

# 1 75 Ohm Network Connection

For 75 ohm network connections, the connection of the network input and output ports on the E1 card to the network termination port (NTP) is via coaxial cables, with a nominal impedance of 75 ohms, terminated with a 75 ohm BNC plug.

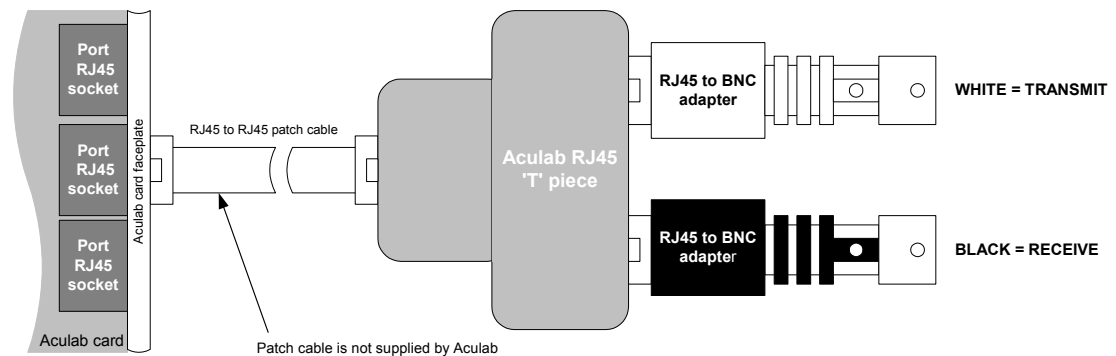
**Note** There may be maximum cable lengths imposed by the PTO.

**Note** The correct identification of the input and output of the network termination ports is the responsibility of installation personnel.

**Note** On later Aculab cards, different line termination impedances may be selected for different E1 trunks on the same card.

**Note** Besides E1 and T1 ports requiring different firmware, E1 firmware also needs to support both 75 and 120ohms, for example, ETS300 firmware uses a switch `-s61, 1` for 75ohms (default 120ohms), but E1 DASS requires the firmware DASS75 for 75ohms working. Refer to the specific protocol release notes for further details.

To connect to 75Ω E1 circuits an RJ45 to BNC adapter is used. The correct configuration of the adapter is shown below:



The pin out for the RJ45 to RJ45 patch cable is direct, for example, 1 to 1, 2 to 2 etc...

## Grounding option

Extending ground from the Aculab card to both BNC connectors is possible using a screened RJ45 to RJ45 patch cable and an Aculab screened RJ45 T piece.

The RJ45 T piece is only screened if specifically requested.

An Aculab screened RJ45 T piece has internal connections from the outer screening to both the transmit ring and receive ring pins.

**CAUTION** An Aculab screened RJ45 T piece must always be grounded through a screened patch cable connecting to the Aculab card; failure to do so could affect signal integrity on the trunk.

**CAUTION** An Aculab screened RJ45 T piece may not be used for connection to an Aculab passive monitor card. Only the unscreened version is permitted with passive monitor.