



IF/Baseband Signal Sampling

Board Features

- Single 8-bit 3Gsp/s ADC
- External Clock Input
- Thermal monitoring of the ADCs

Summary

The **XRM2-ADC-S4/3G** is an XRM2 I/O Module, providing one Analog to Digital converter with 8-bit resolution and sampling rates up to 3Gsp/s.

Aimed at IF/Baseband Signal Sampling, the sampling clock can be sourced from either an external clock source or from a clock generated within the attached FPGA board. An Auxiliary I/O port is provided for use as a trigger control or for general purpose signaling. An additional two ports are available for use as high-speed interconnect between boards for synchronisation.

The built-in thermal monitor allows the user to check the operating temperature of the ADC. Provided as part of the sample design is the functionality to read the temperature of the device, and software to monitor this and recalibrate the ADC if the thermal drift is sufficient. The software will also shut the ADC down if the device starts to go over the maximum operating temperature.

Deliverables

XRM2-ADC-S4/3G Board
 One Year Warranty
 One Year Technical Support

Input/Output Interfaces

1x Single Analog to Digital Converter

Resolution: 8-bit
 Max Sample Freq: 3Gsp/s
 Bandwidth: 30MHz to 1700MHz nominal
 Impedance: 50Ω
 Connector: SMA

1x External clock input

Impedance: 50Ω (AC coupled)
 Levels: 424 mV peak to peak (-3.5dBm) nominal
 283 mV peak to peak (-7dBm) minimum up to
 1.414 V peak to peak (+7dBm) maximum at
 connector
 Connector: SMA

1x External clock output

Impedance: 50Ω (AC coupled)
 Levels: ±400mV nominal
 Connector: SMA

1x Auxiliary I/O

Impedance: input 4k7Ω (DC coupled)
 Levels: +3V3 LVTTTL
 Connector: SMA

2x Synchronisation I/O

Levels: 2V5 Logic (DC coupled)
 Connector: U.FL - Limited Access in assembled
 system



Support

Example UCF, HDL files and Application software are provided with the board.

Environmental Specification
Temperature Ranges

Cooling Option	Operating Temperatures		Storage Temperatures	
	Min	Max	Min	Max
AC0	0°C	55°C	-40°C	85°C

Operating Humidity : Up to 95% (non-condensing)

EMC Standards

FCC 47CFR Part 2

EN55022:2010 Equipment ClassB

Ordering Information

Order Code: XRM2-ADC-S4/3G(h)

Option	Code	Description of Options
Heatsink	h	Blank = No Heatsink, /HTSK-XRM-ADC-HS-1 = Heatsink Fitted

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