F28xxx - controlCARD



F2808 / F28044 shown here

ControlCARDs are a small 100 pin DIMM (Dual In Line "Memory Module") style vertical plug-in board based on the TMS320 - F2808, F28044 (fixed point CPU) and F28335 (floating point CPU) Digital Signal Controller (DSC) devices. These controlCARDs have all the necessary "life support" circuitry (clock, supply LDO, decoupling, pull-ups,...etc) to provide reliable operation for the DSCs devices, and makes for a good HW reference design to use as is, or to modify as needed. This reference design is very robust and is meant for operation in noisey electrical environments, it includes the following features:

- Small size 90 mm x 25 mm (3.5" x 1")
- All GPIO, ADC and other key signal routed to gold edge connector fingers
- Extensive supply pin decoupling with L+C close to pins
- Clamping diode protection at ADC input pins
- Anti-aliasing filter (noise filter) at ADC input pins
- Ground plane
- Isolated UART communications using RS232 translator + ISO7221 isolators

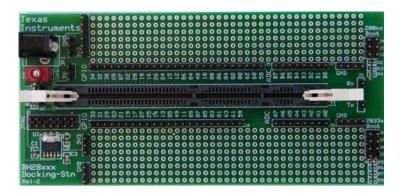
Each controlCARD includes a "Hardware Developer's Package", a set of "soft collateral" files which makes deploying this technology very easy, these files include:

- Schematics
- Bill of materials (BOM)
- Gerber files to freely use or modify
- Pinout table showing all key signals at the 100 pin connector
- DIMM100 pin / socket mechanical details

Availability:

| Description | type | Item / part # | where to get it |
|---------------------------|------|---------------------|-----------------|
| F2808 controlCARD | HW | C2000-CC2808 | contact TI |
| F28044 controlCARD | HW | C2000-CC28044 | contact TI |
| F28335 controlCARD | HW | C2000-CC28335 | contact TI |
| F2808 HW Developer's pkg | soft | BH280xxHWdevPkg.zip | contact TI |
| F28044 HW Developer's pkg | soft | BH280xxHWdevPkg.zip | contact TI |
| F28335 HW Developer's pkg | soft | BH28335HWdevPkg.zip | contact TI |

Docking Station for F28xxx controlCARDs



A quick, easy, low cost way to evaluate ("test drive") the F28xxx controlCARDs. The Docking Station is a small very basic mother board which accepts any of the plug-in controlCARDS. It provides the required 5V power supply and gives the user access to all the GPIO and ADC signals. Additionally it also provides 2 prototyping areas (one on each side of the DIMM100 connector) with an array of 0.1" spaced plated through holes for wire-wrapping and soldering. Other features of the Docking Station include:

- UART communications header connector
- Boot jumpers for all boot modes covered by F2833x and F280xx devices
- 5.0 V supply for prototyping area
- 3.3 V supply for prototyping area
- All key signals accessible via clearly labeled header pins

The Docking Station includes a "Hardware Developer's Package", a set of "soft collateral" files which helps user's develop and deploy their own custom mother boards, these files include:

- Schematics (PDF file)
- Bill of materials (BOM)
- Gerber files to freely use or modify
- Source Schematics and PCB files done in popular Freeware tool for easy modification
- Template mother board PCB file done in popular Freeware tool great to kick-off a proto design

Availability:

| Description | type | Item / part # | where to get it |
|-----------------------|------|---------------------------|-----------------|
| F28xxx DockingStation | HW | C2000-DockingStation | contact TI |
| HW Developer's pkg | soft | BH28xxxDkgStnHWdevPkg.zip | contact TI |