Final Report Tests For Gr-Ecss

Date: 2019-11-05 14:13:52

Here are appended all the test results processed automatically

Tests List	Status
agc	appended
coherent_phase_modulator	appended
demodulator	appended
gain_phase_accumulator	appended
modulator	appended
nrzl_encoder	appended
nrzl_encoder_subcarrier	appended
phase_converter	appended
pll	appended
signal_search_fft_hier	appended
signal_search_fft_v	appended
signal_search_goertzel	appended
spl_decoder	appended
spl_encoder	appended
validation_test	appended

qa_agc

Path header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/include/ecss/agc.h

CheckSum header file: 9af75a37e17bfcc6c0b63348cffa6c45

Path second header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/agc_impl.h

CheckSum second header file: 44d8f08ac2e116de866abfc597f75d34

Path C++ file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/agc_impl.cc

CheckSum C++ file: ae10452f8b419f6ba3834d032e7abaf2

Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_agc.py

CheckSum test file: 303ea1f1cc94ee7adc12a76b9a9463fb

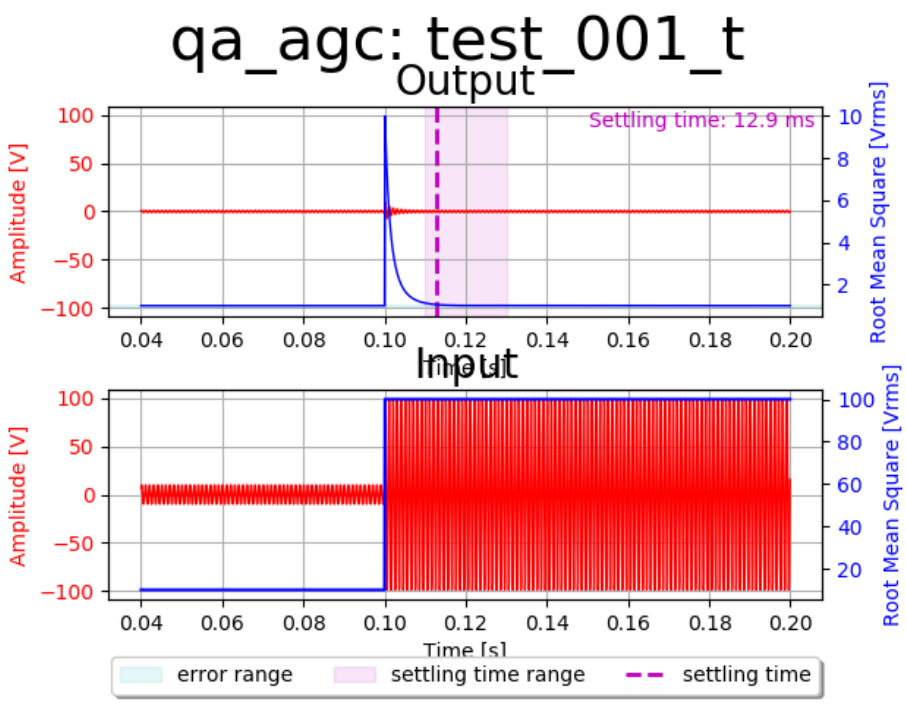
Start Time: 2019-11-05 14:10:59

Duration: 0:00:14

Status: Pass: 14

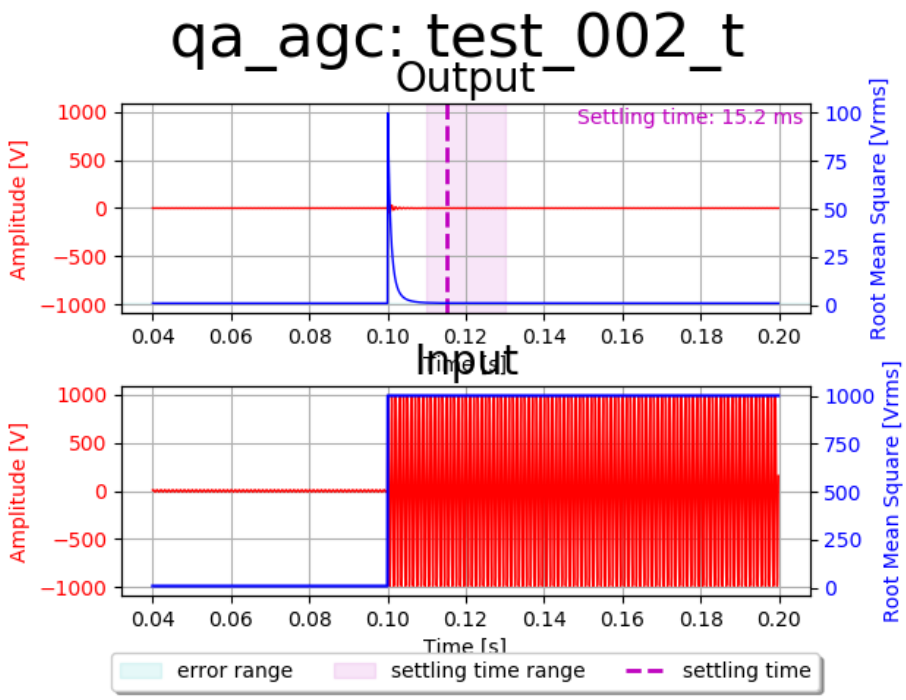
Test name	Parameters	Stack	Status

test_001_t:
positive step of 10 times
	Aref= 1.0 V;
	Noise = 0.0 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 100.00 V;
	Ain_min_rms= 10.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 12.900 ms
		-Output error after swing: 0.000%
		-Output error before swing: 0.000%
			Pass

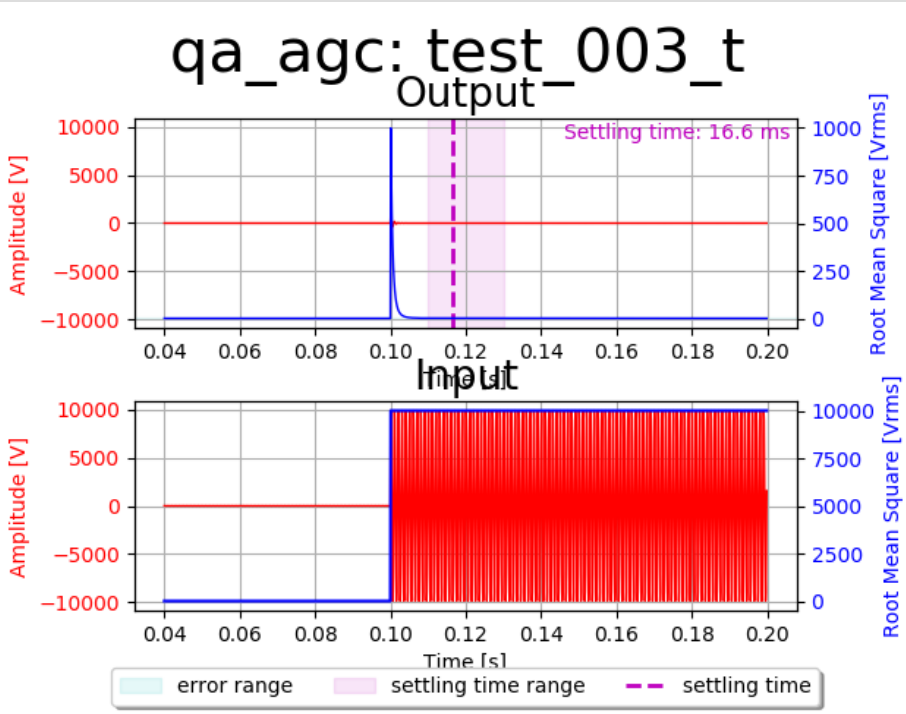


Test name	Parameters	Stack	Status

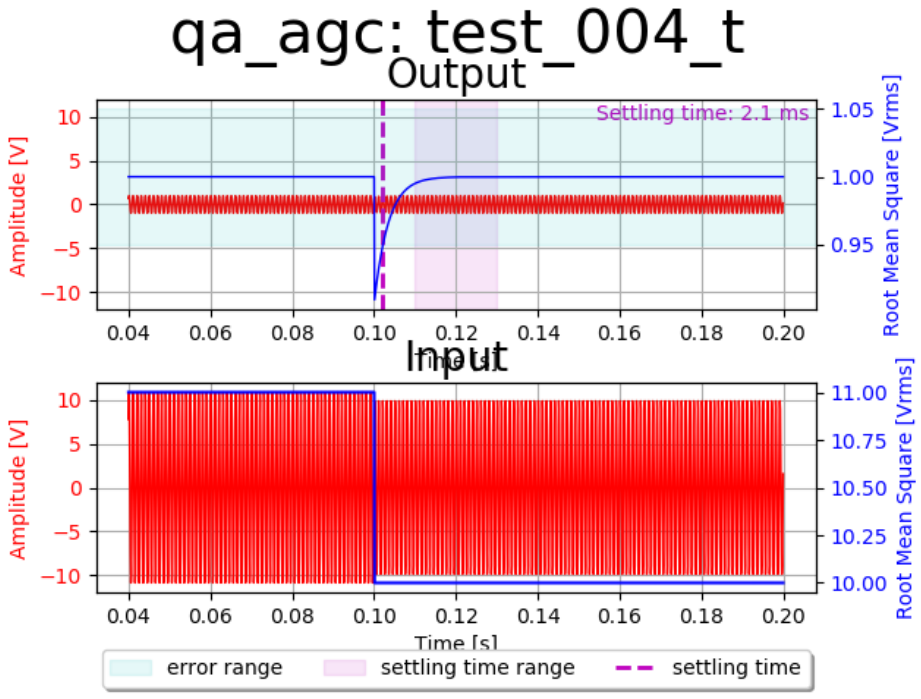
test_002_t:
positive step of 100 times
	Aref= 1.0 V;
	Noise = 0.0 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 1000.00 V;
	Ain_min_rms= 10.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 15.200 ms
		-Output error after swing: 0.000%
		-Output error before swing: 0.000%
			Pass

test_003_t:
positive step of 1000 times
	Aref= 1.0 V;
	Noise = 0.0 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 10000.00 V;
	Ain_min_rms= 10.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 16.600 ms
		-Output error after swing: 0.000%
		-Output error before swing: 0.001%
			Pass

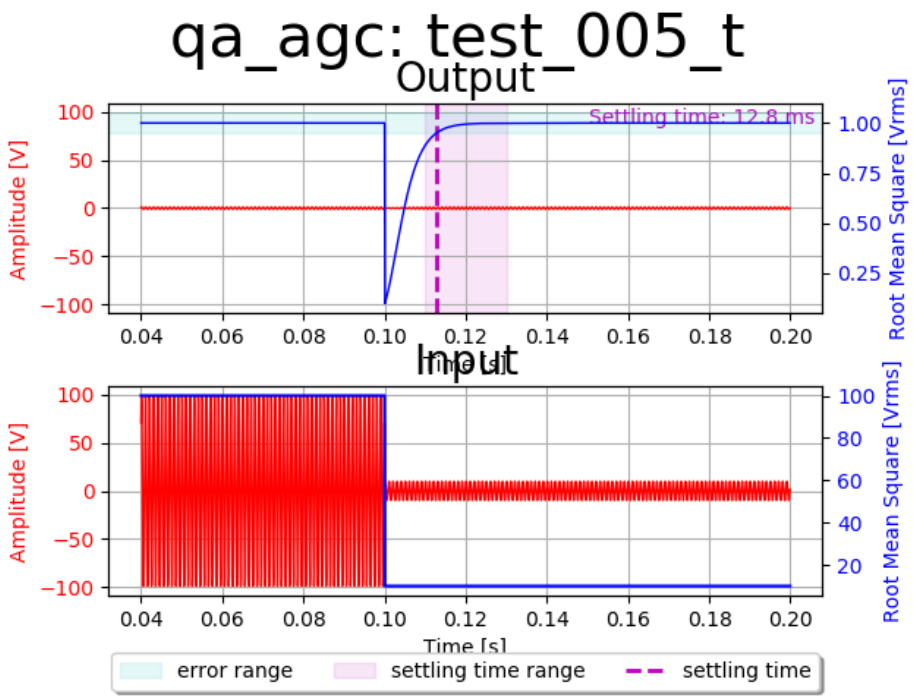
Test name	Parameters	Stack	Status
			

test_004_t:
positive small step
	Aref= 1.0 V;
	Noise = 0.0 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 10.00 V;
	Ain_min_rms= 11.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 2.100 ms
		-Output error after swing: 0.000%
		-Output error before swing: 0.000%
			Pass

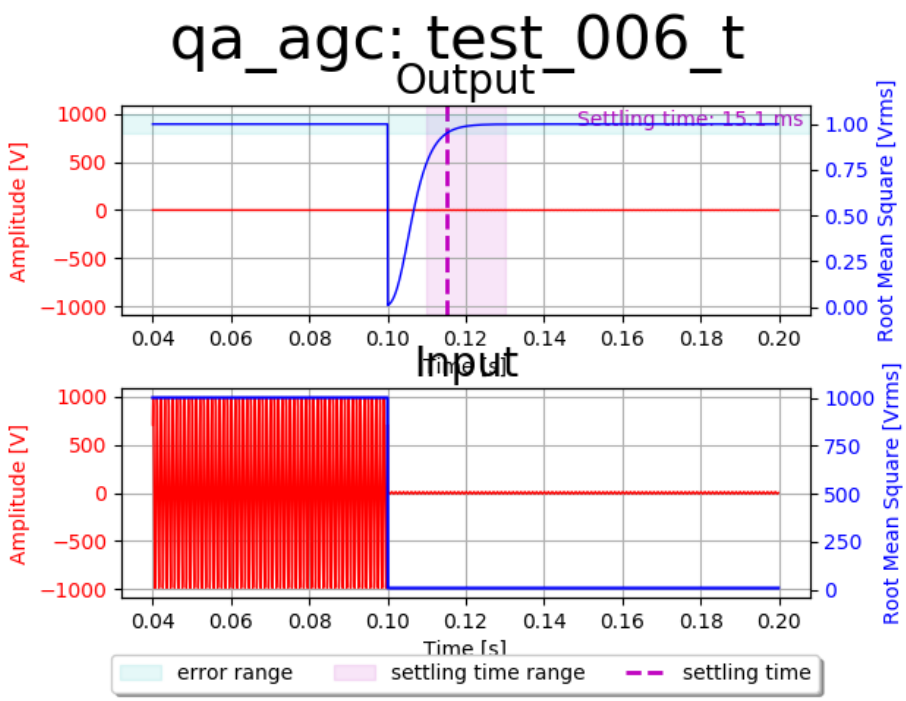
			

Test name	Parameters	Stack	Status

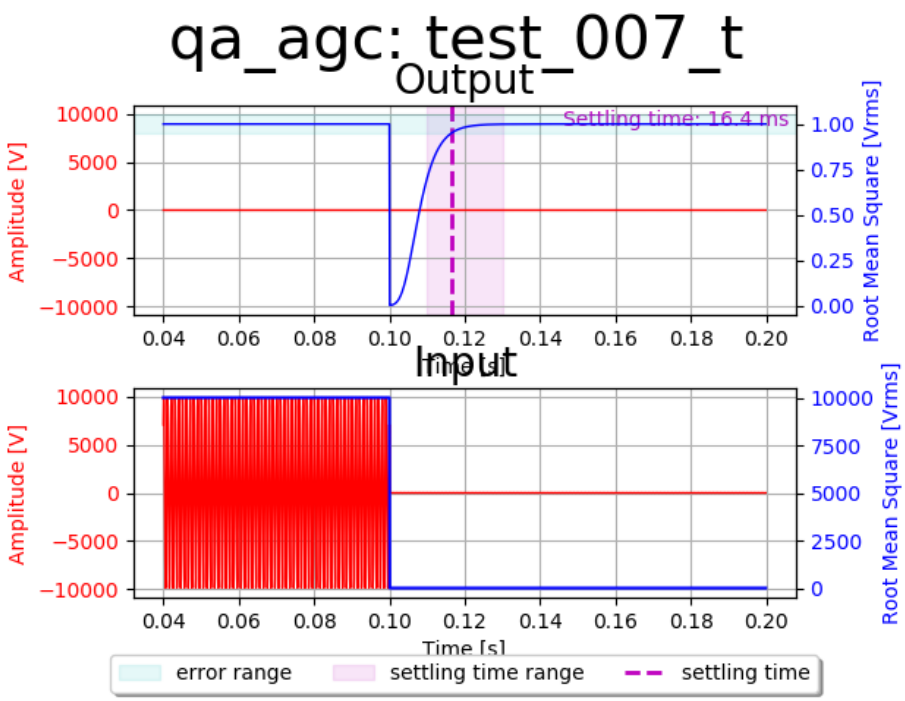
test_005_t:
negative step of 10 times
	Aref= 1.0 V;
	Noise = 0.0 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 10.00 V;
	Ain_min_rms= 100.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 12.800 ms
		-Output error after swing: 0.000%
		-Output error before swing: 0.000%
			Pass

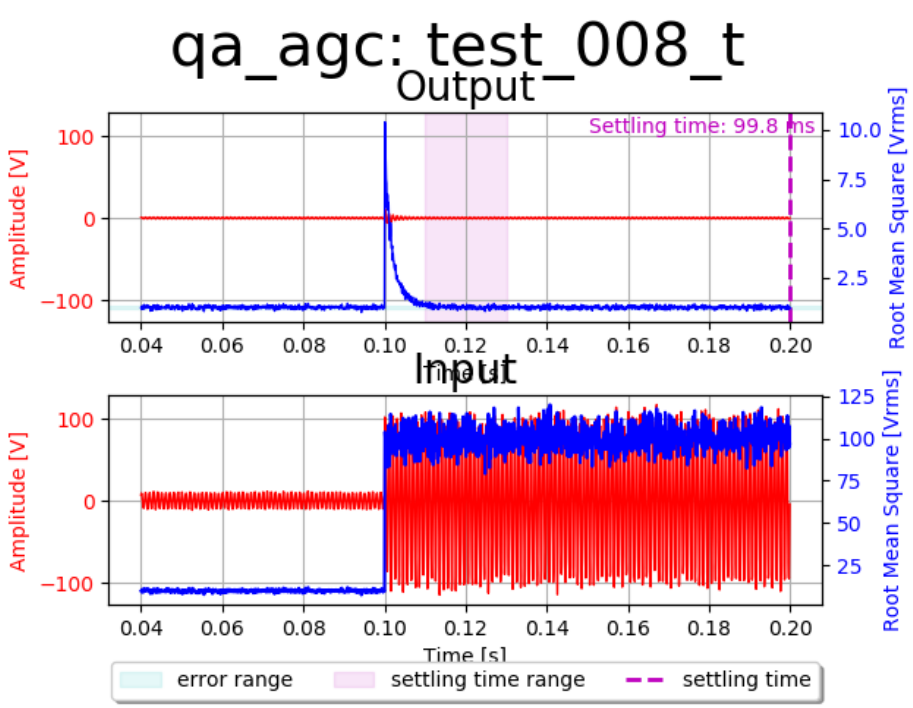
test_006_t:
negative step of 100 times
	Aref= 1.0 V;
	Noise = 0.0 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 10.00 V;
	Ain_min_rms= 1000.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 15.100 ms
		-Output error after swing: 0.000%
		-Output error before swing: 0.000%
			Pass

Test name	Parameters	Stack	Status
			

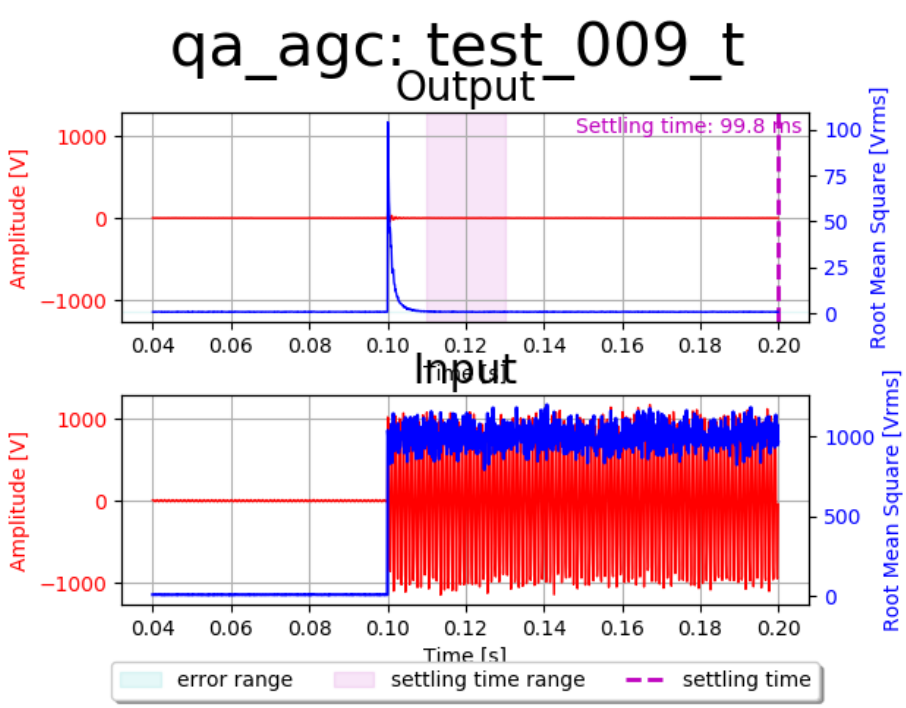
test_007_t:
negative step of 1000 times
	Aref= 1.0 V;
	Noise = 0.0 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 10.00 V;
	Ain_min_rms= 10000.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 16.400 ms
		-Output error after swing: 0.001%
		-Output error before swing: 0.000%
			Pass

Test name	Parameters	Stack	Status
			

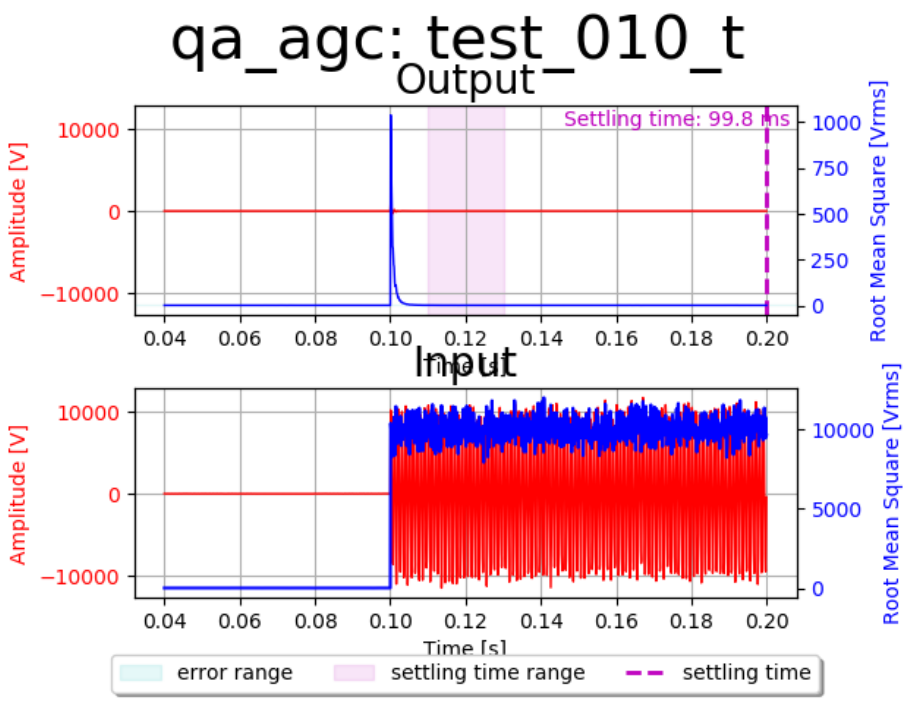
test_008_t:
positive step of 10 times
with noise
	Aref= 1.0 V;
	Noise = 0.1 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 100.00 V;
	Ain_min_rms= 10.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 99.800 ms
		-Output error after swing: 5.614%
		-Output error before swing: 5.511%
			Pass

Test name	Parameters	Stack	Status
			

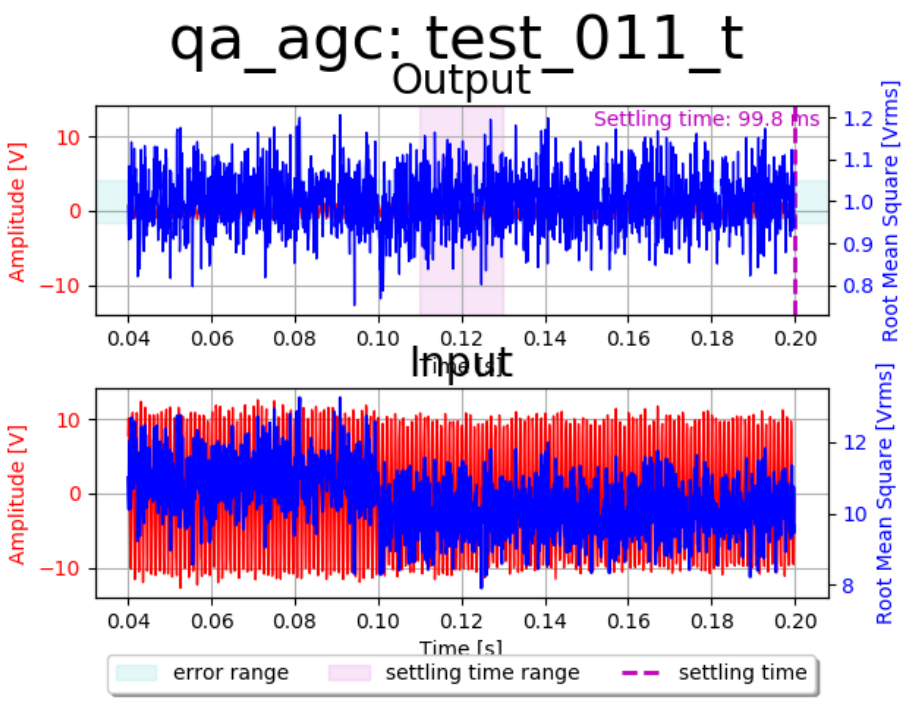
test_009_t:
positive step of 100 times with noise
	Aref= 1.0 V;
	Noise = 0.1 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 1000.00 V;
	Ain_min_rms= 10.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 99.800 ms
		-Output error after swing: 5.614%
		-Output error before swing: 5.511%
			Pass

Test name	Parameters	Stack	Status
			

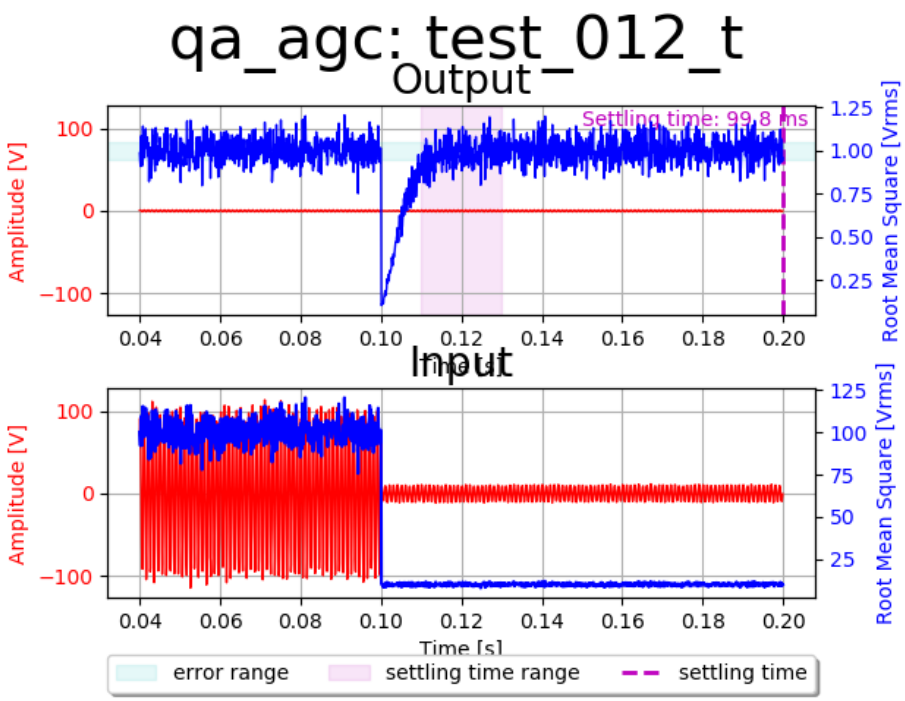
test_010_t:
positive step of 1000 times with noise
	Aref= 1.0 V;
	Noise = 0.1 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 10000.00 V;
	Ain_min_rms= 10.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 99.800 ms
		-Output error after swing: 5.614%
		-Output error before swing: 5.511%
			Pass

Test name	Parameters	Stack	Status
			

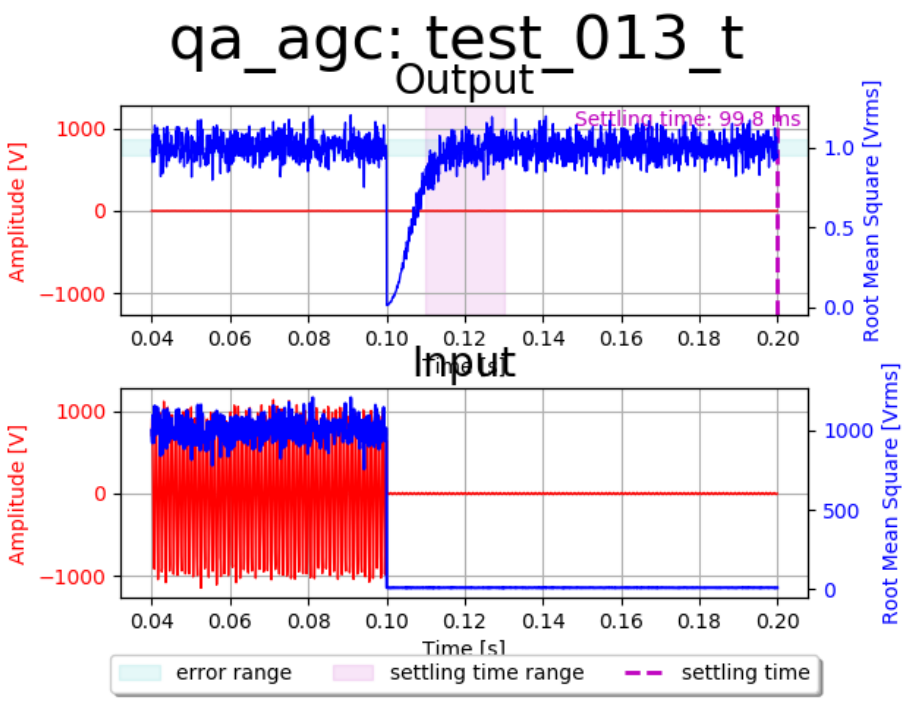
test_011_t:
positive small step with noise
	Aref= 1.0 V;
	Noise = 0.1 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 10.00 V;
	Ain_min_rms= 11.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 99.800 ms
		-Output error after swing: 5.614%
		-Output error before swing: 5.511%
			Pass

Test name	Parameters	Stack	Status
			

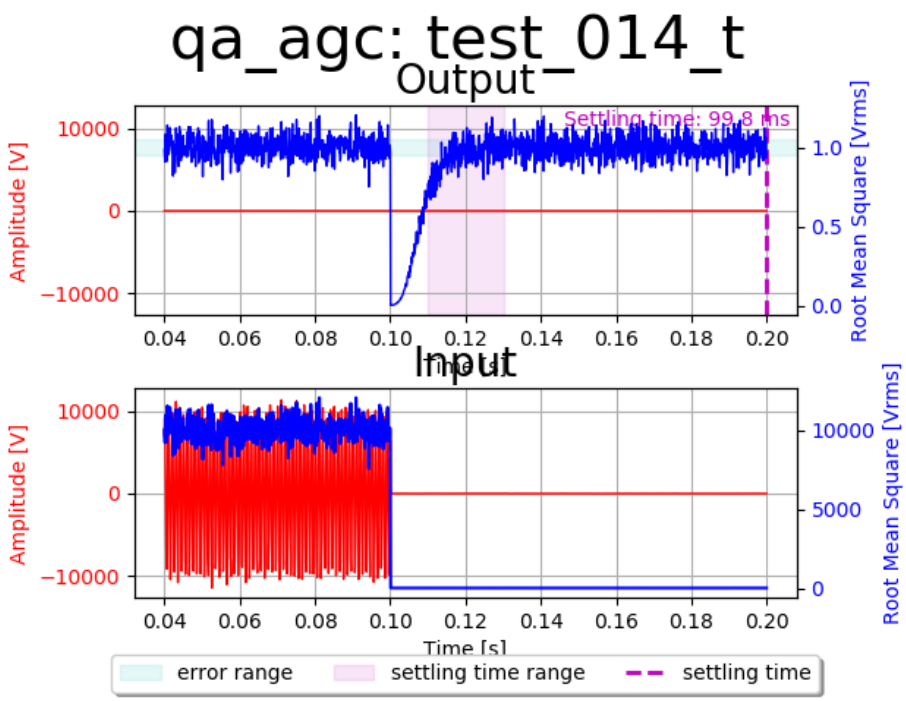
test_012_t:
negative step of 10 times with noise
	Aref= 1.0 V;
	Noise = 0.1 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 10.00 V;
	Ain_min_rms= 100.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 99.800 ms
		-Output error after swing: 5.614%
		-Output error before swing: 5.511%
			Pass

Test name	Parameters	Stack	Status
			

test_013_t:
negative step of 100 times with noise
	Aref= 1.0 V;
	Noise = 0.1 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 10.00 V;
	Ain_min_rms= 1000.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 99.800 ms
		-Output error after swing: 5.614%
		-Output error before swing: 5.511%
			Pass

Test name	Parameters	Stack	Status
			

test_014_t:
negative step of 1000 times with noise
	Aref= 1.0 V;
	Noise = 0.1 Vrms;
	t_settlig= 0.010 ms;
	Ain_max_rms= 10.00 V;
	Ain_min_rms= 10000.00 V;
	f_samp= 10000.0 Hz;
	f_in_sine= 1000.0 Hz
		-Settling time: 99.800 ms
		-Output error after swing: 5.614%
		-Output error before swing: 5.511%
			Pass

Test name	Parameters	Stack	Status
			

Total Tests Run:	Pass: 14

qa_coherent_phase_modulator

Path header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/include/ecss/coherent_phase_modulator.h

CheckSum header file: f60cb5011fc1eadc6e2253783e34874e

Path second header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/coherent_phase_modulator_impl.h

CheckSum second header file: 328b8f3e21fc4a3ca19ac660aa2a98ae

Path C++ file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/coherent_phase_modulator_impl.cc

CheckSum C++ file: eb1436719e068d1b2ac7fc6eb08bbe68

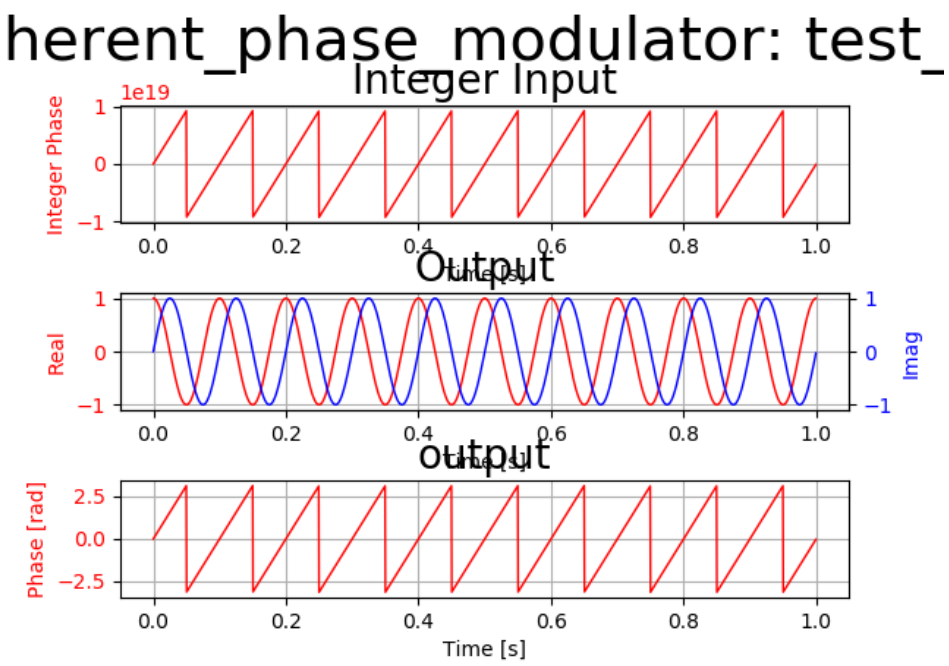
Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_coherent_phase_modulator.py

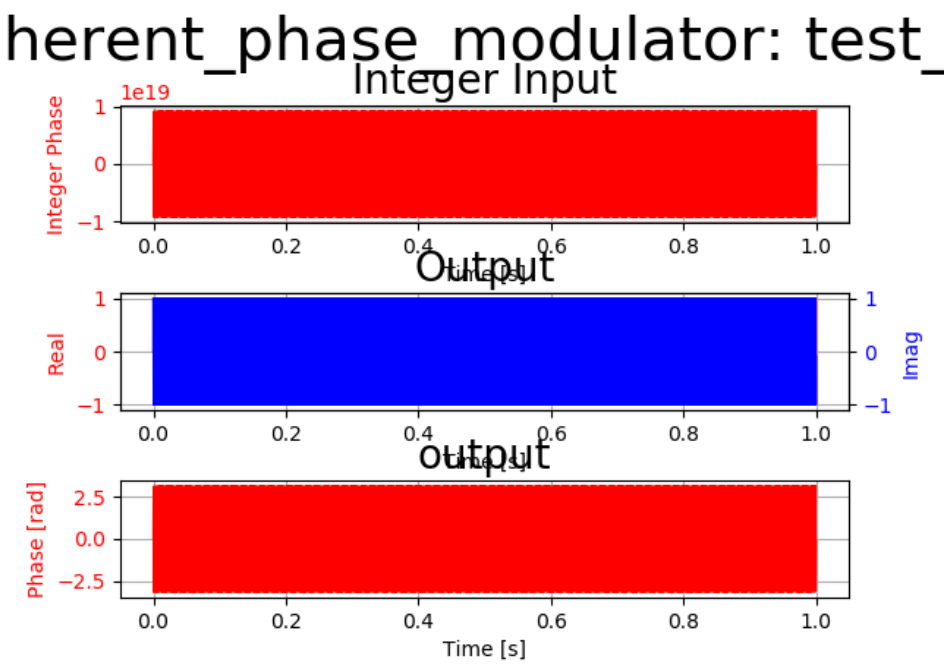
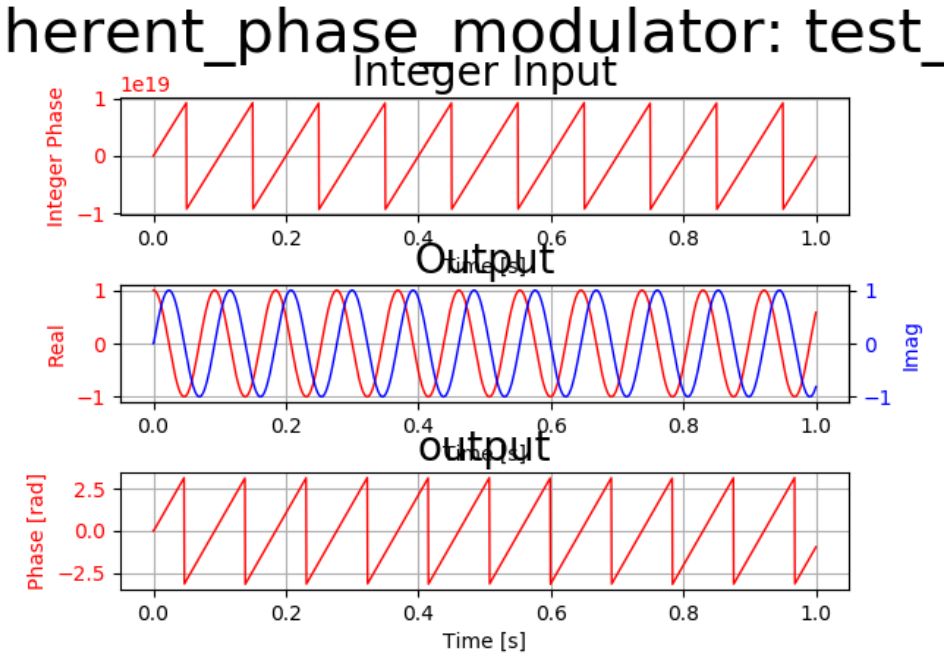
CheckSum test file: d7c59692a4540d04739b13231fe0dd64

Start Time: 2019-11-05 14:12:11

Duration: 0:00:02

Status: Pass: 3

Test name	Parameters	Stack	Status
test_001_t: with a phase accumulator	Sample rate = 2048 Hz; Number of Bits = 38; FFT Size = 1024; Number of Inputs = 1; Frequency input = 10.0 Hz	-Frequency measured= 10.000000 Hz; -No phase jump found.	Pass
			
test_002_t: with a phase accumulator at higher frequency	Sample rate = 65536 Hz; Number of Bits = 38; FFT Size = 1024; Number of Inputs = 1; Frequency input = 1000.0 Hz	-Frequency measured= 1000.000000 Hz; -No phase jump found.	Pass

Test name	Parameters	Stack	Status
			
test_003_t: with a phase accumulator and gain	Sample rate = 2048 Hz; Number of Bits = 38; FFT Size = 1024; Number of Inputs = 1; Frequency input = 10.0 Hz	-Frequency measured= 10.859729 Hz; -No phase jump found.	Pass
			

Test name	Parameters	Stack	Status
Total Tests Run:	Pass: 3		

qa_demodulator

Path python file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/demodulator.py

CheckSum python file: 75236497dfe1c5185e04fef08d3be3c5

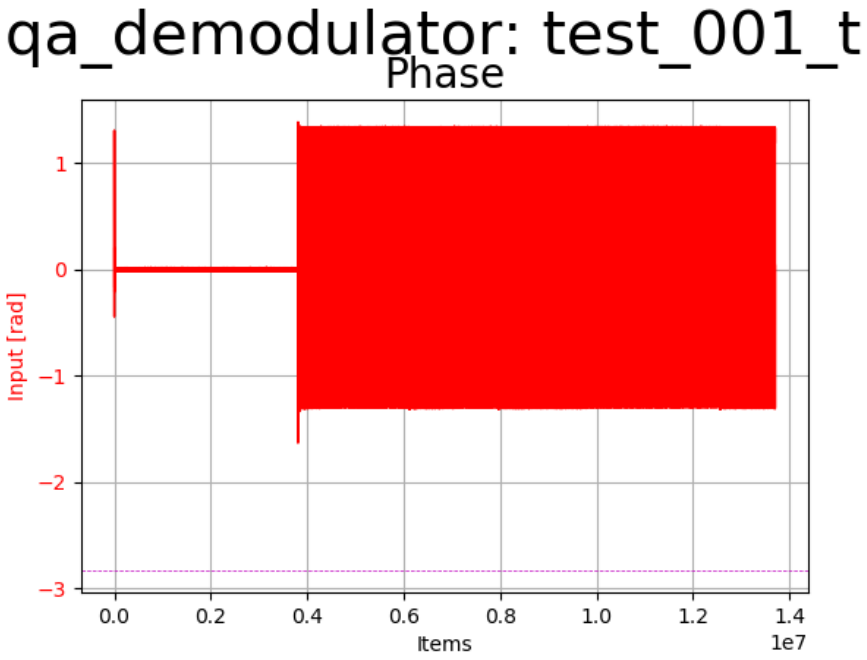
Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_demodulator.py

CheckSum test file: 953ac5c8a3b73b60a162874d480878c9

Start Time: 2019-11-05 14:12:50

Duration: 0:00:18

Status: Pass: 1

Test name	Parameters	Stack	Status
test_002_t: with a input sine without noise in the boundary BW of PLL	no parameters		Pass
			
Total Tests Run:	Pass: 1		

qa_gain_phase_accumulator

Path header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/include/ecss/gain_phase_accumulator.h

CheckSum header file: 763753c84194c2501a95fe97d4740375

Path second header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/gain_phase_accumulator_impl.h

CheckSum second header file: 6d03e4826d0df8116e5ddd4ad3d4e3f0

Path C++ file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/gain_phase_accumulator_impl.cc

CheckSum C++ file: 7b58d84c6942e3c09ebe723efc26827c

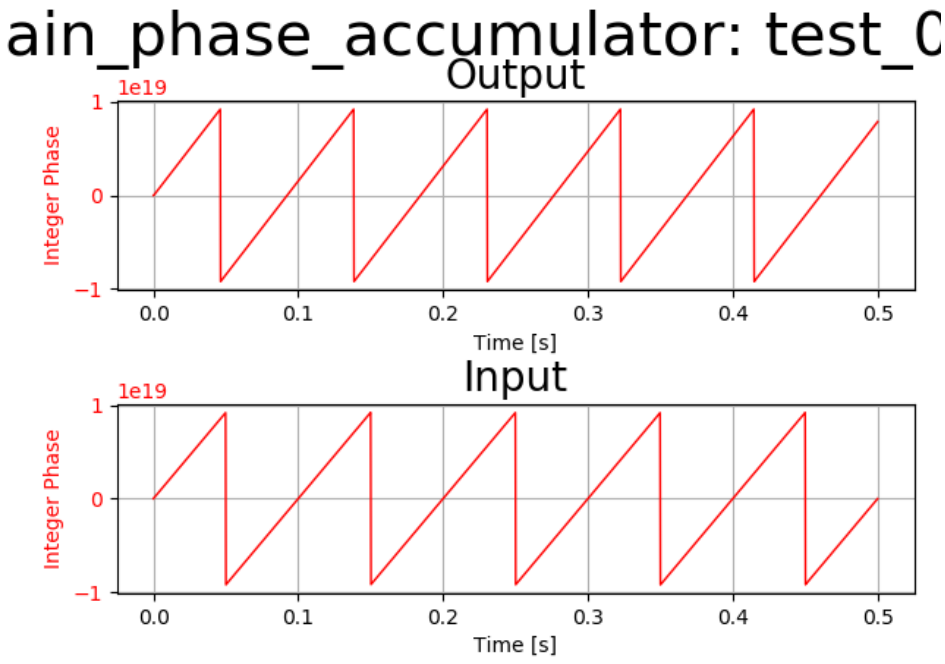
Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_gain_phase_accumulator.py

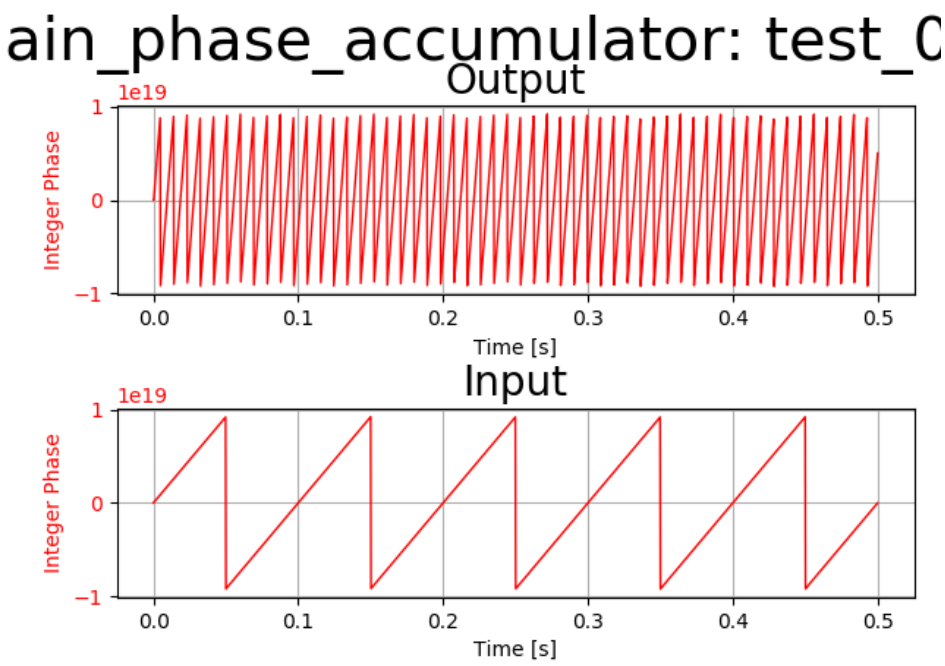
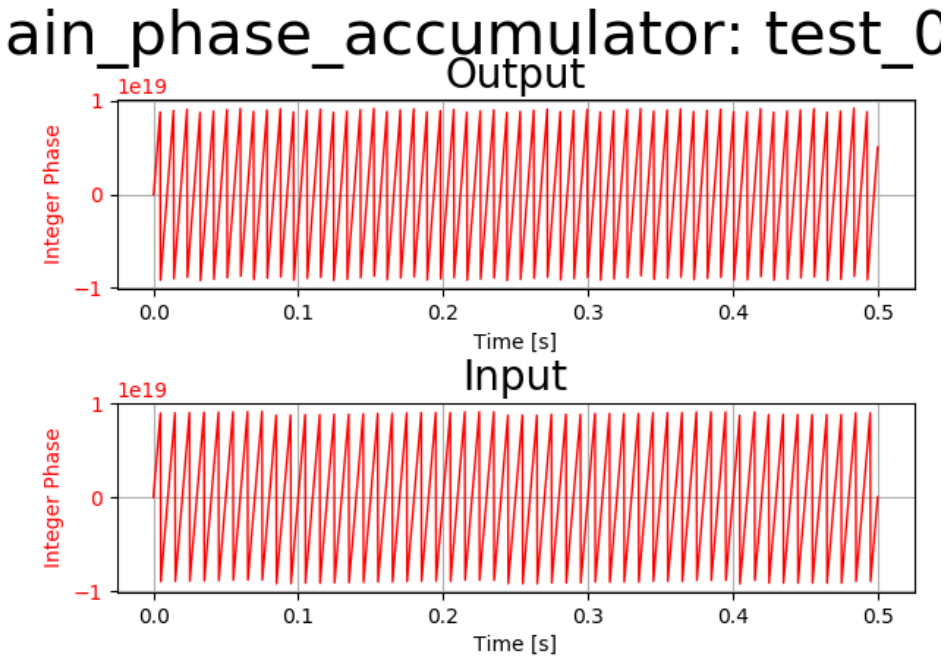
CheckSum test file: 1c302d4be684e1e2a9b6e700f9d046c2

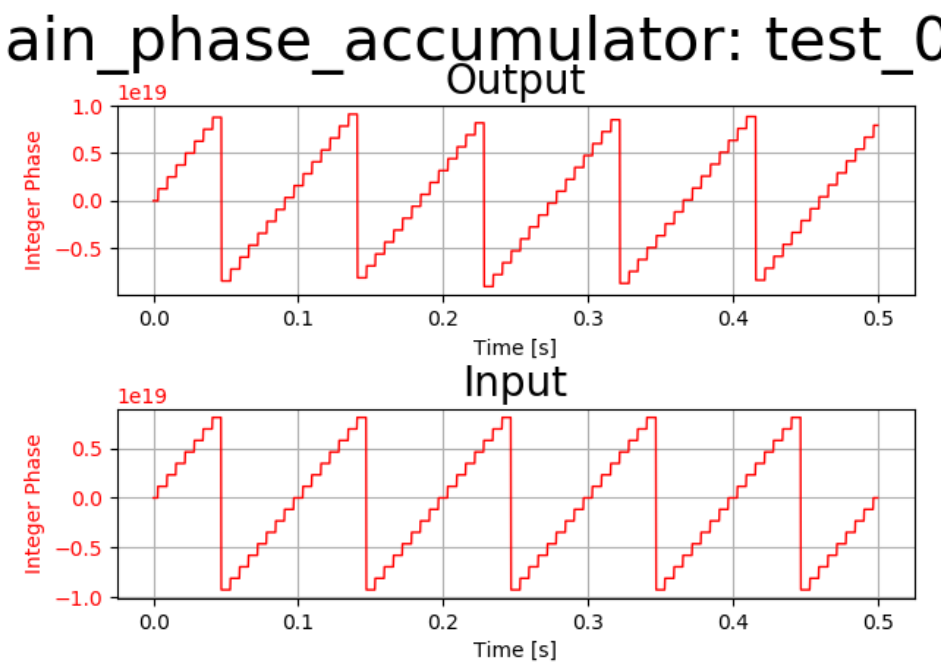
Start Time: 2019-11-05 14:12:22

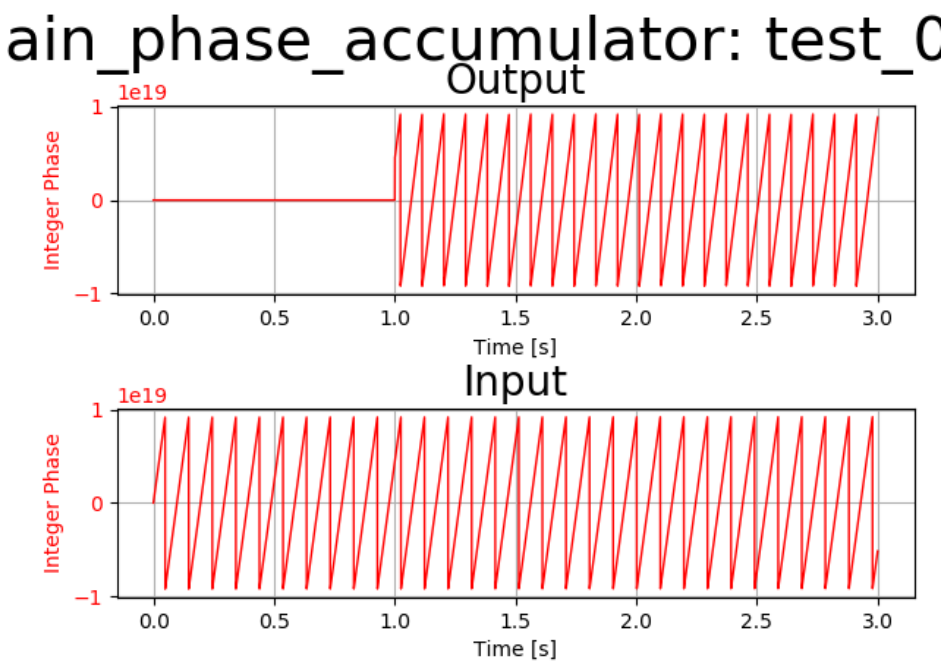
Duration: 0:00:04

Status: Pass: 5

Test name	Parameters	Stack	Status
test_001_t: wrapping test	Sample rate = 4096 Hz; Number of Bits = 38; Uplink = 221; Downlink = 240; Phase step Value = 0.015340 rad; Phase step noise = 0.000 Vrms	-Input Slope : 62.764909 rad/s; -Input Min step : 0.013761 rad; -Turn Around Ration : 1.085973; -Output Slope : 68.160987 rad/s; -Output Min step : 0.014944 rad.	Pass
			
test_002_t: wrapping test with higher ratio	Sample rate = 4096 Hz; Number of Bits = 38; Uplink = 221; Downlink = 2400; Phase step Value = 0.015340 rad; Phase step noise = 0.000 Vrms	-Input Slope : 62.764909 rad/s; -Input Min step : 0.013761 rad; -Turn Around Ration : 10.859729; -Output Slope : 681.609872 rad/s; -Output Min step : 0.149440 rad.	Pass

Test name	Parameters	Stack	Status
			
test_003_t: wrapping test with higher slope	Sample rate = 4096 Hz; Number of Bits = 38; Uplink = 221; Downlink = 240; Phase step Value = 0.153398 rad; Phase step noise = 0.000 Vrms	-Input Slope : 627.649092 rad/s; -Input Min step : 0.121985 rad; -Turn Around Ration : 1.085973; -Output Slope : 681.609873 rad/s; -Output Min step : 0.132472 rad.	Pass
			

Test name	Parameters	Stack	Status
test_004_t: precision test	Sample rate = 4096 Hz; Number of Bits = 4; Uplink = 221; Downlink = 240; Phase step Value = 0.015340 rad; Phase step noise = 0.000 Vrms	-Input Slope : 0.000000 rad/s; -Input Min step : 0.392699 rad; -Turn Around Ration : 1.085973; -Output Slope : 0.000000 rad/s; -Output Min step : 0.392699 rad.	Pass
			
test_005_t: reset switch in the middle of the simulation	Sample rate = 4096 Hz; Number of Bits = 38; Uplink = 221; Downlink = 240; Phase step Value = 0.000001 rad; Phase step noise = 0.000 Vrms	-Final reset value of the gain phase accumulator: 0; -Set function received at the moment (of the simulation): 1.00 s; -Input Slope : 64.343750 rad/s; -Input Min step : 0.015701 rad; -Turn Around Ration : 1.085973; -Output Slope : 69.875566 rad/s; -Output Min step : 0.017051 rad.	Pass

Test name	Parameters	Stack	Status
		

Total Tests Run:	Pass: 5

qa_modulator

Path python file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/modulator.py

CheckSum python file: eeb50b6f82e63d2739eb92f6ab5d4349

Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_modulator.py

CheckSum test file: 6995692627c649838b89589a603ad92b

Start Time: 2019-11-05 14:12:49

Duration: 0:00:00

Status: Pass: 1

Test name	Parameters	Stack	Status
test_001_t: modulator check	Bit rate= 1000 V; f_samp= 2000.0 Hz	4144	Pass
	no graphs generated for this test		
Total Tests Run:	Pass: 1		

qa_nrzl_encoder

Path header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/include/ecss/nrzl_encoder.h

CheckSum header file: d8beeeae80983de1246286e27ec0c94a

Path second header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/nrzl_encoder_impl.h

CheckSum second header file: 37d26071aa9fff2e5cfd74ebd18f1484

Path C++ file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/nrzl_encoder_impl.cc

CheckSum C++ file: e6028f55517ebaa55a086e8e46cc8949

Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_nrzl_encoder.py

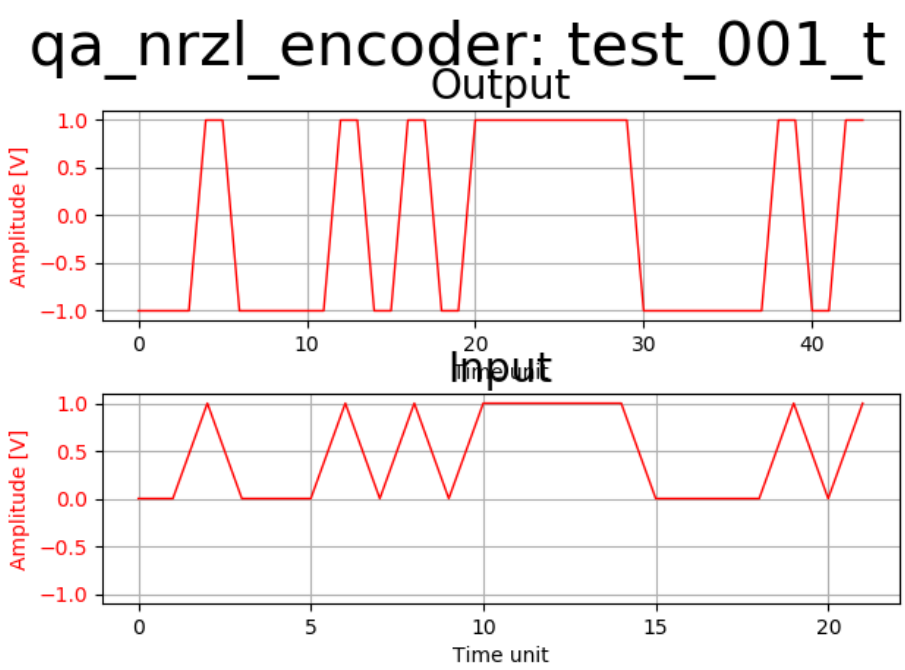
CheckSum test file: f598a7f5cb7e3f5499d5562fe08fe43d

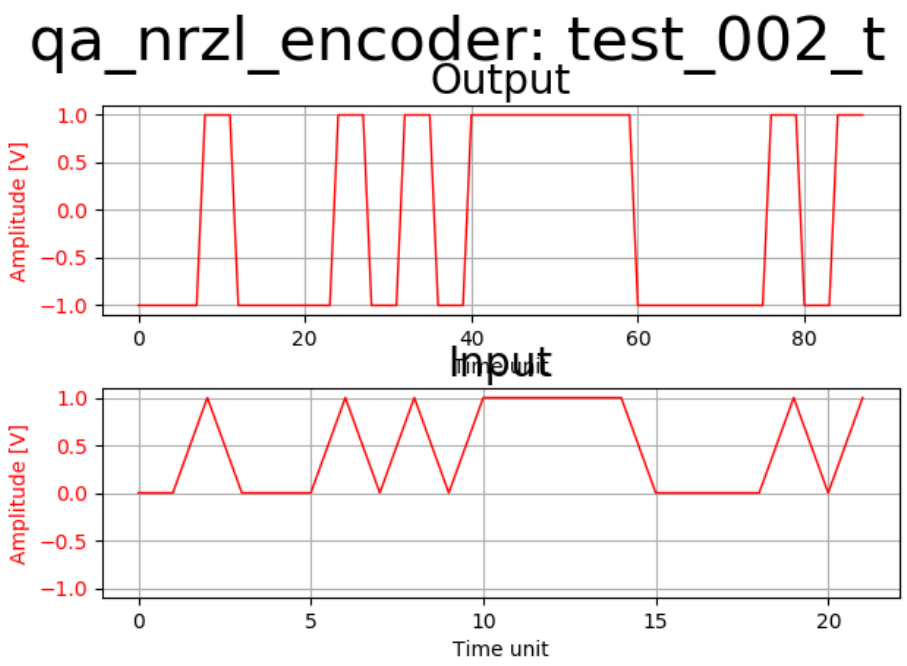
Start Time: 2019-11-05 14:12:44

Duration: 0:00:00

Status: Pass: 2

Test name	Parameters	Stack	Status
test_001_t: with repetition of 2	Bit rate= 1000 V; f_samp= 2000.0 Hz	- Data correctly encoded.	Pass
test_002_t: with repetition of 4	Bit rate= 1000 V; f_samp= 4000.0 Hz	- Data correctly encoded.	Pass



Test name	Parameters	Stack	Status
			

Total Tests Run:	Pass: 2

qa_nrzl_encoder_subcarrier

Path header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/include/ecss/nrzl_encoder_subcarrier.h

CheckSum header file: d0b5359b06348b3d4fe7813cd1e548ee

Path second header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/nrzl_encoder_subcarrier_impl.h

CheckSum second header file: 362c0bd8484d74b7d67e68cc79d5a525

Path C++ file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/nrzl_encoder_subcarrier_impl.cc

CheckSum C++ file: ddbad2911b8d53762b997de05ce5aa85

Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_nrzl_encoder_subcarrier.py

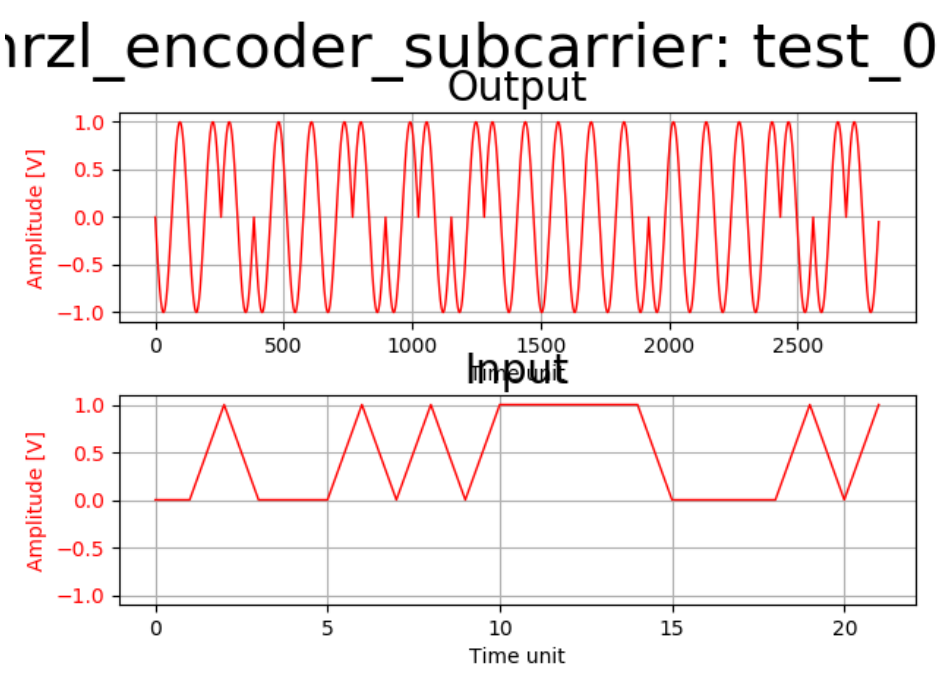
CheckSum test file: 97cda05dbf3f0258a250181cfe911bc3

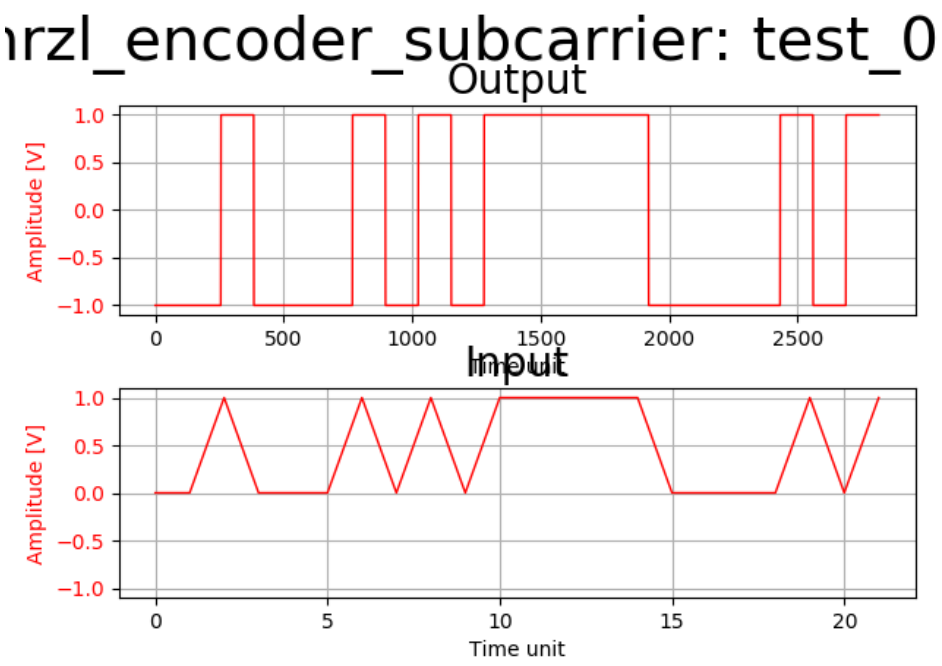
Start Time: 2019-11-05 14:12:46

Duration: 0:00:00

Status: Pass: 3, Fail: 3

Test name	Parameters	Stack	Status
test_001_t: check sine wave	Bit rate= 1 bps; f_samp= 4096.0 Hz; f_sub-carrier= 100.0 Hz	- Data correctly encoded.	Pass
	no graphs generated for this test		
test_002_t: check cosine wave	Bit rate= 1 bps; f_samp= 4096.0 Hz; f_sub-carrier= 100.0 Hz	AssertionError -0.0 != 1.000002384185791 within 4 places	Fail
	no graphs generated for this test		
test_003_t: check square wave	Bit rate= 1 bps; f_samp= 4096.0 Hz; f_sub-carrier= 512.0 Hz	- Data correctly encoded.	Pass
	no graphs generated for this test		
test_004_t: check negative square wave	Bit rate= 1 bps; f_samp= 4096.0 Hz; f_sub-carrier= 512.0 Hz	- Data correctly encoded.	Pass
	no graphs generated for this test		
test_005_t: sine wave with data	Bit rate= 1024 bps; f_samp= 131072.0 Hz; f_sub-carrier= 1024.0 Hz	AssertionError 2816 != 88	Fail

Test name	Parameters	Stack	Status
			
test_006_t: square wave with data	Bit rate= 1024 bps; f_samp= 131072.0 Hz; f_sub-carrier= 256.0 Hz	AssertionError 2816 != 88	Fail

Test name	Parameters	Stack	Status
			
Total Tests Run:	Pass: 3, Fail: 3		

qa_phase_converter

Path header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/include/ecss/phase_converter.h

CheckSum header file: ff49cf61cab091de25649343618dc69f

Path second header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/phase_converter_impl.h

CheckSum second header file: 1a0e3729eabc1aec24a255da070e5445

Path C++ file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/phase_converter_impl.cc

CheckSum C++ file: 779a459f0063400b7623188160fd6bce

Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_phase_converter.py

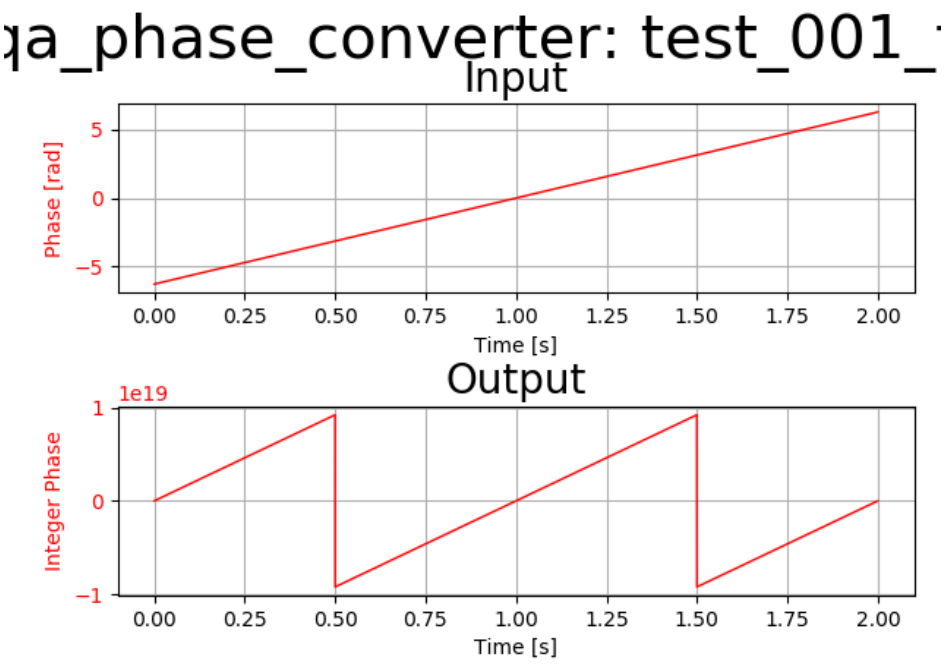
CheckSum test file: b0a823571b4d8c68a6192314c29e8a4c

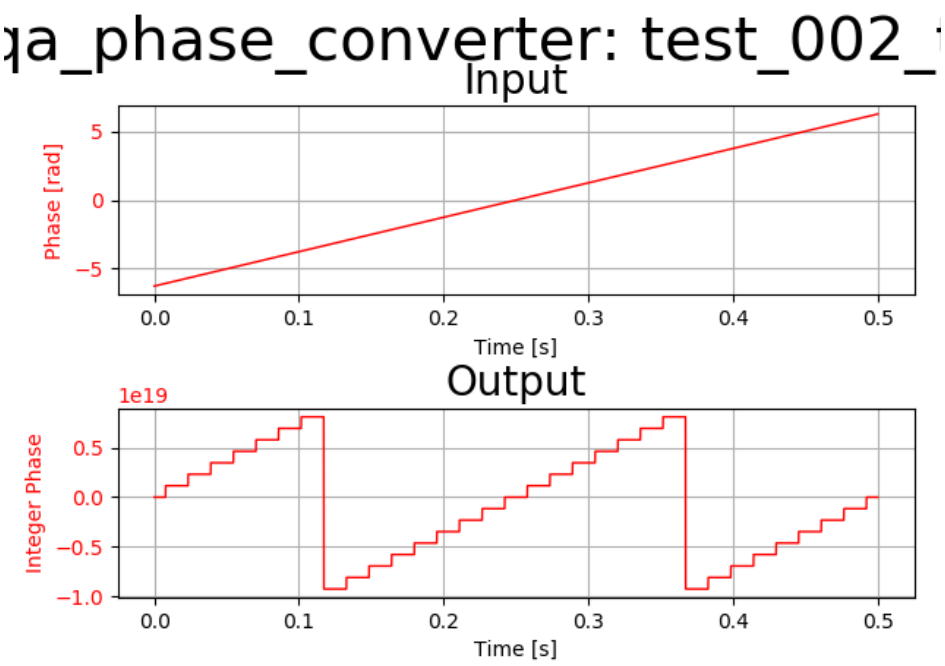
Start Time: 2019-11-05 14:12:15

Duration: 0:00:05

Status: Pass: 2

Test name	Parameters	Stack	Status
test_001_t: wrapping test	no parameters	\pr!Sample rate = 4096 Hz; Number of Bits = 38; Minimum Value = -6.283 rad; Maximum Value = 6.283 rad\pr! -Output Slope : 6.282419 rad/s; -Output Min step : 0.001534 rad.	Pass
test_002_t: precision test	no parameters	\pr!Sample rate = 16384 Hz; Number of Bits = 4; Minimum Value = -6.283 rad; Maximum Value = 6.283 rad\pr! -Output Slope : 25.132741 rad/s; -Output Min step : 0.392699 rad.	Pass



Test name	Parameters	Stack	Status
			

Total Tests Run:	Pass: 2

qa_pll

Path header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/include/ecss/pll.h

CheckSum header file: bbdf0e6654fa358dd52637ec346fe0e1

Path second header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/pll_impl.h

CheckSum second header file: 002c99983a35ebb29c5d9f100bd27edc

Path C++ file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/pll_impl.cc

CheckSum C++ file: 4093e9e55fd9c1eba49c22410714495f

Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_pll.py

CheckSum test file: 49886da4f7b7ccfe15fc6d87d2311698

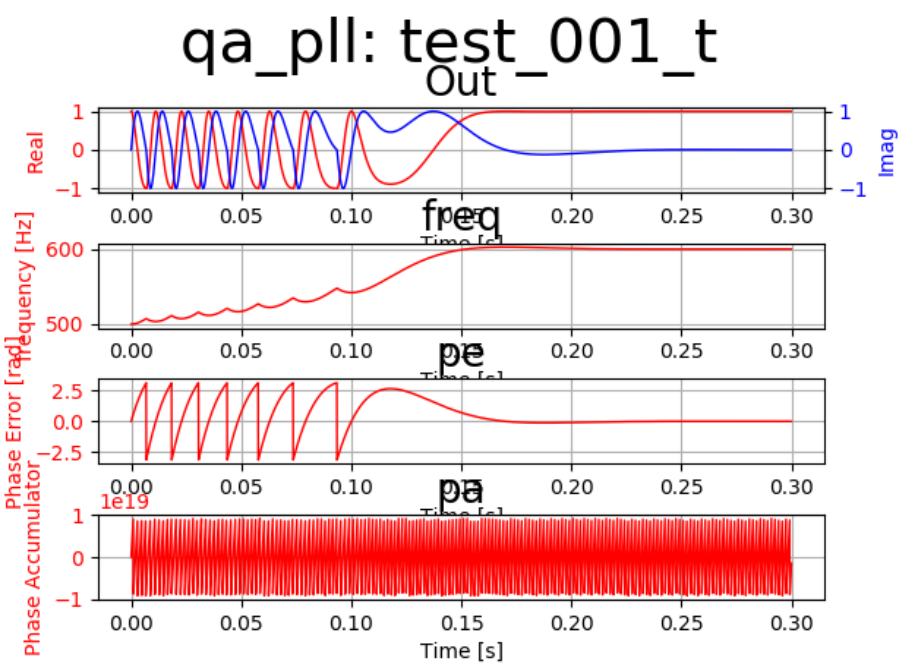
Start Time: 2019-11-05 14:11:16

Duration: 0:00:53

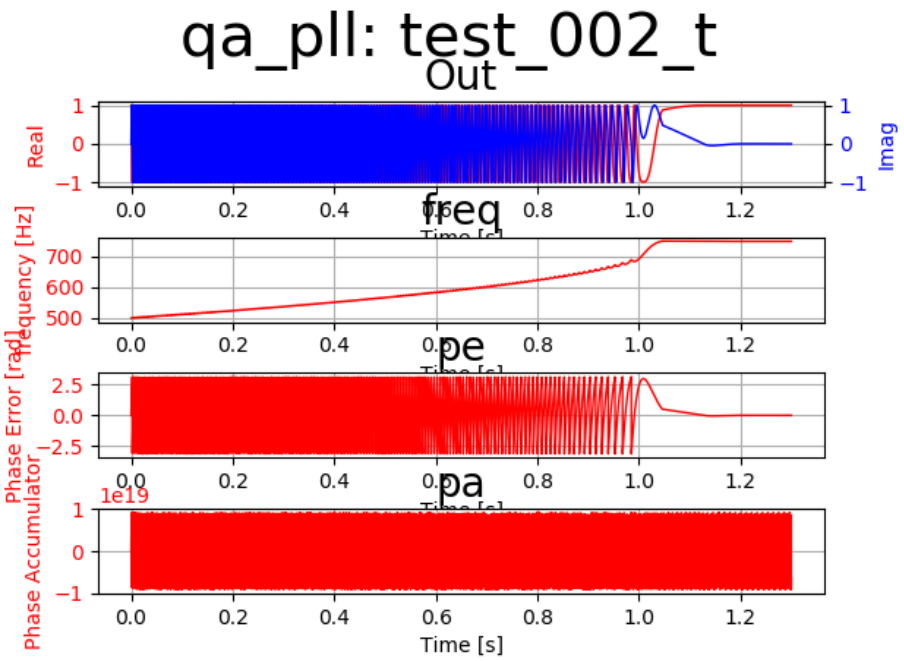
Status: Pass: 10, Fail: 1

Test name	Parameters	Stack	Status
test_001_t: with a input sine without noise in the central BW of PLL	Order = 2; Coeff1 (2nd order) = 0.005355; Coeff2 (2nd order) = 0.000015; Coeff4 (2nd order) = 1.000000; Coeff1 (3rd order) = 0.004590; Coeff2 (3rd order) = 0.000003; Coeff3 (3rd order) = 0.000000; Frequency central = 500.00 Hz; Bandwidth = 500.00 Hz; Sample rate = 16384 Hz; Input frequency = 600 Hz; Input noise = 0.00 V	-Output 'Out' Settling time : 0.732422 ms; -Output 'Out' Real absolute maximum error: 0.000; -Output 'Out' Imag absolute maximum error: 0.001; -Output 'pe' Settling time : 0.732422 ms; -Output 'pe' absolute maximum error: 0.001; -Output 'freq' Settling time : 0.549316 ms; -Output 'freq' absolute maximum error: 0.123; -Output Slope : 3769.986613 rad/s; -Output Min step : 0.177867 rad.	Pass

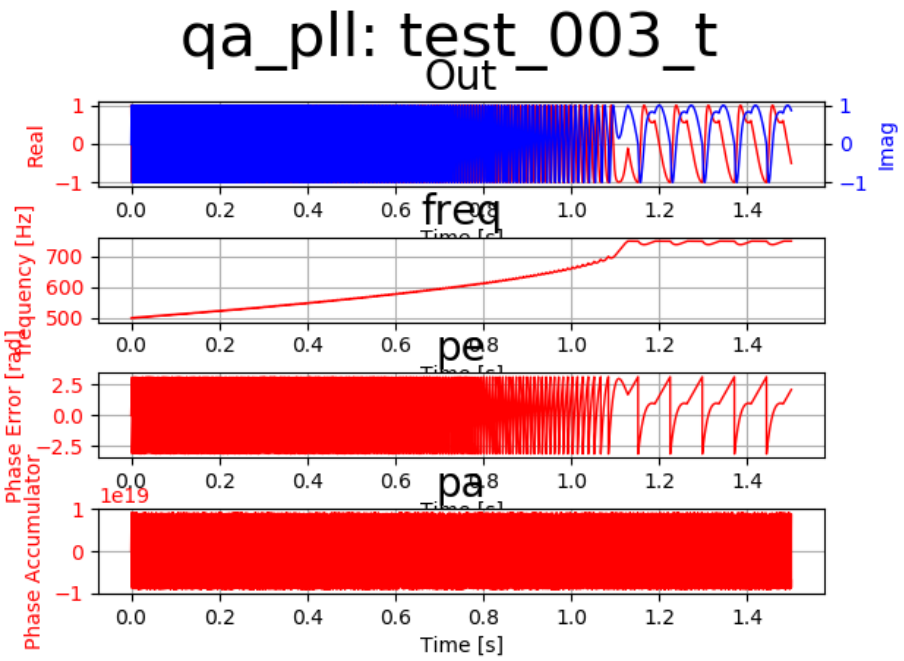
Test name	Parameters	Stack	Status



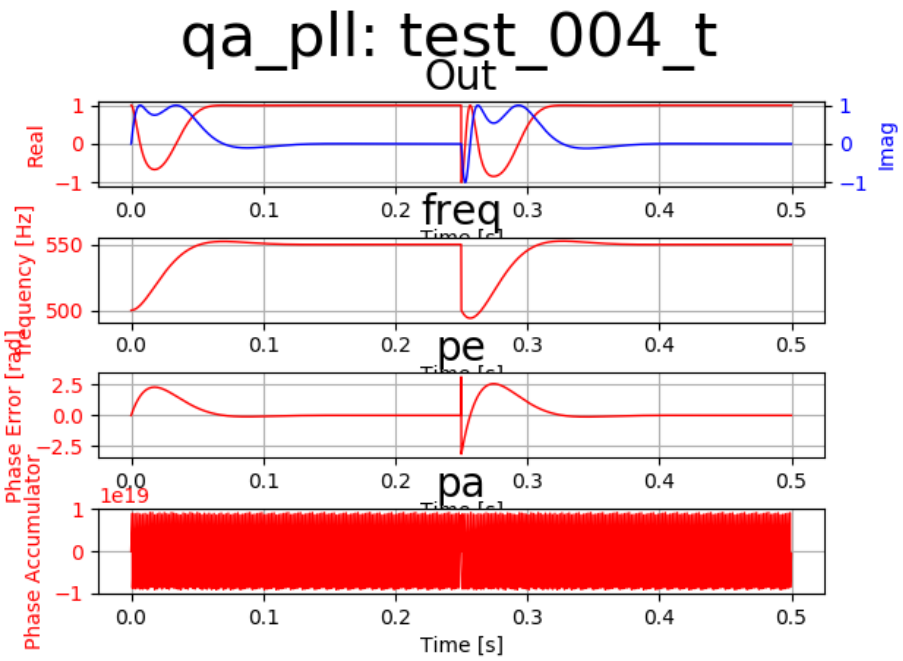
Test name	Parameters	Stack	Status
test_002_t: with a input sine without noise in the boundary BW of PLL	Order = 2; Coeff1 (2nd order) = 0.005355; Coeff2 (2nd order) = 0.000015; Coeff4 (2nd order) = 1.000000; Coeff1 (3rd order) = 0.004590; Coeff2 (3rd order) = 0.000003; Coeff3 (3rd order) = 0.000000; Frequency central = 500.00 Hz; Bandwidth = 500.00 Hz; Sample rate = 16384 Hz; Input frequency = 749 Hz; Input noise = 0.00 V	-Output 'Out' Settling time : 0.671387 ms; -Output 'Out' Real absolute maximum error: 0.000; -Output 'Out' Imag absolute maximum error: 0.000; -Output 'pe' Settling time : 0.671387 ms; -Output 'pe' absolute maximum error: 0.000; -Output 'freq' Settling time : 0.549316 ms; -Output 'freq' absolute maximum error: 0.001; -Output Slope : 4706.103030 rad/s; -Output Min step : 0.176081 rad.	Pass



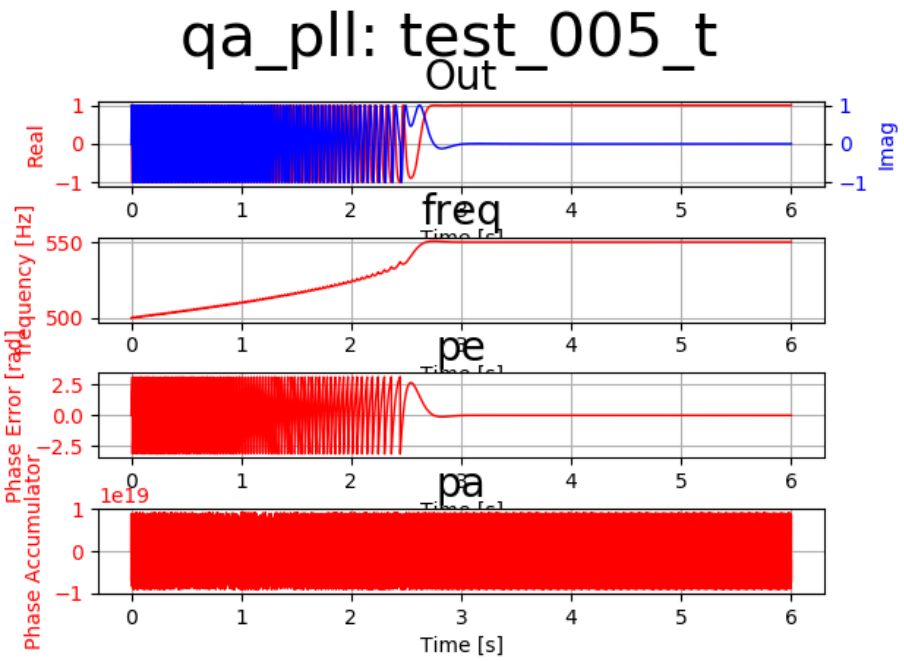
Test name	Parameters	Stack	Status
test_003_t: with a sine without noise out of the BW of PLL	Order = 2; Coeff1 (2nd order) = 0.005355; Coeff2 (2nd order) = 0.000015; Coeff4 (2nd order) = 1.000000; Coeff1 (3rd order) = 0.004590; Coeff2 (3rd order) = 0.000003; Coeff3 (3rd order) = 0.000000; Frequency central = 500.00 Hz; Bandwidth = 500.00 Hz; Sample rate = 16384 Hz; Input frequency = 760 Hz; Input noise = 0.00 V	-Output 'Out' Settling time : inf ms; -Output 'pe' Settling time : inf ms; -Output 'freq' Settling time : inf ms; -Output Min step : 0.175909 rad.	Pass



Test name	Parameters	Stack	Status
test_004_t: reset tag in the middle of the simulation	Order = 2; Coeff1 (2nd order) = 0.005355; Coeff2 (2nd order) = 0.000015; Coeff4 (2nd order) = 1.000000; Coeff1 (3rd order) = 0.004590; Coeff2 (3rd order) = 0.000003; Coeff3 (3rd order) = 0.000000; Frequency central = 500.00 Hz; Bandwidth = 1000.00 Hz; Sample rate = 16384 Hz; Input frequency = 550 Hz; Input noise = 0.00 V	-Reset tag received at the moment: 250.000 ms.	Pass

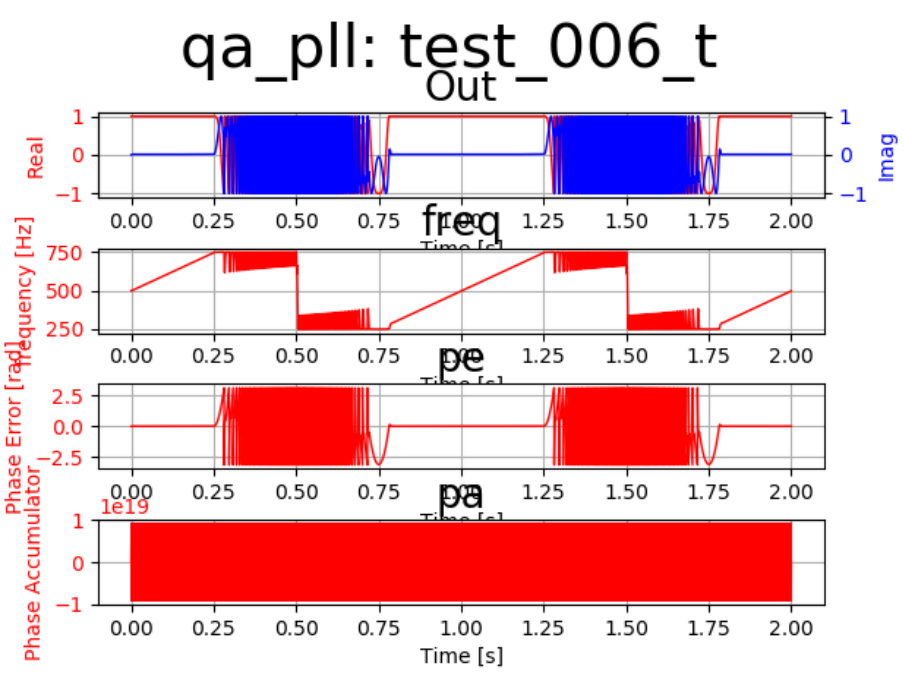


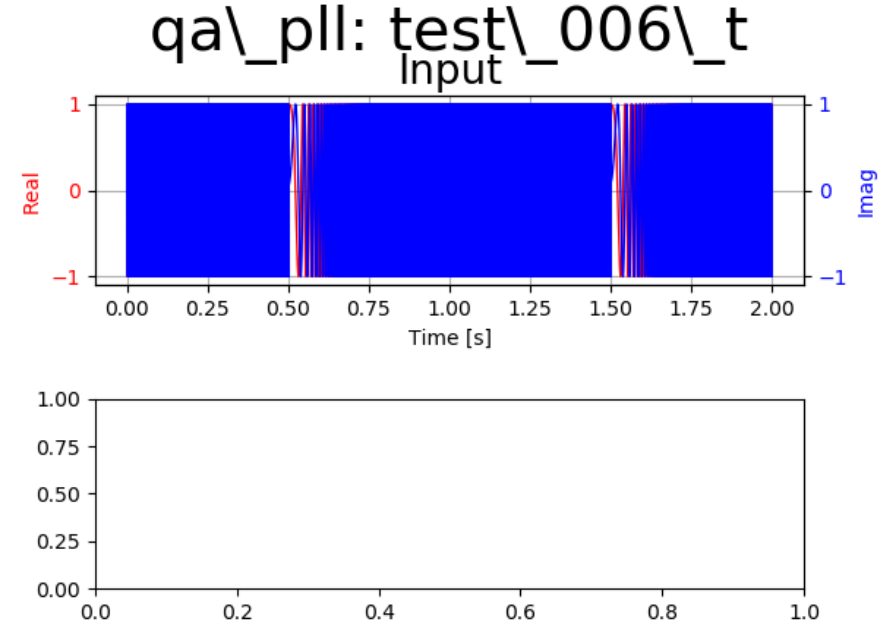
Test name	Parameters	Stack	Status
test_005_t: switch from the second order to the third order	Order = 2; Coeff1 (2nd order) = 0.005355; Coeff2 (2nd order) = 0.000015; Coeff4 (2nd order) = 1.000000; Coeff1 (3rd order) = 0.004590; Coeff2 (3rd order) = 0.000003; Coeff3 (3rd order) = 0.000000; Frequency central = 500.00 Hz; Bandwidth = 1500.00 Hz; Sample rate = 4096 Hz; Input frequency = 550 Hz; Input noise = 0.00 V	-Final order of the pll: 3; -Set function received at the moment (of the simulation): 3.00 s; -Output 'Out' Settling time : 2.685547 ms; -Output 'Out' Real absolute maximum error: 0.000; -Output 'Out' Imag absolute maximum error: 0.000; -Output 'pe' Settling time : 2.685547 ms; -Output 'pe' absolute maximum error: 0.000; -Output 'freq' Settling time : 2.197266 ms; -Output 'freq' absolute maximum error: 0.001; -Output Slope : 3455.752597 rad/s; -Output Min step : 0.751435 rad.	Pass



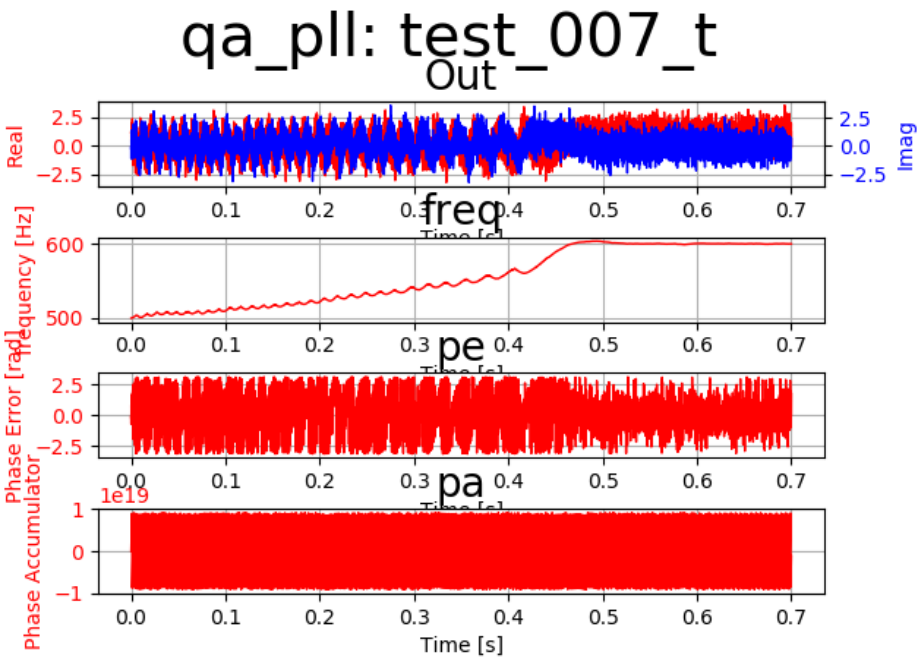
Test name	Parameters	Stack	Status
test_006_t: frequency sweep input	no parameters	\p Order = 2; Coeff1 (2nd order) = 0.005355; Coeff2 (2nd order) = 0.000015; Coeff4 (2nd order) = 1.000000; Coeff1 (3rd order) = 0.004590; Coeff2 (3rd order) = 0.000003; Coeff3 (3rd order) = 0.000000; Frequency central = 500.00 Hz; Bandwidth = 500.00 Hz; Sample rate = 163840 Hz; Input frequency min = 0 Hz; Input frequency max = 1000 Hz; Input frequency sweep = 1000.00 Hz/s; \p -Output 'Out' Settling time : 255.700684 ms; -Output 'Out' Real absolute maximum error: 0.000; -Output 'Out' Imag absolute maximum error: 0.016; -Output 'pe' Settling time : 255.694580 ms; -Output 'pe' absolute maximum error: 0.016; -Output 'freq' Settling time : 27.288818 ms; -Output 'freq' absolute maximum error: 2.863;	Pass

Test name	Parameters	Stack	Status

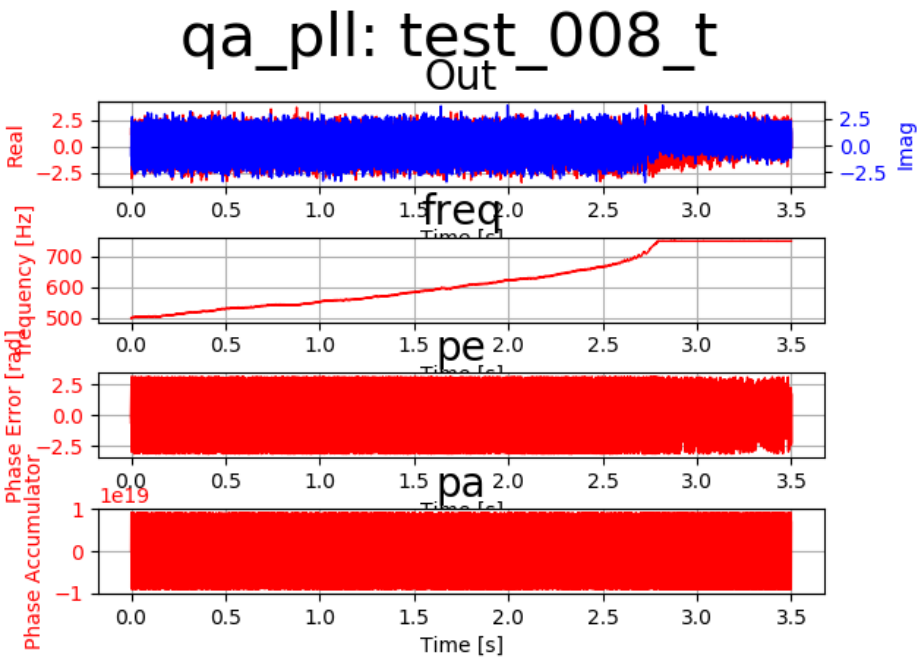




Test name	Parameters	Stack	Status
test_007_t: with a input sine with noise in the central BW of PLL	Order = 2; Coeff1 (2nd order) = 0.005355; Coeff2 (2nd order) = 0.000015; Coeff4 (2nd order) = 1.000000; Coeff1 (3rd order) = 0.004590; Coeff2 (3rd order) = 0.000003; Coeff3 (3rd order) = 0.000000; Frequency central = 500.00 Hz; Bandwidth = 500.00 Hz; Sample rate = 16384 Hz; Input frequency = 600 Hz; Input noise = 1.00 V	-CNR input to PLL: -3.010300 dB; -CNR in the equivalent bandwidth of PLL: 12.144199 dB; -Output 'Out' Settling time : 70.068359 ms; -Output 'Out' Real absolute maximum error: 1.869; -Output 'Out' Imag absolute maximum error: 1.841; -Output 'pe' Settling time : 4.028320 ms; -Output 'pe' absolute maximum error: 2.909; -Output 'freq' Settling time : 0.549316 ms; -Output 'freq' absolute maximum error: 0.201; -Output Slope : 3796.386762 rad/s; -Output Min step : 0.176445 rad.	Pass

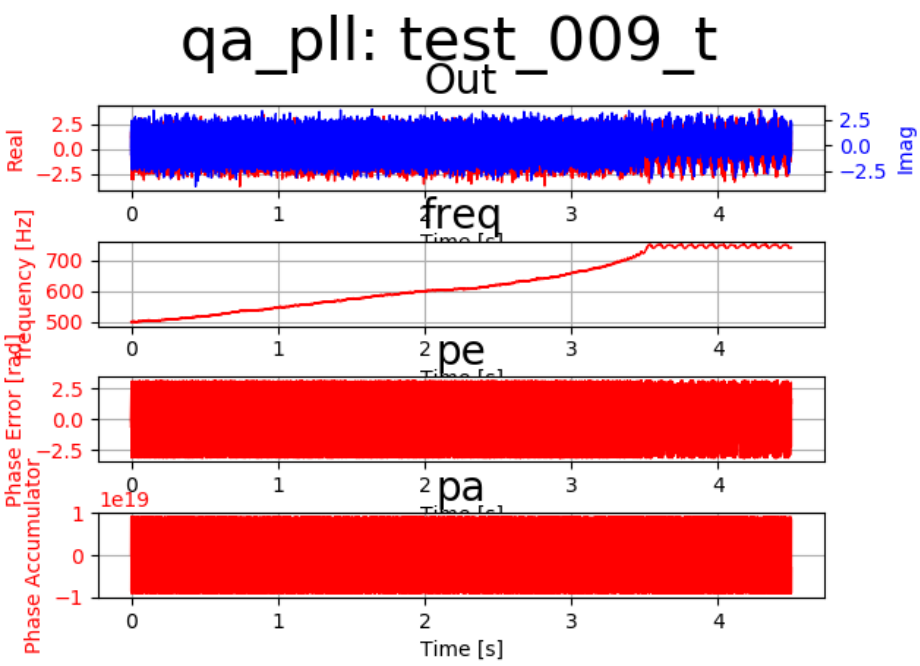


Test name	Parameters	Stack	Status
test_008_t: with a input sine with noise in the boundary BW of PLL	Order = 2; Coeff1 (2nd order) = 0.005355; Coeff2 (2nd order) = 0.000015; Coeff4 (2nd order) = 1.000000; Coeff1 (3rd order) = 0.004590; Coeff2 (3rd order) = 0.000003; Coeff3 (3rd order) = 0.000000; Frequency central = 500.00 Hz; Bandwidth = 500.00 Hz; Sample rate = 16384 Hz; Input frequency = 749 Hz; Input noise = 1.00 V	AssertionError inf not less than inf -CNR input to PLL: -3.010300 dB; -CNR in the equivalent bandwidth of PLL: 12.144199 dB; -Output 'Out' Settling time : 14.831543 ms; -Output 'Out' Real absolute maximum error: 1.806; -Output 'Out' Imag absolute maximum error: 2.357;	Fail

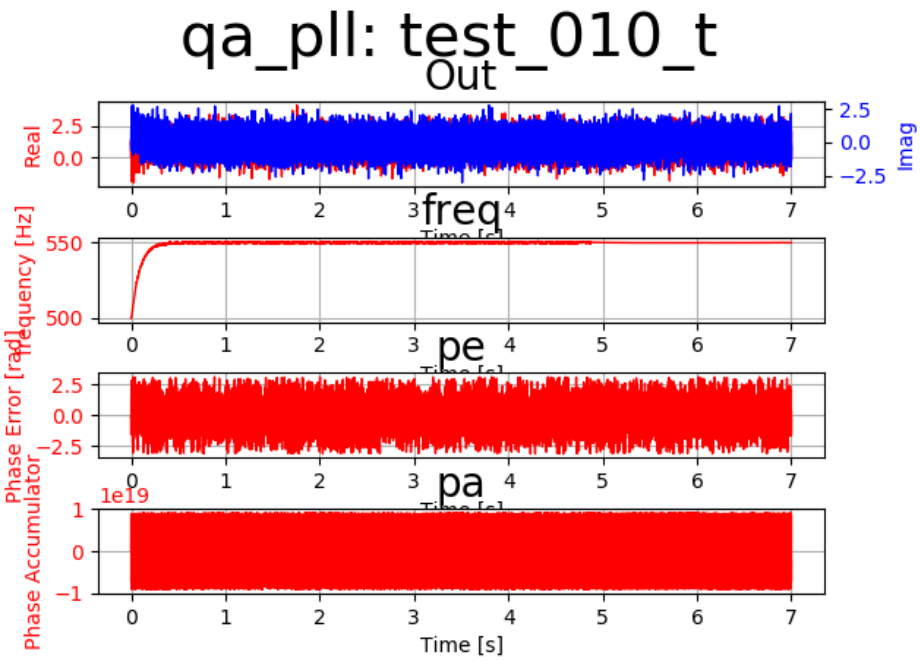


Test name	Parameters	Stack	Status
test_009_t: with a sine with noise out of the BW of PLL	Order = 2; Coeff1 (2nd order) = 0.005355; Coeff2 (2nd order) = 0.000015; Coeff4 (2nd order) = 1.000000; Coeff1 (3rd order) = 0.004590; Coeff2 (3rd order) = 0.000003; Coeff3 (3rd order) = 0.000000; Frequency central = 500.00 Hz; Bandwidth = 500.00 Hz; Sample rate = 16384 Hz; Input frequency = 760 Hz; Input noise = 1.00 V	-CNR input to PLL: -3.010300 dB; -CNR in the equivalent bandwidth of PLL: 12.144199 dB; -Output 'Out' Settling time : inf ms; -Output 'pe' Settling time : inf ms; -Output 'freq' Settling time : inf ms; -Output Slope : 4699.087436 rad/s; -Output Min step : 0.175207 rad.	Pass

Test name	Parameters	Stack	Status

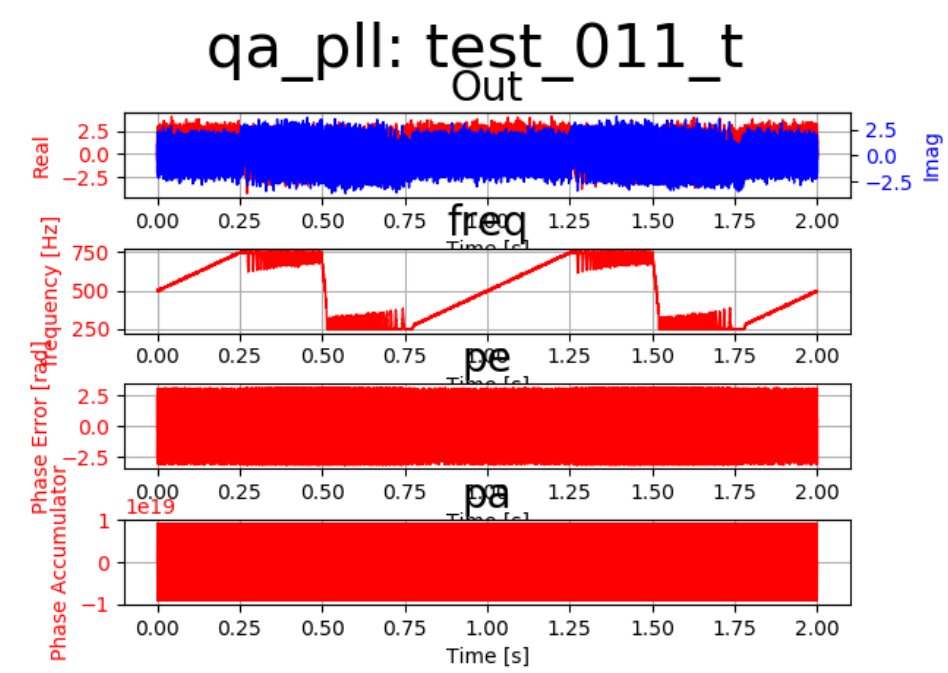


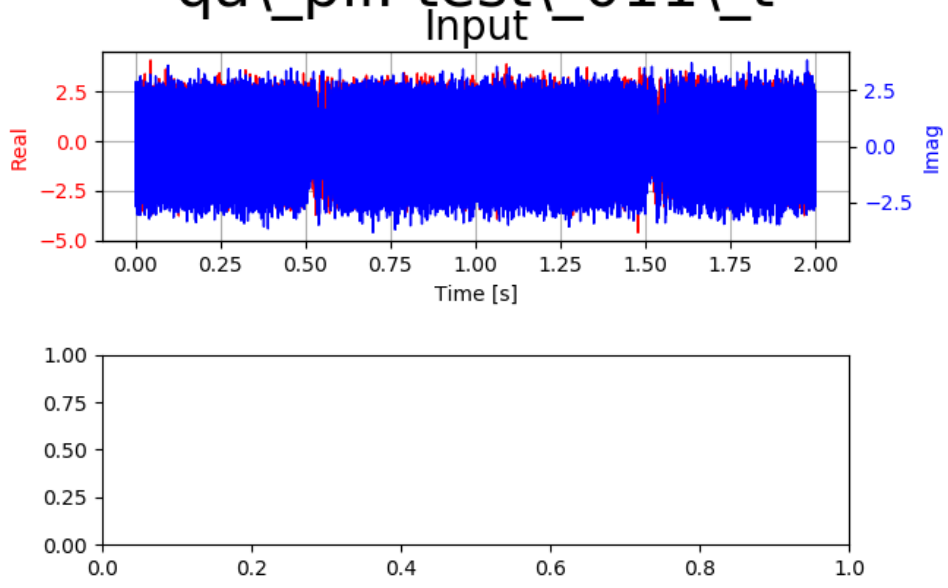
Test name	Parameters	Stack	Status
test_010_t: switch from the second order to the third order with noise	Order = 2; Coeff1 (2nd order) = 0.053545; Coeff2 (2nd order) = 0.000147; Coeff4 (2nd order) = 1.000000; Coeff1 (3rd order) = 0.004590; Coeff2 (3rd order) = 0.000003; Coeff3 (3rd order) = 0.000000; Frequency central = 500.00 Hz; Bandwidth = 1500.00 Hz; Sample rate = 4096 Hz; Input frequency = 550 Hz; Input noise = 1.00 V	-CNR input to PLL: -3.010300 dB; -CNR in the equivalent bandwidth of PLL: 1.352387 dB; -Final order of the pll: 3; -Set function received at the moment (of the simulation): 4.88 s; -Output 'Out' Settling time : 9.765625 ms; -Output 'Out' Real absolute maximum error: 2.222; -Output 'Out' Imag absolute maximum error: 2.167; -Output 'pe' Settling time : 10.009766 ms; -Output 'pe' absolute maximum error: 2.425; -Output 'freq' Settling time : 2.197266 ms; -Output 'freq' absolute maximum error: 0.030; -Output Slope : 3456.209813 rad/s; -Output Min step : 0.613073 rad.	Pass



Test name	Parameters	Stack	Status
test_011_t: frequency sweep input with noise	no parameters	\p Order = 2; Coeff1 (2nd order) = 0.005355; Coeff2 (2nd order) = 0.000015; Coeff4 (2nd order) = 1.000000; Coeff1 (3rd order) = 0.004590; Coeff2 (3rd order) = 0.000003; Coeff3 (3rd order) = 0.000000; Frequency central = 500.00 Hz; Bandwidth = 500.00 Hz; Sample rate = 163840 Hz; Input frequency min = 0 Hz; Input frequency max = 1000 Hz; Input frequency sweep = 1000.00 Hz/s; Noise amplitude = 1.0\p -CNR input to PLL: -3.010300 dB; -CNR in the equivalent bandwidth of PLL: 22.144199 dB; -Output 'Out' Settling time : 0.506592 ms; -Output 'Out' Real absolute maximum error: 1.703; -Output 'Out' Imag absolute maximum error: 1.972; -Output 'pe' Settling time : 264.556885 ms; -Output 'pe' absolute maximum error: 3.141; -Output 'freq' Settling time : 48.156738 ms; -Output 'freq' absolute maximum error: 8.501;	Pass

Test name	Parameters	Stack	Status





Total Tests Run:	Pass: 10, Fail: 1

qa_signal_search_fft_hier

Path python file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/signal_search_fft_hier.py

CheckSum python file: a8ab049fe5fdc47b3475ea67c0e6be3f

Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_signal_search_fft_hier.py

CheckSum test file: 3676140d3c72fe442e7d576c92283c6d

Start Time: 2019-11-05 14:12:33

Duration: 0:00:00

Status: Error: 4

Test name	Parameters	Stack	Status
test_001_t: with a input sine without noise in the central BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 0 Hz; Input noise = 0.00 V; Threshold = 10.0 dB; Decimation = 4096; FFT size = 1	AttributeError 'module' object has no attribute 'signal_search_fft_hier'	Error
test_002_t: with a input sine without noise on border BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 500 Hz; Input noise = 0.00 V; Threshold = 10.0 dB; Decimation = 4096; FFT size = 1	AttributeError 'module' object has no attribute 'signal_search_fft_hier'	Error
test_003_t: with a input sine without noise outside BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 550 Hz; Input noise = 0.00 V; Threshold = 10.0 dB; Decimation = 4096; FFT size = 1	AttributeError 'module' object has no attribute 'signal_search_fft_hier'	Error
test_004_t: with a input sine with noise in the central BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 0 Hz; Input noise = 1.00 V; Threshold = 10.0 dB; Decimation = 4096; FFT size = 1	AttributeError 'module' object has no attribute 'signal_search_fft_hier'	Error
Total Tests Run:	Error: 4		

qa_signal_search_fft_v

Path header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/include/ecss/signal_search_fft_v.h

CheckSum header file: d39281f2bbc1118ca7ba0b0d2c118fd7

Path second header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/signal_search_fft_v_impl.h

CheckSum second header file: fa1eba517feea363dc1dd236987784ed

Path C++ file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/signal_search_fft_v_impl.cc

CheckSum C++ file: a684c309c5bec53b53681848fcb9ac90

Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_signal_search_fft_v.py

CheckSum test file: 697ec3305cde35a9c065db37ffb390c1

Start Time: 2019-11-05 14:12:34

Duration: 0:00:05

Status: Pass: 4

Test name	Parameters	Stack	Status
test_001_t: with a input sine without noise in the central BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 0 Hz; Input noise = 0.00 V; Threshold = 10.0 dB; Decimation = 4096; FFT size = 1		Pass
test_002_t: with a input sine without noise on border BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 500 Hz; Input noise = 0.00 V; Threshold = 10.0 dB; Decimation = 4096; FFT size = 1		Pass
test_003_t: with a input sine without noise outside BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 550 Hz; Input noise = 0.00 V; Threshold = 10.0 dB; Decimation = 4096; FFT size = 1		Pass

Test name	Parameters	Stack	Status
test_004_t: with a input sine with noise in the central BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 0 Hz; Input noise = 1.00 V; Threshold = 10.0 dB; Decimation = 4096; FFT size = 1		Pass
Total Tests Run:	Pass: 4		

qa_signal_search_goertzel

Path header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/include/ecss/signal_search_goertzel.h

CheckSum header file: 4a1d026f7cba7e83ab996eb73328b3d9

Path second header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/signal_search_goertzel_impl.h

CheckSum second header file: 20ccf06a15a481255791777613ef9be9

Path C++ file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/signal_search_goertzel_impl.cc

CheckSum C++ file: 82e21c56523029151d55ab435701b834

Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_signal_search_goertzel.py

CheckSum test file: 12cdf6f81a58deb7d12b88d83519b6e2

Start Time: 2019-11-05 14:12:27

Duration: 0:00:05

Status: Pass: 2, Fail: 2

Test name	Parameters	Stack	Status
test_001_t: with a input sine without noise in the central BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 0 Hz; Input noise = 0.00 V; Threshold = 0.0 dB	AssertionError 32512 != 32768	Fail
test_002_t: with a input sine without noise on border BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 500 Hz; Input noise = 0.00 V; Threshold = 0.0 dB	AssertionError 32512 != 32768	Fail
test_003_t: with a input sine without noise outside BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 550 Hz; Input noise = 0.00 V; Threshold = 0.0 dB		Pass
test_004_t: with a input sine with noise in the central BW	Frequency central = 0.00 Hz; Bandwidth = 1000.00 Hz; Average = False; Frequency cut-off (average) = 1000.0; Sample rate = 32768 Hz; Input frequency = 0 Hz; Input noise = 1.00 V; Threshold = 0.0 dB		Pass
Total Tests Run:	Pass: 2, Fail: 2		

qa_spl_decoder

Path header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/include/ecss/spl_decoder.h

CheckSum header file: 698cd082f74b78f36da586ee794dcd9a

Path second header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/spl_decoder_impl.h

CheckSum second header file: 730bb0ef2cd50efec31d2a340b544d98

Path C++ file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/spl_decoder_impl.cc

CheckSum C++ file: c13b6d83e4722f22a9430265278d8678

Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_spl_decoder.py

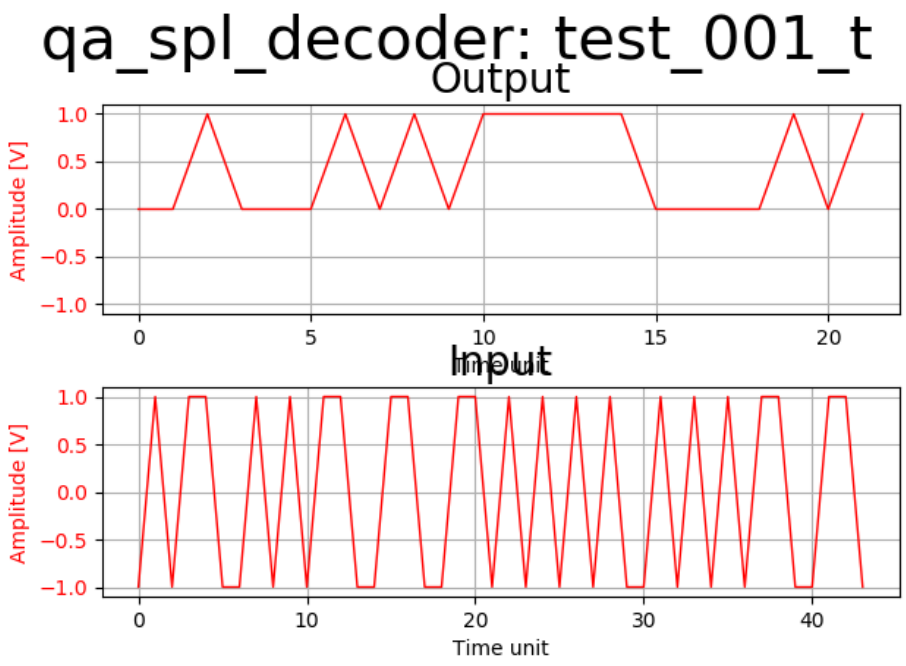
CheckSum test file: 76f5d821d90c9a0b74b5e327fa001a22

Start Time: 2019-11-05 14:12:43

Duration: 0:00:00

Status: Pass: 1

Test name	Parameters	Stack	Status
test_001_t: without repetition	no parameters	- Data correctly encoded.	Pass



Total Tests Run:	Pass: 1

qa_spl_encoder

Path header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/include/ecss/spl_encoder.h

CheckSum header file: 6eaf6d599cff134a977da3080ccd6ee9

Path second header file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/spl_encoder_impl.h

CheckSum second header file: 9d6ff1400f763adb7d42e773cb1c6c7a

Path C++ file: /mnt/c/Users/amir/WSL/grc/gr-ecss/lib/spl_encoder_impl.cc

CheckSum C++ file: 257f8d034f673b37bbcdd6830cf334e1

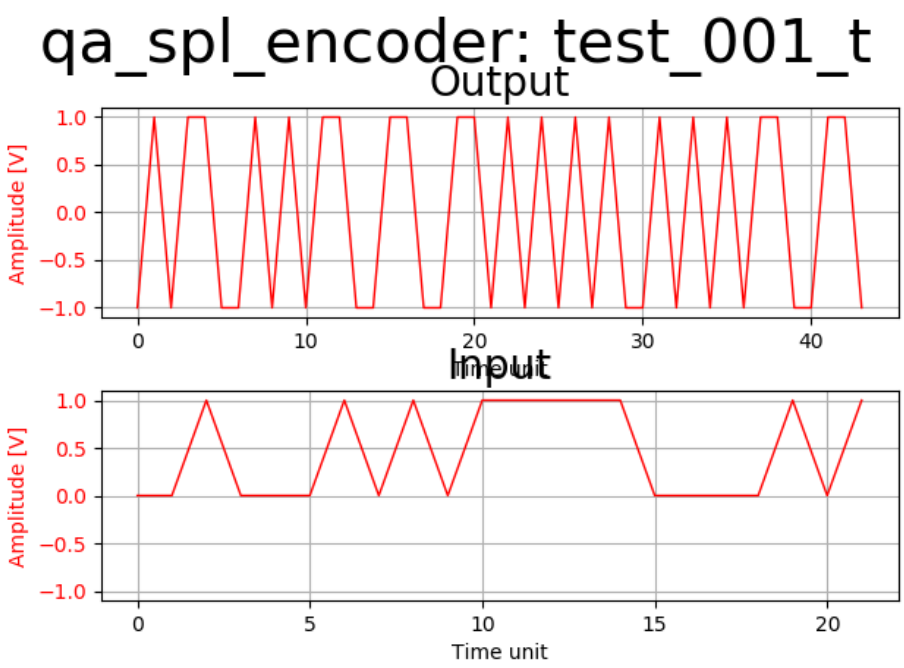
Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_spl_encoder.py

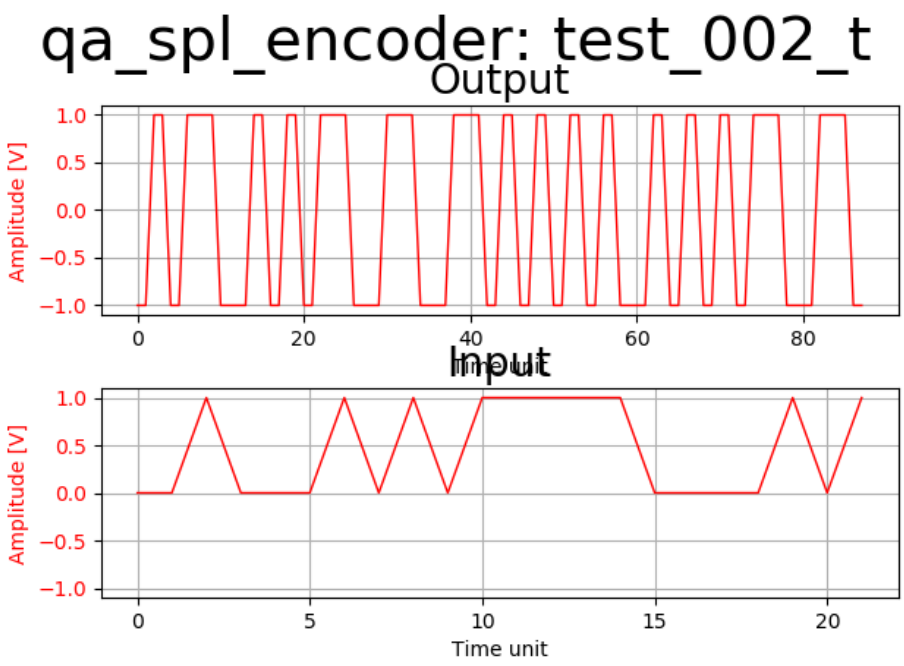
CheckSum test file: 856aeaa2e748479e83e49b98e4f964b8

Start Time: 2019-11-05 14:12:40

Duration: 0:00:00

Status: Pass: 2

Test name	Parameters	Stack	Status
test_001_t: without repetition	no parameters	\pr!Bit rate= 1000 V; f_samp= 2000.0 Hz\pr! - Data correctly encoded.	Pass
			
test_002_t: with repetition of 2	no parameters	\pr!Bit rate= 1000 V; f_samp= 4000.0 Hz\pr! - Data correctly encoded.	Pass

Test name	Parameters	Stack	Status
			

Total Tests Run:	Pass: 2

qa_validation_test

Path header file: NOT FOUND header_file_path!

CheckSum header file: NOT FOUND checksum_header_file!

Path second header file: NOT FOUND header_impl_file_path!

CheckSum second header file: NOT FOUNDchecksum_header_impl_file!

Path C++ file: NOT FOUND cpp_impl_file_path!

CheckSum C++ file: NOT FOUND checksum_cpp_impl_file!

Path test file: /mnt/c/Users/amir/WSL/grc/gr-ecss/python/qa_validation_test.py

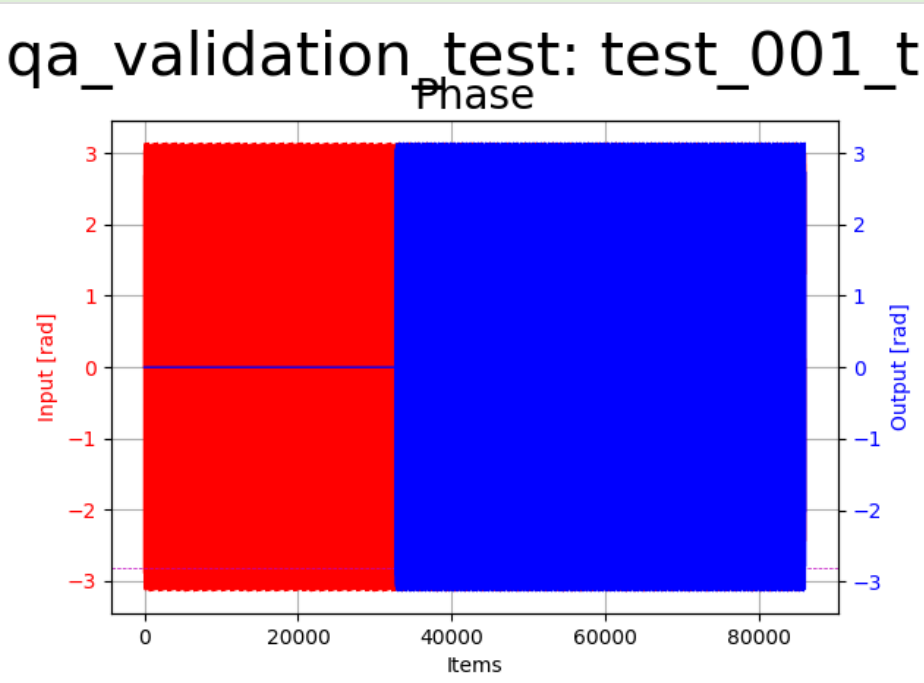
CheckSum test file: 589d6f2e7d375df197a77e8f4faeb029

Start Time: 2019-11-05 14:13:10

Duration: 0:00:02

Status: Pass: 1

Test name	Parameters	Stack	Status
test_001_t: with a input sine without noise in the boundary BW of PLL	no parameters	(86006, 86006)	Pass



Total Tests Run:	Pass: 1