



# What are you building?

**Key Challenges:** 

### Chip



- > RF Design and Debug
- > EMI/EMC Pre Compliance

### The Device Food Chain

Module



- > RF Design and Debug
- > EMI/EMC Pre Compliance
- > Speeding Through Wireless Standards

#### Device



- > Selecting a Wireless Module
- > RF Design and Debug
- > EMI/EMC Pre Compliance
- > Maximizing Battery Life in IoT
- > Speeding Through Wireless Standards

### System

- n ♀ = + > The Interference of Things

It's one thing to develop a product that works on its own. It's another to make sure it's up to snuff when it comes to meeting the countless standards and protocols of the Internet of Things. Tektronix test and measurement instruments can help you do just that.



# MDO4000B Mixed Domain Oscilloscope

Debug at a glance with this all-in-one scope. Featuring a built-in spectrum analyzer and up to four other instruments, it's the only scope you need for time, frequency and RF analysis.



# Tektronix DMM7510 Multimeter

Experience unprecedented signal analysis that will help you design more energy efficient devices. Featuring a touch screen display, for quick and intuitive navigation.



# RSA306 Spectrum Analyzer

From wireless module validation in the lab to interference hunting in the field, this full feature real time spectrum analyzer covers all your RF needs for less than half the price of a conventional unit.



# Series 2281S Battery Simulator

Create stable low-noise voltage supply for every state of your IoT device, from sleep to transmit. Record and generate battery sources with the Battery Simulator option.



# SignalVu-PC

Perfect for testing standards compliance with specialized modules for Bluetooth and WLAN, SignalVu provides one user interface for RF and vector signal analysis across all platforms.



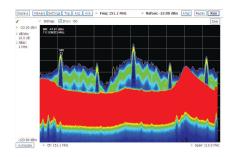
# Series 2280S Power Supply

Create stable low-noise voltage supply for every state of your IoT device, from sleep to transmit, with this linear, programmable, DC power supply.

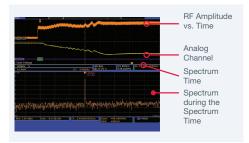


# Passing EMI and EMC Certification

The race to add products to the Internet of Things brings a degree of complexity to EMI testing. Not only do product manufacturers need to learn how to properly add a wireless capability to their product, but from an EMI perspective it requires additional intentional radiator testing. EMI regulations are in place throughout the world to provide improved reliability and safety for users of electrical and electronic equipment.



Digital Phosphor Processing (DPX) may be used to quickly discover intermittent problems.



Tektronix's MDO4000B Series offers a unique ability to view analog signal characteristics, digital timing, bus transactions, and frequency spectra synchronized together.

Are you seeking out the problem source or antenna at the heart of your EMI problem? Examining the Periodicity and the Coincidence of the signals can give you the clues to track it down.

### Periodicity:

Analyzing the nature of the RF signal can help narrow down a list of possible sources. What is the RF frequency of the signal? Is it pulsed or continuous?

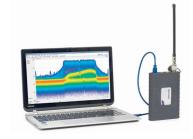
### Coincidence:

Examining what signals occur or change simultaneously can help point to trigger events. What signal on the DUT coincides with the EMI event?

# Our EMI Solution

Don't Let EMI/EMC Compliance Certification Slow You Down

For more information visit tektronix.com/loT to download our tutorial "Don't Let EMI/EMC Compliance Certification Slow You Down".



RSA306 USB Spectrum Analyzer with Signal-Vu PC Software

Starting at \$3,490

# Faster EMC Pre-compliance without having to wait for access to a lab

- > Low cost & PC-based real time spectrum analyzer with EMI Pre-compliance testing software included as a standard package
- > Faster detection of short duration EMI signals with RSA306 DPX real-time technology and automated pre-compliance setups
- > Built in RF record/playback to easily capture and analyze EMI spectral events

# Avoid EMI caused by intentional RF transmitters

- > Understand change in EMI signature due to intentional RF transmission
- > Correlate EMI events with RF transmission with using RSA306 on Spectrum Emission Mask and DPX



MDO4000B Mixed Domain Oscilloscope **Starting at \$9,600** 

# Faster EMI Debugging and Troubleshooting

- > With MDO4000B's time correlation capability you pin point the noise source and avoid the painful and repetitive task of changing components.
- > Understand the root cause analog and/or digital signals that are causing the EMI noise.