

Omnetics Based Microwire Arrays

Hardware Reference



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Omnetics Based Microwire Arrays

Standard 50 um polyimide-insulated tungsten microwire gives the arrays excellent recording characteristics and the rigidity of tungsten facilitates insertion. The standard OMN1010 array consists of sixteen channels configured in two rows of eight electrodes each and are typically accessed via our RA16CH 16-channel headstages. OMN1005, OMN1020, and OMN1030 share this standard configuration with varying electrode separation specifications. Consult the documentation provided with your array for custom specifications.

Note

This section provides information specific to TDT arrays. For more general information see [Suggestions for Microwire Insertion](#).

Part Numbers:

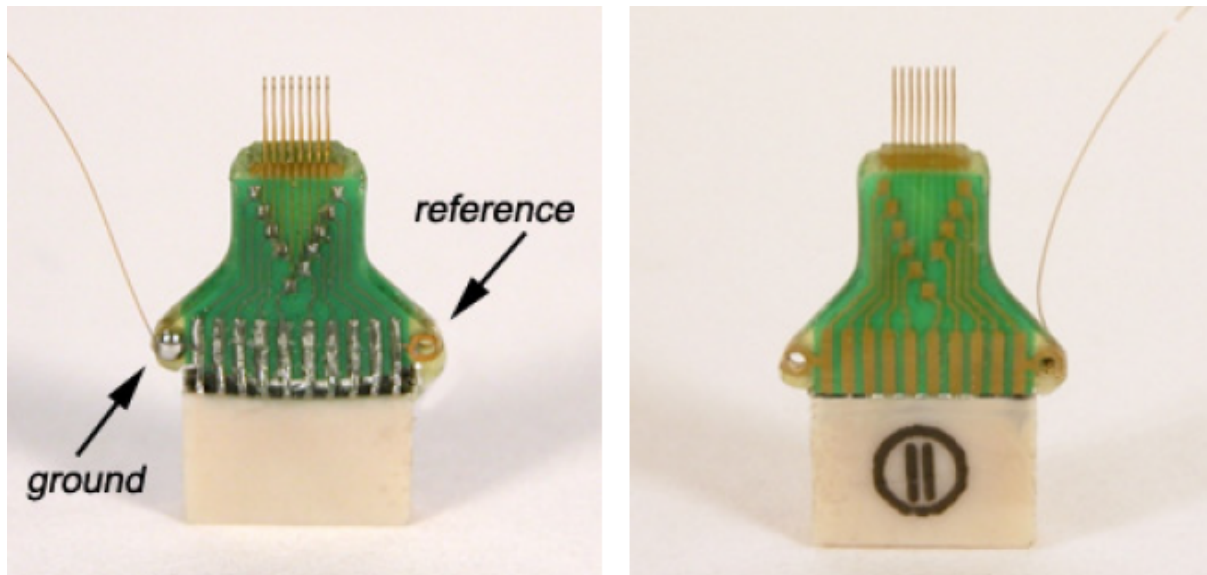
OMN1005, OMN1010, OMN1020, OMN1030, OMN1005-8, OMN1005-16, OMN1005-32,
OMN1010-8, OMN1010-16, OMN1010-32,
OMN1020-8, OMN1020-16, OMN1020-32,
OMN1030-8, OMN1030-16, OMN1030-32

Grounding the Electrode

Our latest laser cut microwire arrays (OMN1010) have one location each to connect needed ground and reference wires. Because the reference and ground are shorted together in our RA16CH chronic headstages (unless the jumper is cut by the user) only one wire will be needed for most cases.

Important

The solder pad is located on the backside of the microwire circuit board.



The illustrations above show a single wire connected to the ground pad located on the backside of the array.

Caution

The microwire array can be damaged by extreme heat. Use caution when soldering.

Omnetics Based Microwire Array Specifications

Specifications might vary based on custom order:

Specification	Default	Options
n Rows X n Electrodes	2x8	Max channels per connector = 32
Wire Material	Tungsten	
Wire Diameter	50 μm	33 μm
Insulation	Polyimide	
Electrode Spacing	250 μm	175 μm , 350 μm , 500 μm
Row Separation	500 μm	1000 μm , 1500 μm
Tip Angle	Blunt Cut (0 degrees)	15, 30, 45, 60 degrees
Tip Length	2 mm	0.5 mm - 10 mm
Ground and Reference Wires	None	Ground, Reference

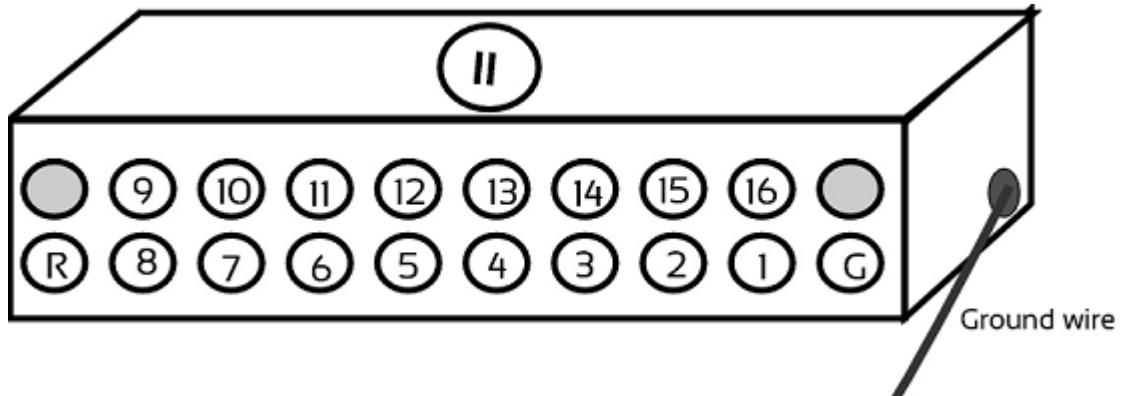
See the [Online Order Form](#) for more information on ordering specifications.

Omnetics Based Microwire Array Site Map

Omnetics dual row 18-pin nano connector(s) (0.025 mil pitch; 2x7x4 mm)

Ground wire is attached adjacent to row 1.

16 Channel Connector



32 Channel Connector

