Description of 2A17 Message

PIP® 2A17

Validated 11.03.00

Specification Information	
Name	Description of 2A17 Message
PIP	Notify Of Certificate Of Analysis
Cluster	Product Information
Segment	Preparation for Distribution
Publication Date	4 September 2013
Version Identifier	V11.03

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1. Document Management

1.1 Legal Disclaimer

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1.4 Acknowledgments

This document has been prepared by RosettaNet (http://www.rosettanet.org/) from requirements gathered during the Milestone Program and in conformance with the methodology. Listed below are the legal entities that contributed to the design and development of this PIP.

Air Products & Chemicals (APCI)	LINDE (formally BOC Edwards)
Intel	IBM
InSync Software	ATMI

1.5 Related Documents

- Associated PIP Message Schemas (included with PIP Specification only)
- Description of Partner Interface Process for 2A17
- Message Structure

1.6 Document Version History

Version	Date	Description
Validated 11.00.00	27 June 2008	Validated Version: Milestone Program – Certificate of Analysis
Validated 11.01.00	27 June 2008	Updated Version
Validated 11.02.00	2 July 2013	Updated Version
Validated 11.03.00	2 July 2013	Updated Version

1.7 Document Purpose

The purpose of the document is to explain the structure, the association between objects, the content of objects and the definition for single elements to a non-technical audience.

2. Interchange Model

2.1 CertificateOfAnalysisNotification

2.1.1 Interchange Diagram
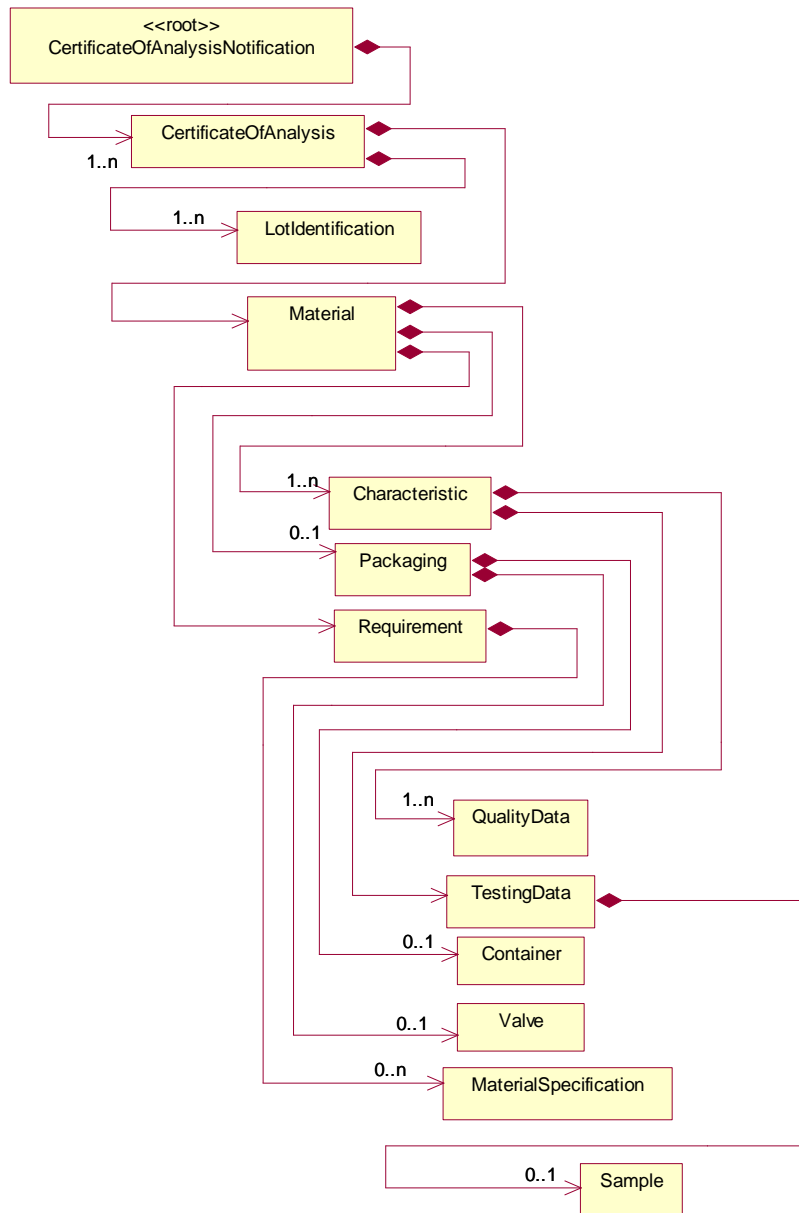
Figure 2-1 Interchange

2.1.2 Dependency Diagram
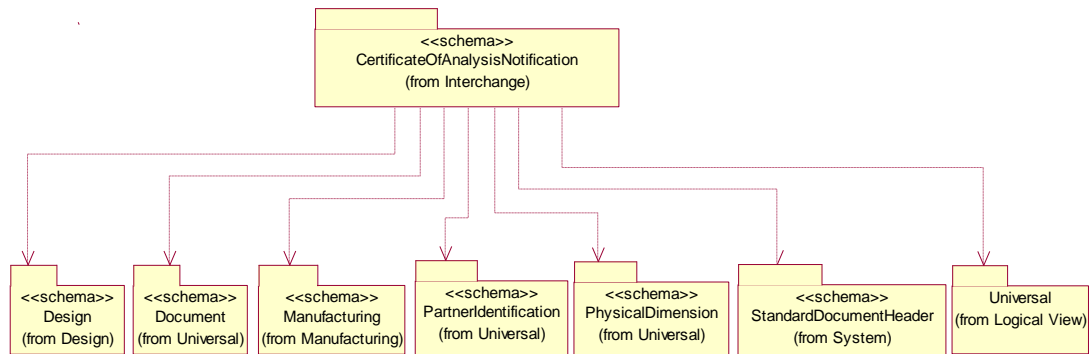
Figure 2-2 Dependency

2.1.3 CertificateOfAnalysis

The collection of business properties that describes the content of a Certificate of Analysis.
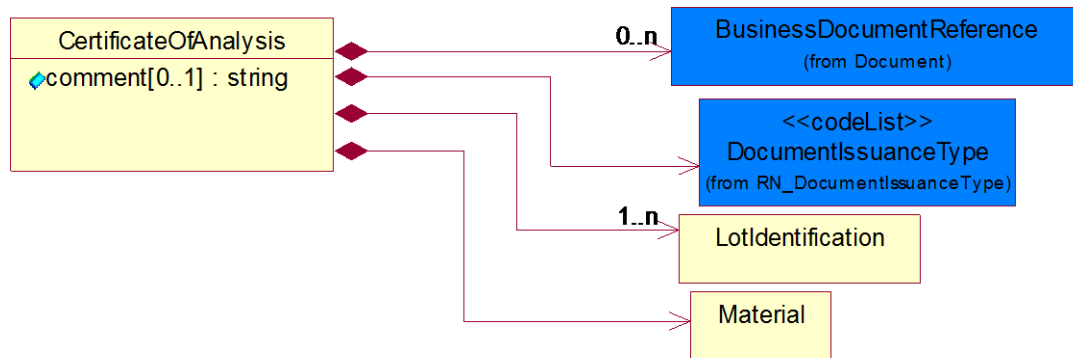
Figure 2-3 CertificateOfAnalysis

Attribute	Type	Documentation
comment[0..1]	string	This object represents the free form text of comment.

Composition	Cardinality	Type	Documentation
BusinessDocumentReference	0..n	BusinessDocumentReference	The business document reference object allows for the indirect referencing of a relationship to other business related documents.
Material	1	Material	The collection of business properties that describes

			a material. Material is the combination of substance & package e.g. substance is Helium, package is container & valve used.
DocumentIssuanceType	1	DocumentIssuanceType	This object represents the type of document release.
LotIdentification	1..n	LotIdentification	This object identifies a lot which associates the product with a specific group of products with some similar attributes.

2.1.4 CertificateOfAnalysisNotification

The message wrapper for 2A17.
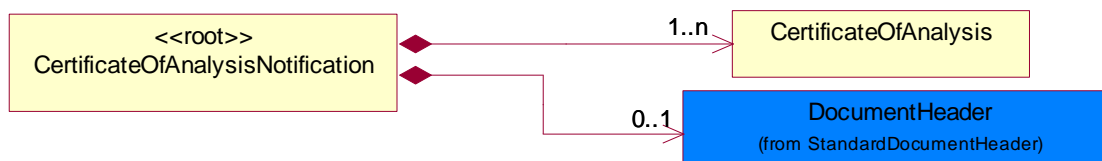
Figure 2-4 CertificateOfAnalysisNotification

Composition	Cardinality	Type	Documentation
CertificateOfAnalysis	1..n	CertificateOfAnalysis	The collection of business properties that describes the content of a Certificate of Analysis.
DocumentHeader	0..1	DocumentHeader	The object allows for the identification of the sender and receiver of the business document.

2.1.5 Characteristic

The collection of business properties that describes chemical or physical properties of components or contaminants and its related testing information.
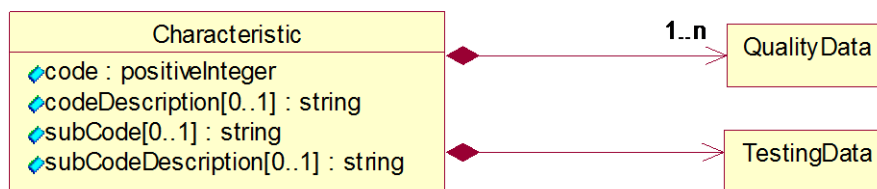
Figure 2-5 Characteristic

Attribute	Type	Documentation
code	positiveInteger	This object represents the characteristics of a material.
codeDescription[0..1]	string	This object represents the free form text description of characteristic.
subCode[0..1]	string	For Characteristics that have many variations, the SubCode will provide a more detailed definition of the exact test or parameter that is being reported. The receiver's back-end system may require more information than is given by the characteristic alone to correctly process the associated quality value. The SubCode provides the additional information required for correct processing of the submitted value.
subCodeDescription[0..1]	string	The textual description of the SubCode. In the event that a message fails validation or is rejected by the receiver's system due to the value held in SubCode, the information provided in SubCode Description may aid in diagnosing and correcting the error.

Composition	Cardinality	Type	Documentation
TestingData	1	TestingData	The collection of business properties that describes the testing data for a material's characteristic.
QualityData	1..n	QualityData	The collection of business properties that captures value and type for Quality Data (Testing Result) for a material's characteristic.

2.1.6 Container

The collection of business properties that describes the container of the package.
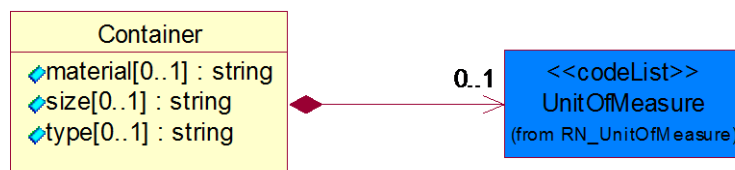
Figure 2-6 Container

Attribute	Type	Documentation
material[0..1]	string	This object represents the material of construction of a container.

| size[0..1] | string | This object represents the capacity of the container. |
| type[0..1] | string | This object the type of container. |

Composition	Cardinality	Type	Documentation
UnitOfMeasure	0..1	UnitOfMeasure	Code identifying a product unit of measure.

2.1.7 LotIdentification

This object identifies a lot which associates the product with a specific group of products with some similar attributes.
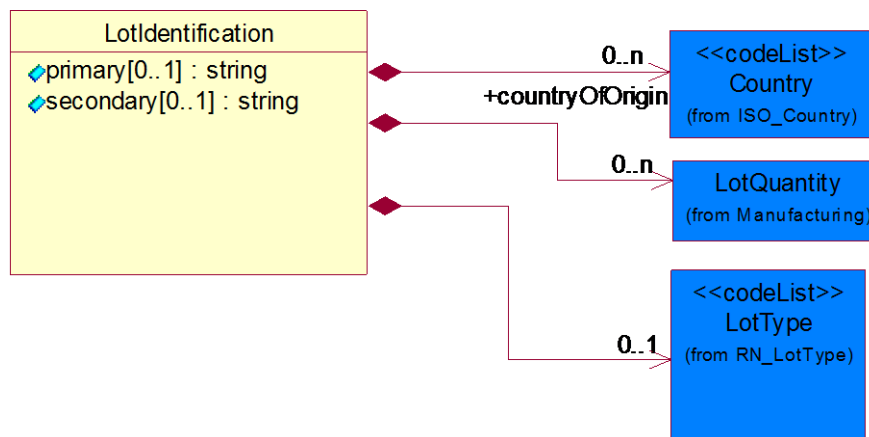
Figure 2-7 LotIdentification

Attribute	Type	Documentation
primary[0..1]	string	The primary lot identifier (Lot Number).
secondary[0..1]	string	The secondary lot identifier (Batch Number).

Composition	Cardinality	Type	Documentation
countryOfOrigin	0..n	Country	This object represents the country where the product originates.
LotQuantity	0..n	LotQuantity	The collection of business properties that describe the quantity of items in a lot.
LotType	0..1	LotType	The value in this field indicates whether the lot number or the batch number of the product to be filled in. Use PRI to indicate the primary field(Lot Number), or SEC to indicate the secondary field (Batch Number).

2.1.8 Material

The collection of business properties that describes a material. Material is the combination of substance & package e.g. substance is Helium, package is container & valve used.
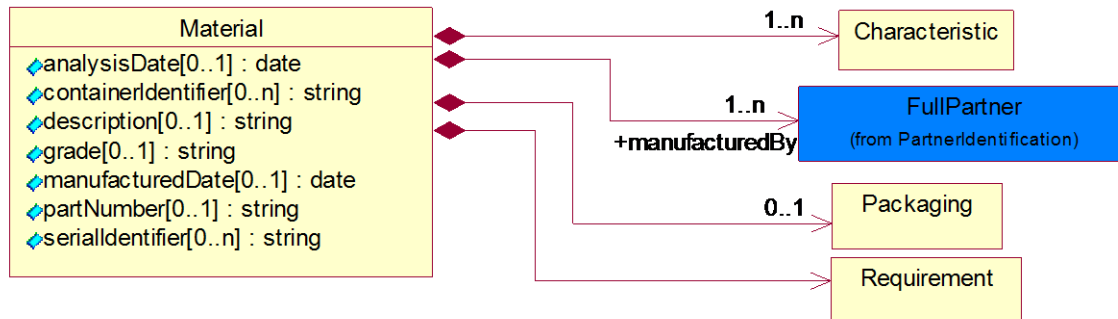
Figure 2-8 Material

Attribute	Type	Documentation
analysisDate[0..1]	date	This object represents the date the analytical qualifications testing of the material is completed.
containerIdentifier[0..n]	string	This object represents the unique identifier for a material's container.
description[0..1]	string	This object represents the free form text description of a material.
grade[0..1]	string	This object represents the grade of the material which is used by the material provider to succinctly describe the material quality. The grade code is typically comprised of many more attributes which specifically define the material's quality.
manufacturedDate[0..1]	date	This object represents the date the substance was packaged as a final shippable material.
partNumber[0..1]	string	This object represents the unique identifier for a material.
serialIdentifier[0..n]	string	This object represents the unique serialized identifier for a material.

Composition	Cardinality	Type	Documentation
Requirement	1	Requirement	The collection of business properties that describes the buyer's requirement.
Characteristic	1..n	Characteristic	The collection of business properties that describes chemical or physical properties of components or contaminants and its

			related testing information.
manufacturedBy	1..n	FullPartner	Manufactured by - The party who creates, processes or produces goods especially in large quantities and by means of industrial machines.
Packaging	0..1	Packaging	The collection of business properties that describes the packaging of a substance.

2.1.9 MaterialSpecification

The collection of business properties that describes the material's specification.

Figure 2-9 MaterialSpecification

Attribute	Type	Documentation
date[0..1]	date	This object represents the date that the last material specification revision was implemented.
identifier	string	This object identifying the material specification.
revisionNumber[0..1]	string	This object represents the number of times a buyer has altered of modified the details which describe the material specification number.

2.1.10 Packaging
The collection of business properties that describes the packaging of a substance.
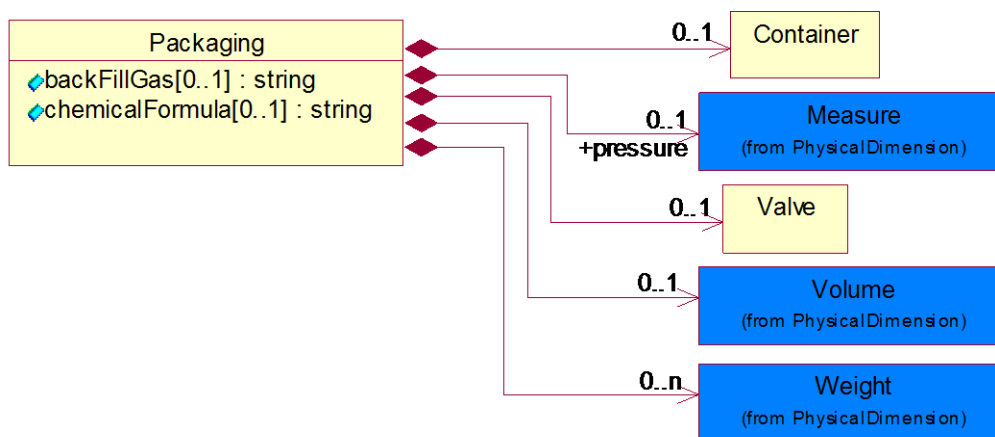
Figure 2-10 Packaging

Attribute	Type	Documentation
backFillGas[0..1]	string	This object represents a substance added to the container which is not part of the finished end item but is necessary to extract or remove the finished item from the container.
chemicalFormula[0..1]	string	This object represents the chemical formula for the substance.

Composition	Cardinality	Type	Documentation
Weight	0..n	Weight	The business document must be able to express the weight of an object.
Volume	0..1	Volume	The business document must be able to express the volume of an object.
Container	0..1	Container	The collection of business properties that describes the container of the package.
Valve	0..1	Valve	The collection of business properties that describes the control device or tap of the package.
pressure	0..1	Measure	The business document must be able to express the pressure of an object.

2.1.11 QualityData

The collection of business properties that captures value and type for Quality Data (Testing Result) for a material's characteristic.
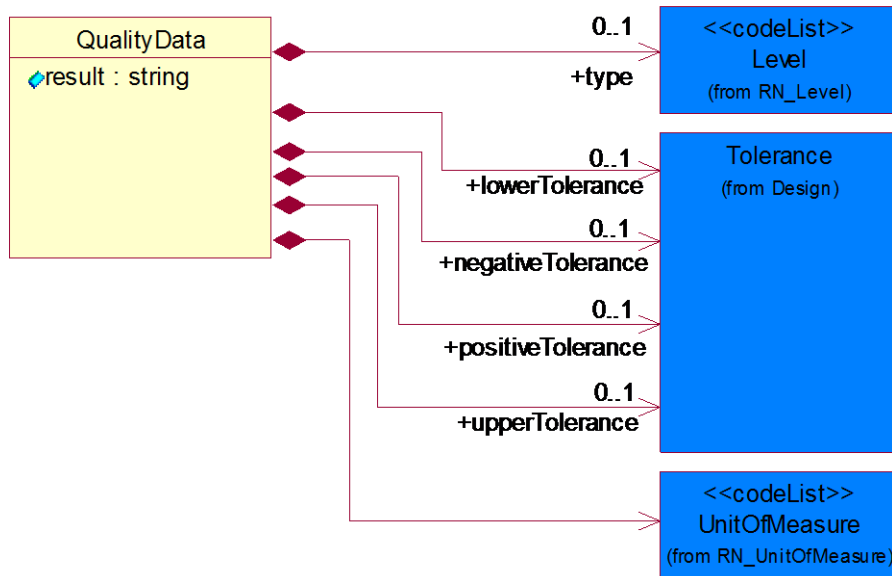
Figure 2-11 QualityData

Attribute	Type	Documentation
result	string	The actual or defined quality value associated with a specific measurement.

Composition	Cardinality	Type	Documentation
type	0..1	Level	A qualifier describing the kind of measurement a value represents.
negativeTolerance	0..1	Tolerance	A negative tolerance expressed as a non-negative real number to be subtracted from the current value and as a non-negative percent of the current value.
positiveTolerance	0..1	Tolerance	A positive tolerance expressed as a non-negative real number to be added to the current value and as a non-negative percent of the current value.
upperTolerance	0..1	Tolerance	A upper tolerance expressed as a non-negative real number to be subtracted from the current value and as a non-negative percent of the current value that served as upper specification limit.
lowerTolerance	0..1	Tolerance	A lower tolerance expressed as a non-negative real number to be

			subtracted from the current value and as a non-negative percent of the current value that served as lower specification limit.
UnitOfMeasure	1	UnitOfMeasure	Code identifying a product unit of measure.

2.1.12 Requirement

The collection of business properties that describes the buyer's requirement.
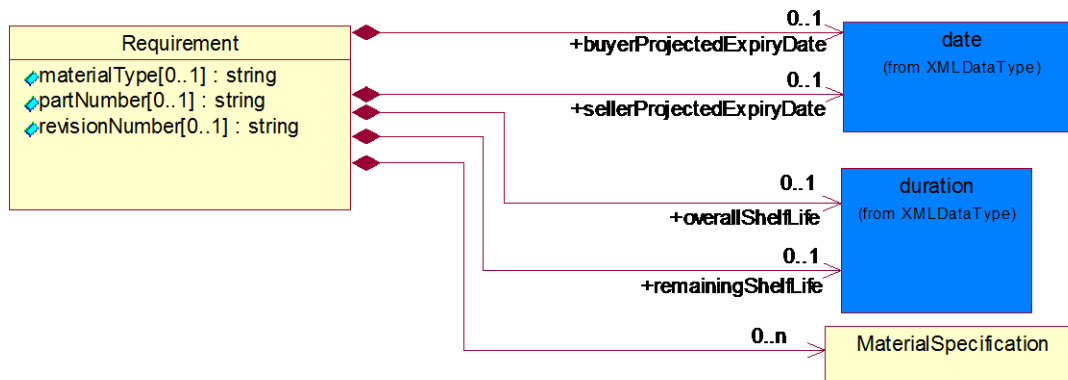
Figure 2-12 Requirement

Attribute	Type	Documentation
materialType[0..1]	string	This object represents the information provided by the buyer to the seller used to categorize materials.
partNumber[0..1]	string	This object represents the identifier provided by the buyer to the seller of the identifier used within the buyer's system to define a material.
revisionNumber[0..1]	string	This object represents the number of times a buyer has altered of modified the details which describe their part number.

Composition	Cardinality	Type	Documentation
MaterialSpecification	0..n	MaterialSpecification	The collection of business properties that describes the material's specification.
overallShelfLife	0..1	duration	This object is provided by the buyer to the seller that defines the overall useable life of the material from the receiver's perspective.
remainingShelfLife	0..1	duration	This object is provided by the buyer to the seller that defines the useable life of the material from the buyer's perspective which must remain on the material when the material is

			received by the buyer.
sellerProjectedEx piryDate	0..1	date	This object represents the seller-specified projected date when material shelf life expires.
buyerProjectedEx piryDate	0..1	date	This object represents the buyer-specified projected date when material shelf life expires.

2.1.13 Sample

The collection of business properties that describes the sampling for a material's characteristic.

Figure 2-13 Sample

Attribute	Type	Documentation
size	string	This objects represents the size of the sample used to report the quality data of the characteristic.

Composition	Cardinality	Type	Documentation
Plan	1	Plan	This object represents the sampling plan at the batch or individual level.

2.1.14 TestingData

The collection of business properties that describes the testing data for a material's characteristic.
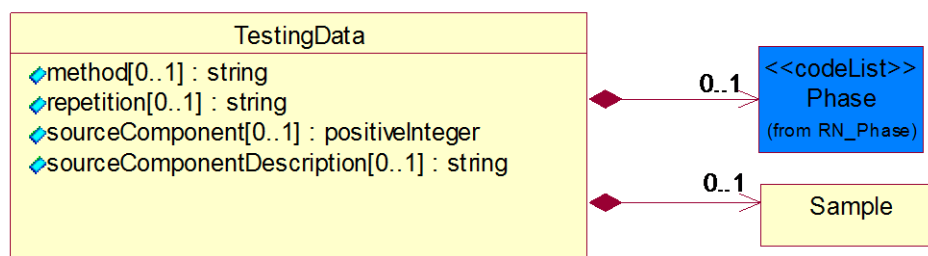
Figure 2-14 TestingData

Attribute	Type	Documentation
method[0..1]	string	This object represents the analytical technique used to measure the quality data of the characteristic.
repetition[0..1]	string	This object represents the number of times that the test was run on the sample or multiple samples of the same lot.
sourceCompon	positiv	This object represents the component that is the source of

ent[0..1]	eInteger	the individual characteristics. In the case of mixtures (muliple chemical substances combined into a single material), the testing equipment cannot test some aspects of the substance (the material characteristic; the test) when is it combined. Therefore, the tests must be run on the individual substances prior to combination. The source component identifies each of those substances on which the tests where run. The same test can be run on each of the individual substances as well as on the combined substance.
sourceComponentDescription[0..1]	string	In the event that a message fails validation or is rejected by the receiver's system due to the value held in Source Component, the information provided in Source Component Description may aid in diagnosing and correcting the error.

Composition	Cardinality	Type	Documentation
Sample	0..1	Sample	The collection of business properties that describes the sampling for a material's characteristic.
Phase	0..1	Phase	This object is to standardize the allowed values which partners can exchange for the field element Phase.

2.1.15 Valve

The collection of business properties that describes the control device or tap of the package.

Figure 2-15 Valve

Attribute	Type	Documentation
governanceBody[0..1]	string	This object represents the regulatory body to which the valve conforms.
material[0..1]	string	This object represents the material of construction of the valve which may be part of the package.
outletConnection[0..1]	string	This object represents the valve type that defines the specific threaded connection of the valve which is used to convey the proper fitting to extract product from a container.
RFOSize[0..1]	string	This object represents the size of the Restrictive Flow Orifice inserted into a valve.

2.2 CodeList

2.2.1 DocumentIssuanceType
This object represents the type of document release.

Name	Documentation
ORI	Original.
POR	Pre-Ship Original.
PRP	Pre-Ship Replacement.
REP	Replacement.

2.2.2 Plan
This object represents the sampling plan at the batch or individual level.

Name	Documentation
BAM	Batch analyzed across multiple inspection lots.
BAS	Batch analyzed within a single inspection lot.
CCS	Calculated Characteristic.
GRT	Guaranteed - static, known analytical value.
IAZ	Individually analyzed.
SRC	Source - analytical value reported for component material.
UAV	Unanalyzed- static, known analytical value.

2.2.3 Phase
This object   is to standardize the allowed values which partners can exchange for the field element Phase.

Name	Documentation
GAS	Gas Phase.
LIQ	Liquid Phase.
SOL	Solid Phase.

2.2.4 LotType
The value in this field indicates whether the lot number or the batch number of the product to be filled in. Use PRI to indicate the primary field(Lot Number), or SEC to indicate the secondary field (Batch Number).

Name	Documentation
PRI	Primary field - lot number.
SEC	Secondary field - batch number.

3. Domain Model

3.1 Manufacturing

3.1.1 Dependency Diagram
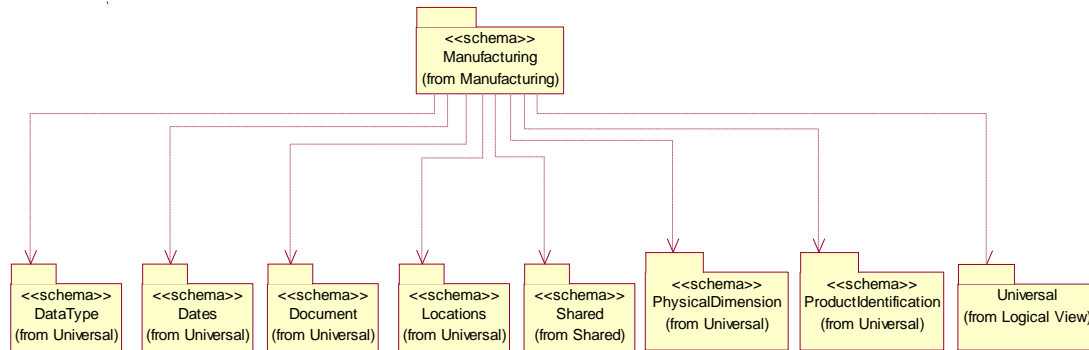
Figure 3-1 Dependency

3.1.2 LotQuantity
The collection of business properties that describe the quantity of items in a lot.
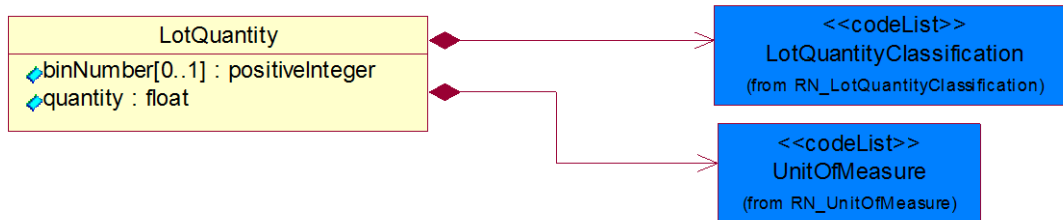
Figure 3-2 LotQuantity

Attribute	Type	Documentation
binNumber[0..1]	positiveInteger	Code number used to segregate lot quantities by performance after final testing.
quantity	float	A quantity specifying the number of product units.

Composition	Cardinality	Type	Documentation
UnitOfMeasure	1	UnitOfMeasure	Code identifying a product unit of measure.
LotQuantityClassification	1	LotQuantityClassification	Code identifying the classification of a manufacturing lot quantity.

3.1.3 CodeList

3.1.3.1 LotQuantityClassification
Code identifying the classification of a manufacturing lot quantity.

Name	Documentation
ACC	Acceptable. The lot quantity meets the minimum requirements.
BON	Bonus. A positive variance in the lot quantity.
BTE	Bin Test. Bin Test Quantity.
CQU	Change Quantity. The change quantity event and quantity is intended to be used when the quantity of a lot changes for a reason other then those we have defined events for (scrap, reject, and bonus).
CUR	Current. Current Quantity.
GRO	Gross. The initial quantity of the lot.
LPR	Lot probe.
MER	Merge. Merge Quantity.
NET	Net. The final quantity of the lot.
PFI	Projected final. The estimated final quantity of the lot.
PLO	Previous lot. The quantity of the preceding lot.
REC	Receipt. Receipt Quantity.
REJ	Reject. Reject/Loss Quantity.
SCH	Schedule. A lot is still physically in the Die Bank (before being started) but has been allocated to start and as a result, is not available for being considered for planning purposes as it is already committed to.
SCR	Scrap. The quantity of products which is disposed of.
SHI	Ship. Actual Ship Quantity.
SPL	Split. Split Quantity.
STA	Start. Start Quantity.

3.2 Design

3.2.1 Dependency Diagram
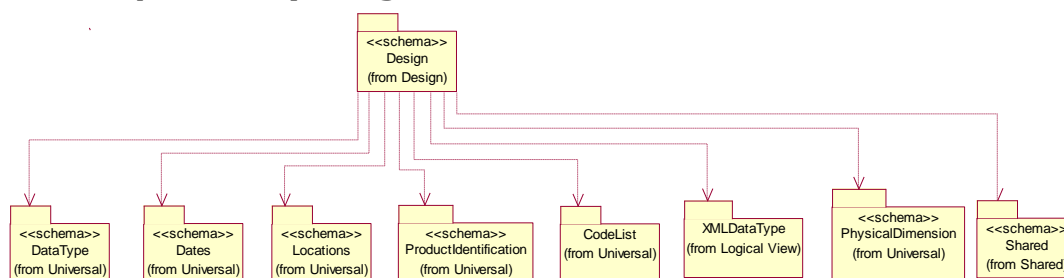
Figure 3-3 Dependency

3.2.2 Tolerance

Collection defined to specify tolerance levels. Extension to DependentCondition.
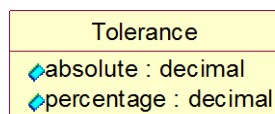
Figure 3-4 Tolerance

Attribute	Type	Documentation
absolute	decimal	A tolerance expressed as a real number.
percentage	decimal	A tolerance expressed as a percentage of the current value.

3.2.3 CodeList

3.2.3.1 Level

This is to qualify the type of the product, material or substance mass either maximum, minimum, typical, nominal independently or with any combination such as when specifying range of mass between minimum and maximum. In this case, the mass reporting will loop and for each instance it will have different Level entry.

Name	Documentation
ACT	Actual Value.
AVG	Average.
CON	Control Interval.
EXP	Expanded Uncertainty.
GRT	Value Greater Than.
LST	Value Less Than.
MAV	Maximum Average.
MAX	A Maximum level of the mass (weight) MUST be specified as KIG

	(kilogram) using ECTD/IEC/ISO Specification for the UOM field.
MDL	Method Detection Limit.
MIN	A Minimum level of the mass (weight) MUST be specified as KIG (kilogram) using ECTD/IEC/ISO Specification for the UOM field.
NOM	Nominal - a Specification Limit or Target Value e.g. a Nominal level of the mass (weight) MUST be specified as KIG (kilogram) using ECTD/IEC/ISO Specification for the UOM field.
STD	Standard Deviation.
TYP	A Typical level of the mass (weight) MUST be specified as KIG (kilogram) using ECTD/IEC/ISO Specification for the UOM field.

4. Universal Structure

4.1 ContactInformation

4.1.1 ContactInformation

The business document must allow for the identification of the name of the department, service or individual to be contacted regarding the context of the business document.
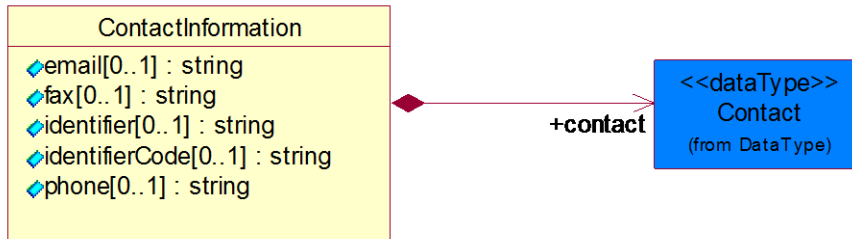
Figure 4-1 ContactInformation

Attribute	Type	Documentation
email[0..1]	string	The electronic mail for the specified contact.
fax[0..1]	string	The fax number for the specified contact.
identifier[0..1]	string	Identifies the role of the contact (i.e. Service Technician, Account Manager) in the Business Process.
identifierCode[0..1]	string	IdentifierCode is a unique security authorization code to identify the contact-ie. badge ID.
phone[0..1]	string	The telephone number for the specified contact.

Composition	Cardinality	Type	Documentation
contact	1	Contact	The name of the department, service or individual to be contacted within the organization.

4.2 DataType

4.2.1 Contact
The name of the department, service or individual to be contacted within the organization.

```
         string
   (from XMLDataType)
           △
           |
    <<dataType>>
      Contact
```
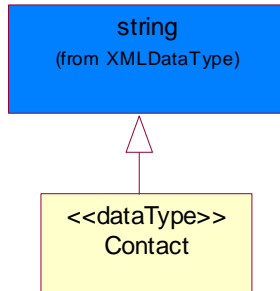
Figure 4-2 Contact

4.2.2 DUNS
A number assigned by Dun and Bradstreet to identify a business location.

```
         string
   (from XMLDataType)
           △
           |
    <<dataType>>
        DUNS
  <<facet>> pattern = [0-9]{9}
```
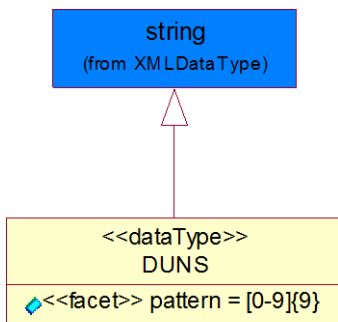
Figure 4-3 DUNS

Attribute	Type	Documentation
pattern		[0-9]{9}

4.2.3 DUNSPlus4

A identifier to specify a specific location within a business location.

```
          ┌─────────────────────┐
          │       string        │
          │  (from XMLDataType)  │
          └─────────────────────┘
                     △
                     │
   ┌─────────────────────────────────────┐
   │           <<dataType>>              │
   │            DUNSPlus4                │
   ├─────────────────────────────────────┤
   │ ◆<<facet>> pattern = [0-9]{9}[0-9a-zA-Z]{1,4} │
   └─────────────────────────────────────┘
```
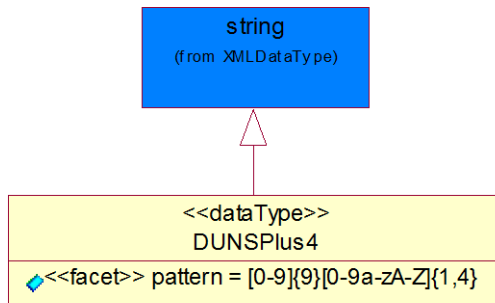
Figure 4-4 DUNSPlus4

Attribute	Type	Documentation
pattern		Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by Dun and Bradstreet, Inc. (D&B) plus an alphanumeric of length 4 suffix that may be assigned by a business concern.

4.2.4 GLN

Global Location Number (GLN) - A identifier to identify legal entities, trading parties and location.

```
          ┌─────────────────────┐
          │       string        │
          │  (from XMLDataType)  │
          └─────────────────────┘
                     △
                     │
   ┌─────────────────────────────────┐
   │          <<dataType>>           │
   │              GLN                │
   ├─────────────────────────────────┤
   │ ◆<<facet>> pattern = [0-9]{13}  │
   └─────────────────────────────────┘
```
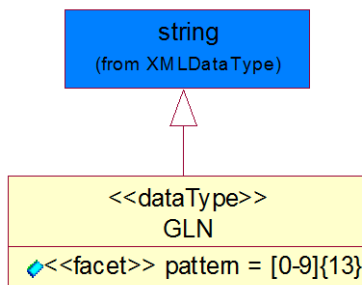
Figure 4-5 GLN

Attribute	Type	Documentation
pattern		[0-9]{13}

4.3 Document

4.3.1 BusinessDocumentReference

The business document reference object allows for the indirect referencing of a relationship to other business related documents.
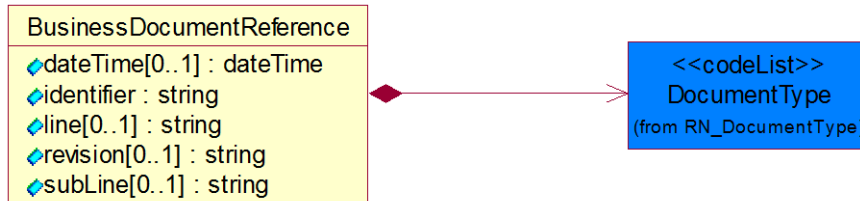
Figure 4-6 BusinessDocumentReference

Attribute	Type	Documentation
dateTime[0..1]	dateTime	The date-time stamp indicating on the referenced business document.
identifier	string	Unique identification of the referenced business document.
line[0..1]	string	References the specific line number of the specified business document.
revision[0..1]	string	Referenced the revision of the specified business document.
subLine[0..1]	string	References the specific subline number of the specified business document.

Composition	Cardinality	Type	Documentation
DocumentType	1	DocumentType	A code identifying the business context of a document.

4.4 Locations

4.4.1 AlternativeIdentifier

Identifies the specified code and the name of the organization that a code is utilized from.
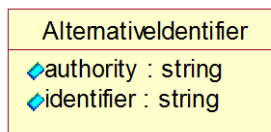
Figure 4-7 AlternativeIdentifier

Attribute	Type	Documentation
authority	string	The name of the organization that a code is utilized from.
identifier	string	The specified code to represent an entity (e.g. product, location, partner, etc.).

4.4.2 Location

The business document must specify a location.
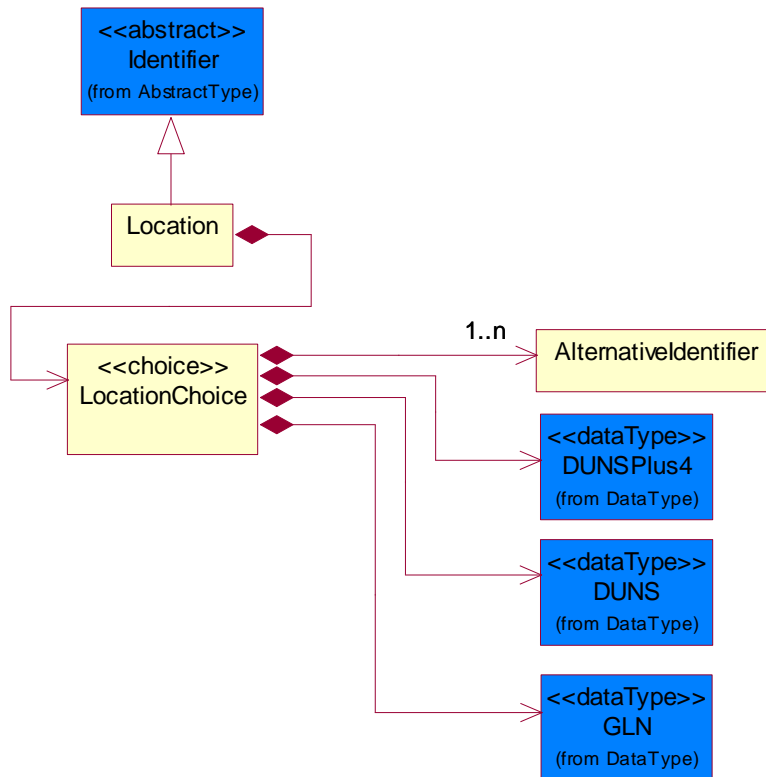
Figure 4-8 Location

Composition	Cardinality	Type	Documentation
LocationChoice	1	LocationChoice	

4.4.3 LocationChoice

Composition	Cardinality	Type	Documentation
DUNSPlus4	1	DUNSPlus4	A identifier to specify a specific location within a business location.
DUNS	1	DUNS	A number assigned by Dun and Bradstreet to identify a business location.
AlternativeIdentifier	1..n	AlternativeIdentifier	Identifies the specified code and the name of the organization that a code is utilized from.
GLN	1	GLN	Global Location Number (GLN) - A identifier to identify legal entities, trading parties and location.

4.4.4 PhysicalAddress

The business document must provide a physical address for a party to the business transaction.
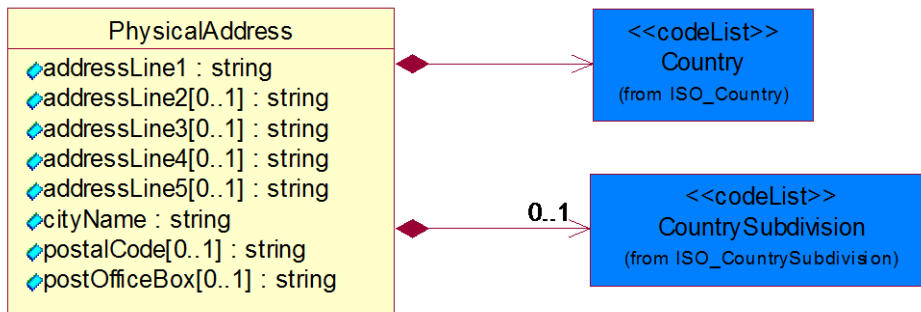
Figure 4-9 PhysicalAddress

Attribute	Type	Documentation
addressLine1	string	The first line of a physical address.
addressLine2[0..1]	string	The second line of a physical address.
addressLine3[0..1]	string	The third line of a physical address.
addressLine4[0..1]	string	The fourth line of a physical address.
addressLine5[0..1]	string	The fifth line of a physical address.
cityName	string	The name of a city.
postalCode[0..1]	string	Identifying geographic location as specified by a national postal code.
postOfficeBox[0..1]	string	The Post Office Box identifier used to identify a party's post office box.

Composition	Cardinality	Type	Documentation
Country	1	Country	For representation of Country name RosettaNet has adopted ISO 3166-3; 1999. Refer to the following web page to get the latest version of the standard: http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/index.html If you need more information about the ISO standard please contact ISO for more details.
CountrySubdivision	0..1	CountrySubdivision	For representation of a Countries subdivisions RosettaNet has adopted ISO 3166-3; 1999. Refer to the following web page to get the latest version

			of the standard: http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/index.html If you need more information about the ISO standard please contact ISO for more details.

4.5 PartnerIdentification

4.5.1 FullPartner

The business document must describe the trading partners in the business transaction. This data structure provide the flexibility to describe a partner in all possible methods as for new, existing or known partner.
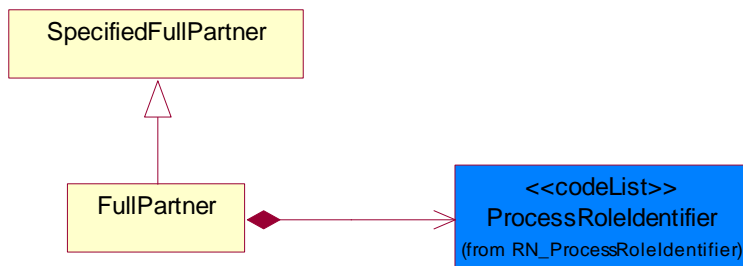
Figure 4-10 FullPartner

Composition	Cardinality	Type	Documentation
ProcessRoleIdentifier	1	ProcessRoleIdentifier	Describes the role of the partner in the business process. A partner will fulfill at least one or more roles during the business process.

4.5.2 PartnerIdentification

The business document must allow for the identity of one or more parties to the transaction.
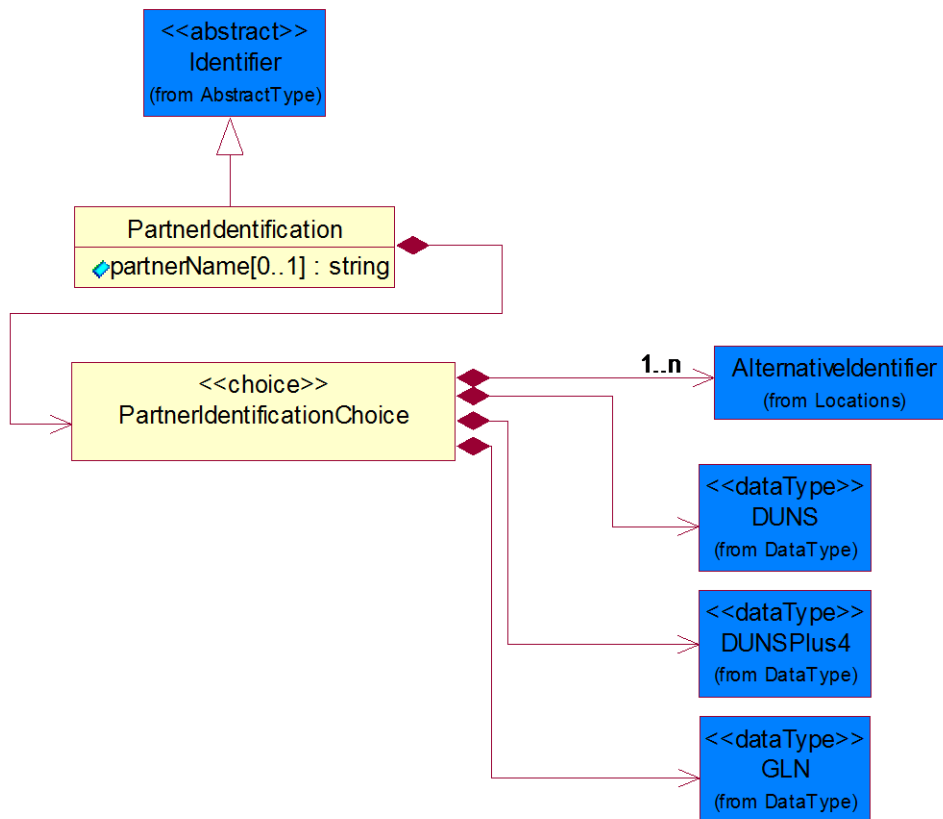
Figure 4-11 PartnerIdentification

Attribute	Type	Documentation
partnerName[0..1]	string	The name of the partner's company/business.

Composition	Cardinality	Type	Documentation
PartnerIdentificationChoice	1	PartnerIdentificationChoice	

4.5.3 PartnerIdentificationChoice

Composition	Cardinality	Type	Documentation
AlternativeIdentifier	1..n	AlternativeIdentifier	Identifies the specified code and the name of the organization that a code is utilized from.
DUNS	1	DUNS	A number assigned by Dun and Bradstreet to

|			
			identify a business location.
DUNSPlus4	1	DUNSPlus4	A identifier to specify a specific location within a business location.
GLN	1	GLN	Global Location Number (GLN) - A identifier to identify legal entities, trading parties and location.

4.5.4 SpecifiedFullPartner

The business document must describe the trading partners in the business transaction. This data structure provide the flexibility to describe a partner in all possible methods as for new, existing or known partner. This is specifically for partner who role has been specified.
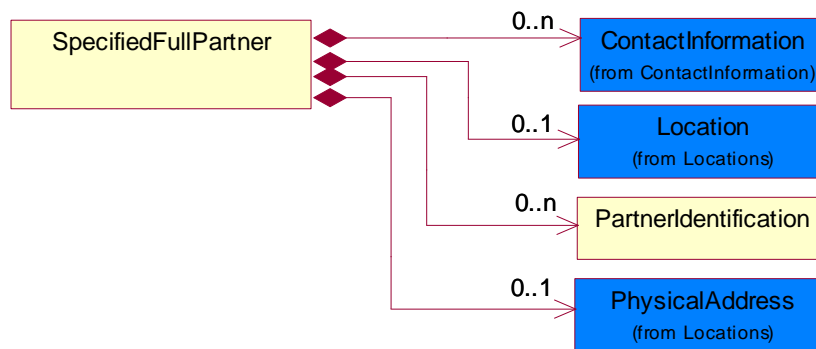
Figure 4-12 SpecifiedFullPartner

Composition	Cardinality	Type	Documentation
ContactInformation	0..n	ContactInformation	The business document must allow for the identification of the name of the department, service or individual to be contacted regarding the context of the business document.
Location	0..1	Location	The business document must specify a location.
PartnerIdentification	0..n	PartnerIdentification	The business document must allow for the identity of one or more parties to the transaction.
PhysicalAddress	0..1	PhysicalAddress	The business document must provide a physical address for a party to the business transaction.

4.6 PhysicalDimension

4.6.1 Measure

The business document must describe measurement information.

Figure 4-13 Measure

Attribute	Type	Documentation
value	float	The worth of an object in the specified unit of measure.

Composition	Cardinality	Type	Documentation
unitOfMeasure	1	UnitOfMeasure	To express the unit type of measurement.

4.6.2 Volume

The business document must be able to express the volume of an object.
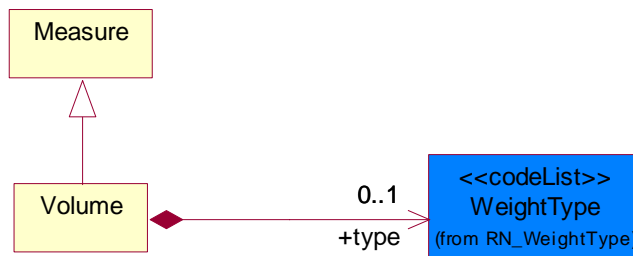
Figure 4-14 Volume

Composition	Cardinality	Type	Documentation
type	0..1	WeightType	A code identifying the type of volumn.

4.6.3 Weight

The business document must be able to express the weight of an object.
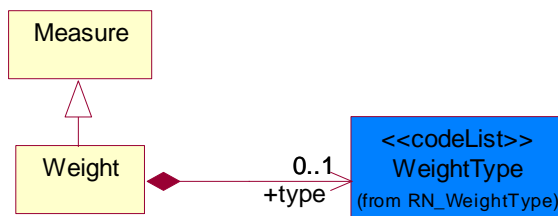
Figure 4-15 Weight

Composition	Cardinality	Type	Documentation
type	0..1	WeightType	A code identifying the type of weight.

4.7 CodeList

4.7.1 Country

For representation of Country name RosettaNet has adopted ISO 3166-3; 1999. Refer to the following web page to get the latest version of the standard: http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/index.html
If you need more information about the ISO standard please contact ISO for more details.

4.7.2 CountrySubdivision

For representation of a Countries subdivisions RosettaNet has adopted ISO 3166-3; 1999. Refer to the following web page to get the latest version of the standard: http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/index.html
If you need more information about the ISO standard please contact ISO for more details.

4.7.3 Language

For representation of Language name RosettaNet has adopted   ISO 639-2; 1998. Refer to the following web page to get the latest version of the standard: http://www.loc.gov/standards/iso639-2/iso639jac.html
If you need more information about the ISO standard please contact ISO for more details.

4.7.4 DocumentType

A code identifying the business context of a document.

Instance	Documentation
APM	Applied Promotions.
ARA	Authorization Request Approval.
CAR	Certificate of Analysis Response.
CBN	Product batch number of customer.
CCN	Customs clearance number.
CFA	Failure Analysis - Request document that will accompany the product providing characteristics of the component failure.
CIN	Commercial Invoice.
CNM	Traditional credit note or memo.
COA	Certificate of Analysis.
CON	In a virtual sourcing relationship, a third party trading partner is supplying a part to a customer on behalf of another company that has taken the order for the customer. In this case a Customer Order Number is associated to the request for material that is sent to the virtual trading partners.
COS	Consumption Notice.
COT	Contract.
CRN	Unique consumption reference number identifying the product consumption issue i.e. one-to-one relationship with physical flow.
DEM	Traditional debit note or memo.

DEN	Delivery Note.
DIN	Discontinuation Notice.
DOR	Delivery Order.
DRN	Drawing Number.
DRR	Design Registration Request.
ECO	Engineering Change Order - The proprietary unique identification number that represents an engineering change order.
EDD	Export Declaration Document.
EIR	Engineering Information Request.
EOL	End of Life.
FUO	Sales order or transfer order fulfilling demand out of a facility (outbound shipment).
IDD	Import Declaration Document.
INV	Invoice.
LID	Location Identifier. Data for on-site work that have to be done on the machine (associated with preventive maintenance order).
MEN	Master Event Number.
MID	Machine Identifier. Data for on-site work that have to be done on the machine (associated with preventive maintenance order).
MON	Model Number.
NTS	Notes.
OCL	The unique identifier assigned by the OEM for a warranty claim.
OGA	Other governmental agency issued document.
OPO	The unique identifier assigned by the OEM for a part order.
OPR	The unique identifier assigned by the OEM for a part return.
PCN	Product/Process Change.
PFA	Failure Analysis - Request document that will accompany the product providing characteristics of the product failure.
PII	Refers to previously issued invoice.
PLS	Unique number that identifies packing form prior to shipment.
POI	Purchase Order IN.
PON	Production order number for material release.
POO	Purchase Order OUT.
PRC	Product Catalog.
PSI	Refers to previously issued self-billing invoice.
PUO	Purchase Order.
QUO	Quote.
REC	Document identifying the receipt of materials or products into a facility against a purchase order or transfer order (inbound shipment).
REN	Release Number.
REO	Purchase order or transfer order replenishing inventory into a facility (inbound shipment).
REQ	Requisition.
RMA	Returned Material Authorization.
RPO	Purchase order for materials or product returned to and reworked by a supplier.
RTA	Remittance Advice - Remittance details.
SAO	Sales Order.
SBC	Credit Memo used in self-billing scenario.
SBD	Debit Memo used in self-billing scenario.

SBI	Invoice in self billing scenario.
SBN	Product batch number of supplier.
SCA	Similar to contracts - Contains the quantity of an article that is to be ordered from a vendor and the price for article or service that is to be procured.
SEN	Serial Number.
SEO	A document that gives a repair provider the necessary authorization to repair or upgrade a product either at the customer site or at the repair provider's site.
SHD	Shipping Document.
SNC	Shipset Number on Code List.
SPC	The unique identifier assigned by the ASP for a warranty claim.
SPN	Spec Number.
SPO	The unique identifier assigned by the ASP for a part order.
SPR	The unique identifier assigned by the ASP for a part return.
SPW	The unique identifier assigned by the ASP to reference a work order.
SRI	A document that contains the shipping reference number which allows the product to be tracked within the outsourced logistic providers network.
SWT	Switch Authorization.
TCS	Terms and Conditions.
TRO	Order which results in materials or products being moved from one facility to another (outbound shipment and inbound shipment).
WAB	Waybill.
WAC	Denotes a warranty claim.
WOO	Work Order.

4.7.5 MimeTypeQualifier

The MIME type as defined by IANA.

Please refer to http://www.iana.org/assignments/media-types/ for a list of types.

Instance	Documentation
application/activemessage	[Shapiro]
application/andrew-inset	[Borenstein]
application/applefile	[Faltstrom]
application/atomicmail	[Borenstein]
application/batch-SMTP	[RFC2442]
application/beep+xml	[RFC3080]
application/cals-1840	[RFC1895]
application/cnrp+xml	[RFCCNRP]
application/commonground	[Glazer]
application/cpl+xml	
application/cybercash	[Eastlake]
application/dca-rft	[Campbell]
application/dec-dx	[Campbell]
application/dicom	[RFC3240]
application/dvcs	[RFC3029]
application/EDI-Consent	[RFC1767]
application/EDIFACT	[RFC1767]

application/EDI-X12	[RFC1767]
application/eshop	[Katz]
application/font-tdpfr	[RFC3073]
application/http	[RFC2616]
application/hyperstudio	[Domino]
application/iges	[Parks]
application/index	[RFC2652]
application/index.cmd	[RFC2652]
application/index.obj	[RFC2652]
application/index.response	[RFC2652]
application/index.vnd	[RFC2652]
application/iotp	[RFC2935]
application/ipp	[RFC2910]
application/isup	[RFC3204]
application/mac-binhex40	[Faltstrom]
application/macwriteii	[Lindner]
application/marc	[RFC2220]
application/mathematica	[Van Nostern]
application/msword	[Lindner]
application/news-message-id	[RFC1036,Spencer]
application/news-transmission	[RFC1036, Spencer]
application/ocsp-request	[RFC2560]
application/ocsp-response	[RFC2560]
application/octet-stream	[RFC2045,RFC2046]
application/oda	[RFC2045,RFC2046]
application/ogg	[RFC-walleij-ogg-mediatype-08.txt]
application/parityfec	[RFC3009]
application/pdf	[Lindner]
application/pgp-encrypted	[RFC3156]
application/pgp-keys	[RFC3156]
application/pgp-signature	[RFC3156]
application/pkcs10	[RFC2311]
application/pkcs7-mime	[RFC2311]
application/pkcs7-signature	[RFC2311]
application/pkix-cert	[RFC2585]
application/pkixcmp	[RFC2510]
application/pkix-crl	[RFC2585]
application/postscript	[RFC2045,RFC2046]
application/prs.alvestrand.titrax-sheet	[Alvestrand]
application/prs.cww	[Rungchavalnont]
application/prs.nprend	[Doggett]
application/prs.plucker	[Janssen]
application/qsig	[RFC3204]
application/reginfo+xml	[RFC-ietf-sipping-reg-event-00.txt]
application/remote-printing	[RFC1486,Rose]
application/riscos	[Smith]
application/rtf	[Lindner]
application/sdp	[RFC2327]
application/set-payment	[Korver]
application/set-payment-initiation	[Korver]

application/set-registration	[Korver]
application/set-registration-initiation	[Korver]
application/sgml	[RFC1874]
application/sgml-open-catalog	[Grosso]
application/sieve	[RFC3028]
application/slate	[Crowley]
application/timestamp-query	[RFC3161]
application/timestamp-reply	[RFC3161]
application/tve-trigger	[Welsh]
application/vemmi	[RFC2122]
application/vnd.3gpp.pic-bw-large	[Meredith]
application/vnd.3gpp.pic-bw-small	[Meredith]
application/vnd.3gpp.pic-bw-var	[Meredith]
application/vnd.3gpp.sms	[Meredith]
application/vnd.3M.Post-it-Notes	[O'Brien]
application/vnd.accpac.simply.aso	[Leow]
application/vnd.accpac.simply.imp	[Leow]
application/vnd.acucobol	[Lubin]
application/vnd.acucorp	[Lubin]
application/vnd.adobe.xfdf	[Perelman]
application/vnd.aether.imp	[Moskowitz]
application/vnd.amiga.ami	[Blumberg]
application/vnd.anser-web-certificate-issue-initiation	[Mori]
application/vnd.anser-web-funds-transfer-initiation	[Mori]
application/vnd.audiograph	[Slusanschi]
application/vnd.blueice.multipass	[Holmstrom]
application/vnd.bmi	[Gotoh]
application/vnd.businessobjects	[Imoucha]
application/vnd.canon-cpdl	[Muto]
application/vnd.canon-lips	[Muto]
application/vnd.cinderella	[Kortenkamp]
application/vnd.claymore	[Simpson]
application/vnd.commerce-battelle	[Applebaum]
application/vnd.commonspace	[Chandhok]
application/vnd.contact.cmsg	[Patz]
application/vnd.cosmocaller	[Dellutri]
application/vnd.ctc-posml	[Kohlhepp]
application/vnd.cups-postscript	[Sweet]
application/vnd.cups-raster	[Sweet]
application/vnd.cups-raw	[Sweet]
application/vnd.curl	[Byrnes]
application/vnd.cybank	[Helmee]
application/vnd.data-vision.rdz	[Fields]
application/vnd.dna	[Searcy]
application/vnd.dpgraph	[Parker]
application/vnd.dreamfactory	[Appleton]
application/vnd.dxr	[Duffy]
application/vnd.ecdis-update	[Buettgenbach]

application/vnd.ecowin.chart	[Olsson]
application/vnd.ecowin.filerequest	[Olsson]
application/vnd.ecowin.fileupdate	[Olsson]
application/vnd.ecowin.series	[Olsson]
application/vnd.ecowin.seriesrequest	[Olsson]
application/vnd.ecowin.seriesupdate	[Olsson]
application/vnd.enliven	[Santinelli]
application/vnd.epson.esf	[Hoshina]
application/vnd.epson.msf	[Hoshina]
application/vnd.epson.quickanime	[Gu]
application/vnd.epson.salt	[Nagatomo]
application/vnd.epson.ssf	[Hoshina]
application/vnd.ericsson.quickcall	[Tidwell]
application/vnd.eudora.data	[Resnick]
application/vnd.fdf	[Zilles]
application/vnd.ffsns	[Holstage]
application/vnd.FloGraphIt	[Floersch]
application/vnd.framemaker	[Wexler]
application/vnd.fsc.weblaunch	[D.Smith]
application/vnd.fujitsu.oasys	[Togashi]
application/vnd.fujitsu.oasys2	[Togashi]
application/vnd.fujitsu.oasys3	[Okudaira]
application/vnd.fujitsu.oasysgp	[Sugimoto]
application/vnd.fujitsu.oasysprs	[Ogita]
application/vnd.fujixerox.ddd	[Onda]
application/vnd.fujixerox.docuworks	[Taguchi]
application/vnd.fujixerox.docuworks.binder	[Matsumoto]
application/vnd.fut-misnet	[Pruulmann]
application/vnd.grafeq	[Tupper]
application/vnd.groove-account	[Joseph]
application/vnd.groove-help	[Joseph]
application/vnd.groove-identity-message	[Joseph]
application/vnd.groove-injector	[Joseph]
application/vnd.groove-tool-message	[Joseph]
application/vnd.groove-tool-template	[Joseph]
application/vnd.groove-vcard	[Joseph]
application/vnd.hbci	[Hammann]
application/vnd.hhe.lesson-player	[Jones]
application/vnd.hp-HPGL	[Pentecost]
application/vnd.hp-hpid	[Gupta]
application/vnd.hp-hps	[Aubrey]
application/vnd.hp-PCL	[Pentecost]
application/vnd.hp-PCLXL	[Pentecost]
application/vnd.httphone	[Lefevre]
application/vnd.hzn-3d-crossword	[Minnis]
application/vnd.ibm.afplinedata	[Buis]
application/vnd.ibm.electronic-media	[Tantlinger]
application/vnd.ibm.MiniPay	[Herzberg]

application/vnd.ibm.modcap	[Hohensee]
application/vnd.ibm.secure-container	[Tantlinger]
application/vnd.informix-visionary	[Gales]
application/vnd.intercon.formnet	[Gurak]
application/vnd.intertrust.digibox	[Tomasello]
application/vnd.intertrust.nncp	[Tomasello]
application/vnd.intu.qbo	[Scratchley]
application/vnd.intu.qfx	[Scratchley]
application/vnd.irepository.package+xml	[Knowles]
application/vnd.is-xpr	[Natarajan]
application/vnd.japannet-directory-service	[Fujii]
application/vnd.japannet-jpnstore-wakeup	[Yoshitake]
application/vnd.japannet-payment-wakeup	[Fujii]
application/vnd.japannet-registration	[Yoshitake]
application/vnd.japannet-registration-wakeup	[Fujii]
application/vnd.japannet-setstore-wakeup	[Yoshitake]
application/vnd.japannet-verification	[Yoshitake]
application/vnd.japannet-verification-wakeup	[Fujii]
application/vnd.jisp	[Deckers]
application/vnd.kde.karbon	[Faure]
application/vnd.kde.kchart	[Faure]
application/vnd.kde.kformula	[Faure]
application/vnd.kde.kivio	[Faure]
application/vnd.kde.kontour	[Faure]
application/vnd.kde.kpresenter	[Faure]
application/vnd.kde.kspread	[Faure]
application/vnd.kde.kword	[Faure]
application/vnd.kenameapp	[DiGiorgio-Haag]
application/vnd.koan	[Cole]
application/vnd.liberty-request+xml	[McDowell]
application/vnd.llamagraphics.life-balance.desktop	[White]
application/vnd.lotus-1-2-3	[Wattenberger]
application/vnd.lotus-approach	[Wattenberger]
application/vnd.lotus-freelance	[Wattenberger]
application/vnd.lotus-notes	[Laramie]
application/vnd.lotus-organizer	[Wattenberger]
application/vnd.lotus-screencam	[Wattenberger]
application/vnd.lotus-wordpro	[Wattenberger]
application/vnd.mcd	[Gotoh]
application/vnd.mediastation.cdkey	[Flurry]
application/vnd.meridian-slingshot	[Wedel]
application/vnd.micrografx.flo	[Prevo]

application/vnd.micrografx.igx	[Prevo]
application/vnd.mif	[Wexler]
application/vnd.minisoft-hp3000-save	[Bartram]
application/vnd.mitsubishi.misty-guard.trustweb	[Tanaka]
application/vnd.Mobius.DAF	[Kabayama]
application/vnd.Mobius.DIS	[Kabayama]
application/vnd.Mobius.MBK	[Devasia]
application/vnd.Mobius.MQY	[Devasia]
application/vnd.Mobius.MSL	[Kabayama]
application/vnd.Mobius.PLC	[Kabayama]
application/vnd.Mobius.TXF	[Kabayama]
application/vnd.mophun.application	[Wennerstrom]
application/vnd.mophun.certificate	[Wennerstrom]
application/vnd.motorola.flexsuite	[Patton]
application/vnd.motorola.flexsuite.adsi	[Patton]
application/vnd.motorola.flexsuite.fis	[Patton]
application/vnd.motorola.flexsuite.gotap	[Patton]
application/vnd.motorola.flexsuite.kmr	[Patton]
application/vnd.motorola.flexsuite.ttc	[Patton]
application/vnd.motorola.flexsuite.wem	[Patton]
application/vnd.mozilla.xul+xml	[McDaniel]
application/vnd.ms-artgalry	[Slawson]
application/vnd.ms-asf	[Fleischman]
application/vnd.mseq	[Le Bodic]
application/vnd.ms-excel	[Gill]
application/vnd.msign	[Borcherding]
application/vnd.ms-lrm	[Ledoux]
application/vnd.ms-powerpoint	[Gill]
application/vnd.ms-project	[Gill]
application/vnd.ms-tnef	[Gill]
application/vnd.ms-works	[Gill]
application/vnd.ms-wpl	[Plastina]
application/vnd.musician	[Adams]
application/vnd.music-niff	[Butler]
application/vnd.netfpx	[Mutz]
application/vnd.noblenet-directory	[Solomon]
application/vnd.noblenet-sealer	[Solomon]
application/vnd.noblenet-web	[Solomon]
application/vnd.novadigm.EDM	[Swenson]
application/vnd.novadigm.EDX	[Swenson]
application/vnd.novadigm.EXT	[Swenson]
application/vnd.obn	[Hessling]
application/vnd.osa.netdeploy	[Klos]
application/vnd.palm	[Peacock]
application/vnd.pg.format	[Gandert]
application/vnd.pg.osasli	[Gandert]
application/vnd.powerbuilder6	[Guy]

application/vnd.powerbuilder6-s	[Guy]
application/vnd.powerbuilder7	[Shilts]
application/vnd.powerbuilder75	[Shilts]
application/vnd.powerbuilder75-s	[Shilts]
application/vnd.powerbuilder7-s	[Shilts]
application/vnd.previewsystems.box	[Smolgovsky]
application/vnd.publishare-delta-tree	[Ben-Kiki]
application/vnd.pvi.ptid1	[Lamb]
application/vnd.pwg-multiplexed	[RFC3391]
application/vnd.pwg-xhtml-print+xml	[Wright]
application/vnd.Quark.QuarkXPress	[Scheidler]
application/vnd.rapid	[Szekely]
application/vnd.s3sms	[Tarkkala]
application/vnd.sealed.net	[Lambert]
application/vnd.seemail	[Webb]
application/vnd.shana.informed.formdata	[Selzler]
application/vnd.shana.informed.formtemplate	[Selzler]
application/vnd.shana.informed.interchange	[Selzler]
application/vnd.shana.informed.package	[Selzler]
application/vnd.smaf	[Takahashi]
application/vnd.sss-cod	[Dani]
application/vnd.sss-dtf	[Bruno]
application/vnd.sss-ntf	[Bruno]
application/vnd.street-stream	[Levitt]
application/vnd.svd	[Becker]
application/vnd.swiftview-ics	[Widener]
application/vnd.triscape.mxs	[Simonoff]
application/vnd.trueapp	[Hepler]
application/vnd.truedoc	[Chase]
application/vnd.ufdl	[Manning]
application/vnd.uplanet.alert	[Martin]
application/vnd.uplanet.alert-wbxml	[Martin]
application/vnd.uplanet.bearer-choice	[Martin]
application/vnd.uplanet.bearer-choice-wbxml	[Martin]
application/vnd.uplanet.cacheop	[Martin]
application/vnd.uplanet.cacheop-wbxml	[Martin]
application/vnd.uplanet.channel	[Martin]
application/vnd.uplanet.channel-wbxml	[Martin]
application/vnd.uplanet.list	[Martin]
application/vnd.uplanet.listcmd	[Martin]
application/vnd.uplanet.listcmd-wbxml	[Martin]
application/vnd.uplanet.list-wbxml	[Martin]
application/vnd.uplanet.signal	[Martin]

application/vnd.vcx	[T.Sugimoto]
application/vnd.vectorworks	[Pharr]
application/vnd.vidsoft.vidconference	[Hess]
application/vnd.visio	[Sandal]
application/vnd.visionary	[Aravindakumar]
application/vnd.vividence.scriptfile	[Risher]
application/vnd.vsf	[Rowe]
application/vnd.wap.sic	[WAP-Forum]
application/vnd.wap.slc	[WAP-Forum]
application/vnd.wap.wbxml	[Stark]
application/vnd.wap.wmlc	[Stark]
application/vnd.wap.wmlscriptc	[Stark]
application/vnd.webturbo	[Rehem]
application/vnd.wrq-hp3000-labelled	[Bartram]
application/vnd.wt.stf	[Wohler]
application/vnd.wv.csp+wbxml	[Salmi]
application/vnd.xara	[Matthewman]
application/vnd.xfdl	[Manning]
application/vnd.yellowriver-custom-menu	[Yellow]
application/whoispp-query	[RFC2957]
application/whoispp-response	[RFC2958]
application/wita	[Campbell]
application/wordperfect5.1	[Lindner]
application/x400-bp	[RFC1494]
application/xhtml+xml	[RFC3236]
application/xml	[RFC3023]
application/xml-dtd	[RFC3023]
application/xml-external-parsed-entity	[RFC3023]
application/zip	[Lindner]
audio/32kadpcm	[RFC2421,RFC2422]
audio/AMR	[RFC3267]
audio/AMR-WB	[RFC3267]
audio/basic	[RFC2045,RFC2046]
audio/CN	[RFC3389]
audio/DAT12	[RFC3190]
audio/DVI4	
audio/EVRC	[RFC-ietf-avt-evrc-smv-03.txt]
audio/EVRC0	[RFC-ietf-avt-evrc-smv-03.txt]
audio/G.722.1	[RFC3047]
audio/G722	
audio/G723	
audio/G726-16	
audio/G726-24	
audio/G726-32	
audio/G726-40	
audio/G728	
audio/G729	
audio/G729D	
audio/G729E	

audio/GSM	
audio/GSM-EFR	
audio/L16	[RFC2586]
audio/L20	[RFC3190]
audio/L24	[RFC3190]
audio/L8	
audio/LPC	
audio/MP4A-LATM	[RFC3016]
audio/MPA	
audio/mpa-robust	[RFC3119]
audio/mpeg	[RFC3003]
audio/parityfec	[RFC3009]
audio/PCMA	
audio/PCMU	
audio/prs.sid	[Walleij]
audio/QCELP	
audio/RED	
audio/SMV	[RFC-ietf-avt-evrc-smv-03.txt]
audio/SMV0	[RFC-ietf-avt-evrc-smv-03.txt]
audio/telephone-event	[RFC2833]
audio/tone	[RFC2833]
audio/VDVI	
audio/vnd.3gpp.iufp	[Belling]
audio/vnd.cisco.nse	[Kumar]
audio/vnd.cns.anp1	[McLaughlin]
audio/vnd.cns.inf1	[McLaughlin]
audio/vnd.digital-winds	[Strazds]
audio/vnd.everad.plj	[Cicelsky]
audio/vnd.lucent.voice	[Vaudreuil]
audio/vnd.nortel.vbk	[Parsons]
audio/vnd.nuera.ecelp4800	[Fox]
audio/vnd.nuera.ecelp7470	[Fox]
audio/vnd.nuera.ecelp9600	[Fox]
audio/vnd.octel.sbc	[Vaudreuil]
audio/vnd.qcelp	[Lundblade]
audio/vnd.rhetorex.32kadpcm	[Vaudreuil]
audio/vnd.vmx.cvsd	[Vaudreuil]
image/cgm	Computer Graphics Metafile
image/g3fax	[RFC1494]
image/gif	[RFC2045,RFC2046]
image/ief	[RFC1314] Image Exchange Format
image/jpeg	[RFC2045,RFC2046]
image/naplps	[Ferber]
image/png	[Randers-Pehrson]
image/prs.btif	[Simon]
image/prs.pti	[Laun]
image/t38	[RFC3362]
image/tiff	[RFC3302] Tag Image File Format
image/tiff-fx	[RFC3250] Tag Image File Format Fax eXtended

image/vnd.cns.inf2	[McLaughlin]
image/vnd.djvu	[Bottou]
image/vnd.dwg	[Moline]
image/vnd.dxf	[Moline]
image/vnd.fastbidsheet	[Becker]
image/vnd.fpx	[Spencer]
image/vnd.fst	[Fuldseth]
image/vnd.fujixerox.edmics-mmr	[Onda]
image/vnd.fujixerox.edmics-rlc	[Onda]
image/vnd.globalgraphics.pgb	[Bailey]
image/vnd.mix	[Reddy]
image/vnd.ms-modi	[Vaughan]
image/vnd.net-fpx	[Spencer]
image/vnd.svf	[Moline]
image/vnd.wap.wbmp	[Stark]
image/vnd.xiff	[S.Martin]
message/delivery-status	[RFC1894]
message/disposition-notification	[RFC2298]
message/external-body	[RFC2045,RFC2046]
message/http	[RFC2616]
message/news	[RFC 1036, H.Spencer]
message/partial	[RFC2045,RFC2046]
message/rfc822	[RFC2045,RFC2046]
message/s-http	[RFC2660]
message/sip	[RFC3261]
message/sipfrag	[RFC3420]
model/iges	[Parks]
model/mesh	[RFC2077]
model/vnd.dwf	[Pratt]
model/vnd.flatland.3dml	[Powers]
model/vnd.gdl	[Babits]
model/vnd.gs-gdl	[Babits]
model/vnd.gtw	[Ozaki]
model/vnd.mts	[Rabinovitch]
model/vnd.parasolid.transmit.binary	[Parasolid]
model/vnd.parasolid.transmit.text	[Parasolid]
model/vnd.vtu	[Rabinovitch]
model/vrml	[RFC2077]
multipart/alternative	[RFC2045,RFC2046]
multipart/appledouble	[Faltstrom]
multipart/byteranges	[RFC2068]
multipart/digest	[RFC2045,RFC2046]
multipart/encrypted	[RFC1847]
multipart/form-data	[RFC2388]
multipart/header-set	[Crocker]
multipart/mixed	[RFC2045,RFC2046]
multipart/parallel	[RFC2045,RFC2046]
multipart/related	[RFC2387]
multipart/report	[RFC1892]
multipart/signed	[RFC1847]

multipart/voice-message	[RFC2421,RFC2423]
text/calendar	[RFC2445]
text/css	[RFC2318]
text/directory	[RFC2425]
text/enriched	[RFC1896]
text/html	[RFC2854]
text/parityfec	[RFC3009]
text/plain	[RFC2646,RFC2046]
text/prs.lines.tag	[Lines]
text/rfc822-headers	[RFC1892]
text/richtext	[RFC2045,RFC2046]
text/rtf	[Lindner]
text/sgml	[RFC1874]
text/t140	[RFC2793]
text/tab-separated-values	[Lindner]
text/uri-list	[RFC2483]
text/vnd.abc	[Allen]
text/vnd.curl	[Byrnes]
text/vnd.DMClientScript	[Bradley]
text/vnd.fly	[Gurney]
text/vnd.fmi.flexstor	[Hurtta]
text/vnd.in3d.3dml	[Powers]
text/vnd.in3d.spot	[Powers]
text/vnd.IPTC.NewsML	[IPTC]
text/vnd.IPTC.NITF	[IPTC]
text/vnd.latex-z	[Lubos]
text/vnd.motorola.reflex	[Patton]
text/vnd.ms-mediapackage	[Nelson]
text/vnd.net2phone.commcenter.command	[Xie]
text/vnd.sun.j2me.app-descriptor	[G.Adams]
text/vnd.wap.si	[WAP-Forum]
text/vnd.wap.sl	[WAP-Forum]
text/vnd.wap.wml	[Stark]
text/vnd.wap.wmlscript	[Stark]
text/xml	[RFC3023]
text/xml-external-parsed-entity	[RFC3023]
video/BMPEG	
video/BT656	
video/CelB	
video/DV	[RFC3189]
video/H261	
video/H263	
video/H263-1998	
video/H263-2000	
video/JPEG	
video/MP1S	
video/MP2P	
video/MP2T	
video/MP4V-ES	[RFC3016]

video/mpeg	[RFC2045,RFC2046]
video/MPV	
video/nv	
video/parityfec	[RFC3009]
video/pointer	[RFC2862]
video/quicktime	[Lindner]
video/SMPTE292M	[RFC-avt-smpte292-video-08.txt]
video/vnd.fvt	[Fuldseth]
video/vnd.motorola.video	[McGinty]
video/vnd.motorola.videop	[McGinty]
video/vnd.mpegurl	[Recktenwald]
video/vnd.nokia.interleaved-multimedia	[Kangaslampi]
video/vnd.objectvideo	[Clark]
video/vnd.vivo	[Wolfe]

4.7.6 UnitOfMeasure

Code identifying a product unit of measure.

Instance	Documentation
10P	10-pack.
1BF	100 Board Feet.
1FC	20 Foot Container.
1GR	Gram/Cubic Centimeter.
1GT	10,000 Gallon Tankcar.
1KB	25 Kilogram Bulk Bag.
1KD	10 Kilogram Drum.
1KP	1000-pack.
1M2	1/Square Meter (1/M2).
1PA	20-Pack.
1PB	50 Pound Bag.
1PD	100 Pound Drum.
1PM	1/minute (1/min).
22S	Square Millimeter/Second (mm2/s).
2FC	40 Foot Container.
2GR	Gram/square meter.
2GT	20,000 Gallon Tankcar.
2KB	300 Kilogram Bulk Bag.
2KD	15 Kilogram Drum.
2PA	100-Pack.
3GR	Grams Per 100 Centimeters.
3KB	500 Kilogram Bulk Bag.
3KD	55 Gallon Drum.
3MH	Cubic Millimeters/Hour (mm3/hour).
4GR	Grams Per 100 Grams.
4KD	115 Kilogram Drum.
50P	50-pack.
5GR	Grams Per Cubic Centimeter.
6GR	Grams Per Square Centimeter.

7GR	Grams Per Square Meter.
ABC	Absorbance per centimeter (Absorbance per cm).
ABM	Absorbance per micron (Abs/um).
ABU	Absorbance per Unit (absorbance per unit).
ACC	Atoms per Cubic Centimeters (atoms per cu cm).
ACR	Acre.
ACS	Acidic strength/concentration.
ACT	Actual Pounds.
ACU	Activity unit (Activ.unit).
ALU	Aluminum Pounds Only.
AM1	Ampoule.
AMN	Ångstroms/Minute (Ångst/min).
AMP	Ampere.
ANG	Angstrom (A).
APB	Atomic Parts per Billion (atomic ppb).
APG	API Specific Gravity (API Grav).
APM	Atomic Parts per Million (atomic ppm).
APT	Atomic Parts per Trillion (atomic ppt).
APU	APHA Units (apha).
ASC	Atoms per Square Centimeters (atoms per sq cm).
ASM	Angstrom.
ASY	Assembly (ASY).
ATG	Atmospheric gauge.
ATM	Atmosphere absolute.
ATP	Atomic %.
ATY	Activity.
BAB	Base Box.
BAC	Batch.
BAE	Bale.
BAG	Bag.
BAL	Ball.
BAN	Band.
BAP	Batting Pound.
BAR	Bar.
BAS	Basket.
BAT	Batt.
BAW	Base Weight.
BEA	Beam.
BEC	Becquerel/kilogram.
BEL	Belt.
BHP	Brake HP.
BIL	Billet.
BIN	Bin.
BIT	Bit.
BKC	Bulk Car Load.
BLN	Balance.
BLO	Block.
BOA	Board.
BOF	Board Feet.
BOL	Bolt.

BOT	Bottle.
BOX	Box.
BRB	Bar absolute.
BRD	Barrels Per Day.
BRE	Barrel.
BRI	Barrel (Imperial).
BRM	Barrels Per Minute.
BTF	British Thermal Units (BTUs) Per Cubic Foot.
BTP	British Thermal Units (BTUs) Per Pound.
BTU	British Thermal Unit (BTU).
BUB	Bubbler.
BUC	Bucket.
BUD	Bushel, Dry Imperial.
BUK	Bunks.
BUL	Bulk.
BUN	Bundle.
BUP	Bulk Pack.
BUS	Bushel.
BYT	Bytes.
C0W	Counts per Wafer (Counts/wf).
C3M	Cubic centimeter per minute (cm3/minute).
CAA	Carat.
CAB	Carboy.
CAC	Card.
CAD	Candela.
CAG	Cartridge.
CAK	Cask.
CAL	Calorie.
CAN	Can.
CAO	Carload.
CAR	Car.
CAS	Case.
CAT	Canister.
CAW	Catchweight.
CC2	Centipoises per hour per square centimeters (cps per hr per sq cm).
CCC	Counts per Square Centimeters (Counts/cm2).
CCH	Counts per square centimeter per hour (counts/cm2/hr).
CD3	Cubic decimeter (Cubic dec).
CEL	Cell.
CEM	Centimeter.
CEP	Centipoises (CPS).
CET	Centiliter.
CGM	Centigram.
CHA	Chains (Land Survey).
CHE	Chest.
CM2	Square centimeter (cm2).
CMH	Centimeter/hour (cm/h).
CML	Colony/Milliliter (col/ml).
CMS	Centimeter/Second (cm/s).
CNN	Connector.

COG	Coil Group.
COI	Coil.
COL	Coulomb.
COM	Composite Product Pounds (Total Weight).
CON	Cone.
COT	Container.
COV	Cover.
CRA	Crate.
CRT	Carton.
CSE	Cassette.
CST	Centistokes.
CUB	Cubic centimeter.
CUC	Cubic centimeter/second.
CUF	Cubic Foot.
CUI	Cubic inch.
CUM	Cubic meter.
CUP	Cup.
CUY	Cubic yard.
CYC	Cycles.
CYL	Cylinder.
DAL	Dalton units (dalton).
DAY	Day.
DCB	Decibels.
DCG	Decagram.
DCL	Deciliter.
DCM	Defects per Square Centimeters (Defects/cm2).
DE1	Defects.
DE2	Degrees in Angles.
DE3	Degree.
DEA	Deal.
DEC	Decimeter.
DEF	Degree Fahrenheit.
DEG	Degree Celsius.
DEP	Dep. Factor.
DFW	Defects per Wafer (Defects/Wafer).
DGM	Decigram.
DIE	Die.
DIL	Display.
DIP	Dispenser.
DNC	Dynes per centimeter (Dynes per cm).
DOZ	Dozen.
DPM	Parts per Million per Day (ppm per day).
DRA	Dram.
DRU	Drum.
DRY	Dry Pounds.
EAC	Each.
ELE	Electrical Capacitance.
EML	Enzyme Units/Milliliter (Enzyme/ml).
ENU	Enzyme Units (Enzy.Units).
EQ2	Milliequivalent per 30 Kg (mequ/30Kg).

EQG	Milliequivalent per gram (milliequivalent per g).
EQK	Milliequivalent per Kilogram (mequ/Kg).
EQL	Milliequivalent per milliliter (mequ/mL).
EQM	Milliequivalent per Millimeter (milliequivalent per mm).
FAR	Farads.
FFA	Femtofarad.
FIN	1/32 inch.
FLO	Fluid Ounce.
FOI	Fluid Ounce (Imperial).
FOO	Foot.
FOU	Fluid Ounce US.
FPS	Feet per second (Feet/s).
FRH	Sales FT3 at 60°F per hour (FTR/hour).
FRM	Sales FT3 at 60°F per minute (FTR/min).
FTR	Sales FT3 at 60°F, 14.7 psia (SFT3_60F_S).
FTS	Sales FT3 at 70°F, 14.7 psia (SFT3_70F_S).
FTT	1000 FT3 at 60°F, 14.7 psia (KFT3_60F_S).
FTU	1000 FT3 at 70°F, 14.7 psia (KFT3_70F_S).
FUU	Fuel Usage (Gallons).
G2S	Gram square per second (g²/s).
GAI	Gram act. ingrd. (g act.ing).
GAL	Gallon.
GAS	Gage Systems.
GAU	Gram Gold.
GCL	Gardner Color.
GEG	Keim/Gramm (keim/g).
GEQ	Gram per Equivalent (g/Eq).
GGM	Gram per gram mole (g/gmole).
GHG	Gram per Hectogram (g/hg).
GIH	Gigahertz.
GIJ	Gigajoules.
GIL	Gill (Imperial).
GM4	Gram per 100 Milliliters (g/100ml).
GME	Gram per Mole Equivalent (g/mole Eq).
GMO	Gram per Mol (g/mol).
GNL	Gram act.Ingrd per Liter (gai/liter).
GOB	Gross Barrels.
GOG	Gross Gallons.
GOH	Gigaohm (GOhm).
GOK	Gross Kilogram.
GOT	Gross Ton.
GOY	Gross Yard.
GPN	US Gallon per minute (gpm US).
GRA	Gram.
GRG	Great Gross (Dozen Gross).
GRK	Grams Per Kilogram.
GRL	Grams Per Liter.
GRM	Grams Per Milliliter.
GRN	Grain.
GRO	Gross.

GRP	Group.
HAG	Half Gallon.
HAH	Half Hour.
HAL	Half Liter.
HAN	Hank.
HEA	Heat lots.
HEC	Hectare.
HEL	Hectoliter.
HEP	Hectopascal.
HER	Hertz.
HGM	Hegman.
HNY	Henry.
HOS	Hours.
HOU	Hour.
HUA	Hundredth of a Carat.
HUB	Hundred Boxes.
HUC	Hundred Count.
HUS	Hundred Sheets.
HZM	Hertz per Minute (Hertz per min).
IH2	Inches of Water Gauge (inH2O-g).
IHG	Inches of Mercury Gauge (inHg-g).
ILB	Inch pounds (in.lb).
IMG	Imperial Gallons.
INC	Inch.
IPS	Inch per second (inch / sec).
JAR	Jar.
JGR	Joule per gram (J/g).
JKG	Joule/Kilogram (J/kg).
JMO	Joule/Mol (J/mol).
JOI	Joint.
JOU	Joule.
KAI	Kilogram act. Ingrd. (kg ac.ing.).
KAK	kg act.ingrd. / kg (kai/kg).
KBY	Kilobyte.
KCM	Kilogram per cm2 gauge (kg/cm2-g).
KD3	Kilogram per Cubic Decimeter (kg/dm3).
KEG	Keg.
KEL	Kelvin.
KGE	Container Fill Weight in Kg/Ea.
KGH	Kilogram per Hour (kg/h).
KGL	Kilograms per Liter (kg/L).
KGM	Kilogram/Mol (kg/mol).
KGS	Kilogram per Second (kg/s).
KHO	Kilometer/hour.
KIC	Kilogram per cubic meter.
KIE	Kilometer.
KIG	Kilogram.
KIH	Kilohertz.
KIK	Kilobecquerel/Kilogram.
KIL	Kiloampere.

KIM	Kilogram/square meter.
KIO	Kiloohm.
KIS	Kilogramm pro Sekunde.
KIT	Kit.
KIV	Kilovolt.
KIW	Kilowatt.
KJK	Kilojoule per kilogram (KJ/kg).
KJL	Kilojoule.
KJM	Kilojoule/Mol (KJ/mol).
KKG	Kilogram/Kilogram.
KMI	Kilogram per minute (Kg/min).
KMK	Cubic meter/Cubic meter (m3/m3).
KMN	Kelvin per Minute (K/min).
KMS	Kelvin per Second (K/s).
KNM	Kilonewton per square meter (kN/m2).
KNT	Kilonewton (ND).
KPA	Kilopascal (kPa).
KRU	Kreb Unit.
KTN	Kilotonne (kt).
KUD	Kubikdezimeter.
KUM	Kubikmeter pro Sekunde.
KVA	Kilovoltampere (kVA).
KVM	Kilovolt per 100 mils (kV/100 mils).
KWH	Kilowatt-hour.
KWR	Kilovolt ampere reactive hours (KVAH reac.).
LBH	US Pound per Hour (lb/hour).
LBM	US Pound per minute (lb/min).
LG2	Liter per Gram per Centimeter (l/g/cm).
LGC	Liters per Gram-Centimeters (l/g-cm).
LHK	Liter per 100 km (l/100 km).
LIF	Lifts.
LIM	Link.
LIQ	Liquid Pounds.
LIT	Liter.
LMI	Liter per Minute (l/min).
LMS	Liter per Molsecond (l/mol.s).
LOA	Load.
LOT	Lot.
LPD	Light Point Defects per Wafer (LPD/Wafer).
LPH	Liter per hour (l/hr).
LUG	Lug.
M15	Micron per 15 Square Millimeters (mu per 15 sq mm).
M20	Micron per 20 Square Millimeters (mu per 20 sq mm).
M25	Micron per 25 Square Millimeters (mu per 25 sq mm).
M26	Micron per 26 by 8 Millimeters (mu per 26 by 8 mm).
M2G	Meters square per gram (m sq per gram).
M3A	Sales m3 at 15 °C, 1 atmos (Sm3_15C_S).
M3B	Sales m3 at 21 °C, 1 atmos (Sm3_21C_S).
M3C	Sales m3 at 10 °C, 1 atmos (Sm3_10C_S).
M3D	Sales m3 at 43 °C, 1 bar (Sm3_43C_D).

M3E	Sales m3 at 9 °C, 1 bar (Sm3_9C_D).
M3F	Sales m3 at 15 °C, 1 bar (Sm3_15C_D).
M3G	Sales m3 at 27 °C, 1 atmos (Sm3_27C_S).
M3H	Cubic Meter per Hour (m3/h).
M3J	Sales m3 at 35 °C, 1 atmos (Sm3_35C_S).
M3K	Cubic Meter/Kilogram (m3/Kg).
M3M	Milliliter per Cubic Meter (ml/m3).
M3N	Mol per Cubic Meter (Mol/m3).
MAM	Milliamps/mm.
MAT	Mat.
MBY	Megabyte.
MBZ	Meterbar per Second (m.bar/s).
MC2	Millisecond per Centimeter (mS/cm).
MCA	Microampere (µA).
MCC	Microgram per square centimeter (ug/cm2).
MCG	Microgram.
MCH	Micromhos (µmhos).
MCK	Microcuries per Kilogram (µci/kg).
MCL	Microcuries per Gaseous Liter (µc/l).
MCM	Milligrams Per Cubic Meter.
MCN	Metal Can.
MCP	Manifolded Cylinder Pack.
MCR	Micron.
MEG	Megagram.
MEH	Megahertz.
MEJ	Megajoule (MJ).
MEP	Megapascal.
MET	Meter.
MEW	Megawatt.
MFD	Microfarad (µF).
MG1	Microgram per milliliter (ug/mL).
MGA	Milligram per Amp (mg per amp).
MGF	Milligram per Square Centimeter (mg/cm2).
MGG	Milligram per Gram (mg/g).
MGL	Microgram per Liter (µg/l).
MGM	Milligram.
MGO	Megohm (MOhm).
MGR	Micrograms per Gram (µg/g).
MGS	Milligram per Second (mg per sec).
MH1	Millimeter per Hour (mm/h).
MHC	Micromhos per Centimeter (µmhos/cm).
MHR	Meter per Hour (m/h).
MHV	Megavolt.
MIB	Million BTU's.
MIC	Mikrogram/cubic meter.
MIG	Micrograms Per Cubic Meter.
MIL	Mile.
MIM	Micrometer.
MIN	Minute.
MIP	Millipascal seconds.

MIS	Microsecond.
MIT	Miter.
MIV	Millivolt.
MIW	Milliwatt.
MJC	Millijoule per square centimeter (mJ/cm2).
MJM	Wobbe Number (MJ/m3).
MJO	Millijoule.
MKG	Milligrams of KOH per Gram (mg KOH per g).
MKL	Millimol per Gram (mmol/g).
ML1	Milliliter per Liter (ml/l).
ML2	Milliliter per Liter (ml/l).
ML3	Mol per Liter (Mol/Liter).
ML4	Millimol per Liter (Millimol/l).
MLA	Milliampere.
MLB	Millibar.
MLC	Milligram/cubic meter.
MLG	Milliliter per Gallon (ml per gal).
MLI	Milliliter.
MLK	Milligram/kilogram.
MLL	Milligram/Liter.
MLM	Mole per Mole (mole/mole).
MLP	Mole Percent (% mole).
MLR	Microliter (µl).
MLS	Miles.
MLW	Milliliter act. Ingr. (ml act.in.).
MM3	Cubic Millimeter (mm3).
MMA	Millimeter per Year (mm/a).
MME	Millimeter.
MMG	Millimol/gram (mmol/g).
MMH	Millimeter H20.
MMK	Millimol/kilogram.
MMM	0.000001 meter (1 millionth of a meter). (Micrometer/Micron).
MMN	Meter per Minute (m/min).
MMO	Millimol.
MMS	Millimeter per Second (mm/s).
MNM	Millinewton per meter (mN/m).
MNT	Meganewton (MN).
MOC	Megaohm per centimeter (Mohm/cm).
MOK	Mol/kilogram.
MOL	Mol.
MON	Month.
MPB	Mass parts per billion (ppb(m)).
MPG	Miles per Gallon (US) (Mi/Gal(US)).
MPH	Megagrams Per Hour.
MPM	Mass Parts per Million (ppm(m)).
MPT	Mass Parts per Trillion (ppt(m)).
MPZ	Meterpascal per Second (m.Pa/s).
MQG	Mircoequivalent per Gram (microeq/g).
MRF	Millifarad (mF).
MS1	MilliSiemen per Centimeter (mS/cm).

MS2	Meter per Second Squared (m/s2).
MS3	Microsiemens per Centimeter (µS/cm).
MSC	Millisecond.
MSM	Milligrams Per Square Meter.
MTA	Millitesla.
MTQ	Meter pro Quadratsekunde.
MTR	Meter (m).
MTS	Meters per second.
MUL	Multichip - When 2 or more dies (chips) are merged into one package.
MVA	Megavoltampere (MVA).
MVS	Millivolts.
MVT	Millivolt.
MWH	Megawatt Hours (mwh).
MWR	Megavolt Ampere Reactive Hours (MVAH reac.).
MWT	Molecular Weight (mW).
MYS	Micro Siemens (mic. Siem.).
N2M	Newton/Square millimeter (N/mm2).
NAA	Nanoamps.
NAM	Nanometer.
NAS	Nanosecond.
NEB	Net Barrels.
NEG	Net Gallons.
NEI	Net Imperial Gallons.
NEL	Net Liters.
NEW	Newton.
NIU	Normalized intensity unit (NIU).
NM2	Newton per Square Meter (N/m²).
NM3	Normal m3 at 0°C, 1 atmos (Normal m3).
NMH	Newton per Hour (N/h).
NMM	Newton per Millimeter (N/mm).
NMR	Normal m3 per Hour (Nm3/h).
NOL	Normality.
NPK	Nowpac Container (Nowpac).
NRG	Bar Gauge.
NRU	Nanofarad (nF).
NTU	Nephelometric Turbidity Units (NTU).
NTY	Equivalents per Liter (equ/l).
NUM	Numbers.
NWM	Newton per Meter (N/m).
NXM	Newton per 25 mm (N/25mm).
O2P	Percent Oxygen (% Oxygen).
OCT	Ohm/ct.
OHC	Ohm-Centimeter (ohm cm).
OHM	Ohm.
OMM	Ohm/mm.
ONE	One.
OPH	Operating hour (Oper. Hour).
OSQ	Ohm/sq.
OTP	One Thousand Pieces.
OUN	Ounce.

OVI	Ohm/via.
OZG	Ounce per Gallon (oz per gal).
PAC	Parcel.
PAD	Pad.
PAG	Package.
PAI	Pail.
PAK	Pack (PAK).
PAL	Pallet.
PAN	Panel.
PAR	Pair.
PAS	Pascal.
PAT	Packet.
PBA	PPBA Silicon (ppba Si).
PBW	Parts Per Billion by Weight (ppbw).
PC2	Parts per Square Centimeters (part per sq cm).
PCA	Percent Active (% Active).
PCL	Picocuries per Liter (pCi/l).
PEC	Percent.
PEG	Percentage.
PEH	Percent Per 1000 Hours.
PEM	Percent per micron (%/um).
PEN	Pennyweight.
PER	Per Hundred Pieces.
PEW	Percent Weight.
PF3	Per Cubic Foot (per cu ft).
PF4	Particles per Cubic Feet (particles per cu ft).
PFA	Percent Failed Area (Failed Area %).
PFR	Picofarad.
PH	PH Factor (pH).
PI2	Parts per Square Inch (part per sq in).
PID	Pint U.S. Dry.
PIE	Piece.
PIL	Pint - US liquid.
PL1	Parts per Liter (parts per l).
PL2	Parts per Milliliter (parts per ml).
PL3	Part per Millilitre (Part/ml).
PLA	Plate.
PLI	Pounds per Linear Inch (lb/Lin. In).
PLL	Pallet (Lift).
PLR	Per Liter.
PLT	Palette.
PLU	Pallet/Unit Load.
PMA	Percent Mass (%(m)).
PMI	Per Mille (%0).
PML	Particles per Milliliter (particles/mL).
PMO	Per Mille mass (%0(mass)).
PMP	Parts Per Million Platinum (ppm Pt).
PMV	Parts Per Million (weight/Vol) (ppm (w/v)).
PMW	Parts Per Million by Weight (ppmw).
PNJ	Particles per Injection (particles per inj).

PNT	Points.
PO3	Pound per cubic foot (lb/ft3).
POF	Pounds Per Foot.
POG	Pounds Per Gallon.
PON	Pound.
POP	Pounds Per Piece of Product.
POR	Pores.
POS	Pounds Per 1000 Square Feet.
POT	Pounds Per Thousand.
PP3	Parts per Million mole (ppm mole).
PP4	Parts per Billion Mole (ppb mole).
PPB	Parts per billion (US).
PPF	Parts per Ft3 (Parts/Ft3).
PPH	Parts Per Hundred (pph).
PPM	Parts per million.
PPP	Pounds Per Pound of Product.
PPT	Parts per Trillion (ppt).
PRS	Number of Persons.
PSA	Pounds per Square Inch Absolute.
PSC	Picosecond.
PSG	Pound per Square Inch Gauge (psi gauge).
PSI	PSI Unit (PSI).
PSS	Pascal second.
PSV	Poise.
PTL	Particles per Liter (Part/Liter).
PWF	Particles per Wafer (particles/wf).
QML	Kilomol (kmol).
QUA	Quart - US liquid.
RAC	Rack.
REA	Ream of 500 Sheets.
REE	Reel.
RIN	Ring.
RLU	Relative Light Unit (RLU).
ROD	Rod.
ROL	Roll.
RPM	Revolutions per Minute (Revs/min).
SAC	Sack.
SBB	Super Bulk Bag.
SCL	Scales.
SEC	Second.
SET	Set.
SHE	Sheet.
SHI	Shipment.
SHM	Sheet - Metric measure.
SHO	Shot.
SID	Disk (Disc).
SIE	Siemens per Meter (Siemens/m).
SKE	Skein.
SKI	Skid.
SLE	Sleeve.

SLI	Slip Sheet.
SMI	Square mile.
SMM	Square millimeter.
SPO	Spool.
SQF	Square foot.
SQI	Square inch.
SQK	Square kilometer.
SQM	Square meter.
SQS	Square meter/second.
SQU	Square.
SQY	Square Yard.
STI	Stick.
STM	Statute Mile.
STP	Steps.
STR	Strip.
STU	Stabilizer Units (SU).
SVU	Say Bolt Viscosity Units (SVU).
TAB	Tablet.
TAN	Tank.
TAR	Target pieces (target).
TAT	Tank Truck.
TES	Tesla.
THO	Thousand.
TM3	1/Cubic Meter (1/m3).
TNN	Tonne.
TOM	Ton per Cubic Meter (t/m3).
TON	Ton.
TOR	Torr.
TOT	Tote.
TPT	Pass Test (Pass).
TRA	Train.
TRF	Track Foot.
TRL	Trailer.
TRO	Troy.
TRU	Truckload.
TRY	Tray.
TRZ	Troy OZ.
TUB	Tube.
ULU	Unitless Unit of Measure.
UNT	Unit.
USG	US gallon.
USP	US pound.
UST	US ton.
VAL	VO mat. (Value).
VAP	Voltampere (VA).
VHN	Vickers Micro-Hardness (VHN10).
VIA	Vial.
VMP	Molar %.
VOL	Volt.
VPB	Volume Parts per Billion (ppb(V)).

VPC	Percent Volume (%(V)).
VPM	Volume Parts per Million (ppm(V)).
VPR	Per Mille Volume (%O(V)).
VPT	Volume parts per Trillion (ppt(V)).
VTA	Volts (Alternating Current).
VTD	Volts (Direct Current).
VTM	Volts Per Meter.
WAF	Wafer.
WAR	Watt.
WEE	Week.
WPT	Parts Per Trillion by Weight (pptw).
WRA	Wrap.
YAR	Yard.
YEA	Year.

4.7.7 ProcessRoleIdentifier

Describes the role of the partner in the business process. A partner will fulfill at least one or more roles during the business process.

Instance	Documentation
ADM	Administered by - The party who is the administrative authority of an account.
ALT	Alternate approval by - The party who has approved a request in the event the approver is not able to respond.
APP	Approval by - The party who has approved a request.
AUT	Authorized By - The party who has authorized a request.
BIF	Bill from - The party that will issue the invoice.
BIT	Bill to - The party that will pay the invoice.
CBK	Customs Broker - CustomsBroker This object represents the party that declare the shipment on behalf of declarant.
CLF	Collect From - To enable the buyer to specify the location of where products not supplied directly by the seller/installer may be collected.
CLM	Claimed By - This object represents the claimant.
CNC	Cancellation party - The party who is cancelling the shipping order.
COR	Change originated by - The party who originates a proposed change.
COW	Change owned by - The party who owns or who is assigned responsibility for a proposed change.
CRA	Credit applicant - The party who is applying for credit.
CRE	Created by - The party responsible for creating a process or task.
CSP	Contract Service Provider.
CWN	contractOwner - The party who is the owner of the contract. For example, in the direct business, the buyer is the contract owner. In the distribution business, the buyer is the distributor and the contract owner is the reseller.
DCE	DesignCustomerApplicationEngineer. The demand customer's Field Application Engineer.
DCT	Declared To - This object represents the party that the declaration goes to.
DCU	DesignCustomer. The owner of the product for which the design has

	been created.
DIS	Distributed by - The party who supplies products to retailers.
DLR	Declared By - This object represents the party that declare the shipment.
DST	Distributed To - This object represents the party to send information to.
FCP	Forecast Partner - The collection of business properties that describes the partner types for a forecast.
FIA	From Install At - The collection of sender business properties that describes a business partners' identity, their contact information, where they are physically located and their function in a supply chain.
FIN	Financed by - The party who is the financier.
FNB	Founded by - The party who performs the act, process, or art of casting metals.
FOR	Forwarded to - The party to whom a business document has been forwarded.
IMB	Imported By - The party responsible for importing the product.
INL	Inventory location - The party where the inventory product entry is located.
INO	Inventory owner - The party that owns the inventory product entry.
ITF	In transit from - The party sending the product quantity in a product location transfer.
ITL	installAt - The partner and/or location to which the product must be set up for use or service.
ITT	In transit to - The party receiving the product quantity in a product location transfer.
LGP	Logistics Provided By - The party who handles the details of an operation.
MFG	Manufactured by - The party who creates, processes or produces goods especially in large quantities and by means of industrial machines.
OWN	Owned by - The party who owns a process.
PAE	ProductProviderFieldApplicationEngineer. The product provider Field Application Engineer.
PCW	Primary Contract With - The primary party with whom a contract is formed.
PNB	Planning By - The party who establishes goals, policies or procedures.
PSR	ProductProviderSalesRepresentative. The product provider sales representative.
PUR	Purchased by - The party who is a purchaser of a product.
REA	Requested approval by - The party who has been selected to approve a request.
REC	Received by - The party who has received a product shipment.
REQ	Requested by - The party who has initiated a request.
RES	Respond to - The party to whom a responding business document must be sent when it is not equal to the partner specified in the document header.
RET	Return by - The party responsible for either carrying or forwarding the returned product.
REV	Reviewed by - The party responsible for reviewing a business document.

RFR	receivedFrom - The partner and/or location from where the product was shipped.
RLS	Released By - This object represents the party that releases the goods.
RMT	remitTo - The partner to which payment for a business document is sent.
RPB	Repaired By - The collection of business properties used to identify the business partner responsible for the repair or rework of a product.
RQT	Refer Quote To - The partner to whom a quote request is being referred.
RSF	Requested Ship From - The party where the product is requested to be shipped from.
RTT	ReturnTo - The partner and/or location to which the returned product must be delivered.
SBF	Self-billing from - The party who initiates the billing in self-billing scenario.
SBT	Self-billing to - The party whom the invoice is addressed to.
SCB	Subcontracted By - The party who is contracted to perform part or all of another party's contract.
SCP	Shipping charges paid by - The party responsible for administering payment of the shipping charges.
SCW	Secondary Contract With - The subsequent party(ies) with whom a contract is formed.
SHF	Ship From - The collection of business properties used to identify the business partner initiating a shipment or transaction.
SHT	Ship To - The partner and/or location to which the product must be delivered.
SLD	Sold to - The party to whom a product has been sold.
SOB	Sold By - The seller involved in a business transaction.
SPL	Supplied by - The party who supplies an item, part or assembly.
SPS	Service Provider Site - Identification for the location of the ASP site that is ordering the replacement parts and/or performing the repair.
SRT	Submit returns to - The party to whom product returns are to be submitted.
STR	Stored By - This object represents the party that stores the goods.
SVA	ShipVia - The partner and/or location through which the product must be shipped, such as the "cross dock" at a shipping hub. It must not be specified for the last leg, since this would be the same as the final destination specified in the ShipmentInformation/shipTo.
TFR	Transfer From - The party responsible for making the payment (Payer).
TIA	To Install At - The collection of receiver business properties that describes business partners' identity, their contact information, where they are physically located and their function in a supply chain.
TMT	Transfer Manufacturing To - The movement of the manufacturing process to another site.
TRA	Transported by - The party responsible for either carrying or forwarding the product.
TSB	Tested By - The collection of business properties used to identify the specific location and resources used to conduct a defined cycle or steps or measurements required to confirm a result or event.
TTR	Transfer To - The party who is receiving the payment (payee).

| ULR	Ultimate recipient - The party who ultimately receives the shipment, when an intermediate party takes responsibility for payment and final delivery.
USE	Used by - The party who is the end user of the product.
UST	Unstuffed By - This object represents the party that unstuffs the goods.
WHB	Warehoused By - The party who stocks or stores products.

4.7.8 WeightType

A code identifying the type of weight.

Instance	Documentation
CHR	Chargeable.
DMN	Dimensional.
EXA	Exact Net.
GNR	General.
GRS	Gross.
NET	Net.
NOM	Nominal Net.
TAR	Tare.

5. System Structure

5.1 BusinessProcessIdentifier

A Business Process Identifier to uniquely define the TPIR-PIP 'role' within a Business Scenario at a company or MNC level. The identifier MUST be composed of alphanumeric characters only and its length MUST be between one and twelve characters.
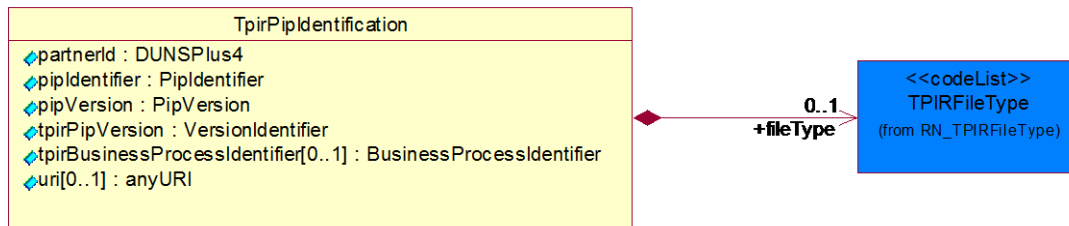
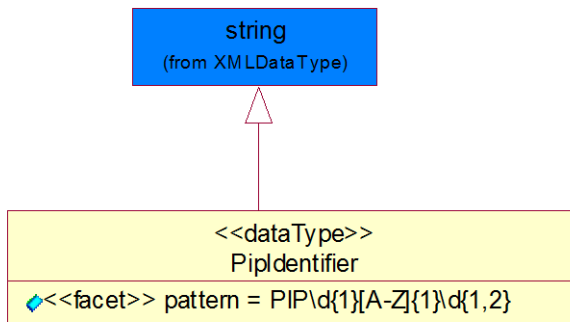**Figure 5-1 BusinessProcessIdentifier**

Attribute	Type	Documentation
pattern		[0-9a-zA-Z]{1,12}

5.2 BusinessServiceInformation

The object allows the specification of the business service utilized within the partner company.   This may or may not be the same as the information sent by the RNIF.

Figure 5-2 BusinessServiceInformation

Attribute	Type	Documentation
actionName	string	The name of Action. For RosettaNet usually any of Request/Confirm/Notify/Query/Response.
serviceName	string	The name of the Business Activity with the "Request/Confirm" part removed. E.g., for the Activity "Request Purchase Order"==> "Purchase Order".
processIdentifier	string	The name of the PIP e.g. Notify of Forecast Reply.
processReference[0..1]	string	The URN for the PIP that includes Cluster/Segment/Process pattern used to identify the interface process (such as PIP3A4)

processState[0..1]	string	The business process (or service) state of the sender of a document. When a service receives this document, the receiver may use the state as a precondition.

5.3 ContractInformation

A block of information used to correlate a contract in an executing choreography.
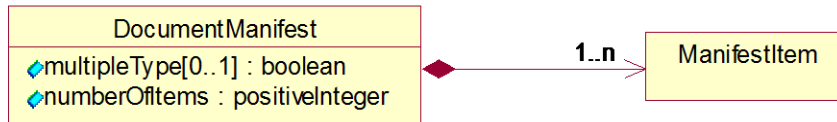
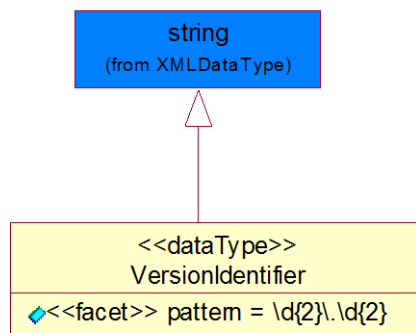**Figure 5-3 ContractInformation**

Attribute	Type	Documentation
contractIdentifier[0..1]	string	Unique identification of a contract between the Sender and the Receiver
contractType[0..1]	string	The type of the contract: an attribute describing the type of the ContractIndentification. Valid values are URI, URN,ebXMLCPA, or other values defined by partners.

5.4 CorrelationInformation

A block of information used to correlate a requesting document to a responding document and to the contract in an executing choreography.

Figure 5-4 CorrelationInformation

Composition	Cardinality	Type	Documentation
ContractInformation	0..1	ContractInformation	A block of information used to correlate a contract in an executing choreography.
RequestingDocumentInformation	0..1	RequestingDocumentInformation	A block of information used to correlate a requesting document to a responding document in an executing choreography.

5.5 DocumentHeader

The object allows for the identification of the sender and receiver of the business document.

```
StandardDocumentIdentification
standard[0..1] : string
version : string
```

Figure 5-5 DocumentHeader

Attribute	Type	Documentation
headerVersion[0..1]	string	The UN/CEFACT version of the document header.

Composition	Cardinality	Type	Documentation
Sender	1	Sender	The object allows the identification of the initiating party of the business message.
CorrelationInformation	0..1	CorrelationInformation	A block of information used to correlate a requesting document to a responding document and to the contract in an executing choreography.
DocumentInformation	1	DocumentInformation	The object specifies information to identify the business document, a summary of attachments, and information about the business document security.
Receiver	1	Receiver	The object allows the identification of the receiving party of the business message.

5.6 DocumentIdentification

The object specifies all information necessary to identify the business document.
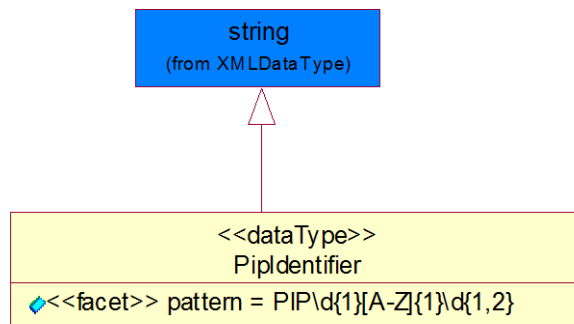
Figure 5-6 DocumentIdentification

Attribute	Type	Documentation
identifier	string	The unique identifier for the document being sent.
type[0..1]	string	Name of the Action Message

Composition	Cardinality	Type	Documentation
DocumentIdentificationChoice	1	DocumentIdentificationChoice	

5.7 DocumentIdentificationChoice

Composition	Cardinality	Type	Documentation
StandardDocumentIdentification	1	StandardDocumentIdentification	The object specifies additional information necessary to identify the standard business document.
TpirPipIdentification	1	TpirPipIdentification	The object specifies all information necessary to uniquely identify a TPIR-PIP within a Registry or trading partner repository.

5.8 DocumentInformation

The object specifies information to identify the business document, a summary of attachments, and information about the business document security.
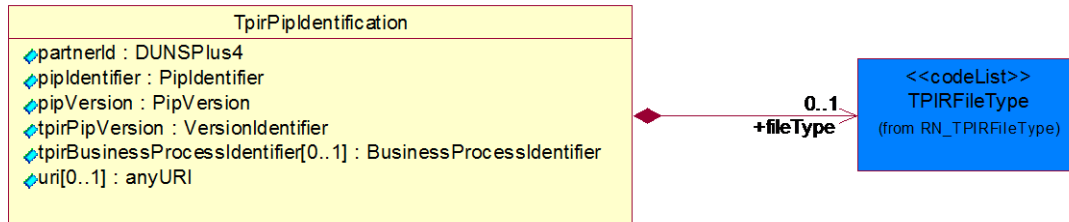

Figure 5-7 DocumentInformation

Attribute	Type	Documentation
creation	dateTime	The creation date and time of the specified Business Document (i.e. the Purchase Order date).

Composition	Cardinality	Type	Documentation
DocumentIdentification	1	DocumentIdentification	The object specifies all information necessary to identify the business document.
DocumentSecurity	0..1	DocumentSecurity	The object provides additional granularity in specifying business document security (this is in addition to the specified PIP security).
DocumentManifest	0..1	DocumentManifest	The block provides a brief summary of attachments and Service Content.

5.9 DocumentManifest

The block provides a brief summary of attachments and Service Content.
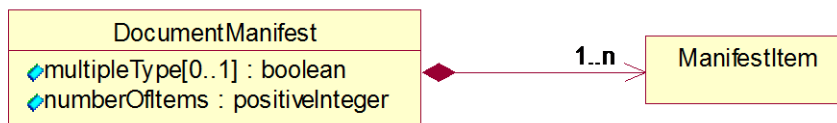
Figure 5-8 DocumentManifest

Attribute	Type	Documentation
multipleType[0..1]	boolean	Indicates whether the manifest contains documents of multiple types. True if yes, and False if no.
numberOfItems	positiveInteger	Total number of documents in the message. The physical count of the attachments in the payload plus the RosettaNet Business Message (for Service Content). The value of this field will be at least 1.

Composition	Cardinality	Type	Documentation
ManifestItem	1..n	ManifestItem	The object provides details about the specific attachment(s).

5.10 DocumentSecurity

The object provides additional granularity in specifying business document security (this is in addition to the specified PIP security).


Figure 5-9 DocumentSecurity

Attribute	Type	Documentation
nonRepudiableReceipt	boolean	The value "true" will indicate that a signed acknowledgement for the business document is necessary.
persistentEncryption	boolean	The value "true" will indicate that the Business Document (including the header) needs to be encrypted when stored or transported.
persistentSignature	boolean	The value "true" will indicate that a signature is required to be stored with the document while stored or transported.

5.11 ManifestItem

The object provides details about the specific attachment(s).
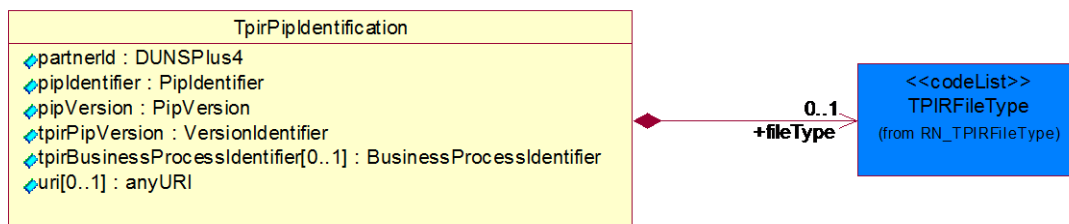
Figure 5-10 ManifestItem

Attribute	Type	Documentation
description[0..1]	string	A description of the attachment.
length[0..1]	positiveInteger	The size of the attachment in bytes (i.e. 1 000 000 bytes)
universalResourceIdentifier	string	The generic set of all names/addresses that are short strings that refer to resources.

Composition	Cardinality	Type	Documentation
mimeTypeQualifier	1	MimeTypeQualifier	The MIME type as defined by IANA. Please refer to http://www.iana.org/assignments/media-types/ for a list of types.
language	0..1	Language	For representation of Language name RosettaNet has adopted ISO 639-2; 1998. Refer to the following web page to get the latest version of the standard: http://www.loc.gov/standards/iso639-2/iso639jac.html If you need more information about the ISO standard please contact ISO for more details.

5.12 PipIdentifier

PIP Identification.[i.e. PIP3A4]
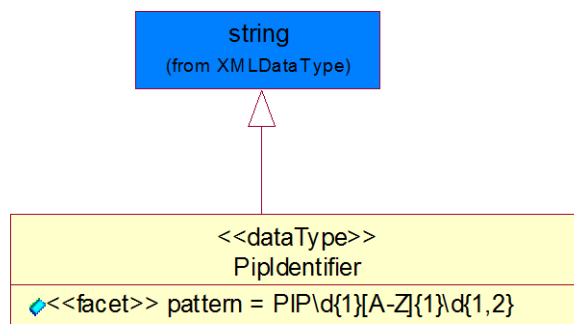
Figure 5-11 PipIdentifier

Attribute	Type	Documentation
pattern		PIP\d{1}[A-Z]{1}\d{1,2}

5.13 PipVersion

PIP version number (i.e. 02.02.00).
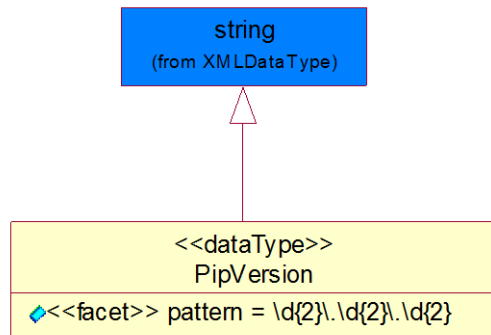
Figure 5-12 PipVersion

Attribute	Type	Documentation
pattern		\d{2}\.\d{2}\.\d{2}

5.14 Receiver

The object allows the identification of the receiving party of the business message.

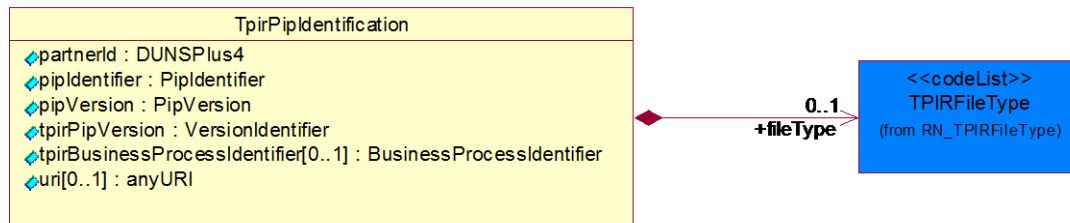**Figure 5-13 Receiver**

Composition	Cardinality	Type	Documentation
BusinessServiceInformation	0..1	BusinessServiceInformation	The object allows the specification of the business service utilized within the partner company. This may or may not be the same as the information sent by the RNIF.
PartnerIdentification	1	PartnerIdentification	The business document must allow for the identity of one or more parties to the transaction.
ContactInformation	0..n	ContactInformation	The business document must allow for the identification of the name of the department, service or individual to be contacted regarding the context of the business document.

5.15 RequestingDocumentInformation

A block of information used to correlate a requesting document to a responding document in an executing choreography.
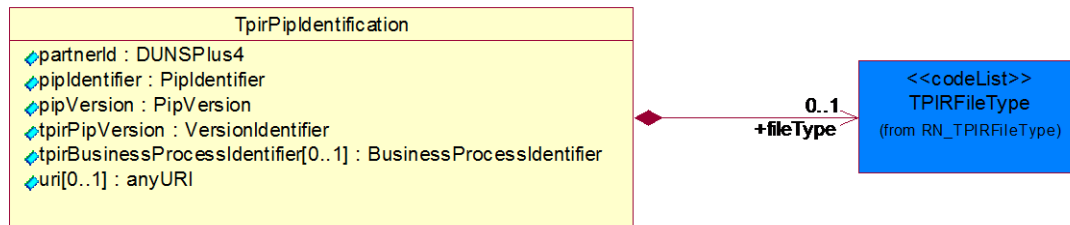
```
StandardDocumentIdentification
◆standard[0..1] : string
◆version : string
```

Figure 5-14 RequestingDocumentInformation

Attribute	Type	Documentation
businessProcessInstance Identifier[0..1]	string	The identifier for the public business process instance being sent that both the sender and receiver can identify.
responseDateTime[0..1]	dateTime	The expected time to receive the response. This can not be greater than the PIP TimeToPerform.
requestingDocumentCre ationDateTime[0..1]	dateTime	The date-time of the requesting business document.
requestingDocumentInst anceIdentifier	string	The Business Document identification number that identifies the requesting Business Document.

5.16 Sender

The object allows the identification of the initiating party of the business message.

```
TpirPipIdentification
◆partnerId : DUNSPlus4
◆pipIdentifier : PipIdentifier
◆pipVersion : PipVersion
◆tpirPipVersion : VersionIdentifier
◆tpirBusinessProcessIdentifier[0..1] : BusinessProcessIdentifier
◆uri[0..1] : anyURI
```

```
                                          0..1       <<codeList>>
                                      ◆————————      TPIRFileType
                                          +fileType   (from RN_TPIRFileType)
```

Figure 5-15 Sender

Composition	Cardinality	Type	Documentation
PartnerIdentificati on	1	PartnerIdentificati on	The business document must allow for the identity of one or more parties to the transaction.
BusinessServiceIn formation	0..1	BusinessServiceIn formation	The object allows the specification of the business service utilized within the partner company. This may or may not be the same as the information sent by the RNIF.
ContactInformatio n	0..n	ContactInformatio n	The business document must allow for the identification of

			the name of the department, service or individual to be contacted regarding the context of the business document.

5.17 StandardDocumentIdentification

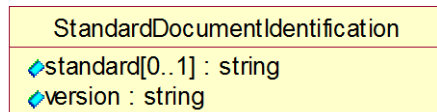The object specifies additional information necessary to identify the standard business document.

StandardDocumentIdentification
◆standard[0..1] : string
◆version : string

Figure 5-16 StandardDocumentIdentification

Attribute	Type	Documentation
standard[0..1]	string	Identifies the standard used to submit the business document. (e.g. RosettaNet).
version	string	PIP3A4v01.00

5.18 TpirPipIdentification

The object specifies all information necessary to   uniquely identify a TPIR-PIP within a Registry or trading partner repository.
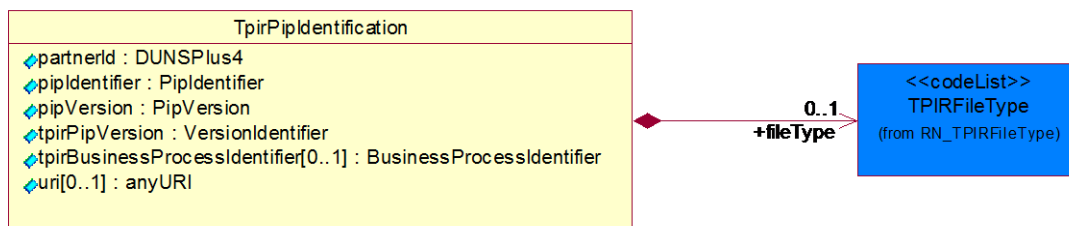
TpirPipIdentification
◆partnerId : DUNSPlus4
◆pipIdentifier : PipIdentifier
◆pipVersion : PipVersion
◆tpirPipVersion : VersionIdentifier
◆tpirBusinessProcessIdentifier[0..1] : BusinessProcessIdentifier
◆uri[0..1] : anyURI

0..1
+fileType

<<codeList>>
TPIRFileType
(from RN_TPIRFileType)

Figure 5-17 TpirPipIdentification

Attribute	Type	Documentation
partnerId	DUNSPlus4	The Trading Partner Identification of MNC that is creating this TPIR PIP.
pipIdentifier	PipIdentifier	A TPIR PIP Identification [i.e., 3A4).
pipVersion	PipVersion	A TPIR PIP version number (i.e., 02.02.00)
tpirPipVersion	VersionIdentifier	A TPIR-PIP Version Number (i.e., major and minor version number as XX.XX).
tpirBusinessProcessIdentifier[0..1]	BusinessProcessIdentifier	A Business Process Identifier to uniquely define the TPIR-PIP 'role' within a Business Scenario at a company or MNC level. The identifier MUST be composed of alphanumeric characters only and its length MUST be between one and twelve characters.
uri[0..1]	anyURI	Describes the destination uri for the TPIR form.

Composition	Cardinality	Type	Documentation
fileType	0..1	TPIRFileType	Describes the file type of the TPIR form (PDF, XDP or XML).

5.19 VersionIdentifier

Version Number (i.e., major and minor version number as XX.XX).
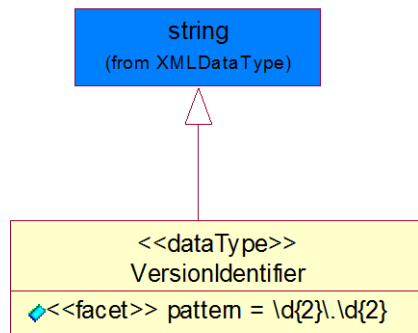
Figure 5-18 VersionIdentifier

Attribute	Type	Documentation
pattern		\d{2}\.\d{2}

5.20 CodeList

5.20.1 TPIRFileType

A code identifying the file type of TPIR form.

Name	Documentation
PDF	Portable Document Format.
XDP	XML Data Package.
XML	eXtensible Markup Language.

6. XML Data Type

6.1 anyURI

Represents a URI as defined by RFC 2396. An anyURI value can be absolute or relative, and may have an optional fragment identifier.

6.2 boolean

Represents Boolean values, which are either "true" or "false".

6.3 date

For the represents a calendar date.
The pattern for a date is CCYY-MM-DD   where CC represents the century, YY the year, MM the month, and DD the day, with an optional time zone indicator as allowed for dateTime.

6.4 dateTime

Represents a specific instance of time.
The pattern for dateTime is CCYY-MM-DDThh:mm:ss where CC represents the century, YY the year, MM the month, and DD the day, preceded by an optional leading negative (-) character to indicate a negative number. If the negative character is omitted, positive (+) is assumed. The T is the date/time separator and hh, mm, and ss represent hour, minute, and second respectively. Additional digits can be used to increase the precision of fractional seconds if desired. For example, the format ss.ss... with any number of digits after the decimal point is supported. The fractional seconds part is optional.

This representation may be immediately followed by a "Z" to indicate Coordinated Universal Time (UTC) or to indicate the time zone. For example, the difference between the local time and Coordinated Universal Time, immediately followed by a sign, + or -, followed by the difference from UTC represented as hh:mm (minutes is required). If the time zone is included, both hours and minutes must be present.

6.5 decimal

A data type that contains decimal numbers scaled by a power of 10.

6.6 duration

Represents a duration of time.
The pattern for duration is PnYnMnDTnHnMnS, where nY represents the number of years, nM the number of months, nD the number of days, T the date/time separator, nH the number of hours, nM the number of minutes, and nS the number of seconds.

6.7 float

Represents single-precision 32-bit floating-point numbers.

6.8 positiveInteger

Represents an integer that is greater than zero. This data type is derived from nonNegativeInteger.

6.9 string

Represents character string.