試作から量産化までのフローチャート

FLOW CHART FROM TRIAL TO MASS PRODUCTION

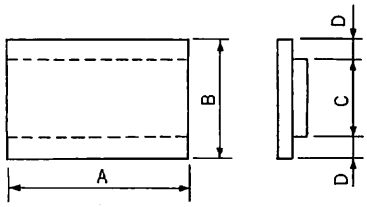
引き合い Inquiry	●「カスタムLCD設計のチェックリスト」にもとづき，要求仕様，カスタムパターン案のご提出	● Customer's specification and pattern draft are submitted. Please refer to "CUSTOM LCD DESIGN SPECIFICATION CHECK LIST".
試作発注 Order for E/S	○仕様，パターン案の検討 ●版下（通常5倍又は10倍）などのご提出	○ Review of specification, pattern, etc. ● A pattern block copy is submitted from the customer. (Normally 5 or 10 times magnification)
図面承認 Approval for Drawing	○図面作成 ●図面のご承認	○ Preparation for drawings. ● Approval of drawings by the customer.
試作 Trial Production	○試作開始	○ Production of engineering samples.
試作品納入 Delivery of E/S	○お客様への試作品納入（通常10セル）	○ Delivery of engineering samples. (Normally 10 cells)
試作品承認 Approval for E/S	●試作品の評価及びご承認	● Evaluation of engineering samples and approval for mass production.
量産発注 Order for M/P	●量産発注	● Order for mass production.
量産 Mass Production	○量産用版，チェッカー，治具，材料発注 ○量産スタート 透明電極形成→配向処理→シール形成→組立て→液晶注入→偏光板貼付→(PIN取付)→検査	○ Preparation for tools and materials. ○ Starting of mass production. patternning of electrode → orientation treatment → seal forming → jointing → liquid crystal injection → polarizer/pin terminal installation → inspection
量産納入開始 Delivery of Initial M/P		

パネル外形寸法の選定について

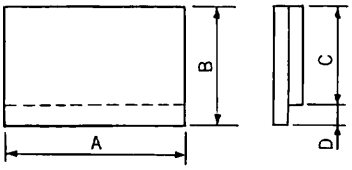
SELECTION GUIDE OF GLASS DIMENSIONS

カスタムＬＣＤの設計にあたって、パネル外形寸法を下記の表からご選定いただくと開発期間が短縮でき、経済的です。

In designing custom LCD, select outline dimensions of glass from the following combinations, for shorter development time and economy purposes.



両端子タイプ
Both sided terminal type



片端子タイプ
Single sided terminal type

(計算方法)

① まずAの長さをTable 1, 2から選定する。

(The method of selection)

Select dimension A from Table 1 or 2, below.

Table 1

A	162	108	81	65	54	46	40	36	32 mm

Table 2

A	145	96	72	58	48	41	36	32	29 mm

② 端子寸法(D)が，3.0mm以下の場合B寸法プラスC寸法の長さをTable 3, 4 より選定する。

When dimension of terminal D is less than 3.0 mm, total length of B+C to be selected from Table 3 or 4, below.

Table 3　Aサイズが Table 1 の場合のみ使用

Use Table 3, when dimension of A is from Table 1.

B＋C	143	95	71	57	47	41	35	31	28	26 mm

Table 4　Aサイズが Table 2 の場合のみ使用

Use Table 4, when dimension of A is from Table 2.

B＋C	161	107	80	64	53	46	40	35	32	29 mm

Table 1～4 のサイズ以下で出来るだけ近いサイズをお奨めします。

Recommended to select dimensions smaller but closest to Table 1 through 4, above.

NANOX CORPORATION

CUSTOM LCD DESIGN SPECIFICATION CHECK LIST

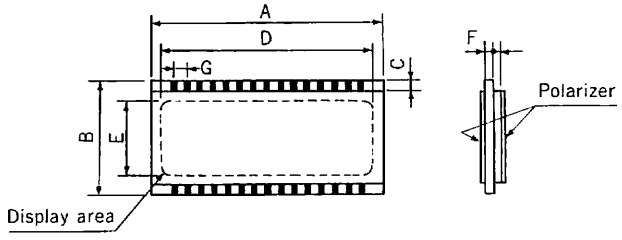
Custom LCD panels are designed and manufactured to meet your particular needs. Please check the following points, when ordering custom design LCD panels.

For outline dimensions A and B of LCD panels, it is recommended to refer the "Selection Guide of Glass Dimensions" shown on prior page.

1. Panel dimensions

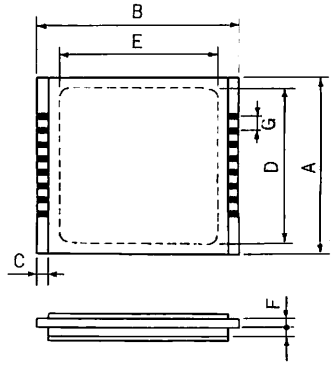
● Vertical terminal type

☐ Top ☐ Bottom ☐ Top and Bottom



● Horizontal terminal type

☐ Left ☐ Right ☐ Left and Right



Symbol	Parameter	Dimensions (mm)	Symbol	Parameter	Dimensions (mm)
A	Glass size		D, E*	Display area	×
B	Glass size		F*	Glass thickness (1.1, 0.7, 0.5mm)	
C*	Size of terminal		G	Pitch of terminal	

Note C* : In the case of pin-connected LCD panels, the dimension should normally be 2.5mm.
D, E* : The window frame of the case should be designed smaller than this dimension.

2. Operation mode

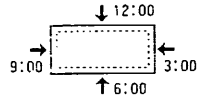
☐ TN positive
☐ TN negative
☐ STN positive
☐ STN negative

3. Display condition

☐ Reflective type
☐ Transmissive type
☐ Transflective type
☐ Others

4. Viewing angle direction

☐ 12 : 00
☐ 3 : 00
☐ 6 : 00
☐ 9 : 00



5. Terminal

☐ Rubber connector
☐ Pin terminal
(No. of pins pcs)
☐ Special treatment of pin
☐ Heat seal
☐ FPC

6. Driving method and enviromental conditions

☐ Static
☐ Dynamic

_____Duty _____Bias

● Driving voltage _____V

● Driving frequency _____Hz

● Driving LSI _____

● Operating temp. _____℃~_____℃

● Storage temp. _____℃~_____℃

7. Options

☐ Separate type polarizer (front/back)
☐ Non-glare polarizer
☐ Color polarizer (color)
☐ Black mask color
☐ Print (color)
☐ Display color matching

8. Quotation and others

● Quantity _____ /month
_____ /total lot

● Applications _____

● Quotation date _____

● Block copy Yes , No

● Request for module Yes , No

9. Planned quantity and schedule

Item	Submission of block copy	Approval of drawings	Delivery of engineering samples	Approval of engineering samples	Delivery of commercial samples	Initial mass production
Date						
Quantity	———	———		———		