

COM Commit Requests: 4p6_1, 4p6_2, 4p6_3

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Commit Requests for COM 4.7

- ❑ [4p6_1] Change MLSE_U1_c_178A code module to align with shakiba_3dj_01_2407
 - Submitter: Rich Mellitz
- ❑ [4p6_2] Change MLSE_U1_c_178A code module to align with healey_3dj_01a_2407
 - Submitter: Rich Mellitz
- ❑ [4p6_3] Change read_ParamConfigFile code module to align clean up package syntax in configuration spreadsheet to no longer require dummy Zp and Zc entries
 - Submitter: Rich Mellitz

- ❑ Adjust support files
 - adjust read_ParamConfigFile for new commands
 - Add to comments to file zzz_list_of_changes.m

Commit request 4p6_1

shakiba_3dj_01_2407

❑ Added parameter.

- **N_tc** is trunc in shakiba_3dj_01_2407 slide 6 ff representing sequence truncation. Units are number of symbols considered for MLSE
 - Truncation will be not be used unless N_tc is specified in the configuration spreadsheet

N_tc	18		MLSE truncation
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❑ If delta COM computes to less than 0, the message “MLSE truncation failed. Try increasing N_tc’ is reported and delta COM of zero will be used.

Commit request 4p6_2

healey_3dj_01a_2407

□ Added parameter.

- **Q_budget_adj** is regular expression of a 2 element row vector for the coefficients of the equation on slide 6 of healey_3dj_01a_2407 defining $Q(\text{COM}_{\text{DFE}})$

Q_budget_adj	[0.57 0.1]		0 to disable
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- Where $Q(\text{COM}_{\text{DFE}}) = Q_budget_adj(1) - Q_budget_adj(2) * \text{COM}_{\text{DFE}}$
- Q is 0 if Q_budget_adj is not specified in the configuration spreadsheet

Commit request 4p6_3

healey_3dj_01a_2407

- Remove the requirement of dummy package specifications in the configuration spreadsheet. (grey colored cells no longer required)

COM 4.6

parameters				I/O control			package parameter holder			
Parameter	Setting	Units	Information	DIAGNOSTICS			Parameter	Setting	Units	Information
f_b	106.25	GBd		DISPLAY_WINDOW	1	logical	package_ti_gamma0_a1_a2	[5e-4 0.00065 0.0003]		
f_min	0.05	GHz		CSV_REPORT	0	logical	package_ti_tau	0.006141	ns/mm	
Delta_f	0.01	GHz		RESULT_DIR	.\results\CRKR_(date)\		package_Z_c	2 92 ; 70 70; 80 80; 100 10	Ohm	
C_d	[0.4e-4 0.9e-4 1.1e-4; 0.4e-4 0.9e-4 1.1e-4]	nF	[TX RX]	SAVE_FIGURES	0	logical	z_p (TX)	; 1 1 1 1; 1 1 1 1; 0.5 0	mm	[test cases to run]
L_s	[0.13 0.15 0.14; 0.13 0.15 0.14]	nH	[TX RX]	Port Order	[1 3 2 4]		z_p (NEXT)	; 1 1 1 1; 1 1 1 1; 0.5 0	mm	[test cases]
C_b	[0.3e-4 0.3e-4]	nF	[TX RX]	RUNTAG	KR_set1_eval_		z_p (FEXT)	; 1 1 1 1; 1 1 1 1; 0.5 0	mm	[test cases]
R_0	50	Ohm		COM_CONTRIBUTION	0	logical	z_p (RX)	; 1 1 1 1; 1 1 1 1; 0.5 0	mm	[test cases]
R_d	[50 50]	Ohm	[TX RX]	TDR and ERL options			C_p	[0.4e-4 0.4e-4]	nF	[test cases]
PKG_NAME	PKG_HIR_CLASSB PKG_HIR_CLASSB		TX RX	TDR	1	logical	Operational			
A_v	0.413	V		ERL	1	logical	ERL Pass threshold	10	dB	
A_fe	0.413	V		ERL_ONLY	0	ns	COM Pass threshold	3	db	
A_ne	0.45	V		TR_TDR	0.01		DER_0	2.00E-04		
z_p select	[3]			N	4000	logical	T_r	0.00400	ns	
L	4			TDR_Butterworth	1		FORCE_TR	1	logical	
M	32			beta_x	0		PMD_type	C2C		
filter and Eq				rho_x	0.618		EW	1		
f_r	0.58	*fb		TDR_W_TXPKG	0	UI	MLSE	1	logical	
c(0)	1		min	N_bx	20		N_tc	18		MLSE truncation
c(-1)	0		[min:step:max]	TDR and ERL options			O_budget_adj	[0.57 0.1]		0 to disable
parameters				I/O control			package parameter holder			
Parameter	Setting	Units	Information	DIAGNOSTICS	1	logical	Parameter	Setting	Units	Information
f_b	106.25	GBd		DISPLAY_WINDOW	1	logical	package_ti_gamma0_a1_a2	[5e-4 0.00065 0.0003]		
f_min	0.05	GHz		CSV_REPORT	0	logical	package_ti_tau	0.006141	ns/mm	
Delta_f	0.01	GHz		RESULT_DIR	.\results\CRKR_(date)\		package_Z_c	2 92 ; 70 70; 80 80; 100 10	Ohm	
C_d	[0.4e-4 0.9e-4 1.1e-4; 0.4e-4 0.9e-4 1.1e-4]	nF	[TX RX]	SAVE_FIGURES	0	logical	z_p (TX)	; 1 1 1 1; 1 1 1 1; 0.5 0	mm	[test cases to run]
L_s	[0.13 0.15 0.14; 0.13 0.15 0.14]	nH	[TX RX]	Port Order	[1 3 2 4]		z_p (NEXT)	; 1 1 1 1; 1 1 1 1; 0.5 0	mm	[test cases]
C_b	[0.3e-4 0.3e-4]	nF	[TX RX]	RUNTAG	KR_set1_eval_		z_p (FEXT)	; 1 1 1 1; 1 1 1 1; 0.5 0	mm	[test cases]
R_0	50	Ohm		COM_CONTRIBUTION	0	logical	z_p (RX)	; 1 1 1 1; 1 1 1 1; 0.5 0	mm	[test cases]
R_d	[50 50]	Ohm	[TX RX]	TDR and ERL options			C_p	[0.4e-4 0.4e-4]	nF	[test cases]
PKG_NAME	PKG_HIR_CLASSB PKG_HIR_CLASSB		TX RX	TDR	1	logical	Operational			
A_v	0.413	V		ERL	1	logical	ERL Pass threshold	10	dB	
A_fe	0.413	V		ERL_ONLY	0	ns	COM Pass threshold	3	db	
A_ne	0.45	V		TR_TDR	0.01		DER_0	2.00E-04		
z_p select	[3]			N	4000	logical	T_r	0.00400	ns	
L	4			TDR_Butterworth	1		FORCE_TR	1	logical	
M	32			beta_x	0		PMD_type	C2C		
filter and Eq				rho_x	0.618		EW	1		
f_r	0.58	*fb		TDR_W_TXPKG	0	UI	MLSE	1	logical	
c(0)	1		min	N_bx	20		N_tc	7		MLSE truncation
c(-1)	0		[min:step:max]	TDR and ERL options			O_budget_adj	[0.57 0.1]		0 to disable

COM 4.7beta1

COMPARISON REPORTS

- ❑ MLSE_U1_c_178A 4.7beta1 comparisonReport.html
- ❑ read_ParamConfigFile 4.7beta1 comparisonReport.html
- ❑ zzz_list_of_changes 4.7beta1 comparisonReport.html

Thank You!