

PRI and E1 Monitoring on the Primary Rate Interface with Duet

In many primary rate E1 circuits, protected monitoring points (PMP) are provided to maintain system integrity and security when connecting test and monitoring equipment.

Application Note ANDUET_5

Testing the World's Digital Networks



TrendCommunications

PRI AND E1 MONITORING .

Protected Monitoring Point Problems - Amplifier Accessory for auroraDuet

In many primary rate E1 circuits, protected monitoring points (PMP) are provided to maintain system integrity and security when connecting test and monitoring equipment. By connecting a series resistance (R - see Figure 1), these points provide signal levels at -20 to -30dB of line level (G.703). Unfortunately the series resistance also inserts an impedance mismatch to the tester causing excessive line loss in test cables where they exceed 1 metre in length and reduced noise immunity.

To address these problems, a specially designed matched amplifier is now available as an accessory option for all Trend products with E1 interfaces.

The auroraDuet is designed to monitor effectively on most types of protected monitoring points but where line levels are outside G.703 specifications prior to the PMP or longer monitoring cables are required, the amplifier will provide compensation. Figure 1 details the test configuration.

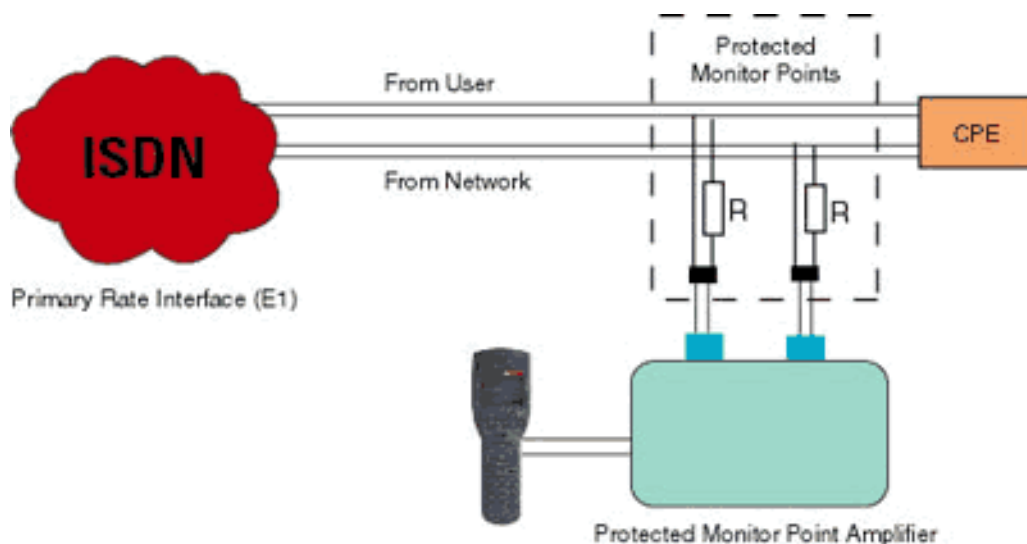
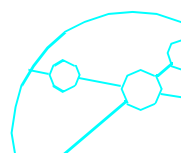


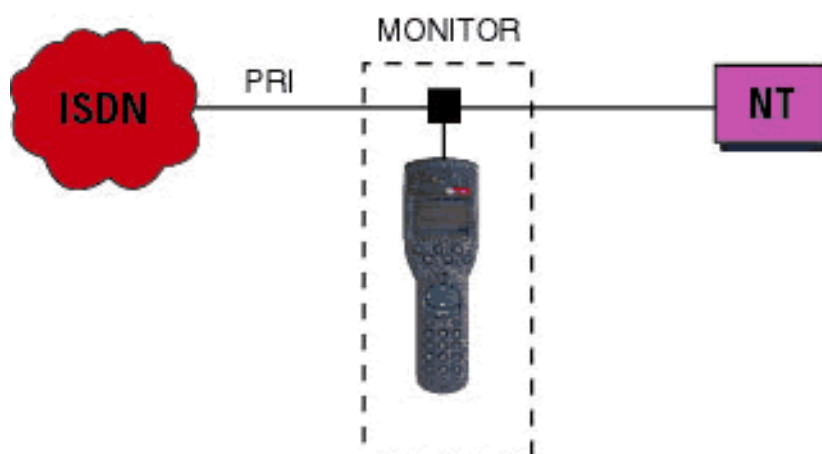
Figure 1

PMP monitor test configuration.tion.



Monitoring Physical Alarms - Improved Signal Source Detail on auroraDuet

Many Layer 1 and ISDN testers available on the market provide confusing, difficult to interpret or non-existent physical alarm information. It can be impossible to understand the direction, the nature or the source and location of the alarm. This makes fault location impossible.



Certain L1 alarms such as 'Loss of Frame Alignment' or 'No Signal' are generated at the tester whilst others (AIS, RAI etc.) are generated by the line equipment.

The auroraDuet will identify clearly whether this is a local (tester) or line (network) generated alarm. It will also clearly identify the direction in both in physical and network terms from which the alarm originated.

The software functionality detailed above is available in the latest release of auroraDuet software. Please contact your Local Vendor or the Trend Communications Ltd Customer Support Hotline (tel: +44 1628 851085) for further information.





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