JEITA

Standard of Japan Electronics and Information Technology Industries Association

JEITA　CP－3461B

Design rule for Camera File system: DCF Unified Version 2.0

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Prepared by:
AV&IT Standardization Committee

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Japan Electronics and Information Technology Industries Association (JEITA) and Camera & Imaging Products Association (CIPA) jointly formulated this standard.
The following standards are technically equivalent.

JEITA:

CP-3461B Design rule for Camera File system: DCF Version 2.0 (Edition 2010)

CIPA:

DC-009-2010 Design rule for Camera File system: DCF Version 2.0 (Edition 2010)

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Introduction

This document is a standard that edits and recompiles the “Design Rule for Camera File System DCF Unified Version” (JEITA CP-3461A + CIPA DC-009-2009) (hereinafter called “the DCF Standard Unified Version 2.0) that was defined by JEITA and CIPA in ways that included incorporating the necessary portion of Annex F “Guidelines for Handling Exif/DCF” into the main text. Additionally, expressions that resulted in ambiguous interpretation were clarified and errors were corrected. In addition, specifications concerning FAT, application for devices with embedded memory, and 4. “DCF Media” were revised in order to respond to greater file capacity.

Revision History

Rev.	Date	Comment
1.0	October 1998	Published First Edition 1.0 ● Established file rules and file storage rules ● Established designation of sRGB ● Established thumbnail specifications
2.0	September 2003	Published Revision 2.0 ● Added DCF optional files (extended color space) ● Corrected misprints and omissions throughout the text
Unified Version 2.0	June 2009	Published Unified Version 2.0 ● Added CIPA-issued “Guidelines for Handling Exif/DCF” CIPA DCG-004-2009) as Annex 6 ● Added explication of 2.0 as Annex 7 ● Corrected misprints and omissions throughout the text
2.0 (Edition 2010)	April 2010	Published Revision 2.0 (Edition 2010) ● Restructured the main standard text, guidelines, explications, etc., of DCF Unified Version 2.0 ● Clarified specification levels and revised the scope of application ● Revised items pertaining to file system ● Corrected misprints and omissions for the entire text

1. Scope

This standard specifies the file system to be used when handling image files and sound files that are prepared using a format that is in accordance with the Exif Standard with DCF media that were formatted by an FAT file system (FAT12, FAT16, FAT32, exFAT,), etc., that can guarantee their interoperability as media.

The standard applies to devices, recording media, and application software that handle image files and sound files when such files are handled as Exif/DCF files.

As devices mentioned above, the applicable items are devices with functions such as capturing, recording, displaying, editing, and printing of images.

Specifically, examples of capture/recording devices include DSC, DVC, and camera phones, etc. Examples of display/playback devices include image display devices such as DVT, digital photo frames, and car navigation systems. In addition, image storage devices include image storers and home servers. Image printing devices include printers.

As application software mentioned above, the applicable items are application software providing functions for editing, displaying, and recording metadata as well as importing and editing images.

2. Definitions

2.1. Definition of Terms

DCF	The standard specified in this document
Exif Standard	"Digital Still Camera Image File Format Standard (Exif) of the Japan Electronics and Information Technology Industries Association (JEITA)
JPEG Standard	ISO/IEC 10918-1 ITU-T Recommendation T81 information technology – Digital compression and coding of continuous-tone still images – Requirements and guidelines
DSC	Digital still camera
DTV	Digital television
PC	Personal computer
DCF-compatible	Compliant with the DCF
DCF media	Removable memory recorded in compliance with the DCF or,