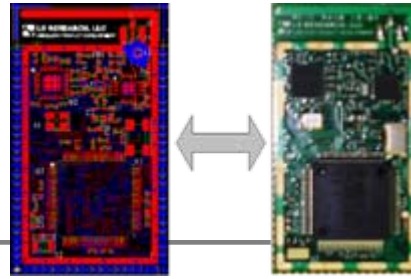


ModFLEX™



- Purchase Certified Modules or Own the Design Files for Complete Control – **You Decide**
- Common Module Footprints and I/O
- Gateway Platform with Dual Module Support
- Software Application Notes – Develop Your Own Application Code on the Hardware.
- FCC / IC / CE Certified Platforms
- Certification and Manufacturing Packages for Your Own Integrated Design



LS RESEARCH
Wireless Product Development






ModFLEX™

Wireless Your Way

Module Portfolio & Roadmap



Shipping: 
 Concept: 
 Design: 

	Legacy Modules	2009				2010
		Q1	Q2	Q3	Q4	
802.15.4/ZigBee	Matrix Apex/ Apex Lt Freestar			ProFLEX		
<1GHz				SiFLEX		
WiFi					WiFLEX	
Bluetooth				TIWI (WL1271)	TIWI 5 (WL1273)	

LS Research TiWi™ module

Texas Instruments WiLink™ 6.0 solution (WL1271)



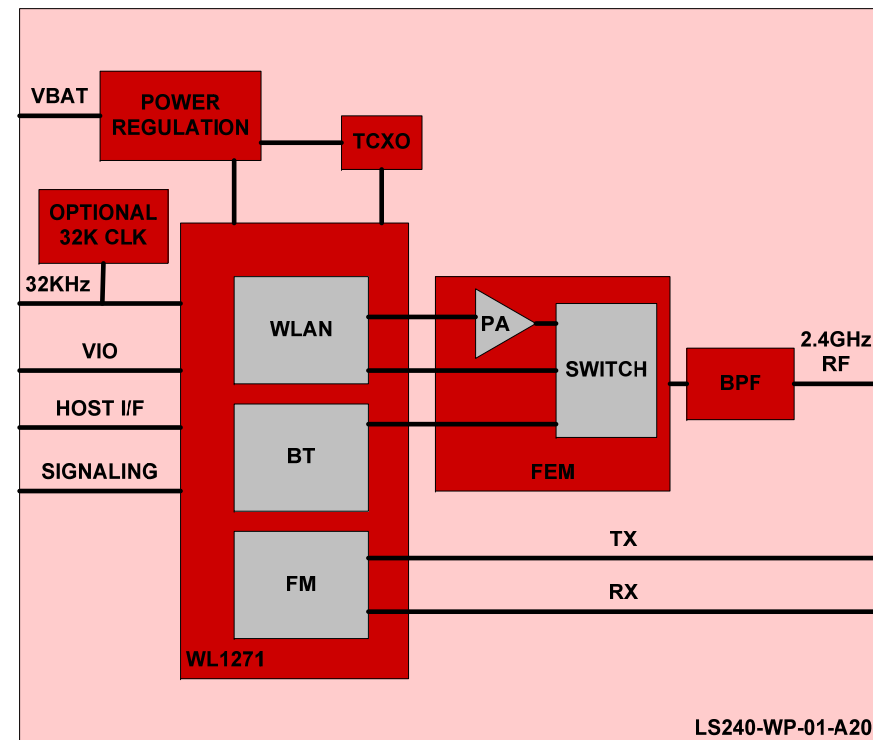
LS RESEARCH
Wireless Product Development

Features

- Low cost embedded 802.11b/g/n, *Bluetooth*®,
- 2.4 GHz band
- Dimensions: 13mm x 18mm x 1.9mm
- Operating Temperature: -40 to 85C
- FCC/IC/CE/C-Tick Certified
- Module Evaluation Kit available

Specifications

- Texas Instruments WiLink™ 6.0 solution (WL1271)
- 3.0V to 4.8V Operation
- Power Consumption @ 802.11g
185mA Transmit / 100mA Receive / sub-1.2mA Standby
- 1.8V SDIO & UART Interface to OMAP processor
- **WLAN**
 - Output Power (+20, +14.5) dBm @ (11, 54) Mbps
 - RF Sensitivity (-89, -76) dBm @ (11, 54) Mbps
- **Bluetooth**®
 - *Bluetooth*® 2.1+EDR compliant up to HCI level
 - Output Power +9.5dBm, above class 2
 - RF Sensitivity -92dBm @ GFSK



ProFLEX01

LS240-ZP-01



Features

- The Most Versatile ZigBee Pro Module with Adjustable Output Power for Long-Range Applications
- Simple ProFLEX01 Network Protocol
 - Star Networks
 - Simple Repeating
 - Serial Communication API (UART)
- AES Encryption for Secure Network
- FCC/IC/CE Mark Certified
- Integrated Inverted-F Antenna or U.FL Connector for External Antenna

Specifications

- TI CC2520 2.4GHz DSSS Radio Transceiver
- Supports 802.15.4/ZigBee/6LoWPAN
- TI CC2591 RF Front End
- Very Versatile, Ultra Low Power MSP430F5437 Microcontroller
- 100mW RF Output Power
- 99 dBm RF Sensitivity
- 2.2V to 3.3V Operation
- Power Consumption
 - 145mA in Transmit
 - 30mA in Receive
 - 3uA in Sleep
- 256K Flash / 16K RAM

SiFLEX₀₁

LS900-SI-01



Available Q2 2010

Features

- Frequency Agile, Low Power, Long Range Module
- Simple SiFLEX01 Network Protocol
 - Star Networks
 - Mesh Networks
 - Serial Communication API (UART)
- Adjustable Data Rates up to 500Kbps
- Low Latency
- AES Encryption for Secure Network
- FCC/IC Certified (*pending*)
- On Board Wire Antenna or U.FL Connector for External Antenna

Specifications

- Texas Instruments CC430, 900MHz FHSS Transceiver
- Supports 6LoWPAN
- Ultra Low Power Microcontroller Core
- 250mW RF Output Power
- -100dBm RF Sensitivity
- 2.7V to 3.6V Operation
- Power Consumption
 - 275mA in Transmit
 - 24mA in Receive
 - <5uA in Sleep
- 32K Flash/ 4K RAM/512B Data Flash

ModFLEX™ Mini Gateway - Ethernet



LS RESEARCH
Wireless Product Development

- Low Cost, Simple Connectivity
- Supports Any LSR Module in The ModFLEX Family
- Ethernet Connectivity
- Fully Packaged Design
- Ergonomic and Compact (4.1"x2.2"x1.6")
- Easy Installation with Mounting Flanges
- High Performance External Antenna
- Standard LSR Software or Customizable
- Micro SD Card Slot
- External Power Supply Support
- Configurable with Embedded Web Server
- LED Status Indicators

Available Q2 2010



ModFLEX™ Mini Gateway - USB

- Low Cost, Simple Connectivity
- Supports Any LSR Module in The ModFLEX™ Family
- USB Connectivity and Power Supply
- Fully Packaged Design
- Ergonomic and Compact (4.1" x 2.2" x 1.6")
- Easy Installation with Mounting Flanges
- High Performance External Antenna
- Standard LSR Software or Customizable
- Configurable with Embedded Web Server
- LED Status Indicators

Available Q2 2010



ModFLEX™ Dual Module Gateway



LS RESEARCH
Wireless Product Development

Available Q4 2010

- Advanced Architecture Gateway Platform
- Available as PCB Assembly of Fully Packaged Solution
- Ethernet / USB / RS232 Interface
- Power Over Ethernet
- Battery Back Up
- Supports 2 Module Sockets
 - WiFi to 2.4GHz ZigBee/802.15.4
 - WiFi to 900 MHz ZigBee/802.15.4
 - 2.4GHz ZigBee to 900 MHz ZigBee/802.15.4
 - True Receiver Diversity for ZigBee, WiFi and 900 MHz
- SD Card Slot for Data Storage



Contact Information



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