

Comparison of FEC proposals

	Stream-FEC (S-FEC)	Frame-FEC (F-FEC)	Comments
Backwards Compatibility	No	Yes	Are there any EPON transceivers out there today?
Overhead	8% (independent of traffic)	14% (function of traffic)	The MAC rate needs to be reduced correspondingly
Complexity	Low	Medium	F-FEC layer is an enhanced PCS layer under existing PCS layer.
Protection	Equal protection of all bits	Only MAC frames are protected	
Upper layer Awareness	Yes	Yes	If Phy-rate is increased, S-FEC can be transparent to upper layers
Delay due to FEC	~416 bytes	~2389 bytes	Jitter effects PON performance. Latency needs to be tightly controlled in F-FEC
Prior field experience	Proven (G.975)	New technology	