

# FUJITSU Component Touch Panel Control Board (single input)

NC16B-0558-B760 / NC01850-B070RS / NC01850-B010RS/  
NC01850-B075RS / NC01850-B020RS

Control Board Quick Reference

## Features

- Control boards for resistive touch panels' single input
- Corresponds to USB interface
- Custom designs available
- RoHS compliant



- Major applications  
Operation panel for POS/ECS, copier, FAX, industrial and medical terminals.
- Control board part numbers and touch panels to be used with control board

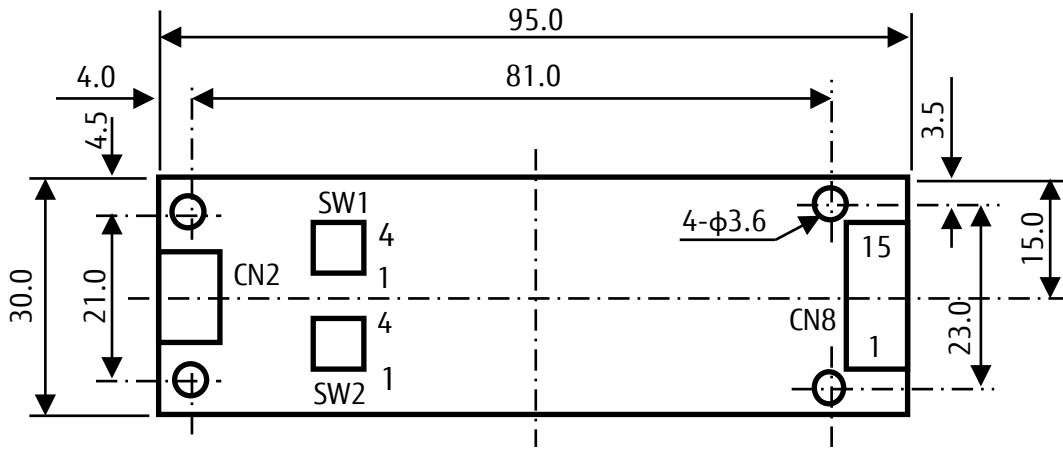
Part Number	Interface	Touch Panel series
N16B-0558-B760	USB full speed	5-wire (Film-glass)
NC01850-B070RS	RS232C	4-wire Custom light input load flush surface (Film-glass)
		4-wire Light input load environmental resistance type (Film-glass)
		4-wire (Film-glass) 4-wire custom (Film-film-plastic)
NC01850-B010RS	USB full speed	4-wire light input load (Film-glass)
NC01850-B075RS	RS232C	7-wire
NC01850-B020RS	USB full speed	7-wire

## ■ Specifications

Item	Specifications					
Part number	N16B-0558-B760 (5-wire)	NC01850-B070RS (4-wire)	NC01850-B010RS (4-wire)	NC01850-B075RS (7-wire)	NC01850-B020RS (7-wire)	
Interface	USB	RS232C	USB	RS232C	USB	
Transmission method	Control, interrupt	Asynchronous	Control, interrupt	Asynchronous	Control, interrupt	
Transmission speed	Full speed	9600 bps, 19200 bps	Full speed	9600 bps, 19200 bps	Full speed	
Sampling speed	100pps (max.)	200pps (max.)	100pps (max.)	200pps (max.)	100pps (max.)	
Resolution	16384 x 16384					
Power supply	5VDC±10%					
Current consumption	Operate	35mA	20mA	36mA	20mA	36mA
	Suspend	2mA	5mA	6mA	5mA	6mA
Operating temperature/humidity	-5°C to +60°C / 20%RH to 85%RH (no condensation)					
Storage temperature/humidity	-30°C to +70°C / 20%RH to 85%RH (no condensation)					
Dimension	95 x 30mm	75 x 30mm	75 x 30mm (including DIP lead)	75 x 30mm	75 x 30mm	

■ Dimensions

For USB interface: N16B-0558-B760 (5-wire)



Height of piece parts

From upper surface of PCB: 3.7mm (max.)

PCB thickness: 1.2mm

CN2: S6B-ZR-SM4(LF) (JST) or equivalent  
Mating connector  
Contact: SZH-002T-P0.5 (JST)  
Housing : ZHR-6 (JST)

CN8: SFW15R-1STAE1-LF (FCI)

Unit: mm

■ Pin assignment

CN2: S6B-ZR-SM4 (LF)(JST) or equivalent

Pin #	Signal
1	Vcc (5V)
2	D-
3	D+
4	Vss (0V)
5	Frame ground
6	N.C.

CN8: SFW15R-1STAE1-LF, (FCI)

Pin #	Signal	Pin #	Signal
1	-	9	-
2	-	10	Panel drive terminal LL
3	-	11	-
4	Panel drive terminal UR	12	Panel drive terminal LR
5	-	13	-
6	Panel drive terminal UL	14	-
7	-	15	-
8	Coordinate detect terminal		

■ DIP switch setting

DIP switch SW1\*

Knob #	Function
1	Panel coordinate origin setting
2	Panel coordinate origin setting
3	Panel coordinate origin setting
4	Coordinate mode setting

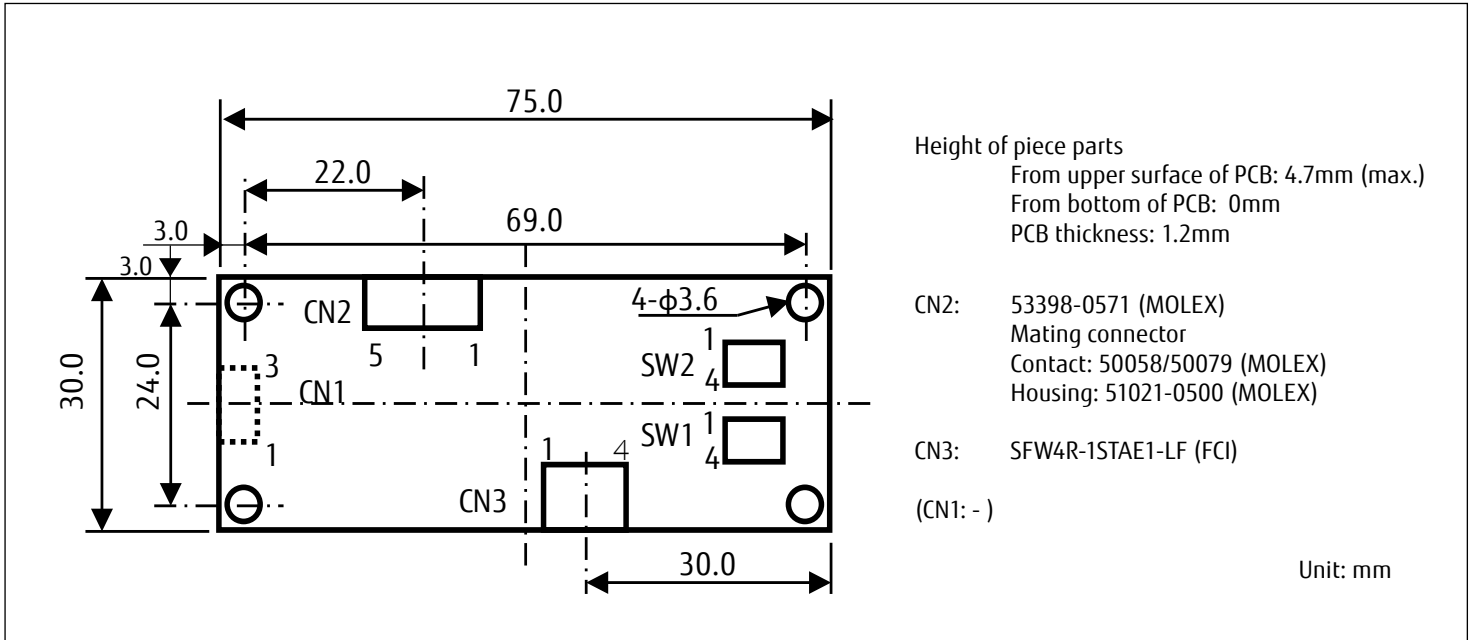
DIP switch SW2

Knob #	Function
1	Interface setting
2	-
3	Download mode setting
4	-

\*: Touch panel direction is decided by SW1 knob 1 to 3 setting.

■ Dimensions

For RS232C interface: NC01850-B70RS (4-wire)



■ Pin assignment

CN2

Pin #	Signal
1	Vcc (5V)
2	TXD
3	RXD
4	CTS
5	Vss (0V)

CN3

Pin #	Signal
1	Panel drive terminal 1
2	Panel drive terminal 2
3	Panel drive terminal 3
4	Panel drive terminal 4

■ DIP switch setting

DIP switch SW1\*

Knob #	Function
1	Panel coordinate origin setting
2	Panel coordinate origin setting
3	Panel coordinate origin setting
4	Coordinate mode setting

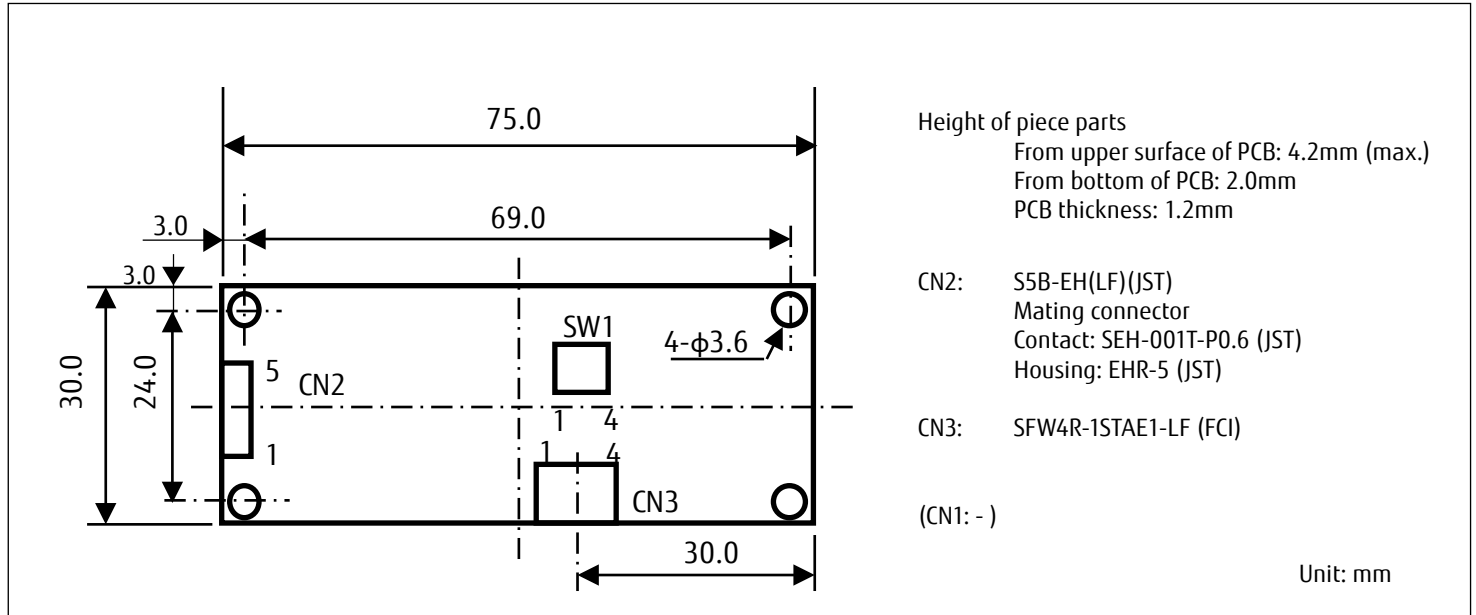
DIP switch SW2

Knob #	Function
1	PNP ID setting
2	PNP/NonPNP setting
3	Baud rate setting
4	-

\*: Touch panel direction is decided by SW1 knob 1 to 3 and SW2 knob 2 setting.

■ Dimensions

For USB interface: NC01850-B10RS (4-wire)



■ Pin assignment

CN2

Pin #	Signal
1	Vcc (5V)
2	D+
3	D-
4	VSS (0V)
5	Frame GND

CN3

Pin #	Signal
1	Panel drive terminal 1
2	Panel drive terminal 2
3	Panel drive terminal 3
4	Panel drive terminal 4

■ DIP switch setting

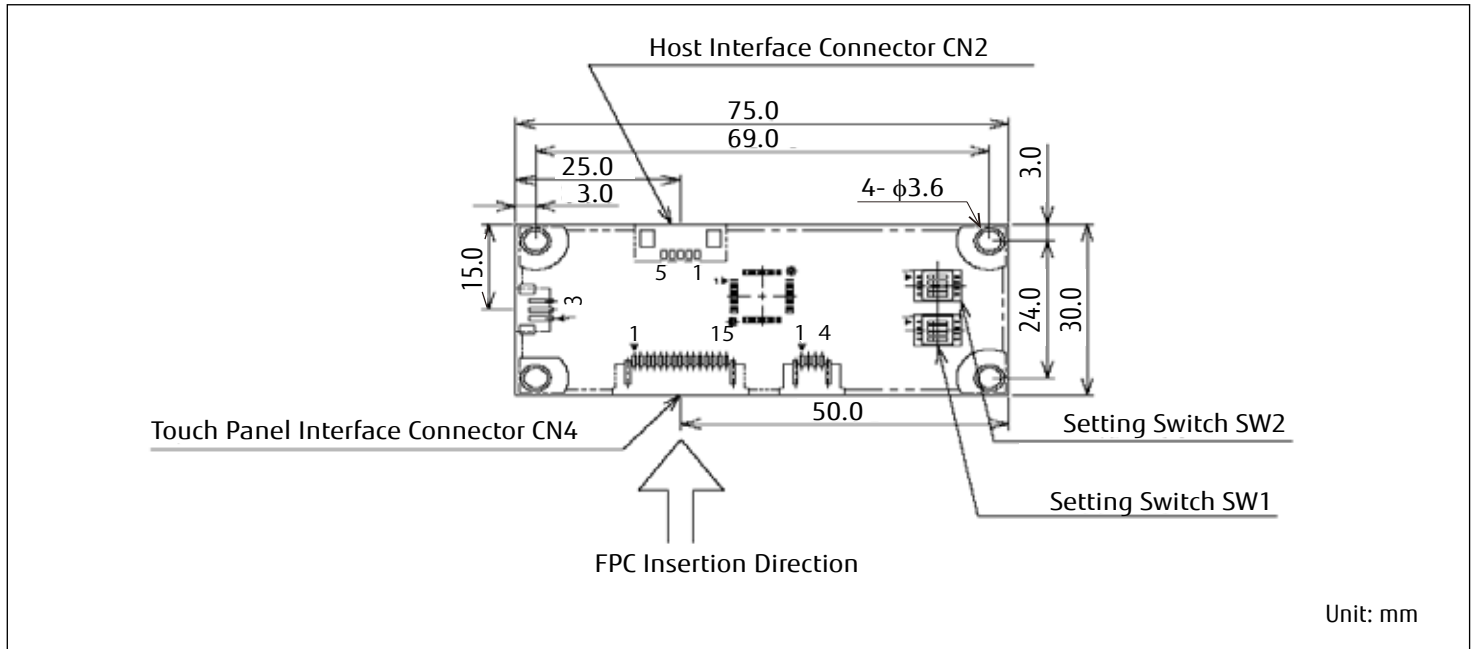
DIP switch SW1\*

Knob #	Function
1	Panel coordinate origin setting
2	Panel coordinate origin setting
3	Panel coordinate origin setting
4	Download mode setting

\*: Touch panel direction is decided by SW1 knob 1 to 3 setting.

■ Dimensions

For RS232C interface: NC01850-B075RS (7-wire)



Unit: mm

■ Pin assignment

CN2 (Serial connector)

P/N: 53398-0571 (Molex) or equivalent

Pin #	Signal	Description
1	Vcc	Vcc (5.0V)
2	TXD	Data output
3	RXD	Data input
4	CTS	PnP ID
5	Vss	Vss (0V)

CN4 (Connector for touch panel)

P/N: SFW15R-1STAE1-LF (FCI) or equivalent

Pin #	Signal	Specifications/standards
1	-	Unconnected
2	U	Electrode monitor terminal U
3	-	Unconnected
4	R	Electrode monitor terminal R
5	-	Unconnected
6	A	Panel drive terminal A
7	-	Unconnected
8	L	Electrode monitor terminal L
9	-	Unconnected
10	B	Panel drive terminal B
11	-	Unconnected
12	D	Electrode monitor terminal D
13	-	Unconnected
14	C	Coordinate detection terminal
15	-	Unconnected

■ DIP switch setting

DIP switch SW1

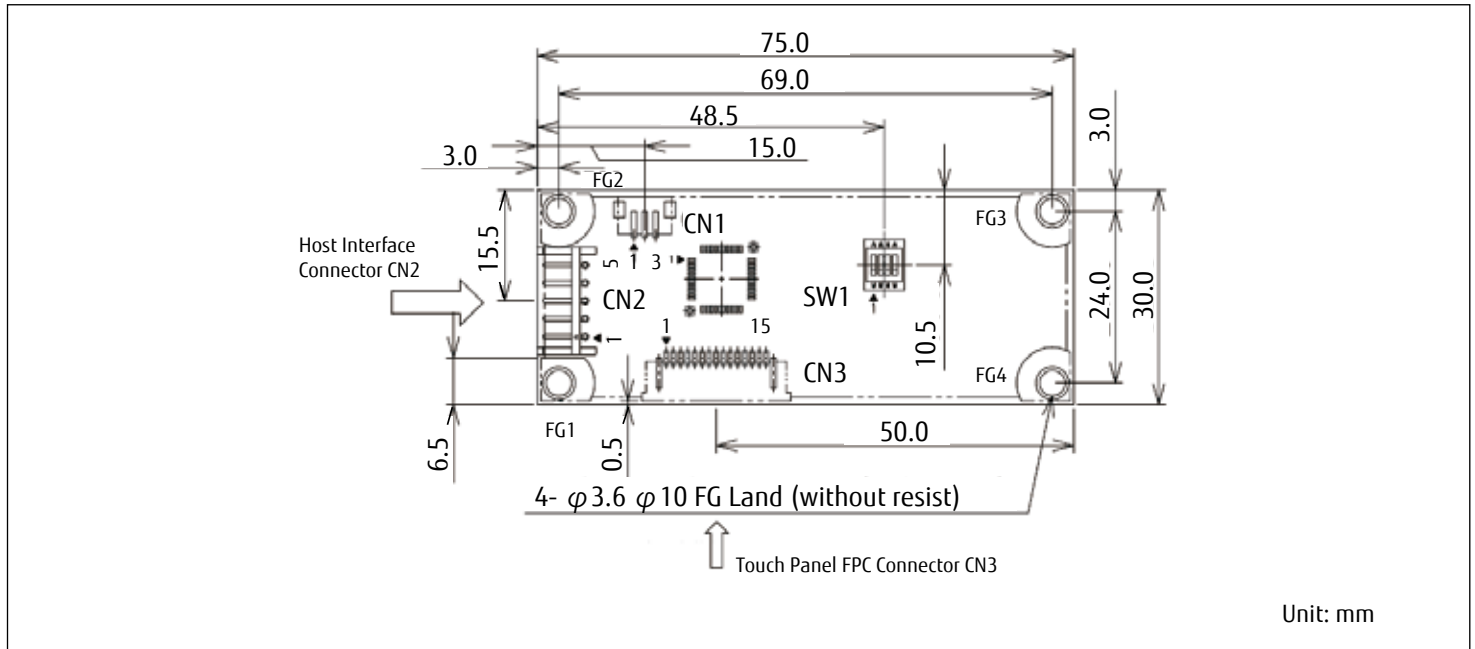
Knob #	Function
1	X-Y coordinate value is reserved
2	Y coordinate value is reserved
3	X coordinates are replaced
4	Reserve (download mode)

DIP switch SW2

Knob #	Function
1	PNP ID setting
2	Select PNP / Non PNP
3	Baud rate setting
4	Reserve

■ Dimensions

For USB interface: NC01850-B020RS (4-wire)



■ Pin assignment

CN2 (USB connector)  
P/N: S5B-EH (JST) or equivalent

Pin #	Signal	Description
1	V <sub>BUS</sub>	Vcc (5.0V)
2	D+	Data+ (signal)
3	D-	Data- (signal)
4	Ground	Vss (0V)
5	FG	Frame ground

DIP switch SW1

Knob #	Function
1	X-Y coordinate value is reserved
2	Y coordinate value is reserved
3	X coordinates are replaced
4	Reserve (download mode)

CN3 (Connector for touch panel)  
P/N: SFW15R-1STAE1-LF (FCI) or equivalent

Pin #	Signal	Specifications/standards
1	-	Unconnected
2	U	Electrode monitor terminal U
3	-	Unconnected
4	R	Electrode monitor terminal R
5	-	Unconnected
6	A	Panel drive terminal A
7	-	Unconnected
8	L	Electrode monitor terminal L
9	-	Unconnected
10	B	Panel drive terminal B
11	-	Unconnected
12	D	Electrode monitor terminal D
13	-	Unconnected
14	C	Coordinate detection terminal
15	-	Unconnected

■ Control IC

Part number	Output interface	Dimensions	Package
NC41120-0021*1	USB interface	7.0 x 7.0 x 1.7mm body, 48 pin SQFP	Tray
NC41120-0036	Serial (Asynchronous)	7.0 x 7.0 x 1.7mm body, 48 pin SQFP	Tray
NC41120-0051	USB interface	7.0 x 7.0 x 1.7mm body, 48 pin SQFP	Tray

\*1: This IC is specific for FID-1520 series

■ Option (Stylus pen)

Part number	Type	Specification
N010-0557-T002	Small	Tip : R0.8 Polyacetal resin, Pen point load: Approx. 0.33N, Diameter: 5.4mm, length: 110mm, weight: Approx. 3g, color: black
N010-0557-T011	Standard	Tip: R0.8 Polyacetal resin, Pen point load: Approx. 0.33N, Diameter: 8.0mm, length: 140mm, weight: Approx. 10g, color: light gray

Contact

<p><b>Japan</b> FUJITSU COMPONENT LIMITED Shinagawa Seaside Park Tower 12-4, Higashi-shinagawa 4-chome, Tokyo 140 0002, Japan Tel: (81-3) 3450-1682 Fax: (81-3) 3474-2385 Email: fcl-contact@cs.jp.fujitsu.com Web: www.fujitsu.com/jp/group/fcl/en/</p>	<p><b>Europe</b> FUJITSU COMPONENTS EUROPE B.V. Diamantlaan 25 2132 WV Hoofddorp Netherlands Tel: (31-23) 5560910 Fax: (31-23) 5560950 Email: info@fceu.fujitsu.com Web: emea.fujitsu.com/components/</p>	<p><b>China</b> FUJITSU ELECTRONIC COMPONENTS (SHANGHAI) CO., LTD. Unit 4306, InterContinental Center 100 Yu Tong Road, Shanghai 200070, China Tel: (86 21) 3253 0998 /Fax: (86 21) 3253 0997 Email: fcsh@cn.fujitsu.com www.fujitsu.com/cn/products/devices/ components/</p>	<p><b>Korea</b> FUJITSU COMPONENTS KOREA, LTD. Alpha Tower #403, 645 Sampyeong-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, 13524 Korea Tel: (82 31) 708-7108 Fax: (82 31) 709-7108 Email: fcal@sg.fujitsu.com www.fujitsu.com/sg/products/ devices/components/</p>
<p><b>North and South America</b> FUJITSU COMPONENTS AMERICA, INC. 1230 E. Arques Ave., MS 160 Sunnyvale, CA 94085 U.S.A. Tel: (1-408) 745-4900 Fax: (1-408) 745-4970 Email: components@us.fujitsu.com Web: http://us.fujitsu.com/components/</p>	<p><b>Asia Pacific</b> FUJITSU COMPONENTS ASIA, Ltd. 102E Pasir Panjang Road #01-01 Citilink Warehouse Complex, Singapore 118529 Tel: (65) 6375-8560 / Fax: (65) 6273-3021 Email: fcal@sg.fujitsu.com www.fujitsu.com/sg/products/devices/ components/</p>	<p><b>Hong Kong</b> FUJITSU COMPONENTS HONG KONG Co., Ltd. Room 06, 28/F, Greenfield Tower, Concordia Plaza, No.1 Science Museum Road, Tsim Sha Tsui East, Kowloon, Hong Kong Tel: (852) 2881 8495 Fax: (852) 2894 9512 Email: fcal@sg.fujitsu.com www.fujitsu.com/sg/products/devices/ components/</p>	

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