

### jonsson\_3cy\_01\_1028 - Channel Capacity Calculator Version 1.0

	Upstream	Downstream
<b>Requirements</b>		
Data Rate [Gbps]:	25	25
Target RS-FEC output BER:	1.00E-12	1E-12
Cable Length [m]:	8	8
Wire u-reflections [dB]:	-40	-40
Number of Connectors:	4	4
<b>Modulation</b>		
PAM Levels:	4	4
FEC Block Size (n):	360	360
FEC Data Size (k):	326	326
RS-FEC Correction Efficiency:	100%	100%
Bits per FEC Symbol:	10	10
TDD Time Duty-Cycle:	100%	100%
<b>Transmit Signal</b>		
PSD-mask:	PSD_brick	PSD_brick
Transmit Power [dBm]:	0	0
<b>Design Tradeoff</b>		
Impulse Error Rate:	1.00E-04	0.0001
AFE-noise [dB/Hz]:	-150	-150
EC cancelation [dB]:	5	5
EC Connector cancelation [%]:	100%	100%
Implementation Loss [dB]:	6	6
<b>Simulation Parameters</b>		
Cable Model:	eq149-18	
Connector Echo Model:	hard	
Max Simulation Frequency:	9.00E+09	

<b>Calculated Values</b>		
	Upstream	Downstream
Theoretical Slicer SNR [dB]:	26.98	26.98
Estimated Slicer SNR [dB]:	20.98	20.98
Required Slicer SNR [dB]:	17.78	17.78
SNR Margin [dB]:	3.20	3.20
Nyquist Frequency [GHz]:	6.90	6.90

