

## Overview

The Acroname MTM Ribbon Cable Interface (MTM-RCI-1), part of Acroname's MTM (Manufacturing Test Module) product series, is a connectivity option designed for integration with MTM-based testers. The MTM-RCI-1 allows MTM system designers to easily and quickly bridge external devices or instrumentation to an MTM-based test point carrier board.

Ideal for use in high-reliability manufacturing or development testing environments, MTM-RCI-1 bridges an MTM socket to ribbon cable or terminal connectors.

Typical applications include:

- Manufacturing functional testing
- Validation testing
- Automated test development
- Embedded system development

## Features

- Low-density connector footprints for standard headers or screw terminals
- MTM edge connector with access to 164 pins
- Customizable to support direct wire soldering, ribbon cable connectors or screw terminal options

## Description

The MTM-RCI-1 interface board is a convenient component for manufacturing test solutions implementing MTM which also need to bridge in external equipment. For more information on the MTM platform architecture, please refer to [www.acroname.com/mtm](http://www.acroname.com/mtm).

The MTM-RCI-1 bridges an MTM edge connector to low-density pads for easy external access.

The high-density connections of the MTM modules are broken out to low-density 0.1" spaced connections as well as 3.5mm-spaced connections. Headers, screw terminals or ribbon cable connectors can be installed to customize the connectivity needed in a given test system.

### IMPORTANT NOTE:

The MTM-RCI-1, like all MTM-family products, utilizes a PCIe connector interface but is for use strictly in MTM-based systems – it should never be used with PCI adapters directly. Connection with a PC or non-MTM system could cause damage to the PC or PCI adapters.



**Block Diagram**

Showing populated and not populated (NP) connectors:

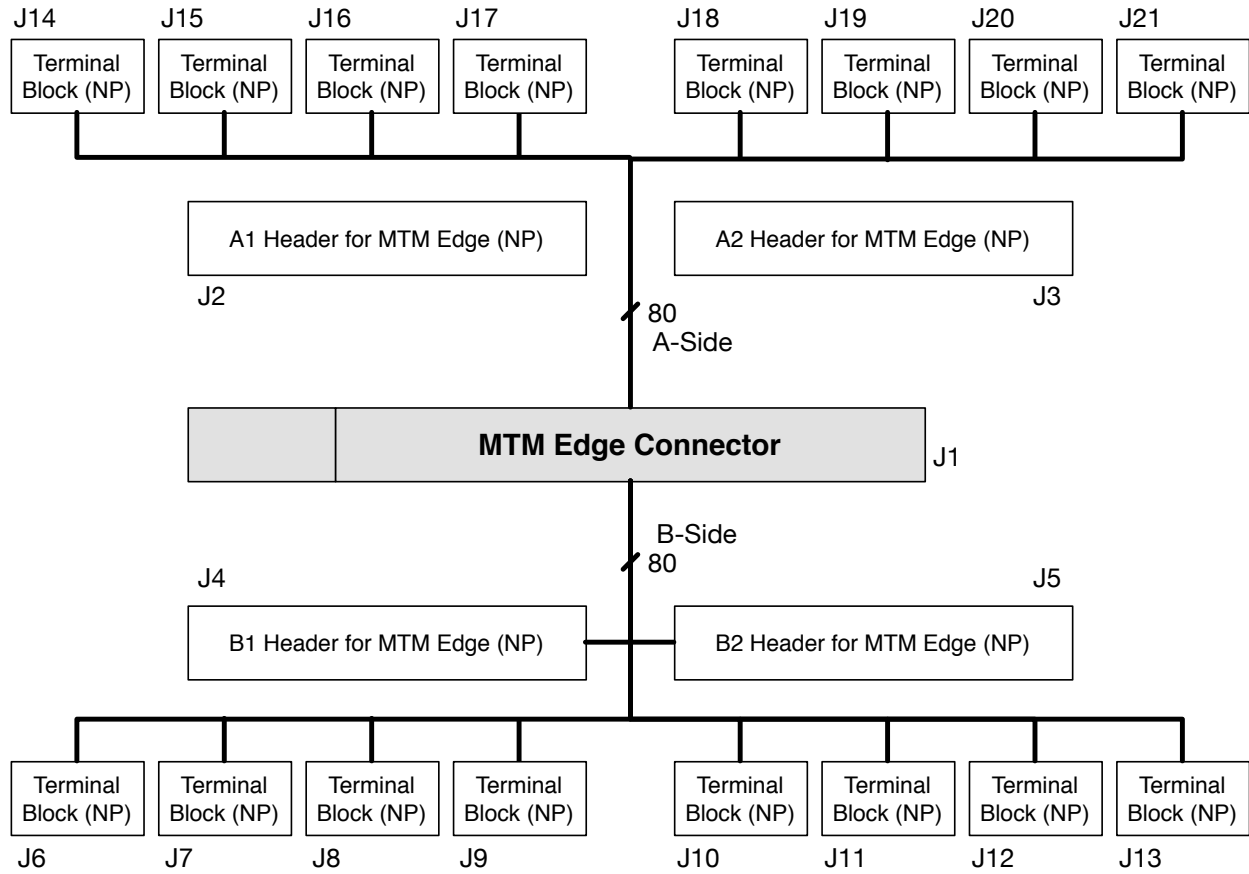
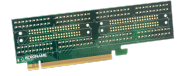


Figure 1: MTM-RCI-1 Block Diagram



**Typical Applications**

Automated functional circuit test (FCT) using MTM-RCI-1 to bridge external equipment to an MTM test point carrier board (TPCB):

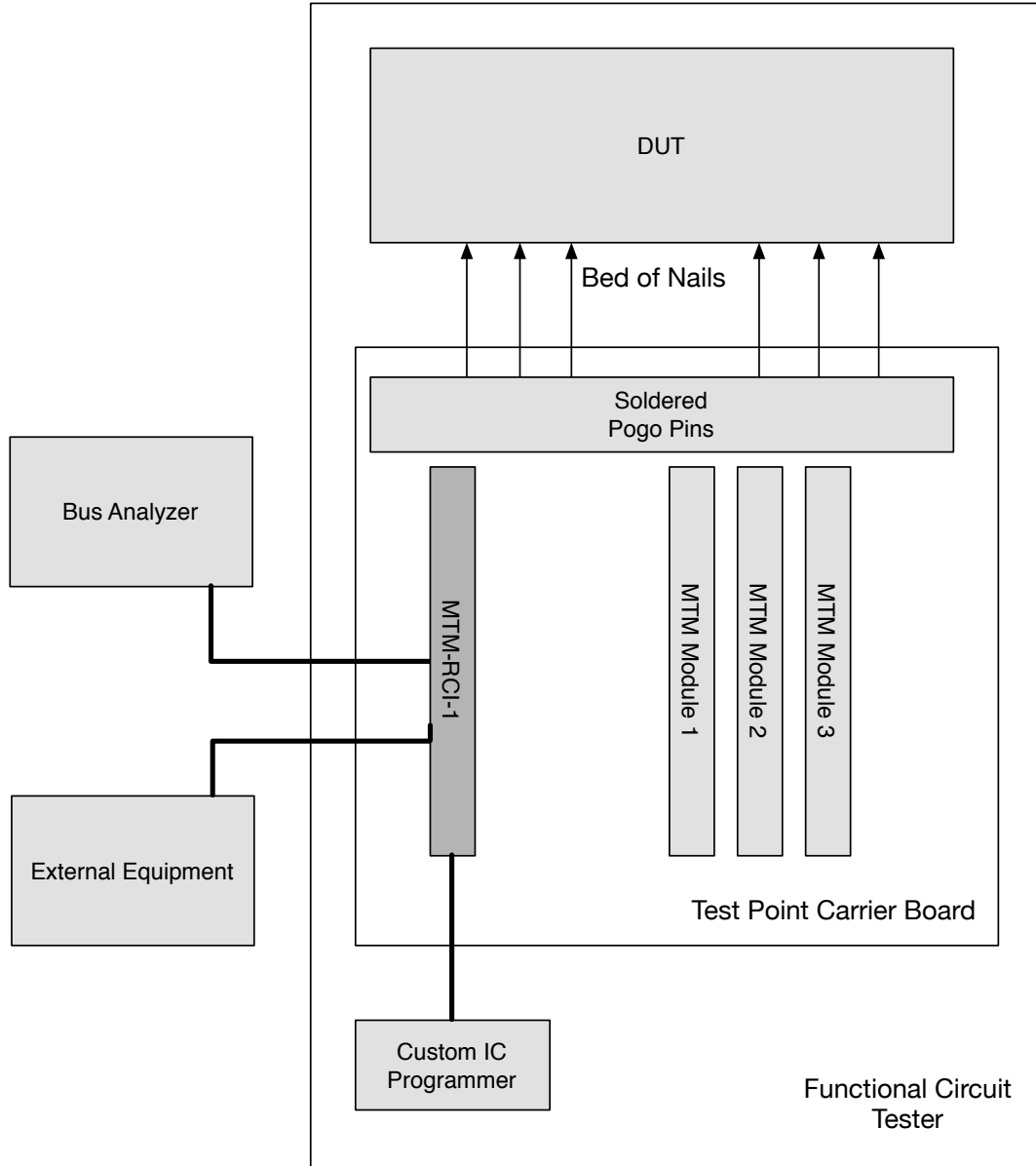
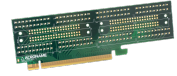


Figure 2: MTM-RCI-1 Bridging external equipment to an MTM-based tester



### Connectors

Location of connectors on MTM-RCI-1:

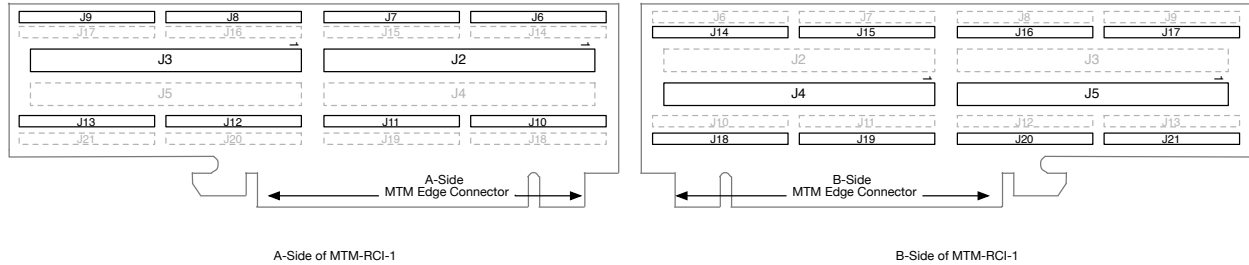


Figure 3: Location of connectors

List of connectors on MTM-RCI-1:

Connector Designator	Description	Pins	Populated
J2	MTM Edge: A-side header A1	40	No
J3	MTM Edge: A-side header A2	40	No
J4	MTM Edge: B-side header B1	40	No
J5	MTM Edge: B-side header B2	40	No
J6	A-side terminal	10	No
J7	A-side terminal	10	No
J8	A-side terminal	10	No
J9	A-side terminal	10	No
J10	A-side terminal	10	No
J11	A-side terminal	10	No
J12	A-side terminal	10	No
J13	A-side terminal	10	No
J14	B-side terminal	10	No
J15	B-side terminal	10	No
J16	B-side terminal	10	No
J17	B-side terminal	10	No
J18	B-side terminal	10	No
J19	B-side terminal	10	No
J20	B-side terminal	10	No
J21	B-side terminal	10	No

Table 1: MTM-RCI-1 Connectors

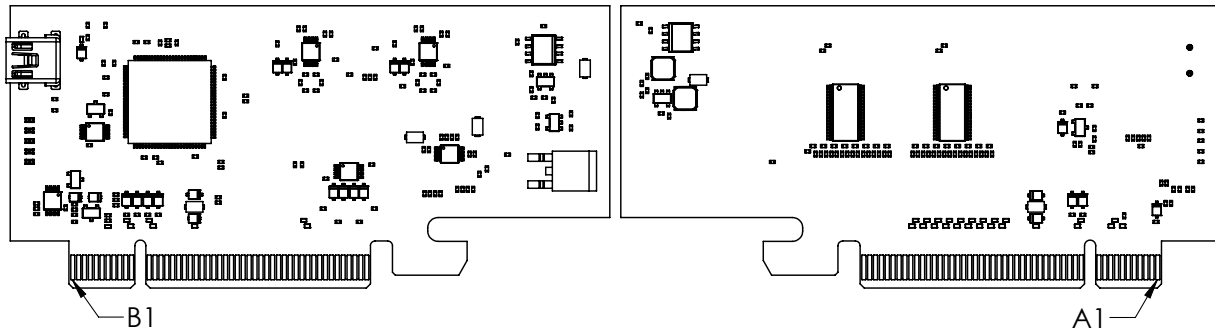


### Pinout Descriptions

WARNING: Acroname's MTM line features a PCIe connector that is common in most desktop computers; however, they are NOT intended nor designed to work in these devices. Do NOT insert this product into any PCIe slot that wasn't specifically designed for this product! Failure to follow this warning WILL result in damage to this product and any device you connect it to.

The MTM edge connector pin assignments are shown in the following table.

An example MTM module is shown below:



### MTM Edge Connector

Edge Connector Side A	Edge Connector Side A Description	Breakout A1	Edge Connector Side B	Edge Connector Side B Description	Breakout B1
A1	GND	1	B1	Input Voltage, $V_{supply}$	-
A2	GND	2	B2	Input Voltage, $V_{supply}$	-
A3	GND	-	B3	Input Voltage, $V_{supply}$	-
A4	GND	-	B4	Input Voltage, $V_{supply}$	-
A5	Reset <sup>2</sup>	All MTM, RST Button	B5	Input Voltage, $V_{supply}$	-
A6	GND	-	B6	Reserved, Do Not Connect	-
A7	GND	-	B7	Reserved, Do Not Connect	-
A8	I <sup>2</sup> C0 SCL <sup>1</sup>	3	B8	GND	-
A9	I <sup>2</sup> C0 SDA <sup>1</sup>	4	B9	GND	-
A10	GND	-	B10	UART0 Tx <sup>3</sup>	-
A11	GND	-	B11	UART0 Rx <sup>3</sup>	-
A12	Reserved, Do Not Connect	-	B12	Reserved, Do Not Connect	-
A13	Reserved, Do Not Connect	-	B13	Reserved, Do Not Connect	-

<sup>1</sup> I<sup>2</sup>C0 SCL and SDA nets are connected to all MTM module sockets of an MTM system and may carry BrainStem bus communication

<sup>2</sup> Reset net is connected to all MTM module sockets of an MTM system

<sup>3</sup> UART0 Tx and Rx may be brought in from another MTM module in an MTM system



**MTM Edge Connector**

Edge Connector Side A	Edge Connector Side A Description	Breakout A1	Edge Connector Side B	Edge Connector Side B Description	Breakout B1
A14	User-Specific	6	B14	User-Specific	36
A15	User-Specific	5	B15	User-Specific	35
A16	User-Specific	8	B16	User-Specific	34
A17	User-Specific	7	B17	User-Specific	33
A18	User-Specific	10	B18	User-Specific	32
A19	User-Specific	9	B19	User-Specific	31
A20	User-Specific	12	B20	User-Specific	30
A21	User-Specific	11	B21	User-Specific	29
A22	User-Specific	14	B22	User-Specific	28
A23	User-Specific	13	B23	User-Specific	27
A24	User-Specific	16	B24	User-Specific	26
A25	User-Specific	15	B25	User-Specific	25
A26	User-Specific	18	B26	User-Specific	24
A27	User-Specific	17	B27	User-Specific	23
A28	User-Specific	20	B28	User-Specific	22
A29	User-Specific	19	B29	User-Specific	21
A30	User-Specific	22	B30	User-Specific	20
A31	User-Specific	21	B31	User-Specific	19
A32	User-Specific	24	B32	User-Specific	18
A33	User-Specific	23	B33	User-Specific	17
A34	User-Specific	26	B34	User-Specific	16
A35	User-Specific	25	B35	User-Specific	15
A36	User-Specific	26	B36	User-Specific	14
A37	User-Specific	27	B37	User-Specific	13
A38	User-Specific	30	B38	User-Specific	12
A39	User-Specific	29	B39	User-Specific	11
A40	User-Specific	32	B40	User-Specific	10
A41	User-Specific	31	B41	User-Specific	9
A42	User-Specific	34	B42	User-Specific	8
A43	User-Specific	33	B43	User-Specific	7



Edge Connector Side A	Edge Connector Side A Description	Breakout A1	Edge Connector Side B	Edge Connector Side B Description	Breakout B1
A44	User-Specific	36	B44	User-Specific	6
A45	User-Specific	35	B45	User-Specific	5
A46	User-Specific	38	B46	User-Specific	4
A47	User-Specific	37	B47	User-Specific	3

Edge Connector Side A	Edge Connector Side A Description	Breakout A2	Edge Connector Side B	Edge Connector Side B Description	Breakout B2
A48	User-Specific	4	B48	User-Specific	38
A49	User-Specific	3	B49	User-Specific	37
A50	User-Specific	6	B50	User-Specific	36
A51	User-Specific	5	B51	User-Specific	35
A52	User-Specific	8	B52	User-Specific	34
A53	User-Specific	7	B53	User-Specific	33
A54	User-Specific	10	B54	User-Specific	32
A55	User-Specific	9	B55	User-Specific	31
A56	User-Specific	12	B56	User-Specific	30
A57	User-Specific	11	B57	User-Specific	29
A58	User-Specific	14	B58	User-Specific	28
A59	User-Specific	13	B59	User-Specific	27
A60	User-Specific	16	B60	User-Specific	26
A61	User-Specific	15	B61	User-Specific	25
A62	User-Specific	18	B62	User-Specific	24
A63	User-Specific	17	B63	User-Specific	23
A64	User-Specific	20	B64	User-Specific	22
A65	User-Specific	19	B65	User-Specific	21
A66	User-Specific	22	B66	User-Specific	20
A67	User-Specific	21	B67	User-Specific	19
A68	User-Specific	24	B68	User-Specific	18
A69	User-Specific	23	B69	User-Specific	17
A70	User-Specific	26	B70	User-Specific	16



Edge Connector Side A	Edge Connector Side A Description	Breakout A2	Edge Connector Side B	Edge Connector Side B Description	Breakout B2
A71	User-Specific	25	B71	User-Specific	15
A72	User-Specific	28	B72	User-Specific	14
A73	User-Specific	27	B73	User-Specific	13
A74	User-Specific	30	B74	User-Specific	12
A75	User-Specific	29	B75	User-Specific	11
A76	User-Specific	32	B76	User-Specific	10
A77	User-Specific	31	B77	User-Specific	9
A78	User-Specific	34	B78	User-Specific	8
A79	User-Specific	33	B79	User-Specific	7
A80	User-Specific	36	B80	User-Specific	6
A81	User-Specific	35	B81	User-Specific	5
A82	User-Specific	38	B82	User-Specific	4

Table 2: MTM Edge connector pinout

### J2 (A1): 40-pin Connector

Header Connector A1	Description	MTM Side A
1	GND	A1-A4, A7, A10, A11
2	GND	A1-A4, A7, A10, A11
3	I2C0 SCL (BrainStem)	A8
4	I2C0 SDA (BrainStem)	A9
5	User-Specific	A15
6	User-Specific	A14
7	User-Specific	A17
8	User-Specific	A16
9	User-Specific	A19
10	User-Specific	A18
11	User-Specific	A21





Header Connector A1	Description	MTM Side A
12	User-Specific	A20
13	User-Specific	A23
14	User-Specific	A22
15	User-Specific	A25
16	User-Specific	A24
17	User-Specific	A27
18	User-Specific	A26
19	User-Specific	A29
20	User-Specific	A28
21	User-Specific	A31
22	User-Specific	A30
23	User-Specific	A33
24	User-Specific	A32
25	User-Specific	A35
26	User-Specific	A34
27	User-Specific	A37
28	User-Specific	A36
29	User-Specific	A39
30	User-Specific	A38
31	User-Specific	A41
32	User-Specific	A40
33	User-Specific	A43
34	User-Specific	A42
35	User-Specific	A45
36	User-Specific	A44
37	User-Specific	A47
38	User-Specific	A46
39	GND	A1-A4, A7, A10, A11
40	GND	A1-A4, A7, A10, A11

Table 3: Pinout for A1 Connector



**J2 (A1): 40-pin Connector WIDE FORMAT**

Header Connector A1	Description	MTM Side A	Header Connector A1	Description	MTM Side A
1	GND	A1-A4, A7, A10, A11	2	GND	A1-A4, A7, A10, A11
3	I2C0 SCL (BrainStem)	A8	4	I2C0 SDA (BrainStem)	A9
5	User-Specific	A15	6	User-Specific	A14
7	User-Specific	A17	8	User-Specific	A16
9	User-Specific	A19	10	User-Specific	A18
11	User-Specific	A21	12	User-Specific	A20
13	User-Specific	A23	14	User-Specific	A22
15	User-Specific	A25	16	User-Specific	A24
17	User-Specific	A27	18	User-Specific	A26
19	User-Specific	A29	20	User-Specific	A28
21	User-Specific	A31	22	User-Specific	A30
23	User-Specific	A33	24	User-Specific	A32
25	User-Specific	A35	26	User-Specific	A34
27	User-Specific	A37	28	User-Specific	A36
29	User-Specific	A39	30	User-Specific	A38
31	User-Specific	A41	32	User-Specific	A40
33	User-Specific	A43	34	User-Specific	A42
35	User-Specific	A45	36	User-Specific	A44
37	User-Specific	A47	38	User-Specific	A46
39	GND	A1-A4, A7, A10, A11	40	GND	A1-A4, A7, A10, A11

Table 4: Pinout for A1 Connector



**J3 (A2): 40-pin Connectors**

Header Connector A2	Description	MTM Side A
1	GND	A1-A4, A7, A10, A11
2	GND	A1-A4, A7, A10, A11
3	User-Specific	A49
4	User-Specific	A48
5	User-Specific	A51
6	User-Specific	A50
7	User-Specific	A53
8	User-Specific	A52
9	User-Specific	A55
10	User-Specific	A54
11	User-Specific	A57
12	User-Specific	A56
13	User-Specific	A59
14	User-Specific	A58
15	User-Specific	A61
16	User-Specific	A60
17	User-Specific	A63
18	User-Specific	A62
19	User-Specific	A65
20	User-Specific	A64
21	User-Specific	A67
22	User-Specific	A66
23	User-Specific	A69
24	User-Specific	A68
25	User-Specific	A71
26	User-Specific	A70
27	User-Specific	A73
28	User-Specific	A72
29	User-Specific	A75



Header Connector A2	Description	MTM Side A
30	User-Specific	A74
31	User-Specific	A77
32	User-Specific	A76
33	User-Specific	A79
34	User-Specific	A78
35	User-Specific	A81
36	User-Specific	A80
37	Not Connected	-
38	User-Specific	A82
39	GND	A1-A4, A7, A10, A11
40	GND	A1-A4, A7, A10, A11

Table 5: Pinout for A2 connector



**J3 (A2): 40-pin Connectors WIDE FORMAT**

Header Connector A2	Description	MTM Side A	Header Connector A2	Description	MTM Side A
1	GND	A1-A4, A7, A10, A11	2	GND	A1-A4, A7, A10, A11
3	User-Specific	A49	4	User-Specific	A48
5	User-Specific	A51	6	User-Specific	A50
7	User-Specific	A53	8	User-Specific	A52
9	User-Specific	A55	10	User-Specific	A54
11	User-Specific	A57	12	User-Specific	A56
13	User-Specific	A59	14	User-Specific	14
15	User-Specific	A61	16	User-Specific	A60
17	User-Specific	A63	18	User-Specific	A62
19	User-Specific	A65	20	User-Specific	A64
21	User-Specific	A67	22	User-Specific	A66
23	User-Specific	A69	24	User-Specific	A68
25	User-Specific	A71	26	User-Specific	A70
27	User-Specific	A73	28	User-Specific	A72
29	User-Specific	A75	30	User-Specific	A74
31	User-Specific	A77	32	User-Specific	A76
33	User-Specific	A79	34	User-Specific	A78
35	User-Specific	A81	36	User-Specific	A80
37	Not Connected	-	38	User-Specific	A82
39	GND	A1-A4, A7, A10, A11	40	GND	A1-A4, A7, A10, A11

Table 6: Pinout for A2 connector



**J4 (B1): 40-pin Connectors**

Header Connector B1	Description	MTM Side B
1	GND	B8, B9
2	GND	B8, B9
3	User-Specific	B47
4	User-Specific	B46
5	User-Specific	B45
6	User-Specific	B44
7	User-Specific	B43
8	User-Specific	B42
9	User-Specific	B41
10	User-Specific	B40
11	User-Specific	B39
12	User-Specific	B38
13	User-Specific	B37
14	User-Specific	B36
15	User-Specific	B35
16	User-Specific	B34
17	User-Specific	B33
18	User-Specific	B32
19	User-Specific	B31
20	User-Specific	B30
21	User-Specific	B29
22	User-Specific	B28
23	User-Specific	B27
24	User-Specific	B26
25	User-Specific	B25
26	User-Specific	B24
27	User-Specific	B23
28	User-Specific	B22
29	User-Specific	B21
30	User-Specific	B20



Header Connector B1	Description	MTM Side B
31	User-Specific	B19
32	User-Specific	B18
33	User-Specific	B17
34	User-Specific	B16
35	User-Specific	B15
36	User-Specific	B14
37	UART0_TX	B10
38	UART0_RX	B11
39	GND	B8, B9
40	GND	B8, B9

Table 7: Pinout for B1 connector



**J4 (B1): 40-pin Connectors WIDE FORMAT**

Header Connector B1	Description	MTM Side B	Header Connector B1	Description	MTM Side B
1	GND	B8, B9	2	GND	B8, B9
3	User-Specific	B47	4	User-Specific	B46
5	User-Specific	B45	6	User-Specific	B44
7	User-Specific	B43	8	User-Specific	B42
9	User-Specific	B41	10	User-Specific	B40
11	User-Specific	B39	12	User-Specific	B38
13	User-Specific	B37	14	User-Specific	B36
15	User-Specific	B35	16	User-Specific	B34
17	User-Specific	B33	18	User-Specific	B32
19	User-Specific	B31	20	User-Specific	B30
21	User-Specific	B29	22	User-Specific	B28
23	User-Specific	B27	24	User-Specific	B26
25	User-Specific	B25	26	User-Specific	B24
27	User-Specific	B23	28	User-Specific	B22
29	User-Specific	B21	30	User-Specific	B20
31	User-Specific	B19	32	User-Specific	B18
33	User-Specific	B17	34	User-Specific	B16
35	User-Specific	B15	36	User-Specific	B14
37	UART0_TX	B10	38	UART0_RX	B11
39	GND	B8, B9	40	GND	B8, B9

Table 8: Pinout for B1 connector





**J5 (B2): 40-pin Connectors**

Header Connector B2	Description	MTM Side B
1	GND	B8, B9
2	GND	B8, B9
3	Not Connected	-
4	User-Specific	B82
5	User-Specific	B81
6	User-Specific	B80
7	User-Specific	B79
8	User-Specific	B78
9	User-Specific	B77
10	User-Specific	B76
11	User-Specific	B75
12	User-Specific	B74
13	User-Specific	B73
14	User-Specific	B72
15	User-Specific	B71
16	User-Specific	B70
17	User-Specific	B69
18	User-Specific	B68
19	User-Specific	B67
20	User-Specific	B66
21	User-Specific	B65
22	User-Specific	B64
23	User-Specific	B63
24	User-Specific	B62
25	User-Specific	B61
26	User-Specific	B60
27	User-Specific	B59
28	User-Specific	B58
29	User-Specific	B57



Header Connector B2	Description	MTM Side B
30	User-Specific	B56
31	User-Specific	B55
32	User-Specific	B54
33	User-Specific	B53
34	User-Specific	B52
35	User-Specific	B51
36	User-Specific	B50
37	User-Specific	B49
38	User-Specific	B48
39	GND	B8, B9
40	GND	B8, B9

Table 9: Pinout B2 connector



**J5 (B2): 40-pin Connectors WIDE FORMAT**

Header Connector B2	Description	MTM Side B	Header Connector B2	Description	MTM Side B
1	GND	B8, B9	2	GND	B8, B9
3	Not Connected	-	4	User-Specific	B82
5	User-Specific	B81	6	User-Specific	B80
7	User-Specific	B79	8	User-Specific	B78
9	User-Specific	B77	10	User-Specific	B76
11	User-Specific	B75	12	User-Specific	B74
13	User-Specific	B73	14	User-Specific	B72
15	User-Specific	B71	16	User-Specific	B70
17	User-Specific	B69	18	User-Specific	B68
19	User-Specific	B67	20	User-Specific	B66
21	User-Specific	B65	22	User-Specific	B64
23	User-Specific	B63	24	User-Specific	B62
25	User-Specific	B61	26	User-Specific	B60
27	User-Specific	B59	28	User-Specific	B58
29	User-Specific	B57	30	User-Specific	B56
31	User-Specific	B55	32	User-Specific	B54
33	User-Specific	B53	34	User-Specific	B52
35	User-Specific	B51	36	User-Specific	B50
37	User-Specific	B49	38	User-Specific	B48
39	GND	B8, B9	40	GND	B8, B9

Table 10: Pinout B2 connector



**J6: MTM Edge A-side terminal connector**

Pin	MTM Edge A-side pin
1	GND
2	I2C0 SCL
3	A15
4	A17
5	A19
6	A21
7	A23
8	A25
9	A27
10	A29

Table 11: Pinout for J6 terminal

**J8: MTM Edge A-side terminal connector**

Pin	MTM Edge A-side pin
1	GND
2	A49
3	A51
4	A53
5	A55
6	A57
7	A59
8	A61
9	A63
10	A65

Table 13: Pinout for J8 terminal

**J7: MTM Edge A-side terminal connector**

Pin	MTM Edge A-side pin
1	A31
2	A33
3	A35
4	A37
5	A39
6	A41
7	A43
8	A45
9	A47
10	GND

Table 12: Pinout for J7 terminal

**J9: MTM Edge A-side terminal connector**

Pin	MTM Edge A-side pin
1	A67
2	A69
3	A71
4	A73
5	A75
6	A77
7	A79
8	A81
9	Not Connected
10	GND

Table 14: Pinout for J9 terminal



**J10: MTM Edge A-side terminal connector**

Pin	MTM Edge A-side pin
1	GND
2	I2C0 SDA
3	A14
4	A16
5	A18
6	A20
7	A22
8	A24
9	A26
10	A28

Table 15: Pinout for J10 terminal

**J12: MTM Edge A-side terminal connector**

Pin	MTM Edge A-side pin
1	GND
2	A48
3	A50
4	A52
5	A54
6	A56
7	A58
8	A60
9	A62
10	A64

Table 17: Pinout for J12 terminal

**J11: MTM Edge A-side terminal connector**

Pin	MTM Edge A-side pin
1	A30
2	A32
3	A34
4	A36
5	A38
6	A40
7	A42
8	A44
9	A46
10	GND

Table 16: Pinout for J11 terminal

**J13: MTM Edge A-side terminal connector**

Pin	MTM Edge A-side pin
1	A66
2	A68
3	A70
4	A72
5	A74
6	A76
7	A78
8	A80
9	A82
10	GND

Table 18: Pinout for J13 terminal



**J14: MTM Edge B-side terminal connector**

Pin	MTM Edge B-side pin
1	GND
2	UART0_TX
3	B15
4	B17
5	B19
6	B21
7	B23
8	B25
9	B27
10	B29

Table 19: Pinout for J14 terminal

**J16: MTM Edge B-side terminal connector**

Pin	MTM Edge B-side pin
1	GND
2	B49
3	B51
4	B53
5	B55
6	B57
7	B59
8	B61
9	B63
10	B65

Table 21: Pinout for J16 terminal

**J15: MTM Edge B-side terminal connector**

Pin	MTM Edge B-side pin
1	B31
2	B33
3	B35
4	B37
5	B39
6	B41
7	B43
8	B45
9	B47
10	GND

Table 20: Pinout for J15 terminal

**J17: MTM Edge B-side terminal connector**

Pin	MTM Edge B-side pin
1	B67
2	B69
3	B71
4	B73
5	B75
6	B77
7	B79
8	B81
9	Not Connected
10	GND

Table 22: Pinout for J17 terminal



**J18: MTM Edge B-side terminal connector**

Pin	MTM Edge B-side pin
1	GND
2	UART0_RX
3	B14
4	B16
5	B18
6	B20
7	B22
8	B24
9	B26
10	B28

Table 23: Pinout for J18 terminal

**J20: MTM Edge B-side terminal connector**

Pin	MTM Edge B-side pin
1	GND
2	B48
3	B50
4	B52
5	B54
6	B56
7	B58
8	B60
9	B62
10	B64

Table 25: Pinout for J20 terminal

**J19: MTM Edge B-side terminal connector**

Pin	MTM Edge B-side pin
1	B30
2	B32
3	B34
4	B36
5	B38
6	B40
7	B42
8	B44
9	B46
10	GND

Table 24: Pinout for J19 terminal

**J21: MTM Edge B-side terminal connector**

Pin	MTM Edge B-side pin
1	B66
2	B68
3	B70
4	B72
5	B74
6	B76
7	B78
8	B80
9	B82
10	GND

Table 26: Pinout for J21 terminal



### MTM Edge Connector Interface

All MTM products are designed with an edge connector interface that requires a compatible edgeboard connector on the carrier PCB. Acroname recommends the through-hole PCI-Express (PCIe) Vertical Connector. The connectors can be combined with an optional retention clip, as shown below. MTM-RCI-1 is designed for the full 164-position connector.

MTM Product	Manufacturer	Manufacturer Part Number	Description
MTM-RCI-1, MTM-DAQ-1	Amphenol FCI Samtec	10018784-10203TLF PCIE-164-02-F-D-TH	PCI-Express 164-position vertical connector
MTM-IO-Serial	Amphenol FCI Samtec	10018784-10202TLF PCIE-098-02-F-D-TH	PCI-Express 98-position vertical connector
MTM-PM-1	Amphenol FCI Samtec	10018784-10201TLF PCIE-064-02-F-D-TH	PCI-Express 64-position vertical connector
MTM-USBStem	Amphenol FCI Samtec	10018784-10201TLF PCIE-064-02-F-D-TH	PCI-Express 64-position vertical connector
MTM-EtherStem	Amphenol FCI Samtec	10018784-10201TLF PCIE-064-02-F-D-TH	PCI-Express 64-position vertical connector
All Models	Amphenol FCI	10042618-003LF	PCI-Express Retention Clip (optional)

Table 27: PCI-Express Edge Connectors for MTM Products

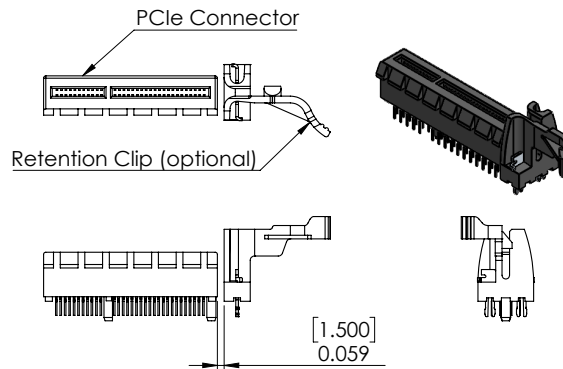


Figure 4: PCIe Vertical Connector with optional Retention Clip

MTM Edge Connector Specifications	Description
Contact Finish	Gold
Card Thickness	0.0625" [1.59mm]
Number of Rows	2
Number of Positions	Variable (see Table 27: PCI-Express Edge Connectors for MTM Products)
Pitch	0.039" (1.00mm)

Table 28: MTM Edge Connector Specifications

Amphenol FCI Drawings and Layout: <http://portal.fciconnect.com/Comergent/fci/drawing/10018784.pdf>  
 Amphenol FCI Product Specification: <http://portal.fciconnect.com/res/en/pdf/files/Specs/gs-12-233.pdf>  
 Samtec Product Catalog: [http://suddendocs.samtec.com/catalog\\_english/pcie.pdf](http://suddendocs.samtec.com/catalog_english/pcie.pdf)





### Breakout Connector Interfaces

Breakouts for the MTM edge connector are available through both 0.1" spaced header connectors and 3.5mm spaced screw terminals. Though specific connectors are not required, Acroname has designed MTM-RCI-1 to accommodate standard 0.1" pitch headers and/or 3.5mm pitch terminals. Suggested connectors include:

#### Standard Header Connectors

Manufacturer	Manufacturer Part Number	Description
Amphenol FCI Samtec	65863-085LF TST-120-01-G-D	40-pin 0.1" Shrouded Connector Header

Breakout Connector Specifications	Description
Contact Finish	Gold
Number of Rows	2
Number of Positions	Variable
Pitch	0.1" (2.54mm)

Table 29: Suggested Header Connectors

#### Terminal Connectors

Manufacturer	Manufacturer Part Number	Description
Phoenix Amphenol FCI	1751329 TE10015400J0G	10-pin 3.5mm Screw Terminal

Breakout Connector Specifications	Description
Contact Finish	Brass (CuZn)
Number of Rows	1
Number of Positions	Variable
Pitch	0.138" (3.5mm)

Table 30: Suggested Terminal Connectors



**Mechanical**

Dimensions are shown in inches [mm]. 3D CAD models are available through the MTM-RCI-1 product page's Downloads section.

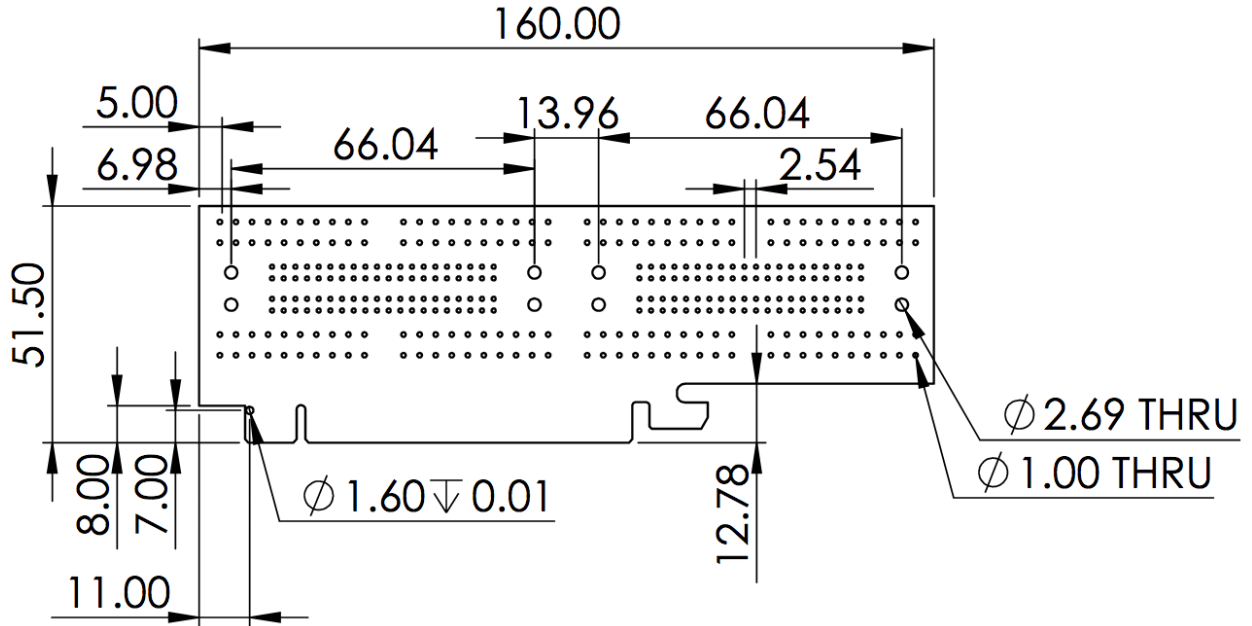


Figure 5: MTM-RCI-1 Mechanical

**Document Revision History**

All major documentation changes will be marked with a dated revision code

Revision	Date	Engineer	Description
1.0	June 25, 2018	LCD	Initial Release