



RFL TECHNICAL PRODUCT NOTE HDSL 100

RFL Communications plc

The HDSL 100 has been designed to support high data rate connections over copper pilot cables.

This has numerous applications within the utility and telecom market, providing a mechanism for interfacing digital services and coping with increased demands for bandwidth over existing copper pilots.

The product is available as a standalone unit or module for the UMUX1200/1500 multiservice platform.

Both units share the same performance characteristics:

Line Code	Line Rate Kbit/s	Permissible Attenuation		
		Low noise (dB)	Typical noise (dB)	High noise (dB)
CAP or PAM 16	1168	37	32	22
CAP or PAM 16	2320	29	24	12

2B1Q line coding reduces the link budget by approximately 5db.

The average loss of a copper pilot with a conductor diameter of 1.0mm is 3dB per km, giving a potential communication distance of 10km.

Applications:

- Increasing data throughput of SCADA and event reporting equipment.
- Upgrade of control and protection equipment to products with digital asynchronous or synchronous digital n x 64Kbit/s interfaces.
- Extending Ethernet/LAN services.
- High quality remote video surveillance/monitoring.



RFL provide a complete package that includes line isolation equipment specifically for applications within sub-station environments.

Technical Data

Main characteristics:	Selectable service rates Line code Management Integration	64Kbit/s to 2304Kbit/s CAP/PAM/2B1Q UCST/UNEM UMUX1200/1500
Transmission:	Multiple rate	Up to 2304Kbit/s Over one twisted pair
Router/Bridge Functionality:	LAN/WAN protocols	Yes (configuration option)

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