

LCD Module

RoHS

NLC128CG064CHJ1

(Status: June 2011)

Specification V1.3

Approval of Specification

| | Approved by | Date |
|----------|---|------------|
| Admatec |  | 16.06.2011 |
| Customer | | |

This product complies to EU directive 2002/95/EC (RoHS) of January 27th,2003.



1. MECHANICAL DATA

| NO. | ITEM | CONTENTS | UNIT |
|-----|-------------------|---|------|
| 1 | Product No. | NLC128CG064CHJ1 | |
| 2 | Module Size | 70.0(W)*58(H)*MAX 5.2(T) | mm |
| 3 | Dot Size | 0.445(W)*0.445(H) | mm |
| 4 | Dot Pitch | 0.465(W)*0.465(H) | mm |
| 5 | Number of Dots | 128(W)*64(H) | -- |
| 6 | Duty / Bias | 1/65; 1/9 | -- |
| 7 | LCD Type | FSTN positive mode, Transflective (high transmissive) | -- |
| 8 | Viewing Direction | 6 O'clock | -- |
| 9 | Backlight | LED | -- |
| 10 | Controller | NT7538H-BDT | -- |
| 11 | DC to DC circuit | Build-in | -- |
| 12 | Weight | 25 (Approx.) | g |

Note:

NLC128CG064 C H J 1

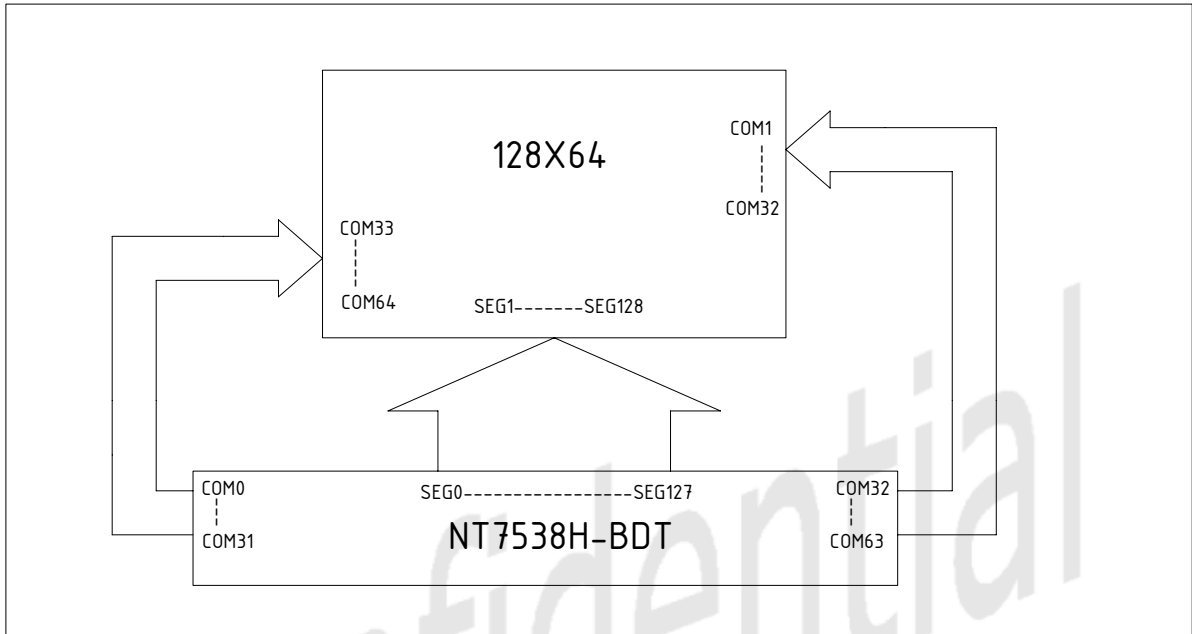
Back Light
C : LED Backlight

Reflective/Transmissive
H : Transflective (high transmissive)

Mode/View Angle
J : Positive mode, 6 o' clock



5. BLOCK DIAGRAM



Software: ADC=0 (SEG0~SEG128)
 Hardware: 1/65 Duty (COM63~COM0)



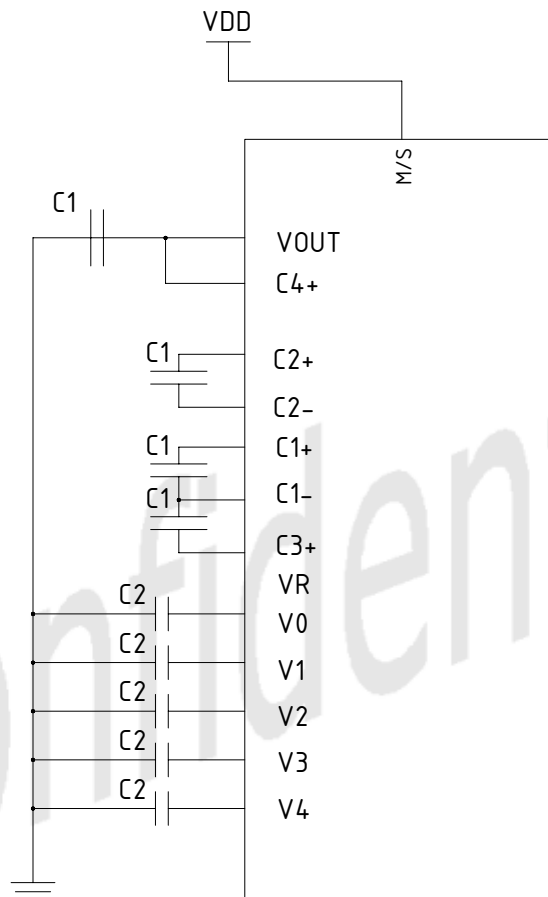
6. INTERNAL PIN CONNECTION

| PIN | SYMBOL | FUNCTION |
|------|--------|--|
| 1 | /CS1 | This is the chip select. |
| 2 | /RE5 | Reset pin. |
| 3 | A0 | A0="H": indicate that D0 to D7 are display data. |
| 4 | R/W | A0="L": indicate that D0 to D7 are control data. |
| 5 | RD | Read/Write control pin. |
| 6-13 | D0~D7 | Data bus |
| 14 | VSS | Power supply (GND) |
| 15 | VOUT | DC/DC voltage converter output. |
| 16 | CAP3+ | Capacitor3+ pad for internal DC/DC voltage converter |
| 17 | CAP1- | Capacitor1- pad for internal DC/DC voltage converter |
| 18 | CAP1+ | Capacitor1+ pad for internal DC/DC voltage converter |
| 19 | CAP2+ | Capacitor2+ pad for internal DC/DC voltage converter |
| 20 | CAP2- | Capacitor2- pad for internal DC/DC voltage converter |
| 21 | V1 | LCD driver supply voltages. The voltage determined by LCD cell is impedance-converted by a resistive driver or an operation amplifier for application. Voltages should be the following relationship: $V0 \geq V1 \geq V2 \geq V3 \geq V4 \geq VSS$ |
| 22 | V2 | |
| 23 | V3 | |
| 24 | V4 | |
| 25 | V0 | |
| 26 | VR | Voltage adjustment pin. |
| 27 | VDD | Power supply |
| 28 | C86 | This is the MPU interface switch terminal. |
| 29 | P/S | This is the parallel data input/serial data input switch terminal. |
| 30 | IRS | This terminal selects the resistors for the V0 voltage level adjustment. |

Backlight Connector: JST PHR-2



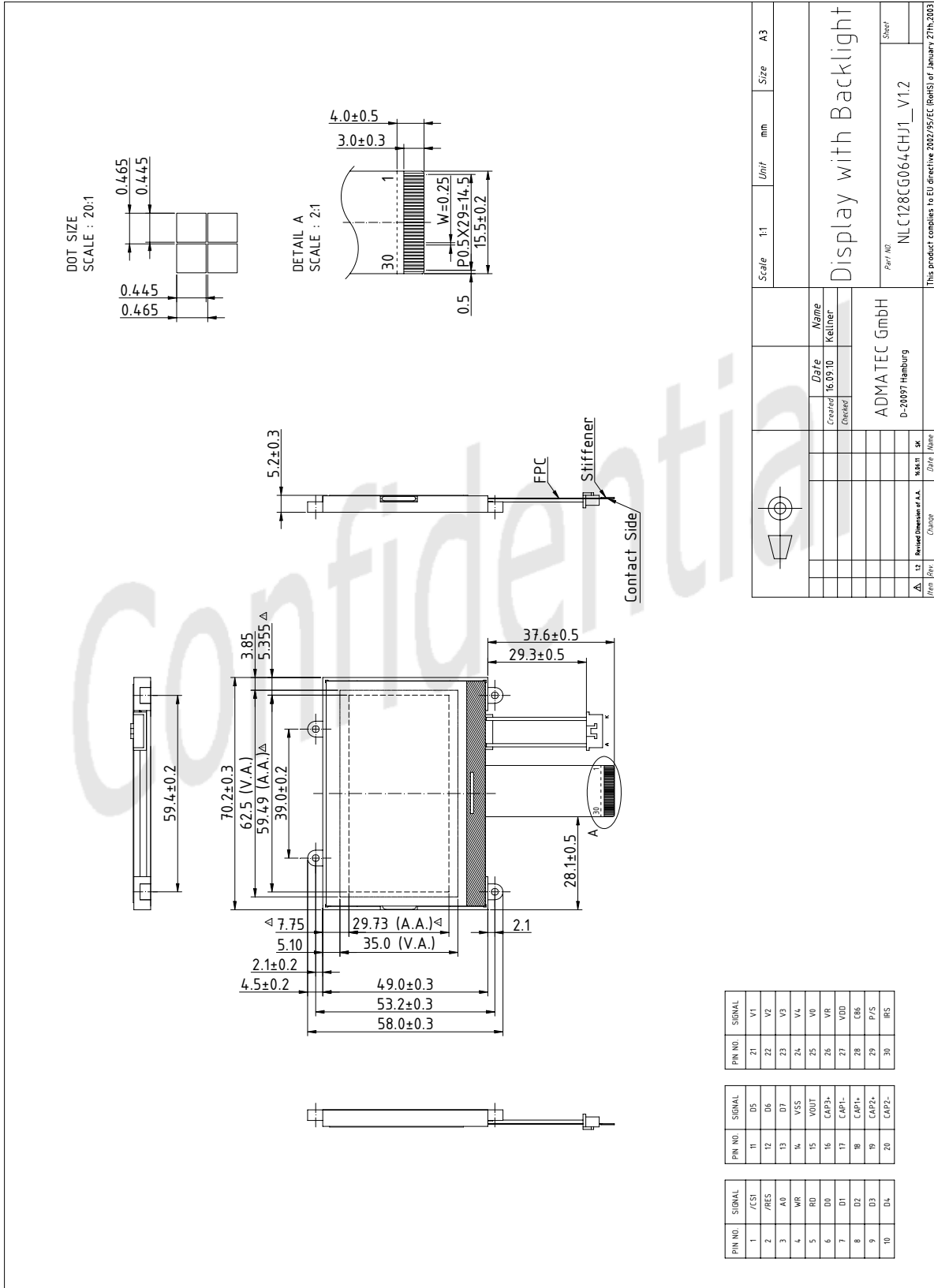
7. POWER SUPPLY



4x step-up voltage circuit
 C1=1.0~4.7µF / X5R
 C2=0.1~2.2µF unassigned



9. DRAWING



| | | | | | |
|---|----------|--------|-----------------|------|----|
| Scale | 1:1 | Unit | mm | Size | A3 |
| Display with Backlight | | | | | |
| Part No. NLC128CG064CHJ1_V1.2 | | | | | |
| This product complies to EU directive 2002/95/EC (RoHS) of January 27th, 2003 | | | | | |
| Created | 16.09.10 | Name | Kellner | | |
| Checked | | Name | ADMATEC GmbH | | |
| Released | | Date | D-20097 Hamburg | | |
| Rev | | Rev | | Date | |
| SK | | SK | | Date | |
| MB | | MB | | Date | |
| Change | | Change | | Date | |

| Pin No. | Signal | Pin No. | Signal | Pin No. | Signal |
|---------|--------|---------|--------|---------|--------|
| 1 | /EST | 11 | D5 | 21 | V1 |
| 2 | /RES | 12 | D6 | 22 | V2 |
| 3 | /A0 | 13 | D7 | 23 | V3 |
| 4 | /WR | 14 | VSS | 24 | V4 |
| 5 | /RD | 15 | VDD | 25 | V0 |
| 6 | D0 | 16 | CAP3+ | 26 | VR |
| 7 | D1 | 17 | CAP1- | 27 | VDD |
| 8 | D2 | 18 | CAP1+ | 28 | E66 |
| 9 | D3 | 19 | CAP2+ | 29 | P/S |
| 10 | D4 | 20 | CAP2- | 30 | RS |