



# CHALLENGER™ Series II C-15LF



## Applications

### C-15LF

The P Audio C-15LF is a 15 inch (386mm) diameter transducer designed for use in professional sound system applications. The C-15LF is optimized for use in two way and three way system designs where a combination of accurate bass response and excellent vocal fundamental response is specified. The Challenger Series II C-15LF uses a Ferrite based permanent magnetic system coupled to a rigid die cast aluminum chassis. The rated bandwidth is 55Hz to 2000Hz. This bandwidth is ideal for two way system designs where the high frequency response is produced by a high efficiency horn loaded compression driver. The C-15LF has been designed to produce an excellent efficiency bandwidth product that combines both great low frequency response with high sound pressure level capability. Like all transducers in the Challenger Series II, the C-15LF uses a large format permanent magnet system and an aluminum edge wound rectangular voice coil to produce both optimum efficiency and power handling. The large voice coil diameter 4 inch (101.6mm) provided a large cross sectional thermal heat sink that both produces high reliability and reduced power compression. This reliability is coupled with a newly developed cone material that substantially improves mid band vocal damping and time domain response.

The C-15LF is an excellent choice for two way and three way direct radiator system designs and is ideal for both touring and fixed install public address system applications. Because the C-15LF is both efficient and offers good low frequency response this design is ideal for full range DJ and dance club systems as well.

## Specifications

### GENERAL SPECIFICATIONS

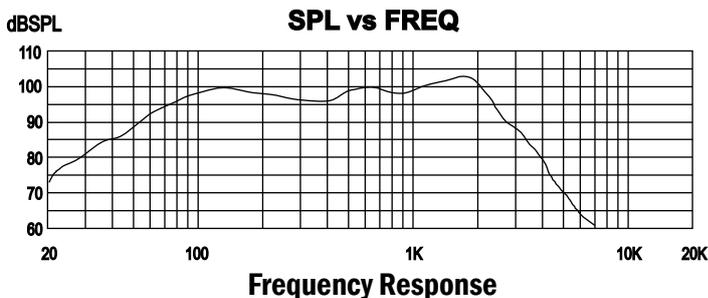
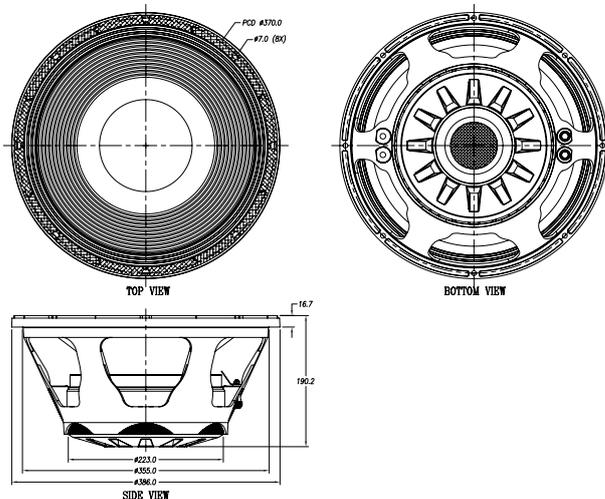
Nominal Impedance	8 Ω
Power	800 Watt (rms)
SPL 1W@1M average sensitivity	98 dB
Frequency Response	55Hz - 2000Hz
Dimension Ø x H (cm)	38.6 x 19.0
Net Weight	12.6 kg (27.7 lbs)
Shipping Weight	14.2 kg (31.2 lbs)
Packing Dimension H x W x D (cm)	42.5 x 42.5 x 24.4 (1.6cu.ft)
	16.7" x 16.7" x 9.6"

### PHYSICAL SPECIFICATIONS

Magnet type	Ferrite
Voice Coil Diameter	101.6 mm (4 inch)

### THIELE/SMALL PARAMETERS

Resonance Frequency	Fs	58 Hz
DC. Resistance	Re	6.2 Ω
Coil Inductance	Le	0.45 mH
Mechanical Q Factor	Qms	8.94
Electrical Q Factor	Qes	0.74
Total Q Factor	Qts	0.68
BL Product	BL	19.04 Tm
Effective Moving Mass	Mms	116.45 g
Equivalent Cas Air-Load	Vas	65.09 Liters
Effective Piston Area	Sd	0.0855 Sqm
Half-Space Efficiency	Eff	1.72 %
Airgap Height	Hag	10.0 mm
Voice Coil Height	Hvc	20.0 mm
Voice Coil Overhang	Xmax	5.0 mm



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