

Dec-16 IQC Report

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Incoming Quality Report - December 2016

December Dataset

Data are provided from the daily recording of incoming batch issues.

The following table summarizes the number of lots accepted, accepted with deviation and rejected.

Note: Lot accepted are listed in the monitoring table as the QC team found an issue such as missing PPAP or PI for example.

##	Accepted	Deviation	Rejected
##	247	156	12

Calculation details

Result Weight

To help with the calculation, the outcome of an inspection has been given a weight as follow:

##	Result	Weight
## 1	Accepted	2
## 2	Deviation	4
## 3	Rejected	8

Category and Weight

A list of the issue category is available below. Each category has been assigned a weight to support calculation in the next section.

##	IssueCat	CatWeight
## 1	Appearance	2
## 2	Construction	5
## 3	Dimension	3
## 4	Engineering	1
## 5	Function	5
## 6	Marking	3
## 7	Material	3
## 8	Packaging	2
## 9	PPAP	1
## 10	PI	1

Computation of the Top 15 supplier by number of Occurence

Count of issue occurrence in December 2016 results in the following table. Only the Top 15 suppliers are listed.

```
## # A tibble: 15 × 4
##   CardCode   Result Ratio     n
##   <chr>     <fctr> <dbl> <int>
## 1  S801805 Deviation    24    26
## 2  S800964 Accepted      4    19
## 3  S800597 Accepted      4    18
## 4  S801635 Deviation     8    17
## 5  S801742 Accepted      4    17
## 6  S801805 Accepted      4    13
## 7  S801711 Accepted      4    12
## 8  S801052 Deviation    24    11
## 9  S801834 Deviation    16    11
## 10 S801290 Accepted      4    11
## 11 S801758 Accepted      4    11
## 12 S800565 Accepted      4     9
## 13 S800073 Accepted      4     8
## 14 S801153 Deviation    24     7
## 15 S801925 Deviation    24     7
```

Computation of the Top 15 supplier usign quality ratio

The quality ratio is calculated as follow:

$$\text{Ratio} = \text{Result Weight} \times \text{Severity} \times \text{Category Weight}$$

Note:

In the future, this ratio can be adjusted using the price, quantity and other factors related to the material.

The following table output the Top 15 suppliers that had the highest quality defect ratio:

```
## # A tibble: 15 × 4
##   CardCode   Result Ratio     n
##   <chr>     <fctr> <dbl> <int>
## 1  S801834 Rejected    96     3
## 2  S801711 Rejected    96     2
## 3  S800597 Rejected    96     1
## 4  S800964 Rejected    96     1
## 5  S801714 Rejected    96     1
## 6  S801717 Rejected    64     1
## 7  S801430 Rejected    48     1
## 8  S800597 Deviation    36     1
## 9  S800073 Rejected    32     1
## 10 S801805 Rejected    32     1
## 11 S801805 Deviation    24    26
## 12 S801052 Deviation    24    11
## 13 S801153 Deviation    24     7
## 14 S801925 Deviation    24     7
## 15 S800964 Deviation    24     6
```

Final list of suppliers

The final list of suppliers combine the suppliers with the highest occurence and highest quality ratio.

```
##   TopSup                               CardFName
## 1 S801805          Dongguan QunSheng Plastic Products Co.,Ltd.
```

## 2	S800964	Gongdong Guangfenglong Hardware&Screw products factory
## 3	S800597	Dongguan Qingxi XinYunDa Packing factory
## 4	S801711	Dongguan Fenqiang Electronic Co.,Ltd
## 5	S801052	Honest Mould & Plastics Co.,Ltd
## 6	S801834	Dongguan Xiangquan Printing Co.,Ltd
## 7	S800073	Dongguan Pengli Electronic Technology CO.,Ltd
## 8	S801153	Ningbo Far East Lighting Co.,Ltd.
## 9	S801925	NULL