

TFT LCD Approval Specification

FUNAI MPDEL NO.: TLCD100CME20

CMO MODEL NO.: V315B1 - C03

Approved By	TVHD	
	LY Chen	
Reviewed By	QRA Dept.	Product Development Div.
	Tomy Chen	WT Lin
Prepared By	LCD TV Marketing and Product Management Div.	
	Denise Shieh	Jim Ho

- Contents -

Record of Revision		3
1.0 Handling Precautions		4
2.0 General Description		5
2.1 Characteristics		5
3.0 Cell Outline		6
3.1 PAD Design		7
3.2 OLB PAD Assignment		9
3.3 Operating condition		12
4.0 Storage Conditions		13
5.0 Label and Package		14
5.1 Label		14
5.1.1 PANEL LABEL		
5.1.2 PPBOX AND CARTON LABEL		
5.2 Packaging		15
5.2.1 PACKING SPECIFICATIONS		
5.2.2 PACKING METHOD		
6.0 Others		17



Issued Date: Oct. 22, 2007
 CMO Model No.: V315B1 – C03
 Funai Model NO.: TLCD100CME20

Approval

Record of Revision

Version	Date	Page (New)	Section	Description
Ver.2.0	Oct.22, '07	All	All	Approval Specification was first issued.



Issued Date: Oct. 22, 2007
CMO Model No.: V315B1 – C03
Funai Model NO.: TLCD100CME20

Approval

1.0 Handling Precautions

- The LCD panel is made of glass and may break or crack if dropped on a hard surface. It is necessary to handle it carefully.
- Since front polarizer is easily damaged, pay attention not to scratch it.
- When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth gently.
- Do not touch the front screen surface when assembling.

▪ The information contained herein is presented only as a guide for the representative applications of Chi Mei Optoelectronics Corp. products and is not intended to guarantee any design or license any intellectual property right. Chi Mei Optoelectronics Corp. takes no responsibility for any problems related to any intellectual property right of a third party resulting from the use of Chi Mei Optoelectronics Corp. products.

2.0 General Description

This specification is applied to the Type V315B1 TFT/LCD cell. This cell is designed for a display unit for TV application.

The screen format is intended to support the WXGA (1366(H) x 768(V)) screen

2.1 Characteristics

CHARACTERISTICS ITEMS	SPECIFICATIONS
Screen Diagonal [in]	31.51
Pixels [lines]	1366×768
Active Area [mm]	697.6845 (H) x 392.256 (V)
Sub -Pixel Pitch [mm]	0.17025(H) x 0.51075 (V)
Pixel Arrangement	RGB vertical stripe
Weight [g]	TYP. 1175
Physical Size [mm]	716(W) x 410.8(H) x 2.00(D) Typ.
Display Mode	Transmissive mode / Normally black
Contrast Ratio	1500:1 Typ. (Typical value measured at CMO's module)
Glass thickness (Array/CF) [mm]	0.7 / 0.7
Viewing Angle(CR>20)	+88/-88(H),+88/-88(V) Typ. (CR≥20) (Typical value measured at CMO's module)
Color White	Color Filter R=(0.650, 0.328) G=(0.272, 0.587) B=(0.135, 0.105) W=(0.304, 0.329) *White color is calibrated value measured at Color Filter by C source
Cell Transparency [%]	4.4%Typ. (Typical value measured at CMO's module)
Polarizer (CF side)	Wide View, Anti-glare coating, 710.8 (W) x 406.6 (H). Hardness: 3H
Polarizer (TFT side)	Wide View, 710.8 (W) x 406.6 (H)

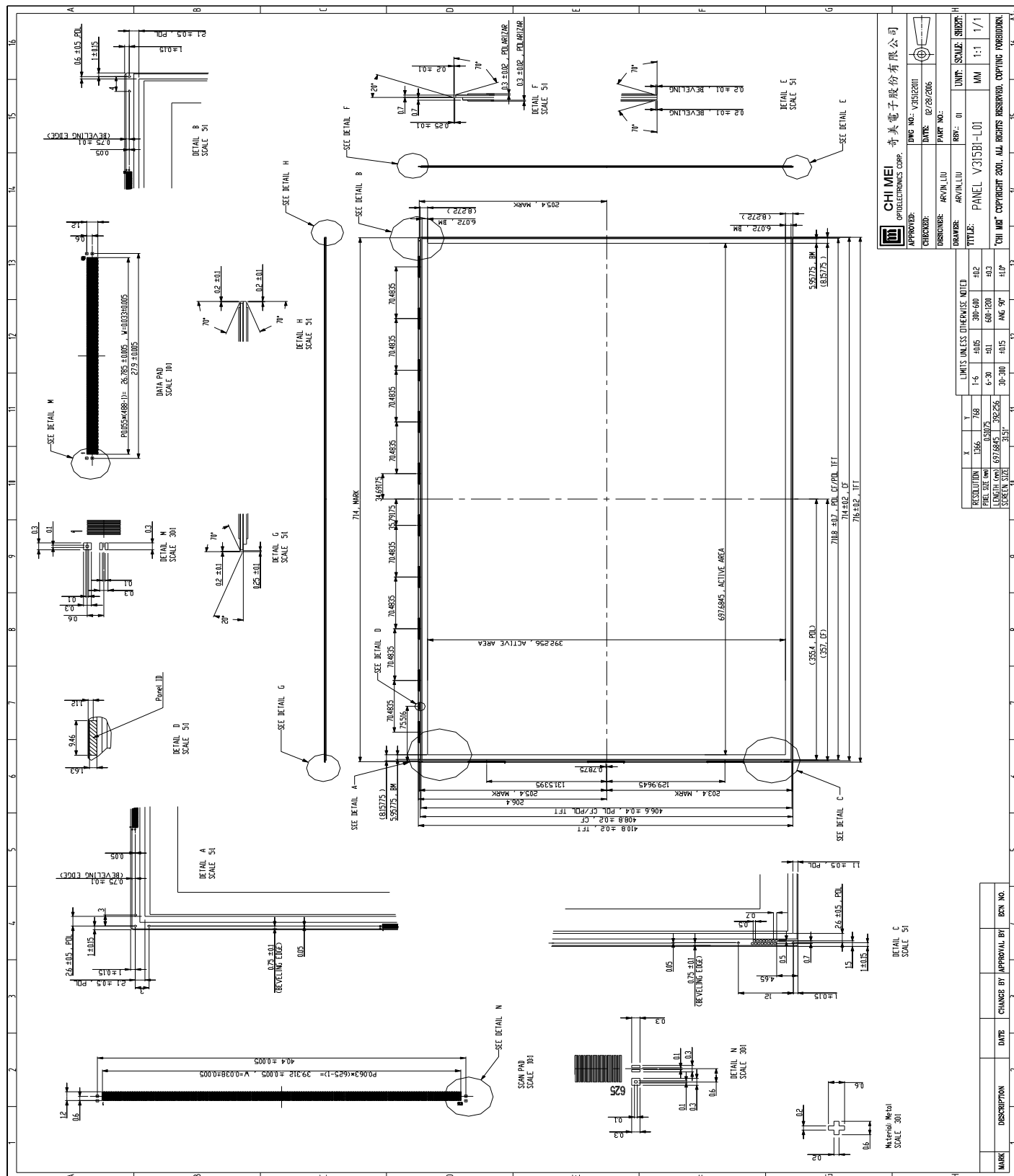


Issued Date: Oct. 22, 2007
CMO Model No.: V315B1 - C03
Funai Model NO.: TLCD100CME20

Approval

3.0 Cell Outline

The following figure shows cell outline.



CHI MEI OPTOELECTRONICS CORP.		DATE: 02/26/2006	REV: 01	UNIT: MM	SCALE: 1:1	SHEET: 1/1
APPROVED:	DRAWN: ARVIN LIU	CHKD: ARVIN LIU	REV: 01	UNIT: MM	SCALE: 1:1	SHEET: 1/1
DESCRIPTION: PANEL V315B1-L01						
"CHI MEI" COPYRIGHT 2007. ALL RIGHTS RESERVED. COPYING PROHIBITED.						

LIMITS UNLESS OTHERWISE NOTED						
RESOLUTION	X	Y	LIMITS UNLESS OTHERWISE NOTED			
1366	768	402	1-6	±0.05	±0.05	±0.2
633.3	384.0	201.0	6-30	±0.1	±0.1	±0.3
316.65	192.0	100.5	30-300	±0.15	±0.15	±0.4
158.325	96.0	50.25	300-300	±0.2	±0.2	±0.5

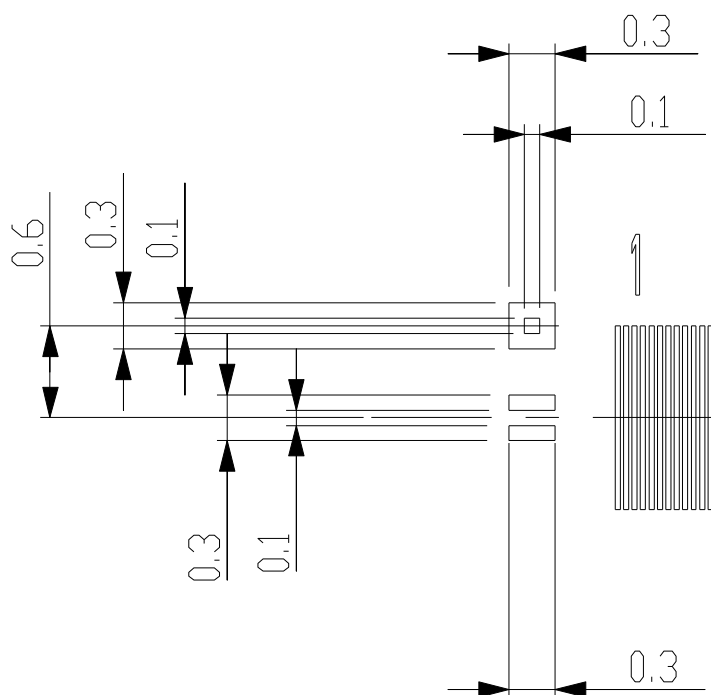
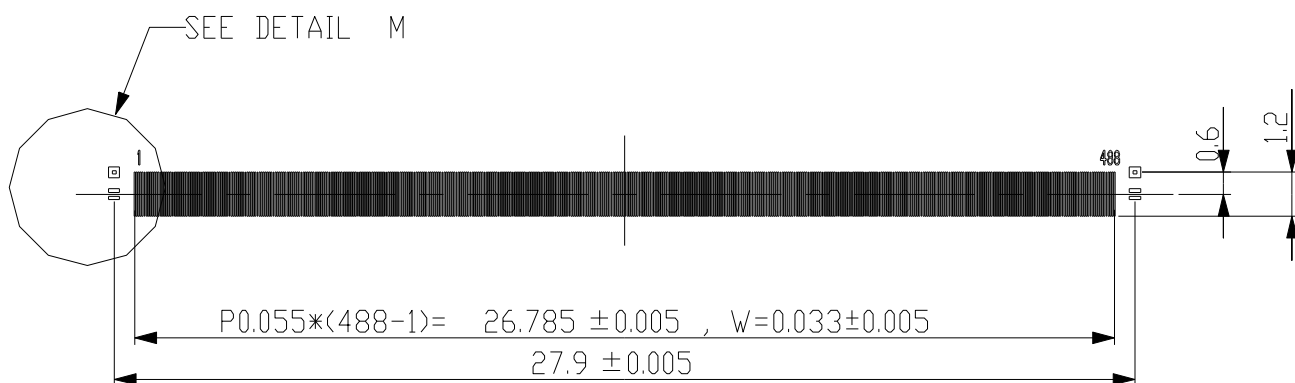
The information described in this technical specification is preliminary and it is possible to be changed without prior notice. Please contact CMO 's representative while your product design is based on this specification.

Version 2.0

3.1 PAD Design

The following figure shows Data & Scan pad design.

[Data Pad] Unit [mm]



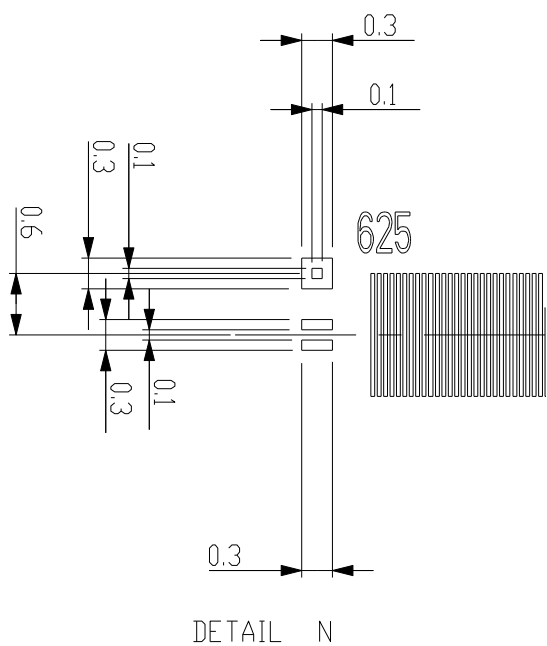
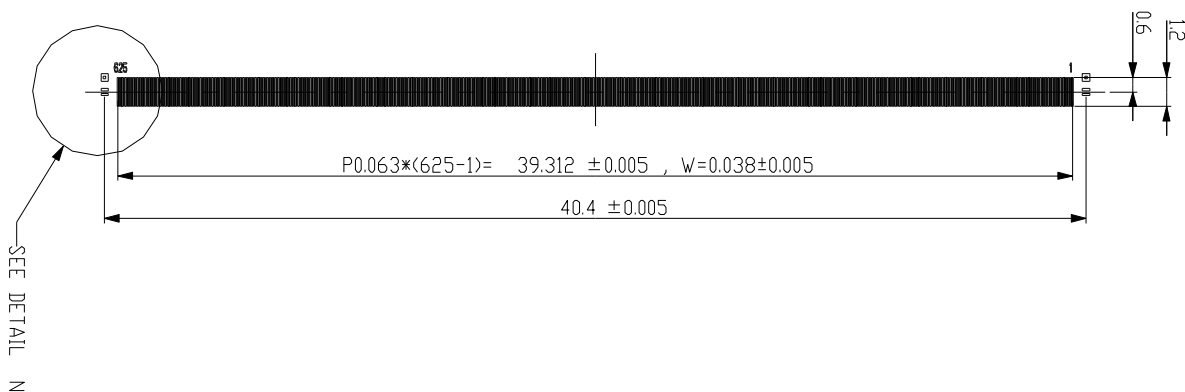
DETAIL M
SCALE 30:1



Issued Date: Oct. 22, 2007
 CMO Model No.: V315B1 - C03
 Funai Model NO.: TLCD100CME20

Approval

[Scan Pad] Unit [mm]



3.2 OLB PAD Assignment

GATE

Scan1/ Scan2						Scan3					
1	Test	40	Vgh	605	Vdd	1	Test	40	Vgh	605	Vdd
2	Test	41	Vgh	606	NC	2	Test	41	Vgh	606	NC
3	NC	42	NC	607	SIN 2	3	NC	42	NC	607	SIN 2
4	NC	43	NC	608	LR	4	NC	43	NC	608	LR
5	Vcom	...	...	609	NC	5	Vcom	...	...	609	NC
6	Vcom	69	NC	610	STV 2	6	Vcom	69	NC	610	STV 2
7	NC	70	NC	611	NC	7	NC	70	NC	611	NC
8	NC	71	Vst0	612	CPV	8	NC	71	Vst0	612	CPV
9	NC	72	Gate1	613	XAO	9	NC	72	Gate1	613	XAO
10	NC	...	Vst1	614	NC	10	NC	...	Vst1	614	NC
11	OE	...	Gate2	615	OE	11	OE	...	Gate2	615	OE
12	NC	...	...	616	NC	12	NC	...	...	616	NC
13	XAO	578	...	617	NC	13	XAO	578	...	617	NC
14	CPV	579	...	618	NC	14	CPV	579	...	618	NC
15	NC	580	Gate255	619	NC	15	NC	580	Gate255	619	NC
16	STV 1	581	Vst255	620	Vcom	16	STV 1	581	Vst255	620	Vcom
17	NC	582	Gate256	621	Vcom	17	NC	582	Gate256	621	Vcom
18	LR	583	NC	622	NC	18	LR	583	Vst256	622	NC
19	SIN 1	584	NC	623	NC	19	SIN 1	584	NC	623	NC
20	NC	585	Vgh	624	Test	20	NC	585	Vgh	624	Test
21	Vdd	586	Vgh	625	Test	21	Vdd	586	Vgh	625	Test
22	Vdd	587	Vgh			22	Vdd	587	Vgh		
23	Mode 1	588	Vgh			23	Mode 1	588	Vgh		
24	Vss	589	NC			24	Vss	589	NC		
25	Vss	590	Vee			25	Vss	590	Vee		
26	Vsl	591	Vee			26	Vsl	591	Vee		
27	Vsl	592	Vee			27	Vsl	592	Vee		
28	Vsl	593	Vee			28	Vsl	593	Vee		
29	Vsh	594	NC			29	Vsh	594	NC		
30	Vsh	595	Vsh			30	Vsh	595	Vsh		
31	Vsh	596	Vsh			31	Vsh	596	Vsh		
32	NC	597	Vsh			32	NC	597	Vsh		
33	Vee	598	Vsl			33	Vee	598	Vsl		
34	Vee	599	Vsl			34	Vee	599	Vsl		
35	Vee	600	Vsl			35	Vee	600	Vsl		
36	Vee	601	Vss			36	Vee	601	Vss		
37	NC	602	Vss			37	NC	602	Vss		
38	Vgh	603	Mode 1			38	Vgh	603	Mode 1		
39	Vgh	604	Vdd			39	Vgh	604	Vdd		

SIGNAL

Data 1			
1	Test	42	Vcom
2	Test	43	Vcom
3	NC	44	NC
4	NC	45	NC
5	Vcom	46	NC
6	Vcom	47	NC
7	NC	48	NC
8	NC	...	NC
9	NC	68	NC
10	NC	69	data1
11	OE	...	...
12	NC	...	...
13	XAO	460	data392
14	CPV	461	data393
15	NC	462	NC
16	STV 1	463	NC
17	NC	464	NC
18	LR	465	NC
19	SIN 1	466	NC
20	NC	467	NC
21	Vdd	468	NC
22	Vdd	469	NC
23	Mode 1	470	NC
24	NC	471	NC
25	Vss	472	NC
26	Vss	473	NC
27	Vsl	474	NC
28	Vsl	475	NC
29	Vsl	476	NC
30	Vsh	477	Vcom
31	Vsh	478	Vcom
32	Vsh	479	NC
33	NC	480	NC
34	Vgl	481	NC
35	Vgl	482	NC
36	Vgl	483	NC
37	NC	484	NC
38	Vgh	485	NC
39	Vgh	486	NC
40	Vgh	487	Test
41	NC	488	Test

Data 2~4			
1	Test	42	Vcom
2	Test	43	Vcom
3	NC	44	NC
4	NC	45	NC
5	Vcom	46	NC
6	Vcom	47	NC
7	NC	48	data1
8	NC	...	...
9	NC	68	data21
10	NC	69	data22
11	NC	...	...
12	NC	...	...
13	NC	460	data413
14	NC	461	data414
15	NC	462	NC
16	NC	463	NC
17	NC	464	NC
18	NC	465	NC
19	NC	466	NC
20	NC	467	NC
21	NC	468	NC
22	NC	469	NC
23	NC	470	NC
24	NC	471	NC
25	NC	472	NC
26	NC	473	NC
27	NC	474	NC
28	NC	475	NC
29	NC	476	NC
30	NC	477	Vcom
31	NC	478	Vcom
32	NC	479	NC
33	NC	480	NC
34	NC	481	NC
35	NC	482	NC
36	NC	483	NC
37	NC	484	NC
38	NC	485	NC
39	NC	486	NC
40	NC	487	Test
41	NC	488	Test

Data 5			
1	Test	42	Vcom
2	Test	43	Vcom
3	NC	44	NC
4	NC	45	NC
5	Vcom	46	NC
6	Vcom	47	NC
7	NC	48	data1
8	NC	...	...
9	NC	68	data21
10	NC	69	data22
11	NC	...	...
12	NC	...	...
13	NC	460	data413
14	NC	461	data414
15	NC	462	NC
16	NC	463	NC
17	NC	464	NC
18	NC	465	NC
19	NC	466	NC
20	NC	467	NC
21	NC	468	NC
22	NC	469	NC
23	NC	470	NC
24	NC	471	NC
25	NC	472	NC
26	NC	473	NC
27	NC	474	NC
28	NC	475	NC
29	NC	476	NC
30	NC	477	NC
31	NC	478	NC
32	NC	479	NC
33	NC	480	NC
34	NC	481	NC
35	NC	482	NC
36	NC	483	NC
37	NC	484	NC
38	NC	485	NC
39	NC	486	NC
40	NC	487	Test
41	NC	488	Test

Data 6

1	Test	42	NC
2	Test	43	NC
3	NC	44	NC
4	NC	45	NC
5	NC	46	NC
6	NC	47	NC
7	NC	48	data1
8	NC	...	...
9	NC	68	data21
10	NC	69	data22
11	NC	...	...
12	NC	...	...
13	NC	460	data413
14	NC	461	data414
15	NC	462	NC
16	NC	463	NC
17	NC	464	NC
18	NC	465	NC
19	NC	466	NC
20	NC	467	NC
21	NC	468	NC
22	NC	469	NC
23	NC	470	NC
24	NC	471	NC
25	NC	472	NC
26	NC	473	NC
27	NC	474	NC
28	NC	475	NC
29	NC	476	NC
30	NC	477	Vcom
31	NC	478	Vcom
32	NC	479	NC
33	NC	480	NC
34	NC	481	NC
35	NC	482	NC
36	NC	483	NC
37	NC	484	NC
38	NC	485	NC
39	NC	486	NC
40	NC	487	Test
41	NC	488	Test

Data 7~9

1	Test	42	Vcom
2	Test	43	Vcom
3	NC	44	NC
4	NC	45	NC
5	Vcom	46	NC
6	Vcom	47	NC
7	NC	48	data1
8	NC	...	...
9	NC	68	data21
10	NC	69	data22
11	NC	...	...
12	NC	...	...
13	NC	460	data413
14	NC	461	data414
15	NC	462	NC
16	NC	463	NC
17	NC	464	NC
18	NC	465	NC
19	NC	466	NC
20	NC	467	NC
21	NC	468	NC
22	NC	469	NC
23	NC	470	NC
24	NC	471	NC
25	NC	472	NC
26	NC	473	NC
27	NC	474	NC
28	NC	475	NC
29	NC	476	NC
30	NC	477	Vcom
31	NC	478	Vcom
32	NC	479	NC
33	NC	480	NC
34	NC	481	NC
35	NC	482	NC
36	NC	483	NC
37	NC	484	NC
38	NC	485	NC
39	NC	486	NC
40	NC	487	Test
41	NC	488	Test

Data 10

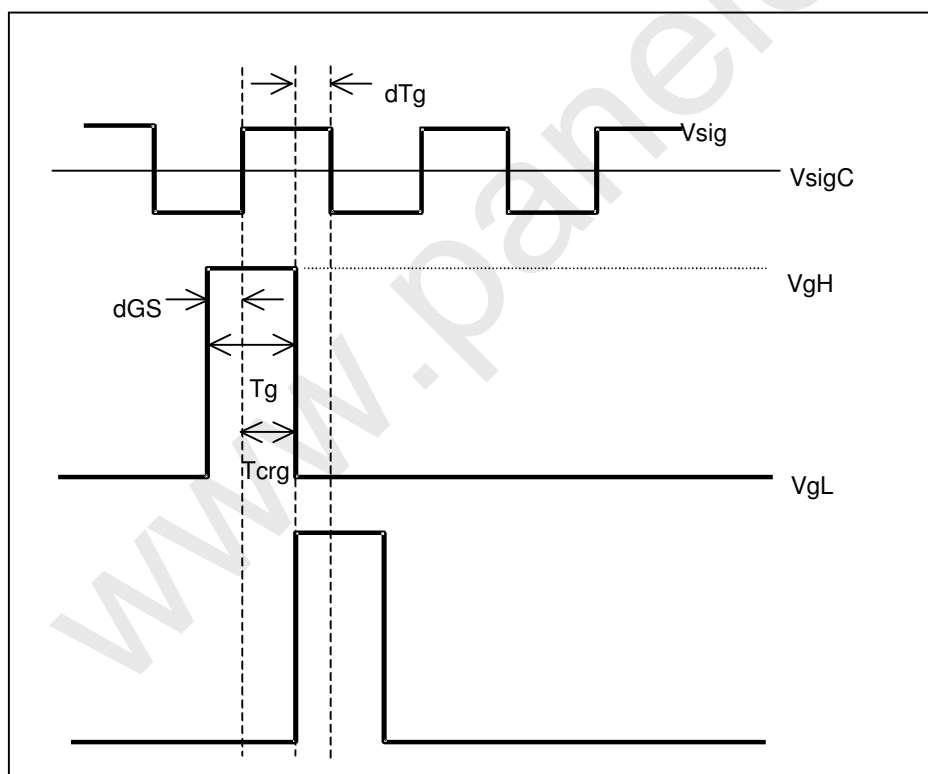
1	Test	42	Vcom
2	Test	43	Vcom
3	NC	44	NC
4	NC	45	NC
5	Vcom	46	NC
6	Vcom	47	NC
7	NC	48	data1
8	NC	...	...
9	NC	...	...
10	NC	...	...
11	NC	440	data393
12	NC	441	NC
13	NC	...	...
14	NC	461	NC
15	NC	462	NC
16	NC	463	NC
17	NC	464	NC
18	NC	465	NC
19	NC	466	NC
20	NC	467	Vgl
21	NC	468	Vgl
22	NC	469	Vcom
23	NC	470	Vcom
24	NC	471	NC
25	NC	472	Vgl
26	NC	473	Vgl
27	NC	474	Vcom
28	NC	475	Vcom
29	NC	476	NC
30	NC	477	Vcom
31	NC	478	Vcom
32	NC	479	NC
33	NC	480	NC
34	NC	481	NC
35	NC	482	NC
36	NC	483	NC
37	NC	484	NC
38	NC	485	NC
39	NC	486	NC
40	NC	487	Test
41	NC	488	Test

Note1: NC is CMO reserve.

3.3 Operating condition

The following table describes operating condition at CMO cell inspection

Item	Cell Inspection Condition	
Gate	Vgh	23.0V
	Vgl	-5.5V
	Sig/Com Reverse Time	20.9us
	dGS	-1.1us
	dTq1	5.1us
	Tg(Gate On Time)	14.7us
	Tcrg(Writing Time)	13.7us
Frame Frequency	60Hz	
Signal	(Black) Vsig Center	6.71V
	(BWhite) Vsig Center	6.5V
Common	Vcom Center	5.8V
	Vcom Amplitude	0.00V
	Vcom Adjustment	±0.5V
LC	(Black)	0.04V
	(White)	6.5V





Issued Date: Oct. 22, 2007
CMO Model No.: V315B1 – C03
Funai Model NO.: TLCD100CME20

Approval

4.0 Storage Conditions

High temperature or humidity may reduce the performance of panel. Please store LCD panel within the specified storage conditions. The recommended storage conditions are $25^{\circ}\text{C}\pm 5^{\circ}\text{C}$, $50\pm 10\%\text{RH}$.

www.panelook.com



Issued Date: Oct. 22, 2007
 CMO Model No.: V315B1 – C03
 Funai Model NO.: TLCD100CME20

Approval

5.0 Label and Packaging

5.1 Label

5.1.1 PANEL LABEL



T2243036NY03

5.1.2 PPBOX AND CARTON LABEL

Model Name	V315B1-C03
Panel Type	31WX03
Quantity	22
Case ID	(CMO internal define)
Note	(CMO internal define)
Note1	TLCD100CME20
Note2	

XXXXXXXXXXXXXXXXXXXX

5.2 Packaging

5.2.1 PACKING SPECIFICATIONS

- (1) 22 LCD TV Panels / 1 Box
- (2) Box dimensions : 925(L) X 310 (W) X 625 (H)
- (3) Weight : approximately 36.5Kg (22 panels per box)

5.2.1 PACKING METHOD

Figures 5-1 and 5-2 are the packing method

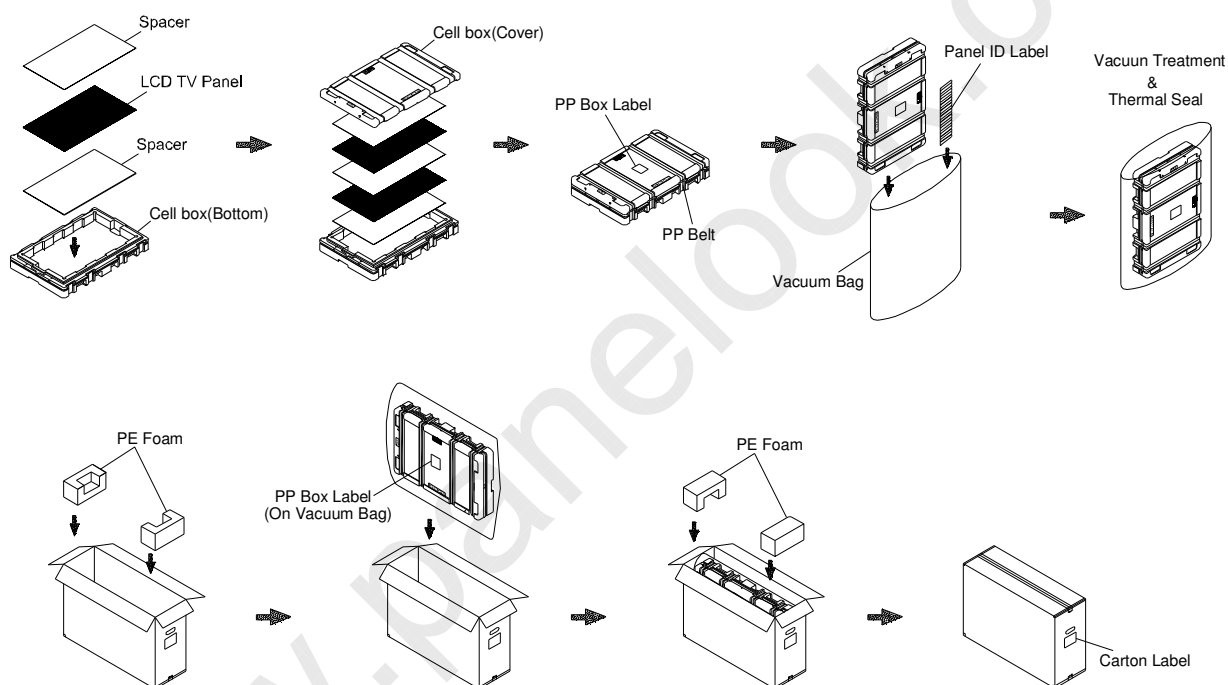


Figure.5-1 packing method

Corner Protector:L1130*50mm*50mm
L800*50mm*50mm
Pallet:L960*W960*H140mm
Pallet Stack:L960*W960*H1390mm
Gross:232kg

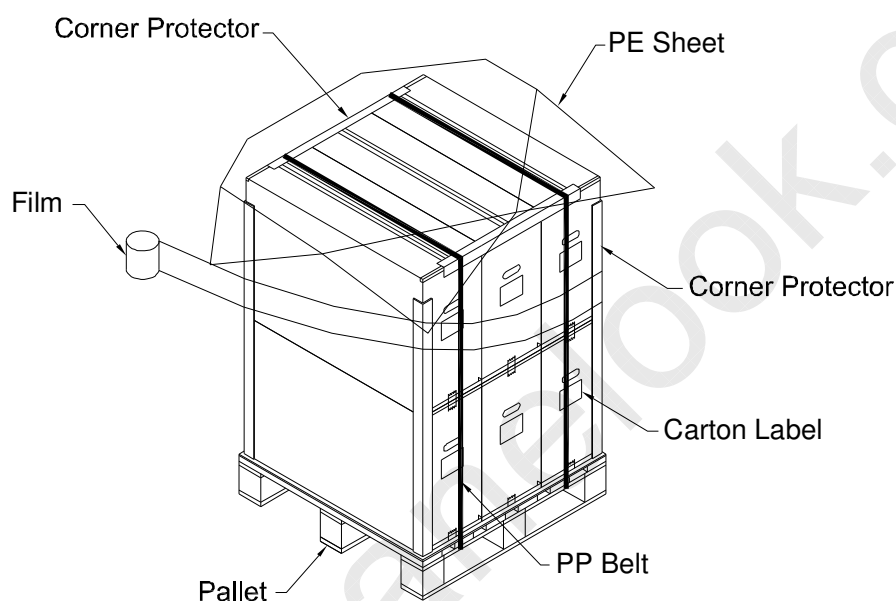


Figure.5-2 packing method



Issued Date: Oct. 22, 2007
CMO Model No.: V315B1 – C03
Funai Model NO.: TLCD100CME20

Approval

6.0 Others

If any doubt arises in relation to items not defined in this agreement or any articles in this agreement, both parties shall discuss it with sincerity and arrive at a mutual decision.

***** End Of Page *****