

DRAGONFIRE

ACOUSTICS



DFA510 Professional Planar Magnetic Transducer

DFA510 is a New Generation of Planar Magnetic Transducers employing proprietary Dragonfire's Magnetic structure with the strongest magnetic structure ever created in an open circuit—1.8T. Combining super strong magnetic induction and very small moving mass measured in milligrams and with force equalized diaphragm, DFA510 exhibits performance which was not possible before. Very high efficiency, almost full range sound reproduction with extension up to 50KHz, great power handling, super low distortion, incredible fast transient response, extraordinary sound resolution and voice intelligibility are just few of the attributes to separate DFA510 from all other products on the market.

DFA510 is a Dipole type transducer using precision machined stators made out of high grade solid aluminum providing very rigid and perfectly flat parts to house extremely thin, precisely tensioned diaphragm made out of high temperature Polyimide film, with flat Aluminum voice coil spread out on the whole surface. Coil interacts with magnetic field and move creating faithful acoustical output that matches electrical input without any degradation.

All metal parts and diaphragm are cryogenically treated for additional performance increase.

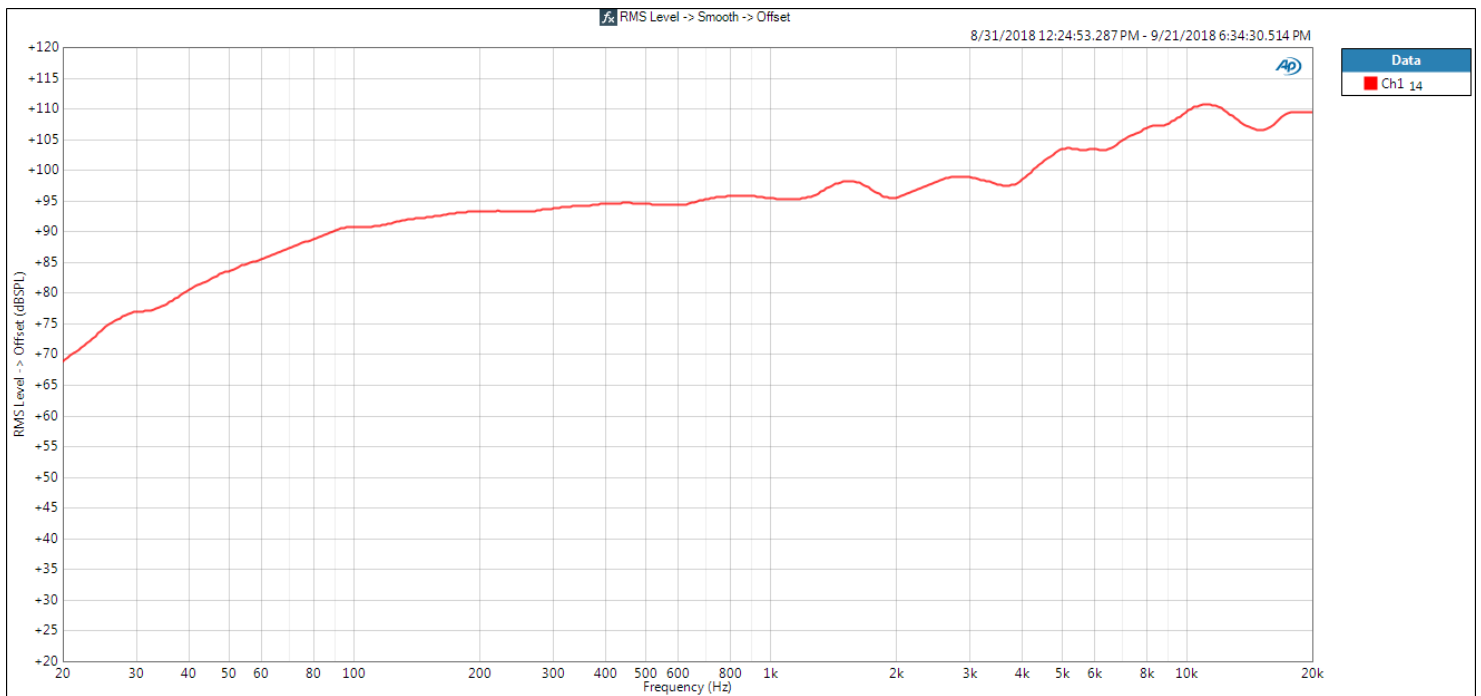
DFA510 can be used in almost any professional application, including High-End Home Audio Speaker System. It is easily arrayable for creating sound systems applicable in touring sound systems or fixed applications like stadiums, arenas, theaters, churches, ...

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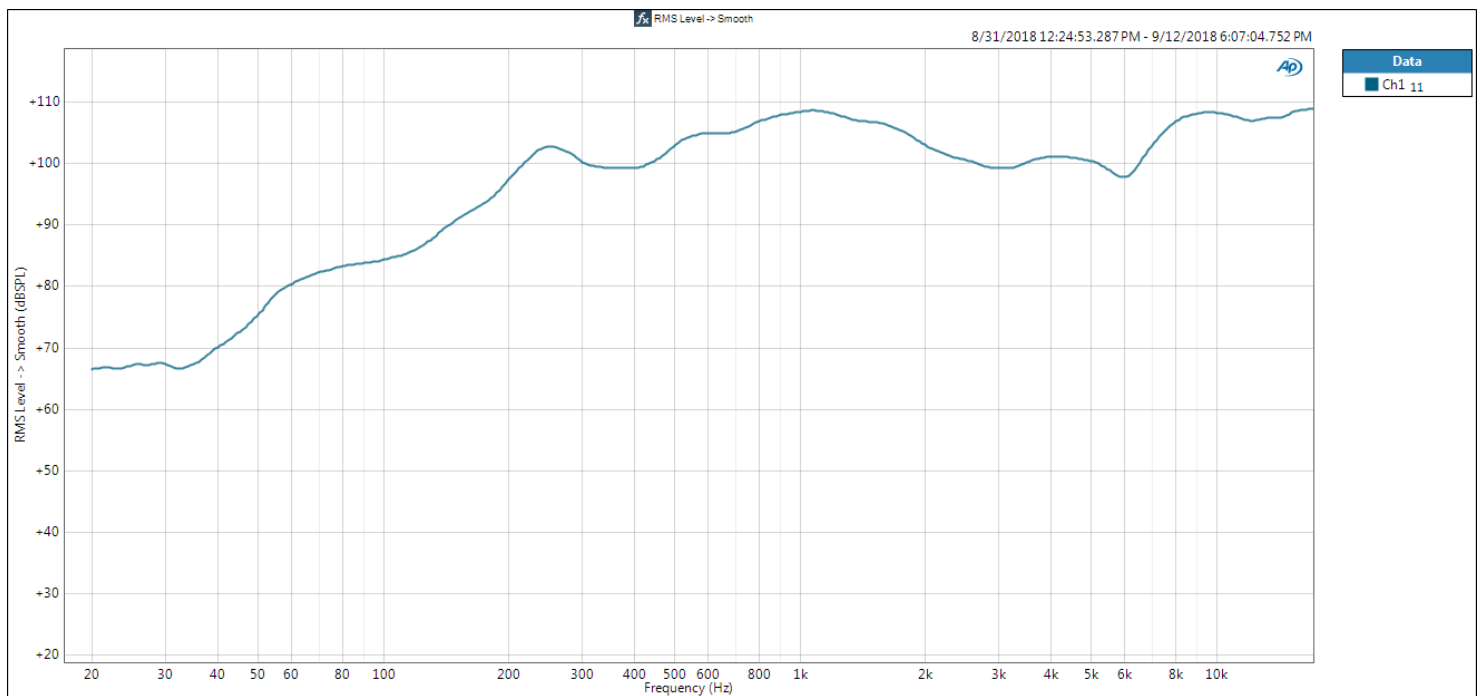
Specifications

Type	Dipole professional Planar Magnetic Transducer
Magnetic Circuit	Dragonfire's proprietary magnet array. Open circuit. No Steel parts.
Magnetic Induction	1.8 Tesla
Magnets type	High Temperature N48H
Magnet weight	1kg
Stators	Precisely machined Aluminum, hard anodized
Diaphragm material	Proprietary very high temperature Polyimide film laminated with high purity aluminum foil
Diaphragm moving mass	300mg
Nominal Impedance	9 Ohms, other values — 2 Ohms and up to 100 Ohms or more available as a special order
Power Handling	80W RMS, 200W music, 400W peak (100ms)
Sensitivity	103dB/1W/1m, midrange, loaded in suitable waveguide*
Frequency response	200Hz - 50KHz, single transducer, IEC baffle measurement 100Hz –50KHz, array
Size	125x250x25mm
Contacts	6.4mm Quick Fit tabs, two in parallel per pole
Weight	3kg
Finish	Hard Anodizing, Black color default. Other colors available as a special order.

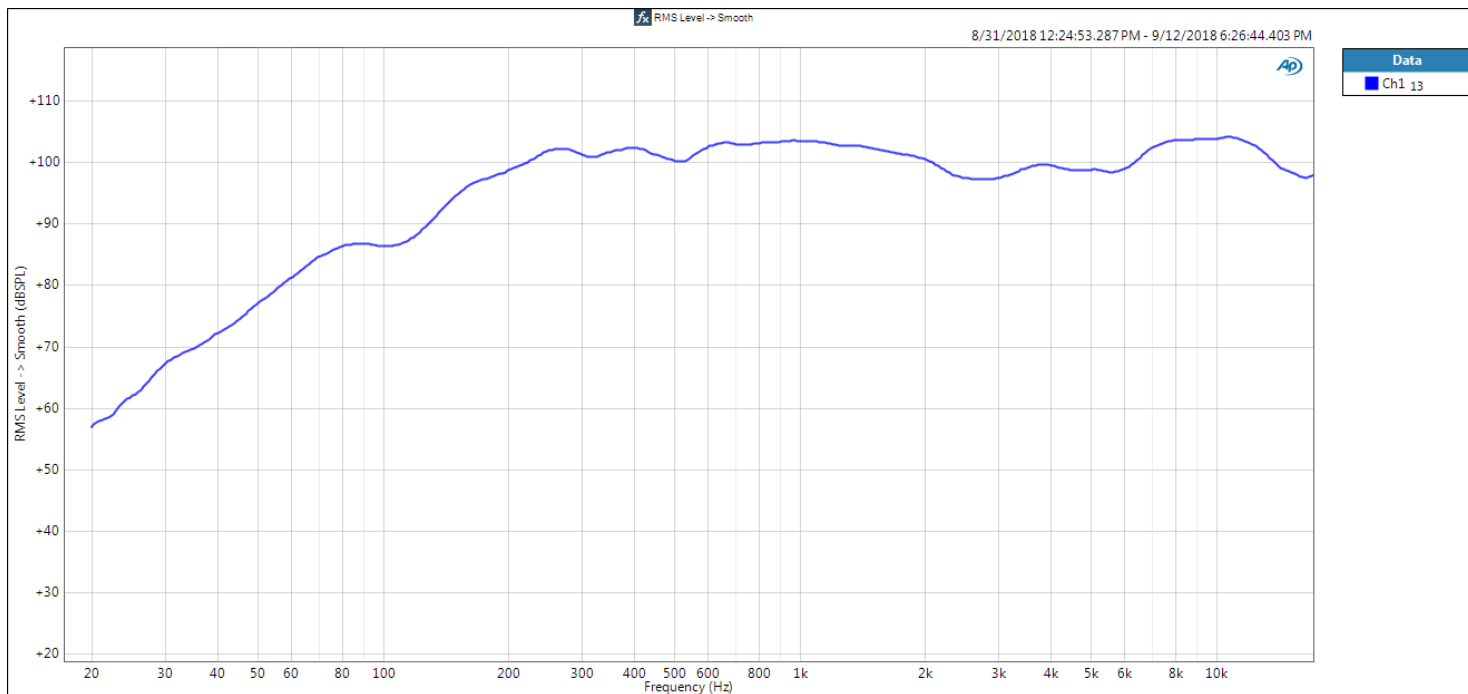
* Transducer loading dramatically changes the response and overall sensitivity. See next two pages for more details.



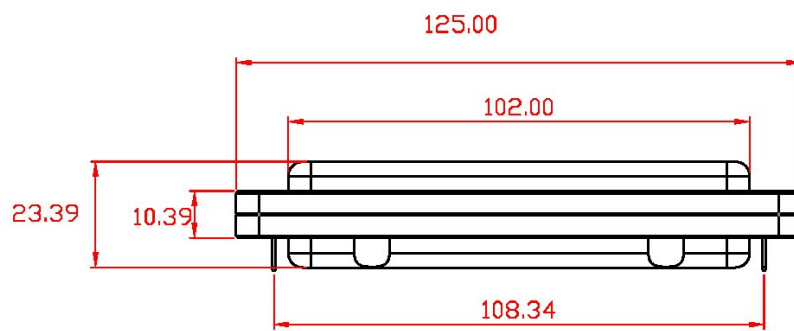
DFA510 Transducer measured in IEC Baffle, 1W, 1m. Above 1KHz transducer has rising response due to increasing directionality of large diaphragm.



DFA510 Transducer installed in 60x20 deg Waveguide, 1W, 1m. Waveguide loading dramatically changes the response and overall sensitivity.



4 DFA510 Transducers loaded into 20x20 deg, 300 Hz waveguides arrayed horizontally for 80 deg coverage, 1W into array, 1m on axis. Due to mutual coupling system exhibits nice low frequency extension with seamless horizontal coverage.



DFA510 Transducer

