

SIGNUM SYSTEMS CORPORATION

# JTAG Adapters for ARM and OMAP

## JTAG Adapters for ARM

### ADA-JDS-ARM14 and ADA-JDS-ARM20

Signum JTAG adapters for ARM provide a physical interface between Signum emulators for the ARM processor and ARM target boards. These adapters have 14-pin (ADA-JDS-ARM14) and 20-pin (ADA-JDS-ARM20) double-row, polarized, .100" × .100". (2.54 mm × 2.54 mm) receptacles, or female connectors. Signum JTAG adapters come with a 30.5 cm (12 in.) cable. The layout and dimensions of the adapters are shown below.

**ADA-JDS-ARM14**

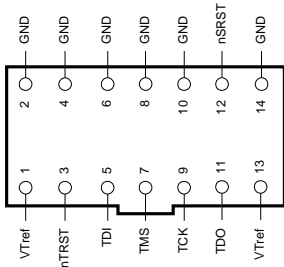


FIGURE 1 Pinout of the 14-pin JTAG adapter for ARM. Top view.

**ADA-JDS-ARM20**

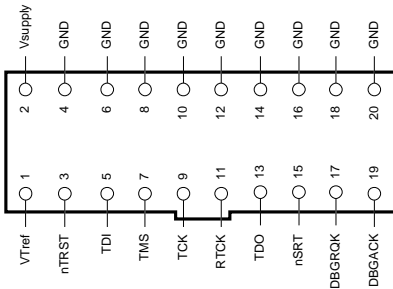


FIGURE 2 Pinout of the 20-pin JTAG adapter for ARM. Top view.

ADA-JDS-ARM14

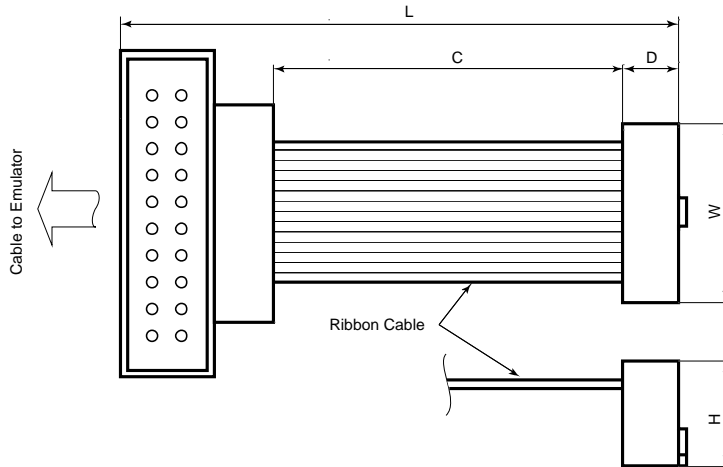


FIGURE 3 Dimensions of the 14-pin ARM adapter with a cable extender. L = 63.0 mm (2.5 in.), C = 40.0 mm (1.55 in.) D = 6.0 mm (.24 in.), W = 22.5 mm (.9 in.), H = 11.5 mm (0.45 in.).

ADA-JDS-ARM20

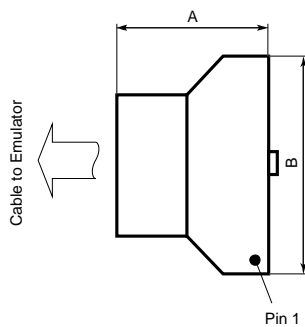


FIGURE 4 Dimensions of the 20-pin JTAG adapter for ARM. Top view. A = 19.3 mm (0.76 in.) [low-voltage: A = 24.3 mm (0.96 in.)] B = 30.5 mm (1.2 in.)

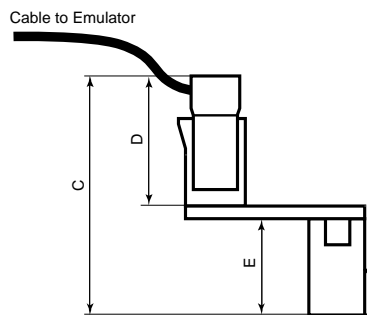


FIGURE 5 Dimensions of the 20-pin JTAG adapter for ARM. Side view. C = 22.7 mm (0.88 in.) D = 15.0 mm (0.59 in.) E = 11.0 mm (0.43 in.)

**ADA-JDS-ARM20-LV**

Your emulator can also be ordered with a low-voltage, or—if so desired—with both standard and low-voltage—variants of the JTAG adapter. These two variants have slightly different dimensions (Figure 4). The voltage range of the low-voltage adapter is 1.4V – 4.0V.

**Caution:** Voltage higher than 4.0V may permanently damage the low-voltage adapter.

**Cable Extender**

In addition to its standard version shown on page 2, the 20-pin adapter is offered in a version with a 1.55 in. ribbon cable extender that allows the adapter to remain outside the target board by lowering the adapter’s profile. (The 14-pin adapter comes always with a ribbon cable extender.)

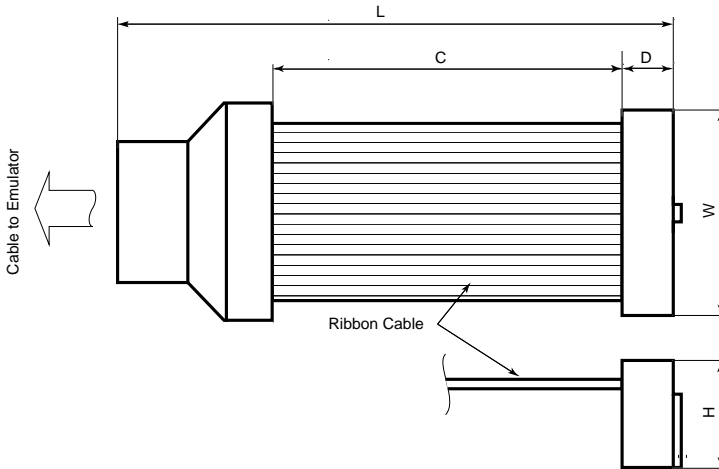


FIGURE 6 Top and side views of the 20-pin ARM adapter with a cable extender. L = 69 mm (2.7 in.), C = 40.0 mm (1.55 in.) D = 6.0 mm (.24), W = 30.0 mm (1.2 in.), H = 11.5 mm (0.45 in.).

**Target Board Header**

On the target board, we recommend using a polarized box header, such as:

14-PIN	20-PIN
14-Pin, Double-Row, Polarized Box Header-Straight, .100" × .100" (2.54 mm ×	20-Pin, Double-Row, Polarized Box Header-Straight, .100" × .100" (2.54 mm ×

14-PIN	20-PIN
2.54 mm). Manufacturers:	2.54 mm). Manufacturers:
<ul style="list-style-type: none"> <li>• 3M (Mouser Electronics, Part No. 517—2514-6002).</li> <li>• tyco/AMP, Part No. 103308-2 – Digi-Key Part No A26269-ND.</li> </ul>	<ul style="list-style-type: none"> <li>• 3M (Mouser Electronics, Part No. 517—2520-6002).</li> <li>• tyco/AMP, Part No. 103308-5 – Digi-Key Part No. A26273-ND.</li> </ul>

TABLE 1 Recommended target board headers.

## JTAG Adapters for OMAP

### ADA-JDS-TMS

The Signum JTAG adapter for OMAP devices, ADA-JDS-TMS, provides a physical interface between Signum emulators for the OMAP processor and OMAP target boards. This adapter is the same as that for the Texas Instruments TMS320 devices. It has 14-pin double-row, polarized, .100" × .100". (2.54 mm × 2.54 mm) receptacles (female connectors). The pinout and dimensions of the adapter are shown below.

### ADA-JDS-TMS-LV

Your emulator can also be ordered with a low-voltage, or—if so desired—with both standard and low-voltage—variants of the adapter for OMAP devices. These two variants have slightly different dimensions (Figure 8). The voltage range of the low-voltage adapter is 1.4 – 4.0 V.

**Caution:** Voltage higher than 4.0V may permanently damage the low-voltage adapter.

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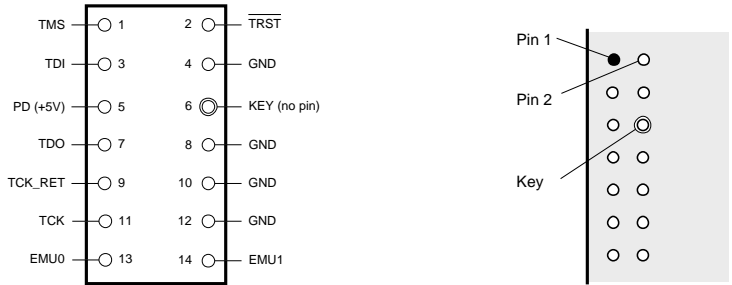


FIGURE 7 Pinout of the 14-pin JTAGjet adapter for OMAP. On the right, a top view of a matching connector layout for a target PCB.

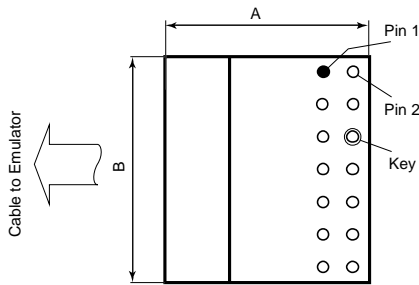


FIGURE 8 Dimensions of the 14-pin JTAGjet adapter for OMAP. Top view. A = 18.5 mm (0.73 in.) [low-voltage: 23.0 mm (0.9 in.)], B = 18.3 mm (0.72 in.).

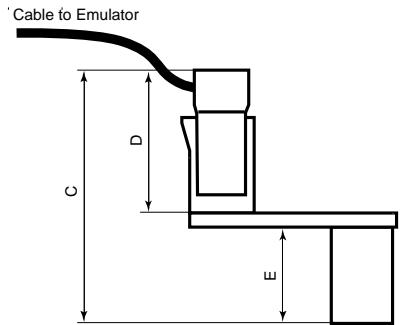


FIGURE 9 Dimensions of the 14-pin JTAGjet adapter for OMAP. Side view. C = 24 mm (.95 in.), D = 14.7 mm (0.58 in.), E = 8.5 mm (0.34 in.)

