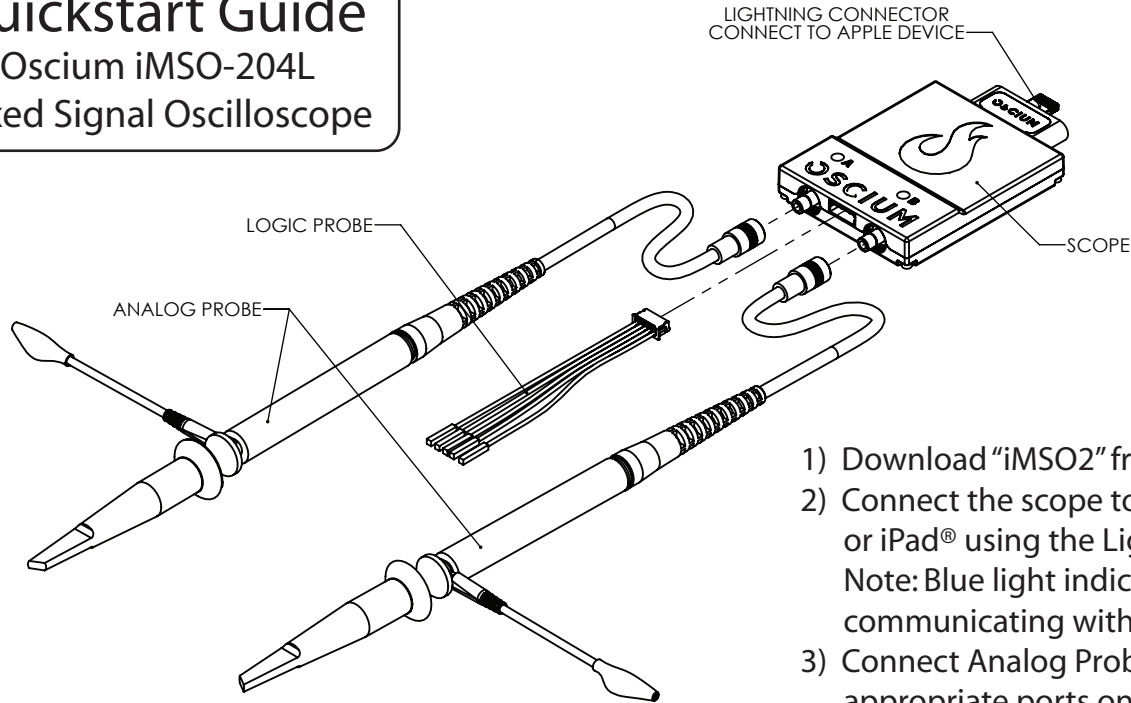


# Quickstart Guide

## Oscium iMSO-204L Mixed Signal Oscilloscope



- 1) Download "iMSO2" from the Apple App Store.
- 2) Connect the scope to the iPod touch®, iPhone®, or iPad® using the Lightning™ connector.  
Note: Blue light indicates that scope is communicating with the application.
- 3) Connect Analog Probe and Logic Probe to the appropriate ports on the scope.
- 4) For more information, please visit the Oscium website at [www.oscium.com](http://www.oscium.com)

### WARNING

DO NOT APPLY  
MORE THAN +/-40V  
IN 10X MODE &  
MORE THAN -8V TO +13V  
IN 1X MODE

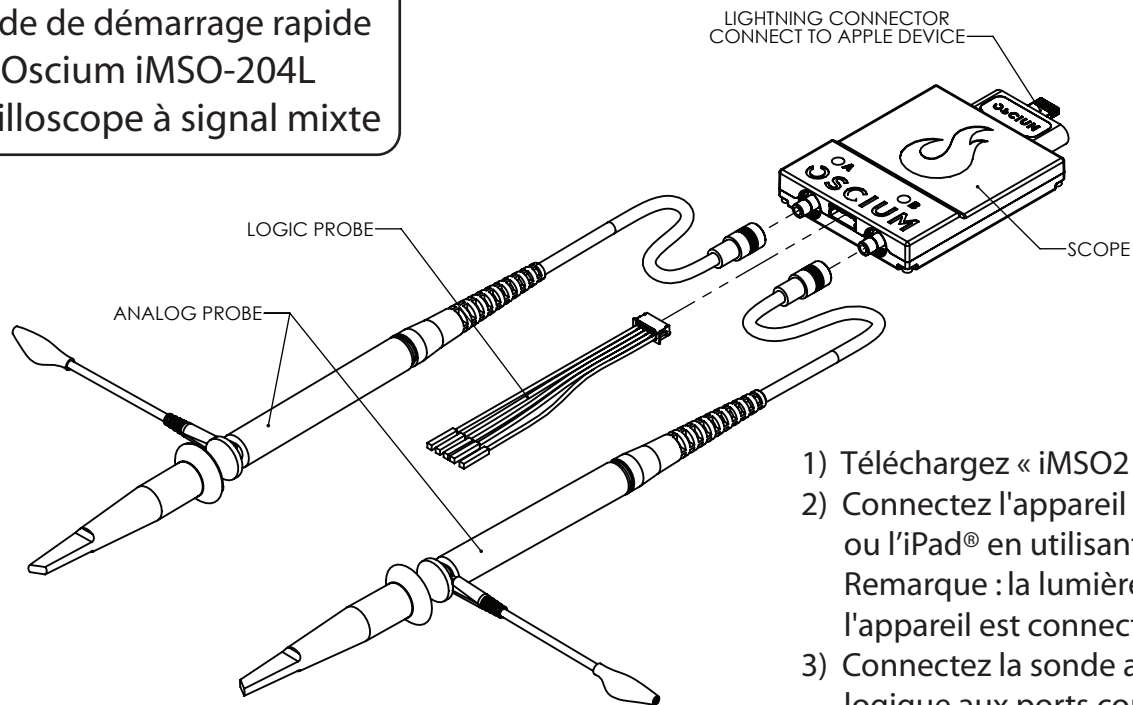
### WARNING

DO NOT APPLY MORE  
THAN -0.5/+7V TO THE  
DIGITAL CHANNELS

"Made for iPod", "Made for iPhone", and "Made for iPad" means that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance. Lightning is a trademark of Apple Inc.

iMSO-204L	iPad (4rd generation)	iPad mini	iPhone 5S, iPhone 5C, iPhone 5, iPod touch (5th gen)
Display	9.7" Retina display	3.5"	4" Retina
Resolution	2048x1536	1024x768	1136x640
Analog	2 Channel, 8 bit	2 Channel, 8 bit	2 Channel, 8 bit
Analog Probe	1x & 10x selectable, removable with SMB	1x & 10x selectable, removable with SMB	1x & 10x selectable, removable with SMB
Digital	4	4	4
Digital Probe	4 bits, 1 Gnd, 0.100" connectors with removable SMD Grabbers	4 bits, 1 Gnd, 0.100" connectors with removable SMD Grabbers	4 bits, 1 Gnd, 0.100" connectors with removable SMD Grabbers
Analog Bandwidth	5MHz	5MHz	5MHz
Max Sample Rate	50MSPS	50MSPS	50MSPS
Sample Depth	1000pts	1000pts	1000pts
Horizontal Sensitivity	200ns/div-10s/div	200ns/div-10s/div	200ns/div-10s/div
Horizontal Position	Adjustable	Adjustable	Adjustable
Trigger Position	Adjustable	Adjustable	Adjustable
Vertical Sensitivity	50mV/div to 2v/div (1x) 500mV/div to 20v/div (10x)	50mV/div to 2v/div (1x) 500mV/div to 20v/div (10x)	50mV/div to 2v/div (1x) 500mV/div to 20v/div (10x)
Vertical Position	Adjustable	Adjustable	Adjustable
Max Digital Input Voltage	-0.5v to +7v	-0.5v to +7v	-0.5v to +7v
Max Input Voltage	-8v to +13v (1x) -40v to +40v (10x)	-8v to +13v (1x) -40v to +40v (10x)	-8v to +13v (1x) -40v to +40v (10x)
Coupling	AC or DC	AC or DC	AC or DC
Trigger Modes	Auto/Normal/Single/Stop	Auto/Normal/Single/Stop	Auto/Normal/Single/Stop
Trigger Types	Analog, Digital (A, A&B, A B, A→B)	Analog, Digital (A, A&B, A B, A→B)	Analog, Digital (A, A&B, A B, A→B)
Live Measurements	6	6	6
Measurement Types	Frequency	Frequency	Frequency
	Period	Period	Period
	Min	Min	Min
	Max	Max	Max
	Mean	Mean	Mean
	Peak to Peak	Peak to Peak	Peak to Peak
	RMS	RMS	RMS
	Positive Duty Cycle	Positive Duty Cycle	Positive Duty Cycle
	Negative Duty Cycle	Negative Duty Cycle	Negative Duty Cycle
	Positive Pulse Width	Positive Pulse Width	Positive Pulse Width
	Negative Pulse Width	Negative Pulse Width	Negative Pulse Width
	Cycle Mean	Cycle Mean	Cycle Mean
	Cycle RMS	Cycle RMS	Cycle RMS
	Rise Time	Rise Time	Rise Time
	Fall Time	Fall Time	Fall Time
Features	Screen Capture → Email	Screen Capture → Email	Screen Capture → Email
	Demo mode (Analog)	Demo mode (Analog)	Demo mode (Analog)
	Horizontal/Vertical Cursor Measurements	Horizontal/Vertical Cursor Measurements	Horizontal/Vertical Cursor Measurements
	Reference Capture	Reference Capture	Reference Capture
	Delay (always on) / Holdoff -99.99s max	Delay (always on) / Holdoff -99.99s max	Delay (always on) / Holdoff -99.99s max
	FFT, Data Logging, Advanced Math	FFT, Data Logging, Advanced Math	FFT, Data Logging, Advanced Math

Guide de démarrage rapide  
Oscium iMSO-204L  
Oscilloscope à signal mixte



- 1) Téléchargez « iMSO2 » sur l'App Store d'Apple
- 2) Connectez l'appareil à l'iPod touch®, l'iPhone®, ou l'iPad® en utilisant le connecteur Lightning™  
Remarque : la lumière bleue indique que l'appareil est connecté à l'application.
- 3) Connectez la sonde analogique et la sonde logique aux ports correspondants sur l'appareil.
- 4) Pour plus d'informations, vous pouvez visiter le site web d'Oscium : [www.oscium.com](http://www.oscium.com)

**ATTENTION**

NE PAS APPLIQUER PLUS  
QUE LE MODE 10X +/-40  
VIN ET PLUS QUE LE MODE  
1X DE -8V À 13 VIN

**ATTENTION**

NE PAS APPLIQUER PLUS  
QUE LE MODE -0,5/+7V AU  
CANAL NUMÉRIQUE

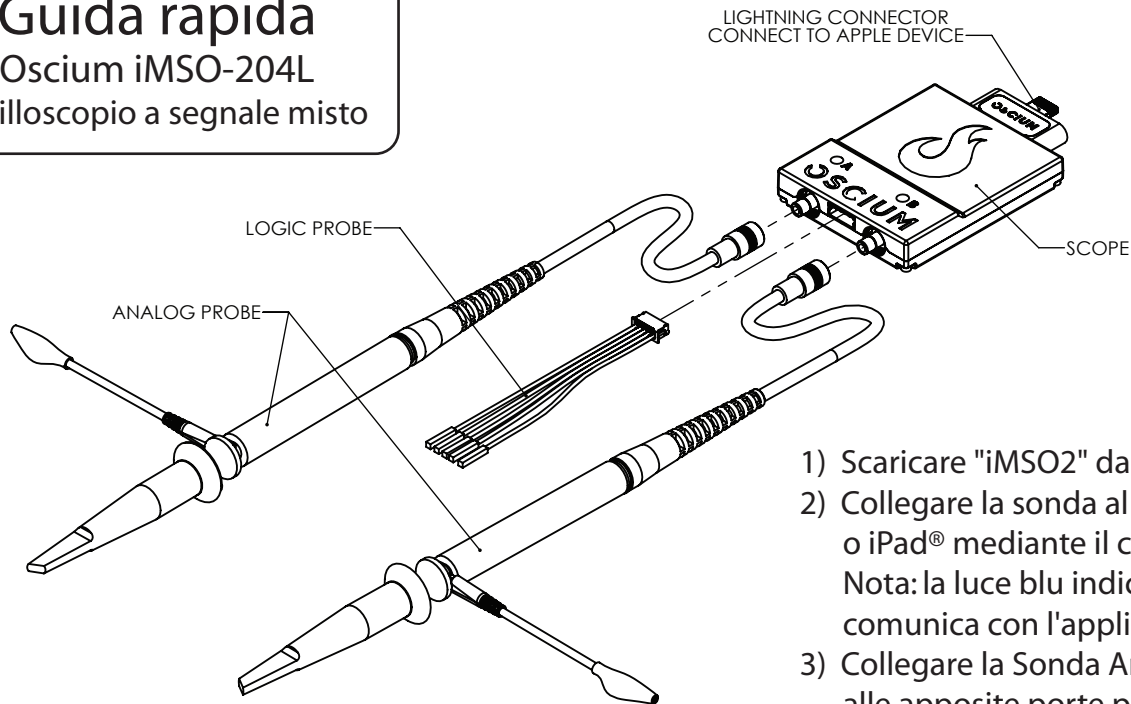
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iMSO-204L	iPad (4rd generation)	iPad mini	iPhone 5S, iPhone 5C, iPhone 5, iPod touch (5th gen)
Affichage	9.7" Retina display	3.5"	4" Retina
Résolution	2048x1536	1024x768	1136x640
Analogique	2 canaux, 8 bits	2 canaux, 8 bits	2 canaux, 8 bits
Sonde analogique	1x et 10x possible, amovible avec SMB	1x et 10x possible, amovible avec SMB	1x et 10x possible, amovible avec SMB
Numérique	4	4	4
Sonde numérique	Connecteurs 4 bits, 1 Gnd, 0,100" amovibles avec accroches SMD	Connecteurs 4 bits, 1 Gnd, 0,100" amovibles avec accroches SMD	Connecteurs 4 bits, 1 Gnd, 0,100" amovibles avec accroches SMD
Bande passante analogique	5MHz	5MHz	5MHz
Fréquence d'échantillonnage max	50MSPS	50MSPS	50MSPS
Profondeur d'échantillonnage	1000pts	1000pts	1000pts
Sensibilité horizontale	200ns/div-10s/div	200ns/div-10s/div	200ns/div-10s/div
Position horizontale	Réglable	Réglable	Réglable
Position du déclencheur	Réglable	Réglable	Réglable
Sensibilité verticale	de 50 mV/div à 2 v/div (1x) de 500 mV/div à 20 v/div (10x)	de 50 mV/div à 2 v/div (1x) de 500 mV/div à 20 v/div (10x)	de 50 mV/div à 2 v/div (1x) de 500 mV/div à 20 v/div (10x)
Position verticale	Réglable	Réglable	Réglable
Tension d'entrée numérique max	de -0,5 v à +7 v	de -0,5 v à +7 v	de -0,5 v à +7 v
Tension d'entrée max	de -8v à +13v (1x) de -40v à +40v (10x)	de -8v à +13v (1x) de -40v à +40v (10x)	de -8v à +13v (1x) de -40v à +40v (10x)
Couplage	CA ou CC	CA ou CC	CA ou CC
Modes de déclenchement	Auto / Normal / Simple / Arrêt	Auto / Normal / Simple / Arrêt	Auto / Normal / Simple / Arrêt
Types de déclenchement	Analogique, Numérique (A, A&B, A B, A>B)	Analogique, Numérique (A, A&B, A B, A>B)	Analogique, Numérique (A, A&B, A B, A>B)
Mesures en direct	6	6	6
Types de mesure	Fréquence	Fréquence	Fréquence
	Période	Période	Période
	Min	Min	Min
	Max	Max	Max
	Moyenne	Moyenne	Moyenne
	Crête à Crête	Crête à Crête	Crête à Crête
	Moyenne Quadratique	Moyenne Quadratique	Moyenne Quadratique
	Cycle de Travail Positif	Cycle de Travail Positif	Cycle de Travail Positif
	Cycle de Travail Négatif	Cycle de Travail Négatif	Cycle de Travail Négatif
	Largeur d'impulsion Positive	Largeur d'impulsion Positive	Largeur d'impulsion Positive
	Largeur d'impulsion Négative	Largeur d'impulsion Négative	Largeur d'impulsion Négative
	Cycle Moyen	Cycle Moyen	Cycle Moyen
	Moyenne Quadratique Cyclique	Moyenne Quadratique Cyclique	Moyenne Quadratique Cyclique
	Temps de Montée	Temps de Montée	Temps de Montée
	Temps de Descente	Temps de Descente	Temps de Descente
Fonctionnalités	Capture d'écran par Email	Capture d'écran par Email	Capture d'écran par Email
	Mode Démo (Analogique)	Mode Démo (Analogique)	Mode Démo (Analogique)
	Mesures de Curseur Horizontal/Vertical	Mesures de Curseur Horizontal/Vertical	Mesures de Curseur Horizontal/Vertical
	Prise de Référence	Prise de Référence	Prise de Référence
	Retardateur (toujours activé) / Palier à -99,99s Max	Retardateur (toujours activé) / Palier à -99,99s Max	Retardateur (toujours activé) / Palier à -99,99s Max
	FFT, enregistrement de données, mathématiques avancées	FFT, enregistrement de données, mathématiques avancées	FFT, enregistrement de données, mathématiques avancées

# Guida rapida

Oscium iMSO-204L

Oscilloscopio a segnale misto



- 1) Scaricare "iMSO2" dall'Apple App Store
- 2) Collegare la sonda al proprio iPod touch®, iPhone® o iPad® mediante il connettore Lightning™. Nota: la luce blu indica che l'oscilloscopio comunica con l'applicazione.
- 3) Collegare la Sonda Analogica e la Sonda Logica alle apposite porte presenti sull'oscilloscopio.
- 4) Per ulteriori informazioni visitare il sito web Oscium all'indirizzo [www.oscium.com](http://www.oscium.com)

## ATTENZIONE

NON APPLICARE UNA TENSIONE SUPERIORE A +/-40 V IN MODALITÀ 10X, O SUPERIORE ALL'INTERVALLO COMPRESO TRA -8 V E +13 V IN MODALITÀ 1X

## ATTENZIONE

NON APPLICARE UNA TENSIONE SUPERIORE A -0,5/+7 V AL CANALE DIGITALE

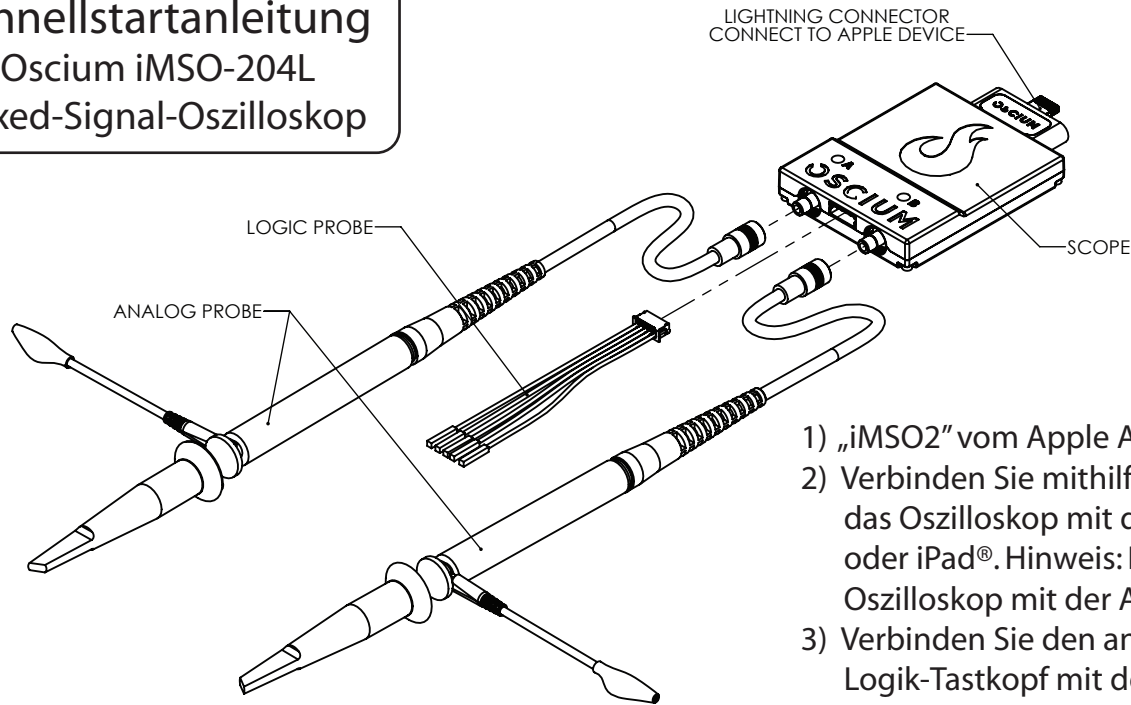
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iMSO-204L	iPad (4rd generation)	iPad mini	iPhone 5S, iPhone 5C, iPhone 5, iPod touch (5th gen)
Display	9.7" Retina display	3.5"	4" Retina
Risoluzione	2048x1536	1024x768	1136x640
Analogico	2 Canali, 8 bit	2 Canali, 8 bit	2 Canali, 8 bit
Sonda analogica	Modalità Selezionabili: 1x & 10x, Rimovibile con SMB	Modalità Selezionabili: 1x & 10x, Rimovibile con SMB	Modalità Selezionabili: 1x & 10x, Rimovibile con SMB
Digitale	4	4	4
Sonda Digitale	Connettori 4 bit, 1Gnd, 0,100" con Grabber SMD rimovibili	Connettori 4 bit, 1Gnd, 0,100" con Grabber SMD rimovibili	Connettori 4 bit, 1Gnd, 0,100" con Grabber SMD rimovibili
Ampiezza di banda analogica	5MHz	5MHz	5MHz
Frequenza massima di campionamento	50MSPS	50MSPS	50MSPS
Profondità di campionamento	1000 punti	1000 punti	1000 punti
Sensibilità orizzontale	200ns/div-10s/div	200ns/div-10s/div	200ns/div-10s/div
Posizione orizzontale	Regolabile	Regolabile	Regolabile
Posizione trigger	Regolabile	Regolabile	Regolabile
Sensibilità verticale	da 50 mV/div a 2 v/div (1x) da 500 mV/div a 20 v/div (10x)	da 50 mV/div a 2 v/div (1x) da 500 mV/div a 20 v/div (10x)	da 50 mV/div a 2 v/div (1x) da 500 mV/div a 20 v/div (10x)
Posizione verticale	Regolabile	Regolabile	Regolabile
Massima tensione digitale in ingresso	da -0,5 v a +7 v	da -0,5 v a +7 v	da -0,5 v a +7 v
Massima tensione in ingresso	da -8 v a +13 v (1x) -40 v a +40 v (10x)	da -8 v a +13 v (1x) -40 v a +40 v (10x)	da -8 v a +13 v (1x) -40 v a +40 v (10x)
Accoppiamento	CA o CC	CA o CC	CA o CC
Modalità trigger	Automatica/Normale/Singola/Arresto	Automatica/Normale/Singola/Arresto	Automatica/Normale/Singola/Arresto
Tipi di trigger	Analogico, Digitale (A, A&B, A B, A>B)	Analogico, Digitale (A, A&B, A B, A>B)	Analogico, Digitale (A, A&B, A B, A>B)
Misurazioni in tempo reale	6	6	6
Tipi di misurazione	Frequenza	Frequenza	Frequenza
	Periodo	Periodo	Periodo
	Min	Min	Min
	Max	Max	Max
	Medio	Medio	Medio
	Picco a Picco	Picco a Picco	Picco a Picco
	RMS	RMS	RMS
	Ciclo di lavoro positivo	Ciclo di lavoro positivo	Ciclo di lavoro positivo
	Ciclo di lavoro negativo	Ciclo di lavoro negativo	Ciclo di lavoro negativo
	Ampiezza dell'impulso positivo	Ampiezza dell'impulso positivo	Ampiezza dell'impulso positivo
	Ampiezza dell'impulso negativo	Ampiezza dell'impulso negativo	Ampiezza dell'impulso negativo
	Media ciclo di lavoro	Media ciclo di lavoro	Media ciclo di lavoro
	Ciclo RMS	Ciclo RMS	Ciclo RMS
	Tempo di salita	Tempo di salita	Tempo di salita
	Tempo di discesa	Tempo di discesa	Tempo di discesa
Funzioni	Acquisizione e invio della schermata per e-mail modalità Demo (Analogico)	Acquisizione e invio della schermata per e-mail modalità Demo (Analogico)	Acquisizione e invio della schermata per e-mail modalità Demo (Analogico)
	Misurazioni cursore orizzontale/verticale	Misurazioni cursore orizzontale/verticale	Misurazioni cursore orizzontale/verticale
	Acquisizione riferimento	Acquisizione riferimento	Acquisizione riferimento
	Ritardo (sempre acceso) / Holdoff - max 99,99 s	Ritardo (sempre acceso) / Holdoff - max 99,99 s	Ritardo (sempre acceso) / Holdoff - max 99,99 s
	FFT, data logging, Matematica avanzata	FFT, data logging, Matematica avanzata	FFT, data logging, Matematica avanzata

# Schnellstartanleitung

## Oscium iMSO-204L

### Mixed-Signal-Oszilloskop



- 1) „iMSO2“ vom Apple App Store herunterladen
- 2) Verbinden Sie mithilfe des Lightning™-Anschlusses das Oszilloskop mit dem iPod touch®, iPhone® oder iPad®. Hinweis: Blaues Licht zeigt an, dass das Oszilloskop mit der Anwendung kommuniziert.
- 3) Verbinden Sie den analogen Tastkopf und den Logik-Tastkopf mit den entsprechenden Anschlüssen am Oszilloskop.
- 4) Für weitere Informationen besuchen Sie bitte die Oscium-Website unter [www.oscium.com](http://www.oscium.com)

#### WARNUNG

NICHT MEHR ALS +/-40V  
IM 10X MODUS UND MEHR  
ALS -8V BIS +13V IM 1X  
MODUS ANWENDEN

#### WARNUNG

NICHT MEHR ALS  
-0.5/+7V AM DIGITALEN  
KANAL ANWENDEN

“Made for iPod”, “Made for iPhone”, and “Made for iPad” means that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance. Lightning is a trademark of Apple Inc.

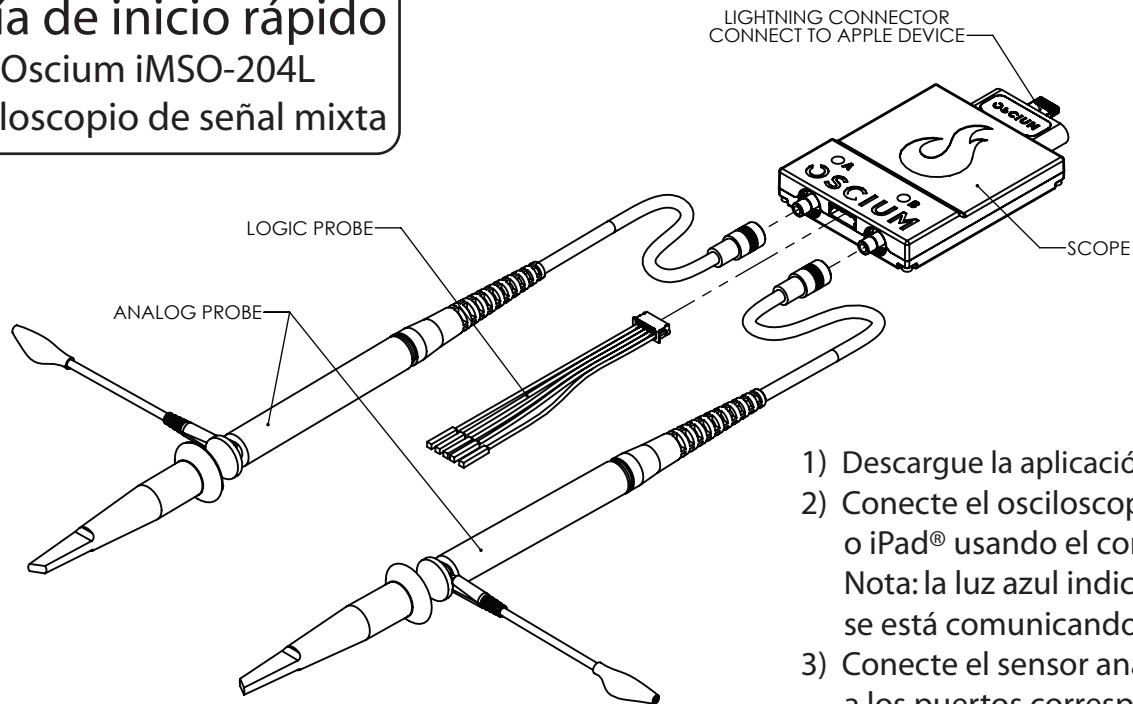
iMSO-204L	iPad (4rd generation)	iPad mini	iPhone 5S, iPhone 5C, iPhone 5, iPod touch (5th gen)
Anzeige	9.7" Retina display	3,5"	4" Retina
Auflösung	2048x1536	1024x768	1136x640
Analog	2-Kanal-, 8-Bit	2-Kanal-, 8-Bit	2-Kanal-, 8-Bit
Analoger Tastkopf	1x und 10x wählbar, abnehmbar mit SMB	1x und 10x wählbar, abnehmbar mit SMB	1x und 10x wählbar, abnehmbar mit SMB
Digital	4	4	4
Digitaler Tastkopf	4 Bits, 1 Gnd, 0,100-Zoll-Anschlüsse mit abnehmbaren SMD-Grabbern	4 Bits, 1 Gnd, 0,100-Zoll-Anschlüsse mit abnehmbaren SMD-Grabbern	4 Bits, 1 Gnd, 0,100-Zoll-Anschlüsse mit abnehmbaren SMD-Grabbern
Analoge Bandbreite	5MHz	5MHz	5MHz
Max. Abtastrate	50MSPS	50MSPS	50MSPS
Tiefe der Abtastrate	1000 Punkte	1000 Punkte	1000 Punkte
Horizontale Empfindlichkeit	200ns/div-10s/div	200ns/div-10s/div	200ns/div-10s/div
Horizontale Position	Einstellbar	Einstellbar	Einstellbar
Position des Auslösers	Einstellbar	Einstellbar	Einstellbar
Vertikale Empfindlichkeit	50mV/div zu 2v/div (1x) 500mV/div bis 20V/div (10x)	50mV/div zu 2v/div (1x) 500mV/div bis 20V/div (10x)	50mV/div zu 2v/div (1x) 500mV/div bis 20V/div (10x)
Vertikale Position	Einstellbar	Einstellbar	Einstellbar
Max. Digital-Eingangsspannung	-0,5v bis +7v	-0,5v bis +7v	-0,5v bis +7v
Max. Eingangsspannung	-8v bis +13v (1x) -40v bis +40v (10x)	-8v bis +13v (1x) -40v bis +40v (10x)	-8v bis +13v (1x) -40v bis +40v (10x)
Kupplung	Gleichstrom oder Wechselstrom	Gleichstrom oder Wechselstrom	Gleichstrom oder Wechselstrom
Modi des Auslösers	Auto/Normal/Einfach/Stopp	Auto/Normal/Einfach/Stopp	Auto/Normal/Einfach/Stopp
Auslösertypen	Analog, Digital (A, A&B, A B, A>B)	Analog, Digital (A, A&B, A B, A>B)	Analog, Digital (A, A&B, A B, A>B)
Echtzeit-Messungen	6	6	6
Messarten	Frequenz	Frequenz	Frequenz
	Zeitraum	Zeitraum	Zeitraum
	Min	Min	Min
	Max	Max	Max
	Mittelwert	Mittelwert	Mittelwert
	Spitze-Spitze	Spitze-Spitze	Spitze-Spitze
	Effektivwert	Effektivwert	Effektivwert
	positives Tastverhältnis	positives Tastverhältnis	positives Tastverhältnis
	negatives Tastverhältnis	negatives Tastverhältnis	negatives Tastverhältnis
	Positive Impulsbreite	Positive Impulsbreite	Positive Impulsbreite
	Negative Impulsbreite	Negative Impulsbreite	Negative Impulsbreite
	Zyklusmittelwert	Zyklusmittelwert	Zyklusmittelwert
	Zyklus-Effektivwert	Zyklus-Effektivwert	Zyklus-Effektivwert
	Anstiegszeit	Anstiegszeit	Anstiegszeit
	Abfallzeit	Abfallzeit	Abfallzeit
Merkmale	Bildschirmerfassung E-Mail	Bildschirmerfassung E-Mail	Bildschirmerfassung E-Mail
	Demo-Modus (Analog)	Demo-Modus (Analog)	Demo-Modus (Analog)
	Horizontal/Vertikal-Cursor-Messungen	Horizontal/Vertikal-Cursor-Messungen	Horizontal/Vertikal-Cursor-Messungen
	Referenzerfassung	Referenzerfassung	Referenzerfassung
	Verzögerung (immer an) / Holdoff - 99,99s max.	Verzögerung (immer an) / Holdoff - 99,99s max.	Verzögerung (immer an) / Holdoff - 99,99s max.
	FFT, Datenprotokollierung, Fortgeschrittene Mathematik	FFT, Datenprotokollierung, Fortgeschrittene Mathematik	FFT, Datenprotokollierung, Fortgeschrittene Mathematik



# Guía de inicio rápido

## Oscium iMSO-204L

### Osciloscopio de señal mixta



- 1) Descargue la aplicación "iMSO2" de Apple App Store
- 2) Conecte el osciloscopio al iPod touch®, iPhone® o iPad® usando el conector Lightning™.  
Nota: la luz azul indica que el osciloscopio se está comunicando con la aplicación.
- 3) Conecte el sensor analógico y el sensor lógico a los puertos correspondientes del osciloscopio.
- 4) Visite la página web de Oscium [www.oscium.com](http://www.oscium.com) si desea consultar más información.

#### ADVERTENCIA

NO APLICAR MÁS DE  
+/-40 V DE ENTRADA EN  
MODO 10X NI MÁS DE  
-8 V A +13 V DE ENTRADA  
EN MODO 1X

#### ADVERTENCIA

NO APLICAR MÁS DE  
-0,5/+7 V AL CANAL  
DIGITAL

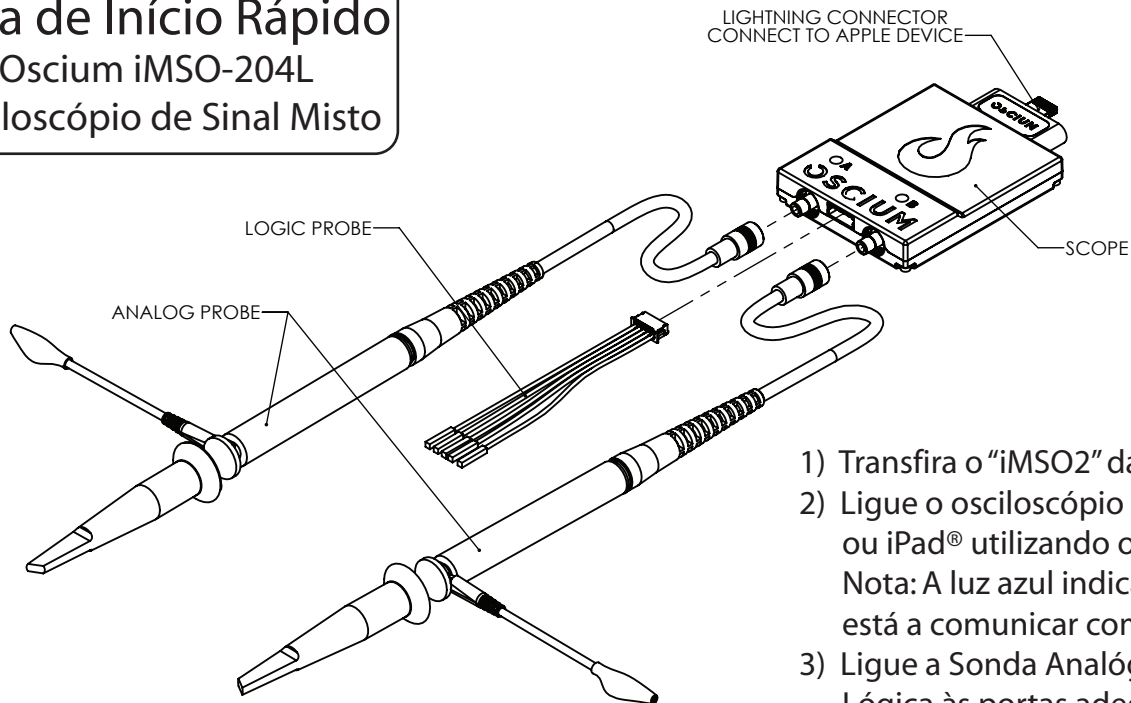
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iMSO-204L	iPad (4rd generation)	iPad mini	iPhone 5S, iPhone 5C, iPhone 5, iPod touch (5th gen)
Pantalla	9.7" Retina display	3.5"	4" Retina
Resolución	2048x1536	1024x768	1136x640
Analógico	2 canales, 8 bits	2 canales, 8 bits	2 canales, 8 bits
Sensor analógico	Se puede escoger 1x y 10x, extraíble con SMB	Se puede escoger 1x y 10x, extraíble con SMB	Se puede escoger 1x y 10x, extraíble con SMB
Digital	4	4	4
Sensor digital	Conectores de 4 bits; 1 a tierra; de 0,100" con clips SMD extraíbles	Conectores de 4 bits; 1 a tierra; de 0,100" con clips SMD extraíbles	Conectores de 4 bits; 1 a tierra; de 0,100" con clips SMD extraíbles
Ancho de banda analógico	5MHz	5MHz	5MHz
Frecuencia máxima de muestreo	50MSPS	50MSPS	50MSPS
Profundidad de muestreo	1000 puntos	1000 puntos	1000 puntos
Sensibilidad horizontal	200ns/div-10s/div	200ns/div-10s/div	200ns/div-10s/div
Posición horizontal	Ajustable	Ajustable	Ajustable
Posición de disparo	Ajustable	Ajustable	Ajustable
Sensibilidad vertical	50 mV/div a 2v/div (1x) 500 mV/div a 20v/div (10x)	50 mV/div a 2v/div (1x) 500 mV/div a 20v/div (10x)	50 mV/div a 2v/div (1x) 500 mV/div a 20v/div (10x)
Posición vertical	Ajustable	Ajustable	Ajustable
Voltaje máximo de entrada digital	-0,5 v a +7 v	-0,5 v a +7 v	-0,5 v a +7 v
Voltaje máximo de entrada	-8 v a +13 v (1x) -40 v a +40 v (10x)	-8 v a +13 v (1x) -40 v a +40 v (10x)	-8 v a +13 v (1x) -40 v a +40 v (10x)
Acoplamiento	CA o CC	CA o CC	CA o CC
Modos de disparo	Automático/Normal/Único/Parada	Automático/Normal/Único/Parada	Automático/Normal/Único/Parada
Tipos de disparo	Analógico, digital (A, A&B, A B, A>B)	Analógico, digital (A, A&B, A B, A>B)	Analógico, digital (A, A&B, A B, A>B)
Mediciones en directo	6	6	6
Tipos de mediciones	Frecuencia	Frecuencia	Frecuencia
	Periodo	Periodo	Periodo
	Mínimo	Mínimo	Mínimo
	Máximo	Máximo	Máximo
	Media	Media	Media
	Pico a Pico	Pico a Pico	Pico a Pico
	RMS	RMS	RMS
	Ciclo de Trabajo Positivo	Ciclo de Trabajo Positivo	Ciclo de Trabajo Positivo
	Ciclo de Trabajo Negativo	Ciclo de Trabajo Negativo	Ciclo de Trabajo Negativo
	Duración de impulsos Positivos	Duración de impulsos Positivos	Duración de impulsos Positivos
	Duración de impulsos Negativos	Duración de impulsos Negativos	Duración de impulsos Negativos
	Media del Ciclo	Media del Ciclo	Media del Ciclo
	RMS del Ciclo	RMS del Ciclo	RMS del Ciclo
	Tiempo de Subida	Tiempo de Subida	Tiempo de Subida
	Tiempo de Bajada	Tiempo de Bajada	Tiempo de Bajada
Características	Correo Electrónico de la Captura de Pantalla	Correo Electrónico de la Captura de Pantalla	Correo Electrónico de la Captura de Pantalla
	Modo Demostración (Analógico)	Modo Demostración (Analógico)	Modo Demostración (Analógico)
	Mediciones del Cursor Vertical/Horizontal	Mediciones del Cursor Vertical/Horizontal	Mediciones del Cursor Vertical/Horizontal
	Captura de Referencia	Captura de Referencia	Captura de Referencia
	Retardo (siempre encendido), espera -99,99 s máx.	Retardo (siempre encendido), espera -99,99 s máx.	Retardo (siempre encendido), espera -99,99 s máx.
	FFT, registro de datos, matemáticas avanzadas	FFT, registro de datos, matemáticas avanzadas	FFT, registro de datos, matemáticas avanzadas

# Guia de Início Rápido

## Oscium iMSO-204L

### Osciloscópio de Sinal Misto



- 1) Transfira o "iMSO2" da Apple App Store
- 2) Ligue o osciloscópio ao iPod touch®, iPhone® ou iPad® utilizando o conector Lightning™. Nota: A luz azul indica que o osciloscópio está a comunicar com a aplicação.
- 3) Ligue a Sonda Analógica e a Sonda Lógica às portas adequadas no osciloscópio.
- 4) Para obter mais informações, visite o Website da Oscium em [www.oscium.com](http://www.oscium.com)

#### AVISO

NÃO APLIQUE MAIS DO QUE +/-40VIN NO MODO 10X E MAIS DO QUE -8V A +13VIN NO MODO 1X

#### AVISO

NÃO APLIQUE MAIS DO QUE -0,5/+7V AO CANAL DIGITAL

"Made for iPod", "Made for iPhone", and "Made for iPad" means that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance. Lightning is a trademark of Apple Inc.

iMSO-204L	iPad (4rd generation)	iPad mini	iPhone 5S, iPhone 5C, iPhone 5, iPod touch (5th gen)
Visor	9.7" Retina display	3.5"	4" Retina
Resolução	2048x1536	1024x768	1136x640
Analogico	2 Canais, 8 bits	2 Canais, 8 bits	2 Canais, 8 bits
Sonda Analógica	1x & 10x regulável, removível com SMB	1x & 10x regulável, removível com SMB	1x & 10x regulável, removível com SMB
Digital	4	4	4
Sonda Digital	Conectores de 4 bits, 1 GND, 0.100" com Pontas de Prova SMD removíveis	Conectores de 4 bits, 1 GND, 0.100" com Pontas de Prova SMD removíveis	Conectores de 4 bits, 1 GND, 0.100" com Pontas de Prova SMD removíveis
Largura de Banda Analógica	5MHz	5MHz	5MHz
Frequência Máxima de Amostragem	50MSPS	50MSPS	50MSPS
Profundidade de Amostragem	1000 pontos	1000 pontos	1000 pontos
Sensibilidade Horizontal	200ns/div-10s/div	200ns/div-10s/div	200ns/div-10s/div
Posição Horizontal	Ajustável	Ajustável	Ajustável
Posição de Disparo	Ajustável	Ajustável	Ajustável
Sensibilidade Vertical	50mV/div a 2v/div (1x) 500mV/div a 20v/div (10x)	50mV/div a 2v/div (1x) 500mV/div a 20v/div (10x)	50mV/div a 2v/div (1x) 500mV/div a 20v/div (10x)
Posição Vertical	Ajustável	Ajustável	Ajustável
Tensão Máxima da Entrada Digital	-0,5v a +7v	-0,5v a +7v	-0,5v a +7v
Tensão Máxima de Entrada	-8v a +13v (1x) -40v a +40v (10x)	-8v a +13v (1x) -40v a +40v (10x)	-8v a +13v (1x) -40v a +40v (10x)
Ligação	CA ou CC	CA ou CC	CA ou CC
Modos de Disparo	Automático/Normal/Único/Stop	Automático/Normal/Único/Stop	Automático/Normal/Único/Stop
Tipos de Disparo	Analogico, Digital (A, A&B, A B, A>B)	Analogico, Digital (A, A&B, A B, A>B)	Analogico, Digital (A, A&B, A B, A>B)
Medições em Tempo Real	6	6	6
Tipos de medições	Frequência	Frequência	Frequência
	Período	Período	Período
	Mín	Mín	Mín
	Máx	Máx	Máx
	Valor Médio	Valor Médio	Valor Médio
	Pico a Pico	Pico a Pico	Pico a Pico
	RMS	RMS	RMS
	Ciclo de Funcionamento Positivo	Ciclo de Funcionamento Positivo	Ciclo de Funcionamento Positivo
	Ciclo de Funcionamento Negativo	Ciclo de Funcionamento Negativo	Ciclo de Funcionamento Negativo
	Largura de Pulso Positivo	Largura de Pulso Positivo	Largura de Pulso Positivo
	Largura de Pulso Negativo	Largura de Pulso Negativo	Largura de Pulso Negativo
	Valor Médio do Ciclo	Valor Médio do Ciclo	Valor Médio do Ciclo
	RMS do Ciclo	RMS do Ciclo	RMS do Ciclo
	Tempo de Subida	Tempo de Subida	Tempo de Subida
	Tempo de Descida	Tempo de Descida	Tempo de Descida
Características	E-mail de Captura de Ecrã	E-mail de Captura de Ecrã	E-mail de Captura de Ecrã
	Modo de demonstração (Analogico)	Modo de demonstração (Analogico)	Modo de demonstração (Analogico)
	Medições Cursor Horizontal/Vertical	Medições Cursor Horizontal/Vertical	Medições Cursor Horizontal/Vertical
	Captura de Referência	Captura de Referência	Captura de Referência
	Atraso (sempre ativo)/Retardamento -99,99s máx.	Atraso (sempre ativo)/Retardamento -99,99s máx.	Atraso (sempre ativo)/Retardamento -99,99s máx.
	FFT, Registo de Dados, Matemática Avançada	FFT, Registo de Dados, Matemática Avançada	FFT, Registo de Dados, Matemática Avançada