Supplier sample quality control procedure

1. 目的 Purpose

The procedure has been developed to define how to control the supplier sample quality.

2. 范围 Scope

This procedure apply to TE Connectivity Automotive China A type suppliers' sample, except catalog part suppliers.

3. 相关文件 References

Ref #	Doc. #	Title	Filename / Location
1	102-86062	Entrust the measurement procedure	DM.Tec
2	102-86007	Purchasing procedure	DM .Tec
3	102-86006	Supplier management procedure	DM. Tec
4	102-86020	Nonconforming control procedure	DM. Tec

4. 定义 Definitions

a) 缩写 Acronyms

Acronyms	Acronyms Meaning
MDE	Mould Design Engineer
DDE	Die Design Engineer
SQE	Supplier Quality Engineer
CTL	Cross Team Leader
PE	Product Engineer
MC	Material Controller
CTM	Cross Team Member

b) 定义 Definitions

Terms	Definitions
A sample	A: Prototype sample, 3D print parts, manual sample, from non-mass production tool, equipment, jig…, just for elementary function demonstrate. Customer side used to fit and function analysis, verify conceptual design and so on.
B sample	B: From soft tooling or temporary and partial mass production tool, equipment, jig…, implement partial function, used for customer initial assembly and function verification, and production/ automotive design verification.
C sample	C1: From mass production tool, equipment, jig…, used for TE production line debugging and partial function verification. Just a part of dimension and function OK. C2: FAI sample, from mass production tool, equipment, jig…, used for TE FAI release. Full dimension and function OK. Delivery to TE with PO.
D sample	Sample after PPAP, from released mass production tool, equipment, jig …., Full dimension and function OK.

5. 变更历史 Revision Changes

Rev. #	Revision Date	Author	Approver	Change contents
A	11 04 2016	David Zhu	Kelly Long	New
B	25 05 2017	David Zhu	Steven Qu	Change process description
C	02 11 2018	Claire Xu	Sky Xu	Change D sample description
Further revisions available at DM.TEC				

6. 记录 Record Requirements

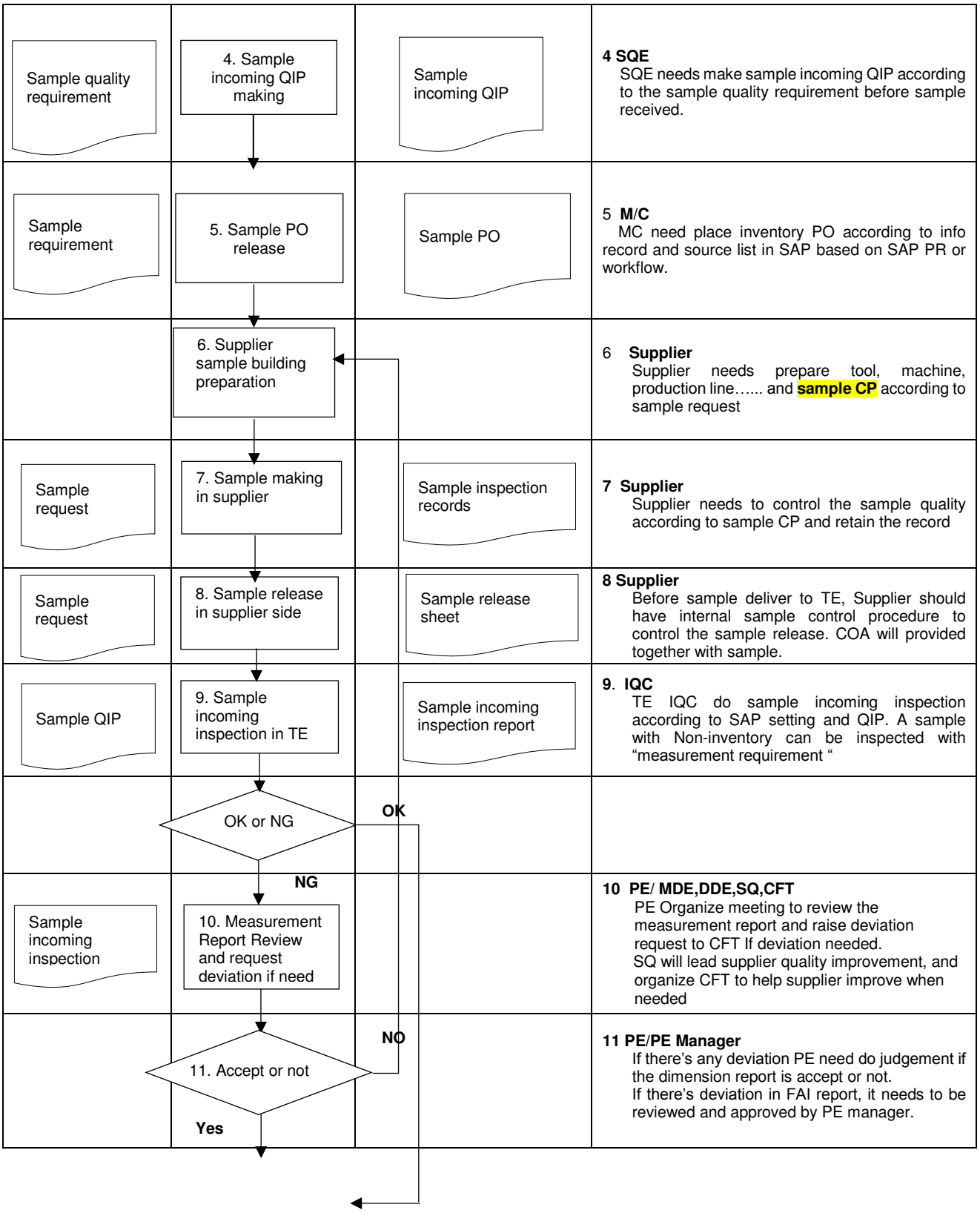
No	Record No	Record Name	Record completed by	Retention period	Record Retention owner	Retention medium
1	GAD-CN-0146	Supplier FAI report	MDE/DDE/SQE	15 years	SQE	Electronics

7. 测量指标 Measure Of Performance (MOP´s)

Measurable	Unit	Frequency	Reporting Tool
Sample complaint from TE and TE customer per month	Pcs	Every month	Supplier issue list

8. 流程 Process Description

INPUT	ACTIVITY	OUTPUT	**Responsibility**/Interface
	Sample Demand		
Customer requirement CFT feasibility study	1. Sample drawing release in DM-TEC	Sample drawing	**1.PE** Release drawing to DM-TEC before RFQ
Customer requirement CFT feasibility study	2. Identify sample quality requirement	Characteristics which should be fulfilled to the drawing	**2. PE** Need identify the characteristics in drawing which should be fulfilled in the specific sample stage/request, and pass sample quality requirement to Procurement and SQ.
Sample quality requirement	3. Sample quality requirement transfer to suppliers		**3. Procurement** Transfer the sample requirement to suppliers before sample building;


Sample quality requirement
4. Sample incoming QIP making
Sample incoming QIP
4 SQE
SQE needs make sample incoming QIP according to the sample quality requirement before sample received.
Sample requirement
5. Sample PO release
Sample PO
5 M/C
MC need place inventory PO according to info record and source list in SAP based on SAP PR or workflow.
6. Supplier sample building preparation
6 Supplier
Supplier needs prepare tool, machine, production line…... and sample CP according to sample request
Sample request
7. Sample making in supplier
Sample inspection records
7 Supplier
Supplier needs to control the sample quality according to sample CP and retain the record
Sample request
8. Sample release in supplier side
Sample release sheet
8 Supplier
Before sample deliver to TE, Supplier should have internal sample control procedure to control the sample release. COA will provided together with sample.
Sample QIP
9. Sample incoming inspection in TE
Sample incoming inspection report
9. IQC
TE IQC do sample incoming inspection according to SAP setting and QIP. A sample with Non-inventory can be inspected with "measurement requirement "
OK or NG
OK
NG
Sample incoming inspection
10. Measurement Report Review and request deviation if need
10 PE/ MDE,DDE,SQ,CFT
PE Organize meeting to review the measurement report and raise deviation request to CFT If deviation needed.
SQ will lead supplier quality improvement, and organize CFT to help supplier improve when needed
NO
11. Accept or not
Yes
11 PE/PE Manager
If there's any deviation PE need do judgement if the dimension report is accept or not.
If there's deviation in FAI report, it needs to be reviewed and approved by PE manager.

	12. Transfer to sample warehouse (007) and marked different sample stage in SAP		**12 Warehouse** Transfer sample to 007 and marked "A","B","C","D" sample in SAP system according to the label

9. Notes for Flow Chart:

1. Identify sample quality requirement

   When CTL received sample requirements info. CTL organize CTM to feasibility study, PE identify the requirements of the components sample based on assembly.

2. QIP

   SQE will make QIP after received information from PE. If AQ have question on inspection items, proposed when received PE information

3. Place sample order to supplier

   MC needs to place order for sample making to ensure the traceability.

4. Sample making in supplier side

   The supplier should record every issue happened in TE and supplier side in OPL, the OPL should be reviewed to be closed at each sample stage. The PM of suppliers shall report the OPL status regularly as communicated with TE SQE.

5. Sample release and ship to TE

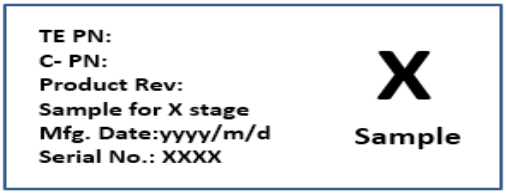
   The supplier shall create the sample quality control procedure to make sure the quality of sample supplied to TE. Any sample purchase with TE PO, the supplier shall measure, review the sample quality by their quality authorized persons, releases by supplier quality manager before shipping to TE.

   The sample should have clear identification with below information:

   TE PN、Product Rev、Sample for A B or C D stage、Mfg. Date、Serial No

   All sample should have clear label to identify the TE PN、Product Rev、Sample for A B or C D stage、Mfg. Date、Serial No, any special requirements should be aligned with TE.

Label example:



If can't be adhere the label, should use the other method to make sure the clear identification and tracking, aligned with TE contact window.

6. Sample incoming inspection in TE

Inspection item of A sample determined by PE.

B/C sample purchased by SAP system should be inspected by incoming inspection, sample size same as 102-86049(incoming inspection procedure), as followed:

a) Common purchased part (single cavity production), general dimension: 3pcs/Lot, SC/CC dimension: 5pcs/Lot

b)Like sealing 、family seal 、 O-ring & HSG ,this kind of production have large of cavity quantity, TE will random sampling, detail as next table:

cavity quantity	general dimension	SC/CC dimension
1 ～3 PCS	3	5
4PCS	4	5
over 5PCS	3	5

7. Measurement report review

PE need organize meeting to review the sample measurement report, if the deviation is needed, PE raise deviation request to CFT and get approval.

If there's any non-conformance the responsible people need to work with supplier to do improvement.

The responsible people from TE for each type sample are:

A sample: PE

B/C sample: MDE/DDE/SQE, if no MDE/DDE it will be responsible by SQE

D sample: SQE is responsible for handling of abnormal.

8. Set up info record in SAP.

This step in accordance with Purchasing Procedure.

FAI report should include: 1. Full dimensions and all Note inspection, 2. Material certification, 3.Key parameter sheet (Refer to FAI procedure)

FAI report process:

Supplier engineer and QM shall review and approve the report before submit to TE contact window.

MDE/DDE/SQE should review the report is Ok before measurement application to Lab.

Measurement lab approve the measurement report and provide to the requestor。

DME/DDE/SQE will check with PE to approve the report, any deviation shall approved by product manager.

SQE will approve the FAI report finally and upload to the requested system.