

THOMSON

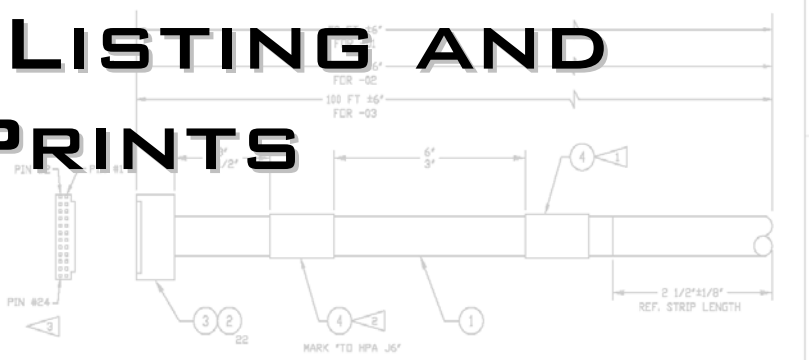
BROADCAST

REMOTE CONTROL PINOUT LISTING AND CABLE PRINTS

412592

ZONE	LTR	DESCRIPTION	DATE	APPROVED
A		ENGINEERING RELEASE	3/13/03	RLC
B		ADDED NOTE 3, MARK 'TO HPA J6' WAS 'TO HPA J5'	4/4/03	GGD/4/03
B		REVISED REMARKS PER ECO #5051	8/18/03	GGD/8/03
B		ADDED NOTE 3, MARK 'TO HPA J6' WAS 'TO HPA J5'	2/16/04	GGC2/18/04

WIRE NO.	P/L ITEM NO.	AVG. COLOR	RES.	WIRE NO.	RES.	WIRE NO.	RES.	WIRE NO.	RES.
1		WHITE PAIR 1							
2		WHITE PAIR 2							
3		WHITE PAIR 3							
4		BROWN PAIR 4							
5		WHITE PAIR 5							
6		RED PAIR 6							
7		WHITE PAIR 7							
8		DRAB PAIR 8							
9		WHITE PAIR 9							
10		YELLOW PAIR 10							
11		WHITE PAIR 11							
12		GREEN PAIR 12							
13		WHITE PAIR 13							
14		BLUE PAIR 14							
15		WHITE PAIR 15							
16		VIOLET PAIR 16							
17		WHITE PAIR 17							
18		GRAY PAIR 18							
19		BLACK PAIR 19							
20		BROWN PAIR 20							
21		BLACK PAIR 21							
22		RED PAIR 22							
23		BLACK PAIR 23							
24		DRAB PAIR 24							



- NOTES:
- 1 LABEL TO CONTAIN PART NUMBER, REVISION LEVEL AND VENDOR I.D. PER THALES-BM SPEC 8452768, USING 12 POINT BLACK HELVETICA CHARACTERS ON WHITE BACKGROUND.
 - 2 LABEL AS NOTED USING 18 PT BLACK HELVETICA CHARACTERS ON A WHITE BACKGROUND.
 - 3 USE PIN MARKING AS INDICATED IN END VIEW.

QTY	VERSION	ITEM	PART NO.	DESCRIPTION
2	2	2	4	605058-01 LABEL, PIN FEED 1' X 14'
1	1	1	3	605707-01 CONN, CONTACT HOUSING 24 PIN
24	24	24	2	604567-01 CONN, RECP CONTACT 24-20 GOLD
				608500-01 CABLE, 22 AVG 15 PAIR

DCX PARAGON WITH PANELVIEW TOUCHSCREEN SYSTEM CONTROLLER

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APPD	DATE	SIZE	CODE IDENT	DRAWING NO	REV.
CHKD	G DeICAMPO	3/13/03			
ENGR	R C D E	3/13/03			
APPD	S WARNER	3/13/03			
APPD	V CRUZ	3/13/03			
				412592	B

SCALE	FULL	JOB NO.	SHEET	1 OF 1

THOMSON

Remote Control Pinout Listing and Cable Prints DCX Paragon (With PanelView Touchscreen System Controller)

Table of Contents

412599-01	Pinout Listing, RMT CTL DCXP
410984	Cable Assembly, Remote, Exciter P1
412590	Cable Assembly, Remote, HPA P1
412591	Cable Assembly, Remote, HPA P5
412592	Cable Assembly, Remote, HPA P6

Note: Cable lengths are not shown in the chart and are as follows:

-01 (50-feet), -02 (75-feet), -03 (100-feet)



REVISIONS

ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	ENGINEERING RELEASE	11/17/03	RLC

NOTES

1. REFER TO PIN NUMBERING AS SHOWN ON REMOTE CABLE ASSY DRAWINGS 412590, 412591 AND 412592.
2. ODD PIN NUMBER IS POSITIVE AND EVEN PIN NUMBER IS NEGATIVE ON HPA CONNECTORS J4, J5 AND J6.

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		-01	ITEM NO.	PART NO.	DESCRIPTION
QTY/VERSION		PARTS LIST			
MATERIAL		DRWN	T BEAULIEU	10/29/03	<div style="display: flex; justify-content: space-between;"> <div style="font-size: 2em; font-weight: bold;">THALES</div> <div style="font-size: x-small;">BROADCAST & MULTIMEDIA INC. SOUTHWICK, MASSACHUSETTS</div> </div> <div style="font-size: 1.2em; font-weight: bold;">DCXP REMOTE CONTROL PINOUT LISTING</div>
		CHK	G DeICAMPO	11/3/03	
FINISH		ENG	R COLE	11/17/03	
		ENG	A M ASIUNAS	11/19/03	
ELECTRONIC FILE		APP	J LaBARRE	11/12/03	
		APP	D M TOUGAS	11/20/03	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		REMOVE BURRS AND SHARP EDGES YES <input type="checkbox"/> NO <input type="checkbox"/>			SIZE A
TOLERANCES FRACTIONS 2 PLACE DECIMALS 3 PLACE DECIMALS ANGLES		NEXT ASS'Y			CODE I.D.
					DRAWING NO. 412599
					REV. A
				SCALE NONE	JOB No.
				SHEET 1 OF 7	

Remote Control, Indication and Measurements

DCXP Transmitter Range :

System Controls

	Description	Connection	Location	Input
**	Transmitter ON	IN-0	1	1
**	Transmitter Off	IN-1	1	1
	Transmitter Standby	IN-2	1	1
	RF switch pattern A	IN-3	1	1
	RF switch pattern B	IN-4	1	1
	RF switch pattern C	IN-5	1	1
	RF switch pattern D	IN-6	1	1
	RF switch pattern E	IN-7	1	1
	Exciter select	IN-8	1	1
	Web GUI enable	IN-9	1	1
	FWD AGC enable	IN-10	1	1
	REV AGC enable	IN-11	1	1
	System/HPA fault reset	IN-12	1	1
	HPA auto restart reset	IN-13	1	1
	RF off	IN-14	1	1
**	Failsafe interlock from remote control	IN-15	1	1
	Raise power exciter 1	J1-15	2	3
	Lower power exciter 1	J1-16	2	3
	APC disable exciter 1	J1-17	2	5
	Save Correction – exc 1	J1-18	2	3
	Command Common Exciter 1	J1-19	2	2
	Flat Filter ALE – exc 1	J1-20	2	5
	Adaptive Correction – exc 1	J1-21	2	5
	Load Linear LUT – exc 1	J1-22	2	5
	+24 VDC output	J1-36	2	4
	Interlock input (+24VDC)	J1-37	2	4
	Re-Correct LUT and ALE – exc 1	J1-26	2	3
	Raise Power exciter 2	J1-27	2	3
	Lower Power exciter 2	J1-28	2	3
	APC Disable exciter 2	J1-29	2	5
	Save Correction – exc 2	J1-30	2	3
	Command Common Exciter 2	J1-31	2	2
	Flat Filter ALE – exc 2	J1-32	2	5
	Adaptive Correction – exc 2	J1-33	2	5
	Re-Correct LUT and ALE – exc 2	J1-34	2	3
	Load Linear LUT – exc 2	J1-35	2	5

** These items are the minimum required per Thales-BM recommendation and/or FCC requirement.

Location 1 = Transmitter Remote Control I/O Block on 46745490 Remote Control I/O Panel Assy.

Location 2 = J1 on connector plate assembly at the top of the exciter cabinet

Input 1 = 10- 30VDC (11 mA @ 30V, 2.0 mA @ 10V) = Active State (24V typ)

Off state maximum current = 1.5 mA @ 5VDC

Input 2 = Ground common contact connection for commands. Tied to GND internal to exciter cabinet at A14TB1.

Input 3 = Momentary connection to command common (input #2) activates input.

Input 4 = External interlock – short circuit required - open for fault.

Input 5 = Latched connection to command common (input #2) activates input.

Remote Control, Indication and Measurements

DCXP Transmitter Range :

System Status

Description	Connection	Location	Output
Status Normal :			
** Transmitter On	OUT-0	1	1
** Transmitter Off	OUT-1	1	1
Transmitter Standby	OUT-2	1	1
RF Switch pattern A	OUT-3	1	1
RF Switch pattern B	OUT-4	1	1
RF Switch pattern C	OUT-5	1	1
RF Switch pattern D	OUT-6	1	1
RF Switch pattern E	OUT-7	1	1
Exciter "A" Selected	OUT-8	1	1
System VSWR fault Status	OUT-9	1	1
Combiner/CIF Load cooling fault	OUT-10	1	1
Cooling pump fault	OUT-11	1	1
RF Off	OUT-12	1	1
HPA Ready	OUT-13	1	1
FWD AGC Status	OUT-14	1	1
REV AGC Status	OUT-15	1	1
Transport Stream Presence - Exc 1	J1-23	2	2
Transport Stream Presence - Exc 1	J1-19	2	2
Transport Stream Presence - Exc 2	J1-25	2	2
Transport Stream Presence - Exc 2	J1-31	2	2

Location 1 = Transmitter Remote Control I/O Block on 46745490 Remote Control I/O Panel Assy

Location 2 = J1 on connector plate assembly at the top of exciter cabinet.

Output 1 = 24 V DC. Maximum current 0.5A = Active State

Maximum surge current = 1A for 10mS every 2 sec.

Output 2 = Contact closure between pins indicated. Open on fault

** These items are the minimum required per Thales-BM recommendation and/or FCC requirement

Remote Control, Indication and Measurements

DCXP Transmitter Range :

HPA Fault Status - (All Status is per HPA)

Description	Connection	Location	Normal Indication given by ;
Fault Status:			
3 Phase voltage	J5-1	2	1
3 Phase voltage	J5-2	2	
Communication Error	J5-3	2	1
Communication Error	J5-4	2	
Filament voltage	J5-5	2	1
Filament voltage	J5-6	2	
Full filament current	J5-7	2	1
Full filament current	J5-8	2	
Focus Voltage	J5-9	2	1
Focus Voltage	J5-10	2	
Focus current	J5-11	2	1
Focus current	J5-12	2	
Grid Bias Voltage	J5-13	2	1
Grid Bias Voltage	J5-14	2	
Grid Bias Current	J5-15	2	1
Grid Bias Current	J5-16	2	
Ion Pump Voltage	J5-17	2	1
Ion Pump Voltage	J5-18	2	
Ion Pump Current	J5-19	2	1
Ion Pump Current	J5-20	2	
Beam/Collector Voltage	J5-21	2	1
Beam/Collector Voltage	J5-22	2	
Beam/Collector Current	J5-23	2	1
Beam/Collector Current	J5-24	2	
Cathode HV Fault	J5-25	2	1
Cathode HV Fault	J5-26	2	
Collector 5 HV Fault	J5-27	2	1
Collector 5 HV Fault	J5-28	2	
Collector 4 HV Fault	J5-29	2	1
Collector 4 HV Fault	J5-30	2	
Collector 3 HV Fault	J5-31	2	1
Collector 3 HV Fault	J5-32	2	
Collector 2 HV Fault	J5-33	2	1
Collector 2 HV Fault	J5-34	2	
Cabinet Airflow	J5-35	2	1
Cabinet Airflow	J5-36	2	
Cavity Cooling	J5-37	2	1
Cavity Cooling	J5-38	2	
Primary Cooling	J5-39	2	1
Primary Cooling	J5-40	2	

Location 1 = Transmitter Remote Control I/O Block on 46745490 Remote Control I/O
Panel Assy

Location 2 = High power amplifier connector plate assembly

1 - Indication given by dry relay contact. Maximum current 500mADC, maximum voltage
110 V DC/AC, maximum 30W resistive. Closed Contacts = Normal Status

Open Contacts = Fault

Remote Control, Indication and Measurements

DCXP Transmitter Range :

HPA Fault Status - (All Status is per HPA)

Description	Connection	Location	Normal Indication given by ;
Fault status:			
Secondary Cooling	J6-1	2	1
Secondary Cooling	J6-2	2	
Cabinet Interlock	J6-3	2	1
Cabinet Interlock	J6-4	2	
GND SW Interlock	J6-5	2	1
GND SW Interlock	J6-6	2	
HVPS Interlock	J6-7	2	1
HVPS Interlock	J6-8	2	
Step-start Interlock	J6-9	2	1
Step-start Interlock	J6-10	2	
Driver Status	J6-11	2	1
Driver Status	J6-12	2	
RF Arc Detector 1	J6-13	2	1
RF Arc Detector 1	J6-14	2	
RF Arc Detector 2	J6-15	2	1
RF Arc Detector 2	J6-16	2	
Drive Power	J6-17	2	1
Drive Power	J6-18	2	
Reverse Power	J6-19	2	1
Reverse Power	J6-20	2	
Forward Power	J6-21	2	1
Forward Power	J6-22	2	
Auto Restart Enabled	J6-23	2	1
Auto Restart Enabled	J6-24	2	

Location 1 = Transmitter Remote Control I/O Block on 46745490 Remote Control I/O
Panel Assy

Location 2 = High power amplifier connector plate assembly

1 - Indication given by dry relay contact. Maximum current 200mADC, maximum voltage
24 V DC. Closed Contacts = Normal Status

Open Contacts = Fault

Remote Control, Indication and Measurements

DCXP Transmitter Range :

Metering - (All HPA Metering Parameters are per HPA)

Description	Connection	Location	Output
Filament voltage (+)	J4-1	2	1
Filament voltage	J4-2	2	
Filament current (+)	J4-3	2	1
Filament current	J4-4	2	
Bias voltage (+)	J4-5	2	1
Bias voltage	J4-6	2	
Bias current (+)	J4-7	2	2
Bias current	J4-8	2	
Ion Pump current (+)	J4-9	2	1
Ion Pump current	J4-10	2	
Focus current (+)	J4-11	2	1
Focus current	J4-12	2	
** Beam voltage (+)	J4-13	2	1
** Beam voltage	J4-14	2	
** Beam current (+)	J4-15	2	1
** Beam current	J4-16	2	
Collector 5 Current (+)	J4-17	2	1
Collector 5 Current	J4-18	2	
Collector 4 Current (+)	J4-19	2	1
Collector 4 Current	J4-20	2	
Collector 3 Current (+)	J4-21	2	1
Collector 3 Current	J4-22	2	
Collector 2 Current (+)	J4-23	2	1
Collector 2 Current	J4-24	2	
Body/Collector 1 Current (+)	J4-25	2	1
Body/Collector 1 Current	J4-26	2	
Drive Power (+)	J4-27	2	1
Drive Power	J4-28	2	
Reverse Power (+)	J4-29	2	1
Reverse Power	J4-30	2	
Forward Power (+)	J4-31	2	1
Forward Power	J4-32	2	

** These items are the minimum required per Thales-BM recommendation and/or FCC requirement.

(continued)

Remote Control, Indication and Measurements

DCXP Transmitter Range :

Metering - (continued)

	Description	Connection	Location	Output
**	System forward (+)	J1-1	3	1
**	System forward (-)	J1-2	3	1
	System reverse (+)	J1-3	3	1
	System reverse (-)	J1-4	3	1
	Final Combiner Reject (+)	J1-5	3	1
	Final Combiner Reject (-)	J1-6	3	1
	V1 & V2 Combiner Reject (+)	J1-7	3	1
	V1 & V2 Combiner Reject (-)	J1-8	3	1
	V3 & V4 Combiner Reject (+)	J1-9	3	1
	V3 & V4 Combiner Reject (-)	J1-10	3	1

** These items are the minimum required per Thales-BM recommendation and/or FCC requirement

Location 1 = Transmitter Remote Control I/O Block on 46745490 Remote Control I/O Panel Assy

Location 2 = High power amplifier connector plate assembly

Location 3 = J1 on connector plate in exciter cabinet

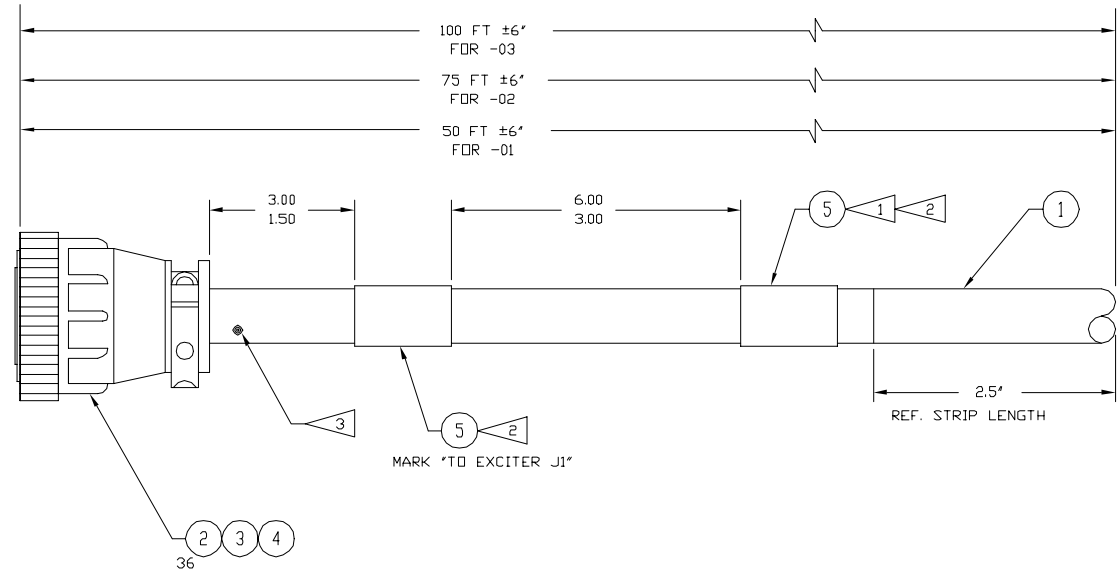
Output 1 = Approximately 5 VDC into high impedance or 1 mA for full scale deflection.

Output 2 = Approximately 5 VDC into high impedance or 1 mA for full scale deflection with 2.5 VDC, or .5 mA for "zero center".

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	ENGINEERING RELEASE	3/9/01	SK

VERSIONS -01,-02 & -03

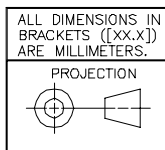
WIRE LIST									
WIRE NO.	P/L ITEM NO.	AWG. COLOR	FROM REF. DES.	TERM. POS.	TERM (P/L) ITEM NO.	TO REF. DES.	TERM. POS.	TERM (P/L) ITEM NO.	REMARKS
			EXC			REMOTE			2 TUBE OR MORE DCX EXCITER
1		RED PAIR 1	P1 - 1 -		2	- -			SYSTEM FORWARD + PAIR 1
2		BLK PAIR 1	P1 - 2 -		2	- -			SYSTEM FORWARD - PAIR 1
3		RED PAIR 2	P1 - 3 -		2	- -			SYSTEM REVERSE + PAIR 2
4		BLK PAIR 2	P1 - 4 -		2	- -			SYSTEM REVERSE - PAIR 2
5		RED PAIR 3	P1 - 5 -		2	- -			FINAL COMB. REJ. (+) PAIR 3
6		BLK PAIR 3	P1 - 6 -		2	- -			FINAL COMB. REJ. (-) PAIR 3
7		RED PAIR 4	P1 - 26 -		2	- -			RECORRECT LUT & ALE PAIR 4 EXC 1
8		BLK PAIR 4	P1 - 34 -		2	- -			RECORRECT LUT & ALE PAIR 4 EXC 2
9		RED PAIR 5	P1 - 18 -		2	- -			SAVE CORRECTION EXC 1 PAIR 5
10		BLK PAIR 5	P1 - 17 -		2	- -			APC DISABLE EXC 1 PAIR 5
11		RED PAIR 6	P1 - 15 -		2	- -			RAISE PWR EXC 1 PAIR 6
12		BLK PAIR 6	P1 - 16 -		2	- -			LOWER PWR EXC 1 PAIR 6
13		RED PAIR 7	P1 - 30 -		2	- -			SAVE CORRECTION PAIR 7 EXC 2
14		BLK PAIR 7	P1 - 29 -		2	- -			APC DISABLE EXC 2 PAIR 7
15	1	RED PAIR 8	P1 - 27 -		2	- -			RAISE PWR EXC 2 PAIR 8
16		BLK PAIR 8	P1 - 28 -		2	- -			LOWER PWR EXC 2 PAIR 8
17		RED PAIR 9	P1 - 36 -		2	- -			+24VDC OUTPUT PAIR 9
18		BLK PAIR 9	P1 - 37 -		2	- -			INTERLOCK IN +24V PAIR 9
19		RED PAIR 10	P1 - 7 -		2	- -			V1&V2 COMB REJ + PAIR 10
20		BLK PAIR 10	P1 - 8 -		2	- -			V1&V2 COMB REJ - PAIR 10
21		RED PAIR 11	P1 - 9 -		2	- -			V3&V4 COMB REJ + PAIR 11
22		BLK PAIR 11	P1 - 10 -		2	- -			V3&V4 COMB REJ - PAIR 11
23		RED PAIR 12	P1 - 20 -		2	- -			FLAT FILTER ALE PAIR 12 EXC 1
24		BLK PAIR 12	P1 - 32 -		2	- -			FLAT FILTER ALE PAIR 12 EXC 2
25		RED PAIR 13	P1 - 19 -		2	- -			COMMAND COMMON PAIR 13 EXC 1
26		BLK PAIR 13	P1 - 31 -		2	- -			COMMAND COMMON PAIR 13 EXC 2
27		RED PAIR 14	P1 - 23 -		2	- -			TRANSPORT STREAM PAIR 14 EXC 1
28		BLK PAIR 14	P1 - 25 -		2	- -			TRANSPORT STREAM PAIR 14 EXC 2
29		RED PAIR 15	P1 - 21 -		2	- -			ADAPTIVE CORRECTION PAIR 15 EXC 1
30		BLK PAIR 15	P1 - 33 -		2	- -			ADAPTIVE CORRECTION PAIR 15 EXC 2
31		RED PAIR 16	P1 - 22 -		2	- -			LOAD LINEAR LUT PAIR 16 EXC 1
32		BLK PAIR 16	P1 - 35 -		2	- -			LOAD LINEAR LUT PAIR 16 EXC 2
33		RED PAIR 17	P1 - 11 -		2	- -			INTERMEDIATE COMB REJ + PAIR 17
34		BLK PAIR 17	P1 - 12 -		2	- -			INTERMEDIATE COMB REJ - PAIR 17
35		RED PAIR 18	P1 - 13 -		2	- -			V5 + V6 COMB REJ + PAIR 18
36		BLK PAIR 18	P1 - 14 -		2	- -			V5 + V6 COMB REJ - PAIR 18



NOTES:

- 1 MARK P/N, VERSION, CURRENT REVISION LEVEL, & VENDOR I.D. (IF APPLICABLE)
- 2 NOMENCLATURE TO BE 12 PT HELVETICA MEDIUM. BLACK CHARACTERS ON WHITE TAPE.
- 3 CUT UNUSED CONDUCTORS AND DRAIN WIRES FLUSH WITH JACKET.

QTY/VERSION	PART NO.	DESCRIPTION			
2	2	605858-01 LABEL, PIN FEED 1' X 14'			
1	1	600088-01 CLAMP, CABLE SHELL SIZE 23			
1	1	600089-01 CONN, 37 PIN PLUG			
36	36	601252-01 SOCKET, CONTACT #66592-2			
100FT	75FT	50FT	1	606333-01	CABLE, PROCESS CTRL 19PR 22AWG
-03	-02	-01	ITEM	PART NO.	DESCRIPTION



ALL DIMENSIONS IN BRACKETS ([XX.X]) ARE MILLIMETERS.

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MATERIAL	FINISH	CAD FILE#	MANUAL DWG#	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	TOLERANCES	FRACTIONS	2 PLACE DECIMALS	3 PLACE DECIMALS	ANGLES	DCX ULTRA	NEXT ASSY.	USED ON	APPLICATION	DRWN	CHKD	ENGR	APPD	APPD	REMOVE BURRS AND SHARP EDGES	YES	NO	SIZE	CODE IDENT	DRAWING NO	REV.
~	~	410984A1	HR TB	±	1/32	.03	[.8]	.010	[.25]					T	G DeLCAMPO	S KALIS	S WARNER	VICTOR CRUZ				D		410984	A



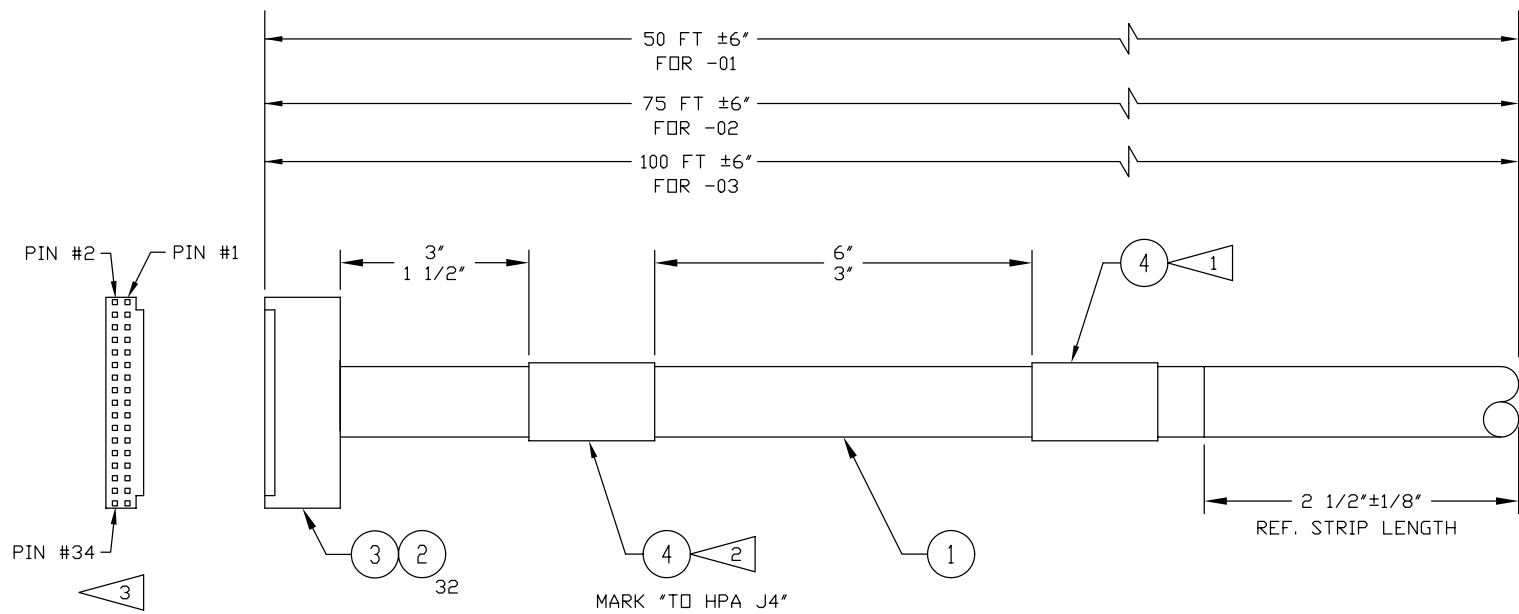
CABLE ASSEMBLY, REMOTE, DCX ULTRA EXCITER P1

SCALE	FULL	JOB NO:	SHEET	1 OF 1
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D 410984 B

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	ENGINEERING RELEASE	3/13/03	RLC
	NRC	ADDED NOTE 3. MARK *TO HPA J4* WAS *TO HPA J1*	4/4/03TB	GDC4/4/03
	B	REVISED REMARKS PER ECD #5051	8/12/03TB	GDC8/13/03
	NRC	ADDED (+)'S TO REMARKS	2/16/04TB	GDC2/18/04

WIRE LIST									
WIRE NO.	P/L ITEM NO.	AWG, COLOR	FROM REF. DES.	TERM. POS.	TERM. (P/L) ITEM NO.	TO REF. DES.	TERM. POS.	TERM. (P/L) ITEM NO.	REMARKS
			HPA			REMOTE			
1		WHITE PAIR 1	P4 - 1 -			- -			FILAMENT VOLTAGE (+) PAIR 1
2		BLK PAIR 1	P4 - 2 -			- -			FILAMENT VOLTAGE PAIR 1
3		WHITE PAIR 2	P4 - 3 -			- -			FILAMENT CURRENT (+) PAIR 2
4		BROWN PAIR 2	P4 - 4 -			- -			FILAMENT CURRENT PAIR 2
5		WHITE PAIR 3	P4 - 5 -			- -			BIAS VOLTAGE (+) PAIR 3
6		RED PAIR 3	P4 - 6 -			- -			BIAS VOLTAGE PAIR 3
7		WHITE PAIR 4	P4 - 7 -			- -			BIAS CURRENT (+) PAIR 4
8		ORANGE PAIR 4	P4 - 8 -			- -			BIAS CURRENT PAIR 4
9		WHITE PAIR 5	P4 - 9 -			- -			ION PUMP CURRENT (+) PAIR 5
10		YELLOW PAIR 5	P4 - 10 -			- -			ION PUMP CURRENT PAIR 5
11		WHITE PAIR 6	P4 - 11 -			- -			FOCUS CURRENT (+) PAIR 6
12		GREEN PAIR 6	P4 - 12 -			- -			FOCUS CURRENT PAIR 6
13		WHITE PAIR 7	P4 - 13 -			- -			BEAM VOLTAGE (+) PAIR 7
14		BLUE PAIR 7	P4 - 14 -			- -			BEAM VOLTAGE PAIR 7
15		WHITE PAIR 8	P4 - 15 -			- -			BEAM CURRENT (+) PAIR 8
16	1	VIOLET PAIR 8	P4 - 16 -			- -			BEAM CURRENT PAIR 8
17		WHITE PAIR 9	P4 - 17 -			- -			COLLECTOR 5 CURRENT (+) PAIR 9
18		GRAY PAIR 9	P4 - 18 -			- -			COLLECTOR 5 CURRENT PAIR 9
19		BLACK PAIR 10	P4 - 19 -			- -			COLLECTOR 4 CURRENT (+) PAIR 10
20		BROWN PAIR 10	P4 - 20 -			- -			COLLECTOR 4 CURRENT PAIR 10
21		BLACK PAIR 11	P4 - 21 -			- -			COLLECTOR 3 CURRENT (+) PAIR 11
22		RED PAIR 11	P4 - 22 -			- -			COLLECTOR 3 CURRENT PAIR 11
23		BLACK PAIR 12	P4 - 23 -			- -			COLLECTOR 2 CURRENT (+) PAIR 12
24		ORANGE PAIR 12	P4 - 24 -			- -			COLLECTOR 2 CURRENT PAIR 12
25		BLACK PAIR 13	P4 - 25 -			- -			BODY/COLLECTOR 1 CURRENT (+) PAIR 13
26		YELLOW PAIR 13	P4 - 26 -			- -			BODY/COLLECTOR 1 CURRENT PAIR 13
27		BLACK PAIR 14	P4 - 27 -			- -			DRIVE POWER (+) PAIR 14
28		GREEN PAIR 14	P4 - 28 -			- -			DRIVE POWER PAIR 14
29		BLACK PAIR 15	P4 - 29 -			- -			REVERSE POWER (+) PAIR 15
30		BLUE PAIR 15	P4 - 30 -			- -			REVERSE POWER PAIR 15
31		BLACK PAIR 16	P4 - 31 -			- -			FORWARD POWER (+) PAIR 16
32		VIOLET PAIR 16	P4 - 32 -			- -			FORWARD POWER PAIR 16



NOTES:

- 1 LABEL TO CONTAIN PART NUMBER, REVISION LEVEL AND VENDOR I.D. PER THALES-BM SPEC #452788, USING 12 POINT BLACK HELVETICA CHARACTERS ON WHITE BACKGROUND.
- 2 LABEL AS NOTED USING 18 PT BLACK HELVETICA CHARACTERS ON A WHITE BACKGROUND.
- 3 USE PIN MARKING AS INDICATED IN END VIEW.

QTY/VERSION	PARTS LIST
2 2 2 4	605858-01 LABEL, PIN FEED 1' X 1.4'
1 1 1 3	608533-01 HOUSING, 34 PIN AMP MODU
32 32 32 2	604567-01 CONN, RECPT CONTACT 24-20 GOLD
100FT 75FT 50FT 1	608581-01 CABLE, 22 AWG 27 PAIR
-03 -02 -01 ITEM	PART NO. DESCRIPTION

MATERIAL	SEE PARTS LIST	DRWN	KEN SMYTH	2/25/03
FINISH	~	CHKD	G DeICAMPO	3/13/03
CAD FILE#	412590B1	HR	TB	ENGR R COLE 3/13/03
MANUAL DWG#	~			ENGR
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		APPD	S WARNER	3/13/03
TOLERANCES ±		APPD	V CRUZ	3/13/03
FRACTIONS 1/32				
2 PLACE DECIMALS .03 [.8]				
3 PLACE DECIMALS .010 [.25]				
ANGLES 1/2°				
APPLICATION	PARAGON USED ON			
		REMOVE BURRS AND SHARP EDGES		
		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		

THALES BROADCAST & MULTIMEDIA INC. SOUTHWICK, MASSACHUSETTS

CABLE ASSEMBLY, REMOTE, HPA, P4

SIZE	CODE IDENT	DRAWING NO	REV.
C		412590	B
SCALE	FULL	JOB NO:	SHEET 1 OF 1

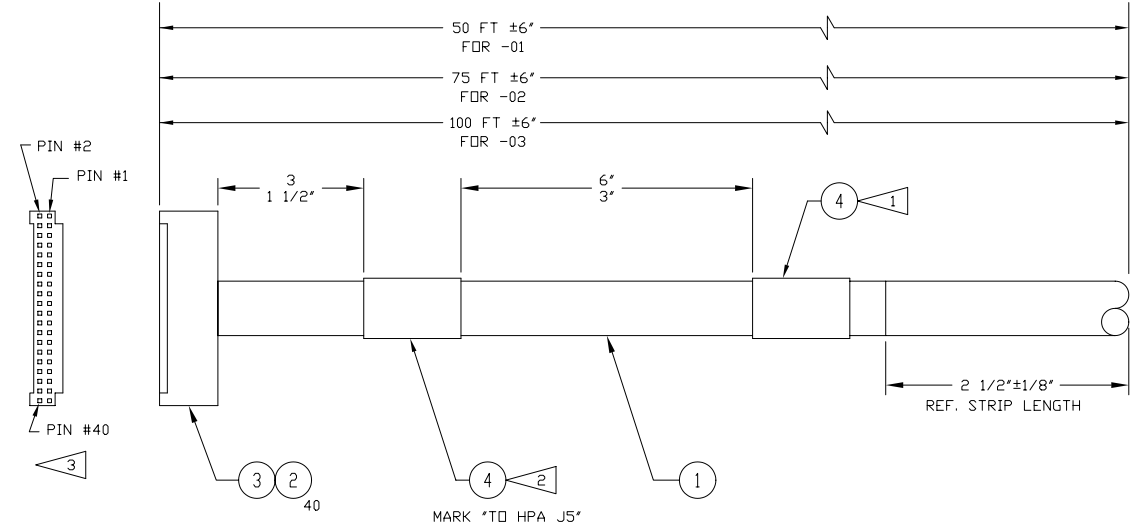
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B
C 412590
B

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	ENGINEERING RELEASE	3/13/03	RLC
	NRC	ADDED NOTE 3. MARK 'TO HPA J5' WAS 'TO HPA J2'	4/4/03TB	GDC4/4/03
	B	REVISED REMARKS PER ECO #5051	8/12/03TB	GDC8/18/03
	NRC	ADDED (+)'S TO REMARKS	2/16/04TB	GDC2/18/04

WIRE LIST									
WIRE NO.	P/L ITEM NO.	AWG, COLOR	FROM REF. DES.	TERM POS	TERM (P/L) ITEM NO.	TO REF. DES.	TERM POS	TERM (P/L) ITEM NO.	REMARKS
			HPA			REMOTE			
1		WHITE PAIR 1	P5	- 1 -		-	-		3 PHASE POWER (+) PAIR 1
2		BLACK PAIR 1	P5	- 2 -		-	-		3 PHASE POWER PAIR 1
3		WHITE PAIR 2	P5	- 3 -		-	-		COMMUNICATION ERROR (+) PAIR 2
4		BROWN PAIR 2	P5	- 4 -		-	-		COMMUNICATION ERROR PAIR 2
5		WHITE PAIR 3	P5	- 5 -		-	-		FILAMENT VOLTAGE (+) PAIR 3
6		RED PAIR 3	P5	- 6 -		-	-		FILAMENT VOLTAGE PAIR 3
7		WHITE PAIR 4	P5	- 7 -		-	-		FILAMENT CURRENT (+) PAIR 4
8		ORANGE PAIR 4	P5	- 8 -		-	-		FILAMENT CURRENT PAIR 4
9		WHITE PAIR 5	P5	- 9 -		-	-		FOCUS VOLTAGE (+) PAIR 5
10		YELLOW PAIR 5	P5	- 10 -		-	-		FOCUS VOLTAGE PAIR 5
11		WHITE PAIR 6	P5	- 11 -		-	-		FOCUS CURRENT (+) PAIR 6
12		GREEN PAIR 6	P5	- 12 -		-	-		FOCUS CURRENT PAIR 6
13		WHITE PAIR 7	P5	- 13 -		-	-		GRID BIAS VOLTAGE (+) PAIR 7
14		BLUE PAIR 7	P5	- 14 -		-	-		GRID BIAS VOLTAGE PAIR 7
15		WHITE PAIR 8	P5	- 15 -		-	-		GRID BIAS CURRENT (+) PAIR 8
16		VIOLET PAIR 8	P5	- 16 -		-	-		GRID BIAS CURRENT PAIR 8
17		WHITE PAIR 9	P5	- 17 -		-	-		ION PUMP VOLTAGE (+) PAIR 9
18		GRAY PAIR 9	P5	- 18 -		-	-		ION PUMP VOLTAGE PAIR 9
19		BLACK PAIR 10	P5	- 19 -		-	-		ION PUMP CURRENT (+) PAIR 10
20	1	BROWN PAIR 10	P5	- 20 -		-	-		ION PUMP CURRENT PAIR 10
21		BLACK PAIR 11	P5	- 21 -		-	-		BEAM/COLLECTOR VOLTAGE (+) PAIR 11
22		RED PAIR 11	P5	- 22 -		-	-		BEAM/COLLECTOR VOLTAGE PAIR 11
23		BLACK PAIR 12	P5	- 23 -		-	-		BEAM/COLLECTOR CURRENT (+) PAIR 12
24		ORANGE PAIR 12	P5	- 24 -		-	-		BEAM/COLLECTOR CURRENT PAIR 12
25		BLACK PAIR 13	P5	- 25 -		-	-		CATHODE HV FAULT (+) PAIR 13
26		YELLOW PAIR 13	P5	- 26 -		-	-		CATHODE HV FAULT PAIR 13
27		BLACK PAIR 14	P5	- 27 -		-	-		COLLECTOR 5 HV FAULT (+) PAIR 14
28		GREEN PAIR 14	P5	- 28 -		-	-		COLLECTOR 5 HV FAULT PAIR 14
29		BLACK PAIR 15	P5	- 29 -		-	-		COLLECTOR 4 HV FAULT (+) PAIR 15
30		BLUE PAIR 15	P5	- 30 -		-	-		COLLECTOR 4 HV FAULT PAIR 15
31		BLACK PAIR 16	P5	- 31 -		-	-		COLLECTOR 3 HV FAULT (+) PAIR 16
32		VIOLET PAIR 16	P5	- 32 -		-	-		COLLECTOR 3 HV FAULT PAIR 16
33		BLACK PAIR 17	P5	- 33 -		-	-		COLLECTOR 2 HV FAULT (+) PAIR 17
34		GRAY PAIR 17	P5	- 34 -		-	-		COLLECTOR 2 HV FAULT PAIR 17
35		BROWN PAIR 18	P5	- 35 -		-	-		CABINET AIRFLOW (+) PAIR 18
36		RED PAIR 18	P5	- 36 -		-	-		CABINET AIRFLOW PAIR 18
37		BROWN PAIR 19	P5	- 37 -		-	-		CAVITY COOLING (+) PAIR 19
38		ORANGE PAIR 19	P5	- 38 -		-	-		CAVITY COOLING PAIR 19
39		BROWN PAIR 20	P5	- 39 -		-	-		PRIMARY COOLING (+) PAIR 20
40		YELLOW PAIR 20	P5	- 40 -		-	-		PRIMARY COOLING PAIR 20



NOTES:

- 1 LABEL TO CONTAIN PART NUMBER, REVISION LEVEL AND VENDOR I.D. PER THALES-BM SPEC #452788, USING 12 POINT BLACK HELVETICA CHARACTERS ON WHITE BACKGROUND.
- 2 LABEL AS NOTED USING 18 PT BLACK HELVETICA CHARACTERS ON A WHITE BACKGROUND.
- 3 USE PIN MARKING AS INDICATED IN END VIEW.

QTY/VERSION	PARTS LIST			
2	2	2	4	605858-01 LABEL, PIN FEED 1" X 1.4"
1	1	1	3	604566-01 CONN, CONTACT HOUSING 40 PIN
40	40	40	2	604567-01 CONN, RECT CONTACT 24-20 GOLD
100FT	75FT	50FT	1	608581-01 CABLE, 22 AWG 27 PAIR
-03	-02	-01	ITEM	PART NO.
				DESCRIPTION

MATERIAL		SEE PARTS LIST		DRWN	KEN SMYTH	2/26/03
FINISH		~		CHKD	G DeICAMPO	3/13/03
CAD FILE#		412591B1	HR TB	ENGR	R COLE	3/13/03
MANUAL DWG#		~		ENGR		
				APPD	S WARNER	3/13/03
				APPD	V CRUZ	3/13/03
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES				REMOVE BURRS AND SHARP EDGES		
TOLERANCES ±				YES <input type="checkbox"/> NO <input type="checkbox"/>		
FRACTIONS 1/32						
2 PLACE DECIMALS .03 [.8]						
3 PLACE DECIMALS .010 [.25]						
ANGLES 1/2°						
PARAGON		USED ON				
NEXT ASS'Y.						
APPLICATION						

THALES BROADCAST & MULTIMEDIA INC. SOUTHWICK, MASSACHUSETTS

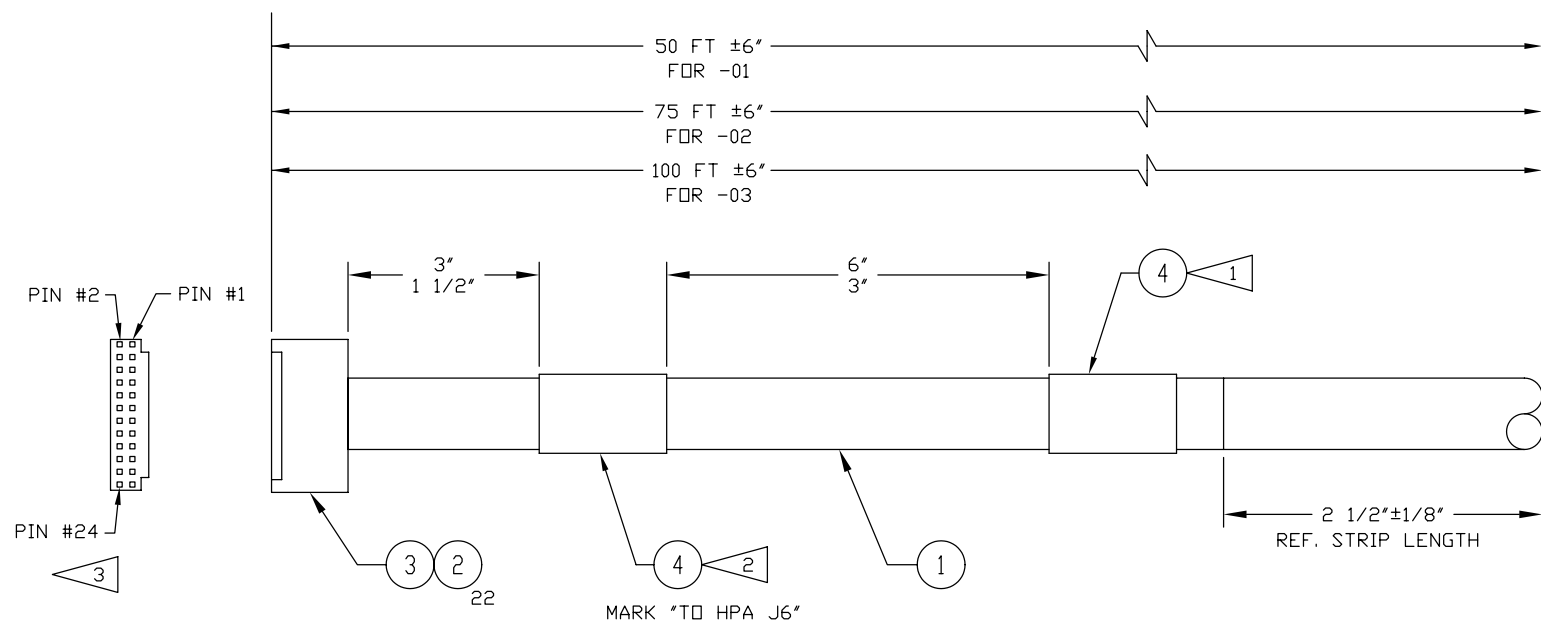
CABLE ASSEMBLY, REMOTE HPA P5

SIZE	CODE IDENT	DRAWING NO	REV.
D		412591	B
SCALE	FULL	JOB NO:	SHEET 1 OF 1

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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	ENGINEERING RELEASE	3/13/03	RLC
	NRC	ADDED NOTE 3. MARK "TO HPA J6" WAS "TO HPA J3"	4/4/03TB	GDC4/4/03
	B	REVISED REMARKS PER ECO #5051	8/12/03TB	GDC8/13/03
	NRC	ADDED (+)'S TO REMARKS	2/16/04TB	GDC2/18/04

WIRE LIST									
WIRE NO.	P/L ITEM NO.	AWG, COLOR	FROM			TO			REMARKS
			REF. DES.	TERM.	POS	REF. DES.	TERM.	POS	
			HPA			REMOTE			
1		WHITE PAIR 1	P6 - 1 -			- -			SECONDARY COOLING (+) PAIR 1
2		BLK PAIR 1	P6 - 2 -			- -			SECONDARY COOLING PAIR 1
3		WHITE PAIR 2	P6 - 3 -			- -			CABINET INTERLOCK (+) PAIR 2
4		BROWN PAIR 2	P6 - 4 -			- -			CABINET INTERLOCK PAIR 2
5		WHITE PAIR 3	P6 - 5 -			- -			GND SW INTERLOCK (+) PAIR 3
6		RED PAIR 3	P6 - 6 -			- -			GND SW INTERLOCK PAIR 3
7		WHITE PAIR 4	P6 - 7 -			- -			HVPS INTERLOCK (+) PAIR 4
8		ORANGE PAIR 4	P6 - 8 -			- -			HVPS INTERLOCK PAIR 4
9		WHITE PAIR 5	P6 - 9 -			- -			STEP-START INTERLOCK (+) PAIR 5
10		YELLOW PAIR 5	P6 - 10 -			- -			STEP-START INTERLOCK PAIR 5
11		WHITE PAIR 6	P6 - 11 -			- -			DRIVER STATUS (+) PAIR 6
12	1	GREEN PAIR 6	P6 - 12 -			- -			DRIVER STATUS PAIR 6
13		WHITE PAIR 7	P6 - 13 -			- -			RF ARC DETECTOR 1 (+) PAIR 7
14		BLUE PAIR 7	P6 - 14 -			- -			RF ARC DETECTOR 1 PAIR 7
15		WHITE PAIR 8	P6 - 15 -			- -			RF ARC DETECTOR 2 (+) PAIR 8
16		VIOLET PAIR 8	P6 - 16 -			- -			RF ARC DETECTOR 2 PAIR 8
17		WHITE PAIR 9	P6 - 17 -			- -			DRIVE POWER (+) PAIR 9
18		GRAY PAIR 9	P6 - 18 -			- -			DRIVE POWER PAIR 9
19		BLACK PAIR 10	P6 - 19 -			- -			REVERSE POWER (+) PAIR 10
20		BROWN PAIR 10	P6 - 20 -			- -			REVERSE POWER PAIR 10
21		BLACK PAIR 11	P6 - 21 -			- -			FORWARD POWER (+) PAIR 11
22		RED PAIR 11	P6 - 22 -			- -			FORWARD POWER PAIR 11
23		BLACK PAIR 12	P6 - 23 -			- -			AUTO RESTART ENABLED (+) PAIR 12
24		ORANGE PAIR 12	P6 - 24 -			- -			AUTO RESTART ENABLED PAIR 12



NOTES:

- 1 LABEL TO CONTAIN PART NUMBER, REVISION LEVEL AND VENDOR I.D. PER THALES-BM SPEC #452788, USING 12 POINT BLACK HELVETICA CHARACTERS ON WHITE BACKGROUND.
- 2 LABEL AS NOTED USING 18 PT BLACK HELVETICA CHARACTERS ON A WHITE BACKGROUND.
- 3 USE PIN MARKING AS INDICATED IN END VIEW.

QTY/VERSION	PART NO.	DESCRIPTION
2	605858-01	LABEL, PIN FEED 1" X 1.4"
1	605707-01	CONN, CONTACT HOUSING 24 PIN
24	604567-01	CONN, RECPT CONTACT 24-20 GOLD
100FT 75FT 50FT	608580-01	CABLE, 22 AWG 15 PAIR

PARTS LIST			
MATERIAL	SEE PARTS LIST	DRWN	KEN SMYTH 2/25/03
FINISH	~	CHKD	G DeCAMPD 3/13/03
CAD FILE#	412592B1	ENGR	R COLE 3/13/03
MANUAL DWG#	~	ENGR	
		APPD	S WARNER 3/13/03
		APPD	V CRUZ 3/13/03
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
TOLERANCES ±			
FRACTIONS 1/32			
2 PLACE DECIMALS .03 [L8]			
3 PLACE DECIMALS .010 [L25]			
ANGLES 1/2°			
REMOVE BURRS AND SHARP EDGES			
YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>			

THALES		BROADCAST & MULTIMEDIA INC. SOUTHWICK, MASSACHUSETTS	
CABLE ASSEMBLY, REMOTE, HPA, P6			
SIZE	CODE IDENT	DRAWING NO	REV.
C		412592	B
SCALE	FULL	JOB NO:	SHEET 1 OF 1

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D

C

B

C

B

A

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1

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