

# GE Discovery CT Series

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## Revision History

Date / Version	Author	Comments
5/16/2012	Steve Moore	Discovery CT750_HD – Software Release 08MW39.4 DOC0500644r3_CS

## Introduction

### Observations on GE Private Elements

- The Discovery CT scanners use private elements in these groups with these private creator values:

- 0009 GEMS\_IDEN\_01
- 0019 GEMS\_ACQU\_01
- 0021 GEMS\_RELA\_01
- 0023 GEMS\_STDY\_01
- 0027 GEMS\_IMAG\_01
- 0029 GEMS\_CT\_FLRO\_01
- 0043 GEMS\_PARM\_01
- 0045 GEMS\_HELIOS\_01
- 0049 GEMS\_CT\_CARDIAC\_001
- 0053 GEHE\_CT\_ADVAPP\_001

### Scanner/Software Versions

Link Name / GE website	Model	Software Version	Document
Discovery CT750_HD – Software Release 08MW39.4 DOC0500644r3_CS	Discovery 750	08MW39.4	DOC0500644r3

### GEMS\_IDEN\_01

In the table of private elements in this section and following:

\*: Element is listed in the document

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

Description	Tag	VR	VM	
GEHC Private Creator ID	0x00090010	LO	1	*
Full fidelity	0x00091001	LO	1	X1
Suite id	0x00091002	SH	1	*
Product ID	0x00091004	SH	1	*
Image Actual Date	0x00091027	SL	1	*
Equipment UID	0x000910e3	UI	1	*

Discovery CT750\_HD - Software  
Release 08MMW20.1

### GEMS\_ACQU\_01

				Discovery CT750_HD – Software Release 08MW/20.4
GEHC Private Creator ID	0x00190010	LO	1	*
Number of cells I in Detector	0x00191002	SL	1	*
Cell number at Theta	0x00191003	DS	1	*
Cell spacing	0x00191004	DS	1	*
Horiz. Frame of ref.	0x0019100f	DS	1	*
Series Contrast	0x00191011	SS	1	*
First scan ras	0x00191018	LO	1	*
Last scan ras	0x0019101a	LO	1	*
Table speed	0x00191023	DS	1	*
Mid scan time	0x00191024	DS	1	*
Mid scan flag	0x00191025	SS	1	*
Degrees of azimuth	0x00191026	SL	1	*
Gantry period	0x00191027	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	*
Segment number	0x00191042	SS	1	*
Total segments requested	0x00191043	SS	1	*
View compression factor	0x00191047	SS	1	*
Recon post proc. Flag	0x00191052	SS	1	*
Dependent on #views processed	0x0019106a	SS	1	*

				Discovery CT750_HD – Software Release 08MW20.4
GEHC Private Creator ID	0x00210010	LO	1	*
Series from which Prescribed	0x00211003	SS	1	*
Series Prescribed From	0x00211035	SS	1	*
Image Prescribed From	0x00211036	SS	1	*
Biopsy position	0x00211091	SS	1	*
Biopsy T location	0x00211092	FL	1	*
Biopsy ref location	0x00211093	FL	1	*

**GEMS\_STDY\_01**

				Discovery CT750_HD – Software Release 08MW20.4
GEHC Private Creator ID	0x00230010	LO	1	*
Start time(secs) in first axial	0x00231070	FD	1	*

**GEMS\_IMAG\_01**

					Discovery CT750_HD – Software Release 08MMW20.4
GEHC Private Creator ID	0x00270010	LO	1	*	
Scout Type	0x00271010	SS	1	*	
Vma mamp	0x0027101c	SL	1	*	
Vma mod	0x0027101e	SL	1	*	
(L1) GE Noise Index * 10 (L2) Vma clip	0x0027101f	SL	1		(L2)
Smart scan ON/OFF flag	0x00271020	SS	1	*	
Plane Type	0x00271035	SS	1	*	
Center R coord of plane image	0x00271042	FL	1	*	
Center A coord of plane image	0x00271043	FL	1	*	
Center S coord of plane image	0x00271044	FL	1	*	
Normal R coord	0x00271045	FL	1	*	
Normal A coord	0x00271046	FL	1	*	
Normal S coord	0x00271047	FL	1	*	
Table start location	0x00271050	FL	1	*	
Table end location	0x00271051	FL	1	*	

**GEMS\_CT\_FLRO\_01**

					Discovery CT750_HD – Software Release 08MMW20.4
GEHC Private Creator ID	0x00290010	LO	1	*	
CT Int Fluoro	0x00201001	SS	1		
Image Precise Location	0x00291002	DS	1		

**GEMS\_PARM\_01**

					Discovery CT750_HD – Software Release 08MMW20.4
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GEHC Private Creator ID	0x00430010	LO	1	*
Window value	0x00431010	US	1	*
X-ray chain	0x00431012	SS	3	*
Number of overranges	0x00431016	SS	1	*
Delta start time	0x0043101e	DS	1	*
Max overranges in a view	0x0043101f	SL	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	*
Private Scan Options	0x0043102b	SS	4	*
RA cord of target recon center	0x00431031	DS	2	*
Trigger on position	0x00431040	FL	1	*
Degree of rotation	0x00431041	FL	1	*
DAS trigger source	0x00431042	SL	1	*
DAS fpa gain	0x00431043	SL	1	*
DAS output source	0x00431044	SL	1	*
DAS ad input	0x00431045	SL	1	*
DAS cal mode	0x00431046	SL	1	*
Start scan to X-ray on delay	0x0043104d	FL	1	*
Duration of X-ray on	0x0043104e	FL	1	*
Recon filter	0x00431064	LO	1	*

**GEMS\_HELIOS\_01**

				Discovery CT750_HD – Software Release 00MW20.4
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		
Z tracking Error	0x0045100f	FL		
Start View 2A	0x00451010	SS		
Number of Views 2A	0x00451011	SS		
Start View 1A	0x00451012	SS		
Sigma Mode	0x00451013	SS		
Number of Views 1A	0x00451014	SS		
Start View 2B	0x00451015	SS		
Number Views 2B	0x00451016	SS		
Start View 1B	0x00451017	SS		
Number of Views 1B	0x00451018	SS		
Itebone Flag	0x00451021	SS		
Perisstaltic Flag	0x00451022	SS		
CardiacReconAlgorithm	0x00451030	CS		
AvgHeartRateForImage	0x00451031	CS		
TemporalResolution	0x00451032	FL		
PctRpeakDelay	0x00451033	CS		
ActualPctRpeakDelay	0x00451034	CS		
EkgFullMaStartPhase	0x00451036	CS		
EkgFullMaEndPhase	0x00451037	CS		
EkgModulationMaxMa	0x00451038	CS		
EkgModulationMinMa	0x00451039	CS		
Noise Reduction Image Filter Desc	0x0045103b	LO		
RPeakTimeDelay	0x0045103f	IS		
ActualRPeakTimeDelay	0x00451044	IS		
CardiacScanOption	0x00451045	ST		



**GEMS\_CT\_CARDIAC\_001**

				Discovery CT750_HD – Software
GEHC Private Creator ID	0x00490010	LO	1	*
CT Cardiac Sequence	0x00491001	SQ	1	*
> HeartRateAtConfirm	0x00491002	CS	1	*
> AvgHeartRatePriorToConfirm	0x00491003	FL	1	*
> MinHeartRatePriorToConfirm	0x00491004	CS	1	*
> Max Heart Rate Prior To Confirm	0x00491005	CS	1	*
> StdDevHeartRate PriorToConfirm	0x00491006	FL	1	*
> Num Heart Rate Samples Prior To Confirm	0x00491007	US	1	*
> Auto Heart Rate Detect Predict	0x00491008	CS	1	*
> System Optimized Heart Rate	0x00491009	CS	1	*
> EkgMonitorType	0x0049100a	ST	1	*
> NumReconSectors	0x0049100b	CS	1	*
RpeakTimeStamps	0x0049100c	FL	256	*
EkgGatingType	0x00491016	SH	1	*
Ekg Wave Time Off First Data Point	0x0049101b	FL	1	*
TemporalAlg	0x00491022	CS		
PhaseLocation	0x00491023	CS		
PreBlendedCycle1	0x00491024	OW		
PreBlendedCycle2	0x00491025	OW		
CompressionAlg	0x00491026	CS		

**GEHC\_CT\_ADVAPP\_001**

				Discovery CT750_HD - Software Release 08MMW20.4
GEHC Private Creator ID	0x00530010	LO	1	*
MultiEnergyNoiseRedBlendingFact	0x00531001	FL		
MultiEnergyNoseRedScaleFact	0x00531002	FL		
MultiEnergyMDTransformEnergies	0x00531003	IS		
ShuttleFlag	0x00531020	IS	1	*
TableSpeedNotReachesTargetFlag	0x00531021	IS	1	*
IterativeReconAnnotation	0x00531040	SH	1	*
IterativeReconMode	0x00531041	SH	1	*
IterativeReconConfiguration	0x00531042	LO	1	*
IterativeReconLevel	0x00531043	SH	1	*
ReconFlipRotateAnno	0x00531060	SH	1	*
(L1) HiResMode (L2) highResolutionFlag	0x00531061	SH	1	(L2)
RespiratoryFlag	0x00531062	SH	1	*
Image Position Patient Setting	0x00531063	CS		
Shutter Mode	0x00531064	IS		
Shutter Mode Percent	0x00531065	IS		
Image Browser Annotation	0x00531066	LO		
Overlapped Recon Flag	0x00531067	IS		
Row Number Anotation Flag	0x00531068	IS		
MultiEnergySourceCount	0x00531070	IS		
MultiEnergyScanType	0x00531071	LO		
MultiEnergyReconType	0x00531072	LO		
MultiEnergyImageType	0x00531073	LO		
MultiEnergyMaterialType	0x00531074	LO		
MonchromaticEnergy	0x00531075	DS		
multiEnergyWeightedSubractionWidth1	0x00531076	DS		
MultiEnergyWeightedSubractionWidth2	0x00531077	DS		

MultiEnergyWeightedSubtractionType	0x00531078	LO		
MultiEnergyAcqMethod	0x00531079	LO		
MultiEnergyFeatAnnotName	0x0053107A	SH		
MultiEnergyNoiseReduced	0x0053107B	SH		
MultiEnergyNoiseReducdeMethod	0x0053107C	LO		
SubOptimalIQString	0x0053107D	LO		
MultiEnergyHighLowRatio	0x0053107E	DS		
AnnotationmA	0x00531083	DS		
CommandedFirstkVp	0x00531084	DS		
CommandedFirstmA	0x00531085	DS		
CommandedSecondkVp	0x00531086	DS		
CommandedSecondmA	0x00531087	DS		
MultiEnergyKVAnnotName	0x00531088	SH		
MultiEnergyKVUnitLabel	0x00531089	SH		
MaterialType#1	0x0053108A	LO		
MaterialType#2	0x0053108B	LO		
GSIScanModePreset	0x0053108C	LO		
MonoWindowLow	0x0053108D	IS		
MonoWindoHigh	0x0053108E	IS		
MD1AttenuationCurve	0x0053108F	FL		
MD1intercept	0x00531092	DS		
MD1slope	0x00531093	DS		
MD1supportData	0x00531095	OW		
MD2supportData	0x00531096	OW		
NM1data	0x00531097	OW		
MD2intercept	0x00531098	DS		
MD2slope	0x00531099	DS		
NM2data	0x0053109A	OW		
MD2attenuationCurve	0x0053109B	FL		
GSIdataVersion	0x0053109C	SH		
MARsAnnotation	0x0053109D	LO		
MultiEnergyNumNoiseRedPair	0x0053109E	IS		
MultiEnergyNoiseRedPairString	0x0053109F	LO		