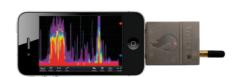
Smart Phone... Intelligent Devices

The Future of Test and Measurement Equipment... It is <u>Smart</u>, It is <u>Connected</u>, and It runs on <u>iOS</u>.



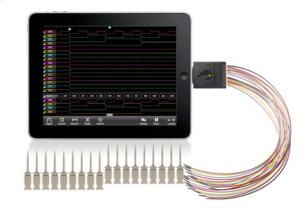
iDVM, the Wireless Multimeter and Data Logger. (Refer to page 2 & 3)



WiPry-Spectrum RF Spectrum Analyzer WiPry-Combo RF Spectrum Analyzer + Power Meter 2-in-1.(Refer to page 4, 5, 6 & 7)



iMSO, the Mixed Signal Oscilloscope. (For more, see page 8 & 9)



Logiscope, the Logic Analyzer (For more, see page 10 & 11)





Blue Discus, is a Unique Wireless DC Signal Controller. It has Analog Inputs, Digital I/Os, RS-232, PWM, Timers, Relay and RTC, all controllable wirelessly (via Bluetooth) using an App on the Standard Android phone. The Blue Discus App allows users to customize the screen

based on their requirements. (For more, see page 12, 13 & 14)



iDVM by REDFISH Instruments.

The World's First iPad™/ iPhone™/ iPod Touch™ Integrated Wireless Multimeter and Data Logger.





iDVM









iDVM connects wirelessly to Apple iOS devices. This provides extra flexibility in work which conventional multimeters cannot achieve.



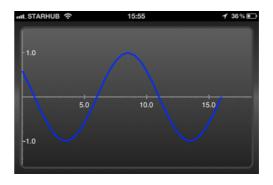




You can hear your measurements using earphones or through the speaker of your iOS device. Your hands are free.



With its Data Logger function and integration with Apple iOS devices, you can easily acquire data, save it, email it, post it to a web server, or display it.



iDVM	General Specifications
Connection	via ad hoc WiFi with iPhone, iPad or iPod Touch
iOS App	iDVM, Free from Apple App Store
Max Voltage between any terminal & earth ground	less than 300V DC or AC RMS Input Impedance at 10M Ohm
Surge Protection	4kV peak per IEC 61010
Fuse for mA input	400mA input is < 400mA at 300V fast
Fuse for A input	4A input is < 4A at 300V fast
Meter Refresh Rate	User definable up to 20Hz
Battery life	10 hours
Operating Temperature	-10 Degrees C to +35 Degrees C
Size / Weight	70mm Width x 120mm Length x 28mm Depth, 350 grams
Certifications	TUV (EN61010) and CE
Safety	Complies with ANSI/ISA S82.02.01, IEC 61010 to 300V Overvoltage Cat III

Function	Absolute Range & Resolution	Accuracy / Counts
AC Voltage, True RMS	0 - 400.0mV (0.1mV)	2% + 3
	0.4 - 4.00V (0.1mV)	(50 – 500Hz)
	4.00 - 40.0V (1.0mV)	
	40.0 - 300.0V (10mV)	
DC Voltage	1.0 - 400mV (0.1mV)	2% + 2
	0.4 - 4.00V (0.1mV)	(50 – 500Hz)
	4.00 - 40.0V (1.0mV)	
	40.0 – 300.0V (10mV)	
Resistance	0.0 - 400 Ohms (1.0 Ohm)	1% + 2
	400 – 4.0K Ohms (1.0 Ohm)	
	4.0K – 40K Ohms (1.0 Ohm)	
	40K – 400K Ohms (1.0 Ohm)	
	400K - 4M Ohms (1.0 Ohm)	
AC Current	0.1 - 400mA (0.05mA)	2.0% + 3
	0.400 - 4.0A (0.05mA)	
DC Current	0.1 - 400mA (0.05mA)	2.0% + 3
	0.400 - 4.0A (0.05mA)	
Continuity	Beeper on < 25 Ohms	
	Beeper off > 250 Ohms	

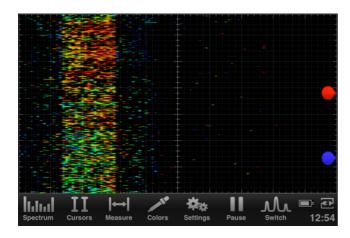
Slow Wireless Internet over WiFi? Get it fixed with the iPad™/ iPhone™ Spectrum Analyzer from Oscium. Introducing the **WiPry-Spectrum**, the World's first **2.4GHz** Spectrum Analyzer for the iOS Platform.



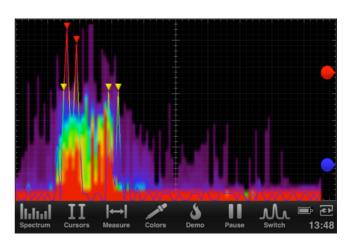
Technical Specifications		
Frequency Range: 2.400 to 2.495 GHz		
Antenna: External with SMB		
Amplitude Range: -40dBm to +20dBm		
Amplitude Resolution: 2.0dBm		
Resolution Bandwidth: 1MHz		
Sweep Time: 200ms		

With the WiPry-Spectrum, your iPhone, iPod Touch or iPad becomes a powerful 2.4GHz Spectrum Analyzer. Together with the free "WiPry" App from the Apple iTunes App Store, it enables you to visualize real-time radio frequency signals in the 2.4GHz ISM band in either real wave heat map view or waterfall view. This can help you to troubleshoot interference on your wireless network from interference. See next page for more.

The visualization techniques used in WiPry-Spectrum give you the ability to see your wireless network from a variety of different perspectives. Some prefer the real wave heat map view, and some prefer waterfall view. Regardless of your preference, we have all the tools that you need to identify and avoid interference



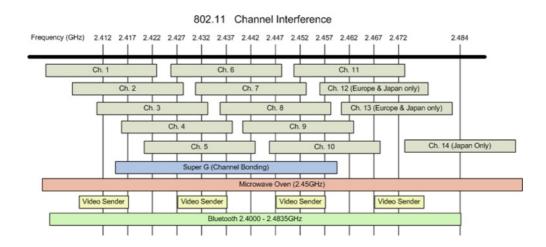
Waterfall View



Real Wave Heat Map View

Increase the speed of your Wi-Fi Internet connection with **WiPry-Spectrum**...

As easy as 1-2-3!



1. Why WiFi Internet Access is Slow...

Our WiFi network uses the 2.4 GHz band divided into 14 overlapping channels. To communicate with each other, all the devices of a WiFi network must use the same channel. Most of the time, this depends on the channel set at the access point. This can lead to multiple WiFi networks using the same channel in the same area, thus creating RF interference and slowing down the WiFi access speed to the internet.



2.WiPry-Spectrum... Visualize the Fix

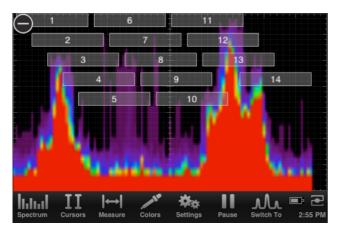
WiPry-Spectrum enables you to visualize an otherwise invisible network environment. It's an accessory that plugs into the charging/sync port of your iPhone, iPod Touch or iPad. With the FREE App available on the Apple App Store, the touchscreen display lets you visualize all the channels in the 2.4 GHz band of the WiFi network.

3. Identify and Avoid Interference.

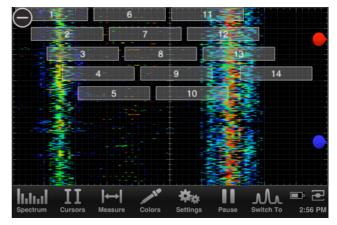
Here is a typical display on the WiPry-Spectrum for a "Noisy" area with high RF Interference. There are 2 view perspectives available: Real Wave Heat Map View and Waterfall view.

Real Wave Heat Map view allows you to view spectrum density of the surrounding RF activity. The different densities are represented by different colors with red having the highest RF density.

Waterfall view provides a color-based visualization of RF level and activity over time. This feature provides a quick glance back into the sweep history to identify aberrations or fluctuation in frequency level. In addition, we can also detect intermittent interferences from this view.



Real Wave Heat Map View



Waterfall View

Based on the above spectrum shown, you should avoid channels around the high RF interference (Red) zone. This would include Channels 1, 2, 3, 4, 5, 9, 10 11, 12, 13 and 14. The clear Channels are 6, 7 and 8.

You should set your WiFi Access Point to one of the clear Channels. Please refer to your WiFi Access Point Device manual for instructions on the channel setting.

WiPry-Spectrum allows you to identify polluters and avoid noisy channels in the 2.4GHz range. Your internet connection will be faster and more reliable. 'Pry' into your network airwaves today and eliminate any unnecessary interferences.

Apple iOS Devices + RF Power Meter + 2.4GHz RF Spectrum Analyzer = <u>WiPry-Combo</u>



Technical Specifications

Spectrum Analyzer Specifications: Same as WiPry-Spectrum on page 4 and 5.

RF Power Frequency Range: 100MHz to 2.7GHz.

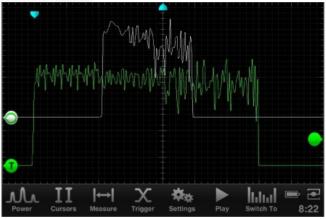
Power Dynamic Range 65dB; -45dBm to +20dBm

Amplitude Resolution: 0.2dBm

Adjustable time scale: 2µs/div to 1 sec/div

Trigger from power level or digital/logic level

Optional SMB Coaxial Connector measurement kit



Typical Screen Shot



SMB Coaxial Connector
Conducted Measurement Kit

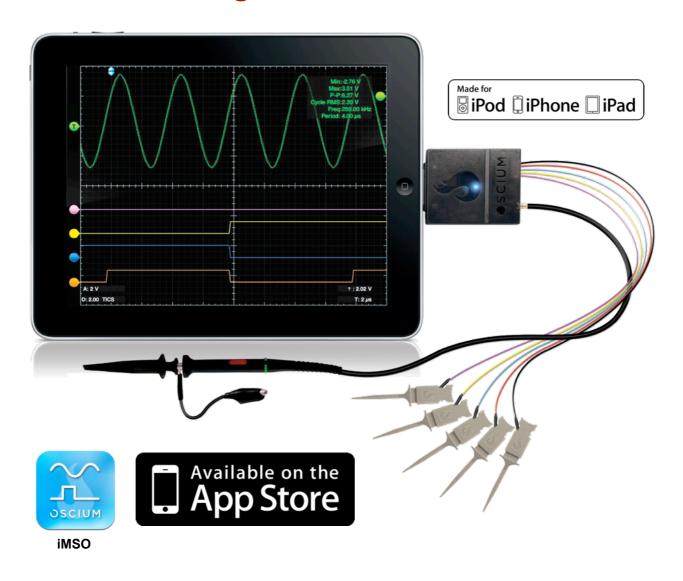




Close up of the SMA and Reverse Polarity SMA adapters

In the optional Conducted Measurement Kit, 2 additional external triggers allowing you to trigger on a non-RF related event. Conducted measurements can also be made using the SMA and reverse polarity SMA adapters. The following are included in the optional kit: 3 customer SMB Grabbers, Harness, SMA Adapter, and Reverse Polarity SMA Adapter.

Intuitive, Small and Easy to use! The Preferred Mixed Signal Oscilloscope for the Next Generation Inventor... Presenting the iMSO from Oscium



- Mall Size, Travel Friendly,
- Free iMSO Apps from Apple App Store,
- Completely Integrated with Apple iOS (iPod Touch, iPhone and iPad) Recognize all iOS Gestures.

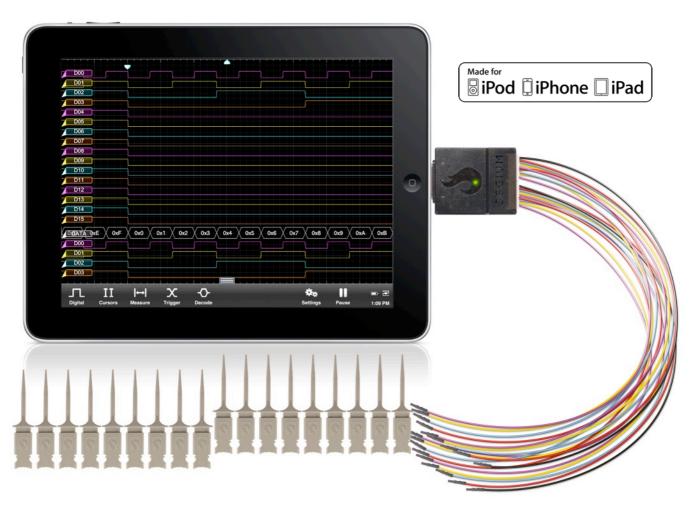
Product Specifications for iMSO Mixed Signal Oscilloscope

- For use with iPad:
 - Display: 9.7"
 - o Resolution: 2048 x 1536
 - o Analog: 1 Channel, 8 bit
 - Analog Probe: 100 MHz (1x & 10x selectable), removable with SMB
 - o Digital: 4
 - Digital Probe: 4 bits, 1 Ground, 0.100" connectors with removable
 SMD Grabbers
 - Analog Bandwidth: 5 MHz
 - Max Sample Rate 12 MSPS
 - Sample Depth: 240 pts
 - Horizontal Sensitivity: 2uS/div-1S/div
 - Horizontal Position: Adjustable
 - Trigger Position: Adjustable
 - Vertical Sensitivity: 50mV/div to 2V/div (1x), 500mV/div to 20V/div (10x)
 - Vertical Position: Adjustable
 - Max Digital Input Voltage: -0.5V to +7V
 - Max Analog Input Voltage: -8v to +13v (1x), -40v to +40v (10x)
 - Coupling: AC or DC
 - Trigger Modes: Auto/Normal/Single/Stop
 - Trigger Types: Analog, Digital (A, A&B, A|B, A->B)
 - Live Measurements: 6
 - Measurement Types: Frequency, Period, Min, Max, Mean, Peak to Peak, RMS, Positive Duty Cycle, Negative Duty Cycle, Positive Pulse Width, Negative Pulse Width, Cycle Mean, Cycle RMS, Rise Time, Fall Time
 - Features: Screen Capture -> Email, Demo mode (Analog), Horizontal/
 Vertical Cursor Measurements, Reference Capture, Delay (always on)
 ~99.99s max, Holdoff ~99.99s max, FFT & Data logging
- Screwdriver for Analog Waveform Compensation Adjustment
- Analog tip covers (2 pieces)



A Professional 16 Channels Logic Analyzer capable of decoding I²C, SPI UART and Parallel signals...

Introducing the LogiScope from Oscium



Small Size, Travel Friendly,

Live Triggering Function; User are presented with live data on their iOS screen allowing them to capture and analyze data on the spot instantaneously.

Free LogiScope Apps from Apple App Store,

Completely Integrated with Apple iOS (iPod Touch, iPhone and iPad) Recognize all iOS Gestures.









Logiscope	General Specifications
iOS App	LogiScope, Free from Apple App Store
Logic Analyzer	100MHz
No. of Channels	16 Channels
Power Consumption	<5mA idle, 95mA sampling
Input Voltage	-0.5V to 7V
Working Voltage	2.0V 2.5V 3.3V 5V
Input Impedance	7pF (approx)
Max Input Bandwidth	30MHz square wave
Available Sample Rate	100MHz, 50MHz, 25MHz, 10MHz, 5MHz, 2.5MHz, 1MHz, 500KHz, 250KHz, 100KHz, 50KHz, 25KHz, 10KHz, 5KHz, 2.5KHz, 1KHz, 500Hz, 250Hz, 100Hz, 50Hz, 25Hz, 10Hz
Record Length	1000 Samples
System Requirements	iPhone 4S, iPhone 4, iPhone 3GS, iPhone 3G, New iPad, iPad 2, iPad, iPod Touch (3rd and 4th Generation only).
Trigger	Edge, Value, Width, I ² C addr, I ² C data, I ² C byte count, SPI count, SPI value, UART byte value
	4 Complex triggers with delays and two sub trigger events
Protocols	UART (virtually all standard speeds to 921600bps (5-9 bits), I ² C (all speeds), SPI (1-16 bit) with modes 0-3 up to 25MHz, Parallel (1-16 bit)

A Revolutionary Wireless M2M DC Signal Controller which allows you to monitor and control signals from your Android













- 🗹 14 Digital Inputs and 16 Digital Outputs,
- 9 Analog Inputs, PWM Output, 2 Clock Timers,
- ▼ RS-232 Serial Communication (PC Ready),
- 📝 Built-In Solid State Relay,
- Wide range of supply voltages 5Vdc to 12Vdc including the USB Standard 5Vdc.
- **Tast Setup**
- Easily Customizable Interface using an Android Smartphone
- Communicate with Android Smartphone via Bluetooth
- Free Blue Discus App from the Google Play store





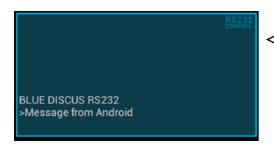
Solid State Relay and Digital Input Icon. Tap to toggle ON/OFF.



Digital Output Icon showing the current status.



PWM Output Control. Drag to change percentage value or frequency.



RS-232 Communication
Terminal Screen.

RS-232 Communication user output screen with full keyboard.

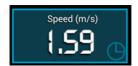




Timer Display Setup Screen. User customizable label and multiplier factor to automatically calculate and display the desired value.



Standard Timer Display



Customized Timer Display using multiplier factor to obtain speed.

Sample Screen Shots

The interface display is fully customizable to your requirements. The location, label, and type of the icon-display can be easily changed













Blue Discus	Specifications
Supply Voltage	5Vdc to 12Vdc
Typical Power Consumption	60mA at 5Vdc
Digital Inputs	Total of 14 Channels (Low: 0.6Vdc Max, High: 2.8Vdc Min) 10 Protected Channels 4 Un-protected Channels (Protected Channel can have any voltage range from -30Vdc to +30Vdc. However, Voltages higher than 2.8Vdc will be High and Voltages below 0.6Vdc will still be low. Un-protected Channels can only handle up to a max of 3.3Vdc)
Digital Outputs	Total of 16 Channels 8 Channels with Sinking Outputs up to 200mA 8 Channels with Sourcing Outputs up to 200mA (DREF to RAW)
Analog Inputs	Total of 9 Channels Range: 0Vdc to 3.3Vdc
PWM Output	1 Channel 0 to 3.3Vdc Pulse Width Modulation Output. Configurable to Single, Half-Bridge, Full-Forward and Full-Reverse Mode.
Timer Trigger	Total of 2 Channels. 1 x High-to-Low to start timer, 1 x Low-to-High to start timer
RS-232 Serial Communication	1 Channel, up to 115,200 bps 8N1, No Flow Control, RS-232 Level Input / Output
Relay	1 Line Max Load Voltage: 250V Max Load Current: 200mA Isolation Voltage: 5000V
Polling Rate	10Hz
Communication with Android Phone	via Bluetooth
Free Android App	Blue Discus, Free from Google Play Store
Android Version Supported	Gingerbread and Ice Cream Sandwich

Price List

Product	Price in SGD (excluding 7% GST)
iDVM Wireless Multimeter and Data Logger	\$312.00
WiPry-Spectrum 2.4GHz RF Spectrum Analyzer	\$130.00
WiPry-Combo RF Peak Power Meter with 2.4GHz Spectrum Analyzer	\$260.00
Optional for WiPry-Combo Conducted Measurement Kit	\$52.00
iMSO 5 MHz Mixed Signal Oscilloscope	\$388.00
LogiScope 16 Channels, 100MHz Logic Analyzer	\$507.00
Blue Discus Wireless DC Signal Controller using a Standard Android Phone	\$125.00









































Map not to scale



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