DICOM Conformance Statement
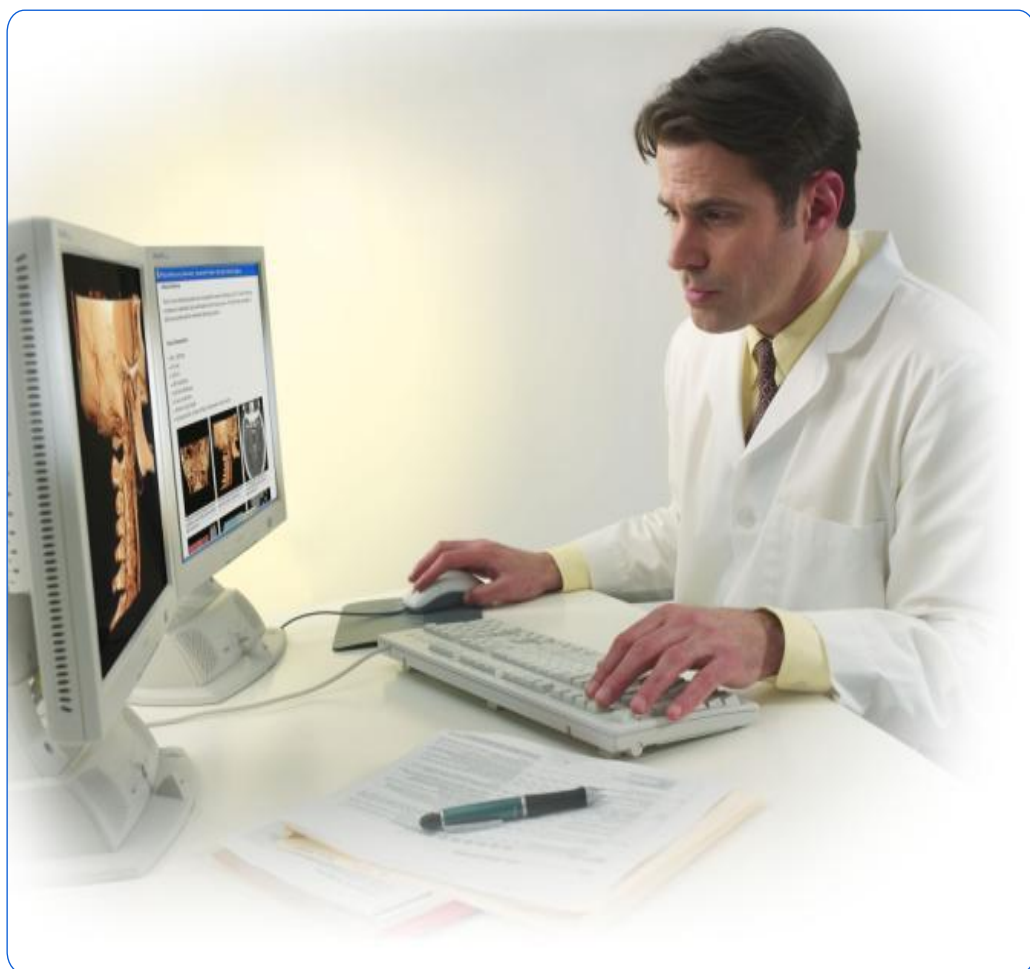
Application Annex:

Multi-Modality Applications on Philips IntelliSpace Portal V4.0

Document Number: 7868707.01

PHILIPS

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1. Introduction

This DICOM Conformance Statement annex is applicable to the Multi-Modality Applications on Philips IntelliSpace Portal V4.0 hosting platform, later referred to as Multi-Modality Applications. In general the Multi-Modality Applications are used for viewing and analyzing the images from multiple modalities.

The following analysis packages are offered by Multi-Modality Applications (licensing might be applicable):

- Multi-Modality Viewer
- Multi-Modality Tumor Tracking

1.1. Revision History

The revision history below provides dates and differences among individual document versions.

Table 1: Revision History

Document Version	Date of Issue	Status	Description
00	01-Jul-2011	Final version	Updated after review.
01	23-Dec-2011	Final version	Merged MMTT Annex into this Multi-Modality Annex document

1.2. Terminology

DICOM	Digital Imaging and Communications in Medicine
IOD	Information Object Definition
UID	Unique Identifier
VR	Value Representation

2. Data Specifications

2.1.   Supported IOD's

This section specifies each IOD accepted and / or created by Multi-Modality Applications.

ACCEPTED   The applicable IOD is accepted for storage in the repository of the hosting platform and supported for import in Multi-Modality Applications for viewing and analysis.

CREATED   The Multi-Modality Applications supports generation of derived data by using the applicable IOD and are able to store this data in the repository of the hosting platform.

Table 2: Supported IOD's

IOD		Support	
Name	**UID**	**ACCEPTED**	**CREATED**
Encapsulated PDF Storage	1.2.840.10008.5.1.4.1.1.104.1	No	Yes
Grayscale Softcopy Presentation State Storage SOP Class	1.2.840.10008.5.1.4.1.1.11.1	Yes	Yes
Positron Emission Tomography Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.128	Yes	Yes
CT Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.2	Yes	Yes
Nuclear Medicine Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.20	Yes	Yes
MR Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.4	Yes	Yes
RT Structure Set Storage SOP Class	1.2.840.10008.5.1.4.1.1.481.3	Yes	Yes
Secondary Capture Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7	Yes	Yes
Multi-frame Single Bit Secondary Capture Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7.1	Yes	No
Multi-frame Grayscale Byte SC Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7.2	Yes	No
Multi-frame Grayscale Word SC Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7.3	Yes	No
Multi-frame True Color Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.4	Yes	No

2.1.1.   Acceptance Criteria

This section specifies the acceptance criteria applied by Multi-Modality Applications to which a dataset should adhere before it can be imported into the application. This can be criteria on the highest level (e.g. data from a certain manufacturer or system model) or certain DICOM attributes mandatory to be present into the dataset holding a specific value. In case one or more Philips private attributes are required, then a list of supported Philips system models will be mentioned.

Table 3: Accepted system models

Manufacturer	Modality	System Model Name(s)
Not applicable	Not applicable	Not applicable

Table 4: Accepted transfer syntaxes per IOD

IOD		Transfer Syntax	
Name	**UID**	**Name**	**UID**
Grayscale Softcopy Presentation State Storage SOP Class	1.2.840.10008.5.1.4.1.1.11.1	Explicit VR Little Endian Implicit VR Little Endian	1.2.840.10008.1.2.1 1.2.840.10008.1.2
Positron Emission Tomography Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.128	CT-private-ELE Explicit VR Little Endian	1.3.46.670589.33.1.4.1 1.2.840.10008.1.2.1

		Implicit VR Little Endian JPEG Lossless, Non-Hierarchical, FOP (Process 14)	1.2.840.10008.1.2 1.2.840.10008.1.2.4.70
CT Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.2	CT-private-ELE Explicit VR Little Endian Implicit VR Little Endian JPEG Lossless, Non-Hierarchical, FOP (Process 14)	1.3.46.670589.33.1.4.1 1.2.840.10008.1.2.1 1.2.840.10008.1.2 1.2.840.10008.1.2.4.70
Nuclear Medicine Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.20	Explicit VR Little Endian Implicit VR Little Endian	1.2.840.10008.1.2.1 1.2.840.10008.1.2
MR Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.4	CT-private-ELE Explicit VR Little Endian Implicit VR Little Endian JPEG Lossless, Non-Hierarchical, FOP (Process 14)	1.3.46.670589.33.1.4.1 1.2.840.10008.1.2.1 1.2.840.10008.1.2 1.2.840.10008.1.2.4.70
RT Structure Set Storage SOP Class	1.2.840.10008.5.1.4.1.1.481.3	Explicit VR Little Endian	1.2.840.10008.1.2.1
		Implicit VR Little Endian	1.2.840.10008.1.2
Secondary Capture Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7	CT-private-ELE Explicit VR Little Endian Implicit VR Little Endian JPEG Lossless, Non-Hierarchical, FOP (Process 14)	1.3.46.670589.33.1.4.1 1.2.840.10008.1.2.1 1.2.840.10008.1.2 1.2.840.10008.1.2.4.70
Multi-frame Single Bit Secondary Capture Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7.1	Explicit VR Little Endian	1.2.840.10008.1.2.1
		Implicit VR Little Endian	1.2.840.10008.1.2
Multi-frame Grayscale Byte SC Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7.2	Explicit VR Little Endian	1.2.840.10008.1.2.1
		Implicit VR Little Endian	1.2.840.10008.1.2
Multi-frame Grayscale Word SC Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7.3	Explicit VR Little Endian	1.2.840.10008.1.2.1
		Implicit VR Little Endian	1.2.840.10008.1.2
Multi-frame True Color Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.4	Explicit VR Little Endian	1.2.840.10008.1.2.1
		Implicit VR Little Endian	1.2.840.10008.1.2

2.1.2.   Contents of Created IOD's

This section specifies in detail the attribute contents of created data objects. Attributes are grouped together by its corresponding module as specified by DICOM standard. Philips private attributes are excluded for specification.

Abbreviations used in the Module table for the column "Presence of Value" are:
ALWAYS   The attribute is always present with a value
EMPTY   The attribute is always present without any value (attribute sent zero length)
VNAP   The attribute is always present and its Value is Not Always Present (attribute sent zero length if no value is present)
ANAP   The attribute is present under specified condition – if present then it will always have a value
ANAPCV   The attribute is present under specified condition – if present then its Value is Not Always Present (attribute sent zero length if condition applies and no value is present)
ANAPEV   The attribute is present under specified condition – if present then it will not have any value

The abbreviations used in the Module table for the column "Source" are:
AUTO   The attribute value is generated automatically
CONFIG   The attribute value source is a configurable parameter
COPY   The attribute value source is another SOP instance

FIXED   The attribute value is hard-coded in the application
IMPLICIT   The attribute value source is a user-implicit setting
MPPS   The attribute value is the same as that use for Modality Performed Procedure Step
COPY   The attribute value source is a Modality Worklist
USER   The attribute value source is explicit user input

2.1.2.1. Encapsulated PDF Storage

Table 5: IOD of Created Encapsulated PDF Storage Instances

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	General Study Module	ALWAYS
Series	Encapsulated Document Series Module	ALWAYS
Equipment	General Equipment Module	ALWAYS
Equipment	SC Equipment Module	ALWAYS
Encapsulated Document	Encapsulated Document Module	ALWAYS
Encapsulated Document	SOP Common Module	ALWAYS

Table 6: Patient Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referenced Patient Sequence	0008,1120	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Patient's Name	0010,0010	PN		VNAP	COPY	-
Patient ID	0010,0020	LO		VNAP	COPY	-
Patient's Birth Date	0010,0030	DA		VNAP	COPY, USER	-
Patient's Birth Time	0010,0032	TM		ANAPCV	COPY, USER	-
Patient's Sex	0010,0040	CS		VNAP	COPY, USER	-
Other Patient IDs	0010,1000	LO		ANAPCV	COPY, USER	-
Other Patient Names	0010,1001	PN		ANAPCV	COPY, USER	-
Ethnic Group	0010,2160	SH		ANAPCV	COPY	-
Patient Comments	0010,4000	LT		ANAPCV	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAPCV	COPY	-

Table 7: General Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Date	0008,0020	DA		VNAP	COPY	-
Study Time	0008,0030	TM		VNAP	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY, USER	-
Referring Physician's Name	0008,0090	PN		VNAP	COPY, USER	-
Referring Physician Identification Sequence	0008,0096	SQ		ANAPCV	COPY	-
Study Description	0008,1030	LO		ANAPCV	COPY, USER	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Procedure Code Sequence	0008,1032	SQ		ANAPCV	COPY	-
Physician(s) of Record	0008,1048	PN		ANAPCV	COPY	-
Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAP	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAPCV	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAPCV	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAPCV	COPY	-
Study Instance UID	0020,000D	UI		ALWAYS	AUTO, COPY	-
Study ID	0020,0010	SH		VNAP	AUTO, COPY	-

Table 8: Encapsulated Document Series Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS		ALWAYS	AUTO	-
Series Description	0008,103E	LO	QC date-time-status	ANAPCV	AUTO	Describes date and time of QC procedure and pass/fail status.
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		ALWAYS	AUTO	-

Table 9: General Equipment Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO		ALWAYS	COPY	-
Institution Name	0008,0080	LO		ANAPCV	COPY, USER	-
Institution Address	0008,0081	ST		ANAPCV	COPY, USER	-
Station Name	0008,1010	SH		ALWAYS	COPY	-
Institutional Department Name	0008,1040	LO		ANAPCV	COPY	-
Manufacturer's Model Name	0008,1090	LO		ALWAYS	COPY	-
Device Serial Number	0018,1000	LO		ANAPCV	COPY	-
Software Version(s)	0018,1020	LO	4.0	ALWAYS	COPY	4.0
Spatial Resolution	0018,1050	DS		ANAPCV	COPY	-
Date of Last Calibration	0018,1200	DA		ANAPCV	COPY	-
Time of Last Calibration	0018,1201	TM		ANAPCV	COPY	-
Pixel Padding Value	0028,0120	US/SS		ANAPCV	COPY	-

Table 10: SC Equipment Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS		ALWAYS	AUTO	-
Conversion Type	0008,0064	CS	WSD	ALWAYS	AUTO	-

Table 11: Encapsulated Document Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Content Date	0008,0023	DA		ANAP	AUTO	-
Acquisition Datetime	0008,002A	DT		ANAP	AUTO	-
Content Time	0008,0033	TM		ANAP	AUTO	-
Instance Number	0020,0013	IS	1	ALWAYS	AUTO	-

Burned In Annotation	0028,0301	CS	YES	ALWAYS	AUTO	-
Concept Name Code Sequence	0040,A043	SQ		EMPTY	AUTO	-
Document Title	0042,0010	ST		EMPTY	AUTO	-
Encapsulated Document	0042,0011	OB		ALWAYS	AUTO	-
MIME Type of Encapsulated Document	0042,0012	LO	application - PDF	ALWAYS	AUTO	-

Table 12: SOP Common Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Specific Character Set	0008,0005	CS		ANAP	AUTO, COPY	-
Instance Creation Date	0008,0012	DA		ALWAYS	AUTO	-
Instance Creation Time	0008,0013	TM		ALWAYS	AUTO	-
Instance Creator UID	0008,0014	UI		ANAPCV	AUTO	-
SOP Class UID	0008,0016	UI		ALWAYS	COPY	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Timezone Offset From UTC	0008,0201	SH		ANAPCV	COPY	-
Contributing Equipment Sequence	0018,A001	SQ		ANAP	AUTO	-
>Manufacturer	0008,0070	LO	Philips	ANAP	FIXED	PHILIPS.
>Institution Address	0008,0081	ST	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Station Name	0008,1010	SH	IntelliSpace Portal	ANAP	CONFIG	IntelliSpace Portal.
>Institutional Department Name	0008,1040	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Software Version(s)	0018,1020	LO	4.0	ANAP	FIXED	4.0
>Device Serial Number	0018,1000	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Institution Name	0008,0080	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Purpose of Reference Code Sequence	0040,A170	SQ		ANAP	FIXED	-
>>Code Value	0008,0100	SH	109102	ANAP	FIXED	109102
>>Coding Scheme Designator	0008,0102	SH	DCM	ANAP	FIXED	DCM
>>Code Meaning	0008,0104	LO	Processing Equipment	ANAP	FIXED	Processing Equipment

2.1.2.2. Grayscale Softcopy Presentation State Storage SOP Class

Table 13: IOD of Created Grayscale Softcopy Presentation State Storage SOP Class Instances

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	General Study Module	ALWAYS
Study	Patient Study Module	CONDITIONAL
Series	General Series Module	ALWAYS
Series	Presentation Series Module	ALWAYS
Equipment	General Equipment Module	ALWAYS
Presentation State	Presentation State Identification Module	ALWAYS
Presentation State	Presentation State Relationship Module	ALWAYS
Presentation State	Display Shutter Module	CONDITIONAL
Presentation State	Overlay Plane Module	CONDITIONAL
Presentation State	Overlay Activation Module	CONDITIONAL
Presentation State	Displayed Area Module	CONDITIONAL
Presentation State	Graphic Annotation Module	CONDITIONAL

Presentation State	Spatial Transformation Module	CONDITIONAL
Presentation State	Graphic Layer Module	CONDITIONAL
Presentation State	Modality LUT Module	CONDITIONAL
Presentation State	Softcopy VOI LUT Module	CONDITIONAL
Presentation State	Softcopy Presentation LUT Module	ALWAYS
Presentation State	SOP Common Module	ALWAYS

Table 14: Patient Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referenced Patient Sequence	0008,1120	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Patient's Name	0010,0010	PN		VNAP	COPY	-
Patient ID	0010,0020	LO		VNAP	COPY	-
Patient's Birth Date	0010,0030	DA		VNAP	COPY	-
Patient's Birth Time	0010,0032	TM		ANAPCV	COPY	-
Patient's Sex	0010,0040	CS		VNAP	COPY	-
Other Patient IDs	0010,1000	LO		ANAPCV	COPY	-
Other Patient Names	0010,1001	PN		ANAPCV	COPY	-
Ethnic Group	0010,2160	SH		ANAPCV	COPY	-
Patient Comments	0010,4000	LT		ANAPCV	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAPCV	COPY	-

Table 15: General Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Date	0008,0020	DA		VNAP	COPY	-
Study Time	0008,0030	TM		VNAP	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY	-
Referring Physician's Name	0008,0090	PN		VNAP	COPY	-
Referring Physician Identification Sequence	0008,0096	SQ		ANAP	COPY	-
Study Description	0008,1030	LO		ANAPCV	COPY	-
Procedure Code Sequence	0008,1032	SQ		ANAP	COPY	-
Physician(s) of Record	0008,1048	PN		ANAPCV	COPY	-
Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAP	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAPCV	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAP	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAPCV	COPY	-
Study Instance UID	0020,000D	UI		ALWAYS	COPY	-
Study ID	0020,0010	SH		VNAP	COPY	-

Table 16: Patient Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Admitting Diagnoses Description	0008,1080	LO		ANAPCV	COPY	-
Admitting Diagnoses Code Sequence	0008,1084	SQ		ANAPCV	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Patient's Age	0010,1010	AS		ANAPCV	COPY	-
Patient's Size	0010,1020	DS		ANAPCV	COPY	-
Patient's Weight	0010,1030	DS		ANAPCV	COPY	-
Occupation	0010,2180	SH		ANAPCV	COPY	-
Additional Patient History	0010,21B0	LT		ANAPCV	COPY	-

Table 17: General Series Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Series Date	0008,0021	DA		ANAPCV	AUTO	-
Series Time	0008,0031	TM		ANAPCV	AUTO	-
Modality	0008,0060	CS		ALWAYS	COPY	-
Series Description	0008,103E	LO		ANAPCV	COPY, USER	-
Performing Physician's Name	0008,1050	PN		ANAPCV	COPY	-
Operators' Name	0008,1070	PN		ANAPCV	COPY	-
Operator Identification Sequence	0008,1072	SQ		ANAPCV	COPY	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Body Part Examined	0018,0015	CS		ANAPCV	COPY	-
Protocol Name	0018,1030	LO		ANAPCV	COPY	-
Patient Position	0018,5100	CS		VNAP	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Laterality	0020,0060	CS		VNAP	COPY	-
Smallest Pixel Value in Series	0028,0108	US/SS		ANAPCV	AUTO	-
Largest Pixel Value in Series	0028,0109	US/SS		ANAPCV	AUTO	-
Request Attributes Sequence	0040,0275	SQ		ANAPCV	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ANAPCV	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAPCV	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAPCV	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAPCV	COPY	-
Comments on the Performed Procedure Step	0040,0280	ST		ANAPCV	COPY	-

Table 18: Presentation Series Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS		ALWAYS	AUTO	-

Table 19: General Equipment Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO		ALWAYS	AUTO	Applied value: Philips medical systems.
Institution Name	0008,0080	LO		ALWAYS	CONFIG	-
Station Name	0008,1010	SH		ALWAYS	AUTO	Same as the host Name.
Institutional Department Name	0008,1040	LO		ALWAYS	CONFIG	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer's Model Name	0008,1090	LO		ALWAYS	AUTO	-
Device Serial Number	0018,1000	LO		ALWAYS	AUTO	-
Software Version(s)	0018,1020	LO	4.0	ALWAYS	AUTO	4.0

Table 20: Presentation State Identification Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Presentation Creation Date	0070,0082	DA		ALWAYS	AUTO	-
Presentation Creation Time	0070,0083	TM		ALWAYS	AUTO	-
Instance Number	0020,0013	IS		ALWAYS	AUTO	-
Content Label	0070,0080	CS	AS LAST SEEN, NEW AT IMPORT	ALWAYS	AUTO	Applied values: AS LAST SEEN, NEW AT IMPORT
Content Description	0070,0081	LO		VNAP	AUTO	-
Content Creator's Name	0070,0084	PN		VNAP	AUTO	-

Table 21: Presentation State Relationship Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referenced Series Sequence	0008,1115	SQ		ALWAYS	AUTO	-
>Referenced Image Sequence	0008,1140	SQ		ANAP	AUTO	-
>>Referenced SOP Class UID	0008,1150	UI		ALWAYS	AUTO	-
>>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	AUTO	-
>Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-

Table 22: Display Shutter Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Shutter Presentation Value	0018,1622	US		ANAP	AUTO	Applied value: 0

Table 23: Overlay Plane Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Overlay Rows	6000,0010	US		ALWAYS	AUTO	-
Overlay Columns	6000,0011	US		ALWAYS	AUTO	-
Overlay Description	6000,0022	LO		ANAPEV	AUTO	-
Overlay Type	6000,0040	CS		ALWAYS	AUTO	-
Overlay Subtype	6000,0045	LO		ANAPEV	AUTO	-
Overlay Origin	6000,0050	SS		ALWAYS	AUTO	-
Overlay Bits Allocated	6000,0100	US		ALWAYS	AUTO	-
Overlay Bit Position	6000,0102	US		ALWAYS	AUTO	-
ROI Area	6000,1301	IS		ANAPEV	AUTO	-
ROI Mean	6000,1302	DS		ANAPEV	AUTO	-
ROI Standard Deviation	6000,1303	DS		ANAPEV	AUTO	-
Overlay Label	6000,1500	LO		ANAPCV	AUTO	-
Overlay Data	6000,3000	OW/OB		ALWAYS	AUTO	-

Table 24: Overlay Activation Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Overlay Activation Layer	6000,1001	CS		ANAP	AUTO	Applied value: 1

Table 25: Displayed Area Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Displayed Area Selection Sequence	0070,005A	SQ		ALWAYS	IMPLICIT	-
>Referenced Image Sequence	0008,1140	SQ		ANAP	IMPLICIT	-
>>Referenced SOP Class UID	0008,1150	UI		ALWAYS	IMPLICIT	-
>>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	IMPLICIT	-
>Displayed Area Top Left Hand Corner	0070,0052	SL		ALWAYS	IMPLICIT	-
>Displayed Area Bottom Right Hand Corner	0070,0053	SL		ALWAYS	IMPLICIT	-
>Presentation Size Mode	0070,0100	CS	MAGNIFY, SCALE TO FIT	ALWAYS	IMPLICIT	Applied values: MAGNIFY, SCALE TO FIT
>Presentation Pixel Spacing	0070,0101	DS		ANAP	IMPLICIT	Applied values: (0.0, 0.0)
>Presentation Pixel Aspect Ratio	0070,0102	IS		ANAP	IMPLICIT	-
>Presentation Pixel Magnification Ratio	0070,0103	FL		ANAP	IMPLICIT	Applied value: 1.0
>Zoom Mode	2001,103F	CS		VNAP	IMPLICIT	-

Table 26: Graphic Annotation Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Graphic Annotation Sequence	0070,0001	SQ		ALWAYS	IMPLICIT	-
>Referenced Image Sequence	0008,1140	SQ		ANAP	IMPLICIT	-
>>Referenced SOP Class UID	0008,1150	UI		ALWAYS	IMPLICIT	-
>>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	IMPLICIT	-
>Graphic Layer	0070,0002	CS		ALWAYS	IMPLICIT	-
>Text Object Sequence	0070,0008	SQ		ANAP	IMPLICIT	-
>>Anchor Point Annotation Units	0070,0004	CS		ANAP	IMPLICIT	-
>>Unformatted Text Value	0070,0006	ST		ALWAYS	IMPLICIT	-
>>Anchor Point	0070,0014	FL		ALWAYS	IMPLICIT	-
>>Anchor Point Visibility	0070,0015	CS		ALWAYS	IMPLICIT	-
>Graphic Object Sequence	0070,0009	SQ		ANAP	AUTO	-
>>Graphic Annotation Units	0070,0005	CS		ALWAYS	IMPLICIT	-
>>Graphic Dimensions	0070,0020	US		ALWAYS	IMPLICIT	-
>>Number of Graphic Points	0070,0021	US		ALWAYS	IMPLICIT	-
>>Graphic Data	0070,0022	FL		ALWAYS	IMPLICIT	-
>>Graphic Type	0070,0023	CS		ALWAYS	IMPLICIT	-
>>Graphic Filled	0070,0024	CS		ANAP	IMPLICIT	-

Table 27: Spatial Transformation Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Image Horizontal Flip	0070,0041	CS		ALWAYS	IMPLICIT	-
Image Rotation	0070,0042	US		ALWAYS	IMPLICIT	-

Table 28: Graphic Layer Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Graphic Layer Sequence	0070,0060	SQ		ALWAYS	IMPLICIT	-
>Graphic Layer	0070,0002	CS		ALWAYS	IMPLICIT	-
>Graphic Layer Order	0070,0062	IS		ALWAYS	IMPLICIT	-

Table 29: Modality LUT Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Rescale Intercept	0028,1052	DS		ALWAYS	COPY	-
Rescale Slope	0028,1053	DS		ALWAYS	COPY	-
Rescale Type	0028,1054	LO	cm/sec, millirads, milliseconds, mm^2/sec, normalized, seconds, US	ALWAYS	COPY	Applied Value(s): cm/sec, milliradials, milliseconds, mm^2/sec, normalized, seconds, US

Table 30: Softcopy VOI LUT Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Softcopy VOI LUT Sequence	0028,3110	SQ		ALWAYS	AUTO	-
>Referenced Image Sequence	0008,1140	SQ		ANAP	AUTO	-
>>Referenced SOP Class UID	0008,1150	UI		ALWAYS	AUTO	-
>>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	AUTO	-
>Window Center	0028,1050	DS		ALWAYS	AUTO	-
>Window Width	0028,1051	DS		ALWAYS	AUTO	-

Table 31: Softcopy Presentation LUT Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Presentation LUT Sequence	2050,0010	SQ		ANAP	AUTO	Present if Presentation LUT Shape not present.
>LUT Descriptor	0028,3002	US/SS		ALWAYS	AUTO	-
>LUT Data	0028,3006	US/OW		ALWAYS	AUTO	-
Presentation LUT Shape	2050,0020	CS		ALWAYS	AUTO	-

Table 32: SOP Common Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Specific Character Set	0008,0005	CS		ANAP	AUTO	-
Instance Creation Date	0008,0012	DA		ALWAYS	AUTO	-
Instance Creator UID	0008,0014	UI		ALWAYS	AUTO	-
SOP Class UID	0008,0016	UI		ALWAYS	AUTO	Applied Value(s): 1.2.840.10008.5.1.4.1.1.11.1
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-

2.1.2.3. Positron Emission Tomography Image Storage SOP Class

Table 33: IOD of Created Positron Emission Tomography Image Storage SOP Class Instances

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	General Study Module	ALWAYS
Study	Patient Study Module	CONDITIONAL
Series	General Series Module	ALWAYS
Series	PET Series Module	ALWAYS
Frame of Reference	Frame of Reference Module	ALWAYS
Equipment	General Equipment Module	ALWAYS
Image	General Image Module	ALWAYS
Image	Image Plane Module	ALWAYS
Image	Image Pixel Module	ALWAYS
Image	NM/PET Patient Orientation Module	ALWAYS
Image	PET Isotope Module	ALWAYS
Image	PET Multi-Gated Acquisition Module	CONDITIONAL
Image	PET Image Module	ALWAYS
Image	Overlay Plane Module	CONDITIONAL
Image	VOI LUT Module	CONDITIONAL
Image	SOP Common Module	ALWAYS
	Extended Dicom and Private attributes	CONDITIONAL

Table 34: Patient Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referenced Patient Sequence	0008,1120	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Patient's Name	0010,0010	PN		VNAP	COPY	-
Patient ID	0010,0020	LO		VNAP	COPY	-
Patient's Birth Date	0010,0030	DA		VNAP	COPY, USER	-
Patient's Birth Time	0010,0032	TM		ANAPCV	COPY, USER	-
Patient's Sex	0010,0040	CS		VNAP	COPY, USER	-
Other Patient IDs	0010,1000	LO		ANAPCV	COPY, USER	-
Other Patient Names	0010,1001	PN		ANAPCV	COPY, USER	-
Ethnic Group	0010,2160	SH		ANAPCV	COPY	-
Patient Comments	0010,4000	LT		ANAPCV	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAPCV	COPY, USER	-

Table 35: General Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Date	0008,0020	DA		VNAP	COPY	-
Study Time	0008,0030	TM		VNAP	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY, USER	

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referring Physician's Name	0008,0090	PN		VNAP	COPY, USER	-
Referring Physician Identification Sequence	0008,0096	SQ		ANAPCV	COPY	-
Study Description	0008,1030	LO		ANAPCV	COPY, USER	-
Procedure Code Sequence	0008,1032	SQ		ANAPCV	COPY	-
Physician(s) of Record	0008,1048	PN		ANAPCV	COPY	-
Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAPCV	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAPCV	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAPCV	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAPCV	COPY	-
Study Instance UID	0020,000D	UI		ALWAYS	AUTO, COPY	-
Study ID	0020,0010	SH		VNAP	AUTO, COPY	-

Table 36: Patient Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Admitting Diagnoses Description	0008,1080	LO		ANAPCV	COPY	-
Admitting Diagnoses Code Sequence	0008,1084	SQ		ANAPCV	COPY	-
Patient's Age	0010,1010	AS		ANAPCV	COPY, USER	-
Patient's Size	0010,1020	DS		ANAPCV	COPY, USER	-
Patient's Weight	0010,1030	DS		ANAPCV	COPY, USER	-
Occupation	0010,2180	SH		ANAPCV	COPY	-
Additional Patient History	0010,21B0	LT		ANAPCV	COPY	-

Table 37: General Series Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS		ALWAYS	COPY	-
Series Description	0008,103E	LO		ANAPCV	COPY, USER	-
Performing Physician's Name	0008,1050	PN		ANAPCV	COPY	-
Operators' Name	0008,1070	PN		ANAPCV	COPY, USER	-
Operator Identification Sequence	0008,1072	SQ		ANAPCV	COPY	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Body Part Examined	0018,0015	CS		ANAPCV	COPY	-
Protocol Name	0018,1030	LO		ANAPCV	COPY	-
Patient Position	0018,5100	CS		ANAPCV	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-

Series Number	0020,0011	IS		VNAP	AUTO	-
Laterality	0020,0060	CS		ANAPCV	COPY	-
Smallest Pixel Value in Series	0028,0108	US/SS		ANAPCV	AUTO	-
Largest Pixel Value in Series	0028,0109	US/SS		ANAPCV	AUTO	-
Request Attributes Sequence	0040,0275	SQ		ANAPCV	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ANAPCV	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAPCV	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAPCV	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAPCV	COPY	-
Comments on the Performed Procedure Step	0040,0280	ST		ANAPCV	COPY	-

Table 38: PET Series Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Series Date	0008,0021	DA		ALWAYS	AUTO	-
Series Time	0008,0031	TM		ALWAYS	AUTO	-
Series Type	0054,1000	CS		ALWAYS	AUTO	-
Acquisition Start Condition	0018,0073	CS		ANAPEV	COPY	-
Acquisition Start Condition Data	0018,0074	IS		ANAPEV	COPY	-
Acquisition Termination Condition	0018,0071	CS		ANAPEV	COPY	-
Acquisition Termination Condition Data	0018,0075	IS		ANAPEV	COPY	-
Attenuation Correction Method	0054,1101	LO		ANAPEV	COPY	-
Axial Mash	0054,1201	IS		ANAPEV	COPY	-
Coincidence Window Width	0054,1210	DS		ANAPEV	COPY	-
Collimator Type	0018,1181	CS		VNAP	COPY	-
Corrected Image	0028,0051	CS		VNAP	COPY	-
Counts Source	0054,1002	CS		ALWAYS	COPY	-
Decay Correction	0054,1102	CS		ALWAYS	COPY	-
Field of View Dimension(s)	0018,1149	IS		ANAPEV	COPY	-
Field of View Shape	0018,1147	CS		ANAPEV	COPY	-
Gantry/Detector Tilt	0018,1120	DS		ANAPEV	COPY	-
Number of Slices	0054,0081	US		ALWAYS	COPY	-
Number of Time Slices	0054,0101	US		ANAP	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Randoms Correction Method	0054,1100	CS		ANAPEV	COPY	-
Reconstruction Method	0054,1103	LO		ANAPEV	COPY	-
Scatter Correction Method	0054,1105	LO		ANAPEV	COPY	-
Transverse Mash	0054,1202	IS		ANAPEV	COPY	-
Type of Detector Motion	0054,0202	CS		ANAPEV	COPY	-
Units	0054,1001	CS		ALWAYS	COPY	-
Energy Window Range Sequence	0054,0013	SQ		VNAP	COPY	-
>Energy Window Lower Limit	0054,0014	DS		VNAP	COPY	-
>Energy Window Upper Limit	0054,0015	DS		VNAP	COPY	-
Axial Acceptance	0054,1200	DS		ANAPEV	COPY	-
Reprojection Method	0054,1004	CS		ANAPCV	COPY	-
Number or R R Intervals	0054,0061	US		ANAP	COPY	-
Reconstruction Diameter	0018,1100	DS		ANAPEV	COPY	-
Convolution Kernel	0018,1210	SH		ANAPEV	COPY	-
Detector lines of Response used	0054,1104	LO		ANAPEV	COPY	-
Gantry/Detector Slew	0018,1121	DS		ANAPEV	COPY	-
Collimator/grid Name	0018,1180	SH		ANAPEV	COPY	-
Detector Element Size	0054,1203	DS		ANAPEV	COPY	-
Secondary Counts Type	0054,1220	CS		ANAPEV	COPY	-

Table 39: Frame of Reference Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Frame of Reference UID	0020,0052	UI		ALWAYS	AUTO	-
Position Reference Indicator	0020,1040	LO		VNAP	AUTO	-

Table 40: General Equipment Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO	Philips Healthcare	VNAP	AUTO	Philips Healthcare.
Institution Name	0008,0080	LO		ANAPCV	AUTO, COPY, USER	-
Institution Address	0008,0081	ST		ANAPCV	AUTO, COPY, USER	-

Institutional Department Name	0008,1040	LO		ANAPCV	AUTO, COPY	-
Manufacturer's Model Name	0008,1090	LO		VNAP	AUTO, COPY	-
Software Version (s)	0018,1020	LO	4.0	VNAP	COPY	4.0
Station Name	0008,1010	SH		ALWAYS	COPY	-
Spatial Resolution	0018,1050	DS		ANAPCV	COPY	-
Date of Last Calibration	0018,1200	DA		ANAPCV	COPY	-
Time of Last Calibration	0018,1201	TM		ANAPCV	COPY	-
Pixel Padding Value	0028,0120	US/SS		ANAPCV	COPY	-

Table 41: General Image Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Acquisition Date	0008,0022	DA		ANAPCV	COPY	-
Content Date	0008,0023	DA		ANAPCV	COPY	-
Acquisition Datetime	0008,002A	DT		ANAPCV	COPY	-
Acquisition Time	0008,0032	TM		ANAPCV	COPY	-
Content Time	0008,0033	TM		ANAPCV	COPY	-
Referenced Image Sequence	0008,1140	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ANAPCV	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ANAPCV	COPY	-
Derivation Description	0008,2111	ST		ANAPCV	COPY	-
Source Image Sequence	0008,2112	SQ		ANAPCV	COPY	-
Derivation Code Sequence	0008,9215	SQ		ANAPCV	COPY	-
Instance Number	0020,0013	IS		VNAP	AUTO, COPY	-
Patient Orientation	0020,0020	CS		ANAPCV	COPY	-
Images in Acquisition	0020,1002	IS		ANAPCV	COPY	-
Quality Control Image	0028,0300	CS		ANAPCV	COPY	-
Burned In Annotation	0028,0301	CS		ANAPCV	COPY	-
Lossy Image Compression	0028,2110	CS		ANAPCV	COPY	-
Lossy Image Compression Ratio	0028,2112	DS		ANAPCV	COPY	-
Icon Image Sequence	0088,0200	SQ		ANAPCV	COPY	-
>Samples per Pixel	0028,0002	US		ALWAYS	COPY	-
>Photometric Interpretation	0028,0004	CS		ALWAYS	COPY	-
>Planar Configuration	0028,0006	US		ANAP	COPY	-
>Rows	0028,0010	US		ALWAYS	COPY	-
>Columns	0028,0011	US		ALWAYS	COPY	-
>Pixel Aspect Ratio	0028,0034	IS		ANAP	COPY	-
>Bits Allocated	0028,0100	US		ALWAYS	COPY	-
>Bits Stored	0028,0101	US		ALWAYS	COPY	-
>High Bit	0028,0102	US		ALWAYS	COPY	-
>Pixel Representation	0028,0103	US		ALWAYS	COPY	-
>Smallest Image Pixel Value	0028,0106	US/SS		ANAPCV	COPY	-
>Largest Image Pixel Value	0028,0107	US/SS		ANAPCV	COPY	-
>Red Palette Color Lookup Table Descriptor	0028,1101	US/SS		ANAP	COPY	-
>Green Palette Color Lookup Table Descriptor	0028,1102	US/SS		ANAP	COPY	-
>Blue Palette Color Lookup Table Descriptor	0028,1103	US/SS		ANAP	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
>Red Palette Color Lookup Table Data	0028,1201	OW		ANAP	COPY	-
>Green Palette Color Lookup Table Data	0028,1202	OW		ANAP	COPY	-
>Blue Palette Color Lookup Table Data	0028,1203	OW		ANAP	COPY	-
>Pixel Data	7FE0,0010	OW/OB		ANAP	COPY	-
Presentation LUT Shape	2050,0020	CS		ANAPCV	COPY	-

Table 42: Image Plane Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Slice Thickness	0018,0050	DS		VNAP	AUTO	-
Image Position (Patient)	0020,0032	DS		ALWAYS	AUTO	-
Image Orientation (Patient)	0020,0037	DS		ALWAYS	AUTO	-
Pixel Spacing	0028,0030	DS		ALWAYS	AUTO	-
Slice Location	0020,1041	DS		ANAPEV	COPY	-

Table 43: Image Pixel Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Planar Configuration	0028,0006	US		ANAP	COPY	-
Rows	0028,0010	US		ALWAYS	AUTO, COPY	-
Columns	0028,0011	US		ALWAYS	AUTO, COPY	-
Pixel Aspect Ratio	0028,0034	IS		ANAP	COPY	-
Pixel Representation	0028,0103	US		ALWAYS	AUTO, COPY	-
Smallest Image Pixel Value	0028,0106	US/SS		ANAPCV	COPY	-
Largest Image Pixel Value	0028,0107	US/SS		ANAPCV	COPY	-
Red Palette Color Lookup Table Descriptor	0028,1101	US/SS		ANAP	COPY	-
Green Palette Color Lookup Table Descriptor	0028,1102	US/SS		ANAP	COPY	-
Blue Palette Color Lookup Table Descriptor	0028,1103	US/SS		ANAP	COPY	-
Red Palette Color Lookup Table Data	0028,1201	OW		ANAP	COPY	-
Green Palette Color Lookup Table Data	0028,1202	OW		ANAP	COPY	-
Blue Palette Color Lookup Table Data	0028,1203	OW		ANAP	COPY	-
Pixel Data	7FE0,0010	OW/OB		ALWAYS	AUTO, COPY	-

Table 44: NM/PET Patient Orientation Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Patient Gantry Relationship Code Sequence	0054,0414	SQ		VNAP	COPY	-
>Code Meaning	0008,0104	LO		ALWAYS	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
>Code Value	0008,0100	SH		ALWAYS	COPY	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
Patient Orientation Code Sequence	0054,0410	SQ		VNAP	COPY	-
>Patient Orientation Modifier Code Sequence	0054,0412	SQ		ALWAYS	COPY	-
>>Code Meaning	0008,0104	LO		ALWAYS	COPY	-
>>Code Value	0008,0100	SH		ALWAYS	COPY	-
>>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>Code Meaning	0008,0104	LO		ALWAYS	COPY	-
>Code Value	0008,0100	SH		ALWAYS	COPY	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-

Table 45: PET Isotope Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Radiopharmaceutical Information Sequence	0054,0016	SQ		VNAP	COPY	-
>Radionuclide Half Life	0018,1075	DS		ANAPEV	COPY	-
>Radionuclide Positron Fraction	0018,1076	DS		ANAPEV	COPY	-
>Radionuclide Total Dose	0018,1074	DS		ANAPEV	COPY	-
>Radiopharmaceutical	0018,0031	LO		ANAPEV	COPY	-
>Radiopharmaceutical Start Time	0018,1072	TM		ANAPEV	COPY	-
>Radiopharmaceutical Volume	0018,1071	DS		ANAPEV	COPY	-
>Radionuclide Code Sequence	0054,0300	SQ		ANAPEV	COPY	-
>>Code Meaning	0008,0104	LO		ALWAYS	COPY	-
>>Code Value	0008,0100	SH		ALWAYS	COPY	-
>>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>Radiopharmaceutical Code Sequence	0054,0304	SQ		ANAPEV	COPY	-
>>Code Meaning	0008,0104	LO		VNAP	COPY	-
>>Code Value	0008,0100	SH		VNAP	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
>>Coding Scheme Designator	0008,0102	SH		VNAP	COPY	-
Interventional Drug Information Sequence	0018,0026	SQ		ANAPEV	COPY	-

Table 46: PET Multi-Gated Acquisition Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Beat Rejection Flag	0018,1080	CS		VNAP	COPY	-
Trigger Source or Type	0018,1061	LO		ANAPCV	COPY	-
PVC Rejection	0018,1085	LO		ANAPCV	COPY	-
Skip Beats	0018,1086	IS		ANAPCV	COPY	-
Heart Rate	0018,1088	IS		ANAPCV	COPY	-
Cardiac Framing Type	0018,1064	LO		ANAPCV	COPY	-

Table 47: PET Image Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Image Type	0008,0008	CS	Value 1: DERIVED, SECONDARY	ALWAYS	AUTO	-
Samples per Pixel	0028,0002	US		ALWAYS	AUTO	-
Photometric Interpretation	0028,0004	CS		ALWAYS	AUTO	-
Bits Allocated	0028,0100	US		ALWAYS	AUTO	-
Bits Stored	0028,0101	US		ALWAYS	AUTO	-
High Bit	0028,0102	US		ALWAYS	AUTO	-
Rescale Intercept	0028,1052	DS		ALWAYS	AUTO	-
Rescale Slope	0028,1053	DS		ALWAYS	AUTO	-
Acquisition Date	0008,0022	DA		VNAP	COPY	-
Acquisition Time	0008,0032	TM		VNAP	COPY	-
Actual Frame Duration	0018,1242	IS		VNAP	COPY	-
Decay Factor	0054,1321	DS		ANAP	COPY	-
Dose Calibration Factor	0054,1322	DS		ANAPEV	COPY	-
Frame Reference Time	0054,1300	DS		ALWAYS	COPY	-
Trigger Time	0018,1060	DS		ANAP	COPY	-
Frame Time	0018,1063	DS		ANAP	COPY	-
Low R R Value	0018,1081	IS		ANAP	COPY	-
High R R Value	0018,1082	IS		ANAP	COPY	-
Lossy Image Compression	0028,2110	CS		ANAP	COPY	-
Image Index	0054,1330	US		ALWAYS	COPY	-
Nominal Interval	0018,1062	IS		ANAPEV	COPY	-
Intervals Acquired	0018,1083	IS		ANAPEV	COPY	-
Intervals Rejected	0018,1084	IS		ANAPEV	COPY	-
Primary (Prompts) Counts Accumulated	0054,1310	IS		ANAPEV	COPY	-
Secondary Counts Accumulated	0054,1311	IS		ANAPEV	COPY	-
Slice Sensitivity Factor	0054,1320	DS		ANAPEV	COPY	-
Scatter Fraction Factor	0054,1323	DS		ANAPEV	COPY	-
Dead Time Factor	0054,1324	DS		ANAPEV	COPY	-
View Code Sequence	0054,0220	SQ		ANAPEV	COPY	-
Slice Progression Direction	0054,0500	CS		ANAPEV	COPY	-
Anatomic Region Sequence	0008,2218	SQ		ANAPEV	COPY	-

Table 48: Overlay Plane Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Overlay Rows	6000,0010	US		ALWAYS	AUTO	-
Overlay Columns	6000,0011	US		ALWAYS	AUTO	-
Overlay Description	6000,0022	LO		ANAPCV	AUTO	-
Overlay Type	6000,0040	CS		ALWAYS	AUTO	-
Overlay Subtype	6000,0045	LO		ANAPCV	AUTO	-
Overlay Origin	6000,0050	SS		ALWAYS	AUTO	-
Overlay Bits Allocated	6000,0100	US		ALWAYS	AUTO	-
Overlay Bit Position	6000,0102	US		ALWAYS	AUTO	-
ROI Area	6000,1301	IS		ANAPCV	AUTO	-
ROI Mean	6000,1302	DS		ANAPCV	AUTO	-
ROI Standard Deviation	6000,1303	DS		ANAPCV	AUTO	-
Overlay Label	6000,1500	LO		ANAPCV	AUTO	-
Overlay Data	6000,3000	OW/OB		ANAP	AUTO	-

Table 49: VOI LUT Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Window Center	0028,1050	DS		ALWAYS	AUTO	-
Window Width	0028,1051	DS		ANAP	AUTO	-
Window Center & Width Explanation	0028,1055	LO		ANAPCV	AUTO	-
VOI LUT Sequence	0028,3010	SQ		ANAPCV	AUTO	-

Table 50: SOP Common Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Instance Creation Date	0008,0012	DA		VNAP	AUTO, COPY	-
Instance Creation Time	0008,0013	TM		VNAP	AUTO, COPY	-
Instance Creator UID	0008,0014	UI		VNAP	AUTO, COPY	-
Specific Character Set	0008,0005	CS		ANAP	AUTO, COPY	-
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4.1.1.128	ALWAYS	AUTO, COPY	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Timezone Offset From UTC	0008,0201	SH		ANAPCV	COPY	-
Contributing Equipment Sequence	0018,A001	SQ		ANAP	AUTO	-
>Manufacturer	0008,0070	LO	Philips	ANAP	FIXED	PHILIPS.
>Institution Address	0008,0081	ST	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Station Name	0008,1010	SH	IntelliSpace Portal	ANAP	CONFIG	IntelliSpace Portal.
>Institutional Department Name	0008,1040	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Software Version(s)	0018,1020	LO	4.0	ANAP	FIXED	4.0
>Device Serial Number	0018,1000	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Institution Name	0008,0080	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
>Purpose of Reference Code Sequence	0040,A170	SQ		ANAP	FIXED	-
>>Code Value	0008,0100	SH	109102	ANAP	FIXED	109102
>>Coding Scheme Designator	0008,0102	SH	DCM	ANAP	FIXED	DCM
>>Code Meaning	0008,0104	LO	Processing Equipment	ANAP	FIXED	Processing Equipment

Table 51: Extended DICOM and private attributes for Positron Emission Tomography Image Storage SOP Class Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Frame Number	2001,107C	IS		ALWAYS	AUTO	-
Slice Index	2001,10DE	DS		ALWAYS	AUTO	-
Referenced Overlay Sequence	0008,1130	SQ		ANAPEV	COPY	-
Reference Curve Sequence	0008,1145	SQ		ANAPEV	COPY	-
Primary Anatomic Structure Sequence	0008,2228	SQ		ANAPEV	COPY	-
Curve Dimensions	50xx,0005	US		ALWAYS	AUTO	-
Number of Points	50xx,0010	US		ALWAYS	AUTO	-
Type of Data	50xx,0020	CS		ALWAYS	AUTO	-
Data Value Representation	50xx,0103	US		ALWAYS	AUTO	-
Curve Data	50xx,3000	OB/OW		ALWAYS	AUTO	-
Curve Description	50xx,0022	LO		ANAPCV	AUTO	-
Axis Units	50xx,0030	SH		ANAPCV	AUTO	-
Axis Labels	50xx,0040	SH		ANAPCV	AUTO	-
Minimum Coordinate Value	50xx,0104	US		ANAPCV	AUTO	-
Maximum Coordinate Value	50xx,0105	US		ANAPCV	AUTO	-
Curve Range	50xx,0106	SH		ANAPCV	AUTO	-
Curve Data Descriptor	50xx,0110	US		ANAP	AUTO	-
Coordinate Start Value	50xx,0112	US		ANAP	AUTO	-
Coordinate Step Value	50xx,0114	US		ANAP	AUTO	-
Curve Label	50xx,2500	LO		ANAPCV	AUTO	-
Curve Referenced Overlay Sequence	50xx,2600	SQ		ANAPCV	AUTO	-
>Referenced SOP Class UID	0008,1150	UI		ANAP	AUTO	-
>Referenced SOP Instance UID	0008,1155	UI		ANAP	AUTO	-
>Referenced Overlay Group	50xx,2610	US		ANAP	AUTO	-

2.1.2.4. CT Image Storage SOP Class

Table 52: IOD of Created CT Image Storage SOP Class Instances

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	General Study Module	ALWAYS
Study	Patient Study Module	CONDITIONAL
Series	General Series Module	ALWAYS
Frame of Reference	Frame of Reference Module	ALWAYS
Equipment	General Equipment Module	ALWAYS
Image	General Image Module	ALWAYS
Image	Image Plane Module	ALWAYS
Image	Image Pixel Module	ALWAYS
Image	Contrast/Bolus Module	CONDITIONAL

Image		Device Module	CONDITIONAL
Image		CT Image Module	ALWAYS
Image		Overlay Plane Module	CONDITIONAL
Image		VOI LUT Module	CONDITIONAL
Image		SOP Common Module	ALWAYS
		Extended Dicom and Private attributes	CONDITIONAL

Table 53: Patient Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referenced Patient Sequence	0008,1120	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Patient's Name	0010,0010	PN		VNAP	COPY	-
Patient ID	0010,0020	LO		VNAP	COPY	-
Patient's Birth Date	0010,0030	DA		VNAP	COPY, USER	-
Patient's Birth Time	0010,0032	TM		ANAPCV	COPY, USER	-
Patient's Sex	0010,0040	CS		VNAP	COPY, USER	-
Other Patient IDs	0010,1000	LO		ANAPCV	COPY, USER	-
Other Patient Names	0010,1001	PN		ANAPCV	COPY, USER	-
Ethnic Group	0010,2160	SH		ANAPCV	COPY	-
Patient Comments	0010,4000	LT		ANAPCV	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAPCV	COPY, USER	-

Table 54: General Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Date	0008,0020	DA		VNAP	COPY	-
Study Time	0008,0030	TM		VNAP	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY, USER	-
Referring Physician's Name	0008,0090	PN		VNAP	COPY, USER	-
Referring Physician Identification Sequence	0008,0096	SQ		ANAPCV	COPY	-
Study Description	0008,1030	LO		ANAPCV	COPY, USER	-
Procedure Code Sequence	0008,1032	SQ		ANAPCV	COPY	-
Physician(s) of Record	0008,1048	PN		ANAPCV	COPY	-
Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAPCV	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAPCV	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAPCV	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAPCV	COPY	-
Study Instance UID	0020,000D	UI		ALWAYS	AUTO, COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study ID	0020,0010	SH		VNAP	AUTO, COPY	-

Table 55: Patient Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Admitting Diagnoses Description	0008,1080	LO		ANAPCV	COPY	-
Admitting Diagnoses Code Sequence	0008,1084	SQ		ANAPCV	COPY	-
Patient's Age	0010,1010	AS		ANAPCV	COPY, USER	-
Patient's Size	0010,1020	DS		ANAPCV	COPY, USER	-
Patient's Weight	0010,1030	DS		ANAPCV	COPY, USER	-
Occupation	0010,2180	SH		ANAPCV	COPY	-
Additional Patient History	0010,21B0	LT		ANAPCV	COPY	-

Table 56: General Series Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Series Date	0008,0021	DA		ANAPCV	AUTO	-
Series Time	0008,0031	TM		ANAPCV	AUTO	-
Modality	0008,0060	CS		ALWAYS	COPY	-
Series Description	0008,103E	LO		ANAPCV	COPY, USER	-
Performing Physician's Name	0008,1050	PN		ANAPCV	COPY	-
Operators' Name	0008,1070	PN		ANAPCV	COPY, USER	-
Operator Identification Sequence	0008,1072	SQ		ANAPCV	COPY	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Body Part Examined	0018,0015	CS		ANAPCV	COPY	-
Protocol Name	0018,1030	LO		ANAPCV	COPY	-
Patient Position	0018,5100	CS		ANAPCV	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Laterality	0020,0060	CS		ANAPCV	COPY	-
Smallest Pixel Value in Series	0028,0108	US/SS		ANAPCV	AUTO, COPY	-
Largest Pixel Value in Series	0028,0109	US/SS		ANAPCV	AUTO, COPY	-
Request Attributes Sequence	0040,0275	SQ		ANAPCV	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ANAPCV	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAPCV	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAPCV	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAPCV	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Comments on the Performed Procedure Step	0040,0280	ST		ANAPCV	COPY	-

Table 57: Frame of Reference Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Frame of Reference UID	0020,0052	UI		ALWAYS	COPY	-
Position Reference Indicator	0020,1040	LO		VNAP	COPY	-

Table 58: General Equipment Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO		VNAP	COPY	-
Institution Name	0008,0080	LO		ANAPCV	COPY, USER	-
Institution Address	0008,0081	ST		ANAPCV	COPY, USER	-
Station Name	0008,1010	SH		ANAPCV	COPY	-
Institutional Department Name	0008,1040	LO		ANAPCV	COPY	-
Manufacturer's Model Name	0008,1090	LO		ANAPCV	COPY	-
Device Serial Number	0018,1000	LO		ANAPCV	COPY	-
Software Version(s)	0018,1020	LO	4.0	ANAPCV	COPY	4.0
Spatial Resolution	0018,1050	DS		ANAPCV	COPY	-
Date of Last Calibration	0018,1200	DA		ANAPCV	COPY	-
Time of Last Calibration	0018,1201	TM		ANAPCV	COPY	-
Pixel Padding Value	0028,0120	US/SS		ANAPCV	COPY	-

Table 59: General Image Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Acquisition Date	0008,0022	DA		ANAPCV	COPY	-
Content Date	0008,0023	DA		ANAPCV	COPY	-
Acquisition Datetime	0008,002A	DT		ANAPCV	COPY	-
Acquisition Time	0008,0032	TM		ANAPCV	COPY	-
Content Time	0008,0033	TM		ANAPCV	COPY	-
Referenced Image Sequence	0008,1140	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ANAPCV	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ANAPCV	COPY	-
Derivation Description	0008,2111	ST		ANAPCV	COPY	-
Source Image Sequence	0008,2112	SQ		ANAPCV	COPY	-
Derivation Code Sequence	0008,9215	SQ		ANAPCV	COPY	-
Instance Number	0020,0013	IS		VNAP	AUTO, COPY	-
Patient Orientation	0020,0020	CS		ANAPCV	COPY	-
Images in Acquisition	0020,1002	IS		ANAPCV	COPY	-
Quality Control Image	0028,0300	CS		ANAPCV	COPY	-
Burned In Annotation	0028,0301	CS		ANAPCV	COPY	-
Lossy Image Compression	0028,2110	CS		ANAPCV	COPY	-
Lossy Image Compression Ratio	0028,2112	DS		ANAPCV	COPY	-
Icon Image Sequence	0088,0200	SQ		ANAPCV	COPY	-
>Samples per Pixel	0028,0002	US		ALWAYS	COPY	-
>Photometric Interpretation	0028,0004	CS		ALWAYS	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
>Planar Configuration	0028,0006	US		ANAP	COPY	-
>Rows	0028,0010	US		ALWAYS	COPY	-
>Columns	0028,0011	US		ALWAYS	COPY	-
>Pixel Aspect Ratio	0028,0034	IS		ANAP	COPY	-
>Bits Allocated	0028,0100	US		ALWAYS	COPY	-
>Bits Stored	0028,0101	US		ALWAYS	COPY	-
>High Bit	0028,0102	US		ALWAYS	COPY	-
>Pixel Representation	0028,0103	US		ALWAYS	COPY	-
>Smallest Image Pixel Value	0028,0106	US/SS		ANAPCV	COPY	-
>Largest Image Pixel Value	0028,0107	US/SS		ANAPCV	COPY	-
>Red Palette Color Lookup Table Descriptor	0028,1101	US/SS		ANAP	COPY	-
>Green Palette Color Lookup Table Descriptor	0028,1102	US/SS		ANAP	COPY	-
>Blue Palette Color Lookup Table Descriptor	0028,1103	US/SS		ANAP	COPY	-
>Red Palette Color Lookup Table Data	0028,1201	OW		ANAP	COPY	-
>Green Palette Color Lookup Table Data	0028,1202	OW		ANAP	COPY	-
>Blue Palette Color Lookup Table Data	0028,1203	OW		ANAP	COPY	-
>Pixel Data	7FE0,0010	OW/OB		ANAP	COPY	-
Presentation LUT Shape	2050,0020	CS		ANAPCV	COPY	-

Table 60: Image Plane Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Slice Thickness	0018,0050	DS		VNAP	COPY	-
Image Position (Patient)	0020,0032	DS		ANAP	COPY	-
Image Orientation (Patient)	0020,0037	DS		ANAP	COPY	-
Slice Location	0020,1041	DS		ANAPCV	COPY	-
Pixel Spacing	0028,0030	DS		ANAP	COPY	-

Table 61: Image Pixel Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Planar Configuration	0028,0006	US		ANAP	COPY	-
Rows	0028,0010	US		ALWAYS	AUTO, COPY	-
Columns	0028,0011	US		ALWAYS	AUTO, COPY	-
Pixel Aspect Ratio	0028,0034	IS		ANAP	COPY	-
Pixel Representation	0028,0103	US		ALWAYS	COPY	-
Smallest Image Pixel Value	0028,0106	US/SS		ANAPCV	COPY	-
Largest Image Pixel Value	0028,0107	US/SS		ANAPCV	COPY	-
Red Palette Color Lookup Table Descriptor	0028,1101	US/SS		ANAP	COPY	-
Green Palette Color Lookup Table Descriptor	0028,1102	US/SS		ANAP	COPY	-
Blue Palette Color Lookup Table Descriptor	0028,1103	US/SS		ANAP	COPY	-
Red Palette Color Lookup Table Data	0028,1201	OW		ANAP	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Green Palette Color Lookup Table Data	0028,1202	OW		ANAP	COPY	-
Blue Palette Color Lookup Table Data	0028,1203	OW		ANAP	COPY	-
Pixel Data	7FE0,0010	OW/OB		ANAP	COPY	-

Table 62: Contrast/Bolus Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Contrast/Bolus Agent	0018,0010	LO		VNAP	COPY	-
Contrast/Bolus Agent Sequence	0018,0012	SQ		ANAPCV	COPY	-
Contrast/Bolus Administration Route Sequence	0018,0014	SQ		ANAPCV	COPY	-
>Additional Drug Sequence	0018,002A	SQ		ANAP	COPY	-
Contrast/Bolus Route	0018,1040	LO		ANAPCV	COPY	-
Contrast/Bolus Volume	0018,1041	DS		ANAPCV	COPY	-
Contrast/Bolus Start Time	0018,1042	TM		ANAPCV	COPY	-
Contrast/Bolus Stop Time	0018,1043	TM		ANAPCV	COPY	-
Contrast/Bolus Total Dose	0018,1044	DS		ANAPCV	COPY	-
Contrast Flow Rate	0018,1046	DS		ANAPCV	COPY	-
Contrast Flow Duration	0018,1047	DS		ANAPCV	COPY	-
Contrast/Bolus Ingredient	0018,1048	CS		ANAPCV	COPY	-
Contrast/Bolus Ingredient Concentration	0018,1049	DS		ANAPCV	COPY	-

Table 63: Device Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Device Sequence	0050,0010	SQ		ANAPCV	COPY	-
>Manufacturer	0008,0070	LO		ANAPCV	COPY	-
>Manufacturer's Model Name	0008,1090	LO		ANAPCV	COPY	-
>Device Serial Number	0018,1000	LO		ANAPCV	COPY	-
>Device ID	0018,1003	LO		ANAPCV	COPY	-
>Device Length	0050,0014	DS		ANAPCV	COPY	-
>Device Diameter	0050,0016	DS		ANAPCV	COPY	-
>Device Diameter Units	0050,0017	CS		ANAPCV	COPY	-
>Device Volume	0050,0018	DS		ANAPCV	COPY	-
>Intermarker Distance	0050,0019	DS		ANAPCV	COPY	-
>Device Description	0050,0020	LO		ANAPCV	COPY	-
>Code Value	0008,0100	SH		ALWAYS	COPY	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>Coding Scheme Version	0008,0103	SH		ANAP	COPY	-
>Code Meaning	0008,0104	LO		ALWAYS	COPY	-
>Mapping Resource	0008,0105	CS		ANAP	COPY	-
>Context Group Version	0008,0106	DT		ANAP	COPY	-
>Context Group Local Version	0008,0107	DT		ANAP	COPY	-
>Context Group Extension Flag	0008,010B	CS		ANAPCV	COPY	-
>Context Group Extension Creator UID	0008,010D	UI		ANAP	COPY	-
>Context Identifier	0008,010F	CS		ANAPCV	COPY	-

Table 64: CT Image Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Image Type	0008,0008	CS		ALWAYS	AUTO	-
Scan Options	0018,0022	CS		ANAPCV	AUTO, COPY	-
KVP	0018,0060	DS		VNAP	COPY	-
Data Collection Diameter	0018,0090	DS		ANAPCV	COPY	-
Reconstruction Diameter	0018,1100	DS		ANAPCV	COPY	-
Distance Source to Detector	0018,1110	DS		ANAPCV	COPY	-
Distance Source to Patient	0018,1111	DS		ANAPCV	COPY	-
Gantry/Detector Tilt	0018,1120	DS		ANAPCV	COPY	-
Table Height	0018,1130	DS		ANAPCV	COPY	-
Rotation Direction	0018,1140	CS		ANAPCV	COPY	-
Exposure Time	0018,1150	IS		ANAPCV	COPY	-
X-ray Tube Current	0018,1151	IS		ANAPCV	COPY	-
Exposure	0018,1152	IS		ANAPCV	COPY	-
Exposure in µAs	0018,1153	IS		ANAPCV	COPY	-
Filter Type	0018,1160	SH		ANAPCV	COPY	-
Generator Power	0018,1170	IS		ANAPCV	COPY	-
Focal Spot(s)	0018,1190	DS		ANAPCV	COPY	-
Convolution Kernel	0018,1210	SH		ANAPCV	COPY	-
Revolution Time	0018,9305	FD		ANAPCV	COPY	-
Single Collimation Width	0018,9306	FD		ANAPCV	COPY	-
Total Collimation Width	0018,9307	FD		ANAPCV	COPY	-
Table Speed	0018,9309	FD		ANAPCV	COPY	-
Table Feed per Rotation	0018,9310	FD		ANAPCV	COPY	-
Spiral Pitch Factor	0018,9311	FD		ANAPCV	COPY	-
Acquisition Number	0020,0012	IS		VNAP	COPY	-
Samples per Pixel	0028,0002	US		ALWAYS	COPY	-
Photometric Interpretation	0028,0004	CS		ALWAYS	COPY	-
Bits Allocated	0028,0100	US		ALWAYS	COPY	-
Bits Stored	0028,0101	US		ALWAYS	COPY	-
High Bit	0028,0102	US		ALWAYS	COPY	-
Rescale Intercept	0028,1052	DS		ALWAYS	COPY	-
Rescale Slope	0028,1053	DS		ALWAYS	COPY	-

Table 65: Overlay Plane Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Overlay Rows	6000,0010	US		ALWAYS	AUTO	-
Overlay Columns	6000,0011	US		ALWAYS	AUTO	-
Overlay Description	6000,0022	LO		ANAPCV	AUTO	-
Overlay Type	6000,0040	CS		ALWAYS	AUTO	-
Overlay Subtype	6000,0045	LO		ALWAYS	AUTO	-
Overlay Origin	6000,0050	SS		ALWAYS	AUTO	-
Overlay Bits Allocated	6000,0100	US		ALWAYS	AUTO	-
Overlay Bit Position	6000,0102	US		ALWAYS	AUTO	-
ROI Area	6000,1301	IS		ANAPCV	AUTO	-
ROI Mean	6000,1302	DS		ANAPCV	AUTO	-
ROI Standard Deviation	6000,1303	DS		ANAPCV	AUTO	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Overlay Label	6000,1500	LO		ANAPCV	AUTO	-
Overlay Data	6000,3000	OW/OB		ANAP	AUTO	-

Table 66: VOI LUT Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Window Center	0028,1050	DS		ANAPCV	AUTO	-
Window Width	0028,1051	DS		ANAPCV	AUTO	-
Window Center & Width Explanation	0028,1055	LO		ANAPCV	AUTO	-
VOI LUT Sequence	0028,3010	SQ		ANAPCV	AUTO	-

Table 67: SOP Common Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Specific Character Set	0008,0005	CS		ANAP	AUTO, COPY	-
Instance Creation Date	0008,0012	DA		ANAPCV	AUTO	-
Instance Creation Time	0008,0013	TM		ANAPCV	AUTO	-
Instance Creator UID	0008,0014	UI		ANAPCV	AUTO	-
SOP Class UID	0008,0016	UI		ALWAYS	COPY	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Timezone Offset From UTC	0008,0201	SH		ANAPCV	COPY	-
Contributing Equipment Sequence	0018,A001	SQ		ANAP	AUTO	-
>Manufacturer	0008,0070	LO	Philips	ANAP	FIXED	PHILIPS.
>Institution Address	0008,0081	ST	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Station Name	0008,1010	SH	IntelliSpace Portal	ANAP	CONFIG	IntelliSpace Portal.
>Institutional Department Name	0008,1040	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Software Version(s)	0018,1020	LO	4.0	ANAP	FIXED	4.0
>Device Serial Number	0018,1000	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Institution Name	0008,0080	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Purpose of Reference Code Sequence	0040,A170	SQ		ANAP	FIXED	-
>>Code Value	0008,0100	SH	109102	ANAP	FIXED	109102
>>Coding Scheme Designator	0008,0102	SH	DCM	ANAP	FIXED	DCM
>>Code Meaning	0008,0104	LO	Processing Equipment	ANAP	FIXED	Processing Equipment

Table 68: Extended DICOM and private attributes for CT Image Storage SOP Class Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modalities in Study	0008,0061	CS		ANAPCV	COPY	-
Medical Alerts	0010,2000	LO		ANAPCV	COPY	-
Allergies	0010,2110	LO		ANAPCV	COPY	-
Pregnancy Status	0010,21C0	US		ANAPCV	COPY	-
Spacing Between Slices	0018,0088	DS		ANAPCV	COPY	-
Heart Rate	0018,1088	IS		ANAPCV	COPY	-
Angular Position	0018,1141	DS		ANAPCV	COPY	-
Scan Arc	0018,1143	DS		ANAPCV	COPY	-
CT Exposure Sequence	0018,9321	SQ		ANAPCV	COPY	-
>Exposure Modulation Type	0018,9323	CS		ANAPCV	COPY	-

>Estimated Dose Saving	0018,9324	FD		ANAPCV	COPY	-
>Exposure Time in ms	0018,9328	FD		ANAPCV	COPY	-
>X-Ray Tube Current in mA	0018,9330	FD		ANAPCV	COPY	-
>Exposure in mAs	0018,9332	FD		ANAPCV	COPY	-
Number of Study Related Series	0020,1206	IS		ANAPCV	COPY	-
Number of Study Related Instances	0020,1208	IS		ANAPCV	COPY	-
Requesting Physician	0032,1032	PN		ANAPCV	COPY	-
Requesting Service	0032,1033	LO		ANAPCV	COPY	-
Requested Procedure Description	0032,1060	LO		ANAPCV	COPY	-
Requested Contrast Agent	0032,1070	LO		ANAPCV	COPY	-
Admission ID	0038,0010	LO		ANAPCV	COPY	-
Special Needs	0038,0050	LO		ANAPCV	COPY	-
Patient State	0038,0500	LO		ANAPCV	COPY	-
Confidentiality Constraint on Patient Data Description	0040,3001	LO		ANAPCV	COPY	-
DateTime	0040,A120	DT		ANAPCV	COPY	-
Curve Dimensions	50xx,0005	US		ALWAYS	AUTO	-
Number of Points	50xx,0010	US		ALWAYS	AUTO	-
Type of Data	50xx,0020	CS		ALWAYS	AUTO	-
Data Value Representation	50xx,0103	US		ALWAYS	AUTO	-
Curve Data	50xx,3000	OB/OW		ALWAYS	AUTO	-
Curve Description	50xx,0022	LO		ANAPCV	AUTO	-
Axis Units	50xx,0030	SH		ANAPCV	AUTO	-
Axis Labels	50xx,0040	SH		ANAPCV	AUTO	-
Minimum Coordinate Value	50xx,0104	US		ANAPCV	AUTO	-
Maximum Coordinate Value	50xx,0105	US		ANAPCV	AUTO	-
Curve Range	50xx,0106	SH		ANAPCV	AUTO	-
Curve Data Descriptor	50xx,0110	US		ANAP	AUTO	-
Coordinate Start Value	50xx,0112	US		ANAP	AUTO	-
Coordinate Step Value	50xx,0114	US		ANAP	AUTO	-
Curve Label	50xx,2500	LO		ANAPCV	AUTO	-
Referenced Overlay Sequence	50xx,2600	SQ		ANAPCV	AUTO	-
>Referenced SOP Class UID	0008,1150	UI		ANAP	AUTO	-
>Referenced SOP Instance UID	0008,1155	UI		ANAP	AUTO	-
>Referenced Overlay Group	50xx,2610	US		ANAP	AUTO	-

2.1.2.5.   Nuclear Medicine Image Storage SOP Class

Table 69: IOD of Created Nuclear Medicine Image Storage SOP Class Instances

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	General Study Module	ALWAYS
Study	Patient Study Module	CONDITIONAL
Series	General Series Module	ALWAYS
Frame of Reference	Frame of Reference Module	CONDITIONAL
Equipment	General Equipment Module	ALWAYS
Image	General Image Module	ALWAYS
Image	Image Pixel Module	ALWAYS
Image	Multi-Frame Module	ALWAYS

Image		NM/PET Patient Orientation Module	ALWAYS
Image		NM Image Pixel Module	ALWAYS
Image		NM Multi-Frame Module	ALWAYS
Image		NM Image Module	ALWAYS
Image		NM Isotope Module	ALWAYS
Image		NM Detector Module	ALWAYS
Image		NM Tomo Acquisition Module	CONDITIONAL
Image		NM Multi-gated Acquisition Module	CONDITIONAL
Image		NM Reconstruction Module	CONDITIONAL
Image		Overlay Plane Module	CONDITIONAL
Image		VOI LUT Module	CONDITIONAL
Image		SOP Common Module	ALWAYS
Image		NM Phase Module	CONDITIONAL
		Extended Dicom and Private attributes	CONDITIONAL

Table 70: Patient Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referenced Patient Sequence	0008,1120	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Patient's Name	0010,0010	PN		VNAP	COPY	-
Patient ID	0010,0020	LO		VNAP	COPY	-
Patient's Birth Date	0010,0030	DA		VNAP	COPY, USER	-
Patient's Birth Time	0010,0032	TM		ANAPCV	COPY, USER	-
Patient's Sex	0010,0040	CS		VNAP	COPY, USER	-
Other Patient IDs	0010,1000	LO		ANAPCV	COPY, USER	-
Other Patient Names	0010,1001	PN		ANAPCV	COPY, USER	-
Ethnic Group	0010,2160	SH		ANAPCV	COPY	-
Patient Comments	0010,4000	LT		ANAPCV	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAPCV	COPY, USER	-

Table 71: General Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Date	0008,0020	DA		VNAP	COPY	-
Study Time	0008,0030	TM		VNAP	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY, USER	-
Referring Physician's Name	0008,0090	PN		VNAP	COPY, USER	-
Referring Physician Identification Sequence	0008,0096	SQ		ANAPCV	COPY	-
Study Description	0008,1030	LO		ANAPCV	COPY, USER	-
Procedure Code Sequence	0008,1032	SQ		ANAPCV	COPY	-
Physician(s) of Record	0008,1048	PN		ANAPCV	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAPCV	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAPCV	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAPCV	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAPCV	COPY	-
Study Instance UID	0020,000D	UI		ALWAYS	AUTO, COPY	-
Study ID	0020,0010	SH		VNAP	AUTO, COPY	-

Table 72: Patient Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Admitting Diagnoses Description	0008,1080	LO		ANAPCV	COPY	-
Admitting Diagnoses Code Sequence	0008,1084	SQ		ANAPCV	COPY	-
Patient's Age	0010,1010	AS		ANAPCV	COPY, USER	-
Patient's Size	0010,1020	DS		ANAPCV	COPY, USER	-
Patient's Weight	0010,1030	DS		ANAPCV	COPY, USER	-
Occupation	0010,2180	SH		ANAPCV	COPY	-
Additional Patient History	0010,21B0	LT		ANAPCV	COPY	-

Table 73: General Series Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Series Date	0008,0021	DA		ANAPCV	AUTO	-
Series Time	0008,0031	TM		ANAPCV	AUTO	-
Modality	0008,0060	CS		ALWAYS	COPY	-
Series Description	0008,103E	LO		ANAPCV	COPY, USER	-
Performing Physician's Name	0008,1050	PN		ANAPCV	COPY	-
Operators' Name	0008,1070	PN		ANAPCV	COPY, USER	-
Operator Identification Sequence	0008,1072	SQ		ANAPCV	COPY	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Body Part Examined	0018,0015	CS		ANAPCV	COPY	-
Protocol Name	0018,1030	LO		ANAPCV	COPY	-
Patient Position	0018,5100	CS		ANAPCV	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Laterality	0020,0060	CS		ANAPCV	COPY	-
Smallest Pixel Value in Series	0028,0108	US/SS		ANAPCV	AUTO, COPY	-
Largest Pixel Value in Series	0028,0109	US/SS		ANAPCV	AUTO, COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Request Attributes Sequence	0040,0275	SQ		ANAPCV	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ANAPCV	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAPCV	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAPCV	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAPCV	COPY	-
Comments on the Performed Procedure Step	0040,0280	ST		ANAPCV	COPY	-

Table 74: Frame of Reference Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Frame of Reference UID	0020,0052	UI		ALWAYS	AUTO	-
Position Reference Indicator	0020,1040	LO		VNAP	AUTO	-

Table 75: General Equipment Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO	Philips Healthcare	VNAP	AUTO, COPY	Philips Healthcare.
Institution Name	0008,0080	LO		ANAPCV	AUTO, COPY, USER	-
Institution Address	0008,0081	ST		ANAPCV	AUTO, COPY, USER	-
Institutional Department Name	0008,1040	LO		ANAPCV	AUTO, COPY	-
Manufacturer's Model Name	0008,1090	LO		VNAP	AUTO, COPY	-
Device Serial Number	0018,1000	LO		ANAPCV	COPY	-
Software Version (s)	0018,1020	LO	4.0	ALWAYS	COPY	4.0
Station Name	0008,1010	SH		ALWAYS	COPY	-
Spatial Resolution	0018,1050	DS		ANAPCV	COPY	-
Date of Last Calibration	0018,1200	DA		ANAPCV	COPY	-
Time of Last Calibration	0018,1201	TM		ANAPCV	COPY	-
Pixel Padding Value	0028,0120	US/SS		ANAPCV	COPY	-

Table 76: General Image Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Acquisition Date	0008,0022	DA		ANAPCV	COPY	-
Acquisition Datetime	0008,002A	DT		ANAPCV	COPY	-
Acquisition Time	0008,0032	TM		ANAPCV	COPY	-
Content Date	0008,0023	DA		ANAPCV	COPY	-
Content Time	0008,0033	TM		ANAPCV	COPY	-
Image Comments	0020,4000	LT		VNAP	COPY	-
Referenced Image Sequence	0008,1140	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ANAPCV	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ANAPCV	COPY	-
Derivation Description	0008,2111	ST		ANAPCV	COPY	-

Source Image Sequence	0008,2112	SQ		ANAPCV	COPY	-
Derivation Code Sequence	0008,9215	SQ		ANAPCV	COPY	-
Instance Number	0020,0013	IS		ALWAYS	AUTO, COPY	-
Patient Orientation	0020,0020	CS		ANAPCV	COPY	-
Images in Acquisition	0020,1002	IS		ANAPCV	COPY	-
Quality Control Image	0028,0300	CS		ANAPCV	COPY	-
Burned In Annotation	0028,0301	CS		ANAPCV	COPY	-
Lossy Image Compression Ratio	0028,2112	DS		ANAPCV	COPY	-
Icon Image Sequence	0088,0200	SQ		ANAPCV	COPY	-
>Samples per Pixel	0028,0002	US		ALWAYS	COPY	-
>Photometric Interpretation	0028,0004	CS		ALWAYS	COPY	-
>Planar Configuration	0028,0006	US		ANAP	COPY	-
>Rows	0028,0010	US		ALWAYS	COPY	-
>Columns	0028,0011	US		ALWAYS	COPY	-
>Pixel Aspect Ratio	0028,0034	IS		ANAP	COPY	-
>Bits Allocated	0028,0100	US		ALWAYS	COPY	-
>Bits Stored	0028,0101	US		ALWAYS	COPY	-
>High Bit	0028,0102	US		ALWAYS	COPY	-
>Pixel Representation	0028,0103	US		ALWAYS	COPY	-
>Smallest Image Pixel Value	0028,0106	US/SS		ANAPCV	COPY	-
>Largest Image Pixel Value	0028,0107	US/SS		ANAPCV	COPY	-
>Red Palette Color Lookup Table Descriptor	0028,1101	US/SS		ANAP	COPY	-
>Green Palette Color Lookup Table Descriptor	0028,1102	US/SS		ANAP	COPY	-
>Blue Palette Color Lookup Table Descriptor	0028,1103	US/SS		ANAP	COPY	-
>Red Palette Color Lookup Table Data	0028,1201	OW		ANAP	COPY	-
>Green Palette Color Lookup Table Data	0028,1202	OW		ANAP	COPY	-
>Blue Palette Color Lookup Table Data	0028,1203	OW		ANAP	COPY	-
>Pixel Data	7FE0,0010	OW/OB		ANAP	COPY	-
Presentation LUT Shape	2050,0020	CS		ANAPCV	COPY	-

Table 77: Image Pixel Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Planar Configuration	0028,0006	US		ANAP	COPY	-
Rows	0028,0010	US		ALWAYS	AUTO, COPY	-
Columns	0028,0011	US		ALWAYS	AUTO, COPY	-
Pixel Aspect Ratio	0028,0034	IS		ANAP	COPY	-
Pixel Representation	0028,0103	US		ALWAYS	AUTO, COPY	-
Largest Image Pixel Value	0028,0107	US/SS		ANAPCV	COPY	-
Smallest Image Pixel Value	0028,0106	US/SS		ANAPCV	COPY	-
Red Palette Color Lookup Table Descriptor	0028,1101	US/SS		ANAP	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Green Palette Color Lookup Table Descriptor	0028,1102	US/SS		ANAP	COPY	-
Blue Palette Color Lookup Table Descriptor	0028,1103	US/SS		ANAP	COPY	-
Red Palette Color Lookup Table Data	0028,1201	OW		ANAP	COPY	-
Green Palette Color Lookup Table Data	0028,1202	OW		ANAP	COPY	-
Blue Palette Color Lookup Table Data	0028,1203	OW		ANAP	COPY	-
Pixel Data	7FE0,0010	OW/OB		ALWAYS	AUTO	-

Table 78: Multi-Frame Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Number of Frames	0028,0008	IS		ALWAYS	AUTO, COPY	-

Table 79: NM/PET Patient Orientation Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Patient Gantry Relationship Code Sequence	0054,0414	SQ		ALWAYS	COPY	-
>Code Meaning	0008,0104	LO		ALWAYS	COPY	-
>Code Value	0008,0100	SH		ALWAYS	COPY	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
Patient Orientation Code Sequence	0054,0410	SQ		ALWAYS	COPY	-
>Patient Orientation Modifier Code Sequence	0054,0412	SQ		ALWAYS	COPY	-
>>Code Meaning	00080104	LO		ALWAYS	COPY	-
>>Code Value	0008,0100	SH		ALWAYS	COPY	-
>>Code Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>Code Meaning	0008,0104	LO		ALWAYS	COPY	-
>Code Value	0008,0100	SH		ALWAYS	COPY	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-

Table 80: NM Image Pixel Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Samples per Pixel	0028,0002	US		ALWAYS	AUTO	-
Photometric Interpretation	0028,0004	CS		ALWAYS	AUTO	-
Pixel Spacing	0028,0030	DS		VNAP	AUTO	-
Bits Allocated	0028,0100	US		ALWAYS	AUTO	-
Bits Stored	0028,0101	US		ALWAYS	AUTO	-
High Bit	0028,0102	US		ALWAYS	AUTO	-

Table 81: NM Multi-Frame Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Detector Vector	0054,0020	US		ANAP	COPY	-
Energy Window Vector	0054,0010	US		ANAP	COPY	-
Frame Increment Pointer	0028,0009	AT		ALWAYS	COPY	-
Number of Detectors	0054,0021	US		ANAP	COPY	-

Number of Energy Windows	0054,0011	US		ALWAYS	COPY	-
Number of R-R Intervals	0054,0061	US		ANAP	COPY	-
Number of Rotations	0054,0051	US		ANAP	COPY	-
Number of Slices	0054,0081	US		ANAP	COPY	-
Number of Time Slots	0054,0071	US		ANAP	COPY	-
R-R Interval Vector	0054,0060	US		ANAP	COPY	-
Rotation Vector	0054,0050	US		ANAP	COPY	-
Slice Vector	0054,0080	US		ANAP	COPY	-
Time Slot Vector	0054,0070	US		ANAP	COPY	-

Table 82: NM Image Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Image Type	0008,0008	CS	Value 1: DERIVED, Value 2: SECONDARY	ALWAYS	AUTO	-
Acquisition Termination Condition	0018,0071	CS		ANAPEV	COPY	-
Corrected Image	0028,0051	CS		ANAPEV	COPY	-
Counts Accumulated	0018,0070	IS		VNAP	COPY	-
Image ID	0054,0400	SH		ANAPEV	COPY	-
Lossy Image Compression	0028,2110	CS		ANAP	COPY	-
Table Height	0018,1130	DS		ANAPEV	COPY	-
Table Traverse	0018,1131	DS		ANAPEV	COPY	-
Actual Frame Duration	0018,1242	IS		ANAP	COPY	-
Count Rate	0018,1243	IS		ANAPEV	COPY	-
Processing Function	0018,5020	LO		ANAPEV	COPY	-
Whole Body Technique	0018,1301	CS		ANAPEV	COPY	-
Scan Velocity	0018,1300	DS		ANAPCV	COPY	-
Scan Length	0018,1302	IS		ANAPCV	COPY	-
Trigger Source OR Type	0018,1061	LO		ANAPEV	COPY	-
Anatomic Region Sequence	0008,2218	SQ		ANAPEV	COPY	-

Table 83: NM Isotope Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Energy Window Information Sequence	0054,0012	SQ		VNAP	COPY	-
>Energy Window Name	0054,0018	SH		VNAP	COPY	-
>Energy Window Range Sequence	0054,0013	SQ		VNAP	COPY	-
>>Energy Window Lower Limit	0054,0014	DS		VNAP	COPY	-
>>Energy Window Upper Limit	0054,0015	DS		VNAP	COPY	-
Radiopharmaceutical Information Sequence	0054,0016	SQ		VNAP	COPY	-
>Radionuclide Total Dose	0018,1074	DS		ALWAYS	COPY	-
>Radiopharmaceutical	0018,0031	LO		VNAP	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
>Radiopharmaceutical Start Time	0018,1072	TM		ALWAYS	COPY	-
>Radiopharmaceutical Volume	0018,1071	DS		VNAP	COPY	-
>Radionuclide Code Sequence	0054,0300	SQ		VNAP	COPY	-
>>Code Meaning	0008,0104	LO		ALWAYS	COPY	-
>>Code Value	0008,0100	SH		ALWAYS	COPY	-
>>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
Intervention Drug Sequence	0018,0028	SQ		ANAPEV	COPY	-

Table 84: NM Detector Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Detector Information Sequence	0054,0022	SQ		VNAP	COPY	-
>Image Orientation (Patient)	0020,0037	DS		ALWAYS	COPY	-
>Zoom Center	0028,0032	DS		ALWAYS	COPY	-
>Collimator Type	0018,1181	CS		ALWAYS	COPY	-
>Collimator/grid Name	0018,1180	SH		VNAP	COPY	-
>Focal Distance	0018,1182	IS		VNAP	COPY	-
>Image Position (Patient)	0020,0032	DS		ALWAYS	COPY	-
>View Code Sequence	0054,0220	SQ		VNAP	COPY	-
>>Code Meaning	0008,0104	LO		VNAP	COPY	-
>>Code Value	0008,0100	SH		VNAP	COPY	-
>>Coding Scheme Designator	0008,0102	SH		VNAP	COPY	-

Table 85: NM Tomo Acquisition Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Rotation Information Sequence	0054,0052	SQ		VNAP	COPY	-
>Actual Frame Duration	0018,1242	IS		VNAP	COPY	-
>Angular Step	0018,1144	DS		VNAP	COPY	-
>Number of Frames in Rotation	0054,0053	US		VNAP	COPY	-
>Rotation Direction	0018,1140	CS		VNAP	COPY	-
>Scan Arc	0018,1143	DS		VNAP	COPY	-
>Start Angle	0054,0200	DS		VNAP	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
>Table Height	0018,1130	DS		VNAP	COPY	-
>Table Traverse	0018,1131	DS		VNAP	COPY	-
Type of Detector Motion	0054,0202	CS		ANAPEV	COPY	-

Table 86: NM Multi-gated Acquisition Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Gated Information Sequence	0054,0062	SQ		ANAPCV	COPY	-
>Data Information Sequence	0054,0063	SQ		VNAP	COPY	-
>>Frame Time	0018,1063	DS		VNAP	COPY	-
>>Time Slot Information Sequence	0054,0072	SQ		VNAP	COPY	-
>>>Time Slot Time	0054,0073	DS		ANAPCV	COPY	-
Beat Rejection Flag	0018,1080	CS		ANAPEV	COPY	-
PVC Rejection	0018,1085	LO		ANAPEV	COPY	-
Skip Beats	0018,1086	IS		ANAPEV	COPY	-
Heart Rate	0018,1088	IS		ANAPEV	COPY	-

Table 87: NM Reconstruction Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Slice Thickness	0018,0050	DS		VNAP	AUTO	-
Spacing Between Slices	0018,0088	DS		VNAP	COPY	-
Reconstruction Diameter	0018,1100	DS		ANAPEV	COPY	-
Convolution Kernel	0018,1210	SH		ANAPEV	COPY	-
Slice Location	0020,1041	DS		ANAPEV	COPY	-
Slice Progression Direction	0054,0500	CS		ANAPEV	COPY	-

Table 88: Overlay Plane Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Overlay Rows	6000,0010	US		ALWAYS	AUTO	-
Overlay Columns	6000,0011	US		ALWAYS	AUTO	-
Overlay Description	6000,0022	LO		ANAPCV	AUTO	-
Overlay Type	6000,0040	CS		ALWAYS	AUTO	-
Overlay Subtype	6000,0045	LO		ANAPCV	AUTO	-
Overlay Origin	6000,0050	SS		ALWAYS	AUTO	-
Overlay Bits Allocated	6000,0100	US		ALWAYS	AUTO	-
Overlay Bit Position	6000,0102	US		ALWAYS	AUTO	-
ROI Area	6000,1301	IS		ANAPCV	AUTO	-
ROI Mean	6000,1302	DS		ANAPCV	AUTO	-
ROI Standard Deviation	6000,1303	DS		ANAPCV	AUTO	-
Overlay Label	6000,1500	LO		ANAPCV	AUTO	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Overlay Data	6000,3000	OW/OB		ANAP	AUTO	-

Table 89: VOI LUT Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Window Center	0028,1050	DS		ALWAYS	AUTO	-
Window Width	0028,1051	DS		ANAP	AUTO	-
Window Center & Width Explanation	0028,1055	LO		ANAPCV	AUTO	-
VOI LUT Sequence	0028,3010	SQ		ANAPCV	AUTO	-

Table 90: SOP Common Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Specific Character Set	0008,0005	CS		ANAP	AUTO, COPY	-
Instance Creation Date	0008,0012	DA		VNAP	AUTO, COPY	-
Instance Creation Time	0008,0013	TM		VNAP	AUTO, COPY	-
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4.1.1.20	ALWAYS	COPY, AUTO	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Timezone Offset From UTC	0008,0201	SH		ANAPCV	COPY	-
Contributing Equipment Sequence	0018,A001	SQ		ANAP	AUTO	-
>Manufacturer	0008,0070	LO	Philips	ANAP	FIXED	PHILIPS.
>Institution Address	0008,0081	ST	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Station Name	0008,1010	SH	IntelliSpace Portal	ANAP	CONFIG	IntelliSpace Portal.
>Institutional Department Name	0008,1040	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Software Version(s)	0018,1020	LO	4.0	ANAP	FIXED	4.0
>Device Serial Number	0018,1000	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Institution Name	0008,0080	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Purpose of Reference Code Sequence	0040,A170	SQ		ANAP	FIXED	-
>>Code Value	0008,0100	SH	109102	ANAP	FIXED	109102
>>Coding Scheme Designator	0008,0102	SH	DCM	ANAP	FIXED	DCM
>>Code Meaning	0008,0104	LO	Processing Equipment	ANAP	FIXED	Processing Equipment

Table 91:NM Phase Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Phase Information Sequence	0054,0032			ANAPCV	COPY	-
>Phase Delay	0054,0036			ALWAYS	COPY	-
>Actual Frame Duration	0018,1242			ALWAYS	COPY	-
>Pause Between Frames	0054,0038			ALWAYS	COPY	-
>Number of Frames in Phase	0054,0033			ALWAYS	COPY	-
>Trigger Vector	0054,0210			ANAPEV	COPY	-
>Number of Triggers in Phase	0054,0211			ANAP	COPY	-
>Phase Description	0054,0039			ANAPEV	COPY	-

Table 92: Extended DICOM and private attributes for Nuclear Medicine Image Storage SOP Class Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Rescale Intercept	0028,1052	DS		ALWAYS	AUTO	-
Rescale Slope	0028,1053	DS		ALWAYS	AUTO	-

Series Type (PIIM)	2001,106E	SH			ALWAYS	AUTO	-
Frame Number	2001,107C	IS	Value 1: 1		ALWAYS	AUTO	-
Frame Pixel Data	2001,107D	OW/OB			ALWAYS	AUTO	-
Frame Index Pointer	2001,10D0	DS			ALWAYS	AUTO	-
Index Number Vector	2001,10D1	DS			ALWAYS	AUTO	-
Frame Slice Number	2001,10D7	DS	1		ALWAYS	AUTO	-
Curve Dimensions	50xx,0005	US			ALWAYS	AUTO	-
Number of Points	50xx,0010	US			ALWAYS	AUTO	-
Type of Data	50xx,0020	CS			ALWAYS	AUTO	-
Data Value Representation	50xx,0103	US			ALWAYS	AUTO	-
Curve Data	50xx,3000	OB/OW			ALWAYS	AUTO	-
Curve Description	50xx,0022	LO			ANAPCV	AUTO	-
Axis Units	50xx,0030	SH			ANAPCV	AUTO	-
Axis Labels	50xx,0040	SH			ANAPCV	AUTO	-
Minimum Coordinate Value	50xx,0104	US			ANAPCV	AUTO	-
Maximum Coordinate Value	50xx,0105	US			ANAPCV	AUTO	-
Curve Range	50xx,0106	SH			ANAPCV	AUTO	-
Curve Data Descriptor	50xx,0110	US			ANAP	AUTO	-
Coordinate Start Value	50xx,0112	US			ANAP	AUTO	-
Coordinate Step Value	50xx,0114	US			ANAP	AUTO	-
Curve Label	50xx,2500	LO			ANAPCV	AUTO	-
Curve Referenced Overlay Sequence	50xx,2600	SQ			ANAPCV	AUTO	-
>Referenced SOP Class UID	0008,1150	UI			ANAP	AUTO	-
>Referenced SOP Instance UID	0008,1155	UI			ANAP	AUTO	-
>Referenced Overlay Group	50xx,2610	US			ANAP	AUTO	-
Referenced Overlay Sequence	0008,1130	SQ			ANAPEV	COPY	-
Reference Curve Sequence	0008,1145	SQ			ANAPEV	COPY	-
Primary Anatomic Structure Sequence	0008,2228	SQ			ANAPEV	COPY	-

2.1.2.6. MR Image Storage SOP Class

Table 93: IOD of Created MR Image Storage SOP Class Instances

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	General Study Module	ALWAYS
Study	Patient Study Module	CONDITIONAL
Series	General Series Module	ALWAYS
Frame of Reference	Frame of Reference Module	ALWAYS
Equipment	General Equipment Module	ALWAYS
Image	General Image Module	ALWAYS
Image	Image Plane Module	ALWAYS
Image	Image Pixel Module	ALWAYS
Image	MR Image Module	ALWAYS
Image	Overlay Plane Module	CONDITIONAL
Image	VOI LUT Module	CONDITIONAL
Image	SOP Common Module	ALWAYS
Image	Contrast/Bolus Module	CONDITIONAL
	Extended Dicom and Private attributes	CONDITIONAL

Table 94: Patient Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referenced Patient Sequence	0008,1120	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Patient's Name	0010,0010	PN		VNAP	COPY	-
Patient ID	0010,0020	LO		VNAP	COPY	-
Patient's Birth Date	0010,0030	DA		VNAP	COPY, USER	-
Patient's Birth Time	0010,0032	TM		ANAPCV	COPY, USER	-
Patient's Sex	0010,0040	CS		VNAP	COPY, USER	-
Other Patient IDs	0010,1000	LO		ANAPCV	COPY, USER	-
Other Patient Names	0010,1001	PN		ANAPCV	COPY, USER	-
Ethnic Group	0010,2160	SH		ANAPCV	COPY	-
Patient Comments	0010,4000	LT		ANAPCV	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAPCV	COPY, USER	-

Table 95: General Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Date	0008,0020	DA		VNAP	COPY	-
Study Time	0008,0030	TM		VNAP	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY, USER	-
Referring Physician's Name	0008,0090	PN		VNAP	COPY, USER	-
Referring Physician Identification Sequence	0008,0096	SQ		ANAPCV	COPY	-
Study Description	0008,1030	LO		ANAPCV	COPY, USER	-
Procedure Code Sequence	0008,1032	SQ		ANAPCV	COPY	-
Physician(s) of Record	0008,1048	PN		ANAPCV	COPY	-
Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAPCV	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAPCV	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAPCV	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAPCV	COPY	-
Study Instance UID	0020,000D	UI		ALWAYS	AUTO, COPY	-
Study ID	0020,0010	SH		VNAP	AUTO, COPY	-

Table 96: Patient Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Admitting Diagnoses Description	0008,1080	LO		ANAPCV	COPY	-
Admitting Diagnoses Code Sequence	0008,1084	SQ		ANAPCV	COPY	-
Patient's Age	0010,1010	AS		ANAPCV	COPY, USER	-
Patient's Size	0010,1020	DS		ANAPCV	COPY, USER	-
Patient's Weight	0010,1030	DS		ANAPCV	COPY, USER	-
Occupation	0010,2180	SH		ANAPCV	COPY	-
Additional Patient History	0010,21B0	LT		ANAPCV	COPY	-

Table 97: General Series Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Series Date	0008,0021	DA		ANAPCV	AUTO	-
Series Time	0008,0031	TM		ANAPCV	AUTO	-
Modality	0008,0060	CS		ALWAYS	COPY	-
Series Description	0008,103E	LO		ANAPCV	COPY, USER	-
Performing Physician's Name	0008,1050	PN		ANAPCV	COPY	-
Operators' Name	0008,1070	PN		ANAPCV	COPY, USER	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Body Part Examined	0018,0015	CS		ANAPCV	COPY	-
Protocol Name	0018,1030	LO		ANAPCV	COPY	-
Patient Position	0018,5100	CS		ANAPCV	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	Generated by IntelliSpace Portal 4.0
Series Number	0020,0011	IS		ALWAYS	AUTO	-
Laterality	0020,0060	CS		ANAPCV	COPY	-
Smallest Pixel Value in Series	0028,0108	US/SS		ANAPCV	COPY	-
Largest Pixel Value in Series	0028,0109	US/SS		ANAPCV	COPY	-
Request Attributes Sequence	0040,0275	SQ		VNAP	COPY	-
>Scheduled Procedure Step Description	0040,0007	LO		VNAP	COPY	-
>Scheduled Protocol Code Sequence	0040,0008	SQ		ANAPCV	COPY	-
>Scheduled Procedure Step ID	0040,0009	SH		ALWAYS	COPY	-
>Requested Procedure ID	0040,1001	SH		ALWAYS	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ALWAYS	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ALWAYS	COPY	-
Performed Procedure Step ID	0040,0253	SH		ALWAYS	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAPCV	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Performed Protocol Code Sequence	0040,0260	SQ		ANAPCV	COPY	-
>Code Value	0008,0100	SH		ALWAYS	COPY	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>Coding Scheme Version	0008,0103	SH		ANAP	COPY	-
>Mapping Resource	0008,0105	CS		ANAP	COPY	-
>Context Group Version	0008,0106	DT		ANAP	COPY	-
>Context Group Local Version	0008,0107	DT		ANAP	COPY	-
>Context Group Extension Flag	0008,010B	CS		ALWAYS	COPY	-
>Context Group Extension Creator UID	0008,010D	UI		ANAP	COPY	-
>Context Identifier	0008,010F	CS		VNAP	COPY	-
Comments on the Performed Procedure Step	0040,0280	ST		ANAPCV	COPY	-

Table 98: Frame of Reference Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Frame of Reference UID	0020,0052	UI		ALWAYS	COPY	-
Position Reference Indicator	0020,1040	LO		EMPTY	COPY, FIXED	-

Table 99: General Equipment Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO		ALWAYS	COPY	-
Institution Name	0008,0080	LO		ANAPCV	COPY, USER	-
Institution Address	0008,0081	ST		ANAPCV	COPY, USER	-
Station Name	0008,1010	SH		ANAPCV	COPY	-
Institutional Department Name	0008,1040	LO		ANAPCV	COPY	-
Manufacturer's Model Name	0008,1090	LO		ANAPCV	COPY	-
Device Serial Number	0018,1000	LO		ANAPCV	FIXED	System serial number.
Software Version(s)	0018,1020	LO	4.0	ANAPCV	COPY	4.0
Spatial Resolution	0018,1050	DS		ANAPCV	COPY	-
Date of Last Calibration	0018,1200	DA		ANAPCV	COPY	-
Time of Last Calibration	0018,1201	TM		ANAPCV	COPY	-
Pixel Padding Value	0028,0120	US/SS		ANAPCV	COPY	-

Table 100: General Image Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Acquisition Date	0008,0022	DA		ANAPCV	COPY	-
Content Date	0008,0023	DA		ANAPCV	COPY	-
Acquisition Datetime	0008,002A	DT		ANAPCV	COPY	-
Acquisition Time	0008,0032	TM		ANAPCV	COPY	-
Content Time	0008,0033	TM		ANAPCV	COPY	-
Referenced Image Sequence	0008,1140	SQ		ANAPCV	AUTO	-
>Referenced SOP Class UID	0008,1150	UI		ANAPCV	IMPLICIT	-
>Referenced SOP Instance UID	0008,1155	UI		ANAPCV	IMPLICIT	-
Acquisition Number	0020,0012	IS		ALWAYS	COPY	-
Patient Orientation	0020,0020	CS		ANAPCV	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Derivation Description	0008,2111	ST		ANAPCV	COPY	-
Source Image Sequence	0008,2112	SQ		ANAPCV	COPY	-
Derivation Code Sequence	0008,9215	SQ		ANAPCV	COPY	-
Instance Number	0020,0013	IS		ALWAYS	AUTO, COPY	-
Patient Orientation	0020,0020	CS		ANAPCV	COPY	-
Images in Acquisition	0020,1002	IS		ANAPCV	COPY	-
Quality Control Image	0028,0300	CS		ANAPCV	COPY	-
Burned In Annotation	0028,0301	CS		ANAPCV	COPY	-
Lossy Image Compression	0028,2110	CS		ANAPCV	COPY, FIXED	Applied value: 00
Lossy Image Compression Ratio	0028,2112	DS		ANAPCV	COPY	-
Icon Image Sequence	0088,0200	SQ		ANAPCV	COPY	-
>Samples per Pixel	0028,0002	US		ALWAYS	COPY	-
>Photometric Interpretation	0028,0004	CS		ALWAYS	COPY	-
>Planar Configuration	0028,0006	US		ANAP	COPY	-
>Rows	0028,0010	US		ALWAYS	COPY	-
>Columns	0028,0011	US		ALWAYS	COPY	-
>Pixel Aspect Ratio	0028,0034	IS		ANAP	COPY	-
>Bits Allocated	0028,0100	US		ALWAYS	COPY	-
>Bits Stored	0028,0101	US		ALWAYS	COPY	-
>High Bit	0028,0102	US		ALWAYS	COPY	-
>Pixel Representation	0028,0103	US		ALWAYS	COPY	-
>Smallest Image Pixel Value	0028,0106	US/SS		ANAPCV	COPY	-
>Largest Image Pixel Value	0028,0107	US/SS		ANAPCV	COPY	-
>Red Palette Color Lookup Table Descriptor	0028,1101	US/SS		ANAP	COPY	-
>Green Palette Color Lookup Table Descriptor	0028,1102	US/SS		ANAP	COPY	-
>Blue Palette Color Lookup Table Descriptor	0028,1103	US/SS		ANAP	COPY	-
>Red Palette Color Lookup Table Data	0028,1201	OW		ANAP	COPY	-
>Green Palette Color Lookup Table Data	0028,1202	OW		ANAP	COPY	-
>Blue Palette Color Lookup Table Data	0028,1203	OW		ANAP	COPY	-
>Pixel Data	7FE0,0010	OW/OB		ANAP	COPY	-
Presentation LUT Shape	2050,0020	CS		ANAPCV	COPY, FIXED	Applied value: IDENTITY

Table 101: Image Plane Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Slice Thickness	0018,0050	DS		VNAP	AUTO, COPY	-
Image Position (Patient)	0020,0032	DS		ALWAYS	AUTO, COPY	-
Image Orientation (Patient)	0020,0037	DS		ALWAYS	AUTO, COPY	-
Slice Location	0020,1041	DS		ANAPCV	AUTO, COPY	Value is shortest distance between TLHC of the images from TLHC of first image of the series.

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Pixel Spacing	0028,0030	DS		ALWAYS	AUTO, COPY	-

Table 102: Image Pixel Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Planar Configuration	0028,0006	US		ANAP	AUTO, COPY	-
Rows	0028,0010	US		ALWAYS	IMPLICIT	Applied values: min: 64 - max: 2048
Columns	0028,0011	US		ALWAYS	IMPLICIT	Applied values: min: 64 - max: 2048
Pixel Aspect Ratio	0028,0034	IS		ANAP	COPY, FIXED	Applied value: (1\1)
Bits Stored	0028,0101	US		ALWAYS	COPY	-
High Bit	0028,0102	US		ALWAYS	COPY	-
Pixel Representation	0028,0103	US		ALWAYS	COPY	-
Smallest Image Pixel Value	0028,0106	US/SS		ANAPCV	COPY	-
Largest Image Pixel Value	0028,0107	US/SS		ANAPCV	COPY	-
Red Palette Color Lookup Table Descriptor	0028,1101	US/SS		ANAP	COPY	-
Green Palette Color Lookup Table Descriptor	0028,1102	US/SS		ANAP	COPY	-
Blue Palette Color Lookup Table Descriptor	0028,1103	US/SS		ANAP	COPY	-
Red Palette Color Lookup Table Data	0028,1201	OW		ANAP	COPY	-
Green Palette Color Lookup Table Data	0028,1202	OW		ANAP	COPY	-
Blue Palette Color Lookup Table Data	0028,1203	OW		ANAP	COPY	-
Pixel Data	7FE0,0010	OW/OB		ALWAYS	IMPLICIT	-

Table 103: MR Image Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Image Type	0008,0008	CS		ALWAYS	AUTO	Applied values: ({ORIGINAL, DERIVED}, PRIMARY, {T2_STAR, R2, R2_STAR, W, F, IP, OP, KTRANS, KEP, VE, VP}, {KTRANS, KEP, VE, VP}, {UNSPECIFIED})
Scanning Sequence	0018,0020	CS		ALWAYS	AUTO, COPY	-
Sequence Variant	0018,0021	CS		ALWAYS	AUTO, COPY	-
Scan Options	0018,0022	CS		VNAP	IMPLICIT	-
MR Acquisition Type	0018,0023	CS		ANAP	AUTO, COPY	-
Sequence Name	0018,0024	SH		ANAPCV	AUTO, COPY	-
Angio Flag	0018,0025	CS		ANAPCV	AUTO, COPY	-
Repetition Time	0018,0080	DS		ANAPCV	COPY	-
Echo Time	0018,0081	DS		ANAP	COPY	-
Inversion Time	0018,0082	DS		ANAPCV	COPY	-
Number of Averages	0018,0083	DS		ANAPCV	COPY	-
Imaging Frequency	0018,0084	DS		ANAPCV	COPY	-

Imaged Nucleus	0018,0085	SH		ANAPCV	COPY	-
Echo Number(s)	0018,0086	IS		ANAPCV	COPY	-
Magnetic Field Strength	0018,0087	DS		ANAPCV	COPY	-
Spacing Between Slices	0018,0088	DS		ANAPCV	COPY	-
Number of Phase Encoding Steps	0018,0089	IS		ANAPCV	COPY	-
Echo Train Length	0018,0091	IS		VNAP	COPY	-
Percent Sampling	0018,0093	DS		ANAPCV	COPY	-
Percent Phase Field of View	0018,0094	DS		ANAPCV	COPY	-
Pixel Bandwidth	0018,0095	DS		ANAPCV	COPY	-
Trigger Time	0018,1060	DS		ANAPCV	COPY	Will only have a value if Dynamic Series (2001,1012) Equals 1
Nominal Interval	0018,1062	IS		ANAPCV	COPY	-
Beat Rejection Flag	0018,1080	CS		ANAPCV	COPY	-
Low R-R Value	0018,1081	IS		ANAPCV	COPY	-
High R-R Value	0018,1082	IS		ANAPCV	COPY	-
Intervals Acquired	0018,1083	IS		ANAPCV	COPY	-
Intervals Rejected	0018,1084	IS		ANAPCV	COPY	-
PVC Rejection	0018,1085	LO		ANAPCV	COPY	-
Skip Beats	0018,1086	IS		ANAPCV	COPY	-
Heart Rate	0018,1088	IS		ANAPCV	COPY	-
Cardiac Number of Images	0018,1090	IS		ANAPCV	COPY	-
Trigger Window	0018,1094	IS		ANAPCV	COPY	-
Reconstruction Diameter	0018,1100	DS		ANAPCV	COPY	Value is a copy of the largest value of the Field of View.
Receive Coil Name	0018,1250	SH		ANAPCV	COPY	-
Transmit Coil Name	0018,1251	SH		ANAPCV	COPY	-
Acquisition Matrix	0018,1310	US		ANAPCV	COPY	-
In-plane Phase Encoding Direction	0018,1312	CS		ANAPCV	COPY	-
Flip Angle	0018,1314	DS		ANAPCV	COPY	-
Variable Flip Angle Flag	0018,1315	CS		ANAPCV	COPY	-
SAR	0018,1316	DS		ANAPCV	COPY	-
dB/dt	0018,1318	DS		ANAPCV	COPY	-
Temporal Position Identifier	0020,0100	IS		ANAPCV	COPY	-
Number of Temporal Positions	0020,0105	IS		ANAPCV	COPY	-
Temporal Resolution	0020,0110	DS		ALWAYS	COPY	-
Samples per Pixel	0028,0002	US		ALWAYS	COPY	-
Photometric Interpretation	0028,0004	CS		ALWAYS	COPY	-
Bits Allocated	0028,0100	US		ANAPCV	COPY	-

Table 104: Overlay Plane Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Overlay Rows	6000,0010	US		ALWAYS	AUTO	-
Overlay Columns	6000,0011	US		ALWAYS	AUTO	-
Overlay Description	6000,0022	LO		ANAPCV	AUTO	-
Overlay Type	6000,0040	CS		ALWAYS	AUTO	-
Overlay Subtype	6000,0045	LO		ANAPCV	AUTO	-
Overlay Origin	6000,0050	SS		ALWAYS	AUTO	-
Overlay Bits Allocated	6000,0100	US		ALWAYS	AUTO	-
Overlay Bit Position	6000,0102	US		ALWAYS	AUTO	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
ROI Area	6000,1301	IS		ANAPCV	AUTO	-
ROI Mean	6000,1302	DS		ANAPCV	AUTO	-
ROI Standard Deviation	6000,1303	DS		ANAPCV	AUTO	-
Overlay Label	6000,1500	LO		ANAPCV	AUTO	-
Overlay Data	6000,3000	OW/OB		ANAP	AUTO	-

Table 105: VOI LUT Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Window Center	0028,1050	DS		ALWAYS	AUTO	-
Window Width	0028,1051	DS		ANAP	AUTO	-
Window Center & Width Explanation	0028,1055	LO		ANAPCV	AUTO	-
VOI LUT Sequence	0028,3010	SQ		ANAPCV	AUTO	-
>LUT Descriptor	0028,3002	US/SS	Value 1: 0, Value 2: 0, Value 3: 0	ALWAYS	AUTO	-
>LUT Explanation	0028,3003	LO		EMPTY	AUTO	-
>LUT Data	0028,3006	US/OW	Value 1: 0	ALWAYS	AUTO	-

Table 106: SOP Common Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Specific Character Set	0008,0005	CS		ANAP	AUTO, COPY	-
Instance Creation Date	0008,0012	DA		ALWAYS	AUTO	-
Instance Creation Time	0008,0013	TM		ALWAYS	AUTO	-
Instance Creator UID	0008,0014	UI		ANAPCV	AUTO	-
SOP Class UID	0008,0016	UI		ALWAYS	COPY, FIXED	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Timezone Offset From UTC	0008,0201	SH		ANAPCV	COPY	-
Contributing Equipment Sequence	0018,A001	SQ		ANAP	AUTO	-
>Manufacturer	0008,0070	LO	Philips	ANAP	FIXED	PHILIPS.
>Institution Address	0008,0081	ST	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Station Name	0008,1010	SH	IntelliSpace Portal	ANAP	CONFIG	IntelliSpace Portal.
>Institutional Department Name	0008,1040	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Software Version(s)	0018,1020	LO	4.0	ANAP	FIXED	4.0
>Device Serial Number	0018,1000	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Institution Name	0008,0080	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Purpose of Reference Code Sequence	0040,A170	SQ		ANAP	FIXED	-
>>Code Value	0008,0100	SH	109102	ANAP	FIXED	109102
>>Coding Scheme Designator	0008,0102	SH	DCM	ANAP	FIXED	DCM
>>Code Meaning	0008,0104	LO	Processing Equipment	ANAP	FIXED	Processing Equipment

Table 107: Contrast/Bolus Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Contrast/Bolus Agent	0018,0010	LO		VNAP	COPY	-
Contrast/Bolus Agent Sequence	0018,0012	SQ		ANAPCV	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Contrast/Bolus Administration Route Sequence	0018,0014	SQ		ANAPCV	COPY	-
>Additional Drug Sequence	0018,002A	SQ		ANAP	COPY	-
Contrast/Bolus Route	0018,1040	LO		ANAPCV	COPY	-
Contrast/Bolus Volume	0018,1041	DS		ANAPCV	COPY	-
Contrast/Bolus Start Time	0018,1042	TM		ANAPCV	COPY	-
Contrast/Bolus Stop Time	0018,1043	TM		ANAPCV	COPY	-
Contrast/Bolus Total Dose	0018,1044	DS		ANAPCV	COPY	-
Contrast Flow Rate	0018,1046	DS		ANAPCV	COPY	-
Contrast Flow Duration	0018,1047	DS		ANAPCV	COPY	-
Contrast/Bolus Ingredient	0018,1048	CS		ANAPCV	COPY	-
Contrast/Bolus Ingredient Concentration	0018,1049	DS		ANAPCV	COPY	-

Table 108: Extended DICOM and private attributes for MR Image Storage SOP Class Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Code Value	0008,0100	SH		VNAP	AUTO	-
Coding Scheme Designator	0008,0102	SH		ALWAYS	AUTO	-
Coding Scheme Version	0008,0103	SH		ALWAYS	AUTO	-
Code Meaning	0008,0104	LO		VNAP	AUTO	-
Derivation Image Sequence	0008,9124	SQ		ANAP	AUTO	-
>Source Image Sequence	0008,2112	SQ		ALWAYS	AUTO	-
>>Referenced SOP Class UID	0008,1150	UI		ALWAYS	AUTO	-
>>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	AUTO	-
>Derivation Code Sequence	0008,9215	SQ		ALWAYS	AUTO	-
>>Code Value	0008,0100	SH		ALWAYS	AUTO	From CID 7203
>>Coding Scheme Designator	0008,0102	SH		ALWAYS	AUTO	From CID 7203
>>Coding Scheme Version	0008,0103	SH		ANAP	AUTO	From CID 7203
>>Code Meaning	0008,0104	LO		ALWAYS	AUTO	From CID 7203
Medical Alerts	0010,2000	LO		ANAPCV	COPY	-
Allergies	0010,2110	LO		ANAPCV	COPY	-
Pregnancy Status	0010,21C0	US		VNAP	COPY	-
Acquisition Duration	0018,9073	FD		ANAP	COPY	-
Diffusion b-value	0018,9087	FD		ANAP	AUTO	-
Diffusion Gradient Orientation	0018,9089	FD		ANAP	AUTO	-
Rescale Intercept	0028,1052	DS		ALWAYS	COPY	-
Rescale Slope	0028,1053	DS		ALWAYS	COPY	-
Rescale Type	0028,1054	LO		ALWAYS	COPY	-
Requesting Physician	0032,1032	PN		VNAP	COPY	-
Requesting Service	0032,1033	LO		VNAP	COPY	-
Requested Procedure Description	0032,1060	LO		VNAP	COPY	-
Requested Contrast Agent	0032,1070	LO		VNAP	COPY	-
Study Comments (retired)	0032,4000	LT		VNAP	COPY	-
Special Needs	0038,0050	LO		ANAPCV	COPY	-
Patient State	0038,0500	LO		ANAPCV	COPY	-
Scheduled Performing Physician's Name	0040,0006	PN		VNAP	COPY	-
Performed Station AE Title	0040,0241	AE		ANAPCV	COPY	-
Performed Station Name	0040,0242	SH		ANAPCV	COPY	-

Performed Location	0040,0243	SH		ANAPCV	COPY	-
Performed Procedure Step End Date	0040,0250	DA		VNAP	COPY	-
Performed Procedure Step End Time	0040,0251	TM		VNAP	COPY	-
Performed Procedure Step Status	0040,0252	CS		ANAP	COPY	-
Film Consumption Sequence	0040,0321	SQ		EMPTY	AUTO	-
Requested Procedure ID	0040,1001	SH		VNAP	COPY	-
Reason for the Requested Procedure	0040,1002	LO		VNAP	COPY	-
Requested Procedure Priority	0040,1003	SH		VNAP	COPY	-
Patient Transport Arrangements	0040,1004	LO		VNAP	COPY	-
Requested Procedure Location	0040,1005	LO		VNAP	COPY	-
Requested Procedure Comments	0040,1400	LT		VNAP	COPY	-
Reason for the Imaging Service Request (retired)	0040,2001	LO		VNAP	COPY	-
Issue Date of Imaging Service Request	0040,2004	DA		VNAP	COPY	-
Issue Time of Imaging Service Request	0040,2005	TM		VNAP	COPY	-
Order Enterer's Location	0040,2009	SH		VNAP	COPY	-
Order Callback Phone Number	0040,2010	SH		VNAP	COPY	-
Imaging Service Request Comments	0040,2400	LT		VNAP	COPY	-
Real World Value Mapping Sequence	0040,9096	SQ		ALWAYS	AUTO	-
>Real World Value Intercept	0040,9224	FD		ALWAYS	AUTO	-
>Real World Value Slope	0040,9225	FD		ALWAYS	AUTO	-
Private Creator Group 2001	2001,0010	LO		ALWAYS	FIXED	-
Chemical Shift	2001,1001	FL		ANAPCV	COPY	-
Chemical Shift Number MR	2001,1002	IS		ANAPCV	COPY	-
Diffusion B-Factor	2001,1003	FL		ANAPCV	COPY	-
Diffusion Direction	2001,1004	CS		ANAPCV	COPY	-
Image Enhanced	2001,1006	CS		VNAP	COPY	-
Image Type ED ES	2001,1007	CS		VNAP	COPY	-
Phase Number	2001,1008	IS		VNAP	COPY	-
Image Prepulse Delay	2001,1009	FL		ALWAYS	COPY	-
Slice Number MR	2001,100A	IS		VNAP	IMPLICIT	-
Slice Orientation	2001,100B	CS		ALWAYS	IMPLICIT	-
Arrhythmia Rejection	2001,100C	CS		ALWAYS	COPY	-
Cardiac Cycled	2001,100E	CS		ALWAYS	COPY	-
Cardiac Gate Width	2001,100F	SS		ALWAYS	COPY	-
Cardiac Sync	2001,1010	CS		ALWAYS	COPY	-
Diffusion Echo Time	2001,1011	FL		ANAPCV	IMPLICIT	-
Dynamic Series	2001,1012	CS		VNAP	COPY	-
EPI Factor	2001,1013	SL		ALWAYS	COPY	-
Number of Echoes	2001,1014	SL		VNAP	COPY	-
Number of Locations	2001,1015	SS		VNAP	COPY	-
Number of PC Directions	2001,1016	SS		VNAP	COPY	-
Number of Phases MR	2001,1017	SL		VNAP	COPY	-

Number of Slices MR	2001,1018	SL		VNAP	IMPLICIT, USER	-
Partial Matrix Scanned	2001,1019	CS		VNAP	COPY	-
PC Velocity	2001,101A	FL		ALWAYS	COPY	-
Prepulse Delay	2001,101B	FL		VNAP	COPY	-
Prepulse Type	2001,101C	CS		VNAP	COPY	-
Reconstruction Number MR	2001,101D	IS		VNAP	IMPLICIT	-
Respiration Sync	2001,101F	CS		VNAP	COPY	-
Scanning Technique	2001,1020	LO		ALWAYS	COPY	-
SPIR	2001,1021	CS		VNAP	COPY	-
Water Fat Shift	2001,1022	FL		VNAP	COPY	-
Flip Angle Philips	2001,1023	DS		ALWAYS	COPY	-
Series is Interactive	2001,1024	CS		VNAP	COPY	-
Echo Time Display	2001,1025	SH		VNAP	COPY	-
Contrast Transfer Taste	2001,1058	UL		ALWAYS	COPY	-
Number of Stacks	2001,1060	SL		VNAP	IMPLICIT	-
Series Transmitted	2001,1061	CS		VNAP	AUTO	-
Acquisition Number	2001,107B	IS		ALWAYS	COPY	-
Number of Dynamic Scans	2001,1081	IS		VNAP	COPY	-
IsRawImage	2001,10A1	CS		ANAP	COPY	-
Prospective Motion Correction	2001,10F1	FL		ANAP	COPY	-
Retrospective Motion Correction	2001,10F2	FL		ANAP	COPY	-
Private Creator Group 2005	2005,0010	LO		ALWAYS	FIXED	-
Number of Chemical Shift	2005,1020	SL		ANAPCV	COPY	-
Syncra Scan Type	2005,10A1	CS		ANAPCV	COPY	-
Diffusion Direction RL	2005,10B0	FL		ANAP	COPY	-
Diffusion Direction AP	2005,10B1	FL		ANAP	COPY	-
Diffusion Direction FH	2005,10B2	FL		ANAP	COPY	-
Curve Dimensions	50xx,0005	US		ALWAYS	AUTO	-
Number of Points	50xx,0010	US		ALWAYS	AUTO	-
Type of Data	50xx,0020	CS		ALWAYS	AUTO	-
Data Value Representation	50xx,0103	US		ALWAYS	AUTO	-
Curve Data	50xx,3000	OB/OW		ALWAYS	AUTO	-
Curve Description	50xx,0022	LO		ANAPCV	AUTO	-
Axis Units	50xx,0030	SH		ANAPCV	AUTO	-
Axis Labels	50xx,0040	SH		ANAPCV	AUTO	-
Minimum Coordinate Value	50xx,0104	US		ANAPCV	AUTO	-
Maximum Coordinate Value	50xx,0105	US		ANAPCV	AUTO	-
Curve Range	50xx,0106	SH		ANAPCV	AUTO	-
Curve Data Descriptor	50xx,0110	US		ANAP	AUTO	-
Coordinate Start Value	50xx,0112	US		ANAP	AUTO	-
Coordinate Step Value	50xx,0114	US		ANAP	AUTO	-
Curve Label	50xx,2500	LO		ANAPCV	AUTO	-
Referenced Overlay Sequence	50xx,2600	SQ		ANAPCV	AUTO	-
>Referenced SOP Class UID	0008,1150	UI		ANAP	AUTO	-
>Referenced SOP Instance UID	0008,1155	UI		ANAP	AUTO	-
>Referenced Overlay Group	50xx,2610	US		ANAP	AUTO	-

2.1.2.7.   RT Structure Set Storage SOP Class

Table 109: IOD of Created RT Structure Set Storage SOP Class Instances

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	General Study Module	ALWAYS
Study	Patient Study Module	CONDITIONAL
Series	RT Series Module	ALWAYS
Equipment	General Equipment Module	ALWAYS
Structure Set	Structure Set Module	ALWAYS
Structure Set	ROI Contour Module	ALWAYS
Structure Set	RT ROI Observations Module	ALWAYS
Structure Set	SOP Common Module	ALWAYS
	Extended Dicom and Private attributes	CONDITIONAL

Table 110: Patient Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referenced Patient Sequence	0008,1120	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Patient's Name	0010,0010	PN		ALWAYS	COPY	-
Patient ID	0010,0020	LO		ALWAYS	COPY	-
Patient's Birth Date	0010,0030	DA		VNAP	COPY, USER	-
Patient's Birth Time	0010,0032	TM		ANAPCV	COPY, USER	-
Patient's Sex	0010,0040	CS		VNAP	COPY, USER	-
Other Patient IDs	0010,1000	LO		ANAPCV	COPY, USER	-
Other Patient Names	0010,1001	PN		ANAPCV	COPY, USER	-
Ethnic Group	0010,2160	SH		ANAPCV	COPY	-
Patient Comments	0010,4000	LT		ANAPCV	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAPCV	COPY, USER	-

Table 111: General Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Date	0008,0020	DA		VNAP	COPY	-
Study Time	0008,0030	TM		VNAP	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY, USER	-
Referring Physician's Name	0008,0090	PN		VNAP	COPY, USER	-
Referring Physician Identification Sequence	0008,0096	SQ		ANAPCV	COPY	-
Study Description	0008,1030	LO		ANAPCV	COPY, USER	-
Procedure Code Sequence	0008,1032	SQ		ANAPCV	COPY	-
Physician(s) of Record	0008,1048	PN		ANAPCV	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAPCV	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAPCV	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAPCV	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAPCV	COPY	-
Study Instance UID	0020,000D	UI		ALWAYS	AUTO	-
Study ID	0020,0010	SH		VNAP	AUTO	-

Table 112: Patient Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Admitting Diagnoses Description	0008,1080	LO		ANAPCV	COPY	-
Admitting Diagnoses Code Sequence	0008,1084	SQ		ANAPCV	COPY	-
Patient's Age	0010,1010	AS		ANAPCV	COPY, USER	-
Patient's Size	0010,1020	DS		ANAPCV	COPY, USER	-
Patient's Weight	0010,1030	DS		ANAPCV	COPY, USER	-
Occupation	0010,2180	SH		ANAPCV	COPY	-
Additional Patient History	0010,21B0	LT		ANAPCV	COPY	-

Table 113: RT Series Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS		ALWAYS	AUTO	-
Series Description	0008,103E	LO		ANAPEV	AUTO/ USER	-
Series Description Code Sequence	0008,103F	SQ		EMPTY	AUTO	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAPEV	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Request Attributes Sequence	0040,0275	SQ		ANAPEV	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ANAPEV	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAPEV	COPY	-
Performed Procedure Step ID	0040,0253	SH		ANAPEV	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAPEV	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAPEV	COPY	-
Comments on the Performed Procedure Step	0040,0280	ST		ANAPEV	COPY	-

Table 114: General Equipment Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO		ALWAYS	COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Institution Name	0008,0080	LO		ANAPCV	COPY, USER	-
Institution Address	0008,0081	ST		ANAPCV	COPY, USER	-
Station Name	0008,1010	SH		ALWAYS	COPY	-
Institutional Department Name	0008,1040	LO		ANAPCV	COPY	-
Manufacturer's Model Name	0008,1090	LO		ALWAYS	COPY	-
Device Serial Number	0018,1000	LO		ANAPCV	COPY	-
Software Version(s)	0018,1020	LO	4.0	ALWAYS	COPY	4.0
Spatial Resolution	0018,1050	DS		ANAPCV	COPY	-
Date of Last Calibration	0018,1200	DA		ANAPCV	COPY	-
Time of Last Calibration	0018,1201	TM		ANAPCV	COPY	-
Pixel Padding Value	0028,0120	US/SS		ANAPCV	COPY	-

Table 115: Structure Set Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Instance Number	0020,0013	IS		ANAPEV	AUTO	-
Structure Set Label	3006,0002	SH		ALWAYS	AUTO/ USER	-
Structure Set Name	3006,0004	LO		ANAPEV	AUTO/ USER	-
Structure Set Description	3006,0006	ST		ANAPEV	AUTO/ USER	-
Structure Set Date	3006,0008	DA		VNAP	AUTO	-
Structure Set Time	3006,0009	TM		VNAP	AUTO	-
Referenced Frame of Reference Sequence	3006,0010	SQ		ANAPEV	AUTO	-
>Frame of Reference UID	0020,0052	UI		ALWAYS	AUTO	-
>RT Referenced Study Sequence	3006,0012	SQ		ANAPEV	AUTO	-
>>RT Referenced Series Sequence	3006,0014	SQ		ALWAYS	AUTO	-
>>>Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
>>>Contour Image Sequence	3006,0016	SQ		ALWAYS	AUTO	-
>>>>Referenced Frame Number	0008,1160	IS		ANAP	AUTO	-
>>>>Referenced Segment Number	0062,000B	US		ANAP	AUTO	-
>>>>Referenced SOP Class UID	0008,1150	UI		ALWAYS	AUTO	-
>>>>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	AUTO	-
>>Referenced SOP Class UID	0008,1150	UI		ALWAYS	AUTO	-
>>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	AUTO	-
>Frame of Reference Relationship Sequence	3006,00C0	SQ		ANAPEV	AUTO	-
Structure Set ROI Sequence	3006,0020	SQ		ANAPEV	AUTO	-
>Derivation Code Sequence	0008,9215	SQ		ANAPEV	AUTO	-
>ROI Number	3006,0022	IS		ALWAYS	AUTO	-
>Referenced Frame of Reference UID	3006,0024	UI		ALWAYS	AUTO	-
>ROI Name	3006,0026	LO		VNAP	AUTO	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
>ROI Description	3006,0028	ST		ANAPEV	AUTO	-
>ROI Volume	3006,002C	DS		ANAPEV	AUTO	-
>ROI Generation Algorithm	3006,0036	CS		VNAP	AUTO	-
>ROI Generation Description	3006,0038	LO		ANAPEV	AUTO	-

Table 116: ROI Contour Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
ROI Contour Sequence	3006,0039	SQ		ALWAYS	AUTO	-
>ROI Display Color	3006,002A	IS		ANAPEV	AUTO	-
>Contour Sequence	3006,0040	SQ		ANAPEV	AUTO	-
>>Contour Image Sequence	3006,0016	SQ		ANAPEV	AUTO	-
>>>Referenced Frame Number	0008,1160	IS		ANAP	AUTO	-
>>>Referenced Segment Number	0062,000B	US		ANAP	AUTO	-
>>>Referenced SOP Class UID	0008,1150	UI		ALWAYS	AUTO	-
>>>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	AUTO	-
>>Contour Geometric Type	3006,0042	CS		ALWAYS	AUTO	-
>>Contour Slab Thickness	3006,0044	DS		ANAPEV	AUTO	-
>>Contour Offset Vector	3006,0045	DS		ANAPEV	AUTO	-
>>Number of Contour Points	3006,0046	IS		ALWAYS	AUTO	-
>>Contour Number	3006,0048	IS		ANAPEV	AUTO	-
>>Attached Contours	3006,0049	IS		ANAPEV	AUTO	-
>>Contour Data	3006,0050	DS		ALWAYS	AUTO	-
>Referenced ROI Number	3006,0084	IS		ALWAYS	AUTO	-

Table 117: RT ROI Observations Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
RT ROI Observations Sequence	3006,0080	SQ		ALWAYS	AUTO	-
>RT Related ROI Sequence	3006,0030	SQ		EMPTY	AUTO	-
>> Referenced ROI Number	3006,0084			ALWAYS	AUTO	-
>>RT ROI Relationship	3006,0033			ANAPEV	AUTO	-
>Observation Number	3006,0082	IS		ALWAYS	AUTO	-
>Referenced ROI Number	3006,0084	IS		ALWAYS	AUTO	-
>ROI Observation Label	3006,0085	SH		ANAPEV	AUTO	-
>RT ROI Identification Code Sequence	3006,0086	SQ		ANAPEV	AUTO	-
>ROI Observation Description	3006,0088	ST		ANAPEV	AUTO	-
>Related RT ROI Observations Sequence	3006,00A0	SQ		ANAPEV	AUTO	-
>> Observation Number	3006,0082			ALWAYS	AUTO	-
>RT ROI Interpreted Type	3006,00A4	CS		VNAP	AUTO	-
>ROI Interpreter	3006,00A6	PN		VNAP	AUTO	-
>Material ID	300A,00E1	SH		ANAPEV	AUTO	-
>ROI Physical Properties Sequence	3006,00B0	SQ		ANAPEV	AUTO	-
>>ROI Physical Property	3006,00B2	CS		ALWAYS	AUTO	-
>>ROI Elemental Composition Sequence	3006,00B6	SQ		ANAP	AUTO	-
>>>ROI Elemental Composition Atomic Number	3006,00B7	US		ALWAYS	AUTO	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
>>>ROI Elemental Composition Atomic Mass Fraction	3006,00B8	FL		ALWAYS	AUTO	-
>>ROI Physical Property Value	3006,00B4	DS		ALWAYS	AUTO	-

Table 118: SOP Common Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Specific Character Set	0008,0005	CS		ANAP	AUTO, COPY	-
Instance Creation Date	0008,0012	DA		ALWAYS	AUTO	-
Instance Creation Time	0008,0013	TM		ALWAYS	AUTO	-
Instance Creator UID	0008,0014	UI		ANAPCV	AUTO	-
SOP Class UID	0008,0016	UI		ALWAYS	COPY	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Timezone Offset From UTC	0008,0201	SH		ANAPCV	COPY	-
Contributing Equipment Sequence	0018,A001	SQ		ANAP	AUTO	-
>Manufacturer	0008,0070	LO	Philips	ANAP	FIXED	PHILIPS.
>Institution Address	0008,0081	ST	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Station Name	0008,1010	SH	IntelliSpace Portal	ANAP	CONFIG	IntelliSpace Portal.
>Institutional Department Name	0008,1040	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Software Version(s)	0018,1020	LO	4.0	ANAP	FIXED	4.0
>Device Serial Number	0018,1000	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Institution Name	0008,0080	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Purpose of Reference Code Sequence	0040,A170	SQ		ANAP	FIXED	-
>>Code Value	0008,0100	SH	109102	ANAP	FIXED	109102
>>Coding Scheme Designator	0008,0102	SH	DCM	ANAP	FIXED	DCM
>>Code Meaning	0008,0104	LO	Processing Equipment	ANAP	FIXED	Processing Equipment

Table 119: Extended DICOM and private attributes for RT Structure Set Storage SOP Class Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modalities in Study	0008,0061	CS		ANAPEV	AUTO	-
Patient Orientation	0020,0020	CS		ANAPEV	AUTO	-

2.1.2.8. Secondary Capture Image Storage SOP Class

Table 120: IOD of Created Secondary Capture Image Storage SOP Class Instances

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	General Study Module	ALWAYS
Study	Patient Study Module	CONDITIONAL
Series	General Series Module	ALWAYS
Equipment	General Equipment Module	ALWAYS
Equipment	SC Equipment Module	ALWAYS
Image	General Image Module	ALWAYS
Image	Image Pixel Module	ALWAYS
Image	Device Module	CONDITIONAL
Image	SC Image Module	ALWAYS

Image	Overlay Plane Module	CONDITIONAL
Image	Modality LUT Module	CONDITIONAL
Image	VOI LUT Module	CONDITIONAL
Image	SOP Common Module	ALWAYS
	Extended Dicom and Private attributes	CONDITIONAL

Table 121: Patient Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referenced Patient Sequence	0008,1120	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Patient's Name	0010,0010	PN		VNAP	COPY	-
Patient ID	0010,0020	LO		VNAP	COPY	-
Patient's Birth Date	0010,0030	DA		VNAP	COPY, USER	-
Patient's Birth Time	0010,0032	TM		ANAPCV	COPY, USER	-
Patient's Sex	0010,0040	CS		VNAP	COPY, USER	-
Other Patient IDs	0010,1000	LO		ANAPCV	COPY, USER	-
Other Patient Names	0010,1001	PN		ANAPCV	COPY, USER	-
Ethnic Group	0010,2160	SH		ANAPCV	COPY	-
Patient Comments	0010,4000	LT		ANAPCV	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAPCV	COPY, USER	-

Table 122: General Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Date	0008,0020	DA		VNAP	COPY	-
Study Time	0008,0030	TM		VNAP	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY, USER	-
Referring Physician's Name	0008,0090	PN		VNAP	COPY, USER	-
Referring Physician Identification Sequence	0008,0096	SQ		ANAPCV	COPY	-
Study Description	0008,1030	LO		ANAPCV	COPY, USER	-
Procedure Code Sequence	0008,1032	SQ		ANAPCV	COPY	-
Physician(s) of Record	0008,1048	PN		ANAPCV	COPY	-
Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAPCV	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAPCV	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAPCV	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAPCV	COPY	-
Study Instance UID	0020,000D	UI		ALWAYS	AUTO, COPY	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study ID	0020,0010	SH		VNAP	AUTO, COPY	-

Table 123: Patient Study Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Admitting Diagnoses Description	0008,1080	LO		ANAPCV	COPY	-
Admitting Diagnoses Code Sequence	0008,1084	SQ		ANAPCV	COPY	-
Patient's Age	0010,1010	AS		ANAPCV	COPY, USER	-
Patient's Size	0010,1020	DS		ANAPCV	COPY, USER	-
Patient's Weight	0010,1030	DS		ANAPCV	COPY, USER	-
Occupation	0010,2180	SH		ANAPCV	COPY	-
Additional Patient History	0010,21B0	LT		ANAPCV	COPY	-

Table 124: General Series Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Series Date	0008,0021	DA		ANAPCV	AUTO	-
Series Time	0008,0031	TM		ANAPCV	AUTO	-
Modality	0008,0060	CS		ALWAYS	COPY	-
Series Description	0008,103E	LO		ANAPCV	COPY, USER	-
Performing Physician's Name	0008,1050	PN		ANAPCV	COPY	-
Operators' Name	0008,1070	PN		ANAPCV	COPY, USER	-
Operator Identification Sequence	0008,1072	SQ		ANAPCV	COPY	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAPCV	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Body Part Examined	0018,0015	CS		ANAPCV	COPY	-
Protocol Name	0018,1030	LO		ANAPCV	COPY	-
Patient Position	0018,5100	CS		ANAPCV	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Laterality	0020,0060	CS		ANAPCV	COPY	-
Smallest Pixel Value in Series	0028,0108	US/SS		ANAPCV	AUTO, COPY	-
Largest Pixel Value in Series	0028,0109	US/SS		ANAPCV	AUTO, COPY	-
Request Attributes Sequence	0040,0275	SQ		ANAPCV	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ANAPCV	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAPCV	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAPCV	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAPCV	COPY	-

| Comments on the Performed Procedure Step | 0040,0280 | ST | | ANAPCV | COPY | - |

Table 125: General Equipment Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO		VNAP	COPY	Philips Healthcare.
Institution Name	0008,0080	LO		ANAPCV	AUTO, COPY, USER	-
Institution Address	0008,0081	ST		ANAPCV	AUTO, COPY, USER	-
Station Name	0008,1010	SH		ANAPCV	COPY	-
Institutional Department Name	0008,1040	LO		ANAPCV	AUTO	-
Manufacturer's Model Name	0008,1090	LO		ANAPCV	COPY	-
Device Serial Number	0018,1000	LO		ANAPCV	COPY	-
Software Version(s)	0018,1020	LO	IntelliSpace Portal 4.0	ANAPCV	COPY	IntelliSpace Portal 4.0
Spatial Resolution	0018,1050	DS		ANAPCV	COPY	-
Date of Last Calibration	0018,1200	DA		ANAPCV	COPY	-
Time of Last Calibration	0018,1201	TM		ANAPCV	COPY	-
Pixel Padding Value	0028,0120	US/SS		ANAPCV	COPY	-

Table 126: SC Equipment Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS	CT	ANAPCV	AUTO, FIXED	-
Conversion Type	0008,0064	CS	WSD	ALWAYS	AUTO	-
Secondary Capture Device ID	0018,1010	LO		ANAPCV	AUTO	-
Secondary Capture Device Manufacturer	0018,1016	LO		ANAPCV	AUTO	-
Secondary Capture Device Manufacturer's Model Name	0018,1018	LO		ANAPCV	AUTO	-
Secondary Capture Device Software Version(s)	0018,1019	LO		ANAPCV	AUTO	-
Video Image Format Acquired	0018,1022	SH		ANAPCV	AUTO	-
Digital Image Format Acquired	0018,1023	LO		ANAPCV	AUTO	-

Table 127: General Image Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Image Type	0008,0008	CS	Value 1: DERIVED, Value 2: SECONDARY	ANAPCV	AUTO	-
Acquisition Date	0008,0022	DA		ANAPCV	AUTO, COPY	-
Content Date	0008,0023	DA		ANAPCV	AUTO, COPY	-
Acquisition Datetime	0008,002A	DT		ANAPCV	COPY	-
Acquisition Time	0008,0032	TM		ANAPCV	COPY	-
Content Time	0008,0033	TM		ANAPCV	COPY	-
Referenced Waveform Sequence	0008,113A	SQ		ANAP	AUTO	-
Referenced Image Sequence	0008,1140	SQ		ANAPCV	AUTO, COPY	-

>Referenced SOP Class UID	0008,1150	UI		ANAPCV	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ANAPCV	COPY	-
Derivation Description	0008,2111	ST		ANAPCV	AUTO, COPY	-
Source Image Sequence	0008,2112	SQ		ANAPCV	AUTO, COPY	-
Derivation Code Sequence	0008,9215	SQ		ANAPCV	AUTO, COPY	-
Acquisition Number	0020,0012	IS		ANAPCV	COPY	-
Instance Number	0020,0013	IS		ANAPCV	AUTO, COPY	-
Patient Orientation	0020,0020	CS		ANAPCV	AUTO, COPY	-
Images in Acquisition	0020,1002	IS		ANAPCV	AUTO, COPY	-
Image Comments	0020,4000	LT		ANAPCV	AUTO, COPY	-
Quality Control Image	0028,0300	CS		ANAPCV	AUTO, COPY	-
Burned In Annotation	0028,0301	CS	YES	ANAPCV	AUTO, COPY	-
Lossy Image Compression	0028,2110	CS		ANAPCV	AUTO, COPY	-
Lossy Image Compression Ratio	0028,2112	DS		ANAPCV	AUTO, COPY	-
Lossy Image Compression Method	0028,2114	CS		ANAPCV	AUTO	-
Icon Image Sequence	0088,0200	SQ		ANAPCV	AUTO, COPY	-
>Samples per Pixel	0028,0002	US		ALWAYS	COPY	-
>Photometric Interpretation	0028,0004	CS		ALWAYS	COPY	-
>Planar Configuration	0028,0006	US		ANAP	COPY	-
>Rows	0028,0010	US		ALWAYS	COPY	-
>Columns	0028,0011	US		ALWAYS	COPY	-
>Pixel Aspect Ratio	0028,0034	IS		ANAP	COPY	-
>Bits Allocated	0028,0100	US		ALWAYS	COPY	-
>Bits Stored	0028,0101	US		ALWAYS	COPY	-
>High Bit	0028,0102	US		ALWAYS	COPY	-
>Pixel Representation	0028,0103	US		ALWAYS	COPY	-
>Smallest Image Pixel Value	0028,0106	US/SS		ANAPCV	COPY	-
>Largest Image Pixel Value	0028,0107	US/SS		ANAPCV	COPY	-
>Red Palette Color Lookup Table Descriptor	0028,1101	US/SS		ANAP	COPY	-
>Green Palette Color Lookup Table Descriptor	0028,1102	US/SS		ANAP	COPY	-
>Blue Palette Color Lookup Table Descriptor	0028,1103	US/SS		ANAP	COPY	-
>Red Palette Color Lookup Table Data	0028,1201	OW		ANAP	COPY	-
>Green Palette Color Lookup Table Data	0028,1202	OW		ANAP	COPY	-
>Blue Palette Color Lookup Table Data	0028,1203	OW		ANAP	COPY	-
>Pixel Data	7FE0,0010	OW/OB		ANAP	COPY	-

Presentation LUT Shape	2050,0020	CS		ANAPCV	AUTO, COPY	-

Table 128: Image Pixel Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Samples per Pixel	0028,0002	US	3	ALWAYS	AUTO	-
Photometric Interpretation	0028,0004	CS		ALWAYS	AUTO	-
Planar Configuration	0028,0006	US		ANAP	AUTO, COPY	-
Rows	0028,0010	US		ALWAYS	AUTO, COPY	-
Columns	0028,0011	US		ALWAYS	AUTO, COPY	-
Pixel Aspect Ratio	0028,0034	IS		ANAP	AUTO, COPY	-
Bits Allocated	0028,0100	US	8	ALWAYS	AUTO	-
Bits Stored	0028,0101	US	8	ALWAYS	AUTO	-
High Bit	0028,0102	US	7	ALWAYS	AUTO	-
Pixel Representation	0028,0103	US	0	ALWAYS	AUTO, COPY	-
Smallest Image Pixel Value	0028,0106	US/SS		ANAPCV	AUTO, COPY	-
Largest Image Pixel Value	0028,0107	US/SS		ANAPCV	AUTO, COPY	-
Red Palette Color Lookup Table Descriptor	0028,1101	US/SS		ANAP	AUTO, COPY	-
Green Palette Color Lookup Table Descriptor	0028,1102	US/SS		ANAP	AUTO, COPY	-
Blue Palette Color Lookup Table Descriptor	0028,1103	US/SS		ANAP	AUTO, COPY	-
Red Palette Color Lookup Table Data	0028,1201	OW		ANAP	AUTO, COPY	-
Green Palette Color Lookup Table Data	0028,1202	OW		ANAP	AUTO, COPY	-
Blue Palette Color Lookup Table Data	0028,1203	OW		ANAP	AUTO, COPY	-
Pixel Data	7FE0,0010	OW/OB		ANAP	AUTO, COPY	-

Table 129: Device Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Device Sequence	0050,0010	SQ		ANAPCV	AUTO	-
>Manufacturer	0008,0070	LO		ANAPCV	AUTO	-
>Manufacturer's Model Name	0008,1090	LO		ANAPCV	AUTO	-
>Device Serial Number	0018,1000	LO		ANAPCV	AUTO	-
>Device ID	0018,1003	LO		ANAPCV	AUTO	-
>Device Length	0050,0014	DS		ANAPCV	AUTO	-
>Device Diameter	0050,0016	DS		ANAPCV	AUTO	-
>Device Diameter Units	0050,0017	CS		ANAPCV	AUTO	-
>Device Volume	0050,0018	DS		ANAPCV	AUTO	-
>Intermarker Distance	0050,0019	DS		ANAPCV	AUTO	-
>Device Description	0050,0020	LO		ANAPCV	AUTO	-

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
>Code Value	0008,0100	SH		ALWAYS	AUTO	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	AUTO	-
>Coding Scheme Version	0008,0103	SH		ANAP	AUTO	-
>Code Meaning	0008,0104	LO		ALWAYS	AUTO	-
>Mapping Resource	0008,0105	CS		ANAP	AUTO	-
>Context Group Version	0008,0106	DT		ANAP	AUTO	-
>Context Group Local Version	0008,0107	DT		ANAP	AUTO	-
>Context Group Extension Flag	0008,010B	CS		ANAPCV	AUTO	-
>Context Group Extension Creator UID	0008,010D	UI		ANAP	AUTO	-
>Context Identifier	0008,010F	CS		ANAPCV	AUTO	-

Table 130: SC Image Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Date of Secondary Capture	0018,1012	DA		ANAPCV	AUTO	-
Time of Secondary Capture	0018,1014	TM		ANAPCV	AUTO	-

Table 131: Overlay Plane Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Overlay Rows	6000,0010	US		ALWAYS	AUTO	-
Overlay Columns	6000,0011	US		ALWAYS	AUTO	-
Overlay Description	6000,0022	LO		ANAPCV	AUTO	-
Overlay Type	6000,0040	CS		ALWAYS	AUTO	-
Overlay Subtype	6000,0045	LO		ANAPCV	AUTO	-
Overlay Origin	6000,0050	SS		ALWAYS	AUTO	-
Overlay Bits Allocated	6000,0100	US		ALWAYS	AUTO	-
Overlay Bit Position	6000,0102	US		ALWAYS	AUTO	-
ROI Area	6000,1301	IS		ANAPCV	AUTO	-
ROI Mean	6000,1302	DS		ANAPCV	AUTO	-
ROI Standard Deviation	6000,1303	DS		ANAPCV	AUTO	-
Overlay Label	6000,1500	LO		ANAPCV	AUTO	-
Overlay Data	6000,3000	OW/OB		ANAP	AUTO	-

Table 132: Modality LUT Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Rescale Intercept	0028,1052	DS		ANAP	AUTO	-
Rescale Slope	0028,1053	DS		ANAP	AUTO	-
Rescale Type	0028,1054	LO		ANAP	AUTO	-
Modality LUT Sequence	0028,3000	SQ		ANAP	AUTO	-
>LUT Descriptor	0028,3002	US/SS		ANAP	AUTO	-
>LUT Explanation	0028,3003	LO		ANAP	AUTO	-
>Modality LUT Type	0028,3004	LO		ANAP	AUTO	-
>LUT Data	0028,3006	US/OW		ANAP	AUTO	-

Table 133: VOI LUT Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Window Center	0028,1050	DS		ANAPCV	AUTO, COPY	-

Window Width	0028,1051	DS		ANAP	AUTO, COPY	-
Window Center & Width Explanation	0028,1055	LO		ANAPCV	AUTO, COPY	-
VOI LUT Sequence	0028,3010	SQ		ANAPCV	AUTO, COPY	-

Table 134: SOP Common Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Specific Character Set	0008,0005	CS		ANAP	AUTO, COPY	-
Instance Creation Date	0008,0012	DA		ANAPCV	AUTO	-
Instance Creation Time	0008,0013	TM		ANAPCV	AUTO	-
Instance Creator UID	0008,0014	UI		ANAPCV	AUTO	-
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4.1.1.7	ALWAYS	FIXED, COPY	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Timezone Offset From UTC	0008,0201	SH		ANAPCV	COPY	-
Contributing Equipment Sequence	0018,A001	SQ		ANAP	AUTO	-
>Manufacturer	0008,0070	LO	Philips	ANAP	FIXED	PHILIPS.
>Institution Address	0008,0081	ST	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Station Name	0008,1010	SH	IntelliSpace Portal	ANAP	CONFIG	IntelliSpace Portal.
>Institutional Department Name	0008,1040	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Software Version(s)	0018,1020	LO	4.0	ANAP	FIXED	4.0
>Device Serial Number	0018,1000	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Institution Name	0008,0080	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal.
>Purpose of Reference Code Sequence	0040,A170	SQ		ANAP	FIXED	-
>>Code Value	0008,0100	SH	109102	ANAP	FIXED	109102
>>Coding Scheme Designator	0008,0102	SH	DCM	ANAP	FIXED	DCM
>>Code Meaning	0008,0104	LO	Processing Equipment	ANAP	FIXED	Processing Equipment

Table 135: Extended DICOM and private attributes for Secondary Capture Image Storage SOP Class Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Series Type (PIIM)	2001,106E	SH	SCSERIES	ALWAYS	AUTO	SCSERIES
Curve Dimensions	50xx,0005	US		ALWAYS	AUTO	-
Number of Points	50xx,0010	US		ALWAYS	AUTO	-
Type of Data	50xx,0020	CS		ALWAYS	AUTO	-
Data Value Representation	50xx,0103	US		ALWAYS	AUTO	-
Curve Data	50xx,3000	OB/OW		ALWAYS	AUTO	-
Curve Description	50xx,0022	LO		ANAPCV	AUTO	-
Axis Units	50xx,0030	SH		ANAPCV	AUTO	-
Axis Labels	50xx,0040	SH		ANAPCV	AUTO	-
Minimum Coordinate Value	50xx,0104	US		ANAPCV	AUTO	-
Maximum Coordinate Value	50xx,0105	US		ANAPCV	AUTO	-
Curve Range	50xx,0106	SH		ANAPCV	AUTO	-
Curve Data Descriptor	50xx,0110	US		ANAP	AUTO	-
Coordinate Start Value	50xx,0112	US		ANAP	AUTO	-

Coordinate Step Value	50xx,0114	US		ANAP	AUTO	-
Curve Label	50xx,2500	LO		ANAPCV	AUTO	-
Referenced Overlay Sequence	50xx,2600	SQ		ANAPCV	AUTO	-
>Referenced SOP Class UID	0008,1150	UI		ANAP	AUTO	-
>Referenced SOP Instance UID	0008,1155	UI		ANAP	AUTO	-
>Referenced Overlay Group	50xx,2610	US		ANAP	AUTO	-