

15 PT 500 MB

SWETON®



15 PT 500 MB is a high-performance 15-inch mid-bass driver designed to deliver clean, punchy bass and powerful midrange clearly. Equipped with a robust 3-inch voice coil, it handles up to 500W AES power, making it a reliable choice for demanding applications like DJ setups, public address systems, and stage monitors.

This driver features a high BL motor structure (20.75 N/A), allowing tight cone control and fast transient response. The large S_d of 907.92 cm² and 97 dB sensitivity ensure efficient air movement, making it ideal for outdoor and high-SPL environments.

Tested on the Klippel Analyzer System, this speaker shows a balanced performance profile, with strong thermal management, and stable suspension performance under stress. Its resonant frequency of ~51 Hz also allows flexibility in crossover design and deeper bass extension in vented boxes.

Recommended Enclosure (Vented Type)

Parameter	Value
Type	Vented Bass Reflex
Internal Volume	100 – 120 litres
Tuning Frequency (Fb)	50 – 55 Hz
Port	4" diameter x 5"-6" length (dual port recommended)

Note: Proper damping material inside the box will improve clarity in upper bass and lower mids

Recommended HF Driver Pairing

Parameter	Recommendation
Power Rating	80–100W AES
Sensitivity	105–110 dB SPL
Diaphragm Type	Titanium or Polymer Composite
Exit Size	1.4 inch recommended

Recommended Crossover Points:

Component	Frequency Range	Filter Type	Slope
Low Pass (LPF)	45 Hz – 2.5 kHz	Butterworth	18–24 dB/oct
High Pass (HPF)	1.6 kHz – up	Linkwitz-Riley	12–18 dB/oct

There is a slight overlap for richer vocal projection and crossover blending. Ensure proper alignment of phase to avoid cancellation.

Application Areas:

- Outdoor DJ & PA Systems
- 3-Way Cabinet Designs
- High SPL Line Arrays
- Stage Side Fills / Drum Monitors
- Touring Sound

Why Choose 15 PT 500 MB?

- ✓ High Efficiency (97 dB SPL) – Loud, clear projection without needing too much power
- ✓ 3-Inch Voice Coil – Better thermal endurance and control at high power
- ✓ Tested on Klippel – Ensures consistent performance and low distortion
- ✓ Excellent Mid-Bass Punch – Optimized for vocals, dhol, drums & percussive sound
- ✓ Versatile Design – Works in both small & large enclosures

SPECIFICATIONS & PARAMETERS

Specifications

Nominal Diameter	388 mm
Nominal Impedance	8 Ω
Nominal Power Handling (AES)	500 W
Program Power	1000 W
Sensitivity (1W/1m)	97 dB
Frequency Range	50-3000 Hz
Magnet Material	Ferrite
Voice Coil Diameter	77 mm (3.03 in)
Winding Material	COPPER
Former Material	GLASS FIBRE
Winding Type	OUTSIDE

Mounting Info

Overall Diameter	388 mm
Bolt Circle Diameter	373 mm
Baffle Cutout Diameter	358 mm
Depth	150 mm
Flange and Gasket Thickness	13 mm
Gross Weight	11.32 Kgs

Parameters

Resonant Frequency	Fs	51 Hz
DC Resistance	Re	5.7 Ω
Electrical Q	Qes	0.42
Mechanical Q	Qms	9.81
Total Q	Qts	0.40
Compliance Equivalent Volume	Vas	113.29 Ltrs
Peak Diaphragm Displacement Volume	Vd	0.41 Ltrs
Effective Surface Area of Cone	Sd	907.92 cm ²
Reference Efficiency	η_0	3.50%
Moving Mass including air load	Mms	98.40 gms
Motor Strength	Bl	20.75 T-m
Voice Coil Inductance	Le	0.57 mH
Efficiency Bandwidth Product	EBP	121 Hz
Voice Coil Overhang	Xmax	± 4.5 mm

Recone Kit

Recone Kit Number	REC15PT500MB
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Z(f,x=0) Impedance

