

# Flexible Heat Conductor

## CONDUCTION COOLING FOR SMALL FORM FACTOR ELECTRONICS



In order to meet the cooling needs of increasingly powerful processors, and overcome the challenges of current conduction cooling solutions, nVent is pleased to offer the nVent SCHROFF Flexible Heat Conductor (FHC).

The FHC utilizes the conductivity of an aluminum block, but with internal springs, allowing it to expand and contract vertically. The innovative design compensates for tolerances along the thermal path, eliminating the need for a gap pad, and therefore optimizing thermal transfer.

Together the SCHROFF Flexible Heat Conductor and nVent's range of conduction cooled SCHROFF cases, Interscale, can provide industry leading conduction cooling performance and reliability over the lifetime of the system.

### TECHNICAL DETAILS AND BENEFITS

#### Standards based design

- Available in two standard sizes to accommodate a wide range of processors
- 20 mm FHC is compatible with various Intel, AMD, Via, Freescale, NVidia and Texas Instruments processors with a BGA socket
- 70 mm FHC is well suited for ATX/ITX/Mini-ITX & COM using Intel core-i processors and AMD processors with the following sockets:
  - Intel: LGA775, LGA1150, LGA1155, LGA1156, LGA1366, LGA2011
  - AMD: AM2, AM2(+), AM3, AM3(+), FM1, FM2, FM2(+)

#### Simple Installation

- 20 mm FHC can be installed directly onto the processor with thermally conductive adhesive tape
- 70 mm FHC is affixed using a mounting bracket, available for ATX/ITX/Mini-ITX & COM (Intel and AMD chips) systems. Mounting brackets utilize standard fixing points to not interfere with other components on the printed circuit board

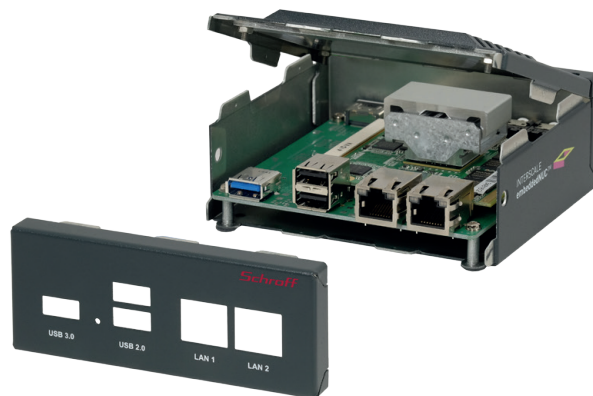
#### Industry leading conduction cooling performance

- Spring design optimizes surface contact while minimizing resistance along the thermal path
- 20 mm FHC provides 10-20%, and 70 mm FHC provides greater than 70% improvement over the current conduction cooling methods
- 20 mm FHC has  $\pm 1.5$  mm expansion/contraction, 70 mm has  $\pm 2.5$  mm; eliminates the need for a thermal gap pad
- Provides consistent performance over the lifetime of the system

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## Total conduction cooling solution

- Both the 20 mm and 70 mm FHC's are compatible with the SCHROFF's line of Interscale conduction cooled cases
- Ideal for use in industrial applications
- Standard cases, based on common embedded computing standards, available
- Custom solutions with user defined dimensions, heat sinks, cut-outs, and colors can be provided
- Interscale features an easy to assemble interlocking tab construction, integrated heat sink, EMC protection up to 20 dB at 2 GHz and pre-installed board mounting studs



## ORDER INFORMATION

Description	Item no.
Flexible Heat Conductor (FHC), 20 mm	24830-005
Interscale for embeddedNUC, 44 mm x 112 mm x 107 mm (H x W x D)	5 mm heat fins 14830-002

Description	Item no.
Flexible Heat Conductor (FHC), 70 mm	24830-001
Mounting bracket for Intel socket: LGA775, LGA1150, LGA1155, LGA1156, LGA1366, LGA2011	24830-002
Mounting bracket for AMD socket: AM2, AM2(+), AM3, AM3(+), FM1, FM2, FM2(+)	24830-003
Interscale for Mini-ITX, 94 mm x 184 mm x 189 mm (H x W x D)	10 mm heat fins 14830-005
	20 mm heat fins 14830-006

For further information please visit: [nVent.com/SCHROFF](http://nVent.com/SCHROFF)

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