing lines for small panels

Components of a DPF

LCD screen

- Typical Screen Sizes from 7" to 15" (17,8 to 38,1 cm), up to 32" (81 cm).
- Aspect ratios of 4:3 and 16:9.
- Typical resolution of 640 x 480, 720 x 480, 800x 480 or 800 x 600

CPU (Microcomputer)

Internal memory for image storing

User interface buttons / remote similar as for TV-set

External power supply (EPS) / batteries

DPF Connectivity

- **Memory card slot**
SD (HC) (MMC), Compact Flash
- **USB or USB/OTG (On The Go)**
- **Wi-Fi**
- **LAN**
- **GSM**
- **DECT**
- **VGA**

DPFs a niche market product

Picture frames

Photo album / presentation equipment

Mobil phone accessory (MMS receiver)

Cordless phone accessory

PC Monitor

TV set (mobile) with DVB-T tuner

Chameleon product

LCD panels for DPFs are available at low costs

Energy efficiency is not an issue yet

Ex-works configuration is for a 24/7 operation always on

Auto-off function sometimes available

Lifetime energy consumption cost could be higher than purchasing costs of the device

New features/functionality can be added easily

DPF a new word for monitor?

Most DPFs are using panels of the last generation of monitors

New features as DVB-T or VGA (HDMI?)

Integrated CPU (computer functionalities)

→ Monitors + additional features

Energy Star

Taric numbers for customs purposes

Prodcom

Task 2 Digital Picture Frames (DPFs)

Production Base

- **Almost all DPFs are “Made in China” or “Made in Taiwan”**

Trade

- **DPFs are imported from East Asia**

Current Market and Stock Data

- **Sales data for DPFs are only available partially**
- **Stock data are difficult to calculate**

DPF Market Trends

DPFs are fancy or fashion products

DPFs are seasonal products

DPFs are price sensitive

DPFs are in a sandwich position between

mobile GPS devices and netbooks

New features should open new niches

DPFs get closer to monitors (VGA/HDMI?)

Task 3 Digital Picture Frames (DPFs)

Consumer Behaviour & Local Infrastructure

Most DPFs are bought as a present for friends and relatives

-> The buyer is not the owner

Stiftung Warentest in Germany assumed

- 10 hours of use per day, if switch available
- (DECT and GSM modules need 24/7 operation time)
- 6 years life span