



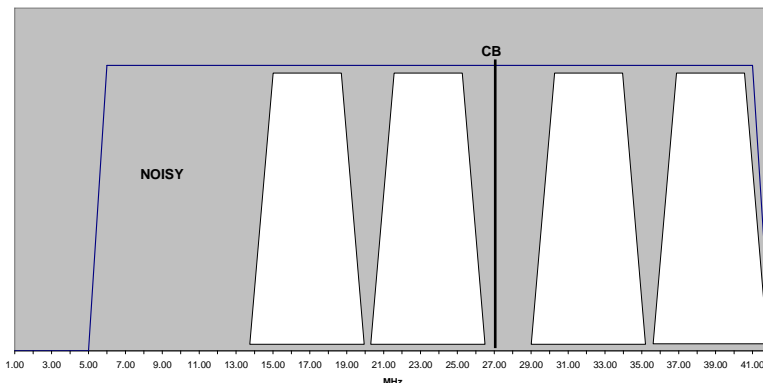
CableServ Extended Upstream Bandwidth Upgrades



DOCSIS 3.0 Channel Bonding has bought you some time and capacity, but are you up against that 42MHz Upstream Bandwidth wall?

Given the Noise and Interference in the lower part of the sub-low band, as well as the potential for CB interference at 27MHz, we can fit at most 4 6.4MHz DOCSIS 3.0 channels in the 5-42MHz band.

5-42MHz RETURN PATH WITH 4 6.4MHz DOCSIS 3.0 CHANNEL LOADING
TOTAL THROUGHPUT 108Mb/s



Most Cable Telecommunications actives deployed in major markets have sufficient Forward bandwidth to allow relinquishing 20-40MHz in order to improve Upstream capability. With the transition to "All Digital" and the cessation of Analog over-the-air broadcasts, this conversion has far less obvious subscriber impact than would have been the case several years ago.

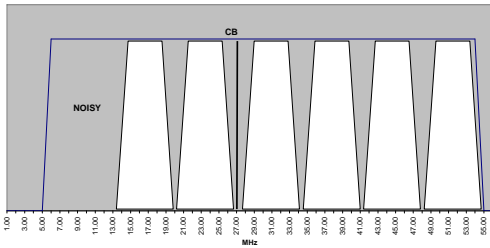
Any currently deployed broadband amplifier or optical node can be upgraded to mid-split operation.

Mid-split Return/Forward frequencies are most commonly offered as 55/75MHz, 65/85MHz and 85/105MHz. It is however, possible to offer any desired bandsplit provided that sufficient bandwidth separation (>20% of crossover center frequency) is considered.

When employing DOCSIS 3.0, very little additional upstream bandwidth is required to realize dramatic throughput improvement. DOCSIS 3.0 devices support operation to 85MHz or higher.



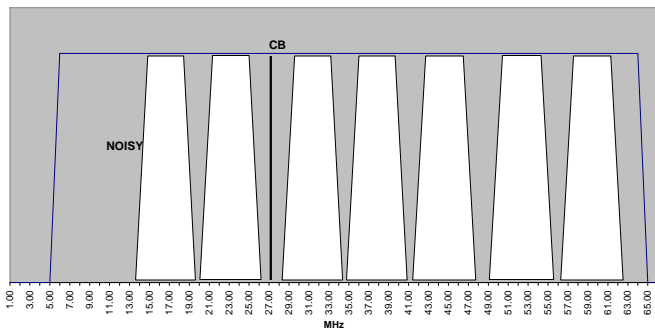
5-55MHz RETURN PATH 6 6.4MHz DOCSIS 3.0 CHANNEL LOADING
162Mb/s TOTAL THROUGHPUT



An increase of upstream bandwidth to 5-55MHz will allow a throughput of 162Mb/s (an increase of 50%)

An increase of upstream bandwidth to 5-65MHz will allow a throughput of 189Mb/s (an increase of 75%)

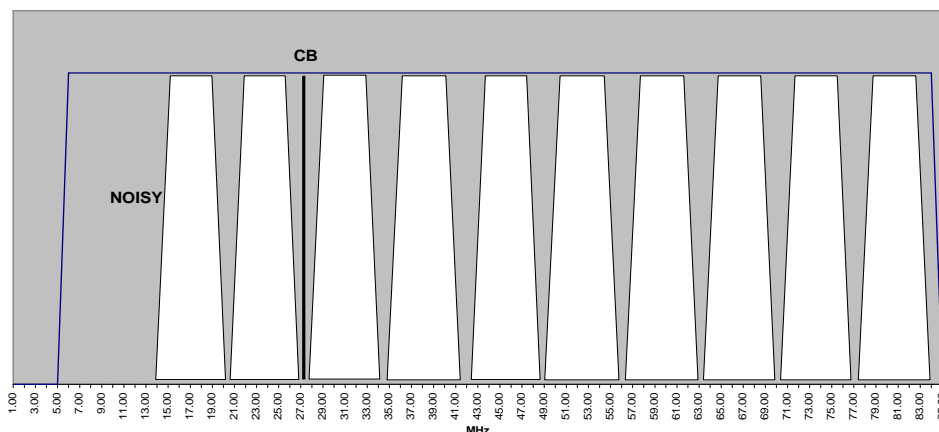
5-65MHz RETURN PATH 7 6.4MHz DOCSIS 3.0 CHANNEL LOADING
189Mb/s TOTAL THROUGHPUT



An increase of upstream bandwidth to 5-85MHz will allow a throughput of 270Mb/s (an increase of 125%)

As there are a wide variety of deployed broadband active devices, cost and complexity of increasing upstream bandwidths will vary by manufacturer and model, but the process is routinely performed by CableServ on all popular brands.

5-85MHz RETURN PATH 10 6.4MHz DOCSIS 3.0 CHANNEL LOADING
270Mb/s TOTAL THROUGHPUT



For more information, contact CableServ Inc. at

CableServ Inc.
1 905-629-1111
(800) 668-2033
inquiries@cableserv.com
www.cableserv.com