

# FR321

☀ 3 inch    ☀ 40 Watts  
☀ 88 dB    ☀ 110 ~ 15k Hz



## KEY FEATURES:

- ① 80W continuous program power capacity
- ② 88dB sensitivity, 1w/1m
- ③ 20mm(0.8") high temperature CCAW voice coil
- ④ Vented voice coil former increases airflow to provide enhanced cooling
- ⑤ Shorting copper ring for extended HF response
- ⑥ Y35 Strontium ferrite magnet
- ⑦ Strong and light fiberglass cone remains rigid to higher frequencies
- ⑧ Rubber edge
- ⑨ Ideal for mini array systems, full range application

## GENERAL SPECIFICATIONS

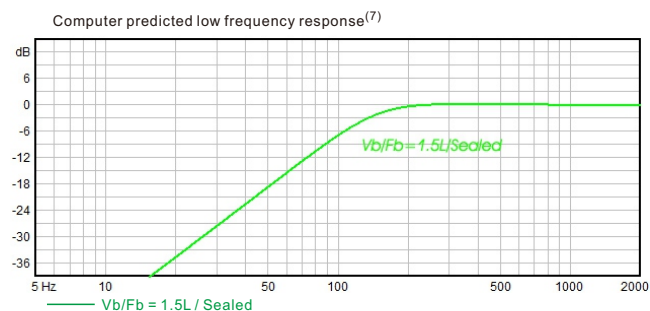
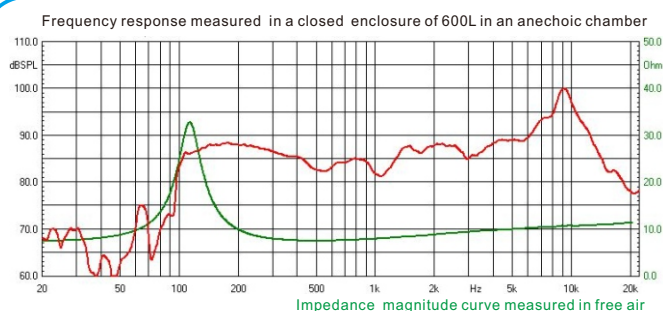
|                                     |               |
|-------------------------------------|---------------|
| Nominal Diameter                    | 80mm /3inch   |
| Rated Impedance                     | 8 ohm         |
| Nominal Power handling <sup>1</sup> | 40 Watts      |
| Program Power <sup>2</sup>          | 80 Watts      |
| Sensitivity(1w/1m) <sup>3</sup>     | 88 dB         |
| Frequency Range <sup>4</sup>        | 110 ~ 15k Hz  |
| Minimum Impedance(Zmin)             | 7.3 ohm       |
| Voice Coil Diameter                 | 20mm /0.8inch |
| Voice Coil Material                 | CCAW          |
| Former Material                     | Glass Fiber   |
| Voice Coil Winding Depth            | 6 mm          |
| Number of layers                    | 2             |
| Magnet gap depth                    | 4 mm          |
| Basket                              | Pressed Steel |
| Flux Density                        | 1.2T          |
| Magnet Out Diameter/Wgt             | 70mm / 8 oz   |

## THIELE - SMALL PARAMETERS<sup>5</sup>

|  |      |                       |
|--|------|-----------------------|
| Resonance frequency                          | Fs   | 113 Hz                |
| DC resistance                                | Re   | 6.4 ohm               |
| Mechanical factor                            | Qms  | 3.5                   |
| Electrical factor                            | Qes  | 0.85                  |
| Total factor                                 | Qts  | 0.68                  |
| Mechanical compliance                        | Cms  | 0.67 mm/N             |
| Mechanical resistance of total-driver losses | Rms  | 0.59 kg/s             |
| Effective Moving Mass                        | Mms  | 2.9 g                 |
| Half-space efficiency                        | Eff  | 0.17%                 |
| BL Factor                                    | BL   | 4 T.m                 |
| Equivalent Cas air load                      | Vas  | 1.03 liters           |
| Effective piston area                        | Sd   | 0.0033 m <sup>2</sup> |
| Max. linear excursion <sup>6</sup>           | Xmax | ± 2 mm                |
| Max. excursion before damage                 | Xdam | ±5.5mm                |
| Voice coil inductance(1kHz)                  | Le   | 0.1 mH                |
| Efficiency Bandwidth Product                 | EBP  | 133                   |

## MOUNTING INFORMATION

|                               |               |
|-------------------------------|---------------|
| Overall Diameter              | 93 mm         |
| Bolt Circle Diameter          | 84 mm         |
| Bolt Hole Diameter            | 5 mm          |
| Baffle Cutout Diameter        | 71 mm         |
| Overall Depth                 | 51 mm         |
| Air volume occupied by driver | 0.14 liters   |
| Net Weight                    | 0.48 kg / pc  |
| Shipping Weight               | 17 kg / 32pcs |
| Shipping Box                  | 400*400*145mm |



## NOTES:

- AES standard
- Program Power is defined as 3 dB greater than the nominal power handling.
- Sensitivity is measured at 1W input on rated impedance at 1m on axis.
- Frequency range is defined as the band of frequencies delineated by the lower and upper limits where the output level drops by 10dB below the rated sensitivity.
- T/S parameters measured with laser system BEFORE preconditioning test.
- The maximum linear excursion is calculated as:  $(Hvc-Hg)/2+Hg/4$  where Hvc is the voice coil depth and Hg is the gap depth.
- Vb: Net internal volume of box after subtracting the volume of internal objects.