

DATA FORMAT

USAXIAL

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1 . Definition of TAG and fields in CSV file

Table 1 Tag List

Tag Name	Explanation of the tag	Field following a tag									
		Number of appearance	Number of fields	Name of fields	Letter type	Character type	Maximum number of the characters	Detail	Unit		
[MAC_V]	Software Version	Version made by this file (Model name is contained in common header)									
		Example:UD-8000									
		-	9	T-Engine CPU software version	String	ASCII	6	Character string of T-Engine CPU software version Example: TEC000			
				T-Engine FPGA version	String	ASCII	6	Character string of T-Engine FPGA version Example: TEF000			
				Microblaze software version	String	ASCII	6	Character string of Microblaze software version Example: MBC000			
				Digital FPGA version1	String	ASCII	6	Character string of FPGA1 version Example: D1F0000			
				Digital FPGA version2	String	ASCII	6	Character string of FPGA2 version Example: D2F0000			
				DSP software version	String	ASCII	6	Character string of DSP software version Example: DSP000			
				Analog CPU software version	String	ASCII	6	Character string of Analog CPU software version Example: ANC000			
				Bluetooth CPU version	String	ASCII	6	Character string of Bluetooth CPU version Example: BTC000			
				Touch panel software version	String	ASCII	6	Character string of Touch panel software version Example: TPC000			
		Example:AL-4000 IOL Calculation Unit									
		-	3	CPU software version	String	ASCII	6	Character string of CPU software version Example: LNC000			
				FPGA version	String	ASCII	6	Character string of FPGA version Example: EXF000			
				Touch panel software version	String	ASCII	6	Character string of Touch panel software version Example: TPC000			
		Example:PCKit									
		-	1	Software version	String	ASCII	6	Character string of software version Example: PCK000			

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		Example OA-2000										
		-	1	Software version	String	ASCII	6	Character string of software version Example: OAC000 (000 is software release version of OA-2000)				
[MSR_MAC_V]	Software Version	Example:AL-4000 Measurement Unit										
		-	7	Model name	String	ASCII	12	Model name of measurement:AL-4000_MSR Following is version of that model.	-			
				CPU software version	String	ASCII	6	Character string of CPU software version Example: DIC000				
				Axial FPGA version	String	ASCII	6	Character string of Axial FPGA version Example: APF000				
				Axial Table version	String	ASCII	6	Character string of Axial Table version Example: AXT000				
				Linear Table version	String	ASCII	6	Character string of Linear Table version Example: LNT000				
				Log Table version	String	ASCII	6	Character string of Linear Table version Example: LGT000				
				S Table version	String	ASCII	6	Character string of S Table version Example: SGT000				
[EDIT_MAC_V]	Software Version	Example:UD-8000										
		-	10	Model name	String	ASCII	12	Model name of last edit :UD-8000 Following is version of that model.				
				T-Engine CPU software version	String	ASCII	6	Character string of T-Engine CPU software version Example: TEC000				
				T-Engine FPGA version	String	ASCII	6	Character string of T-Engine FPGA version Example: TEF000				
				Microblaze software version	String	ASCII	6	Character string of Microblaze software version Example: MBC000				
				Digital FPGA version1	String	ASCII	6	Character string of Digital FPGA version1 Example: D1F000				
				Digital FPGA version2	String	ASCII	6	Character string of Digital FPGA version1 Example: D2F000				
				DSP software version	String	ASCII	6	Character string of DSP software version Example: DSP000				
				Analog CPU software version	String	ASCII	6	Character string of Analog CPU software version Example: ANC000				
				Bluetooth CPU version	String	ASCII	6	Character string of Bluetooth CPU version Example: BTC000				
				Touch panel software version	String	ASCII	6	Character string of Touch panel software version Example: TPC000				
				Example:Calculation Unit								

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		—	4	Model name	String	ASCII	12	Model name of last edit :AL-4000_CAL Following is version of that model.	
				CPU software version	String	ASCII	6	Character string of CPU software version Example: LNC000	
				FPGA version	String	ASCII	6	Character string of FPGA version Example: EXF000	
				Touch panel software version	String	ASCII	6	Character string of Touch panel software version Example: TPC000	
		Example OA-2000							
		-	2	Model Name	String	ASCII	12	Model name of last edit :OA-2000 Following is version of that model.	
				Software version	String	ASCII	6	Character string of software version Example :OAC000 (000 is software release version of OA-2000)	
[BARRETT_V]	The Barrett IOL formula version	-	6	Barrett Common	String	ASCII	6	Character string of Barrett IOL formula comprehensive software version Example: V.1.05	
				Barrett UniversalII	String	ASCII	6	Character string of Barrett Universal II software version Example: V.1.05	
				Barrett ToricCalculator	String	ASCII	6	Character string of Barrett ToricCalculator software version Example: V.1.05	
				Barrett TrueK	String	ASCII	6	Character string of Barrett TrueK software version Example: V.1.05	
				Barrett TrueK Toric Calculator	String	ASCII	6	Character string of Barrett TrueK ToricCalculator software version Example: V.1.05	
				Barrett Rx	String	ASCII	6	Character string of Barrett Rx software version Example: V.1.05	
[ETYP_R]	Eye Type (Right eye)	-	3	Eye Eype	String	ASCII	13	One of the character strings of [Phakic], [dense], [Aphakic], [IOL] or [PhkicIOL].	—
				Velocity of axial	String	ASCII	13	Average, Divided	-
				Material of IOL	String	ASCII	13	One of the character strings of [Acrylic resin], [silicon], [PMMA] or [user setting]. However [user setting] is any.	—
[VEL_R]	Ultrasound velocity (Right eye)	-	5	Biometry Average	Num	ASCII	4	Unsigned integer Biometry average ultrasound velocity (Phakic, Dense, Aphakic)	m/s
				LENS	Num	ASCII	4	Unsigned integer Biometry LENS ultrasound velocity	m/s
				ACD	Num	ASCII	4	Unsigned integer Biometry ACD ultrasound velocity	m/s
				Vitreous	Num	ASCII	4	Unsigned integer Biometry vitreous ultrasound velocity	m/s
				IOL	Num	ASCII	4	Unsigned integer IOL ultrasound velocity	m/s

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[IOLT_R]	IOL thickness (Right eye)	-	1	IOL thickness	Num	ASCII	4	Unsigned decimal	mm
[KI_R]	Keratometric Index (Right eye)	-	1	Keratometric Index	Num	ASCII	9	Unsigned decimal	
[CI_R]	Contact or Immersion (Right eye)	-	1	Contact or Immersion	String	ASCII	9	One of the character strings of [Contact] or [Immersion]	—
[HOW_R]	Measurement mode (Right eye)	-	1	Measurement mode	String	ASCII	9	One of the character strings of [auto], [auto quick] or [manual4k].	—
[MSRn_R] n=0~9	Measurement data (Right eye)	-	6	Axial Length	Num	ASCII	5	Unsigned decimal	mm
				ACD	Num	ASCII	5	Unsigned decimal	mm
				Lens thickness	Num	ASCII	5	Unsigned decimal	mm
				Confidence coefficient	Num	ASCII	5	Unsigned decimal	-
				Gain	Num	ASCII	3	Unsigned integer	dB
				Status	String	ASCII	3	Maximum length : L, Minimum length :S, Caliper data :C	-
[GCn_R] n=0~9	Gate/Caliper		9	Priority of Gate or Caliper	String	ASCII	1	One of the character strings of [G] or[C].	-
				Gate position of cornea	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Gate position of LENS front	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Gate position of LENS rear	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Gate position of retina	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Galiper position of cornea	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Caliper position of LENS front	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Caliper position of LENS rear	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Caliper position of retina	Num	ASCII	4	Unsigned integer (part of 5936 data)	
[EditPn_R] n=0~9	Calculation point for EDIT		20	Calculation point 1 for EDIT	Num	ASCII	4	Unsigned integer Calculation point for EDIT	
				:					

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				Calculation point 20 for EDIT	Num	ASCII	4	Unsigned integer Calculation point for EDIT	
[AVG_R]	Average		3	Axial	Num	ASCII	5	Unsigned decimal	mm
				ACD	Num	ASCII	4	Unsigned decimal	mm
				LENS	Num	ASCII	4	Unsigned decimal	mm
[SD_R]	Standard Deviation		3	Axial	Num	ASCII	4	Unsigned decimal	mm
				ACD	Num	ASCII	4	Unsigned decimal	mm
				LENS	Num	ASCII	4	Unsigned decimal	mm
[RANGE_R]	Range		3	Axial	Num	ASCII	4	Unsigned decimal	mm
				ACD	Num	ASCII	4	Unsigned decimal	mm
				LENS	Num	ASCII	4	Unsigned decimal	mm
[Thr_R]	Threshold level		3	Threshold Low level	Num	ASCII	5	Unsigned integer(0-255) Threshold level of measurement	-
				Threshold Middle level	Num	ASCII	5	Unsigned integer(0-255) Judgment level of available echo	-
				Threshold High level	Num	ASCII	5	Unsigned integer(0-255) Judgment level of available echo	-
[IOL_DNo_R]	Selected No. of IOL calculation		1	Selection No. of IOL calculation	Num	ASCII	2	Unsigned integer(1-10) However average is blank.	-
[IOL_WNo_R]	Selected wave No. of IOL calculation		1	Select ion wave No. of IOL calculation	Num	ASCII	2	Unsigned integer(1-10)	-
[K12_R]	Corneal refractive	-	2	K1	Num	ASCII	5	Corneal refractive power or Corneal curvature, Unsigned decimal	D, mm
				K2	Num	ASCII	5	Corneal refractive power or Corneal curvature, Unsigned decimal	D, mm
[INF_R]	Representative value	-	6	Axial	Num	ASCII	5	Unsigned decimal	
				ACD	Num	ASCII	5	Unsigned decimal	
				LENS	Num	ASCII	5	Unsigned decimal	
				Confidence coefficient	Num	ASCII	5	Unsigned decimal	
				Gain	Num	ASCII	5	Unsigned integer	
				Status	String	ASCII	5	Maximum length :L Minimum length :S	
[POSTK_CH_R] [POSTK_CH_n_R] (n=2)	POSTK conversion (Clinical History)	-	8	K value of post refractive surgery	Num	ASCII	6	Unsigned decimal	
				K1 value of pre refractive surgery	Num	ASCII	6	Unsigned decimal	
				K2 value of pre refractive surgery	Num	ASCII	6	Unsigned decimal	

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				Spherical diopter of pre refractive surgery	Num	ASCII	6	Unsigned decimal	
				Astigmatism diopter of pre refractive surgery	Num	ASCII	6	Unsigned decimal	
				Spherical diopter of post refractive surgery	Num	ASCII	6	Unsigned decimal	
				Astigmatism diopter of post refractive surgery	Num	ASCII	6	Unsigned decimal	
				Vertex distance	Num	ASCII	6	Unsigned decimal	
[DREF_R] [DREF_n_R] *(n=2)	Desired postoperative refraction (Right eye)	-	1	Desired refractive power	Num	ASCII	6	Signed decimal	
[PRE_REF_R] [PRE_REF n_R] *(n=2)	Preoperative refraction (Right eye)	-	1	Preoperative refraction power	Num	ASCII	6	Signed decimal	

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[IOL_RES_R] [IOL_RES_n_R] *(n=2)	IOL Calculation result (Right eye)	M A X 1 6	9	IOL Formula	String	ASCII	16	Character string of IOL Formulas														—
					1	2	3	4	5	6	7	8	9	10	11	12	13	14				
				SRK II	'S'	'R'	'K'	sp ac e	'I'	'I'												
				SRK/T	'S'	'R'	'K'	'/'	'T'													
				HOLLADA Y	'H'	'O'	'L'	'L'	'A'	'D'	'A'	'Y'										
				Hoffer Q	'H'	'o'	'f'	'f'	'e'	'r'	spa ce	'Q'										
				HAIGIS std	'H'	'A'	'I'	'G'	'I'	'S'	spa ce	's'	't'	'd'								
				HAIGIS opt	'H'	'A'	'I'	'G'	'I'	'S'	spa ce	'o'	'p'	't'								
				SHOWA SRK	'S'	'H'	'O'	'W'	'A'													
				SRK	'S'	'R'	'K'															
				HOLLADA Y II	'H'	'O'	'L'	'L'	'A'	'D'	'A'	'Y'	spa ce	'2'								
				Binkhorst	'B'	'i'	'n'	'k'	'h'	'o'	'r'	's'	't'									
				Double K SRK/T	'D'	'o'	'u'	'b'	'l'	'e'	spa ce	'K'	spa ce	'S'	'R'	'K'	'/'	'T'				
				Shammas -PL	'S'	'h'	'a'	'm'	'm'	'a'	's'	'.'	'P'	'L'								
				Barrett Universal II	'B'	'a'	'r'	'r'	'e'	't'	't'	spa ce	'U'	'l'	'l'							
				Barrett True K	'B'	'a'	'r'	'r'	'e'	't'	't'	spa ce	'T'	'r'	'u'	'e'	'K'					
IOL Manufacture name	String	ASCII	10	The IOL manufacture name used for calculation														—				
IOL model name	String	ASCII	10	The IOL model name used for calculation														—				

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				Const 1	Num	ASCII	6	Signed decimal The contents of each field change with formulas <table><tr><td></td><td>Const1</td><td>Const2</td><td>Const3</td><td>Range</td></tr><tr><td>SRK II</td><td>A-Const</td><td>(Blank)</td><td>(Blank)</td><td>100.00~130.00</td></tr><tr><td>SRK/T</td><td>A-Const</td><td>(Blank)</td><td>(Blank)</td><td>100.00~130.00</td></tr><tr><td>HOLLADAY</td><td>SF</td><td>(Blank)</td><td>(Blank)</td><td>-5.00~10.00</td></tr><tr><td>Hoffer Q</td><td>ACD-Const</td><td>(Blank)</td><td>(Blank)</td><td>0.00~10.00</td></tr><tr><td>HAIGIS std</td><td>A-Const</td><td>a1</td><td>a2</td><td>A-Const: 100.00~130.00 a1 : -0.99~0.99 a2 : -0.99~0.99</td></tr><tr><td>HAIGIS opt</td><td>a0</td><td>a1</td><td>a2</td><td>a0 : -9.99~9.99 a1 : -0.99~0.99 a2 : -0.99~0.99 a0, a1, and a2 are filling the following condition formation. 2< a0+a1×3.37+a2×23.39 <10 2< a0+a1×2.53+a2×20.00 <10 2< a0+a1×3.50+a2×27.00 <10</td></tr><tr><td>SHOWA SRK</td><td>A-Const</td><td>(Blank)</td><td>(Blank)</td><td>100.00~130.00</td></tr><tr><td>SRK</td><td>A-Const</td><td>(Blank)</td><td>(Blank)</td><td>100.00~130.00</td></tr><tr><td>HOLLADAY II</td><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></tr><tr><td>Binkhorst</td><td>ACD-Const</td><td>(Blank)</td><td>(Blank)</td><td>0.00~10.00</td></tr><tr><td>Double K SRK/T</td><td>A-Const</td><td>(Blank)</td><td>(Blank)</td><td>100.00~130.00</td></tr><tr><td>Shammas-PL</td><td>A-Const</td><td>(Blank)</td><td>(Blank)</td><td>100.00~130.00</td></tr><tr><td>Barrett Universal II</td><td>LF</td><td>(Blank)</td><td>(Blank)</td><td>-2.00~5.00</td></tr></table>		Const1	Const2	Const3	Range	SRK II	A-Const	(Blank)	(Blank)	100.00~130.00	SRK/T	A-Const	(Blank)	(Blank)	100.00~130.00	HOLLADAY	SF	(Blank)	(Blank)	-5.00~10.00	Hoffer Q	ACD-Const	(Blank)	(Blank)	0.00~10.00	HAIGIS std	A-Const	a1	a2	A-Const: 100.00~130.00 a1 : -0.99~0.99 a2 : -0.99~0.99	HAIGIS opt	a0	a1	a2	a0 : -9.99~9.99 a1 : -0.99~0.99 a2 : -0.99~0.99 a0, a1, and a2 are filling the following condition formation. 2< a0+a1×3.37+a2×23.39 <10 2< a0+a1×2.53+a2×20.00 <10 2< a0+a1×3.50+a2×27.00 <10	SHOWA SRK	A-Const	(Blank)	(Blank)	100.00~130.00	SRK	A-Const	(Blank)	(Blank)	100.00~130.00	HOLLADAY II	N/A	N/A	N/A	N/A	Binkhorst	ACD-Const	(Blank)	(Blank)	0.00~10.00	Double K SRK/T	A-Const	(Blank)	(Blank)	100.00~130.00	Shammas-PL	A-Const	(Blank)	(Blank)	100.00~130.00	Barrett Universal II	LF	(Blank)	(Blank)	-2.00~5.00	—
	Const1	Const2	Const3	Range																																																																											
SRK II	A-Const	(Blank)	(Blank)	100.00~130.00																																																																											
SRK/T	A-Const	(Blank)	(Blank)	100.00~130.00																																																																											
HOLLADAY	SF	(Blank)	(Blank)	-5.00~10.00																																																																											
Hoffer Q	ACD-Const	(Blank)	(Blank)	0.00~10.00																																																																											
HAIGIS std	A-Const	a1	a2	A-Const: 100.00~130.00 a1 : -0.99~0.99 a2 : -0.99~0.99																																																																											
HAIGIS opt	a0	a1	a2	a0 : -9.99~9.99 a1 : -0.99~0.99 a2 : -0.99~0.99 a0, a1, and a2 are filling the following condition formation. 2< a0+a1×3.37+a2×23.39 <10 2< a0+a1×2.53+a2×20.00 <10 2< a0+a1×3.50+a2×27.00 <10																																																																											
SHOWA SRK	A-Const	(Blank)	(Blank)	100.00~130.00																																																																											
SRK	A-Const	(Blank)	(Blank)	100.00~130.00																																																																											
HOLLADAY II	N/A	N/A	N/A	N/A																																																																											
Binkhorst	ACD-Const	(Blank)	(Blank)	0.00~10.00																																																																											
Double K SRK/T	A-Const	(Blank)	(Blank)	100.00~130.00																																																																											
Shammas-PL	A-Const	(Blank)	(Blank)	100.00~130.00																																																																											
Barrett Universal II	LF	(Blank)	(Blank)	-2.00~5.00																																																																											
				Const 2	Num	ASCII	6	Signed decimal The contents of each field change with formulas	—																																																																						
				Const 3	Num	ASCII	6	Signed decimal The contents of each field change with formulas	—																																																																						
				IOL calculation result	Num	ASCII	6	Signed decimal The Power value calculated from the IOL formula	D																																																																						
				IOL power	Num	ASCII	6	Signed decimal The numerical value of the multiple of 0.5 nearest to a calculation result(Center value in IOL power list)	D																																																																						
				Refraction power expected	Num	ASCII	6	Signed decimal Refraction power calculated from “IOL Power”	D																																																																						

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[IOL_RES_AR RAY_IOL_R] [IOL_RES_AR RAY_IOL_n_R] *(n=2)	Array of IOL power (Right eye)	M A X 1 6	1	Data size	Num	ASCII	6	Size number of IOL power	—
			6	IOL power1	Num	ASCII	6		
				...				Signed decimal	
				IOL power15	Num	ASCII	6	Determine IOL power No. under below figure	—
[IOL_RES_AR RAY_REF_R] [IOL_RES_AR RAY_REF_n_ R] *(n=2)	Array of post op. ref. (Right eye)	M A X 1 6	1	Data size	Num	ASCII	6	Size number of post op. ref.	—
			6	Post op. ref. 1	Num	ASCII	6		—
				...				Signed decimal	
				Post op. ref. 15	Num	ASCII	6	Determine post op. ref No. under below figure	—
[IMP_IOL_R]	Implanted IOL (Right eye)	-	3	IOL manufacturer name	String	ASCII	10	The manufacture name of the IOL Implanted into the patient's eye.	
				IOL Model name	String	ASCII	10	The model name of the IOL Implanted into the patient's eye.	—
				IOL power	Num	ASCII	6	Refractive power of the IOL Implanted into the patient's eye.	
[PO_REF_R]	Post operative power (Right eye)	-	1	Post operative refraction power	Num	ASCII	6	Signed decimal	D
[IOL_OPTION _R]	Input Options of IOL Calculation (Right eye)	-	2	WTW	Num	ASCII	5	Signed decimal	mm
				WTW Caution	Num	ASCII	1	Unsigned integer Warning 1 Without warning:0	
[ETYP_L]	Eye Type (Left eye)	-	3	Eye Eype	String	ASCII	13	One of the character strings of [Phakic], [dense], [Aphakic], [IOL] or [PhkicIOL].	—
				Velocity of axial	String	ASCII	13	Average, Divided	-
				Material of IOL	String	ASCII	13	One of the character strings of [Acrylic resin], [silicon], [PMMA] or [user setting]. However [user setting] is any.	—
[VEL_L]	Ultrasound velocity (Left eye)	-	5	Biometry Average	Num	ASCII	4	Unsigned integer Biometry average ultrasound velocity (Phakic, Dense, Aphakic)	m/s
				LENS	Num	ASCII	4	Unsigned integer Biometry LENS ultrasound velocity	m/s
				ACD	Num	ASCII	4	Unsigned integer Biometry ACD ultrasound velocity	m/s
				Vitreous	Num	ASCII	4	Unsigned integer Biometry vitreous ultrasound velocity	m/s
				IOL	Num	ASCII	4	Unsigned integer IOL ultrasound velocity	m/s
[IOLT_L]	IOL thickness (Left eye)	-	1	IOL thickness	Num	ASCII	4	Unsigned decimal	mm
[KI_L]	Keratometric Index (Left eye)	-	1	Keratometric Index	Num	ASCII	9	Unsigned decimal	

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[CI_L]	Contact or Immersion (Left eye)	-	1	Contact or Immersion	String	ASCII	9	One of the character strings of [Contact] or [Immersion]	—
[HOW_L]	Measurement mode	-	1	Measurement mode	String	ASCII	9	One of the character strings of [auto], [auto quick] or [manual4k].	—
[MSRn_L] n=0~9	Measurement data (Left eye)	-	6	Axial Length	Num	ASCII	5	Unsigned decimal	mm
				ACD	Num	ASCII	5	Unsigned decimal	mm
				Lens thickness	Num	ASCII	5	Unsigned decimal	mm
				Confidence coefficient	Num	ASCII	5	Unsigned decimal	-
				Gain	Num	ASCII	3	Unsigned integer	dB
				Status	String	ASCII	3	Maximum length :L Minimum length :S	-
[GCn_L] n=0~9	Gate/Caliper		9	Priority of Gate or Caliper	String	ASCII	1	One of the character strings of [G] or [C].	-
				Gate position of cornea	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Gate position of LENS front	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Gate position of LENS rear	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Gate position of retina	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Caliper position of cornea	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Caliper position of LENS front	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Caliper position of LENS rear	Num	ASCII	4	Unsigned integer (part of 5936 data)	
				Caliper position of retina	Num	ASCII	4	Unsigned integer (part of 5936 data)	
[EditPn_L] n=0~9	Calculation point for EDIT		20	Calculation point 1 for EDIT	Num	ASCII	4	Unsigned integer Calculation point for EDIT	
				:					
				Calculation point 20 for EDIT	Num	ASCII	4	Unsigned integer Calculation point for EDIT	
[AVG_L]	Average		3	Axial	Num	ASCII	5	Unsigned decimal	mm
				ACD	Num	ASCII	4	Unsigned decimal	mm
				LENS	Num	ASCII	4	Unsigned decimal	mm
[SD_L]	Standard Deviation		3	Axial	Num	ASCII	4	Unsigned decimal	mm
				ACD	Num	ASCII	4	Unsigned decimal	mm
				LENS	Num	ASCII	4	Unsigned decimal	mm
[RANGE_L]	Range		3	Axial	Num	ASCII	4	Unsigned decimal	mm
				ACD	Num	ASCII	4	Unsigned decimal	mm

DATA FORMAT : Examination data part USAXIAL (version : 1-00-24)

				LENS	Num	ASCII	4	Unsigned decimal	mm
[Thr_L]	Threshold level		3	Threshold Low level	Num	ASCII	5	Unsigned integer(0-255) Threshold level of measurement	-
				Threshold Middle level	Num	ASCII	5	Unsigned integer(0-255) Judgment level of available echo	-
				Threshold High level	Num	ASCII	5	Unsigned integer(0-255) Judgment level of available echo	-
[IOL_DNo_L]	Selected No. of IOL calculation		1	Select No. of IOL calculation	Num	ASCII	2	Unsigned integer(1-10) However average is blank.	-
[IOL_WNo_L]	Selected wave No. of IOL calculation		1	Select wave No. of IOL calculation	Num	ASCII	2	Unsigned integer(1-10)	-
[K12_L]	Corneal refractive power (Left eye)	-	2	K1	Num	ASCII	5	Corneal refractive power or Corneal curvature, Unsigned decimal	D, mm
				K2	Num	ASCII	5	Corneal refractive power or Corneal curvature, Unsigned decimal	D, mm
[INF_L]	Representative value	-	6	Axial	Num	ASCII	5	Unsigned decimal	
				ACD	Num	ASCII	5	Unsigned decimal	
				LENS	Num	ASCII	5	Unsigned decimal	
				Confidence coefficient	Num	ASCII	5	Unsigned decimal	
				Gain	Num	ASCII	5	Unsigned integer	
				Status	String	ASCII	5	Maximum length :L Minimum length:S	
[POSTK_CH_L] [POSTK_CH_n_L] (n=2)	POSTK conversion (Clinical History)	-	8	K value of post refractive surgery	Num	ASCII	6	Unsigned decimal	
				K1 value of pre refractive surgery	Num	ASCII	6	Unsigned decimal	
				K2 value of pre refractive surgery	Num	ASCII	6	Unsigned decimal	
				Spherical diopter of pre refractive surgery	Num	ASCII	6	Unsigned decimal Blank if there is K value of post refractive surgery	
				Astigmatism diopter of pre refractive surgery	Num	ASCII	6	Unsigned decimal Blank if there is K value of post refractive surgery	
				Spherical diopter of post refractive surgery	Num	ASCII	6	Unsigned decimal Blank if there is K value of post refractive surgery	

DATA FORMAT : Examination data part USAXIAL (version : 1-00-24)

				Astigmatism diopter of post refractive surgery	Num	ASCII	6	Unsigned decimal Blank if there is K value of post refractive surgery.															
				Vertex distance	Num	ASCII	6	Unsigned decimal															
[DREF_L] [DREF_n_L] (n=2)	Desired postoperative refraction (Left eye)	-	1	Desired refractive power	Num	ASCII	6	Signed decimal															
[PRE_REF_L] [PRE_REF_n_L] (n=2)	Preoperative refraction (Left eye)	-	1	Preoperative refraction power	Num	ASCII	6	Signed decimal															
[IOL_RES_L] [IOL_RES_n_R] *(n=2)	IOL Calculation result (Left eye)	M A X 1 6	9	IOL Formula	String	ASCII	16	* : refer to [IOL_RES_R]															
									1	2	3	4	5	6	7	8	9	10	11	12	13		14
SRK II								'S'	'R'	'K'	sp ac e	'I'	'I'										
SRK/T								'S'	'R'	'K'	'I'	'T'											
HOLLADA Y								'H'	'O'	'L'	'L'	'A'	'D'	'A'	'Y'								
Hoffer Q								'H'	'o'	'f'	'f'	'e'	'r'	spa ce	'Q'								
HAIGIS std								'H'	'A'	'I'	'G'	'I'	'S'	spa ce	's'	't'	'd'						
HAIGIS opt								'H'	'A'	'I'	'G'	'I'	'S'	spa ce	'o'	'p'	't'						
SHOWA SRK								'S'	'H'	'O'	'W'	'A'											
SRK								'S'	'R'	'K'													
HOLLADA Y II								'H'	'O'	'L'	'L'	'A'	'D'	'A'	'Y'	spa ce	'2'						
Binkhorst								'B'	'i'	'n'	'k'	'h'	'o'	'r'	's'	't'							
Double K SRK/T								'D'	'o'	'u'	'b'	'l'	'e'	spa ce	'K'	spa ce	'S'	'R'	'K'	'I'	'T'		
Shammas -PL								'S'	'h'	'a'	'm'	'm'	'a'	's'	'-	'P'	'L'						
Barrett Universal II								'B'	'a'	'r'	'r'	'e'	't'	't'	spa ce	'U'	'I'	'I'					
Barrett True K								'B'	'a'	'r'	'r'	'e'	't'	't'	spa ce	'T'	'r'	'u'	'e'	'K'			
				IOL Manufacture name	String	ASCII	10	The IOL manufacture name used for calculation														-	

DATA FORMAT : Examination data part USAXIAL (version : 1-00-24)

				IOL model name	String	ASCII	10	The IOL model name used for calculation					—
				Const1	Num	ASCII	6	Signed decimal The contents of each field change with formulas. * : refer to [IOL_RES_R]					—
					Const1	Const2	Const3	Range					
				SRK II	A-Const	(Blank)	(Blank)	100.00~130.00					
				SRK/T	A-Const	(Blank)	(Blank)	100.00~130.00					
				HOLLADAY	SF	(Blank)	(Blank)	-5.00~10.00					
				Hoffer Q	ACD-Const	(Blank)	(Blank)	0.00~10.00					
				HAIGIS std	A-Const	a1	a2	A-Const: 100.00~130.00 a1 : -0.99~0.99 a2 : -0.99~0.99					
				HAIGIS opt	a0	a1	a2	a0 : -9.99~9.99 a1 : -0.99~0.99 a2 : -0.99~0.99 a0, a1, and a2 are filling the following condition formation. 2< a0+a1×3.37+a2×23.39 <10 2< a0+a1×2.53+a2×20.00 <10 2< a0+a1×3.50+a2×27.00 <10					
				SHOWA SRK	A-Const	(Blank)	(Blank)	100.00~130.00					
				SRK	A-Const	(Blank)	(Blank)	100.00~130.00					
				HOLLADAY II	N/A	N/A	N/A	N/A					
				Binkhorst	ACD-Const	(Blank)	(Blank)	0.00~10.00					
				Double K SRK/T	A-Const	(Blank)	(Blank)	100.00~130.00					
				Shammas-PL	A-Const	(Blank)	(Blank)	100.00~130.00					
				Barrett Universal II	LF	(Blank)	(Blank)	-2.00~5.00					
Const2	Num	ASCII	6	Signed decimal The contents of each field change with formulas. * : refer to [IOL_RES_R]					—				
Const3	Num	ASCII	6	Signed decimal The contents of each field change with formulas. * : refer to [IOL_RES_R]					—				
IOL calculation result	Num	ASCII	6	Signed decimal The Power value calculated from the IOL formula					D				
IOL power	Num	ASCII	6	Signed decimal The numerical value of the multiple of 0.5 nearest to a calculation result(Center value in IOL power list)					D				
Refraction power expected	Num	ASCII	6	Signed decimal Refraction power calculated from “IOL Power”					D				
[IOL_RES_AR RAY_IOL_L]	Array of IOL power	M A	1 6	Data size	Num	ASCII	6	Size number of IOL power					—
				IOL power1	Num	ASCII	6	Signed decimal					

DATA FORMAT : Examination data part USAXIAL (version : 1-00-24)

[IOL_RES_AR RAY_IOL_n_L] (n=2)	(Left eye)	X 1 6		...				Determine IOL power No. under below figure	
				IOL power15	Num	ASCII	6		—
[IOL_RES_AR RAY_REF_L] [IOL_RES_AR RAY_IOL_n_L] (n=2)	Array of post op. ref. (Left eye)	M A X 1 6	1 6	Data size	Num	ASCII	6	Size number of post op. ref.	—
				Post op. ref.1	Num	ASCII	6		—
				...				Signed decimal	
				Post op. ref.15	Num	ASCII	6	Determine post op. ref No. under below figure	—
[IMP_IOL_L]	Implanted IOL (Left eye)	-	3	IOL manufacturer name	String	ASCII	10	The manufacture name of the IOL Implanted into the patient's eye.	
				IOL Model name	String	ASCII	10	The model name of the IOL Implanted into the patient's eye.	—
				IOL power	Num	ASCII	6	Refractive power of the IOL Implanted into the patient's eye.	
[PO_REF_L]	Postoperative power (Left eye)	-	1	Postoperative refraction power	Num	ASCII	6	Signed decimal	D
[IOL_OPTION _L]	Input Options of IOL Calculation (Left eye)	-	2	WTW	Num	ASCII	5	Signed decimal	mm
				WTW Caution	Num	ASCII	1	Unsigned integer Warning 1 Without warning:0	
[FILES_N]	Attached file number	-	2	File number	Num	-	3	Unsigned integer UD-8000:thumbnail on[2], thumbnail off[2] AL-4000 calculation unit:[1] With capture screen of OA-2000 [2], without capture screen of OA-2000 [1] *2	
				presence or absence of encryption	String	ASCII		"Blank" : encrypted "no encryption" : not encrypted In some cases, the column is not attached	
[FILE] *1	File information	M A X 3	3	File name	String	ASCII	256 (one-byte characters)	Attached file name Waveform *****.JPG Image Including of Measurement information *****.jpg Capture image SCREENSHOT.JPG	
				File fucntion	String	ASCII	5	In the case of capture image only , "COPY" is attached. In some cases, the column is not attached	
				Functional classification code	String	ASCII	1	In the case of capture image only , Both eyes (R/L). In some cases, the column is not attached	
[FILE] *2	File information	M A X 3	3	Func	String	ASCII	15	In the case of Wave form, Character string (*****AXE,*****AXR) In the case of Capture image, SCREENSHOT.JPG Refer to [EXAM_USAXIAL.develop.doc]	
				File fucntion	String	ASCII	5	In the case of capture image only , "COPY" is attached. In some cases, the column is not attached	

DATA FORMAT : Examination data part USAXIAL (version : 1-00-24)

				Functional classification code	String	ASCII	1	In the case of capture image only , Both eyes (R/L). In some cases, the column is not attached	
[CL_ID]	Clinic ID	-	1	Clinic ID	String	ASCII	64	Character string of all ASCII code	
[CL_ADRS]	Clinic address	-	1	Clinic address	String	ASCII	64	Character string of all ASCII code	
[EX_INFO]	Technical Information	-	1	Technical Information	String	ASCII	128	Character string of all ASCII code	

*1 When the file which T-link/Data Transfer received from product is outputted. *2 When data is directly outputted from products

*2: Export from OA-2000

DATA FORMAT : Examination data part USAXIAL (version: 1-00-24)

Note: “_R” and “_L” in the tag name mean “Right eye data” and “Left eye data” each other.
Result of calculation is contained records of the number of result caluculated.
The following tag is not used in UD-8000.

- ✓ [IOL_RES_ARRAY_IOL_R]
- ✓ [IOL_RES_ARRAY_REF_R]

※Additional details of [IOL_RES_ARRAY_REF_R] and [IOL_RES_ARRAY_REF_R]

IOL Ref.	
19.50	1.96
20.00	1.56
20.50	1.16
21.00	0.76
21.50	0.36
22.00	-0.04
22.50	-0.44
23.00	-0.84
23.50	-1.24
24.00	-1.64
24.50	-2.04

Center is No.9. And assign a number both ways

-
-
- ← IOL power 7 Post op. ref 7
- ← IOL power 8 Post op. ref 8
- ← IOL power 9 Post op. ref 9
- ← IOL power 10 Post op. ref 10
- ← IOL power 11 Post op. ref 11
-
-

DATA FORMAT : Examination data part USAXIAL (version : 1-00-24)

2. Sample (The portion following a common header)

2-1. Measurement of both eyes, IOL power calculation of both eye

Sample	Explanation
[FM_IF],USAXIAL,1-00-19	Version of USAXIAL format is 1-00-19
[MAC_V],TEC000,TEF000,MBC000,D1F000,D2F000,DSP000,ANC000,BTC000,TPC000	T-Engine CPU software version: TEC000, T-Engine FPGA version: TEF000, Microblazesoftware version: MBC000, DigitalFPGA version1: D1F000, Digital FPGA version2: D2F000, DSP software version: DSP000, Analog CPU software version: ANC000, Bluetooth CPU version: BTC000, Touch panel software version: TPC000
[MSR_MAC_V],AL-4000_MSR,DIC000,APF000,AXT000,LNT000,LGT000,SGT000	Measurement model: AL-4000, CPUsoftware version: DIC000, Axial FPGA version: APF000, Axial Table version: AXT000, Linear Table version: LNT000, Log Table version: LGT000, S Table version: SGT000
[EDIT_MAC_V],AL-4000_CAL,LNC000,EXF000,TPC000	Latest edit model: AL-4000 calculation unit, LAN_CPU software version: LNC000, FPGA version: EXF000, Touch panel software version: TPC000
[ETYP_R],Phakic,Average	Eye Type: Phakic, Velocity of axial: Average
[VEL_R],1550,1641,1532,0,0	Average velocity: 1550m/s, LENS velocity: 1641m/s, ACD velocity: 1532m/s, Vitreous velocity: none, IOL Velocity: none
[IOLT_R],0	IOL thickness is: none
[KI_R],1.3375	Keratometric Index: 1.3375
[CI_R],Contact	Contact method
[HOW_R],auto	Measurement mode: auto
[MSR0_R],26.51,5.08,4.21,,25,CL	Memory No.1: Axial 26.51mm, ACD 5.08mm, LENS 4.21mm, Confidence coefficient: none, Gain 25dB, Maximum length L and applied Caliper C
...	
[MSR9_R],26.41,5.08,4.21,0.001,25,S	Memory No.10: Axial 26.41mm, ACD 5.08mm, LENS 4.21mm, Confidence coefficient: 0.001(! mark), Gain 25dB, Minimum length S
[GC0_R],G,0,200,1300,2300,0,700,1200,3600	Memory No.1: Gate, Cornea gate 0, LENS front gate 200, LENS rear gate 1300, Retina gate 2300, Cornea Caliper 0, LENS front caliper 700, LENS rear caliper 1200, Retina caliper 3600
...	
[GC9_R],G,0,200,1300,2300,0,700,1200,3500	Memory No.10: Gate, Cornea gate 0, LENS front gate 200, LENS rear gate 1300, Retina gate 2300, Cornea Caliper 0, LENS front caliper 700, LENS rear caliper 1200, Retina caliper 3500
[EditP0_R],0,700,1200,...,0	Memory No.1 : Calculation point for Edit 0,700,1200,...,0
...	
[EditP9_R],0,700,1200,...,0	Memory No.10 : Calculation point for Edit 0,700,1200,...,0

DATA FORMAT : Examination data part USAXIAL (version : 1-00-24)

[AVG_R],26.41,5.08,4.21	Average:Axial 26.41mm、ACD 5.08mm、LENS 4.21mm
[SD_R],0.04,0.02,0.01	Axial standard deviation 0.04mm、ACD standard deviation 0.02mm、LENS standard deviation 0.01mm
[RANGE_R],0.10,0.15,0.11	Range of axial:0.10mm、Range of ACD:0.15mm、Range of LENS:0.11mm
[Thr_R],25,128,200	Threshold level:Low 0、Middle 128、High 200
[IOL_DNo_R],	Selected No. of IOL calculation : Average(Blank)
[IOL_WNo_R],1	Selected wave No. of IOL calculation:No.1
[K12_R],44.00,45.00	K1 :44.00D K2 :45.00D
[INF_R],26.41,5.08,4.21,,	Representative value:26.41mm、ACD:5.08 mm、LENS:4.21mm、Confidence coefficient:none、Gain:none、Status:none
[POSTK_CH_R], 44.00,42.00,42.00,,,,,12.00	POSTK conversion Clinical History Method、POSTK:44.00、PreK1:42.00、PreK2:42.00、
	Pre_S none、Pre_C none、Post_S none、Post_C none、VD12
[DREF_R],-0.50	Desired ref. =-0.5D
[PRE_REF_R],-1.00	Preoperative refraction power =-1.00D
[IOL_RES_R],SRK/T, ALCON , MA30BM,118.90,,,14.1,14.00,-0.37	IOL formula、IOL model name、constant1、constant2、constant3、Result of calculation、IOL Power、Refraction power expected
[IOL_RES_ARRAY_IOL_R],15,10.50,11.00,11.50,12.00,12.50,13.00,13.50,14.00,14.50,15.00,15.50,16.00,16.50,17.00,17.50	Rows:15、IOL Power: 15
[IOL_RES_ARRAY_REF_R],15,2.43,2.03,1.63,1.23,0.83,0.43,0.03,-0.37,-0.77,-1.17,-1.57,-1.97,-2.37,-2.77,-3.17	Rows:15、Post op. ref: 15
[IMP_IOL_R],ALCON,MA30BM,14.25	implanted IOL manufacture =ALCON, Model =MA30BM, power =14.25D
[PO_REF_R], 0.00	Post operative power 0.00D
[ETYP_L], IOL,Average,Acrylic resin	Eye Type: IOL、Velocity of axial:Average、Material of IOL: Acrylic resin
[VEL_L],1545, ,1532,1532,2200	Average velocity:1545m/s、LENS velocity:none、ACD velocity:1532m/s、Vitreous velocity:1532m/s、IOL Velocity:2200m/s
[IOLT_L],0.80	IOL thickness is 0.80mm
[KI_L],1.3375	Keratometric Index:1.3375
[CI_L],Contact	Contact method
[HOW_L],auto	Measurement mode:auto
[MSR0_L],26.41,5.08,0.00,,25, L	Memory No.1:Axial:26.41mm、ACD:5.08mm、LENS:none、Confidence coefficient:none、Gain 25dB、Maximum length L
...	
[MSR9_L],26.41,5.08,0.00,,25,,	Memory No.10:Axial 26.41mm、ACD 5.08mm、LENS:none、Confidence coefficient:none、Gain 30dB、Status:none
[GC0_L],G,0,200,0,2300,0,700,0,3500	Memory No.1: Gate、Cornea gate 0、LENS front gate 200、LENS rear gate 0、Retina gate 2300、 Cornea Caliper 0、LENS front caliper 700、LENS rear caliper 0、Retina caliper 3500
...	
[GC9_L],G,0,200,0,2300,0,700,0,3500	Memory No.10: Gate、Cornea gate 0、LENS front gate 200、LENS rear gate 0、Retina gate 2300、 Cornea Caliper 0、LENS front caliper 700、LENS rear caliper 0、Retina caliper 3500

DATA FORMAT : Examination data part USAXIAL (version : 1-00-24)

[EditP0_L],0,700,1300,...,0	Memory No.1 :Calculation point for Edit 0,700,1300,...,0
...	
[EditP9_L],0,700,1300,...,0	Memory No.10 :Calculation point for Edit 0,700,1300,...,0
[AVG_L],26.41,5.08,0.00	Average:Axial 26.41mm、ACD 5.08mm、LENS none
[SD_L],0.04,0.02,0.00	Axial standard deviation 0.04mm、ACD standard deviation 0.02mm、LENS standard deviation none
[RANGE_L],0.10,0.15,0.00	Range of axial:0.10mm、Range of ACD:0.15mm、Range of LENS:none
[Thr_L],25,128,200	Threshold level:Low 25、Middle 128、High 200
[IOL_DNo_L],1	Selected No. of IOL calculation:No.1
[IOL_WNo_L],1	Selected wave No. of IOL calculation:No.1
[K12_L],44.00,45.00	K1 :44.00D K2: 45.00D
[INF_L],26.41,5.08,0.00,,	Representative value:26.41mm、ACD:5.08 mm、LENS:none、Confidence coefficient:none、Gain:none、Status:none
[POSTK_CH_L],43.81,45.00,46.00,3.00,2.00,4.00,3.00,12.00	POSTK conversion Clinical History Method、POSTK:43.81、PreK1:45.00、PreK2:46.00、 Pre_S :3.00mm、,Pre_C:2.00mm、Post_S:4.00mm、Post_C:3.00mm、VD:12
[DREF_L],-0.50	Desired ref. =-0.5D
[PRE_REF_L],-1.00	Preoperative refraction power =-1.00D
[IOL_RES_L],SRK/T, ALCON , MA30BM,118.90,,,14.1,14.00,-0.37	IOL formula、IOL model name、constant1、constant2、constant3、Result of calculation、IOL Power、Refraction power expected
[IOL_RES_ARRAY_IOL_L],15,10.50,11.00,11.50,12.00,12.50,13.00,13.50,14.00,14.50,15.00,15.50,16.00,16.50,17.00,17.50	Rows:15、IOL Power: 15
[IOL_RES_ARRAY_REF_L],15,2.43,2.03,1.63,1.23,0.83,0.43,0.03,-0.37,-0.77,-1.17,-1.57,-1.97,-2.37,-2.77,-3.17	Rows:15、Post op. ref: 15
[IMP_IOL_L],ALCON,MA30BM,14.25	implanted IOL manufacture =ALCON, Model =MA30BM, power =14.25D
[PO_REF_L], 0.00	Post operative power 0.00D
[CL_ID],TOMEY CLINIC	Clinic ID or Clinic name
[CL_ADRS],NAGOYA AICHI	Clinic Address
[EX_INFO], Probe:Axial 10MHz/Frequency:10MHz/Measuring fault:0.1mm/Resolution:0.6mm/Time distance:0.1s/Running time:0.13us	Technical information
[FILES_N],20 no encryption	Attached file:20 no encryption
[FILE],12012-12-11_17-54-34_074.AL-4000_CAL.R.1.JPG	Attached file name:
...	
[FILE],SCREENSHOT.JPG,COPY,R SCREENSHOT.JPG	Capture image of Right eye