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ICON  
INTEGRATED  
MASTER  
SCHEDULE  
REVIEW  
September 2014



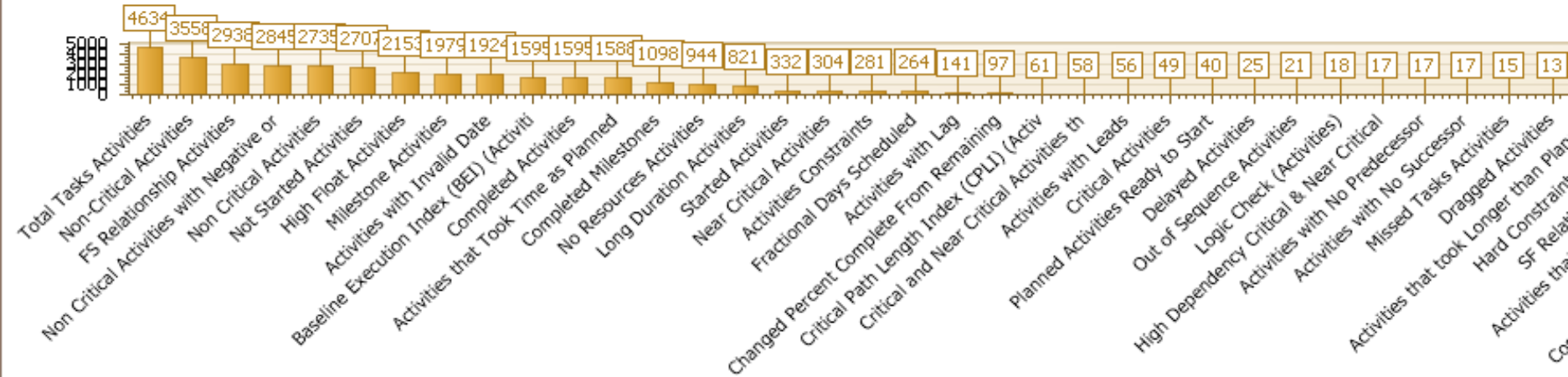
# DCMA 14 Point Analysis



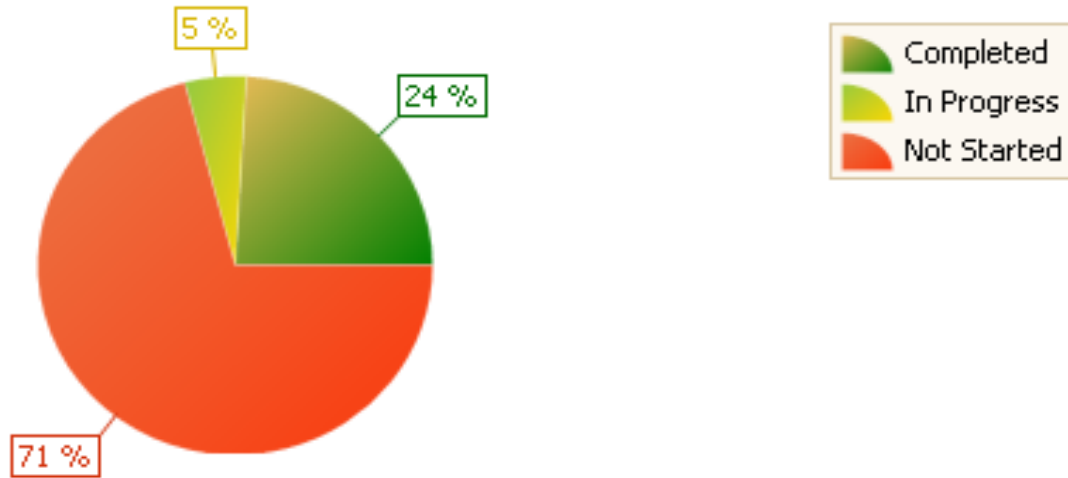
Metric	Count	Percent	Result	General Counts	Open Relationship Counts
ICON Replan Baseline Status as of 30 Sep2014v17.mpp					
1 - Logic	10	0.35%		DCMA Total Tasks 4470	Finish-To-Start 4658
2 - Leads	29	0.60%		Completed Tasks 1584	Start-To-Start 116
3 - Lags	157	3.23%		Incomplete Tasks 2886	Finish-To-Finish 87
4 - Relationships	206	4.24%		Baseline Count 1600	Start-To-Finish 3
5 - Hard Constraints	4	0.14%		3EI Baseline Count 1600	Total Relationships 4864
6 - High Float/Slack	1969	68.23%			
7 - Negative Float/Slack	0	0.00%		Constraint Counts	Other Counts
8 - High Duration	688	23.84%		As Soon As Possible 2672	Dangling Finishes 51
9(i) - Invalid Forecast Dates	0	0.00%		As Late As Possible 0	Out of Sequence Updates 108
9(ii) - Invalid Actual Dates	0	0.00%		Start No Earlier Than 208	Constraint Violations 3
10 - Resources	909	31.50%		Start No Later Than 0	Relationships on Summary Tasks 0
11 - Missed Tasks	19	1.19%		Finish No Earlier Than 2	Summary Tasks with Resources 4
12 - Critical Path		Skipped		Finish No Later Than 0	External Relationships 0
13 - CPLI		Skipped		Must Start On 4	Baseline Not Set 0
14 - BEI	0	0.99%		Must Finish On 0	Invalid Baseline Duration 3
				Manually Scheduled Tasks 0	Invalid Baseline Date Rollup 0
Project Status Date: 9/30/2014					
Completion Task/Milestone: NA					
Run Date & Time: 11/21/2014 1:53:45 PM					

# Pareto Analysis

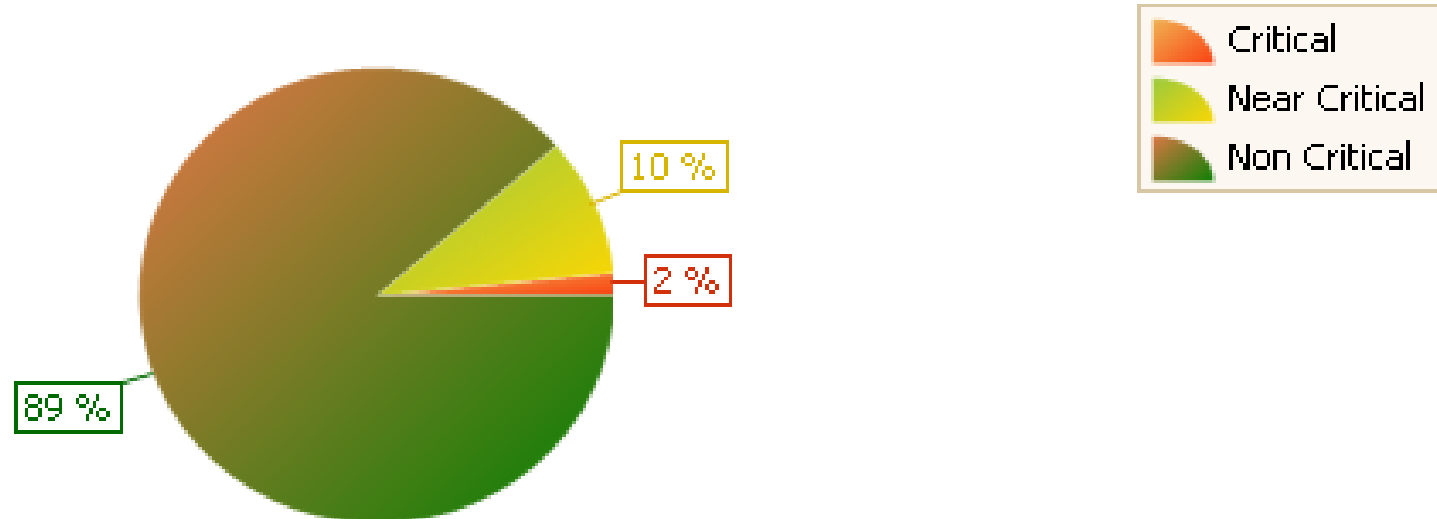
ICON Replan Baseline Status as of 30 Sep2014v17.mpp (9/30/2014) Pareto



## Activities Status Analysis



## Critical Activities Analysis



## IMS Critical Paths (without risk values applied)

### Program Critical Path:

This is the sequence of tasks in the network (IMS) that create the longest total duration through the program (which includes all measurable effort).



## Extreme Ultraviolet Spectrograph (EUV)

CRITICAL PATH IBR (12/17)						2014	2015	2016
ID	Unique WBS	Task Name	Duration	Start	End			
4230	13395 5.05.00.01.3395	Del: EUV	0 days	Mon 12/28/15				
4277	16019 5.05.00.07.17.6	EUV Delivery to PL IBT	1 day	Mon 12/28/15			12/9 @ 12/9	
29	387 1.RE.387	EUV Schedule Slack	30 days	Tue 11/10/15			Labor[13,683.46]	
4676	16620 5.05.00.07.17.6	EUV Schedule Slack	30 days	Tue 11/10/15			10/20 @ 12/2	
4675	17568 5.05.00.07.17.3	PSR - EUV Pre Slip Review	1 day	Mon 11/9/15			Labor[330,247.31]	
4674	10865 5.05.00.07.17.3	Remove EUV Flight spectrometer from tank	2 days	Thu 11/5/15			10/19 @ 10/19	
4674	10866 5.05.00.07.17.3	EUV ready for integration onto S/C Payload	0 days	Fri 11/6/15			Labor[21,815.63]	
4672	10864 5.05.00.07.17.3	EUV Flight Spectrometer Wavelength Calibration	7 days	Tue 10/27/15			10/6 @ 10/14	
4671	10863 5.05.00.07.17.3	EUV Flight Spectrometer Imaging Calibration	8 days	Thu 10/15/15			Labor[21,815.63]	
4670	10862 5.05.00.07.17.3	EUV Flight Spectrometer Resolution Calibration	8 days	Mon 10/5/15			9/24 @ 9/29	
4668	10860 5.05.00.07.17.3	Thermal-vac survival limits testing in T-V tank	5 days	Fri 9/11/15			Labor[21,815.63]	
4667	10858 5.05.00.07.17.3	EUV Flight spectrometer vibration test	5 days	Thu 9/3/15			8/24 @ 8/29	
4666	17567 5.05.00.07.17.3	PER - EUV PreEnvironmental Review	1 day	Wed 9/2/15			Labor[58,103.01]	
4665	10857 5.05.00.07.17.3	Remove from vac tank and add baffles, covers & Add SE + Vacuum Door + Entrance Baffle	3 days	Fri 8/28/15			8/13 @ 8/13	
4663	10855 5.05.00.07.17.3	Environmental Test flight door	25 days	Mon 7/6/15			8/10 @ 8/12	
4644	10762 5.05.00.07.03.0	EUV Flight Door Ready for Assembly	0 days	Fri 8/7/15			Labor[4,551.53]	
4642	10760 5.05.00.07.03.0	Modify EUV Flight vacuum door design as required	30 days	Thu 4/16/15			7/22 @ 7/24	
4641	10759 5.05.00.07.03.0	Fabricate any new flight parts for door	50 days	Thu 3/19/15			Labor[14,202.38]	
4640	14162 5.05.00.07.16.3	EUV Proto-Qual Vibration	3 days	Mon 4/13/15			6/10 @ 6/15	
4639	14163 5.05.00.07.16.3	Integrate PP UF structure	3 days	Wed 4/8/15			Labor[10,825.03]	
4638	14164 5.05.00.07.16.3	Proto-Housing Vacuum Testing	3 days	Fri 4/3/15			5/5 @ 5/9	
4637	14165 5.05.00.07.16.3	Integrate ETU Detector & functional check	3 days	Tue 3/31/15			Labor[20,015.02]	
4636	14166 5.05.00.07.16.3	Integrate EUV grating & optical reference check	5 days	Tue 3/24/15			3/24 @ 3/28	
4634	14168 5.05.00.07.16.3	Integrate EUV Qual Door Assy	5 days	Mon 3/16/15			Labor[12,005.01]	
4637	10755 5.05.00.07.02.3	Proto-flight door Tests	20 days	Fri 2/13/15			2/17 @ 2/15	
4636	10756 5.05.00.07.02.3	Proto-flight door ready for spectrometer lens	0 days	Fri 3/13/15			Labor[22,005.01]	
4636	10754 5.05.00.07.02.3	EUV Proto-flight door assembly	15 days	Fri 1/23/15			2/19 @ 2/25	
4635	10753 5.05.00.07.02.3	Flight parts fabrication	45 days	Wed 11/12/14			Labor[53,023.31]	
4634	10752 5.05.00.07.02.3	Flight Design Mods to Vacuum Door	10 days	Wed 10/29/14			1/23 @ 2/18	
4632	10750 5.05.00.07.01.0	EUV EM Vacuum Door Design Revised	2 days	Mon 10/27/14			Labor[121,033.18]	
4631	10749 5.05.00.07.01.0	EUV EM Vacuum Door test in Thermal-Vac chamber	55 days	Fri 8/1/14			12/24 @ 1/20	



## □ Critical Path-Prime FUV FM Unit Delivery

1.RE.386	FUV Schedule Slack	30 days	Thu 10/29/15	Fri 12/11/15
5.04.00.01.02.5660	Del: FUV FM Unit	0 days	Fri 12/11/15	Fri 12/11/15
5.04.10.00.03.3299	FUV Schedule Reserve	30 days	Thu 10/29/15	Fri 12/11/15
5.04.10.00.03.3300	Ship FUV Instrument to Integration site (account for customs delays)	10 days	Thu 10/15/15	Wed 10/28/15
1.7.4.10.3.10	PSR - FUV PreShip Review	1 day	Wed 10/14/15	Wed 10/14/15
5.04.10.00.03.3298	EMI/EMC	10 days	Wed 9/30/15	Tue 10/13/15
5.04.10.00.03.3297	Mass Properties Measurement	1 day	Tue 9/29/15	Tue 9/29/15
5.04.10.00.03.3296	FUV Instrument CPT	5 days	Tue 9/22/15	Mon 9/28/15
5.04.10.00.03.3295	Verify Final Alignment	2 days	Fri 9/18/15	Mon 9/21/15
5.04.10.00.03.3294	Vacuum Calibration of FUV	15 days	Thu 8/27/15	Thu 9/17/15
5.04.10.00.03.3293	Thermal Vacuum Cycling	10 days	Thu 8/13/15	Wed 8/26/15
5.04.10.00.03.3292	Vibration Test (test b/n axes)	5 days	Thu 8/6/15	Wed 8/12/15
5.04.10.00.03.3291	FUV Instrument CPT	5 days	Thu 7/30/15	Wed 8/5/15
5.04.10.00.03.3290	PER - FUV Pre-Environmental Review	1 day	Wed 7/29/15	Wed 7/29/15
5.04.10.00.02.3287	Install Front Aperture Door	2 days	Mon 7/27/15	Tue 7/28/15
5.04.10.00.02.3286	Perform turret Calibration	5 days	Mon 7/20/15	Fri 7/24/15
5.04.10.00.02.14040	Integrate Flight Cameras	2 days	Thu 6/25/15	Mon 6/29/15
5.04.10.00.02.3283	Install Flight Grating	2 days	Tue 6/23/15	Thu 6/25/15
5.04.07.11.03.03.15470	Deliver FM1 to UCB	2 days	Tue 6/23/15	Wed 6/24/15
5.04.07.11.04.03.15500	Deliver FM2 to UCB	2 days	Tue 6/23/15	Wed 6/24/15
5.04.10.00.02.3283	Repeat visible pre-alignment	5 days	Tue 6/16/15	Tue 6/23/15
5.04.07.01.15304	Flight Model Preship Review	0 days	Mon 6/22/15	Mon 6/22/15
5.04.07.11.04.03.15499	Assemble EIDP	2 days	Fri 6/19/15	Mon 6/22/15
5.04.07.11.04.02.02.15497	Performance Baseline (Ambient)	1 day	Thu 6/18/15	Thu 6/18/15
5.04.07.11.04.02.02.15496	TVAC Cycle Testing	6 days	Wed 6/10/15	Wed 6/17/15
5.04.10.00.02.3281	Unpack FUV Optics Package	2 days	Fri 6/12/15	Tue 6/16/15
5.04.10.00.02.10960	Ship to CSL (Account for customs delay)	10 days	Fri 5/29/15	Fri 6/12/15
5.04.07.11.04.02.02.15495	TVAC Test Setup	5 days	Wed 6/3/15	Tue 6/9/15
5.04.07.11.03.02.02.15466	TVAC Cycle Testing	6 days	Tue 5/26/15	Tue 6/2/15

## ❑ Critical Path-Prime FUV FM Unit Delivery

5.04.10.00.02.3280	Package for shipment	2 days	Wed 5/27/15	Fri 5/29/15
5.04.10.00.02.3280	Perform fit check of Turret Assy, Door and Cameras	2 days	Fri 5/22/15	Wed 5/27/15
5.04.07.11.03.02.02.15465	TVAC Test Setup	5 days	Mon 5/18/15	Fri 5/22/15
5.04.10.00.02.3280	Install Optics Assemblies and Perform Visible Pre-Alignment	40 days	Fri 3/27/15	Fri 5/22/15
5.04.07.11.03.02.02.15464	Performance Baseline (Ambient)	1 day	Fri 5/15/15	Fri 5/15/15
5.04.07.11.03.02.01.15462	Performance Baseline (Ambient)	1 day	Thu 5/14/15	Thu 5/14/15
5.04.07.11.03.02.01.15461	Vibration Test	2 days	Tue 5/12/15	Wed 5/13/15
5.04.07.11.03.02.01.15460	Vibration Setup	1 day	Mon 5/11/15	Mon 5/11/15
5.04.07.11.03.02.01.15459	Performance Baseline (Ambient)	1 day	Fri 5/8/15	Fri 5/8/15
5.04.07.11.03.01.15456	Reassemble	1 day	Thu 5/7/15	Thu 5/7/15
5.04.07.11.03.01.15455	Bond Converter	4 days	Fri 5/1/15	Wed 5/6/15
5.04.07.11.03.01.15454	Characterization in Thermal Chamber (5 Temps)	2 days	Wed 4/29/15	Thu 4/30/15
5.04.07.11.03.01.15453	Assembly Bakeout no Converter	3 days	Fri 4/24/15	Tue 4/28/15
5.04.07.11.03.01.15452	Functional Test	1 day	Thu 4/23/15	Thu 4/23/15
5.04.07.11.03.01.15451	Mechanical Assembly no Converter	2 days	Tue 4/21/15	Wed 4/22/15
5.04.07.11.03.01.15450	Conformal Coat Main Boards w/ Pre-Bake	5 days	Tue 4/14/15	Mon 4/20/15
5.04.07.11.03.01.15449	Electrical Functional Test w/CCD & Taper	2 days	Fri 4/10/15	Mon 4/13/15
5.04.07.11.03.01.15448	Bond Taper	4 days	Mon 4/6/15	Thu 4/9/15
5.04.07.11.03.01.15447	Install CCD on Daughter Board	1 day	Fri 4/3/15	Fri 4/3/15
5.04.07.11.03.01.15446	Conformal Coat Daughter Board	5 days	Fri 3/27/15	Thu 4/2/15
5.04.04.00.11.05.2948	Measure Back Imager 1st Mirror 157um WFE	5 days	Fri 3/20/15	Fri 3/27/15
5.04.04.00.11.06.2958	Measure Back Imager 2nd Mirror 157um WFE	5 days	Fri 3/20/15	Fri 3/27/15
5.04.07.11.03.01.15444	PCB Buildup in SMT Lab	7 days	Wed 3/18/15	Thu 3/26/15
5.04.04.00.11.05.2947	Measure Back Imager 1st Mirror 135um WFE	5 days	Fri 3/13/15	Fri 3/20/15
5.04.04.00.11.06.2957	Measure Back Imager 2nd Mirror 135um WFE	5 days	Fri 3/13/15	Fri 3/20/15
5.04.07.11.03.01.15443	UV Converter Functional Checkout	1 day	Tue 3/17/15	Tue 3/17/15
5.04.07.11.02.15439	Receive Flight UV Converters (2) from UCB	1 day	Mon 3/16/15	Mon 3/16/15
5.04.04.01.07.03.04.15646	Detailed tube testing FUV UV Converter	20 days	Fri 2/13/15	Fri 3/13/15
5.04.04.01.07.03.04.15647	FM models ready for integration	0 days	Fri 3/13/15	Fri 3/13/15
5.04.04.00.11.05.2946	Assemble Back Imager 1st Mirror 157um Assembly	10 days	Fri 2/27/15	Fri 3/13/15

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5.04.04.00.11.06.2956	Assemble Back Imager 2nd Mirror 157um Assembly	10 days	Fri 2/27/15	Fri 3/13/15
5.04.04.00.11.05.2945	Assemble Back Imager 1st Mirror 135um Assembly	10 days	Thu 2/12/15	Fri 2/27/15
5.04.04.00.11.06.2955	Assemble Back Imager 2nd Mirror 135um Assembly	10 days	Thu 2/12/15	Fri 2/27/15
5.04.04.01.07.03.04.15645	Functional test	3 days	Tue 2/10/15	Thu 2/12/15
5.04.04.00.09.2879	Coat Group 3 (135 nm, QTY 2)	65 days	Tue 11/4/14	Thu 2/12/15
5.04.04.01.07.03.04.15644	Tube unload	3 days	Thu 2/5/15	Mon 2/9/15
5.04.04.01.07.03.04.15643	Functional test	2 days	Tue 2/3/15	Wed 2/4/15
5.04.04.01.07.03.04.15642	Window Seal	3 days	Thu 1/29/15	Mon 2/2/15
5.04.04.01.07.03.04.15641	Shoot Cr on window, measure transmission	3 days	Mon 1/26/15	Wed 1/28/15
5.04.04.01.07.03.04.15640	Scrub, Functional test	8 days	Tue 1/13/15	Fri 1/23/15
5.04.04.01.07.03.04.15639	Vac bake, Functional test	3 days	Thu 1/8/15	Mon 1/12/15
5.04.04.01.07.03.04.15638	Functional test	3 days	Mon 1/5/15	Wed 1/7/15
5.04.04.01.07.03.04.15637	Process load, sub-assy, windows, Cr	3 days	Mon 12/29/14	Fri 1/2/15
5.04.04.01.07.03.03.15635	Load into holder	1 day	Fri 12/26/14	Fri 12/26/14
5.04.04.01.07.03.02.15630	Final tube assembly & functional demountable tests	6 days	Tue 12/16/14	Tue 12/23/14
5.04.04.01.07.03.03.15634	Cu Deposition	2 days	Mon 12/22/14	Tue 12/23/14
5.04.04.01.07.03.03.15633	Clean windows and shoot NiCr	17 days	Tue 11/25/14	Fri 12/19/14
5.04.04.01.07.03.02.15629	QE test MCP in XDL system FUV	4 days	Wed 12/10/14	Mon 12/15/14
5.04.04.01.07.03.02.15628	Deposit photocathode	3 days	Fri 12/5/14	Tue 12/9/14
5.04.04.01.07.03.02.15627	Functional tests	4 days	Mon 12/1/14	Thu 12/4/14
5.04.04.00.08.2873	Coat Optic	20 days	Tue 11/4/14	Thu 12/4/14
5.04.04.01.07.03.01.15625	Stackup internals - MCP-phosphor, demount test	4 days	Fri 11/21/14	Wed 11/26/14
5.04.04.01.07.03.03.15632	Measure MgF2 window transmission	13 days	Thu 11/6/14	Mon 11/24/14
5.04.04.01.07.03.01.15624	Weld phosphor screen, leak check	3 days	Tue 11/18/14	Thu 11/20/14
5.04.04.01.07.03.01.15622	Clean up, Leak check, hi-pot	3 days	Thu 11/13/14	Mon 11/17/14
5.04.04.01.07.03.01.15623	Stackup internals - MCP-phosphor, demount test	0 days	Mon 11/17/14	Mon 11/17/14
			Wed	