FEATURES

AVAILABLE OPTIONS	CHARACTERISTICS	CODE	No.
DISPLAY FORMAT	16 Characters by 2 Lines	FC1602B04	1~6
POLARIZER OPTIONS	Positive Reflective	R	7
BACKLIGHT TYPE OPTIONS	No Backlight	N	8
BACKLIGHT COLOR OPTIONS	No Backlight	N	9
LCD PANEL OPTIONS	Yellow-Green STN	Y	10
VIEWING ANGLE OPTIONS	6:00 (Bottom)	B	11
TEMPERATURE RANGE OPTIONS	-20°C ~ 70°C (Single Supply Voltage)	W	12
SUGGESTED DRIVING VOLTAGE	Vlcm = 3.0V	1	13
SUGGESTED LED DRIVING MODE	No Backlight	6	14
CONTROLLER ▲1	SPLC780D+SPLC100A	L	15
FONT MAP CODE	E Version	E	16
DRIVING DUTY	1/16	—	—
DRIVING BIAS	1/5	—	—

▲1 Please ask for datasheet of the mentioned controller from FORDATA or FORDATA's authorized distributors. You can find the related information including AC & DC characteristics, Write & Read Timing diagram, Instruction table and descriptions, DDRAM & CGRAM, Rest Function and so on from the datasheet of controller.

▲1 You can ask for the example of software program (C language) from FORDATA or FORDATA's authorized distributors.

MECHANICAL SPECIFICATIONS

OVERALL SIZE	85.0W x 36.0H	mm	THICKNESS	max 9.5	mm
VIEWING AREA	64.5W x 16.4H	mm	HOLE-HOLE	80.0W x 31.0H	mm
CHARACTER SIZE	3.00W x 5.23H	mm	CHARACTER PITCH	0.51W x 0.52H	mm
DOT SIZE	0.56W x 0.61H	mm	DOT PITCH	0.05W x 0.05H	mm

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	CONDITION	MIN	TYP	MAX	UNIT
POWER SUPPLY (LOGIC)	Vdd	25°C	-0.3	—	7.0	V
POWER SUPPLY (LCD)	V0	25°C	Vdd -13.5	—	Vdd +0.3	V
INPUT VOLTAGE	Vin	25°C	-0.3	—	Vdd +0.3	V
OPERATING TEMPERATURE	Vopr	—	-20	—	70	°C
STORAGE TEMPERATURE	Vstg	—	-30	—	80	°C

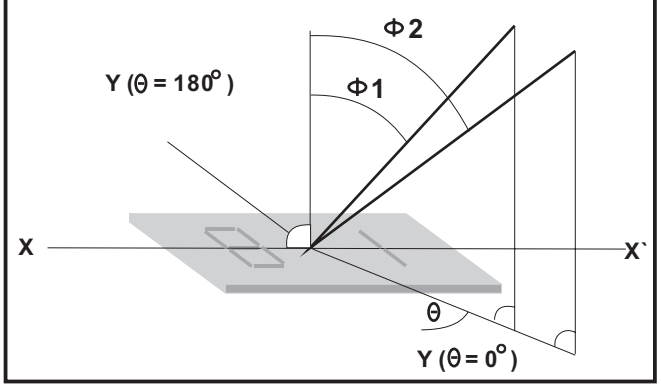
ELECTRONIC CHARACTERISTICS*

ICONS	ITEM	SYMBOL	CONDITION	MIN	TYP	MAX	UNIT
3.0V	INPUT VOLTAGE	Vdd	—	—	3.0	—	V
	SUPPLY CURRENT	Idd	Vdd=3.0V	—	1.5	—	mA
	DRIVING VOLTAGE FOR LCD PANEL	Vlcd = (Vdd - V0)	-20°C	—	—	—	V
			0°C	—	—	—	
			25°C	—	—	—	
			50°C	—	—	—	
			70°C	—	—	—	

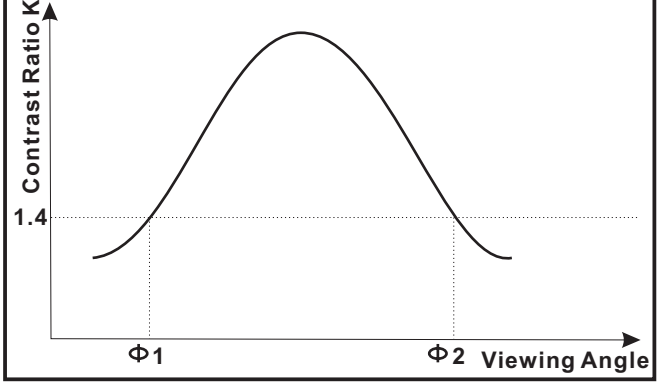
* All data are recorded from TEST REPORT #FSYP000700030

FOR STN/FSTN TYPE LCD Panel (TA=25°C, Vdd=5.0V ± 0.5V)							
ICONS	ITEM	SYMBOL	CONDITION	MIN	TYP	MAX	UNIT
	VIEWING ANGLE	Φ2 − Φ1	K=4	40	—	—	deg
		θ		60			
HC	CONTRAST RATIO	K	—	—	10	—	—
	RESPONSE TIME(RISE)	TR	—	—	150	250	ms
F	RESPONSE TIME(FALL)	TF	—	—	150	250	ms

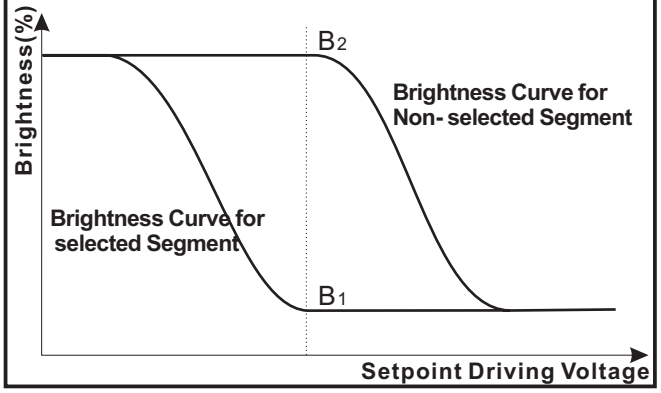
DEFINITION OF ANGLE Φ & θ



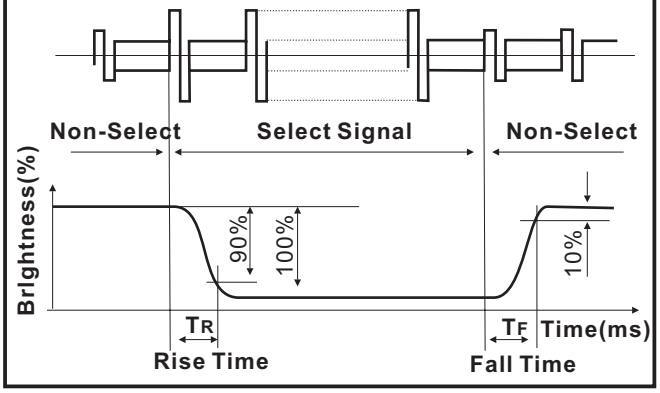
DEFINITION OF VIEWING ANGLE Φ1 &Φ2



DEFINITION OF CONTRAST RATIO K(=B2/B1)



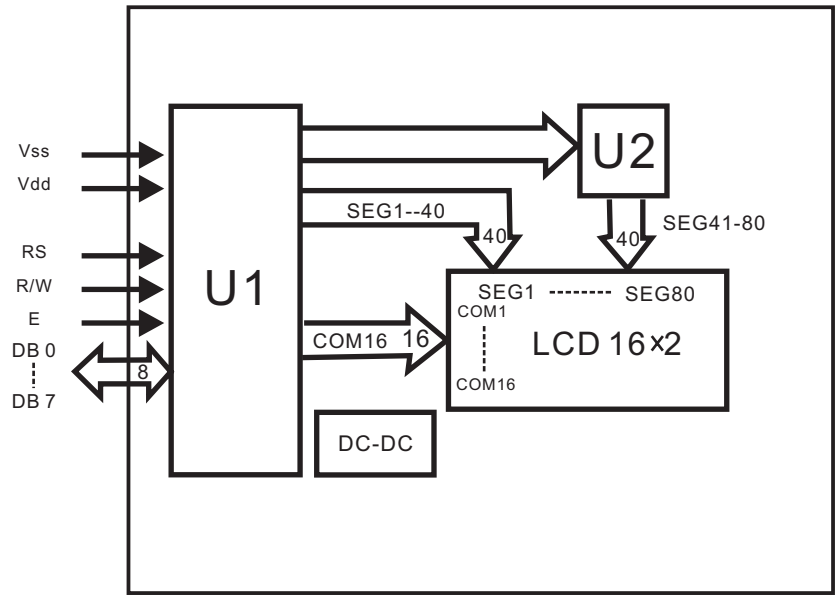
DEFINITION OF OPTICAL RESPONSE TIME TR & TF



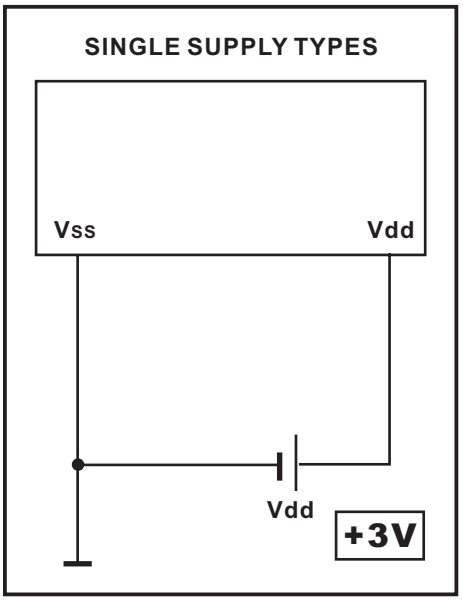
PIN ASSIGNMENT

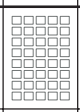
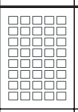
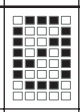
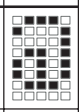
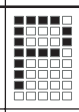
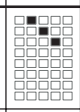
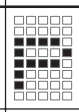
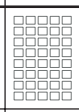
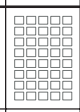
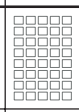
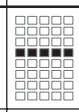
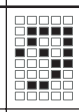
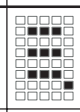
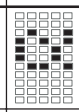
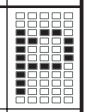
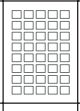
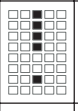
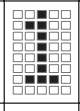
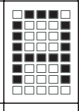
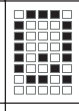
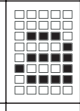
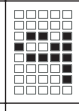
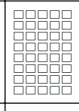
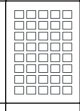
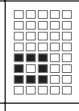
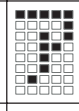
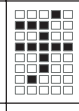
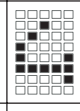
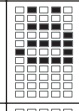
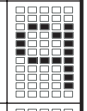
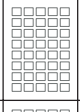
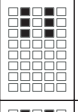
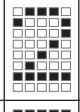
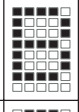
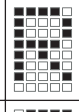
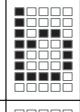
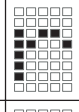
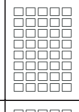
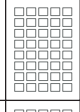
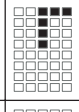
PIN	SYMBOL	DESCRIPTION	REMARKS
1	Vss	GND	
2	Vdd	Power supply for LCM	3.0V
3	NC	No connection	
4	RS	Register Select Signal	
5	R/W	Data Read / Write	
6	E	Enable Signal	
7	DB0	Data bus line	
8	DB1	Data bus line	
9	DB2	Data bus line	
10	DB3	Data bus line	
11	DB4	Data bus line	
12	DB5	Data bus line	
13	DB6	Data bus line	
14	DB7	Data bus line	
15	NC	No connection	
16	NC	No connection	

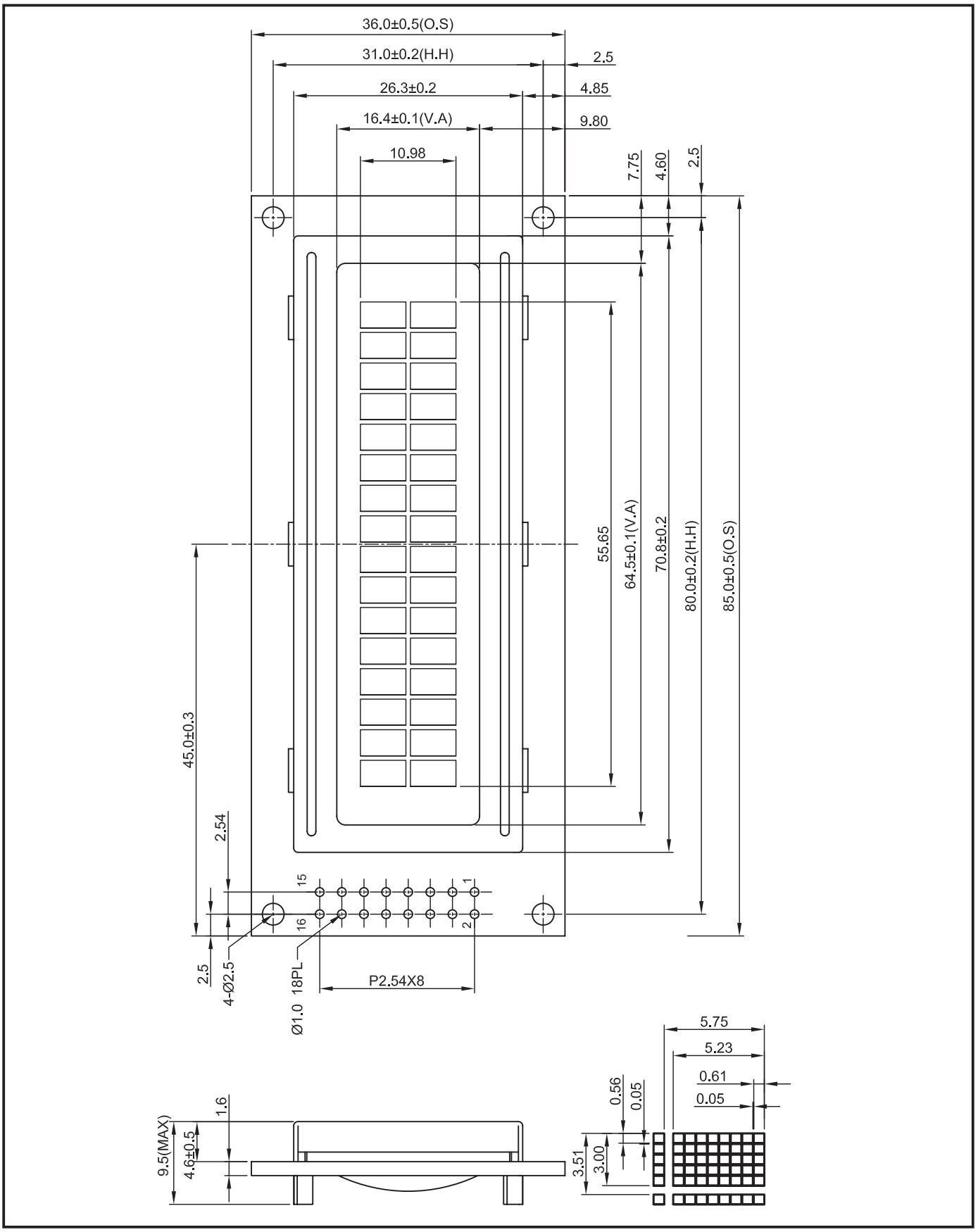
BLOCK DIAGRAM



POWER SUPPLY DIAGRAM

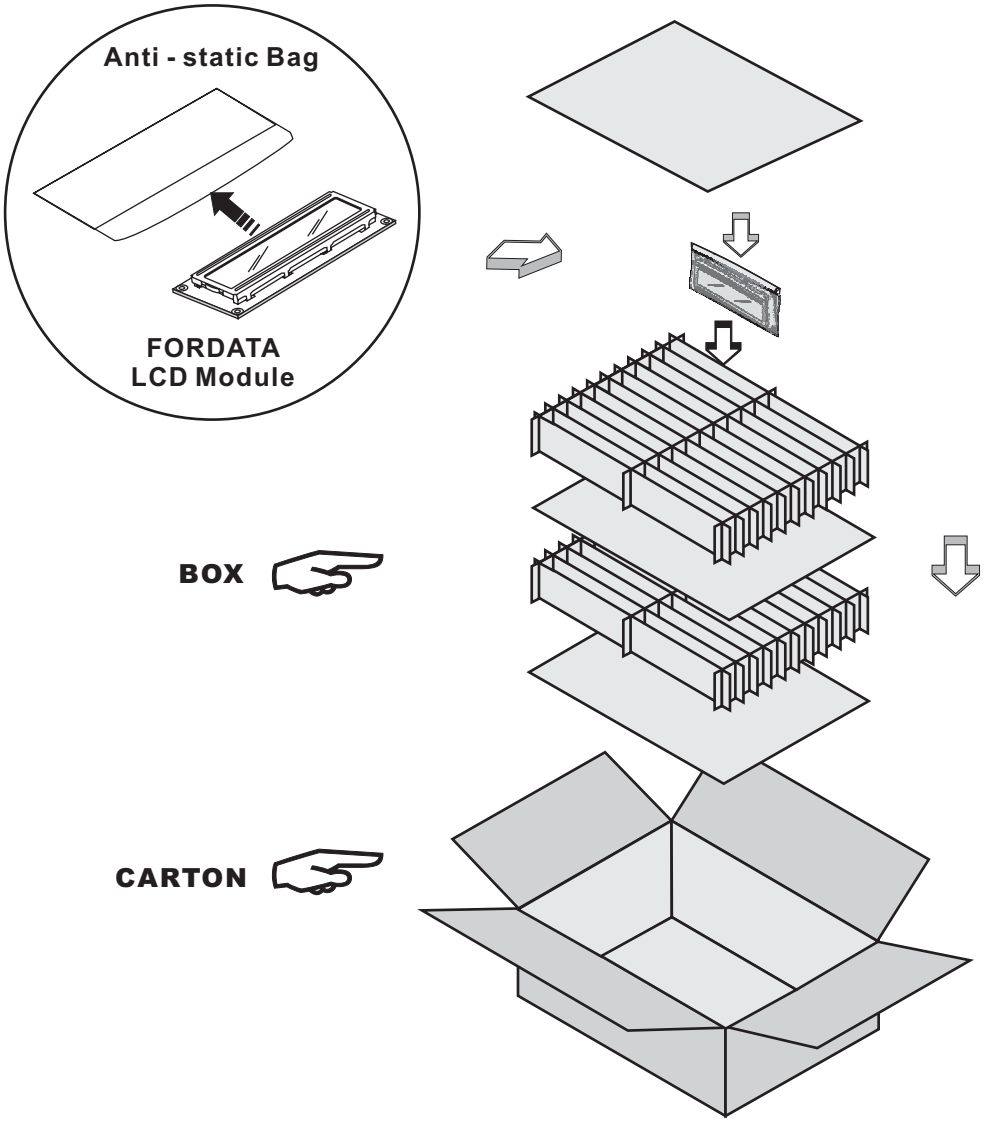


Upper 4bit / Lower 4bit	LLLL	LLLH	LLHL	LLHH	LHLL	LHLH	LHHL	LHHH	HLLL	HLLH	HLHL	HLHH	HHLL	HHLH	HHHL	HHHH
LLLL	CG RAM (1)															
LLLH	(2)															
LLHL	(3)															
LLHH	(4)															
LHLL	(5)															
LHLH	(6)															
LHHL	(7)															
LHHH	(8)															
HLLL	(1)															
HLLH	(2)															
HLHL	(3)															
HLHH	(4)															
HHLL	(5)															
HHLH	(6)															
HHHL	(7)															
HHHH	(8)															


36.0±0.5(O.S)
31.0±0.2(H.H)
26.3±0.2
16.4±0.1(V.A)
10.98
2.5
4.85
9.80
7.75
4.60
2.5
55.65
64.5±0.1(V.A)
70.8±0.2
80.0±0.2(H.H)
85.0±0.5(O.S)
45.0±0.3
2.54
15
1
16
2
2.5
4-Ø2.5
18PL
Ø1.0
P2.54X8
5.75
5.23
0.61
0.05
0.56
0.05
3.51
3.00
1.6
9.5(MAX)
4.6±0.5

FULL-SIZED PACKAGE
45 PCS/BOX
10 BOXES/CARTON
450 PCS/CARTON
13.00 KGS/CTN(G.W.)
0.054 M^3/CARTON

HALF-SIZED PACKAGE
45 PCS/BOX
5 BOXES/CARTON
225 PCS/CARTON
6.00 KGS/CTN(G.W.)
0.027 M^3/CARTON

PACKING DECLARATION

1. This packaging information is for reference only. The actual information is subject to the actual packaging. Especially for packaging of LCL, tolerances may exist.
2. FORDATA will not be responsible for quality problems caused by unnormal transportation conditions (including but not limited to climate factors or human factors, such as improper handling).