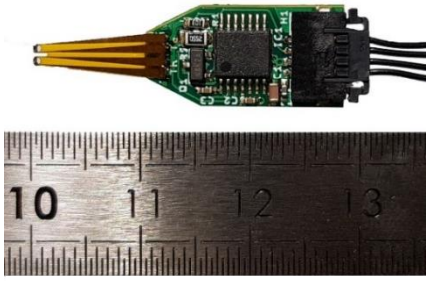
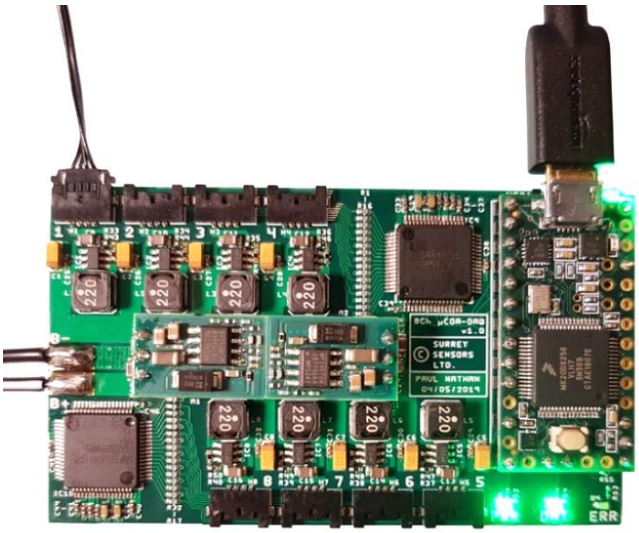
8-CHANNEL 'NANO-CTA' ARRAY THERMAL ANEMOMETRY SYSTEM

This ultra-miniaturized multichannel variant of the Surrey Sensors 'micro-CTA' can simultaneously drive up to eight of the surface-mountable CMOS sensing elements, offering the capability to map surface velocities in real-time at speeds down to 10 mm/s.



Individual "nano-CTA" sensing element

- Ultralow velocity range: reliable measurement of speeds in air as low as 10 mm/s
- Robust, abrasion-resistant permanent sensing element
- Ultra-low calibration drift
- Each channel features an independent analogue-balance temperature compensation system
- Surface array mountings available for high-resolution, nonintrusive measurement of wall velocities
- Modular architecture supports up to eight simultaneous A/D channels per unit
- Fully-interchangeable surface-mountable sensor elements.
- Software and drivers are supplied for plug-and-play USB operation


Eight-channel data acquisition unit

Specification

Velocity range	~ 10 mm/s to 120 m/s (custom extended range available)
Uncertainty	± 1 % relative
Compensated temperature range	0° to 70° C ambient for dry air
Calibration drift	< 2 % over long periods of use or storage
Storage temperature range	-40° to +85° C
Maximum relative humidity	95 %
Communications interface	Data streaming via USB2.0 or TTL
Power	7 – 36 VDC supply required, min. 3W, max. 6W plus USB typical 300 mW
Data acquisition rate	400 Hz simultaneous
Digital resolution	16-bit
System requirements[1]	64-bit Windows 7 or later
Physical dimensions	Sensor package approx. 10 mm x 20 mm Data acquisition unit approx. 45 x 77 mm

[1]Note that computer interface is not needed for stand-alone streaming operation

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Additional custom modifications available

- Velocity ranges up to local sonic
- Available as OEM unit or with full enclosures
- Supplied with up to eight sensor channels
- Battery power and wireless telemetry module for remote operation
- Custom enclosure design service available
- Range of prong diameters and lengths available
- Waterproof - sealed sensors available, allowing operation in conductive media, seawater and other corrosive or harsh environments
- Custom software and driver development service available
- Extended product support and warranty available
- Bandwidths of up to 170 Hz possible