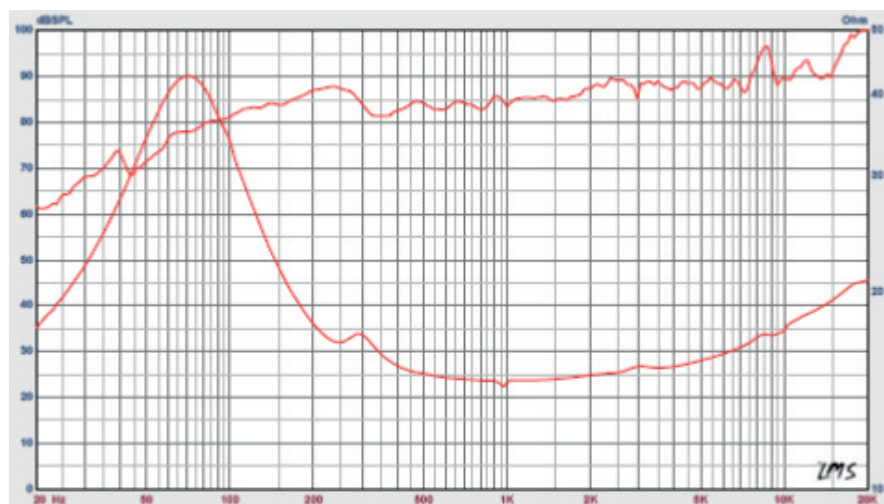


## FR-A3S-2-8

Dual Voice Coil  
High Output  
3" Full Range  
Loudspeaker Driver

The A3S is a breakthrough full range loudspeaker driver design comprised of a patented motor structure, patent-pending suspension and patent pending basket. The A3S has an exceptionally flat response from 40Hz to 22Khz with very high power handling and dynamic range. The A3S is built like a high power sub woofer driver using a large neodymium motor structure, big voice coil and suspension venting. The A3S is ultra responsive at 2.5 grams total moving mass providing state of the art resolution and dynamic range. The A3S sports 12mm of usable excursion with less than 1 dB compression at levels up to 95 dB SPL.



OVERALL DIMENSIONS	83 x 92	mm
CUTOUT DIAMETER	70	mm
DRIVER MOUNTING	4 x $\Phi$ 3.6	mm
OVERALL HEIGHT	58	mm
MOTOR DIAMETER	56	mm
WEIGHT	350	grams

NOMINAL IMPEDANCE	Znom	2 x 8	Ohms
MINIMUM IMPEDANCE	Zmin	2 x 7	Ohms
MAXIMUM IMPEDANCE	Zmax	2 x 22	Ohms
DC RESISTANCE	DCR	2 x 6	Ohms
VOICE COIL INDUCTANCE	Le	2 x 0.01	mH
RESONANT FREQUENCY	Fs	70	Hz
MECHANICAL Q FACTOR	Qms	1.18	
ELECTRICAL Q FACTOR	Qes	0.52	
TOTAL Q FACTOR	Qts	0.36	
RATIO Fs/ Qts		194.4	
FORCE FACTOR	BL	5.25	N/A
MECHANICAL RESISTANCE	Rms	1.02	kg/ s
MOVING MASS	Mms	2.5	grams
SUSPENSION COMPLIANCE	Cms	2.1	mm/ N
EFFECTIVE CONE AREA	Sd	32	cm <sup>2</sup>
EFFECTIVE PISTON DIAMETER	Dd	64	mm
EQUIVALENT VOLUME	Vas	3	liters
EFFICIENCY	$\eta_0$	84.9	dB @1W, 1m
SENSITIVITY	SPL	81.9	dB @.83Vrms, 1m
MOTOR FORCE FACTOR	BL <sup>2</sup> / Re	2.12	
CONTINUOUS POWER HANDLING	Pcon	20	Watts
MUSIC PROGRAM POWER HANDLING	Pmusic	40	Watts
MAXIMUM PEAK POWER HANDLING	Pmax	60	Watts
MAXIMUM MUSIC POWER OUTPUT	SPLmax	103	dB SPL
VOICE COIL DIAMETER	VCD	25	mm
VOICE COIL HEIGHT	VCH	4.3	mm
VOICE COIL LAYERS	VCL	2	layers
VOICE COIL MATERIAL	VCM	Copper	OHFC "6 Nines"
GAP HEIGHT	GH	1.95 x 2	mm (XBL)
LINEAR EXCURSION	Xmax	12	mm p-p
MECHANICAL EXCURSION	Xmech	15	mm p-p
PEAK FLUX DENSITY IN GAP	B	13100	gauss
MAGNET WEIGHT	Mmag	32	grams
MAGNET MATERIAL		N45SH	neodymium

