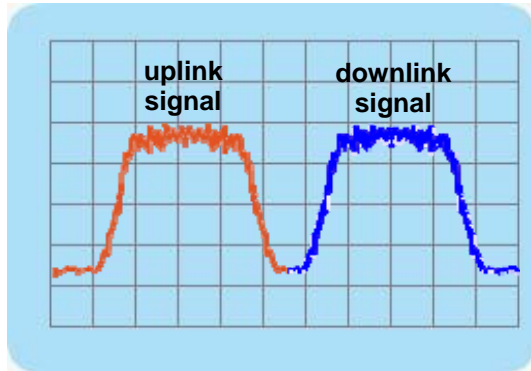




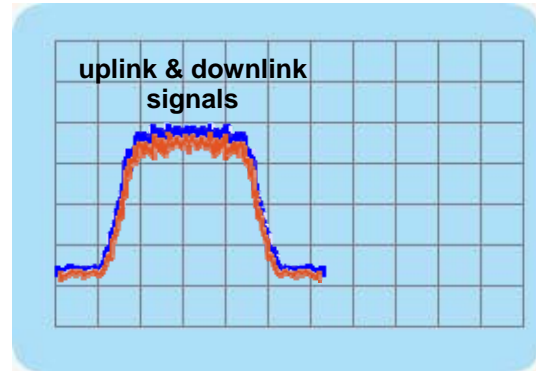
ALL THE TECHNIQUES SHOWN CAN BE USED TOGETHER

PAIRED CARRIER (CARRIER OVERLAP)

All Paradise Datacom Satellite Modems offer Paired Carrier, which uses ViaSat's patented PCMA signal cancellation technology to allow two carriers to occupy the same satellite bandwidth.



Typical satellite transmission with separate frequency slots for uplink and downlink



Using Paired Carrier, uplink and downlink carriers overlaid, saving up to 50% on space segment

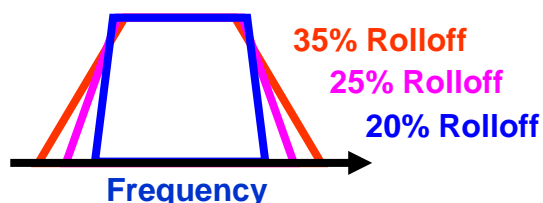
LDPC AND DVB-S2 TECHNOLOGY

LDPC is a very robust and powerful FEC scheme. Existing users of Turbo Coding should consider changing to LDPC for greater bandwidth efficiency. LDPC is available on all Paradise Datacom Modems. **Typical savings are 30% over Turbo coding.**

SAT-ABIS GSM BACKHAUL OPTIMIZER

Designed specifically for GSM Backhaul optimization by removing silence packets, idle data packets and null signalling packets, **typically achieving more than 50% bandwidth saving.** Operates with 2G Voice, 2.5G Data and EDGE over Abis.

FILTER ROLLOFF FACTORS



Reducing carrier rolloff instantly saves bandwidth

Traditional IBS/IDR Modems use 35% Rolloff Factor but the latest Paradise Datacom Modems offer additional bandwidth saving Rolloff Factors of 25% and 20%.