GLAST LAT PROCEDURE	Document # **LAT-DS-01337-01**	Date Effective 25 Apr 2003
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	Subsystem/Office Calorimeter Subsystem	
Document Title **LAT Calorimeter AFEE-Y Board Parts List**		

Gamma-ray Large Area Space Telescope (GLAST)

Large Area Telescope (LAT) Calorimeter

AFEE-Y Board Parts List

DOCUMENT APPROVAL

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CHANGE HISTORY LOG

Revision	Effective Date	Description of Changes
01	25 Apr 2003	Initial Release

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1 PURPOSE

1.1 PURPOSE

This document defines the Parts List for the LAT Calorimeter Analog Front End Electronics (AFEE) Y Board.

1.2 APPLICABLE DOCUMENTS

Documents and drawings that are applicable to this procedure are listed below.

1.2.1 Documents

LAT-SS-00115	LAT Mechanical Systems – Level III Specification
LAT-SS-00210	LAT-CAL Subsystem Level IV Specification
LAT-DS-01127	CAL AFEE Board Procurement and Quality Assurance Requirements
LAT-DS-00401	LAT EEE Parts List
NASA-STD-8739.7	Electrostatic Discharge Control

1.2.2 Drawings

LAT-DS-01339	CAL AFEE-Y Schematic Diagram
LAT-DS-02048	CAL AFEE-Y Printed Wiring Board Artwork

1.3 DEFINITIONS AND ACRONYMS

1.3.1 Acronyms

AFEE	Analog Front End Electronics of the Calorimeter
CAL	Calorimeter Subsystem of the LAT
EM	Engineering Model
ESD	Electrostatic Discharge
FM	Flight Model
GLAST	Gamma-Ray Large Area Space Telescope
LAT	Large Area Telescope
TBD	To Be Determined
TBR	To Be Resolved

1.3.2 Definitions

Electromagnetic Compatibility (EMC)	The condition that prevails when various electronic devices are performing their functions according to design in a common electromagnetic environment.
Electromagnetic Interference (EMI)	Electromagnetic energy that interrupts, obstructs, or otherwise degrades or limits the effective performance of electrical equipment.
eV	Electron Volt
MeV	Million Electron Volts, 10^6 eV

2 PARTS LIST

Find No.	Qty	Part No.	Description	Ref. Designator
1	72	CWR11FH685KC	CAP, 6.8UF 10V, CWR11FH685KC Kemet	C00_14, C0A_14-15, C0B_15, C0_6-9, C01_14, C1A_14-15, C1B_15, C1_1, C00_14, C0A_14-15, C0B_15, C0_6-9, C01_14, C1A_14-15, C1B_15, C1_1, C1_6-9, C02_14, C2A_15, C2_1, C2_6-9, C3A_15, C3_6-9, C04_15, C05_15, C07_14-15, C08_14-15, C09_15, C10_14-15, C11_14-15, C13_14-15, C14_14, C15_14-15, C19_15, C21_14-15, C22_14-15, C23_14-15, C24_14-15, C25_14-15, C26_14, C27_15, C30_14, C31_14-15, C32_14-15, C33_14-15, C34_14, C35_14, C38_14-15, C39_15, C_J3B_1, C_U10_1
2	329	CDR31BX472BKUS	CAP, 4700PF, 100V 10%, CDR3BX472BKUS KEMET	C00_7-12, C0A_7-12, C0B_7-12, C0_2-3, C0_5, C0_10-16, C01_7-12, C1, C1A_7-12, C1B_7-12, C1_2, C1_5, C1_10-16, C02_7-12, C2A_7-12, C2B_7-12, C2_2, C2_5, C2_10, C2_12-16, C03_7-12, C3A_7-12, C3B_7-12, C3_2, C3_5, C3_10-16, C04_7-12, C05_7-12, C06_7-12, C07_7-12, C08_7-12, C09_7-12, C10_7-12, C11_7-12, C12_7-12, C13_7-12, C14_7-12, C15_7-12, C16_7-12, C17_7-12, C18_7-12, C19_7-12, C20_7-12, C21_7-12, C22_7-12, C23_7-12, C24_7-12, C25_7-12, C26_7-12, C27_7-12, C28_7-12, C29_7-12, C30_7-12, C31_7-12, C32_7-12, C33_7-12, C34_7-12, C35_7-12, C36_7-12, C37_7-12, C38_7-12, C39_7-12, C_U1_1, C_U2_1, C_U3_1, C_U22_2
3	8	1210B563K251YHTM	CAP, 56NF 250V, 1210, 1210B563K251YHTM NOVACAP	C10_1, C12_1, C13_1, C14_1, C15_1, C16_1, C17_1, C18_1
4	2	NK-2F2-037-435-TH00	CON, 37 PIN RECEPTACLE, Microdot STM037M6SQ ,	J1-2

Find No.	Qty	Part No.	Description	Ref. Designator
5	48	???????	CON, GCFE DIODE CABLE SOLDER POINTS	J00_1, J0A_1, J0B_1, J01_1, J1A_1, J1B_1, J02_1, J2A_1, J2B_1, J03_1, J3A_1, J3B_1, J04_1, J05_1, J06_1, J07_1, J08_1, J09_1, J10_1, J11_1, J12_1, J13_1, J14_1, J15_1, J16_1, J17_1, J18_1, J19_1, J20_1, J21_1, J22_1, J23_1, J24_1, J25_1, J26_1, J27_1, J28_1, J29_1, J30_1, J31_1, J32_1, J33_1, J34_1, J35_1, J36_1, J37_1, J38_1, J39_1
6	12	???????	Buss Wire	F1-12
7	48	LAT-SS-01503	IC, GCFE_V7, QFP44, SLAC CUSTOM ASIC CHARGE AMPLIFIER	U00_1, U0A_1, U0B_1, U01_1, U1A_1, U1B_1, U02_1, U2A_1, U2B_1, U03_1, U3A_1, U3B_1, U04_1, U05_1, U06_1, U07_1, U08_1, U09_1, U10_1, U11_1, U12_1, U13_1, U14_1, U15_1, U16_1, U17_1, U18_1, U19_1, U20_1, U21_1, U22_1, U23_1, U24_1, U25_1, U26_1, U27_1, U28_1, U29_1, U30_1, U31_1, U32_1, U33_1, U34_1, U35_1, U36_1, U37_1, U38_1, U39_1
8	4	LAT-SS-01508	IC, GCRCv4, QFP80, SLAC CUSTOM IC	U0_1, U1_1, U2_1, U3_1
9	4	5962-8759406VXA	IC, TO46_2, 2.5V SHUNT DIODE, 5962-8759406VXA NATIONAL SEMICONDUCTOR	U0_3, U1_3, U2_3, U3_3
10	48	LAT-SS-01878-01	IC, ADC, MAX145AEUA, UMAX-8 pkg, MAXIM	U00_2, U0A_2, U0B_2, U01_2, U1A_2, U1B_2, U02_2, U2A_2, U2B_2, U03_2, U3A_2, U3B_2, U04_2, U05_2, U06_2, U07_2, U08_2, U09_2, U10_2, U11_2, U12_2, U13_2, U14_2, U15_2, U16_2, U17_2, U18_2, U19_2, U20_2, U21_2, U22_2, U23_2, U24_2, U25_2, U26_2, U27_2, U28_2, U29_2, U30_2, U31_2, U32_2, U33_2, U34_2, U35_2, U36_2, U37_2, U38_2, U39_2
11	4	LAT-SS-01879-01	IC, DAC, MAX5121AEEE, QSOP16, MAXIM	U0_2, U1_2, U2_2, U3_2
12	43	???????	Buss Wire	R9-18, R20, R25, RT1-31
13	8	M55342K06B10D0S	RES, 10 1%, 0705, M55432K06B10D0S VISHAY DALE	R0_29-30, R1_29-30, R2_29-30, R3_29-30

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Find No.	Qty	Part No.	Description	Ref. Designator
14	48	M55342K06B15E0S	RES, 15K 1%, 0705, M55432K06B15E0R VISHAY DALE	R00_6, R0A_6, R0B_6, R01_6, R1A_6, R1B_6, R02_6, R2A_6, R2B_6, R03_6, R3A_6, R3B_6, R04_6, R05_6, R06_6, R07_6, R08_6, R09_6, R10_6, R11_6, R12_6, R13_6, R14_6, R15_6, R16_6, R17_6, R18_6, R19_6, R20_6, R21_6, R22_6, R23_6, R24_6, R25_6, R26_6, R27_6, R28_6, R29_6, R30_6, R31_6, R32_6, R33_6, R34_6, R35_6, R36_6, R37_6, R38_6, R39_6
15	2	311P18-09S7R6	RES, 30K THERMISTOR, 311P18-10S10R YSI	R4, R24
16	192	LAT-SS-01845-01	RES, 50M , 1206, H1206CPX506J STATE OF THE ART	R00_1-4, R0A_1-4, R0B_1-4, R01_1-4, R1A_1-4, R1B_1-4, R02_1-4, R2A_1-4, R2B_1-4, R03_1-4, R3A_1-4, R3B_1-4, R04_1-4, R05_1-4, R06_1-4, R07_1-4, R08_1-4, R09_1-4, R10_1-4, R11_1-4, R12_1-4, R13_1-4, R14_1-4, R15_1-4, R16_1-4, R17_1-4, R18_1-4, R19_1-4, R20_1-4, R21_1-4, R22_1-4, R23_1-4, R24_1-4, R25_1-4, R26_1-4, R27_1-4, R28_1-4, R29_1-4, R30_1-4, R31_1-4, R32_1-4, R33_1-4, R34_1-4, R35_1-4, R36_1-4, R37_1-4, R38_1-4, R39_1-4
17	3	M55342K06B100DS	RES, 100 1%, 0705, M55432K06B100DS IRC DALE	R1-3
18	88	M55342K06B200DS	RES, 200 1%, 0705, M55432K06B200DS IRC DALE	R0_5-16, R1_5-16, R2_5-16, R3_5-16, R0_17-26, R1_17-26, R2_17-26, R3_17-26
19	4	M55342K06B400DS	RES, 400 1%, 0705, M55342M06B400DS IRC DALE	R0_31, R2_31, R3_31, R19
20	48	M55342M06B499ER * (not on EEE Parts List)	RES, 499K 1%, 0705, M55432K06B499ER VISHAY DALE	R00_7, R0A_7, R0B_7, R01_7, R1A_7, R1B_7, R02_7, R2A_7, R2B_7, R03_7, R3A_7, R3B_7, R04_7, R05_7, R06_7, R07_7, R08_7, R09_7, R10_7, R11_7, R12_7, R13_7, R14_7, R15_7, R16_7, R17_7, R18_7, R19_7, R20_7, R21_7, R22_7, R23_7, R24_7, R25_7, R26_7, R27_7, R28_7, R29_7, R30_7, R31_7, R32_7, R33_7, R34_7, R35_7, R36_7, R37_7, R38_7, R39_7

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Find No.	Qty	Part No.	Description	Ref. Designator
21	171	Not installed	RES, OPEN, 0705, No Assembly	R00_5, R00_9-10, R0A_5, R0A_9-10, R0B_5, R0B_9-10, R0_1, R0_4, R0_27-28, R01_5, R01_9-10, R1A_5, R1A_9-10, R1B_5, R1B_9-10, R1_1, R1_4, R1_27-28, R02_5, R02_9-10, R2A_5, R2A_9-10, R2B_5, R2B_9-10, R2_1, R2_4, R2_27-28, R03_5, R03_9-10, R3A_5, R3A_9-10, R3B_5, R3B_9-10, R3_1, R3_4, R3_27-28, R04_5, R04_9-10, R05_5, R05_9-10, R5, R06_5, R06_9-10, R6, R07_5, R07_9-10, R7, R08_5, R08_9-10, R8, R09_5, R09_9-10, R10_5, R10_9-10, R11_5, R11_9-10, R12_5, R12_9-10, R13_5, R13_9-10, R14_5, R14_9-10, R15_5, R15_9-10, R16_5, R16_9-10, R17_5, R17_9-10, R18_5, R18_9-10, R19_5, R19_9-10, R20_5, R20_9-10, R21_5, R21_9-10, R22_5, R22_9-10, R23_5, R23_9-10, R24_5, R24_9-10, R25_5, R25_9-10, R26_5, R26_9-10, R27_5, R27_9-10, R28_5, R28_9-10, R29_5, R29_9-10, R30, R30_5, R30_9-10, R31, R31_5, R31_9-10, R32, R32_5, R32_9-10, R33, R33_5, R33_9-10, R34, R34_5, R34_9-10, R35, R35_5, R35_9-10, R36, R36_5, R36_9-10, R37_5, R37_9-10, R38_5, R38_9-10, R39_5, R39_9-10
22	52	M55342K06B10E0S	RES, 10K 1%, 0705, M55432K06B10E0 VISHAY DALE	R0_2,R1_2,R3_2,R4_2,R00_8-R0B_8,R10_8-R1B_8,R20_8-R2B_8,R30_8-R3B_8
23	4	M55342K06B121ES	RES, 121K 1%, 0705, M55342K06B121E VISHAY DALE	R0_3, R1_3, R2_3, R3_3
24	1	LAT-DS-01336	SCHEMATIC, AFEE-X BOARD	
25	1	LAT-DS-02047	PWB, AFEE-X BOARD	

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