

## Constant Directivity Horn

### KEY FEATURES

- Designed to be used with two WL-4 wave guides
- It provides uniform response, on and off-axis with a neutral and natural frequency reproduction
- Coverage angles of 90° in the horizontal plane and 20° in the vertical plane
- Precise directivity control in the pass band
- Cast aluminium construction



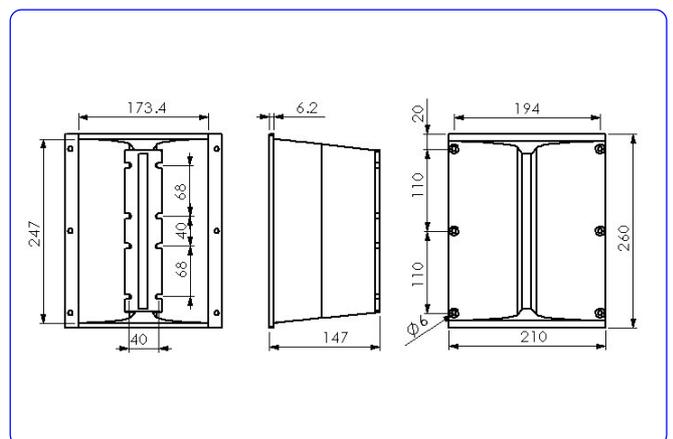
### GENERAL DESCRIPTION

This horn has been designed to work specifically with two Beyma WL-4 wave guides providing uniform on and off-axis response. The constant directivity characteristics of this model ensure the ability to cover 90° wide horizontally and 20° wide vertically, at virtually any frequency within its operational range. To ensure freedom of resonance, this flare is constructed of cast aluminium, with flat front finish to facilitate flush mounting.

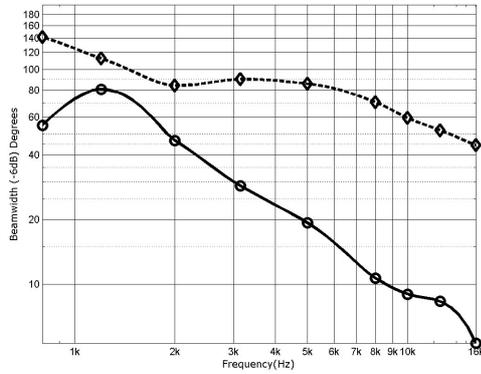
### TECHNICAL SPECIFICATIONS

<b>Throat dimensions (WxH)</b>	12 x 208 mm.	0.47 x 8.19 in.
<b>Horizontal beamwidth</b>	90° (+22°, -46°)	
	(-6 dB, 1.2 - 16 kHz)	
<b>Vertical beamwidth</b>	20° (+27°, -15°)	
	(-6 dB, 2 - 16 kHz)	
<b>Directivity factor (Q)</b>	60 (average 1.2 - 16 kHz)	
<b>Directivity index (DI)</b>	15.5 dB (+7 dB, -8.1 dB)	
<b>Cutoff frequency</b>	800 Hz	
<b>Dimensions (WxHxD)</b>	210x250x147 mm.	8.27x9.84x5.79 in.
<b>Cutout dimensions (WxH)</b>	174x247 mm.	6.85x9.72 in.
<b>Net weight</b>	1.5 kg.	3.3 lb.
<b>Shipping weight</b>	1.8 kg.	3.96 lb.
<b>Construction:</b>	Cast aluminium.	

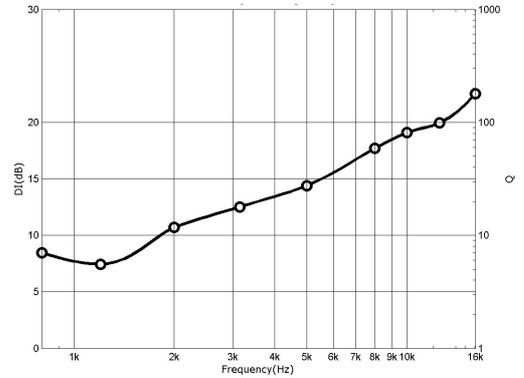
### DIMENSION DRAWINGS



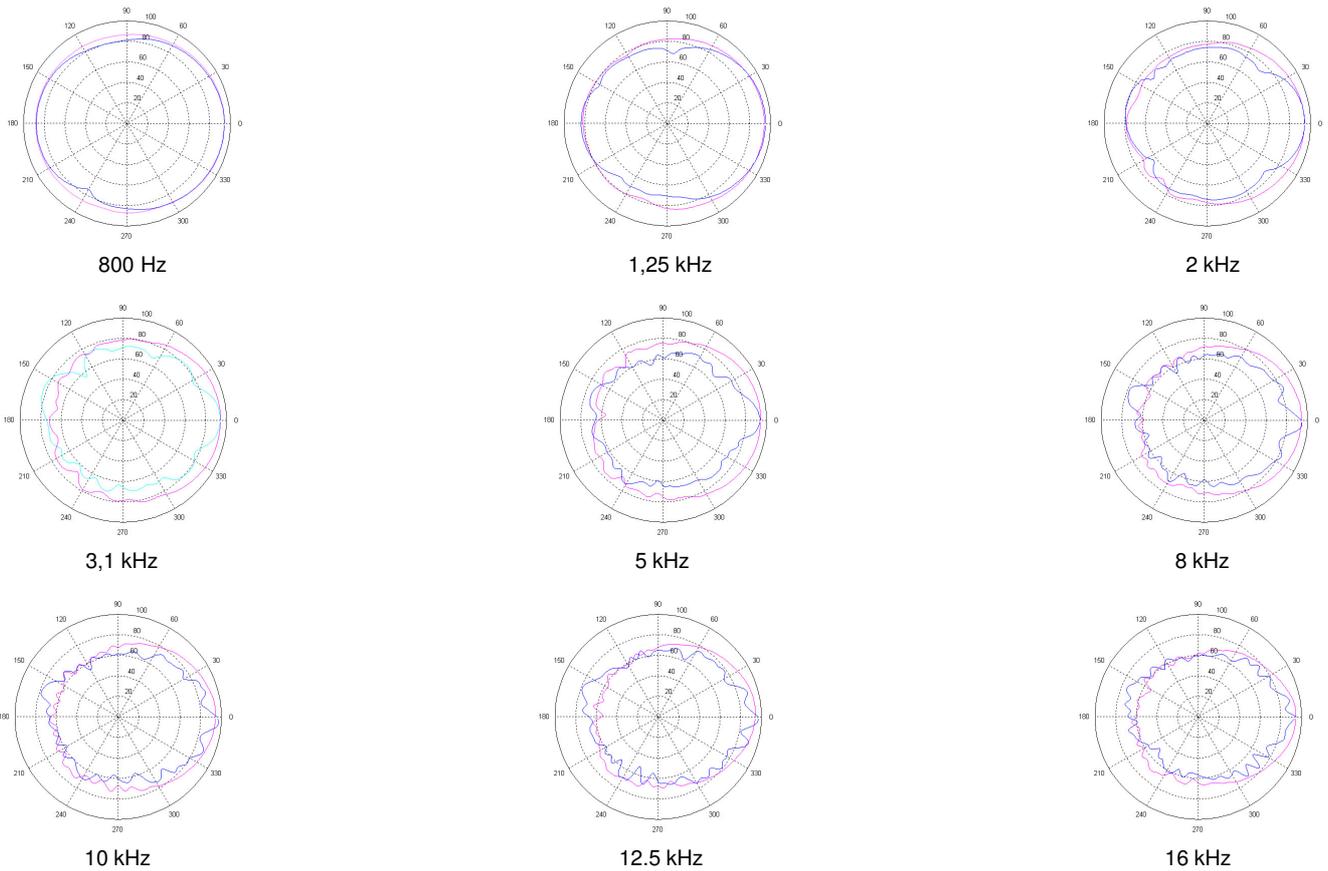
### -6 dB BEAMWIDTH \*



### DIRECTIVITY



### POLAR RESPONSE \*\*



**Notes:**  
\*Horizontal beamwidth is represented by the discontinuous line.  
Vertical beamwidth is represented by the heavy line.

\*\* Horizontal response is represented by the pink line. Vertical response is represented by the blue line.  
The polar plots are reproduction of measurements done with single sinusoidal signal tones, at the indicated frequencies.  
The microphone was placed 2m. from the horn, and rotation was about the centre of the emitter source.