

# DICOM Conformance Statement

Application Annex:

## NM Applications on Advanced Visualization Workspace V15



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## 1. DICOM Conformance Statement Overview

*For information about this Section, please Refer HSDP-994234 DICOM Conformance Statement - Advanced Visualization Workspace V15 - General*

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## 3. Introduction

This DICOM Conformance Statement annex is applicable to the NM Applications on Advanced Visualization Workspace V15 hosting platform, later referred to as NM Applications. In general the NM Applications are used for viewing and analyzing the images from NM modality.

- AutoSPECT Pro
- NM Whole Body
- NM Cardiac
- NM Endocrine
- NM Esophagus
- NM Gastro Intestinal
- NM Renal
- NM Hepatobiliary
- NM Viewer
- NM Lung
- Hybrid Calibration
- NM NU-1 NEMATools
- NM QCTools
- Automatic Registration
- JETPack
- AutoQuant
- Corridor 4DM Analysis
- Emory cardiac ToolBox (ECTB)
- Neuro-Q
- QBS
- Mirada

Note: IntelliSpace Portal is rebranded to Advanced Visualization Workspace (AVW) , therefore, throughout the document and annexures the name “IntelliSpace Portal (ISP)” is equivalent to the rebranded new name “Advanced Visualization Workspace V15 (AVW15)”

Note: AutoQuant, Corridor 4DM analysis, Emory cardiac ToolBox (ECTB), Neuro-Q, QBS and Mirada are 3rd party applications hosted in AVW platform. Refer to the respective vendor DCS for conformance.

### 3.1. Revision History

The revision history provides dates and differences of the different releases.

**Table 1: Revision History**

Document Version	Date of Issue	Description of change
1.0	30-Nov-2022	Initial version

### 3.2. Audience

This Conformance Statement is intended for:

- (Potential) customers
- System integrators of medical equipment
- Marketing staff interested in system functionality
- Software designers implementing DICOM interfaces

It is assumed that the reader is familiar with the DICOM standard.

## 3.3. Remarks

The DICOM Conformance Statement is contained in chapter 4 through 8 and follows the contents and structuring requirements of DICOM PS 3.2.

This DICOM Conformance Statement by itself does not guarantee successful interoperability of Philips equipment with non-Philips equipment. The user (or user's agent) should be aware of the following issues:

- Interoperability**  
 Interoperability refers to the ability of application functions, distributed over two or more systems, to work successfully together. The integration of medical devices into an IT environment may require application functions that are not specified within the scope of DICOM. Consequently, using only the information provided by this Conformance Statement does not guarantee interoperability of Philips equipment with non-Philips equipment.  
 It is the user's responsibility to analyze thoroughly the application requirements and to specify a solution that integrates Philips equipment with non-Philips equipment.
- Validation**  
 Philips equipment has been carefully tested to ensure that the actual implementation of the DICOM interface corresponds with this Conformance Statement.  
 Where Philips equipment is linked to non-Philips equipment, the first step is to compare the relevant Conformance Statements. If the Conformance Statements indicate that successful information exchange should be possible, additional validation tests will be necessary to ensure the functionality, performance, accuracy and stability of image and image related data. It is the responsibility of the user (or user's agent) to specify the appropriate test suite and to carry out the additional validation tests.
- New versions of the DICOM Standard**  
 The DICOM Standard will evolve in future to meet the user's growing requirements and to incorporate new features and technologies. Philips is actively involved in this evolution and plans to adapt its equipment to future versions of the DICOM Standard. In order to do so, Philips reserves the right to make changes to its products or to discontinue its delivery. The user should ensure that any non-Philips provider linking to Philips equipment also adapts to future versions of the DICOM Standard. If not, the incorporation of DICOM enhancements into Philips equipment may lead to loss of connectivity (in case of networking) and incompatibility (in case of media).

## 3.4. Definitions, Terms and Abbreviations

Table 2: Definitions, Terms and Abbreviations

Abbreviation/Term	Explanation
AE	Application Entity
ANSI	American National Standard Institute
AP	Application Profile
AVW	Advanced Visualization Workspace
BOT	Basic Offset Table
CD	Compact Disc
CD-R	CD-Recordable
CD-M	CD-Medical
CR	Computed Radiography
CT	Computed Tomography
DCR	Dynamic Cardio Review
DICOM	Digital Imaging and Communications in Medicine
DIMSE	DICOM Message Service Element
DIMSE-C	DIMSE-Composite
DIMSE-N	DIMSE-Normalized
DX	Digital X-Ray
EBE	DICOM Explicit VR Big Endian
ELE	DICOM Explicit VR Little Endian
FSC	File-set Creator
FSR	File-set Reader

Abbreviation/Term	Explanation
FSU	File-set Updater
GUI	Graphic User Interface
HIS	Hospital Information System
HL7	Health Level Seven
ILE	DICOM Implicit VR Little Endian
IOD	Information Object Definition
ISIS	Information System - Imaging System
MOD	Magneto-Optical Disk
MPPS	Modality Performed Procedure Step
MR	Magnetic Resonance
NEMA	National Electrical Manufacturers Association
NM	Nuclear Medicine
PDU	Protocol Data Unit
RF	X-Ray Radiofluoroscopic
RIS	Radiology Information System
RT	Radiotherapy
RWA	Real-World Activity
SC	Secondary Capture
SCM	Study Component Management
SCP	Service Class Provider
SCU	Service Class User
SOP	Service Object Pair
TCP/IP	Transmission Control Protocol/Internet Protocol
UID	Unique Identifier
US	Ultrasound
USMF	Ultrasound Multi-frame
VR	Value Representation
WLM	Worklist Management
XA	X-Ray Angiographic

## 3.5. References

[DICOM] Digital Imaging and Communications in Medicine, Parts 1 - 22 (NEMA PS 3.1- PS 3.22),

National Electrical Manufacturers Association

1300 North 17th Street

Suite 900

Arlington, Virginia 22209

Internet: <https://www.dicomstandard.org/current>

Note that at any point in time the official standard consists of the most recent yearly edition of the base standard (currently 2022) plus all the supplements and correction items that have been approved as Final Text.

## 4. Networking

This section contains the networking related services (vs. the media related ones).

*For information about this Section, please Refer HSDP-994234 DICOM Conformance Statement - Advanced Visualization Workspace V15 - General*



## 5. Media Interchange

For information about this Section, please Refer HSDP-994234 DICOM Conformance Statement - Advanced Visualization Workspace V15 - General

## 6. Support of Character Sets

For information about this Section, please Refer HSDP-994234 DICOM Conformance Statement - Advanced Visualization Workspace V15 - General

## 7. Security

For information about this Section, please Refer HSDP-994234 DICOM Conformance Statement - Advanced Visualization Workspace V15 - General

## 8. Annexes of application "NM Applications"

### 8.1. Supported IOD's

This section specifies each IOD accepted and / or created by NM Applications.

- ACCEPTED** The applicable IOD is accepted for storage in the repository of the hosting platform and supported for import in NM Applications for viewing and analysis.
- CREATED** The NM 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 3: 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
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	No
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
Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.1	Yes	Yes
Secondary Capture Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7	Yes	Yes
Multi-Frame Grayscale Byte Secondary Capture Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7.2	Yes	Yes
Multi-frame True Color Secondary Capture Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7.4	Yes	Yes
Key Object Selection Document	1.2.840.10008.5.1.4.1.1.88.59	Yes	Yes

**Note:** All the NM Applications are compliant with data from other vendors for import and display (multi-vendor compliant).

#### 8.1.1. Acceptance Criteria

This section specifies the acceptance criteria applied by NM Applications to which a dataset should adhere before it can be imported into the application.

All system model objects are accepted.

**Table 4: Accepted transfer syntaxes per IOD**

IOD		Transfer Syntax	
Name	UID	Name	UID
Positron Emission Tomography Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.128	CT-private-ELE	1.3.46.670589.33.1.4.1
		Explicit VR Little Endian	1.2.840.10008.1.2.1
		Implicit VR Little Endian	1.2.840.10008.1.2
		JPEG Lossless, Non-Hierarchical, FOP (Process 14)	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	1.3.46.670589.33.1.4.1
		Explicit VR Little Endian	1.2.840.10008.1.2.1
		Implicit VR Little Endian	1.2.840.10008.1.2
		JPEG Lossless, Non-Hierarchical, FOP (Process 14)	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 Implicit VR Little Endian	1.2.840.10008.1.2.1 1.2.840.10008.1.2
Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.1	Explicit VR Little Endian Implicit VR Little Endian	1.2.840.10008.1.2.1 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 Grayscale Byte Secondary Capture Image Storage SOP Class	1.2.840.10008.5.1.4.1.1.7.2	Explicit VR Little Endian Implicit VR Little Endian	1.2.840.10008.1.2.1 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 Implicit VR Little Endian	1.2.840.10008.1.2.1 1.2.840.10008.1.2
Key Object Selection Document	1.2.840.10008.5.1.4.1.1.88.59	Explicit VR Little Endian Implicit VR Little Endian	1.2.840.10008.1.2.1 1.2.840.10008.1.2

## 8.1.2. 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

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
MWL	The attribute value source is a Modality Worklist
USER	The attribute value source is explicit user input

### 8.1.2.1. Implementation Identifying Information

The value supplied for Implementation Class UID and version name are documented here.

**Table 5: DICOM Implementation Class and Version for Created Instances**

3 <sup>rd</sup> Party Application	Implementation Class UID	Implementation Version Name
Auto Quant	1.2.276.0.7230010.3.0.3.5.4	OFFIS_DCMTK_354
Corridor4DM	1.3.6.1.4.1.25189.1.5.2009	INVIA1MAY2009
EC Tool Box	1.3.46.670589.50.1.9.0	AVW_15.x
Neuro Q	1.3.46.670589.50.1.9.0	AVW_15.x

## 8.1.2.2. Encapsulated PDF Storage

**Table 6: 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 7: 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		ANAP	COPY	-
Patient's Sex	0010,0040	CS		VNAP	COPY	-
Other Patient IDs	0010,1000	LO		ANAP	COPY	-
Other Patient Names	0010,1001	PN		ANAP	COPY	-
Ethnic Group	0010,2160	SH		ANAP	COPY	-
Patient Comments	0010,4000	LT		ANAP	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAP	COPY	-

**Table 8: General Study Module**

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

Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAP	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAP	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAP	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAP	COPY	-
Study Instance UID	0020,000D	UI		ANAP	COPY	-
Study ID	0020,0010	SH		ANAP	COPY	-

**Table 9: 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	Reports	ANAP	AUTO	Reports
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		ALWAYS	AUTO	-
Performed Procedure Step Start Date	0040,0244	DA		ANAP	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAP	COPY	-
Performed Procedure Step ID	0040,0253	SH		ANAP	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAP	AUTO	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAP	COPY	-
>Code Value	0008,0100	SH		ANAP	COPY	-
>Coding Scheme Designator	0008,0102	SH		ANAP	COPY	-
>Code Meaning	0008,0104	LO		ANAP	AUTO	-
>Context Group Local Version	0008,0107	DT		ANAP	COPY	-
>Context Group Extension Flag	0008,010B	CS		ANAP	COPY	-

**Table 10: General Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO	Philips, Syntermed, Inc.	VNAP	FIXED	"Syntermed, Inc." for "Neuro Q" Application. Else Philips.
Institution Name	0008,0080	LO		ANAP	COPY	-
Institution Address	0008,0081	ST		ANAP	COPY	-
Station Name	0008,1010	SH		ANAP	COPY	-
Institutional Department Name	0008,1040	LO		ANAP	COPY	-
Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	Philips Portal
Device Serial Number	0018,1000	LO		ANAP	COPY	-
Software Version(s)	0018,1020	LO	15.x /AIM_DICOM_210	ANAP	FIXED	"AIM_DICOM_210" for "Auto Quant" Application. Else "15.x"
Spatial Resolution	0018,1050	DS		ANAP	COPY	-
Date of Last Calibration	0018,1200	DA		ANAP	COPY	-
Time of Last Calibration	0018,1201	TM		ANAP	COPY	-
Pixel Padding Value	0028,0120	US/SS		ANAP	COPY	-

**Table 11: SC Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS		ANAP	AUTO	-
Conversion Type	0008,0064	CS	WSD	ALWAYS	AUTO	-
Secondary Capture Device Manufacturer	0018,1016	LO	Philips Syntermed, Inc.	VNAP	COPY	"Syntermed, Inc." for "Neuro Q" Application. Else Philips Medical Systems.
Secondary Capture Device Manufacturer's Model Name	0018,1018	LO	IntelliSpace Portal	ANAP	AUTO	
Secondary Capture Device Software Version(s)	0018,1019	LO	15.x	ANAP	AUTO	-

**Table 12: Encapsulated Document Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Content Date	0008,0023	DA		VNAP	AUTO	-
Acquisition Datetime	0008,002A	DT		VNAP	AUTO	-
Content Time	0008,0033	TM		VNAP	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		VNAP	AUTO	-
Document Title	0042,0010	ST		VNAP	AUTO	-
Encapsulated Document	0042,0011	OB		ALWAYS	AUTO	-
MIME Type of Encapsulated Document	0042,0012	LO	application/pdf	ALWAYS	AUTO	-
Source Instance Sequence	0042,0013	SQ		ANAP	AUTO	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	AUTO	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	AUTO	-

**Table 13: 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		ANAP	AUTO	-
Instance Creation Time	0008,0013	TM		ANAP	AUTO	-
Instance Creator UID	0008,0014	UI		ANAP	AUTO	-
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4.1.1.104.1	ALWAYS	COPY	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Timezone Offset From UTC	0008,0201	SH		ANAP	COPY	-

### 8.1.2.3. Positron Emission Tomography Image Storage SOP Class

**Table 14: 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 – If present in the source data
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 – If present in the source data
Image	PET Image Module	ALWAYS
Image	Overlay Plane Module	CONDITIONAL – If present in the source data
Image	VOI LUT Module	CONDITIONAL – If present in the source data
Image	SOP Common Module	ALWAYS

This SOP class can be extended with standard DICOM and private attributes as described in Table 32.

**Table 15: 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		ANAP	COPY	-
Patient's Sex	0010,0040	CS		VNAP	COPY	-
Other Patient IDs	0010,1000	LO		ANAP	COPY	-
Other Patient Names	0010,1001	PN		ANAP	COPY	-
Ethnic Group	0010,2160	SH		ANAP	COPY	-
Patient Comments	0010,4000	LT		ANAP	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAP	COPY	-

**Table 16: 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		ANAP	COPY	-
Procedure Code Sequence	0008,1032	SQ		ANAP	COPY	-
Physician(s) of Record	0008,1048	PN		ANAP	COPY	-
Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAP	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAP	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAP	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAP	COPY	-

Study Instance UID	0020,000D	UI		ALWAYS	AUTO, COPY	-
Study ID	0020,0010	SH		VNAP	AUTO, COPY	-

**Table 17: Patient Study Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Admitting Diagnoses Description	0008,1080	LO		ANAP	COPY	-
Admitting Diagnoses Code Sequence	0008,1084	SQ		ANAP	COPY	-
Patient's Age	0010,1010	AS		ANAP	COPY	-
Patient's Size	0010,1020	DS		ANAP	COPY	-
Patient's Weight	0010,1030	DS		ANAP	COPY	-
Occupation	0010,2180	SH		ANAP	COPY	-
Additional Patient History	0010,21B0	LT		ANAP	COPY	-
Medical Alerts	0010,2000	LO		ANAP	COPY	-

**Table 18: General Series Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Series Date	0008,0021	DA		ANAP	AUTO	-
Series Time	0008,0031	TM		ANAP	AUTO	-
Modality	0008,0060	CS		ALWAYS	COPY	-
Series Description	0008,103E	LO		ANAP	COPY	-
Performing Physician's Name	0008,1050	PN		ANAP	COPY	-
Operators' Name	0008,1070	PN		ANAP	COPY	-
Operator Identification Sequence	0008,1072	SQ		ANAP	COPY	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAP	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		ANAP	COPY	-
Protocol Name	0018,1030	LO		ANAP	COPY	-
Patient Position	0018,5100	CS		ANAP	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Laterality	0020,0060	CS		ANAP	COPY	-
Smallest Pixel Value in Series	0028,0108	US/SS		ANAP	AUTO	-
Largest Pixel Value in Series	0028,0109	US/SS		ANAP	AUTO	-
Request Attributes Sequence	0040,0275	SQ		ANAP	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ANAP	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAP	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAP	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAP	COPY	-
Comments on the Performed Procedure Step	0040,0280	ST		ANAP	COPY	-
Performed Procedure Step ID	0040,0253	SH		ANAP	COPY	-

**Table 19: 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		ANAP	COPY	-
Acquisition Start Condition Data	0018,0074	IS		ANAP	COPY	-
Acquisition Termination Condition	0018,0071	CS		ANAP	COPY	-
Acquisition Termination Condition Data	0018,0075	IS		ANAP	COPY	-
Attenuation Correction Method	0054,1101	LO		ANAP	COPY	-
Axial Mash	0054,1201	IS		ANAP	COPY	-
Coincidence Window Width	0054,1210	DS		ANAP	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		ANAP	COPY	-
Field of View Shape	0018,1147	CS		ANAP	COPY	-
Gantry/Detector Tilt	0018,1120	DS		ANAP	COPY	-
Number of Slices	0054,0081	US		ALWAYS	COPY	-
Number of Time Slices	0054,0101	US		ANAP	COPY	-
Randoms Correction Method	0054,1100	CS		ANAP	COPY	-
Reconstruction Method	0054,1103	LO		ANAP	COPY	-
Scatter Correction Method	0054,1105	LO		ANAP	COPY	-
Transverse Mash	0054,1202	IS		ANAP	COPY	-
Type of Detector Motion	0054,0202	CS		ANAP	COPY	-
Units	0054,1001	CS		ALWAYS	COPY	-
Energy Window Range Sequence	0054,0013	SQ		ANAP	COPY	-

>Energy Window Lower Limit	0054,0014	DS		VNAP	COPY	-
>Energy Window Upper Limit	0054,0015	DS		VNAP	COPY	-
Axial Acceptance	0054,1200	DS		ANAP	COPY	-
Reprojection Method	0054,1004	CS		ANAP	COPY	-
Number or R R Intervals	0054,0061	US		ANAP	COPY	-
Reconstruction Diameter	0018,1100	DS		ANAP	COPY	-
Convolution Kernel	0018,1210	SH		ANAP	COPY	-
Detector lines of Response used	0054,1104	LO		ANAP	COPY	-
Gantry/Detector Slew	0018,1121	DS		ANAP	COPY	-
Collimator/grid Name	0018,1180	SH		ANAP	COPY	-
Detector Element Size	0054,1203	DS		ANAP	COPY	-
Secondary Counts Type	0054,1220	CS		ANAP	COPY	-

**Table 20: 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 21: General Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO	Philips, Syntermed, Inc.	VNAP	FIXED	"Syntermed, Inc." for "Neuro Q" Application. Else Philips.
Institution Name	0008,0080	LO		ANAP	CONFIG	-
Institution Address	0008,0081	ST		ANAP	AUTO, COPY	-
Institutional Department Name	0008,1040	LO		ANAP	AUTO, COPY	-
Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	VNAP	FIXED	
Software Version (s)	0018,1020	LO	15.x / AIM_DICOM_210	ANAP	FIXED	"AIM_DICOM_210" for "Auto Quant" Application. Else "15.x"
Station Name	0008,1010	SH		ANAP	COPY	-
Spatial Resolution	0018,1050	DS		ANAP	COPY	-
Date of Last Calibration	0018,1200	DA		ANAP	COPY	-
Time of Last Calibration	0018,1201	TM		ANAP	COPY	-
Pixel Padding Value	0028,0120	US/SS		ANAP	COPY	-
Device Serial Number	0018,1000	LO		ANAP	COPY	

**Table 22: General Image Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Image Type	0008,0008	CS		ANAP	COPY	-
Acquisition Date	0008,0022	DA		ANAP	COPY	-

Content Date	0008,0023	DA		ANAP	COPY	-
Acquisition Datetime	0008,002A	DT		ANAP	COPY	-
Acquisition Time	0008,0032	TM		ANAP	COPY	-
Content Time	0008,0033	TM		ANAP	COPY	-
Referenced Image Sequence	0008,1140	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Derivation Description	0008,2111	ST		ANAP	COPY	-
Source Image Sequence	0008,2112	SQ		ANAP	COPY	-
Derivation Code Sequence	0008,9215	SQ		ANAP	COPY	-
Instance Number	0020,0013	IS		VNAP	AUTO, COPY	-
Patient Orientation	0020,0020	CS		ANAP	COPY	-
Images in Acquisition	0020,1002	IS		ANAP	COPY	-
Quality Control Image	0028,0300	CS		ANAP	COPY	-
Burned In Annotation	0028,0301	CS		ANAP	COPY	-
Lossy Image Compression	0028,2110	CS		ANAP	COPY	-
Lossy Image Compression Ratio	0028,2112	DS		ANAP	COPY	-
Icon Image Sequence	0088,0200	SQ		ANAP	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		ANAP	COPY	-
>Largest Image Pixel Value	0028,0107	US/SS		ANAP	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		ANAP	COPY	-
Image Comments	0020,4000	LT		ANAP	COPY	-

Table 23: 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		ANAP	COPY	-

**Table 24: Image Pixel Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
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	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		ANAP	COPY	-
Largest Image Pixel Value	0028,0107	US/SS		ANAP	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	-
Bits Allocated	0028,0100	US		ANAP	COPY	
Bits Stored	0028,0101	US		ANAP	COPY	
High Bit	0028,0102	US		ANAP	COPY	

**Table 25: 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	-
>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 26: 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		ANAP	COPY	-
>Radionuclide Positron Fraction	0018,1076	DS		ANAP	COPY	-
>Radionuclide Total Dose	0018,1074	DS		ANAP	COPY	-
>Radiopharmaceutical	0018,0031	LO		ANAP	COPY	-
>Radiopharmaceutical Start Time	0018,1072	TM		ANAP	COPY	-
>Radiopharmaceutical Volume	0018,1071	DS		ANAP	COPY	-
>Radionuclide Code Sequence	0054,0300	SQ		ANAP	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		ANAP	COPY	-
>>Code Meaning	0008,0104	LO		VNAP	COPY	-
>>Code Value	0008,0100	SH		VNAP	COPY	-
>>Coding Scheme Designator	0008,0102	SH		VNAP	COPY	-
Interventional Drug Information Sequence	0018,0026	SQ		ANAP	COPY	-
Radiopharmaceutical Information Sequence	0054,0016	SQ		ANAP	COPY	-
Radiopharmaceutical Start DateTime	0018,1078	LT		ANAP	COPY	-
Radiopharmaceutical Route	0018,1070	LO		ANAP	COPY	-

**Table 27: 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		ANAP	COPY	-
PVC Rejection	0018,1085	LO		ANAP	COPY	-
Skip Beats	0018,1086	IS		ANAP	COPY	-
Heart Rate	0018,1088	IS		ANAP	COPY	-
Cardiac Framing Type	0018,1064	LO		ANAP	COPY	-

**Table 28: 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		ANAP	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		ANAP	COPY	-
Intervals Acquired	0018,1083	IS		ANAP	COPY	-
Intervals Rejected	0018,1084	IS		ANAP	COPY	-
Primary (Prompts) Counts Accumulated	0054,1310	IS		ANAP	COPY	-
Secondary Counts Accumulated	0054,1311	IS		ANAP	COPY	-
Slice Sensitivity Factor	0054,1320	DS		ANAP	COPY	-
Scatter Fraction Factor	0054,1323	DS		ANAP	COPY	-
Dead Time Factor	0054,1324	DS		ANAP	COPY	-
View Code Sequence	0054,0220	SQ		ANAP	COPY	-
Slice Progression Direction	0054,0500	CS		ANAP	COPY	-
Anatomic Region Sequence	0008,2218	SQ		ANAP	COPY	-

Table 29: 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		ANAP	AUTO	-
Overlay Type	6000,0040	CS		ALWAYS	AUTO	-
Overlay Subtype	6000,0045	LO		ANAP	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		ANAP	AUTO	-
ROI Mean	6000,1302	DS		ANAP	AUTO	-
ROI Standard Deviation	6000,1303	DS		ANAP	AUTO	-
Overlay Label	6000,1500	LO		ANAP	AUTO	-
Overlay Data	6000,3000	OW/OB		ANAP	AUTO	-

Table 30: 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		ANAP	AUTO	-
VOI LUT Sequence	0028,3010	SQ		ANAP	AUTO	-



**Table 31: 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		ANAP	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		ANAP	COPY	-

**Table 32: 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		ANAP	AUTO	-
Slice Index	2001,10DE	DS		ANAP	AUTO	-
Referenced Overlay Sequence	0008,1130	SQ		ANAP	COPY	-
Reference Curve Sequence	0008,1145	SQ		ANAP	COPY	-
Primary Anatomic Structure Sequence	0008,2228	SQ		ANAP	COPY	-
Curve Dimensions	50xx,0005	US		ANAP	AUTO	-
Number of Points	50xx,0010	US		ANAP	AUTO	-
Type of Data	50xx,0020	CS		ANAP	AUTO	-
Data Value Representation	50xx,0103	US		ANAP	AUTO	-
Curve Data	50xx,3000	OB/OW		ANAP	AUTO	-
Curve Description	50xx,0022	LO		ANAP	AUTO	-
Axis Units	50xx,0030	SH		ANAP	AUTO	-
Axis Labels	50xx,0040	SH		ANAP	AUTO	-
Minimum Coordinate Value	50xx,0104	US		ANAP	AUTO	-
Maximum Coordinate Value	50xx,0105	US		ANAP	AUTO	-
Curve Range	50xx,0106	SH		ANAP	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		ANAP	AUTO	-
Curve Referenced Overlay Sequence	50xx,2600	SQ		ANAP	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	-
Modalities in Study	0008,0061	CS		ANAP	COPY	-
Referenced Raw Data Sequence	0008,9121	SQ		ANAP	COPY	-
Number of Study Related Series	0020,1206	IS		ANAP	COPY	-
Number of Study Related Instances	0020,1208	IS		ANAP	COPY	-
Requesting Physician	0032,1032	PN		ANAP	COPY	-
Requested Contrast Agent	0032,1070	LO		ANAP	COPY	-
DateTime	0040,A120	DT		ANAP	COPY	-

## 8.1.2.4. Nuclear Medicine Image Storage SOP Class

**Table 33: IOD of Created Nuclear Medicine Image Storage SOP Class Instances**

Information Entity	Module	Presence Of Module	Comments
Patient	Patient Module	ALWAYS	
Study	General Study Module	ALWAYS	
Study	Patient Study Module	ALWAYS	
Series	General Series Module	ALWAYS	
Series	NM/PET Patient Orientation Module	ALWAYS	
Frame of Reference	Frame of Reference Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA	
Equipment	General Equipment Module	ALWAYS	
Image	General Image Module	ALWAYS	
Image	Image Pixel Module	ALWAYS	
Image	Multi-Frame 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	Required if Image Type (0008,0008) Value 3 is TOMO, GATED TOMO, RECON TOMO or RECON GATED TOMO
Image	NM Multi-gated Acquisition Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA	Required if Image Type (0008,0008) Value 3 is GATED, GATED TOMO, or RECON GATED TOMO
Image	NM Phase Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA	Required if Image Type (0008,0008) Value 3 is DYNAMIC
Image	NM Reconstruction Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA	Required if Image Type (0008,0008) Value 3 is RECON TOMO or RECON GATED TOMO
Image	SOP Common Module	ALWAYS	

This SOP class can be extended with standard DICOM and private attributes as described in Table 55.

**Table 34: Patient Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
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		ANAP	COPY	-
Patient's Sex	0010,0040	CS		VNAP	COPY	-
Other Patient IDs	0010,1000	LO		ANAP	COPY	-
Ethnic Group	0010,2160	SH		ANAP	COPY	-
Patient Comments	0010,4000	LT		ANAP	COPY	-

**Table 35: General Study Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Date	0008,0020	DA		ALWAYS	COPY	-
Study Time	0008,0030	TM		ALWAYS	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY	-
Referring Physician's Name	0008,0090	PN		VNAP	COPY	-

Study Description	0008,1030	LO		ANAP	COPY	-
Procedure Code Sequence	0008,1032	SQ		ANAP	COPY	-
>Code Value	0008,0100	SH		ALWAYS	COPY	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>Code Meaning	0008,0104	LO		ALWAYS	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Study Instance UID	0020,000D	UI		ALWAYS	COPY	-
Study ID	0020,0010	SH		VNAP	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAP	COPY	-

**Table 36: Patient Study Module**

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

**Table 37: General 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	-
Modality	0008,0060	CS	NM	ALWAYS	FIXED	-
Series Description	0008,103E	LO		ANAP	AUTO	-
Performing Physician's Name	0008,1050	PN		ANAP	COPY	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI	1.2.840.10008.5.1.4.1.1.20	ANAP	FIXED	-
>Referenced SOP Instance UID	0008,1155	UI		ANAP	COPY	-
Body Part Examined	0018,0015	CS		ANAP	COPY	-
Protocol Name	0018,1030	LO		ANAP	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Smallest Pixel Value in Series	0028,0108	US/SS		ANAP	AUTO	-
Largest Pixel Value in Series	0028,0109	US/SS		ANAP	AUTO	-
Request Attributes Sequence	0040,0275	SQ		ANAP	COPY	-
>Scheduled Procedure Step Description	0040,0007	LO		ANAP	COPY	-
>Scheduled Protocol Code Sequence	0040,0008	SQ		ANAP	COPY	-
>>Code Value	0008,0100	SH		ALWAYS	COPY	-
>>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>>Code Meaning	0008,0104	LO		ALWAYS	COPY	-
>Scheduled Procedure Step ID	0040,0009	SH		ANAP	COPY	-
>Requested Procedure ID	0040,1001	SH		ANAP	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ANAP	COPY	-

Performed Procedure Step Start Time	0040,0245	TM		ANAP	COPY	-
Performed Procedure Step ID	0040,0253	SH		ANAP	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAP	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ALWAYS	COPY	-
>Code Value	0008,0100	SH		ALWAYS	COPY	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>Code Meaning	0008,0104	LO		ANAP	COPY	-

**Table 38: NM/PET Patient Orientation Module**

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

**Table 39: Frame of Reference Module**

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

**Table 40: General Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO	Philips, Syntermed, Inc.	VNAP	FIXED	"Syntermed, Inc." for "Neuro Q" Application. Else Philips.
Institution Name	0008,0080	LO		ANAP	COPY	-
Station Name	0008,1010	SH		ANAP	COPY	-
Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal
Device Serial Number	0018,1000	LO		ANAP	COPY	-
Software Version(s)	0018,1020	LO	15.x/ AIM_DICOM_210	ANAP	FIXED	"AIM_DICOM_210" for "Auto Quant" Application. Else "15.x"
Spatial Resolution	0018,1050	DS		ANAP	COPY	-

**Table 41: General Image Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Image Type	0008,0008	CS		ANAP	COPY	-
Acquisition Date	0008,0022	DA		ALWAYS	COPY	-

Content Date	0008,0023	DA		ALWAYS	AUTO	-
Acquisition Time	0008,0032	TM		ALWAYS	COPY	-
Content Time	0008,0033	TM		ANAP	AUTO	-
Acquisition Number	0020,0012	IS		ANAP	COPY	-
Instance Number	0020,0013	IS		VNAP	AUTO	-
Images in Acquisition	0020,1002	IS	0	ALWAYS	FIXED	0
Quality Control Image	0028,0300	CS		VNAP	IMPLICIT	-
Lossy Image Compression	0028,2110	CS		ANAP	COPY	-

**Table 42: Image Pixel Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Samples per Pixel	0028,0002	US		ALWAYS	COPY	-
Photometric Interpretation	0028,0004	CS		ALWAYS	COPY	-
Planar Configuration	0028,0006	US		ANAP	AUTO	-
Rows	0028,0010	US		ALWAYS	USER	-
Columns	0028,0011	US		ALWAYS	USER	-
Pixel Aspect Ratio	0028,0034	IS		ANAP	FIXED	Applied value: (1\1)
Bits Stored	0028,0101	US		ALWAYS	IMPLICIT	-
High Bit	0028,0102	US		ALWAYS	IMPLICIT	-
Pixel Representation	0028,0103	US		ALWAYS	IMPLICIT	Applied value: 0
Smallest Image Pixel Value	0028,0106	US/SS		ALWAYS	AUTO	-
Largest Image Pixel Value	0028,0107	US/SS		ALWAYS	AUTO	-
Pixel Data	7FE0,0010	OW/OB		ALWAYS	AUTO	-

**Table 43: Multi-Frame Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Number of Frames	0028,0008	IS		ALWAYS	IMPLICIT	-
Frame Increment Pointer	0028,0009	AT		ANAP	COPY	-

**Table 44: Acquisition Context Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Acquisition Context Sequence	0040,0555	SQ		ANAP	COPY	-
>Value Type	0040,A040	CS	CODE	ALWAYS	FIXED	-
>Concept Name Code Sequence	0040,A043	SQ		ALWAYS	COPY	-
>>Code Value	0008,0100	SH	109055	ALWAYS	FIXED	-
>>Coding Scheme Designator	0008,0102	SH	DCM	ALWAYS	FIXED	-
>>Code Meaning	0008,0104	LO	Patient State	ALWAYS	FIXED	-
>Concept Code Sequence	0040,A168	SQ		ALWAYS	COPY	-
>>Code Value	0008,0100	SH		ALWAYS	COPY	-
>>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>>Code Meaning	0008,0104	LO		ALWAYS	COPY	-

**Table 45: NM Image Pixel Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Samples per Pixel	0028,0002	US	1	ALWAYS	FIXED	-
Photometric Interpretation	0028,0004	CS	MONOCHROME2	ALWAYS	FIXED	-
Pixel Spacing	0028,0030	DS		ALWAYS	IMPLICIT	-

Bits Allocated	0028,0100	US	16	ALWAYS	FIXED	-
Bits Stored	0028,0101	US	16	ALWAYS	FIXED	-
High Bit	0028,0102	US	15	ALWAYS	FIXED	-

**Table 46: NM Multi-frame Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Number of Frames	0028,0008	IS		ALWAYS	COPY	-
Frame Increment Pointer	0028,0009	AT		ALWAYS	AUTO	-
Energy Window Vector	0054,0010	US		ANAP	AUTO	-
Number of Energy Windows	0054,0011	US		ALWAYS	COPY	-
Detector Vector	0054,0020	US		ANAP	AUTO	-
Number of Detectors	0054,0021	US		ALWAYS	COPY	-
Phase Vector	0054,0030	US		ANAP	AUTO	-
Number of Phases	0054,0031	US		ANAP	USER, IMPLICIT	-
Rotation Vector	0054,0050	US		ANAP	AUTO	-
Number of Rotations	0054,0051	US		ANAP	COPY	-
R-R Interval Vector	0054,0060	US		ANAP	AUTO	-
Number of R-R Intervals	0054,0061	US		ANAP	COPY	-
Time Slot Vector	0054,0070	US		ANAP	AUTO	-
Number of Time Slots	0054,0071	US		ANAP	COPY	-
Slice Vector	0054,0080	US		ANAP	AUTO	-
Number of Slices	0054,0081	US		ANAP	AUTO	-
Angular View Vector	0054,0090	US		ANAP	AUTO	-
Time Slice Vector	0054,0100	US		ANAP	AUTO	-

**Table 47: NM Image Module**

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

**Table 48: NM Isotope Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Energy Window Information Sequence	0054,0012	SQ		ALWAYS	COPY	-

>Energy Window Range Sequence	0054,0013	SQ		ALWAYS	COPY	-
>>Energy Window Lower Limit	0054,0014	DS		ALWAYS	COPY	-
>>Energy Window Upper Limit	0054,0015	DS		ALWAYS	COPY	-
>Energy Window Name	0054,0018	SH		ALWAYS	COPY	-
Radiopharmaceutical Information Sequence	0054,0016	SQ		ALWAYS	COPY	-
>Radiopharmaceutical	0018,0031	LO		ANAP	COPY	-
>Radiopharmaceutical Volume	0018,1071	DS	0.0	ANAP	FIXED	-
>Radiopharmaceutical Start Time	0018,1072	TM		ANAP	COPY	-
>Radiopharmaceutical Stop Time	0018,1073	TM		EMPTY	FIXED	-
>Radionuclide Total Dose	0018,1074	DS		ANAP	COPY	-
>Radionuclide Code Sequence	0054,0300	SQ		ALWAYS	COPY	-
>>Code Value	0008,0100	SH		ALWAYS	COPY	-
>>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>>Code Meaning	0008,0104	LO		ALWAYS	COPY	-
>Radiopharmaceutical Code Sequence	0054,0304	SQ		ANAP	COPY	-
>>Code Value	0008,0100	SH		ALWAYS	COPY	-
>>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>>Code Meaning	0008,0104	LO		ALWAYS	COPY	-

Table 49: NM Detector Module

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Detector Information Sequence	0054,0022	SQ		ALWAYS	IMPLICIT	-
>Gantry/Detector Tilt	0018,1120	DS		ANAP	COPY	-
>Radial Position	0018,1142	DS		ANAP	COPY	-
>Center of Rotation Offset	0018,1145	DS	0.0	ALWAYS	FIXED	-
>Field of View Shape	0018,1147	CS	RECTANGLE	ALWAYS	FIXED	-
>Field of View Dimension(s)	0018,1149	IS		ANAP	COPY	-
>Collimator/grid Name	0018,1180	SH		ALWAYS	COPY	-
>Collimator Type	0018,1181	CS		ALWAYS	COPY	-
>Focal Distance	0018,1182	IS	0	ALWAYS	FIXED	-
>X Focus Center	0018,1183	DS	0.0	ALWAYS	FIXED	-
>Y Focus Center	0018,1184	DS	0.0	ALWAYS	FIXED	-
>Image Position (Patient)	0020,0032	DS		VNAP	IMPLICIT	-
>Image Orientation (Patient)	0020,0037	DS		VNAP	IMPLICIT	-
>Zoom Factor	0028,0031	DS		ANAP	COPY	-
>Zoom Center	0028,0032	DS	0.0	ALWAYS	FIXED	-
>Start Angle	0054,0200	DS		ANAP	COPY	-
>View Code Sequence	0054,0220	SQ		ANAP	IMPLICIT	-
>>View Modifier Code Sequence	0054,0222	SQ		ANAP	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	IMPLICIT	-
>>Coding Scheme Designator	0008,0102	SH		ALWAYS	IMPLICIT	-
>>Code Meaning	0008,0104	LO		ALWAYS	IMPLICIT	-

**Table 50: NM Tomo Acquisition Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Rotation Information Sequence	0054,0052	SQ		ANAP	COPY	-
>Distance Source to Detector	0018,1110	DS		ANAP	COPY	-
>Table Height	0018,1130	DS		ALWAYS	COPY	-
>Table Traverse	0018,1131	DS		ALWAYS	COPY	-
>Rotation Direction	0018,1140	CS		ALWAYS	COPY	-
>Radial Position	0018,1142	DS		ALWAYS	COPY	-
>Scan Arc	0018,1143	DS		ALWAYS	COPY	-
>Angular Step	0018,1144	DS		ALWAYS	COPY	-
>Actual Frame Duration	0018,1242	IS		ALWAYS	COPY	-
>Number of Frames in Rotation	0054,0053	US		ALWAYS	COPY	-
>Start Angle	0054,0200	DS		ALWAYS	COPY	-
Type of Detector Motion	0054,0202	CS		ANAP	COPY	-

**Table 51: NM Multi-gated Acquisition Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Beat Rejection Flag	0018,1080	CS		ANAP	COPY	-
PVC Rejection	0018,1085	LO		ANAP	COPY	-
Skip Beats	0018,1086	IS		ANAP	COPY	-
Heart Rate	0018,1088	IS		ANAP	COPY	-
Gated Information Sequence	0054,0062	SQ		ANAP	IMPLICIT	-
>Trigger Time	0018,1060	DS	0.0	ALWAYS	FIXED	-
>Data Information Sequence	0054,0063	SQ		ALWAYS	IMPLICIT	-
>>Nominal Interval	0018,1062	IS		ANAP	AUTO	-
>>Frame Time	0018,1063	DS		ALWAYS	USER, IMPLICIT	-
>>Low R-R Value	0018,1081	IS		ANAP	AUTO	-
>>High R-R Value	0018,1082	IS		ANAP	AUTO	-
>>Intervals Acquired	0018,1083	IS		ALWAYS	AUTO	-
>>Intervals Rejected	0018,1084	IS		ANAP	AUTO	-
>>Time Slot Information Sequence	0054,0072	SQ		ALWAYS	IMPLICIT	-
>>>Time Slot Time	0054,0073	DS		ALWAYS	IMPLICIT	-

**Table 52: NM Phase Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Phase Information Sequence	0054,0032	SQ		ANAP	IMPLICIT	-
>Actual Frame Duration	0018,1242	IS		ALWAYS	USER, AUTO	-
>Number of Frames in Phase	0054,0033	US		ALWAYS	USER	-
>Phase Delay	0054,0036	IS	0	ALWAYS	FIXED	-
>Pause Between Frames	0054,0038	IS	0	ALWAYS	FIXED	-
>Number of Triggers in Phase	0054,0211	US	0	ALWAYS	FIXED	-



**Table 53: NM Reconstruction Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Slice Thickness	0018,0050	DS		ANAP	CONFIG, IMPLICIT	-
Spacing Between Slices	0018,0088	DS		ANAP	AUTO	-
Convolution Kernel	0018,1210	SH		ANAP	IMPLICIT	-
Slice Progression Direction	0054,0500	CS		ANAP	AUTO	-

**Table 54: SOP Common Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Specific Character Set	0008,0005	CS	ISO_IR 100	ALWAYS	FIXED	
Instance Creation Date	0008,0012	DA		ALWAYS	AUTO	-
Instance Creation Time	0008,0013	TM		ALWAYS	AUTO	-
Instance Creator UID	0008,0014	UI		ALWAYS	CONFIG	-
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4.1.1.20	ALWAYS	FIXED	1.2.840.10008.5.1.4.1.1.20
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Instance Number	0020,0013	IS		ANAP	COPY	-

**Table 55: Extended DICOM and private attributes for Nuclear Medicine Image Storage SOP Class Instances**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Medical Alerts	0010,2000	LO		ANAP	COPY	-
Contrast Allergies	0010,2110	LO		ANAP	COPY	-
Pregnancy Status	0010,21C0	US		ANAP	COPY	-
Special Needs	0038,0050	LO		ANAP	COPY	-
Patient State	0038,0500	LO		ANAP	COPY	-
Real World Value Mapping Sequence	0040,9096	SQ		ANAP	AUTO	-
> Real World First Value Mapped	0040,9216	US		ANAP	AUTO	-
> Real World Last Value Mapped	0040,9211	US		ANAP	AUTO	-
> Real World Value Intercept	0040,9224	FD	0	ANAP	FIXED	-
> Real World Value Slope	0040,9225	FD		ANAP	AUTO	-

## 8.1.2.5. MR Image Storage SOP Class

**Table 56: 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 – IF PRESENT IN THE SOURCE DATA
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 – IF PRESENT IN THE SOURCE DATA
Image	VOI LUT Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA
Image	SOP Common Module	ALWAYS
Image	Contrast/Bolus Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA

This SOP class can be extended with standard DICOM and private attributes as described in Table 71.

**Table 57: 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		ANAP	COPY	-
Patient's Sex	0010,0040	CS		VNAP	COPY	-
Other Patient IDs	0010,1000	LO		ANAP	COPY	-
Other Patient Names	0010,1001	PN		ANAP	COPY	-
Ethnic Group	0010,2160	SH		ANAP	COPY	-
Patient Comments	0010,4000	LT		ANAP	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAP	COPY	-

**Table 58: 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		ANAP	COPY	-
Procedure Code Sequence	0008,1032	SQ		ANAP	COPY	-
Physician(s) of Record	0008,1048	PN		ANAP	COPY	-
Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAP	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAP	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAP	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAP	COPY	-
Study Instance UID	0020,000D	UI		ALWAYS	AUTO	-
Study ID	0020,0010	SH		VNAP	AUTO	-

**Table 59: Patient Study Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Admitting Diagnoses Description	0008,1080	LO		ANAP	COPY	-

Admitting Diagnoses Code Sequence	0008,1084	SQ		ANAP	COPY	-
Patient's Age	0010,1010	AS		ANAP	COPY	-
Patient's Size	0010,1020	DS		ANAP	COPY	-
Patient's Weight	0010,1030	DS		ANAP	COPY	-
Occupation	0010,2180	SH		ANAP	COPY	-
Additional Patient History	0010,21B0	LT		ANAP	COPY	-

**Table 60: General Series Module**

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

**Table 61: 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 62: General Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO	Philips, Syntermed, Inc.	VNAP	FIXED	"Syntermed, Inc." for "Neuro Q" Application. Else Philips.
Institution Name	0008,0080	LO		ANAP	COPY	-
Institution Address	0008,0081	ST		ANAP	COPY	-
Station Name	0008,1010	SH		ANAP	COPY	-
Institutional Department Name	0008,1040	LO		ANAP	COPY	-
Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	Philips Portal
Device Serial Number	0018,1000	LO		ANAP	COPY	-
Software Version(s)	0018,1020	LO	15.x / AIM_DICOM_210	ANAP	FIXED	"AIM_DICOM_210" for "Auto Quant" Application. Else "15.x"
Spatial Resolution	0018,1050	DS		ANAP	COPY	-
Date of Last Calibration	0018,1200	DA		ANAP	COPY	-
Time of Last Calibration	0018,1201	TM		ANAP	COPY	-
Pixel Padding Value	0028,0120	US /SS		ANAP	COPY	-

**Table 63: General Image Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Acquisition Date	0008,0022	DA		ANAP	COPY	-
Content Date	0008,0023	DA		ANAP	COPY	-
Acquisition Datetime	0008,002A	DT		ANAP	COPY	-
Acquisition Time	0008,0032	TM		ANAP	COPY	-
Content Time	0008,0033	TM		ANAP	COPY	-
Referenced Image Sequence	0008,1140	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Derivation Description	0008,2111	ST		ANAP	COPY	-
Source Image Sequence	0008,2112	SQ		ANAP	COPY	-
Derivation Code Sequence	0008,9215	SQ		ANAP	COPY	-
Instance Number	0020,0013	IS		VNAP	AUTO, COPY	-
Patient Orientation	0020,0020	CS		ANAP	COPY	-
Images in Acquisition	0020,1002	IS		ANAP	COPY	-
Quality Control Image	0028,0300	CS		ANAP	COPY	-
Burned In Annotation	0028,0301	CS		ANAP	COPY	-
Lossy Image Compression	0028,2110	CS		ANAP	COPY	-
Lossy Image Compression Ratio	0028,2112	DS		ANAP	COPY	-
Icon Image Sequence	0088,0200	SQ		ANAP	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		ANAP	COPY	-
>Largest Image Pixel Value	0028,0107	US /SS		ANAP	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	O W		ANAP	COPY	-
>Green Palette Color Lookup Table Data	0028,1202	O W		ANAP	COPY	-
>Blue Palette Color Lookup Table Data	0028,1203	O W		ANAP	COPY	-
>Pixel Data	7FE0,0010	O W/ OB		ANAP	COPY	-
Presentation LUT Shape	2050,0020	CS		ANAP	COPY	-

**Table 64: 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		ALWAYS	COPY	-
Image Orientation (Patient)	0020,0037	DS		ALWAYS	COPY	-
Slice Location	0020,1041	DS		ANAP	COPY	-
Pixel Spacing	0028,0030	DS		ALWAYS	COPY	-

**Table 65: 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	-
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		ANAP	COPY	-
Largest Image Pixel Value	0028,0107	US/SS		ANAP	COPY	-
Pixel Data	7FE0,0010	OW/OB		ANAP	COPY	-

**Table 66: MR Image Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Image Type	0008,0008	CS		ALWAYS	AUTO	-
Scanning Sequence	0018,0020	CS		ALWAYS	COPY	-
Sequence Variant	0018,0021	CS		ALWAYS	COPY	-

Scan Options	0018,0022	CS		VNAP	COPY	-
MR Acquisition Type	0018,0023	CS		VNAP	COPY	-
Sequence Name	0018,0024	SH		ANAP	COPY	-
Angio Flag	0018,0025	CS		ANAP	COPY	-
Repetition Time	0018,0080	DS		ANAP	COPY	-
Echo Time	0018,0081	DS		VNAP	COPY	-
Inversion Time	0018,0082	DS		ANAP	COPY	-
Number of Averages	0018,0083	DS		ANAP	COPY	-
Imaging Frequency	0018,0084	DS		ANAP	COPY	-
Imaged Nucleus	0018,0085	SH		ANAP	COPY	-
Echo Number(s)	0018,0086	IS		ANAP	COPY	-
Magnetic Field Strength	0018,0087	DS		ANAP	COPY	-
Spacing Between Slices	0018,0088	DS		ANAP	COPY	-
Number of Phase Encoding Steps	0018,0089	IS		ANAP	COPY	-
Echo Train Length	0018,0091	IS		VNAP	COPY	-
Percent Sampling	0018,0093	DS		ANAP	COPY	-
Percent Phase Field of View	0018,0094	DS		ANAP	COPY	-
Pixel Bandwidth	0018,0095	DS		ANAP	COPY	-
Trigger Time	0018,1060	DS		ANAP	COPY	-
Nominal Interval	0018,1062	IS		ANAP	COPY	-
Beat Rejection Flag	0018,1080	CS		ANAP	COPY	-
Low R-R Value	0018,1081	IS		ANAP	COPY	-
High R-R Value	0018,1082	IS		ANAP	COPY	-
Intervals Acquired	0018,1083	IS		ANAP	COPY	-
Intervals Rejected	0018,1084	IS		ANAP	COPY	-
PVC Rejection	0018,1085	LO		ANAP	COPY	-
Skip Beats	0018,1086	IS		ANAP	COPY	-
Heart Rate	0018,1088	IS		ANAP	COPY	-
Cardiac Number of Images	0018,1090	IS		ANAP	COPY	-
Trigger Window	0018,1094	IS		ANAP	COPY	-
Reconstruction Diameter	0018,1100	DS		ANAP	COPY	-
Receive Coil Name	0018,1250	SH		ANAP	COPY	-
Transmit Coil Name	0018,1251	SH		ANAP	COPY	-
Acquisition Matrix	0018,1310	US		ANAP	COPY	-
In-plane Phase Encoding Direction	0018,1312	CS		ANAP	COPY	-
Flip Angle	0018,1314	DS		ANAP	COPY	-
SAR	0018,1316	DS		ANAP	COPY	-
dB/dt	0018,1318	DS		ANAP	COPY	-
Temporal Position Identifier	0020,0100	IS		ANAP	COPY	-
Number of Temporal Positions	0020,0105	IS		ANAP	COPY	-
Temporal Resolution	0020,0110	DS		ANAP	COPY	-
Samples per Pixel	0028,0002	US		ALWAYS	COPY	-
Photometric Interpretation	0028,0004	CS	MONOCHROME2	ALWAYS	COPY	-
Bits Allocated	0028,0100	US		ALWAYS	COPY	-

**Table 67: 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		ANAP	AUTO	-
Overlay Type	6000,0040	CS		ALWAYS	AUTO	-
Overlay Subtype	6000,0045	LO		ANAP	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		ANAP	AUTO	-
ROI Mean	6000,1302	DS		ANAP	AUTO	-
ROI Standard Deviation	6000,1303	DS		ANAP	AUTO	-
Overlay Label	6000,1500	LO		ANAP	AUTO	-
Overlay Data	6000,3000	OW/ OB		ALWAYS	AUTO	-

**Table 68: VOI LUT Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Window Center	0028,1050	DS		ANAP	AUTO	-
Window Width	0028,1051	DS		ANAP	AUTO	-
Window Center & Width Explanation	0028,1055	LO		ANAP	AUTO	-

**Table 69: 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		ANAP	AUTO	-
Instance Creation Time	0008,0013	TM		ANAP	AUTO	-
Instance Creator UID	0008,0014	UI		ANAP	AUTO	-
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4.1.1.4	ALWAYS	COPY	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Timezone Offset From UTC	0008,0201	SH		ANAP	COPY	-

**Table 70: 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		ANAP	COPY	-
Contrast/Bolus Administration Route Sequence	0018,0014	SQ		ANAP	COPY	-
>Additional Drug Sequence	0018,002A	SQ		ANAP	COPY	-
Contrast/Bolus Route	0018,1040	LO		ANAP	COPY	-
Contrast/Bolus Volume	0018,1041	DS		ANAP	COPY	-
Contrast/Bolus Start Time	0018,1042	TM		ANAP	COPY	-
Contrast/Bolus Stop Time	0018,1043	TM		ANAP	COPY	-
Contrast/Bolus Total Dose	0018,1044	DS		ANAP	COPY	-
Contrast Flow Rate	0018,1046	DS		ANAP	COPY	-
Contrast Flow Duration	0018,1047	DS		ANAP	COPY	-
Contrast/Bolus Ingredient	0018,1048	CS		ANAP	COPY	-
Contrast/Bolus Ingredient Concentration	0018,1049	DS		ANAP	COPY	-

**Table 71: Extended DICOM and private attributes for MR Image Storage SOP Class Instances**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Rescale Intercept	0028,1052	DS		ANAP	COPY	-
Rescale Slope	0028,1053	DS		ANAP	COPY	-
Curve Dimensions	50xx,0005	US		ANAP	AUTO	-
Number of Points	50xx,0010	US		ANAP	AUTO	-
Type of Data	50xx,0020	CS		ANAP	AUTO	-
Data Value Representation	50xx,0103	US		ANAP	AUTO	-
Curve Data	50xx,3000	OB/OW		ANAP	AUTO	-
Curve Description	50xx,0022	LO		ANAP	AUTO	-
Axis Units	50xx,0030	SH		ANAP	AUTO	-
Axis Labels	50xx,0040	SH		ANAP	AUTO	-
Minimum Coordinate Value	50xx,0104	US		ANAP	AUTO	-
Maximum Coordinate Value	50xx,0105	US		ANAP	AUTO	-
Curve Range	50xx,0106	SH		ANAP	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		ANAP	AUTO	-
Referenced Overlay Sequence	50xx,2600	SQ		ANAP	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	-

## 8.1.2.6. RT Structure Set Storage SOP Class

**Table 72: 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 – IF PRESENT IN THE SOURCE DATA
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

This SOP class can be extended with standard DICOM and private attributes as described in Table 82.

**Table 73: 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		ALWAYS	COPY	-
Patient ID	0010,0020	LO		ALWAYS	COPY	-



Patient's Birth Date	0010,0030	DA		VNAP	COPY	-
Patient's Birth Time	0010,0032	TM		ANAP	COPY	-
Patient's Sex	0010,0040	CS		VNAP	COPY	-
Other Patient IDs	0010,1000	LO		ANAP	COPY	-
Other Patient Names	0010,1001	PN		ANAP	COPY	-
Ethnic Group	0010,2160	SH		ANAP	COPY	-
Patient Comments	0010,4000	LT		ANAP	COPY	-
Issuer of Patient ID	0010,0021	LO		ANAP	COPY	-

**Table 74: 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		ANAP	COPY	-
Procedure Code Sequence	0008,1032	SQ		ANAP	COPY	-
Physician(s) of Record	0008,1048	PN		ANAP	COPY	-
Physician(s) of Record Identification Sequence	0008,1049	SQ		ANAP	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAP	COPY	-
Physician(s) Reading Study Identification Sequence	0008,1062	SQ		ANAP	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAP	COPY	-
Study Instance UID	0020,000D	UI		ALWAYS	AUTO	-
Study ID	0020,0010	SH		VNAP	AUTO	-

**Table 75: Patient Study Module**

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

**Table 76: RT Series Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS	RTSTRUCT	ALWAYS	FIXED	-
Series Description	0008,103E	LO		ANAP	AUTO/ USER	-
Operators' Name	0008,1070	PN		ANAP	COPY	-
Series Description Code Sequence	0008,103F	SQ		ANAP	COPY	-

Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAP	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Request Attributes Sequence	0040,0275	SQ		ANAP	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ANAP	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAP	COPY	-
Performed Procedure Step ID	0040,0253	SH		ANAP	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAP	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAP	COPY	-
Comments on the Performed Procedure Step	0040,0280	ST		ANAP	COPY	-

**Table 77: General Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO	Philips, Syntermed, Inc.	VNAP	FIXED	"Syntermed, Inc." for "Neuro Q" Application. Else Philips.
Institution Name	0008,0080	LO		ANAP	COPY	-
Institution Address	0008,0081	ST		ANAP	COPY	-
Station Name	0008,1010	SH		ANAP	COPY	-
Institutional Department Name	0008,1040	LO		ANAP	COPY	-
Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ALWAYS	FIXED	Philips Portal
Device Serial Number	0018,1000	LO		ANAP	COPY	-
Software Version(s)	0018,1020	LO	15.x / AIM_DICOM_210	ANAP	FIXED	"AIM_DICOM_210" for "Auto Quant" Application. Else "15.x"
Spatial Resolution	0018,1050	DS		ANAP	COPY	-
Date of Last Calibration	0018,1200	DA		ANAP	COPY	-
Time of Last Calibration	0018,1201	TM		ANAP	COPY	-
Pixel Padding Value	0028,0120	US/SS		ANAP	COPY	-

**Table 78: Structure Set Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Instance Number	0020,0013	IS		ANAP	AUTO	-
Structure Set Label	3006,0002	SH		ALWAYS	AUTO	-
Structure Set Name	3006,0004	LO		ANAP	AUTO	-
Structure Set Description	3006,0006	ST		ANAP	AUTO	-
Structure Set Date	3006,0008	DA		VNAP	AUTO	-
Structure Set Time	3006,0009	TM		VNAP	AUTO	-
Referenced Frame of Reference Sequence	3006,0010	SQ		ANAP	AUTO	-
>Frame of Reference UID	0020,0052	UI		ALWAYS	AUTO	-
>RT Referenced Study Sequence	3006,0012	SQ		ANAP	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		ANAP	AUTO	-
Structure Set ROI Sequence	3006,0020	SQ		ANAP	AUTO	-
>Derivation Code Sequence	0008,9215	SQ		ANAP	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	-
>ROI Description	3006,0028	ST		ANAP	AUTO	-
>ROI Volume	3006,002C	DS		ANAP	AUTO	-
>ROI Generation Algorithm	3006,0036	CS		VNAP	AUTO	-
>ROI Generation Description	3006,0038	LO		ANAP	AUTO	-

**Table 79: 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		ANAP	AUTO	-
>Contour Sequence	3006,0040	SQ		ANAP	AUTO	-
>>Contour Image Sequence	3006,0016	SQ		ANAP	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		ANAP	AUTO	-
>>Contour Offset Vector	3006,0045	DS		ANAP	AUTO	-
>>Number of Contour Points	3006,0046	IS		ALWAYS	AUTO	-
>>Contour Number	3006,0048	IS		ANAP	AUTO	-
>>Attached Contours	3006,0049	IS		ANAP	AUTO	-
>>Contour Data	3006,0050	DS		ALWAYS	AUTO	-
>Referenced ROI Number	3006,0084	IS		ALWAYS	AUTO	-

**Table 80: 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		ANAP	AUTO	-
>> Referenced ROI Number	3006,0084	IS		ALWAYS	AUTO	-
>>RT ROI Relationship	3006,0033	IS		ANAP	AUTO	-

>Observation Number	3006,0082	IS		ALWAYS	AUTO	-
>Referenced ROI Number	3006,0084	IS		ALWAYS	AUTO	-
>ROI Observation Label	3006,0085	SH		ANAP	AUTO	-
>RT ROI Identification Code Sequence	3006,0086	SQ		ANAP	AUTO	-
>ROI Observation Description	3006,0088	ST		ANAP	AUTO	-
>Related RT ROI Observations Sequence	3006,00A0	SQ		ANAP	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		ANAP	AUTO	-
>ROI Physical Properties Sequence	3006,00B0	SQ		ANAP	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	-
>>>ROI Elemental Composition Atomic Mass Fraction	3006,00B8	FL		ALWAYS	AUTO	-
>>ROI Physical Property Value	3006,00B4	DS		ALWAYS	AUTO	-

**Table 81: 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		ANAP	AUTO	-
Instance Creation Time	0008,0013	TM		ANAP	AUTO	-
Instance Creator UID	0008,0014	UI		ANAP	AUTO	-
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4.1.1.481.3	ALWAYS	COPY	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Timezone Offset From UTC	0008,0201	SH		ANAP	COPY	-

**Table 82: Extended DICOM and private attributes for RT Structure Set Storage SOP Class Instances**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Series Date	0008,0021	DA		ANAP	AUTO	-
Series Time	0008,0031	TM		ANAP	AUTO	-
Modalities in Study	0008,0061	CS		ANAP	AUTO	-
Patient Orientation	0020,0020	CS		ANAP	AUTO	-
Secondary Capture Device ID	0018,1010	LO		ANAP	AUTO	-
Secondary Capture Device Manufacturer	0018,1016	LO	Philips Medical Systems	ALWAYS	FIXED	-
Secondary Capture Device Manufacturer's Model name	0018,1018	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal
Secondary Capture Device Software Version(s)	0018,1019	LO	15.x	ANAP	FIXED	-

## 8.1.2.7. Spatial Registration Storage SOP Class

**Table 83: IOD of Created Spatial Registration Storage SOP Class Instances**

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	General Study Module	ALWAYS
Series	General Series Module	ALWAYS
Series	Spatial Registration Series Module	ALWAYS
Frame of Reference	Frame of Reference Module	ALWAYS
Spatial Registration	Spatial Registration Module	ALWAYS
Image	SOP Common Module	ALWAYS

**Table 84: Patient Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Ethnic Group	0010,2160	SH		ANAP	AUTO	-
Patient Comments	0010,4000	LT		ANAP	AUTO	-
Patient ID	0010,0020	LO		ANAP	AUTO	-
Patient's Birth Date	0010,0030	DA		ANAP	AUTO	-
Patient's Name	0010,0010	PN		ANAP	AUTO	-
Patient's Sex	0010,0040	CS		ANAP	AUTO	-
Other Patient IDs	0010,1000	LO		ANAP	COPY	

**Table 85: General Study Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Accession Number	0008,0050	SH		ANAP	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAP	COPY	-
Referring Physician's Name	0008,0090	PN		ANAP	COPY	-
Study Date	0008,0020	DA		ANAP	COPY	-
Study Description	0008,1030	LO		ANAP	COPY	-
Study ID	0020,0010	SH		ANAP	COPY	-
Study Instance UID	0020,000D	UI		ANAP	COPY	-
Study Time	0008,0030	TM		ANAP	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ANAP	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ANAP	COPY	-

**Table 86: Patient Study Module**

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

**Table 87: General Series Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Series Date	0008,0021	DA		ALWAYS	AUTO	-
Series Description	0008,103E	LO		ALWAYS	AUTO	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		ALWAYS	AUTO	-
Series Time	0008,0031	TM		ALWAYS	AUTO	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ANAP	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ANAP	COPY	-
Request Attributes Sequence	0040,0275	SQ		ANAP	COPY	-
>Requested Procedure ID	0040,1001	SH		ANAP	COPY	-
>Scheduled Procedure Step Description	0040,0007	LO		ANAP	COPY	-
>Scheduled Procedure Step ID	0040,0009	SH		ANAP	COPY	-
>Scheduled Protocol Code Sequence	0040,0008	SQ		ANAP	COPY	-
>>Code Meaning	0008,0104	LO		ANAP	COPY	-
>>Code Value	0008,0100	SH		ANAP	COPY	-
>>Coding Scheme Designator	0008,0102	SH		ANAP	COPY	-
Performed Procedure Step ID	0040,0253	SH		ANAP	COPY	-

**Table 88: Spatial Registration Series Module**

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

**Table 89: 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 90: Spatial Registration Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Content Date	0008,0023	DA		ALWAYS	AUTO	-
Content Time	0008,0033	TM		ALWAYS	AUTO	-
Registration Sequence	0070,0308	SQ		ALWAYS	AUTO	-
>Frame of Reference UID	0020,0052	UI		ANAP	AUTO	-
>Matrix Registration Sequence	0070,0309	SQ		ALWAYS	AUTO	-
>>Matrix Sequence	0070,030A	SQ		ALWAYS	AUTO	-
>>>Frame of Reference Transformation Matrix	3006,00C6	DS		ALWAYS	AUTO	-
>>>Frame of Reference Transformation Matrix Type	0070,030C	CS		ALWAYS	AUTO	-
>>Registration Type Code Sequence	0070,030D	SQ		ALWAYS	AUTO	-
>>>Code Value	0008,0100	SH		ALWAYS	AUTO	-

Content Creator's Name	0070,0084	PN		VNAP	AUTO	-
Content Description	0070,0081	LO		VNAP	AUTO	-
Content Label	0070,0080	CS		ALWAYS	AUTO	-
Instance Number	0020,0013	IS		ALWAYS	AUTO	-

**Table 91: Common Instance Reference Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referenced Series Sequence	0008,1115	SQ		ALWAYS	AUTO, COPY	-

**Table 92: SOP Common Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Specific Character Set	0008,0005	CS		ANAP	AUTO	
Instance Number	0020,0013	IS		ALWAYS	AUTO	-
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4.1.1.66.1	ALWAYS	AUTO	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-

## 8.1.2.8. Secondary Capture Image Storage SOP Class

**Table 93: 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 – IF PRESENT IN THE SOURCE DATA
Series	General Series Module	ALWAYS
Equipment	General Equipment Module	ALWAYS
Equipment	SC Equipment Module	ALWAYS
Acquisition	General Acquisition Module	ALWAYS
Image	General Image Module	ALWAYS
Image	Image Pixel Module	ALWAYS
Image	SC Image Module	ALWAYS
Image	VOI LUT Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA
Image	SOP Common Module	ALWAYS
Image	Common Instance Reference Module	CONDITIONAL - IF PRESENT IN THE SOURCE DATA

This SOP class can be extended with standard DICOM and private attributes as described in Table 107.

**Table 94: Patient Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
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		ANAP	COPY	-
Patient's Sex	0010,0040	CS		VNAP	COPY	-
Other Patient Ids	0010,1000	LO		ANAP	COPY	-
Ethnic Group	0010,2160	SH		ANAP	COPY	-
Patient Comments	0010,4000	LT		ANAP	COPY	-

**Table 95: General Study Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Instance UID	0020,000D	UI		ALWAYS	COPY	-
Study Date	0008,0020	DA		ALWAYS	COPY	-
Study Time	0008,0030	TM		ALWAYS	COPY	-
Referring Physician's Name	0008,0090	PN		VNAP	COPY	-
Study ID	0020,0010	SH		VNAP	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY	-
Study Description	0008,1030	LO		ANAP	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAP	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Procedure Code Sequence	0008,1032	SQ		ANAP	COPY	-
>Code Value	0008,0100	SH		ALWAYS	COPY	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>Code Meaning	0008,0104	LO		ALWAYS	COPY	-

**Table 96: Patient Study Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Patient's Size	0010,1020	DS		ANAP	COPY	-
Patient's Weight	0010,1030	DS		ANAP	COPY	-

**Table 97: General Series Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS		ALWAYS	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Series Date	0008,0021	DA		ALWAYS	AUTO	-
Series Time	0008,0031	TM		ALWAYS	AUTO	-
Series Description	0008,103E	LO		ANAP	USER	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ANAP	FIXED	-
>Referenced SOP Instance UID	0008,1155	UI		ANAP	COPY	-
Patient Position	0018,5100	CS		ANAP	COPY	-
Request Attributes Sequence	0040,0275	SQ		ALWAYS	COPY	-
>Requested Procedure ID	0040,1001	SH		ANAP	COPY	-
>Scheduled Procedure Step ID	0040,0009	SH		ANAP	COPY	-
>Scheduled Procedure Step Description	0040,0007	LO		ANAP	COPY	-
>Scheduled Protocol Code Sequence	0040,0008	SQ		ANAP	COPY	-
>>Code Value	0008,0100	SH		ALWAYS	COPY	-
>>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>>Code Meaning	0008,0104	LO		ALWAYS	COPY	-
Performed Procedure Step ID	0040,0253	SH		ANAP	COPY	-



Performed Procedure Step Start Date	0040,0244	DA		ANAP	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAP	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAP	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAP	COPY	-
>Code Value	0008,0100	SH		ALWAYS	COPY	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	COPY	-
>Code Meaning	0008,0104	LO		ALWAYS	COPY	-

**Table 98: General Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO	Philips, Syntermed, Inc.	VNAP	FIXED	"Syntermed, Inc." for "Neuro Q" Application. Else Philips.
Institution Name	0008,0080	LO		VNAP	COPY	-
Institution Address	0008,0081	ST		VNAP	COPY	-
Station Name	0008,1010	SH		ANAP	COPY	-
Institutional Department Name	0008,1040	LO		ANAP	COPY	-
Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal
Device Serial Number	0018,1000	LO		ANAP	COPY	-
Software Version(s)	0018,1020	LO	15.x / AIM_DICOM_210	ANAP	FIXED	"AIM_DICOM_210" for "Auto Quant" Application. Else "15.x"

**Table 99: SC Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Conversion Type	0008,0064	CS	WSD	ALWAYS	FIXED	-
Secondary Capture Device ID	0018,1010	LO		ANAP	AUTO	-
Secondary Capture Device Manufacturer	0018,1016	LO	Philips	ALWAYS	FIXED	-
Secondary Capture Device Manufacturer's Model name	0018,1018	LO	IntelliSpace Portal	ANAP	FIXED	-
Secondary Capture Device Software Version(s)	0018,1019	LO	15.x	ANAP	FIXED	-

**Table 100: General Acquisition Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Acquisition Date	0008,0022	DA		ANAP	COPY	-
Acquisition DateTime	0008,002A	DT		ANAP	COPY	-
Acquisition Time	0008,0032	TM		ANAP	COPY	-
Acquisition Duration	0018,9073	FD		ANAP	COPY	-
Acquisition Number	0020,0012	IS		ANAP	COPY	-

**Table 101: General Image Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Instance Number	0020,0013	IS		VNAP	AUTO	-

Image Type	0008,0008	CS	DERIVED SECONDARY/ DERIVED SECONDARY PHILIPS_BOOKMARK	ALWAYS	FIXED	-
Content Date	0008,0023	DA		ANAP	COPY	-
Content Time	0008,0033	TM		ANAP	COPY	-
Patient Orientation	0020,0020	CS		EMPTY	FIXED	-
Image comments	0020,4000	LT		VNAP	USER	-
Burned In Annotation	0028,0301	CS		ANAP	COPY	-
Lossy Image Compression	0028,2110	CS		ANAP	COPY	-
Presentation LUT shape	2050,0020	CS	IDENTITY	ANAP	FIXED	Present only for MONOCHROME 2 Images

**Table 102: Image Pixel Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Samples per Pixel	0028,0002	US	1/3	ALWAYS	FIXED	"1" for MONOCHROME 2 images and value = "3" for RGB images.
Photometric Interpretation	0028,0004	CS	MONOCHROME 2/ RGB	ALWAYS	USER	-
Rows	0028,0010	US		ALWAYS	USER	-
Columns	0028,0011	US		ALWAYS	USER	-
Bits Allocated	0028,0100	US	8	ALWAYS	FIXED	-
Bits Stored	0028,0101	US	8	ALWAYS	FIXED	-
High Bit	0028,0102	US	7	ALWAYS	FIXED	-
Pixel Representation	0028,0103	US	0	ALWAYS	FIXED	-
Pixel Data	7FE0,0010	OW		ALWAYS	AUTO	-
Planar Configuration	0028,0006	US	0	ANAP	FIXED	Only for RGB images.
Pixel Aspect Ratio	0028,0034	IS		ALWAYS	AUTO	-
Smallest Image Pixel Value	0028,0106	US		ALWAYS	AUTO	-
Largest Image Pixel Value	0028,0107	US		ALWAYS	AUTO	-

**Table 103: SC Image Module**

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

**Table 104: VOI LUT Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Window Center	0028,1050	DS		ANAP	AUTO	Only for MONOCHROME 2 images
Window Width	0028,1051	DS		ANAP	AUTO	Only for MONOCHROME 2 images

**Table 105: SOP Common Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4.1.1.7	ALWAYS	FIXED	-
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Specific Character Set	0008,0005	CS	ISO_IR 100	ALWAYS	FIXED	-

Instance Creation Date	0008,0012	DA		ALWAYS	AUTO	-
Instance Creation Time	0008,0013	TM		ALWAYS	AUTO	-

**Table 106: Common Instance Reference Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Referenced Series Sequence	0008,1115	SQ		ANAP	COPY	
>Referenced Instance Sequence	0008,114A	SQ		ALWAYS	COPY	
>> Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	
>> Referenced SOP Instance UID	0008,1150	UI		ALWAYS	COPY	
> Series Instance UID	0020,000E	UI		ALWAYS	COPY	

**Table 107: Extended DICOM and private attributes for Secondary Capture Image Storage SOP Class Instances**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Medical Alerts	0010,2000	LO		ANAP	COPY	-
Contrast Allergies	0010,2110	LO		ANAP	COPY	-
Pregnancy Status	0010,21C0	US		ANAP	COPY	-
Special Needs	0038,0050	LO		ANAP	COPY	-
Patient State	0038,0500	LO		ANAP	COPY	-
IMPLEMENTOR_ID	0041,0010	LO		ANAP	COPY	-
REPORT_TYPE	0041,1010	CS		ANAP	COPY	-
Unknown Private Creator	00E1,0010	LO		ANAP	COPY	-
Unknown	00E1,1080	OB		ANAP	COPY	-
Private Creator (ELSCINT1)	00E1,00xx	LO		ANAP	COPY	-
Unknown	00E1,xx1D	IS		ANAP	COPY	-
Unknown	00E1,xx40	SH		ANAP	COPY	-
Unknown	00E1,xx0E	LT		ANAP	COPY	-
Unknown	00E1,xx0F	LO		ANAP	COPY	-
Private Creator (ELSCINT1)	07A1,00xx	LO		ANAP	COPY	-
Unknown	07A1,xx0A	OB		ANAP	COPY	-
Unknown	07A1,xx10	LO		ANAP	COPY	-
Unknown	07A1,xx11	LO		ANAP	COPY	-
Private Creator Group 2001	2001,00xx	LO	Philips Imaging DD 001	ANAP	COPY	-
Unknown (ELSEWHERE)	2001, xx63	CS		ANAP	COPY	-
Private Creator Group 7051	7051,00xx	LO	PHILIPS NM-Private	ANAP	COPY	-
NM Bookmark version	7051,xx34	LT		ANAP	COPY	Version of the bookmark created

## 8.1.2.9. Multi-Frame Grayscale Byte Secondary Capture Image Storage SOP Class

**Table 108: IOD of Created Multi-Frame Grayscale Byte Secondary Capture Image Storage SOP Class Instances**

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	Patient Study Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA
Study	General Study Module	ALWAYS
Series	General Series Module	ALWAYS

Equipment	General Equipment Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA
Equipment	SC Equipment Module	ALWAYS
Image	General Image Module	ALWAYS
Image	SC Image Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA
Image	Multi-Frame Module	ALWAYS
Image	SC Multi-Frame Module	ALWAYS
Image	Cine Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA
Image	Image Pixel Module	ALWAYS
Image	SOP Common Module	ALWAYS

This SOP class can be extended with standard DICOM and private attributes as described in Table 122.

**Table 109: Patient Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
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		VNAP	COPY	-
Patient's Sex	0010,0040	CS		VNAP	COPY	-
Other Patient Ids	0010,1000	LO		ANAP	COPY	-
Ethnic Group	0010,2160	SH		ANAP	COPY	-
Patient Comments	0010,4000	LT		ANAP	COPY	-

**Table 110: Patient Study Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Patients Size	0010,0020	LO		VNAP	COPY	-
Patients Weight	0010,0030	DA		VNAP	COPY	-

**Table 111: General Study Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Instance UID	0020,000D	UI		ALWAYS	COPY	-
Study Date	0008,0020	DA		ALWAYS	COPY	-
Study Time	0008,0030	TM		ALWAYS	COPY	-
Referring Physician's Name	0008,0090	PN		VNAP	COPY	-
Study ID	0020,0010	SH		VNAP	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY	-
Study Description	0008,1030	LO		ANAP	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAP	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Procedure Code Sequence	0008,1032	SQ		ANAP	COPY	-
>Code Value	0008,0100	SH		ANAP	COPY	-
>Coding Scheme Designator	0008,0102	SH		ANAP	COPY	-
>Code Meaning	0008,0104	LO		ANAP	COPY	-

**Table 112: General Series Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS		ALWAYS	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Series Date	0008,0021	DA		ALWAYS	AUTO	-
Series Time	0008,0031	TM		ALWAYS	AUTO	-
Series Description	0008,103E	LO		ANAP	USER	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ALWAYS	FIXED	-
>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	COPY	-
Patient Position	0018,5100	CS		ANAP	COPY	-
Request Attributes Sequence	0040,0275	SQ		ALWAYS	COPY	-
>Requested Procedure ID	0040,1001	SH		ANAP	COPY	-
>Scheduled Procedure Step ID	0040,0009	SH		ANAP	COPY	-
>Scheduled Procedure Step Description	0040,0007	LO		ANAP	COPY	-
>Scheduled Protocol Code Sequence	0040,0008	SQ		ANAP	COPY	-
>>Code Value	0008,0100	SH		ANAP	COPY	-
>>Coding Scheme Designator	0008,0102	SH		ANAP	COPY	-
>>Code Meaning	0008,0104	LO		ANAP	COPY	-
Performed Procedure Step ID	0040,0253	SH		ANAP	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ANAP	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAP	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAP	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAP	COPY	-
>Code Value	0008,0100	SH		ANAP	COPY	-
>Coding Scheme Designator	0008,0102	SH		ANAP	COPY	-
>Code Meaning	0008,0104	LO		ANAP	COPY	-

**Table 113: General Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO	Philips, Syntermed, Inc.	VNAP	FIXED	"Syntermed, Inc." for "Neuro Q" Application. Else Philips.
Institution Name	0008,0080	LO		ANAP	COPY	-
Institution Address	0008,0081	ST		ANAP	COPY	-
Station Name	0008,1010	SH		ANAP	COPY	-
Institutional Department Name	0008,1040	LO		ANAP	COPY	-
Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal
Device Serial Number	0018,1000	LO		ANAP	COPY	-

Software Version(s)	0018,1020	LO	15.x / AIM_DICOM_210	ANAP	FIXED	"AIM_DICOM_210" for "Auto Quant" Application. Else "15.x"
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**Table 114: SC Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Conversion Type	0008,0064	CS	WSD	ALWAYS	FIXED	-
Secondary Capture Device ID	0018,1010	LO		ANAP	AUTO	-
Secondary Capture Device Manufacturer	0018,1016	LO	Philips Medical Systems	ALWAYS	FIXED	-
Secondary Capture Device Manufacturer's Model name	0018,1018	LO	Philips Portal	ANAP	FIXED	Philips Portal
Secondary Capture Device Software Version(s)	0018,1019	LO	15.x	ANAP	FIXED	-

**Table 115: General Image Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Instance Number	0020,0013	IS		VNAP	AUTO	-
Image Type	0008,0008	CS	DERIVED\SECONDARY	ALWAYS	FIXED	-
Patient Orientation	0020,0020			EMPTY	FIXED	-
Image comments	0020,4000			ANAP	COPY	-

**Table 116: SC Image Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Date of Secondary Capture	0018,1012	DA		ANAP	AUTO	-
Time of Secondary Capture	0018,0014	TM		ANAP	AUTO	-

**Table 117: Multi-Frame Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Number of Frames	0028,0008	IS		ALWAYS	IMPLICIT	-
Frame Increment Pointer	0028,0009	AT		ALWAYS	AUTO	-

**Table 118: SC Multi-Frame Image Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Burned In Annotation	0028,0301	CS		ALWAYS	AUTO	-
Presentation LUT shape	2050,0020	CS	IDENTITY	ANAP	FIXED	Present only for MONOCHROME 2 Images

**Table 119: Cine Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Preferred Playback Sequencing	0018,1244	US	0	ALWAYS	FIXED	-
Frame Time	0018,1063	DS		ALWAYS	AUTO	-
Cine Rate	0018,0040	IS		ALWAYS	AUTO	-

**Table 120: Image Pixel Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Samples per Pixel	0028,0002	US	1	ALWAYS	FIXED	-
Photometric Interpretation	0028,0004	CS	MONOCHROME 2	ALWAYS	USER	-
Rows	0028,0010	US		ALWAYS	USER	-
Columns	0028,0011	US		ALWAYS	USER	-
Bits Allocated	0028,0100	US	8	ALWAYS	FIXED	-
Bits Stored	0028,0101	US	8	ALWAYS	FIXED	-
High Bit	0028,0102	US	7	ALWAYS	FIXED	-
Pixel Representation	0028,0103	US	0	ALWAYS	FIXED	-
Pixel Data	7FE0,0010	OW		ALWAYS	AUTO	-
Pixel Aspect Ratio	0028,0034	IS		ALWAYS	AUTO	-
Smallest Image Pixel Value	0028,0106	US		ALWAYS	AUTO	-
Largest Image Pixel Value	0028,0107	US		ALWAYS	AUTO	-

**Table 121: SOP Common Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4.1.1.7.2	ALWAYS	FIXED	1.2.840.10008.5.1.4.1.1.7.2
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	-
Specific Character Set	0008,0005	CS	ISO_IR 100	ALWAYS	FIXED	
Instance Creation Date	0008,0012	DA		ANAP	AUTO	-
Instance Creation Time	0008,0013	TM		ANAP	AUTO	-

**Table 122: Extended DICOM and private attributes for Secondary Capture Image Storage SOP Class Instances**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Medical Alerts	0010,2000	LO		ANAP	COPY	-
Contrast Allergies	0010,2110	LO		ANAP	COPY	-
Pregnancy Status	0010,21C0	US		ANAP	COPY	-
Special Needs	0038,0050	LO		ANAP	COPY	-
Patient State	0038,0500	LO		ANAP	COPY	-
Window Center	0028,1050	DS		ANAP	AUTO	Only for MONOCHROME 2 images
Window Width	0028,1051	DS		ANAP	AUTO	Only for MONOCHROME 2 images
Private Creator Group 1001	1001,0010	LO		ANAP	AUTO	-
Private Creator	1001,0011	LO		ANAP	AUTO	-
Unknown Tag & Data	1001,1018	CS		ANAP	AUTO	-
Unknown Tag & Data	1001,1103	LO		ANAP	AUTO	-
Private Creator Group 2001	2001,00xx	LO		ANAP	AUTO	-
Examination Source	2001,xx63	CS		ANAP	AUTO	-
Unknown Tag & Data	2001,xxF3	CS		ANAP	AUTO	-
Private Creator Group 2005	2005,00xx	LO		ANAP	AUTO	-
Unknown Tag & Data	2005,xx3A	LT		ANAP	AUTO	-

## 8.1.2.10. Multi-Frame True Color Secondary Capture Image Storage SOP Class

**Table 123: IOD of Created Multi-Frame True Color Secondary Capture Image Storage SOP Class Instances**

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	General Study Module	ALWAYS
Series	General Series Module	ALWAYS
Equipment	General Equipment Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA
Equipment	SC Equipment Module	ALWAYS
Image	General Image Module	ALWAYS
Image	SC Multi-Frame Module	ALWAYS
Image	Cine Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA
Image	Multi-Frame Module	ALWAYS
Image	Image Pixel Module	ALWAYS
Image	SOP Common Module	ALWAYS

This SOP class can be extended with standard DICOM and private attributes as described in Table 135.

**Table 124: Patient Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
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		ANAP	COPY	-
Patient's Sex	0010,0040	CS		VNAP	COPY	-
Other Patient Ids	0010,1000	LO		ANAP	COPY	-
Ethnic Group	0010,2160	SH		ANAP	COPY	-
Patient Comments	0010,4000	LT		ANAP	COPY	-

**Table 125: General Study Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Study Instance UID	0020,000D	UI		ALWAYS	COPY	-
Study Date	0008,0020	DA		ALWAYS	COPY	-
Study Time	0008,0030	TM		ALWAYS	COPY	-
Referring Physician's Name	0008,0090	PN		VNAP	COPY	-
Study ID	0020,0010	SH		VNAP	COPY	-
Accession Number	0008,0050	SH		VNAP	COPY	-
Study Description	0008,1030	LO		ANAP	COPY	-
Name of Physician(s) Reading Study	0008,1060	PN		ANAP	COPY	-
Referenced Study Sequence	0008,1110	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ANAP	COPY	-
>Referenced SOP Instance UID	0008,1155	UI		ANAP	COPY	-
Procedure Code Sequence	0008,1032	SQ		ANAP	COPY	-
>Code Value	0008,0100	SH		ANAP	COPY	-
>Coding Scheme Designator	0008,0102	SH		ANAP	COPY	-



>Code Meaning	0008,0104	LO		ANAP	COPY	-
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**Table 126: General Series Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS		ALWAYS	COPY	-
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Series Date	0008,0021	DA		ALWAYS	AUTO	-
Series Time	0008,0031	TM		ALWAYS	AUTO	-
Series Description	0008,103E	LO		ANAP	USER	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAP	COPY	-
>Referenced SOP Class UID	0008,1150	UI		ANAP	FIXED	-
>Referenced SOP Instance UID	0008,1155	UI		ANAP	COPY	-
Patient Position	0018,5100	CS		ANAP	COPY	-
Request Attributes Sequence	0040,0275	SQ		ALWAYS	COPY	-
>Requested Procedure ID	0040,1001	SH		ANAP	COPY	-
>Scheduled Procedure Step ID	0040,0009	SH		ANAP	COPY	-
>Scheduled Procedure Step Description	0040,0007	LO		ANAP	COPY	-
>Scheduled Protocol Code Sequence	0040,0008	SQ		ANAP	COPY	-
>>Code Value	0008,0100	SH		ANAP	COPY	-
>>Coding Scheme Designator	0008,0102	SH		ANAP	COPY	-
>>Code Meaning	0008,0104	LO		ANAP	COPY	-
Performed Procedure Step ID	0040,0253	SH		ANAP	COPY	-
Performed Procedure Step Start Date	0040,0244	DA		ANAP	COPY	-
Performed Procedure Step Start Time	0040,0245	TM		ANAP	COPY	-
Performed Procedure Step Description	0040,0254	LO		ANAP	COPY	-
Performed Protocol Code Sequence	0040,0260	SQ		ANAP	COPY	-
>Code Value	0008,0100	SH		ANAP	COPY	-
>Coding Scheme Designator	0008,0102	SH		ANAP	COPY	-
>Code Meaning	0008,0104	LO		ANAP	COPY	-

**Table 127: General Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO	Philips, Syntermed, Inc.	VNAP	FIXED	"Syntermed, Inc." for "Neuro Q" Application. Else Philips.
Station Name	0008,1010	SH		ANAP	COPY	-
Institutional Department Name	0008,1040	LO		ANAP	COPY	-
Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal
Device Serial Number	0018,1000	LO		ANAP	COPY	-
Software Version(s)	0018,1020	LO	15.x / AIM_DICOM_210	ANAP	FIXED	"AIM_DICOM_210" for "Auto Quant" Application. Else "15.x"

**Table 128: SC Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Modality	0008,0060	CS		ANAP	AUTO	-
Conversion Type	0008,0064	CS	WSD	ALWAYS	FIXED	-
Secondary Capture Device ID	0018,1010	LO		ANAP	AUTO	-
Secondary Capture Device Manufacturer	0018,1016	LO	Philips Medical Systems	ALWAYS	FIXED	-
Secondary Capture Device Manufacturer's Model name	0018,1018	LO	Philips Portal	ANAP	FIXED	Philips Portal
Secondary Capture Device Software Version(s)	0018,1019	LO	15.x	ANAP	FIXED	-

**Table 129: General Image Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Instance Number	0020,0013	IS		VNAP	AUTO	-
Image Type	0008,0008	CS	DERIVED SECONDARY	ALWAYS	FIXED	-
Acquisition Date	0008,0022	DA		ANAP	COPY	-
Content Date	0008,0023	DA		ANAP	AUTO	-
Acquisition Time	0008,0032	TM		ANAP	COPY	-
Content Time	0008,0033	TM		ANAP	AUTO	-
Burned In Annotation	0028,0301	CS		ANAP	AUTO, COPY	-
Lossy Image Compression	0028,2110	CS		ANAP	COPY	Applied value: 00
Patient Orientation	0020,0020			EMPTY	FIXED	-
Image comments	0020,4000					-

**Table 130: SC Multi-Frame Image Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Burned In Annotation	0028,0301	CS		ALWAYS	AUTO	-
Presentation LUT shape	2050,0020	CS	IDENTITY	ANAP	FIXED	Present only for MONOCHROME 2 Images

**Table 131: Cine Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Preferred Playback Sequencing	0018,1244	US	0	ALWAYS	FIXED	-
Recommended Display Frame Rate	0008,2144	IS		AVAPCV	COPY	-
Frame Delay	0018,1066	DS		AVAPCV	COPY	-
Frame Time	0018,1063	DS		ALWAYS	AUTO	-
Cine Rate	0018,0040	IS		ALWAYS	AUTO	-

**Table 132: Multi-Frame Image Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Number of Frames	0028,0008	IS		ALWAYS	IMPLICIT	-
Content Date	0008,0023	DA		VNAP	AUTO	-
Content Time	0008,0033	TM		VNAP	AUTO	-

Instance Number	0020,0013	IS		ALWAYS	AUTO	-
Frame Increment Pointer	0028,0009	AT		ALWAYS	AUTO	-

**Table 133: Image Pixel Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Samples per Pixel	0028,0002	US	3	ALWAYS	FIXED	Only for RGB images
Photometric Interpretation	0028,0004	CS	RGB	ALWAYS	USER	-
Rows	0028,0010	US		ALWAYS	USER	-
Columns	0028,0011	US		ALWAYS	USER	-
Bits Allocated	0028,0100	US	8	ALWAYS	FIXED	-
Bits Stored	0028,0101	US	8	ALWAYS	FIXED	-
High Bit	0028,0102	US	7	ALWAYS	FIXED	-
Pixel Representation	0028,0103	US	0	ALWAYS	FIXED	-
Pixel Data	7FE0,0010	OW		ALWAYS	AUTO	-
Planar Configuration	0028,0006	US	0	ANAP	FIXED	Only for RGB images
Pixel Aspect Ratio	0028,0034	IS		ALWAYS	AUTO	-
Smallest Image Pixel Value	0028,0106	US		ALWAYS	AUTO	-
Largest Image Pixel Value	0028,0107	US		ALWAYS	AUTO	-

**Table 134: SOP Common Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4.1.1.7.4	ALWAYS	FIXED	
SOP Instance UID	0008,0018	UI		ALWAYS	AUTO	
Specific Character Set	0008,0005	CS	ISO_IR 100	ALWAYS	FIXED	
Instance Creation Date	0008,0012	DA		ALWAYS	AUTO	
Instance Creation Time	0008,0013	TM		ALWAYS	AUTO	

**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
Medical Alerts	0010,2000	LO		ANAP	COPY	-
Contrast Allergies	0010,2110	LO		ANAP	COPY	-
Pregnancy Status	0010,21C0	US		ANAP	COPY	-
Special Needs	0038,0050	LO		ANAP	COPY	-
Patient State	0038,0500	LO		ANAP	COPY	-
Window Center	0028,1050	DS		ANAP	AUTO	Only for MONOCHROME 2 images
Window Width	0028,1051	DS		ANAP	AUTO	Only for MONOCHROME 2 images

## 8.1.2.11. Key Object Selection Document Storage SOP Class

**Table 136: IOD of Created Key Object Selection Document Storage SOP Class Instances**

Information Entity	Module	Presence Of Module
Patient	Patient Module	ALWAYS
Study	General Study Module	ALWAYS
Study	Patient Study Module	CONDITIONAL – IF PRESENT IN THE SOURCE DATA

Series	Key Object Document Series Module	ALWAYS
Equipment	General Equipment Module	ALWAYS
Document	Key Object Document Module	ALWAYS
Document	SR Document Content Module	ALWAYS
Document	SOP Common Module	ALWAYS

**Table 137: Patient Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
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 Sex	0010,0040	CS		VNAP	COPY	-

**Table 138: 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	-
Study Instance UID	0020,000D	UI		ALWAYS	COPY	
Study ID	0020,0010	SH		VNAP	COPY	
Study Description	0008,1030	LO		ANAP	COPY	

**Table 139: Patient Study Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Patient's Age	0010,1010	AS		ANAP	COPY	-

**Table 140: Key Object Document Series Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Series Instance UID	0020,000E	UI		ALWAYS	AUTO	-
Modality	0008,0060	CS		ALWAYS	COPY	-
Series Number	0020,0011	IS		VNAP	AUTO	-
Referenced Performed Procedure Step Sequence	0008,1111	SQ		ANAP	COPY	-

**Table 141: General Equipment Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Manufacturer	0008,0070	LO	Philips, Syntermed, Inc.	VNAP	FIXED	"Syntermed, Inc." for "Neuro Q" Application. Else Philips.
Institution Address	0008,0081	ST		ANAP	COPY	-
Station Name	0008,1010	SH		ANAP	COPY	-
Software Version(s)	0018,1020	LO	15.x / AIM_DICOM_210	ANAP	FIXED	"AIM_DICOM_210" for "Auto Quant" Application. Else "15.x"

Institution Name	0008,0080	LO		ANAP	COPY	-
Manufacturer's Model Name	0008,1090	LO	IntelliSpace Portal	ANAP	FIXED	IntelliSpace Portal

**Table 142: Key Object Document Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Content Time	0008,0033	TM		ANAP	COPY	-
Content Date	0008,0023	DA		ANAP	COPY	-
Current Requested Procedure Evidence Sequence	0040,A375	SQ		ALWAYS	AUTO, COPY	-
>Study Instance UID	0020,000D	UI		ALWAYS	AUTO, COPY	-
>Referenced Series Sequence	0008,1115	SQ		ALWAYS	AUTO, COPY	-
>>Series Instance UID	0020,000E	UI		ALWAYS	AUTO, COPY	-
>>Referenced SOP Sequence	0008,1199	SQ		ALWAYS	AUTO, COPY	-
>>>Referenced SOP Class UID	0008,1150	UI		ALWAYS	AUTO, COPY	-
>>>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	AUTO, COPY	-

**Table 143: SR Document Content Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
Value Type	0040,A040	CS		ALWAYS	AUTO, COPY	-
Concept Name Code Sequence	0040,A043	SQ		ANAP	AUTO, COPY	-
>Code Value	0008,0100	SH		ALWAYS	AUTO, COPY	-
>Coding Scheme Designator	0008,0102	SH		ALWAYS	AUTO, COPY	-
>Code Meaning	0008,0104	LO		ALWAYS	AUTO, COPY	-
Observation Date Time	0040,A032	DT		ANAP	AUTO, COPY	-
Content Sequence	0040,A730	SQ		ANAP	AUTO, COPY	-
>Relationship Type	0040,A010	CS		ALWAYS	AUTO, COPY	-
>Referenced SOP Sequence	0008,1199	SQ		ALWAYS	AUTO, COPY	-
>>Referenced SOP Instance UID	0008,1155	UI		ALWAYS	AUTO, COPY	-
>>Referenced SOP Class UID	0008,1150	UI		ALWAYS	AUTO, COPY	-
>Value Type	0040,A040	CS		ALWAYS	AUTO, COPY	-
>Text Value	0040,A160	UT		ANAP	AUTO, COPY	-
>Concept Name Code Sequence	0040,A043	SQ		ANAP	AUTO, COPY	-
>>Code Value	0008,0100	SH		ALWAYS	AUTO, COPY	-
>>Coding Scheme Designator	0008,0102	SH		ALWAYS	AUTO, COPY	-
>>Code Meaning	0008,0104	LO		ALWAYS	AUTO, COPY	-
>Referenced SOP Sequence	0008,1199	SQ		ANAP	AUTO, COPY	-
>Continuity Of Content	0040,A050	CS		ALWAYS	AUTO, COPY	-
>Content Template Sequence	0040,A504	SQ		ANAP	AUTO, COPY	-
>>Mapping Resource	0008,0105	CS		ALWAYS	AUTO, COPY	-
>>Template Identifier	0040,DB00	CS		ALWAYS	AUTO, COPY	-

**Table 144: SOP Common Module**

Attribute Name	Tag	VR	Value	Presence of Value	Source	Comment
SOP Instance UID	0008,0018	UI		ALWAYS		

Instance Number	0020,0013	IS		ANAP		
Specific Character Set	0008,0005	CS		ANAP	AUTO	
SOP Class UID	0008,0016	UI	1.2.840.10008.5.1.4. 1.1.88.59	ALWAYS		1.2.840.10008.5.1.4.1.1.88.59

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