TestTools

MOD/REC1 Comm/Status		
TX-Cassette Communication	**OK**	2015-12-04 11:29:52-03:00

2015-12-04T11:29:58-03:00

MOD/REC1 Functional		
Modulator-Receiver Loop	**OK**	2015-12-04 11:29:58-03:00
Receiver 1 A/B symmetry	**OK**	2015-12-04 11:32:50-03:00
Reference Voltage (TALES)	**OK**	2015-12-04 11:32:59-03:00

2015-12-04T11:33:09-03:00

RFPA Comm/Status		
RFPA Communication	**OK**	2015-12-04 11:33:09-03:00
RFPA PowerOnSet	**OK**	2015-12-04 11:33:15-03:00
RFPA Status	**OK**	2015-12-04 11:33:21-03:00

2015-12-04T11:33:27-03:00

RFPA Functional		
RFPA Power	**FAILED**	2015-12-04 11:33:27-03:00
RFPA Power (max)	**FAILED**	2015-12-04 11:33:58-03:00
RFPA Loop	**OK**	2015-12-04 11:35:01-03:00
RFPA Loop (linear chara)	**OK**	2015-12-04 11:37:49-03:00
RFPA-TALES	**FAILED**	2015-12-04 11:38:38-03:00
RFPA-TALES (linear chara)	**FAILED**	2015-12-04 11:38:54-03:00

2015-12-04T11:39:07-03:00

Diagnosis	
RFPA Power	If the ratio reflected/forward voltage is out of tolerance: - Check TAS-C (switch setting, dummy load) - Check cable connection RFPA-TAS. If the deviation forward nominal-actual is out of tolerance: Measure the RF characteristic. In case the maximum power is not reached during the RF characteristic: - Check signal level of the modulator output. - Check 3-phase AC-supply of the RFPA. - Check signal output PF of the RFPA to the receiver. - Check gain of RFPA, replace RFPA. In case the RFPA is switched off during the

	first steps of the RF characteristic measurement (RF transmit path: RFPA-TAS-Tales-Body Coil): - Check 3-phase AC-supply of the RFPA. - Check cable connection RFPA-TAS-BCCS-Tales-BTB-BodyCoil. - Check decoupling of the BodyCoil.
RFPA Power (max)	If the ratio reflected/forward voltage is out of tolerance: - Check TAS-C (switch setting, dummy load) - Check cable connection RFPA-TAS. If the deviation forward nominal-actual is out of tolerance: Measure the RF characteristic. In case the maximum power is not reached during the RF characteristic: - Check signal level of the modulator output. - Check 3-phase AC-supply of the RFPA. - Check signal output PF of the RFPA to the receiver. - Check gain of RFPA, replace RFPA. In case the RFPA is switched off during the first steps of the RF characteristic measurement (RF transmit path: RFPA-TAS-Tales-Body Coil): - Check 3-phase AC-supply of the RFPA. - Check cable connection RFPA-TAS-BCCS-Tales-BTB-BodyCoil. - Check decoupling of the BodyCoil.
RFPA-TALES	- Forward TALES out of spec: Check RF characteristic. - Reflected TALES out of spec: Body Coil tuning not o.k. (calibration and service tuning, BTB, Body Coil). - Deviation forward DICO-TALES out of spec: RF characteristic not o.k., cable connection RFPA-RFSU (PF, PR), TALES, RFPA (DIrectional COupler). - Ratio reflected/forward (DICO) out of spec: Body Coil tuning not o.k. (calibration and service tuning, BTB, Body Coil-decoupling).
RFPA-TALES (linear chara)	This measurement is done with the predefined, linear characteristic. For that reason the measurement cannot precisely evaluated and the results can just give you a rough idea of the possible error source.

RFAS Comm/Status		
LCCS Communication	**OK**	2015-12-04 11:39:07-03:00
LCCS Status	**OK**	2015-12-04 11:39:12-03:00

2015-12-04T11:39:19-03:00

RFAS Functional		

Reference Voltage (TALES)	**OK**	2015-12-04 11:32:59-03:00
Transmitter-Receiver-Switch	**OK**	2015-12-04 11:39:20-03:00
BCCS Hybrid	**OK**	2015-12-04 11:39:40-03:00
RFPA-TALES	**FAILED**	2015-12-04 11:38:38-03:00
BCCS(0 degree forward) LCCS(high gain)	**OK**	2015-12-04 11:39:53-03:00
BCCS(0 degree forward) LCCS(low gain)	**OK**	2015-12-04 11:41:23-03:00
BCCS(0 degree reflected) LCCS(high gain)	**OK**	2015-12-04 11:42:50-03:00
BCCS(90 degree forward) LCCS(high gain)	**OK**	2015-12-04 11:44:21-03:00
BCCS(90 degree reflected) LCCS(high gain)	**OK**	2015-12-04 11:45:51-03:00
BC-TX-path (reflection)	**FAILED**	2015-12-04 11:47:21-03:00
BC-TX-path (voltage)	**OK**	2015-12-04 11:47:52-03:00

2015-12-04T11:48:36-03:00

Diagnosis	
BC-TX-path (reflection)	Too high reflection in the BC-TX-path: - Check the BC-TX-path following the instructions for the RF-system in the TSG. - Perform the interactive BC-TX-path reflection test (for experts only).

BTB Comm/Status		
BTB Communication	**OK**	2015-12-04 11:48:36-03:00
BTB Status	**OK**	2015-12-04 11:48:42-03:00

2015-12-04T11:48:48-03:00

BTB Functional		
BTB Reflection Factors	**OK**	2015-12-04 11:48:49-03:00
BTB Evaluation System 1: Static Detune	**OK**	2015-12-04 11:50:06-03:00
BTB Evaluation System 1: Dynamic Detune	**OK**	2015-12-04 11:50:12-03:00
BTB Evaluation System 1: Serial Capacitors and Relays	**OK**	2015-12-04 11:50:19-03:00
BTB Evaluation System 1: Parallel Capacitors and Relays	**OK**	2015-12-04 11:50:25-03:00
BTB Diagnosis of System 1 (0-degree-system)	**OK**	2015-12-04 11:50:31-03:00
BTB Evaluation System 2: Static Detune	**OK**	2015-12-04 11:50:37-03:00
BTB Evaluation System 2: Dynamic Detune	**OK**	2015-12-04 11:50:44-03:00
BTB Evaluation System 2: Serial Capacitors and Relays	**OK**	2015-12-04 11:50:50-03:00
BTB Evaluation System 2: Parallel Capacitors and Relays	**OK**	2015-12-04 11:50:56-03:00
BTB Diagnosis of System 2 (90-degree-system)	**OK**	2015-12-04 11:51:02-03:00

2015-12-04T11:51:07-03:00

BC Functional

Reflection Measurement	OK	2015-12-04 11:51:08-03:00
BC Power Test	OK	2015-12-04 11:51:29-03:00

2015-12-04T11:51:50-03:00

RFCI Comm/Status		
RFCI Communication	OK	2015-12-04 11:51:50-03:00
RFCI Status	OK	2015-12-04 11:51:56-03:00

2015-12-04T11:52:02-03:00

RFCI Functional		
RFCI PIN Diodes (Local/Body Coil)	OK	2015-12-04 11:52:02-03:00

2015-12-04T11:52:08-03:00

MOD/REC1 Comm/Status

TX-Cassette Communication

TX-Cassette Communication: TRA1

	Value
Communication	ok
Version	V178

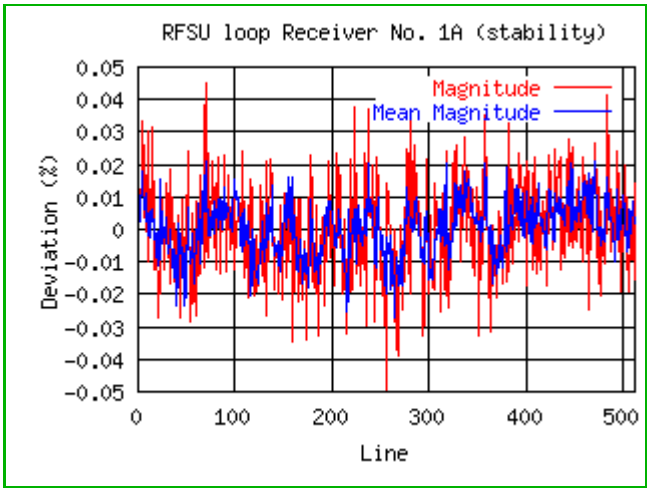
MOD/REC1 Functional

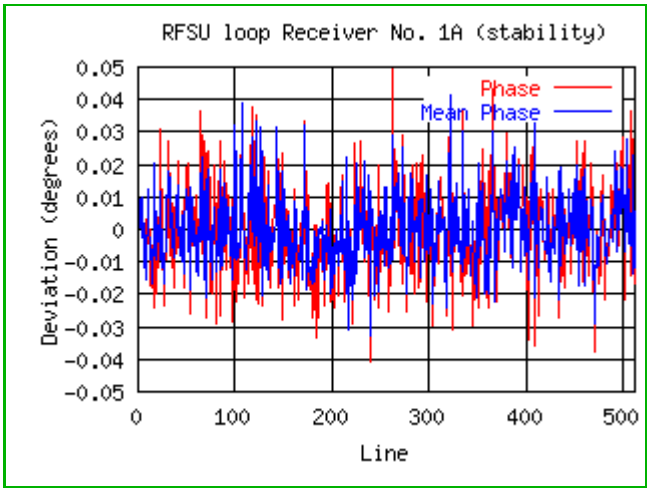
Modulator-Receiver Loop

Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160541797 ..NONE
Stability check RFSU loop Receiver No. 1A

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit

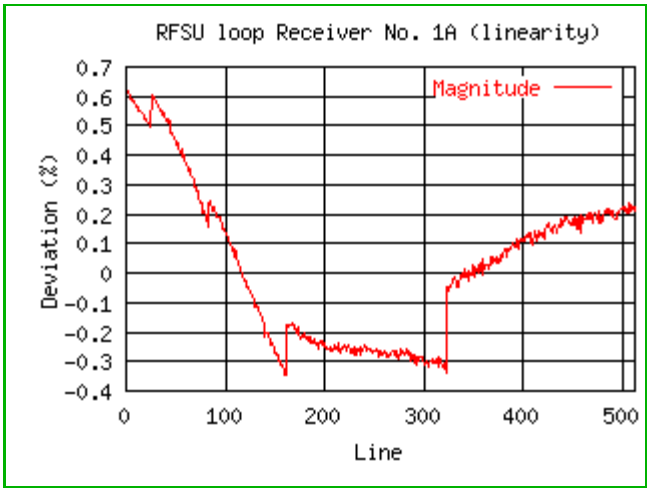
Max.	24179.52		30000.00		-9.24			deg
Min.	24156.65	10000.00			-9.33			deg
Mean	24168.60				-9.29			deg
Peak to peak deviation (from mean)	0.09	0.00	0.50	%				
Peak to peak deviation					0.09	0.00	0.50	deg

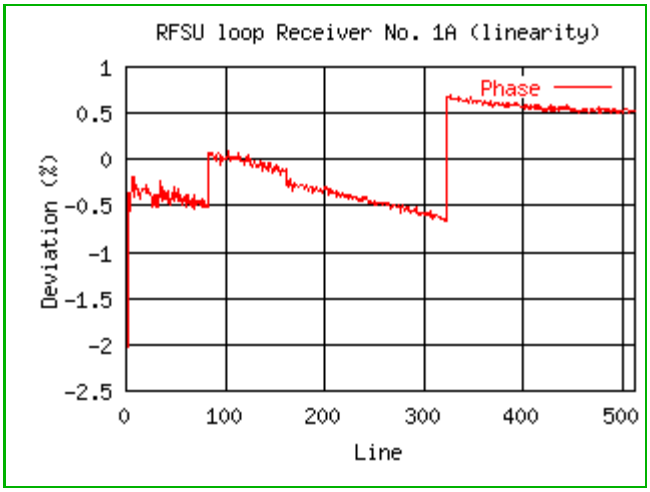




Linearity check RFSU loop Receiver No. 1A

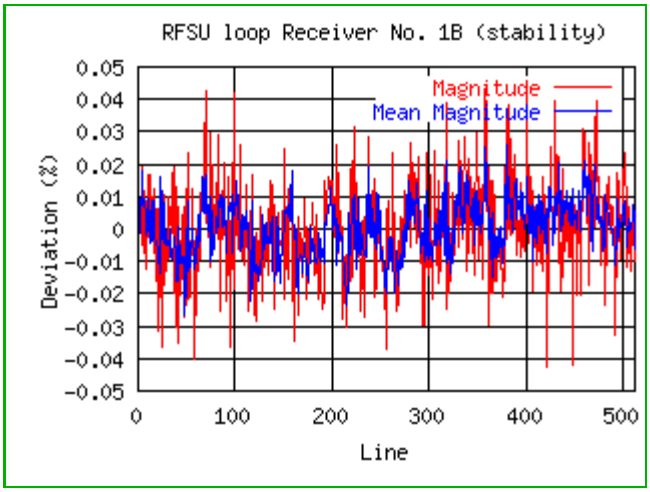
	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	24253.03				-9.03			deg
Min.	1158.71				-10.39			deg
Deviation (from linear function)	0.61	0.00	3.00	%				
Mean					-9.73			deg
Peak to peak deviation					1.36	0.00	5.00	deg

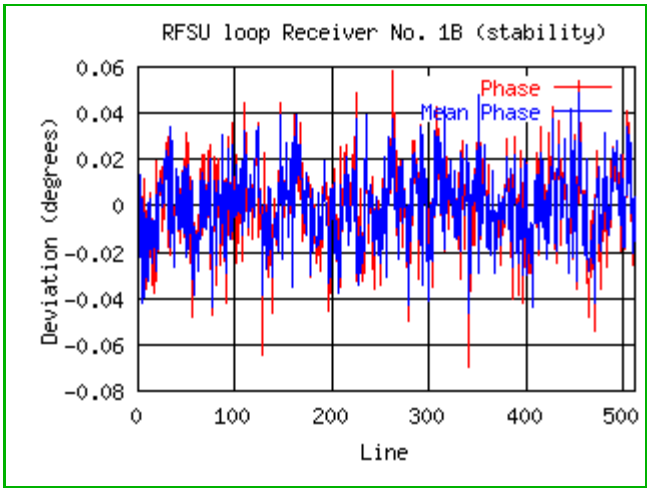




Stability check RFSU loop Receiver No. 1B

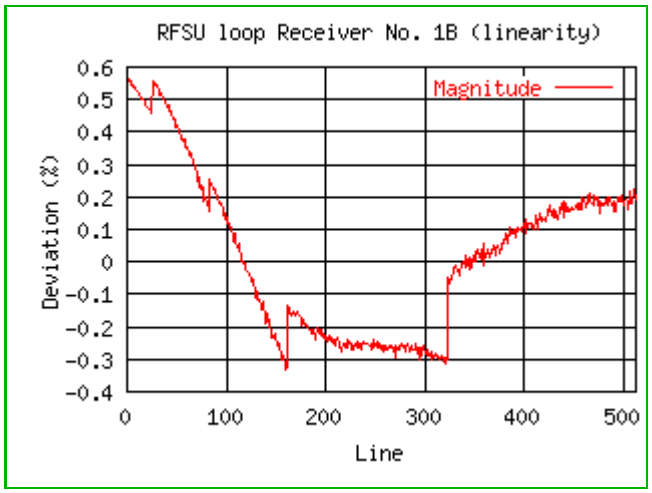
	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	23496.29		30000.00		-7.98			deg
Min.	23476.15	10000.00			-8.11			deg
Mean	23486.08				-8.04			deg
Peak to peak deviation (from mean)	0.09	0.00	0.50	%				
Peak to peak deviation					0.13	0.00	0.50	deg

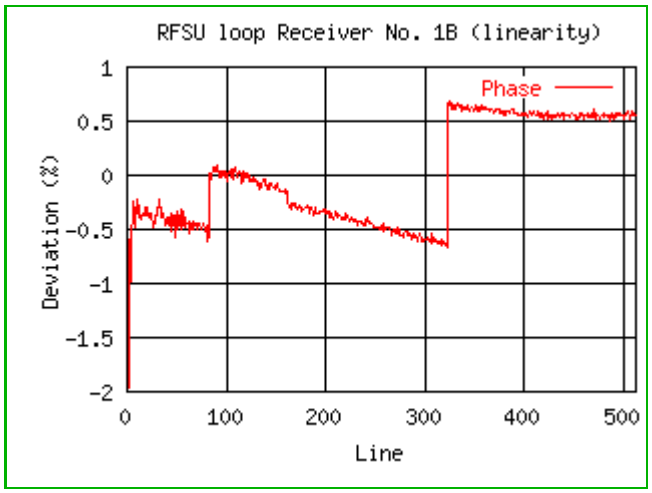




Linearity check RFSU loop Receiver No. 1B

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	23569.74				-7.83			deg
Min.	1128.96				-9.18			deg
Deviation (from linear function)	0.56	0.00	3.00	%				
Mean					-8.52			deg
Peak to peak deviation					1.36	0.00	5.00	deg





MOD/REC1 Functional

Receiver 1 A/B symmetry

Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160541931 ..NONE

	Value	Low Spec	High Spec	Unit
Receiver 1A	24144.152			ADC
Receiver 1B	23462.516			ADC
Deviation	2.823	0.000	20.000	%

MOD/REC1 Functional

Reference Voltage (TALES)

Used nucleus: 1H
..Measurement 1 ..ok ..ok ..NONE

	Value	Low Spec	High Spec	Unit
Reference Voltage	0.504	0.475	0.525	V

RFPA Comm/Status

RFPA Communication

RFPA Communication: RFPAK2204

	Value
Communication	ok
Version	V178

RFPA Comm/Status

RFPA PowerOnSet

	Status
fRFPATest	ok

RFPA Comm/Status

RFPA Status

RFPA Status: RFPAK2204

	Value
Status	ok
Detailed status	RFPA_STATUS: Run status = run RFPA_STATUS: Shutdown = ok RFPA_STATUS: Temperature = ok RFPA_STATUS: Dutycycle = ok RFPA_STATUS: Current = ok RFPA_STATUS: RF Power = ok RFPA_STATUS: Voltage = ok RFPA_STATUS: Amplifier status = ok

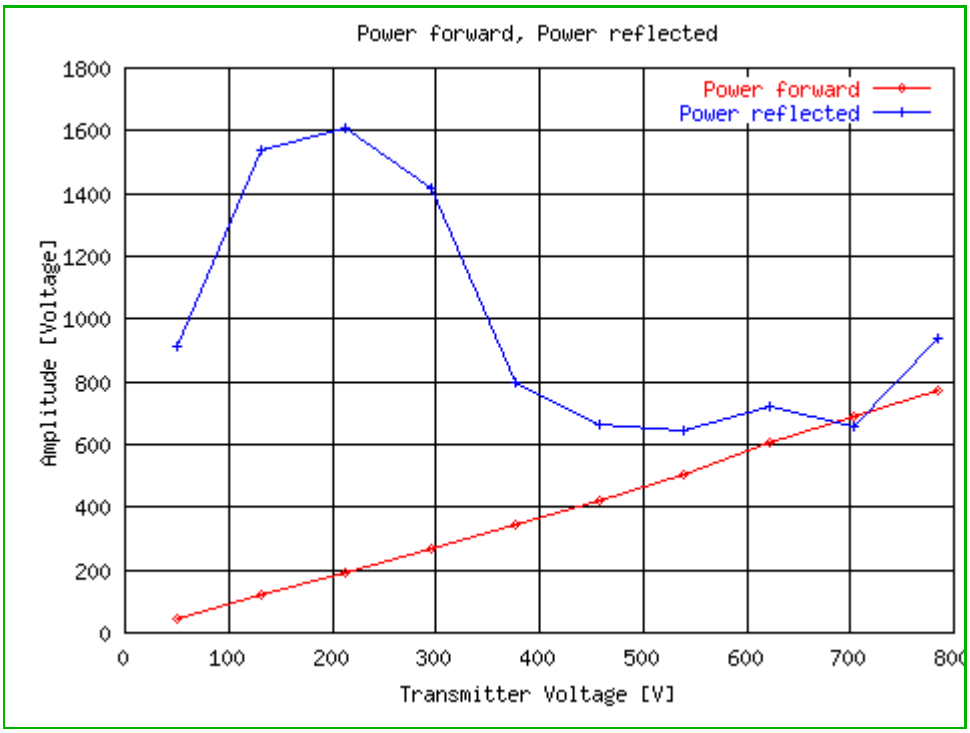
RFPA Functional

RFPA Power

Used nucleus: 1H
..Measurement DICO_1 ..ok ..Local 4.0.160542047 ..RFPA1
..Measurement DICO_2 ..ok ..Local 4.0.160542163 ..RFPA1
..Measurement DICO_3 ..ok ..Local 4.0.160542279 ..RFPA1
..Measurement DICO_4 ..ok ..Local 4.0.160542395 ..RFPA1
..Measurement DICO_5 ..ok ..Local 4.0.160542511 ..RFPA1
..Measurement DICO_6 ..ok ..Local 4.0.160542627 ..RFPA1
..Measurement DICO_7 ..ok ..Local 4.0.160542743 ..RFPA1
..Measurement DICO_8 ..ok ..Local 4.0.160546959 ..RFPA1
..Measurement DICO_9 ..ok ..Local 4.0.160547075 ..RFPA1
..Measurement DICO_10 ..ok ..Local 4.0.160547191 ..RFPA1

RFPA Power Test (DICO)

	Value	Low Spec	High Spec	Unit
Forward max. Nominal	785.013			V
Forward max. actual (DICO)	772.055	500.000		V
Reflected max. (DICO)	1605.680	0.000	200.000	V
Deviation Forward max. Nominal - Actual max. (DICO)	1.651	0.000	5.000	%
Max Ratio Reflected / Forward (DICO)	1941.079	0.000	25.000	%



RFPA Functional

RFPA Power (max)

Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160547307 ..RFPA1

	Value	Low Spec	High Spec	Unit
Forward Nominal	785.013			V
Forward Actual	802.375			V
Deviation Forward Nominal - Actual (DICO)	2.212	0.000	10.000	%
Ratio Reflected/Forward (DICO)	120.975	0.000	25.000	%

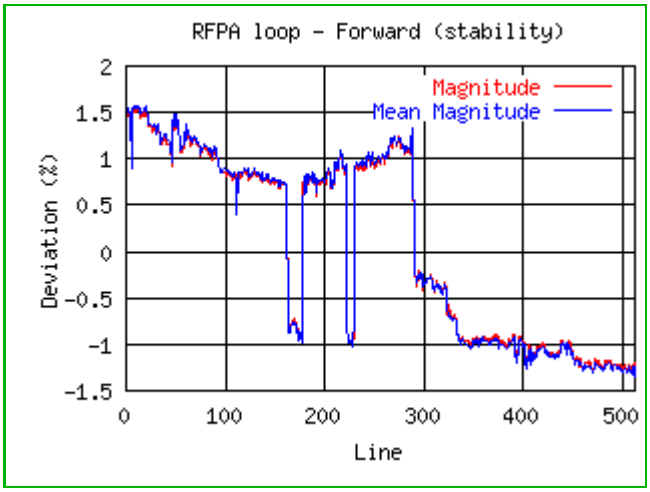
RFPA Functional

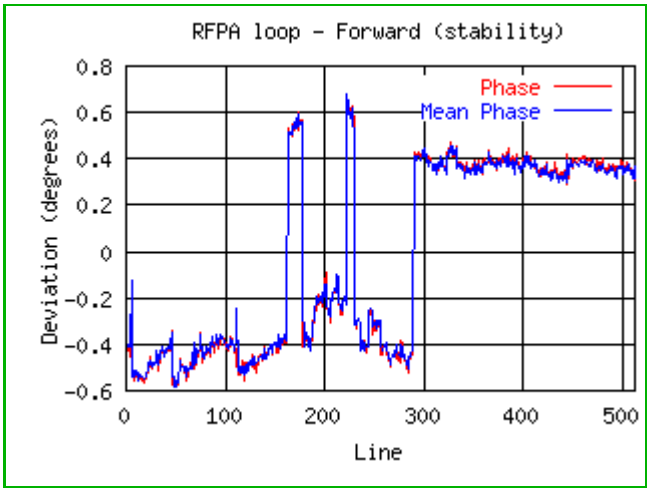
RFPA Loop

Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160547423 ..RFPA1

Stability check RFPA loop - Forward

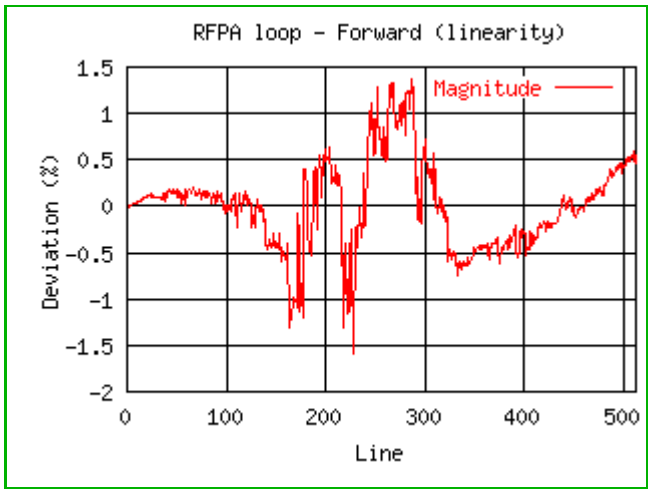
	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	17594.98		30000.00		-112.93			deg
Min.	17111.41	8000.00			-114.19			deg
Mean	17344.20				-113.61			deg
Peak to peak deviation (from mean)	2.79	0.00	3.00	%				
Peak to peak deviation					1.25	0.00	3.00	deg

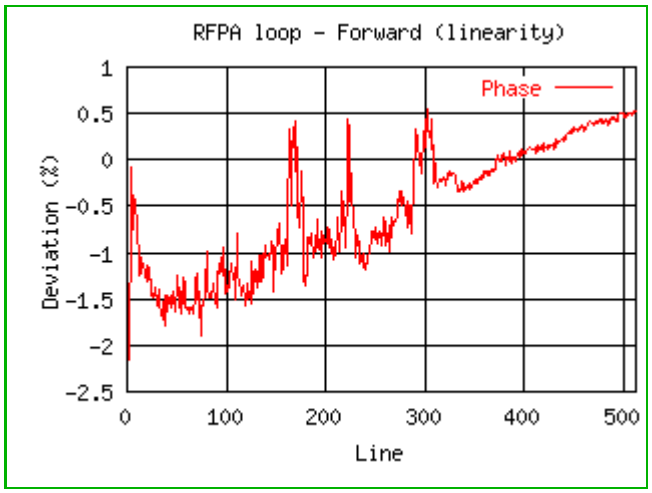




Linearity check RFPA loop - Forward

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	17140.02				246.74			deg
Min.	852.98				244.30			deg
Deviation (from linear function)	1.59	0.00	3.00	%				
Mean					246.21			deg
Peak to peak deviation					2.44	0.00	10.00	deg





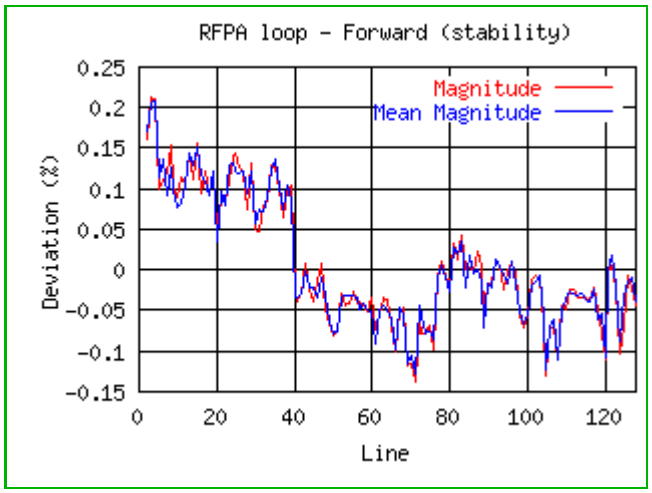
RFPA Functional

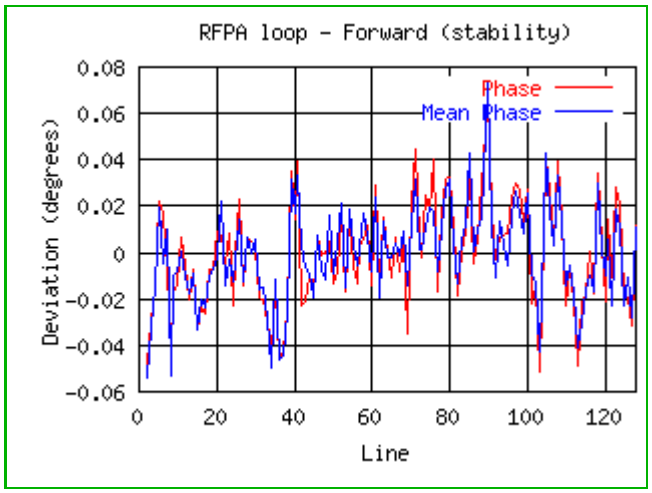
RFPA Loop (linear chara)

Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160547539 ..RFPA1

Stability check RFPA loop - Forward

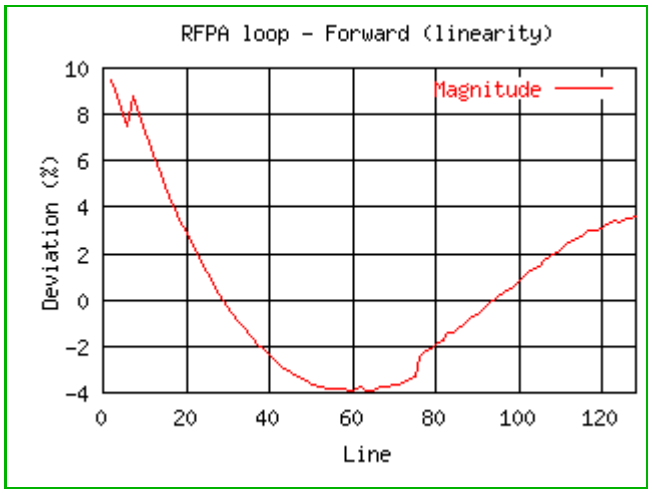
	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	15805.93		30000.00		74.27			deg
Min.	15759.75	1000.00			74.15			deg
Mean	15781.32				74.20			deg
Peak to peak deviation (from mean)	0.29	0.00	3.00	%				
Peak to peak deviation					0.12	0.00	3.00	deg

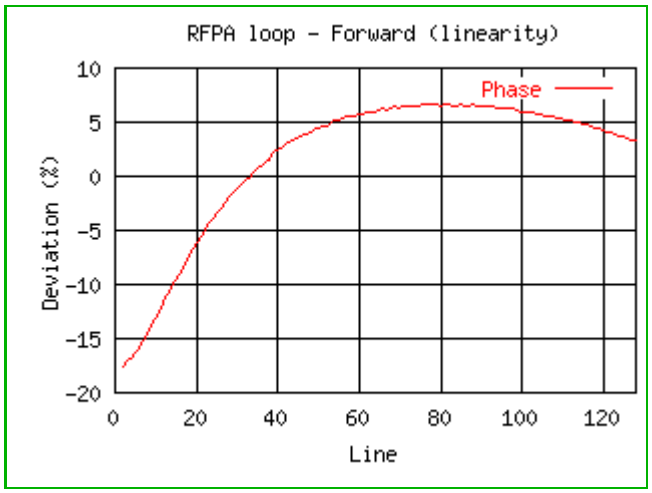




Linearity check RFPA loop - Forward

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	15805.38				-282.39			deg
Min.	311.88				-304.32			deg
Deviation (from linear function)	8.79	0.00	60.00	%				
Mean					-289.10			deg
Peak to peak deviation					21.93	0.00	60.00	deg





RFPA Functional

RFPA-TALES

Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160547657 ..RFPA1
..Measurement 2 ..ok ..Local 4.0.160547657 ..RFPA1

	Value	Low Spec	High Spec	Unit
Forward (TALES)	625.922	570.000	730.000	V
Reflected (TALES)	42.329	0.000	200.000	V
Forward (DICO)	627.758			V
Reflected (DICO)	244.617			V
Deviation Forward DICO - TALES	0.293	0.000	15.000	%
Ratio Reflected/Forward (DICO)	38.967	0.000	25.000	%

RFPA Functional

RFPA-TALES (linear chara)

Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160547775 ..RFPA1
..Measurement 2 ..ok ..Local 4.0.160547775 ..RFPA1

	Value	Low Spec	High Spec	Unit
Forward (TALES)	643.155			V
Reflected (TALES)	43.103	0.000	200.000	V
Forward (DICO)	645.934			V
Reflected (DICO)	252.314			V
Deviation Forward DICO - TALES	0.432	0.000	80.000	%
Ratio Reflected/Forward (DICO)	39.062	0.000	25.000	%

RFAS Comm/Status

LCCS Communication

LCCS Communication: RFASK2200

	Value
Communication	ok
Version	V178

RFAS Comm/Status

LCCS Status

LCCS Status: RFASK2200

	Value
Status	ok
Detailed status	LCCS_STATUS: +15 Volt = ok LCCS_STATUS: -15 Volt = ok LCCS_STATUS: 10 Volt for local coils = ok

RFAS Functional

Transmitter-Receiver-Switch

Used nucleus: 1H
..Measurement TAS to dummy load ..ok ..Local 4.0.160547891 ..RFPA1
..Measurement TAS to body coil ..ok ..Local 4.0.160548959 ..RFPA1

	Value	Low Spec	High Spec	Unit
max ADC (DummyLoad)	13.714			ADC

max ADC (BodyCoil)	12.234			ADC
Deviation max ADCs	10.786	0.000	100.000	%

RFAS Functional

BCCS Hybrid

Used nucleus: 1H
..Measurement 1 ..ok ..ok ..RFPA1

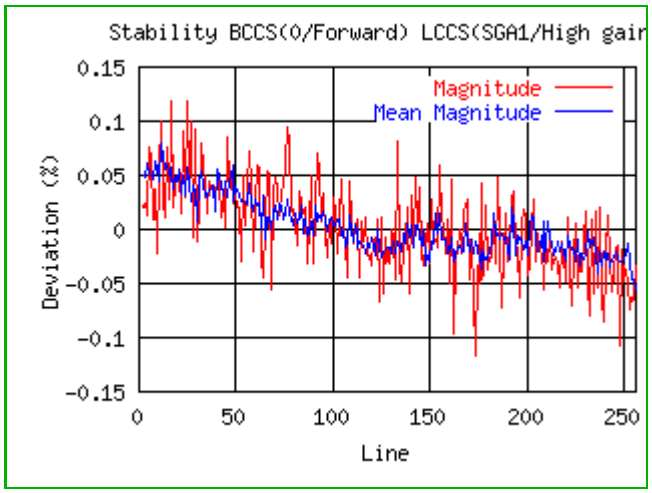
	Value	Low Spec	High Spec	Unit
Deviation Forward 90/0 degree (TALES)	0.651	0.000	15.000	%
Ratio Reflected/Forward (TALES)	7.182	0.000	30.000	%

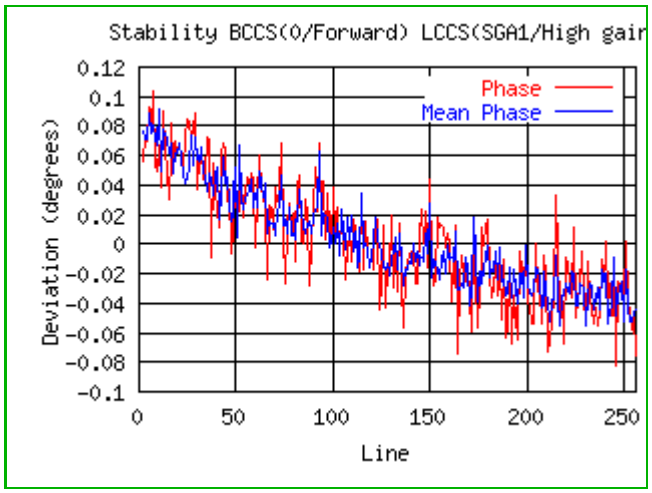
RFAS Functional

BCCS(0 degree forward) LCCS(high gain)

Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160549005 ..NONE
Stability check BCCS(0 degree forward) LCCS(SGA1 high gain)

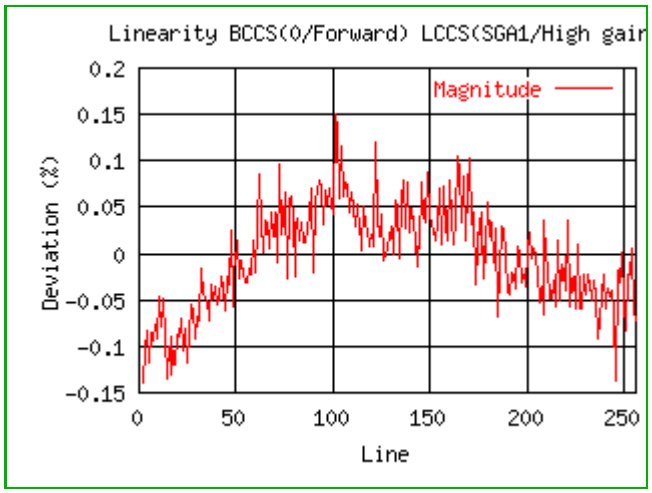
	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7411.45		30000.00		-130.41			deg
Min.	7393.95	3000.00			-130.58			deg
Mean	7402.62				-130.50			deg
Peak to peak deviation (from mean)	0.24	0.00	0.50	%				
Peak to peak deviation					0.17	0.00	0.50	deg

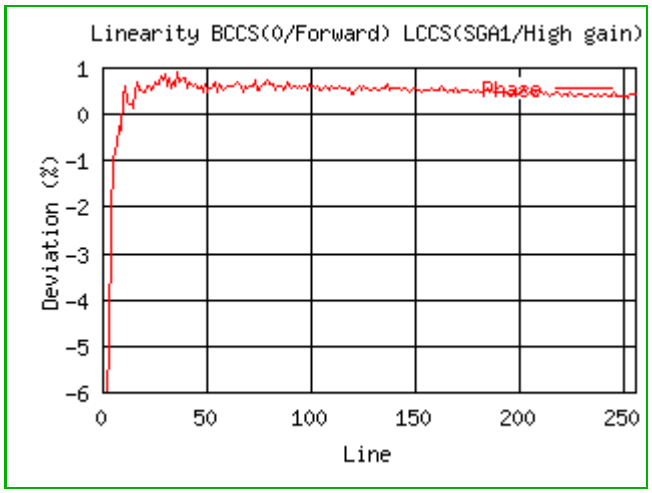




Linearity check BCCS(0 degree forward) LCCS(SGA1 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7398.61				-130.02			deg
Min.	351.23				-130.77			deg
Deviation (from linear function)	0.15	0.00	3.00	%				
Mean					-130.92			deg
Peak to peak deviation					0.75	0.00	5.00	deg

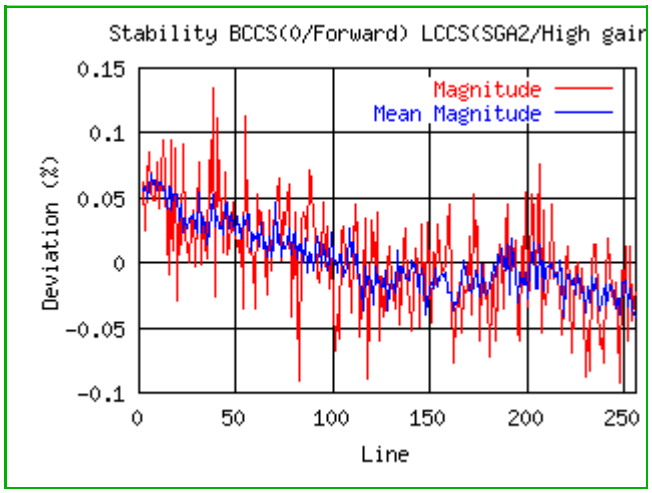


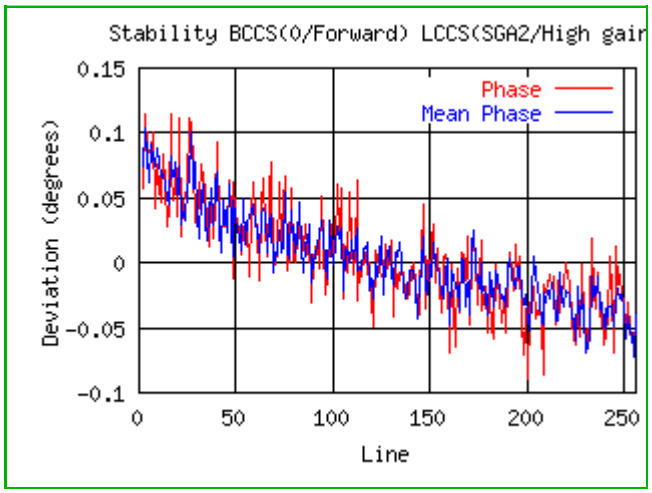


Stability check BCCS(0 degree forward) LCCS(SGA2 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7281.80		30000.00		161.99			deg
Min.	7265.31	3000.00			161.79			deg

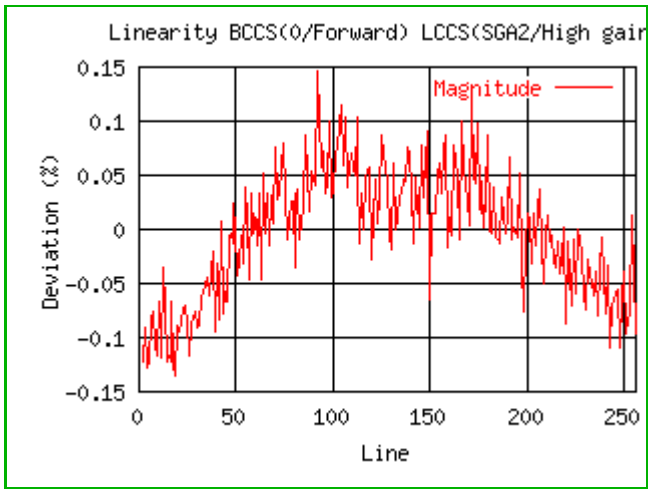
Mean	7272.06				161.88			deg
Peak to peak deviation (from mean)	0.23	0.00	0.50	%				
Peak to peak deviation					0.20	0.00	0.50	deg

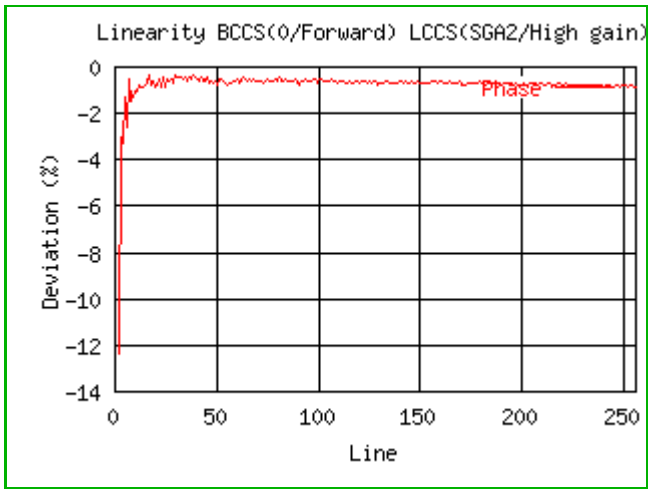




Linearity check BCCS(0 degree forward) LCCS(SGA2 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7268.67				162.30			deg
Min.	347.19				161.76			deg
Deviation (from linear function)	0.15	0.00	3.00	%				
Mean					162.66			deg
Peak to peak deviation					0.55	0.00	5.00	deg





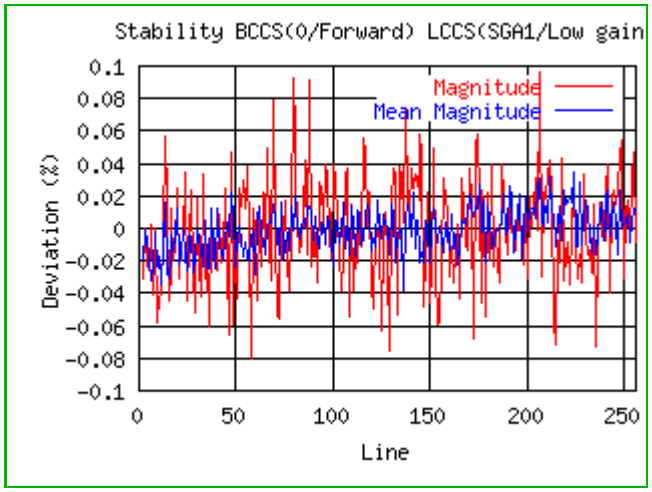
RFAS Functional

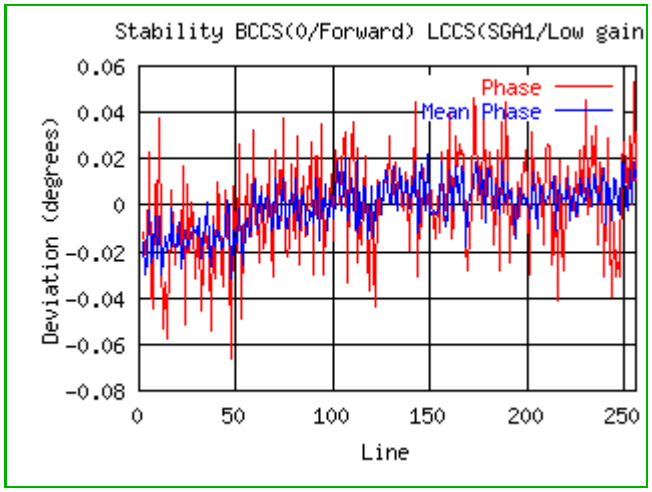
BCCS(0 degree forward) LCCS(low gain)

Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160549121 ..NONE

Stability check BCCS(0 degree forward) LCCS(SGA1 low gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	726.82		30000.00		-96.43			deg
Min.	725.54	300.00			-96.55			deg
Mean	726.12				-96.48			deg
Peak to peak deviation (from mean)	0.18	0.00	0.80	%				
Peak to peak deviation					0.12	0.00	0.80	deg

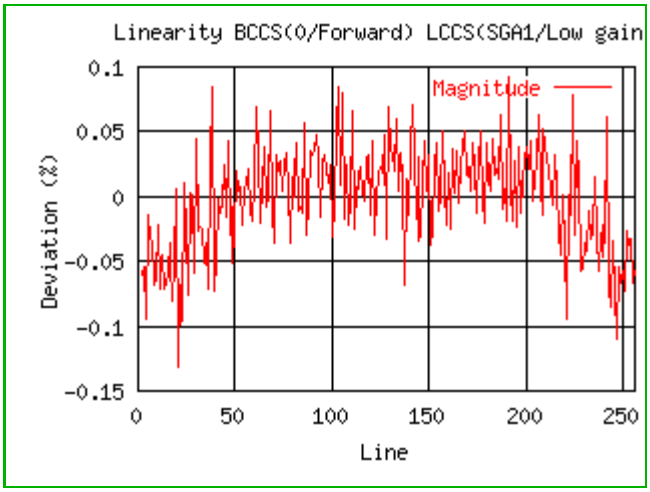


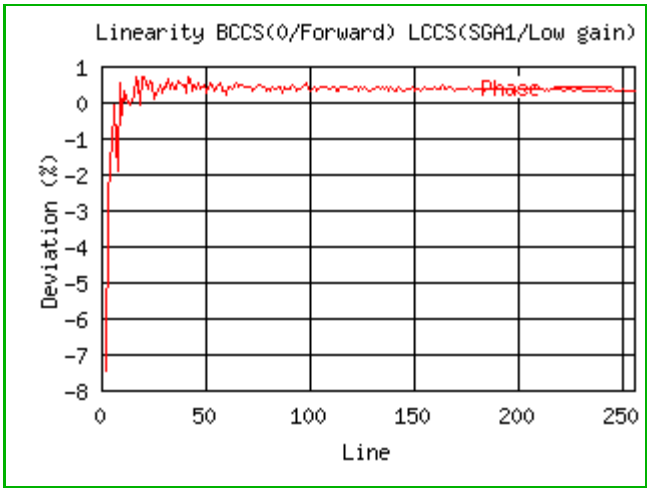


Linearity check BCCS(0 degree forward) LCCS(SGA1 low gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	726.32				-96.08			deg
Min.	34.12				-96.89			deg
Deviation (from linear function)	0.13	0.00	3.00	%				
Mean					-96.81			deg

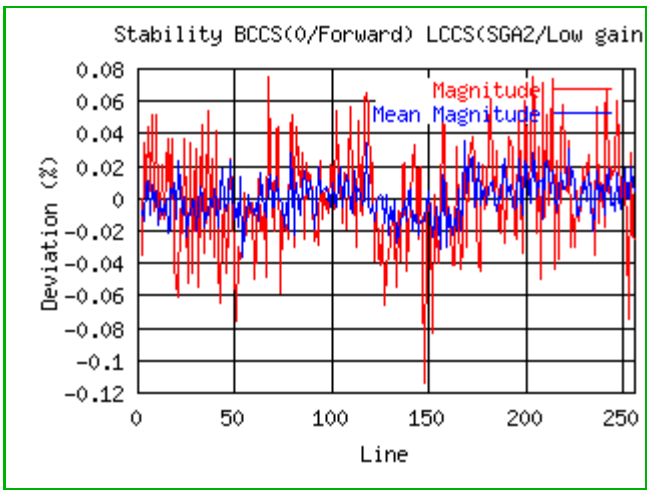
Peak to peak deviation					0.81	0.00	5.00	deg

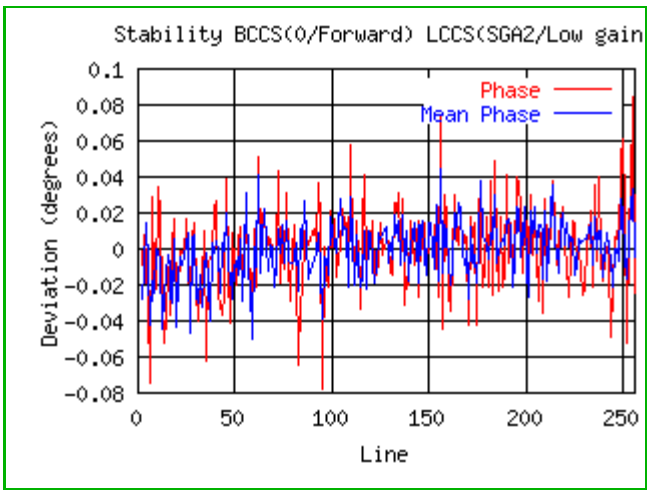




Stability check BCCS(0 degree forward) LCCS(SGA2 low gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	707.19		30000.00		-163.29			deg
Min.	705.85	300.00			-163.46			deg
Mean	706.66				-163.38			deg
Peak to peak deviation (from mean)	0.19	0.00	0.80	%				
Peak to peak deviation					0.16	0.00	0.80	deg

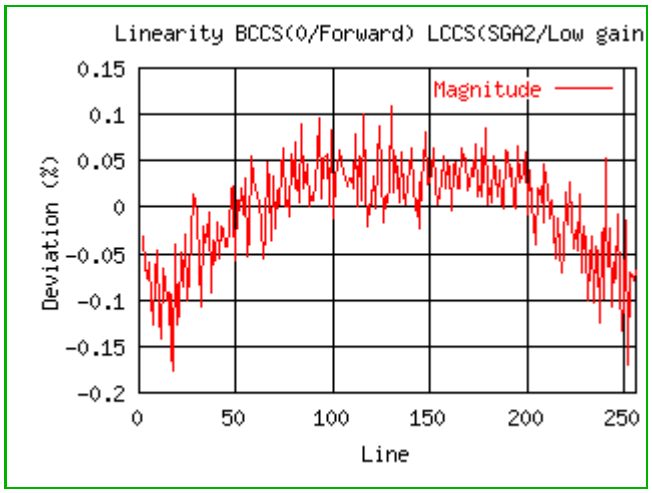


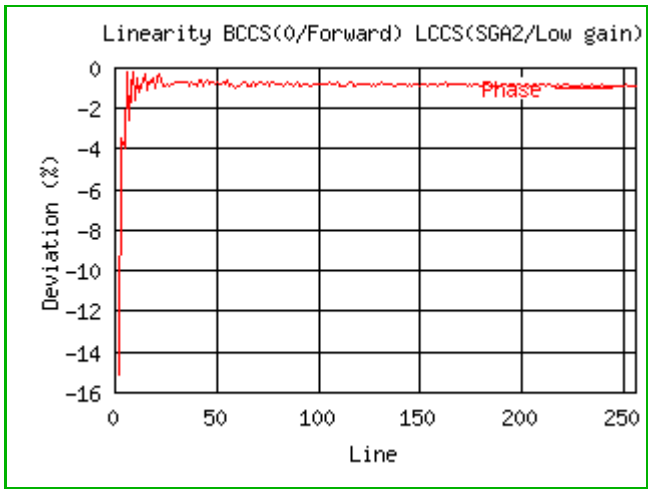


Linearity check BCCS(0 degree forward) LCCS(SGA2 low gain)

	Magnitude Data	Phase Data

	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	706.91				197.23			deg
Min.	33.35				196.41			deg
Deviation (from linear function)	0.18	0.00	3.00	%				
Mean					197.50			deg
Peak to peak deviation					0.82	0.00	5.00	deg





RFAS Functional

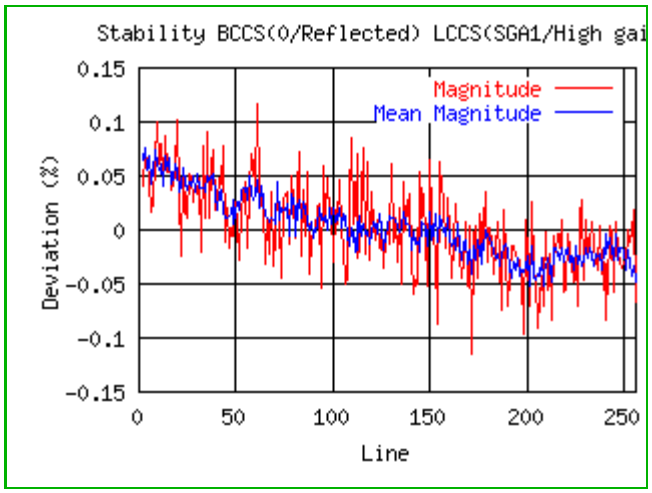
BCCS(0 degree reflected) LCCS(high gain)

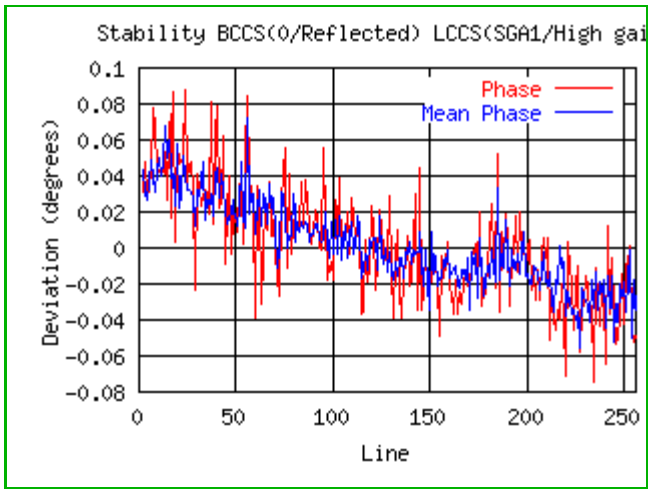
Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160549237 ..NONE

Stability check BCCS(0 degree reflected) LCCS(SGA1 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7153.63		30000.00		-164.00			deg
Min.	7137.14	3000.00			-164.16			deg
Mean	7145.35				-164.08			deg
Peak to peak deviation (from mean)	0.23	0.00	0.50	%				

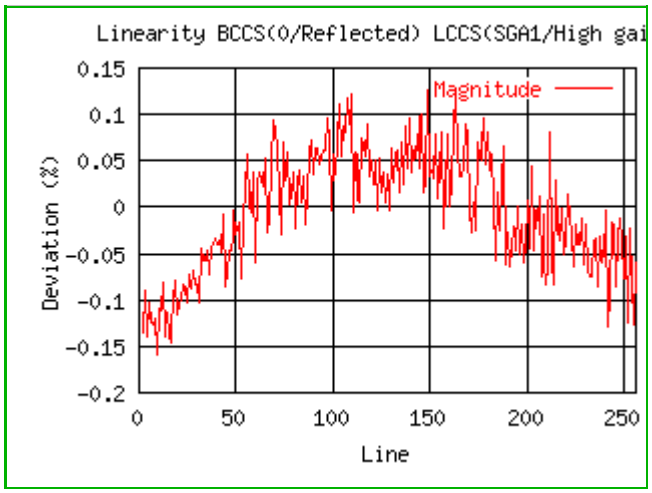
Peak to peak deviation					0.16	0.00	0.50	deg

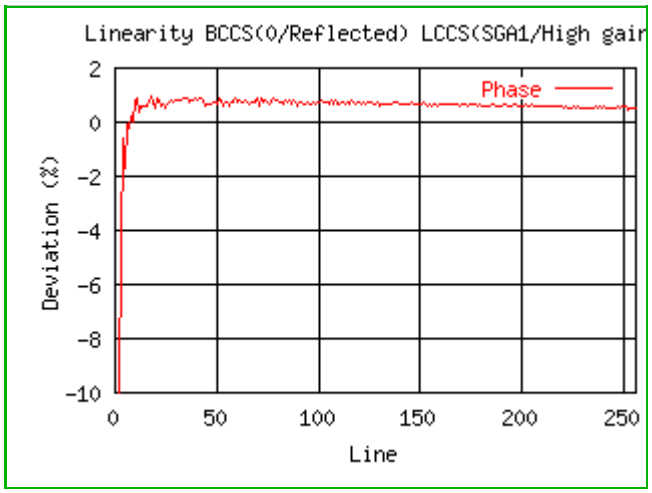




Linearity check BCCS(0 degree reflected) LCCS(SGA1 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7143.37				-163.64			deg
Min.	336.69				-164.15			deg
Deviation (from linear function)	0.15	0.00	3.00	%				
Mean					-164.63			deg
Peak to peak deviation					0.51	0.00	5.00	deg

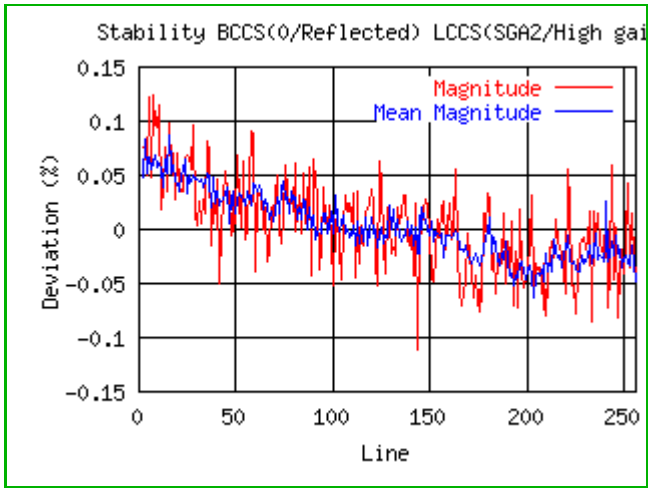


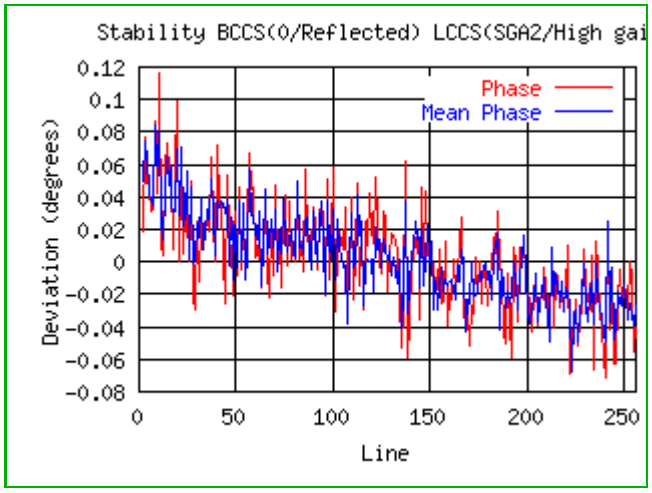


Stability check BCCS(0 degree reflected) LCCS(SGA2 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit

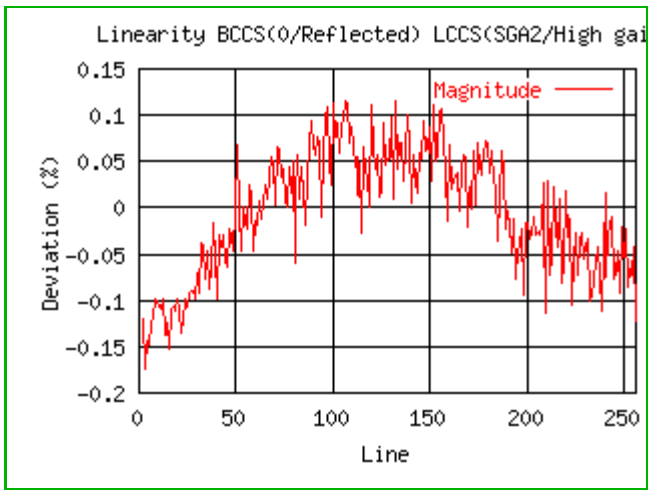
Max.	7125.81		30000.00		128.35			deg
Min.	7110.88	3000.00			128.18			deg
Mean	7118.83				128.25			deg
Peak to peak deviation (from mean)	0.21	0.00	0.50	%				
Peak to peak deviation					0.17	0.00	0.50	deg

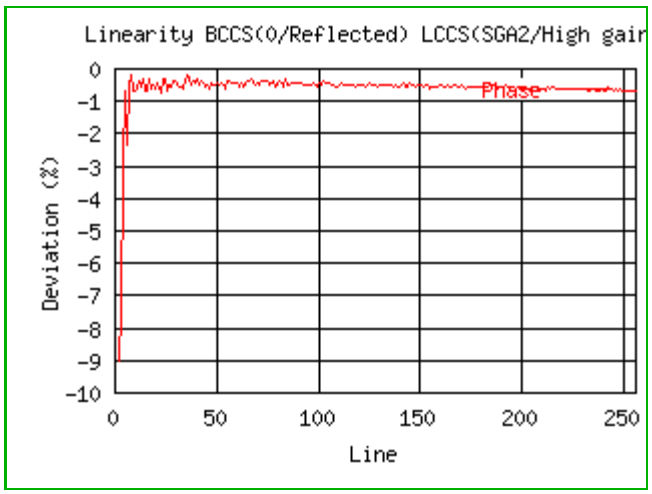




Linearity check BCCS(0 degree reflected) LCCS(SGA2 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7112.97				128.71			deg
Min.	336.12				128.18			deg
Deviation (from linear function)	0.15	0.00	3.00	%				
Mean					128.90			deg
Peak to peak deviation					0.52	0.00	5.00	deg





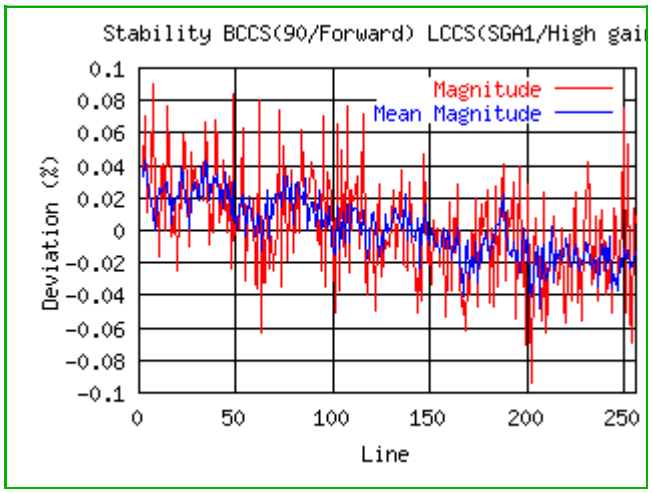
RFAS Functional

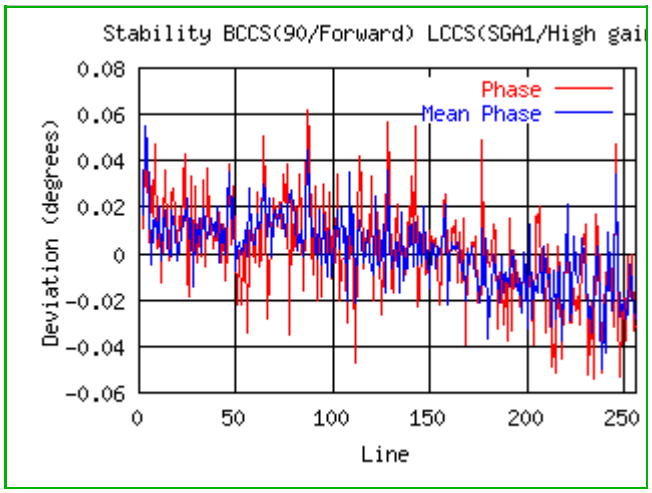
BCCS(90 degree forward) LCCS(high gain)

Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160549353 ..NONE

Stability check BCCS(90 degree forward) LCCS(SGA1 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7800.86		30000.00		139.37			deg
Min.	7786.93	3000.00			139.26			deg
Mean	7794.29				139.31			deg
Peak to peak deviation (from mean)	0.18	0.00	0.50	%				
Peak to peak deviation					0.12	0.00	0.50	deg

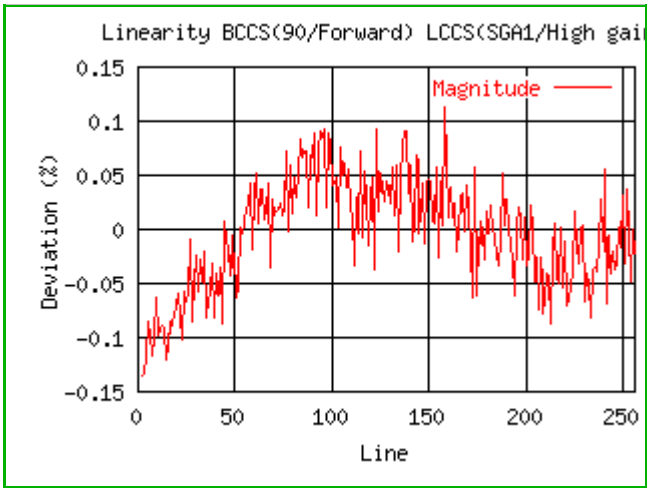


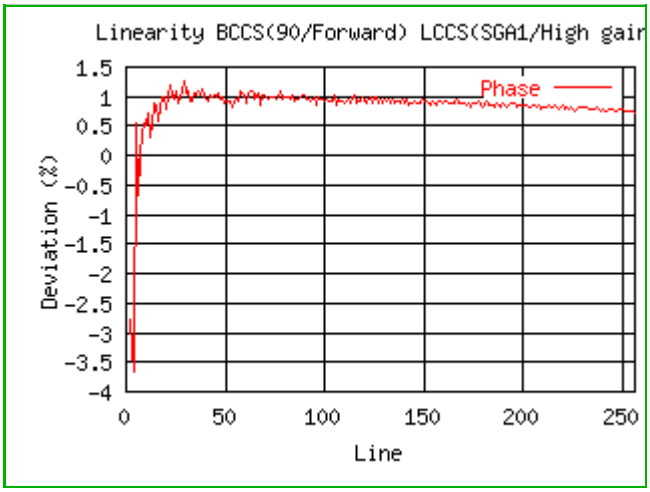


Linearity check BCCS(90 degree forward) LCCS(SGA1 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7789.92				-220.21			deg

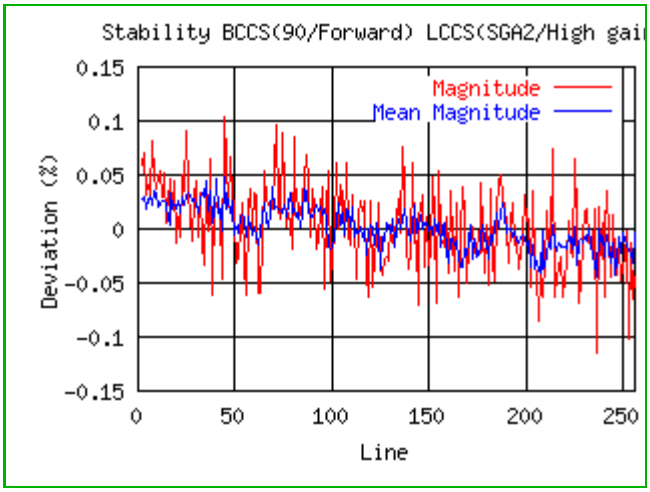
Min.	369.02				-220.95			deg
Deviation (from linear function)	0.12	0.00	3.00	%				
Mean					-221.46			deg
Peak to peak deviation					0.74	0.00	5.00	deg

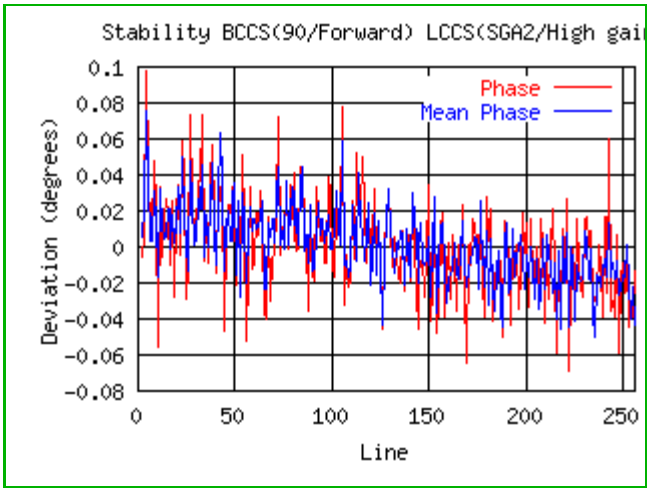




Stability check BCCS(90 degree forward) LCCS(SGA2 high gain)

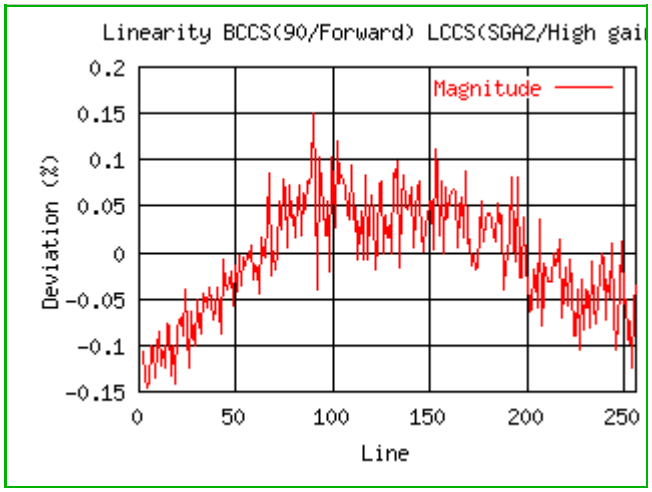
	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7294.45		30000.00		-107.39			deg
Min.	7278.52	3000.00			-107.53			deg
Mean	7286.88				-107.47			deg
Peak to peak deviation (from mean)	0.22	0.00	0.50	%				
Peak to peak deviation					0.15	0.00	0.50	deg

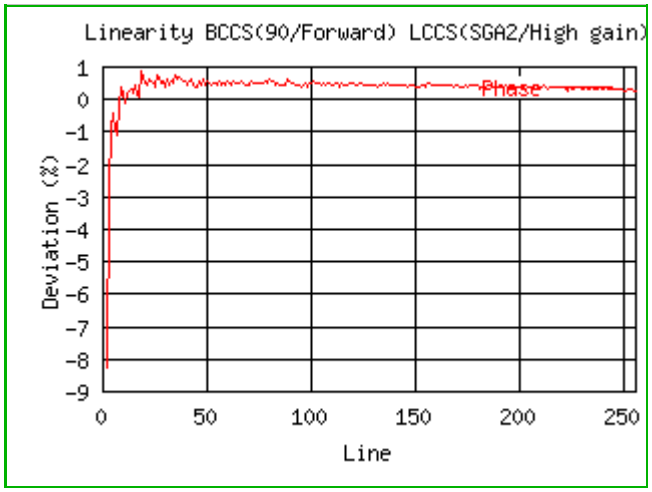




Linearity check BCCS(90 degree forward) LCCS(SGA2 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7286.50				-106.88			deg
Min.	344.41				-107.71			deg
Deviation (from linear function)	0.15	0.00	3.00	%				
Mean					-107.78			deg
Peak to peak deviation					0.82	0.00	5.00	deg





RFAS Functional

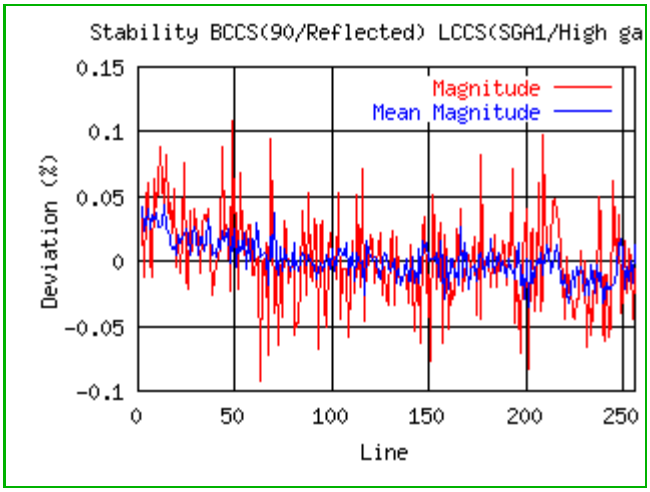
BCCS(90 degree reflected) LCCS(high gain)

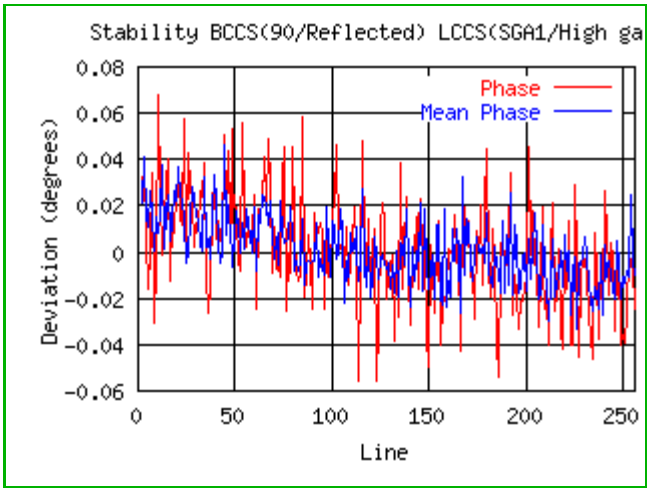
Used nucleus: 1H
..Measurement 1 ..ok ..Local 4.0.160549469 ..NONE

Stability check BCCS(90 degree reflected) LCCS(SGA1 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7187.61		30000.00		103.29			deg

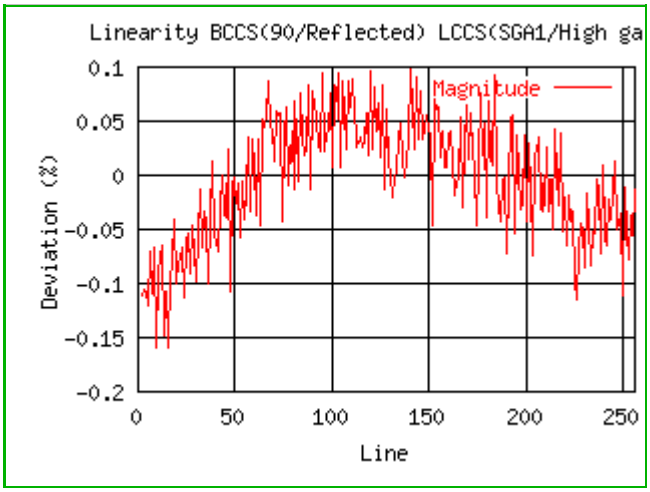
Min.	7173.13	3000.00			103.17			deg
Mean	7179.78				103.23			deg
Peak to peak deviation (from mean)	0.20	0.00	0.50	%				
Peak to peak deviation					0.11	0.00	0.50	deg

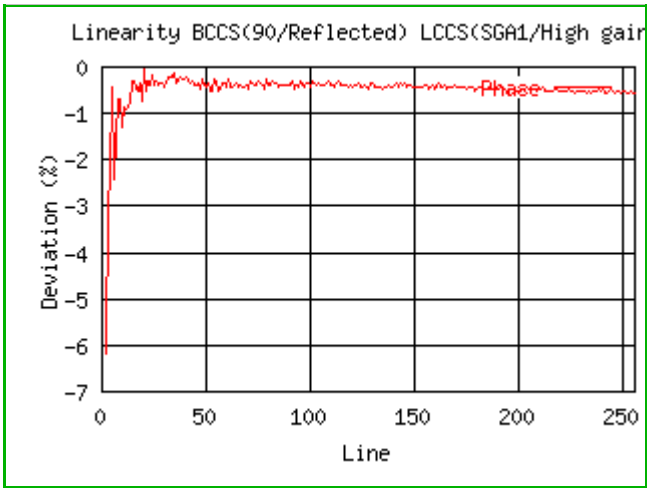




Linearity check BCCS(90 degree reflected) LCCS(SGA1 high gain)

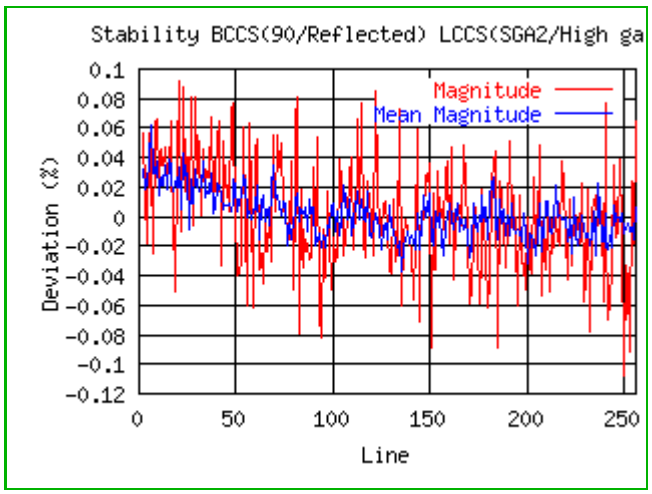
	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	7182.17				103.71			deg
Min.	336.80				103.00			deg
Deviation (from linear function)	0.16	0.00	3.00	%				
Mean					103.76			deg
Peak to peak deviation					0.70	0.00	5.00	deg

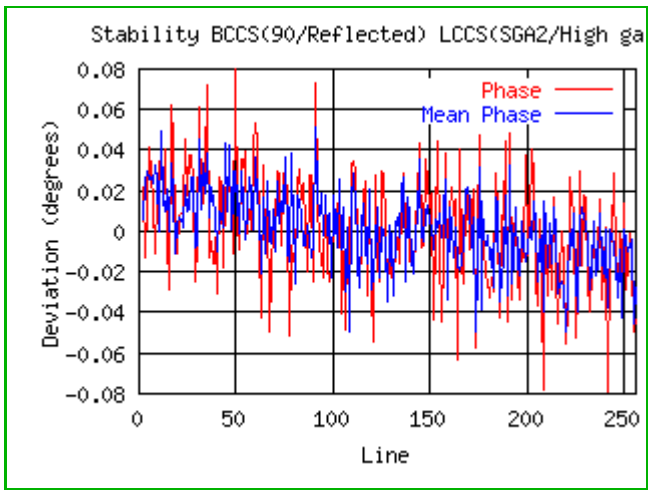




Stability check BCCS(90 degree reflected) LCCS(SGA2 high gain)

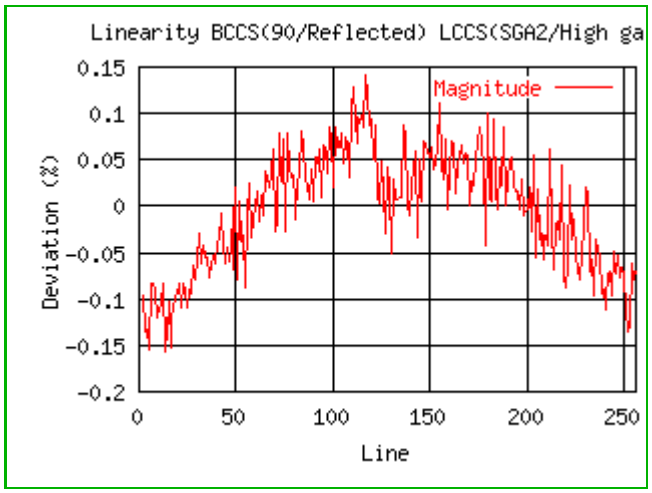
	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	6629.18		30000.00		-143.51			deg
Min.	6615.95	3000.00			-143.67			deg
Mean	6623.12				-143.59			deg
Peak to peak deviation (from mean)	0.20	0.00	0.50	%				
Peak to peak deviation					0.16	0.00	0.50	deg

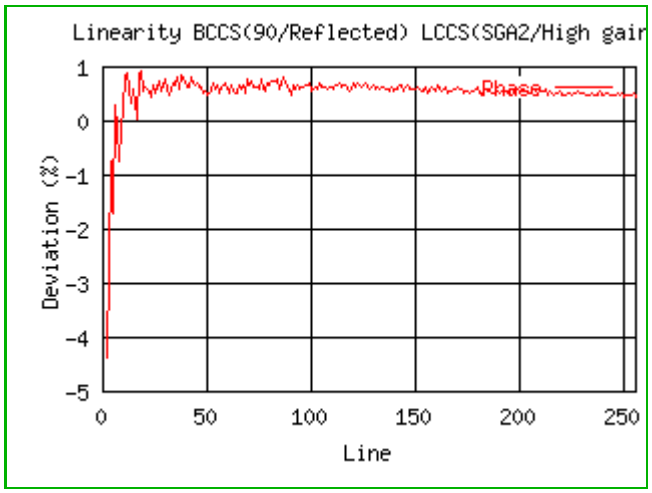




Linearity check BCCS(90 degree reflected) LCCS(SGA2 high gain)

	Magnitude Data				Phase Data			
	Value	Low Spec	High Spec	Unit	Value	Low Spec	High Spec	Unit
Max.	6624.74				-143.15			deg
Min.	311.08				-144.04			deg
Deviation (from linear function)	0.16	0.00	3.00	%				
Mean					-144.07			deg
Peak to peak deviation					0.89	0.00	5.00	deg





RFAS Functional

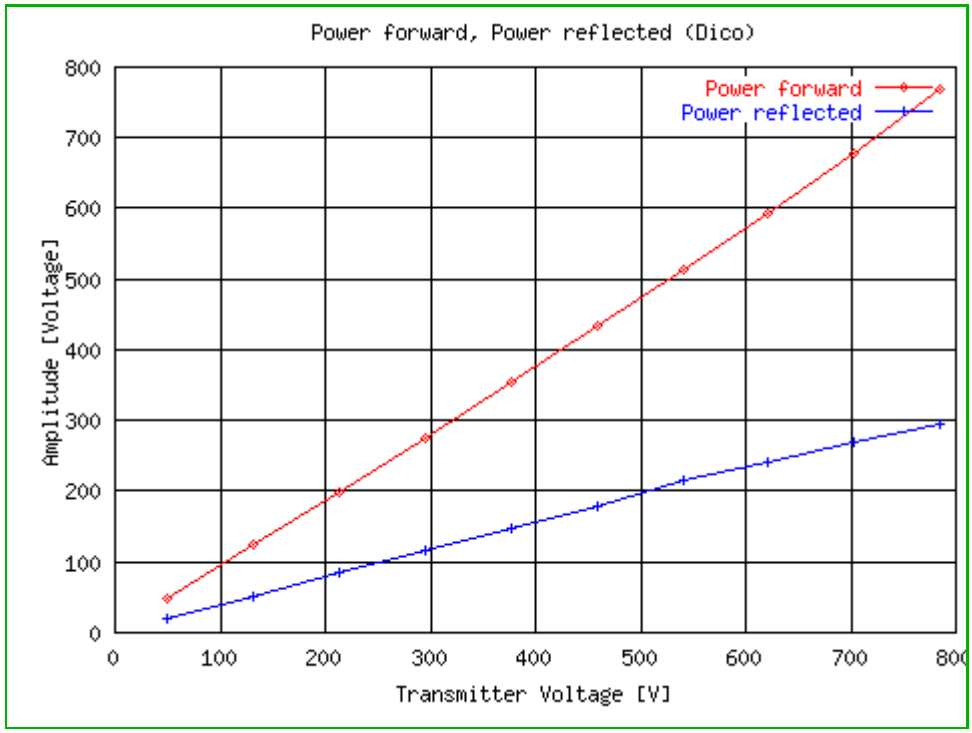
BC-TX-path (reflection)

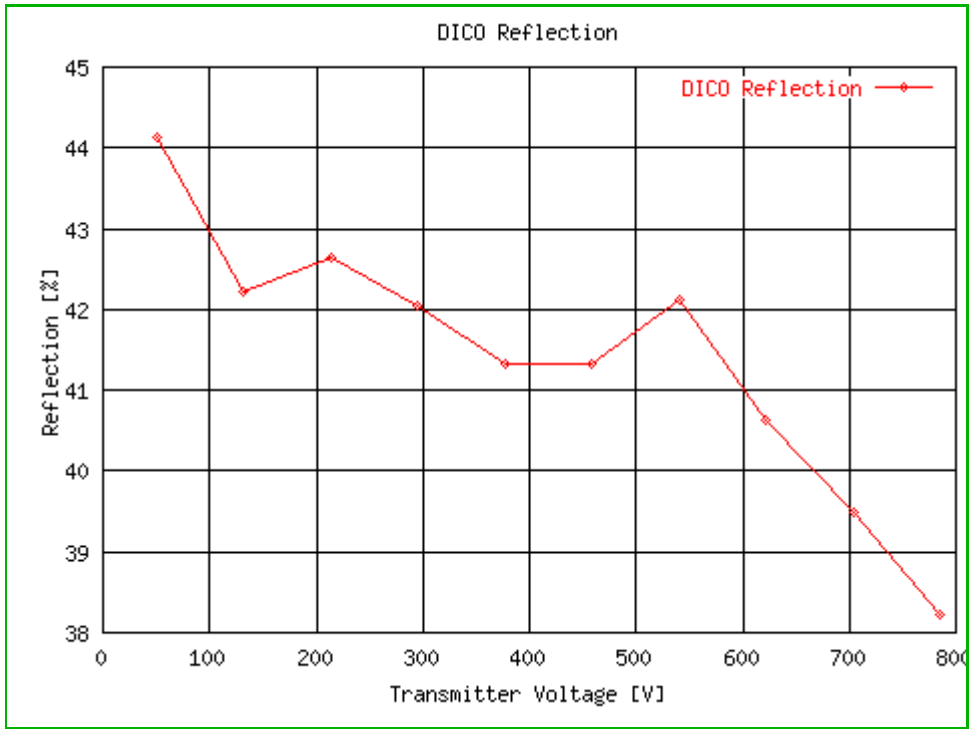
Used nucleus: 1H
: Measured with normal RF characteristic
..Measurement DICO_1 ..ok ..Local 4.0.160549587 ..RFPA1
..Measurement DICO_2 ..ok ..Local 4.0.160549703 ..RFPA1
..Measurement DICO_3 ..ok ..Local 4.0.160549819 ..RFPA1
..Measurement DICO_4 ..ok ..Local 4.0.160549935 ..RFPA1
..Measurement DICO_5 ..ok ..Local 4.0.160550051 ..RFPA1
..Measurement DICO_6 ..ok ..Local 4.0.160550167 ..RFPA1
..Measurement DICO_7 ..ok ..Local 4.0.160550283 ..RFPA1
..Measurement DICO_8 ..ok ..Local 4.0.160550399 ..RFPA1
..Measurement DICO_9 ..ok ..Local 4.0.160550515 ..RFPA1
..Measurement DICO_10 ..ok ..Local 4.0.160550631 ..RFPA1

Transmit path: BC

Results (normal characteristic)

	Value	Low Spec	High Spec	Unit
Forward (at max.ratio)	199.440			V
Reflected (at max. ratio)	85.056			V
Max Ratio Pow-Reflected / Pow-Forward	42.647	0.000	30.000	%


Power forward, Power reflected (Dico)
Power forward
Power reflected
Amplitude [Voltage]
Transmitter Voltage [V]
0
100
200
300
400
500
600
700
800


DICO Reflection
DICO Reflection
Reflection [%]
Transmitter Voltage [V]
38
39
40
41
42
43
44
45
0
100
200
300
400
500
600
700
800

RFAS Functional

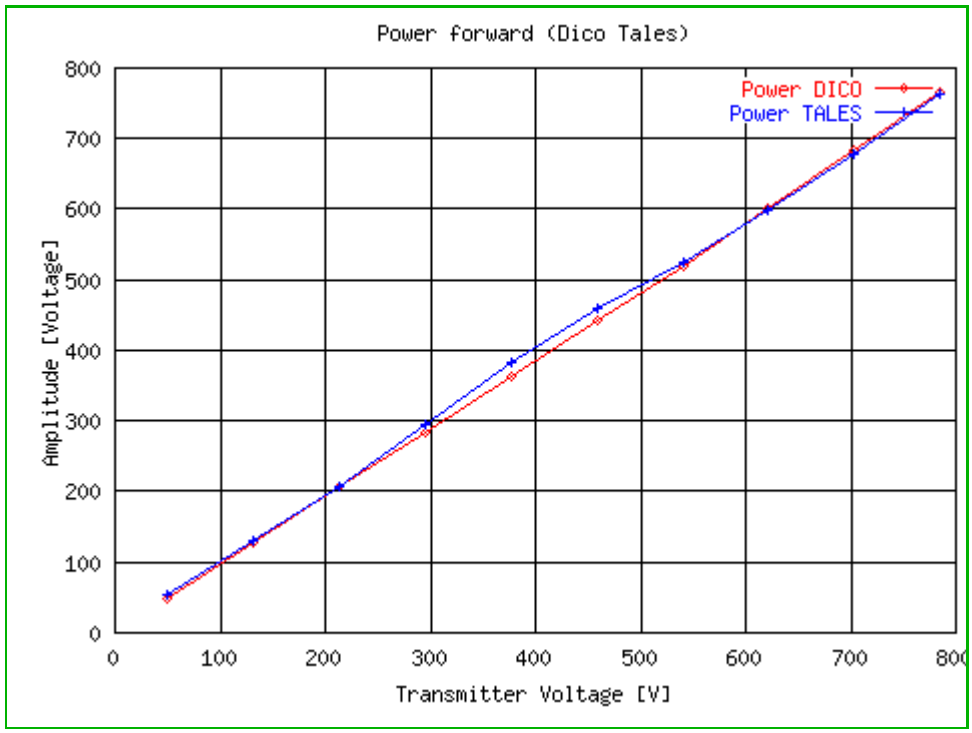
BC-TX-path (voltage)

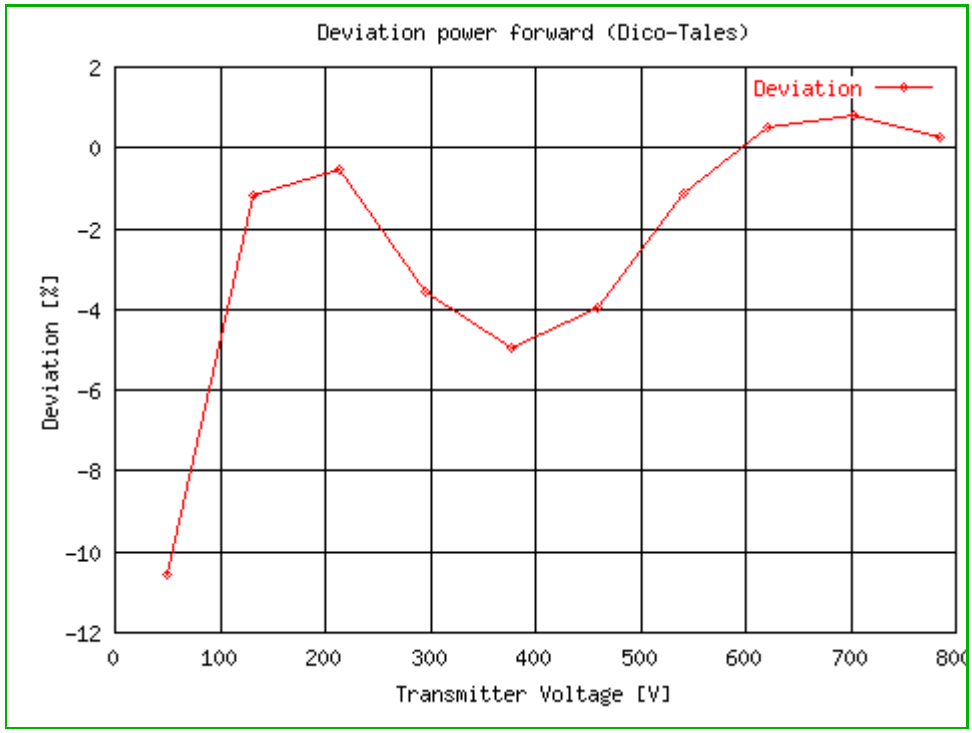
Used nucleus: 1H
: Measured with normal RF characteristic
..Measurement DICO_1 ..ok ..Local 4.0.160550749 ..RFPA1
..Measurement DICO_2 ..ok ..Local 4.0.160550865 ..RFPA1
..Measurement DICO_3 ..ok ..Local 4.0.160550981 ..RFPA1
..Measurement DICO_4 ..ok ..Local 4.0.160551097 ..RFPA1
..Measurement DICO_5 ..ok ..Local 4.0.160551213 ..RFPA1
..Measurement DICO_6 ..ok ..Local 4.0.160551329 ..RFPA1
..Measurement DICO_7 ..ok ..Local 4.0.160551445 ..RFPA1
..Measurement DICO_8 ..ok ..Local 4.0.160551561 ..RFPA1
..Measurement DICO_9 ..ok ..Local 4.0.160551677 ..RFPA1
..Measurement DICO_10 ..ok ..Local 4.0.160551793 ..RFPA1
..Measurement TALES_1 ..ok ..Local 4.0.160551793 ..RFPA1
..Measurement TALES_2 ..ok ..Local 4.0.160551793 ..RFPA1
..Measurement TALES_3 ..ok ..Local 4.0.160551793 ..RFPA1
..Measurement TALES_4 ..ok ..Local 4.0.160551793 ..RFPA1
..Measurement TALES_5 ..ok ..Local 4.0.160551793 ..RFPA1
..Measurement TALES_6 ..ok ..Local 4.0.160551793 ..RFPA1
..Measurement TALES_7 ..ok ..Local 4.0.160551793 ..RFPA1
..Measurement TALES_8 ..ok ..Local 4.0.160551793 ..RFPA1
..Measurement TALES_9 ..ok ..Local 4.0.160551793 ..RFPA1
..Measurement TALES_10 ..ok ..Local 4.0.160551793 ..RFPA1

Transmit path: BC

Results (normal characteristic)

	Value	Low Spec	High Spec	Unit
Forward DICO (at max. deviation)	364.532			V
Forward TALES (at max. deviation)	383.567			V
Max Deviation Forward DICO - Forward TALES	4.963	0.000	15.000	%


Power forward (Dico Tales)
Power DICO
Power TALES
Amplitude [Voltage]
Transmitter Voltage [V]
0
100
200
300
400
500
600
700
800


Deviation power forward (Dico-Tales)
Deviation
Deviation [%]
Transmitter Voltage [V]
2
0
-2
-4
-6
-8
-10
-12
0
100
200
300
400
500
600
700
800

BTB Comm/Status

BTB Communication

BTB Communication: BTB1

	Value
Communication	ok
Version	V178

BTB Communication: BTB2

	Value
Communication	ok
Version	V178

BTB Comm/Status

BTB Status

BTB Status: BTB1

	Value
Status	ok
Detailed status	BTB_STATUS: Body coil temperature = ok BTB_STATUS: SLIO power = ok

BTB Status: BTB2

	Value
Status	ok
Detailed status	BTB_STATUS: SLIO power = ok

BTB Functional

BTB Reflection Factors

Used nucleus: 1H
..Measurement test-1, BTB1 ..ok ..Local 4.0.160551909 ..RFPA1
..Measurement test-2, BTB1 ..ok ..Local 4.0.160551945 ..RFPA1
..Measurement test-3, BTB1 ..ok ..Local 4.0.160551981 ..RFPA1
..Measurement test-4, BTB1 ..ok ..Local 4.0.160552017 ..RFPA1
..Measurement test-5, BTB1 ..ok ..Local 4.0.160552053 ..RFPA1
..Measurement test-6, BTB1 ..ok ..Local 4.0.160552089 ..RFPA1
..Measurement test-7, BTB1 ..ok ..Local 4.0.160552125 ..RFPA1
..Measurement test-8, BTB1 ..ok ..Local 4.0.160552161 ..RFPA1
..Measurement test-9, BTB1 ..ok ..Local 4.0.160552197 ..RFPA1
..Measurement test-10, BTB1 ..ok ..Local 4.0.160552233 ..RFPA1
..Measurement test-11, BTB1 ..ok ..Local 4.0.160552269 ..RFPA1
..Measurement test-12, BTB1 ..ok ..Local 4.0.160552305 ..RFPA1
..Measurement test-13, BTB1 ..ok ..Local 4.0.160552341 ..RFPA1
..Measurement test-1, BTB2 ..ok ..Local 4.0.160552377 ..RFPA1
..Measurement test-2, BTB2 ..ok ..Local 4.0.160552413 ..RFPA1
..Measurement test-3, BTB2 ..ok ..Local 4.0.160552449 ..RFPA1
..Measurement test-4, BTB2 ..ok ..Local 4.0.160552485 ..RFPA1
..Measurement test-5, BTB2 ..ok ..Local 4.0.160552521 ..RFPA1
..Measurement test-6, BTB2 ..ok ..Local 4.0.160552557 ..RFPA1
..Measurement test-7, BTB2 ..ok ..Local 4.0.160552593 ..RFPA1
..Measurement test-8, BTB2 ..ok ..Local 4.0.160552629 ..RFPA1
..Measurement test-9, BTB2 ..ok ..Local 4.0.160552665 ..RFPA1
..Measurement test-10, BTB2 ..ok ..Local 4.0.160552701 ..RFPA1
..Measurement test-11, BTB2 ..ok ..Local 4.0.160552737 ..RFPA1
..Measurement test-12, BTB2 ..ok ..Local 4.0.160552773 ..RFPA1
..Measurement test-13, BTB2 ..ok ..Local 4.0.160552809 ..RFPA1

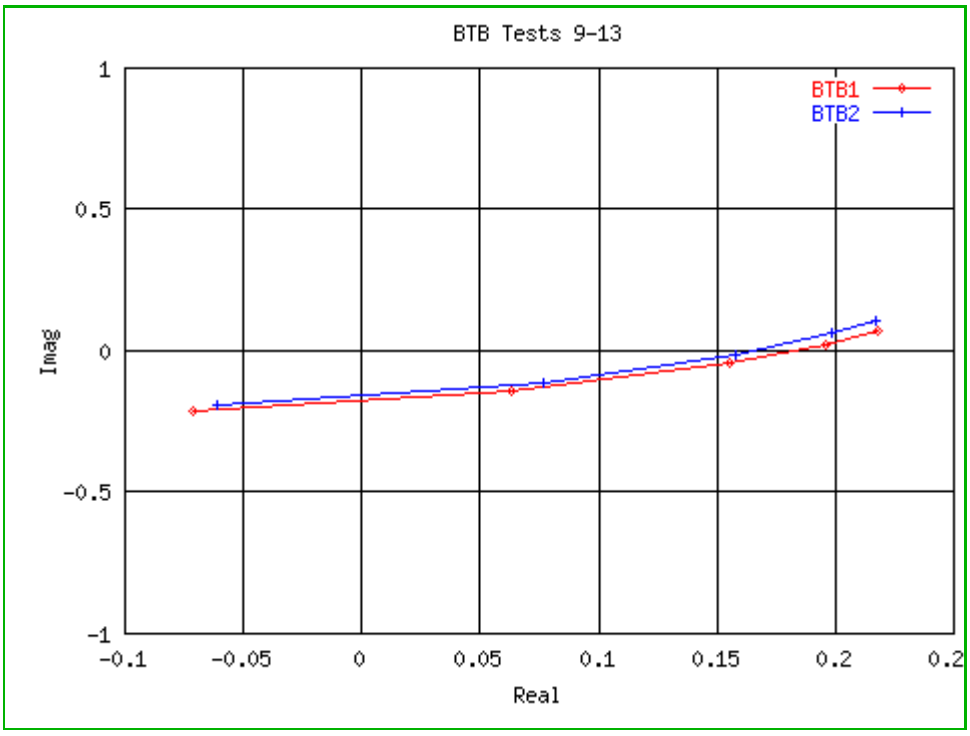
Reflection Factors BTB 1

	Real	Imag
test-1	-0.987	-0.048
test-2	-0.977	0.160
test-3	-0.890	0.434
test-4	-0.765	0.628
test-5	-0.985	-0.051
test-6	-0.976	0.156
test-7	-0.889	0.427
test-8	-0.767	0.618

test-9	0.218	0.069
test-10	0.196	0.024
test-11	0.155	-0.044
test-12	0.063	-0.143
test-13	-0.071	-0.215

Reflection Factors BTB 2

	Real	**Imag**
test-1	-0.985	-0.051
test-2	-0.976	0.153
test-3	-0.892	0.431
test-4	-0.772	0.623
test-5	-0.984	-0.043
test-6	-0.971	0.166
test-7	-0.880	0.449
test-8	-0.752	0.641
test-9	0.217	0.107
test-10	0.199	0.061
test-11	0.158	-0.014
test-12	0.076	-0.112
test-13	-0.061	-0.193



BTB Functional

BTB Evaluation System 1: Static Detune

Results

	Value	Low Spec	High Spec
Abs(1)	0.988	0.940	1.040
Abs(2)	0.990	0.940	1.040
Abs(3)	0.990	0.940	1.040
Abs(4)	0.990	0.940	1.040

BTB Functional

BTB Evaluation System 1: Dynamic Detune

Results

	Value	Low Spec	High Spec
Abs(5)	0.987	0.940	1.040
Abs(6)	0.988	0.940	1.040
Abs(7)	0.986	0.940	1.040
Abs(8)	0.985	0.940	1.040

BTB Functional

BTB Evaluation System 1: Serial Capacitors and Relays

Results

	Value	Low Spec	High Spec
Phase(1)	182.810	170.000	190.000
Pdiff(1-2)	12.119	8.000	15.000
Pdiff(1-3)	28.817	22.000	36.000
Pdiff(1-4)	42.199	35.000	50.000
Pdiff(5-6)	12.022	8.000	15.000
Pdiff(5-7)	28.608	22.000	36.000
Pdiff(5-8)	41.823	35.000	50.000

BTB Functional

BTB Evaluation System 1: Parallel Capacitors and Relays

Results

	Value	Low Spec	High Spec
Absdiff(10-9)	0.050	0.020	1.000
Absdiff(11-9)	0.129	0.050	1.200
Absdiff(12-9)	0.263	0.100	1.400
Absdiff(13-9)	0.405	0.200	1.600

BTB Functional

BTB Diagnosis of System 1 (0-degree-system)

	Value
1.	BTB and BC are in Specification.

BTB Functional

BTB Evaluation System 2: Static Detune

Results

	Value	Low Spec	High Spec
Abs(1)	0.986	0.940	1.040
Abs(2)	0.988	0.940	1.040
Abs(3)	0.991	0.940	1.040
Abs(4)	0.992	0.940	1.040

BTB Functional

BTB Evaluation System 2: Dynamic Detune

Results

	Value	Low Spec	High Spec
Abs(5)	0.985	0.940	1.040
Abs(6)	0.986	0.940	1.040
Abs(7)	0.988	0.940	1.040
Abs(8)	0.988	0.940	1.040

BTB Functional

BTB Evaluation System 2: Serial Capacitors and Relays

Results

	Value	Low Spec	High Spec
Phase(1)	182.992	170.000	190.000
Pdiff(1-2)	11.877	8.000	15.000
Pdiff(1-3)	28.755	22.000	36.000
Pdiff(1-4)	41.860	35.000	50.000
Pdiff(5-6)	12.196	8.000	15.000
Pdiff(5-7)	29.526	22.000	36.000
Pdiff(5-8)	42.975	35.000	50.000

BTB Functional

BTB Evaluation System 2: Parallel Capacitors and Relays

Results

	Value	Low Spec	High Spec
Absdiff(10-9)	0.050	0.020	1.000
Absdiff(11-9)	0.135	0.050	1.200
Absdiff(12-9)	0.261	0.100	1.400
Absdiff(13-9)	0.409	0.200	1.600

BTB Functional

BTB Diagnosis of System 2 (90-degree-system)

	Value
1.	BTB and BC are in Specification.

BC Functional

Reflection Measurement

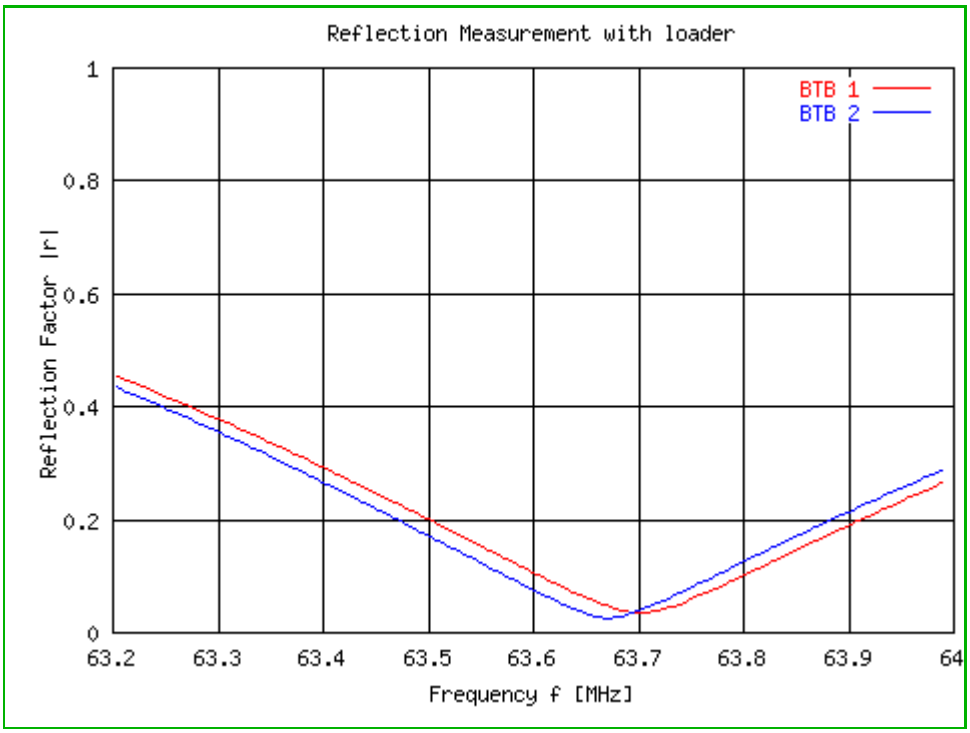
Used nucleus: 1H
..Measurement adjust-tune ..ok ..ok
..Measurement BTB 1 ..ok ..Local 4.0.160552847 ..RFPA1
..Measurement BTB 2 ..ok ..Local 4.0.160552899 ..RFPA1

Reflection Measurement Evaluation BTB 1 (with loader)

	Value	Low Spec	High Spec	Unit
Frequency of min. abs. Reflection factor	63.699	63.350	63.750	MHz
min. abs. Reflection factor	0.04	0.00	0.30	
Cs of BTB 1	26	20	30	
Cp of BTB 1	2	2	12	
Q-Factor	64.76	30.00	120.00	

Reflection Measurement Evaluation BTB 2 (with loader)

	Value	Low Spec	High Spec	Unit
Frequency of min. abs. Reflection factor	63.674	63.350	63.750	MHz
min. abs. Reflection factor	0.03	0.00	0.30	
Cs of BTB 2	26	20	30	
Cp of BTB 2	3	2	12	
Q-Factor	64.24	30.00	120.00	



BC Functional

BC Power Test

Used nucleus: 1H
..Measurement TALES_1 ..ok ..ok ..RFPA1
..Measurement TALES_2 ..ok ..ok ..RFPA1
..Measurement TALES_3 ..ok ..ok ..RFPA1
..Measurement TALES_4 ..ok ..ok ..RFPA1
..Measurement TALES_5 ..ok ..ok ..RFPA1
..Measurement TALES_6 ..ok ..ok ..RFPA1
..Measurement TALES_7 ..ok ..ok ..RFPA1
..Measurement TALES_8 ..ok ..ok ..RFPA1
..Measurement TALES_9 ..ok ..ok ..RFPA1
..Measurement TALES_10 ..ok ..ok ..RFPA1

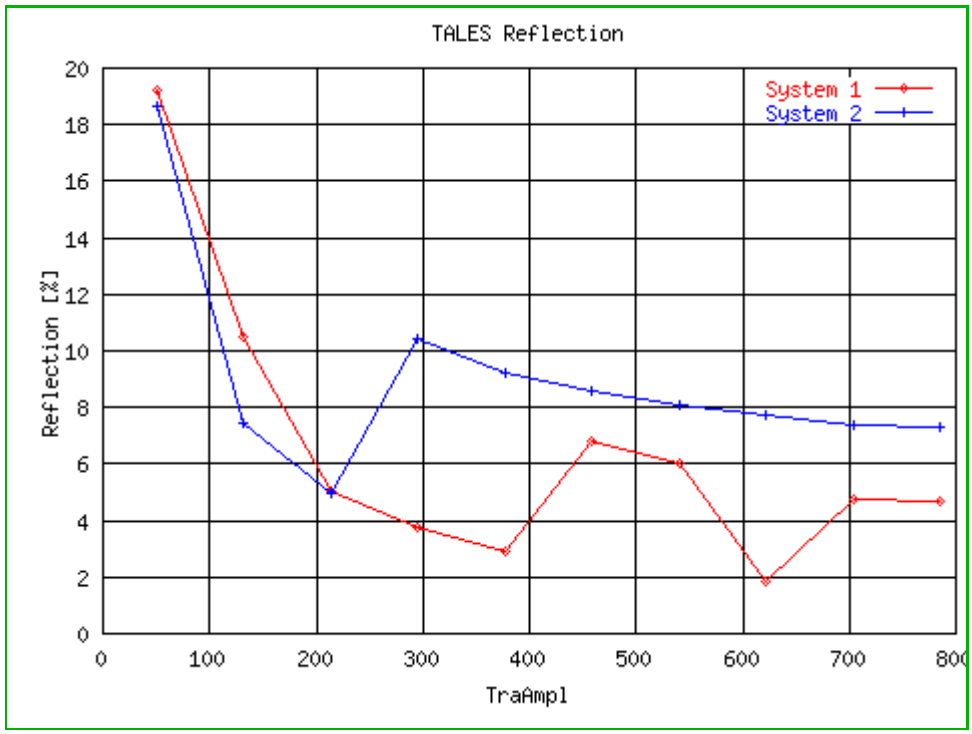
BC Power Test (0 Degree System)

	Value	Low Spec	High Spec	Unit
Forward (at max.ratio)	330.569			V

Reflected (at max. ratio)	22.405			V
Max Ratio Pow-Reflected / Pow-Forward	6.778	0.000	35.000	%

BC Power Test (90 Degree System)

	Value	Low Spec	High Spec	Unit
Forward (at max.ratio)	207.146			V
Reflected (at max. ratio)	21.619			V
Max Ratio Pow-Reflected / Pow-Forward	10.436	0.000	35.000	%



RFCI Comm/Status

RFCI Communication

RFCI Communication: RFCI

	Value

Communication	ok
Loadware version	V0.28 08.07.99 (S0.27 0)
Firmware version	V0.72 24.04.97 (0x40)

RFCI Comm/Status

RFCI Status

RFCI Status: RFCI

	Value
Status	ok
Detailed status	RFCI_STATUS: PIN channel mask BC = Current Mode RFCI_STATUS: PIN channel LC1 = Voltage Mode RFCI_STATUS: PIN channel LC2 = Voltage Mode RFCI_STATUS: PIN channel LC3 = Voltage Mode RFCI_STATUS: PIN channel LC4 = Voltage Mode RFCI_STATUS: PIN channel LC5 = Voltage Mode RFCI_STATUS: PIN channel LC6 = Voltage Mode RFCI_STATUS: PIN channel LC7 = Voltage Mode RFCI_STATUS: PIN channel LC8 = Voltage Mode RFCI_STATUS: PIN channel LC9 = Voltage Mode RFCI_STATUS: PIN channel LC10 = Voltage Mode RFCI_STATUS: PIN channel LC11 = Voltage Mode RFCI_STATUS: PIN channel LC12 = Voltage Mode RFCI_STATUS: PIN channel LC13 = Voltage Mode RFCI_STATUS: PIN channel LC14 = Voltage Mode RFCI_STATUS: PIN channel LC15 = Voltage Mode RFCI_STATUS: PIN channel LC16 = Voltage Mode RFCI_STATUS: Voltage P5V = ok RFCI_STATUS: Voltage P5V = ok RFCI_STATUS: Voltage P15V_2 = ok RFCI_STATUS: Voltage P15V_1 = ok RFCI_STATUS: Voltage N15V = ok RFCI_STATUS: Voltage N31V = ok RFCI_STATUS: Voltage AC28V = ok RFCI_STATUS: temperature = ok RFCI_STATUS: Coil change = finished RFCI_STATUS: PIN Diode status = ok RFCI_STATUS: LOCA1 LED = Off RFCI_STATUS: LOCA2 LED = Off RFCI_STATUS: LOCA3 LED = Off RFCI_STATUS: LOCA4 LED = Off

RFCI Functional

RFCI PIN Diodes (Local/Body Coil)

Test Status: : OK

Testsuite completed