PA51SND1-BD Data Sheet

80 pin uBGA socket/40 pin DIP 0.6” plug

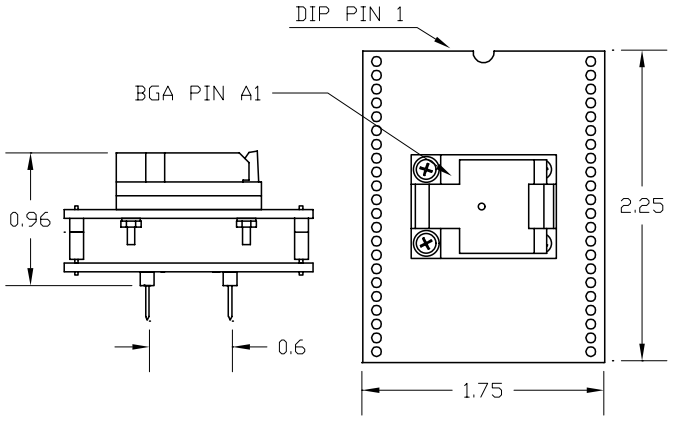
Supported Device/Footprints

This adapter allows programming of an Atmel AT89C51SND1 in the 80 pin uBGA package using the 40 pin DIP footprint specified by Atmel.

For this adapter to be useful, a programmer must offer specific support for this device and adapter combination.

Atmel: AT89C51SND1 9x9 uBGA Package Code: D03
Footprint: Atmel specified 40 DIP 0.6”

Adapter Dimensions



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Adapter Construction

This adapter is made up of 3 sub-assemblies. They assemble via connectors making the adapter modular. This way the sub-assemblies can be replaced easily.

When disassembling the adapter take care not to bend the pins. When reassembling the adapter note the pin 1 indicators to align the parts correctly.

The following chart lists the adapter described by this datasheet and its subassemblies.

Adapter	Test Socket	Top Board	Bottom Board
PA51SND1-BD	81BF-L6617	51SN81BG	51BASE

Test Socket

LSC Socket	Style	Mfgr/Pn
81BF-L6617	Lidded ZIF	Loranger 090SQ081U6617

The Test Socket is not soldered to the adapter. It uses a pressure style contact. The Contact Tails of the socket press against PCB pads when a device is installed in the socket.

To remove the socket, remove the nuts from the screws and lift the socket off the top board.

Adapter Wiring

The following chart shows the connections from the BGA device to the adapter’s DIP plug

uBGA Socket	Signal	DIP Plug	DIP Plug	Signal	uBGA Socket
C3	P1.0	1	21	P2.0	A8
B1	P1.1	2	22	P2.1	C7
C1	P1.2	3	23	P2.2	C8
C2	P1.3	4	24	P2.3	E8
D1	P1.4	5	25	P2.4	D9
D2	P1.5	6	26	P2.5	C9
D4	P1.6	7	27	P2.6	D8
D3	P1.7	8	28	P2.7	E6
F9	RST	9	29	PSEN*	A6
J3	P3.0	10	30	ALE	B6
H3	P3.1	11	31	EA*	A7
J4	P3.2	12	32	P0.0	D6
H4	P3.3	13	33	P0.1	C6
F4	P3.4	14	34	P0.2	D5
G4	P3.5	15	35	P0.3	B4
J5	P3.6	16	36	P0.4	A3
G5	P3.7	17	37	P0.5	A4
F1	XTAL2	18	38	P0.6	B5
2E	XTAL1	19	39	P0.7	B3
C5,E7,F2, F3,G1,G2, H6,H8,J2	VSS	20	40	VCC	A5,E1,E3, E9,F5,G3, H1,J9

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