## STANDARD Micro Controller Specification NC41120-0045 USB Interface Controller Chip

## 4- and 7-Wire Summary Sheet

## - FEATURES

- High quality and reliability touch panel controller
- USB 2.0 Interface
- Used to control the 4- and 7-Wire resistive touch panels
- Moisture sensitivity level 3
- RoHS compliant
- Replaces NC41120-0017 and NC41120-0018



## - CONSTRUCTION



Unit: mm


■ INPUT / OUTPUT TERMINAL SUMMARY

| Pin No | Name | Function Summary | I/0 |
| :---: | :---: | :---: | :---: |
| 1 | FSDL | Choose flash rewriting mode <br> PullDown = download-mode, PullUp = Program-mode | 1 |
| 2 | RESET | Reset input terminal | I/0 |
| 3 | - | Reserved (pull down) | 1 |
| 4 | - | Reserved | 0 |
| 5 | VSS1 | Power supply input terminal (0V) | - |
| 6 | CF1 | Oscillator input terminal | 1 |
| 7 | CF2 | Oscillator output terminal | 0 |
| 8 | VDD1 | Power supply input terminal (5V) | - |
| 9 | - | Reserved | 0 |
| 10 | - | Reserved | 0 |
| 11 | - | Reserved | 0 |
| 12 | - | Reserved | 0 |
| 13 | - | Reserved | 0 |
| 14 | - | Reserved | 0 |
| 15 | - | Reserved | 0 |
| 16 | - | Reserved | 0 |
| 17 | PSW1 | Panel driving terminal Nch | 1 |
| 18 | PSW2 | Panel driving terminal Pch | 1 |
| 19 | VDD2 | Power supply input terminal (5V) | - |
| 20 | VSS2 | Power supply input terminal (0V) | - |
| 21 | PSW3 | Panel driving terminal Nch | 1 |
| 22 | PSW4 | Panel driving termnial Pch | 1 |
| 23 | PSW0 | Panel pull down terminal Nch | 1 |
| 24 | EMSR1 | AD converter for voltage measurement | 1 |
| 25 | EMSR2 | AD converter for voltage measurement | 1 |
| 26 | EMSR3 | AD converter for voltage measurement | 1 |
| 27 | - 4-wire panel | Reserved | 0 |
|  | EMSR4: 7-wire panel | AD converter for voltage measurement | 1 |
| 28 | PMSR | AD converter for voltage measurement | 1 |
| 29 | PID1 | PID setting terminal | 1 |
| 30 | PID2 | PID setting terminal | 1 |
| 31 | PID3 | PID setting terminal | 1 |
| 32 | PID4 | PID setting terminal | 1 |
| 33 | PID5 | PID setting terminal | 1 |
| 34 | PID6 | PID setting terminal | 1 |
| 35 | PINT | Interruption terminal for suspend cancellation | 1 |
| 36 | DPUP | Terminal for D+ pull-up control | 1 |


| Pin No | Name | Function Summary | I/0 |
| :---: | :--- | :--- | :---: |
| 37 | D- | USB input-output terminal | I/0 |
| 38 | D + | USB input-output terminal | I/0 |
| 39 | VDD3 | USB power supply (reserved) | - |
| 40 | VSS3 | Power supply input terminal (OV) | - |
| 41 | UFILT | USB filter circuit connection | I |
| 42 | OS3 | Terminal for setting panel origin: $X(Y)$ coordinate inversion | I |
| 43 | OS2 | Terminal for setting panel origin: $Y(X)$ coordinate inversion | I |
| 44 | OS1 | Terminal for setting panel origin: $X$ Y coordinate exchange | I |
| 45 | DBG | On chip debugger terminal | - |
| 46 | - | Reserved | 0 |
| 47 | - | Reserved | 0 |
| 48 | LINE | Panel select terminal (H: 4-wire, L: 7-wire) | I |

Complete specification document is available on request for customers with whom we have an approved NDA in place.

## Fujitsu Components International Headquarter Offices

| Japan | Europe |
| :--- | :--- |
| Fujitsu Component Limited | Fujitsu Components Europe B.V. |
| Gotanda-Chuo Building | Diamantlaan 25 |
| 3-5, Higashigotanda 2-chome, Shinagawa-ku | 2132 WV Hoofddorp |
| Tokyo 141, Japan | Netherlands |
| Tel: (81-3) 5449-7010 | Tel: (31-23) 5560910 |
| Fax: (81-3) 5449-2626 | Fax: (31-23) 5560950 |
| Email: promothq@ft.ed.fujitsu.com | Email: info@fceu.fujitsu.com |
| Web: www.fcl.fujitsu.com | Web: emea.fujitsu.com/components/ |
|  |  |
| North and South America | Asia Pacific |
| Fujitsu Components America, Inc. | Fujitsu Components Asia Ltd. |
| 250 E. Caribbean Drive | $102 E$ Pasir Panjang Road |
| Sunnyvale, CA 94089 U.S.A. | \#01-01 Citilink Warehouse Complex |
| Tel: (1-408) 745-4900 | Singapore 118529 |
| Fax: (1-408) 745-4970 | Tel: (65) 6375-8560 |
| Email: components@us.fujitsu.com | Fax: (65) 6273-3021 |
| Web: http://www.fujitsu.com/us/services/edevices/components/ | Email: fcal@fcal.fujitsu.com |
|  | Web: http://www.fujitsu.com/sg/services/micro/components/ |

©2013 Fujitsu Components America, Inc. All rights reserved. All trademarks or registered trademarks are the property of their respective owners.
Fujitsu Components America or its affiliates do not warrant that the content of datasheet is error free. In a continuing effort to improve our products Fujitsu Components America, Inc. or its affiliates reserve the right to change specifications/datasheets without prior notice.
Rev. January 7, 2013.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components
Click to view similar products for LCD Touch Panels category:
Click to view products by Fujitsu manufacturer:
Other Similar products are found below :

```
98-0003-2669-8 CABLE/RTP/USB 98-0003-2933-8 17-8041-226 17-8041-227 CABLE/RTP/RS232 N010-0557-T002 N010-0557-T011
NA5-15W101B-V1 LCDAL04-0430TL0NCNTBR1.0 TP01106W-4KB FTAS00-15AN-4 FTAS00-12.1AW-4A 17-8021-227 17-8031-205
17-8031-227 17-8091-203 17-8421-205 17-8421-227 17-8441-205 17-8511-205 17-8541-205 17-8541-226 17-8891-227 17-8901-226 98-
0003-2185-5 98-0003-2617-7 98-0003-2919-7 98-0003-2955-1 98-0003-3140-9 98-0003-3190-4 98-0003-3505-3 98-1100-0606-5 98-1100-
0638-8 EA TOUCH240-4 N010-0519-T742 N010-0554-T043 N010-0554-T703 EA TOUCH102-1 EA TOUCH128-1 EA TOUCH128-2
EA TOUCH160-1 LCD-OLINUXINO-10CTS TS-320240BRNO FTAS00-104A5 FTAS00-104AS4 FTAS00-121A4 FTAS00-121A5
FTAS00-150A5 FTAS225-57AN
```

