

ACCELERATE YOUR DEVELOPMENT!



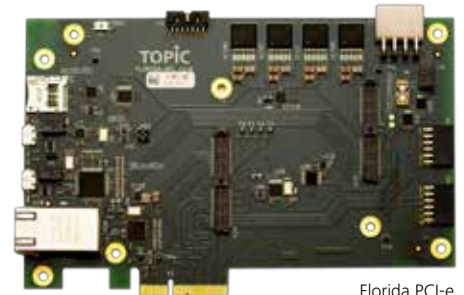
Florida Carrier Boards



Florida GEN



Florida MED



Florida PCI-e

With the Florida carrier board you can evaluate the capabilities of the Xilinx Zynq® based Miami System-on-Modules (SoM) in combination with a rich pool of peripherals. The setup helps you to kick-start your target application development giving access to the complete feature set of the Zynq processor in combination with the provided high-quality Linux BSP. The interfaces on the Florida carrier board provide functionality for data acquisition, visualization, human-machine interfaces, communication and data acquisition. Using these facilities you are able to prototype your application in an early phase and validate the actual needs of your application. The Florida boards come with a reference schematic and printed circuit board layout which can be used to customize the board according to your needs and incorporating the Miami SoM. The basic Linux development environment is part of the Miami SoM, including the board support package. Additional peripheral drivers are supplied in a dedicated Florida support package.

Florida carrier boards are available in three different flavors:

- Florida-MED; integrates an electrical isolated 16 channel, 24 bit ADC for ECG/EEG/EMG purpose
- Florida-GEN: identical to the MED board without the isolated ADC devices
- Florida PCI-e: a PCI extension board suited for the Miami series and compatible with standard PC PCI-Express slots to accelerate you PC- application.

The Florida MED and GEN board support up to two SATA connections in parallel. SATA-2 and SATA-3 connectivity is possible due to the use of the GTX transceivers of the FPGA. The PCI-Express interface can be used in 1, 2 or 4 lanes mode, where it also uses the GTX transceivers of the FPGA to achieve data rates up to 8Gbit/sec.

Key Features

- Ethernet LAN interface (1000M/100M/10M)
- Paneldisplay interface with touch controller
- Wifi/Bluetooth
- USB-device/host/OTG
- 4x UART via USB
- SATA-2/SATA-3 interfaces
- HDMI input and output
- GPIO
- AMS (Analog) interface port
- JTAG Debug support

Dsign

Topic provides a wide variety of development services:

- Customization services
- Development of customer specific designs
- Application Software Development
- Operating System Porting as well as BSP/ driver development
- FPGA content development and board design
- E.g. IEC60601, ISO13485 and ISO14971 related development services

	Florida-GEN	Florida-MED	Florida PCI-e
General			
SoM compatibility	MIAMI-SOM-XC7015 / MIAMI-SOM-XC7030		
Connector	2x Samtec QTH-060-01-L-D-A		
Dypllo® supported platform	yes		
Limitation	Not all of the listed peripherals can be operated in parallel 120 Pins available on SoM connector for programmable interfaces		
Communication Interfaces			
LAN (1000M/100M/10M)	1x	1x	1x
WiFi ¹⁾ / BlueTooth ¹⁾	1x	1x	-
UART via USB 2.0	4x ⁴⁾	4x ⁴⁾	4x
SATA-2 ¹⁾ / SATA-3 ¹⁾	2x	2x	-
PCI-express ²⁾	-	-	4 lanes
USB-device/host/OTG ¹⁾	1x	1x	1x
SD-CARD / SDIO	1x	1x	1x
Expansion Interfaces			
AMS (analog differential input)	8x (4 pairs)	8x (4 pairs)	-
Audio / Video			
Audio	-	-	-
HDMI in ¹⁾ / out ²⁾	In/out	in/out	-
Panel display port with touch	1x	1x	-
Dedicated functionality			
ECG/EMG/EEG - Sensors - Device	-	16 electrodes + ref 24 bits, +/-2.5V range, 32KHz ADS1298	-
Debug / test			
JTAG	1x (USB)	1x (USB)	1x (direct)
GPIO	8x 3V3 8 outputs / 8 inputs	8x 3V3	2x PMOD
Mechanical and environmental			
Temperature range	Commercial (0°C / +70°C)		
Power supply			
Power supply	15Vdc wall adapter	15Vdc wall adapter	PCI-e bus (powered) or external.
Battery pack ³⁾	3S2P Lilon	3S2P Lilon	-
Software support			
Topic Linux distribution included drivers	LAN, UART, I2C, USB-OTG, SDIO	LAN, UART, I2C, USB-OTG, SDIO	LAN, UART, I2C, USB-OTG, SDIO
Support			
Dsign	Topic provides a wide variety of development services: <ul style="list-style-type: none"> • Baseboard development • Design-in • Operating System Porting • Driver development for peripherals • Embedded Application Software Development 		

¹⁾ Software support for device in future release. ²⁾ Requires additional licence. ³⁾ Not included.