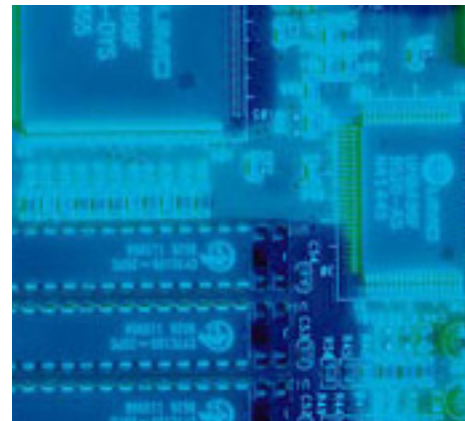




QoolPCB

FIXED COST PLAN FOR PCB LEVEL COOLING

ATS offers a single, fixed price for the complete set of heat sinks required to cool any PCB. The Fixed Cost Board Cooling Program includes all design engineering, hardware, testing, procurement and delivery costs for the heat sinks, thermal interface materials, attachment devices and all other parts required for the effective thermal management of a board's components.



Whether the solutions are for off-the-shelf heat sinks, custom designed, or a combination of both, ATS can now offer them at a fixed cost. The program also eliminates separate costs for design, tooling, samples, verification and supply chain management. The Fixed Cost Board Cooling Program is ideal for companies looking for ways to reduce their product development costs, speed time-to-market and ensure thermal reliability.

PLAN OFFERING

ITEM	TASK	DESCRIPTION
1	Thermal Analysis	ATS will perform a thermal analysis of each PCB and specify the appropriate heat sink (see table below)
2	Tooling - Heat Sink	ATS will assume all tooling charges for any custom heat sinks that may be required
3	Tooling - Clips	ATS will assume all tooling charges for any custom frame and spring clips that may be required
4	Testing	ATS will perform all testing at its facilities to verify design and report its results to the customer
5	Thermal Lab	ATS will make its Thermal Characterization Lab available to the customer for its thermal analysis and verification
6	Samples	ATS will provide all samples for initial testing of the PCB

PLAN COST PER PCB**

	FCBS-10	FCBS-20	FCBS-30
# of HS on a PCB	10 or less	20 or less	greater than 20
Total Cost/PCB	\$50.00	\$75.00	\$100.00
Average Cost/Heat Sink	\$5.00	\$3.75	\$2.50*

*based on 40 heat sinks on PCB

**fixed plan as shown; add 15% if copper heat sinks are required

CUSTOMER REQUIREMENTS

ITEM	TASK	DESCRIPTION
1	Board Information	Customer supplies PCB layout (in Solidworks or IGES files), component power dissipation and component specs
2	Engineering Contact (EC)	Customer will assign a point of contact to work with ATS engineers
3	PCB Sample	Customer will provide ATS will a PCB sample as soon as one is available
4	Refundable Retainer (per PCB)	A one time refundable \$5,000 deposit per PCB required to start the process. The fee is refunded when the heat sinks for 500 PCBs are ordered in a period of 18 months from the issuance of the PO for the deposit
5	Number of Heat Sinks	Customer's Engineering Contact (EC) will determine and approve the required number of heat sinks per board

For further technical information, call 781.769.2800, email ats-hq@qats.com or visit qats.com