Tue HST | day 01 | pre-MarONet 101 checkout

MLML RADIOMETRIC CALIBRATION LOG

EXPERIMENT HI-2019-03 LOCATION CalVan, P35
DATE 17 Jul 2019 OBSERVERS MF, Riley Blocker
INSTRUMENT BS S/N 04 CONFIG 101
COLLECTOR bare FO bundle (mux / position / fiber) DISTANCE Jig @ sphere
SOURCE Thorlabs LED S/N CONFIG M530L3
PWR SUPPLY Thor DC2100 S/N CONFIG
MULTIMETER 34970A S/N SHUNT
LAMP VOLTAGE CURRENT
LAMP TIME ON WARMUP OFF 05:05 TOTAL
WHERE NODE :: DEV : [DIR]

SETUP SKETCH / REMARKS
PD mon log File = 20190717_01_M530L3.txt
Note: TEC for PD was OFF! should have been ON!
Si PD mon @ sphere mon port # A = Labsphere #1, was @ NIST for cals but does NOT have UV-enhanced detector!
Pre amp = Femto DLPCA-200

PROCESSED DATE: BY:

Time	Filename (-40°C TEC)	Int Time/Bin Fact or Gain	PD Current mA	PD mon Pre Amp Gain	Humidity % R.H.	Temp. °C	Remarks
04:55	b 20190717_001:002	.75 / 4x	9mA	Low, 10^4	39	24	all trk illuminated
4:58	s 001:004	"					RS03c0002 @ 1.75 sec / 4x
4:59	b 003:004	"					
	Scans via BS04 & RS03						
	All 28x bundle FOs @ jig @ Spectralon sphere exit port						
	PD mon @ 34970A chan#3 via Vdc6_5.vi = shunt reader w/ 10 PLC						
	chan#5 was Radio Shack 10kΩ thermistor = ambient						
	both cameras @ 35/35 ms shtr delay, 4.25 ms Vert Shift						
	3 MHz @ 16 bit Horiz Shift, 4x Pre Amp Gain						
	trouble w/ Andor SOLIS, reload software from CD # 2208071, 2010						

(21-Feb-05 MF)

missing = ext-ms-win-gdi-desktop-l1-1-0.dll
download via adi.to/windll to \Prog Files (x86)\Andor SOLIS\ @ 2x Win10 HP laptops

Wed HST = day 02 all tlk ON via Ekspla laser

MLML RADIOMETRIC CALIBRATION LOG

EXPERIMENT HI 2019 03 LOCATION van @ tent @ P35
DATE 18 Jul 2019 OBSERVERS MF
INSTRUMENT BS04 c101 S/N CONFIG
COLLECTOR RS03 c002 DISTANCE Jig @ Spect. sphere
bare FO bundle mux position fiber
SOURCE Ekspla S/N CONFIG 09
PWR SUPPLY S/N CONFIG
MULTIMETER S/N SHUNT
LAMP VOLTAGE CURRENT
LAMP TIME ON 03:14 WARMUP OFF 05:15 TOTAL 121 min
WHERE NODE :: DEV : [DIR]

SETUP SKETCH / REMARKS
old MOBY FD # 2103 between Ek & sphere
~~done~~ PD mon as day 1 w/ TEC = ON,
re-covered FO bundles & sphere jig
w/ black cloth = better than day 1
PD mon = 20190718 01 - Ekspla.txt
Fiel sonicator both H2O

PROCESSED DATE: BY:

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current UV / MJ	Lamp Voltage PD / gain	Humidity % R.H.	Temp. °C	Remarks	
02:45	-40° TEC = ON							
03:00	bs 20190718 001.004	30s 4x	NA	L, 10^4	34	23	laser OFF, Van lights ON = Ambient	
322	005:08	1/30s	0,83	"			530 nm, 210 ms Adj	
335	09:12	3	1.02	"			617 205	785/299
343	13:16	3	0.93 & 1.02				625 205	808/319
354	17:20	10/3	1,34				730 195	—/158
403	21:24	10/1	(0.92) 1.01				800 205	-/754
410	25:28	10/2					850 205	-/871
417	29:32	10/2	(.88) 0.98				900 205	-/999
432	33:36	1/10	(.44) .52		33	24	455 215	324/-
445	37:40	3/10	(1.48) 1.58				400 Max	166/-
453	41:44	3/10	(1.40) 1.50				360 Max	46/-
500	45:48	2/10	1.48	HAS 2nd Order BS!			350 Max	15/-
508	49:52	10sec	(1.38) 1.48	" " " "			345 Max	-/-

(21-Feb-05 MF)

Problems w/ Ekspla today!

Thur HST= | day 03 | only Trk #6 via Thorlabs LEDs

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MLML RADIOMETRIC CALIBRATION LOG

EXPERIMENT HI-2019-03 LOCATION Van @ tent @ P35

DATE 19 Jul 2019 OBSERVERS MF, Riley

INSTRUMENT BS04c101 S/N CONFIG

COLLECTOR RS03c002 DISTANCE Jig @ Sphere

bare FO trk 6 mux position fiber

SOURCE Thorlabs LEDs S/N CONFIG Δ

PWR SUPPLY Thor DC2100 S/N CONFIG

MULTIMETER 34970A S/N SHUNT NA

LAMP VOLTAGE CURRENT Δ

LAMP TIME ON WARMUP OFF TOTAL

WHERE NODE :: DEV : [DIR]

SETUP SKETCH / REMARKS

~~PD mon @ 20190719001_Ekspla.txt~~ ?

			Δmin
M530 on	02:30, off	02:46	16
M455	02:53	3:02	9
617	3:06	3:13	7
625	3:18	323	5
730	3:28	341	13

PROCESSED DATE: BY:

LED

Time	Filename	Int Time/Bin Fact or Gain	~~Shutter Current~~ set mA	~~Lamp Voltage~~ PD # gain	Humidity % R.H.	Temp. °C	Remarks
01:19	TEC ON @ -40°C						
02:42	bs20190719001:004	1/2 sec 4x	9 mA	Low 104	33	23	M530L3 LED
256	005:008	1/20	5 mA	"			M455L3
310	09:12	2/12	2	"			617
321	13:16	2/12	2	"	34	24	625
335	17:20	1/20	2	"			730

(21-Feb-05 MF)

Mon | Day 04

MLML RADIOMETRIC CALIBRATION LOG

EXPERIMENT HI-2019-03 LOCATION Van @ tent @ P35

DATE 27 Aug 2019 OBSERVERS MF

INSTRUMENT BS04 / RS03 S/N CONFIG 101 / 002

COLLECTOR bare FO tuk 6 only (mux position fiber) DISTANCE jig @ sphere

SOURCE Power Tech L.D. S/N CONFIG

PWR SUPPLY TRIAD S/N CONFIG

MULTIMETER 34970A S/N SHUNT

LAMP VOLTAGE CURRENT

LAMP TIME ON WARMUP OFF TOTAL

WHERE NODE :: DEV : [DIR]

SETUP SKETCH / REMARKS

try ole CW diode lasers
Power Tech 372 & 407 nm

Labsphere / Sphere Optics
Si PD mon @ sphere mon prt #A
via Femto pre amp, L = low noise,
dark → no overload only @ 10^4 gain!
IE get Overload @ 10^5 - 10^9 ?

PROCESSED DATE: BY:

Time	Filename	Int Time/Bin Fact or Gain	Shunt Current mA	Lamp Voltage V	Humidity % R.H.	Temp. °C	Remarks
05:11	TEC @ -40°C						
05:14	dark → 1.6e-4 @ PD mon		@ chan 3 @ DVM		42	23	PD log 20190827 01_LD372.txt
05:18	372nm LD = ON → 1.4e-2		@ L, 10^4 gain @ Femto				
525	b,s 20190827 001:4	0.1/30s			40	24	BS max sig @ X = 80 pix
534	372nm LD = OFF → 1.7e-4		Vdc				note: Van light = OFF
537	Van light = ON → 1.7e-4		= no Δ	1.76e-4			
538	b,s 005:008	20/20 Avg	Ambient leak check				Van light = ON
	407nm LD = OFF → 1.75e-4						PD log = 20190827 01_LD407.txt
5:48	407nm LD = ON → 3.11e-2		< this laser is too		bright >		
553	b,s 009:012	.035/30s	< shtr open/close		= 35ms >		BS max sig @ X = 187 pix
603	407nm LD = OFF → 1.74e-4				39	24	

NOTE: I missed the #7 & #8 bac scans @ BS & RS for the ambient-leak test
So I copied bac #5 & 6 to #7 & 8
.fits files

(21-Feb-05 MF)