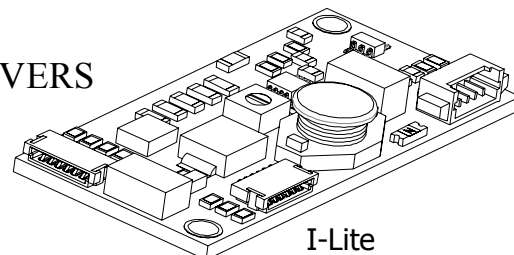


APPLICATION NOTE

03/23/11

DRIVING OPTREX PANELS WITH ACI I-LITE LED DRIVERS



1. Identify the Optrex Panel P/N to be driven, from Table 1 below.
2. Use the ACI I-Lite LED Driver specified in Table 1.
3. Using a small flat-head screwdriver, set the position of the S1 Switch on the LED Driver, per the setting shown in Table 1 (Refer to Figure 1 on page 4 for illustration of S1 Switch positions).
4. Connect the LED Driver to the Display per the connection diagram specified in Table 1. Verify if an output cable assembly is required, to connect the driver to the display, per Table 1.
5. Use Input Cable Assembly P/N 27-A0031, to interface with CON1 of LED Driver.
6. Output cable assembly with 10 inch flying leads available (P/N 27-R0070).

Display Specifications				LED Driver Specifications				
Optrex Panel P/N	Size	# of Channels	Vf (V) Max	Current per Channel (mA) Typ.	Switch Setting (S1)	ACI I-Lite LED Driver P/N	Output Cable Assembly (to connect driver to display)	Connection Diagram
4.3 WVGA (800x400)								
T-55226D043J-LW-A-AAN	4.3"	2	16	15 20	B C	ACI-A038010-1885	(1) 27-R0070	Fig. 5, Pg6
5.0 WVGA (800x400)								
T-55290GD050J-LW-A-AAN	5.0"	2	23.4	15 20	B C	ACI-A038010-1885	(1) 27-R0070	Fig. 5, Pg6
T-55382GD050JU-LW-A-AAN	5.0"	2	20	15 20	B C	ACI-A038010-1885	(1) 27-R0070	Fig. 6, Pg7
T-55382GD050JU-LW-A-ABN	5.0"	2	24.5	15 20	B C	ACI-A038010-1885	(1) 27-R0070	Fig. 6, Pg7
T-55423GD050J-LW-A-ABN	5.0"	2	20	15 20	B C	ACI-A038010-1885	(1) 27-R0070	Fig. 6, Pg7
T-55423GD050J-LW-AAN	5.0"	2	23.8	15 20	B C	ACI-A038010-1885	(1) 27-R0070	Fig. 6, Pg7
T-55583GD050J-LW-A-AAN	5.0"	4	24	15 20	A D	ACI-A038010-1885	(2) 27-R0070	Fig. 7, Pg8

TABLE 1. – Driving Optrex Panels (Part 1 of 3)



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397 Route 281 – P.O. Box 1175
Tully, New York 13159-1175
Phone: 315 696-6676
Fax: 315 696 9923
Email: sales@acipower.com
www.acipower.com

APPLICATION NOTE

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DRIVING OPTREX PANELS WITH ACI I-LITE LED DRIVERS

Display Specifications				LED Driver Specifications					
Optrex Panel P/N	Size	# of Channels	Vf (V) Max	Current per Channel (mA) Typ.	Switch Setting (S1)	ACI I-Lite LED Driver P/N	Output Cable Assembly (to connect driver to display)	Connection Diagram	
5.7 QVGA (320x240)									
T-55265GD057J-LW-ABN	5.7"	3	13.2	60	B	ACI-A038040-1855	Not Required	Fig. 3, Pg5	
T-55265GD057J-LW-ACN	5.7"	3	13.2	60	B	ACI-A038040-1855	Not Required	Fig. 3, Pg5	
5.7 VGA (640x480)									
T-55265GD057J-LW-AAN	5.7"	3	13.2	60	B	ACI-A038040-1855	Not Required	Fig. 3, Pg5	
T-55548GD057JU-LW-ABN	5.7"	2	16	90	B	ACI-A038040-1855	Not Required	Fig. 3, Pg5	
6.5 VGA (640x480)									
T-51750GD065J-LW-ANN	6.5"	4	32	35	C	ACI-A038040-1855	Not Required	Fig. 4, Pg5	
T-51750GD065J-LW-AON	6.5"	4	32	35	C	ACI-A038040-1855	Not Required	Fig. 4, Pg5	
T-51750GD065J-LW-AQN	6.5"	4	32	35	C	ACI-A038040-1855	Not Required	Fig. 4, Pg5	
T-55465D065J-LW-A-AAN	6.5"	2	23.7	90	B	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
T-55465D065J-LW-A-ABN	6.5"	2	22	90	B	ACI-A038040-1855	(1) 27-A0060		
T-55629D065J-LW-A-AAN	6.5"	2	22	90	B	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
8.4 VGA (640x480)									
T-55467D084J-LW-A-AAN	8.4"	2	38	70	C	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
8.4 SVGA (800x600)									
T-55466D084J-LW-A-AAN	8.4"	2	38	70	C	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
T-55466D084J-LW-A-ABN	8.4"	2	38	70	C	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
T-55466D084J-LW-A-ACN	8.4"	2	38	90	B	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
8.4 XGA (1024X768)									
T-55549D084J-LW-A-AAN	8.4"	2	38	70	C	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
T-55549D084J-LW-A-ACN	8.4"	2	38	90	B	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
9.0 SVGA (800x600)									
T-5561D090J-LW-A-AAN	9.0"	2	32.6	90	B	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
T-5561D090J-LW-A-ABN	9.0"	2	32.6	90	B	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
T-55562D090J-LW-A-AAN	9.0"	2	32.3	90	B	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
T-55562D090J-LW-A-ABN	9.0"	2	32.3	90	B	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	

TABLE 1. – Driving Optrex Panels (Part 2 of 3)



397 Route 281 – P.O. Box 1175
 Tully, New York 13159-1175
 Phone: 315 696-6676
 Fax: 315 696 9923
 Email: sales@acipower.com
 www.acipower.com

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APPLICATION NOTE

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DRIVING OPTREX PANELS WITH ACI I-LITE LED DRIVERS

Display Specifications				LED Driver Specifications					
Optrex Panel P/N	Size	# of Channels	Vf (V) Max	Current per Channel (mA) Typ.	Switch Setting (S1)	ACI I-Lite LED Driver P/N	Output Cable Assembly (to connect driver to display)	Connection Diagram	
10.4 VGA (640x480)									
T-55532D104J-LW-A-AAN	10.4"	2	35.9	90	B	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
T-55532D104J-LW-A-ABN	10.4"	2	35.9	90	B	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
10.4 SVGA (800x 600)									
T-55563D104J-LW-A-AAN	10.4"	2	36.0	70	C	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
10.4 XGA (1024x768)									
T-55533D104J-LW-A-AAN	10.4"	2	27	120	A	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
12.1 SVGA (800x600)									
T-55373D121J-LW-A-AAN	12.1"	2	32.8	120	A	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
T-55374D121J-LW-A-AAN	12.1"	2	32.8	120	A	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	
12.1 SGA (1024x768)									
T-55513D121J-LW-A-AAN	12.1"	2	33.6	120	A	ACI-A038040-1855	(1) 27-A0060	Fig. 2, Pg5	

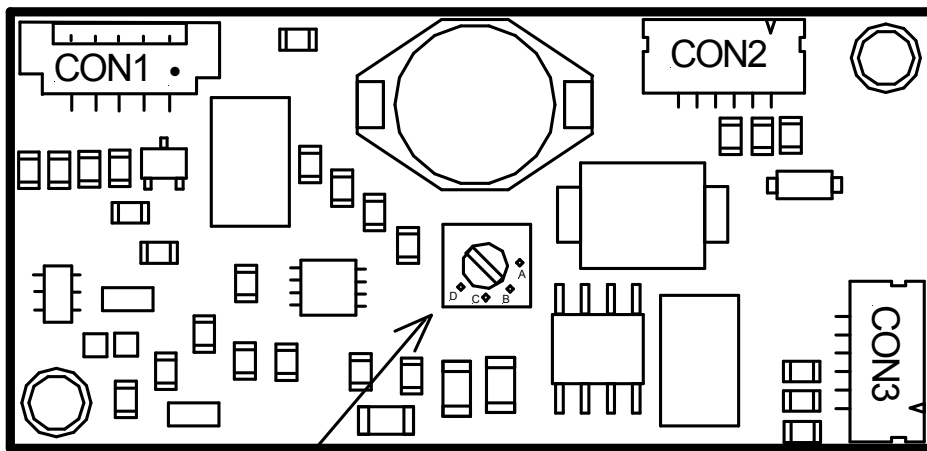
TABLE 1. – Driving Optrex Panels (Part 3 of 3)

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Tully, New York 13159-1175
Phone: 315 696-6676
Fax: 315 696 9923
Email: sales@acipower.com
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DRIVING OPTREX PANELS WITH ACI I-LITE LED DRIVERS



4 POSITION MAX INTENSITY
SELECT SWITCH (S1)

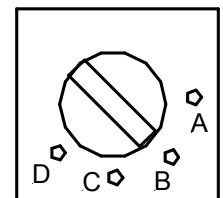


Figure 1. – Illustration of S1 Switch Positions

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Phone: 315 696-6676
Fax: 315 696 9923
Email: sales@acipower.com
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DRIVING OPTREX PANELS WITH ACI I-LITE LED DRIVERS

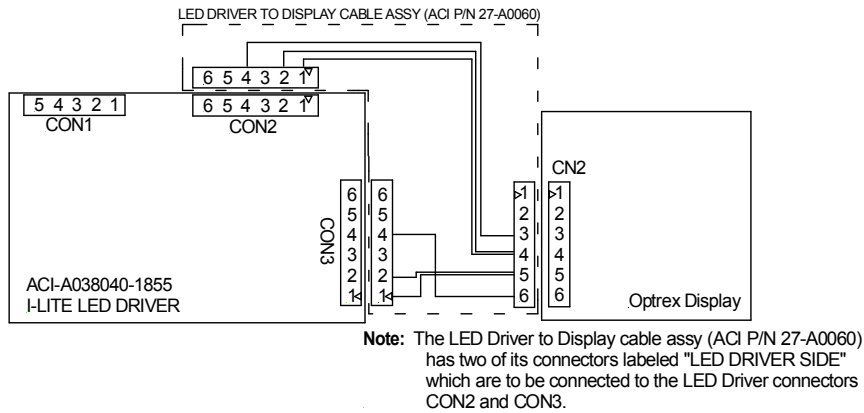


Figure 2. - Connecting LED Driver to Optrex Display

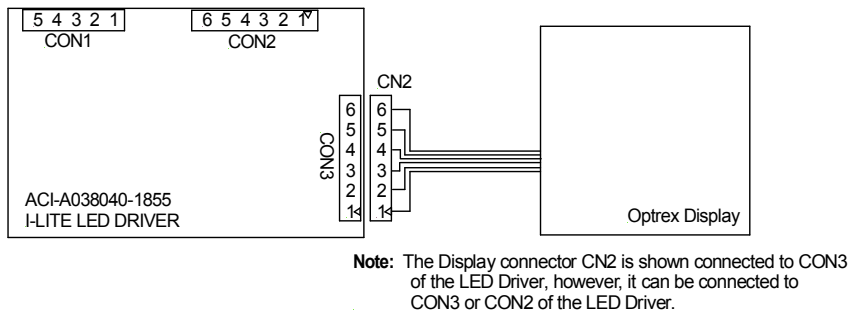


Figure 3. - Connecting LED Driver to Optrex Display

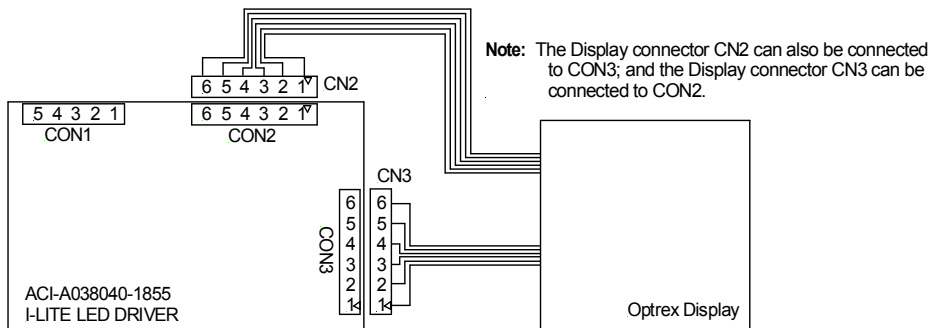


Figure 4. - Connecting LED Driver to Optrex Display

DRIVING OPTREX PANELS WITH ACI I-LITE LED DRIVERS

PINS 1 - 41
GO TO LCD CONTROLLER

PINS 42 - 45
GO TO LED DRIVER

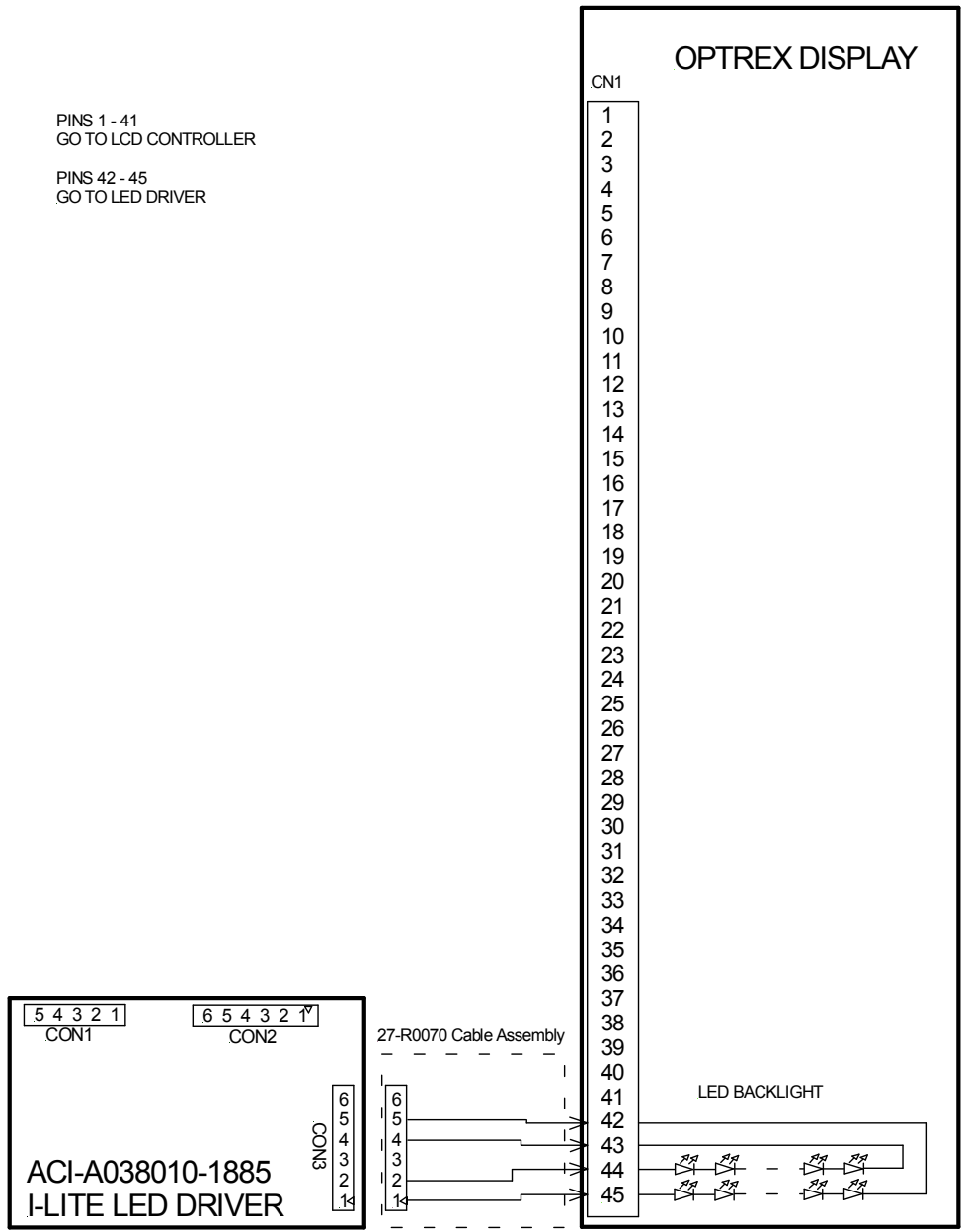


FIGURE 5. - CONNECTING LED DRIVER TO OPTREX DISPLAY

DRIVING OPTREX PANELS WITH ACI I-LITE LED DRIVERS

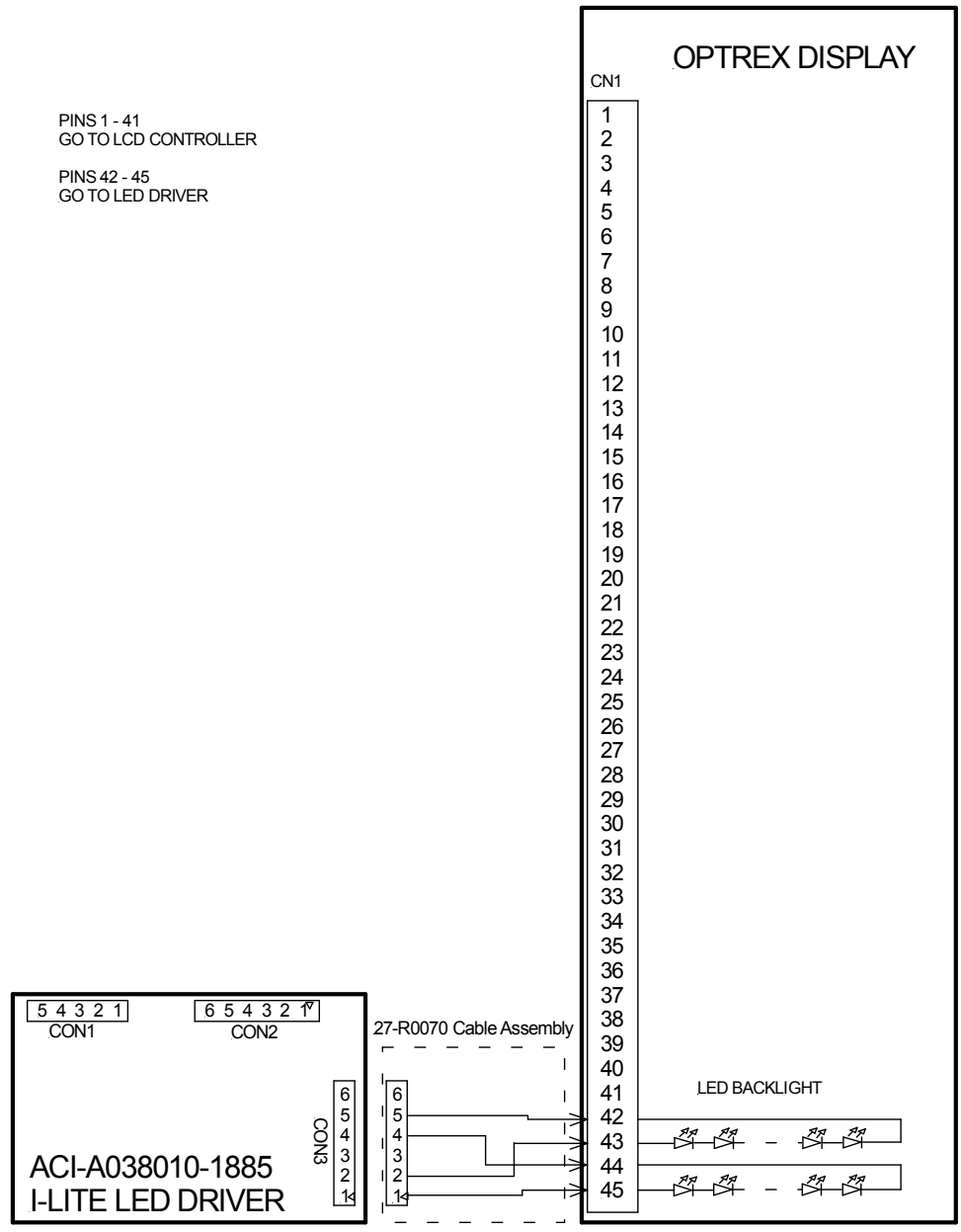


FIGURE 6. - CONNECTING LED DRIVER TO OPTREX DISPLAY

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DRIVING OPTREX PANELS WITH ACI I-LITE LED DRIVERS

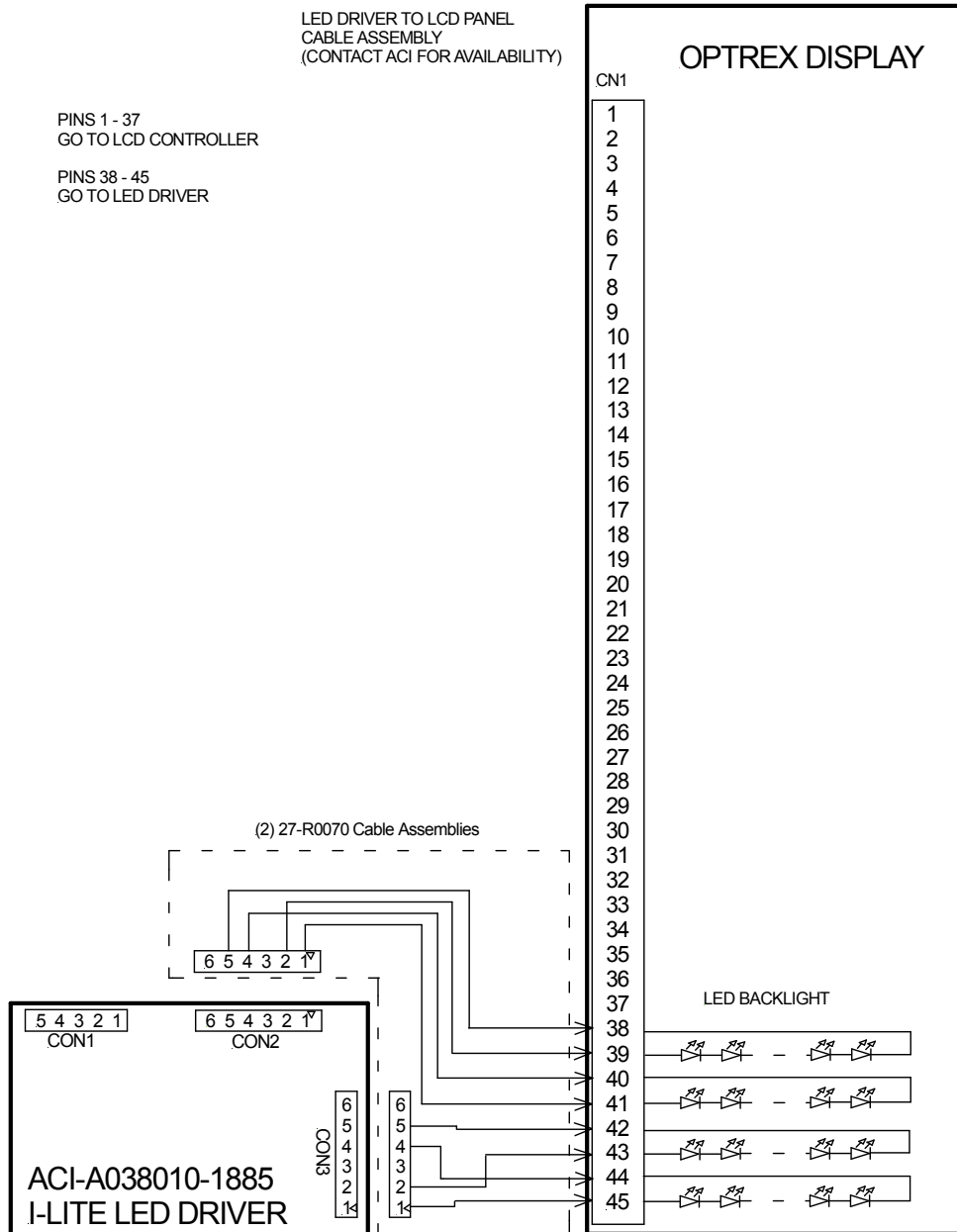


FIGURE 7. - CONNECTING LED DRIVER TO OPTREX DISPLAY

APPLICATION NOTE

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DRIVING OPTREX PANELS WITH ACI I-LITE LED DRIVERS

- 1. If Enable (PIN 3) is not being used, it can be left electrically floating.
- 2. If no dimming is required, connect Intensity CNTL (PIN 4) to +3.3V REF OUT (PIN 5).
- 3. If dimming is required, the +3.3V REF OUT (PIN 5) can be used for high-side of Intensity Control Potentiometer. A 10K Ohm Potentiometer is recommended.

Connecting 10K Ohm Potentiometer used for Dimming

