

Visual Inspection Criteria	Type	Pro-Cap
	Part No	Standard Model (Exceed 22", up to 32" sizes)
	File No	@083d

1. Appearance Criteria (for viewing area with and without cover glass)

Item	W: Width (mm)	L: Length (mm)	Acceptable Number	Total
Liner (Foreign substance/scratch/transparent defects) Defects over 0.2mm in diameter will be judged in circular. Transparent defects mean bubble. * e.g.:1 lint etc...	$0.2 \geq W > 0.15$	$10 \geq L$	Up to 2pc per product	Up to 15 defects per product
	$0.15 \geq W > 0.1$	$20 \geq L$	Up to 1 defect in $\phi 25\text{mm}$ including other kinds of defects	
	$0.1 \geq W$	$30 \geq L$	Acceptable	
$1.0 \geq D > 0.7$		Up to 2 defect per product		
Circular (Foreign substance/scratch/transparent defects) Transparent defects mean bubble, lint *1, etc...	$0.7 \geq D > 0.3$		Up to 1 defect in $\phi 25\text{mm}$ including other kinds of defects	
	$0.3 \geq D$		Acceptable	
	$D: \text{average diameter} = (\text{longest} + \text{shortest diameters}) / 2$			
Dirt	No easily noticeable and no clear outline dirt should be OK			

*1 Lint is the defect that is different transparent from other part due to the elevating surface by printing over foreign substance.

2. Chip (touch screen)

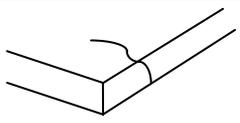
Site	Chips at areas other than electrode sections					
Judgment Criteria (for all sizes)	<p style="text-align: center;">Chip at Corner</p>			<p style="text-align: center;">Chip other than at corners</p>		
	X	Y	Z	X	Y	Z
	$0.5 \leq X \cdot Y \leq 2.0(\text{mm})$			$\leq t$	$\leq 5.0(\text{mm})$	$0.5 \leq Y \leq 2.0(\text{mm})$
Acceptable Numbers	Up to 2 defects per product			Up to 15 defects per product, but each defects must be 20mm away from each other at each side.		
	X·Y<0.5mm is acceptable But, if the chip reaches to Ag pattern, it is unacceptable.			Y<0.5mm is acceptable But, if the chip reaches to Ag pattern, it is unacceptable.		

3. Chip (cover glass)

See the figure section 2

Site	Chips at areas other than color printing					
Judgment	X	Y	Z	X	Y	Z
Criteria (for all sizes)	$1.0 \leq X \cdot Y \leq 2.0(\text{mm})$		$\leq t$	$\leq 5.0(\text{mm})$	$1.0 \leq Y \leq 2.0(\text{mm})$	$\leq t/2$
Acceptable Numbers	Up to 2 defects per product			Up to 8 defects per product, but each defects must be 20mm away from each other at each side.		
	X·Y<1.0mm is acceptable But, if the chip reaches to color printing, it is unacceptable.			Y<1.0mm is acceptable But, if the chip reaches to color printing, it is unacceptable.		

4. Progressive Crack(same criteria as cover glass and touch screen)

Defect illustration	Judgment
	NG

5. Appearance criteria for color-printed area of covering glass (judged from surface view)

Item	Defect contents	Acceptable range	
Color Tone	Different color tone from original color	Color Sample etc.	
Color Peeling	Color print coming off	Unacceptable	
Color Lacking	Color print partly missing	Unacceptable	
Color Running	Ink bleed	The defect should not be over edge face	
Scratch	Scratch on color-printed part	Base glass should not be exposed	
Color Unevenness	Color thickness is uneven	Should be no color unevenness that can be easily detected. (should not be detectable by gaze for 4 – 6 seconds)	
Pinhole through to the base glass, Adhering foreign substance which is different color from the printing	D : average diameter = (longest + shortest diameters) / 2	Acceptable quantity	Total acceptable quantity
	$0.3 \geq D > 0.2$ $0.2 \geq D$	Up to 2 defects in $\phi 30\text{mm}$ Acceptable	Up to 10 defects per product
Tilt/Misalignment	—	Should be within tolerances indicated by the drawing	

Revision Date	Rev	Revised Section	Reason
2013.1.30	b	The visual inspection criteria sheet is released to the DMC website.	
2013.6.5	c	Visual inspection criteria are revised.	Visual inspection criteria are revised according to the criteria by the glass supplier.
2014.10.30	d	Applied sizes are revised.	Criteria for exceeding 32in sizes are established.