

**Table 1. P4 Connector Pinout**

P4 Connector Pin	PCB Pad Identifier	Signal Details	Label Color	Label Text
8	E8	Channel 1 AM Output	BLU	Ch1 AM OUT (8)
7	E7	Channel 1 AGC Output	BLU	Ch1 AGC Out (7)
6	E6	Channel 1 I Video Output	BLU	Ch1 IVID (6)
5	E5	Channel 1 Q Video Output	BLU	Ch1 QVID (5)
4	E4	Channel 1 PCM Input	BLU	Ch1 PCM IN (4)
3	E3	Combined AM Output	VIO	Comb AM OUT (3)
2	E2	Combined AGC Output	VIO	Comb AGC OUT (2)
1	E1	IRIG AM Time Signal Input/Output	GRN	IRIG AM I/O (1)
9-15	--	Ground	-	-

**Table 2. Assembly BOM**

Description	Qty	Manufacturer's PN	Manufacturer
Micro-DSub Aluminum Backshell	2	MEC-28M-01-303-02	Lumistar
MDM 15-pin Female Connector	1	CONN-380-015-213L001	NorComp
MDM 15-pin Female Backshell PCB	1	HARM-3428M0124501	Lumistar
UNC2-56 Thumbscrews	2	NTEC-B71014305	Northern Technologies
BNC Female RG174 Pigtail, 12"	8	LCOM-SP7363	LCOM
Heat-shrink Tubing	AR	(Common Stock)	(Various)
0-80 82-Degree Stainless Steel Screw, Flathead, 0.3125 Length	4	(Common Stock)	(Various)

**Assembly Notes:**

- 1.) Place connector identification label containing "P4" on the key side at this location. On the bottom cover place cable assembly number. You may omit the CBL- portion of the assembly number due to size constraints.
- 2.) Place pigtail identification labels with shown text and colors from table 1 at the locations shown and cover with clear heat shrink.
- 3.) Remove plastic thumbscrew covers prior to assembly.
- 4.) Table 2 provides assembly component Bill of Materials.

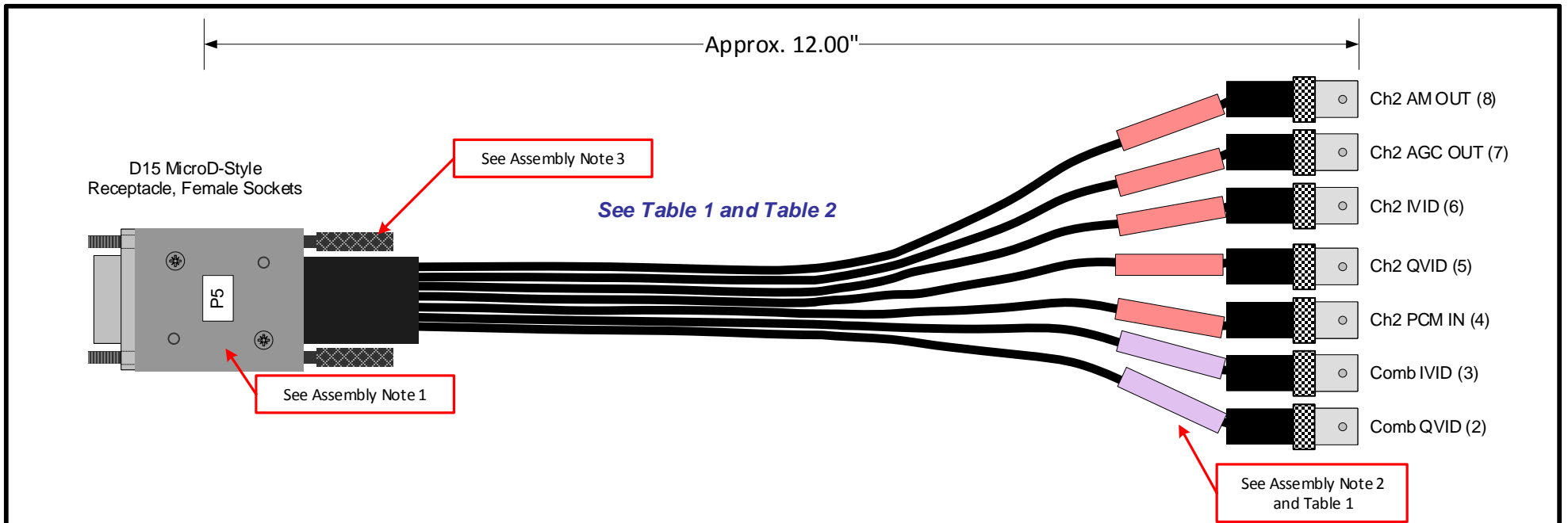
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Title:  
**LS-28-M P4 Cable Assembly**

Size A	Document Number: CBL-28M-01-P4-03	REV -
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**Table 1. P5 Connector Pinout**

P5 Connector Pin	PCB Pad Identifier	Signal Details	Label Color	Label Text
8	E8	Channel 2 AM Output	Lt. RED	Ch2 AM OUT (8)
7	E7	Channel 2 AGC Output	Lt. RED	Ch2 AGC Out (7)
6	E6	Channel 2 I Video Output	Lt. RED	Ch2 IVID (6)
5	E5	Channel 2 Q Video Output	Lt. RED	Ch2 QVID (5)
4	E4	Channel 2 PCM Input	Lt. RED	Ch2 PCM IN (4)
3	E3	Combined I Video Output	VIO	Comb IVID (3)
2	E2	Combined Q Video Output	VIO	Comb QVID (2)
9-15	--	Ground	-	-

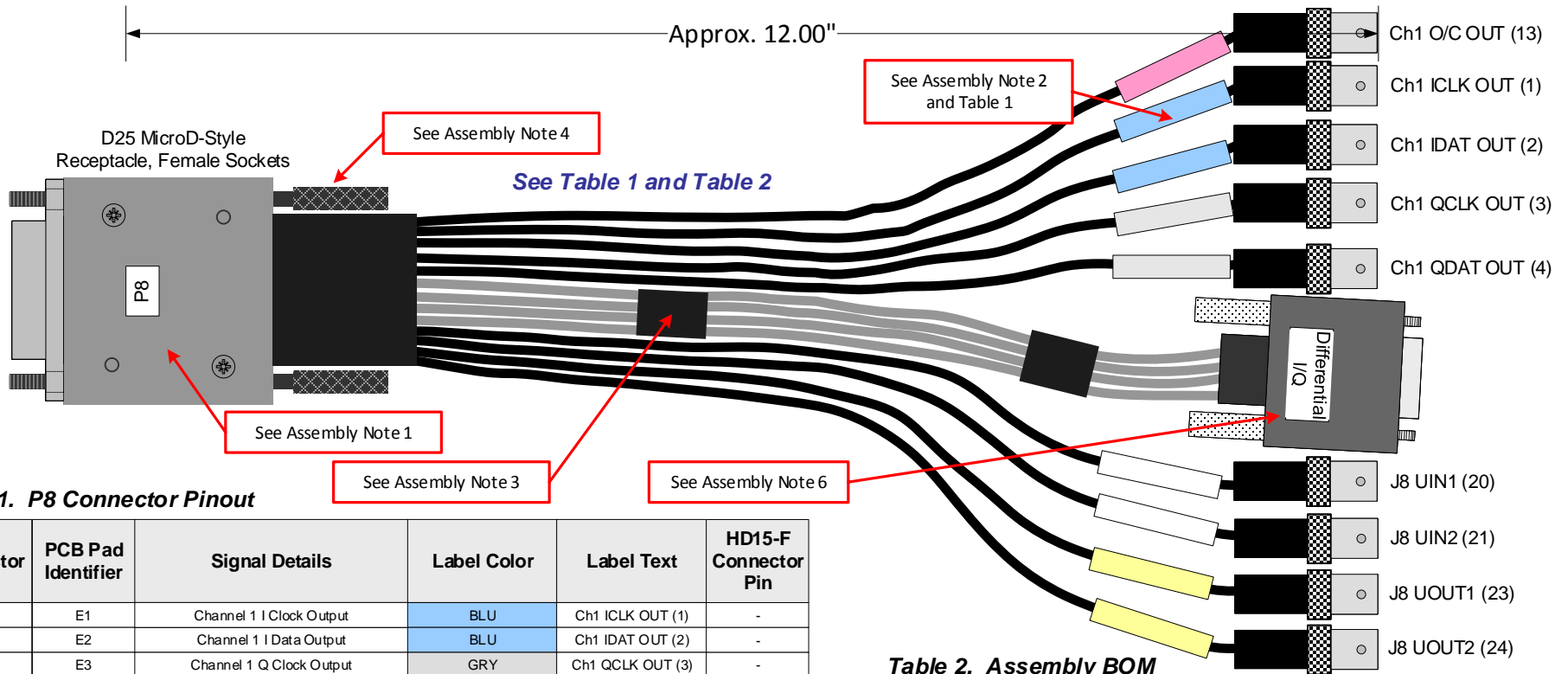
**Table 2. Assembly BOM**

Description	Qty	Manufacturers PN	Manufacturer
Micro-DSub Aluminum Backshell	2	MEC-28M-01-303-02	Lumistar
MDM 15-pin Female Connector	1	CONN-380-015-213L001	NorComp
MDM 15-pin Female Backshell PCB	1	HARM-3428M0124501	Lumistar
UNC2-56 Thumbscrews	2	NTEC-B71014305	Northern Technologies
BNC Female RG174 Pigtail, 12"	7	LCOM-SP7363	LCOM
Heat-shrink Tubing	AR	(Common Stock)	(Various)
0-80 82-Degree Stainless Steel Screw, Flathead, 0.3125 Length	4	(Common Stock)	(Various)

**Assembly Notes:**

- 1.) Place connector identification label containing "P5" on the key side at this location. On the bottom cover place cable assembly number. You may omit the CBL- portion of the assembly number due to size constraints.
- 2.) Place pigtail identification labels with shown text and colors from Table 1 at the locations shown and cover with clear heat shrink.
- 3.) Remove plastic thumbscrew covers prior to assembly.
- 4.) Table 2 provides assembly component Bill of Materials.

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**Table 1. P8 Connector Pinout**

P8 Connector Pin	PCB Pad Identifier	Signal Details	Label Color	Label Text	HD15-F Connector Pin
1	E1	Channel 1 I Clock Output	BLU	Ch1 ICLK OUT (1)	-
2	E2	Channel 1 I Data Output	BLU	Ch1 IDAT OUT (2)	-
3	E3	Channel 1 Q Clock Output	GRY	Ch1 QCLK OUT (3)	-
4	E4	Channel 1 Q Data Output	GRY	Ch1 QDAT OUT (4)	-
5	E5	Channel 1 I Clock (+) Output	-	-	1
6	E6	Channel 1 I Clock (-) Output	-	-	11
7	E7	Channel 1 I Data (+) Output	-	-	2
8	E8	Channel 1 I Data (-) Output	-	-	12
9	E9	Channel 1 Q Clock (+) Output	-	-	4
10	E10	Channel 1 Q Clock (-) Output	-	-	14
11	E11	Channel 1 Q Data (+) Output	-	-	5
12	E12	Channel 1 Q Data (-) Output	-	-	15
13	E13	Ch1 Open/Collector Output	PNK	Ch1 O/C OUT (13)	-
20	E20	J8 User Defined Input 20	WHT	J8 UIN1 (20)	-
21	E21	J8 User Defined Input 21	WHT	J8 UIN2 (21)	-
23	E23	J8 User Defined Output 23	YEL	J8 UOUT1 (23)	-
24	E24	J8 User Defined Input 24	YEL	J8 UOUT2 (24)	-
14-19, 22	--	Ground	-	-	6, 7, 9, 10

**Table 2. Assembly BOM**

Description	Qty	Manufacturers PN	Manufacturer
Micro-DSub Aluminum Backshell	2	MEC-28M-01-301-02	Lumistar
MDM 25-pin Female Connector	1	CONN-380-025-213L001	NorComp
MDM 25-pin Female Backshell PCB	1	HARM-3428M0138901	Lumistar
UNC2-56 Thumbscrews	2	NTEC-B71014305	Northern Technologies
BNC Female RG174 Pigtail, 12"	9	LCOM-SP7363	LCOM
Heat-shrink Tubing	AR	(Common Stock)	(Various)
0-80 82-Degree Stainless Steel Screw, Flathead, 0.3125 Length	4	(Common Stock)	(Various)
HD15 Female Connector, Solder Cup	1	CONN-180-015-203L001	NorComp
HD15 Backshell Kit w/Thumbscrews	1	CONN-973-009-10R011	NorComp
1 Ft. Twisted-Shielded Pair, 26AWG, 110 Ohm	4	CABL-55A1121-26-6/9-9	TE/Raychem

**Assembly Notes:**

- 1.) Place connector identification label containing "P8" on the key side at this location. On the bottom cover place cable assembly number. You may omit the CBL- portion of the assembly number due to size constraints.
- 2.) Place pigtail identification labels with shown text and colors from table 1 at the locations shown and cover with clear heat shrink.
- 3.) Bundle twisted-shielded pair cables at approximate 4" intervals to keep cables together.
- 4.) Remove plastic thumbscrew covers prior to assembly.
- 5.) Table 2 provides assembly component Bill of Materials.
- 6.) Label HD15 Backshell as shown.

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Title:  
**LS-28-M P8 Cable Assembly**

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## User IO Selection Table for J8

Signal Mnemonic	Connector Pin	Signal Description	Signal Direction	Signal Characteristics
C1EGPIO1	J8-13	Ch1 Open Collector Out	Output	Open/Collector
J8UIO1	J8-20	Ch1 External Clock In	Input	5V TTL
		PCM Encoder1 Clock In	Input	5V TTL
		Trigger1 In	Input	5V TTL
		AUX1 Clock In	Input	5V TTL
J8UIO2	J8-21	Ch1 External Data In	Input	5V TTL
		PCM Encoder1 Data In	Input	5V TTL
		Trigger2 In	Input	5V TTL
		AUX1 Data In	Input	5V TTL
J8UIO3	J8-23	Combiner Clock Out	Output	5V TTL
		Simulator1_TXD1 Clock Out	Output	5V TTL
		Slave1 Clock Out	Output	5V TTL
		AUX1 Clock Out	Output	5V TTL
		Simulator1_TXD1 Strobe Out	Output	5V TTL
		Decom1 Strobe Out	Output	5V TTL
		Simulator1_TXD1 Strobe Out N	Output	5V TTL
		Decom1 Strobe Out N	Output	5V TTL
J8UIO4	J8-24	Combiner Data Out	Output	5V TTL
		Simulator1_TXD1 Data Out	Output	5V TTL
		Slave1 Data Out	Output	5V TTL
		AUX1 Data Out	Output	5V TTL
		Simulator1_TXD1 Strobe Out	Output	5V TTL
		Decom1 Strobe Out	Output	5V TTL
		Simulator1_TXD1 Strobe Out N	Output	5V TTL
		Decom1 Strobe Out N	Output	5V TTL

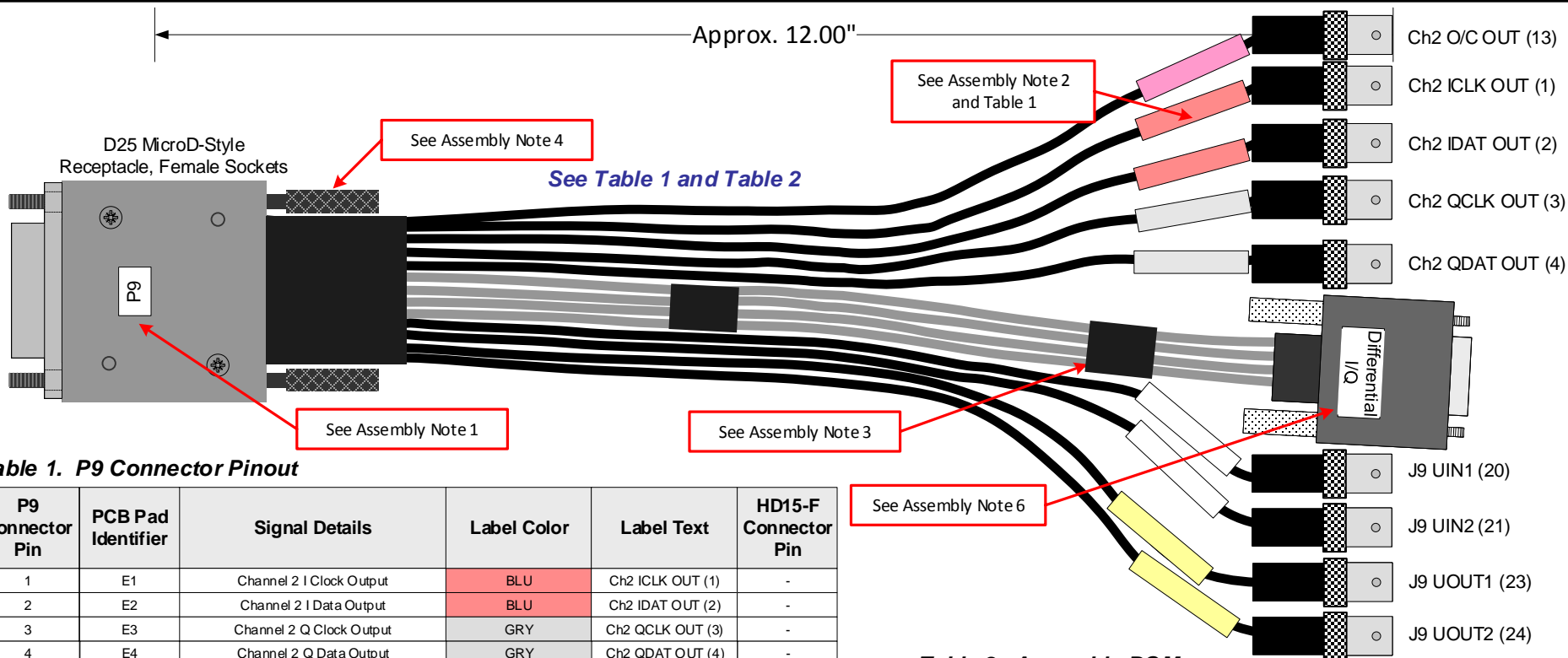
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**LS-28-M P8 Cable Assembly**

Size A	Document Number: CBL-28M-01-P8-03	REV -
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**Table 1. P9 Connector Pinout**

P9 Connector Pin	PCB Pad Identifier	Signal Details	Label Color	Label Text	HD15-F Connector Pin
1	E1	Channel 2 I Clock Output	BLU	Ch2 ICLK OUT (1)	-
2	E2	Channel 2 I Data Output	BLU	Ch2 IDAT OUT (2)	-
3	E3	Channel 2 Q Clock Output	GRY	Ch2 QCLK OUT (3)	-
4	E4	Channel 2 Q Data Output	GRY	Ch2 QDAT OUT (4)	-
5	E5	Channel 2 I Clock (+) Output	-	-	1
6	E6	Channel 2 I Clock (-) Output	-	-	11
7	E7	Channel 2 I Data (+) Output	-	-	2
8	E8	Channel 2 I Data (-) Output	-	-	12
9	E9	Channel 2 Q Clock (+) Output	-	-	4
10	E10	Channel 2 Q Clock (-) Output	-	-	14
11	E11	Channel 2 Q Data (+) Output	-	-	5
12	E12	Channel 2 Q Data (-) Output	-	-	15
13	E13	Channel 2 Open Collector Output	PNK	Ch2 O/C OUT (13)	15
20	E20	J9 User Defined Input 20	WHT	J9 UIN1 (20)	-
21	E21	J9 User Defined Input 21	WHT	J9 UIN2 (21)	-
23	E23	J9 User Defined Output 23	YEL	J9 UOUT1 (23)	-
24	E24	J9 User Defined Output 24	YEL	J9 UOUT2 (24)	-
14-19, 22	--	Ground	-	-	6, 7, 9, 10

**Table 2. Assembly BOM**

Description	Qty	Manufacturers PN	Manufacturer
Micro-DSub Aluminum Backshell	2	MEC-28M-01-301-02	Lumistar
MDM 25-pin Female Connector	1	CONN-380-025-213L001	NorComp
MDM 25-pin Female Backshell PCB	1	HARM-3428M0138901	Lumistar
UNC2-56 Thumbscrews	2	NTEC-B71014305	Northern Technologies
BNC Female RG174 Pigtail, 12"	9	LCOM-SP7363	LCOM
Heat-shrink Tubing	AR	(Common Stock)	(Various)
0-80 82-Degree Stainless Steel Screw, Flathead, 0.3125 Length	4	(Common Stock)	(Various)
HD15 Female Connector, Solder Cup	1	CONN-180-015-203L001	NorComp
HD15 Backshell Kit w/Thumbscrews	1	CONN-973-009-10R011	NorComp
1 Ft. Twisted-Shielded Pair, 26AWG, 110 Ohm	4	CABL-55A1121-26-6/9-9	TE/Raychem

**Assembly Notes:**

- Place connector identification label containing "P9" on the key side at this location. On the bottom cover place cable assembly number. You may omit the CBL- portion of the assembly number due to size constraints.
- Place pigtail identification labels with shown text and colors from table 1 at the locations shown and cover with clear heat shrink.
- Bundle twisted-shielded pair cables at approximate 4" intervals to keep cables together.
- Remove plastic thumbscrew covers prior to assembly.
- Table 2 provides assembly component Bill of Materials.
- Label HD15 Backshell as shown.

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Title:  
**LS-28-M P9 Cable Assembly**

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## User IO Selection Table for J9

Signal Mnemonic	Connector Pin	Signal Description	Signal Direction	Signal Characteristics
C1EGPIO9	J9-13	Ch2 Open Collector Out	Output	Open/Collector
J9UIO1	J9-20	Ch2 External Clock In	Input	5V TTL
		PCM Encoder2 Clock In	Input	5V TTL
		Trigger3 In	Input	5V TTL
		AUX2 Clock In	Input	5V TTL
J9UIO2	J9-21	Ch1 External Data In	Input	5V TTL
		PCM Encoder2 Data In	Input	5V TTL
		Trigger4 In	Input	5V TTL
		AUX2 Data In	Input	5V TTL
J9UIO3	J9-23	Simulator1_TXD1 Clock Out N	Output	5V TTL
		Simulator2_TXD2 Clock Out	Output	5V TTL
		Slave2 Clock Out	Output	5V TTL
		AUX2 Clock Out	Output	5V TTL
		Simulator2_TXD2 Strobe Out	Output	5V TTL
		Decom2 Strobe Out	Output	5V TTL
		Simulator2_TXD2 Strobe Out N	Output	5V TTL
		Decom2 Strobe Out N	Output	5V TTL
J9UIO4	J9-24	Simulator1_TXD1 Data Out N	Output	5V TTL
		Simulator2_TXD2 Data Out	Output	5V TTL
		Slave2 Data Out	Output	5V TTL
		AUX2 Data Out	Output	5V TTL
		Simulator2_TXD12 Strobe Out	Output	5V TTL
		Decom2 Strobe Out	Output	5V TTL
		Simulator2_TXD2 Strobe Out N	Output	5V TTL
		Decom2 Strobe Out N	Output	5V TTL

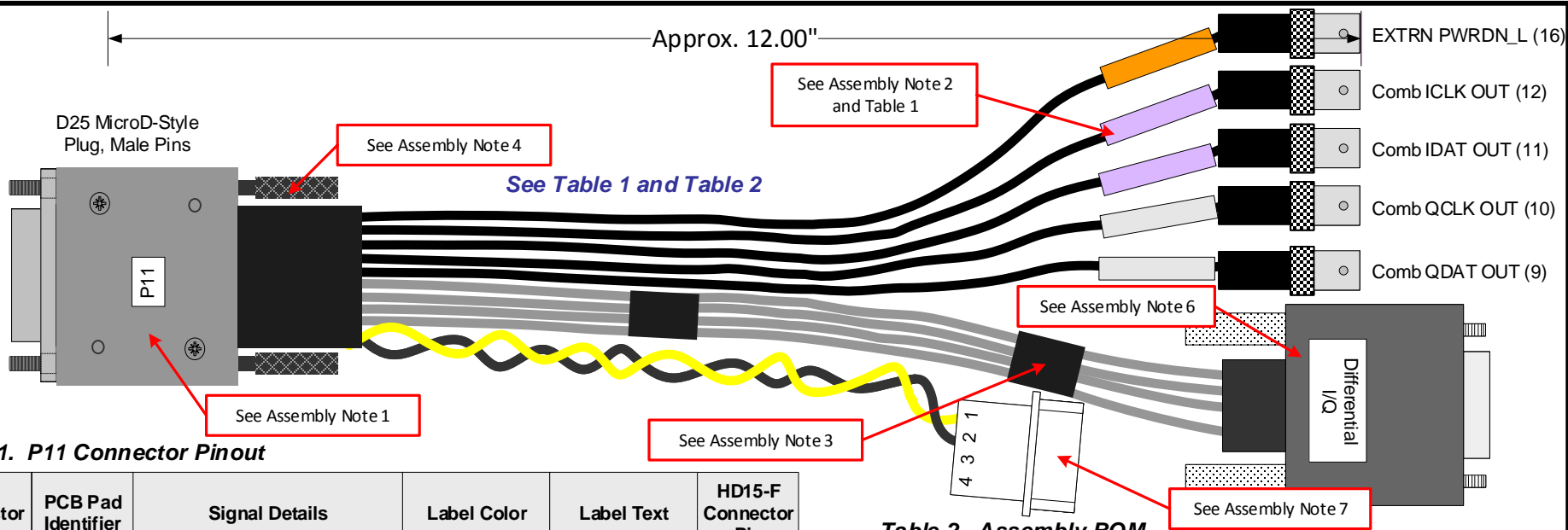
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Title:  
**LS-28-M P9 Cable Assembly**

Size A	Document Number: CBL-28M-01-P9-03	REV -
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**Table 1. P11 Connector Pinout**

P11 Connector Pin	PCB Pad Identifier	Signal Details	Label Color	Label Text	HD15-F Connector Pin
12	E12	Combined I Clock Output	VIO	Comb ICLK OUT (12)	-
11	E11	Combined I Data Output	VIO	Comb IDAT OUT (11)	-
10	E10	Combined Q Clock Output	GRY	Comb QCLK OUT (10)	-
9	E9	Combined Q Data Output	GRY	Comb QDAT OUT (9)	-
8	E8	Combined I Clock (+) Output	-	-	1
7	E7	Combined I Clock (-) Output	-	-	11
6	E6	Combined I Data (+) Output	-	-	2
19	E19	Combined I Data (-) Output	-	-	12
5	E5	Combined Q Clock (+) Output	-	-	4
4	E4	Combined Q Clock (-) Output	-	-	14
3	E3	Combined Q Data (+) Output	-	-	5
2	E2	Combined Q Data (-) Output	-	-	15
13	E13	9-42VDC Input Supply	(YEL 16AWG)	-	-
24		9-42VDC Input Supply			
25		9-42VDC Input Supply			
1	E1	9-42VDC Input Return	(BLK 16AWG)	-	-
14		9-42VDC Input Return			
15		9-42VDC Input Return			
16	E16	External Power Down, Active Low	ORG	EXTRN PWRDN_L	-
17, 18, 20, 21, 22, 23	--	Ground	-	-	-

**Table 2. Assembly BOM**

Description	Qty	Manufacturers PN	Manufacturer
MDM Male Aluminum Backshell	2	MEC-28M-01-302-02	Lumistar
MDM 25-pin Male Connector	1	CONN-380-025-113L001	NorComp
MDM 25-pin Male Backshell PCB	1	HARM-3428M0141101	Lumistar
UNC2-56 Thumbscrews	2	NTEC-B71014305	Northern Technologies
BNC Female RG174 Pigtail, 12"	5	LCOM-SP7363	LCOM
Heat-shrink Tubing	AR	(Common Stock)	(Various)
0-80 82-Degree Stainless Steel Screw, Flathead, 0.3125 Length	4	(Common Stock)	(Various)
HD15 Female Connector, Solder Cup	1	CONN-180-015-203L001	NorComp
HD15 Backshell Kit w/Thumbscrews	1	CONN-973-009-10R011	NorComp
1 Ft. Twisted-Shielded Pair, 26AWG, 110 Ohm	4	CABL-55A1121-26-6/9-9	TE/Raychem
PC Peripheral Pwr Con., 4pos	1	CONN-1-480426-0	Tyco
PC Peripheral Pwr Con., Male pin	2	CONN-DMC-01B	Adam Tech
1 Ft. 16AWG Cable, Stranded, BLK/YEL	1 ea	CABL-AWG16 STRD	(Various)

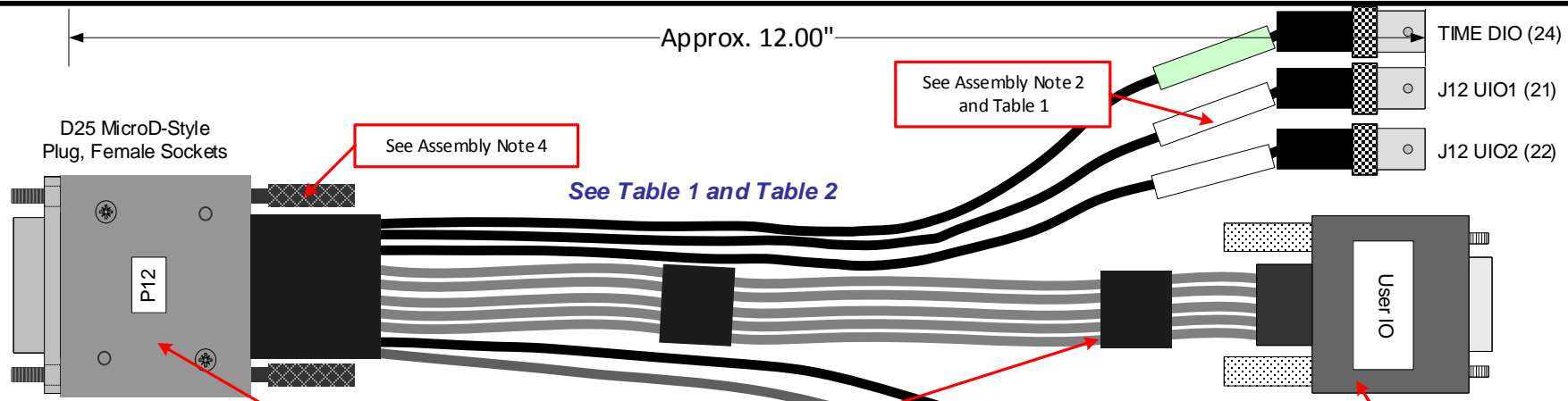
**Assembly Notes:**

- Place connector identification label containing "P11" on the key side at this location. On the bottom cover place cable assembly number. You may omit the CBL- portion of the assembly number due to size constraints.
- Place pigtail identification labels with shown text and colors from table 1 at the locations shown and cover with clear heat shrink.
- Bundle twisted-shielded pair cables at approximate 4" intervals to keep cables together.
- Remove plastic thumbscrew covers prior to assembly.
- Table 2 provides assembly component Bill of Materials.
- Label HD15 Backshell as shown.
- Connect yellow 16AWG power wire to pin 1 and black 16AWG wire to pin 2 as shown.

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Title:  
**LS-28-M P11 Cable Assembly**

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**Table 1. P12 Connector Pinout**

P12 Connector Pin	PCB Pad Identifier	Signal Details	Cable	Label Color	Label Text	HDSUB 15 Pin	DSub 9 Pin
2	E2	J12 User Defined IO 1 (+)	TSP (+)	-	-	1	-
3	E3	J12 User Defined IO 1 (-)	TSP (-)	-	-	11	-
4	E4	J12 User Defined IO 2 (+)	TSP (+)	-	-	2	-
5	E5	J12 User Defined IO 2 (-)	TSP (-)	-	-	12	-
6	E6	J12 User Defined IO 3 (+)	TSP (+)	-	-	4	-
18	E18	J12 User Defined IO 3 (-)	TSP (-)	-	-	14	-
8	E8	J12 User Defined IO 4 (+)	TSP (+)	-	-	5	-
20	E20	J12 User Defined IO 4 (-)	TSP (-)	-	-	15	-
10	E10	J12 User Defined IO 10	TSP (+)	-	-	3	-
11	E11	J12 User Defined IO 11	TSP (-)	-	-	13	-
21	E21	J12 User Defined IO 21	RG174	WHT	J12 UIO (21)	-	-
22	E22	J12 User Defined IO 22	RG174	WHT	J12 UIO (22)	-	-
13	E13	USB Diff + (White Wire)	USB-B Cable	-	-	-	-
25	E25	USB Diff - (Green Wire)		-	-	-	-
(GND)	--	USB Ground (Black Wire)		-	-	-	-
1	E1	RS232 Serial Comm TXD	9180-060 TSP Cable	-	-	-	2
14	E14	RS232 Serial Comm RXD		-	-	-	3
(GND)	--	RS232 Serial Ground		-	-	-	5
24	E24	Time Synchronization 1PPS I/O	RG174	GRN	TIME DIO (24)	-	-
7,9,12,15,16,17,19,23	--	Ground	-	-	-	-	-

**Assembly Notes:**

- 1.) Place connector identification label containing "P12" on the key side at this location. On the bottom cover place cable assembly number. You may omit the CBL- portion of the assembly number due to size constraints.
- 2.) Place pigtail identification labels with shown text and colors from table 1 at the locations shown and cover with clear heat shrink.
- 3.) Bundle twisted-shielded pair cables at approximate 4" intervals to keep cables together.
- 4.) Remove plastic thumbscrew covers prior to assembly.
- 5.) Table 2 provides assembly component Bill of Materials.
- 6.) Label HD15 Backshell as shown.
- 7.) Modify MAND-6845548 assembly to provide connection as shown.
- 8.) For the RS232 cable, utilize the 9180-060 Belden TSP.

**Table 2. Assembly BOM**

Description	Qty	Manufacturers PN	Manufacturer
Micro-DSub Aluminum Backshell	2	MEC-28M-01-301-02	Lumistar
MDM 25-pin Female Connector	1	CONN-380-025-213L001	NorComp
MDM 25-pin Female Backshell PCB	1	HARM-3428M0141201	Lumistar
UNC2-56 Thumbscrews	2	NTEC-B71014305	Northern Technologies
BNC Female RG174 Pigtail, 12"	5	LCOM-SP7363	LCOM
Heat-shrink Tubing	AR	(Common Stock)	(Various)
0-80 82-Degree Stainless Steel Screw, Flathead, 0.3125 Length	4	(Common Stock)	(Various)
HD15 Female Connector, Solder Cup	1	CONN-180-015-203L001	NorComp
D9 Female Connector, Solder Cup	1	CONN-171-009-203L001	NorComp
Backshell Kit w/Thumbscrews	2	CONN-973-009-10R011	NorComp
1 Ft. Twisted-Shielded Pair, 26AWG, 110 Ohm	6	CABL-55A1121-26-6/9-9	TE/Raychem
USB-B Receptacle Pigtail, 254mm.	1	MAND-6845548	Mandyann
1 Ft. 26AWG TSP, Audio Cable	1	CABL-9180-060	Belden

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Title:  
**LS-28-M P12 Cable Assembly**

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Signal Mnemonic	Connector Pin	Signal Description - Input	Signal Description - Output	Signal Direction	Signal Characteristics
J12UIO1	J12-2	Ch1 External Clock In +	Ch1 Clock Out +	Input/Out	RS422
		PCM Encoder1 Clock In +	Simulator1_TXD1 Clock Out +	Input/Out	RS422
		Trigger1 In +	Slave1 Clock Out +	Input/Out	RS422
		AUX1 Clock In +	Combiner Clock Out +	Input/Out	RS422
J12UIO2 (*)	J12-3	Ch1 External Clock In -	Ch1 External Clock Out -	Input/Out	RS422
		PCM Encoder1 Clock In -	Simulator1_TXD1 Clock Out -	Input/Out	RS422
		Trigger1 In -	Slave1 Clock Out -	Input/Out	RS422
		AUX1 Clock In -	Combiner Clock Out -	Input/Out	RS422
J12UIO3	J12-4	Ch1 External Data In +	Ch1 Data Out +	Input/Out	RS422
		PCM Encoder1 Data In +	Simulator1_TXD1 Data Out +	Input/Out	RS422
		Trigger2 In +	Slave1 Data Out +	Input/Out	RS422
		AUX1 Data In +	Combiner Data Out +	Input/Out	RS422
J12UIO4 (*)	J12-5	Ch1 External Data In -	Ch1 Data Out -	Input/Out	RS422
		PCM Encoder1 Data In -	Simulator1_TXD1 Data Out -	Input/Out	RS422
		Trigger2 In -	Slave1 Data Out -	Input/Out	RS422
		AUX1 Data In -	Combiner Data Out -	Input/Out	RS422
J12UIO5	J12-6	Ch2 External Clock In +	Ch2 Clock Out +	Input/Out	RS422
		PCM Encoder2 Clock In +	Simulator2_TXD2 Clock Out +	Input/Out	RS422
		Trigger3 In +	Slave2 Clock Out +	Input/Out	RS422
		AUX2 Clock In +	Combiner Clock Out +	Input/Out	RS422
			Simulator1_TXD1 Clock Out +	Input/Out	RS422
J12UIO6 (*)	J12-18		Simulator1_TXD1 Strobe Out +	Input/Out	RS422
		Ch2 External Clock In -	Ch2 External Clock Out -	Input/Out	RS422
		PCM Encoder2 Clock In -	Simulator2_TXD1 Clock Out -	Input/Out	RS422
		Trigger3 In -	Slave2 Clock Out -	Input/Out	RS422
		AUX2 Clock In -	Combiner Clock Out -	Input/Out	RS422
J12UIO7	J12-8		Simulator1_TXD1 Clock Out -	Input/Out	RS422
			Simulator1_TXD1 Strobe Out -	Input/Out	RS422
		Ch2 External Data In +	Ch2 Data Out +	Input/Out	RS422
		PCM Encoder2 Data In +	Simulator1_TXD1 Data Out +	Input/Out	RS422
		Trigger4 In +	Slave2 Data Out +	Input/Out	RS422
J12UIO8 (*)	J12-20	AUX2 Data In +	Combiner Data Out +	Input/Out	RS422
			Simulator1_TXD1 Data Out +	Input/Out	RS422
			Decom1 Strobe Out +	Input/Out	RS422
		Ch2 External Data In -	Ch2 Data Out -	Input/Out	RS422
		PCM Encoder2 Data In -	Simulator2_TXD2 Data Out -	Input/Out	RS422
J12UIO9	J12-21	Trigger4 In -	Slave2 Data Out -	Input/Out	RS422
		AUX2 Data In -	Combiner Data Out -	Input/Out	RS422
			Simulator1_TXD1 Data Out -	Input/Out	RS422
			Decom1 Strobe Out -	Input/Out	RS422
J12UIO10	J12-22	Preset Select B0	Ch1 Carrier Lock	Input/Out	5V TTL
		External Status Trigger 1	Ch1 Bit Sync Lock	Input/Out	5V TTL
			Ch1 Signal Quality Lock	Input/Out	5V TTL
			Stream 1 Lock	Input/Out	5V TTL
J12UIO11	J12-10	Preset Select B1	Ch2 Carrier Lock	Input/Out	5V TTL
		External Status Trigger 2	Ch2 Bit Sync Lock	Input/Out	5V TTL
			Ch2 Signal Quality Lock	Input/Out	5V TTL
			Stream 2 Lock	Input/Out	5V TTL
J12UIO12	J12-11	Preset Select B2	Combiner Carrier Lock	Input/Out	5V TTL
		External Status Trigger 3	Combiner Bit Sync Lock	Input/Out	5V TTL
			Combiner Signal Quality Lock	Input/Out	5V TTL
			Stream 3 Lock	Input/Out	5V TTL
J12UIO12	J12-11	Preset Select B3	Time Lock	Input/Out	5V TTL
		External Status Trigger 4	Reference Lock	Input/Out	5V TTL
			Stream 1 Lock	Input/Out	5V TTL
			Stream 2 Lock	Input/Out	5V TTL

## User IO Selection Table for J12

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2270 Camino Vida Roble, Suite L  
Carlsbad, CA 92011 (760) 431-2181

Title:  
**LS-28-M P12 Cable Assembly**

Size A	Document Number: CBL-28M-01-P12-03	REV -
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Date: 04/05/19

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