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General Technology Corporation

1450 Mission Ave. NE, Albuquerque, NM 87107 505.345.5591 (ax 505.343.7653

### FAX Transmission

From: PAT LUJAN TO: DARREN MARSH 650-926-4979 Pages: 4 70TAL Date: 11.1.04 Fax: Phone: ESTET CC: BRIGHTTE MCMR 2037 Re: 🗇 Urgent 🛛 For Review 🖓 Please Comment 🖓 Please Reply 🖓 Please Recycle Comments: ATTACHED IS NOME WITH REWORK TRAVELER. PLETISE ADVISE WETHER YOU MOULD LIKE TO SEE ACTUAL SIGNATURES OR E-MAIL'S STATING APPROVAL.



### CUSTOMER RETURN

3

NCMR NUMBER	2037	RMA NUMBER			
DATE	10/11/200 4				
	4	QUANTITY RETURNED			
CUSTOMER	SLAC	VENDOR DEFECT			
CUSTOMER	PAT LUJAN	QUANTITY REJECTED 3			
VENDOR	General Technology	PRODUCTION			
PART NUMBER	LAT-DS-01646	QUANTITY REJECTED			
LOT QUANTITY	3	REWORK			
SALES ORDER	F17200	QUANTITY			
PURCHASE ORDER	48799	PURCHASING DEFECT			
LOT NUMBER		PURCHASING QUANTITY REJECTED			
WORK ORDER	110154,110155,110156				
INITIATOR	P. LUJAN				
ASSIGNED TO	PAT LUJAN				
DATE REQUIRED	10/11/2004				
ASSIGNED TO		tly not identified as with SLAC numbers)			
DISCREPANCY	SN's "1, 2 and 3" (Curren				
	1.) US2, fine pitch leads a	re bent out of compliance for coplanarity.			
	2.) U45, fine pitch leads a	re bent out of compliance for coplanarity.			
	3.) U3, U4, U5, U6, U54, U55, U56, U57, U58, U59, U60 and U61 the lead form of the part is causing a greater than .010 gap between the bottom of the lead foot to the bottom of the component case. The foot to case dimension varies from .012014 on three parts that were checked. The drawing requires a .010 maximum bond line thickness.				
	necessitating correction. co-planarity locations, an skewed lead and co-plan designed center point of The lead non-co-planarit	PGA.s: Description of each part exhibits no lead skew or co-planarity deficiences One other of each part exhibits minor (less than 6) skewed lead and the final part exhibit slightly more (less than 10, more than 6) harity locations. The lead skew is such that a lead is moved off the the device pitch, but not so far as to contact the next adjacent lead. It is such that some leads are lower, or higher, than the majority of the hypically a lead thickness. Adjustments up and down are necessary to planarity of the lead array. In no instance are leads observed to be			
NOTES	<ol> <li>Customer Furnished</li> <li>Further review and diffurther approvals are review</li> <li>Approval Signatures</li> </ol>	rawing clarification foot to body dimension is within tolerance. No quired.			
CAUSE		2: Customer furnished material; Parts were received in this condition.			
CAUSE	Unable to de	stermine where damage occurred.			

CORRECTIVE ACTION Items 1 and 2: Rework per instructions provided on rework traveler. (GTC-009)

GET CUSTOMER APPROVAL

Item 3: Out of tolerance condition of ASIC's requires bond line of .015. Drawing LAT-DS-01646 to be changed to eliminate requirement of Thermally Conductive Adhesive under the ASIC's. Detail B to include statement requiring 50-75 % coverage of component body. A USE AS IS disposition is recommended for the out of tolerance foot to case dimension on the ASIC's

FINAL DISPOSITION

Pat Lujan

Q/A APPROVAL COST OF QUALITY

O/A APPROVAL

11/1/2004

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WOLED MITLED		CUSTOMER RETURN	0
NCMR NUMBER	2037]	RMA NUMBER	
DATE	10/11/2004	QUANTITY RETURNED	
CUSTOMER	SLAC	VENDOR DEFECT	 Ū
CUSTOMER CONTAC	T PAT LUJAN	QUANTITY REJECTED	3
VENDOR	General Technology Corp	PRODUCTION DEFECT	
PART NUMBER	LAT-DS-01646		
LOT QUANTITY	3	QUANTITY REJECTED	
SALES ORDER	(F17200	REWORK REQUIRED	[] }
PURCHASE ORDER	48799	QUANTITY REWORKED	l
		PURCHASING DEFECT	
LOTNUMBER	110134,110155,118156	] PURCHASING QUANTITY	REJECTED 3
WORK ORDER			·,
INITIATOR	P. LUJAN		
ASSIGNED TO	PAT LUJAN		
DATE REQUIRED	10/11/2004		
ASSIGNED TO SIGN	ATURE		
DISCREPANCY	SN's "1, 2 and 3" (Currently not ide	entified as with SLAC numbers)	
	1.) U62, fine pitch leads are bent of	ut of compliance for coolenably.	
	2.) U45, fine pitch leads are bent of	ut of compliance for coolanasity.	
	Causing a greater than .010 cap bet	, US7, US8, US9, US9 and US1 the lead tween the bottom of the lead foot to the reries from .012014 on three parts the bond fine thickness,	bottom of the component 1
	Infecessitating correction. One other planarity locations, and the final pattern and co-planarity locations. The lear of the device plich, but not so far an such that some leads are lower, or	Each part exhibits no lead skew or care r of each part exhibits minor (leas than 1 Ir exhibit slightly more (less than 10, mo d skew is such that a lead is moved off s to contact the next adjacent lead. The higher, than the materity of the leads or at down the hecessary to moderate the s observed to be damaged.	i) skewed lead and co- re than 6) skewed lead the designed center point lead non-co-planerity is t each side, by trainelly a
NOTES	Customer Furnished Material		·
	L	<b>-</b>	
CAUSE	Items 1 and 2: Custome to determine where dan	er furnished material: Parts were roceive nage occurred.	in this condition. Unable
	item 3: As received.		

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### GENERAL TECHNOLOGY CORPORATION NONCONFORMANCE MATERIAL/RMA REPORT

CORRECTIVE ACTION

. FINAL DISPOSITION

Q/A APPROVAL DATE COST OF QUALITY

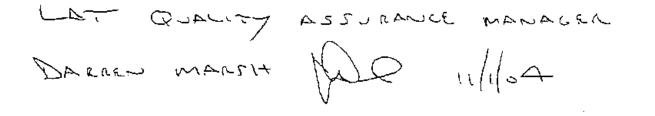
Q/A APPROVAL

Items 1 and 2: Rework per instructions provided on rework traveler. (GTC-009)

Item 3: Out of tolerance condition of ASIC's requires bond line of .015. Drawing LAT-DS-01846 to be changed to eliminate requirement of Thermally Conductive Adhesive under the ASIC's. Dots! 8 to include statement regulting 30-76 % opverage of component body. A USE AS IS disposition is recommended for the out of tolerance foot to case dimension on the ASIC's

GET CUSTOMER APPRO	VAL.

APPROVED : (SLAC)



AC SUBSYSTEM MANAGEN MIL 11-1-04 EARLY CLINTON Jeng & Chit 11/1/04 AT MANUFACTURINE ENTIMIEST  $\overline{\overline{}}$ 

11/01/2004 13:20 00002043/u	11/01/2004	15:25	6589264379
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**REWORK TRAVELER** 

GLAST

			-
30	NO:	-17200	)

### PART NO: FPGA Components (LAT-DS-03894 & 03895; 3 OF EA)

PAGE 03/03

REV: N/A QTY: 6 parts

ASSEMILY NAME: (Used o	on LAT-DS-01646; U45	- LAT-DS-03895; U62 -	LAT-DS-03894)

APPRIDI (4)						2	7 II-lead
Hefkin	1.04	Hefkin	- 1++04	Нарган	11/104	Mog La - St	and -
PREPATED BY	DATE	ENGMOR	DATE	PROD MGR	DATE	QA MGR	DATE

STEP	OPERATION	Operator	Date	Time
	B12. NCMR 2037; BPs "1, 2 and 3" (Currently not Identified as with SLAC numbers)	Sign Off.		spent
	1) U62, fine pitch leads are bent out of compliance for coplanarity.			
	11 ) U45, fine pitch leads are bent out of compliance for coplanarity.	1		
	3) - U3, U4, U5, U6, U54, U56, U56, U57, U58, U59, U60 and U61 the lead form of the part is cousing a greater than A10 gap between the bettern of the lead form of the bottern of the component case. The foot to case dimension waries from 012 - 014 on three parts that were checked. The drawing requires a A10 maximum band line thickness.			
	CORRECTIVE ACTION: Usins 1 and 2: Rework per instructions provided on rowork traveler. (GTC-009).		1 1	
	Home leads of Customer Furnished components are bent, skewed, out of pitch and co- plemarity. Straighten leads to as close an optimal condition, as possible - no dimensional constraints required except alignment with PWB pads for indicated device installation location.			
	inscord SNs of FPGAs:	-		
2	Braighten leads of devices using component tweezers, under microscope.			
3	I.: :erator inspection (associate in SMT area).			
4		 	   	
4   	CEBU/NCMR closequt.			
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		CUSTOMER RETURN
NCMR NUMBER	2078	RMA NUMBER
DATE	11/11/200 4	
		<u>O</u> UANTITY RETURNED
CUSTOMER	\$LAC	VENDOR DEFECT
CUSTOMER	Pat Luj	
VENDOR	General Tech	
PART NUMBER	LAT-DS-023	PRODUCTION B8
		QUANTITY REJECTED
LOT QUANTITY	3	REWORK
SALES ORDER	F17300	QUANTITY
PURCHASE ORDER	48800	
		PURCHASING DEFECT
LOT NUMBER		PURCHASING QUANTITY REJECTED
WORK ORDER	110393.110	394.110432
INITIATOR	Pat Lujan	
ASSIGNED TO	Pat Lujan	
DATE REQUIRED	1	1/11/2004
ASSIGNED TO		Pat Lujan
DISCREPANCY		S-02388: PN SSR1040GTXV_Item 19 of BOM LAT-DS0391-53 Int referenced exhibits solder contacting the component body.
	SN 1 D-1 SN 2 D-3.1 SN 3 D-3.1	D-4, D-8, D-19 D8
NOTES	Purther inves of solder on e	tigation revealed that Vendor Supplied parts were tinned and also had evidence part body. This condition was found to be acceptable per MIL-PRF-19500.
CAUSE CAUSE		ans were initially rejected post SMT and reflow for inadequate heal fillet. During a rework process solder came in contact with the component body.
CORRECTIVE ACT	Т	his has been determined to be a Process Indicator Condition and not a Defect, his will be monitored by on -site source inspector for abnormal variation in future in.
FINAL DISPOSITI	ON	NO DEFECT
Q/A APPROVAL		Pat Lujan E-Mails on File
<u>O</u> /A APPROVAL		11/12/200 4

Sent: Fri 11/12/2004 11:51 AM

#### Lujan, Patricio C

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From:Marsh, Darren S.To:Lujan, Patricio CCc:Subject:RE: NCMR 2078Attachments:

Approved.

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menio Park, cA 94025

(650) 926-4577

and the second second

From: Lujan, Patricio C Sent: Friday, November 12, 2004 9:32 AM To: Haller, Gunther; Nelson, David J.; Marsh, Darren S. Cc: Estey, Brigitte Subject: NCMR 2078

Attached is NCMR for your approvals.

		CUSTOMER RETURN
NCMR NUMBER	2082	RMA NUMBER
DATE	11/12/200 4	
CUSTOMER	SLAC	<u>O</u> UANTITY RETURNED
	SLAC	VENDOR DEFECT
CUSTOMER		QUANTITY REJECTED
VENDOR	General Technology	PRODUCTION
PART NUMBER	LAT-0S-01646	
LOT QUANTITY	1	QUANTITY REJECTED 1 REWORK
SALES ORDER	F17200	QUANTITY
PURCHASE ORDER	48799	PURCHASING DEFECT
LOT NUMBER		
WORK ORDER	110155	PURCHASING QUANTITY REJECTED
INITIATOR	Pat Lujan	
ASSIGNED TO	GTC	
DATE REQUIRED	11/15/2004	
ASSIGNED TO		
DISCREPANCY	SN 2: PWA dropped from an appoxim edges of board. Photographs w	ate distance of 36". PWB sustained damage (cings) along fill be e-mailed and are a part of this NCMR.
NOTES	Interim Disposition: OK to proc	not reveal any fractured solder joints. teed to Step 14-ICT, then submit test results to QA for review. (If the allowed to proceed to step 21-Fund. Test before a Final
CAUSE	Improper handling.	
CORRECTIVE ACI	ION	
FINAL DISPOSITI	ON GET CUSTO	MER APPROVAL
Q/A APPROVAL		
Q/A APPROVAL COST OF QUALIT	Y	

#### Lujan, Patricio C

From:	Haller, Gunther	Sent: Sat 11/13/2004 3:26 PM
To:	Lujan, Patricio C; Estey, Brigitte; Marsh, Darren S.; N	elson, David J.; Sapozhnikov, Leonid
Cc:	Haller, Gunther	
Subject:	RE: NCMR's 2081, 2082, 2083	
Attachmen	ts:	

This is what we need to do:

- leave all 3 NCR's open until we can do the functional testing, which can only be done after loading is complete

- proceed with the original plan and continue finishing assembly of the modules.

- there is some risk on using some additional flight components, but the risk is acceptable.

So continue assembly on Monday morning.

I think Darren needs to concur.

- what we will do while the assembly is proceeding

- investigate what can be done to "repair" the dings at a later stage
- investigate the risk on potential shorts between planes and how it can be mitigated
- investigate whether a impedance test can be done to establish whether there are already

shorts. Instructions need to be written up to perfrom such a test (using a multi-meter)

Thanks for your help.

Regards Gunther

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From: Lujan, Patricio C
Sent: Sat 11/13/2004 10:54 AM
To: Estey, Brigitte; Haller, Gunther; Marsh, Darren S.; Nelson, David J.
Subject: NCMR's 2081, 2082, 2083

The following defects were discovered inspecting at 10X power. One part was mounted upside down, and two parts had unsoldered connections. Of the two unsoldered connections one was tombstoned and the other insufficient solder. No fractured solder joints or additional PWB damage was discovered. I would like sominput on possibly repairing the more serious dings on the PWB. This could be accomplished at a later date.

CCA #1-611;

R418. Non-soldered connection.

CCA #2-614; No defects detected

CCA #3-612;

R664. Part mounted upside down.

R44. Non-soldered connection.

Gary Hefkin and Vishwa Goundar from GTC were instrumental in providing the necessarry support to accomplish this task.

#### Lujan, Patricio C

 From:
 Marsh, Darren S.
 Sent:
 Mon 11/15/2004 4:23 PM

 To:
 Lujan, Patricio C
 Cc:
 Subject:
 RE:
 NCMR's 2081, 2082, 2083

 Attachments:
 Will GTC start working a corrective action?
 Vill GTC start working a corrective action?
 Vill GTC start working a corrective action?

.. ....

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menio Park, CA 94025

(650) 926-4577

From: Lujan, Patricio C Sent: Monday, November 15, 2004 2:00 PM To: Marsh, Darren S.; Estey, Brigitte; Haller, Gunther; Nelson, David J. Subject: NCMR's 2081, 2082, 2083

These are the NCMR's with a interim disposition.





ELECTRONICS . MICROELECTRONICS . ENGINEERING . SYSTEMS

GTC-0505-MKM

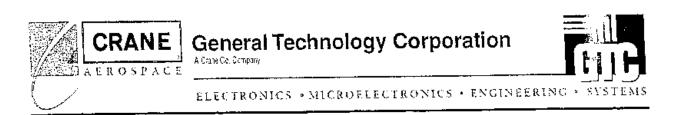
Date: 1-21-05

Pat Lujan SLAC Field Office 1450 Mission Ave. NE Albuquerque, NM 87107

Subject: P/N LAT-DS-01646 (S/N's 1, 2, 3)

Reference: NCMR's 2081, 2082 & 2083

- **Finding:** Customer finding SN 1, 2 & 3 PWA dropped from an approximate distance of 36". PWB sustained damage (dings) along edges of board. Photographs were e-mailed to SLAC for evaluation.
- Immediate Correction(s): Evaluate the condition of the board edges, re-inspect at 10X magnification 100% for any and all damage possibly caused to components themselves; no other damage found. Reference GTC rework traveler attached for PWB edge repair.
- **Root Cause:** The operator that was transferring the CCAs to the dry room, to be stored over the weekend, made a bad decision and chose an inappropriate material handling method. This person used a flat tray with slots (to be used for PWBs only) with the CCAs in an ESD bag and laying on top of the tray. The ESD bags created a slippery exterior thus allowing the CCAs to slip off and fall to the floor.



#### Root Cause Preventive Action:

Immediately, engineering, quality and the work cell members convened to make everyone aware of this improper handling method and require no such further handling of that sort. A new rack, with large flat trays, are now in place which will not allow the CCAs to fall off and are enclosed within the rack safely. When necessary, each tray will be pulled out to get the CCA to be worked on. The tray is then to be slid back in. to the rack, Effective 11-12-04.

I apologize for any inconvenience this may have caused SLAC, but I am confident our root cause preventive action will prevent recurrences of this nature.

Respectfully,

Michael Mora Quality Assurance Manager Ph: 505-345-5591 x3018 Fax: 505-345-0788e-mail: mora@gt-corp.com

SO NO:	F17200	P/	ART NO: LAT-	DS-01646	·			REV: 5	4
ASSEM	BLY NAME:	CCA, TE	M	··· ·			·····	<b>QTY</b> : 2	
APPRO	VAL								
HEFKIN	N		P. LUJÁN	·	HANRAHA	N	MORA		
PREPA	EPARED BY DATE CSI DATE PROD DATE							D.	ATE
STEP	THIS REWO LOCATION STORAGE	Operator Sign Off,	Date	Time spen					
1			4 <i>:21 pm (ATT2</i> 314), #3 (612) F		CMR # 2082	AND # 2083.			
2	MIXING CO MIXING UT SCALE - GI	TOOLS AND MATERIALS: MIXING CONTAINER - PLASTIC, METAL, OR GLASS MIXING UTENSIL - PLASTIC, METAL, OR GLASS SCALE - GRAM, CALIBRATED PLIERS – METAL, NEEDLE, SMOOTH JAW SURFACE							
3	MIX A SMALL AMOUNT OF THE TWO PARTS OF COATING MATERIAL, ARATHANE-5750, FOR BRUSH APPLICATION TO DAMAGED LOCATIONS ON EACH CCA. REFER TO PICTURES ON FOLLOWING PAGE. USE THE FOLLOWING RATIO TO MIX THE MATERIAL:								
	PART A PART B		ARTS BY WEI		.E: (0.54 G			•	
	MIX SLOW		HAND, TO MINI			, uniter,			
	POT LIFE IS APPROXIMATELY TWO (2) HOURS).								
1	LET MIXE		RIAL STAND FO	OR HALF AN H	OUR TO REL	EASE ANY			
			E AMOUNTS, M E, BELOW:	MATERIAL LOT	Г/ВАТСН СО	DE, AND			
	AMOUNT	S MIXED	: PART A:	PA	ART B:		ļ		
	ł		EXPIRA				1		

REWORK TRAVELER



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### **REWORK TRAVELER**

<u>50 NO:</u>	F17200	PART NO: LAT-DS-01646		REV: 54	4
ASSEMBLY NAME: CCA, TEM QTY: 2					
STEP	LOCATIONS O STORAGE TRA	OPERATION TRAVELER APPLIES COATING MATERIAL TO ON CORNERS OF CCAS DAMAGED BY FALLING OF NY. REWORK AUTHORIZED VIA EMAILFROM B. E. 04; 4:21 pm (ATTACHED)		Date	Time spent
REF	PICTURES OF D	DAMAGE TO SN #2 (614)			
REF cont.		DAMAGE TO SN #3 (612)			



### REWORK TRAVELER

PART NO: LAT-DS-01646 SO NO: F17200

**REV**: 54

#### ASSEMBLY NAME: CCA, TEM

QTY: 2

STEP	OPERATION	Operator	Date	Time
	THIS REWORK TRAVELER APPLIES COATING MATERIAL TO LOCATIONS ON CORNERS OF CCAS DAMAGED BY FALLING OFF A	Sign Off.		spent
	STORAGE TRAY. REWORK AUTHORIZED VIA EMAILFROM B. ESTEY, DATED 12/12/04; 4:21 pm (ATTACHED)			4
4	WHEN DEFORMED PAD IS EVIDENT, CAREFULLY PRESS IT BACK DOWN INTO NORMAL POSITION. USE PLIERS FOR MOVING THE PAD METAL.	ļ	 ; 	
	USE A BRUSH TO APPLY A SMALL AMOUNT OF COATING TO NOTED DAMAGED LOCATIONS. COVER EXPOSED FIBERS, AND ADJACENT AREAS UP TO %" AWAY FROM DAMAGED SURFACES			
	ALLOW COATING TO AIR-DRY, OBSERVING FOR DRIPS, FOR HALF AN HOUR. REMOVE EXCESS DRIP COATING DURING THIS TIME.			1
5	CURE COATING DURING BAKE CYCLE PERFORMED FOR CURING STAKING MATERIALS.			
	RECORD CURE DATE, TEMPERATURE, AND VSTART/STOP TIMES BELOW:			
	DATE: TEMP: \$TART: STOP:			
6	INSPECTION			
				l l
7	CSI			



		CUSTOMER RETURN	
NCMR NUMBER	2089	RMA NUMBER	
DATE	11/17/2004	OUANTITY RETURNED	
CUSTOMER	SLAC	VENDOR DEFECT	
CUSTOMER CONTAC	CT David Tarkington		
VENDOR	SLAC	QUANTITY REJECTED	L
PART NUMBER	MAX724ECK	PRODUCTION DEFECT	<u> </u>
LOT QUANTITY	200	QUANTITY REJECTED	
SALES ORDER	F17300	REWORK REQUIRED QUANTITY REWORKED	
	48800	QUANITI REWORKED	L
PURCHASE ORDER	······································	PURCHASING DEFECT	
LOT NUMBER		] ¬ PURCHASING <u>O</u> UANTIT	Y REJECTED
WORK ORDER	110393, 110394, 110432		
INITIATOR	Pat Lujan		
ASSIGNED TO	SLAC		
DATE REQUIRED	11/19/2004		
ASSIGNED TO SIG	NATURE David Tarkington	۱	
DISCREPANCY	Parts are not formed properly; un See photo.	able to assemble. Ref. LAT-DS-02388 (	J6-U8, U12, U15, U17,U18
NOTES	Repaired per instructions from D	David Tarkington.	-
C4USE	As supplied by SLAC		
CORRECTIVE AC	TION Revise drawing to cli	arify use of these components	
FINAL DISPOSIT			
Q/A APPROVAL	Pat Lujan (E-i	Malis on file)	
<u>0</u> /A APPROVAL I	DATE 11/20/2004		
COST OF QUALI	ТҮ		

		CUSTOMER RETURN	
NCMR NUMBER	2100	RMA NUMBER	
DATE	11/24/2004	QUANTITY RETURNED	 [·····]
CUSTOMER	SLAC	_	
CUSTOMER CONTAC		VENDOR DEFECT	·
VENDOR		<b>QUANTITY REJECTED</b>	
PART NUMBER	LAT-DS-02338	PRODUCTION DEFECT	
		QUANTITY REJECTED	
LOT QUANTITY	3	REWORK REQUIRED	
SALES ORDER	F17300	<u>Q</u> UANTITY REWORKED	
PURCHASE ORDER	48800	PURCHASING DEFECT	
LOT NUMBER			
WORK ORDER	110393, 110394, 110432	PURCHASING QUANTIT	Y REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	David Tarkington		
DATE REQUIRED	11/29/2004		
ASSIGNED TO SIGN	NATURE		
DISCREPANCY	Mounting thru holes for F/N 36 ( Diameter should provide clearer	MAX724ECK) 7 places is .124 dia. Shout nce for 6-32 cap screw (major dia. = .136)	d be approximately .156.
	Clemener should provide cleara	исе юг 0-52 сар screw (парт аа. ~ 135)	
		· · · · · · · · · · · · · · · · · · ·	
NOTES			
		· · · · · · · · · · · · · · · · · · ·	
CAUSE	Design Errot		
	l 		
CORRECTIVE ACT	TION		
FINAL DISPOSITI	TON GET CUSTO	MER APPROVAL	
Q/A APPROVAL		mails on file)	
Q/A APPROVAL D	DATE 11/28/2004		
COST OF <u>O</u> UALIT	ГY [		

This message	e was sent with high importance.
Lujan, Patric	
From: To: Cc: Subject: Attachments	Marsh, Darren S. Sent: Sun 11/28/2004 12:59 PM Estey, Brigitte; Lujan, Patricio C; Tarkington, David; Nelson, David J.; Haller, Gunther Liew, Y.C.; Patterson, Russell RE: NCMR2100
Approved.	
Darren	
To: Lujan, Cc: Liew, Y	y; Brigitte 1/26/2004 11:14 AM Patricio C; Tarkington, David; Marsh, Darren S.; Nelson, David J.; Haller, Gunther A.C.; Patterson, Russell RE: NCMR2100
Pat,	
the second for	se Dave T.'s attachment as disposition for NCMR2089 and NCMR2100. I believe all the information r GTC to proceed. Please review. Gunther/Dave N., and Darren. Please provide your concurrence position as provided by Dave T. for NCMRs 2089 and 2100.
Thanks, Brigitte	
Sent: W To: Tark Cc: Liew	ujan, Patricio C ed 11/24/2004 3:12 PM ington, David; Estey, Brigitte; Marsh, Darren S.; Nelson, David J.; Haller, Gunther /, Y.C.; Patterson, Russell :: RE: NCMR2100
l wrote 2	2 NCMR's one for the IC (NCMR2089) and one for the PWA (NCMR2100).
Pat	
Sent: ) To: Luj Cc: Lie	Tarkington, David Wed 11/24/2004 3:18 PM jan, Patricio C; Estey, Brigitte; Marsh, Darren S.; Nelson, David 3.; Hailer, Gunther w, Y.C.; Patterson, Russell ct: RE: NCMR2100
Раt, Рап а See a Dave	ffected is 02388 (typo on the NCMR). ttached for lead trimming and hardware change details. T.
Sent To: B	1: Lujan, Patricio C 1: Wednesday, November 24, 2004 1:55 PM Estey, Brigitte; Tarkington, David; Marsh, Darren S.; Nelson, David J.; Haller, Gunther ject: NCMR2100

and a start of the

Sent: Thu 1/20/2005 9:34 AM

#### Lujan, Patricio C

From: Hailer, Gunther

To:Lujan, Patriclo C; Marsh, Darren S.Cc:Estey, Brighte; Nelson, David J.; Tarkington, DavidSubject:RE: NCMR2100

#### Attachments:

approved

Dr. Gunther Haller

Stanford University/SLAC

MS 96

P.O. 20450

Stanford, CA 94309

T: (650) 926-4257

F: (650) 926-2923

From: Lujan, Patricio C Sent: Thursday, January 20, 2005 7:44 AM To: Haller, Gunther; Marsh, Darren S. Cc: Estey, Brigitte; Nelson, David J.; Tarkington, David Subject: FW: NCMR2100 Importance: High

Gunther/Darren,

I do not have an e-mail from you approving these NCMR's. Please send me an e-mail approving these.

Thank you,

#### **REWORK TRAVELER**

**10 NO:** F17300

PART NO: LAT-DS-02388

REV: 55

ASSEMBLY NAME: CCA, LAT TOWER POWER SUPPLY (TPS)

QTY: 3

APPRO	Val. \					, i
HEFKIN		HANRAHAN	2/1/12/1/04	MORAS	to to	
PREPA		PROD MGR	M- mon	QA MGR	DA	
FREFA	NED BI DATE COSTOMER DATE	PRODIMGR	DATE		DA	1 <u> </u>
STEP	AffMouries Resolution for OPERATION N This document outlines modification to components U6, U7, MAXIM MAX734ECK, and subsequent installation to the CC as applicable to comply with IPC-7721, Section 6.1, entails applicable 'as supplied' lead orientation, 'hoak-up' wire pri- installation with smaller hardware (#4, vs. #6), device lead it termination, flux cleaning, inspection, subsequent bonding of final inspection of the rework.	U8, U10, U15, U CA. The modific lead clipping, to eparation, mech termination, PC	J17, and U18 – ation, prepared remove non- anical B and lead	Operator Sign Off.	Date	Time spent
1	This Rework Traveler is applicable to unit Serial numbe	ers: #1, #2, #3.				
2	Clip leads of seven (7) MAX724ECK devices to obtain Clamp each lead to be clipped using flat-faced needle CONTACT SLAC QAR FOR WITNESS OF WORK.	nose electronic M.N.M.M.	s pliers. SEND JUD	GTC	GTC 12/1/04	GTC
	en		12. <b> </b>	SLAC LAT 10 QA 35 8	SLAC 121.04 -12/12/	N/A
3	Cut five (5) wires, M22759/11-24-9, to fit locations of f inch long, rough length). Strip insulation using HOTW lap solder termination to device leads, to 1/8" (.125"). installation location (length TBO	'EEZERS. Stri T <del>rim other one</del> strip insulation (	p first end, for to fit Lath-TBD =	55 2002.	12/1/oy	
4	Mount IC device to TPS Heatsink frames as detailed 16, to include thermal conductive adhesive applied to smaller hardware: Installation hardware changed from NAS1352N04-6 – SCREW, NAS1149CN432R – WAS TORQUE SCREW/NUT 60 IN-OZ. (56 to 70) RECORD TOOL NUMBER (GTC-XXX) AND ORDER.	surfaces of de n #6 to #4 size SHER, NAS67 )	vices, and use o as follows: 1C4 – NUT,	55 20-2	12/2/04	



### REWORK TRAVELER

0 NO:	F17300 PART NO: LAT-DS-02388		REV: 55	; [
SSEM	BLY NAME: CCA, LAT TOWER POWER SUPPLY (TPS)		<b>QTY</b> : 3	
TEP	<b>OPERATION</b> This document outlines modification to components U6, U7, U8, U10, U15, U17, and U18 – MAXIM MAX724ECK, and subsequent installation to the CCA. The modification, prepared as applicable to comply with IPC-7721, Section 6.1, entails lead clipping, to remove non- applicable 'as supplied' lead orientation, 'hook-up' wire preparation, mechanical installation with smaller hardware ( $#4$ , vs. $#6$ ), device lead termination, PCB and lead termination, flux cleaning, inspection, subsequent bonding of the devices using RTV, and final inspection of the rework.	Operator Sign Off.	Date	Time spent
5	Solder terminate wires to device and PCB. Keep wires short, but do not violate bend radius limits (no sharp bends).	5° 2002	12/4/4	
6	Locally clean each solder (35 places) joint with Isopropyl Alcohol.	55 2002	12/6/04	
7	INSPECTION NCMR #2116		127-6	4
8	CUSTOMER SOURCE INSPECTION		12,7,6	, ,
9	(Task occurrs when riv material is being applied to lead assemblies installed after IGT). APPLY RTV ADHESIVE MATERIAL, DC6-1104, TO COVER THE WIRES AS A GROUP, FROM THE PCB TO THE COMPONENT BODY.			
10	INSPECTION N Z	·	 	
11	CUSTOMER SOURCE INSPECTION	- AD		

F

NCMR NUMBER	2113	CUSTOMER RETURN	
	12/6/2004	RMA NUMBER	
DATE	SLAC	QUANTITY RETURNED	
CUSTOMER		VENDOR DEFECT	
CUSTOMER CONTAC	T Pat Lujan	QUANTITY REJECTED	
VENDOR		_	
PART NUMBER	LAT-DS-02588	PRODUCTION DEFECT QUANTITY REJECTED	
LOT QUANTITY	3	REWORK REQUIRED	
SALES ORDER		QUANTITY REWORKED	3
PURCHASE ORDER			
	······································	PURCHASING DEFECT	
LOT NUMBER		⊥ PURCHASING QUANTITY	REJECTED
WORK ORDER			
INITIATOR	Pat Lujan		₩. ·
ASSIGNED TO	David Tarkington		
DATE REQUIRED	12/7/2004		
ASSIGNED TO SIGN.	ATURE		
DISCREPANCY	Wire length on drawing is 1.50 inche where the wire will be lap soldered.	es. This dimension is oversize based or	the location of the pads
NOTES	·····		
NOTES			
		<u> </u>	
CAUSE	Drawing Error		r - · · - ·
		••••	
CORRECTIVE ACTI	ON Revise drawing based or	n Information obtained from GTC. GTC	manufacturing (
	engineering will provide	wire length cimensions.	
FINAL DISPOSITIO			
<u>0</u> /A APPROVAL	Pat Lujan (e-mails	on file)	
Q/A APPROVAL DAT	TE 12/6/2004		
COST OF QUALITY			

#### Lujan, Patricio C

From:	Marsh, Darren S.	Sent: Mon 12/6/2004 5:27 PM			
To:	Lujan, Patricio C; Haller, Gunther				
Cc:	Sapozhnikov, Leonld; Estey, Brigitte; Nelson, David J.; Tarkington, David				
Subject:	ject: RE: Cable Assembly				
Attachment	s:				

Approved.

D. Tarkington, please ensure the drawing gets updated once you receive the required information.

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Centër

2575 Sand Hill Road, M/S 43A

Menlo Park, CA 94025

(650) 926-4577

From: Lujan, Patricio C Sent: Monday, December 06, 2004 4:26 PM To: Haller, Gunther; Marsh, Darren S. Cc: Sapozhnikov, Leonid; Estey, Brigitte; Nelson, David J.; Tarkington, David Subject: RE: Cable Assembly

Gunther/Darren

......

. . ....

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 ${\bf L}_{i}$ 

separate drawing and the possibility for it to be manufactured by someone other than the PWA assembler necessitates more detail. Please review and reply stating you approve the disposition of NCMR 2113.

Regards,

. .

Pat

From: Haller, Gunther Sent: Mon 12/6/2004 4:46 PM To: Lujan, Patricio C; Tarkington, David; Estey, Brigitte; Nelson, David J. Cc: Marsh, Darren S. Subject: RE: Cable Assembly

.\_ ..

Just to make sure, we specify the length so one can trim the wires to the appropriate length. So the wires should always be longer of equal length than required, not shorter.

. .

Dr. Gunther Haller

Stanford University/SLAC

MS 96

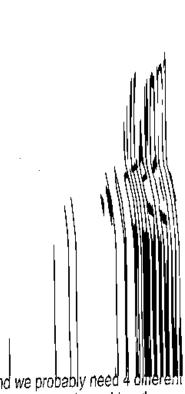
P.O. 20450

Stanford, CA 94309

T: (650) 926-4257

F: (650) 926-2923

From: Lujan, Patricio C Sent: Monday, December 06, 2004 3:05 PM To: Tarkington, David; Estey, Brigitte; Nelson, David J. Cc: Marsh, Darren S.; Haller, Gunther Subject: Cable Assembly



Page 3 of 3

LAT-DS-02588 calls out a 1.50 inch wire length. This dimension is too long and we probably need 4 otherent lengths based on the location on the board. There are 4 rows of pads where the wires are lap soldered.

Pat

.

🕹 You forwa	arded this message on 1/19/2005 8:59 AM.	
Lujan, Pat	ricio C	
From:	Haller, Gunther	Sent: Mon 12/6/2004 5:28 PM
To:	Lujan, Patricio C; Marsh, Darren S.	
Cc:	Sapozhnikov, Leonid; Estey, Brigitte; Nelson, Davi	d J.; Tarkington, David
Subject:	RE: Cable Assembly	
Attachmen	its:	

Approved.

So you are going ahead in cutting the wires to the appropriate length and letting us know what lengths you prefer?

Gunther

Dr. Gunther Haller

Stanford University/SLAC

MS 96

P.O. 20450

Stanford, CA 94309

T: (650) 926-4257

F: (650) 926-2923

. . . .

From: Lujan, Patricio C
Sent: Monday, December 06, 2004 4:26 PM
To: Haller, Gunther; Marsh, Darren S.
Cc: Sapozhnikov, Leonid; Estey, Brigitte; Neison, David J.; Tarkington, David Subject: RE: Cable Assembly

. ..

Gunther/Darren

Wires have been tinned, stripped and cut to the 1.50 dimension. GTC must now repeat that process for each wire. If the intent was to cut to length at assembly; that should have been so noted on the drawing. This is a separate drawing and the possibility for it to be manufactured by someone other than the PWA assembler

washing a second second second

necessitates more detail. Please review and reply stating you approve the disposition of NCMR 2113.

Regards,

ч.

Pat

From: Haller, Gunther

Sent: Mon 12/6/2004 4:46 PM To: Lujan, Patricio C; Tarkington, David; Estey, Brigitte; Nelson, David J. Cc: Marsh, Darren S. Subject: RE: Cable Assembly

Just to make sure, we specify the length so one can trim the wires to the appropriate length. So the wires should always be longer of equal length than required, not shorter.

Dr. Gunther Haller

Stanford University/SLAC

MS 96

P.O. 20450

Stanford, CA 94309

T: (650) 926-4257

F: (650) 926-2923

and a second second

From: Lujan, Patricio C
Sent: Monday, December 06, 2004 3:05 PM
To: Tarkington, David; Estey, Brigitte; Nelson, David J.
Cc: Marsh, Darren S.; Haller, Gunther
Subject: Cable Assembly

.

LAT-DS-02588 calls out a 1.50 inch wire length. This dimension is too long and we probably need 4 different lengths based on the location on the board. There are 4 rows of pads where the wires are lap soldered.

Pat

- ..

T = 1

Sent: Tue 12/7/2004 3:51 PM

#### Lujan, Patricio C

τ.

From:Marsh, Darren S.To:Lujan, Patricio CCc:Ke: Time SheetSubject:RE: Time SheetAttachments:

Thanks for asking.

I am delegating my MRB approval authority to you during my absence.

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menio Park, cA 94025

(650) 926-4577

From: Lujan, Patricio C Sent: Tuesday, December 07, 2004 2:42 PM. To: Marsh, Darren S. Subject: RE: Time Sheet

.. . . . ...

.....

......

Will you designate someone for MRB approval.

Pat

				<b>L</b> -1
NCMR NUMBER	2116		CUSTOMER RETURN	
	12/7/2004		RMA NUMBER	
DATE	l		QUANTITY RETURNED	
CUSTOMER	SLAC		VENDOR DEFECT	Ð
CUSTOMER CONTAC			QUANTITY REJECTED	[]
VENDOR	General Technology	Care	PRODUCTION DEFECT	
PART NUMBER	LAT-DS-02338		OUANTITY REJECTED	3
LOT QUANTITY	3		~ REWORK REQUIRED	 
SALES ORDER	F17300		QUANTITY REWORKED	
PURCHASE ORDER	48800		PURCHASING DEFECT	r 그 .
LOT NUMBER				
WORK ORDER	110393, 110394, 1	110432	PURCHASING QUANT.	
INITLATOR				
ASSIGNED TO	Gary Hefkin	·		
DATE REQUIRED	12/8/20	04		
ASSIGNED TO SIG	VATURE			
DISCREPANCY	Damaged insulation/	exposed wire.		
NAMES	Reference NCMR 20	089		<u> </u>
NOTES			capsulate the jumper wires.	
CAUSE	L	reparation of 1	/2" long jumper wire; (cut, strip and	tin) Insuiztion was demaged
C <b>ORRECTIVE</b> ACT	TION On the f	following 19 un	its all wire will be inspected for this	condition prior to solder.
FINAL DISPOSITI	TON	SE AS IS		
Q/A APPROVAL	iP	at Lujan (e-ma	ils on file)	
Q/A APPROVAL D	DATE	12/8/2004		
COST OF QUALIT	ГУ [			

NCMR NUMBER	2442	CUSTOMER RETURN		
	2116	RMA NUMBER		
DATE	12/7/2004	QUANTITY RETURNED		
CUSTOMER	\$LAC			
CUSTOMER		VENDOR DEFECT		
VENDOR	General Tachnology	QUANTITY REJECTED		
PART NUMBER	LAT-DS-02338	PRODUCTION		
		QUANTITY REJECTED 3		
LOT QUANTITY	3	REWORK		
SALES ORDER	F17300	QUANTITY		
PURCHASE ORDER	48800	PURCHASING DEFECT		
LOT NUMBER				
WORK ORDER 110393, 110394, 110432		PURCHASING QUANTITY REJECTED 2		
INITIATOR				
ASSIGNED TO	Gary Hefkin			
DATE REQUIRED ASSIGNED TO DISCREPANCY	12/8/2004			
DISCREPANCY	Damaged insulation/exposed wire.			
NOTES	Reference NCMR 2089			
	Part of the repair process is to enca	psulate the jumper wires.		
CAUSE CAUSE	During preparation of 1.5 damaged exposing wire	2" long jumper wire: (out, strip and tin) insulation was		
CORRECTIVE ACTI	ON On the following 19 unit	s all wire will be inspected for this condition prior to solder.		
FINAL DISPOSITIC	N JSE AS IS			
<u>O</u> /A APPROVAL				
Q/A APPROVAL COST OF QUALITY				

From: To:	Haller, Gunther Luian, Patricio C. March, Damon C.	Sent: Wed 12/8/2004 10:13 AM
Cc:	Lujan, Patricio C; Marsh, Darren S. Estey, Brigitte	
Subject:	RE: NCMR2116	
Attachmen	ts:	
approved		
Dr. Gunthe	r Haller	
Stanford U	niversity/SLAC	
MS 96		
P.O. 20450		
F.O. 20430	1	
Stanford, (	CA 94309	
T: (650) 92	26-4257	
	NC 2020	
F: (650) 92	26-2923	

From: Lujan, Patricio C Sent: Wednesday, December 08, 2004 9:10 AM To: Haller, Gunther; Marsh, Darren S. Cc: Estey, Brigitte Subject: NCMR2116

Please review and approve the attached NCMR.

~

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14 a.25

#### Lujan, Patricio C

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From:Marsh, Darren S.To:Lujan, Patricio C; Haller, GuntherCc:Estey, BrigitteSubject:RE: NCMR2116Attachments:

Approved.

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menlo Park, CA 94025

(650) 926-4577

From: Lujan, Patricio C Sent: Wednesday, December 08, 2004 9:10 AM To: Haller, Gunther; Marsh, Darren S. Cc: Estey, Brigitte Subject: NCMR2116

.. . .. .

.....

Please review and approve the attached NCMR.

Sent: Wed 12/8/2004 10:17 AM

NCMR NUMBER	2121	CUSTOMER RETURN				
DATE	12/15/2004	RMA NUMBER				
CUSTOMER	SLAC	QUANTITY RETURNED				
CUSTOMER CONTAC	T Dave Tarkington	VENDOR DEFECT				
VENDOR	SLAC	QUANTITY REJECTED				
PART NUMBER	LAT-DS-01646	<b>PRODUCTION DEFECT</b>				
Ι ΟΤ ΟΓΙ ΙΝΤΙΤΤ	3	QUANTITY REJECTED				
LOT QUANTITY		REWORK REQUIRED				
SALES ORDER	F17200	QUANTITY REWORKED				
PURCHASE ORDER	48799	BUDCHASING DEFECT				
LOT NUMBER		PURCHASING DEFECT				
WORK ORDER	110154. 110155, 110156	PURCHASING QUANTITY	REJECTED			
INITIATOR	Pat Lujan					
ASSIGNED TO	Dave Tarkington					
DATE REQUIRED	12/15/2004					
ASSIGNED TO SIGNATURE						
DISCREPANCY	tem 8 on drawing IS: MS24671-2 (. unable to assemble.	375 length) Should be: .25 length. Sc	ew is bottoming out;			
NOTES						
CAUSE	Drawing Error					
CORRECTIVE ACTION Change drawing to correct part number MS24671-1.						
FINAL DISPOSITION	V REWORK					
Q/A APPROVAL Pat Lujan (e-mail on file)						
Q/A APPROVAL DATE [12/15/2004] COST OF QUALITY						

### Lujan, Patricio C

:

.

From:	Haller, Gunther Sent: Wed 12/15/2004 5:39 PM		
To:	Lujan, Patricio C		
Cc:	Estey, Brigitte; Nelson, David J.; Ludvik, Jeffrey; Marsh, Darren S.; Sapozhnikov, Leonid		
Subject:	RE: NCMR2121		
Attachments	3.		
approved			
From: Lujar Sent: Wedn To: Haller, (	esday, December 15, 2004 3:57 PM Sunther rigitte; Nelson, David J.; Ludvík, Jeffrev: Marsh, Darren S.; Sapozhoikov, Leonid		
Gunther,			
Please review and appove the attached NCMR2121. I will approve in Darren's absence.			
Pat			

Sent: Tue 12/7/2004 3:51 PM

#### Lujan, Patricio C

From:Marsh, Darren S.To:Lujan, Patricio CCc:RE: Time SheetSubject:RE: Time SheetAttachments:

Thanks for asking.

I am delegating my MRB approval authority to you during my absence.

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menlo Park, CA 94025

(650) 926-4577

and the second second

From: Lujan, Patricio C Sent: Tuesday, December 07, 2004 2:42 PM To: Marsh, Darren S. Subject: RE: Time Sheet

Will you designate someone for MRB approval.

					<u> </u>	
NCMR NUMBER	2127		CUSTOM	ER RETURN		
DATE	12/16/2004		RMA NU	MBER		
			QUANTI	TY RETURNED		
CUSTOMER			VENDOI	R DEFECT		
CUSTOMER CONTAC		Nelson/Jeffrey Lud	<u>Q</u> UANTI	TY REJECTED		
VENDOR	L		-	CTION DEFECT		
PART NUMBER	LAT-DS-02	388		ITY REJECTED		
LOT QUANTITY	3		REWOR	K REQUIRED		
SALES ORDER	F17300		QUANT	ITY REWORKED		
PURCHASE ORDER	48800		PURCH	ASING DEFECT		
LOT NUMBER						[]
WORK ORDER	110393, 1	10394, 110432	] PURCH	IASING QUANTIT	YREJECIED	[]
INITIATOR	Pat Lujan	·	]			
ASSIGNED TO	David Nel	son	]			
DATE REQUIRED		2/16/2004				
ASSIGNED TO SIGN		Dave Neison		]		<b>_</b> _
DISCREPANCY	Test Failure					
NOTES						
	L	est Failure		·	<u> </u>	
CAUSE	[ : •	est Failure				1
	Į					
CORRECTIVE ACT	TION	Per David Nelson:		· · · · · · · · · · · · · · · · · · ·		
		Remove R231 and re	eplace with F/N	62 (15K) M55342K06B1	5E0R	
FINAL DISPOSITI	'ON	REWORK				
Q/A APPROVAL		Pat Lujan (e-m	ails on file)			
Q/A APPROVAL D	ATE	12/16/2004				
COST OF QUALII	TY					

.

.

From:	Haller, Gunther						
То:	Lujan, Patricio C	Sent: Mon 12/20/2004 9:35 PM					
Cc:							
Subject:	RE: NCMR2127						
Attachments:							
approved							
From: Luja Sent: Mon To: Haller,	an, Patricio C 12/20/2004 7:54 PM Gunther FW: NCMR2127						
Gunther,							
Attached is	NCMR2127 for your approval.						
Sent: Thu To: Lujan, Cc: Sapozi	ler, Gunther 12/16/2004 9:30 PM Patricio C hnikov, Leonid; Ludvik, Jeffrey; Nelsor RE: NCMR2127	ı, Davîd J.; Marsh, Darren S.; Estey, Brigitte					
l don't und If os,l Lupe	erstand this. Does this mean Lupe has please do asap	s to order more resistors/					
		· · · · · · · · · · · · · · · · · · ·					
Sent: Thu To: Haller,	hnikov, Leonid; Ludvík, Jeffrev: Nelsor	n, David J.; Marsh, Darren S.; Estey, Brigitte					
Gunther,							
Attached is	s NCMR2127 for your approval.	·					
Drinitta							

Brigitte,

This is going to impact inventory.

5

0

From: To:	Marsh, Darren S. Lujan, Patriclo C	Sent: Tue 12/7/2004 3:51 PM
Cc: Subject: Attachments;	RE: Time Sheet	

Thanks for asking.

I am delegating my MRB approval authority to you during my absence.

· ·····

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menlo Park, cA 94025

(650) 926-4577

· · · · · · · · · · · ·

From: Lujan, Patricio C Sent: Tuesday, December 07, 2004 2:42 PM To: Marsh, Darren S. Subject: RE: Time Sheet

Will you designate someone for MRB approval.

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NCMR NUMBER	2129		CUSTOMER RETURN		
DATE	12/18/2004		RMA NUMBER		
CUSTOMER	SLAC		QUANTITY RETURNED		
CUSTOMER CONTAC	T Pat Luja		VENDOR DEFECT	<u> </u>	
VENDOR	General Tech	tology Corp	QUANTITY REJECTED		
			<b>PRODUCTION DEFECT</b>		
PART NUMBER	LAT-DS-0238	8	QUANTITY REJECTED		
LOT QUANTITY	3.		REWORK REQUIRED		
SALES ORDER	F17300		QUANTITY REWORKED		
PURCHASE ORDER	48800		PURCHASING DEFECT		
LOT NUMBER				<u></u>	
WORK ORDER	110393, 1103	394, 110432	PURCHASING QUANTIT	YREJECTED	
INITIATOR	Pat Lujan				
ASSIGNED TO	Hefkin				
DATE REQUIRED	12/2	20/2004			
ASSIGNED TO SIGNATURE Hefkin					
DISCREPANCY	IS: Wires from J	1 connector dresse	d to lay on adjacent components.		
	SB: No wires dre	essed to contact ad	jacent components.		
NOTES	Disposition is U ensure wires are	SE AS IS with supple not resting on adja	elemental work instructions to detail po acent components.	tting instructions that	
CAUSE	Wire does	s are lap soldered t not allow for prope	e termination pads on PWA without a f r wire dressing.	seel illiet. This process	
CORRECTIVE ACTI	SN's	4 thru 22 work inst	ation for SN's 1, 2 and 3 is per attached ructions will beupdated to include deta in a manner that w? not contact adjac	l to nren wire to allow a	
FINAL DISPOSITIO	N	USE AS IS			
Q/A APPROVAL		Pat Lujan (e-mails	s on file)		
<u>O</u> /A APPROVAL DA	TE	12/18/2004			
COST OF QUALITY					

You forwarded this message on 12/18/2004 5:04 PM.

#### Lujan, Patricio C

From:	Haller, Gunther	Sent: Sat 12/18/2004 4:49 PM
To:	Lujan, Patricio C; Marsh, Darren S.; Shepherd, Tracy L	
Cc:	Estey, Brigitte; Tarkington, David	
Subject:	RE: NCMR2129	
Attachmen	ts:	

approve

······

From: Lujan, Patricio C
Sent: Sat 12/18/2004 12:10 PM
To: Haller, Gunther; Marsh, Darren S.; Shepherd, Tracy L
Cc: Estey, Brigitte; Tarkington, David
Subject: NCMR2129

Tracy,

Attached is the NCMR generated based on your observation.

Gunther,

For your review and approval.

From:Marsh, Darren S.To:Lujan, Patricio CCc:RE: Time SheetAttachments:

Thanks for asking.

I am delegating my MRB approval authority to you during my absence.

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menlo Park, CA 94025

(650) 926-4577

....

From: Lujan, Patricio C Sent: Tuesday, December 07, 2004 2:42 PM To: Marsh, Darren S. Subject: RE: Time Sheet

. . .....

Will you designate someone for MRB approval.

Sent: Tue 12/7/2004 3:51 PM

··········

. . ......

NCMR NUMBER	2133		CUSTOMER RETURN	
	12/22/2004	ิล	RMA NUMBER	
DATE		<u>* </u>	QUANTITY RETURNED	
CUSTOMER	SLAC	]	VENDOR DEFECT	
CUSTOMER CONTAC	T Pati	_ujan		
VENDOR			QUANTITY REJECTED	
PART NUMBER	LAT-DS-0	1646	PRODUCTION DEFECT	
	3	·-····································	QUANTITY REJECTED	
LOT QUANTITY			REWORK REQUIRED	
SALES ORDER	F17200	i	QUANTITY REWORKED	
PURCHASE ORDER	48799		PURCHASING DEFECT	
LOT NUMBER				
WORK ORDER	110154, 1	10155, 110156	PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan			· .
ASSIGNED TO	Gunther	Haller		
DATE REQUIRED		12/27/2004		
ASSIGNED TO SIGN	ATURE			
DISCREPANCY	During them	al cycling board temp.	eaches -37 C. Should be -40 C.	
NOTEC				
NOTES		enceu cause is an excer	p from e-mail from Leonid.	1
C.4USE	 סן	Sunther.		
	Ī	ve placed TEM in therm; They set delta T to 3C, s platmost -50C)	el chamber and started test. o when it targer -40 it go to -37 on top o	f F¤GA (chamber is going
CORRECTIVE ACTI	$oN$ $\overline{\square}$	The corrective action for	subsequent assemblies is to decrease	
	4	IOC.		
FINAL DISPOSITIO	L. N	USE AS IS		
	14			
<u>O</u> /A APPROVAL		Pat Lujan (e-mails	on nie}	
Q/A APPROVAL DA	TE	12/22/2004		
COST OF QUALITY				

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NCMR NUMBER	2134	CUSTOMER RETURN	
DATE	12/22/2004	RMA NUMBER	
CUSTOMER	SLAC	<u>OUANTITY RETURNED</u>	
CUSTOMER CONTAC	T Pat Lujan	VENDOR DEFECT	
VENDOR		QUANTITY REJECTED	
PART NUMBER	LAT-DS-02388	<b>PRODUCTION DEFECT</b>	G
	······································	QUANTITY REJECTED	`
LOT QUANTITY	3	REWORK REQUIRED	
SALES ORDER	F17300	QUANTITY REWORKED	
PURCHASE ORDER	48800	PURCHASING DEFECT	
LOT NUMBER		]	
WORK ORDER	110393, 110394, 110432	PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	Gunther Haller		
DATE REQUIRED	12/27/2004		
ASSIGNED TO SIGN	ATURE		
DISCREPANCY	During thermal cycling board temp.	reaches -37 C. Should be -40 C.	
NOTES	······································		
NOTES			-
CAUSE			
C.4USE			
CORRECTIVE ACTI	ON The corrective action for 40C.	subsequent assemblies is to decrease t	he temperature to reach -
FINAL DISPOSITIO	N USE AS IS		
Q/A APPROVAL	Pat Lujan (e-mails	on file)	
Q/A APPROVAL DAT	TE 12/22/2004		
COST OF QUALITY		—-1	
2	L		

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#### Lujan, Patricio C

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•	and the second	and and a start of the
From:	Haller, Gunther Sent: Wed 12/22/2004 7:02	
To:	Lujan, Patricio C	
Cc;	Estey, Brigitte; Marsh, Darren S.; Sapozhnikov, Leonió; Ludvik, Jeffrey; Tarkington, David; Nelson,	David ).
Subject:	RE: NCMR's and Thermal Cycling	
Attachm	nts:	

a) we need to see that future boards go to -40Cb) we accept these 3 boards to -37C.

gunther

From: Lujan, Patricio C
Sent: Wed 12/22/2004 5:09 PM
To: Haller, Gunther
Cc: Estey, Brigitte; Marsh, Darren S.; Sapozhnikov, Leonid; Ludvik, Jeffrey; Tarkington, David; Nelson, David J.
Subject: NCMR's and Thermal Cycling

Gunther,

1 need a disposition and corrective action on these NCMR's.

Pat

.

· / .

From: To:	Marsh, Darren S. Lujan, Patricio C	Sent: Tue 12/7/2004 3:51 PM
Cc: Subject: Attachment	RE: Time Sheet s:	·

Thanks for asking.

I am delegating my MRB approval authority to you during my absence.

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menio Park, cA 94025

(650) 926-4577

and a second second

From: Lujan, Patricio C Sent: Tuesday, December 07, 2004 2:42 PM To: Marsh, Darren S. Subject: RE: Time Sheet

Will you designate someone for MRB approval.

NCMR NUMBER	2135	CUSTOMER RETURN	
DATE	12/29/2004	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC	T  Pat Lujan	VENDOR DEFECT	
VENDOR		QUANTITY REJECTED	
PART NUMBER		PRODUCTION DEFECT	
	LAT-DS-02388	<b>QUANTITY REJECTED</b>	
LOT QUANTITY	3	REWORK REQUIRED	
SALES ORDER	F17300	QUANTITY REWORKED	
PURCHASE ORDER	48800	DUDCH (ODIC DESDOR	
LOT NUMBER		PURCHASING DEFECT	L_i
WORK ORDER		PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	Dave Tarkington		
DATE REQUIRED	1/10/2005		
ASSIGNED TO SIGNA			
	The SOW calls out for a buyer provid ble applied subsequent to conformative,"	ded bar code label for the CCAs (with Si al coat. There is no mention of this part	AC tracking number), /material on the CCA
NOTES			
C4USE	Label not provided.		
CORRECTIVE ACTIO	Numbers provided by SLA	ds using CAT-L-INK ENTHONE #50-10 C. to evaluate and change drawing accord	
FINAL DISPOSITION			singiy.
Q/A APPROVAL	Pat Lujan (e-malis o	n file)	
Q/A APPROVAL DAT	E 12/29/2004		
COST OF QUALITY			

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	······			
NCMR NUMBER	2136		CUSTOMER RETURN	
	12/29/2004		RMA NUMBER	J
DATE		<u> </u>	QUANTITY RETURNED	
CUSTOMER	SLAC		VENDOR DEFECT	
CUSTOMER CONTAC	T Pat Lujan		QUANTITY REJECTED	
VENDOR			PRODUCTION DEFECT	
PART NUMBER	LAT-DS-01646		QUANTITY REJECTED	
LOT QUANTITY	3		REWORK REQUIRED	
SALES ORDER	F17200		QUANTITY REWORKED	
PURCHASE ORDER	48799		PURCHASING DEFECT	
LOT NUMBER			 1 PURCHASING QUANTI	TY REJECTED
WORK ORDER				
INITIATOR	Pat Lujan		]	
ASSIGNED TO	Dave Tarkingto	n		
DATE REQUIRED	1/10/	2005		
ASSIGNED TO SIG	NATURE			It of an weeking pumber)
DISCREPANCY	"The SOW calls o to be applied subs dwg."	ut for a buyer pr sequent to confo	rovided bar code label for the CCAs (v ormal coat. There is no mention of thi	s part/material on the CCA
NOTES				
CAUSE		not provided.		
CORRECTIVE AC	Num	pers provided b	k boards using CAT-L-INK ENTHONE y SLAC. eering to evaluate and change drawin	
DIN( ( ] DICB//C17	-	REWORK		
FINAL DISPOSIT	10.3	Pat Lujan (e-r	nais on file)	
Q/A APPROVAL			ing second,	
Q/A APPROVAL .	DATE	12/29/2004		
COST OF QUALI	TY			

and the state of the destruction

Sent: Wed 12/29/2004 7:41 PM

#### Lujan, Patricio C

From:Haller, GuntherTo:Lujan, Patricio CCc:Estey, Brighte; Tarkington, David; Marsh, Darren S.Subject:RE: NCMR 2135 and 2136

#### Attachments:

approved, both.

Please make sure we provide appropriate labels for the production.

Regards Gunther

From: Lujan, Patricio C Sent: Wed 12/29/2004 5:55 PM To: Haller, Gunther Cc: Estey, Brigitte; Tarkington, David; Marsh, Darren S. Subject: NCMR 2135 and 2136

Gunther,

For your review and approval.

#### Lujan, Patricio C

From: To: Cc:	Marsh, Darren S. Lujan, Patricio C	Sent: Tue 12/7/2004 3:51 PM
Subject: Attachments	RE: Time Sheet	

Thanks for asking.

I am delegating my MRB approval authority to you during my absence.

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menio Park, ca 94025

(650) 926-4577

·····

From: Lujan, Patricio C Sent: Tuesday, December 07, 2004 2:42 PM To: Marsh, Darren S. Subject: RE: Time Sheet

Will you designate someone for MRB approval.

NCMR NUMBER	2151	CUSTOMER RETURN	1
DATE	1/4/2005	RMA NUMBER	
CUSTOMER	SLAC	<b>QUANTITY RETURNED</b>	19
CUSTOMER CONTAC		VENDOR DEFECT	
VENDOR		QUANTITY REJECTED	22
PART NUMBER	LAT-DS-00554	<b>PRODUCTION DEFECT</b>	
<b>Ι ΟΤ ΟΙ Ι Μ</b> Έντα		QUANTITY REJECTED	22
LOT QUANTITY	22	REWORK REQUIRED	
SALES ORDER	F17200	QUANTITY REWORKED	
PURCHASE ORDER	48799	PURCHASING DEFECT	
WORK ORDER		PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	David Tarkington		
DATE REQUIRED	1/5/2005		
ASSIGNED TO SIGN	ATURE		
	Ref. DWG ZN C-5: Should be 2.253 BASIC Is: 2.100 Unable to assemble LAT-DS-01481.		
NOTES	David Tarkington to provide repair ins SLAC.	structions. GTC to machine 3 bases. 19	9 to be repaired by
CAUSE	Machining error. Dimensic hole.	n should be taken from Datum -A- not	center line of other relief
CORRECTIVE ACTIC	∑ ∑ To be supplied by vendor.		
FINAL DISPOSITION	REPAIR		
Q/A APPROVAL	Pat Lujan (e-mails o	n file)	
Q/A APPROVAL DAT.	E 1/4/2005		
COST OF QUALITY			

			·······
NCMR NUMBER	2152	CUSTOMER RETURN	
DATE	1/4/2005	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC	T David Tarkington	VENDOR DEFECT	
VENDOR		QUANTITY REJECTED	[]
PART NUMBER	LAT-DS-01482	PRODUCTION DEFECT	
LOT QUANTITY	3	QUANTITY REJECTED	
SALES ORDER	F17300	REWORK REQUIRED	
PURCHASE ORDER	48800	QUANTITY REWORKED	
LOT NUMBER	L	PURCHASING DEFECT	
WORK ORDER		PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		· ·
ASSIGNED TO	David Tarkington		
DATE REQUIRED	1/5/2005]		
ASSIGNED TO SIGNA	TURE	<b></b> _	
	Excess cable length does not allow		
2) 3)	Cable harness support does not all Unable to bond cable harness supp DWG note 8 does not provide enou	ow for assembly due to proximity to oth	er components.
NOTES			
CAUSE	Design		
CORRECTIVE ACTIO	Provide repair instructions	and modify drawings.	
FINAL DISPOSITION	REPAIR	· · · · · · · · · · · · · · · · · · ·	
Q/A APPROVAL	Pat Lujan (emails or	n file)	
<u>O</u> /A APPROVAL DAT	E 1/4/2005		
COST OF QUALITY			

6

From: To: Cc: Subject: Attachments: Approve NCM		Sent:	Tue 1/4/2005 5:41 PM
Dr. Gunther H	Haller		
Stanford Univ	/ersity/SLAC		
MS 96			
P.O. 20450			
Stanford, CA	94309		
T: (650) 926-	4257		
F: (650) 926-	-2923		
	· · · · · · · · · · · · · · · · · · ·	· · · ·	·····
From: Luian	Detricio C		

From: Lujan, Patricio C Sent: Tuesday, January 04, 2005 4:10 PM To: Haller, Gunther; Marsh, Darren S. Cc: Estey, Brigitte; Nelson, David J.; Tarkington, David Subject: NCMR's 2151 and 2152

Attached are NCMR's for your review and approval.

•

From:	Marsh, Darren S.	<u>.</u>	
_		Sent:	Tue 1/4/2005 5:41 PM
Cc:	Estey, Brigitte; Nelson, David J.; Tarkington, David		
Subject:	RE: NCMR's 2151 and 2152		
Attachments:			

Approved.

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menlo Park, cA 94025

(650) 926-4577

From: Lujan, Patricio C Sent: Tuesday, January 04, 2005 4:10 PM To: Haller, Gunther; Marsh, Darren S. Cc: Estey, Brigitte; Nelson, David J.; Tarkington, David Subject: NCMR's 2151 and 2152

Attached are NCMR's for your review and approval.

Sent: Thu 1/20/2005 5:47 PM

#### Lujan, Patricio C

From:Marsh, Darren S.To:Lujan, Patricio CCc:Exbject:Subject:RE: NCMR2156Attachments:

#### Approved.

Darren

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From: Lujan, Patricio C Sent: Thu 1/20/2005 9:33 AM

# GENERAL TECHNOLOGY CORPORATION NONCONFORMANCE MATERIAL/RMA REPORT

NCMR NUMBER	2156	CUSTOMER RETURN		
DATE	1/5/2005	RMA NUMBER		
CUSTOMER		QUANTITY RETURNED		
		VENDOR DEFECT		
CUSTOMER CONTAC		<b>QUANTITY REJECTED</b>	[]	
VENDOR		PRODUCTION DEFECT		
PART NUMBER	LAT-DS-01481	QUANTITY REJECTED		
LOT QUANTITY	3	REWORK REQUIRED	• <b></b>	
SALES ORDER	F17200	QUANTITY REWORKED		
PURCHASE ORDER	48799			
LOT NUMBER		PURCHASING DEFECT	,	
WORK ORDER		PURCHASING QUANTITY	REJECTED	
INITIATOR	Pat Lujan			
ASSIGNED TO	Dave Tarkington			
DATE REQUIRED	1/10/2005			
ASSIGNED TO SIGN	ATURE			
DISCREPANCY	1) Unable to torque FN-4 screws at	28 in-oz.	·	

ujan, Patr	Haller, Gunther	Sent: Wed 1/5/2005 5:14 PM
From: To:	Lujan, Patricio C	
Cc:		
Subject:	RE: NCMR2156	
Attachment	s:	
approve		
Dr. Gunthei	Hailer	
Stantord U	hiversity/SLAC	
MS 96		
P.O. 20450	]	
Stanford, C	CA 94309	
	06.4257	
T: (650) 92	20-4201	
F: (650) 92	26-2923	

Sent: Wednesday, January 05, 2005 2:41 PM To: Estey, Brigitte; Haller, Gunther; Marsh, Darren S. Cc: Tarkington, David; Nelson, David J. Subject: RE: NCMR2156

From: Estey, Brigitte Sent: Wed 1/5/2005 3:26 PM To: Lujan, Patricio C; Haller, Gunther; Marsh, Darren S. Cc: Tarkington, David; Nelson, David J. Subject: RE: NCMR2156

no attachment....

			CUSTOMER RETU	RN		
NCMR NUMBER	2161		RMA NUMBER			
DATE	1/6/2005		QUANTITY RETU	RNED		
CUSTOMER	SLAC		VENDOR DEFEC	Г		
CUSTOMER CONTAC	τ		QUANTITY REJE	CTED		
VENDOR	·		- PRODUCTION DI		1	
PART NUMBER	LAT-DS-023	388	QUANTITY REJE	CTED		
LOT QUANTITY	3		REWORK REQUI	RED	ü 	
SALES ORDER	F17300		QUANTITY REW	ORKED		
PURCHASE ORDER	48800		PURCHASING L	EFECT		
LOT NUMBER			 PURCHASING (	<u>. 2</u> UANTIT	Y REJECTED	
WORK ORDER						
INITIATOR	Pat Lujan					
ASSIGNED TO	Dave Tar	kington	]			
DATE REQUIRED		1/7/2005				
ASSIGNED TO SIG	NATURE				ombly	
DISCREPANCY	Per Flac No	te 6 Cable ties to be	staked with Item 18 on item cable tie does not ahere	n 4 Capie ass to wire and Cá	enioly. ebie tie, Material do	es not
	IS: RTV at flake and is	dhesive used to stake removed in one piec	e cable de coes not anere		·····	
NOTES						
CAUSE		incompatibility of ma	terials			]
CORRECTIVE ACTION Staking not required on cable tie. Remove requirement from drawing.						
FINAL DISPOSI	TION	REWORK				
Q/A APPROVAL		Pat Lujan (e	mails on file)			
O/A APPROVAL	DATE	1/6/2005				
COST OF QUAL						

From:	Haller, Gunther	Sent: Thu 1/6/2005 3:43 PM
To:	Lujan, Patricio C; Marsh, Darren S.	
Cc:	Tarkington, David; Estey, Brigitte	
Subject: Attachment	RE: NCMR2161	
approve		
Dr. Gunther	r Haller	
Stanford Ur	niversity/SLAC	
MS 96		
P.O. 20450		
Stanford, C	A 94309	
T: (650) 92	6-4257	
F: (650) 92	6-2923	
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		······································

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To: Haller, Gunther; Marsh, Darren S. Cc: Tarkington, David; Estey, Brigitte Subject: NCMR2161

.

Please review attached NCMR.

From:	Marsh, Darren S.	
To:	Lujan, Patricio C; Haller, Gunther	Sent: Thu 1/6/2005 3:44 PM
Subject:	Tarkington, David; Estey, Brigitte RE: NCMR2161	
Attachments	37	

Approved.

. . '

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menlo Park, ca 94025

(650) 926-4577

and and a second sec

From: Lujan, Patricio C Sent: Thursday, January 06, 2005 2:37 PM To: Haller, Gunther; Marsh, Darren S. Cc: Tarkington, David; Estay, Brigitte Subject: NCMR2161

Please review attached NCMR.

NCMR NUMBER DATE	2173 1/17/2005		CUSTOMER RETURN RMA NUMBER OUANTITY RETURNED	
CUSTOMER	SLAC		-	
CUSTOMER CONTAC	T Jeffrøy Lud	vik	VENDOR DÉFECT QUANTITY REJECTED	
VENDOR			- PRODUCTION DEFECT	
PART NUMBER	LAT-DS-01643		QUANTITY REJECTED	
LOT QUANTITY	3		- REWORK REQUIRED	
SALES ORDER	F17301		QUANTITY REWORKED	
PURCHASE ORDER	53627		PURCHASING DEFECT	
LOT NUMBER			 PURCHASING QUANTIT	Y REJECTED
WORK ORDER	111593, 111594	4, 111595		
INITIATOR	Pat Lujan			
ASSIGNED TO	Jeffrey Ludvik			
DATE REQUIRED	1/18	/2005		
ASSIGNED TO SIGN				
DISCREPANCY	1) Test failed at \$ (GLAT1752, GLA	tep 5.5.2 -11 of L T1753, GLAT175	AT-TD-04085-02 4}	
	2) Unable to perfo	orm Vibe testing a	at GTC	
NOTES				
CAUSE	1) Tes	st Failure	···	
	2) Eq.	uipment and fixtu	ring problems yet to be resolved	
CAL Bias cu		Bias current: Cha Analog A: Chang	e tolerance to 2.35- 2.78 inge tolerance to 0.000400 - 0.001000 e tolerance to 1.30 - 1.65	
<ol> <li>Ship Units to SLAC. SLAC to perform Vibe. Thermal and Functional testing at SLAC and Wylie Lab.</li> </ol>				
		USE AS IS		
		Pat Lujan (e-ma	uiks on file)	
<u>Q</u> /A APPROVAL D	ATE	1/18/2005		
COST OF QUALIT	ſ¥			

From: To:	Marsh, Darren S. Lujan, Patricio C; Haller, Gunther	Sent: Tue 1/18/2005 3:13 PM
Cc:	Estey, Brigitte	
Subject: Attachme	RE: NCMR2173	· ·

Approved with change recommended by Gunther Haller.

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menio Park, CA 94025

(650) 926-4577

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From: Lujan, Patricio C Sent: Tuesday, January 18, 2005 11:39 AM To: Marsh, Darren S.; Haller, Gunther Cc: Estey, Brigitte Subject: NCMR2173

I added an additional item to NCMR 2173 that should cover the Vibe and TC testing. Please review.

.. . .

#### Lujan, Patricio C

 From:
 Haller, Gunther
 Sent: Tue 1/18/2005 12:34 PM

 To:
 Lujan, Patricio C; Marsh, Darren S.
 Eudvik, Jeffrey; Estey, Brigitte; Nelson, David J.

 Subject:
 RE: NCMR

 Attachments:
 Eudvik, Deffrey; Estey, Brigitte; Nelson, David J.

This one is ok. The flight TPS had some set values changed compared to the EGSE (e.g. TKR voltage).

The monitored readback is ok for the flight and the limits were adjusted.

Dr. Gunther Haller

Stanford University/SLAC

MS 96

P.O. 20450

Stanford, CA 94309

T: (650) 926-4257

F: (650) 926-2923

and the second secon

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From: Lujan, Patricio C Sent: Tuesday, January 18, 2005 11:23 AM To: Marsh, Darren S.; Haller, Gunther Cc: Ludvik, Jeffrey; Estey, Brigitte; Nelson, David J. Subject: FW: NCMR.

I need this reviewed so that I can clean up some paper work prior to shipping the units to SLAC.

From: Lujan, Patricio C Sent: Mon 1/17/2005 4:47 PM To: Haller, Gunther; Marsh, Darren S. Cc: Ludvik, Jeffrey; Estey, Brigitte; Nelson, David J. Subject: NCMR

Attached is NCMR2173 for your review.

Jeffrey,

\* a

This documents the changes you made to the procedure.

You replied on 1/18/2005 1:51 PM.

#### Lujan, Patricio C

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From:	Haller, Gunther	Sent: Tue 1/18/2005 12:59 PM
To:	Lujan, Patricio C; Marsh, Darren S.	
Cc:	Estey, Brigitte	
Subject:	RE: NCMR2173	
Attachment	3:	

I think it should say : unable to perform vib testing at GT (not SLAC)

Dr. Gunther Haller

Stanford University/SLAC

MS 96

P.O. 20450

Stanford, CA 94309

T: (650) 926-4257

F: (650) 926-2923

From: Lujan, Patricio C Sent: Tuesday, January 18, 2005 11:39 AM To: Marsh, Darren S.; Haller, Gunther Cc: Estey, Brigitte Subject: NCMR2173

Ladded an additional item to NCMR 2173 that should cover the Vibe and TC testing. Please review.

Pat

and the second second

From: Marsh, Darren S. Sent: Tue 1/18/2005 4:57 AM To: Lujan, Patricio C Subject: FW: shock sensors

NCMR NUMBER	2179	CUSTOMER RETURN							
	1/20/2005	RMA NUMBER							
DATE		<u>Q</u> UANTITY RETURNED							
CUSTOMER	SLAC	VENDOR DEFECT							
CUSTOMER CONTAC	T Pat Lujan		<b></b> ]						
VENDOR		QUANTITY REJECTED							
PART NUMBER	LAT-DS-01643	PRODUCTION DEFECT							
LOT QUANTITY	3	QUANTITY REJECTED							
SALES ORDER	F 17301	REWORK REQUIRED							
	53627	QUANTITY REWORKED	<u></u> ]						
PURCHASE ORDER		PURCHASING DEFECT							
LOT NUMBER		] PURCHASING <u>Q</u> UANTITY	RE IECTED						
WORK ORDER	111593, 111594, 111595								
INITIATOR	Pat Lujan								
ASSIGNED TO	Pat Lujan								
DATE REQUIRED	1/20/2005								
ASSIGNED TO SIGN	ATURE								
DISCREPANCY	The following units are being shippe	d with out the End Item Date Package.(	ÊIDP)						
NOTES	······	······································	······································						
HOILS									
CAUSE	Change in location of vib	e testinc	<u> </u>						
CAUSE									
CORRECTIVE ACTI	ON EIDP to be shipped at ia	ier date.							
FINAL DISPOSITIO	M GET CUSTOMER	APPROVAL							
Q/A APPROVAL	Pat Lujan (e-mails	c n file)							
<u>O</u> /A APPROVAL DA	TE 1/20/2005								
COST OF QUALITY	- [···								

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From:	Haller, Gunther	Sent: Fri 1/21/2005 10:34 AM
To:	Lujan, Patricio C; Marsh, Darren S.	
Cc:	Estey, Brigitte	1
Subject:	RE: NCMR2179	
Attachmen	ts:	

Approved.

But they said they will have the data-package by end of this week.

Is it done now?

And if not, what is holding it up?

--- Dr. Gunther Haller

Stanford University/SLAC

MS 96

P.O. 20450

Stanford, CA 94309

T: (650) 926-4257

F: (650) 926-2923

From: Lujan, Patricio C Sent: Friday, January 21, 2005 9:29 AM To: Lujan, Patricio C; Marsh, Darren S.; Haller, Gunther Cc: Estey, Brigitte Subject: RE: NCMR2179

I referenced NCMR2179 on the travelers of the units that shipped yesterday. Theed approval of this NCMR to close the loop.

Sent: Fri 1/28/2005 8:59 AM

#### Lujan, Patricio C

 From:
 Marsh, Darren S.

 To:
 Lujan, Patricio C

 Cc:
 Subject:

 Subject:
 RE: NCMR2179

 Attachments:

NCR 2179 Approved.

Darren

Darren S. Marsh

GLAST Large Area Telescope Project

Stanford Linear Accelerator Center

2575 Sand Hill Road, M/S 43A

Menio Park, cA 94025

(650) 926-4577

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From: Lujan, Patricio C Sent: Thursday, January 27, 2005 1:06 PM To: Marsh, Darren S. Subject: RE: NCMR2179

...

As I type GTC is in the process of reviewing the build documentation. I should be done with the test documentation today and will have GTC put in binders and make copies. I would like at least 2 days to review all the documentation after it is presented to me. I believe I have all the information and NCMRs are closed. I. do not see a problem in sending you the EIDP directly.

12/15/2004		REWORK NOTES (OPTIONAL): REPLACE RETONNED REMOUNDED	SERIAL # OTY DEFECT CODE GUATITY I MUCHERING	TEST QTY: FAIL QTY:	$\begin{array}{c} \text{GTCTESTUEFE:} \\ \text{PART NUMBER: } (A(-D\xi-CL))^2 \\ \text{wo: } \  (D^{3})^{1/2} \\ \text{wo: } \  (D$	
Form GTC-010 Rev F	12-15-04	WITH FING2 (19K)		PROGRAM NAME: DEFECT DESCRIPTION	TEST TYPE: TEST LEVEL: TEST TECH:	$5/W^2$ (and the $1$
Page 1 of 1		N 55 342 KOGHS 5 ECK RETESTED BY: S. Ludvik [12]16/04 1	REWORKED BY	REF DES	DATE:	TEST ID:

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- Ly c	Form GTC-010 Rev F	12/10/2004
		· · · · · · · · · · · · · · · · · · ·
RETEST DATE: P F	RETESTED BY: dchwe	RETEST NOTES (OPTIONAL):
		REWORK NOTES (OPPIONAL):
REWORKED BY INSPECTED BY:	DEFECT DESCRIPTION MISSING COMPONENT RW INFO:	SERIAL # QTY DEFECT CODE #2 1 T302 TESTINFO
DATE: 12/10/2004	TEST TYPE: SPEA TEST LEVEL: 1ST TEST TECH: STEFFEN BODE CUSTOMER: SLAC PROGRAM NAME: LAT-DS-02388	PART NUMBER: LAT-DS-02388 WO: 110394 WC: 4-MIXED SO: F17300 TEST QTY: 1 FAIL OTY: 1
TEST ID: 21022		CTC TEST DEFECT RECORD REPORT

12/10/2004

Mage 1 of 2					Monday, November US, 2004	Now
		Renord generated by Device 2000 Application				
	D4	< 75% HEEL FILLET AT 10X MAGN.	4-MIXED	\$412	1 499	N
	D5	< 75% HEEL FILLET AT 10X MAGN.	4-MIXED	S412	1 499	2
	D19	< 75% HEEL FILLET AT 10X MAGN.	4-MIXED	S412	1 499	2
	D20	< 75% HEEL FILLET AT 10X MAGN.	4-MIXÊD	S412	1 499	2
	D1	< 75% HEEL FILLET AT 10X MAGN.	4-MIXED	\$412	1 499	2
	DZ	< 75% HEEL FILLET AT 10X MAGN.	4-MIXED	<b>S</b> 412	1 499	Ż
$\langle$	U990	NON SOLDERED CONNECTION	4-MIXED	\$407	1 499	23
/////	U12	MIS REGISTRATION	4-MIXED	A338	1 499	2
1,1,a/2,1,0, K	L12	MIS RÉGISTRATION	4-MIXED	A338	1 499	2
A A A A A A A A A A A A A A A A A A A	U560-1	DEFORMED LEAD	4-MIXED	A337	1 499	2
			4-MIXED			
I Col			4-MIXED			
			4-MIXÊD			
			4-MIXED			
			4-MIXED			
<u></u>			4-MIXED			
			4-MIXED			
PIN NOTES	REF DES	DEFECT DESCRIPTION	ODE WORKCELL	OR DEFECT CODE	SERIAL NO. QUANTITY OPERATOR	SERIAL NO
				-	CUSTOMER: SLAC	CUST
WEEK CODE: 46				RW QTY: 1	QUANTITY: 1 R	QUA
ATE: 11/4/2004		INSPECTOR: TORRES	INSPI		SALES ORDER: F17300	SALES
FE ASSEMBLY: 0		LEVEL: 1	NSPECTION LEVEL:		ORK ORDER: 110394	ORK
OFE SOLDER: 0		N TYPE: FIRST ARTICLE RUN	<b>NSPECTION TYPE:</b>	38	JMBER: LAC-DS-02388	PART NUMBER:
				27133	1D:	
c	EPORT	DEFECT RECORD REP	DEFE			
Close Vyle						

	18 July	
Monday, Nov	HHY NO OUA	ID: PART NUMBER: LAC-DS ORK ORDER: 110394 SALES ORDER: F17300 QUANTITY: 1 CUSTOMER: SLAC
Monday, November 08, 2004	SERIAL NO. QUANTITY OPERATOR DEFECT CODE WORKCELL 2 1 499 S428 4-MIXED 2 1 499 S428 4-MIXED 2 1 499 S428 4-MIXED 1 499 S40 Z 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LAC-DS-0 110394 F17300 1 SLAC
	PR DEFECT COD S428 S428 S428 S428 S42 S40 Z	27133 2388 RW QTY: 1
Rep	e workcell 4-Mixed 1-Mixed 1 1	DEFECT INSPECTION TYPE: NSPECTION LEVEL: INSPECTOR:
Report generated by Design 2000 Application	DISTURBED SOLDER DISTURBED SOLDER DISTURBED SOLDER TMALL - Addu	DEFECT RECORD REPORT NSPECTION TYPE: FIRST ARTICLE RUN NSPECTION LEVEL: 1 INSPECTOR: TORRES
	C12 C12 C12 C12 C12 C12 C12 C12 C12 C12	ORT
Page 2 of 2	HINNOTES THE REAL OF THE REAL	OFE SOLDER: 0 FE ASSEMBLY: 0 ATE: 11/4/2004 WEEK CODE: 46
	1407 - 1407 - 1407	

	Page 1 of 1		Report generated by Design 2000 Applention	Re		Tuesday, November 09, 2004	<b>—</b>
	40-01-11-						]
11 61 10-10-	Reverted IIIan	$\left( \begin{array}{c} \\ \\ \\ \end{array} \right)$					
7	BC 11. 2.	U3 1904	BRIDGING	4-MIXED	S413	1 499	2
	THROUGHOUT		SOAP RESIDUE	4-MIXED	A385	1 1829	2
	·	U47-8 [./	DEFORMED LEAD	4-MIXED	A337	1 499	N
	PIN NOTES	REF DES	DEFECT DESCRIPTION	ODE WORKCELL	OR DEFECT CODE	SERIAL NO. QUANTITY OPERATOR	SERI
48	WEEK CODE:				RW QTY: 1	QUANTITY: 1 R CUSTOMER: SLAC	
: 11/9/2004	ATE:		INSPECTOR: TORRES	INSPE		SALES ORDER: F17200	SAI
	FE ASSEMBLY:			<b>NSPECTION LEVEL:</b>		ORK ORDER: 01646	0
0	OFE SOLDER:		( TYPE: 1ST SOLDER INSPECTIO	NSPECTION TYPE:	27188	ID: PART NUMBER; LAT-DS	PAR
		KEPORT	DEFECT RECORD KE	DEFEC			

- Closeel Mr

# DEFECT RECORD REPORT

2	1	N	6	SERIAL NO. QUANTITY OPERATOR DEFECT CODE WORKCELL
1 692	1 692	1 692	1 692	ITY OPERATO
S413	S406	A310	A310	R DEFECT COL
4-MIXED	4-MIXED	4-MIXED	4-MIXED	DE WORKCELL
BRIDGING	EXCESS SOLDER	MISSING MARKING	MISSING MARKING	DEFECT DESCRIPTION
JT2-4,7	JTO	JT1-3,5	JS1	REFDES
R Ch Linnin		MFG#	MFG# . , Did not De( ") /	PIN NOTES
6 11-1 X - 2 4			$\mathbb{D}_{\mathbf{b}}(\mathbb{C}^{n} \setminus \mathbb{W})$	

Report generated by Design 2000 Application

Wednesday, December 01, 2004	1 2002 A329 4-MIXED	1 2002 A301 4-MIXED	ICT CODE	QUANTITY: 1 RW QTY: 1 CUSTOMER: SLAC	F17300	PART NUMBER: LAT DS 02388	ID: 27598		
Report generated by Design 1000 Application	XED INCORRECT WIRE ROUTING	XED MIS ORIENTATION			INSPECTOR: TORRES	NSPECTION TYPE: HAND SOLDER		DEFECT RECORD REP	
Page 1 of 1	VRS S. 2007 2. 12.16.st	C153 5 2012	DES PIN NOTES	WEEK CODE: 49	12	OFE SOLDER: 0		EPORT	$\mathcal{O}_{\mathcal{O}}^{\mathcal{O}} \mathcal{F}^{\mathcal{O}}$

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	2 1 2002 \$427 4-MIXED FLUX RESIDUE	2 1 200Z S40Z 4-MIXED INSUFFICIENT SOLDER	2 1 2002 A343 4-MIXED INCOMPLETE PAPERWORK	2 NCAVE 1 2002 A320 4-MIXED DAMAGED INSULATION	2 PONT SHALL 1 2002 A320 4-MIXED DAMAGED INSULATION	2 AGUINALY 1 2002 A320 4-MIXED DAMAGED INSULATION	ANTIT	ID: 27730 PART NUMBER: LAT-DS-02388 ORK ORDER: 110394 SALES ORDER: F17300 QUANTITY: 1 RW QTY: 1 CUSTOMER: SLAC
k - 17/us		40 × 5: 200 2 (3)/2-7.04	PRE RWK US Jos 2			42 NCM/2 2116 (2 000)	REF DES PIN NOTES	REPORT OFE SOLDER: 0 FE ASSEMBLY: 0 ATE: 127/2004 WEEK CODE: 51

Page 1 of 1

Repart generated by Design 2010 Application

Thursday, December 16, 2004	2 1 1928 A309 4-MIXED	ID: 27964 PART NUMBER: LAT-DS-01646 ORK ORDER: 119453 (()) SALES ORDER: F17200 QUANTITY: 1 RW QTY: 1 CUSTOMER: SLAC
Report generated by Design 2009 Application	INSUFFICIENT COATING / POT	NSPECTION TYPE: BONDING NSPECTION LEVEL: 1 INSPECTOR: TORRES
Page 1 of 1	REF DES PIN NOTES	COFE SOLDER: 0 FE ASSEMBLY: 104 ATE: 12/16/2004 WEEK CODE: 54

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	D	28054	DEFEC	DEFECT RECORD REPORT	T	
PART NUMBER: LAT-DS ORK ORDER: 110394	PART NUMBER: LAT-DS-02388 ORK ORDER: 110394		NSPECTION TYPE: NSPECTION LEVEL:	TYPE: BONDING ,EVEL: 1		OFE SOLDER: 0 FE ASSEMBLY: 0
SALES ORDER: F17300	2 <b>R:</b> F17300		INSPE	INSPECTOR: TORRES		ATE: 12/21/2004
QUANTITY: 1		RW QTY: 1				WEEK CODE: 52
SERIAL NO. QUA	SERIAL NO. QUANTITY OPERATOR DEFECT CODE WORKCELL	OR DEFECT CO	DE WORKCELL	DEFECT DESCRIPTION	REF DES	PIN NOTES
2		A309	4-MIXED	INSUFFICIENT COATING / POTTING / BONDI IP	U.	
2	-	A309	4-MIXED	INSUFFICIENT COATING / POTTING / BONDI OP		
N	_	A348	4-MIXED	MISSING WIRES	Ū	TIES / / / /

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Report generated by Design 2000 Application

Tuesday, December 21, 2004

Page 1 of 1

Wednesday. December 22, 2004		ID: 28081 PART NUMBER: LAT-DS-02388 WORK ORDER: LAT-DS-02388 SALES ORDER: 110394 QUANTITY EFTATOR DEFECT CO SERVAL NO. QUANTITY OPERATOR DEFECT CO 2 1 2002 A317 1 2002 S408
Report generated by Design 2000 Application	22/22/24	DEFECT RECORD REPORT         INSPECTION TYPE:       HAND SOLDER         INSPECTION LEVEL:       INSPECTOR:         INSPECTOR:       HUBBARD         DEFECT CODE       DEFECT DESCRIPTION         A317       4-MIXED         S408       4-MIXED
Page 1 of 1		REF DES PIN NOTES PIN 5, WIRE UT PIN 5, WIRE U15 PIN 5, WIRE D15 PIN 5, WIRE D15 PIN 5, WIRE D16 PIN 5, WIRE D2-2-04

	REWORK TRAVELER		dosed	2.
SO NO	: F17200 PART NO: LAT-DS-01646		REV: 54	1
3SEN	IBLY NAME: CCA, TEM		QTY_2	· Lee
APPRO		s fraide	_east	w/separ
HEFKI	MAT 12-13.04 P. LUJATAT 12-13.04 HANBAHAN 12/14/04	MORA	non the	14042
PREP	BED BY DATE CSI RA DATE PROD DATE	QA	DA	TE La
STEP	OPERATION THIS REWORK TRAVELER APPLIES COATING MATERIAL TO LOCATIONS ON CORNERS OF CCAS DAMAGED BY FALLING OFF A STORAGE TRAY. REWORK AUTHORIZED VIA EMAILFROM B. ESTEY, DATED 12/12/04; 4:21 pm (ATTACHED)	Operator Sign Off.	Date	Time spent
1	Serial numbers: #2 (614), #3 (612) REFERENCE NCMR # 2082 AND # 2083.			
2	TOOLS AND MATERIALS:			
	MIXING CONTAINER - PLASTIC, METAL, OR GLASS			
	MIXING UTENSIL - PLASTIC, METAL, OR GLASS			
	SCALE - GRAM, CALIBRATED			
	PLIERS – METAL, NEEDLE, SMOOTH JAW SURFACE			
3	MIX A SMALL AMOUNT OF THE TWO PARTS OF COATING MATERIAL, ARATHANE 5750, FOR BRUSH APPLICATION TO DAMAGED LOCATIONS ON EACH CCA. REFER TO PICTURES ON FOLLOWING PAGE. USE THE FOLLOWING RATIO TO MIX THE MATERIAL:			
	PART A 18 PARTS BY WEIGHT EXAMPLE: (0.54 GRAMS)		$\int$	<u>ш-о</u> щ
(FIRST)	PART B 100 PARTS BY WEIGHT (3.00 GRAMS)	Mixe	25	
	MIX SLOWLY, BY HAND, TO MINIMIZE AIR ENTRAPMENT.	MIXed Dm/10		
	POT LIFE IS APPROXIMATELY TWO (2) HOURS).			
	LET MIXED MATERIAL STAND FOR HALF AN HOUR TO RELEASE ANY ENTRAPPED AIR.			
	RECORD MIXTURE AMOUNTS, MATERIAL LOT/BATCH CODE, AND EXPIRATION DATE, BELOW:			
	80# 30201			ľ
	AMOUNTS MIXED: PART A: 10.0 G PART B: 1.8 8.			
6	CODE: AKY6B BOLJA EXPIRATION DATE: 3/05			
H	- CUDE AKY GX 8033A EXP- DUTE 3/05			



# PART NO: LAT-DS-01646 SO NO: F17200 QTY: 2 100 SSEMBLY NAME: CCA, TEM Operator Date Time OPERATION STEP THIS REWORK TRAVELER APPLIES COATING MATERIAL TO Sign Off. spent LOCATIONS ON CORNERS OF CCAS DAMAGED BY FALLING OFF A STORAGE TRAY. REWORK AUTHORIZED VIA EMAILFROM B. ESTEY, DATED 12/12/04; 4:21 pm (ATTACHED) PICTURES OF DAMAGE TO SN #2 (614) ... REF NOTE DEFORMED CORNER PADS. REF PICTURES OF DAMAGE TO SN #3 (612) ... cont. NOTE DEFORMED CORNER PADS.

**REWORK TRAVELER** 



**REV**: 54

SO NO: F17200

REWORK TRAVELER PART NO: LAT-DS-01646

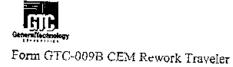
_		_
	REV:	54

QTY:2

.SSEMBLY NAME: CCA, TEM

Т

OTED		·		
STEP	OPERATION	Operator	Date	Time
	THIS REWORK TRAVELER APPLIES COATING MATERIAL TO	Sign Off.		spent
	LOCATIONS ON CORNERS OF CCAS DAMAGED BY FALLING OFF A			opent
	STORAGE TRAY. REWORK AUTHORIZED VLA EMAILFROM B. ESTEY,	ļ		
	DATED 12/12/04; 4:21 pm (ATTACHED)	]		
4	WHEN DEFORMED PAD IS EVIDENT, CAREFULLY PRESS IT BACK DOWN INTO NORMAL POSITION. USE PLIERS FOR MOVING THE PAD METAL.			
	USE A BRUSH TO APPLY A SMALL AMOUNT OF COATING TO NOTED DAMAGED LOCATIONS. COVER EXPOSED FIBERS, AND ADJACENT AREAS UP TO ¼" AWAY FROM DAMAGED SURFACES	fut	C. Alton	;
	ALLOW COATING TO AIR-DRY, OBSERVING FOR DRIPS, FOR HALF AN HOUR. REMOVE EXCESS DRIP COATING DURING THIS TIME.			
5	CURE COATING DURING BAKE CYCLE PERFORMED FOR CURING STAKING MATERIALS.			
	RECORD CURE DATE, TEMPERATURE, AND VSTART/STOP TIMES BELOW: DATE: (414/07 TEMP: 120°F START: 2:45PM STOP:	XM2-	12-242.01	
2		5 a.e. 2		
ð	INSPECTION		+++	<u> </u>
			121504	/
		199°)	200	
7	CSI			
		l 		
		F		



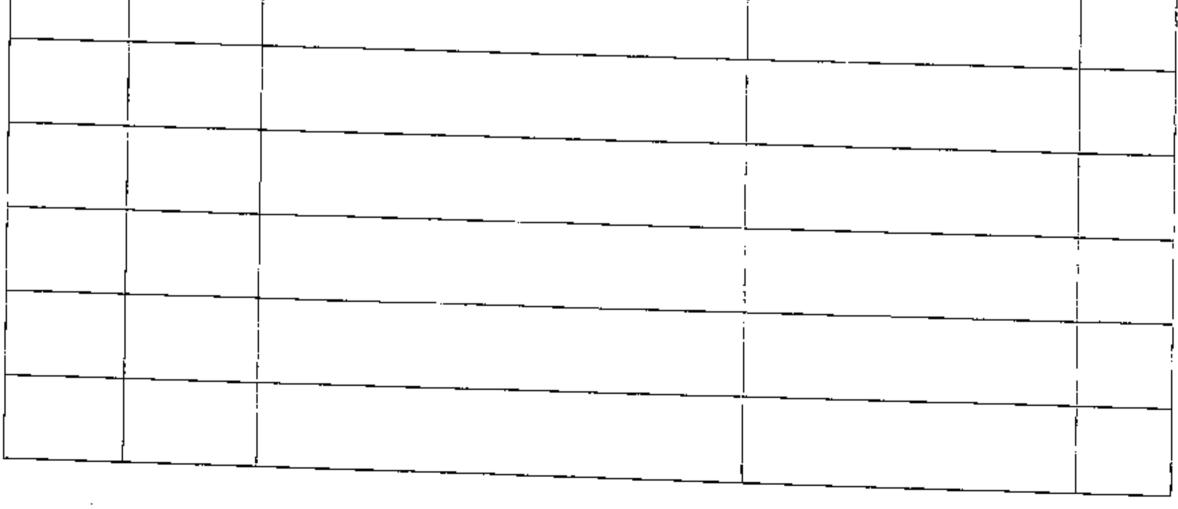
# SLAC-GLAST CONNECTOR MATE / DE-MATE LOG

This log records mate and de-mate events for ONE (1) TPS Assembly, through completion of assembly and test activities performed on the indicated Work Order. For further records refer to logs associated with Work Orders applicable to part number LAT-DS-02388.

# TPS ASSY PN: LAT-DS-01482 WORK ORDER NO .: F173 00

# SERIAL NUMBER: <u>G-LAT 1744</u>

REF	DATE	MATE / DE-MATE EVENT	OCCURRENCES	BY
][		Demate to Assemble Lij	1 1	
12		Demate to assemble Chassis	1	
<u>]</u> 2		to assemble screws	1	
<b>-</b> , <b></b>	   			
	 	······································		



Form No. GTC-119-1482