EC 8312 CABLE UPGRADE CONTROL SHEET

W#	S	W	From	From Conn PN	To	To Conn PN	Function	Change Type	Class	Type	Cable PN	EC #	STGT Length	WSGT Length
65464	S	W	7112-A42A4J4	PL75C-222 TRB	7109-A41 INPUT	M24308/4-2	5 MHZ A (PTP 3)	CHANGE (TO)	Blk	Twinax	CXN-2363	8312		
65465	S	W	7112-A15J29	PL75C-222 TRB	7109-A42 INPUT	M24308/4-2	5 MHZ B (PTP 4)	CHANGE (TO)	Blk	Twinax	CXN-2363	8312		
65466	S		1059-A15A7J5	M39012/26B0006	1059-A1J92	225557-6 TNC-F	CTFS-B IRIG-B INTERNAL	CHANGE (TO)	Blk	COAX	RG-400	8312		
65466		W	1059-A15A7J5	M39012/26B0006	1059-A1J93	225557-6 TNC-F	CTFS-B IRIG-B INTERNAL	CHANGE (TO)	Blk	COAX	RG-400	8312		
65467	S		1059-A1J92	M39012/26B0006	7109-A36 IRIG-B	2-330358-2 BNC	CTFS-B IRIG-B	CHANGE (TO)	Blk	COAX	RG-400	8312		
65467		W	1059-A1J93	M39012/26B0006	7109-A36 IRIG-B	2-330358-2 BNC	CTFS-B IRIG-B	CHANGE (TO)	Blk	COAX	RG-400	8312		
65468	S	W	1092-A3J274	PL75C-215 TRB	7109-A24J1	PL75C-215 TRB	WDISC RTN1 DATA (OUT 199)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
65469	S	W	1092-A3J273	PL75C-215 TRB	7109-A24J2	PL75C-215 TRB	WDISC RTN1 CLK (OUT 199)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
65470	S	W	1092-A4J88	PL75C-215 TRB	7109-A24J7	PL75C-215 TRB	WDISC RTN2 DATA (OUT 236)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
65471	S	W	1092-A4J87	PL75C-215 TRB	7109-A24J8	PL75C-215 TRB	WDISC RTN2 CLK (OUT 236)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
65472	S	W	1092-A4J86	PL75C-215 TRB	7109-A24J13	PL75C-215 TRB	WDISC RTN3 DATA (OUT 237)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
65473	S	W	1092-A4J85	PL75C-215 TRB	7109-A24J14	PL75C-215 TRB	WDISC RTN3 CLK (OUT 237)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
65474	S	W	7109-A22J25	PL75C-215 TRB	1141-A1J76	PL75C-215 TRB	WDISC FWD1 DATA (IN 88)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
65475	S	W	7109-A22J26	PL75C-215 TRB	1141-A1J75	PL75C-215 TRB	WDISC FWD1 CLK (IN 88)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
65476	S	W	7109-A22J31	PL75C-215 TRB	1141-A3J120	PL75C-215 TRB	WDISC FWD2 DATA (IN 178)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
65477	S	W	7109-A22J32	PL75C-215 TRB	1141-A3J119	PL75C-215 TRB	WDISC FWD2 CLK (IN 178)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
65478	S	W	7109-A22J37	PL75C-215 TRB	1141-A3J118	PL75C-215 TRB	WDISC FWD3 DATA (IN 179)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
65479	S	W	7109-A22J38	PL75C-215 TRB	1141-A3J117	PL75C-215 TRB	WDISC FWD3 CLK (IN 179)	CHANGE (TO)	Blk	Twinax	AA-7028	8312		
88812	S	W	1057-A1J91	225345-6 TNC	7109-A33 PTP	2-330358-2 BNC	IRIG-B #1	CHANGE (FROM)	BLK	COAX	RG-400	8195		
88812	S	W	1057-A1J91	225345-6 TNC	7109-A31 IRIG-B	2-330358-2 BNC	CTFS-A IRIG-B	CHANGE (TO)	BLK	COAX	RG-400	8312		

EC # **8312**

HARDWARE UPGRADE CONTROL SHEET - WSGT

RACK #	NEMS and/or CSOC TAG / Chassis or Card S/N	DESCRIPTION / PART/DRAWING #	HW REV # FROM/TO	CHIP LOCATION	IMPLEMENTED BY/DATE	TEST PASSED	CM VERIFICATION
7109W		Avtec PTP #3					
		PTPNT-1007					
7109W		Avtec PTP #4					
		PTPNT-1007					
7109W		Dataprobe A/B Switch #1					
		4PK-AB-T1-R1					
7109W		Dataprobe A/B Switch #2					
		4PK-AB-T1-R1					
7109W		Dataprobe A/B Switch #3					
		4PK-AB-T1-R1					
7109W		Receiver / Driver Chassis (Quad 1-to-2)					
		GEN 0230 301					
7109W		Dataprobe RS-422 Expander					
		DB-422-8					
7109W		Dataprobe RS-422 Expander					
		DB-422-8					
7109W		Dataprobe 5V Power Supply					
		DB-RPS110A-R1					
7109W		Aten KVM Switch					
		CS-138A					
7109W		Dell LCD flat panel monitor and keyboard					

EC # **8312**

HARDWARE UPGRADE CONTROL SHEET - STGT

RACK #	NEMS and/or CSOC TAG / Chassis or Card S/N	DESCRIPTION / PART/DRAWING #	HW REV # FROM/TO	CHIP LOCATION	IMPLEMENTED BY/DATE	TEST PASSED	CM VERIFICATION
7109S		Avtec PTP #3					
		PTPNT-1007					
7109S		Avtec PTP #4					
		PTPNT-1007					
7109S		Dataprobe A/B Switch #1					
		4PK-AB-T1-R1					
7109S		Dataprobe A/B Switch #2					
		4PK-AB-T1-R1					
7109S		Dataprobe A/B Switch #3					
		4PK-AB-T1-R1					
7109S		Receiver / Driver Chassis (Quad 1-to-2)					
		GEN 0230 301					
7109S		Dataprobe RS-422 Expander					
		DB-422-8					
7109S		Dataprobe RS-422 Expander					
		DB-422-8					
7109S		Dataprobe 5V Power Supply					
		DB-RPS110A-R1					
7109S		Aten KVM Switch					
		CS-138A					
7109S		Dell LCD flat panel monitor and keyboard					

EC NO. 8221 **COG. ENGR.** James Edgington ***Documentation Update Control Sheet***

Document or Drawing No.	Required Update				WORK ORDER ASSIGNED	LOCATION (DATE)			REV LTR	Date Relased
	EO	DCN	REV	NEW	DATE	DRFT	WP	RFR	NO.	
1. 530-WSC-0042		*								
2. WSC-1547444			*							
3. WSC-1547432			*							
4. 530-WSC-0056		*								
5. 530-WSC-0053		*								
6.										
7.										
8.										
9.										
10.										
11.										
12.										
13.										
14.										
15.										
16.										
17.										
18.										
19.										
20.										
21.										

COMMENTS: _____

Drft=drafting **wp=word processing** **rfr=ready for release**

COG ENGR

EOPS COMPLETE_____**DATE**_____

WSC-054(3/96)

WSC TEST DATA RECORD

EC 8312 - WDISC Expansion Installation

Equipment Under Test: WDISC Expansion connection to LRDS and IONET

Test Objectives: Installation verification testing, Operational acceptance testing of the WDISC.

Test Equipment: N/A

Test Participants: WSC Test Ops Engineer TO&A
WSC Cog Engineer CE

WDISC Tests: Initial and date upon successful completion of each step.

Perform EC-8312 Installation Testing per EC Section 7.2.			
Test	**Participant**	**Site and Equipment Tested**	**Passed (sign and date)**
7.2	CE	WSGT Patch Panels, Cabling	
7.2	CE	STGT Patch Panels, Cabling	

Perform EC-8312 Installation Testing per EC Section 7.4. Section 7.2 testing is prerequisite.			
Test	**Participant**	**Site and Equipment Tested**	**Passed (sign and date)**
7.4	TO&A	WSGT WDISC Expansion	
7.4	TO&A	STGT WDISC Expansion	

Comments: _____

Requirement for Customer Validation is the ability to schedule desktop configurations on the WDISC Expansion and pass User FWD and RTN Data across the new LRDS/WDISC/IONET interfaces.

--- ---
Customer Validation Signature (WSC OPS) **Date**

EC-8312 Design Review Record

The "WDISC Expansion" EC technical design review was held in the STGT West Conference Room at 1:00 p.m. on April 15, 2003. The following personnel attended:

At WSC
Johnny Chavez, WSC TO&A
Mark Reome, WSC HMD
Jim Edgington, WSC SYS ENG
John Follin, WSC SYS ENG
Ed Bernal, WSC SYS ENG
Mike Milligan, WSC SYS ENG
Brian Gioannini, NASA WSC ENG

The following personnel responded before the review meeting:
Brian Owen, WSC H/W CM

These items were discussed and agreed upon as a result of this review:

1) Action item (TO&A) to make sure GSFC project leader (John Groom) is aware of the need for coordination in the Hardware/Software/Network changes.
2) Expansion of IRIG-B will be performed with existing distribution amplifiers in the CTFS expansion rack.

There were no "change items" for the EC design.

James Edgington 4/15/03
Ext. 7028

Date: 4/23/03

System Safety Checklist Worksheet

EC: 8312

If any of the following questions are checked Yes, then a *GSFC System Safety Checklist*, CSOC-GSFC-FORM-000536 must be filled out. The Section numbers below correspond to the sections of the System Safety Checklist.

Section 2,1a.	☐ Yes	☒ No	Does the new design provide power to another piece of equipment?
Section 2,1b.	☐ Yes	☒ No	Does the design include fabrication of a new chassis requiring internal AC circuit protection?
Section 2,3	☐ Yes	☒ No	Is the intent of the new design to generate heat?
Section 2,4	☐ Yes	☒ No	Does the design introduce any shatterable material? (Excluding CRTs.)
Section 2,5	☐ Yes	☒ No	Does the design introduce any unenclosed moving equipment?
Section 2,6b.	☐ Yes	☒ No	Does the design introduce pieces of equipment that could act as a tripping hazard?
Section 2,7	☐ Yes	☒ No	Does the design include new or affect existing antennas?
Section 2,8a.b.	☐ Yes	☒ No	Does the design introduce a potential electromagnetic radiation hazard?
Section 2,9	☐ Yes	☒ No	Does the design contain batteries? (Excluding COTS equipment.)
Section 2,10	☐ Yes	☒ No	Does the design contain software that introduces risks that could endanger personnel?

_____

Signature
Cognizant Engineer

-NOTE –

White Sands Complex does not deal with cryogenics, pressure systems, chemical materials (excluding batteries) or explosives/propellants nor does WSC create explosive environments, so Section 1 of the System Safety Checklist does not apply.

WSC cables are always labeled in accordance with WSC procedures and they are always routed under floor or inside equipment racks, so Section 2, 1c and Section 2, 6a will always have a Hazard Risk Index of IVE.
(A separate System Safety Analysis is not required for Sections 2, 1c and Section 2, 6a.)

WSC does not have any requirement for systems that would produce intense light, so Section 2, 8c does not apply.

For ground hardware, fasteners do not pose a safety hazard to personnel, so Section 2, 2.0 does not apply at WSC.