

General Technology Corporation

1450 Mission Ave. NE, Altrixquerque, NM 87107 505.345.5591 fax 505.343,7653

Electronics Group

FAX Transmission

TO: DARREN MARSH	From: PAT	LUTAN
Fax: 650-926-4979	Pages: 4 707	AL
Phone:	Date: //./. 0	#
Re: MCMR ZO37	cc: BRIGHTE	ESTEY .
☐ Urgent ☐ For Review ☐ Please Com	ment 🛘 Please Reply	□ Please Recycle
• Comments:		<u> </u>
ATTACHED IS NO	CMR WITH	REWORK TRAVECE
PLEASE ADVISE W	ETHER YOU	MOULD LIKE
TO SEE \$	ACTUAL S	16, NATURES
OR E-MAIL'S	STATING	APPROVAL.
	A	

CUSTOMER RETURN

NCMR NUMBER

2037

RMA NUMBER

DATE

10/11/200

QUANTITY RETURNED

CUSTOMER

SLAC

VENDOR DEFECT

CUSTOMER

PAT LUJAN

QUANTITY REJECTED

VENDOR

General Technology

PRODUCTION

PART NUMBER

LAT-DS-01646

LOT QUANTITY

3

QUANTITY REJECTED

SALES ORDER

F17200

REWORK

PURCHASE ORDER 48799 **OUANTITY**

PURCHASING DEFECT

PURCHASING QUANTITY REJECTED

LOT NUMBER WORK ORDER

110154,110155,110156

INITIATOR

ASSIGNED TO

P. LUJAN

DATE REQUIRED

PAT LUJAN

ASSIGNED TO

10/11/2004

DISCREPANCY

SN's "1, 2 and 3" (Currently not identified as with SLAC numbers)

- 1.) U62, fine pitch leads are bent out of compliance for coplanarity.
- 2.) U45, fine pitch leads are 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 .012 -.014 on three parts that were checked. The drawing requires a .010 maximum bond line thickness.

Detailed information on FPGA.s:

Of the six furnished devices, one of each part exhibits no lead skew or co-planarity deficiences necessitating correction. One other of each part exhibits minor (less than 6) skewed lead and co-planarity locations, and the final pair exhibit slightly more (less than 10, more than 6) skewed lead and co-planarity locations. The lead skew is such that a lead is moved off the designed center point of the device pitch, but not so far as to contact the next adjacent lead. The lead non-co-planarity is such that some leads are lower, or higher, than the majority of the leads on each side, by typically a lead thickness. Adjustments up and down are necessary to moderate the overall co-planarity of the lead array. In no instance are leads observed to be

NOTES

- 1. Customer Furnished Material
- 2. Further review and drawing clarification foot to body dimension is within tolerance. No further approvals are required.
- Approval Signatures on file.

CAUSE CAUSE

Items 1 and 2: Customer furnished material; Parts were received in this condition. Unable to determine where damage occurred.

CORRECTIVE ACTION

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-01646 to be changed to eliminate requirement of Thermally Conductive Adhesive under the ASIC's. Detail 8 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

GET CUSTOMER APPROVAL

Q/A APPROVAL

Pat Lujan

O/A APPROVAL

11/1/2004

COST OF QUALITY

NCMR NUMBER	2037	CUSTOMER RETURN	
DATE	10/11/2004	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAI	CT PATLUJAN	VENDOR DEFECT	
VENDOR	General Technology Corp	QUANTITY REJECTED	3
PART NUMBER	LAT-DS-01646	PRODUCTION DEFECT	
LOT QUANTITY	31	QUANTITY REJECTED	
SALES ORDER	F17200	REWORK REQUIRED	П
		QUANTITY REWORKED	
PURCHASE ORDER	48799	PURCHASING DEFECT	☑ .
LOTNUMBER			·
WORK ORDER	110154,110155,110156	PURCHASING QUANTITY	REJECTED 3
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 iden	tified as with SLAC numbers)	
	1.) U62, fine pitch leads are bent out		
	2.) U45, fine pitch leads are bont out		
i	3.) U3. U4. U6. UB U54 1155 1166 1	153 (150 1100 1100	of the next is
	causing a greater than .010 gap betwo case. The foot to case dimension var drawing requires a .010 maximum bor	des from 012 or the lead foot to the be	ottom of the companent were checked. The
	Detailed information on EPGA st		;
	Of the six furnished devices, one of e- necessitating correction. One other of	ach part exhibits no lead skew or co-pla	narity deficiences
	planarity locations, and the final nate.	man (1989 man E)	skewed lead and co- [
	of the device pitch had not an far and	Section and the section of the	e designed center point
	lead thickness. Adjustments up and	down are presented of the leads of the	sach side, by typically a
		observed to be damaged.	
NOTES	Customer Fumished Material		
			ļ
CAUSE	Items 1 and 2: Customer fi to determine where damag	urnished material: Parts were received a occurred.	in dris condition. Unable
			· · · · · · · · · · · · · · · · · · ·
	Item 3: As received.	·	ļ

CORRECTIVE ACTION	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-DS01646 to be changed to eliminate requirement of Thermally Conductive Adhesive under the ASIC's. Datall 8 to include statement regulding 5075 % 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	GET OUSTOMER APPROVAL
Q/A APPROVAL	
Q/A APPROVAL DATE COST OF QUALITY	
A BBOOK	7
APPROVED	: (SLAC)
LAT Q	NAJAWAM BOWANCEA TOWAL
DARREN V	NARSH WOO II/10A
rair wad	HALLER MANACER AM 11-1-0
Janny .	CLINTON Jeny Or Clike 11/1/04 WEARN INL
Ant.	ر حور مد مر حور مد

SO NO: =17200 PART NO: FPGA Components (LAT-DS-03894 & 03895; 3 OF EA)	REV: N/A
ASSEMBLY NAME: Uland and AT DO CARROLL	
ASSEMILLY NAME: (Used on LAT-DS-01646; U45 - LAT-DS-03895; U62 - LAT-DS-03884)	QTY: 8 parts

	QTY: 8 parts
APPROV(4, /	
Hefkin (1-10-4 Hefkin) Hefkin)
PREPARED BY DATE ENGINEE DATE	-aora-
TAREAL DATE ENGINGE DATE OF OWNER	DATE.

				115
STEP		·		
• • • • • • • • • • • • • • • • • • •	OPERATION	Operator	Date	Time
	B.B. NCMR 2037;	'		* 14114
·	CPa "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.			
	2) U45, fine pitch leads are bent out of compliance for coplansity.		ı	
	113. U3, U4, U5, U6, U54, U56, U55, U57. U58, U59, U60 and U61 the lead form of the part in causing a greater than .010 gap between the bettern of the lead foot to the bottom of the component case. The foot to case dimension waries from .012 .014 on three parts that were checked. The drawing requires a .010 maximum band line thickness.			•
	120 ORRECTIVE ACTION: Items 1 and 2: Rework per instructions provided on rework traveler. (GTC-009).			
 	liome leads of Customer Furnished components are bent, skewed, out of pitch and co- planarity. Straighten leads to as close an optimal condition, as possible – no dimensional posstraints required except alignment with PWB pads for indicated device installation		:	
1	Report SNa of EPGAs:	 	 	<u> </u>
	Rescord SNe of FPGAs:			
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]			1	ļ
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.2	Stalghten leads of devices using component tweezers, under microscope.	<u> </u>	 -	<u> </u>
-		1		
		1		
3	<u></u>			
١	Liperator inspection (associate in SMT area).		} .	
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NCMR NUMBER

2078

CUSTOMER RETURN

DATE

11/11/200

RMA NUMBER

CUSTOMER

SLAC

QUANTITY RETURNED

CUSTOMER

Pat Luian

VENDOR DEFECT

VENDOR

QUANTITY REJECTED

PART NUMBER

General Technology

PRODUCTION

LAT-DS-02388

QUANTITY REJECTED

LOT QUANTITY SALES ORDER

REWORK

F17300

QUANTITY

PURCHASE ORDER

48800

PURCHASING DEFECT

LOT NUMBER

PURCHASING QUANTITY REJECTED

WORK ORDER

110393,110394,110432

INITIATOR

Pat Lujan

ASSIGNED TO

Pat Lujan

DATE REQUIRED

11/11/2004

ASSIGNED TO

Pat Lujan

DISCREPANCY

PWA- LAT-DS-02388:

Shottky Diode PN SSR1040GTXV Item 19 of BOM LAT-DS0391-55 The component referenced exhibits solder contacting the component body.

SN 1

SN 2 D-3, D-4, D-8, D-19

SN3 D-3, D8

NOTES

Further investigation revealed that Vendor Supplied parts were tinned and also had evidence of solder on part body. This condition was found to be acceptable per MIL-PRF-19500.

CAUSE

CAUSE

Parts were initially rejected post SMT and reflow for Inadequate heal fillet. During

the rework process solder came in contact with the component body.

CORRECTIVE ACTION

This has been determined to be a Process Indicator Condition and not a Defect. This will be monitored by on -site source inspector for abnormal variation in future run.

FINAL DISPOSITION

NO DEFECT

Q/A APPROVAL

Pat Lujan E-Mails on File

Q/A APPROVAL

11/12/200

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

Lujan, Patricio C

From:

Marsh, Darren S.

To:

Lujan, Patricio C

Cc:

Subject:

: RE:

RE: NCMR 2078

Attachments:

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

From: Lujan, Patricio C

Sent: Friday, November 12, 2004 9:32 AM

To: Haller, Gunther; Neison, David J.; Marsh, Darren S.

Cc: Estey, Brigitte
Subject: NCMR 2078

Attached is NCMR for your approvals.

VENDOR DEFECT

CUSTOMER RETURN NCMR NUMBER 2081

RMA NUMBER DATE 11/12/200

QUANTITY RETURNED CUSTOMER SLAC

CUSTOMER Pat Luian

QUANTITY REJECTED **VENDOR** General Technology

PRODUCTION PART NUMBER LAT-DS-01646

QUANTITY REJECTED LOT QUANTITY

REWORK SALES ORDER F17200 **QUANTITY**

Pat Luian

PURCHASE ORDER 48799 PURCHASING DEFECT

LOT NUMBER

PURCHASING QUANTITY REJECTED WORK ORDER 110154

INITIATOR

ASSIGNED TO GTÇ

11/15/2004

ASSIGNED TO DISCREPANCY

PWA dropped from an appoximate distance of 36". PWB sustained damage (dings) along edges of board. Photographs will be e-mailed and are a part of this NCMR.

NOTES Re-inspection at 10X power did not reveal any fractured solder joints; however, the following

defects were detected: R418 - Non-soldered connection

Interim Disposition: OK to proceed to Step 14-ICT, then submit test results to QA for review. (If results are acceptable work will be allowed to proceed to step 21-Func. Test before a Final

Disposition is made).

CAUSE Improper handling.

CORRECTIVE ACTION

FINAL DISPOSITION GET CUSTOMER APPROVAL

Q/A APPROVAL Q/A APPROVAL

COST OF QUALITY

DATE REQUIRED

. CTC 000 D Lujan, Patricio C

From:

Haller, Gunther

Sent: Sat 11/13/2004 3:26 PM

To:

Lujan, Patricio C; Estey, Brigitte; Marsh, Darren S.; Nelson, David J.; Sapozhnikov, Leonid

Cet

Haller, Gunther

Subject:

RE: NCMR's 2081, 2082, 2083

Attachments:

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

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 was insufficient solder. No fractured solder joints or additional PWB damage was discovered. I would like some input 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 necesarry support to accomplish this task.

Sent: Mon 11/15/2004 4:23 PM

Lujan, Patricio C

From:

Marsh, Darren S. Lujan, Patricio C

To:

Cc:

Subject:

RE: NCMR's 2081, 2082, 2083

Attachments:

Will 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

Menlo 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.



General Technology Corporation



ELECTRONICS . MICROELECTRONICS . ENGINEERING .

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.



General Technology Corporation

A Crane Co. Compan



ELECTRONICS . MICROELECTRONICS . ENGINEERING . SYSTEMS

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		<u> </u>		REV: 5	4
ASSEMBLY NAME:	CCA, TE	M					QTY: 2	
APPROVAL								<u> </u>
HEFKIN		P. LUJAN		HANRAHAN		MORA		
PREPARED BY	DATE	CSI	DATE	PROD	DATE	QA .	D.	ATE
STEP	· · ·		OPERATION			Operator	Date	Tim

STEP	OPERATION	Operator	Date	Time
	THIS REWORK TRAVELER APPLIES COATING MATERIAL TO	Sign Off.		spent
ļ	LOCATIONS ON CORNERS OF CCAS DAMAGED BY FALLING OFF A	l Gigii Giii	:	Spenic
	STORAGE TRAY. REWORK AUTHORIZED VIA EMAILFROM B. ESTEY,			
1	DATED 12/12/04; 4:21 pm (ATTACHED)	<u> </u>		<u> </u>
1 !	Serial numbers: #2 (614), #3 (612) REFERENCE NCMR # 2082 AND # 2083.			
2	TOOLS AND MATERIALS:	<u> </u>		
	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,		<u> </u>	
	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:			1
	PART A 18 PARTS BY WEIGHT EXAMPLE: (0.54 GRAMS)			
	PART B 100 PARTS BY WEIGHT (3.00 GRAMS)			
!				
	MIX SLOWLY, BY HAND, TO MINIMIZE AIR ENTRAPMENT.			
	POT LIFE IS APPROXIMATELY TWO (2) HOURS).	İ		
	LET MIXED MATERIAL STAND FOR HALF AN HOUR TO RELEASE ANY			
	ENTRAPPED AIR.			
	RECORD MIXTURE AMOUNTS, MATERIAL LOT/BATCH CODE, AND EXPIRATION DATE, BELOW:			
1	AMOUNTS MIXED: PART A: PART B:			
	CODE: EXPIRATION DATE:			



SO NO: F17200 PART NO: LAT-DS-01646	REV: 54
ACCEMBLY NAME, COA TEM	
ASSEMBLY NAME: CCA, TEM	QTY: 2

			W(11, 2	·
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	5.5	:	Spent
	STORAGE TRAY, REWORK AUTHORIZED VIA EMAILEROM R. ESTEV			
	DATED 12/12/04; 4:21 pm (ATTACHED)		: 	
REF	PICTURES OF DAMAGE TO SN #2 (614)			
ĺ			į	: - '
]	
	NOTE DEFORMED CORNER PADS.			
REF	PICTURES OF DAMAGE TO SN #3 (612)	 	<u> </u>	<u> </u>
cont.				
	NOTE DEFORMED CORNER PADS.			



SO NO: F17200	PART NO: LAT-DS-01646	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 STORAGE TRAY. REWORK AUTHORIZED VIA EMAILFROM B. ESTEY, DATED 12/12/04; 4:21 pm (ATTACHED)	Sign Off.		spent
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 1/2" AWAY FROM DAMAGED SURFACES			
	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: START: STOP:			
6	INSPECTION			
7	CSI	-	-	



		CUSTOMER RETURN	
NCMR NUMBER	2089	RMA NUMBER	
DATE	11/17/2004	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC	T David Tarkington	VENDOR DEFECT	
VENDOR	SLAC	QUANTITY REJECTED	
		PRODUCTION DEFECT	
PART NUMBER	MAX724ECK	QUANTITY REJECTED	
LOT QUANTITY	200	REWORK REQUIRED	
SALES ORDER	F17300	QUANTITY REWORKED	
PURCHASE ORDER	48800		
LOT NUMBER		PURCHASING DEFECT	<u>_</u> ;
WORK ORDER	110393, 110394, 110432	PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	SLAC		
DATE REQUIRED	11/19/2004		
ASSIGNED TO SIGN			
		ble to assemble, Ref. LAT-DS-02388 U6	S-U8, U10, U15, Ü17 U18
21001112111107	See photo.	•	
			·
NOTES	Repaired per instructions from Day	vid Tarkington.	
CAUSE	As supplied by SLAC		
			ļ
AAD DE COURT OF A COURT	La Carriera denvisas to alorif	y use of these components.	
CORRECTIVE ACTI	(O)V	y use of titlese components.	
		· · · · · · · · · · · · · · · · · · ·	
FINAL DISPOSITIO	N REPAIR		
Q/A APPROVAL	Pat Lujan (E-Mali	s on file)	
Q/A APPROVAL DA	TE [11/20/2004]		
COST OF QUALITY	 -		

MCMD MIMBER		CUSTOMER RETURN	
NCMR NUMBER	2100	RMA NUMBER	
DATE	11/24/2004	QUANTITY RETURNED	[]
CUSTOMER	SLAC	_	
CUSTOMER CONTAC	CT	VENDOR DEFECT	· —
VENDOR		QUANTITY REJECTED	
PART NUMBER	LAT-DS-02338	PRODUCTION DEFECT	Ш
T 0.00 0.71 (3.00)		QUANTITY REJECTED	
LOT QUANTITY	3	REWORK REQUIRED	
SALES ORDER	F17300	QUANTITY REWORKED	
PURCHASE ORDER	48800	PURCHASING DEFECT	
LOT NUMBER		│ PURCHASING QUANTITY	PETECTED
WORK ORDER	110393, 110394, 110432	· · · · · · · · · · · · · · · · · · ·	REJECIED
INITIATOR	Pat Lujan		• :
ASSIGNED TO	David Tarkington		
DATE REQUIRED	11/29/2004		
ASSIGNED TO SIGN	ATURE		
ASSIGNED TO SIGN DISCREPANCY	Mounting thru holes for F/N 36 (MA	X724ECK) 7 places is .124 dia. Should for 6-32 cap screw (major dia. = .138)	be approximately .156.
	Mounting thru holes for F/N 36 (MA	X724ECK) 7 places is .124 dia. Should for 6-32 cap screw (major dia. = .138)	be approximately .156.
DISCREPANCY	Mounting thru holes for F/N 36 (MA	X724ECK) 7 places is .124 dia. Should for 6-32 cap screw (major dia. = .138)	be approximately .156.
DISCREPANCY NOTES CAUSE	Mounting thru holes for F/N 36 (MA Diameter should provide clearance	X724ECK) 7 places is .124 dia. Should for 6-32 cap screw (major dia. = .138)	be approximately .156.
DISCREPANCY NOTES	Mounting thru holes for F/N 36 (MA Diameter should provide clearance	X724ECK) 7 places is .124 dia. Should for 6-32 cap screw (major dia. = .138)	be approximately .156.
DISCREPANCY NOTES CAUSE	Mounting thru holes for F/N 36 (MA Diameter should provide clearance Design Error	for 6-32 cap screw (major dia. = .138)	be approximately .156.
DISCREPANCY NOTES CAUSE CORRECTIVE ACTOR	Mounting thru holes for F/N 36 (MA Diameter should provide clearance Design Error	for 6-32 cap screw (major dia. = .138)	be approximately .156.
DISCREPANCY NOTES CAUSE CORRECTIVE ACTOR FINAL DISPOSITION	Mounting thru holes for F/N 36 (MA Diameter should provide clearance Design Error ON GET CUSTOMER Pat Lujan (e-mail	for 6-32 cap screw (major dia. = .138)	be approximately .156.
DISCREPANCY NOTES CAUSE CORRECTIVE ACTOR FINAL DISPOSITION Q/A APPROVAL	Mounting thru holes for F/N 36 (MA Diameter should provide clearance) Design Error ON GET CUSTOMER Pat Lujan (e-mail	for 6-32 cap screw (major dia. = .138)	be approximately .156.

This message was sent with high importance.

Lujan, Patricio C

From:

Marsh, Darren S.

Sent: Sun 11/28/2004 12:59 PM

To:

Estey, Brigitte; Lujan, Patricio C; Tarkington, David; Nelson, David J.; Haller, Gunther

Cc:

Llew, Y.C.; Patterson, Russell

Subject:

RE: NCMR2100

Attachments:

Approved.

Darren

From: Estey; Brigitte

Sent: Fri 11/26/2004 11:14 AM

To: Lujan, Patricio C; Tarkington, David; Marsh, Darren S.; Nelson, David J.; Haller, Gunther

Cc: Liew, Y.C.; Patterson, Russell

Subject: RE: NCMR2100

Pat.

You can use Dave T.'s attachment as disposition for NCMR2089 and NCMR2100. I believe all the information is there for GTC to proceed. Please review. Gunther/Dave N., and Darren. Please provide your concurrence to this disposition as provided by Dave T. for NCMRs 2089 and 2100.

Thanks, Brigitte

From: Lujan, Patricio C

Sent: Wed 11/24/2004 3:12 PM

To: Tarkington, David; Estey, Brigitte; Marsh, Darren S.; Nelson, David J.; Haller, Gunther

Cc: Liew, Y.C.; Patterson, Russell

Subject: RE: NCMR2100

I wrote 2 NCMR's one for the IC (NCMR2089) and one for the PWA (NCMR2100).

Pat

From: Tarkington, David

Sent: Wed 11/24/2004 3:18 PM

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

Cc: Liew, Y.C.; Patterson, Russell

Subject: RE: NCMR2100

Pat,

Part affected is 02388 (typo on the NCMR).

See attached for lead trimming and hardware change details.

Dave T.

From: Lujan, Patricio C

Sent: Wednesday, November 24, 2004 1:55 PM

To: Estey, Brigitte; Tarkington, David; Marsh, Darren S.; Nelson, David J.; Haller, Gunther

Subject: NCMR2100

From:	Haller, Gunther	Sent:	Thu 1/20/2005 9:34 AM
To:	Lujan, Patricio C; Marsh, Darren S.		-,,
Cc:	Estey, Brigitte; Nelson, David 1.; Tarkington, David		
Subject:	RE: NCMR2100		•
Attachments	•		
approved			
Dr. Gunther i	Haller		
Stanford Uni	versity/SLAC		
MS 96			
P.O. 20450			
Stanford, CA	A 94309		
T: (650) 926	-4257		
F: (650) 926	-2923		
To: Haller, C Cc: Estey, B	sday, January 20, 2005 7:44 AM Gunther; Marsh, Darren S. Brigitte; Nelson, David J.; Tarkington, David W: NCMR2100		
Gunther/Da	rren,		
l do not hav	e an e-mail from you approving these NCMR's.	Please send me	an e-mail approving these.
Thank you,			
Pat			

Lujan, Patricio C

	,	CUSTOMER RETURN	
NCMR NUMBER	2113	RMA NUMBER	
DATE	12/6/2004	QUANTITY RETURNED	
CUSTOMER	SLAC	_	
CUSTOMER CONTAC	T Pat Lujan	VENDOR DEFECT	
VENDOR		QUANTITY REJECTED	<u></u>
PART NUMBER	LAT-DS-02588	PRODUCTION DEFECT	
		QUANTITY REJECTED	
LOT QUANTITY	3	REWORK REQUIRED	\mathbf{A}
SALES ORDER		QUANTITY REWORKED	3
PURCHASE ORDER		PURCHASING DEFECT	
LOT NUMBER			
WORK ORDER		PURCHASING QUANTITY	REJECTED
INITLATOR	Pat Lujan		
ASSIGNED TO	David Tarkington		
DATE REQUIRED	12/7/2004		
ASSIGNED TO SIGN	IATURE		
DISCREPANCY	Wire length on drawing is 1.50 inch where the wire will be lap soldered.	nes. This dimension is oversize based or	the location of the pads
Morre			
NOTES			
	Drawing Error		
CAUSE .	proming 2.103		ļ
			·
CORRECTIVE ACTI	ION Revise drawing based of engineering will provide	on information obtained from GTC. GTC wire length dimensions.	manufacturing
FINAL DISPOSITIO	ON REWORK		
O/A APPROVAL	Pat Lujan (e-mail	ls on file)	
Q/A APPROVAL DA	TE 12/6/2004		
COST OF OUALITY			

Lujan, Patricio C

From:

Marsh, Darren S.

RE: Cable Assembly

Sent: Mon 12/6/2004 5:27 PM

To:

Lujan, Patricio C; Haller, Gunther

Cc:

Sapozhnikov, Leonid; Estey, Brigitte; Nelson, David J.; Tarkington, David

Subject: Attachments:

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 Center

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.

Oc: Sapozhnikov, Leonid; Estey, Brigitte; Nelson, 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 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.

the second of th

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

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.

You forwarded this message on 1/19/2005 8:59 AM.

Lujan, Patricio C

From:

Haller, Gunther

Sent: Mon 12/6/2004 5:28 PM

To:

Lujan, Patriclo C; Marsh, Darren S.

Cc:

Sapozhnikov, Leonid; Estey, Brigitte; Nelson, David J.; Tarkington, David RE: Cable Assembly

Subject:

Attachments:

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; Nelson, 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

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

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.

From;	Marsh, Darren S.	Sent:	Tue 12/7/2004 3:51 PM
To:	Lujan, Patricio C	Sent	Tue 12///2004 3.31 Fit
Cc:			
Subject: Attachment	RE: Time Sheet		
hanks for a	asking.		
am delega	ting my MRB approval authority to you during my absence	Э.	
Darren			
Darren S.	Marsh		
GLAST L	arge Area Telescope Project		
Stanford	Linear Accelerator Center		
2575 Sar	nd Hill Road, m/s 43A		
Menlo Pa	ark, CA 94025		

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		CUSTOMER RETURN			
	2116	RMA NUMBER			
DATE	12/7/2004	QUANTITY RETURNED	[
CUSTOMER	SLAC		<u> </u>		
CUSTOMER CONTAC	CT	VENDOR DEFECT			
VENDOR	General Technology Corp	QUANTITY REJECTED			
PART NUMBER	LAT-DS-02338	PRODUCTION DEFECT	Ø		
T.O.T. O.T. (A) T.T.		QUANTITY REJECTED	3		
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		
INITLATOR	, , , , , , , , , , , , , , , , , , ,				
ASSIGNED TO	Gary Hefkin				
DATE REQUIRED	12/8/2004				
ASSIGNED TO SIGN	IATURE				
DISCREPANCY	Damaged insulation/exposed wire.				
		· · · · · · · · · · · · · · · · · · ·			
NOTES	Reference NCMR 2089		· · · · · · · · · · · · · · · · · · ·		
	Part of the repair process is to enco	<u> </u>			
CAUSE	During preparation of 1/ exposing wire.	2" long jumper wire; (cut, strip and tin) ii	nsulation was damaged		
CORRECTIVE ACTI	CORRECTIVE ACTION On the following 19 units all wire will be inspected for this condition prior to solder.				
FINAL DISPOSITIO	N USE AS IS		·		
Q/A APPROVAL	Pat Lujan (e-mail	s on file)			
Q/A APPROVAL DA	TE 12/8/2004	· 			
COST OF QUALITY					

NCMR NUMBER

2118

CUSTOMER RETURN

DATE

12/7/2004

RMA NUMBER

CUSTOMER

SLAC

QUANTITY RETURNED

CUSTOMER

SLAC

VENDOR DEFECT

VENDOR

General Technology

QUANTITY REJECTED

PART NUMBER

LAT-DS-02338

PRODUCTION

LOT QUANTITY

3

QUANTITY REJECTED

3

SALES ORDER

,

REWORK

SALES ORDER F17300
PURCHASE ORDER 48800

QUANTITY

PURCHASING DEFECT

LOT NUMBER
WORK ORDER

110393, 110394, 110432

PURCHASING QUANTITY REJECTED

INITIATOR

ASSIGNED TO

Gary Hefkin

DATE REQUIRED

12/8/2004

ASSIGNED TO DISCREPANCY

Damaged Insulation/exposed wire.

NOTES

Reference NCMR 2089

Part of the repair process is to encapsulate the jumper wires.

CAUSE CAUSE

During preparation of 1/2" long jumper wire; (cut, strip and tin) insulation was

damaged exposing wire.

CORRECTIVE ACTION

On the following 19 units all wire will be inspected for this condition prior to solder.

FINAL DISPOSITION

USE AS IS

Q/A APPROVAL

Q/A APPROVAL

COST OF QUALITY

Sent: Wed 12/8/2004 10:13 AM

You forwarded this message on 12/8/2004 10:15 AM.

Lujan, Patricio C

From:

Haller, Gunther

To:

Lujan, Patricio C; Marsh, Darren S.

Cc:

Estey, Brigitte

Subject:

RE: NCMR2116

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: 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

Lui	an.	Patr	ricio	c
	-++,	, 46	,,,,,,	

From:

Marsh, Darren S.

To:

Lujan, Patricio C; Haller, Gunther

Cc: Subject:

Estey, Brigitte RE: NCMR2116

Attachments:

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

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.

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	PRODUCTION DEFECT	
LOT QUANTITY	3	QUANTITY REJECTED	
SALES ORDER	F17200	REWORK REQUIRED	
		QUANTITY REWORKED	
PURCHASE ORDER	48799	PURCHASING DEFECT	
LOT NUMBER			_
WORK ORDER	110154, 110155, 110156	PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	Dave Tarkington		
DATE REQUIRED	12/15/2004		
ASSIGNED TO SIGNA	TURE		
DISCREPANCY	ern 8 on drawing IS: MSZ4671-2 (.3	375 length) Should be: .25 length, Sce	wie hau
ٳ	name to assemble.	a and a deg	w is portouring out;
		<u></u>	
NOTES	· · · · · · · · · · · · · · · · · · ·		
L	·	_	
CAUSE	Drawing Error		
CORRECTIVE ACTIO	Ai Change drawing to		
SOMEOTIVE ACTIO	Change drawing to correct	part number MS24671-1.	
		_	İ
FINAL DISPOSITION	REWORK		
Q/A APPROVAL	Pat Lujan (e-mail on i	file)	
Q/A APPROVAL DATE	12/15/2004	-	
COST OF QUALITY	<u> </u>	-	
-	L		

Sent: Wed 12/15/2004 5:39 PM

Lujan, Patricio C

From:

Haller, Gunther

To:

Lujan, Patricio C

Cc:

Estey, Brigitte; Nelson, David J.; Ludvik, Jeffrey; Marsh, Darren S.; Sapozhníkov, Leonid

Subject:

RE: NCMR2121

Attachments:

approved

From: Lujan, Patricio C

Sent: Wednesday, December 15, 2004 3:57 PM

To: Haller, Gunther

Cc: Estey, Brigitte; Nelson, David J.; Ludvik, Jeffrey; Marsh, Darren S.; Sapozhnikov, Leonid

Subject: NCMR2121

Gunther,

Please review and appove the attached NCMR2121. I will approve in Darren's absence.

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

<u>Lujan, Patricio (</u>

From:

Marsh, Darren S.

To:

Lujan, Patricio C

Cc;

Subject:

RE: Time Sheet

Attachments:

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.

NCMR NUMBER	2127	CUSTOMER RETURN	
DATE	12/16/2004	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC	T David Nelson/Jeffrey Lud	VENDOR DEFECT	
VENDOR		QUANTITY REJECTED	
PART NUMBER	LAT-DS-02388	PRODUCTION DEFECT	
LOT QUANTITY	3	QUANTITY REJECTED	
SALES ORDER	F17300	REWORK REQUIRED	
PURCHASE ORDER	48800	QUANTITY REWORKED	
LOT NUMBER		PURCHASING DEFECT	
WORK ORDER	110393, 110394, 110432	PURCHASING QUANTITY	REJECTED -
INITIATOR	Pat Lujan		ICUECTED
ASSIGNED TO	David Nelson		
DATE REQUIRED	12/16/2004	_	
ASSIGNED TO SIGNA			
DISCREPANCY	est Failure		
NOTES			
CAUSE	Test Failure		
CORRECTIVE ACTIO	L		<u></u>
CONGRETIVE ACTION			
	Remove R231 and replace	with F/N 62 (15K) M55342K06B15E0R	
FINAL DISPOSITION	REWORK		
Q/A APPROVAL	Pat Lujan (e-mails on	file)	
Q/A APPROVAL DATE	12/16/2004		
COST OF QUALITY		7	
		1	

Sent: Mon 12/20/2004 9:35 PM

Lujan, Patricio C

From:

Haller, Gunther

To:

Lujan, Patricio C

Cc:

Subject:

RE: NCMR2127

Attachments:

approved

From: Lujan, Patricio C

Sent: Mon 12/20/2004 7:54 PM

To: Haller, Gunther Subject: FW: NCMR2127

Gunther,

Attached is NCMR2127 for your approval.

From: Haller, Gunther

Sent: Thu 12/16/2004 9:30 PM

To: Lujan, Patricio C

Cc: Sapozhnikov, Leonid; Ludvik, Jeffrey; Nelson, David J.; Marsh, Darren S.; Estey, Brigitte

Subject: RE: NCMR2127

I don't understand this. Does this mean Lupe has to order more resistors/

If os,I Lupe please do asap

From: Lujan, Patricio C

Sent: Thu 12/16/2004 11:44 AM

To: Haller, Gunther

Cc: Sapozhnikov, Leonid; Ludvik, Jeffrey; Nelson, David 3.; Marsh, Darren S.; Estey, Brigitte

Subject: NCMR2127

Gunther,

Attached is NCMR2127 for your approval.

Brigitte,

This is going to impact inventory.

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

Lujar	ı. Pa	tric	io C	
_~,	.,			

From:

Marsh, Darren S.

To:

Lujan, Patricio C

Cc:

Subject:

RE: Time Sheet

Attachments:

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.

NCMR NUMBER	2129	CUSTOMER RETURN	
DATE	12/18/2004	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC	T Pat Lujan	VENDOR DEFECT	
VENDOR	General Technology Corp	QUANTITY REJECTED	
PART NUMBER	LAT-DS-0238B	PRODUCTION DEFECT	
LOT QUANTITY	3	QUANTITY REJECTED	
SALES ORDER	F17300	REWORK REQUIRED	
		QUANTITY REWORKED	
PURCHASE ORDER	48800	DUD CIT I CINIC STORY	
LOT NUMBER		PURCHASING DEFECT	U
WORK ORDER	110393, 110394, 110432	PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	Hefkin		
DATE REQUIRED	12/20/2004		
ASSIGNED TO SIGNA	ATURE Hefkin		
DISCREPANCY	S: Wires from J1 connector dressed	to lay on adjacent components.	
	SB: No wires dressed to contact adja-		
			
NOTES	Disposition Is USE AS IS with supple ensure wires are not resting on adjace	mental work instructions to detail potting ent components.	g instructions that
£	Mires pro len coldend		
CAUSE	does not allow for proper v	ermination pads on PWA without a hea vire dressing.	fillet. This process
CORRECTIVE ACTIO	M Immediate corrective action	n for SN's 1, 2 and 3 is per attached su	gpiemental instructions
	SN's 4 thru 22 work instan	ctions will beupdated to include detail to a manner that will not contact adjacent	
FINAL DISPOSITION	USE AS IS	mat wis not contact adjacent	components.
Q/A APPROVAL	Pat Lujan (e-mails or	n file)	
Q/A APPROVAL DATA	E 12/18/2004	·	
COST OF QUALITY		~~	
	<u> </u>		

Sent: Sat 12/18/2004 4:49 PM

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

Lujan, Patricio C

From:

Haller, Gunther

To:

Lujan, Patricio C; Marsh, Darren S.; Shepherd, Tracy L

Cc:

Estey, Brigitte; Tarkington, David

Subject:

RE: NCMR2129

Attachments:

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

Тгасу,

Attached is the NCMR generated based on your observation.

Gunther,

For your review and approval.

Lujan, Patr	100 C			
From: To: Cc:	Marsh, Darren S. Lujan, Patricio C		Sent:	Tue 12/7/2004 3:51 PM
Subject: Attachments	RE: Time Sheet s:			
Thanks for a	isking.			
I am delegai	ting my MRB approval authority to	o you during my absence.		
Darren				
Darren S.	Marsh			
GLAST La	arge Area Telescope Projec	t		
Stanford L	inear Accelerator Center			
2575 San	d Hill Road, M/S 43A			
Menlo Par	rk, ca 94025			
(650) 926	-4577			
			·	
Sent: Tueso To: Marsh,	n, Patricio C day, December 07, 2004 2:42 PM Darren S. E: Time Sheet	1		

Pat

Will you designate someone for MRB approval.

NCMR NUMBER	2133	CUSTOMER RETURN	
DATE	12/22/2004	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC	CT Pat Lujan	VENDOR DEFECT	
VENDOR		QUANTITY REJECTED	
PART NUMBER	LAT-DS-01646	PRODUCTION DEFECT	
LOT QUANTITY	3	QUANTITY REJECTED	
SALES ORDER	F17200	REWORK REQUIRED	
PURCHASE ORDER	48799	QUANTITY REWORKED	
LOT NUMBER		PURCHASING DEFECT	
WORK ORDER	110154, 110155, 110156	PURCHASING QUANTITY	REJECTED [
INITIATOR	Pat Lujan	2,-1100/444	ACCUPACION
ASSIGNED TO	Gunther Haller		
DATE REQUIRED	12/27/2004		
ASSIGNED TO SIGNA			
2.001.26711.01	During thermal cycling board temp. re	eaches -37 C. Should be -40 C.	
L			
NOTES [Above referenced cause is an excerp	from e-mail from Leonid.	
į			
CAUSE	Gunther, we placed TEM in thermal They set delta T to 3C, so to almost -50C)	chamber and started test. when it larget -40 it go to -37 on top of	FPGA (chamber is going
CORRECTIVE ACTIO	The corrective action for si 40C.	obsequent assemblies is to decrease th	e temperature to reach -
FINAL DISPOSITION	USE AS IS		
Q/A APPROVAL	Pet Lujan (e-mails or	1 file)	
Q/A APPROVAL DATE	12/22/2004		
COST OF QUALITY		7	

NCMR NUMBER	2134	CUSTOMER RETURN	
DATE	12/22/2004	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC	T Pat Lujan	VENDOR DEFECT	
VENDOR	,,,	QUANTITY REJECTED	
PART NUMBER	LAT DO DO	PRODUCTION DEFECT	
	LAT-DS-02388	QUANTITY REJECTED	
LOT QUANTITY	3	REWORK REQUIRED	
SALES ORDER	F17300	QUANTITY REWORKED	
PURCHASE ORDER	48800		
LOT NUMBER	· · · · · · · · · · · · · · · · · · ·	PURCHASING DEFECT	Ш
WORK ORDER	110393, 110394, 110432	PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan	•	
ASSIGNED TO	Gunther Haller		
DATE REQUIRED	12/27/2004		
ASSIGNED TO SIGNA	ATURE		
DISCREPANCY	During thermal cycling board temp, re	eaches -37 C. Should be -40 C.	
NOTES [
NOIES			
CAUSE			
			
CORRECTIVE ACTIO	The corrective action for s	subsequent assemblies is to decrease it	na temperature to reach -
	400.		io rodon -
FINAL DISPOSITION	V USE AS IS		
	<u> </u>		
Q/A APPROVAL	Pat Lujan (e-mails c	on file)	
Q/A APPROVAL DAT	E 12/22/2004		
COST OF QUALITY			

Sent: Wed 12/22/2004 7:02 PM

Lujan, Patricio C

From:

Haller, Gunther

To:

Lujan, Patriclo C

Cc:

Estey, Brigitte; Marsh, Darren S.; Sapozhnikov, Leonid; Ludvik, Jeffrey; Tarkington, David; Nelson, David J.

Subject:

RE: NCMR's and Thermal Cycling

Attachments:

a) we need to see that future boards go to -40C

b) 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.; Sapozhníkov, Leonid; Ludvik, Jeffrey; Tarkington, David; Nelson, David J.

Subject: NCMR's and Thermal Cycling

Gunther,

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

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

1	uian.	Patricio	c
•		rauicio	

From:

Marsh, Darren S.

To:

Lujan, Patricio C

Cc:

Subject:

RE: Time Sheet

Attachments:

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.

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	LAT-DS-02388	PRODUCTION DEFECT	
LOT QUANTITY	3	QUANTITY REJECTED	
SALES ORDER	F17300	REWORK REQUIRED	
PURCHASE ORDER	48300	QUANTITY REWORKED	
_	48800	PURCHASING DEFECT	
LOT NUMBER			
WORK ORDER		PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	Dave Tarkington		
DATE REQUIRED	1/10/2005		
ASSIGNED TO SIGNA	TURE		
DISCREPANCY to	The SOW calls out for a buyer provided be applied subsequent to conformative."	ed bar code label for the CCAs (with SL I coat. There is no mention of this part/	AC tracking number), material on the CCA
NOTES			
CAUSE	Label not provided.		
CORRECTIVE ACTION	Numbers provided by SLAC	Is using CAT-L-INK ENTHONE #50-100 C. c evaluate and change drawing accordi	!
FINAL DISPOSITION	REWORK	- Transace and change drawing accordi	ng!y.
Q/A APPROVAL	Pat Lujan (e-mails on	file)	
Q/A APPROVAL DATE	12/29/2004	— <u>—</u>	
COST OF QUALITY		7	

NCMR NUMBER	2136	CUSTOMER RETURN	
DATE	12/29/2004	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC	T Pat Lujan	VENDOR DEFECT	
VENDOR		QUANTITY REJECTED	
PART NUMBER	LAT-DS-01646	PRODUCTION DEFECT	
LOT QUANTITY	3	QUANTITY REJECTED	
SALES ORDER	F17200	REWORK REQUIRED	
		QUANTITY REWORKED	
PURCHASE ORDER	48799	PURCHASING DEFECT	
LOT NUMBER			-
WORK ORDER		PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	Dave Tarkington		
DATE REQUIRED	1/10/2005		
ASSIGNED TO SIGNA	TURE		
DISCREPANCY	The SOW calls out for a buyer provide to be applied subsequent to conformative."	ded bar code label for the CCAs (with SI al coat. There is no mention of this part	LAC tracking number). Imaterial on the CCA
NOTES			
CAUSE	Label not provided.		
G07777	<u> </u>		
CORRECTIVE ACTIO	Numbers provided by SLA	rds using CAT-L-!NK ENTHONE #50-10	IDR, WHITE with Serial
	SLAC Design Engineering	to evaluate and change drawing accord	dingly
FINAL DISPOSITION			
Q/A APPROVAL	Pat Lujan (e-mails o	n file)	
O/A APPROVAL DATE	E 12/29/2004	- 	
COST OF QUALITY			

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

Lujan, Patricio C

From:

Haller, Gunther

To:

Lujan, Patricio C

Cc:

Estey, Brigitte; 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,

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

Lui	an.	Patr	icio	C

From:

Marsh, Darren S.

To:

Lujan, Patricio C

Cc;

Subject:

RE: Time Sheet

Attachments:

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.

NCMR NUMBER	2151	CUSTOMER RETURN	
DATE	1/4/2005	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	19
		VENDOR DEFECT	<u></u> -
CUSTOMER CONTAC	CT David Tarkington	QUANTITY REJECTED	22
VENDOR			
PART NUMBER	LAT-DS-00554	PRODUCTION DEFECT	Li
LOT QUANTITY	22	QUANTITY REJECTED	22
SALES ORDER	F17200	REWORK REQUIRED	
·		QUANTITY REWORKED	
PURCHASE ORDER	48799	PURCHASING DEFECT	
LOT NUMBER]	3
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 Farkington to provide repair ins SLAC.	structions. GTC to machine 3 bases. 19	9 to be repaired by
CAUSE	Machining error, Dimension hole,	on should be taken from Datum -A- not	center line of other relief
CORRECTIVE ACTIO	N To be supplied by vendor.		
FINAL DISPOSITION	V REPAIR		
Q/A APPROVAL	Pat Lujan (e-mails o	on file)	
O/A APPROVAL DAT	E 1/4/2005		
COST OF QUALITY		\neg	

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	
		REWORK REQUIRED	
SALES ORDER	F17300	QUANTITY REWORKED	
PURCHASE ORDER	48800	PURCHASING DEFECT	
LOT NUMBER			_
WORK ORDER		PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	David Tarkington		
DATE REQUIRED	1/5/2005		
ASSIGNED TO SIGNA	TURE		
DISCREPANCY) Excess cable length does not allo	w for assembly as shown in drawing.	
		allow for assembly due to proximity to oth	AL COMMONDATA
3) Unable to bond cable harness su	pport to conformal coated board	or components.
		ough detail regarding serial number.	
NOTES		germa nomoci.	
CAUSE	Design		
CAOSE			
CORRECTIVE ACTIO	N Provide repair instruction	s and modify drawings.	
			•
FINAL DISPOSITION	REPAIR		
Q/A APPROVAL	Pat Lujan (emails o	on file)	
Q/A APPROVAL DATE	1/4/2005		
COST OF QUALITY	<u></u>		

Sent: Tue 1/4/2005 5:41 PM

Lujan, Patricio C

From:

Haller, Gunther

To:

Lujan, Patricio C; Marsh, Darren S.

Cc:

Estey, Brigitte; Nelson, David J.; Tarkington, David

Subject:

RE: NCMR's 2151 and 2152

Attachments:

Approve NCMR's.

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 04, 2005 4:10 PM To: Haller, Gunther; Marsh, Darren S.

Cc: Estey, Brigitte; Nelson, David J.; Tarkington, David

and the second s

Subject: NCMR's 2151 and 2152

Attached are NCMR's for your review and approval.

Sent: Tue 1/4/2005 5:41 PM

Lujan, Patricio C

From:

Marsh, Darren S.

To:

Lujan, Patricio C; Haller, Gunther

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.

NCMR NUMBER	2156	CUSTOMER RETURN	
DATE	1/5/2005	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC	T Pat Lujan	VENDOR DEFECT	
VENDOR	, restagain	QUANTITY REJECTED	
PART NUMBER	LAT DO ALLA	PRODUCTION DEFECT	
	LAT-DS-01481	QUANTITY REJECTED	<u></u> _
LOT QUANTITY	3	REWORK REQUIRED	
SALES ORDER	F17200	QUANTITY REWORKED	
PURCHASE ORDER	48799	PURCHASING DEFECT	
LOT NUMBER			
WORK ORDER		PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	Dave Tarkington		
DATE REQUIRED	1/10/2005		
ASSIGNED TO SIGNA	ATURE		
DISCREPANCY) Unable to torque FN-4 screws at 2	8 in-oz.	
	·		
NOTES [
CAUSE	No running torque spec	ified.	
			-
CORRECTIVE ACTIO	1) Change drawing to add		
COMMETTY 46110	VA 1.) Onange trawing to ago	running torque réquirement.	
	<u></u>	<u> </u>	
FINAL DISPOSITION	GET CUSTOMER A	PPROVAL	
Q/A APPROVAL	Pat Lujan (e-mails o	n file)	
Q/A APPROVAL DATA	E 1/20/2005		
COST OF QUALITY			

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

Lujan, Patricio C

From:

Marsh, Darren S.

To:

Lujan, Patricio C

Cc:

Subject:

RE: NCMR2156

Attachments:

Approved.

Darren

From: Lujan, Patricio C Sent: Thu 1/20/2005 9:33 AM To: March Darren S

To: Marsh, Darren S.
Subject: FW: NCMR2156

Please review and approve attached NCMR2156.

Pat

From: Haller, Gunther Sent: Wed 1/5/2005 5:14 PM

To: Lujan, Patricio C **Subject:** RE: NCMR2156

approve

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: Wednesday, January 05, 2005 2:41 PM

To: Estey, Brigitte; Haller, Gunther; Marsh, Darren S.

Cc: Tarkington, David; Nelson, David J.

Subject: RE: NCMR2156

Sent: Wed 1/5/2005 5:14 PM

You forwarded this message on 1/20/2005 10:33 AM.

Lujan, Patricio C

From:

Haller, Gunther

To:

Lujan, Patricio C

Cc:

Subject:

RE: NCMR2156

Attachments:

approve

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: 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....

NCMR NUMBER	2161	CUSTOMER RETURN	
DATE	1/6/2005	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC		VENDOR DEFECT	
VENDOR		QUANTITY REJECTED	
PART NUMBER	LAT-DS-02388	PRODUCTION DEFECT	
LOT QUANTITY	3	QUANTITY REJECTED	
SALES ORDER	F17300	REWORK REQUIRED	□ ·
PURCHASE ORDER	48800	QUANTITY REWORKED	
LOT NUMBER	40000	PURCHASING DEFECT	
WORK ORDER		I PURCHASING QUANTITY I	REJECTED -
INITIA TOR	Pat Lujan		<u> </u>
ASSIGNED TO	Dave Tarkington		
DATE REQUIRED	1/7/2005		
ASSIGNED TO SIGNA	TURE		
DISCREPANCY F	er Flag Note 6 Cable ties to be stake	ed with Item 18 on item 4 cable assemble	
115	 RTV adhesive used to stake cab lake and is removed in one piece. 	ole tie does not ahere to wire and cable t	ie. Material does not
	The piece.		
NOTES			
CAUSE	Incompatibility of materials		
CORRECTIVE ACTIO	N Staking not required on car	ole tie. Remove requirement from drawi	ng.
FINAL DISPOSITION	REWORK		
Q/A APPROVAL	Pat Lujan (e-mails or	n file)	
Q/A APPROVAL DATE	1/6/2005		
COST OF QUALITY		٦	
	L		

E CTC 000 n ...

1/20/2005

Lujan, Patricio C

From:

Haller, Gunther

To: Cc: Lujan, Patricio C; Marsh, Darren S. Tarkington, David; Estey, Brigitte

Subject:

RE: NCMR2161

Attachments:

approve

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 06, 2005 2:37 PM
To: Haller, Gunther; Marsh, Darren S.
Cc: Tarkington, David; Estey, Brigitte

Subject: NCMR2161

Please review attached NCMR.

Pat

Sent: Thu 1/6/2005 3:43 PM

Lutan.	Patricio	c
//		

From:

Marsh, Darren S.

To:

Lujan, Patricio C; Haller, Gunther Tarkington, David; Estey, Brigitte

Subject:

RE: NCMR2161

Attachments:

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

From: Lujan, Patricio C

Sent: Thursday, January 06, 2005 2:37 PM To: Haller, Gunther; Marsh, Darren S. Cc: Tarkington, David; Estey, Brigitte

Subject: NCMR2161

Please review attached NCMR.

Pat

Sent: Thu 1/6/2005 3:44 PM

NCMR NUMBER	2173	CUSTOMER RETURN	
DATE	1/17/2005	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC	Jeffrey Ludvik	VENDOR DEFECT	
VENDOR		QUANTITY REJECTED	
PART NUMBER	LAT-DS-01643	PRODUCTION DEFECT	
LOT OF ANTWOO		QUANTITY REJECTED	
LOT QUANTITY	3	REWORK REQUIRED	
SALES ORDER	F17301	QUANTITY REWORKED	
PURCHASE ORDER LOT NUMBER	53627	PURCHASING DEFECT	
WORK ORDER	111593, 111594, 111595	PURCHASING QUANTITY	REJECTED
INITIATOR	Pat Lujan		
ASSIGNED TO	Jeffrey Ludvik]	
DATE REQUIRED	1/18/2005		
ASSIGNED TO SIGNA	ATURE		
DISCREPANCY	l) Test failed at Step 5.5.2 -11 of L GLAT1752, GLAT1753, GLAT175	AT-TD-04085-02	
!	2) Unable to perform Vibe testing a		
NOTES			
NOIES			
Ĺ	IN TO LEGIS		
CAUSE	1) Test Failure		
	(2) Equipment and fixturi	ing problems yet to be resolved	·
CORRECTIVE ACTIO	CAL Bias current: Chan TKR Analog A: Change	tolerance to 2.35-2.78 ige tolerance to 0.000400 - 0.001000 tolerance to 1.30 - 1.65 SLAC to perform Vibe. Thermal and Fur	actional testing at SLAC
FINAL DISPOSITION			
DADI ODI 1101	V USE AS IS		
Q/A APPROVAL	USE AS IS Pat Lujan (e-mails	s on file)	
	Pat Lujan (e-mails	s on file)	

Lujan, Patr	icio C			
From: To: Cc: Subject: Attachment	Marsh, Darren S. Lujan, Patricio C; Haller, Gunther Estey, Brigitte RE: NCMR2173	Seni	nt: Tue 1/18/2005 3:13 PM	
Approved w	th change recommended by Gunther Ha	ler,		
Darren				
Darren S,	Marsh			
GLAST La	irge Area Telescope Project			
	inear Accelerator Center			
2575 San	d Hill Road, м/s 43A			
Menlo Par	k, ca 94025			
(650) 926-	4577			
From: Lujar Sent: Tueso To: Marsh, I Cc: Estey, B Subject: No	lay, January 18, 2005 11:39 AM Darren S.; Haller, Gunther rigitte			,
l added an a	edditional item to NCMR 2173 that should	cover the Vibe and TC	C testing. Please review.	
Pat				
1 · · · · · · · · · · · · · · · · · ·				

From:	Haller, Gunther	Carte To 444 and a
To:	Lujan, Patricio C; Marsh, Darren S.	Sent: Tue 1/18/2005 12:34 PM
Cc:	Ludvík, Jeffrey; Estey, Brigitte; Nelson, David J.	
Subject:	RE: NCMR	•
Attachments:		
This one is ok	. The flight TPS had some set values changed compared	to the EGSE (e.g. TKR voltage).
The monitored	i readback is ok for the flight and the limits were adjusted	l.
Dr. Gunther H		
or carries in	aller	
Stanford Unive	ersity/SLAC	
MS 96		
P.O. 20450		
Stanford, CA 9	94309	
T: (650) 926-4		
F: (650) 926-2		
	the second control of the second control of	Control of the Contro
From: Lujan, I Sent: Tuesday To: Marsh, Da	Patricio C 7, January 18, 2005 11:23 AM rren S.; Haller, Gunther frey: Estey, Brigitte: Nelson, David 1	
I need this revi	ewed so that I can clean up some paper work prior to sh	ipping the units to SLAC.
Pat		
	en en en en en en en en en en en en en e	the desired specific and the specific approximation to the second specific approximation to the second specific approximation to the second specific approximation and the second specif

Lujan, Patricio C

From: Lujan, Patricio C

Sent: Mon 1/17/2005 4:47 PM

To: Haller, Gunther; Marsh, Darren S.

Cc: Ludvík, Jeffrey; Estey, Brigitte; Nelson, David J.

Subject: NCMR

Attached is NCMR2173 for your review.

Jeffrey,

This documents the changes you made to the procedure.

You replied	on 1/18/2005 1:51 PM.			
Lujan, Patr	icio C			
From: To: Cc: Subject: Attachments			Sent: Tue 1/18/2005 12:59 PM	
I think it shou	uld say : unable to perform vit	testing at GT (not SLAC)		
Dr. Gunther i	r		·	
Stanford Uni	versity/SLAC			
MS 96	•			
P.O. 20450				
Stanford, CA	94309			
T: (650) 926-	4257			
F: (650) 926-	2923			
or fr over the framework				
From: Lujan, Sent: Tuesda To: Marsh, D. Cc: Estey, Bri Subject: NCi	ay, January 18, 2005 11:39 A arren S.; Haller, Gunther igitte	M		
l added an ad	iditional item to NCMR 2173 t	that should cover the Vibe an	d TC testing. Please review.	
Pat				
T o: Lujan, Pai	Darren S. 18/2005 4:S7 AM			······································

Pat,

NCMR NUMBER	2179	CUSTOMER RETURN	
DATE	1/20/2005	RMA NUMBER	
CUSTOMER	SLAC	QUANTITY RETURNED	
CUSTOMER CONTAC	CT Pat Lujan	VENDOR DEFECT	
VENDOR		QUANTITY REJECTED	
PART NUMBER	LAT-DS-01643	PRODUCTION DEFECT	
LOT QUANTITY	3	QUANTITY REJECTED	
SALES ORDER	F17301	REWORK REQUIRED	
PURCHASE ORDER	53627	QUANTITY REWORKED	
LOT NUMBER		PURCHASING DEFECT	
WORK ORDER	111593, 111594, 111595	PURCHASING QUANTITY	REJECTED -
INITIATOR	Pat Lujan		
ASSIGNED TO	Pat Lujan		
DATE REQUIRED	1/20/2005		
ASSIGNED TO SIGNA			
	S and sie boing simpped	with out the End Item Date Package.(E	EIDP)
NOTES			
CAUSE	Change in location of vibe	testing	
CORRECTIVE ACTION	V EIDP to be shipped at later	r date.	
FINAL DISPOSITION	GET CUSTOMER AF	PROVAL	
Q/A APPROVAL	Pat Lujan (e-mails on		
Q/A APPROVAL DATE			
COST OF QUALITY		7	

Sent: Fri 1/21/2005 10:34 AM

Lujan, Patricio C

From:

Haller, Gunther

To:

Lujan, Patricio C; Marsh, Darren S.

Cc: Subject: Estey, Brigitte **RE: NCMR2179**

Attachments:

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 vesterday. I need approval of this NCMR to

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

Luian.	Patricio	c
,,,-		

From:

Marsh, Darren S.

To:

Lujan, Patricio C

Cc:

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

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 do not see a problem in sending you the EIDP directly.

TEST ID: 20771	DATE: 12/4/2004	REF DES (48 R419 Reworked by INSPECTED BY: Odd (12-12-12-09) (31-6) (31	TED BY: RETEST DATE: P F [2. 6.64 K	Page 1 of 1
ECORD REPORT	TEST TYPE: SPEA TEST LEVEL: 1ST TEST TECH: STEFFEN BODE CUSTOMER: SLAC PROGRAM NAME: LAT-DS-01646	DEFECT DESCRIPTION TOMBSTONING RW INFO:	RETESTED BY:	Form GTC-010 Rev F
GTC TEST DEFECT REC	PART NUMBER: LAT-DS-01646 WO: 110154 WC: 4-MIXED SO: F17200 TEST QTY: 1 FALL QTY: 1	SERIAL # QTY DEFECT CODE 611 #/ 1 T307 TESTINFO REWORK NOTES (OPTIONAL):	RETEST NOTES (OPTIONAL.):	12/4/20D4

GTC TEST DEFECT RECORD REPORT

TEST ID:

PART NUMBER: 1_AT - DS .. 0 2 388 WO: 11039.3 WC:

TEST QTY: FAIL QTY:

TEST TYPE: FUNCTIONAL TEST LEVEL:

TEST TECH: LUDVIA CUSTOMER: S LAC PROGRAM NAME: GLAST

DATE:

DEFECT CODE NCR #2427 GW F1 24.3 SERIAL #

DEFECT DESCRIPTION

RW INFO:

REWORKED BY | INSPECTED BY:

REF DES

REWORK NOTES (OPTIONAL):

REPLINCE R23/(18,2K) WITH F/NG2 (15K) M55342 KOBBIFEOR

OL. 1648 12-15-04 RETEST NOTES (OPTIONAL): (Pen r Kd

RETESTED BY:
5. Ludvik

h0/s1/e1

RETEST DATE: P

Form GTC-010 Rev F

27132 PART NUMBER: LAT-DS-02388 SALES ORDER: F17300 ORK ORDER: 110393

QUANTITY: 1

RW QTY: CHSTOMER: SLAC

NSPECTION TYPE: FIRST ARTICLE RUN INSPECTOR: TORRES NSPECTION LEVEL: 1

OFE SOLDER:

ATE: 11/4/2004 FE ASSEMBLY:

WEEK CODE:

	KET DES	C561	L601	7701		~- J 610	D20 :/		D3 /	012 /	, , oto	<u></u>) \ \ 	1417 1909	V / 27	1/2 1/2
	DEFECT DESCRIPTION	TOMBSTONING	INSUFFICIENT SOLDER	INSUFFICIENT SOLDER	COLD SOLDER JOINT	< 75% HEEL FILLET AT 10X MAGN.	< 75% HEEL FILLET AT 10X MAGN.	< 75% HEEL FILLET AT 10X MAGN.	< 75% HEEL FILLET AT 10X MAGN.	DISTURBED SOLDER	DISTURBED SOLDER	DISTURBED SOLDER	SOLDER TOUCHING COMP. BODY	insig sold	" "	,,
	E WORKCELL	4-MIXED	4-MIXED	4-MIXED	4-MIXED	4-MIXED	4-MIXED	4-MIXED	4-MIXED	4-MIXED	4-MIXED	4-MIXED	4-MIXED	*	,,	, ,
	DEFECT COD	A339	S402	S402	S409	S412	\$412	S412	S412	\$428	\$428	5428	5431	5402	110 111	,,
CUSTOMER: SLAC	SERIAL NO. QUANTITY OPERATOR DEFECT CODE WORKCELL	499	1 499	1 499	1 499	1 499	1 499	1 499	1 499	1 499	1 499	1 499	1 499	0011		// /

10-6-11

Monday, November 08, 2004

Report generated by Design 2000 Application

1D: 27176

PART NUMBER: LAT-DS-01646

ORK ORDER: 110154

SALES ORDER: F17200 QUANTITY: 1

RW QTY:

CUSTOMER: SLAC

NSPECTION TYPE: 1ST SOLDER INSPECTIO

NSPECTION LEVEL: 1
INSPECTOR: TORRES

OFE SOLDER:

FE ASSEMBLY: 0
ATE: 11/8/2004

WEEK CODE: 48

DEFECT DESCRIPTION

DEFORMED LEAD DEFORMED LEAD

Soup RESIDUE

 SERIAL NO. QUANTITY
 OPERATOR
 DEFECT CODE
 WORKCELL

 1
 1
 499
 A337
 4-MIXED

 1
 1
 499
 A337
 4-MIXED

 1
 1
 499
 S385
 4-MIXED

27269	LAT-DS-01646	110154
Ö	PART NUMBER: LAT-DS-01646	300 V ORDER: 110154

(NSPECTION TYPE: HAND SOLDER

OFE SOLDER: OFE ASSEMBLY:

111122004 4 48 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	\
REF DES PIN NOTES REF DES PIN NOTES BRD WAS DROPPED Z NOT PEDE EDGE OF BOARD ALL OVER BOARD ALL OVER BOARD RA18 ()	ALL OVER BOARD
REF DES	
TYON LEVEL: 1 [INSPECTOR: TORRES WORK CELL: 4-MIXED DEFECT DESCRIPTION DELAMINATION SOAP RESIDUE SOAP RESIDUE	
INSPECTION LEVEL: INSPECTOR: WORK CELL: WORKGELL DE 4-MIXED DE 4-MIXED DE 6-WIXED DE 6-WIXED DE 6-WIXED DE 6-WIXED DE 6-WIXED DE 6-WIXED DE 6-WIXED DE	4-MIXED
RW QTY: 1 RATOR DEFECT COD A334 A385	S407
PART NUMBER: LA1-D3-D3-D3-D3-D3-D3-D3-D3-D3-D3-D3-D3-D3-	-

SOLDER BALLS

4-MIXED

S414

PART NUMBER: LAT-DS-01646

ORK ORDER: 110154

RW QTY: SALES ORDER: F17200 QUANTITY: 1

NSPECTION TYPE: HAND SOLDER

INSPECTOR: TORRES NSPECTION LEVEL: 1

817 OFE SOLDER:

ATE: 11/17/2004 836 FE ASSEMBLY:

WEEK CODE:

DECORE DIN NOTES		JT1-3,6 MFG# 1 18-04	JT0 MFG# (//		THO HT	JT4		, C, 2	po-81-11	
	DEFECT DESCRIPTION	MISSING MARKING		MARKING IS FADING	SOAP RESIDUE		EXCESS SOLDER	BRIDGING	BRIDGING	
	DDE WORKCELL	1	4-MIXEU	4-MIXED	200	4-MIAED	4-MIXED	4-MIXED	4-MIXED	
	DEFECT OF		A310	A312		A385	S406	8413	S413	
CUSTOMER: SLAC	SERVINO OLIANTITY OPERATOR DEFECT CODE WORKCELL		1 692	000	1 032	1 692	1 692	- •	1 607	-

Charles Bires

ID: 27728 PART NUMBER: LAT-DS-02388

ART NUMBER: LATEDS-ORK ORDER: 110393

SALES ORDER: F17300

QUANTITY: 1 RW QTY:

NSPECTION TYPE: HAND SOLDER
NSPECTION LEVEL: 1
INSPECTOR: TORRES

0	4
OFE SOLDER:	

FE ASSEMBLY: 0 ATE: 127/2004

51	
WEEK CODE:	1

REF DES, PIN NOTES	51 ale New 2 2116 (3 per)	38 "USE AS (3" BE	u/	O R. MOTRINK SIGHINED OFF (SE)	550 JS 2002 V	15.5 2002	\	\	7	SOLDER NOT FLO	\	l	() () () () () () () () () ()		(Pany)	
NOITGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	fament Linear L.	NSULATION		DAMAGED INSCIDENCE	INCOMPLE FACES	PITS AND VOIDS	PITS AND VOIDS	PITS AND VOIDS	INSUFFICIENT SOLDER	INSUFFICIENT SOLDER	ALL OTHER SOLDER DEFECTS	FLUX RESIDUE	1 - Thoughout	meters a 125-	Butter touching your	
	ECT CODE WORKCELL			o 4-MIXED	3 4-MIXED	0 4-MIXED	0 4-MIXED	0 4-MIXED	2 4-MIXED	2 4-MIXED	e 4-MIXED	7 4-MIXED	They Ditte	A CASON AND AND AND AND AND AND AND AND AND AN		431 YMX
CUSTOMER: SLAC	SERIAL NO. QUANTITY OPERATOR DEFECT CODE WORKCELL	1 DO NOT 12002 A320	1 Reus delle : 12, 2002 A320	1 PELLOIMO ABL 2002 A320	1 2002 A343	1 2002 \$400	1 2002 8400	1 2002 \$400	1 2002 \$402	1 2002 \$402	1 2002 5426	1 2002 8427	A. S. S. S. S. S. S. S. S. S. S. S. S. S.	The same of the sa	ahe word the	1845 5002 1

Tuesday, December 07, 2004

Repairt geneented by Besign 2000 Application

27595

PART NUMBER: LAT DS 02388

ORK ORDER: 110393

SALES ORDER: F17300

RW QTY: QUANTITY:

NSPECTION TYPE: HAND SOLDER NSPECTION LEVEL: 1

INSPECTOR: TORRES

OFE SOLDER:

Clased July 12 14 of

ATE: 12/1/2004 FE ASSEMBLY:

49 WEEK CODE:

	/[8		(^	``	12/2/02
	REF DES PIN NOTES	•	32 202	5 200 S		55 2003	\	
	REF DES		C3	5	3	0.450	2	
	DEEECT DESCRIPTION		NO TATING COM		IMPROPER BEND RADIUS		DAMAGED COMP	
		ODE WORKCELL		4-MIXED	í l	4-MIXEU	CHYMAL	
		OR DEFECTO		A301		A306	!	A307
3: SLAC		NTITY OPERAT		1 2002		1 2002		1 2002
CHSTOMER: SLAC		SERIAL NO QUANTITY OPERATOR DEFECT CODE WORKCELL		,	-	•	_	-

3 12-7.04

INSPECTION TYPE: BONDING

PART NUMBER: LAT-DS-01646

INSPECTION LEVEL:

INSPECTOR: TORRES

104 OFE SOLDER:

DATE: 12/16/2004

22

OFE ASSEMBLY:

WEEK CODE:

SERIAL NO. QUANTITY OPERATOR DEFECT CODE WORKCELL CUSTOMER: SLAC

RW QTY:

SALES ORDER: F17200

QUANTITY:

WORK ORDER: 110154

1 1928

19(611)

A309

4-MIXED

DEFECT DESCRIPTION

INSUJERICIENT COATING / POTTING / BONDI J1

REF DES

Tuesday, December 28, 2004

28061

PART NUMBER: LAT-DS-02368

ORK ORDER: 110393

SALES ORDER: F17300

RW QTY: CUSTOMER: SLAC QUANTITY:

SERIAL NO. QUANTITY OPERATOR DEFECT CODE WORKCELL

NSPECTION LEVEL:

INSPECTOR: TORRES

NSPECTION TYPE: BONDING

FE ASSEMBLY: OFE SOLDER:

ATE: 12/21/2004

52 WEEK CODE:

DEFECT DESCRIPTION

MISSING WIRES

4-MIXED

A348

REF DES

PIN NOTES

TIES

<u>a</u>

28082

PART NUMBER: LAT-DS-02388

WORK ORDER: 110393

SALES ORDER: F17300

RW QTY: QUANTITY: 1

CUSTOMER: SLAC

INSPECTION TYPE: MAND SOLDER

INSPECTOR: HUBBARD (NSPECTION LEVEL: 1

33 OFE SOLDER:

DATE: 12/22/2004 OFE ASSEMBLY:

5

WEEK CODE:

			<u></u>			10.10	10/A	0
SHOW NO		PIN 4	PIN 4,WIRE	PIN 5	۰	E NIG	PINZ,3	
	XET DES	07	D PROPE U6	411	i	80	017	
	DEFECT DESCRIPTION	DAMAGED INSULATION	COPLANARITY / LEAD NOT SEATED PROPE U6		PITS AND VOIDS	PITS AND VOIDS	CONTAMINANTS IN SOLDER	
	SODE WORKCELL	4-MIXED		4-1487	4-MIXED	4-MIXED		4-MIXED
	TOR DEFECT	0330	A326	A341	\$400	00.50	2	S408
JOHEN. STORE	ALNO COUNTITY OPERATOR DEFECT CODE WORKCELL		7007	1 2002	1 2002		7,002	2 2002
3	N N		-					

PIN2,3 PIN 5 Pin 1

CONTAMINANTS IN SOLDER CONTAMINANTS IN SOLDER CONTAMINANTS IN SOLDER

> 4-MIXED 4-MIXED

\$408 \$408 \$408

4-MIXED

1 2002

5

90

10/12/21 @

Wednesday, December 22, 2004

Report generated by Design 2000 Application

• .	REWORK TRAVELER			
: SO NO: I	7 7 70 0000	F	REV: 55	
			2TY: 3	
SSEME	LY NAME: CCA, LAT TOWER POWER SUPPLY (TPS)		<u> </u>	
		1		/
APPRO		ORA		-04
HEFKIN	121109 P. LOSAIN POLYMIC. 1.09		74 W	_
PREPAI	RED BY DATE CUSTOMER DATE PROD MGR DATE C	A MGR	DAT	-
	- Parl	Operator	Date	Time
STEP	TOP TOTAL DESCRIPTION OF LIGHT OF LEGALION	+		1
	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	Sign Off.	1	spent
. 1	as applicable to comply with IPC-7721. Section 6.1, entaits lead cupping, to remove non-	Ì	•	
1	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		•	
ı	final inspection of the rework.			
1	This Rework Traveler is applicable to unit Serial numbers: #1, #2, #3.	1		
	THIS REWORK TRAVELOR IS OPPRIORED TO COMPANY	1		
•				
2	Clip leads of seven (7) MAX724ECK devices to obtain a 0.140° lead length, 5 places.	GTC	GTC	GTC
	Clamp each lead to be clipped using flat-faced needle/nose electronics pilets.			
	CONTACT SLAC QAR FOR WITNESS OF WORK.			
	Sub	5520.2	12/4/04	
I	12.1			
1		SJAC	SLAC	N/A
		LAT \	- 164	
		QA	1, Salar	
	A Company of the Comp	-35 Jak	12/2/20	
•				
3	Cut five (5) wires, M22759/11-24-9, to fit locations of five leads (approximately one			
ľ	hinch long rough length). Strip insulation using HOTWEEZERS. Strip first end, for	1		
	lap solder termination to device leads, to 1/8" (.125"). Trim other end to fit installation location (length TBD = 4/9! - 1) and strip insulation (Leth TBD =	2002	12/1/04	
	to fit board thickness with lead protrusion of 0.031" to 0.047"	3,	1 """	
	1/2"			
	de la conce	,		
<u> </u>	LANGUAGE TO BE Handrick from as as datalled in CAALAT-DS-02388. Step		 	
4	Mount IC device to TPS Heatsink frames as detailed in CAA LAT-DS-02388, Step 16, to include thermal conductive adhesive applied to surfaces of devices, and use of			
	smaller hardware: Installation hardware changed from #6 to #4 size as follows:			
1	NAS1352N04-6 - SCREW, NAS1149CN432R - WASHER, NAS671C4 - NUT.		12/ /	
	 TORQUE SCREW/NUT 60 IN-OZ. (56 to 70) RECORD TOOL NUMBER (GTC-XXX) AND CAL DUE DATE ON WORK 	J.5. 2002	12/2/14	
	ORDER.			



REWORK TRAVELER

SO NO: F17300 PART NO: LAT-DS-02388 REV: 55

SEMBLY NAME: CCA, LAT TOWER POWER SUPPLY (TPS) QTY: 3

EP I A	OPERATION 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-speciable 'as supplied' lead orientation, 'hook-up' wire preparation, mechanical installation with smaller hardware (#4, vs. #6), device lead termination, PCB and lead ermination, flux cleaning, inspection, subsequent bonding of the devices using RTV, and	Operator Sign Off.		Time spent
	ermination, flux cleaning, inspection, stosequent bonding by the state of the rework. Solder terminate wires to device and PCB. Keep wires short, but do not violate bend radius limits (no sharp bends).			
		55 2m2	14/4	
6	Locally clean each solder (35 places) joint with Isopropyl Alcohol.	55 2002	12/6/09	ļ
7	INSPECTION NCM2 #2116	M. T. (BI)	127-04	<u> </u>
8	CUSTOMER SOURCE INSPECTION	LAT 10 QA	12,7,04	<u> </u>
9	(Task occurrs when rtv material is being applied to lead assemblies installed after-ICT). APPLY RTV ADHESIVE MATERIAL, DC6-1104, TO COVER THE IWIRES AS A GROUP, FROM THE PCB TO THE COMPONENT BODY. AFTER FUNCTIONAL TEXT, 12:1009	#1 300 12 XXV	(30%	·
10	INSPECTION	3 1 -		
11	CUSTOMER SOURCE INSPECTION	1 Le.		

