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**▼ Worldwide** (In English)

## Small Form Factor (SFF) Software Defined Radio (SDR) Development Platform

#### (OBSOLETE) TMDSSFFSDR



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## Description

This product is available only thru TI's third party Lyrtech. To order, please contact Lyrtech at info@lyrtech.com

The Small Form Factor (SFF) Software Defined Radio (SDR) Development Platform developed in collaboration with Xilinx Inc. and other 3rd parties, provides the entire signal chain hardware from antenna to baseband as well as a software board support package that supports a complete suite of software development tools in a single integrated development platform. With the kit, developers can easily design waveforms as well as create and test single or multi-protocol radios for applications in military, public safety, commercial, Professional Mobile Radio (PMR) and land mobile radio (LMR) communication systems as well as RFID readers. Additionally, as the platform is integrated to work with Simulink model-based design tool, developers have the option to use C/HDL or MATLAB Simulink to quickly test proof-of-concept designs and then optimize the architecture for cost and power.

#### **Features**

# Reduction in size, weight and power of portable military radios

- $\mbox{-}$  Integrated hardware software co-development tools to reduce time to market
- \* Benchmark power consumption and CPU loading in active mode to allow for repartitioning of software for better performance and lower power
- $\mbox{\ensuremath{^{\bullet}}}$  Highly integrated system-on-chip DSPs and small form factor of development platform

## Rapid development of proof-of-concept radios

- Highly integrated antenna to Ethernet full signal chain hardware with voice/audio and data interfaces
- Easy to use Mathworks model based software design flow integrated with lower level compile and synthesis software tools

#### Scalable flexible development architecture

- \* Combination of GPP, DSP and FPGA in digital baseband module for scalable systems
- Modular hardware design with separate baseband, IF and RF modules for customization and advanced technology development
- Portability of waveforms with SCA compliant architecture including SCA framework and ORB middleware

	TMDSSFFSDREVM	TMDSSFFSDRDP
Hardware		
Digital Processing Module	X	Х
Data Conversion Module		Х
Radio Frequency Module		Х
JTAG Emulators		
Board Support Package		
Board Support Development Kit (BSDK)	X	X
Model Based Design Kit (MBDK)		X
Software Tools **		
Tl Code Composer Studio™ IDE	X	X
Xilinx ISE Foundation	X	X
Green Hills Integrity™ RTOS	X	Х
Green Hills MULTI™ IDE	X	X
The MathWorks Tools		Х
Objective Interface Systems		

Communication Research Center SCA Framework

- \* SCA Software Communications Architecture (SCA) compliant SDR Small Form Factor Development Platforms are available for JTRS Military applications exclusively through
- \*\* The EVM and DP packages of the development platform include free evaluation copies of the software tools. The SCA package will include licensed copies of the software and tools.

#### **TMDSSFFSDREVM**

- Free evaluation copies of
  - -TI Code Composer Studio™ IDE
  - Xilinx ISE Foundation
  - Greenhills Multi debugger
- \* Hardware Digital Processing module
- \* Board Support Development Kit API and drivers
- \* USB/Ethernet and any other cables needed
- \* Power supply with cables to support NA, Europe and UK

#### **TMDSSFFSDRDP**

- Free evaluation copies of
  - -TI Code Composer Studio™ IDE
  - Xilinx ISE Foundation
  - Greenhills Multi debugger
  - Mathworks tools
- \* Hardware Digital Processing module, Data conversion module, RF module
- FRS handset
- \* Demo in CD with instructions on how to load and evaluate or setup and ready to evaluate (either option)
- Microphone and Speaker for Digital processing Module
- \* Board Support Development Kit API and drivers
- \* Model based Development Kit
- \* USB/Ethernet and any other cables needed
- \* Power supply with cables to support NA, Europe and UK

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#### **Technical Documents**

## More literature (1)

\*This is not an TI official document.

Title	Date	Туре
Software Libraries Wiki In-depth technical and "how-to" articles, FAQs, etc.	24 Mar 2011	Wiki*

## More Literature (3)

Title	Abstract \$	Type \$	Size (KB) \$	Date ▼	Views +
Small Form Factor Software Defined Radio Development Platform Product Bulletin (Rev. A)		PDF	324	31 Jul 2007	439
Small Form Factor Software Defined Radio Evaluation Module (Rev. A)		PDF	164	31 Jul 2007	333
Software Defined Radio (SFF SDR) Development Tools Product Bulletin (Rev. A)		PDF	116	31 Jul 2007	439

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- C5000™ Ultra Low Power DSP
- DaVinci™ Video Processors
- Embedded Software

- C6000™ Power Optimized DSP
- OMAP™ Processors
- Development Tools

- C6000™ Multicore DSP

## **Wikis**

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Designing with Ultra Low Power Segmented Displays Learn about designing Ultra-low Power Segmented Displays and MSP430	On-Line Training	On Demand

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