We claim:

1. A vibratory meter (5) including a multi-channel flow tube (130), the vibratory meter (5) comprising:

a meter electronics (20); and

a meter assembly (10) communicatively coupled to the meter electronics (20),

the meter assembly (10) comprising:

the multi-channel flow tube (130, 330, 430, 530) comprising two or more fluid channels (132, 332, 432, 532) surrounded by a tube wall (134, 334, 434, 534), wherein the two or more fluid channels (132, 332, 432, 532) and tube wall (134, 334, 434, 534) comprise a single integral structure; and

a driver (180) coupled to the multi-channel flow tube (130, 330, 430, 530), the driver (180) being configured to vibrate the multi-channel flow tube (130, 330, 430, 530);

wherein the two or more fluid channels (132, 332, 432, 532) and tube wall (134, 334, 434, 534) are configured to deform in a same direction as the single integral structure in response to a drive signal applied to the driver (180), and a longitudinal length of the two or more fluid channels (132, 332, 432, 532) is substantially equal to a longitudinal length of a vibratory portion of the multi-channel flow tube (130, 330, 430, 530) , and the longitudinal length of the vibratory portion is less than a length of the multi-channel flow tube wall (134, 334, 434, 534) of the multi-channel flow tube (130, 330, 430, 530).

2. The vibratory meter (5) of claim 1, wherein the two or more fluid channels (132) are defined by one or more channel divisions (136) having a planar shape extending along a longitudinal length of the multi-channel flow tube (130).

3. The vibratory meter (5) of one of claim 1, wherein the two or more fluid channels (432, 532) are defined by channel tubes (436, 536) affixed to each other and extending along a longitudinal length of the multi-channel flow tube (430, 530).

4. The vibratory meter (5) of one of any of the foregoing claims 1 through 3, wherein the two or more fluid channels (132, 332, 432, 532) are substantially parallel with each other.

5. The vibratory meter (5) of one of any of the foregoing claims 1 through 4, wherein each of the two or more fluid channels (132, 332, 432, 532) have a rectangular cross section or a circular cross section at any particular point along a longitudinal length of the fluid channel.

6. The vibratory meter (5) of one of any of the foregoing claim 1 through 5, wherein a longitudinal length of the tube wall (134, 334, 434, 534) is substantially equal to a longitudinal length of the two or more fluid channels (132, 332, 432, 532).

7. A method of measuring a fluid with a multi-channel flow tube, the method comprising:

separating the fluid into two or more fluid channels in a multi-channel flow tube surrounded by a tube wall, wherein the two or more fluid channels and tube wall comprise a single integral structure;

applying a drive signal to a driver coupled to the multi-channel flow tube, the driver being configured to vibrate the multi-channel flow tube;

deforming the two or more fluid channels and the tube wall in a same direction as the single integral structure in response to the drive signal applied to the driver; and

measuring a deflection of the multi-channel flow tube with a sensor attached to the multi-channel flow tube;

wherein deforming the two or more fluid channels and the tube wall in the same direction comprises deforming a longitudinal length of the two or more fluid channels that is substantially equal to a longitudinal length of a vibratory portion of the multi-channel flow tube, the longitudinal length of the vibratory portion being less than a length of the multi-channel flow

tube wall (134, 334, 434, 534) of the multi-channel flow tube (130, 330, 430, 530).

8. The method of claim 7, wherein separating the fluid into two or more fluid channels comprises separating a gas component of the fluid into one of the two or more fluid channels.

9. The method of one of claim 7 or claim 8, wherein separating the fluid into two or more fluid channels comprises filling a cross section of one of the two or more fluid channels with a gas component of the fluid.

10. The method of one of any of the foregoing claims 7 through 9, wherein applying the drive signal to the driver coupled to the multi-channel flow tube comprises applying the drive signal to the driver coupled to the tube wall, wherein the two or more fluid channels are defined by one or more channel divisions having a planar shape extending along a longitudinal length of the multi-channel flow tube.

11. The method of one of any of the foregoing claims 7 through 9, wherein applying the drive signal to the driver coupled to the multi-channel flow tube comprises applying the drive signal to the driver coupled to the tube wall, wherein the two or more fluid channels are defined by channel tubes affixed to each other and extending along a longitudinal length of the multi-channel flow tube.

12. The method of one of any of the foregoing claims 7 through 11, wherein deforming the two or more fluid channels and the tube wall in the same direction comprises deforming a longitudinal length of the tube wall that is substantially equal to a longitudinal length of the two or more fluid channels.