

CIPA standardization activities



CIPA Standard Development Working Group : Leader

DPS Sub-Working Group : Chief

PTPIP Sub-Working Group : Chief

Canon Inc.

DCP Dev. Center 1 : General Manager

Hideaki Kawamura

Agenda

■ CIPA introduction

- Organization Chart of CIPA
- main CIPA standards
- DSC estimate statistics

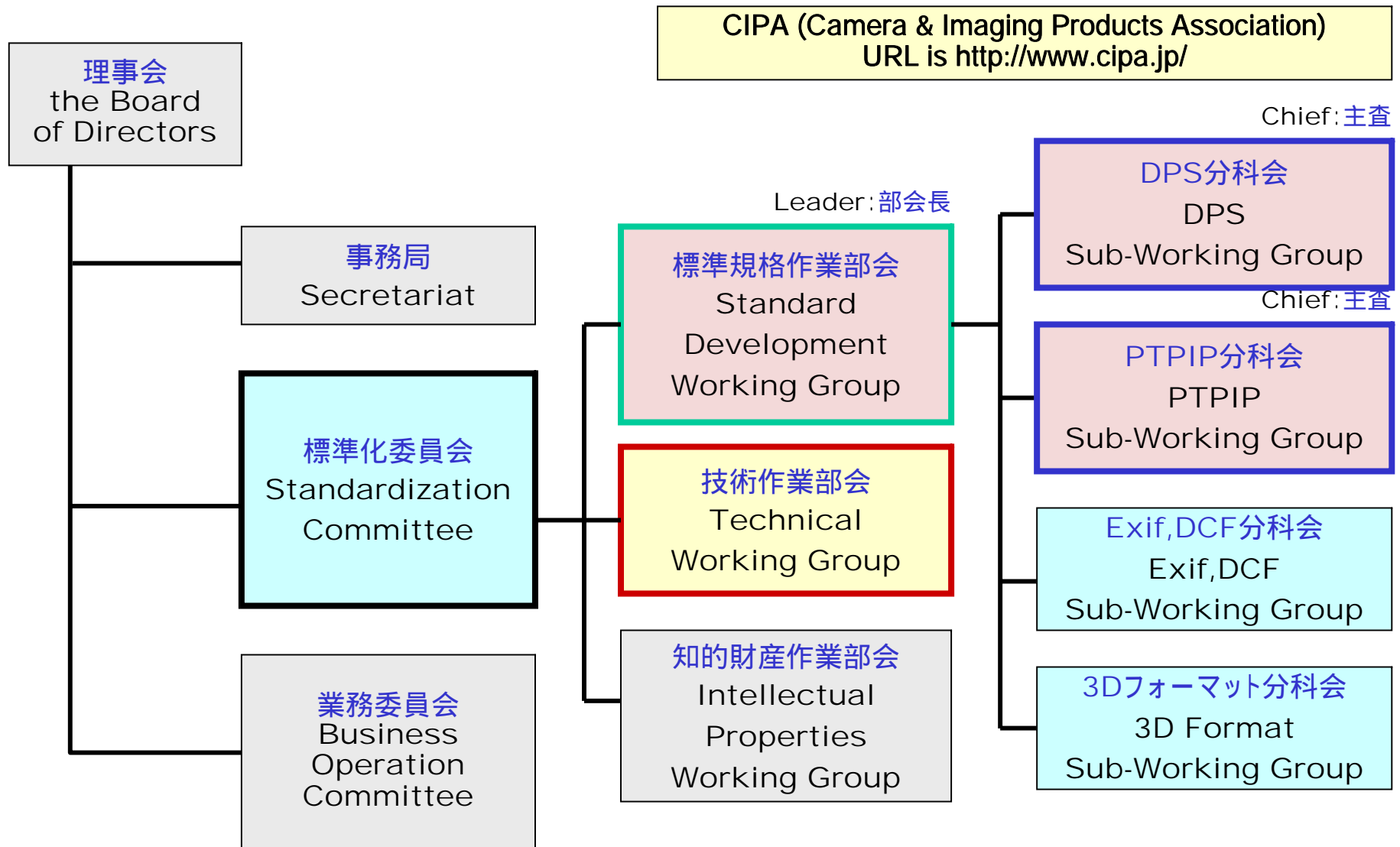
■ PictBridge outline

- PictBridge Protocol architecture
- Statistics of PictBridge support devices

■ PTP-IP outline

- PTP-IP Protocol architecture

Organization Chart of CIPA



CIPA Standards

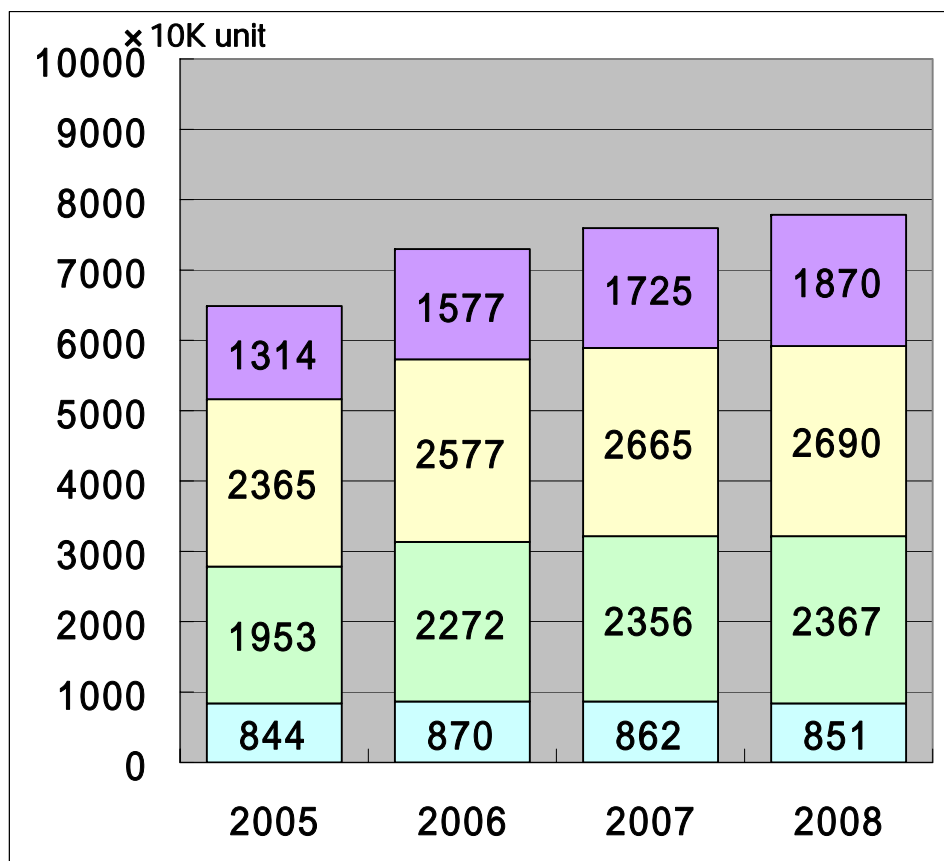
Standard Number	Common Name	Contents	Publication
CIPA DC-001-2003	PictBridge	Digital Photo Solutions for Imaging Devices (画像機器へデジタルフォトソリューションの提供)	Feb 3 th , 2003
CIPA DC-002-2003		Standard Procedure for Measuring Digital Still Camera Battery Consumption (電池寿命測定法)	Dec 17 th , 2003
CIPA DC-003-2003		Resolution Measurement Methods for Digital Cameras (デジタルカメラの解像度測定方法)	Dec 17 th , 2003
CIPA DC-004-2004		Sensitivity of digital cameras (デジタルカメラの感度規定)	Jul 27 th , 2004
CIPA DC-005-2005	PTP-IP	"Picture Transfer Protocol" over TCP/IP networks (TCP/IPネットワーク上でPTP(画像転送プロトコル)の実現)	Nov 8 th , 2005

Progress of world demand for digital camera

CIPA予測: CIPA document Predictive value after 2006

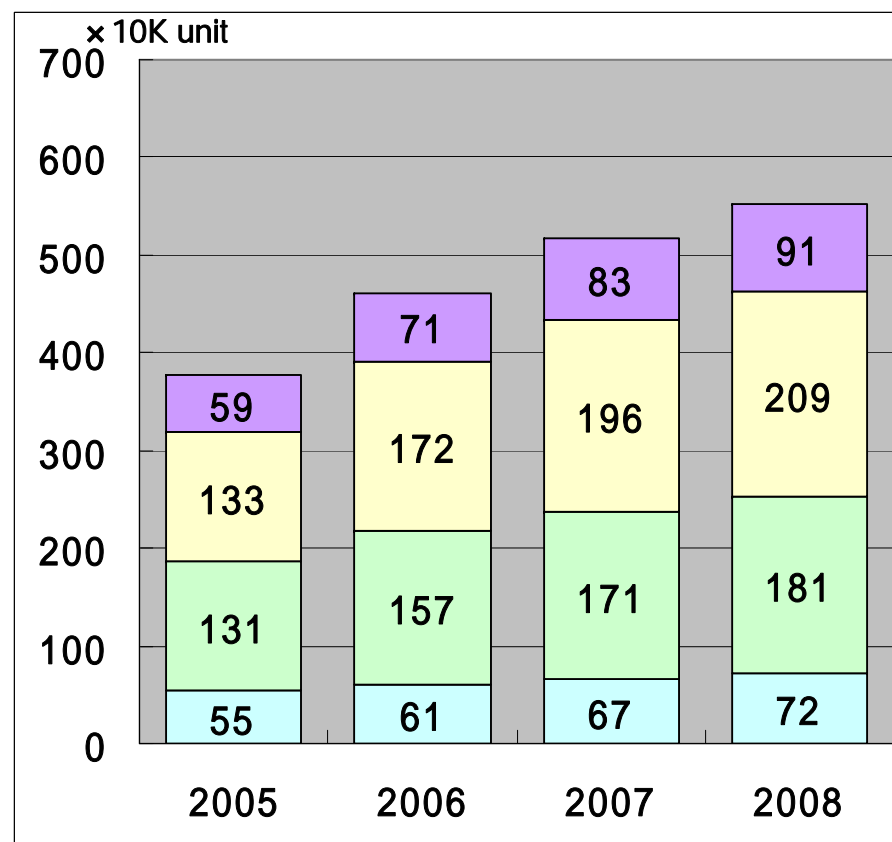
DSC 世界需要推移

Progress of world demand for DSC



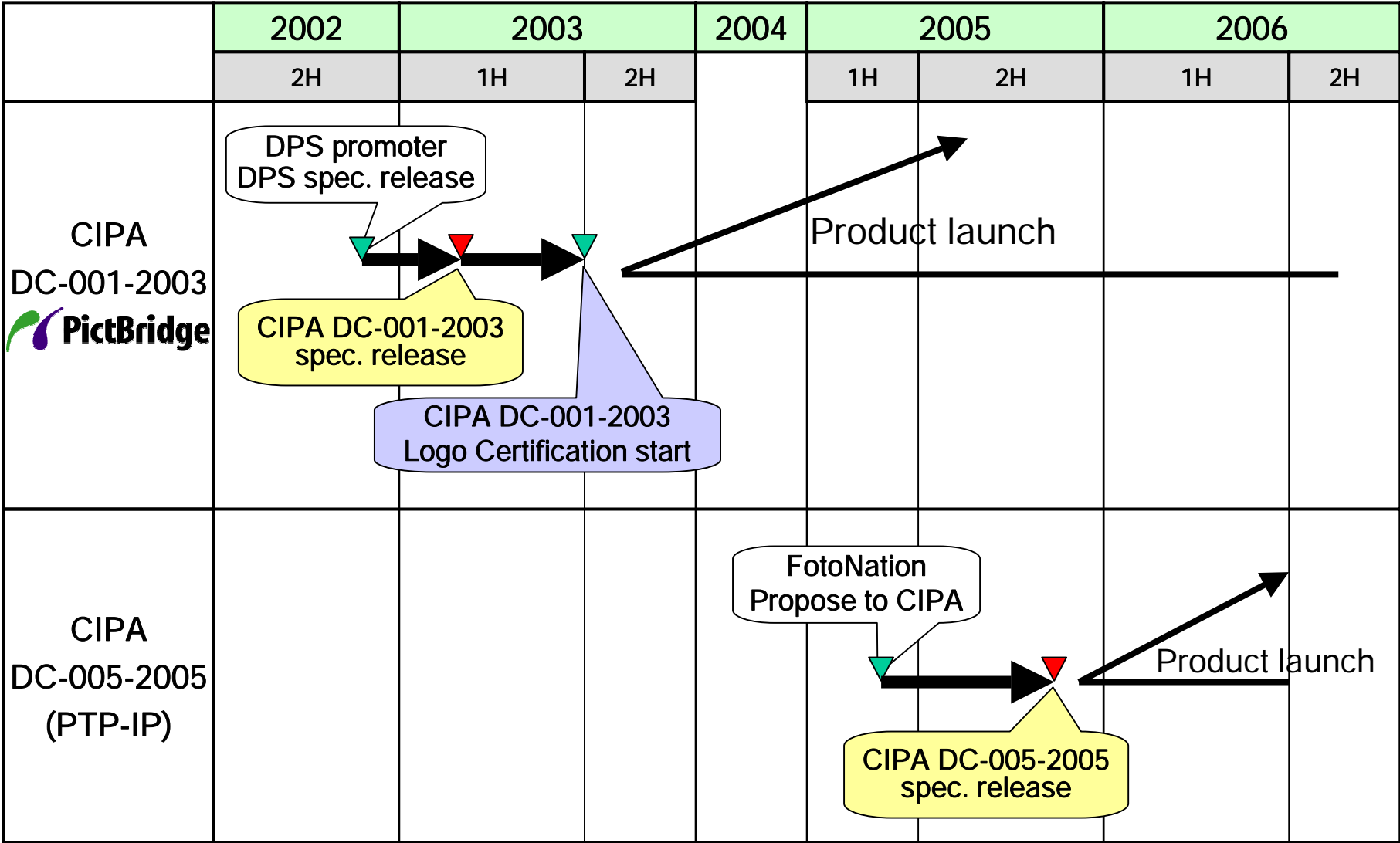
デジタル一眼カメラ世界需要推移

Progress of world demand for digital SLR



Japan North America Europe Others

CIPA Standards



PictBridge outline

■ Concept

- "Direct Print" among any Digital Still Cameras and any Printers

■ Background

- "DPS" standard was announced on December 2, 2002
 - DPS 6 promoters (Canon, Epson, Fujifilm, HP, Olympus, and Sony)
- "DPS" standard was released On February 3, 2003
 - It was announced as a CIPA standard "CIPA DC-001-2003"

■ How to get the documents

- Every documents can be downloaded from CIPA homepage with IP RAND statement
 - Specification (with DPS_XML_schema)
 - Implementer's guideline
 - Logo certification guideline

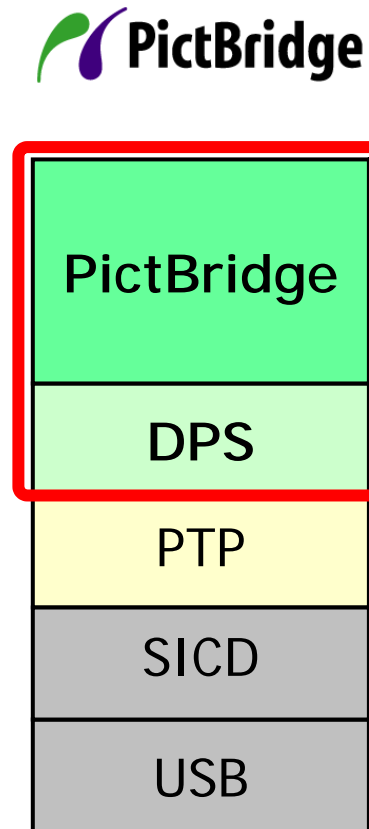
■ Interoperability (Logo program)

- PictBridge logo can be used after passing the PictBridge Logo certification test



PictBridge documents

■ PictBridge Protocol Architecture



■ DPS1.0 Specification: 規格書本体

- Define DPS Capability: プリンタ印刷能力の確認
 - ◇ PaperSize, PaperType, FileTypes, DatePrint, Cropping...
- Define DPS Parameter: 各種パラメータの定義
 - ◇ Capability, JobConfig, PrintInfo, StatusInfo...
- Define Print Feature: 各種印刷方法の定義
 - ◇ Basic Print (Single, Selected, All, All Index, DPOF)
 - ◇ Advanced Print (Cropping, Date, N-up, paperSize...)
- Printer Status information: 機器の状態表示
 - ◇ Job, Error, DPS establish...

■ Implementer's Guideline: 実装ガイドライン

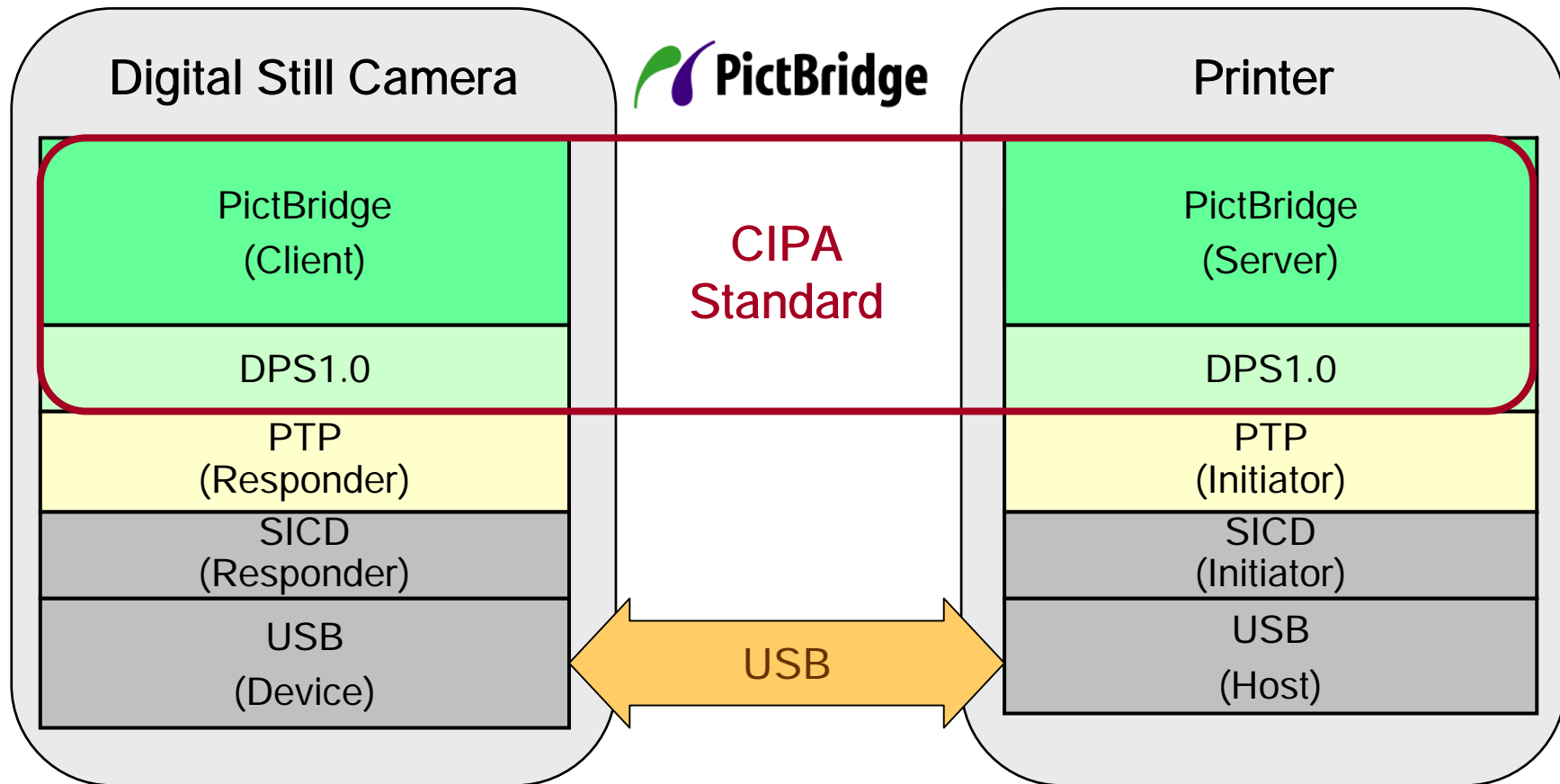
- PTP implementation
- USB implementation

■ Logo Certification Guideline: ロゴ認証ガイドライン

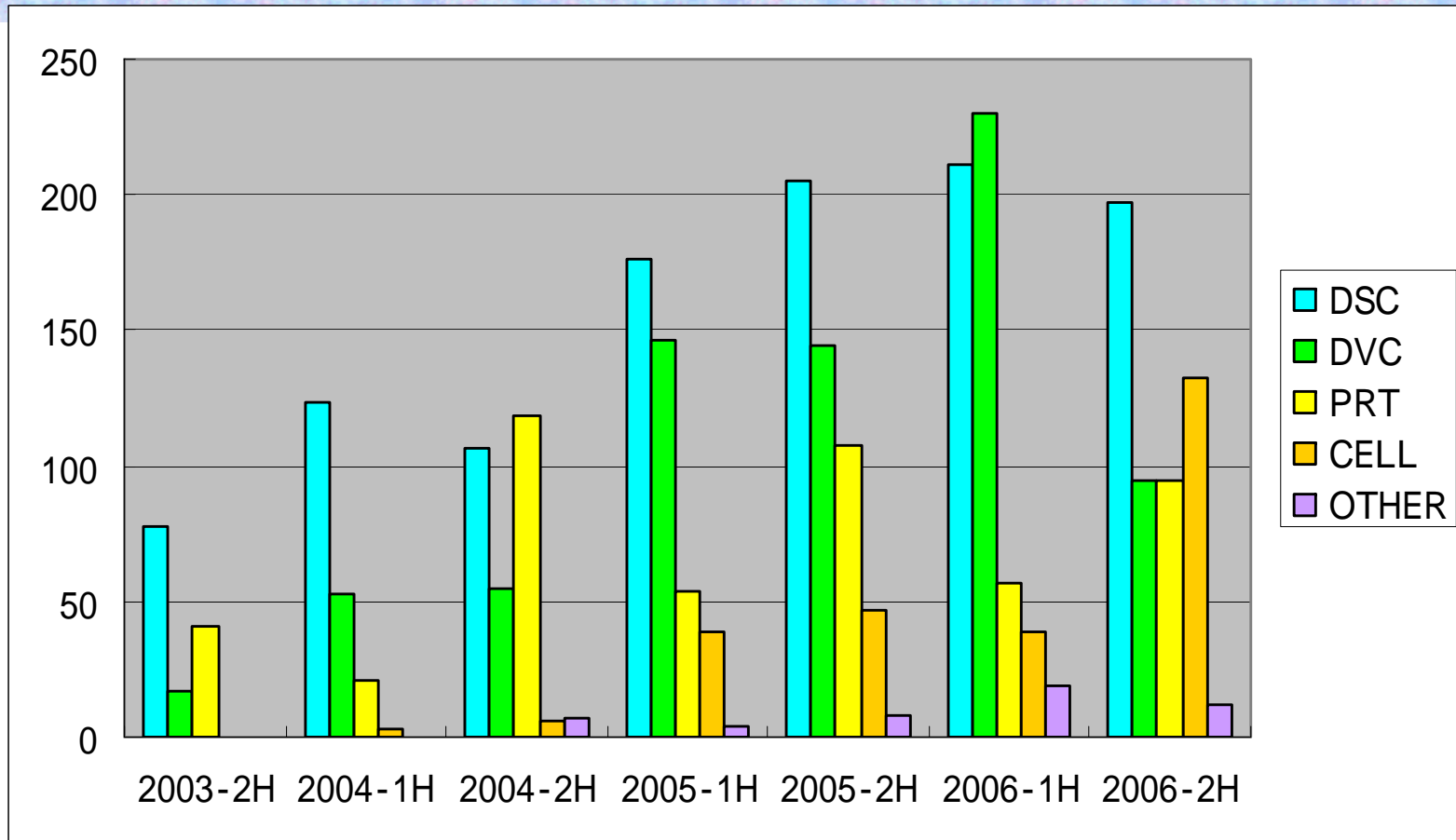
- PictBridge Logo certification Process
- Interoperability Test Tool

PictBridge Protocol Architecture

PTP: Picture Transfer Protocol
PTP-IP: "Picture Transfer Protocol" over TCP/IP networks
SICD: Still Image Class Driver



Number of PictBridge certified models (each half year)



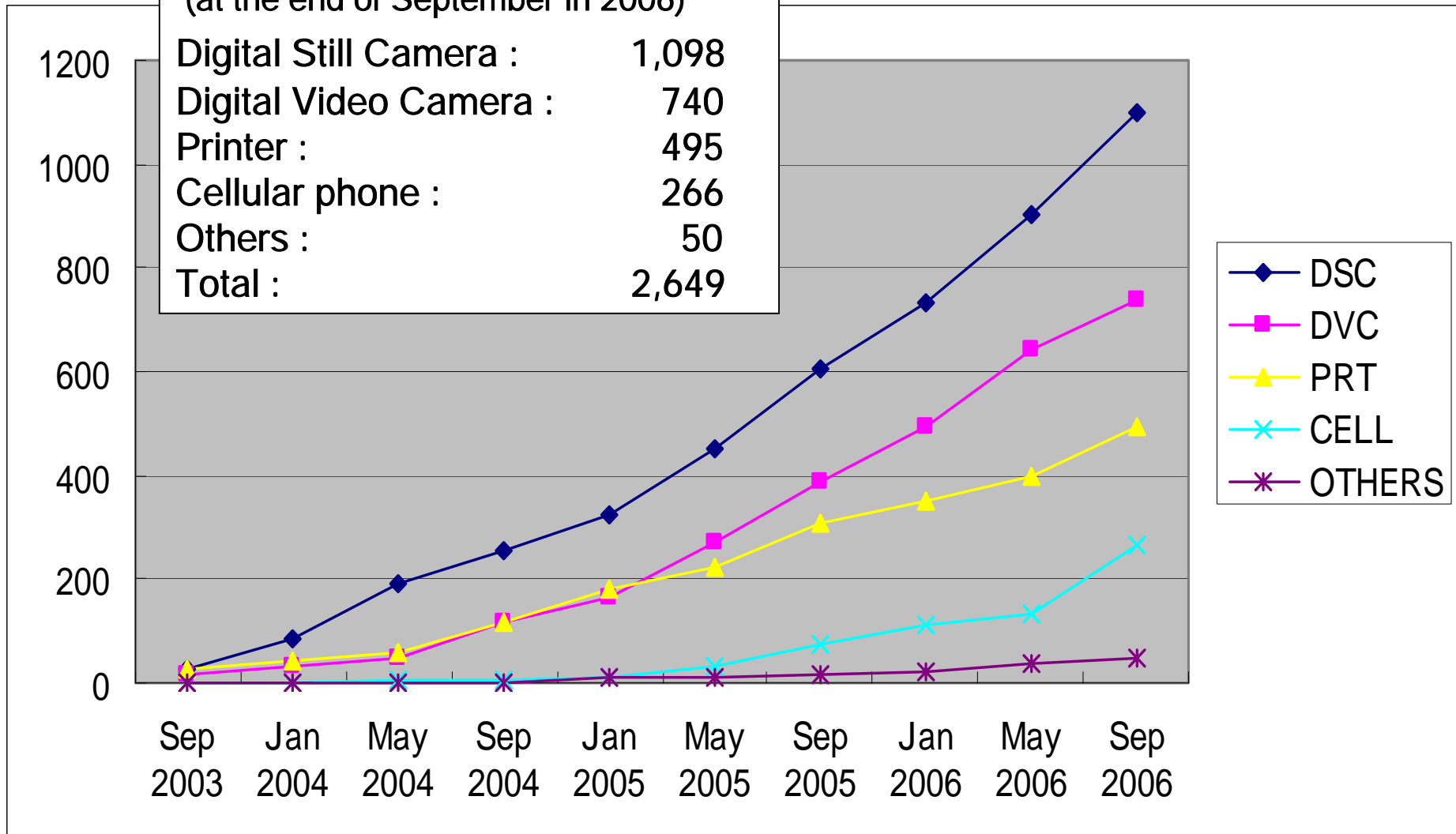
	2003-2H	2004-1H	2004-2H	2005-1H	2005-2H	2006-1H	2006-2H
DSC	78	124	107	176	205	211	197
DVC	17	53	55	146	144	230	95
PRT	41	21	119	54	108	57	95
CELL	0	3	6	39	47	39	132
OTHER	0	0	7	4	8	19	12

Sep 27th, 2006

Progress of number of PictBridge certified models

Number of PictBridge certified models
(at the end of September in 2006)

Digital Still Camera :	1,098
Digital Video Camera :	740
Printer :	495
Cellular phone :	266
Others :	50
Total :	2,649



PTP-IP outline

■ Concept

- PTP-IP is specified as a new layer to map PTP on TCP/IP layer
- PTP application and PictBridge devices can become networked or wireless

■ Background

- FotoNation propose this standard as a CIPA standard
- "PTP-IP" standard was released on November 9, 2005
 - It was announced as a CIPA standard "CIPA DC-005-2005"

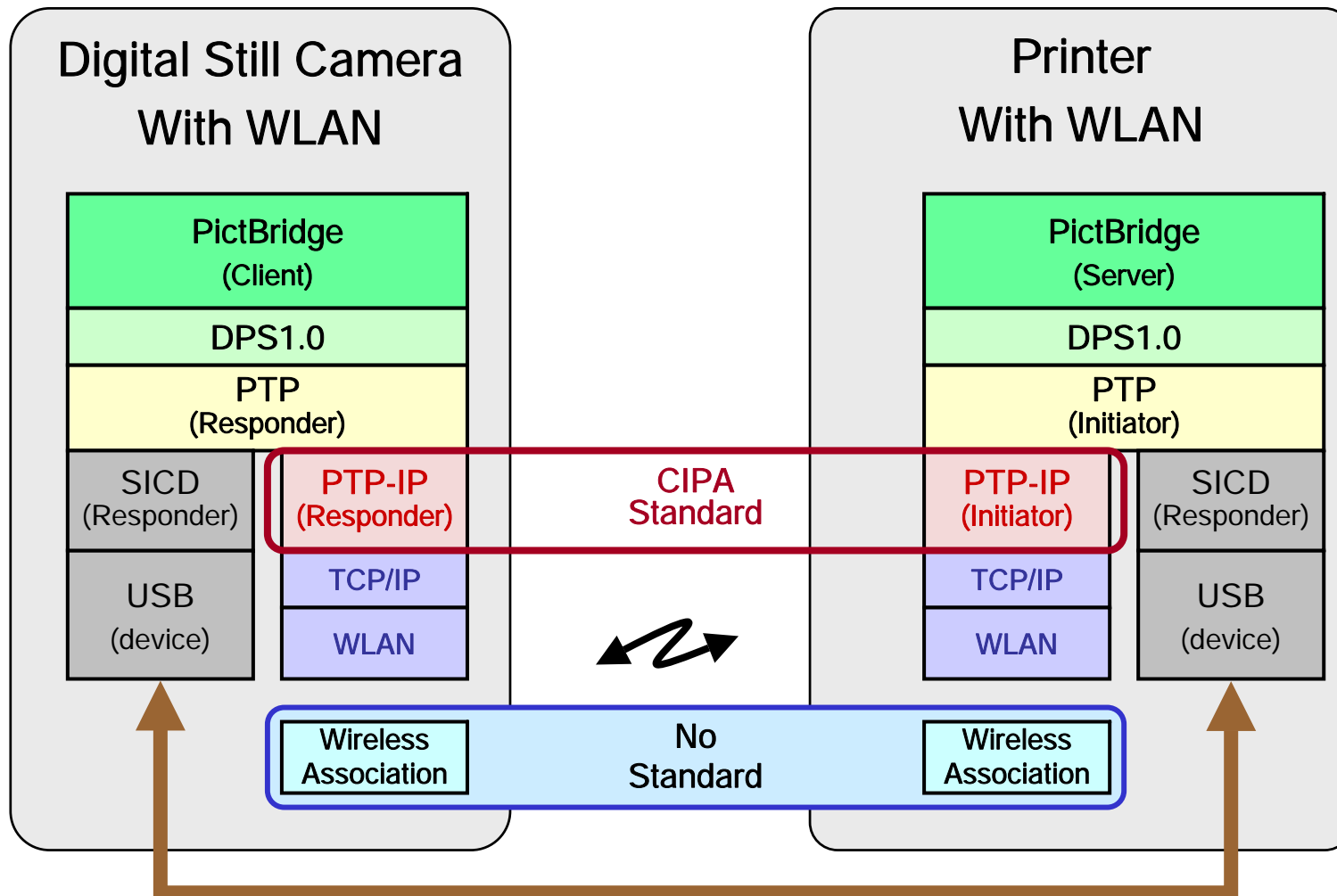
■ How to get the documents

- Specification document can be downloaded from CIPA homepage with IP RAND statement

■ Interoperability (Logo program)

- This protocol can be used to PictBridge devices, but there is no logo program
- We can not use the term of "Wireless PictBridge" or "PictBridge Wireless"

PictBridge Protocol Architecture using Wireless Dongle



 **PictBridge(USB)**