

# PA-XAS3FC-QD Data Sheet

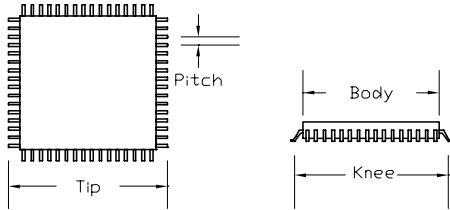
80 pin QFP socket/40 pin DIP 0.6" plug

## Supported Device/Footprints

These adapters are for device programming the EPROM of a Philips 51XAS3. They accept the XAS3 in 80 pin QFP and plug into an 87C51FC 40 pin DIP footprint.

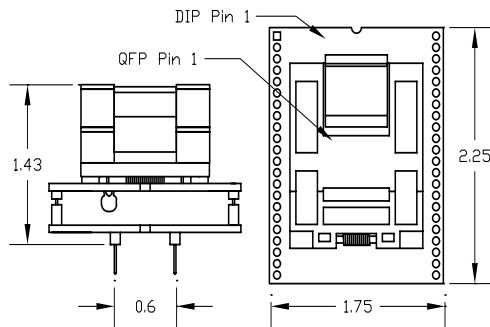
| Device       |                         | Footprint |             |
|--------------|-------------------------|-----------|-------------|
| Manufacturer | Device                  | Device    | Package     |
| Philips      | 51XA-S3QFP<br>(SOT-315) | 87C51FC   | 40 DIP 0.6" |

The QFP socket accepts packages with the dimensions listed below:



|              |           |             |             |
|--------------|-----------|-------------|-------------|
| <b>Body</b>  | 12 mm typ | <b>Tip</b>  | 14 mm typ   |
| <b>Pitch</b> | 0.5 mm    | <b>Knee</b> | 12.8 mm typ |

## Adapter Dimensions



PA-XAS3FC-QD

## Adapter Construction

The 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.

The following chart lists the adapters described by this datasheet and their subassemblies.

| Adapter      | Test Socket | Top Board | Bottom Board |
|--------------|-------------|-----------|--------------|
| PA-XAS3FC-QD | 80QJ-808    | XAS3-80   | 51-BASE      |

## Test Socket

| LSC #    | Style      | Mfgr/Pn                  |
|----------|------------|--------------------------|
| 80QJ-808 | Lidded ZIF | Yamaichi#: IC51-0804-808 |

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.

## Memory Map

Both the 51XAS3 and the 87C51FC (FC) contain 32K bytes of EPROM. Using the FC algorithm all of the 51XAS3's EPROM (0000-7FFF) can be programmed.

## Adapter Wiring

The following chart shows the connections from the QFP device to the adapter's DIP plug.

| Adapter Socket<br>51XAS3-QFP |                      | Adapter Plug<br>87C51-FC-DIP |          |
|------------------------------|----------------------|------------------------------|----------|
| Pin                          | Signal               | Pin                          | Signal   |
| 3                            | P3.0                 | 21                           | P2.0/A8  |
| 4                            | P3.1                 | 22                           | P2.1/A9  |
| 5                            | P3.2                 | 23                           | P2.2/A10 |
| 6                            | P3.3                 | 24                           | P2.3/A11 |
| 7                            | P3.4                 | 25                           | P2.4/A12 |
| 8                            | P3.5                 | 26                           | P2.5/A13 |
| 9                            | P3.6                 | 14                           | P3.4/A14 |
| 12                           | VSS                  | 20                           | VSS      |
| 13                           | VSS                  | 20                           | VSS      |
| 14                           | VDD <sup>1</sup>     | 40                           | VDD      |
| 15                           | VDD <sup>1</sup>     | 40                           | VDD      |
| 16                           | EA*/VPP <sup>2</sup> | 31                           | EA*/VPP  |
| 28                           | VDD <sup>1</sup>     | 40                           | VDD      |
| 29                           | VDD <sup>1</sup>     | 40                           | VDD      |
| 30                           | VSS                  | 20                           | VSS      |
| 31                           | VSS                  | 20                           | VSS      |
| 32                           | P1.0                 | 27                           | P2.6     |
| 33                           | P1.1                 | 28                           | P2.7     |
| 34                           | P1.2                 | 16                           | P3.6     |
| 35                           | P1.3                 | 17                           | P3.7     |
| 36                           | P1.4                 | 13                           | P3.3     |
| 42                           | P0.0                 | 39                           | P0.0/D0  |
| 43                           | P0.1                 | 38                           | P0.1/D1  |
| 44                           | ALE/PGM*             | 30                           | ALE/PGM* |
| 45                           | PSEN*                | 29                           | PSEN*    |
| 47                           | RST*                 | 20                           | VSS      |
| 48                           | P0.2                 | 37                           | P0.2/D2  |
| 49                           | P0.3                 | 36                           | P0.3/D3  |
| 50                           | P0.4                 | 35                           | P0.4/D4  |
| 51                           | VDD <sup>1</sup>     | 40                           | VDD      |
| 52                           | VDD <sup>1</sup>     | 40                           | VDD      |
| 53                           | VSS                  | 20                           | VSS      |
| 54                           | VSS                  | 20                           | VSS      |
| 55                           | P0.5                 | 34                           | P0.5/D5  |
| 56                           | P0.6                 | 33                           | P0.6/D6  |
| 57                           | P0.7                 | 32                           | P0.7/D7  |
| 58                           | P2.0                 | 1                            | P1.0/A0  |
| 59                           | P2.1                 | 2                            | P1.1/A1  |
| 61                           | P2.2                 | 3                            | P1.2/A2  |
| 62                           | P2.3                 | 4                            | P1.3/A3  |
| 63                           | P2.4                 | 5                            | P1.4/A4  |
| 64                           | P2.5                 | 6                            | P1.5/A5  |
| 65                           | P2.6                 | 7                            | P1.6/A6  |
| 66                           | P2.7                 | 8                            | P1.7/A7  |
| 67                           | XTAL2                | 18                           | XTAL2    |
| 68                           | XTAL1                | 19                           | XTAL1    |
| 69                           | VSS                  | 20                           | VSS      |
| 70                           | VSS                  | 20                           | VSS      |
| 71                           | VDD <sup>1</sup>     | 40                           | VDD      |
| 72                           | VDD <sup>1</sup>     | 40                           | VDD      |

S3 pins that are not shown are not connected.

<sup>1</sup> 0.1uf capacitor, VDD to Ground.

<sup>2</sup> Optional capacitor VPP to Ground is not installed.

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