Application Note

Summary: IEEE 1394 cable wiring

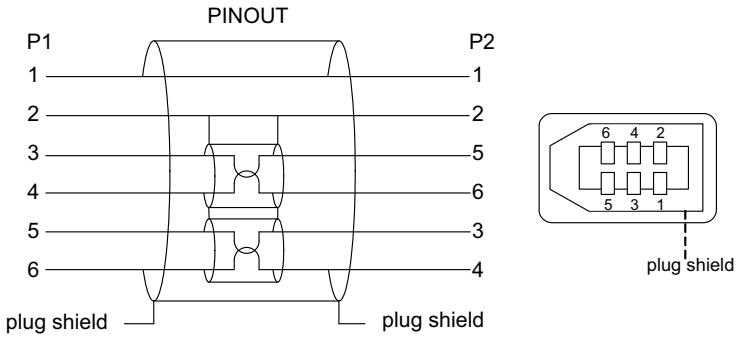
(According to IEEE Std 1394TM-1995 and 1394bTM-2002)

Scope of this document

This document shows cable wiring for:

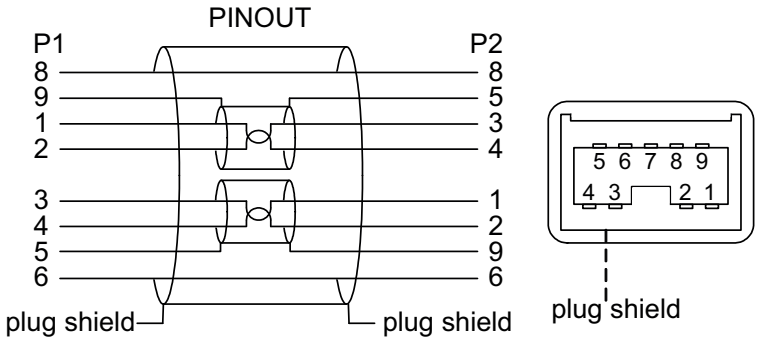
Note Connectors are viewed as looking at the front plug face.

IEEE 1394a



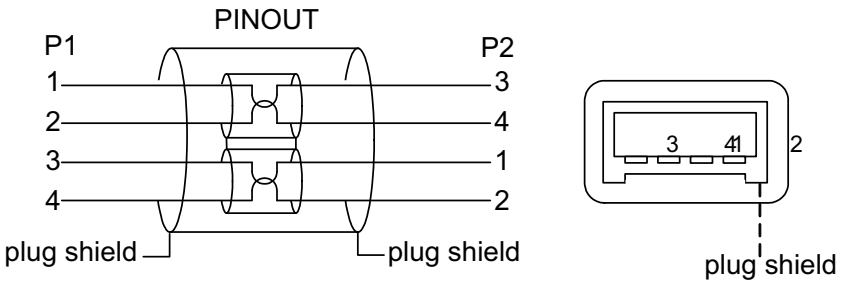
Plug 1	Signal name at plug 1 end	Plug 2
1	V_P (Power Voltage)	1
2	V_G (Power Ground)	2
3	TPB* (Twisted Pair B minus)	5
4	TPB (Twisted Pair B plus)	6
5	TPA* (Twisted Pair A minus)	3
6	TPA (Twisted Pair A plus)	4
Plug shield	Cable outer shield	Plug shield

IEEE 1394b



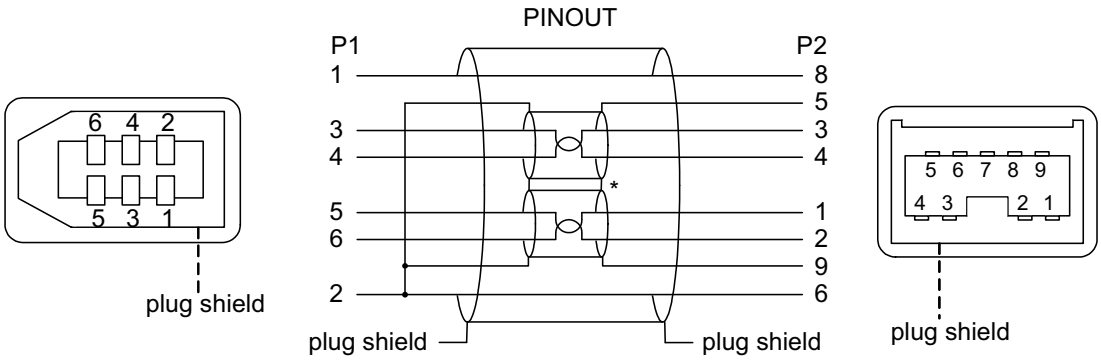
Plug 1	Signal name at plug 1 end	Plug 2
1	TPB* (Twisted Pair B minus)	3
2	TPB (Twisted Pair B plus)	4
3	TPA* (Twisted Pair A minus)	1
4	TPA (Twisted Pair A plus)	2
5	TPA (R) (Twisted Pair A ground reference)	9
6	V_G (Power Ground)	6
7	No connection	7
8	V_P (Power Voltage)	8
9	TPB (R) (Twisted Pair B ground reference)	5
Plug shield	Cable outer shield	Plug shield

IEEE 1394 i.LINK™



Plug 1	Signal name at plug 1 end	Plug 2
1	TPB* (Twisted Pair B minus)	3
2	TPB (Twisted Pair B plus)	4
3	TPA* (Twisted Pair A minus)	1
4	TPA (Twisted Pair A plus)	2
Plug shield	Cable outer shield	Plug shield

IEEE 1394 legacy (9-pin to 6-pin)



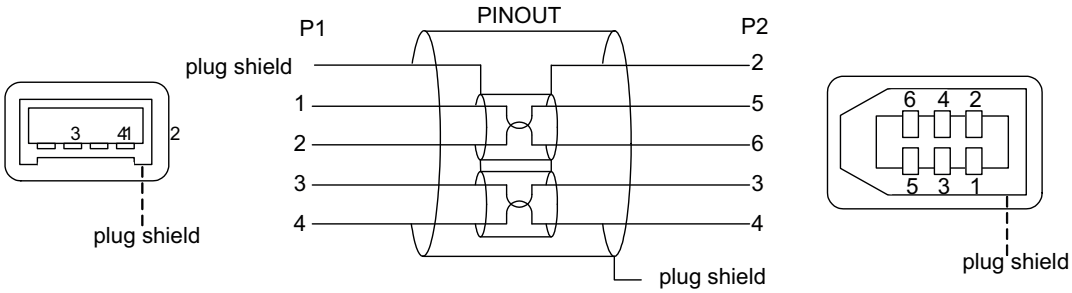
Note

Twisted pair shields are only connected by using cable material according to IEEE Std 1394^{TM}-1995.

If cable material according to IEEE Std 1394b^{TM}-2002 is used, twisted pair shields are **not connected** inside the cable.

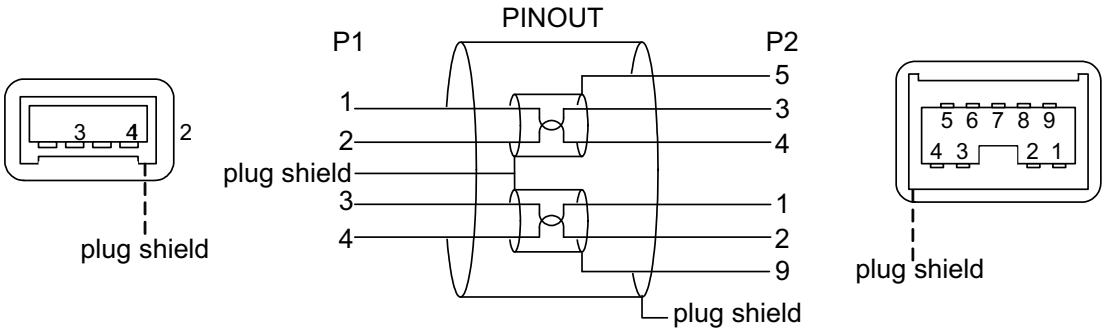
Plug 1	Signal name at plug 1 end	Plug 2
5	TPB* (Twisted Pair B minus)	1
6	TPB (Twisted Pair B plus)	2
3	TPA* (Twisted Pair A minus)	3
4	TPA (Twisted Pair A plus)	4
2	TPA (R) (Twisted Pair A ground reference)	5
2	V_G (Power Ground)	6
	No connection	7
1	V_P (Power Voltage)	8
2	TPB (R) (Twisted Pair B ground reference)	9
Plug shield	Cable outer shield	Plug shield

IEEE 1394 (6-pin to 4-pin)



Plug 1	Signal name at plug 1 end	Plug 2
	V_P (Power Voltage)	1
Plug shield	V_G (Power Ground)	2
3	TPB* (Twisted Pair B minus)	3
4	TPB (Twisted Pair B plus)	4
1	TPA* (Twisted Pair A minus)	5
2	TPA (Twisted Pair A plus)	6
	Cable outer shield	Plug shield

IEEE 1394 legacy (9-pin to 4-pin)



Plug 1	Signal name at plug 1 end	Plug 2
3	TPB* (Twisted Pair B minus)	1
4	TPB (Twisted Pair B plus)	2
1	TPA* (Twisted Pair A minus)	3
2	TPA (Twisted Pair A plus)	4
Plug shield	TPA (R) (Twisted Pair A ground reference)	5
	V_G (Power Ground)	6
	No connection	7
	V_P (Power Voltage)	8
Plug shield	TPB (R) (Twisted Pair B ground reference)	9
	Cable outer shield	Plug shield

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