

EXCELSIOR AUDIO DESIGN & SERVICES

2130 Shadwell Court
Gastonia, NC 28056

704.675.5435
www.excelsior-audio.com

4471 Posterity Court
Gastonia, NC 28056

Audio & Acoustical Consulting, Design, and Measurement

Loudspeaker Measurement Report

19 March 2019

Loudspeaker Information	
Manufacturer	ACK Audio
Model	Nightshade 1
Rated Sensitivity	85 dB (ref. 2.83 V, 1 m)
Frequency Limits (-10 dB)	45 Hz to 20 kHz
Frequency Limits (-6 dB)	54 Hz to 19.3 kHz
Frequency Limits (-3 dB)	60 64 Hz to 18.8 kHz
Rated Impedance	8 Ω
Minimum Impedance	7.4 Ω (173 Hz)
Maximum Input Voltage	30 dBV (31.6 V) equivalent to 125 W at 8 ohms
Maximum SPL (measured, 1 m)	104.1 continuous; 116.4 peak (IEC 60268 noise)

Measurement Information	
Measurement Date	15 March 2019
Temperature	18.9 °C
Humidity	54 % RH
Environment	Trihedral, simulated free-field & outdoors
Measurement Distance	5.0 m



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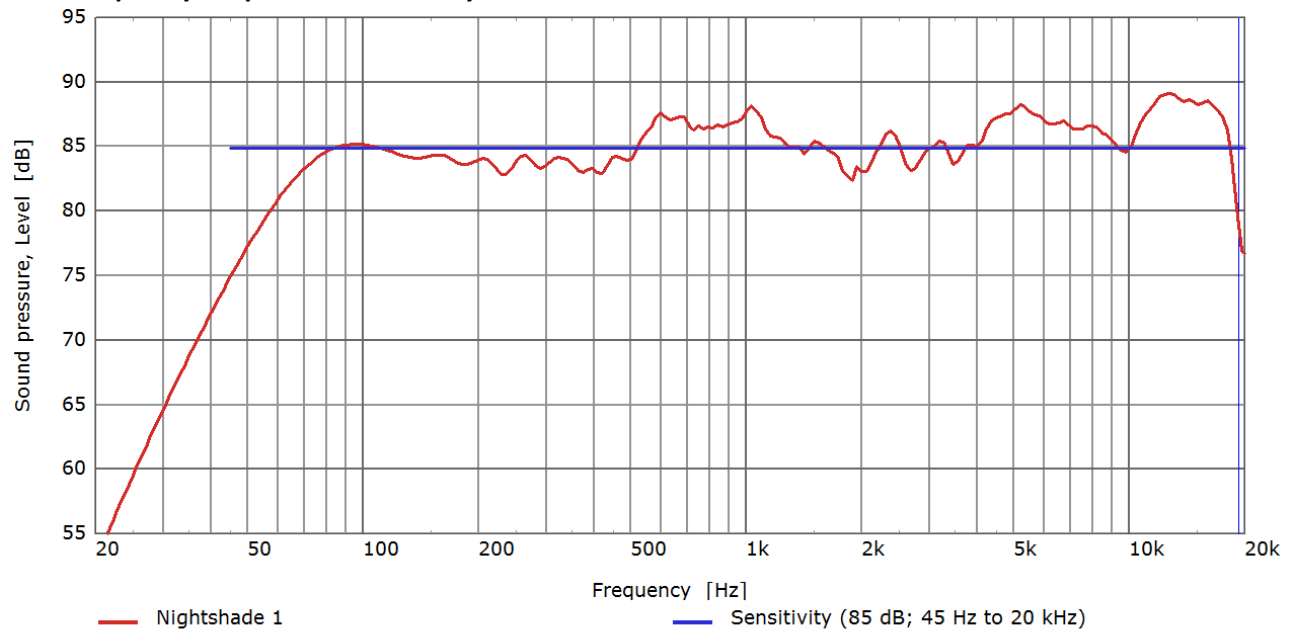
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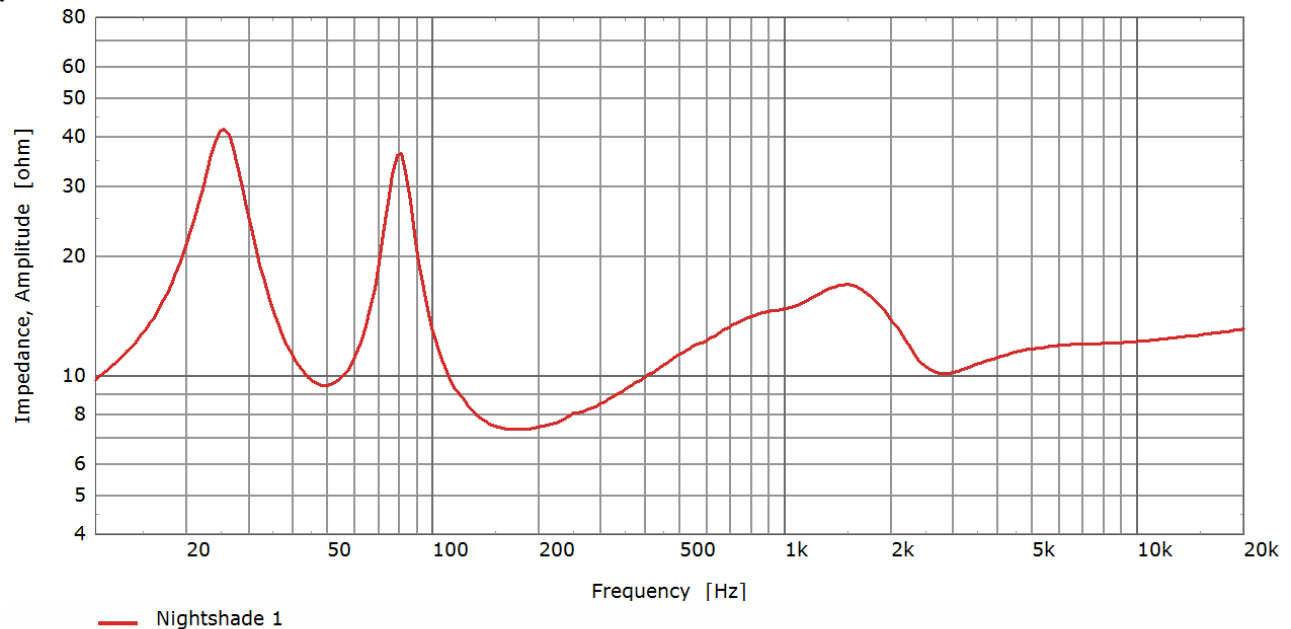
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On-Axis Frequency Response & Sensitivity



Impedance



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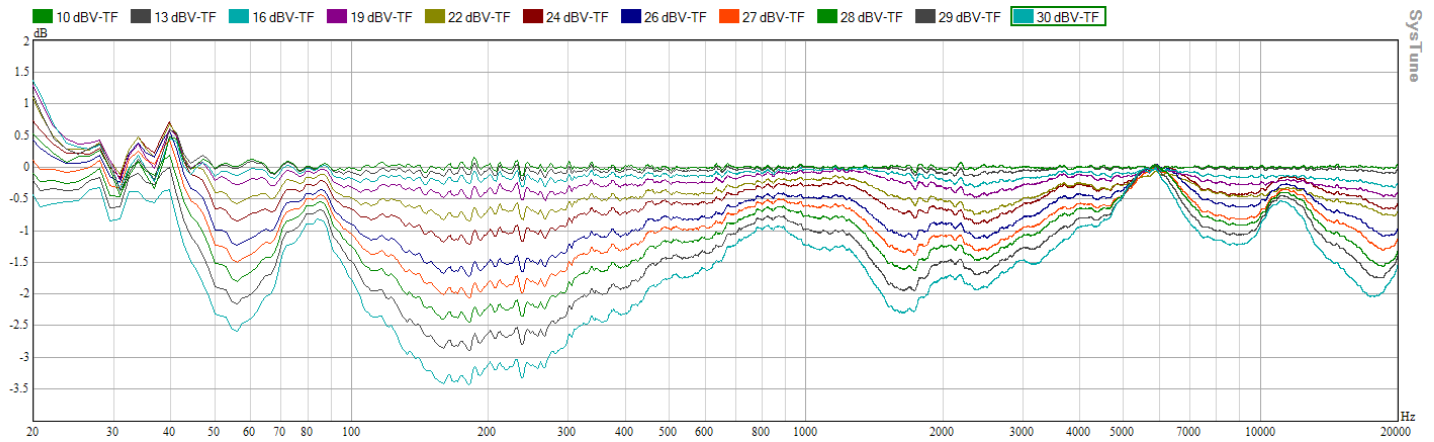
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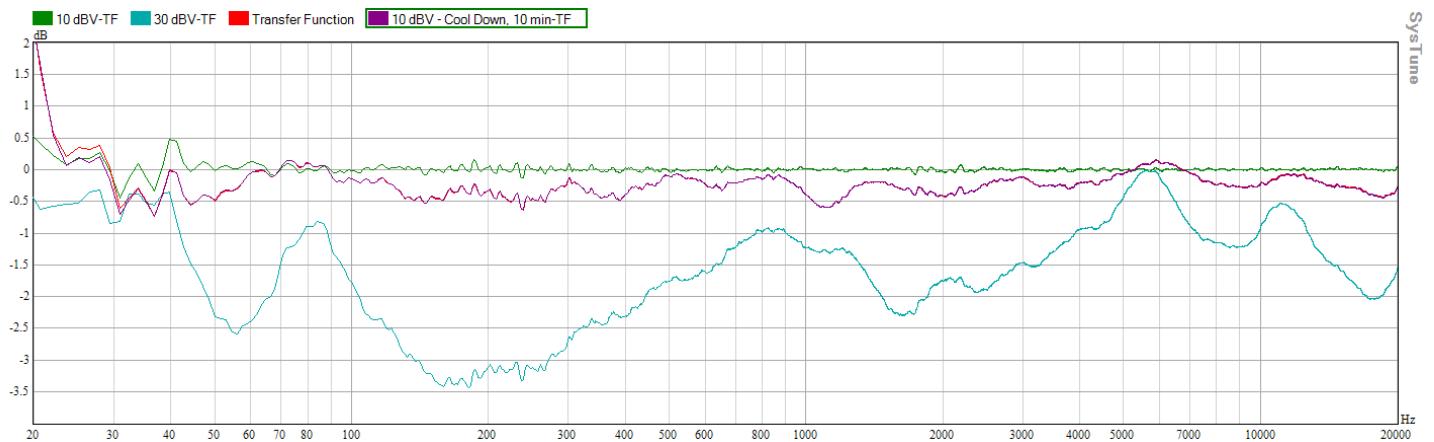
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Maximum Input Voltage Testing, Frequency Response Changes



All measured levels



Purple curve is after a 10 minute cool down period from the conclusion of the test

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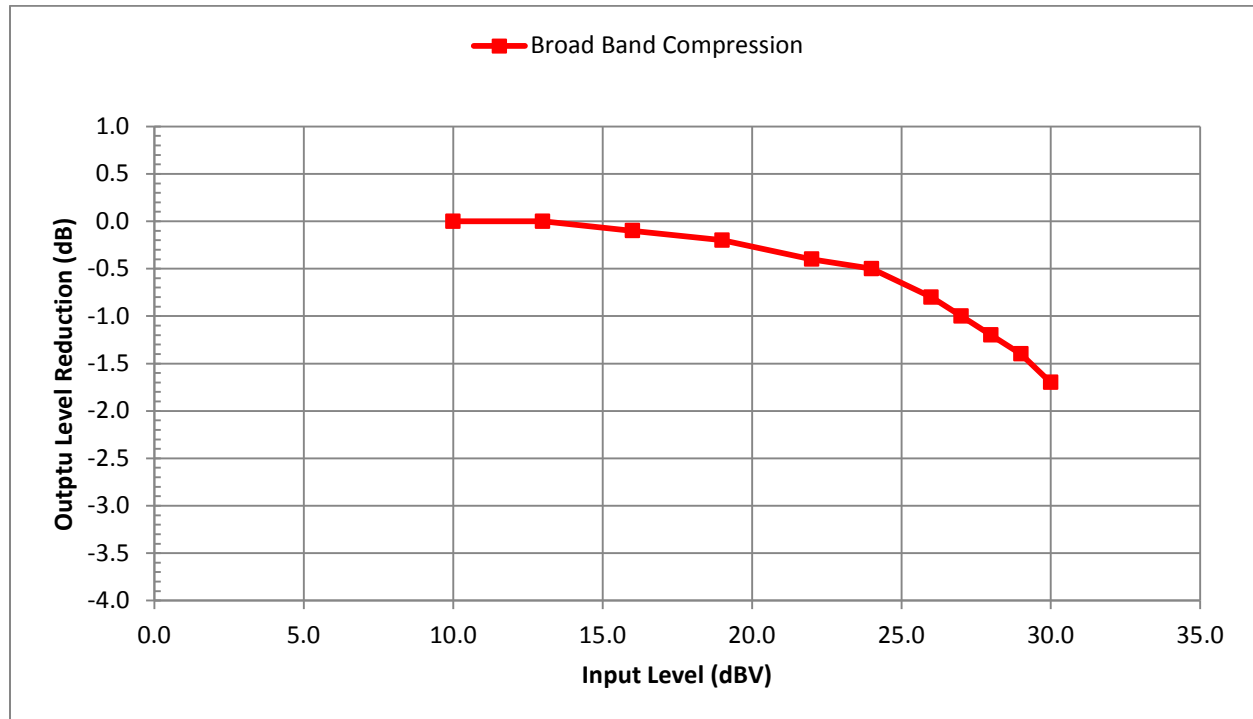
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Maximum Input Voltage Testing, Broad Band SPL Compression



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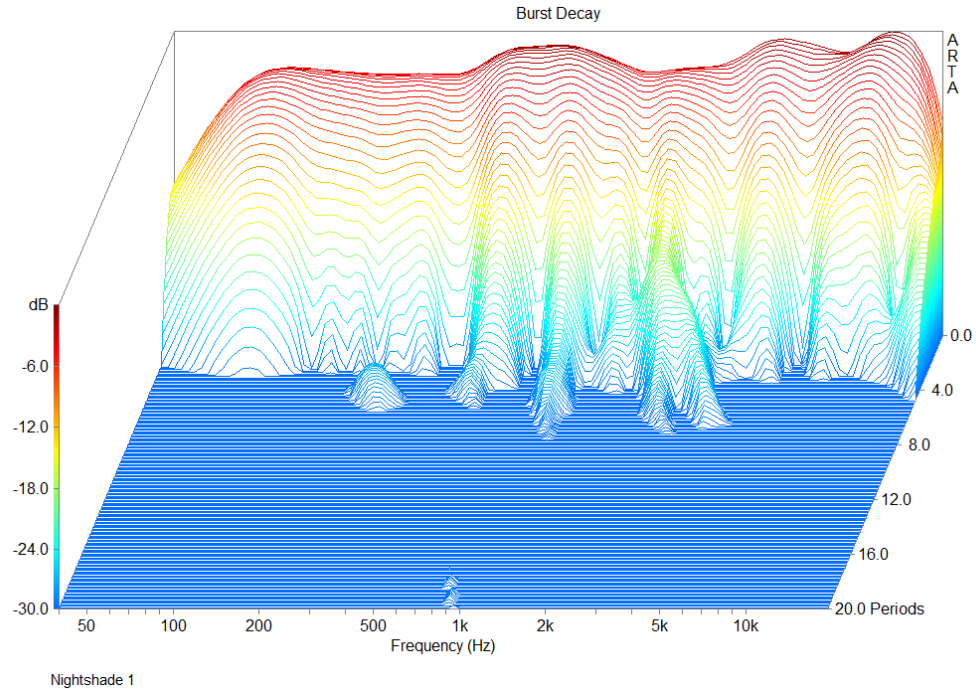
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Burst Decay



Spectral Decay

