

Product Name: ZX104LN-38-PLUG Mictor Breakout Adapter

Product Description: Mictor breakout adapter, test board, Mictor Plug 38 pin Tyco/AMP/TE. Designed for test & measurement of electronic designs utilizing Mictor connector interface. ZX104LN Mictor breakout adapter is multi application test module interfacing with scope, logic analyzer probe using flying wire probe. It has onboard Mictor plug connector, mating with Mictor receptacle connector series. ZX104LN Mictor breakout adapter is offered in Right Angle (RA) and Straight (ST) header configuration. The base PCB is identical for both assemblies.

- 1- Each Mictor plug connector's signal is routed to onboard header.
- 2- Listed number adjacent to each header pin represents the associated TE Mictor plug pin number, see table 1
- 3- All traces are **50 Ω** impedance controlled design.
- 4- Four layers PCB design, inner layers are GND planes with over 120+ ground stitching vias (covered by solder mask).
- 5- **Dedicated** provided test points support access to I2C-SDA, I2C-SCL, +5V, GND, see table 2
- 6- One accessible GND test point, The test point is connected to module's GND planes and direct interface to the Mictor connector's GND blade.
- 7- Improved signal integrity and crosstalk.
- 8- Ease of interface with single channel and differential scope probes. Fully compatible with Single Ended ,or Differential Pair design applications.
- 9- Mates with any height and form factor Mictor receptacle connector series.
- 10- Flying lead wire assembly may be used for board to board interface – See ordering information, see [ZX100ACC-SS](#)

Electrical:
 Insertion loss > -1.6dB @3GHz
 Trace impedance: 50 Ω
 Operating Temperature: -55°C to +125°C
 TE Connector:

Onboard Connector: Mictor plug 2rows x 19 pins/row
 Mates with: Any Mictor receptacle formfactor
 Pitch: 0.025" (0.64mm) pin to pin pitch
 Plating: Gold Flash
 Header:
 Pitch: 0.1" (2.54mm) pin to pin pitch
 Pin: Square 0.025" (0.635mm)
 Height: 0.24" (6mm)
 Plating: Gold Flash

Table 2 – Dedicated test points

Test Point	Mictor pin #	Duplicate pin # at header	Function*
DA 4	4	SDA/4	I2C Data
CL2	2	SCL/2	I2C Clock
VG3	3	VG/3	Ground
5V1	1	5V/1	Supply
GND	center TAP	GND	

*** Reserved specific board design function, not applicable to all designs.
GND TP is connected to Mictor's GND center tap as well as 2 internal ground planes.

Application: Bringup, testing, emulation, development, modular design evaluations

Mates with : Any Tyco's 38 pin Mictor Socket (Receptacle) offered at any height
 2-767004-2 767096-8 767096-1 767110-1 767114-1 767114-8 767181-1 767054-1 767171-1 767081-1 767115-1 2-5767004
 5767096-8 5767096-1 5767110-1 5767114-1 5767114-8 5767181-1 5767054-1 5767171-1 5767081-1 5767115-1 767130-1 767146-1 767146-8
 767094-1 767178-1 767178-8 767154-1 767153-8 767095-1 5767130-1 5767146-1 5767146-8 5767094-1 5767178-1 1761316-8 5767154-1
 5767153-8 5767095-1 767044-1 767007 767056 767111 767116 767117 767118 767119 5767006 5767044
 Agilent Tektronix 5346-6002 E5339A E5334A E5351A E5346-6002 E5346-63201

Table 1 - ZX104LN- Mictor 38 Plug pin configuration

Layer	Header	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12	Pin 13	Pin 14	Pin 15	Pin 16	Pin 17	Pin 18	Pin 19	Pin 20	Pin 21	Pin 22	Pin 23	Pin 24	Pin 25	Pin 26	Pin 27	Pin 28	Pin 29	Pin 30	Pin 31	Pin 32	Pin 33	Pin 34	Pin 35	Pin 36	Pin 37	Pin 38
TOP	J2	3	7	11	15	19	23	27	31	35	GND																												
		1	5	9	13	17	21	25	29	33	37																												
TOP	Mictor_Plug J1	1, 3, 5, 7, 9, .. 37																																					
BOTTOM		2, 4, 6, 8, 10, .. 38																																					
BOTTOM	J3	4	8	12	16	20	24	28	32	36	GND																												
		2	6	10	14	18	22	26	30	34	38																												

Header numbering refers to the Mictor's pin number
 "GND" header pins are connected to the 2 internal ground layers as well as top/bottom GND fills.

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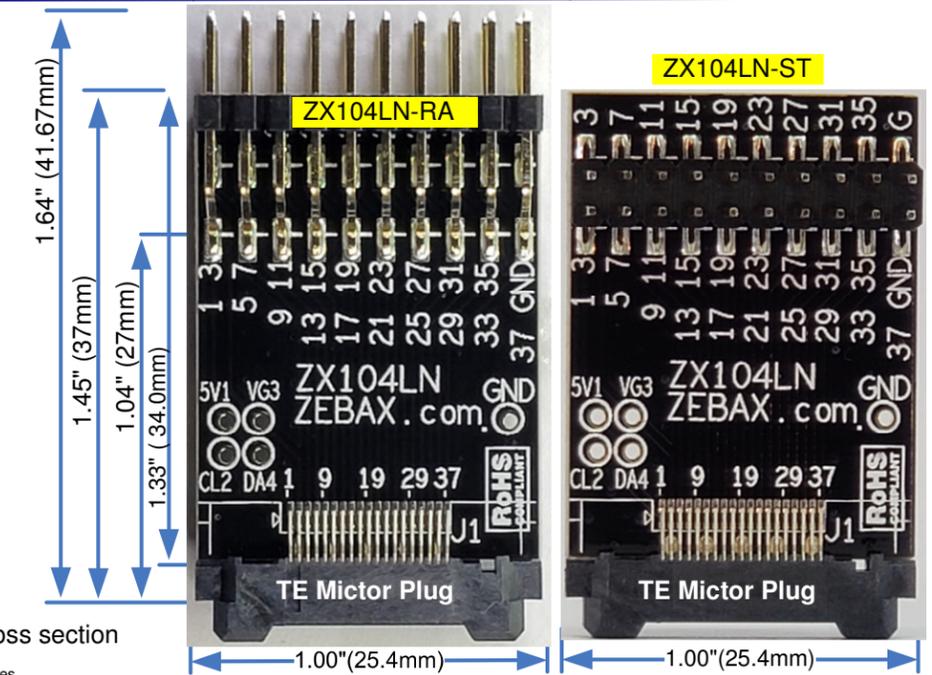
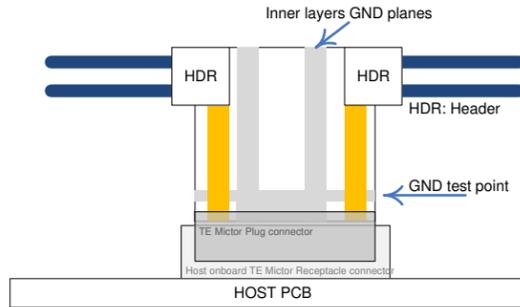
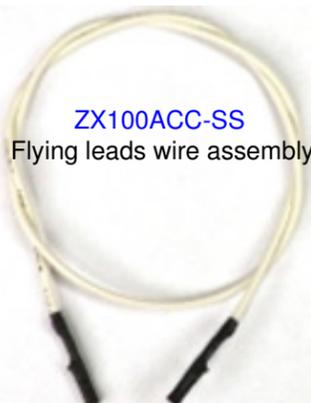
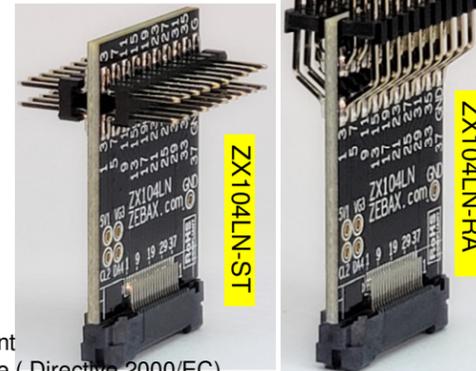


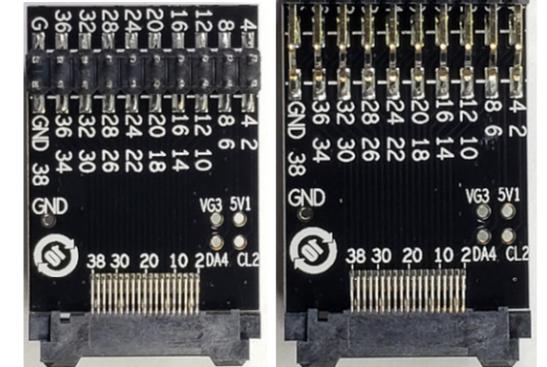
Figure 1 - ZX104LN-x simplified cross section



Note:
 Signal layers
 Ground layers, Please note – The GND test point is connector to:
 1- Top/Bottom GND fill
 2- The inner layers ground planes
 3- TE connector GND blade.



ZX104LN-ST
 ZX104-RA Back view



Ordering INFO:

Part Number
 ZX104LN-X options
 RA : Right Angle header
 ST : Straight header (Standard)

[ZX100ACC-SS](#) Flying leads wire assembly
[ZX100ACC-SS site page](#) – visiting the flying leads wire assembly

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SPECIFIED DIMENSIONS ARE INCHES (MM). ROHS COMPLIANT	ASSEMBLY DRAWING
	ITEM: ZX104LN-ST ZX104LN-RK

DESCRIPTION: Mictor breakout adapter 38 pin Plug

CHECKED: M. MARINA	DRAWN: SLAVIK	REVISION: 1.0 SHEET: 1 OF 1
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