

# CX12N351

## COAXIAL

### DESCRIPTION

The CX12N351 is a top class coaxial design that provides an excellent frequency response linearity with very low distortion. The CX12N351 is powered from an integrated high power neodymium magnetic structure that guarantee high dynamic and sensitivity for both components. The mid-bass section features a 3,5" inside-outside voice coil design that provides a very high power handling, especially in comparison to a standard 3" voice coil.

Thanks to an integrated demodulation ring the mid-bass section gets a fastest time response and lower distortion. The compression driver use a 2.5" diaphragm with a 1.4" throat featuring several state of the art technologies. The diaphragm and suspension are formed from 0.05 mm thick pure titanium



### FEATURES

- 3.5-inch , fibreglass outside aluminum voice coil
- 900 Watt continuous program power handling
- 98.5 dB Sensitivity
- 50 Hz - 3.0 kHz Frequency range
- Dual-forced air ventilation for minimum power compression
- M-roll surround and exponential cone geometry
- Demodulation ring
- 2.5-inch Diaphragm, 1.4-inch Exit Throat/pure titanium compression driver
- 180 Watt Continuous program power handling
- Frequency range: 700Hz - 20kHz

## TECHNICAL SPECIFICATIONS

### General specifications

|                                 |                     |
|---------------------------------|---------------------|
| Nominal Diameter:               | 12 inch / 305 mm    |
| Related Impedance:              | 8.00 ohm            |
| Program Power (watt):           | 180 W               |
| Power handling capacity (watt): | 90 W                |
| Sensitivity:                    | 110.0 dB            |
| Frequency range:                | 700 - 20000 Hz      |
| Effective piston diameter:      | 260 mm / 10.24 inch |
| Max. Excursion Before Damage:   | 39 mm / 1.54 inch   |
| Minimum Impedance (ohm):        | 6.8 ohm             |
| Voice Coil Diameter:            | 3.5 inch / 89 mm    |
| Voice Coil Material:            | Copper              |
| Voice Coil Winding Depth:       | 0.67 inch / 17 mm   |
| Number of layers:               | 2                   |
| Kind of layers:                 | inside/outside      |
| Top Plate Thickness:            | 11 mm / 0.43 inch   |
| Cone Design:                    | Curved              |
| Surround Material:              | Polycotton          |
| Surround Design:                | M-roll              |
| Magnets:                        | Neodymium           |
| Dual-force air ventilation:     | Yes                 |
| Spider:                         | Single              |

### Thiele - small parameters

|                                      |                      |
|--------------------------------------|----------------------|
| Resonance frequency (Fs):            | 58 Hz                |
| DC resistance (Re) (ohm):            | 5.80 ohm             |
| Mechanical factor:                   | 5.40 Qms             |
| Electrical factor:                   | 0.21 Qes             |
| Total factor:                        | 0.20 Qts             |
| Bl factor (Bl) (T x m):              | 25.00 T x m          |
| Effective moving mass (Mms):         | 62.0 g               |
| Equivalent Cas air loaded (Vas):     | 47.0 liters          |
| Effettive piston area (Sd):          | 0.050 m <sup>2</sup> |
| Max. linear excursion (Xmax):        | 6.0 mm               |
| Voice coil inductance @ 1kHz (Le1k): | 1.50 mH              |
| Half-space efficiency (Eff):         | 4.40%                |

|                                      |                                    |                                   |
|--------------------------------------|------------------------------------|-----------------------------------|
| <b>General specifications driver</b> | Exit Throat Diameter:              | 1.4 inch / 36 mm                  |
|                                      | Related Impedance:                 | 8.00 ohm                          |
|                                      | Program Power (watt):              | 180 W                             |
|                                      | Power handling capacity (watt):    | 90 W                              |
|                                      | Sensitivity:                       | 110 dB                            |
|                                      | Frequency range driver:            | 700 - 20000 Hz                    |
|                                      | Diaphragm Material:                | Pure Titanium                     |
|                                      | Suspension Material:               | Pure Titanium                     |
|                                      | Suspension Design:                 | Progressive                       |
|                                      | Minimum Impedance (ohm):           | 7.90 ohm                          |
|                                      | Voice Coil Diameter driver:        | 2.5 inch / 63 mm                  |
|                                      | Voice Coil Material:               | Aluminium                         |
|                                      | Number of layers:                  | 1.00                              |
|                                      | Kind of layers:                    | outside                           |
|                                      | Flux Density:                      | 2.0 T                             |
|                                      | Phase Plug Design:                 | 3 slot                            |
|                                      | Phase Plug Material:               | Aluminium                         |
|                                      | Magnetics:                         | Neodymium                         |
|                                      | Voice Coil Demodulation Ring:      | Copper                            |
|                                      | <b>General specifications horn</b> | Throat Diameter:                  |
| Horizontal coverage angle:           |                                    | 60°                               |
| Vertical coverage angle:             |                                    | 60°                               |
| Cut-off Frequency:                   |                                    | 900 Hz                            |
| Material:                            |                                    | Structural Polyurethane           |
| <b>Mounting informations</b>         | Overall diameter:                  | 320 mm / 12.6 inches              |
|                                      | Bolt circle diameter:              | 293-304 mm / 11.54-11.97 inch     |
|                                      | Bolt hole diameter:                | 7 mm / 0.28 inch                  |
|                                      | Front mount baffle cut-out:        | 284 mm / 11.18 inch               |
|                                      | Rear mount baffle cut-out:         | 284 mm / 11.18 inch               |
|                                      | Volume occupied by the driver:     | 2.2 liters / 0.09 ft <sup>3</sup> |
| <b>Standard compliance</b>           | CE marking:                        | Yes                               |
| <b>Size</b>                          | Height:                            | 157 mm / 6.18 inches              |
|                                      | Diameter:                          | 320 mm / 12.6 inches              |
|                                      | Weight:                            | 6.29 kg / 13.87 lbs               |
| <b>Shipping informations</b>         | Package Height:                    | 240 mm / 9.45 inches              |
|                                      | Package Width:                     | 360 mm / 14.17 inches             |
|                                      | Package Depth:                     | 360 mm / 14.17 inches             |
|                                      | Package Weight:                    | 7.47 kg / 16.47 lbs               |



**PART NUMBER**

- **11100058**  
CX12N351  
8ohm



