

CABLE DRAWING: MWA-3054

DRAWING TITLE:
SBC IO Module (J3) to ATIM-C (J10) Internal Cable

DRAWING NO.: MWACAB-0054	DRAWN BY: DRC	DATE: 7-Dec-10	REV: A
		SHEET: 1 of 3	

Cable Detail:

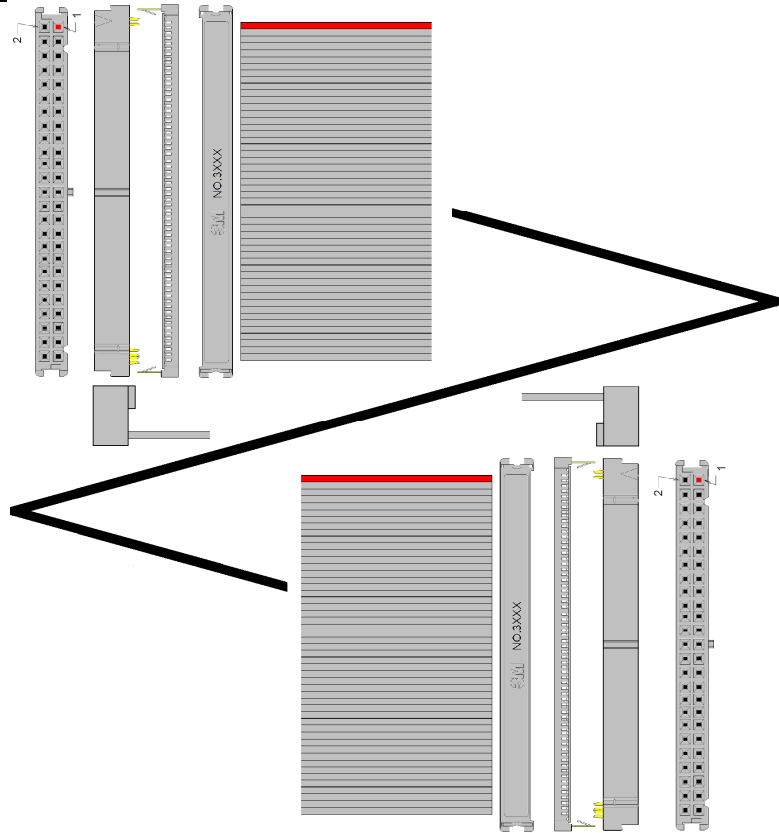
Connectors:	Description	Parts (Qty)
SBC-IO (J3)	50way IDC Socket	See Note1 Below(1)
ATIM-C (J10)	50way IDC Socket	See Note1 Below(1)
Conductors:		
Cable	Ribbon Cable, Flat, 50Way	See Note2 Below(25cm)

Overall Length 230+/-5mm

Notes:

- 50way IDC connector can be supplied from Element14 #110-7850. Any equivalent will be OK refer to data sheets supplied with this drawing.
- The ribbon cable can be supplied from RS #363-727 or PSI Stock # PC-0007. Any equivalent will be OK refer to data sheets supplied with this drawing.

Typical Drawing:



REVISION

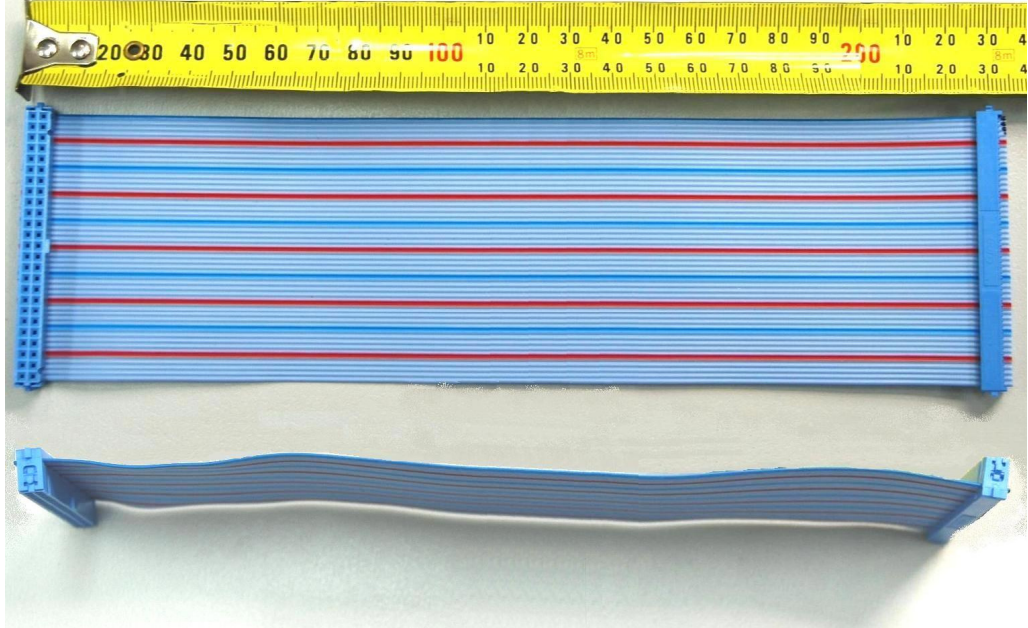
Date	Rev	Remarks
23/07/10	A	For Release
27/10/10	A	Pinout descriptions updated no physical change
03/11/10	A	Salem Version – Farnell to Element14
07/12/10	A	Removed CON-0224 reference

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Typical Photo:



Pinouts Table:

SBC-IO – J3		ATIM-C – J10
Pins(50)	J3-J10	Pins(50)
1	In 1-RPM1	1
2	In 2-RPM2	2
3	Gate 1-G1	3
4	Gate 2-G2	4
5	Out 1-OUT1	5
6	Out 2-OUT2	6
7	In 3-RPM3	7
8	In 4-RPM4	8
9	Gate 3-G3	9
10	Gate 4-G4	10
11	Out 3-OUT3	11
12	Out 4-OUT4	12
13	In 5-RPM5	13
14	Out 5-OUT5	14
15	Gate 5-G5	15
16	FOUT-FOUT	16

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DATE: 7-Dec-10

SHEET: 3 of 3

REV:

A

Pinouts Table Cont':

SBC-IO – J3		ATIM-C – J10
Pins(50)	J3-J10	Pins(50)
17	In 6-RPM6	17
18	In 7-IN7	18
19	Gate 6-G6	19
20	Gate 7-G7	20
21	Out 6-OUT6	21
22	Out 7-OUT7	22
23	In 8-IN8	23
24	In 9-IN9	24
25	Gate 8-G8	25
26	Gate 9-G9	26
27	Out 8-OUT8	27
28	Out 9-OUT9	28
29	In 10-IN10	29
30	Out 10-OUT10	30
31	Gate 10-G10	31
32	Interrupt In-IRQ	32
33	Dout 7-48VC on	33
34	Din 7-Alarm48C	34
35	Dout 6-48VB on	35
36	Din 6-Alarm48B	36
37	Dout 5-48VA on	37
38	Din 5-Alarm48A	38
39	Dout 4-12V on	39
40	Din 4-Alarm12	40
41	Dout 3-5V on	41
42	Din 3-Alarm5	42
43	Dout 2-I2C ena	43
44	Din 2-AlarmPri	44
45	Dout 1-I2C reset	45
46	Din 1-NC	46
47	Dout 0-PwrLed	47
48	Din 0-SW ON	48
49	+5V-+5Vmcc	49
50	Ground-0V	50

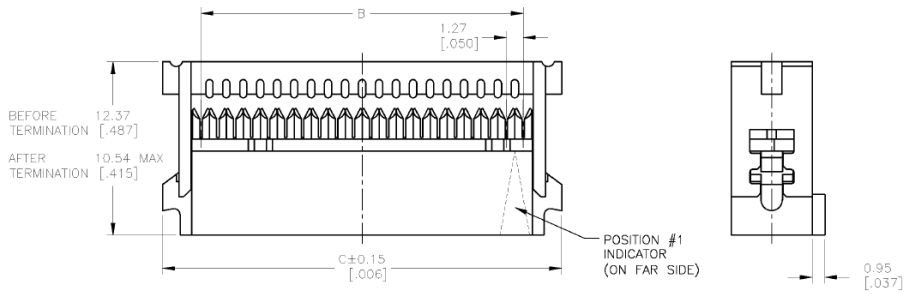
Connection Detail:

From: (SBC-IO) SBO-IO Connector (J3)

To: (ATIM-C) ATIM-C PCB Connector (J10)

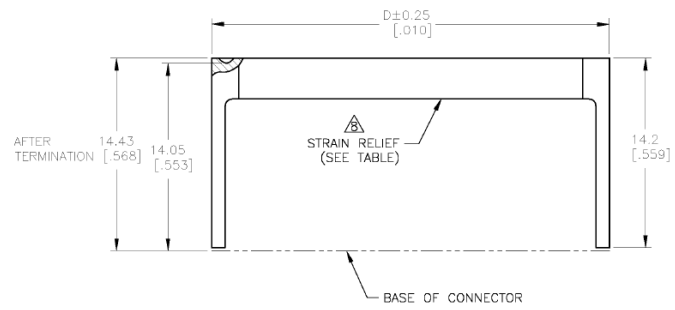
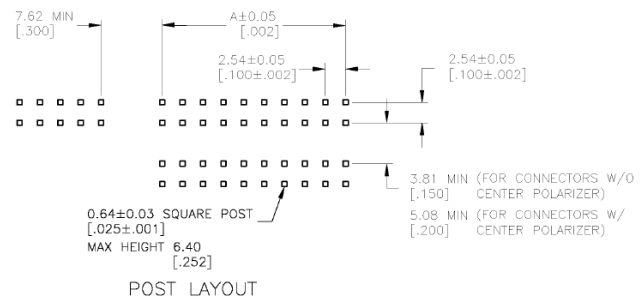
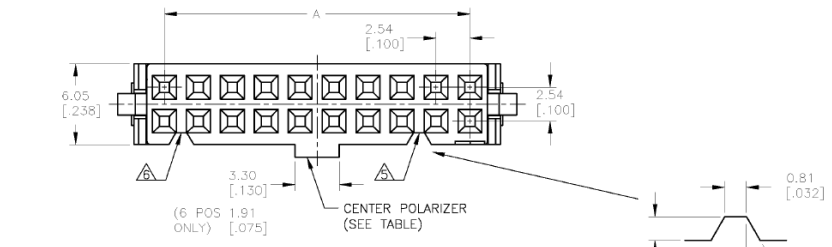
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POLARIZING KEY
 TYCO PART NUMBER: 1-1437023-2
 T&B PART NUMBER (REF): 609-0000
 PURCHASE SEPARATELY

- 20 POSITION CONNECTOR ASSEMBLY SHOWN.
- MOLDED PARTS: THERMOPLASTIC, UL94V-0 RATED, COLOR BLUE. CONTACTS: BERYLLIUM COPPER.
- CONTACTS: 0.00076[.00030] MIN GOLD ON MATING AREA, 0.00254-0.00508[.001100-.000200] TIN ON TERMINATION END, ALL OVER 0.00127[.00050] MIN NICKEL ON ENTIRE CONTACT.
- CONTACTS: 0.00127[.00050] MIN GOLD ON MATING AREA, 0.00254-0.00508[.001100-.000200] TIN ON TERMINATION END, ALL OVER 0.00127[.00050] MIN NICKEL ON ENTIRE CONTACT.
- POLARIZER FEATURE DOES NOT EXIST ON POSITION #1 END FOR 14 POSITION AND SMALLER ASSEMBLIES.
- POLARIZER FEATURE DOES NOT EXIST ON THIS END FOR 6 POSITION ASSEMBLY.
- FOR TERMINATION OF 28 OR 30 AWC STRANDED PVC INSULATED FLAT RIBBON CABLE.
- STRAIN RELIEF PACKAGED SEPARATELY AND SHIPPED WITH ASSEMBLY.



ELECTRICAL PROPERTIES	
CURRENT RATING	1 AMP
INSULATION RESISTANCE	>1 x 10 ⁹ OHMS @ 500 VDC
DWV	>500 VRMS AT SEA LEVEL
ENVIRONMENTAL PROPERTIES	
TEMPERATURE RATING	-55°C TO 125°C

YES	YES	△	85.65[3.372]	85.75[3.376]	80.01[3.150]	78.74[3.100]	64	609-6441LF	4-1658526-5
NO	YES	△	-	85.75[3.376]	80.01[3.150]	78.74[3.100]	64	609-6430LF	4-1658526-4
YES	YES	△	67.87[2.672]	67.97[2.676]	62.23[2.450]	60.96[2.400]	50	609-5041LF	2-1658526-4
NO	NO	△	-	67.97[2.676]	62.23[2.450]	60.96[2.400]	50	609-5030LF	2-1658526-3
YES	NO	△	67.87[2.672]	67.97[2.676]	62.23[2.450]	60.96[2.400]	50	609-5001MLF	2-1658526-2
NO	NO	△	-	67.97[2.676]	62.23[2.450]	60.96[2.400]	50	609-5000MLF	4-1658526-3
YES	YES	△	55.17[2.172]	55.27[2.176]	49.53[1.950]	48.26[1.900]	40	609-4041LF	2-1658526-1
NO	YES	△	-	55.27[2.176]	49.53[1.950]	48.26[1.900]	40	609-4030LF	2-1658526-0
YES	NO	△	55.17[2.172]	55.27[2.176]	49.53[1.950]	48.26[1.900]	40	609-4001MLF	4-1658526-2
NO	NO	△	-	55.27[2.176]	49.53[1.950]	48.26[1.900]	40	609-4000MLF	4-1658526-1
YES	YES	△	50.09[1.972]	50.19[1.976]	44.45[1.750]	43.18[1.700]	36	609-3641LF	4-1658526-0
NO	YES	△	-	50.19[1.976]	44.45[1.750]	43.18[1.700]	36	609-3630LF	3-1658526-8
YES	YES	△	47.55[1.872]	47.65[1.876]	41.91[1.650]	40.64[1.600]	34	609-3441LF	1-1658526-9
NO	YES	△	-	47.65[1.876]	41.91[1.650]	40.64[1.600]	34	609-3430LF	1-1658526-8
YES	NO	△	47.55[1.872]	47.65[1.876]	41.91[1.650]	40.64[1.600]	34	609-3401MLF	3-1658526-7
NO	NO	△	-	47.65[1.876]	41.91[1.650]	40.64[1.600]	34	609-3400MLF	1-1658526-6
YES	YES	△	37.39[1.472]	37.49[1.476]	31.75[1.250]	30.48[1.200]	26	609-2641LF	1-1658526-6
NO	YES	△	-	37.49[1.476]	31.75[1.250]	30.48[1.200]	26	609-2630LF	1-1658526-5
YES	NO	△	37.39[1.472]	37.49[1.476]	31.75[1.250]	30.48[1.200]	26	609-2601MLF	3-1658526-6
NO	NO	△	-	37.49[1.476]	31.75[1.250]	30.48[1.200]	26	609-2600MLF	3-1658526-5
YES	YES	△	34.85[1.372]	34.95[1.376]	29.21[1.150]	27.94[1.100]	24	609-2441LF	3-1658526-4
NO	YES	△	-	34.95[1.376]	29.21[1.150]	27.94[1.100]	24	609-2430LF	1-1658526-4
NO	NO	△	-	34.95[1.376]	29.21[1.150]	27.94[1.100]	24	609-2400MLF	3-1658526-3
YES	YES	△	29.77[1.172]	29.87[1.176]	24.13[.950]	22.86[.900]	20	609-2041LF	1-1658526-3
NO	YES	△	-	29.87[1.176]	24.13[.950]	22.86[.900]	20	609-2030LF	1-1658526-2
YES	NO	△	29.77[1.172]	29.87[1.176]	24.13[.950]	22.86[.900]	20	609-2001MLF	3-1658526-2
NO	NO	△	-	29.87[1.176]	24.13[.950]	22.86[.900]	20	609-2000MLF	3-1658526-0
NO	NO	△	-	29.87[1.176]	24.13[.950]	22.86[.900]	20	609-2000MPO05LF	3-1658526-1
YES	YES	△	24.69[.972]	24.79[.976]	19.05[.750]	17.78[.700]	16	609-1641LF	1-1658526-1
NO	YES	△	-	24.79[.976]	19.05[.750]	17.78[.700]	16	609-1630LF	2-1658526-9
YES	NO	△	24.69[.972]	24.79[.976]	19.05[.750]	17.78[.700]	16	609-1601MLF	1-1658526-0
NO	NO	△	-	24.79[.976]	19.05[.750]	17.78[.700]	16	609-1600MLF	2-1658526-8
YES	YES	△	22.15[.872]	22.25[.876]	16.51[.650]	15.24[.600]	14	609-1441LF	1658526-9
NO	YES	△	-	22.25[.876]	16.51[.650]	15.24[.600]	14	609-1430LF	1658526-8
YES	NO	△	22.15[.872]	22.25[.876]	16.51[.650]	15.24[.600]	14	609-1401MLF	1658526-7
NO	NO	△	-	22.25[.876]	16.51[.650]	15.24[.600]	14	609-1400MLF	1658526-6
YES	YES	△	17.07[.672]	17.17[.676]	11.43[.450]	10.16[.400]	10	609-1041LF	1658526-5
NO	YES	△	-	17.17[.676]	11.43[.450]	10.16[.400]	10	609-1030LF	1658526-4
YES	NO	△	17.07[.672]	17.17[.676]	11.43[.450]	10.16[.400]	10	609-1001MLF	2-1658526-7
NO	NO	△	-	17.17[.676]	11.43[.450]	10.16[.400]	10	609-1000MLF	1658526-3
YES	YES	△	11.99[.472]	12.09[.476]	6.35[.250]	5.08[.200]	6	609-0641LF	1658526-2
NO	YES	△	-	12.09[.476]	6.35[.250]	5.08[.200]	6	609-0630LF	1658526-1
YES	NO	△	11.99[.472]	12.09[.476]	6.35[.250]	5.08[.200]	6	609-0601MLF	2-1658526-6
NO	NO	△	-	12.09[.476]	6.35[.250]	5.08[.200]	6	609-0600MLF	2-1658526-5

THIS DRAWING IS A CONTROLLED DOCUMENT. DIMENSIONS: mm(INCHES). TOLERANCES UNLESS OTHERWISE SPECIFIED. MATERIAL: SEE TABLE. CUSTOMER DRAWING.

DATE: 06/20/05. BY: M. W. MSLEY. CHECKED: M. W. MSLEY. APPROVED: M. W. MSLEY.

TYCO Electronics Corporation, Harrisburg, Pa 17105-3608. CONNECTOR ASSEMBLY, FEMALE SOCKET TRANSITION. PART NUMBER: 1658526. SCALE: 1:1. SHEET: 1 OF 1.

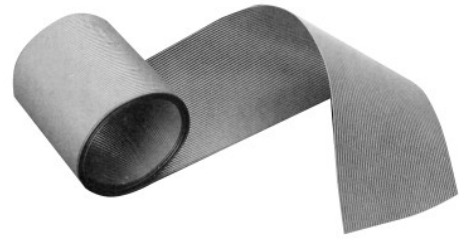
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.050" PITCH FLAT CABLE

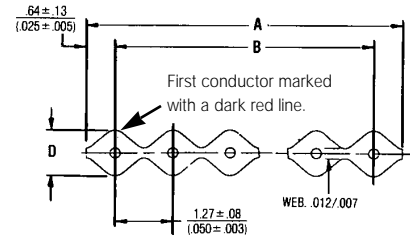
SERIES 171 – 28 AWG (7/36) STRANDED

SERIES 173 – 28 AWG SOLID

SERIES 179 – 26 AWG (7/34) STRANDED



CATALOG SERIES	SPECIFICATIONS						
	171		173		179		
Wire Size AWG	28 Stranded		28 Solid		26 Stranded		
Insulation Material	PVC		PVC		PVC		
Conductor Spacing mm (in)	1.27 (.050)		1.27 (.050)		1.27 (.050)		
Temperature Rating (°C)	105		105		105		
Voltage Rating (RMS)	300		300		300		
Impedance Ohms	100		105		93		
Capacitance pF/M (pF/FT)	46 (14)		44.3 (13.5)		49.5 (15.1)		
Inductance μH/M (μH/FT)	.46 (.14)		.49 (.15)		.43 (.13)		
Velocity of Propagation nS/M (nS/FT)	4.53 (1.38)		4.53 (1.38)		4.43 (1.35)		
Insulation Resistance Ohms/Ft	10 ¹⁰		10 ¹⁰		10 ¹⁰		
Typical Crosstalk Characteristics	Rise Time nSec	3.0	7.0	3.0	7.0	3.0	7.0
	Near End (%)	5.0	3.2	4.8	3.1	5.2	3.8
10FT Sample 1 line driven	Far End (%)	6.7	2.7	7.3	2.9	6.1	2.3
	UL Style No.	2651		2651		2651	



Accumulation of pitch tolerance between conductors in entire cable may not exceed tolerance of dim. "B".

CABLE SERIES	DIMENSIONS IN MM (INCHES)	
	D	
171	.91 (.036)	
173	.91 (.036)	
179	1.02 (.040)	

Ordering Information

28 GAUGE STRANDED	CATALOG NUMBERS		26 GAUGE SOLID	NO. OF POS.	DIMENSIONS IN MM (INCHES)		
	28 GAUGE SOLID				A	B	B TOLERANCE
171-10ED	173-10	—	—	10	12.70 (.500)	11.43 (.450)	± .18 (±.007)
171-12	—	—	—	12	15.24 (.600)	13.97 (.550)	
171-14	173-14	179-14	—	14	17.78 (.700)	16.51 (.650)	
171-15	173-15	—	—	15	19.05 (.750)	17.78 (.700)	± .25 (±.010)
171-16	173-16	—	—	16	20.32 (.800)	19.05 (.750)	
171-20	173-20	—	—	20	25.40 (1.000)	24.13 (.950)	
171-24ED	173-24	179-24	—	24	30.48 (1.200)	29.21 (1.150)	
171-25	173-25	—	—	25	31.75 (1.250)	30.48 (1.200)	
171-26	173-26	—	—	26	33.02 (1.300)	31.75 (1.250)	
171-28	—	—	—	28	35.56 (1.400)	34.29 (1.350)	± .38 (±.015)
171-30ED	—	—	—	30	38.10 (1.500)	36.83 (1.450)	
171-34	173-34	—	—	34	43.18 (1.700)	41.91 (1.650)	
171-36	—	179-36	—	36	45.72 (1.800)	44.45 (1.750)	
171-37	173-37	—	—	37	46.99 (1.850)	45.72 (1.800)	
171-40ED	173-40	—	—	40	50.80 (2.000)	49.53 (1.950)	
171-44	173-44	—	—	44	55.88 (2.200)	54.61 (2.150)	± .38 (±.015)
171-50	173-50	179-50	—	50	63.50 (2.500)	62.23 (2.450)	
171-56	173-56	—	—	56	71.12 (2.800)	69.85 (2.750)	
171-60	173-60	—	—	60	76.20 (3.000)	74.93 (2.950)	
171-64	—	—	—	64	81.28 (3.200)	80.01 (3.150)	