

# IPQUARTZ-R INFRASUB™

SELF-POWERED & SELF INFRA™ PROCESSED

## APPLICATIONS

Portable Sound Reinforcement      Theatrical Sound Reinforcement  
Portable DJ Systems

## DESCRIPTION

The IPQUARTZ-R is a very high output Minima One™ self-powered, internally Infra™ processed, concert subwoofer system. It is designed to minimize the space required to obtain extremely high level and high fidelity low frequency output. The IPQUARTZ-R includes casters, handles, feet and pole mount adapters for support of upper range speakers.

The internal Minima One™ amplifier incorporates a high efficiency low power consumption green design with advanced digital switching to automatically accept any line voltage from 88 to 270 volts. Low voltage contacts are provided for installations to remotely turn the amplifier on and off.

## SPECIFICATIONS

### System Type:

4 - Infrasub™ sealed chambers 3 ft<sup>3</sup> each

### Enclosure:

18 mm 13-ply birch plywood

### Finish:

Black Ro Tex™ True water born environmental finish

### Grille:

14 Gauge black powder coated perforated steel in a welded extruded aluminum frame

### Low Frequency Components:

4 - EL18A 18" Transducers, Infra™ Cone, 3" Voice coil, 120 oz. Magnet

### Input Connector:

XLR 1/4" combo with XLR loop through

### Internal Amplification:

2 - Minima One™

### Input Impedance:

48K Ohms

### Input CAL Sensitivity:

+4 dBu

### Maximum Continuous Amplifier Power:

2700 W into 2 Ohms

### High Pass Filter:

Switchable: -6 dB @ 8 Hz; @ 50 Hz; @ 95 Hz

### Overload Protection:

Internal Dynamic Filter™ protection

### LED Indicators:

Green - On  
Yellow - System limit  
Red - System fault or sleep mode

### Mains Voltage Requirements:

Auto sensing  
Universal voltage range  
88 Volts minimum to 270 Volts maximum

### Mains Current Requirements:

9.2 Amps @ 120 Volts  
4.6 Amps @ 240 Volts

### Hardware:

8 - Recessed handles  
3 - 35 mm Pole mount adapters  
16 - Machined aluminum speaker mounting clamps  
4 - 3 1/2" Casters  
4 - UHMW polyethylene feet

### Fly Points Safe Working Load:

Optional F8 rigging points  
300 lbs Upper most points

### Crossover Type:

Internal Infra™ Integrator Inside

### Frequency Response:

18 Hz to 80 Hz ±3 dB

### Low Frequency Limit:

8 Hz

### Maximum Calculated Continuous Acoustic Output:

Half Space @ 1 Meter  
10 Hz - 101 dB SPL  
20 Hz - 115 dB SPL  
40 Hz - 131 dB SPL  
80 Hz - 135 dB SPL

### Polarity:

A positive asymmetrical signal applied to pin 2 will result in a positive asymmetrical acoustical pressure

### Dimensions:

40" h x 30" w x 31" d  
102 cm x 76 cm x 79 cm  
Trapezoidal - 6 degree taper per side

### Weight:

247 lbs  
112 kg

### Custom Finishes:

Optional custom finishes include white or unfinished ready to paint.



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# IPQUARTZ-R INFRASUB™

## ABOUT INFRASUB™ TECHNOLOGY

Almost all designs and specifications for subwoofer systems are fixated on the frequency response domain. However, the impression of power and quality of a loudspeaker is equally related to the time domain. The long wavelengths associated with low frequencies, make this particularly true with subwoofers. Likewise, the maximum SPL is not a very reliable way to judge the impact of a subwoofer. A poor time domain performer will not have the same impact or natural musically connected sound as a Time-Aligned™ Infra™ system. The reason that an Infra™ subwoofer sounds dramatically better is because of their superior time domain performance, as well as their extended low

frequency response. The Infra™ subwoofer maintains the bass energy in a tight packet, aligned with the upper range signal, providing a greater body impact and a seamless musical connection with the main loudspeakers. Conventional subwoofer designs perform so poorly in the time domain because designers have used methods that sacrifice the phase response for more control over the frequency response (e.g.: steep low pass filter slopes, vented speaker enclosures, and narrow bandwidth systems). With the Infra™ technique, we do not degrade the phase response while extending the frequency response. The dramatic clarity, realism, and overall pleasant sound of an Infra™ system is well noted throughout the world.

typically accomplished by high passing the upper range speaker, to properly blend with the subwoofer. The Minima One™ amplifier is both a high fidelity and a high efficiency amplifier. With efficiency well over 80%, it provides more power to the loudspeakers and creates less heat in the amplifier. In real world applications there is practically no heat emitted from the amplifier and thus it requires no cooling fan. Switching at 250 kHz with single cycle error correction insures extremely low distortion and high reliability. The power factor corrected AC power input, automatically and continuously adapts to any voltage between 88 and 270 volts making the Minima One™ convenient and stable to operate on any power grid in the world.



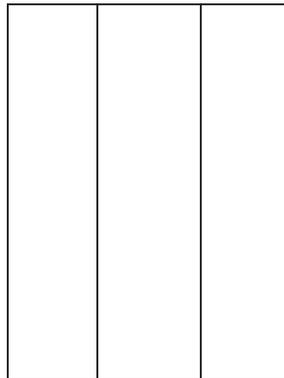
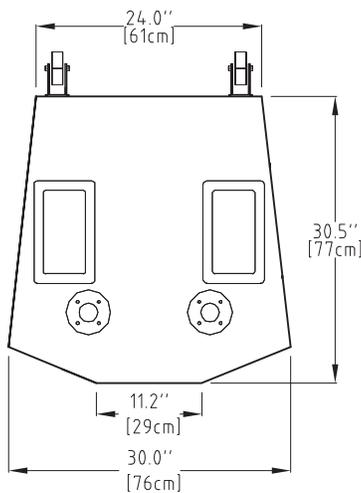
## ABOUT MINIMA ONE™ AND INFRA™ SELF PROCESSING

Infra™ self processed systems incorporate our analog Infra™ dual integrator, as used in our rack mount processors, into the Minima One™ input circuit. The Dynamic Filter™ protection is included and preset to the amplifiers sensitivity requiring no external setup. Infra™ Self Powered systems accept a full range line level audio signal, to provide the extended low frequency acoustical response, as well as a uniform roll off of the upper range of the subwoofer. The upper response of the Infra subwoofer is not adjustable, so blending the upper range speaker system into an Infra™ subwoofer is

## ABOUT DYNAMIC FILTER™

The Dynamic Filter™ is a complimentary technology to the Infra™ system taking unique advantage of the Infra™ design approach, to implement a reliable protection scheme that is transparent and inaudible to the listener. When the Dynamic Filter™ threshold is crossed the system protects itself from the bottom up by reducing the lowest frequencies first to avoid an overload, while at the same time reproducing the middle and upper bass program. This is a very natural and inaudible method to protect the system and unique to the Infra™ technology.

## DIMENSIONS



⊕ = Center of Gravity

