Apple Ethernet Twisted Pair Transceiver (7/93)

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TOPIC ---

I have a question concerning the Apple Ethernet Twisted Pair Transceiver. I was told that 10BaseT Ethernet only requires 4 conductors (2 twisted pair) which means it could be used with an RJ-11 connector. The Apple Ethernet Twisted Pair Transceiver ships with a cable that has 8 conductors (4 twisted pair) using an RJ-45 connector.

Why ship the cable with 4 extra conductors if they are not used? What are these extra conductors used for? Which colors are used and which are for other purposes in the cable sent from Apple?

DISCUSSION ---

You are correct, 10BaseT 802.3 only requires 4 conductors. You could indeed wire up a 10BaseT Ethernet network using RJ-11 connectors. The other 4 conductors are not used.

The reason the Apple Ethernet Twisted Pair Transceiver uses an RJ-45 connector is because the 10BaseT addendum to the 802.3 standard specifies an RJ-45 connector. Here are the pin assignments:

Pin	Signal
1	TD+
2	TD-
3	RD+
4	Not used by 10BaseT
5	Not used by 10BaseT
6	RD-
7	Not used by 10BaseT
8	Not used by 10BaseT

Pinout for RJ-45 connector receptacle:

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  1 2 3 4 5 6 7 8
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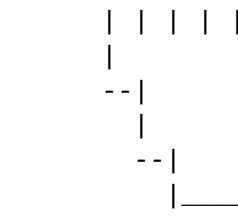

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