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Frame grabber cables for flat panel sensor

A8406 series



Various types of cables for frame grabber

A flat panel sensor adopting parallel video output requires a frame grabber cable for transmitting the digital video data to a frame grabber card installed in PC.
Frame grabber cables A8406 series are cables that connect the flat panel sensor to a frame grabber.
The A8406 series has high performance and high reliability as digital video cables, and they are also designed for EMC conformity. The wires are covered by double shielding and they have ferrite cores.

Selection guide

Frame grabber	Cable type no.	Cable length	Cable end	
General-purpose	A8406-51	5 m	10140-6000EL*1	open
	A8406-56	7 m		
	A8406-57	10 m		
	A8406-58	12 m		
IMAQ PCI-1424*2	A8406-52	5 m		PCS-XE100MA+*3
	A8406-53	7 m		
	A8406-54	10 m		
	A8406-55	12 m		

*1: Made by 3M Co. Ltd.
*2: Made by NI (National Instrument Corporation)
*3: Made by Honda Tsushin Kogyo Co. Ltd.

Refer to the datasheet for the flat panel sensor and choose a suitable cable for it. For compatibility with frame grabber boards, consult the frame grabber board manufacturers.

Cable for general frame grabber A8406-51/-56/-57/-58

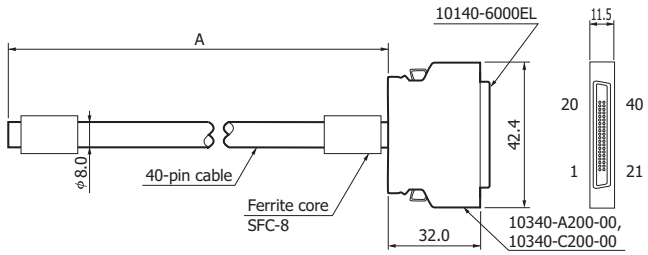
The A8406-51/-56/-57/-58 are cables that connect the flat panel sensor to a general frame grabber. One end of this cable has a 40-pin plug mating with the flat panel sensor digital output receptacle, but the other end is left open. Connect the open end to a plug that mates with the frame grabber to be used.

Cable color coding and specifications

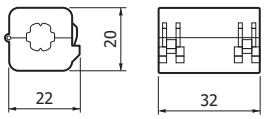
Pin no.	Signal	Cable color	Marking color	Pin no.	Signal	Cable color	Marking color
1	Data1+ (LSB)	Blue	-	21	Data1- (LSB)	Orange	-
2	Data2+	Green	-	22	Data2-	Brown	-
3	Data3+	Gray	-	23	Data3-	Red	-
4	Data4+	Black	-	24	Data4-	Yellow	-
5	Data5+	Pink	-	25	Data5-	Purple	-
6	Data6+	White	-	26	Data6-	Blue	Red (1)
7	Data7+	Orange	White (1)	27	Data7-	Green	White (1)
8	Data8+	Brown	White (1)	28	Data8-	Gray	White (1)
9	Data9+	Red	White (1)	29	Data9-	Black	White (1)
10	Data10+	Yellow	Black (1)	30	Data10-	Pink	Black (1)
11	Data11+	Purple	White (1)	31	Data11-	White	Blue (1)
12	Data12+*4	Blue	Red (2)	32	Data12-*4	Orange	White (2)
13	Data13+*5	Brown	Black (1)	33	Data13-*5	Gray	Black (1)
14	Data14+*6	Red	Black (1)	34	Data14-*6	Yellow	Red (1)
15	Reserved*7	Green	White (2)	35	GND	Brown	White (2)
16	Reserved*7	Gray	White (2)	36	GND	Red	White (2)
17	ExtTrgGrb (TTL)	Black	White (2)	37	IntExt (TTL)	Yellow	Black (2)
18	Vsync+	Pink	Black (2)	38	Vsync-	Purple	White (2)
19	Hsync+	White	Blue (2)	39	Hsync-	Blue	Black (1)
20	Pclk+	Orange	Black (1)	40	Pclk-	Green	Black (1)

Note: Numbers in parentheses of "Marking color" item show marking number.
*4: MSB for 12-bit
*5: MSB for 13-bit
*6: MSB for 14-bit
*7: The signals connected to these pins depend on each devices. Refer to the datasheet for the flat panel sensor.

Dimensional outline (unit: mm, tolerance unless otherwise noted: ±1)



Ferrite core: SFC-8



Cable type no.	A
A8406-51	5000 ± 140
A8406-56	7000 ± 140
A8406-57	10000 ± 200
A8406-58	12000 ± 200

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Cable for IMAQ PCI-1424 frame grabber A8406-52/-53/-54/-55

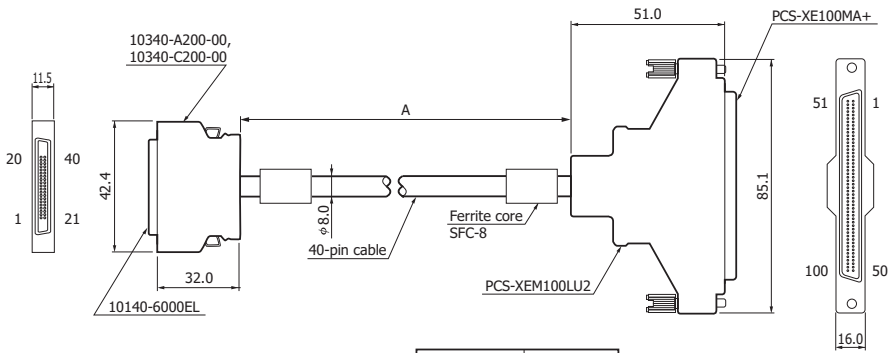
The A8406-52/-53/-54/-55 cable are designed to connect the flat panel sensor to the National Instrument IMAQ PCI-1424 digital frame grabber board. Both ends of this cable have connectors. One end is a 40-pin plug mating with the flat panel sensor digital output receptacle, while the other end is a 100-pin plug for the IMAQ PCI-1424.

Pin connection for A8406-52

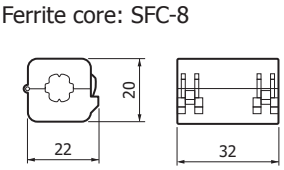
10140-6000EL Pin no.	Signal	PCS-XE100MA+ Pin no.	10140-6000EL Pin no.	Signal	PCS-XE100MA+ Pin no.
1	Data1+ (LSB)	1	21	Data1- (LSB)	2
2	Data2+	3	22	Data2-	4
3	Data3+	5	23	Data3-	6
4	Data4+	7	24	Data4-	8
5	Data5+	9	25	Data5-	10
6	Data6+	11	26	Data6-	12
7	Data7+	13	27	Data7-	14
8	Data8+	15	28	Data8-	16
9	Data9+	17	29	Data9-	18
10	Data10+	19	30	Data10-	20
11	Data11+	21	31	Data11-	22
12	Data12+*8	23	32	Data12-*8	24
13	Data13+*9	25	33	Data13-*9	26
14	Data14+*10	27	34	Data14-*10	28
15	Reserved*11	33	35	GND	99
16	Reserved*11	35	36	GND	100
17	ExtTrgGrb (TTL)	37	37	IntExt (TTL)	39
18	Vsync+	41	38	Vsync-	42
19	Hsync+	43	39	Hsync-	44
20	Pclk+	49	40	Pclk-	50

*8: MSB for 12-bit
*9: MSB for 13-bit
*10: MSB for 14-bit
*11: The signals connected to these pins depend on each devices. Refer to the datasheet for the flat panel sensor.
Note: The two types of output are available with flat panel sensors: RS-422 and LVDS. Select a digital frame grabber that matches the output type of the flat panel sensor.

Dimensional outline (unit: mm, tolerance unless otherwise noted: ±1)



Cable type no.	A
A8406-52	5000 ± 140
A8406-53	7000 ± 140
A8406-54	10000 ± 200
A8406-55	12000 ± 200



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Information described in this material is current as of September, 2014.
Product specifications are subject to change without prior notice due to improvements or other reasons. This document has been carefully prepared and the information contained is believed to be accurate. In rare cases, however, there may be inaccuracies such as text errors. Before using these products, always contact us for the delivery specification sheet to check the latest specifications.

The product warranty is valid for one year after delivery and is limited to product repair or replacement for defects discovered and reported to us within that one year period. However, even if within the warranty period we accept absolutely no liability for any loss caused by natural disasters or improper product use.
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