# AzLM ISDN DSL Comparison HITACHI



As a result of obsolescence to ISDN modems, all future AzLM hardware will utilise DSL modems.

## **ISDN - Integrated Services Digital Network**

Maximum attenuation per line 26 dB with middle frequency of 40 KHz DSL - Digital Subscriber Line

Maximum attenuation per line 33.8 dB with middle frequency of 90 KHz

DSL has a higher centre frequency which will move the data circuit away from known harmonic interference zones generated by rolling stock.

## The change to DSL Modems does not affect

- Existing installations. ISDN spares can still be used. ISDN equipment can be repaired by Hitachi Germany by following the repair and returns process.
- Rail contact, ACE Sub Rack and lineside cabling infrastructure can support both ISDN and DSL hardware.

#### The change to DSL Modems will affect

- New installations. All new installations will utilise new DSL hardware. The new hardware includes.
- DSL K-Type EAK
- DSL H-Type EAK digital board
- DSL serial I/O board
- DSL Ethernet Converter
- DSL V.24 Converter

ISDN and DSL variants can be identified by the part number. It is important that the modem type must match at both ends of the communications circuit. A mix of ISDN and DSL can be used within the same ACE.





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