EXIF Tags

EXIF stands for "Exchangeable Image File Format". This type of information is formatted according to the TIFF specification, and may be found in JPG, TIFF, PNG, JP2, PGF, MIFF, HDP, PSP and XCF images, as well as many TIFF-based RAW images, and even some AVI and MOV videos.

The EXIF meta information is organized into different Image File Directories (IFD's) within an image. The names of these IFD's correspond to the ExifTool family 1 group names. When writing EXIF information, the default **Group** listed below is used unless another group is specified.

The table below lists all EXIF tags. Also listed are TIFF, DNG, HDP and other tags which are not part of the EXIF specification, but may co-exist with EXIF tags in some images. Tags which are part of the EXIF 2.3 specification have an underlined **Tag Name** in the HTML version of this documentation. See http://www.cipa.jp/std/documents/e/DC-008-2012_E.pdf for the official EXIF 2.3 specification.

Tag ID	Tag Name	Writable	Group	Values / Notes
0x0001	InteropIndex	string!	InteropIFD	'R03' = R03 - DCF option file (Adobe RGB) 'R98' = R98 - DCF basic file (sRGB) 'THM' = THM - DCF thumbnail file
0x0002	InteropVersion	undef!:	InteropIFD	
0x000b	ProcessingSoftware	string	IFD0	(used by ACD Systems Digital Imaging)
0x00fe	SubfileType	int32u!	IFD0	0x0 = Full-resolution Image 0x1 = Reduced-resolution image 0x2 = Single page of multi-page image 0x3 = Single page of multi-page reduced-resolution image 0x4 = Transparency mask 0x5 = Transparency mask of reduced-resolution image 0x6 = Transparency mask of multi-page image 0x7 = Transparency mask of reduced-resolution multi-page image 0x10001 = Alternate reduced-resolution image 0xffffffff = invalid Bit 0 = Reduced resolution Bit 1 = Single page Bit 2 = Transparency mask Bit 3 = TIFF/IT final page Bit 4 = TIFF-FX mixed raster content
0x00ff	OldSubfileType	int16u!	IFD0	1 = Full-resolution image 2 = Reduced-resolution image 3 = Single page of multi-page image
0x0100	ImageWidth	int32u!	IFD0	
0x0101	ImageHeight	int32u!	IFD0	(called ImageLength by the EXIF spec.)
0x0102	BitsPerSample	int16u[n]!	IFD0	

0x0103	Compression	int16u!:	IFD0	--> EXIF Compression Values
0x0106	PhotometricInterpretation	int16u!	IFD0	0 = WhiteIsZero 1 = BlackIsZero 2 = RGB 3 = RGB Palette 4 = Transparency Mask 5 = CMYK 6 = YCbCr 8 = CIELab 9 = ICCLab 10 = ITULab 32803 = Color Filter Array 32844 = Pixar LogL 32845 = Pixar LogLuv 34892 = Linear Raw
0x0107	Thresholding	int16u!	IFD0	1 = No dithering or halftoning 2 = Ordered dither or halftone 3 = Randomized dither
0x0108	CellWidth	int16u!	IFD0	
0x0109	CellLength	int16u!	IFD0	
0x010a	FillOrder	int16u!	IFD0	1 = Normal 2 = Reversed
0x010d	DocumentName	string	IFD0	
0x010e	ImageDescription	string	IFD0	
0x010f	Make	string	IFD0	
0x0110	Model	string	IFD0	
0x0111	StripOffsets	N	-	(PreviewImageStart in IFD0 of CR2 images and SubIFD1 of DNG images, and JpgFromRawStart in SubIFD2 of DNG images)
	PreviewImageStart	int32u*	IFD0	
	PreviewImageStart	int32u*	SubIFD1	
	JpgFromRawStart	int32u*	SubIFD2	
0x0112	Orientation	int16u	IFD0	1 = Horizontal (normal) 2 = Mirror horizontal 3 = Rotate 180 4 = Mirror vertical 5 = Mirror horizontal and rotate 270 CW 6 = Rotate 90 CW 7 = Mirror horizontal and rotate 90 CW 8 = Rotate 270 CW
0x0115	SamplesPerPixel	int16u!	IFD0	
0x0116	RowsPerStrip	int32u!	IFD0	
0x0117	StripByteCounts	N	-	(PreviewImageLength in IFD0 of CR2 images and SubIFD1 of DNG images, and JpgFromRawLength in SubIFD2 of DNG images)
	PreviewImageLength	int32u*	IFD0	
	PreviewImageLength	int32u*	SubIFD1	
	JpgFromRawLength	int32u*	SubIFD2	
0x0118	MinSampleValue	int16u	IFD0	
0x0119	MaxSampleValue	int16u	IFD0	
0x011a	XResolution	rational64u:	IFD0	
0x011b	YResolution	rational64u:	IFD0	
0x011c	PlanarConfiguration	int16u!	IFD0	1 = Chunky 2 = Planar

0x011d	PageName	string	IFD0	
0x011e	XPosition	rational64u	IFD0	
0x011f	YPosition	rational64u	IFD0	
0x0120	FreeOffsets	N	-	
0x0121	FreeByteCounts	N	-	
0x0122	GrayResponseUnit	int16u	IFD0	1 = 0.1 2 = 0.001 3 = 0.0001 4 = 1e-05 5 = 1e-06
0x0123	GrayResponseCurve	N	-	
0x0124	T4Options	N	-	Bit 0 = 2-Dimensional encoding Bit 1 = Uncompressed Bit 2 = Fill bits added
0x0125	T6Options	N	-	Bit 1 = Uncompressed
0x0128	ResolutionUnit	int16u:	IFD0	(the value 1 is not standard EXIF) 1 = None 2 = inches 3 = cm
0x0129	PageNumber	int16u[2]	IFD0	
0x012c	ColorResponseUnit	N	-	
0x012d	TransferFunction	int16u[768]!	IFD0	
0x0131	Software	string	IFD0	
0x0132	ModifyDate	string	IFD0	(called DateTime by the EXIF spec.)
0x013b	Artist	string	IFD0	(becomes a list-type tag when the MWG module is loaded)
0x013c	HostComputer	string	IFD0	
0x013d	Predictor	int16u!	IFD0	1 = None 2 = Horizontal differencing
0x013e	WhitePoint	rational64u[2]	IFD0	
0x013f	PrimaryChromaticities	rational64u[6]	IFD0	
0x0140	ColorMap	N	-	
0x0141	HalftoneHints	int16u[2]	IFD0	
0x0142	TileWidth	int32u!	IFD0	
0x0143	TileLength	int32u!	IFD0	
0x0144	TileOffsets	N	-	
0x0145	TileByteCounts	N	-	
0x0146	BadFaxLines	N	-	
0x0147	CleanFaxData	N	-	0 = Clean 1 = Regenerated 2 = Unclean
0x0148	ConsecutiveBadFaxLines	N	-	
0x014a	SubIFD	-	-	--> EXIF Tags
	A100DataOffset	N	-	(the data offset in original Sony DSLR-A100 ARW images)
0x014c	InkSet	int16u	IFD0	1 = CMYK 2 = Not CMYK
0x014d	InkNames	N	-	

0x014e	NumberofInks	N	-	
0x0150	DotRange	string	IFD0	
0x0151	TargetPrinter	N	-	
0x0152	ExtraSamples	N	-	0 = Unspecified 1 = Associated Alpha 2 = Unassociated Alpha
0x0153	SampleFormat	N	-	(SamplesPerPixel values) [Values 0-3] 1 = Unsigned 2 = Signed 3 = Float 4 = Undefined 5 = Complex int 6 = Complex float
0x0154	SMinSampleValue	N	-	
0x0155	SMaxSampleValue	N	-	
0x0156	TransferRange	N	-	
0x0157	ClipPath	N	-	
0x0158	XClipPathUnits	N	-	
0x0159	YClipPathUnits	N	-	
0x015a	Indexed	N	-	0 = Not indexed 1 = Indexed
0x015b	JPEGTables	N	-	
0x015f	OPIProxy	N	-	0 = Higher resolution image does not exist 1 = Higher resolution image exists
0x0190	GlobalParametersIFD	-	-	--> EXIF Tags
0x0191	ProfileType	N	-	0 = Unspecified 1 = Group 3 FAX
0x0192	FaxProfile	N	-	0 = Unknown 1 = Minimal B&W lossless, S 2 = Extended B&W lossless, F 3 = Lossless JBIG B&W, J 4 = Lossy color and grayscale, C 5 = Lossless color and grayscale, L 6 = Mixed raster content, M 7 = Profile T 255 = Multi Profiles
0x0193	CodingMethods	N	-	Bit 0 = Unspecified compression Bit 1 = Modified Huffman Bit 2 = Modified Read Bit 3 = Modified MR Bit 4 = JBIG Bit 5 = Baseline JPEG Bit 6 = JBIG color
0x0194	VersionYear	N	-	
0x0195	ModeNumber	N	-	
0x01b1	Decode	N	-	

0x01b2	DefaultImageColor	N	-	
0x01b3	T82Options	N	-	
0x01b5	JPEGTables	N	-	
0x0200	JPEGProc	N	-	1 = Baseline 14 = Lossless
0x0201	ThumbnailOffset	int32u*	IFD1	(ThumbnailOffset in IFD1 of JPEG and some TIFF-based images, IFD0 of MRW images and AVI and MOV videos, and the SubIFD in IFD1 of SRW images; PreviewImageStart in MakerNotes and IFD0 of ARW and SR2 images; JpgFromRawStart in SubIFD of NEF images and IFD2 of PEF images; and OtherImageStart in everything else)
	ThumbnailOffset	int32u*	IFD0	
	ThumbnailOffset	int32u*	SubIFD	
	PreviewImageStart	int32u*	MakerNotes	
	PreviewImageStart	int32u*	IFD0	
	JpgFromRawStart	int32u*	SubIFD	
	JpgFromRawStart	int32u*	IFD2	
	OtherImageStart	int32u*	SubIFD1	
	OtherImageStart	int32u*	SubIFD2	
	OtherImageStart	N	-	
0x0202	ThumbnailLength	int32u*	IFD1	(ThumbnailLength in IFD1 of JPEG and some TIFF-based images, IFD0 of MRW images and AVI and MOV videos, and the SubIFD in IFD1 of SRW images; PreviewImageLength in MakerNotes and IFD0 of ARW and SR2 images; JpgFromRawLength in SubIFD of NEF images, and IFD2 of PEF images; and OtherImageLength in everything else)
	ThumbnailLength	int32u*	IFD0	
	ThumbnailLength	int32u*	SubIFD	
	PreviewImageLength	int32u*	MakerNotes	
	PreviewImageLength	int32u*	IFD0	
	JpgFromRawLength	int32u*	SubIFD	
	JpgFromRawLength	int32u*	IFD2	
	OtherImageLength	int32u*	SubIFD1	
	OtherImageLength	int32u*	SubIFD2	
	OtherImageLength	N	-	
0x0203	JPEGRestartInterval	N	-	
0x0205	JPEGLosslessPredictors	N	-	
0x0206	JPEGPointTransforms	N	-	
0x0207	JPEGQTables	N	-	
0x0208	JPEGDCTables	N	-	
0x0209	JPEGACTables	N	-	
0x0211	YCbCrCoefficients	rational64u[3]!	IFD0	
0x0212	YCbCrSubSampling	int16u[2]!	IFD0	'1 1' = YCbCr4:4:4 (1 1) '1 2' = YCbCr4:4:0 (1 2) '1 4' = YCbCr4:4:1 (1 4) '2 1' = YCbCr4:2:2 (2 1) '2 2' = YCbCr4:2:0 (2 2) '2 4' = YCbCr4:2:1 (2 4) '4 1' = YCbCr4:1:1 (4 1) '4 2' = YCbCr4:1:0 (4 2)
0x0213	YCbCrPositioning	int16u!:	IFD0	1 = Centered 2 = Co-sited
0x0214	ReferenceBlackWhite	rational64u[6]	IFD0	
0x022f	StripRowCounts	N	-	
0x02bc	ApplicationNotes	int8u!	ExifIFD	--> XMP Tags
0x03e7	USPTOMiscellaneous	N	-	

0x1000	RelatedImageFileFormat	string!	InteropIFD	
0x1001	RelatedImageWidth	int16u!	InteropIFD	
0x1002	RelatedImageHeight	int16u!	InteropIFD	(called RelatedImageLength by the DCF spec.)
0x4746	Rating	int16u/	IFD0	
0x4747	XP_DIP_XML	N	-	
0x4748	StitchInfo	-	-	--> Microsoft Stitch Tags
0x4749	RatingPercent	int16u/	IFD0	
0x800d	ImageID	N	-	
0x80a3	WangTag1	N	-	
0x80a4	WangAnnotation	N	-	
0x80a5	WangTag3	N	-	
0x80a6	WangTag4	N	-	
0x80e3	Matteing	N	-	
0x80e4	DataType	N	-	
0x80e5	ImageDepth	N	-	
0x80e6	TileDepth	N	-	
0x827d	Model2	N	-	
0x828d	CFARepeatPatternDim	int16u[2]!	SubIFD	
0x828e	CFAPattern2	int8u[n]!	SubIFD	
0x828f	BatteryLevel	N	-	
0x8290	KodakIFD	-	-	--> Kodak IFD Tags (used in various types of Kodak images)
0x8298	Copyright	string	IFD0	(may contain copyright notices for photographer and editor, separated by a newline in ExifTool)
0x829a	ExposureTime	rational64u	ExifIFD	
0x829d	FNumber	rational64u	ExifIFD	
0x82a5	MDFileTag	N	-	(tags 0x82a5-0x82ac are used in Molecular Dynamics GEL files)
0x82a6	MDScalePixel	N	-	
0x82a7	MDColorTable	N	-	
0x82a8	MDLabName	N	-	
0x82a9	MDSampleInfo	N	-	
0x82aa	MDPrepDate	N	-	
0x82ab	MDPrepTime	N	-	
0x82ac	MDFileUnits	N	-	
0x830e	PixelScale	N	-	
0x8335	AdventScale	N	-	
0x8336	AdventRevision	N	-	
0x835c	UIC1Tag	N	-	
0x835d	UIC2Tag	N	-	
0x835e	UIC3Tag	N	-	
0x835f	UIC4Tag	N	-	

0x83bb	IPTC-NAA	int32u!	IFD0	--> IPTC Tags
0x847e	IntergraphPacketData	N	-	
0x847f	IntergraphFlagRegisters	N	-	
0x8480	IntergraphMatrix	N	-	
0x8481	INGRReserved	N	-	
0x8482	ModelTiePoint	N	-	
0x84e0	Site	N	-	
0x84e1	ColorSequence	N	-	
0x84e2	IT8Header	N	-	
0x84e3	RasterPadding	N	-	0 = Byte 1 = Word 2 = Long Word 9 = Sector 10 = Long Sector
0x84e4	BitsPerRunLength	N	-	
0x84e5	BitsPerExtendedRunLength	N	-	
0x84e6	ColorTable	N	-	
0x84e7	ImageColorIndicator	N	-	0 = Unspecified Image Color 1 = Specified Image Color
0x84e8	BackgroundColorIndicator	N	-	0 = Unspecified Background Color 1 = Specified Background Color
0x84e9	ImageColorValue	N	-	
0x84ea	BackgroundColorValue	N	-	
0x84eb	PixelIntensityRange	N	-	
0x84ec	TransparencyIndicator	N	-	
0x84ed	ColorCharacterization	N	-	
0x84ee	HCUsage	N	-	0 = CT 1 = Line Art 2 = Trap
0x84ef	TrapIndicator	N	-	
0x84f0	CMYKEquivalent	N	-	
0x8546	SEMInfo	string	IFD0	(found in some scanning electron microscope images)
0x8568	AFCP_IPTC	-	-	--> IPTC Tags
0x85b8	PixelMagicJBIGOptions	N	-	
0x85d8	ModelTransform	N	-	
0x8602	WB_GRGBLevels	N	-	(found in IFD0 of Leaf MOS images)
0x8606	LeafData	-	-	--> Leaf Tags
0x8649	PhotoshopSettings	-	-	--> Photoshop Tags
0x8769	ExifOffset	-	-	--> EXIF Tags
0x8773	ICC_Profile	-	-	--> ICC_Profile Tags
0x877f	TIFF_FXExtensions	N	-	Bit 0 = Resolution/Image Width Bit 1 = N Layer Profile M Bit 2 = Shared Data Bit 3 = B&W JBIG2 Bit 4 = JBIG2 Profile M

0x8780	MultiProfiles	N	-	Bit 0 = Profile S Bit 1 = Profile F Bit 2 = Profile J Bit 3 = Profile C Bit 4 = Profile L Bit 5 = Profile M Bit 6 = Profile T Bit 7 = Resolution/Image Width Bit 8 = N Layer Profile M Bit 9 = Shared Data Bit 10 = JBIG2 Profile M
0x8781	SharedData	N	-	
0x8782	T88Options	N	-	
0x87ac	ImageLayer	N	-	
0x87af	GeoTiffDirectory	N	-	
0x87b0	GeoTiffDoubleParams	N	-	
0x87b1	GeoTiffAsciiParams	N	-	
0x8822	ExposureProgram	int16u	ExifIFD	(the value of 9 is not standard EXIF, but is used by the Canon EOS 7D) 0 = Not Defined 1 = Manual 2 = Program AE 3 = Aperture-priority AE 4 = Shutter speed priority AE 5 = Creative (Slow speed) 6 = Action (High speed) 7 = Portrait 8 = Landscape 9 = Bulb
0x8824	SpectralSensitivity	string	ExifIFD	
0x8825	GPSInfo	-	-	--> GPS Tags
0x8827	ISO	int16u[n]	ExifIFD	(called ISOSpeedRatings by EXIF 2.2, then PhotographicSensitivity by the EXIF 2.3 spec.)
0x8828	Opto-ElectricConvFactor	N	-	(called OECF by the EXIF spec.)
0x8829	Interlace	N	-	
0x882a	TimeZoneOffset	int16s[n]	ExifIFD	(1 or 2 values: 1. The time zone offset of DateTimeOriginal from GMT in hours, 2. If present, the time zone offset of ModifyDate)
0x882b	SelfTimerMode	int16u	ExifIFD	
0x8830	SensitivityType	int16u	ExifIFD	(applies to EXIF:ISO tag) 0 = Unknown 1 = Standard Output Sensitivity 2 = Recommended Exposure Index 3 = ISO Speed 4 = Standard Output Sensitivity and Recommended Exposure

				Index 5 = Standard Output Sensitivity and ISO Speed 6 = Recommended Exposure Index and ISO Speed 7 = Standard Output Sensitivity, Recommended Exposure Index and ISO Speed
0x8831	StandardOutputSensitivity	int32u	ExifIFD	
0x8832	RecommendedExposureIndex	int32u	ExifIFD	
0x8833	ISOSpeed	int32u	ExifIFD	
0x8834	ISOSpeedLatitudeyyy	int32u	ExifIFD	
0x8835	ISOSpeedLatitudezzz	int32u	ExifIFD	
0x885c	FaxRecvParams	N	-	
0x885d	FaxSubAddress	N	-	
0x885e	FaxRecvTime	N	-	
0x888a	LeafSubIFD	-	-	--> Leaf SubIFD Tags
0x9000	ExifVersion	undef:	ExifIFD	
0x9003	DateTimeOriginal	string	ExifIFD	(date/time when original image was taken)
0x9004	CreateDate	string	ExifIFD	(called DateTimeDigitized by the EXIF spec.)
0x9101	ComponentsConfiguration	undef[4]!:	ExifIFD	0 = - 4 = R 1 = Y 5 = G 2 = Cb 6 = B 3 = Cr
0x9102	CompressedBitsPerPixel	rational64u!	ExifIFD	
0x9201	ShutterSpeedValue	rational64s	ExifIFD	(displayed in seconds, but stored as an APEX value)
0x9202	ApertureValue	rational64u	ExifIFD	(displayed as an F number, but stored as an APEX value)
0x9203	BrightnessValue	rational64s	ExifIFD	
0x9204	ExposureCompensation	rational64s	ExifIFD	(called ExposureBiasValue by the EXIF spec.)
0x9205	MaxApertureValue	rational64u	ExifIFD	(displayed as an F number, but stored as an APEX value)
0x9206	SubjectDistance	rational64u	ExifIFD	
0x9207	MeteringMode	int16u	ExifIFD	0 = Unknown 1 = Average 2 = Center-weighted average 3 = Spot 4 = Multi-spot 5 = Multi-segment 6 = Partial 255 = Other
0x9208	LightSource	int16u	ExifIFD	--> EXIF LightSource Values
0x9209	Flash	int16u	ExifIFD	--> EXIF Flash Values
0x920a	FocalLength	rational64u	ExifIFD	
0x920b	FlashEnergy	N	-	

0x920c	SpatialFrequencyResponse	N	-	
0x920d	Noise	N	-	
0x920e	FocalPlaneXResolution	N	-	
0x920f	FocalPlaneYResolution	N	-	
0x9210	FocalPlaneResolutionUnit	N	-	1 = None 2 = inches 3 = cm 4 = mm 5 = um
0x9211	ImageNumber	int32u	ExifIFD	
0x9212	SecurityClassification	string	ExifIFD	'C' = Confidential 'R' = Restricted 'S' = Secret 'T' = Top Secret 'U' = Unclassified
0x9213	ImageHistory	string	ExifIFD	
0x9214	SubjectArea	int16u[n]	ExifIFD	
0x9215	ExposureIndex	N	-	
0x9216	TIFF-EPStandardID	N	-	
0x9217	SensingMethod	N	-	(values 1 and 6 are not standard EXIF) 1 = Monochrome area 2 = One-chip color area 3 = Two-chip color area 4 = Three-chip color area 5 = Color sequential area 6 = Monochrome linear 7 = Trilinear 8 = Color sequential linear
0x923a	CIP3DataFile	N	-	
0x923b	CIP3Sheet	N	-	
0x923c	CIP3Side	N	-	
0x923f	StoNits	N	-	
0x927c	MakerNoteApple	undef	ExifIFD	--> Apple Tags
	MakerNoteNikon	undef	ExifIFD	--> Nikon Tags
	MakerNoteCanon	undef	ExifIFD	--> Canon Tags
	MakerNoteCasio	undef	ExifIFD	--> Casio Tags
	MakerNoteCasio2	undef	ExifIFD	--> Casio Type2 Tags
	MakerNoteFLIR	undef	ExifIFD	--> FLIR Tags
	MakerNoteFujiFilm	undef	ExifIFD	--> FujiFilm Tags
	MakerNoteGE	undef	ExifIFD	--> GE Tags
	MakerNoteGE2	undef	ExifIFD	--> FujiFilm Tags
	MakerNoteHasselblad	undef	ExifIFD	--> Unknown Tags
	MakerNoteHP	undef	ExifIFD	--> HP Tags
	MakerNoteHP2	undef	ExifIFD	--> HP Type2 Tags
	MakerNoteHP4	undef	ExifIFD	--> HP Type4 Tags
	MakerNoteHP6	undef	ExifIFD	--> HP Type6 Tags
	MakerNoteISL	undef	ExifIFD	--> Unknown Tags
	MakerNoteJVC	undef	ExifIFD	--> JVC Tags
	MakerNoteJVCText	undef	ExifIFD	--> JVC Text Tags
	MakerNoteKodak1a	undef	ExifIFD	--> Kodak Tags
	MakerNoteKodak1b	undef	ExifIFD	--> Kodak Tags
	MakerNoteKodak2	undef	ExifIFD	--> Kodak Type2 Tags
	MakerNoteKodak3	undef	ExifIFD	--> Kodak Type3 Tags
	MakerNoteKodak4	undef	ExifIFD	--> Kodak Type4 Tags

MakerNoteKodak5	undef	ExifIFD	--> Kodak Type5 Tags
MakerNoteKodak6a	undef	ExifIFD	--> Kodak Type6 Tags
MakerNoteKodak6b	undef	ExifIFD	--> Kodak Type6 Tags
MakerNoteKodak7	undef	ExifIFD	--> Kodak Type7 Tags
MakerNoteKodak8a	undef	ExifIFD	--> Kodak Type8 Tags
MakerNoteKodak8b	undef	ExifIFD	--> Kodak Type8 Tags
MakerNoteKodak9	undef	ExifIFD	--> Kodak Type9 Tags
MakerNoteKodak10	undef	ExifIFD	--> Kodak Type10 Tags
MakerNoteKodakUnknown	undef	ExifIFD	--> Kodak Unknown Tags
MakerNoteKyocera	undef	ExifIFD	--> Unknown Tags
MakerNoteMinolta	undef	ExifIFD	--> Minolta Tags
MakerNoteMinolta2	undef	ExifIFD	--> Olympus Tags
MakerNoteMinolta3	undef	ExifIFD	(not EXIF-based)
MakerNoteNikon2	undef	ExifIFD	--> Nikon Type2 Tags
MakerNoteNikon3	undef	ExifIFD	--> Nikon Tags
MakerNoteOlympus	undef	ExifIFD	--> Olympus Tags
MakerNoteOlympus2	undef	ExifIFD	--> Olympus Tags
MakerNoteLeica	undef	ExifIFD	--> Panasonic Tags
MakerNoteLeica2	undef	ExifIFD	--> Panasonic Leica2 Tags
MakerNoteLeica3	undef	ExifIFD	--> Panasonic Leica3 Tags
MakerNoteLeica4	undef	ExifIFD	--> Panasonic Leica4 Tags
MakerNoteLeica5	undef	ExifIFD	--> Panasonic Leica5 Tags
MakerNoteLeica6	undef	ExifIFD	--> Panasonic Leica6 Tags
MakerNotePanasonic	undef	ExifIFD	--> Panasonic Tags
MakerNotePanasonic2	undef	ExifIFD	--> Panasonic Type2 Tags
MakerNotePentax	undef	ExifIFD	--> Pentax Tags
MakerNotePentax2	undef	ExifIFD	--> Pentax Type2 Tags
MakerNotePentax3	undef	ExifIFD	--> Casio Type2 Tags
MakerNotePentax4	undef	ExifIFD	--> Pentax Type4 Tags
MakerNotePentax5	undef	ExifIFD	--> Pentax Tags
MakerNotePentax6	undef	ExifIFD	--> Pentax S1 Tags
MakerNotePhaseOne	undef	ExifIFD	--> PhaseOne Tags
MakerNoteReconyx	undef	ExifIFD	--> Reconyx Tags
MakerNoteRicoh	undef	ExifIFD	--> Ricoh Tags
MakerNoteRicohText	undef	ExifIFD	--> Ricoh Text Tags
MakerNoteSamsung1a	undef	ExifIFD	(Samsung "STMN" maker notes without PreviewImage)
MakerNoteSamsung1b	undef	ExifIFD	--> Samsung Type1 Tags
MakerNoteSamsung2	undef	ExifIFD	--> Samsung Type2 Tags
MakerNoteSanyo	undef	ExifIFD	--> Sanyo Tags
MakerNoteSanyoC4	undef	ExifIFD	--> Sanyo Tags
MakerNoteSanyoPatch	undef	ExifIFD	--> Sanyo Tags
MakerNoteSigma	undef	ExifIFD	--> Sigma Tags
MakerNoteSony	undef	ExifIFD	--> Sony Tags
MakerNoteSony2	undef	ExifIFD	--> Olympus Tags
MakerNoteSony3	undef	ExifIFD	--> Olympus Tags
MakerNoteSony4	undef	ExifIFD	--> Sony PIC Tags
MakerNoteSony5	undef	ExifIFD	--> Sony Tags
MakerNoteSonyEricsson	undef	ExifIFD	--> Sony Ericsson Tags
MakerNoteSonySRF	undef	ExifIFD	--> Sony SRF Tags
MakerNoteUnknownText	undef	ExifIFD	(unknown text-based
MakerNoteUnknownBinary	undef	ExifIFD	
MakerNoteUnknown	undef	ExifIFD	

				maker notes) (unknown binary maker notes) --> Unknown Tags
0x9286	UserComment	undef	ExifIFD	
0x9290	SubSecTime	string	ExifIFD	
0x9291	SubSecTimeOriginal	string	ExifIFD	
0x9292	SubSecTimeDigitized	string	ExifIFD	
0x932f	MSDocumentText	N	-	
0x9330	MSPropertySetStorage	N	-	
0x9331	MSDocumentTextPosition	N	-	
0x935c	ImageSourceData	undef!	IFD0	
0x9c9b	XPTitle	int8u	IFD0	(tags 0x9c9b-0x9c9f are used by Windows Explorer; special characters in these values are converted to UTF-8 by default, or Windows Latin1 with the -L option. XPTitle is ignored by Windows Explorer if ImageDescription exists)
0x9c9c	XPComment	int8u	IFD0	
0x9c9d	XPAuthor	int8u	IFD0	(ignored by Windows Explorer if Artist exists)
0x9c9e	XPKeywords	int8u	IFD0	
0x9c9f	XPSubject	int8u	IFD0	
0xa000	FlashpixVersion	undef:	ExifIFD	
0xa001	ColorSpace	int16u:	ExifIFD	(the value of 0x2 is not standard EXIF. Instead, an Adobe RGB image is indicated by "Uncalibrated" with an InteropIndex of "R03". The values 0xfffd and 0xfffe are also non-standard, and are used by some Sony cameras) 0x1 = sRGB 0x2 = Adobe RGB 0xfffd = Wide Gamut RGB 0xfffe = ICC Profile 0xffff = Uncalibrated
0xa002	ExifImageWidth	int16u:	ExifIFD	(called PixelXDimension by the EXIF spec.)
0xa003	ExifImageHeight	int16u:	ExifIFD	(called PixelYDimension by the EXIF spec.)
0xa004	RelatedSoundFile	string	ExifIFD	
0xa005	InteropOffset	-	-	--> EXIF Tags
0xa20b	FlashEnergy	rational64u[n]	ExifIFD	
0xa20c	SpatialFrequencyResponse	N	-	
0xa20d	Noise	N	-	
0xa20e	FocalPlaneXResolution	rational64u	ExifIFD	
0xa20f	FocalPlaneYResolution	rational64u	ExifIFD	
0xa210	FocalPlaneResolutionUnit	int16u	ExifIFD	(values 1, 4 and 5 are not standard EXIF) 1 = None

				2 = inches 3 = cm 4 = mm 5 = um
0xa211	ImageNumber	N	-	
0xa212	SecurityClassification	N	-	
0xa213	ImageHistory	N	-	
0xa214	SubjectLocation	int16u[2]	ExifIFD	
0xa215	ExposureIndex	rational64u	ExifIFD	
0xa216	TIFF-EPStandardID	N	-	
0xa217	SensingMethod	int16u	ExifIFD	1 = Not defined 2 = One-chip color area 3 = Two-chip color area 4 = Three-chip color area 5 = Color sequential area 7 = Trilinear 8 = Color sequential linear
0xa300	FileSource	undef	ExifIFD	1 = Film Scanner 2 = Reflection Print Scanner 3 = Digital Camera "\x03\x00\x00\x00" = Sigma Digital Camera
0xa301	SceneType	undef	ExifIFD	1 = Directly photographed
0xa302	CFAPattern	undef	ExifIFD	
0xa401	CustomRendered	int16u	ExifIFD	0 = Normal 1 = Custom
0xa402	ExposureMode	int16u	ExifIFD	0 = Auto 1 = Manual 2 = Auto bracket
0xa403	WhiteBalance	int16u	ExifIFD	0 = Auto 1 = Manual
0xa404	DigitalZoomRatio	rational64u	ExifIFD	
0xa405	FocalLengthIn35mmFormat	int16u	ExifIFD	(called FocalLengthIn35mmFilm by the EXIF spec.)
0xa406	SceneCaptureType	int16u	ExifIFD	0 = Standard 1 = Landscape 2 = Portrait 3 = Night
0xa407	GainControl	int16u	ExifIFD	0 = None 1 = Low gain up 2 = High gain up 3 = Low gain down 4 = High gain down
0xa408	Contrast	int16u	ExifIFD	0 = Normal 1 = Low 2 = High
0xa409	Saturation	int16u	ExifIFD	0 = Normal 1 = Low 2 = High
0xa40a	Sharpness	int16u	ExifIFD	0 = Normal 1 = Soft 2 = Hard
0xa40b	DeviceSettingDescription	N	-	
				0 = Unknown

0xa40c	SubjectDistanceRange	int16u	ExifIFD	1 = Macro 2 = Close 3 = Distant
0xa420	ImageUniqueID	string	ExifIFD	
0xa430	OwnerName	string	ExifIFD	(called CameraOwnerName by the EXIF spec.)
0xa431	SerialNumber	string	ExifIFD	(called BodySerialNumber by the EXIF spec.)
0xa432	LensInfo	rational64u[4]	ExifIFD	(4 rational values giving focal and aperture ranges, called LensSpecification by the EXIF spec.)
0xa433	LensMake	string	ExifIFD	
0xa434	LensModel	string	ExifIFD	
0xa435	LensSerialNumber	string	ExifIFD	
0xa480	GDALMetadata	N	-	
0xa481	GDALNoData	N	-	
0xa500	Gamma	rational64u	ExifIFD	
0xafc0	ExpandSoftware	N	-	
0xafc1	ExpandLens	N	-	
0xafc2	ExpandFilm	N	-	
0xafc3	ExpandFilterLens	N	-	
0xafc4	ExpandScanner	N	-	
0xafc5	ExpandFlashLamp	N	-	
0xbc01	PixelFormat	N	-	(tags 0xbc** are used in Windows HD Photo (HDP and WDP) images. The actual PixelFormat values are 16-byte GUID's but the leading 15 bytes, '6fddc324-4e03-4bfe-b1853-d77768dc9', have been removed below to avoid unnecessary clutter) 0x5 = Black & White 0x8 = 8-bit Gray 0x9 = 16-bit BGR555 0xa = 16-bit BGR565 0xb = 16-bit Gray 0xc = 24-bit BGR 0xd = 24-bit RGB 0xe = 32-bit BGR 0xf = 32-bit BGRA 0x10 = 32-bit PBGRA 0x11 = 32-bit Gray Float 0x12 = 48-bit RGB Fixed Point 0x13 = 32-bit BGR101010 0x15 = 48-bit RGB 0x16 = 64-bit RGBA 0x17 = 64-bit PRGBA 0x18 = 96-bit RGB Fixed Point 0x19 = 128-bit RGBA Float 0x1a = 128-bit PRGBA Float 0x1b = 128-bit RGB Float

				0x1c = 32-bit CMYK 0x1d = 64-bit RGBA Fixed Point 0x1e = 128-bit RGBA Fixed Point 0x1f = 64-bit CMYK 0x20 = 24-bit 3 Channels 0x21 = 32-bit 4 Channels 0x22 = 40-bit 5 Channels 0x23 = 48-bit 6 Channels 0x24 = 56-bit 7 Channels 0x25 = 64-bit 8 Channels 0x26 = 48-bit 3 Channels 0x27 = 64-bit 4 Channels 0x28 = 80-bit 5 Channels 0x29 = 96-bit 6 Channels 0x2a = 112-bit 7 Channels 0x2b = 128-bit 8 Channels 0x2c = 40-bit CMYK Alpha 0x2d = 80-bit CMYK Alpha 0x2e = 32-bit 3 Channels Alpha 0x2f = 40-bit 4 Channels Alpha 0x30 = 48-bit 5 Channels Alpha 0x31 = 56-bit 6 Channels Alpha 0x32 = 64-bit 7 Channels Alpha 0x33 = 72-bit 8 Channels Alpha 0x34 = 64-bit 3 Channels Alpha 0x35 = 80-bit 4 Channels Alpha 0x36 = 96-bit 5 Channels Alpha 0x37 = 112-bit 6 Channels Alpha 0x38 = 128-bit 7 Channels Alpha 0x39 = 144-bit 8 Channels Alpha 0x3a = 64-bit RGBA Half 0x3b = 48-bit RGB Half 0x3d = 32-bit RGBE 0x3e = 16-bit Gray Half 0x3f = 32-bit Gray Fixed Point
0xbc02	Transformation	N	-	0 = Horizontal (normal) 1 = Mirror vertical 2 = Mirror horizontal 3 = Rotate 180 4 = Rotate 90 CW 5 = Mirror horizontal and rotate 90 CW 6 = Mirror horizontal and rotate 270 CW 7 = Rotate 270 CW
0xbc03	Uncompressed	N	-	0 = No 1 = Yes

0xbc04	ImageType	N	-	Bit 0 = Preview Bit 1 = Page
0xbc80	ImageWidth	N	-	
0xbc81	ImageHeight	N	-	
0xbc82	WidthResolution	N	-	
0xbc83	HeightResolution	N	-	
0xbcc0	ImageOffset	N	-	
0xbcc1	ImageByteCount	N	-	
0xbcc2	AlphaOffset	N	-	
0xbcc3	AlphaByteCount	N	-	
0xbcc4	ImageDataDiscard	N	-	0 = Full Resolution 1 = Flexbits Discarded 2 = HighPass Frequency Data Discarded 3 = Highpass and LowPass Frequency Data Discarded
0xbcc5	AlphaDataDiscard	N	-	0 = Full Resolution 1 = Flexbits Discarded 2 = HighPass Frequency Data Discarded 3 = Highpass and LowPass Frequency Data Discarded
0xc427	OceScanjobDesc	N	-	
0xc428	OceApplicationSelector	N	-	
0xc429	OceIDNumber	N	-	
0xc42a	OceImageLogic	N	-	
0xc44f	Annotations	N	-	
0xc4a5	PrintIM	undef	IFD0	--> PrintIM Tags
0xc573	OriginalFileName	N	-	(used by some obscure software)
0xc580	USPTOOriginalContentType	N	-	0 = Text or Drawing 1 = Grayscale 2 = Color
0xc612	DNGVersion	int8u[4]!	IFD0	(tags 0xc612-0xc7b5 are used in DNG images unless otherwise noted)
0xc613	DNGBackwardVersion	int8u[4]!	IFD0	
0xc614	UniqueCameraModel	string	IFD0	
0xc615	LocalizedCameraModel	string	IFD0	
0xc616	CFAPlaneColor	N	-	
0xc617	CFALayout	N	-	1 = Rectangular 2 = Even columns offset down 1/2 row 3 = Even columns offset up 1/2 row 4 = Even rows offset right 1/2 column 5 = Even rows offset left 1/2 column 6 = Even rows offset up by 1/2 row, even columns offset left by 1/2 column 7 = Even rows offset up by 1/2 row, even columns offset right by 1/2 column

				8 = Even rows offset down by 1/2 row, even columns offset left by 1/2 column 9 = Even rows offset down by 1/2 row, even columns offset right by 1/2 column
0xc618	LinearizationTable	int16u[n]!	SubIFD	
0xc619	BlackLevelRepeatDim	int16u[2]!	SubIFD	
0xc61a	BlackLevel	rational64u[n]!	SubIFD	
0xc61b	BlackLevelDeltaH	rational64s[n]!	SubIFD	
0xc61c	BlackLevelDeltaV	rational64s[n]!	SubIFD	
0xc61d	WhiteLevel	int32u[n]!	SubIFD	
0xc61e	DefaultScale	rational64u[2]!	SubIFD	
0xc61f	DefaultCropOrigin	int32u[2]!	SubIFD	
0xc620	DefaultCropSize	int32u[2]!	SubIFD	
0xc621	ColorMatrix1	rational64s[n]!	IFD0	
0xc622	ColorMatrix2	rational64s[n]!	IFD0	
0xc623	CameraCalibration1	rational64s[n]!	IFD0	
0xc624	CameraCalibration2	rational64s[n]!	IFD0	
0xc625	ReductionMatrix1	rational64s[n]!	IFD0	
0xc626	ReductionMatrix2	rational64s[n]!	IFD0	
0xc627	AnalogBalance	rational64u[n]!	IFD0	
0xc628	AsShotNeutral	rational64u[n]!	IFD0	
0xc629	AsShotWhiteXY	rational64u[2]!	IFD0	
0xc62a	BaselineExposure	rational64s!	IFD0	
0xc62b	BaselineNoise	rational64u!	IFD0	
0xc62c	BaselineSharpness	rational64u!	IFD0	
0xc62d	BayerGreenSplit	int32u!	SubIFD	
0xc62e	LinearResponseLimit	rational64u!	IFD0	
0xc62f	CameraSerialNumber	string	IFD0	
0xc630	DNGLensInfo	rational64u[4]	IFD0	
0xc631	ChromaBlurRadius	rational64u!	SubIFD	
0xc632	AntiAliasStrength	rational64u!	SubIFD	
0xc633	ShadowScale	rational64u!	IFD0	
0xc634	SR2Private DNGAdobeData MakerNotePentax MakerNotePentax5 DNGPrivateData	- undef! - - undef!	- IFD0 - - IFD0	--> Sony SR2Private Tags --> DNG AdobeData Tags --> Pentax Tags --> Pentax Tags
0xc635	MakerNoteSafety	int16u	IFD0	0 = Unsafe 1 = Safe
0xc640	RawImageSegmentation	N	-	(used in segmented Canon CR2 images. 3 numbers: 1. Number of segments minus one; 2. Pixel width of segments except last; 3. Pixel width of last segment)
0xc65a	CalibrationIlluminant1	int16u!	IFD0	--> EXIF LightSource Values
0xc65b	CalibrationIlluminant2	int16u!	IFD0	--> EXIF LightSource

				Values
0xc65c	BestQualityScale	rational64u!	SubIFD	
0xc65d	RawDataUniqueID	int8u[16]!	IFD0	
0xc660	AliasLayerMetadata	N	-	(used by Alias Sketchbook Pro)
0xc68b	OriginalRawFileName	string!	IFD0	
0xc68c	OriginalRawFileData	undef!	IFD0	--> DNG OriginalRaw Tags
0xc68d	ActiveArea	int32u[4]!	SubIFD	
0xc68e	MaskedAreas	int32u[4]!	SubIFD	
0xc68f	AsShotICCProfile	undef!	IFD0	--> ICC_Profile Tags
0xc690	AsShotPreProfileMatrix	rational64s[n]!	IFD0	
0xc691	CurrentICCProfile	undef!	IFD0	--> ICC_Profile Tags
0xc692	CurrentPreProfileMatrix	rational64s[n]!	IFD0	
0xc6bf	ColorimetricReference	int16u!	IFD0	
0xc6d2	PanasonicTitle	undef	IFD0	(proprietary Panasonic tag used for baby/pet name, etc)
0xc6d3	PanasonicTitle2	undef	IFD0	(proprietary Panasonic tag used for baby/pet name with age)
0xc6f3	CameraCalibrationSig	string!	IFD0	
0xc6f4	ProfileCalibrationSig	string!	IFD0	
0xc6f5	ProfileIFD	-	-	--> EXIF Tags
0xc6f6	AsShotProfileName	string!	IFD0	
0xc6f7	NoiseReductionApplied	rational64u!	SubIFD	
0xc6f8	ProfileName	string!	IFD0	
0xc6f9	ProfileHueSatMapDims	int32u[3]!	IFD0	
0xc6fa	ProfileHueSatMapData1	float[n]!	IFD0	
0xc6fb	ProfileHueSatMapData2	float[n]!	IFD0	
0xc6fc	ProfileToneCurve	float[n]!	IFD0	
0xc6fd	ProfileEmbedPolicy	int32u!	IFD0	0 = Allow Copying 1 = Embed if Used 2 = Never Embed 3 = No Restrictions
0xc6fe	ProfileCopyright	string!	IFD0	
0xc714	ForwardMatrix1	rational64s[n]!	IFD0	
0xc715	ForwardMatrix2	rational64s[n]!	IFD0	
0xc716	PreviewApplicationName	string!	IFD0	
0xc717	PreviewApplicationVersion	string!	IFD0	
0xc718	PreviewSettingsName	string!	IFD0	
0xc719	PreviewSettingsDigest	int8u!	IFD0	
0xc71a	PreviewColorSpace	int32u!	IFD0	0 = Unknown 1 = Gray Gamma 2.2 2 = sRGB 3 = Adobe RGB 4 = ProPhoto RGB
0xc71b	PreviewDateTime	string!	IFD0	
0xc71c	RawImageDigest	int8u[16]!	IFD0	
0xc71d	OriginalRawFileDigest	int8u[16]!	IFD0	

0xc71e	SubTileBlockSize	N	-	
0xc71f	RowInterleaveFactor	N	-	
0xc725	ProfileLookTableDims	int32u[3]!	IFD0	
0xc726	ProfileLookTableData	float[n]!	IFD0	
0xc740	OpcodeList1	N	-	
0xc741	OpcodeList2	N	-	
0xc74e	OpcodeList3	N	-	
0xc761	NoiseProfile	double[n]!	SubIFD	
0xc763	TimeCodes	int8u[n]	IFD0	
0xc764	FrameRate	rational64s	IFD0	
0xc772	TStop	rational64u[n]	IFD0	
0xc789	ReelName	string	IFD0	
0xc791	OriginalDefaultFinalSize	int32u[2]!	IFD0	
0xc792	OriginalBestQualitySize	int32u[2]!	IFD0	(called OriginalBestQualityFinalSize by the DNG spec)
0xc793	OriginalDefaultCropSize	rational64u[2]!	IFD0	
0xc7a1	CameraLabel	string	IFD0	
0xc7a3	ProfileHueSatMapEncoding	int32u!	IFD0	0 = Linear 1 = sRGB
0xc7a4	ProfileLookTableEncoding	int32u!	IFD0	0 = Linear 1 = sRGB
0xc7a5	BaselineExposureOffset	rational64u!	IFD0	
0xc7a6	DefaultBlackRender	int32u!	IFD0	0 = Auto 1 = None
0xc7a7	NewRawImageDigest	int8u[16]!	IFD0	
0xc7a8	RawToPreviewGain	double!	IFD0	
0xc7b5	DefaultUserCrop	rational64u[4]!	SubIFD	
0xea1c	Padding	undef	ExifIFD	
0xea1d	OffsetSchema	int32s	ExifIFD	(Microsoft's ill-conceived maker note offset difference)
0xfde8	OwnerName	string/	ExifIFD	(tags 0xfde8-0xfdea and 0xfe4c-0xfe58 are generated by Photoshop Camera RAW. Some names are the same as other EXIF tags, but ExifTool will avoid writing these unless they already exist in the file)
0xfde9	SerialNumber	string/	ExifIFD	
0xfdea	Lens	string/	ExifIFD	
0xfe00	KDC_IFD	-	-	--> Kodak KDC_IFD Tags (used in some Kodak KDC images)
0xfe4c	RawFile	string/	ExifIFD	
0xfe4d	Converter	string/	ExifIFD	
0xfe4e	WhiteBalance	string/	ExifIFD	
0xfe51	Exposure	string/	ExifIFD	
0xfe52	Shadows	string/	ExifIFD	

0xfe53	Brightness	string/	ExifIFD
0xfe54	Contrast	string/	ExifIFD
0xfe55	Saturation	string/	ExifIFD
0xfe56	Sharpness	string/	ExifIFD
0xfe57	Smoothness	string/	ExifIFD
0xfe58	MoireFilter	string/	ExifIFD

EXIF Compression Values

Value	Compression
1	= Uncompressed
2	= CCITT 1D
3	= T4/Group 3 Fax
4	= T6/Group 4 Fax
5	= LZW
6	= JPEG (old-style)
7	= JPEG
8	= Adobe Deflate
9	= JBIG B&W
10	= JBIG Color
99	= JPEG
262	= Kodak 262
32766	= Next
32767	= Sony ARW Compressed
32769	= Packed RAW
32770	= Samsung SRW Compressed
32771	= CCIRLEW
32773	= PackBits
32809	= Thunderscan
32867	= Kodak KDC Compressed
32895	= IT8CTPAD
32896	= IT8LW
32897	= IT8MP
32898	= IT8BL
32908	= PixarFilm
32909	= PixarLog
32946	= Deflate
32947	= DCS
34661	= JBIG
34676	= SGILog
34677	= SGILog24
34712	= JPEG 2000
34713	= Nikon NEF Compressed
34715	= JBIG2 TIFF FX
34718	= Microsoft Document Imaging (MDI) Binary Level Codec
34719	= Microsoft Document Imaging (MDI) Progressive Transform Codec
34720	= Microsoft Document Imaging (MDI) Vector
34892	= Lossy JPEG
65000	= Kodak DCR Compressed
65535	= Pentax PEF Compressed

EXIF LightSource Values

Value	LightSource	Value	LightSource	Value	LightSource
0	= Unknown	12	= Daylight Fluorescent	20	= D55
1	= Daylight	13	= Day White Fluorescent	21	= D65
2	= Fluorescent	14	= Cool White Fluorescent	22	= D75

3 = Tungsten (Incandescent)	15 = White Fluorescent	23 = D50
4 = Flash	16 = Warm White Fluorescent	24 = ISO Studio Tungsten
9 = Fine Weather	17 = Standard Light A	255 = Other
10 = Cloudy	18 = Standard Light B	
11 = Shade	19 = Standard Light C	

EXIF Flash Values

Value	Flash
0x0	= No Flash
0x1	= Fired
0x5	= Fired, Return not detected
0x7	= Fired, Return detected
0x8	= On, Did not fire
0x9	= On, Fired
0xd	= On, Return not detected
0xf	= On, Return detected
0x10	= Off, Did not fire
0x14	= Off, Did not fire, Return not detected
0x18	= Auto, Did not fire
0x19	= Auto, Fired
0x1d	= Auto, Fired, Return not detected
0x1f	= Auto, Fired, Return detected
0x20	= No flash function
0x30	= Off, No flash function
0x41	= Fired, Red-eye reduction
0x45	= Fired, Red-eye reduction, Return not detected
0x47	= Fired, Red-eye reduction, Return detected
0x49	= On, Red-eye reduction
0x4d	= On, Red-eye reduction, Return not detected
0x4f	= On, Red-eye reduction, Return detected
0x50	= Off, Red-eye reduction
0x58	= Auto, Did not fire, Red-eye reduction
0x59	= Auto, Fired, Red-eye reduction
0x5d	= Auto, Fired, Red-eye reduction, Return not detected
0x5f	= Auto, Fired, Red-eye reduction, Return detected

(This document generated automatically by Image::ExifTool::BuildTagLookup)
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<-- ExifTool Tag Names