

GE LightSpeed CT Series

Revision History

Date / Version	Author	Comments
5/31/2012	Steve Moore	
7/6/2012	Steve Moore	Added <ul style="list-style-type: none">• LightSpeed VCT 5116427-100 Rev 1
7/12/2012	Steve Moore	Added <ul style="list-style-type: none">• LightSpeed Ultra 3.0 2320439-100 Rev 0• LightSpeed Ultra 3.1 2320439-100 Rev. 0• HiSpeed Advantage CT/i Direction 2162114-100 Rev 0• HiSpeed Advantage CT/i 4.1 & 5.3 2162114-100 Rev. 2

Introduction

Observations on GE Private Elements

Scanner/Software Versions

Link Name / GE website	Model	SW Version	Meta SW Version	Document	File Name
LightSpeed - Software releases 07MW18.x, 07BW08.x, 07MW11.x: Direction # 5198351-100 Rev. 1	LightSpeed	07MW18.x, 07BW08.x, 07MW11.x:	LightSpeed 07x	5198351-100, REV 1	GEHC-DICOM- Conformance_LightSpeed- Brightspeed_5198351-100_Rev1
LightSpeed RT16 - Software Release 08BW44.1: Direction # DOC0500644 Rev. 3	LightSpeed	08BW44.1	LightSpeed 08x	DOC0500644, REV 3	GEHC-DICOM- Conformance_Discovery- LightSpeed- BrightSpeed_DOC0500644_Rev3
LightSpeed VCT 5116427-100 Rev 1	LightSpeed VCT <u>LightSpeed Pro32</u>	VCT.ME2PLUS <u>VCT.ME2PLUS</u>	LightSpeed VCT ME2PLUS	5116427-100 Rev 1	
LightSpeed Ultra 3.0 2320439-100 Rev. 0	LightSpeed Ultra	3.0	LightSpeed Ultra 3.0	2320439-100 Rev. 0	
LightSpeed Ultra 3.1 2296445-100 Rev. 0	LightSpeed Ultra	3.1	LightSpeed Ultra 3.1	2296445-100 Rev. 0	
LightSpeed Plus 2.3 2243324-100 Rev. 0	LightSpeed Plus	2.3	LightSpeed Plus 2.3	2243324-100 Rev. 0	
CT/i 3.6 & 4.0 2162114-100 Rev. 1	HiSpeed CT/i	3.6, 4.0	HiSpeed CT/i 3.6	2162114-100 Rev. 0	
CT/i 4.1 & 5.3 2162114-100 Rev. 2	HiSpeed CT/i	4.1, 5.3	HiSpeed CT/i 4.1	2162114-100 Rev. 2	
CT/i 4.4 & 6.1 2162114-100 Rev. 5	HiSpeed CT/i	4.4, 6.1	HiSpeed CT/i 6.1	2162114-100 Rev. 5	

In the table of private elements in the following sections:

*: Element is listed in the document

X1: Element is listed with a note: No longer supported

Gantry period	0x00191027	DS	1	*	*	*	*	*	*	*	*	*
x-ray On position	0x0019102a	DS	1				*			*	*	*
x-ray Off position	0x0019102b	DS	1				*			*	*	*
Number of triggers	0x0019102c	SL	1	*	*	*	*	*	*	*	*	*
Angle of first view	0x0019102e	DS	1	*	*	*	*	*	*	*	*	*
Trigger frequency	0x0019102f	DS	1	*	*	*	*	*	*	*	*	*
Scan FOV type	0x00191039	SS	1	*	*	*	*	*	*	*	*	*
Stat recon flag	0x00191040	SS	1				*			*	*	*
Compute type	0x00191041	SS	1				*			*	*	*
Segment number	0x00191042	SS	1	*	*	*	*	*	*	*	*	*
Total segments requested	0x00191043	SS	1	*	*	*	*	*	*	*	*	*
Interscan delay	0x00191044	DS	1				*			*	*	*
View compression factor	0x00191047	SS	1	*	*	*	*	*	*	*	*	*
Total no. of ref channels	0x0019104a	SS	1				*			*	*	*
Data size for scan data	0x0019104b	SL	1				*			*	*	*
Recon post proc. Flag	0x00191052	SS	1	*	*	*	*	*	*	*	*	*
CT water number	0x00191057	SS	1				*			*	*	*
CT bone number	0x00191058	SS	1				*			*	*	*
Number of channels (1...512)	0x0019105e	SL	1				*			*	*	*
Increment between channels	0x0019105f	SL	1				*			*	*	*
Starting view	0x00191060	SL	1				*			*	*	*
Number of views	0x00191061	SL	1				*			*	*	*
Increment between views	0x00191062	SL	1				*			*	*	*
Dependent on #views processed	0x0019106a	SS	1	*	*	*	*	*	*	*	*	*
Field of view in detector cells	0x0019106b	SS	1				*			*	*	*
Value of back projection button	0x00191070	SS	1				*			*	*	*
Set if fatq estimates were used	0x00191071	SS	1				*			*	*	*
Z chan avg over views	0x00191072	DS	1				*			*	*	*
Avg of left ref chans over views	0x00191073	DS	1				*			*	*	*
Max left chan over views	0x00191074	DS	1				*			*	*	*
Avg of right ref chans over views	0x00191075	DS	1				*			*	*	*
Max right chan over views	0x00191076	DS	1				*			*	*	*
Reference channel used	0x001910da	SS	1				*			*	*	*
Back projector coefficient	0x001910db	DS	1				*			*	*	*
Primary speed correction used	0x001910dc	SS	1				*			*	*	*
Overrange correction used	0x001910dd	SS	1				*			*	*	*

GEMS_STDY_01

		VR	VM									
GEHC Private Creator ID	0x00230010	LO	1	*		*	*	*	*	*	*	*
Start time(secs) in first axial	0x00231070	FD	1	*		*	*	*	*	*	*	*
No. of updates to header	0x00230174	SL	1				*			*	*	*
Indicates if the study has complete info (DICOM/genesis)	0x0023107d	SS	1				*			*	*	*

GEMS_SERS_01

		VR	VM									
GEHC Private Creator ID	0x00250010	LO	1				*			*	*	*
Last pulse sequence used	0x00251006	SS	1				*			*	*	*
Images in Series	0x00251007	SL	1				*			*	*	*
Landmark Counter	0x00251010	SL	1				*			*	*	*

GEHC Private Creator ID	0x00290010	LO	1				*			*	*	*
Lower range of Pixels1	0x00291004	SL	1				*			*	*	*
Lower range of Pixels1	0x00291005	DS	1				*			*	*	*
Lower range of Pixels1	0x00291006	DS	1				*			*	*	*
Lower range of Pixels1	0x00291007	SL	1				*			*	*	*
Lower range of Pixels1	0x00291008	SH	1				*			*	*	*
Lower range of Pixels1	0x00291009	SH	1				*			*	*	*
Lower range of Pixels1	0x0029100a	SS	1				*			*	*	*
Version of the hdr struct	0x00291026	SS	1				*			*	*	*
Advantage comp. Overflow	0x00291034	SL	1				*			*	*	*

GEMS_PARM_01

				LightSpeed 07x	LightSpeed 08x	LightSpeed VCT ME2PLUS	LightSpeed Ultra 3.0	LightSpeed Ultra 3.1	LightSpeed Plus 2.3	HiSpeed CT/i 3.6	HiSpeed CT/i 4.1	HiSpeed CT/i 6.1
		VR	VM									
GEHC Private Creator ID	0x00430010	LO	1	*	*	*	*	*	*	*	*	*
Window value	0x00431010	US	1	*	*	*	*	*	*	*	*	*
Total input views	0x00431011	US	1				*			*	*	*
X-ray chain	0x00431012	SS	3	*	*	*	*	*	*	*	*	*
Decon kernel parameters	0x00431013	SS	5				*			*	*	*
Calibration parameters	0x00431014	SS	3				*			*	*	*
Total output views	0x00431015	SS	3				*			*	*	*
Number of overranges	0x00431016	SS	1-5	*	*	*	*	*	*	*	*	*
IBH image scale factors	0x00431017	DS	1				*			*	*	*

BBH coefficients	0x00431018	DS	3				*			*	*	*
Number of BBH chains to blend	0x00431019	SS	1				*			*	*	*
Starting channel number	0x0043101a	SL	1				*			*	*	*
Ppscan parameters	0x0043101b	SS	1				*			*	*	*
GE image integrity	0x0043101c	SS	1				*			*	*	*
Level value	0x0043101d	SS	1				*			*	*	*
Delta start time	0x0043101e	DS	1	*	*	*	*	*	*	*	*	*
Max overranges in a view	0x0043101f	SL	1	*	*	*	*	*	*	*	*	*
Avg overranges all views	0x00431020	DS	1				*			*	*	*
Corrected after glow terms	0x00431021	SS	1	*	*	*	*	*	*	*	*	*
Reference channels	0x00431025	SS	6	*	*	*	*	*	*	*	*	*
No views ref chans blocked	0x00431026	US	6	*	*	*	*	*	*	*	*	*
Scan pitch ratio	0x00431027	SH	1	*	*	*	*	*	*	*	*	*
Unique image iden	0x00431028	OB	1	*	*	*	*	*	*	*	*	*
Histogram tables	0x00431029	OB	1				*			*	*	*
User defined data	0x0043102a	OB	1				*			*	*	*
Private Scan Options	0x0043102b	SS	4	*	*	*	*	*	*	*	*	*
RA cord of target recon center	0x00431031	DS	2	*	*	*	*	*	*	*	*	*
Trigger on position	0x00431040	FL	1-4	*	*	*	*	*	*	*	*	*
Degree of rotation	0x00431041	FL	1-4	*	*	*	*	*	*	*	*	*
DAS trigger source	0x00431042	SL	1-4	*	*	*	*	*	*	*	*	*
DAS fpa gain	0x00431043	SL	1-4	*	*	*	*	*	*	*	*	*
DAS output source	0x00431044	SL	1-4	*	*	*	*	*	*	*	*	*
DAS ad input	0x00431045	SL	1-4	*	*	*	*	*	*	*	*	*
DAS cal mode	0x00431046	SL	1-4	*	*	*	*	*	*	*	*	*
DAS cal frequency	0x00431047	SL	4				*			*	*	*
DAS reg xm	0x00431048	SL	4				*			*	*	*
DAS auto zero	0x00431049	SL	4				*			*	*	*
Starting channel of view	0x0043104a	SS	4				*			*	*	*
DAS xm pattern	0x0043104b	SL	4				*			*	*	*
TGGC trigger mode	0x0043104c	SS	4				*			*	*	*
Start scan to X-ray on delay	0x0043104d	FL	1-4	*	*	*	*	*	*	*	*	*
Duration of X-ray on	0x0043104e	FL	1-4	*	*	*	*	*	*	*	*	*
Recon filter	0x00431064	LO	1	*	*							

GEMS_HELIOS_01

				LightSpeed 07x	LightSpeed 08x	LightSpeed VCT ME2PLUS	LightSpeed Ultra 3.0	LightSpeed Ultra 3.1	LightSpeed Plus 2.3	HiSpeed CT/i 3.6	HiSpeed CT/i 4.1	HiSpeed CT/i 6.1
		VR	VM									
GEHC Private Creator ID	0x00450010	LO	1	*	*	*	*	*	*			
Number of Macro Rows in Detector	0x00451001	SS	1	*	*	*	*	*	*			
Macro width at ISO Center	0x00451002	FL	1	*	*	*	*	*	*			
DAS type	0x00451003	SS	1	*	*	*	*	*	*			
DAS gain	0x00451004	SS	1	*	*	*	*	*	*			
DAS Temperature	0x00451005	SS	1	*	*	*	*	*	*			
Table Direction	0x00451006	CS	1	*	*	*	*	*	*			
Z smoothing Factor	0x00451007	FL	1	*	*	*	*	*	*			
View Weighting Mode	0x00451008	SS	1	*	*	*	*	*	*			
Sigma Row number	0x00451009	SS	1	*	*	*	*	*	*			
Minimum DAS value	0x0045100a	FL	1	*	*	*	*	*	*			
Maximum Offset Value	0x0045100b	FL	1	*	*	*	*	*	*			
Number of Views shifted	0x0045100c	SS	1	*	*	*	*	*	*			
Z tracking Flag	0x0045100d	SS	1	*	*	*	*	*	*			
Mean Z error	0x0045100e	FL	1	*	*	*	*	*	*			
Z tracking Error	0x0045100f	FL	1	*	*	*	*	*	*			
Start View 2A	0x00451010	SS	1	*	*	*	*	*	*			
Number of Views 2A	0x00451011	SS	1	*	*	*	*	*	*			
Start View 1A	0x00451012	SS	1	*	*	*	*	*	*			
Sigma Mode	0x00451013	SS	1	*	*	*	*	*	*			
Number of Views 1A	0x00451014	SS	1	*	*	*	*	*	*			
Start View 2B	0x00451015	SS	1	*	*	*	*	*	*			
Number Views 2B	0x00451016	SS	1	*	*	*	*	*	*			
Start View 1B	0x00451017	SS	1	*	*	*	*	*	*			
Number of Views 1B	0x00451018	SS	1	*	*	*	*	*	*			
Air Calibration Date	0x00401019	SS	1				*					

GEHC_IQTB_IDEN_47

				LightSpeed 07x	LightSpeed 08x	LightSpeed VCT ME2PLUS	LightSpeed Ultra 3.0	LightSpeed Ultra 3.1	LightSpeed Plus 2.3	HiSpeed CT/i 3.6	HiSpeed CT/i 4.1	HiSpeed CT/i 6.1
		VR	VM									
GEHC Private Creator ID	0x00470010	LO	1				*					
Image Path	0x00471001	SH	1				*					
Image Date/Time	0x00470002	UL	1				*					
Queue Sequence Number	0x00471003	UL	1				*					
Recon Sequence ID	0x00471004	UL	1				*					

GEMS_CT_VES_01

				LightSpeed 07x	LightSpeed 08x	LightSpeed VCT ME2PLUS	LightSpeed Ultra 3.0	LightSpeed Ultra 3.1	LightSpeed Plus 2.3	HiSpeed CT/i 3.6	HiSpeed CT/i 4.1	HiSpeed CT/i 6.1
		VR	VM									
GEHC Private Creator ID	0x00510010	LO	1					*	*			
CTVESSequence	0x00511001	SQ	1					*	*			
➤ VESaccessionNumber	0x00080050	SH	1					*	*			
➤ VESprocedureCodeSequence	0x00081032	SQ	1					*	*			
➤ > VESactionItemCodeValue	0x00080100	SH	1					*	*			

➤ > VESactionItemCodeScheme	0x00080102	SH	1							*	*			
➤ > VESactionItemCodeMeaning	0x00080104	LO	1							*	*			
➤ VESreferenceStudySequence	0x00081110	SQ	1							*	*			
➤ > VESRefStudySequenceSopClassUid	0x00081150	UI	1							*	*			
➤ > VESRefStudySequenceSopInstanceUid	0x00081155	UI	1							*	*			
➤ VESstudyInstanceUID	0x0020000d	UI	1							*	*			
➤ VESrequestedProcedureDescription	0x00321060	LO	1							*	*			
➤ VESrequestedProcedureID	0x00401001	SH	1							*	*			

GEHC_CT_ADVAPP_001

				LightSpeed 07x	LightSpeed 08x	LightSpeed VCT ME2PLUS	LightSpeed Ultra 3.0	LightSpeed Ultra 3.1	LightSpeed Plus 2.3	HiSpeed CT/i 3.6	HiSpeed CT/i 4.1	HiSpeed CT/i 6.1
		VR	VM									
GEHC Private Creator ID	0x00530010	LO	1		*							
ShuttleFlag	0x00531020	IS	1		*							
TableSpeedNot ReachesTargetFlag	0x00531021	IS	1		*							
IterativeReconAnnotation	0x00531040	SH	1		*							
IterativeReconMode	0x00531041	SH	1		*							
IterativeReconConfiguration	0x00531042	LO	1		*							
IterativeReconLevel	0x00531043	SH	1		*							
reconFlipRotateAnno	0x00531060	SH	1		*							
highResolutionFlag	0x00531061	SH	1		*							
RespiratoryFlag	0x00531062	SH	1		*							