APPLICATION NOTE

DOUBLE 15” FRONT LOAD SUBWOOFER SYSTEM
COMPONENT KEY FEATURES

- High performance 2x15" subwoofer system;
- Very high power subwoofer system (2400 Watt AES)

**15LW2400** subwoofer key features:
- 1200 W AES power handling
- 100 mm (4 In) Interleaved voice coil (ISV)
- Double Silicon Spider (DSS)
- Weather protected fiberglass reinforced cone

**General Specifications**

- Nominal Diameter: 380 mm (15 In)
- Rated Impedance: 8 Ohm
- AES Power: 1200 W
- Program Power: 2400 W
- Peak Power: 3000 W
- Sensitivity: 97 dB
- Frequency Range: 40 – 2000 Hz
- Power Compression @ 1%: 0.7 dB
- Power Compression @ 0.1%: 1.5 dB
- Power Compression @ Peak Power: 2.2 dB
- Max Boost @ Frequency: 500 Hz
- Recommended Enclosure Volume: 60 – 130 ft³ (2.12 – 4.50 m³)
- Voice Coil Diameter: 100 mm (4 in)
- Voice Coil Winding Material: copper
- Suspension: Triple roll, Polyfoam
- Cone: Straight ribbed, fiberglass reinforced treated cellulose

**Thiele Small Parameters**

- Fs: 48 Hz
- Re: 3.3 Ohm
- S1: 0.006 sq cm (0.0015 sq in)
- Qms: 4.5
- Qps: 0.32
- Qt: 0.1
- Vos: 13.1 ft³ (0.38 m³)
- Mms: 138 g (0.30 lb)
- Bl: 24 Tm
- Linear Mathematical Kmax: ± 15 mm (0.59 in)
- Le (V/Hz): 1.25 mm
- Ref Efficiency @ 1 m (Half Space): 96.4 dB
The enclosure should be made of Baltic birch plywood (15mm thickness)

Bolts are M6x35mm (M6 T-Nuts recommended)

Handling, rigging and connectors are user’s choice

It’s recommended to well damp the cabinet interior (an high density dampening material, such as Dacron or other synthetic fibers, is required for better performance)
UNFILTERED MAGNITUDE RESPONSE AND RELATIVE PHASE

MAGNITUDE RESPONSE

PHASE RESPONSE
EQUALIZATION SETTINGS SUGGESTION

High Pass: Butterworth 24dB/Oct 28Hz
Parametric EQ: fo = 102Hz / -3dB / Q = 2
Parametric EQ: fo = 171Hz / -10dB / Q = 2
Parametric EQ: fo = 32Hz / +2dB / Q = 2
Low Pass: Linkwitz-Riley 24dB/Oct 85Hz
EXPLODED VIEW
FRONT SECTION

WOOFER PANEL SECTION

part L
part G
part I
part H
part G
part M
part I
part M
part G
part G
part G