

Scenario (Tabs)	Scenario	1					
HFC D/S Spectrum	Example	85 MHz					
Cascade Depth	Example	30	RF Amplifiers				
Channel Loading	Example	Linear DFB Optics 1310 nm, nominal link length					
Optical Architecture	Example	No HE Combining					
Premise Architecture	Example	No Combining					
		#	Parameters	Typical	Limit	Good	Notes
Spectrum		1	OFDM Bandwidth	192 MHz	24 MHz		
		2	Frequency range	5-85 MHz			Freq dependence for high split
RF Level		3	OFDM Power at CMTS Input (Total +/- dB)				
			6 MHz BW				*scaling factor vs freq notes section
			24 MHz BW				POE GW Model
			96 MHz BW				
			192 MHz BW				
Signal-to Composite-Noise-Ratio		4	SCN Ratio (Signal to Composite Noise Ratio)				NPR basis for performance values
			Variation Freq, 6.4 MHz BW				
			Variation Freq, 24 MHz BW				
			Variation Freq, 96 MHz BW				
			Variation Freq, 192 MHz BW				
Interference		5	FM Band Interference				"always on"
	"Narrowband"		Bandwidth			None (out of band)	
			Level, dBc (PSD)			None (out of band)	
		6	Other Known Bands (review possible interference bands)				
		7	Common Path Distortion				
		8	Additive Spurious interference (other)				
			dBc/10 kHz				
			Percentage of effected subcarriers				
Wideband		9	Burst noise (spectrum, duration, duty, dBc)	meas initiative	SCTE-40 or DOCSIS	Negligible	Moto Meas
		10	Impulse noise (white, duration, duty, dBc)			"Only Laser Clipping"	Ref: SCTE-40, CL RFI, ReDesign, Meas
Freq Response		11	Amplitude Variation				Does not include Multipath effect
			(dB pk-pk/6.4 MHz)				
			(dB pk-pk/24 MHz)				
			(dB pk-pk/192 MHz)				
			(dB pk-pk/Total US BW)				
Amplitude		12	Amplitude Slope (dB/MHz, dB/kHz) peak slope				
Phase		13	Group Delay Variation				Include 2nd order component
			(ns/MHz over 4 MHz)				
			(ns/MHz over 24 MHz)				
			Lower Band Edge				
			Mid Band				
		Upper Band Edge					
			(ns/MHz over 192 MHz)				
			Lower Band Edge				
			Mid Band				

			Upper Band Edge				
Echo	14	Echo Profile, Delay Spread (μ s)		99%	use CL data instead of SCTE-40	Majority	amplitude ripple implied, not included in freq response
		.5 usec					not all dBc echoes occur at once - mask!
		1 usec					single echo or multiple (max, rss)
		1.5 usec					SCTE-40 limit 4.5 usec
		2 usec					
		3 usec					
		4.5 usec					
		5 usec					
Unused	15	AM/Carrier hum modulation					
		MER					Perhaps identify a Tx Fidelity reference value (i.e. 43 dB of DRFI)
		AM/PM (deg/dB for > 10 kHz AM)					TBD if needed
		Phase Noise Mask					Reference Only
		dBc/Hz @ 1 kHz		-90			To be defined in "DRFI" equivalent
		dBc/Hz @ 10 kHz		-90	-86		Not "Channel" impairment
		dBc/Hz @ 50 kHz		-90		Low Freq Scale?	DRFI + "J.83B Compliant" Tuner
		dBc/Hz @ 100 kHz		-110			
		dBc/Hz @ 1 MHz		-130			
		dBc/Hz @ 3 MHz (floor)		-139			
		Discrete SPM					Reference Only
		Total dBc in any 10 kHz offset					To be defined in "DRFI" equivalent
		Total dBc in any 50 kHz offset					Not "Channel" impairment
		Implementation Loss					Not Channel Model info,
		\leq 256-QAM					implementation/vendor specific
		\leq 512-QAM					
		\leq 1024-QAM					
		\leq 2048-QAM					
		\leq 4096-QAM					