



#### INTRODUCTION

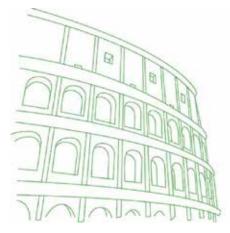
With headquarters in Hong-Kong, Factory in Ningbo, R&D in Florence, Frog-Is is an innovative pro-audio company offering the best in technology from Europe and Asia. Our core mission is to offer the best sounding products at a minimalistic price. Frog-Is is a one-stop shop for any demanding sound engineer, rental company owner, restaurant and bar operators having to work on restrictive budgets.

Frog-is specializes in providing Speakers, Amplifiers, Mixing consoles, Microphones, Wireless Microphones, Speaker Processors and all Accessories necessary to provide high quality sound for any type of public gathering spaces.

Frog-Is is renowned for offering an exceptional quality value for the cost. Ninety percent of the Frog-Is self powered and passive speaker product line is designed by one of the most innovative speaker manufacturer in Europe.

Our Brand wants to be modern, inventive, professional, while being fun, bouncing, and humoristic!

Why Frog-Is ?





#### FROG IS...



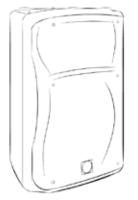
Frogs start singing after their winter hibernation. In the countryside, it is one of the clearest signs announcing spring.

So let spring settle in your life with the help of our products! Like frogs that shout out their joy and lust for life in the fairest of the seasons, you can start singing, playing, speaking, celebrating your own spring wherever and whenever you want. Frog-Is gives you the right tools to spread your voice or your instrumental music. You can do it on the move or in your personal work space.

#### ...AN ITALIAN IDEA...

A team of expert Italian designers and manufacturers have created a portable two-way speaker line outfitted for many purposes. This Italian part of our company guarantees high quality, creativity and durability.





#### ...BECOMING A PRODUCT...

You can choose the size of your speaker (8", 12" or 15"), which is characterized by a manageable, strong innovative and redesigned ABS box, assuring an accurate, clear, powerful full sound.

#### ... TO EXPRESS YOURSELF...

Whether you're a singer, musician, DJ, public speaker, gym instructor, street artist, event organizer, or a free spirit, a rolling stone always on the road, our speakers enable you to reach ears all around the world and make your own lively springtime come wherever you go! As frogs in spring.





FI-CT6 is a trapezoidal built-in two-way coaxial 6-inch full-range speaker. The speaker uses a 1-inch titanium diaphragm compressor driver and a 6-inch low frequency driver, suitable as a near-field speaker The titanium diaphragm tweeter provides a crisp high frequency and a high-powered low distortion. With the coaxial structure design, it solves the common problem of poor transmission of conventional single speaker unit, therefore having a very balanced near-field tone. Aluminum horn and paper woofer combine to form a near-field, wide-angle exponential tweeter horn with a coverage angle of 80°(H)×80°(V)

#### **Product Features**

- Exquisite appearance
- Ultra-wide frequency response coverage
- Ultra-wide pointing angle
- Optimize frequency divider and unit structure to effectively eliminate phase interference

#### **Product Applications**

• Lecture hall, conference room, fill speakers, foldback monitor



Acoustic parameters		
Frequency Response	91 Hz - 20 kHz (-10 dB)	
SPL 1W/1mt	91 (±2) dB	
Rated Power(W)	180W ( AES )	
Rated Impedance (Ω)	8 ohms	
Maximum sound pressure level (S P L)	113dB (continuous), 118dB (peak)	
Coverage		
Nominal coverage angle (H x V)	80°×80°	
Speaker unit		
Woofer	Ferrite, 1×6"woofer/50mm voice coil	
Tweeter	Ferrite, 1 x 1" port tweeter/44mm voice coil	
Physical properties		
Hanging parts	10×M8 lifting point, bottom support	
Connections	Two professional NL4MP four-core sockets, 1+1-full frequency input	
Product weight( k g )	6( kg )	
Dimension ( W×D×H )	195×225×254 (mm)	





# **FI-CT6X2** 2x6-inch Full Range Coaxial Speaker

FI-CT6x2 is a trapezoidal built-in two-way coaxial two 6-inch full-range speaker. The speaker uses a 1-inch titanium diaphragm compressor driver and two 6-inch low frequency driver, suitable as a near-field speaker.

The titanium diaphragm tweeter provides a crisp high frequency and a high-powered low distortion. With the coaxial structure design, it solves the common problem of poor transmission of conventional single speaker unit, therefore having a very balanced near-field tone. Aluminum horn and paper woofer combine to form a near-field, wide-angle exponential tweeter horn with a coverage angle of 80°(H)×80°(V)

#### **Product Features**

- Exquisite appearance
- Ultra-wide frequency response coverage
- Ultra-wide pointing angle
- Optimize frequency divider and unit structure to effectively eliminate phase interference

#### Product Applications

• Lecture hall, conference room, fill speakers, foldback monitor



Acoustic parameters		
Frequency Response	75 Hz - 20 kHz (-10 dB)	
SPL 1W/1mt	91 (±2) dB	
Rated Power(W)	250W ( AES )	
Rated Impedance (Ω)	4 ohms	
Maximum sound pressure level (S P L)	116dB (continuous), 122dB (peak)	
Coverage		
Nominal coverage angle (H x V)	80°×80°	
Speaker unit		
Woofer	Ferrite, 2×6"woofer/50mm voice coil	
Tweeter	Ferrite, 1 x 1" port tweeter/44mm voice coil	
Physical properties		
Hanging parts	10×M8 lifting point, bottom support	
Connections	Two professional NL4MP four-core sockets, 1+1-full frequency input	
Product weight( k g )	9( kg )	
Dimension ( W×D×H )	195×225×420 (mm)	





FI-CT8 is a trapezoidal built-in two-way coaxial 8-inch full-range speaker. The speaker uses a 1-inch titanium diaphragm compressor driver and an 8-inch low frequency driver, suitable as a near-field speaker.

The titanium diaphragm tweeter provides a crisp high frequency and a high-powered low distortion. With the coaxial structure design, it solves the common problem of poor transmission of conventional single speaker unit, therefore having a very balanced near-field tone. Aluminum horn and paper woofer combine to form a near-field, wide-angle exponential tweeter horn with a coverage angle of 80°(H)×80°(V)

#### Product Features

- Exquisite appearance
- Ultra-wide frequency response coverage
- Ultra-wide pointing angle
- Optimize frequency divider and unit structure to effectively eliminate phase interference

#### Product Applications

• Lecture hall, conference room, fill speakers, foldback monitor





Acoustic parameters		
Frequency Response	91 Hz - 20 kHz (-10 dB)	
SPL 1W/1mt	93 (±2) dB	
Rated Power(W)	250W ( AES )	
Rated Impedance (Ω)	8 ohms	
Maximum sound pressure level (S P L)	116dB (continuous), 122dB (peak)	
Coverage		
Nominal coverage angle (H x V)	80°×80°	
Speaker unit		
Woofer	Ferrite, 1 x 8"woofer/50mm voice coil	
Tweeter	Ferrite, 1 x 1" port tweeter/44mm voice coil	
Physical properties		
Hanging parts	10×M8 lifting point, bottom support	
Connections	Two professional NL4MP four-core sockets, 1+1-full frequency input	
Product weight( k g )	8( kg )	
Dimension ( W×D×H )	245×270×320 ( mm )	





# **FI-CT8X2** 2x8-inch Full Range Coaxial Speaker

FI-CT8x2 is a trapezoidal built-in two-way coaxial two 8-inch full-range speaker. The speaker uses a 1-inch titanium diaphragm compressor driver and two 8-inch low frequency driver, suitable as a near-field speaker

The titanium diaphragm tweeter provides a crisp high frequency and a high-powered low distortion. With the coaxial structure design, it solves the common problem of poor transmission of conventional single speaker unit, therefore having a very balanced near-field tone. Aluminum horn and paper woofer combine to form a near-field, wide-angle exponential tweeter horn with a coverage angle of 80°(H)×80°(V)

#### Product Features

- Exquisite appearance
- Ultra-wide frequency response coverage
- Ultra-wide pointing angle
- Optimize frequency divider and unit structure to effectively eliminate phase interference

#### Product Applications

• Lecture hall, conference room, fill speakers, foldback monitor



Acoustic parameters		
Frequency Response	65 Hz - 20 kHz (-10 dB)	
SPL 1W/1mt	95 (±2) dB	
Rated Power(W)	350W ( AES )	
Rated Impedance (Ω)	4 ohms	
Maximum sound pressure level (S P L)	120dB (continuous), 126dB (peak)	
Coverage		
Nominal coverage angle (H x V)	80°×80°	
Speaker unit		
Woofer	Ferrite, 2 x 8"woofer/50mm voice coil	
Tweeter	Ferrite, 1 x 1" port tweeter/44mm voice coil	
Physical properties		
Hanging parts	10×M8 lifting point, bottom support	
Connections	Two professional NL4MP four-core sockets, 1+1-full frequency input	
Product weight( k g )	14( kg )	
Dimension ( W×D×H )	245×270×320 ( mm )	





#### Product Features

- High-power 2-way PA sound reinforcement speaker system for live and playback applications
- Ultra-compact and light weight system delivers excellent sound even at extreme sound pressure levels
- Extremely Efficient 8" woofer driver provides incredibly deep bass and acoustic power
- Precise 1" compression driver for exceptional high- frequency reproduction
- Ultra-wide dispersion
- Overload-protection circuitry ensures optimal HF driver protection
- Versatile trapezoidal enclosure design allows different positioning
- Stand mounting with 35-mm pole socket
- Tilts on its side for use as a floor monitor
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- Rugged ABS box provides strength and manageability
- Ergonomically shaped handles for easy carrying and setup
- Designed, engineered and tuned in Italy

#### Product Applications

 The FP8 is ideal for mobile and installed applications. It is an excellent choice for a wide variety of applications, including retail stores, restaurants, health clubs, theme parks, educational facilities, hospitality, music cafes, leisure venues, and anywhere where a top-quality high output indoor/ outdoor foreground/ background music (and/or paging) speaker is required. FROG-IS FP8 is the first choice for demanding musicians and DJs who work in loud environments.

A multi-purpose speaker system, fully equipped to serve as a main PA, a stage monitor, a distributed audio system and other applications.

The FP8 delivers punchy, assertive sound. Its integrated dual channel Class D amplifier (200 Watts) provides high performance and very high sound pressure levels with an exceedingly dynamic, tight and clean response.

Loaded with top quality speakers, it provides premium audio performance with maximum reliability and minimum power compression that is easy to install.

A strong-built and robust construction designed to handle high loads, rendering lead vocals, guitars, electronic instruments, and playback tracks with power and authority, easily delivering sound across medium-to-longer distances.

The FP8 features provide musicians and audiences with an excellent acoustic experience, even on the most demanding stages.



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65 Hz - 20 kHz (± 3 dB)     97 dB     120 dB @ 1 m Peak     90°     70°     8" Woofer
97 dB 120 dB @ 1 m Peak 90° 70° 8" Woofer
90° 70° 8" Woofer
70°   8" Woofer
70°   8" Woofer
8" Woofer
1" HF driver, loaded horn
Mic In: 8 mV
Line In: 125 mV
Mic In: 650 $\Omega$ Unbalanced - 1.3 k $\Omega$ balanced
Line In: 10 k $\Omega$ unbalanced - 19 k $\Omega$ balanced
Crossover: 2.6 kHz Slope: 24 dB/octave
Overheat protection, overload protection
+3 dB @ 75 Hz
+3 dB @ 11 kHz
Power, Signal, Limiter
LF: 150W
HF: 50W
< 0.1% THD at rated power
Overheat protection, overload protection, short circuit protection
100 / 240 ± 10%, 50/60 Hz PFC 95
125 Vac./ 195 - 250 Vac. (optional)
Lockable 1-3/8" (35mm) Stand Mount
M8 screw installation (3 points)
1 XLR and 1/4" TRS balanced input
1 XLR balanced output
7.8 kg (17.20 lbs.)
27 cm x 41 cm x 27 cm (10.63" x 16.14" x 10.63")











#### Product Features

- High-power 2-way PA sound reinforcement speaker system for live and playback applications
- Ultra-compact and light weight system delivers excellent sound even at extreme sound pressure levels
- $\bullet$  Extremely Efficient 8" woofer driver provides incredibly deep bass and acoustic power
- Precise 1" compression driver for exceptional high- frequency reproduction
- Ultra-wide dispersion
- Versatile trapezoidal enclosure design allows different positioning
- Stand mounting with 35-mm pole socket
- Tilts on its side for use as a floor monitor
- Rugged ABS box provides strength and manageability
- Ergonomically shaped handles for easy carrying and setup
- Designed, engineered and tuned in Italy

#### Product Applications

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 The FP8P is ideal for mobile and installed applications. It is an excellent choice for a wide variety of applications, including retail stores, restaurants, health clubs, theme parks, educational facilities, hospitality, music cafes, leisure venues, and anywhere where a top-quality high output indoor/ outdoor foreground/ background music (and/or paging) speaker is required. FROG-IS FP8P is the first choice for demanding musicians and DJs who work in loud environments.

A multi-purpose speaker system, fully equipped to serve as a main PA, a stage monitor, a distributed audio system and other applications.

The FP8P delivers punchy, assertive sound and very high sound pressure levels when used with FROG-IS FI-AMP8 and FI-AMP4K amplifiers.

Loaded with top quality speakers, it provides premium audio performance with maximum reliability and minimum power compression that is easy to install.

A strong-built and robust construction designed to handle high loads, rendering lead vocals, guitars, electronic instruments, and playback tracks with power and authority, easily delivering sound across medium-to-longer distances.

The FP8P features provide musicians and audiences with an excellent acoustic experience, even on the most demanding stages.



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Acoustic parameters		
Frequency Response	65 Hz - 20 kHz (± 3 dB)	
SPL 1W/1mt	97 dB	
Maximum SPL	120 dB @ 1 m Peak	
Coverage		
Horizontal	90°	
Vertical	70°	
Speaker unit		
Woofer	8" woofer	
Tweeter	1" HF driver, loaded horn	
Physical properties		
Installation	Lockable 1-3/8" (35mm) Stand Mount	
Fixed installation	M8 screw installation (3 points)	
Input	1 SPEAKON	
Output	1 SPEAKON	
Net Weight	6 kg (13.23 lbs.)	
Dimensions Width/Height/Length	27 cm x 41 cm x 27 cm (10.63" x 16.14" x 10.63")	









#### **Product Features**

- High-power 2-way PA sound reinforcement speaker system for live and playback applications
- Ultra-compact and light weight system delivers excellent sound even at extreme sound pressure levels
- Extremely Efficient 12" woofer driver provides incredibly deep bass and acoustic power
- Precise 1" compression driver for exceptional high- frequency reproduction
- Ultra-wide dispersion
- Overload-protection circuitry ensures optimal HF driver protection
  - Versatile trapezoidal enclosure design allows different positioning
- Stand mounting with 35-mm pole socket
- Tilts on its side for use as a floor monitor
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- Rugged ABS box provides strength and manageability
- Ergonomically shaped handles for easy carrying and setup
- Designed, engineered and tuned in Italy

#### Product Applications

The FP12 is ideal for mobile and installed applications. It is an excellent choice for a wide variety of applications, including retail stores, restaurants, health clubs, theme parks, educational facilities, hospitality, music cafes, leisure venues, and anywhere where a top-quality high output indoor/ outdoor foreground/ background music (and/or paging) speaker is required.

FROG-IS FP12 is the first choice for demanding musicians and DJs who work in loud environments.

A multi-purpose speaker system, fully equipped to serve as a main PA, a stage monitor, a distributed audio system and other applications.

The FP12 delivers punchy, assertive sound.

Its integrated dual channel Class D amplifier (400 Watts) provides high performance and very high sound pressure levels with an exceedingly dynamic, tight and clean response.

Loaded with high quality speakers, it provides premium audio performance with maximum reliability and minimum power compression that is easy to install.

A strong-built and robust construction designed to handle high loads, rendering lead vocals, guitars, electronic instruments, and playback tracks with power and authority, easily delivering sound across medium-to-longer distances.

The FP12 features provide musicians and audiences with an excellent acoustic experience, even on the most demanding stages.



Acoustic parameters	
Frequency Response	50 Hz - 20 kHz (± 3 dB)
SPL 1W/1mt	99 dB
Maximum SPL	125 dB @ 1 m Peak
Coverage	
Horizontal	90°
Vertical	70°
Speaker unit	
Woofer	12" Woofer
Tweeter	1" HF driver, loaded horn
Preamplifiers and Processors	
Input sensitivity	Mic In: 8 mV
	Line In: 125 mV
Input resistance	Mic In: 650 Ω Unbalanced - 1.3 kΩ balanced
	Line In: 10 k $\Omega$ unbalanced - 19 k $\Omega$ balanced
Crossover	Crossover: 2.3 kHz Slope: 24 dB/octave
Protection	Overheat protection, overload protection
Music Equalization	+3 dB @ 75 Hz
	+3 dB @ 11 kHz
	Power, Signal, Limiter
Power amplifier	· · · · · · · · · · · · · · · · · · ·
Amplifier power	LF: 350W
	HF: 50W
Distortion	< 0.1% THD at rated power
Amplifier protection	Overheat protection, overload protection, short circuit protection
Input voltage	
Rated voltage	100 / 240 ± 10%, 50/60 Hz PFC 95
Work environment	125 Vac./ 195 - 250 Vac. (optional)
Physical properties	
Installation	Lockable 1-3/8" (35mm) Stand Mount
Fixed installation	M8 screw installation (3 points)
Input	1 XLR and 1/4" TRS balanced input
Output	1 XLR balanced output
Net weight	15 kg (33.07 lbs.)
Dimensions Width/Height/Length	40 cm x 60 cm x 35 cm (15.75" x 23.62" x 13.78")









#### **Product Features**

- High-power 2-way PA sound reinforcement speaker system for live and playback applications
- Ultra-compact and light weight system delivers excellent sound even at extreme sound pressure levels
- Extremely Efficient 8" woofer driver provides incredibly deep bass and acoustic power
- Precise 1" compression driver for exceptional high- frequency reproduction
- Ultra-wide dispersion
- Versatile trapezoidal enclosure design allows different positioning
- Stand mounting with 35-mm pole socket
- Tilts on its side for use as a floor monitor
- Rugged ABS box provides strength and manageability
- Ergonomically shaped handles for easy carrying and setup
- Designed, engineered and tuned in Italy

#### **Product Applications**

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 The FP8P is ideal for mobile and installed applications. It is an excellent choice for a wide variety of applications, including retail stores, restaurants, health clubs, theme parks, educational facilities, hospitality, music cafes, leisure venues, and anywhere where a top-quality high output indoor/ outdoor foreground/ background music (and/or paging) speaker is required. FROG-IS FP12P is the first choice for demanding musicians and DJs who work in loud environments.

A multi-purpose speaker system, fully equipped to serve as a main PA, a stage monitor, a distributed audio system and other applications.

The FP12P delivers punchy, assertive sound and very high sound pressure levels when used with FROG-IS FI-AMP8 and FI-AMP4K amplifiers.

Loaded with high quality speakers, it provides premium audio performance with maximum reliability and minimum power compression that is easy to install.

A strong-built and robust construction designed to handle high loads, rendering lead vocals, guitars, electronic instruments, and playback tracks with power and authority, easily delivering sound across medium-to-longer distances.

The FP12P features provide musicians and audiences with an excellent acoustic experience, even on the most demanding stages.



Acoustic parameters		
Frequency Response	50 Hz - 20 kHz (± 3 dB)	
SPL 1W/1mt	99 dB	
Maximum SPL	125 dB @ 1 m Peak	
Coverage		
Horizontal	90°	
Vertical	70°	
Speaker unit		
Woofer	12" woofer	
Tweeter	1" HF driver, loaded horn	
Physical properties		
Installation	Lockable 1-3/8" (35mm) Stand Mount	
Fixed installation	M8 screw installation (3 points)	
Input	1 SPEAKON	
Output	1 SPEAKON	
Net Weight	13 kg (28.66 lbs.)	
Dimensions Width/Height/Length	40 cm x 60 cm x 35 cm (15.75" x 23.62" x 13.78")	









#### **Product Features**

- High-power 2-way PA sound reinforcement speaker system for live and playback applications
- Ultra-compact and light weight system delivers excellent sound even at extreme sound pressure levels
- Extremely Efficient 15" woofer driver provides incredibly deep bass and acoustic power
- Precise 1" compression driver for exceptional high- frequency reproduction
- Ultra-wide dispersion
- Overload-protection circuitry ensures optimal HF driver protection

Versatile trapezoidal enclosure design allows different positioning

- Stand mounting with 35-mm pole socket
- Tilts on its side for use as a floor monitor
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- Rugged ABS box provides strength and manageability
- Ergonomically shaped handles for easy carrying and setup
- Designed, engineered and tuned in Italy

#### Product Applications

The FP15 is ideal for mobile and installed applications. It is an excellent choice for a wide variety of applications, including retail stores, restaurants, health clubs, theme parks, educational facilities, hospitality, music cafes, leisure venues, and anywhere where a top-quality high output indoor/ outdoor foreground/ background music (and/or paging) speaker is required.

FROG-IS FP15 is the first choice for demanding musicians and DJs who work in loud environments.

A multi-purpose speaker system, fully equipped to serve as a main PA, a stage monitor, a distributed audio system and other applications.

The FP15 delivers punchy, assertive sound. Its integrated dual channel Class D amplifier (600 Watts) provides high performance and very high sound pressure levels with an exceedingly dynamic, tight and clean response.

Loaded with high quality speakers, it provides premium audio performance with maximum reliability and minimum power compression that is easy to install.

A strong-built and robust construction designed to handle high loads, rendering lead vocals, guitars, electronic instruments, and playback tracks with power and authority, easily delivering sound across medium-to-longer distances.

The FP15 features provide musicians and audiences with an excellent acoustic experience, even on the most demanding stages.



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Acoustic parameters	
Frequency Response	50 Hz - 20 kHz (± 3 dB)
SPL 1W/1mt	102 dB
Maximum SPL	134.8 dB @ 1 m Peak
Coverage	
Horizontal	90°
Vertical	70°
Speaker unit	
Woofer	15" Woofer
Tweeter	1" HF driver, loaded horn
Preamplifiers and Processors	
Input sensitivity	Mic In: 8 mV
	Line In: 125 mV
Input resistance	Mic In: 650 $\Omega$ Unbalanced - 1.3 k $\Omega$ balanced
	Line In: 10 k $\Omega$ unbalanced - 19 k $\Omega$ balanced
Crossover	Crossover: 2.3 kHz Slope: 24 dB/octave
Protection	Overheat protection, overload protection
Music Equalization	+3 dB @ 75 Hz
	+3 dB @ 11 kHz
	Power, Signal, Limiter
Power amplifier	
Amplifier power	LF: 500W
	HF: 100W
Distortion	< 0.1% THD at rated power
Amplifier protection	Overheat protection, overload protection, short circuit protection
Input voltage	
Rated voltage	100 / 240 ± 10%, 50/60 Hz PFC 95
Work environment	125 Vac./ 195 - 250 Vac. (optional)
Physical properties	
Installation	Lockable 1-3/8" (35mm) Stand Mount
Fixed installation	M8 screw installation (3 points)
Input	1 XLR and 1/4" TRS balanced input
Output	1 XLR balanced output
Net weight	21.4 kg (47.17 lbs.)
Dimensions Width/Height/Length	69 cm x 40 cm x 45 cm (27.16" x 15.74" x 17.71")









#### Product Features

- High-power 2-way PA sound reinforcement speaker system for live and playback applications
- Ultra-compact and light weight system delivers excellent sound even at extreme sound pressure levels
- Extremely Efficient 15" woofer driver provides incredibly deep bass and acoustic power
- Precise 1" compression driver for exceptional high- frequency reproduction
- Ultra-wide dispersion
- Versatile trapezoidal enclosure design allows different positioning
- Stand mounting with 35-mm pole socket
- Tilts on its side for use as a floor monitor
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- Rugged ABS box provides strength and manageability
- Ergonomically shaped handles for easy carrying and setup
- Designed, engineered and tuned in Italy

#### Product Applications

 The FP15P is ideal for mobile and installed applications. It is an excellent choice for a wide variety of applications, including retail stores, restaurants, health clubs, theme parks, educational facilities, hospitality, music cafes, leisure venues, and anywhere where a top-quality high output indoor/ outdoor foreground/ background music (and/or paging) speaker is required. FROG-IS FP15P is the first choice for demanding musicians and DJs who work in loud environments.

A multi-purpose speaker system, fully equipped to serve as a main PA, a stage monitor, a distributed audio system and other applications.

The FP15P delivers punchy, assertive sound and very high sound pressure levels when used with FROG-IS FI-AMP8 and FI-AMP4K amplifiers.

Loaded with high quality speakers, it provides premium audio performance with maximum reliability and minimum power compression that is easy to install.

A strong-built and robust construction designed to handle high loads, rendering lead vocals, guitars, electronic instruments, and playback tracks with power and authority, easily delivering sound across medium-to-longer distances.

The FP15P features provide musicians and audiences with an excellent acoustic experience, even on the most demanding stages.



Acoustic parameters		
Frequency Response	50 Hz - 20 kHz (± 3 dB)	
SPL 1W/1mt	102 dB	
Maximum SPL	134.8 dB @ 1 m Peak	
Coverage		
Horizontal	90°	
Vertical	70°	
Speaker unit		
Woofer	15" woofer	
Tweeter	1" HF driver, loaded horn	
Physical properties		
Installation	Lockable 1-3/8" (35mm) Stand Mount	
Fixed installation	M8 screw installation (3 points)	
Input	1 SPEAKON	
Output	1 SPEAKON	
Net Weight	19 kg (28.66 lbs.)	
Dimensions Width/Height/Length	69 cm x 40 cm x 45 cm (27.16" x 15.74" x 1.71")	











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FS12 is a manageable PA sound system featuring 8 x 3,25" speakers and a 12" powerful subwoofer. The compact column array guarantees high performance in a unique and flexible design. It is unbelievably easy to use, and it delivers a perfect sound quality. Sleek and lightweight, its shape has been designed especially for frequently traveling musicians.

FS12 is a two-way powered PA system ready to be plugged in. The FS12 portable column array PA system features eight 3.25" mid/high frequency drivers and one 12" bass reflex. It delivers 90 degrees of horizontal coverage and 10 degrees vertical coverage. It has an onboard console with two channels. Provided with Bluetooth technology, it is equipped with handles for easy carrying.

#### **Product Features**

- Compact Plug and Play column array system
- Discreet look for inconspicuous use
- Line array element configuration (8 x 3,25" speakers) offers exceptional sound coverage
- Compact speaker system for concerts, conferences, events and more
- Two-way speaker with built-in DSP for EQ and dynamic limiter
- Extremely efficient 12" woofer driver provides incredibly deep bass and acoustic power

Equipped with handles for easy carrying

- Provided with Bluetooth technology
- Delivers 90° of horizontal coverage and 10° vertical
- coverage
- Integrated USB/SD MP3 player
- •
- Designed, engineered and tuned in Italy

#### **Product Applications**

- The FS-12 is ideal for mobile and installed applications
- A good solution for all sizes of indoor/outdoor live event and indoors applications like disco, night club, conference, school auditorium and churches etc.

Acoustic parameters	
Frequency Response	45 Hz - 19000 Hz (-3dB - +1dB)
Voltage	100 - 230 Vac 50-60 Hz
Operating Voltage	90-264 Vac
Power	600W + 240W
SPL 1W@1mt	96 dB
maximum SPL	118dB (continuous) - 124dB (peak)
Impedance	Sound column (8 $\Omega$ ) + subwoofer (4 $\Omega$ )
Coverage	
Horizontal	90°
Vertical	10°
Speakerunit	
Woofer	12" subwoofer
Tweeter	8x3.25" line array system
Preamplifiers and Processors	·
Preamplifier	Ultra-low noise 2-way input interface
	Balanced DSP output on CH1
	input limiter
	Phantom voltage (12Vdc) available on microphone input
Mic input gain	30dB
Crossover	Crossover, EQ and dynamic limiter via built-in DSP
USB/SD MP3 player	
Built-in amplifier	
Voltage	100-240 Vac , 50-60 Hz
Operating Voltage	90 - 264 V
power factor	cosΨ = 0,9@360W
Maximum output @ 1% sine 1Khz	600 W (@ 4 Ω ) + 600 W ( @ 4 Ω )
Protection	Short circuit protection, overheat protection (power failure - thermal shutdown), overload, high frequency output protection
Maximum output peak	85V Peak
Gain	26 dB
S/N	115 dB
Damping coefficient	8 Ω > 1000 @ 8 Ω
Physical properties	
Net weight	24 kg (53 lb)
System size W/H/L	34,8 cm x 173,3 cm x 47,5 cm (13.7"x 68.2"x 18.7")
Woofer size W/H/L	34,8 cm x 30 cm x 47,5 cm (13.7"x 11.8"x 18.7")











FS15 is a manageable PA sound system featuring 12 x 3,25" speakers and a 15" powerful subwoofer.

The compact column array guarantees high performance in a unique and flexible design. It is unbelievably easy to use, and it delivers a perfect sound quality. Sleek and lightweight, its shape has been designed especially for frequently traveling musicians.

FS15 is a two-way powered PA system ready to be plugged in. The FS15 portable column array PA system features twelve x 3.25"mid/high frequency drivers and one 15" bass reflex.

It delivers 90 degrees of horizontal coverage and 10 degrees vertical coverage. It has an onboard console with two channels. Provided with Bluetooth technology, it is equipped with handles for easy carrying.

#### **Product Features**

- Compact Plug and Play column array system
- Discreet look for inconspicuous use
- Line array element configuration (8 x 3,25" speakers) offers exceptional sound coverage
- Compact speaker system for concerts, conferences, events and more
- Two-way speaker with built-in DSP for EQ and dynamic limiter
- Extremely efficient 12" woofer driver provides incredibly deep bass and acoustic power
- Equipped with handles for easy carrying
- Provided with Bluetooth technology
- Delivers 90° of horizontal coverage and 10° vertical
- coverage
  - Integrated USB/SD MP3 player
- ٠
- Designed, engineered and tuned in Italy

#### **Product Applications**

• The FS-12 is ideal for mobile and installed applications

A good solution for all sizes of indoor/outdoor live event and indoors applications like disco, night club, conference, school auditorium and churches etc.

Acoustic parameters	
Frequency Response	38 Hz - 19000 Hz (-3dB - +1dB)
Voltage	100 - 230 Vac 50-60 Hz
Operating Voltage	90-264 Vac
Power	600W + 360W
SPL 1W@1mt	98 dB
maximum SPL	124dB (continuous) - 130dB (peak)
Impedance	Sound column (8 $\Omega$ ) + subwoofer (4 $\Omega$ )
Coverage	
Horizontal	90°
Vertical	10°
Speaker unit	
Woofer	15" subwoofer
Tweeter	12x3.25" line array system
Preamplifiers and Processors	
Preamplifier	Ultra-low noise 2-way input interface
·	Balanced DSP output on CH1
	input limiter
	Phantom voltage (12Vdc) available on microphone inpu
Mic input gain	30dB
Crossover	Crossover, EQ and dynamic limiter via built-in DSP
USB/SD MP3 player	
Built-in amplifier	
Voltage	100-240 Vac , 50-60 Hz
Operating Voltage	90 - 264 V
power factor	cosΨ = 0,9@360W
Maximum output @ 1% sine 1Khz	600 W (@ 4 Ω ) + 600 W ( @ 4 Ω )
Protection	Short circuit protection, overheat protection (power failure - thermal shutdown), overload, high frequency output protection
Maximum output peak	85V Peak
Gain	26 dB
S/N	115 dB
Damping coefficient	8 Ω > 1000 @ 8 Ω
Physical properties	
Net weight	29 kg (64 lb)
System size W/H/L	43 cm x 206 cm x 60 cm (16.9"x 81.1"x 23.6")









# FS2 Array 3-inch Array Speaker



The FS2X3 has a minimalistic and compact design allowing it to be used in high-end designs and occasions.

The FS2X3 has 2 tailor made 3.25-inch full range speakers by an Italian company, SICA. With its extremely wide frequency range and power density, the FS2X3 is often used in conference halls, classrooms or anywhere that needs voice amplification. A preferred product because of its aesthetics and easy concealment.

With the compact shape of FS2X3, it is very suitable for smaller spaces.

Comprehensive parameters		
Frequency Response	150 Hz - 19000 Hz	
Number of Drivers	2	- Ki
Driver size	3.25"	
Rated Power	60W	
Impedance	8Ω	
Connector	Phoenix 2pin	
Number of Connector	1in 1out	
Coverage		
Horizontal	90°	
Vectical	45°	
Physical Parameters		
Dimensions (W x H x L)	9,0 cm x 26,0 cm x 11,3 cm	
Weight	5 kg	



# FS4 Array 3-inch Array Speaker



# The FS4X3 has a minimalistic and compact design allowing it to be used in high-end designs and occasions.

The FS4X3 has 4 tailor made 3.25-inch full range speakers by an Italian company, SICA. With its slim shape, it is applicable is various situations, including restaurants, gyms, large conference halls, and hotels etc.

	Comprehensive parameters		
	Frequency Response	150 Hz - 19000 Hz	
	Number of Drivers	4	
	Driver size	3.25"	
	Rated Power	120W	
	Impedance	4Ω	
	Connector	Speakon	
	Number of Connector	1in	
Coverage			
	Horizontal	90°	
	Vectical	15°	
	Physical Parameters		
)	Dimensions (W x H x L)	9,0 cm x 46,0 cm x 11,3 cm	
	Weight	9 kg	



# FS12 Array 3-inch Array Speaker



The FS12 Array features eight 3.25" mid/high frequency drivers.

FS12 Array delivers 90 degrees of horizontal coverage and 10 degrees vertical coverage.

The compact column array guarantees high performance in a unique and flexible design.

It is unbelievably easy to use, and it delivers a perfect sound quality.

Sleek and lightweight, its shape has been designed especially for frequently traveling users.

#### **Product Features**

- Compact plug and play line array
- Discreet look for inconspicuous use
- Line array element configuration (8 x 3,25" speakers) offers exceptional sound coverage
- Compact speaker line array for concerts, conferences, events and more
- Delivers 90° of horizontal coverage and 10° vertical coverage with and a very long acoustic throw capacity
- Designed, engineered and tuned in Italy

#### **Products Applications**

- The FS-12 array is ideal for mobile and installed applications
- A good solution for all sizes of indoor/outdoor live event and applications such as large restaurant, lounge, bar, conference, school auditorium and churches etc.

Acoustic parameters		
Frequency Response	150 Hz - 19000 Hz (-3dB - +1dB)	
Rated Power	240W	
SPL 1W@1mt	96 dB	
Maximum SPL	118dB (continuous) - 124 dB (peak)	
Impedance	8 Ω	
Coverage		
Horizontal	90°	
Vectical	10°	
Drivers		
Tweeter	8x3.25"line-array system	
Physical		
Weight	8 kg (17.6 lb)	
Dimensions (W x H x L)	9 cm x 70 cm x 10 cm (3.54"x 27.56"x 3.94")	





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# FS15 Array 3-inch Array Speaker



The FS15 Array features twelve 3.25" mid/high frequency drivers.

FS15 Array delivers 90 degrees of horizontal coverage and 10 degrees vertical coverage.

The compact column array guarantees high performance in a unique and flexible design.

It is unbelievably easy to use, and it delivers a perfect sound quality.

Sleek and lightweight, its shape has been designed especially for frequently traveling users.

#### **Product Features**

- Compact plug and play line array
- Discreet look for inconspicuous use
- Line array element configuration (12 x 3,25" speakers) offers exceptional sound coverage
- Compact speaker line array for concerts, conferences, events and more
- Delivers 90° of horizontal coverage and 10° vertical coverage with and a very long acoustic throw capacity
- Designed, engineered and tuned in Italy

#### **Products Applications**

- The FS-15 array is ideal for mobile and installed applications
- A good solution for all sizes of indoor/outdoor live event and applications such as large restaurant, lounge, bar, conference, school auditorium and churches etc.

Acoustic parameters		
Frequency Response	150 Hz - 19000 Hz (-3dB - +1dB)	
Rated Power	360W	
SPL 1W@1mt	98 dB	
Maximum SPL	124dB (continuous) - 130 dB (peak)	
Impedance	4 Ω + 8 Ω	
Coverage		
Horizontal	90°	
Vectical	10°	
Drivers		
Tweeter	12x3.25"Line-array System	
Physical		
Weight	9 kg (19.84 lb)	
Dimensions (W x H x L)	9 cm x 110 cm x 10 cm (3.54"x 40.31"x 3.94")	







The FA-2X6T outer shell is made of grade 304 stainless steel, equipped with a 4-unit speaker.

It has 130° vertical coverage and 10° to 130° selectable lateral coverage capability, therefore able to be used as a point source speakers and line array unit. The FA-2X6T is suitable to be used in theaters, concerts, auditoriums, workshops and audio-visual installations.

The FA-2X6 is equipped with two 6-inch neodymium 2.5-inch low-mid frequency conical voice coils. As for the mid-high frequencies, the FA-2X6 is equipped with two 1-inch neodymium voice coil driver.

#### **Product Features**

- Good ratio of performance to product size
- Flat Amplitude and Phase Response
- Built-in 35mm bracket mounting holes
- 304 stainless steel shell, suitable for all-weather and outdoor use
- Waterproof grade IPX6
- It can be used as a point source speaker or a line array unit

### Product Applications

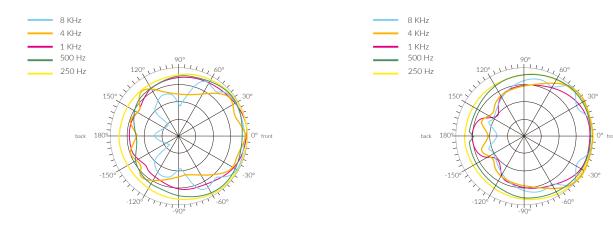
- Theaters
- Concerts halls
- Clubs

R1

- Churches
- Movie surround sound and effects enhancement
- Sound reinforcement for tight spaces



Acoustic parameters		
Frequency Response	45Hz - 19 KHz +/- 3dB (preset dependent)	
SPL 1W/1mt	96 dB (low) 104 dB (high)	
Maximum SPL	125 dB continuous - 131 dB peak	
Coverage		
Horizontal	130°	
Vectical	selectable from 10° to 130°	
Drivers		
Mid-low Driver ( Impedance )	$2 \times 6$ " Neodymium speaker 2.5" coil ( $4\Omega$ )	
Tweeter ( Impedance )	$2 \times 0.5$ " Neodymium compression driver 1" coil (8 $\Omega$ )	
Power		
Max Power	Mid-low Driver: 2x500 W	
	Twitter: 2x80W	
Rated Power	Mid-low Driver: 2x250 W	
	Twitter: 2x40W	
Crossover		
Туре	Build-in Crossover	
Freqency	1.8KHz minimum ( Depends on presets )	
Physical		
Input connector	Speakon in	
Output connector	Speakon out	
weight	10 Kg (22.05 lbs)	
Dimensions W x H x L	17.5 x 51 x 19 cm (6.89"x 20.08"x 7.48")	







# **FA-2X10S** High Performance Line Array Subwoofer



FA-2X10S is a high-performance line array subwoofer, it is designed to pair with the FA-2X6T or other smaller size full range speakers, suitable for touring and installation.

The compact and sturdy stainless-steel cabinet contains two 300W 10-inch neodymium subwoofers.

It is ideal for medium-sized venues like theaters, concert halls, auditoriums, stadiums and theme parks



#### **Product Features**

- Good ratio of performance to product size
- Equipped with line array rigging accessories
- Built-in 35mm bracket mounting holes
- Direct and long excursion 10-inch driver
- 304 stainless steel shell, suitable for all-weather and outdoor use
- Waterproof grade IPX6

#### Product Applications

- Theaters
- Concerts halls
- Clubs
- Churches
- Outdoor stadiums
- Theme parks

Acoustic parameters		
Frequency Response	30Hz - 200 KHz +/- 3dB	
SPL 1W/1mt	115 dB (low) 121 dB (high)	
Maximum SPL	125 dB continuous - 131 dB peak	
Drivers		
LF driver ( Impedance )	$2 \times 10^{"}$ Neodymium speaker 2.5" Coil (8 $\Omega$ )	
Power		
Rated Power	2X300W	
Peak Power	2X600W	
Physical		
Input	Speakon in	
Output	Speakon out	
Weight	16 Kg	
Dimensions (W x H x L)	55.1 x 28 x 28 cm (19.88"x 13.19"x 33.6")	





# **FI-SUB21P** High-power and High-performance Subwoofer

FI-SUB21P is a High-power and High-performance subwoofer, it is designed to match with FA-2X6T and FA-2X10S line array speakers or other mid-to-large size full range speakers. Suitable for large stadiums, theaters, concert halls, churches and large outdoor activities/events

The 21-inch cabinet is equipped with a 2000-watt ultra-long excursion 4-inch voice coil subwoofer. The subwoofers port hole is aesthetically symmetrical to the driver, and the rear load of the speaker unit is consistent and uniform, which means that there will be no turbulent flow at the port hole. Triangular port holes provide excellent integrity and strength, effectively eliminating cabinet resonance.

#### Product Features

- Good ratio of performance to product size
- Smooth and levelled exterior design
- Equipped with rigging and stacking accessories
  - High-quality components with outstanding perfor-
- mance
- Compatible with FROG-IS line array speakers (FA-2X6T, FA-2X10S) and other point source speakers

#### **Product Applications**

- Mid-to-large live activities/eventsConcerts halls
- Plaza
- Stadiums
- Concert halls
- Theaters
- Touring



Comprehensive parameters		
Frequency Response	20Hz - 120 KHz +/- 3dB	
SPL 1W/1mt	126 dB (low) 131 dB (high)	
Maximum SPL	131 dB continuous - 137 dB peak	
Drivers		
LF-Driver ( Imoedance )	$2 \times 21$ " Neodymium speaker 4" Coil ( $4\Omega$ )	
Power		
Rated Power	2000W	
Peak Power	4000W	
Physical Parameters		
Input	Speakon in	
Output	Speakon out	
Weight	38 Kg	
Dimensions (W x H x L)	60 x 60 x 85 cm (23.62" x 23.62" x 33.46")	



## **TTM** Series **4 Channel OEM Touring Amplifier**



Ø TOURING INSTALLATION



TTM is an OEM only platform developed by Powersoft to allow a fast time to market (TTM) for companies wishing to have their own amplifier line.



TTM includes comprehensive unit with black front grille, handles TTM can also be controlled signal processing, analog, AES3, and brackets, but the OEM might remotely with ArmoníaPlus or Dante/AES67 inputs and outputs, replace them with its own parts. with a third party software.

and a bright 4.3" IPS display with Alternatively, OEM can negotiate capacitive touch. a customized version.

The 4 channels, 2U TTM offers ProManagerPlus software can and voltage, be used to configure the TTM ample power allowing for high SPL even with 8 with OEM data, and to preload or 160hm loads, and is capable of the preset library of the OEM full delivering a massive 4 x 3000W product line.

output on 4 Ohm loads. The amplifier can be controlled The PFC equipped power supply locally through the display is able to operate anywhere in interface. Available functions the world, and it sports 750J includes preset recall, gain, of energy storage to keep a delay, and muting functions. This consistent performance. satisfies the requirements of **Powersoft can ship a complete** most rental companies.

#### **Applications:**

- Small to medium scale touring systems
- Arenas & concert halls
- Stadiums & open-air events
- Multi-zone venues & live clubs

## TTM Series 4 Channel OEM Touring Amplifier



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## Specifications

Channel Handling				
Outputs	4 x Speakon NL4			
	4 Dante/AES67 TX (from local input or DSP)			
Inputs	4 XLR fema	le		
Analog	4 XLR male			
	2 XLR fema	ale (4 x audio chann	els)	
Digital AES3	2 XLR male	e (LINK)		
Digital Dante/AES67	2 XLR Ethe	rcon (4 x audio cha	nnels)	
Audio				
	Gain	TTM8K4	TTM12K4	
Input sensitivity @ 8 $\Omega$	32 dB	2.86	3.22	Vrms
S/N \$0 Hz - 20 kH	lz @ 8 Ω)	109 Typ.	110 Typ.	dB(A)
Max input level		2	24 dBu	
Frequency Response @ 8 0	Dhm load	20 Hz - 2	20 kHz +/- 1.0	dB
Crosstalk (1 kHz)			5 dB typ.	
Input impedance			Ω Balanced	
CMRR			ö dB typ.	
THD+N (from 0.1 W to Half				
SMPTE IMD (from 0.1 W to	,		ypical < 0.05%	)
Output impedance at 100 Hz	Ζ	C	30 mΩ	
DSP				
AD converters	24 Bit Tandem™ @ 48 kHz 125 dB-A Dynamic Range - 0.005 % THD+N			
DA converters	24 Bit Tandem™ @ 48 kHz 117 dB-A Dynamic Range - 0.003 % THD+N			
Sample rate converter	24 Bit @ 96 kHz 140 dB Dynamic Range - 0.0001 % THD+N			
Internal precision	32 bit floating point			
Latency	2.5 ms fixed latency architecture			
Memory/Presets	50 amplifier snapshots, virtually unlimited speaker presets		er presets	
Delay	2 s (input) + 100 ms (output) for time alignment		nt	
Equalizer	Raised-cosine, custom FIR, parametric IIR: peaking, hi/lo-shelving, all-pass, band-pass, band-stop, hi/lo-pass			
Crossover	linear phase (FIR), Butterworth, Linkwitz-Riley, Bessel: 6 dB/oct to 48 dB/oct (IIR)			
Limiters	TruePower™, RMS voltage, RMS current, Peak limiter			
Damping control	Active DampingControl <sup>™</sup> and LiveImpedance <sup>™</sup> measurement			
Display Specs				
Resolution		480x272, 4.3" di	iagonal	
Brightness	600 nit			
Control	Multitouch ca	pacitive. Rotary enco pushbutton	der 20 steps/tu	n with

0	utput Stage	TTM8K4	TTM12K4
	per channel @ 8 $\Omega$ (symmetrical)*	1500 W	1800 W
	per channel @ 4 $\Omega$ (symmetrical)*	2000 W	3000 W
ower	per channel @ 2 $\Omega$ (symmetrical)*	2500 W	2500 W
out p	per channel @ 8 $\Omega$ (asymmetrical)**	1600 W	1900 W
Vlax output power	per channel @ 4 $\Omega$ (asymmetrical)**	2500 W	3600 W
Зa	per channel @ 2 $\Omega$ (asymmetrical)**	2500 W	2500 W
	@ 8 Ω bridged	4000 W	6000 W
	@4Ωbridged	5000 W	5000 W
Maximum unclipped output voltage		160 Y <sub>eak</sub>	180 Y <sub>eak</sub>
Maximum output current		>55 Ą <sub>eak</sub>	>55 Ą <sub>Peak</sub>

\* All channels driven and loaded symmetrically \*\* All channels driven, but channels 2 and 4 at -6dB

Power & Thermal		TTM8K4	TTM12K4		
	Standby	Power	TBD	TBD	W
>	Idle	Power	TBD	TBD	W
120 V		Power	TBD	TBD	W
0	1/8 Power @ 4Ω	Current Draw	TBD	TBD	Arms
	0	Thermal Loss	TBD	TBD	BTU/h
	Standby	Power	TBD	TBD	W
$\geq$	Idle	Power	TBD	TBD	W
23(	> Idle © 1/8 Power @ 40	Power	TBD	TBD	W
<sup>®</sup> 1/8 Power @ 4Ω		Current Draw	TBD	TBD	$A_{rms}$
	Thermal Loss	TBD	TBD	BTU/h	
Power supply		Universal regulated sw	itch mode with	n PFC, SF	
Nominal voltage (±10%)		100-240 V/	AC @ 50-60Hz	<u> </u>	
Operating Voltage		90-264 VA	C @ 50/60 Hz		
AC Mains connector		IEC C20 inl	et (20 A max)		

Networking	
Connectivity	Two Gigabit Ethernet ports, integrated switch, Ethercon connectors
Supported topologies	Star, Daisy Chain
Remote interface	ArmoníaPlus or other preferred software
Construction	
Dimensions	$102 \times 201 \times 000 \text{ mm} (10 \times 15 \times 25 \text{ in})$

Dimensions	483 x 381 x 88.9 mm (19 x 15 x 3.5 in)		
	TTM8K4	TTM12K4	
Weight	10 kg	10 kg	





## **FI-SMS4(B/W)** Two-way Wall Mount Speaker



#### **Product Features**

- Two-way speaker with rich sonic character
- Wide and consistent coverage
- Suitable for high (70/100 V) voltage line and low impedance (8 $\Omega$ ) installations
- Contemporary, high-design appearance
- High fidelity sound character with broad frequency response of 90 Hz 20 kHz.
- High quality speaker enclosures made of strong ABS material
- Heavy-duty C-bracket for mounting included
- Easy installation

#### **Products Applications**

• The FI-SMS4 is an excellent choice for a wide variety of applications, including retail stores, restaurants, health clubs, theme parks, educational facilities, hospitality, music cafes, leisure venues, and anywhere where a top quality high-output indoor/ outdoor foreground/ background music (and/or paging) speaker is required.

The elegant design allows the FI-SMS4to be used for any installations and environment, keeping the same high-quality sound throughout.

The FI-SMS4, made of ABS with a front metal grille, utilizes a compact two-way system (4" woofer, 1" tweeter) guaranteeing high performances, wide dynamics, high fidelity sound reproduction and high voice intelligibility.

Multi-position, C-shaped mounting bracket and rugged construction provide optimum installation flexibility and assurance of long-term service.

Its power tap selector makes it suitable for high (70V/100V) voltage line and low impedance ( $8\Omega$ ). This ceiling speaker is designed to offer an economic and professional solution to contractors.





Comprehensive parameters		
Product name	FI-SMS4 (B/W)	
Frequency Response	90 -20 KHz	
Sensitivity	89dB @ 1 w / 1 meter	
Power	20 W	
Adjustable Power	20W/10W/5W/2,5W & 8Ω	
Transformer input	100 V / 70 V	
Dimensions (W x H x L)	130*125*210	
Physical		
Material(panel)	HIPS	
Grille	Aluminum	
LF-Driver	4"PP Subwoofer	
HF-Driver	1» PEI	
Color	White/Black	
Weight	2.1 Кg	
Speaker parameters		
Coil size	ø 0.15*2 layers	
DC resistance	7,2Ω	
Model	Asv	
Magnet	Magnet (416g) ø 80*ø 32*15(Y30)	
Bracket	Steel	
Cone	рр	
Damper	Fabric	
Dust cover	рр	
Weight	685 g	







**FI-CS4W** Two-way Ceiling Speaker



#### **Product Features**

- Two-way ceiling speaker for commercial audio applications
- Separate woofer and tweeter for excellent sound quality
- 360° rotatable tweeter
- Full protection of the transformer
- Convenient magnetic front Grill
- Easy, fast and safe fastening system
- Suitable for high impedance (70/100 V) voltage line and low (8 $\Omega$ ) installations
- High resistant ABS housing that protects it from heat and ensure long lifetime
- Suitable for paging and background music applications

#### Products Applications

 The ceiling speaker is ideal for applications where excellent sound quality is needed for mediumvolume music playback and paging, such as in music cafes, retail stores, airports, reception / waiting rooms, lounges, courtrooms, convention centers, hotels, educational facilities and more. The ceiling speaker FI-CS4W is white, with an ABS housing and metal protecting grille.

The simple and discreet design and good reproduction of both speech and music enable it to fit perfectly into any architectural environment. The built-in transformer enables it to be connected to constant voltage lines with variable power.

The FI-CS4W is a ceiling speaker with separate woofer and tweeter. It provides high sound quality in your installation.

Its power tap selector makes it suitable for high (70V/100V) voltage line and low impedance (8 $\Omega$ ). The transformer is contained within a metal can enclosure to improve response.

This ceiling speaker is designed to offer an economic and professional solution to contractors.





Comprehensive parameters		
Туре	FI-CS4W	
Frequency Response	90 -20 KHz	
Sensitivity	87 dB @ 1 w / 1 meter	
Power	20/10/5/2,5W; 8 Ω : 40W	
Adjustable Power	20 W; 8 Ω : 40 W	
Transformer input	100 V / 70 V; 8 Ω	
Mounting hole (mm)	ø 180	
Dimensions (W x H x L) (mm)	ø 204 x 183 mm	
Physical		
Material(panel)	ABS white RAL 9016	
Grille	Steel	
LF Spearker	4" (PCK + PF) Subwoofer	
HF Speaker	3/4" Silk dome tweeter	
Colour	White RAL 9016	
Weight	2.1 Kg	
Package weight	12.4 Kg / 4PCS	
Package size	58 x 55 x 28 cm	
Speaker parameters		
Coil size	ø 25.8*0.17*2-layer	
DC resistance	7Ω	
Model	KSV	
Magnet	Magnet (416g) ø 90*ø 32*15(Y30)	
Bracket	Steel	
Cone	PCK + PF	
Damper	CONEX	
Weight	795 g	









## **FI-SUB6P** Ultra Compact Installation Subwoofer



The FI-Sub6P is an Ultra-compact Passive 6" Subwoofer.

The 6" passive radiator emulates a larger internal volume giving this tiny sub the deep bass performance of a Sub-woofer three times its size.

#### **Product Features**

- Ultra-compact installation subwoofer
- Designed, engineered and tuned in Italy
- The enclosure made of Stainless Steel, giving an IP54 waterproof rating
- Ideal for outdoor installation applications
- Compact and discrete, making it ideal for sophisticated interior designs
- Impressive low frequency performance for its minimal size

#### **Products Applications**

• An excellent solution to fulfil any installation applications such as restaurants, lounges, hotel lobbies, corporate offices, retail store, outdoor terraces etc.





Technical Parameters		
Acoustic properties	Passive subwoofer	
Electronic characteristics	Dynamic twin 4 Ohm Coil	
Impedance	Variable, 2 Ohms, 4 Ohms, 8 Ohms	
Frequency response	40Hz to 140Hz (-6dB)	
Sensitivity	91dB / 1W / 1M	
Maximum SPL	106dBC Cont. / 112dBC Peak	
Drivers	6 Inch dynamic bass speaker unit, dual 1.5-inch voice coil	
	6-inch passive speaker unit	
Power	200 W average (2 x 100 W)	
Connector	Phoenix, 4 input	
Body	Stainless steel, weather resistant,IP54	
Dimensions (W $\times$ D $\times$ H)	Triangle, 20cm W, 20cm D, 20cm H.	
Weight	4.6 Kg	





## **FI-Sub10A** Compact Cubic Active Subwoofer



The FI-SUB10A is an ultra-compact cubic active subwoofer dedicated to the installation market.

The front firing 10" woofer is back loaded by two side 10" passive radiators, providing an extreme low frequency extension for its modest size.

#### **Product Features**

- Extreme discreet look
- Extreme low-end extension
- High efficiency, allowing supporting multiple full range installation speakers
- Ideal for outdoor installation applications
- High power 200W Class AB amplifier
- Multiple controls allowing adjusting of level, LPF frequency and phase

#### **Products Applications**

- Ideal for larger size cafés, restaurants, lounges, churches
- Ideal for home theatre

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Acoustic properties		
Frequency Response	40 Hz - 150 Hz	
Power	250 Watts	
SPL 1W/1mt	114dB Cont. – 120dB Peak	
Impedance	4 Ohms	
Speaker unit	1 x 10" subwoofer and 2 x 10" passive units	
Built-in amplifier		
Voltage	Fixed 110V or 220V	
Operating Voltage	110V (100V to 125V) 220V (200V to 245V)	
Maximum output 1% THD	200 Watts @ 4 Ohms	
Protection	short circuit, overheating, overload	
Physical		
Weight	15.7 kg (34.5 lb)	
Dimensions Width/Height/Length	32 cm x 36 cm x 33 cm (12.6" x 14" x 13")	







## **FI-Sub10P** Compact Cubic Passive Subwoofer



The FI-SUB10A is an ultra-compact cubic active subwoofer dedicated to the installation market.

The front firing 10" woofer is back loaded by two side 10" passive radiators, providing an extreme low frequency extension for its modest size.

#### **Product Features**

- Extreme discreet look
- Extreme low-end extension
- High efficiency, allowing supporting multiple full range installation speakers
- Light weight

#### **Products Applications**

- Ideal for larger size cafés, restaurants, lounges, churches
- Ideal for home theatre



Acoustic parameters		
Frequency Response	40 Hz - 150 Hz	
Power	250W	
SPL 1W/1mt	114dB Cont. – 120dB Peak	
Impedance	4 Ohms	
Speaker unit	1 x 10" subwoofer and 2 x 10" passive units	
Physical properties		
Weight	12 kg (26.4 lb)	
Dimensions Width/Height/Length	32 cm x 36 cm x 33 cm (12.6" x 14" x 13")	







# FI-Mix8 Ultra-low Noise 8 Channel Mixer with Digital Effects



#### **Product Features**

- 4 channel MIC and 4 channel stereo line input
- 2 main outputs, 2 channel monitor output, 1 Aux output
- Outstanding performance with excellent noise behaviour
- High-quality potentiometers/faders with smooth feel
- Robust construction for long service life
- Global +48V phantom power for condenser microphones
- Control room/Phones source matrix for monitor flexibility
- Input channels with 3-band EQ, 45mm faders, main output 60mm faders
- SMT technology
- Especially high headroom and dynamic range
- Extra low-distortion preamps

### **Product Applications**

• Whether live on stage, home/project recording or installations of all kinds such as community centers, churches, and bars/bistros, the MT8 offers the right solution for many applications.

The FI-MIX8 compact mixer has a natural sound with outstanding parameters and optimal user-friendliness as well as maximum dependability in day-to-day operation on the road.

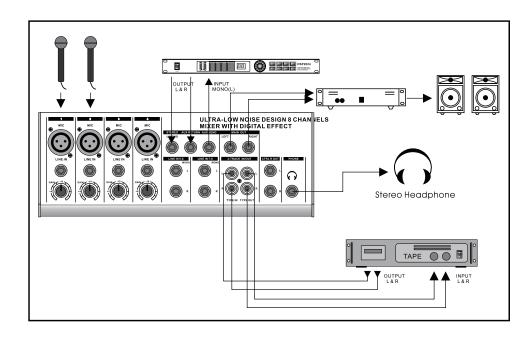
The FI-MIX8 is reliably rugged, with the proven quality you expect from Frog-is. An amazing value, the mixer delivers a straightforward feature set that's easy to use and the sound quality you need in rugged designs built to last.

Plus, with its rugged metal chassis and high-quality components throughout, the FI-Mix8 is a solid investment in reliability.



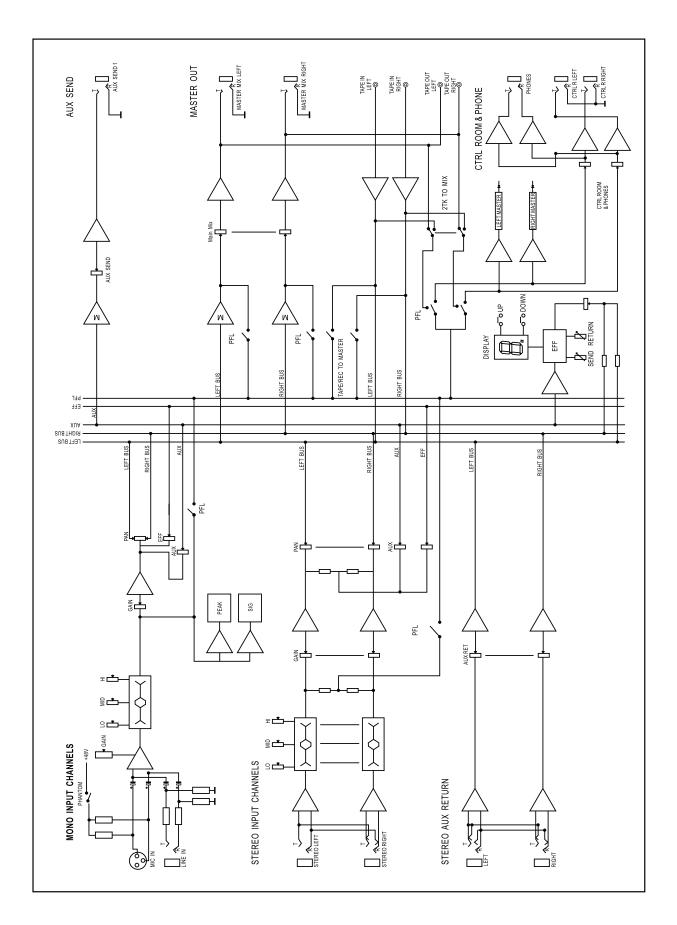


Microphone input (mono)	
Microphone input	electronic balanced
Frequency Range	10 Hz to 60 KHz -3 dB, 20 Hz to 20 KHz +/- 1 dB
Distortion (TDH & N)	<0.01% @ +4 dBu, 1 KHz, bandwidth 80 KHz
Microphone phantom power	+48V
Line In (Mono)	
line in	electronic balanced
Frequency Range	10 Hz to 60 KHz -3 dB, 20 Hz to 20 KHz +/- 1 dB
Distortion (TDH & N)	<0.01% @ +4 dBu, 1 KHz, bandwidth 80 KHz
Line volume range	+10 dBu to -40 dBu
Line In (Stereo)	
line in	unbalanced
Frequency Range	10 Hz to 55KHz -3 dB
Distortion (TDH & N)	<0.01% @ +4 dBu, 1 KHz, bandwidth 80 KHz
Equalizer	
High	12 KHz +/- 15 dB
Mid	2.5 KHz +/- 15 dB
Low	80 KHz +/- 15 dB
Frequency Deviationand Gain	Frequency Deviation <8% Gain: ±15dB
Effects	16 digital delays
Clipping indication	The indication will be 3dB earlier before the wave is clipped
Main control part	
Maximum output	+22 dBu balanced
Aux Send Maximum input	+22 dBu balanced
control room output	+22 dBu balanced
SNR	>112 dB, All channels at the same gain
Phone out	Mono: -5dB±1.5dB @ 1KHz 32Ω, Stereo: +2dB±1.5dB @ 1KHz 32Ω
Power	
USA / Canada	110VAC, 60Hz
U.K. / Australia	240VAC, 50Hz
China	220VAC, 50Hz
Weight	2.7 Kg
Dimensions Width/Length/Height	253 × 272 × 43 mm





## Schematic Diagram



UNIT 2 Intelligent manufacturing Industrial Park,YinZhou District, NingBo, China Tel: 0574 8757 6644 Phone: 186 0661 6969 E-mail: info@frog-is.com.cn







The FI-P4X8 is a self-contained, fully programmable, Digital Loudspeaker Management System capable of handling full control of loudspeaker system.

The four inputs and eight outputs can be routed in multiple configurations to meet any system requirement.

Full system setup and configuration can be done in real time from the front panel or with the intuitive PC based graphic user interface software via the on-board RS485 and USB ports.

Packaged into a neat 1U rack design, an intuitive and concise front panel with LCD screen enables engineers to make essential adjustments to the speaker configuration with accuracy.

#### **Product Features**

- 96KHz sampling frequency, 32-bit DSP processor, 24-bit A/D and D/A
- USB and RS485 connectors are present for PC connection. 250 units can be connected together via Rs485 and it can be controlled remotely as far as 1500 meters
- 30 user-program parameters can be stored into the device
- Safety/security lock buttons provide peace of mind again unwanted changes from unauthorized users or unwanted set-up changes
- 6 independent parametric EQ of input and output. The gain range is 120dB. The EQ of output channel has two slopes: Lo-shelf and Hi-shelf
- Every input and output has compensation-delay, phase control and mute settings, delay function offer a maximum of 1000ms
- Adjustable gain & limiter of output channel; Just choose the input signal and copy all the parameters from one channel to another channel with joint debugging

#### **Product Applications**

- Live sound loudspeaker management
- Active monitor systems
- Fixed installations

Input	4 channels, XLR female connector
Output	8 channels, XLR male connector
Input resistance	Balanced: 20KΩ
Output impedance	Balanced: 100KΩ
PC Connection	USB (front), 2 RS485 RJ45 (Back)
CMRR	>70dB (1 KHz)
Input range	≤+25dBu
Frequency response	20Hz-20KHz (-0.5dB)
S/N R	≥90dB@1 KHz 0dBu
THD	<0.01% OUTPUT=0dBu/1 KHz
Channel crosstalk	>80dB (1 KHz)
Functions of input channels	
Input mute	Each input and output channel has independent mute function
Input volume	Input Gain Range: -80dB-+12dB, steps @ 1db
Input delay	Each input channel has independent delay compensation control, adjustable range: 0-1000ms; 21pS across, 0-10ms; 84 μs across, 10ms-20ms; 0.5mS across, 20ms-1000ms
Input polarity	same phase(+/+) or reversed phase(+/-)
Input equalizer	Independent equalizer with 6 bands; frequency: 20Hz-20KHz; gain: -20db-+20db; bandwidth: 0.05oct-3oc
Function of the output channel	
Output mute	Each input and output channel has independent mute function
Output selection	Each input channel can select any output channel
Output gain	Range:-80d°~+12db, steps: 1db
Output delay	Each input channel has independent delay compensation control, adjustment range: 0-1000ms, across: 2lus@<10ms, 10ms-20ms, across: 84us@>20ms, across: 0.5ms
Output polarity	In phase (+/+) or out of phase (+/-)
Crossover	Each output channel can be independently set as low-pass or high-pass. These can all be adjusted. Filter types: Linkwitz-Riley; Bessel function; Butterworth. Crossover frequency: 20Hz-20KHz, Slope: 12db/oct; 18db/oct; 24db/oct 30db/oct 36db/oct; 42db/oct; 48db/oct
Limiter	Limiters exist for each output channel. All parameters are adjustable: Threshold: -40dbu-+20dbu; step: 0.5dbu. Attack: 0.3mS-200mS. 0.1 mS step@0.3-1mS;1ms step @1mS-100ms.
Output equalizer	Each output channel has a 6-band equalizer: 3 modes: low pass/high pass/parametric. A: Lowpass: Slope: 6dB/12db; Frequency: 20Hz-20kHz; Gain:-20db-20db; B: High Pass: Slope: 6db/12db; Frequency range: 20Hz-20kHz; Gain:-20db-20db; C: parameter: Frequency: 20Hz-20KHz, Bandwidth: 0.05oct-3oct; Step: 0.05oct; Gain:-20db-+20db, Step 0.1db
Processor	92KHzSampling frequency, 32bit floating pointDSP
Display	2 x 24 LCD, 8-LED, for input/output levels. Mute and edit functions can be displayed.
Power consumption	≤25W
Voltage	AC 110V/220V 50Hz/60Hz
Product size (WXLXH)	482X228X44mm
Weight	4.1 kg
Package Dimensions (WXLXH)	1PC:555X325X98mm/0.0177m <sup>3</sup> 6PCS:573X337X615mm/0.1188m <sup>3</sup>
Total Weight	1PC:5 (kg) 6PCS:31.5 (kg)









The FI-P4X8+ is a self-contained, fully programmable, Digital Loudspeaker Management System capable of handling full control of loudspeaker system.

The four inputs and eight outputs can be routed in multiple configurations to meet any system requirement.

Full system setup and configuration can be done in real time from the front panel or with the intuitive PC based graphic user interface software via the on-board RS485 or USB port or connected to the network via WiFi.

Packaged into a neat 1U rack design, an intuitive and concise front panel with LCD screen enables engineers to make essential adjustments to the speaker configuration with accuracy.

#### Product Features

- 96KHz sampling frequency, 32-bit DSP processor, 24-bit A/D and D/A
- USB and RS485 connectors are present for PC connection. 250 units can be connected together via Rs485 and it can be controlled remotely as far as 1500 meters
- 30 user-program parameters can be stored into the device
- Safety/security lock buttons provide peace of mind again unwanted changes from unauthorized users or unwanted set-up changes
- 6 independent parametric EQ of input and output. The gain range is 120dB. The EQ of output channel has two slopes: Lo-shelf and Hi-shelf
- Every input and output has compensation-delay, phase control and mute settings, delay function offer a maximum of 1000ms
- Adjustable gain & limiter of output channel; Just choose the input signal and copy all the parameters from one channel to another channel with joint debugging

#### **Product Applications**

- Live sound loudspeaker management
- Active monitor systems
- Fixed installations

Input	4 channels, XLR female connector
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Input resistance	Balanced: 20KΩ
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PC Connection	USB (front), 2 RS485 RJ45 (Back)
CMRR	>70dB (1 KHz)
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Frequency response	20Hz-20KHz (-0.5dB)
S/N R	≥90dB@1 KHz 0dBu
THD	<0.01% OUTPUT=0dBu/1 KHz
Channel crosstalk	>80dB (1 KHz)
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Input mute	Each input and output channel has independent mute function
Input volume	Input Gain Range: -80dB-+12dB, steps @ 1db
Input delay	Each input channel has independent delay compensation control, adjustable range: 0-1000ms; 21pS across, 0-10ms; 84 μs across, 10ms-20ms; 0.5mS across, 20ms-1000ms
Input polarity	same phase(+/+) or reversed phase(+/-)
Input equalizer	Independent equalizer with 6 bands; frequency: 20Hz-20KHz; gain: -20db-+20db; bandwidth: 0.05oct-3oc
Function of the output channel	
Output mute	Each input and output channel has independent mute function
Output selection	Each input channel can select any output channel
Output gain	Range:-80d°~+12db, steps: 1db
Output delay	Each input channel has independent delay compensation control, adjustment range: 0-1000ms, across: 2lus@<10ms, 10ms-20ms, across: 84us@>20ms, across: 0.5ms
Output polarity	In phase (+/+) or out of phase (+/-)
Crossover	Each output channel can be independently set as low-pass or high-pass. These can all be adjusted. Filter types: Linkwitz-Riley; Bessel function; Butterworth. Crossover frequency: 20Hz-20KHz, Slope: 12db/oct; 18db/oct; 24db/oct 30db/oct 36db/oct; 42db/oct; 48db/oct
Limiter	Limiters exist for each output channel. All parameters are adjustable: Threshold: -40dbu-+20dbu; step: 0.5dbu. Attack: 0.3mS-200mS. 0.1 mS step@0.3-1mS;1ms step @1mS-100ms.
Output equalizer	Each output channel has a 6-band equalizer: 3 modes: low pass/high pass/parametric. A: Lowpass: Slope: 6dB/12db; Frequency: 20Hz-20kHz; Gain:-20db-20db; B: High Pass: Slope: 6db/12db; Frequency range: 20Hz-20kHz; Gain:-20db-20db; C: parameter: Frequency: 20Hz-20KHz, Bandwidth: 0.05oct-3oct; Step: 0.05oct; Gain:-20db-+20db, Step 0.1db
Processor	92KHzSampling frequency, 32bit floating pointDSP
Display	2 x 24 LCD, 8-LED, for input/output levels. Mute and edit functions can be displayed.
Power consumption	≤25W
Voltage	AC 110V/220V 50Hz/60Hz
Product size (WXLXH)	482X228X44mm
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Package Dimensions (WXLXH)	1PC:555X325X98mm/0.0177m <sup>3</sup> 6PCS:573X337X615mm/0.1188m <sup>3</sup>
Total Weight	1PC:5 (kg) 6PCS:31.5 (kg)







# **FI-INS1** Cardioid Condenser Microphone



The FI-INS is a cardioid condenser microphone, designed for demanding instrument recordings and performances that require extended frequency response, high SPL handling, fast transient response, and compact size.

The FI-INS1 is tailored to the instrument miking needs of professional musicians and sound engineers in both live performance and sound recording.

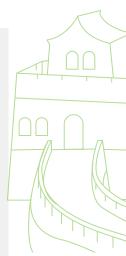
The FI-INS1 is easy to position, durable and manufactured with high standards and tight tolerances.

#### **Product Features**

- Exceptionally lively, clear sound
- Rugged design
- Very high sound pressure handling capability
- High-quality potentiometers/faders with smooth feel
- Excellent directivity across the whole frequency range
- Wide frequency response
- Captures the shimmer and the contact of sticks, mallets and hands
- A sensitive mic with a wide, flat response ideal for live amplified and acoustic instruments
- Extremely well-suited for reproduction of stringed instruments, woodwinds and cymbals

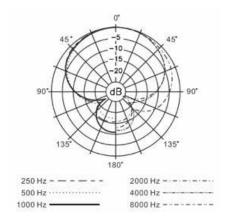
### **Product Applications**

 Its main areas of application are acoustic guitars, cymbals, percussion, overhead, orchestras, grand pianos etc

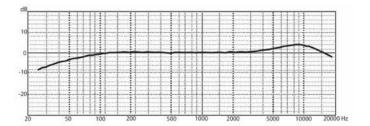


Technical Parameters	
Sensor	Electret Capacitor
Frequency response	20 - 20,000 Hz
Pickup method	Cardioid
Sensitivity (1 kHz)	7 mV/Pa
Rated Impedance (1 kHz)	100 Ω
Minimum impedance	1 κΩ
Maximum sound pressure level	140 dB SPL
Phantom voltage	48 V / 2.2 mA
Connector	XLR-3
Size	Ø 20mm, L = 100mm
Weight	93g

## Polarity



### Frequency Response











## **FI-VOX-2** Dynamic Super-cardioid Microphone for Speech and Vocals

The FI-VOX-2 is a high-performance lead vocal microphone, specially designed for rough stage use.

Due to its extended high-frequency response and super-cardioid pick-up pattern, the FI-VOX-2 ensures vocal projection through high on-stage sound levels.

The microphone has a smooth, warm tonal response and full dynamic range. The presence boost ensures vocal clarity and projection.

The balanced frequency response maintains signal quality when moving on and off axis during performance. The minimal proximity effect provides for consistently clear bass-end performance when singing closer to, or further from the microphone, providing greater on-stage freedom.

The super-cardioid pick-up pattern provides excellent feedback rejection. The rugged metal construction and internal damping isolates handling noise.

#### **Product Features**

- Dynamic super-cardioid microphone for speech and vocals
- Extended high-frequency response
- Consistent sound quality at varying distances or when off axis
- High sound pressure handling capability
- Super-cardioid pickup pattern: Insulation from other on-stage signals
- Shock-mounted capsule provides excellent suppression of handling noise
- Excellent feedback rejection

Humbucking coil

- Rugged metal body
- Powerful and rich in detail
- Excellent sound results guaranteed
- Package contents: 1 x FI-VOX-2, 1 x microphone clamp, 1 x pouch

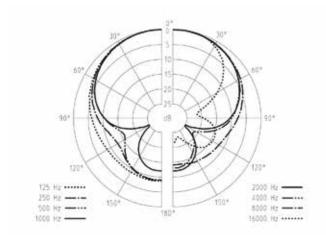
#### **Product Applications**

• Dynamic super-cardioid vocal mic, which helps to reduce spill and feedback. Ideal for presentations, conferences, choirs, rehearsal rooms, and stage. Easily eliminates ambient noise. Superb high frequency reproduction.

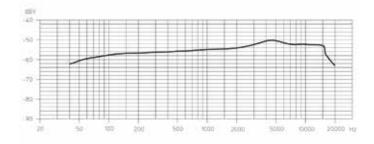
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Technical Parameters	
Sensor	Dynamic
Pickup method	Super-Cardioid
Frequency response	35 -16,000 Hz
Sensitivity (1 kHz)	1.8 mV/Pa
Rated Impedance (1 kHz)	350 Ω
Connector	XLR-3
Size	Ø 45 x 182 mm
Weight	320 g

Polarity



## Frequency Response









# FI-WP2V

Dual Channel UHF Wireless Vocal Handheld Microphone with Diversity Receiver



The FI-WP2V system allows for 10 frequency groups, each with up to 16 channels, adding up to a total of 160 usable channels that won't interfere with each other. The onboard Digital Volume Control system removes the need for a volume control knob and allows for seamless use between different microphone users. Up to 16 transmitter/receiver systems can be used at the same time.

#### Handheld Wireless Microphone

The Handheld Wireless Microphone is a vocal microphone suitable for both speaking and live vocal performance. The frequency response replicates that of popular dynamic vocal mics giving crisp, clear mid-range sound that rejects feedback. The Handheld Wireless Microphone 's gain control allowsfor tweaking of mic's sensitivity to suit the vocal performer.

A back-lit LCD display shows the operational status of the microphone, including current group, channel, battery charge, and lock status. The removable grill allows for easy replacement if damaged. This microphone is perfect for performing bands, weddings, and other functions with multiple or animated/ mobile speakers or vocalist.

#### Dual Channel Wireless Receiver

The Dual Channel Wireless Receiver, easy to use high quality receiver with an impressive pick-up lange. The receiver uses automatic frequency testing to detect vacant frequencies in the area. Combine this with infrared synchronization that automatically pairs the transmitter and receiver to the same frequency, and this system is as simple to set up as 1-2-3! To make life even easier,

an onboard digital volume control system automates the volume level outputted ensuring maximum signal strength without distortion / clipping. The result is a clear, even sound between different speakers / singers.

#### True Diversity Receiver

The unit incorporates two receiving antennas and monitors the signal strength on each antenna, switching automatically to the strongest receiving antenna. This prevents dropouts that can occur due to self-destructive interference patterns of the radio waves, or when a performer moves around stage with the transmitter. This is known as True Diversity reception technology, as opposed to quasi-diversity reception, which uses two antennas but only monitors one at a time, switching when that antenna drops below a certain signal strength, regardless of the strength on the other antenna. 2 Rack ears come with the unit for installing into a rack system.

#### Other Useful Features

A mute level control on the rear of the unit acts like a noise gate and is useful if there are interference noises when the mic is not being used. The back-lit LCD shows the status of each receiving channel, including the current group and frequency, and active antenna. The 6 segment LED meter indicates RF signal strength and audio input levels.

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### **Product Features**

#### Receiver

- LCD shows clear working status
- Digital volume control system light touch button with simple setup
- True diversity receiver technology, tone key squelch circuit to avoid interference
- Automatic frequency selection
- Transmitter battery volume indication
- Infrared data synchronisation
- 2 x rack ears included

#### Handheld Wireless Microphone

- Metal body and rubber end structure for increased drop resistance
- LCD screen shows group, channel, battery volume, power, gain, mute status
- RF power adjustment and gain control adjustments
- Infrared data synchronisation.

#### Application

• This is the ideal mic for most lead vocalists. It's also great for stage situations in which a mic will be passed from person to person.



System	
Frequency Range and Transmitter Output Level	514-542Mhz
Transmitter RF power (optional)	10 - 20 - 30 Mw
Typical awareness of scope of work	80meter (240feet)
Note: Actual range and RF signal	relate to absorption, reflection
Audio Frequency Response (+/-3db)	60Hz-16KHz
THD (+/- 30khz offset, 1khz audio)	<1%
Dynamic Range	>90db (A wh)
Range of working temperature NOTE: Battery characteristics may affect the limit range.	-10° to +50°
Handheld microphone	
Maximum audio input level	OdBV
Dimensions (including microphone head)	250mm*50mm diameter
Weight	360g(without battery)
Power supply	Two 1.5V "AA" cells
Battery Life	> 10 hours (weak alkaline)
Receiver	
Audio output level (reference +/-30KHz-1KHz)	655-679MHz
XLR interface (600 $\Omega$ switch)	-12dBV 1/4
$1/4$ inch interface (3000 $\Omega$ switch)	-18dBv
Output impedance	XLR : 200Ω 1/4" : 1kΩ
XLR output	balanced impedance Contact pin 1: GND Contact pin 2: (+) Contact pin 3: (-)
Sensitivity (IF demodulator output SNR 30db)	<-90dBm Graphic rejection >70dB
Size	44mm*410mm*160mm
Weight	1750g
Power supply	12v/500mA DC Switching Power Adapter









## **FI-AMP4D** 4 Channel Class D Power Amplifier, 4 x 50W @ 4Ω with DSP



The Fi-Amp4D is a state of the art 4 channel Class D amplifier providing 50 Watts per channel  $@4\Omega$ . It provides a front panel access volume control allowing zone level adjustments directly from the amplifier.

The amplifier integrates DSP, providing full crossover functions to create factory presets making the amplifier "plug and play". A user access application allows the connection of a PC via USB to control a 10 bands graphic equalizer for room tuning.

#### **Product Features**

- Ultra compact format, only 16,3cm deep
- Light weight
- 50 watts per channel in class D
- Front panel volume control
- Two balanced inputs on XLR TRS combo connectors
- 4 speaker outputs on phoenix connectors
- Class D design for optimum efficiency
- Superior sound quality
- Integrated Bluetooth communication
- On board WAV / MP3 USB player with front panel controls and Random play mode
- Front panel LCD display
- Totally self-sufficient when used as a single unit. No need for external player

#### **Product Applications**

• Smaller scale cafes, restaurants, bars, retails stores installations

Home hi-fi

6

#### Technology

Class D technology greatly improves efficiency to over 90%. Less power going into heat dissipation, meaning that most power you pay for goes to speakers.

As a result, the amplifier is much smaller in size and lighter, saving precious shelf space. Lower heat dissipation also reduces stress put on each electronic components, extending the amplifier's lifetime.

USB player and Bluetooth technologies are integrated to make this amplifier a complete control center for your demanding audio needs.

## Product parameters

Preamplifiers and Processors	
Preamplifier	2 mixed inputs [2 XLR female balanced, 2 Jack 1/4" unbalanced] 2-way XLR male linear connector Discrete Input Limiter Limiter working indicator light Line/Mic input mode can be selected, providing phantom voltage (12Vdc) under Mic selection DSP processor USB for EQ and volume processing
Operation and Multimedia	
USB/SD MP3 player	
Bluetooth	
Volume control knob	
Infrared receiver	
control	
Туре	Class D power amplifier
Operating voltage	20-25Vdc
Output Power	4x 50W (@ 4 Ω )
Protection	Short circuit protection, overheat protection, overvoltage protection, low voltage protection, DC protection
Maximum output	40Vpp
Gain (line)	31dB
Gain (mic)	62 dB
S/N	82 dB
THD 1Khz 1W	0,020%
Amplifier Limiting Indicator	Amplifier LED limiter/protection indicator
Minimum Load Impedance	4 Ω
Freqency	30 Hz-20 kHz (-3 dB,+0db) depending on preset program
Power	
Rated voltage	
Power consumption	
On Off Switch	
External power supply	
Rated voltage	
Power	100w
Output voltage	24 Vdc
Physics	
Weight	1,6 kg (3.52 lb)
Dimensions WxHxL	20 cm x 10 cm x 16 cm (7.87" x 3.94" x 6.30")







# FI-AMP8

8 Channel Bridgeable Class D Power Amplifier,  $8 \times 250 \text{ W} @ 4\Omega$ 



The FI-AMP8 is a state of the art 8 channel Class D amplifier providing 250 Watts per channel at  $4\Omega$ . It provides 8 x front panel access volume control allowing zone level adjustments directly from the Amplifier.

The FI-AMP8 is designed for use in a wide variety of installations: from a simple setup in a bar/ restaurant or a corporate meeting room to being a part of a larger audio system in a theater.

Pairs of channels may be individually configured to run in Stereo, Parallel or Bridged mode.

#### **Product Features**

- Lightweight portable 1U ultra-thin design with 8 channels
- 250 Watts per channel at  $4\Omega$
- Intuitive, user-friendly, front panel interface
- Eight channel separate balanced line inputs by phoenix connectors
- Four Speakon (4 contacts) output connectors
- Very high power density in 1U rack height
- Eight channel separate volume control
- Comprehensive protection and monitoring functions
- Eight channel separate status indicators include signal, peak and protection
- Amplifier with delay start system, protect the speakers from shock and damage
- Class-D design for optimum efficiency
- Superior sound quality performance

#### **Product Applications**

- From bars, restaurants, retail stores, church to corporate meeting rooms and auditoriums
- Sound reinforcement applications with mid power density and good sounding requirements
- Portable or rental industry PA system

67

### Technology

Class D technology greatly improves efficiency to over 60%. Higher efficiency not only means the amplifier will require less power to run but will dissipate considerably less heat.

As a result, the amplifier is much smaller in size, saving precious rack space in an installation.

Lower heat dissipation also reduces stress put on each component part in the amplifier and will prolong product life of the amplifier.



Product Spec	FI-Amp8
Output Power	
@ 8Ω	8 x 160 W
@ 4Ω	8 x 250 W
Bridge @ 8Ω	4 x 500 W
Other Parameters	
Туре	D
Frequency response	20 Hz to 20 KHz (+/-3dB)
THD + N	<-0.05% @ 8 Ω / 1 KHz
Conversion rate	40V / us
S/N Ratio	>90 dB
Damping factor	>600 @ 8 Q
Channel separation	>100 dB @ 8 Ω / 1 KHz
Input resistance	20 KΩ (balanced) / 10 KΩ (unbalanced)
Input sensitivity	1.0 Volt
Protection	DC protection, short circuit protection, overheat protection, soft start
Control	
Front Panel::	On/ Off switch, 8 x volume knob
Back:	Ground disconnect, input mode selection, bridge mode (pairing)
nput	8 x Phoenix jacks (balanced input)
Output	4 x Speakon 4 pins (1+/1- 2+/2-)
Size	1U - 19"
W	483 mm - 19"
Н	44,45 mm - 1,8"
D	355 mm - 14"
Weight	5,5 Kg - 12.1 Lbs

## Product Dimension ( mm )







# **FI-AMP4K**

### 4 Channel Bridgeable Class D Power Amplifier, $4 \times 1500W @ 4\Omega$



The FI-AMP4K is a state of the art 4 channel Class D amplifier providing 1,500 Watts per channel at  $4\Omega$ . It provides 4 x front panel access volume control allowing zone level adjustments directly from the Amplifier.

Packing 6 Kw in 2u, the "high power" class D FI-AMP4K is designed for use in performance venues ranging from large scale bars, clubs, concert halls and touring systems.

Pairs of channels may be individually configured to run in Stereo, Parallel or Bridged mode.

#### **Product Features**

- Lightweight portable 2u ultra-thin design with 4 channels
- $\bullet$  1,500 Watts per channel at 4 $\Omega$
- Intuitive, user-friendly, front panel interface
- Four channel separate balanced line inputs on XLR connectors
- Four Speakon output connectors
- Very high power density in 2u rack height
- Four channel separate volume control
- Comprehensive protection and monitoring functions
- Four channel separate status indicators include signal, peak and protection
- Amplifier with delay start system, protect the speakers from shock and damage
- Class-D design for optimum efficiency
- Superior sound quality performance

#### **Product Applications**

- Large bars, clubs, concert venues, auditoriums, rental etc.
- Sound reinforcement applications with High power density and good sounding requirements
- Portable or rental industry PA system

#### Technology

Class D technology greatly improves efficiency to over 90%. Higher efficiency not only means the amplifier will require less power to run but will dissipate considerably less heat. At merely 12 Kg, the FI-AMP4K offers an impressive power to weight ratio. (500 W/ Kg)

As a result, the amplifier is much smaller in size and lighter, saving precious rack space in an installation. Lower heat dissipation also reduces stress put on each component part in the amplifier and will prolong product life of the amplifier.



Product Specification	FI-Amp4K
Output Power	
@ 8Ω	4 x 1000 W
@ 4Ω	4 x 1500 W
Bridge @ 8Ω	2 x 3000 W
Other Parameters	
Туре	D
Frequency response	20 Hz to 20 KHz (+/-3dB)
THD + N	<-0.05% @ 8 Ω / 1 KHz
Conversion rate	65V / us
S/N Ratio	>90 dB
Damping factor	>800 @ 8 Ω
Channel separation	>100 dB @ 8 Ω / 1 KHz
Input resistance	20 KΩ (balanced) / 10 KΩ (unbalanced)
Input sensitivity	1.0 Volt
Protection	DC protection, short circuit protection, overheat protection, soft start
Control	
Front Panel:	On/ Off switch, 8 x volume knob
Back:	Ground disconnect, input mode selection, bridge mode (pairing)
Input	4 x XLR (balanced)
Output	4 x Speakon
Size	2U - 19"
W	483 mm
Н	89 mm
D	460 mm
Weight	12.0 Kg - 26.45 Lbs







# **Connectors & Convertors**

## Connectors in Bulk 10pc

FI-XLRM10 XLR Male Connector 10pc



FI-XLRF10 XLR Female Connector 10pc



FI-TRS10 ¼ inch TRS Connector 10pc



FI-RCA10 RCA Male Connector 10pc



FI-SC4-10 Speakon Connector (4 poles) 10pc



FI-SPAD Speakon Female to Female Adaptor 10pc



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## Connectors in Bulk 100pc

FI-XLRM100 XLR Male Connector 100pc



FI-XLRF100 XLR Female Connector 100pc



FI-TRS100 ¼ inch TRS Connector 100pc



FI-RCA100 RCA Male Connector 100pc



FI-SC4-100 Speakon Connector (4 poles) 100pc





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## Cables 1.5 meters

FI-XM-TRS1.5 XLR Male to TRS 6.5mm 1.5 meters



FI-XF-TRS1.5 XLR Female to TRS 6.5mm 1.5 meters



FI-TRS-R1.5 ¼ inch TRS to RCA Male 1.5 meters



FI-XM-R1.5 XLR Male to RCA Male 1.5 meters



FI-XF-R1.5 XLR Female to RCA Male 1.5 meters



# Speaker Cables

FI-SC1.5M Speakon cable 1.5 meter x 4 pole (GA.10 / 2.5mm cable diameter)



FI-SC6M Speakon cable 1.5 meter x 4 pole (GA.10 / 2.5mm cable diameter)



FI-SC10M Speakon cable 1.5 meter x 4 pole (GA.10 / 2.5mm cable diameter)



## 100 Meter Cable

FI-MCM-100 Microphone Cable 100meters



FI-SCM2-100 Speaker Cable GA.10 (2.5mm cable diameter) 100 meter (2 cores)



FI-SCM4-100 Speaker Cable GA.10 (2.5mm cable diameter) 100 meter (4 cores)







# Accessories

## **Microphone Stands**

FI-TMS Tall Microphone Stand with Boom Arm



FI-SMS Short Microphone Stand with Boom Arm



FI-RMS Round Bottom Microphone Stand

## Microphone Cable

FI-MC1 Microphone Cable 1 meter



FI-MC6 Microphone Cable 6 meter



FI-MC10 Microphone Cable 10 meter





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FI-SS

Speaker Stand (Tripod)

## Stage Box 12 Input 4 Output

FI-PT-12/4/10M Stage Box 12 input 4 output / 10 meters



FI-PT-12/4/20M Stage Box 12 input 4 output / 20 meters



FI-PT-12/4/30M Stage Box 12 input 4 output / 30 meters



## Others

FI-Vent / FI Blank Rack vent panel and blank panel 1U



### FI-PBar4

Universal power strip (4 outlets) IEC port



## Stage Box 16 Input 4 Output

FI-PT-16/4/10M Stage Box 16 input 4 output / 10 meters



FI-PT-16/4/20M Stage Box 16 input 4 output / 20 meters



FI-PT-16/4/30M Stage Box 16 input 4 output / 30 meters

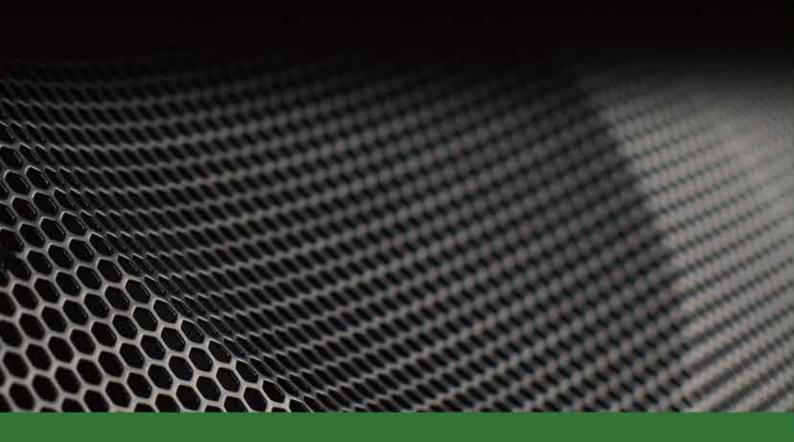


## Power Managment System

FI-POW12 Power Sequencer / Distributor (12 outlets)







# **FROG-IS**

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