

## AH-10133-045045MR Acoustic Housing Brief

### GENERAL INFORMATION

The AH-10133-045045MR is a retrofit horn to modify the MOD\_CH101-03-01 ultrasonic sensor module from omnidirectional to a symmetrical 45° FoV. The MOD\_CH101-03-01 sensor module enables rapid integration of Chirp's CH101 ultrasonic Time-of-Flight (ToF) range sensor into customer enclosures. It is especially useful for prototyping and small-scale production. The module's electronic interface is via a standard 8-pin flat flex cable (FFC) connector to allow connection to the SmartSonic DK-CH101 development kit.

### DEVICE INFORMATION

| Part Number       | Type    | Diameter (mm) |          | Length (mm) | Field Of View (FoV) |          |
|-------------------|---------|---------------|----------|-------------|---------------------|----------|
|                   |         | Horizontal    | Vertical |             | Horizontal          | Vertical |
| AH-10133-045045MR | Conical | 3             | 3        | 1.8         | 45                  | 45       |

- CAD file for 3D printing of AH-10133-045045MR is available from Chirp Microsystems.
- Recommendations for adhesives, gluing instructions, 3D printing guidelines, and basic verification after installation of AH-10133-045045MR see document AN-000209.

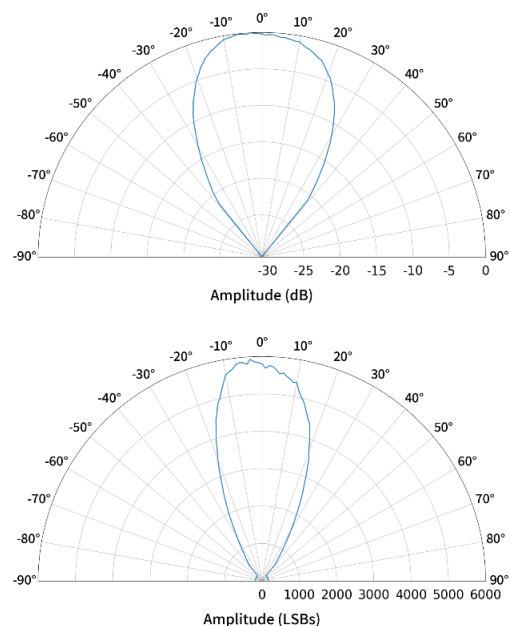
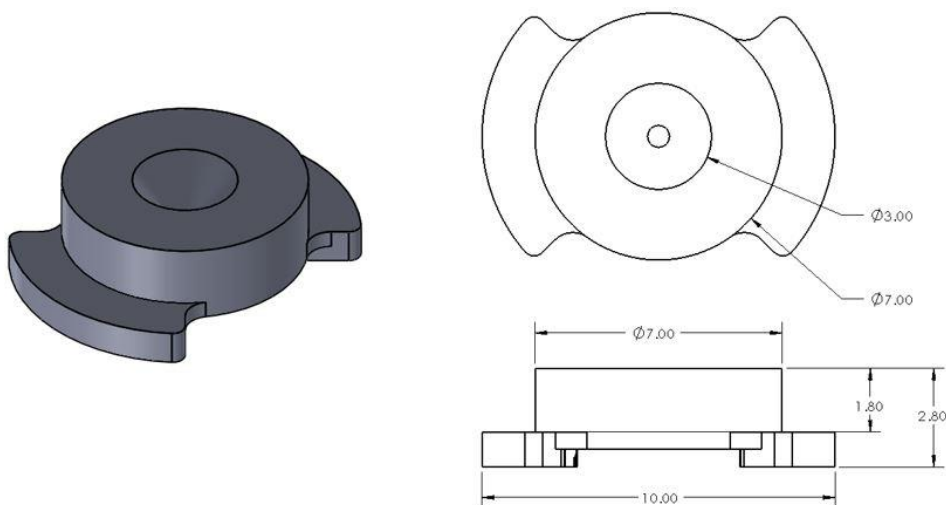


Figure 1: AH-10133-045045MR Beam Patterns



#### Key Dimensions:

- 3.0 mm "mouth" diameter opening
- 0.8 mm "throat" opening
- 2.8 mm total thickness

Figure 2: AH-10133-045045MR Acoustic Horn Drawing