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TQM/GEN/T02 V3.0 Summary of key changes

September 2022 V1.1

Content

Note to Vendors

The updates and changes noted in this document are for guidance only

Caution: Even minor clarification changes may have an impact on a Vendor's implementation of the TQM requirements

It is recommended that the Vendor perform their own gap analysis and impact assessment for all changes

- Typos, grammar and clarification text have been amended throughout the requirements document. All of these are not necessarily documented in the following tables.
- All defined terms are now in bold text.
- There are new requirements for manufacturing sites
- There are new requirements for Vendor control of service
- There are new requirements for service sites

Content

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
1 Introduction	----
1.1 Scope	Added text from V2.2 clause 1.4
1.2 Audience	No change
1.3 Language Use	No change
1.4 Related Information	No change
1.5 Revision	No change
1.6 Terminal Quality Management (TQM)	Clarifying text changes
1.7 TQM process	Clarifying text changes
1.7.1 TID Submission	Clarifying text changes Added a note referencing the appendices (list of TID documents) Removed L2 changes and updates
1.7.2 VOD Submission	Clarifying text changes Added VOD assessment every 24 months Added a note referencing the appendices (list of VOD documents)

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
1.7.3 ODM / OEM components submissions	The distinction between ODM and OEM has been made
1.7.3.1 Configuration / Assembly control	Vendor facilities to audit added
1.7.3.2 Off the shelf purchase	Audit of ODM facilities added Baseline configuration records at L1 approval added
1.8 Supporting Standards	No change
1.9 Management System Requirements	"the appropriate sites and organisations " and "service“ added Reference was made to the T01 updated version TL9000 updated to release 6
1.10 Configuration Management Principles	No change
1.11 Configuration Management System (CMS)	"and Configuration Management Principles“ added
1.12 Audit of the TQM Requirements	"The audit process is described in TQM/GEN/T01.“ added
1.13 Requirements Overview	----
1.13.1 Management Responsibility	"• Audit of management responsibility" deleted
1.13.2 Operation	New section (added)

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
1.13.3 Product Design	Detail arranged for new organisation of TQM/GEN/T02
1.13.4 Manufacturing and Service Provision	Detail arranged for new organisation of TQM/GEN/T02
1.13.5 Measurement, Analysis and Improvement	Detail arranged for new organisation of TQM/GEN/T02
2 Management Responsibility	----
2.1 Management commitment	Guidance for objectives added
2.2 Configuration management policy	"TQM/GEN/T02" added for clarity The two commitment requirements separated for clarity
2.3 Configuration management planning	No change
2.4 Responsibility and authority	Clarifying text added
2.5 TQM Manager	Grammar correction
2.6 Approval Authority (Design Authority)	Typo correction
2.7 Management review	Note for external audits and process performance added
2.8 Supplier management	Detail moved to 3.3 and combined with previous clause 4.2 from Vendor feedback Text added regarding management responsibility

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
2.9 Product release and service delivery	Moved from V2.2 clause " 5.5 Monitoring and measurement of Product Configuration"
3 Operation	----
3.1 Documentation requirements	Moved from Product Design
3.1.1 Control of Documents	Moved from Product Design
3.1.2 Control of Records	Moved from Product Design Records need version control where appropriate added Document retention time moved from product configuration reports requirement
3.2 Resource management	Clarifying text added

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
3.3 Supplier management	New heading to bring together all supplier management requirements in order to make the requirements clearer to Vendors
3.3.1 Supplier categorization	Moved from V2.2 clause 2.9 Clarifying notes Guidance added for auditing component suppliers Expected audit period requirements added Removed V2.2 Note 3 Manufacturing added to category 3 to make consistent with the updated requirements Note regarding intermediary companies added TL9000 updated to release 6
3.3.2 Supplier selection	Moved from V2.2 clauses 4.2.1 with clarifying text Note regarding intermediary companies added
3.3.3 Supplier Agreement	Moved from V2.2 clause 4.2.2 Note added re: Vendor / OEM / ODM and intermediary company agreements

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
3.3.4 Manufacturing qualification process	Moved from V2.2 clause 4.1.2.1 The audit of manufacturer QMS requirement moved to clause 3.3.6 Supplier management and monitoring Changed "each manufacturer" to "each product at each manufacturing site or organisation " Note added for NPI (New Product Introduction) or FAI (First Article Inspection) activities.
3.3.5 Supplier responsibilities	Moved from V2.2 clause 4.2.3
3.3.6 Supplier management and monitoring	Moved from V2.2 clause 4.2.4 The audit of manufacturer QMS requirement moved from clause 3.3.4 Manufacturing qualification process
3.4 Organizational interface management	Moved from V2.2 clause 3.7 Note regarding intermediary companies added
3.5 Customer Communication	Moved from V2.2 clause 4.3 Reference to M-TIP added

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
4 Product Design	----
4.1 General requirements	"a product design process" changed to "product design processes" Note 1 added (guidance for design process coverage)
4.2 Product configuration management	----
4.2.1 Product life cycle model	"approval and release" to the implementation life cycle list added
4.2.2 Configuration management plan	Added "for each product" wrt the CMP Moved "Relevant standards, configuration management procedure(s) and tools to be used" to be stand alone Notes 4 and note 5 added Intermediary companies added to Note 1
4.3 Configuration identification	Note 2 added Clarifying text for part A and B1 - critical configuration items added
4.3.1 Configuration Items	"power supply" added to Note 1 - consistency with 4.4.1 Implementation Configuration Information

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
4.3.2 Configuration Items Relationships Identification	Note 2 added (consistency with L1 LoA) Note 3 added (guidance for SW CI versions) 'software' added to note 7
4.4 Configuration information	----
4.4.1 Implementation Configuration Information	Added: change documentation, final testing of products for implementations production / service result records, production acceptance and release as well as service records / service release records
4.4.2 Product Configuration Information	Reference added to Product configuration audit report
4.5 Naming and numbering conventions	"EMVCo L1 LoA" included in the traceability description
4.6 Configuration baselines	Options added for recording change documentation with respect to baseline information
4.7 Component Identification (Bill of Materials)	Moved from V2.2 clause 4.5 Split out the text from "Alternative components control" that was not directly relating to alternative components "L1 and L2 validation report" changed to "relevant validation reports"

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
4.8 Requirements for assessing alternative components	Moved from V2.2 clause 4.5
4.9 Change Control	Clarification for when change control recording starts "all parts" changed to "the critical configuration items (Part A and Part B1)"
4.9.1 Initiation, Identification and Documentation of the need for change	"disposition" changed to "approval"
4.9.2 Categorization of the change	Notes added to clarify common omissions in the documented change control process
4.9.3 Evaluation of the consequences of the change	No change
4.9.4 Compliance with the Technical specifications	'When assessing the continuity of compliance' added Paragraph added regarding new L1 LoA and Mastercard L2 assessment
4.9.5 Vendor's internal specification for implementation	'When assessing the continuity of compliance' added In the note: "supplier" changed to "component manufacturer"
4.9.6 Vendor's internal specification for implementation interface	'When assessing the continuity of compliance' added

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
4.9.7 Re-identification of Configuration Items	Interchangeability: "supplier" changed to "component manufacturer"
4.9.8 Approval of change	"The change shall be recorded" changed to "The approval shall be recorded"
4.9.9 Implementation and verification of change	No change
4.10 Remote software updates	New requirement
4.11 Product Configuration Status records	No change
4.11.1 Product Configuration Records	Clarification text added "(change control records)"
4.11.2 Product Configuration Reports	Document retention text moved to document control

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
5 Manufacturing and Service	New requirements for Service added TL9000 updated to release 6
5.1 Manufacturing (Vendor Responsibilities)	----
5.1.1 Manufacturing control	Manufacturing activities guidance added
5.1.2 Validation of processes for manufacturing	No change
5.1.2.1 Controls for producing and controlling production process and assembly documentation	Moved from V2.2 clause 4.6
5.1.2.2 Controls for producing and controlling automated manufacturing processes	Moved from V2.2 clause 4.7

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
5.1.2.3 Product Acceptance Plan	Sampling requirements added Guidance note for "verification of the built Product configuration with its Product configuration information“ added "The Vendor shall implement..." changed to "The Vendor shall document and implement..." "mass production" changed to "production" “qualification of the manufacturing process" changed to "qualification of the manufacturing processes for the product"
5.1.2.4 Manufacturing monitoring	Clarifying text changes
5.1.3 Control of Non-Conforming Product	Moved from V2.2 clause 5.6
5.1.4 Minimum requirements for final testing of Products for Implementations	"of the Product or Implementation for across all manufactured products." changed to "of every Product or Implementation manufactured" "using some contactless cards as some references" changed to "using uniquely identified and controlled contact or contactless cards as references" Optional field intensity measurement requirements added

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
5.2 Manufacturing (Facility Responsibilities)	New section transposing the Vendor requirements to the manufacturing facility responsibilities.
5.3 Post manufacturing service provisions (Vendor responsibilities)	----
5.3.1 Repair levels	New requirement
5.3.2 Service site categorisation	New requirement
5.3.2.1 Service regions and activity definition	New requirement
5.3.3 Service site controls	New requirement
5.3.3.1 Validation of processes for service provision	Moved from V2.2 clause 4.1.3
5.3.3.2 Service audits	New requirement
5.3.3.3 Authorised repairs carried out by the customer	New requirement
5.3.3.4 Post service product release	Moved from V2.2 clause 4.9
5.4 Post manufacturing service provisions (Service facility responsibilities)	New section transposing the Vendor requirements to the service facility responsibilities.

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
6 Measurement, Analysis and Improvement	No change
6.1 General requirements	No change
6.2 Interoperability Issues	Note added
6.3 Internal audit	Text added for new Vendors Minimum requirements for internal audit reports added
6.4 Monitoring and measurement of configuration processes	No change
6.5 Monitoring and measurement of Product Configuration	Product release and service delivery moved to "management responsibility" Release paragraph changed to be a check that configuration or product release records are correct
6.6 Analysis of data	"processes" and "products" split for clarity
6.7 Continual improvement	Typos corrected
6.8 Feedback Process on TQM Compliance	No change

Summary of key changes

TQM/GEN/T02 V3.0 Clause Number	Notes
Appendices	----
Appendix 1 – Acronyms	AQL, ODM, OEM added
Appendix 2 – Terminology	Agent, Component Manaufacturer, Configuration Management System, Distributor, Intermediary company, Manufacturing qualification process, Production, SMART, Service, ODM, OEM added
Appendix 3 - Technology-specific Terminology and Information	No change
Appendix 4 - Guide to the required VOD documents	New (for information)
Appendix 5 - Guide to the required TID documents	New (for information)

Content

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
1 Introduction	1 Introduction
1.2 Audience	1.2 Audience
1.1 Scope	1.1 Scope
1.3 Language Use	1.3 Language Use
1.4 Notations	*Moved to 1.1 Scope*
1.5 Related Information	1.4 Related Information
1.6 Revision	1.5 Revision
1.7 Terminal Quality Management (TQM)	1.6 Terminal Quality Management (TQM)
1.8 TQM process	1.7 TQM process
1.8.1 TID Submission	1.7.1 TID Submission
1.8.2 VOD Submission	1.7.2 VOD Submission

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
1.8.3 OEM components submissions	1.7.3 ODM / OEM components submissions
1.8.3.1 OEM Type – Configuration / Assembly control	1.7.3.1 Configuration / Assembly control
1.8.3.2 OEM Type – Off the shelf purchase	1.7.3.2 Off the shelf purchase
1.9 Supporting Standards	1.8 Supporting Standards
1.10 Management System Requirements	1.9 Management System Requirements
1.11 Configuration Management Principles	1.10 Configuration Management Principles
1.12 Configuration Management System (CMS)	1.11 Configuration Management System (CMS)
1.13 Audit of the TQM Requirements	1.12 Audit of the TQM Requirements
1.14 Requirements Overview	1.13 Requirements Overview
1.14.1 Management Responsibility	1.13.1 Management Responsibility
	1.13.2 Operation
1.14.2 Product Design	1.13.3 Product Design

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
1.14.3 Manufacturing and Service Provision	1.13.4 Manufacturing and Service Provision
1.14.4 Measurement, Analysis and Improvement	1.13.5 Measurement, Analysis and Improvement
2 Management Responsibility	2 Management Responsibility
2.1 Management commitment	2.1 Management commitment
2.2 Configuration management policy	2.2 Configuration management policy
2.3 Configuration management planning	2.3 Configuration management planning
2.4 Responsibility and authority	2.4 Responsibility and authority
2.5 TQM Manager	2.5 TQM Manager
2.6 Approval Authority (Design Authority)	2.6 Approval Authority (Design Authority)
2.7 Management review	2.7 Management review
2.8 Resource management	*Moved to 3.2 under 3 Operation*
2.9 Supplier management	2.8 Supplier management
	2.9 Product release and service delivery

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
	3 Operation
	3.1 Documentation requirements
	3.1.1 Control of Documents
	3.1.2 Control of Records
	3.2 Resource management
	3.3 Supplier management
	3.3.1 Supplier categorization
	3.3.2 Supplier selection
	3.3.3 Supplier Agreement
	3.3.4 Manufacturing qualification process
	3.3.5 Supplier responsibilities
	3.3.6 Supplier management and monitoring

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
	3.4 Organizational interface management
	3.5 Customer Communication
3 Product Design	4 Product Design
3.1 General requirements	4.1 General requirements
3.2 Documentation requirements	*Moved to 3.1 under 3 Operation*
3.2.1 Control of Documents	*Moved to 3.1.1 under 3 Operation*
3.2.2 Control of Records	*Moved to 3.1.2 under 3 Operation*
3.3 Product configuration management	4.2 Product configuration management
3.3.1 Product life cycle model	4.2.1 Product life cycle model
3.3.2 Configuration management plan	4.2.2 Configuration management plan
3.4 Configuration identification	4.3 Configuration identification
3.4.1 Implementation Critical Configuration Items	4.3.1 Configuration Items
3.4.2 Configuration Items Relationships Identification	4.3.2 Configuration Items Relationships Identification

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
3.5 Configuration information	4.4 Configuration information
3.5.1 Implementation Configuration Information	4.4.1 Implementation Configuration Information
3.5.2 Product Configuration Information	4.4.2 Product Configuration Information
3.5.3 Naming and numbering conventions	4.5 Naming and numbering conventions
3.5.4 Configuration baselines	4.6 Configuration baselines
	4.7 Component Identification (Bill of Materials)
	4.8 Requirements for assessing alternative components

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
3.5.5 Change Control	4.9 Change Control
3.5.5.1 Initiation, Identification and Documentation of the need for change	4.9.1 Initiation, Identification and Documentation of the need for change
3.5.5.2 Categorization of the change	4.9.2 Categorization of the change
3.5.5.3 Evaluation of the consequences of the change	4.9.3 Evaluation of the consequences of the change
3.5.5.4 Compliance with the Technical specifications	4.9.4 Compliance with the Technical specifications
3.5.5.5 Vendor's internal specification for implementation	4.9.5 Vendor's internal specification for implementation
3.5.5.5 Vendor's internal specification for implementation interface	4.9.6 Vendor's internal specification for implementation interface
3.5.5.6 Re-identification of Configuration Items	4.9.7 Re-identification of Configuration Items
3.5.5.7 Approval of change	4.9.8 Approval of change
3.5.5.8 Implementation and verification of change	4.9.9 Implementation and verification of change

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
	4.10 Remote software updates
3.6 Product Configuration Status records	4.11 Product Configuration Status records
3.6.1 Product Configuration Records	4.11.1 Product Configuration Records
3.6.2 Product Configuration Reports	4.11.2 Product Configuration Reports
3.7 Organizational interface management	*Moved to 3.4 under 3 Operation*
4 Manufacturing and Service	5 Manufacturing and Service
4.1 Interfaces with manufacturing and service provision	5.1 Manufacturing (Vendor Responsibilities)
4.1.1 Manufacturing and service provision control	5.1.1 Manufacturing control
4.1.2 Validation of processes for manufacturing	5.1.2 Validation of processes for manufacturing
	5.1.2.1 Controls for producing and controlling production process and assembly documentation
	5.1.2.2 Controls for producing and controlling automated manufacturing processes

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
4.1.2.1 Manufacturing qualification process	*Moved to 3.3.2.1 under 3 Operation*
4.1.2.2 Product Acceptance Plan	5.1.2.3 Product Acceptance Plan
4.1.2.3 Manufacturing monitoring	5.1.2.4 Manufacturing monitoring
4.1.3 Validation of processes for service provision	*Moved to 5.3.3.1 under 5.3 Post manufacturing service provisions (Vendor responsibilities)*
4.2 Supplier management	*Moved to 3.3 under 3 Operation*
4.2.1 Supplier selection	*Moved to 3.3.2 under 3 Operation*
4.2.2 Supplier Agreement	*Moved to 3.3.3 under 3 Operation*
4.2.3 Supplier responsibilities	*Moved to 3.3.4 under 3 Operation*
4.2.4 Supplier management and monitoring	*Moved to 3.3.5 under 3 Operation*
4.3 Communication regarding compliance with Technical Specification	*Moved to 3.5 under 3 Operation*
4.5 Requirements for assessing alternative components	*Moved to 4.7 and 4.8 under 4 Product Design*

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
4.6 Controls for producing and controlling production process and assembly documentation	*Moved to 5.1.2.1 under 5.1 Manufacturing (Vendor responsibilities)*
4.7 Controls for producing and controlling automated manufacturing processes	*Moved to 5.1.2.2 under 5.1 Manufacturing (Vendor responsibilities)*
	5.1.3 Control of Non-Conforming Product
4.8 Minimum requirements for final testing of Products for Implementations	5.1.4 Minimum requirements for final testing of Products for Implementations
4.9 Post manufacturing service provisions	*Moved to 5.3 Post manufacturing service provisions (Vendor responsibilities)*
	5.2 Manufacturing (Facility Responsibilities)
	5.2.1 General responsibilities
	5.2.2 Control of documents and records
	5.2.3 Internal audit
	5.2.4 Control of changes
	5.2.5 Monitoring and measurement

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
	5.2.6 Control of nonconforming product
	5.2.7 Purchasing
	5.2.8 Competence
	5.2.9 Complaints, nonconformity and corrective action
	5.2.10 Manufacturing Control
	5.2.10.1 Components and parts control
	5.2.10.2 Equipment control
	5.2.10.3 Controls for producing and controlling automated manufacturing processes
	5.2.10.4 Controls for producing and controlling production process and assembly documentation
	5.2.10.5 Final production testing of Products and Implementations
	5.2.10.6 Acceptance of main production

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
	5.3 Post manufacturing service provisions (Vendor responsibilities)
	5.3.1 Repair levels
	5.3.2 Service site categorisation
	5.3.2.1 Service regions and activity definition
	5.3.3 Service site controls
	5.3.3.1 Validation of processes for service provision
	5.3.3.2 Service audits
	5.3.3.3 Authorised repairs carried out by the customer
	5.3.3.4 Post service product release

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
	5.4 Post manufacturing service provisions (Service facility responsibilities)
	5.4.1 General responsibilities
	5.4.2 Control of documents and records
	5.4.3 Internal audit
	5.4.4 Control of changes
	5.4.5 Purchasing
	5.4.6 Competence
	5.4.7 Complaints, nonconformity and corrective action
	5.4.8 Service control
	5.4.8.1 Returned product, components and parts control
	5.4.8.2 Equipment control
	5.4.8.3 Controls for producing and controlling service processes
	5.4.8.4 Post service product release

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
5 Measurement, Analysis and Improvement	6 Measurement, Analysis and Improvement
5.1 General requirements	6.1 General requirements
5.2 Interoperability Issues	6.2 Interoperability Issues
5.3 Internal audit	6.3 Internal audit
5.4 Monitoring and measurement of configuration processes	6.4 Monitoring and measurement of configuration processes
5.5 Monitoring and measurement of Product Configuration	6.5 Monitoring and measurement of Product Configuration
5.6 Control of Non-Conforming Product	*Moved to 5.1.3 under 5.1 Manufacturing (Vendor responsibilities)*
5.7 Analysis of data	6.6 Analysis of data
5.8 Continual improvement	6.7 Continual improvement
5.9 Feedback Process on TQM Compliance	6.8 Feedback Process on TQM Compliance

Clause comparison

TQM/GEN/T02 V2.2 Clause Number	TQM/GEN/T02 V3.0 Clause Number
Appendices	Appendices
Appendix 1 – Acronyms	Appendix 1 – Acronyms
Appendix 2 – Terminology	Appendix 2 – Terminology
Appendix 3 - Technology-specific Terminology and Information	Appendix 3 - Technology-specific Terminology and Information
	Appendix 4 - Guide to the required VOD documents
	Appendix 5 - Guide to the required TID documents