FUJITSU

STANDARD Micro Controller Specification
NC41120-0045 USB Interface Controller Chip
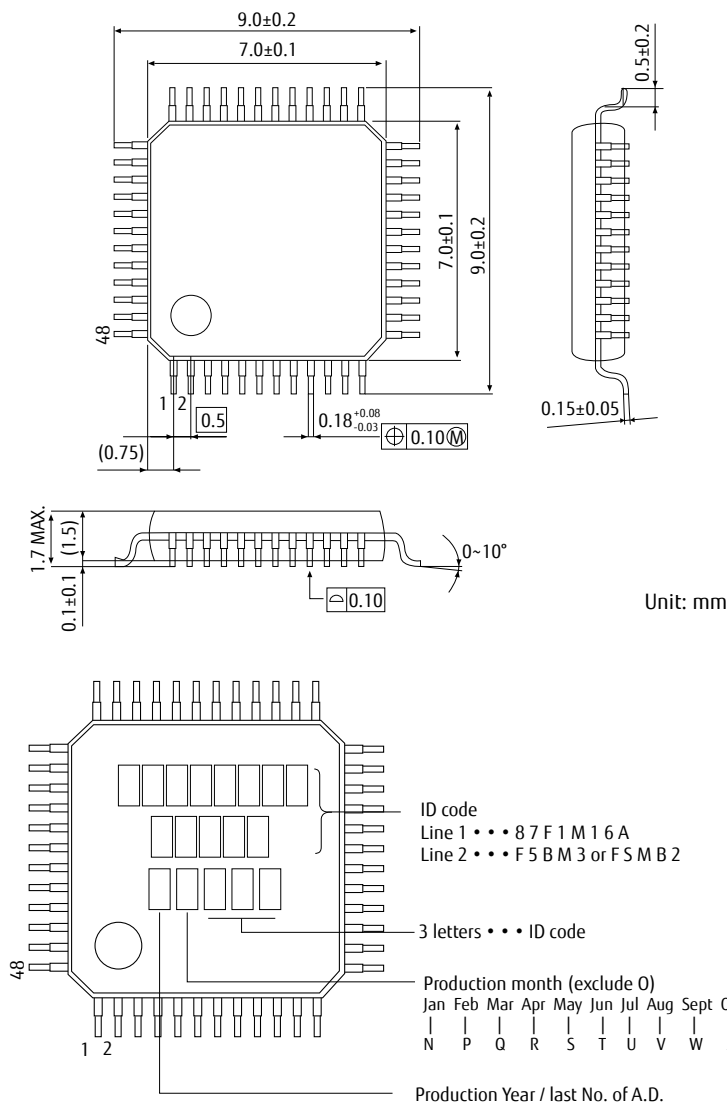## 4- and 7-Wire Summary Sheet

■ **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**

9.0±0.2
7.0±0.1
0.5±0.2
7.0±0.1
9.0±0.2
48
1 2
0.5
$0.18^{+0.08}_{-0.03}$
⊕ 0.10 Ⓜ
(0.75)
0.15±0.05
1.7 MAX.
(1.5)
0.1±0.1
0~10°
⌴ 0.10

Unit: mm

ID code
Line 1 • • • 8 7 F 1 M 1 6 A
Line 2 • • • F 5 B M 3 or F S M B 2

3 letters • • • ID code

Production month (exclude O)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
N	P	Q	R	S	T	U	V	W	X	Y	Z

48
1 2

Production Year / last No. of A.D.

USB Interface Controller Chip

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

USB Interface Controller Chip

Pin No	Name	Function Summary	I/O
37	D-	USB input-output terminal	I/O
38	D+	USB input-output terminal	I/O
39	VDD3	USB power supply (reserved)	-
40	VSS3	Power supply input terminal (0V)	-
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	O
47	-	Reserved	O
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.

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