

The goal of every Motus driver design is linear frequency response, low distortion and superb tonality.

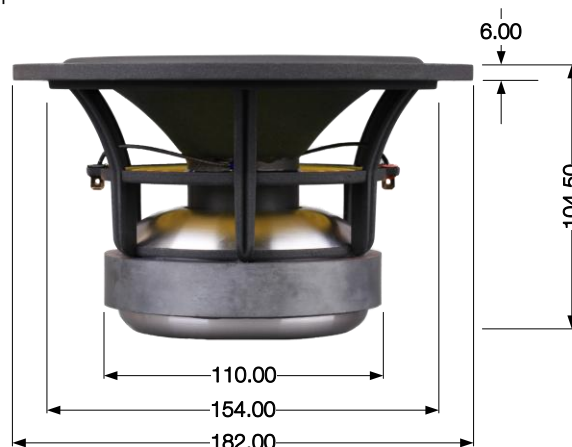
After hundreds of hours of refinement each driver allows for the application of a minimal crossover to achieve your desired target response.

Every Motus driver goes through a rigorous four stage quality control process to ensure that the driver in your loudspeaker represents the best Motus has to offer.

The UH165PW1 is a state of the art underhung mid bass driver. It is equally at home as the woofer in a two way design or the midrange in a multi-way speaker.



- Underhung voice coil
- Precision machined undercut pole piece
- Linear frequency response
- Aerodynamic basket design
- Ultra low distortion
- Acoustically transparent spider
- FEA Optimized motor
- Vented voice coil
- Pressed paper cone
- Symmetrical lead wire placement
- Vented pole piece
- Gold plated terminals
- Dual shorting rings
- Die cast aluminum basket



### UH165PW1 - Parameters

Thiele / Small Parameters			Electrical Parameters			Magnet and Voice Coil	
Resonance Frequency	FS	33.83Hz	DC Resistance	DCR	5.50 ohms	Voice Coil Diameter	44.20 mm
Mechanical Q	QMS	7.95	Nominal Impedance	NOM	6.00 ohms	Voice Coil Winding Height	8.00 mm
Electrical Q	QES	.38	Voice Coil Inductance	LE	.36 mH	Voice Coil Layers	4
Total Q Factor	QTS	.37	<b>Power Handling</b>			Gap Height	18.00 mm
Force Factor	BL	7.19 Tm	Long Term Power Handling*		90 watts	Linear Excursion	± 5.00 mm
Moving Mass	MMS	16.99 grams	Short Term Power Handling*		150 watts	Max Mechanical Excursion	± 15.20 mm
Suspension Compliance	CMS	1302 mm/N	<b>Enclosure Volume**</b>			<b>Dimensions and Weight</b>	
Radiating Diameter	Dia.	134.00 mm	Sealed - Q.707	13.51 L (.48 cu ft)	65.30 Hz -3dB	Total Unit Weight	2.40 kg
Radiating Area	SD	143.03 sq. cm	Vented - QB3	25.29 L (.89 cu ft)	38.78 Hz -3dB	Total Outside Diameter	182.00 mm
Equivalent Volume	VAS	36.80 liters				Total Depth	104.50 mm
Sensitivity (1W / 1M)	SPL	87.44 dB					
Sensitivity (2.83V / 1M)	SPL	89.07 dB					

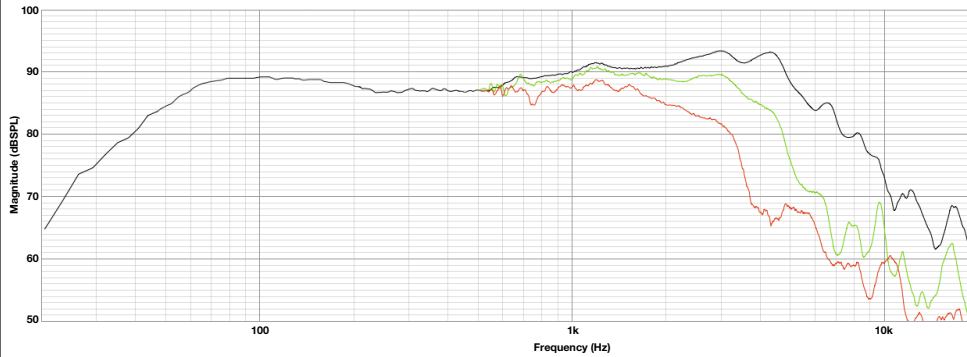
\*IEC 268-5

\*\*Estimated volume, no added resistance

Thiele / Small parameters measured after 24 hours break in

All specifications are subject to change without notice

### Frequency Response (1/12 Octave Smoothing)



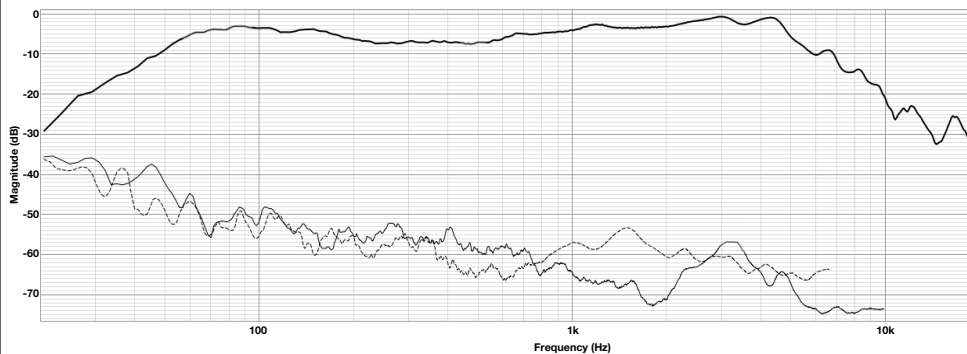
#### Curve Description

Black Curve      On Axis SPL  
Green Curve      30 deg off axis  
Blue Curve        60 deg off axis

#### Test Conditions

Level                2.83 volts  
Mic Distance        1 meter  
Smoothing          1/12 Octave  
Boundary            IEC Baffle

### Harmonic Distortion (1/12 Octave Smoothing)



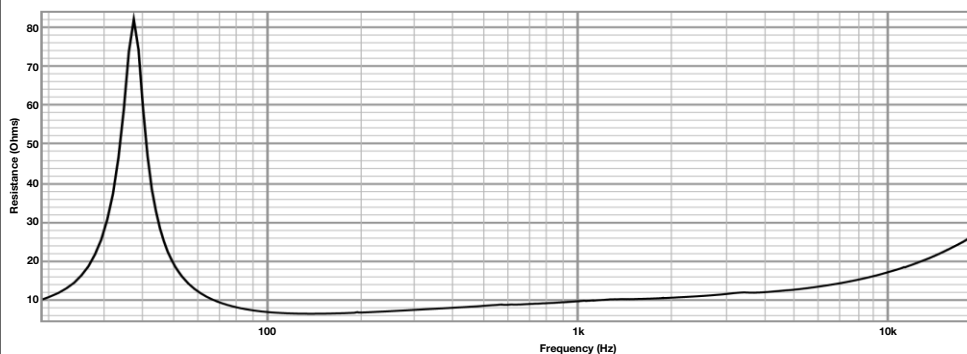
#### Curve Description

Black Curve      On Axis  
Solid Curve       2<sup>nd</sup> Harmonic  
Dash Curve       3<sup>rd</sup> Harmonic

#### Test Conditions

Level                2.83 volts  
Mic Distance        1 meter  
Smoothing          1/12 Octave  
Boundary            IEC Baffle

### Impedance



#### Curve Description

Black Curve      Impedance

#### Test Conditions

Boundary            Free Air