# SynJet® Top Mount Chip Cooler with HS

#### Features/Benefits

- Covers all your thermal chip cooling needs
  - Thermal loads from 10 to 20W
  - Low acoustic sound sensitive applications
  - Ultra-low power
- Very low profile applications
- 100K hours L10 life at 60C



#### Overview

SynJet<sup>®</sup> fan-less air moving technology provides the most reliable active cooling solution available today. The Low Profile family of SynJet<sup>®</sup> cooling modules has been developed by Nuventix Inc. to be integrated with a wide array of thermal needs.

**Specifications** 

- PO						
Parameter	Θs-a <sup>123</sup>	SPL (dBA) <sup>4</sup>	TDP⁵ (W)	Power W (5V) 6		
Top Mount – High Performance, 20W Cooler	2.0	31	20	0.80		
Top Mount – Standard, 15W Cooler	2.7	25	15	0.60		
Top Mount – Low Power, 13W Cooler	3.0	20	13	0.20		
Top Mount – Silent, 10W Cooler	4.0	17	10	0.40		

Parameter – All Modules	Min	Тур	Max	Units	Conditions
Voltage <sup>6</sup>	4.75		5.25	VDC	150mV max ripple p-p
Power Lead					Power (Red wire) Ground (Black wire)
Operating Temperature	0		60	°C	
Storage Temperature	-40		75	°C	
Storage Altitude			10K	m	Above Sea Level
Relative Humidity (operating)	5		95	%	Non-condensing
Weight			155	gr	With Cu heat sink
Agency Certifications					CE, UL, RoHS
Reliability <sup>7</sup>			100K	hrs	L10 @ 60C

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<sup>&</sup>lt;sup>7</sup> L10 is the life for which 90% of a group of modules will exceed the specified life



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<sup>&</sup>lt;sup>1</sup> In fully open air or well vented fixtures from 25C to 60C in full on condition with Cu heatsink. Thermal data is given as a reference only. Actual performance may vary by application.

<sup>&</sup>lt;sup>2</sup> Thermal resistance is measured from the bottom middle of the heat sink, with a heat source at least 15cm<sup>2</sup>, to ambient air measured at the inlet to the SynJet.

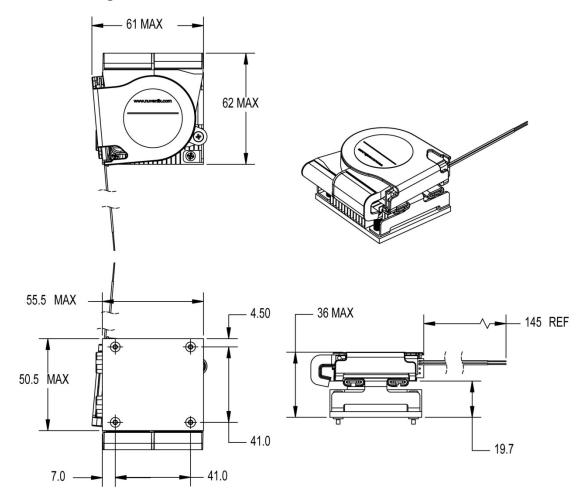
<sup>&</sup>lt;sup>3</sup> SynJet Cooler is suitable for enclosed fixtures but thermal performance will vary depending on the enclosure

<sup>&</sup>lt;sup>4</sup> Per ISO 7779

<sup>&</sup>lt;sup>5</sup> Total Design Power based on a 40°C delta in temperature

<sup>&</sup>lt;sup>6</sup> See Nuventix Design Guide for detailed power requirements

## **Mechanical drawing**



All dimensions in mm.

### **Part Numbers**

Top Mount	Document revision: 2.4
STPMS-CM005-001	SynJet, Top Mount Chip Cooler 5v – Standard, 15W Cooler
STPMS-CM005-007	SynJet, Top Mount Chip Cooler 5v – HP 20W, Cooler
STPMS-CM005-008	SynJet, Top Mount Chip Cooler 5v – S 10W, Cooler
STPMS-CM005-009	SynJet, Top Mount Chip Cooler 5v – LP 13W, Cooler
HTPMS-CALCL-001	Top Mount Chip Cooler, Heatsink, Al
HTPMS-CCUCL-001	Top Mount Chip Cooler, Heatsink, Cu

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