

CS SERIES

WIDE-RANGE PAGING SPEAKERS



TOA CS SERIES WIDE-RANGE PAGING SPEAKERS are ideal for indoor and outdoor commercial sound system applications for voice paging, background music and tone signaling distribution. Compared to traditional metal paging horns, CS Series speakers offer wider frequency range and superior sound quality.

CS Series models include standard and UL listed models: CS-64/U (6 W), CS-154/U (15 W) and CS-304/U (30 W). Each includes a built-in 70.7V/100 V transformer with screwdriver-adjustable power taps. All CS models are fully weather-resistant to withstand demanding environmental conditions with a sealed enclosure, full-range moisture-resistant cone speaker, stainless-steel mounting hardware and a protective mesh grille. The enclosure is also coated with polyurethane resin paint to resist the fading effects of prolonged exposure to ultraviolet light.

The CS Series Wide-Range Paging Speakers are backed with a five year warranty.



HIGHLIGHTS

- **Wide-Range Paging Speakers**
for voice paging, background music and tone signaling distribution
- **Weather-Resistant**
to withstand demanding environmental conditions
- **UL Listed Models**
UL 1480 (UEAY, outdoor use)
- **Choose from Six Models:**
CS-64 (6 W)
CS-64U (6 W) UL Listed
CS-154 (15 W)
CS-154U (15 W) UL Listed
CS-304 (30 W)
CS-304U (30 W) UL Listed
- **Constant Directivity Coverage**
(CS-154/U and CS-304/U)
- **High Sensitivity:**
up to 98 dB (1 W/1 m)
- **Moisture-Resistant Speaker Component (4.72")**
- **Built-In 70.7 V/100 V Transformer**
with screwdriver-adjustable power taps
- **Lightweight, Sealed Enclosure**
prevents moisture damage
- **Cable Strain-Relief**
- **Polyurethane Resin Paint**
resists the fading effects of ultraviolet light
- **IEC IP-64 Standards Compliant**
for dust and moisture-resistance
- **Wide Temperature Range**
-4° F to 131° F
- **Stainless-Steel Mounting Bracket**
for easy installation and aiming in wall, pole or ceiling-mount applications
- **Protective Stainless-Steel Mesh Grille**
prevents speaker damage
- **Five Year Warranty**

APPLICATIONS

- Boats
- Churches
- Industrial
- Mobile Vehicles
- Parking Facilities
- Parks
- Schools
- Security
- Sporting Facilities
- Swimming Pools

SPECIFICATIONS

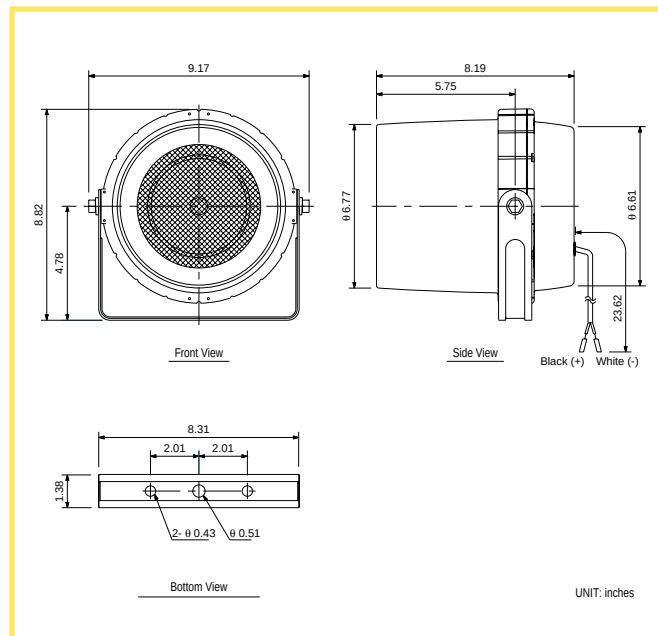
CS SERIES WIDE-RANGE PAGING SPEAKERS

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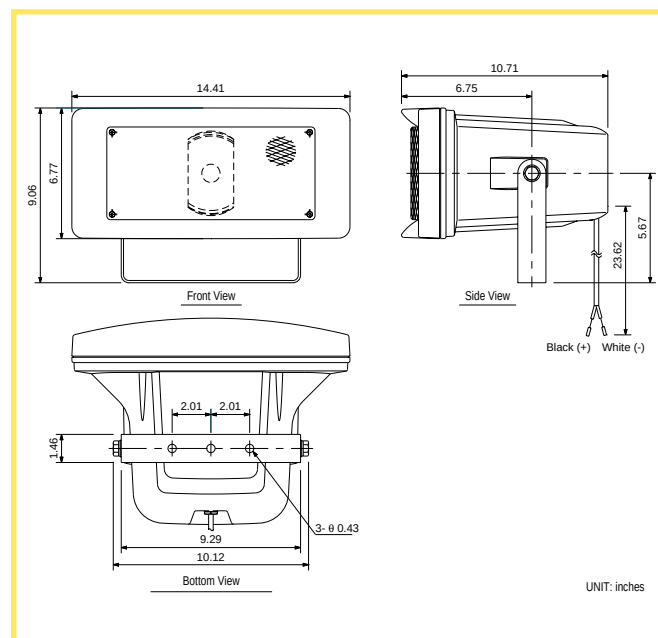


Enclosure Type	Wide-Range Paging Speaker
Dispersion	CS-64/U: Exponential CS-154/U/304/U: Constant Directivity
Speaker Component	Cone-Type Dynamic Speaker, 4.72" (12 cm) (Treated For Weather-Resistance)
Power Handling	CS-64/U: 6 W CS-154/U: 15 W CS-304/U: 30 W
Transformer Taps / Rated Impedance	CS-64/U: 70.7 V: 6 W (830 Ω), 3 W (1.7 k Ω), 1.5 W (3.3 k Ω), 0.5 W (10 k Ω) 100 V: 6 W (1.7 k Ω), 3 W (3.3 k Ω), 1 W (10 k Ω) CS-154/U: 70.7 V: 15 W (330 Ω), 7.5 W (670 Ω), 2.5 W (2 k Ω) 100 V: 15 W (670 Ω), 10 W (1 k Ω), 5 W (2 k Ω) CS-304/U: 70.7 V: 30 W (170 Ω), 15 W (330 Ω), 10 W (500 Ω), 5 W (1 k Ω) 100 V: 30 W (330 Ω), 20 W (500 Ω), 10 W (1 k Ω)
Sensitivity (Sound Pressure Level) (1 W / 1 m)	CS-64/U: 96 dB CS-154/U: 97 dB CS-304/U: 98 dB
Frequency Response	CS-64/U: 130 Hz - 13 kHz CS-154/U: 150 Hz - 15 kHz CS-304/U: 120 Hz - 15 kHz
Dispersion (-6 dB, 2 kHz)	CS-64/U: 100° H x 100° V CS-154/U: 110° H x 85° V CS-304/U: 100° H x 85° V
UL Listed Category	UL 1480 (UEAY, outdoor use)
IEC IP Code	IP-64
Temperature Range	-4° F to +131° F (-20° C to +55° C)
Material/Finish	Enclosure: Fire-Resistant ABS Resin, Polyurethane Resin Paint, Off-White CS-64/U Net: Punched, Surface Treated Steel Plate, Dark Gray Powder Coating CS-154/U/304/U Net: Aluminum, Gray Paint Bracket/Screws: Stainless Steel
Dimensions (W x H x D)	CS-64/U: 9.17" x 8.82" x 8.19" (233 mm x 224 mm x 208 mm) CS-154/U/304/U: 14.40" x 9.06" x 10.71" (366 mm x 230 mm x 272 mm)
Weight	CS-64/U: 3.31 lbs. (1.5 kg) CS-154/U: 6.17 lbs. (2.8 kg) CS-304/U: 6.83 lbs. (3.1 kg)

DIMENSIONAL DRAWINGS



CS-64/U



CS-154/ U/CS-304/U

SPECIFICATIONS

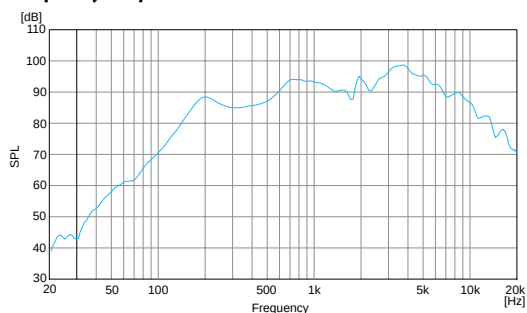
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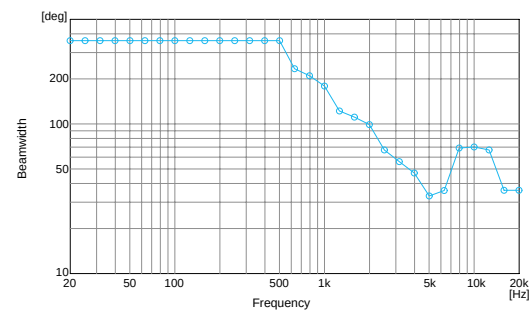


CS - 64 / U

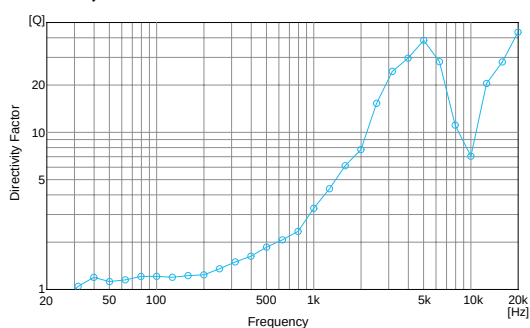
Frequency Response



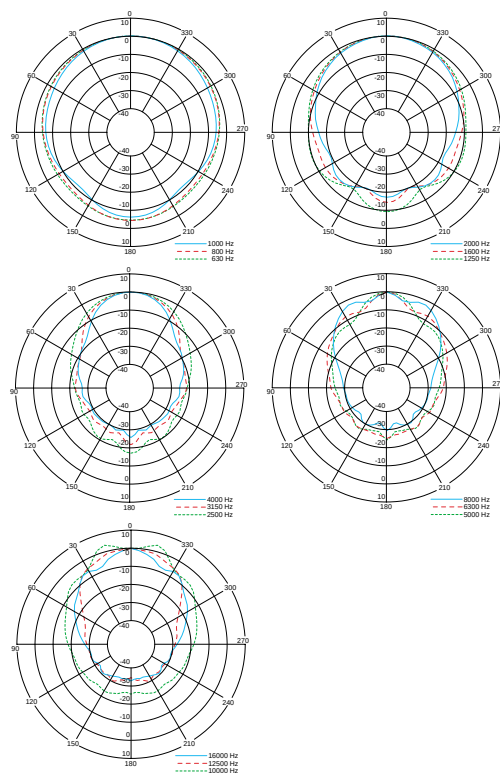
Beamwidth



Directivity Factor



Polar Response



SPECIFICATIONS

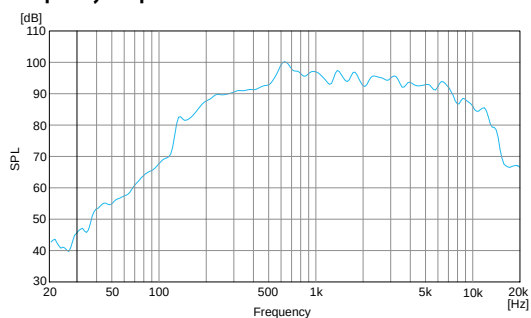
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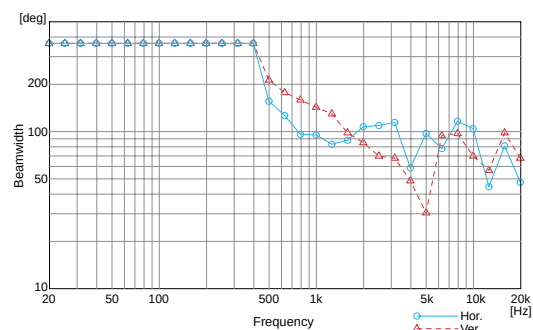


CS-154/U

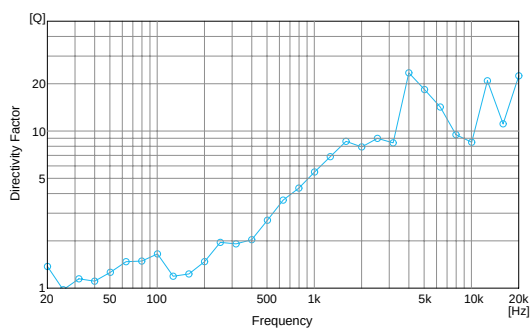
Frequency Response



Beamwidth

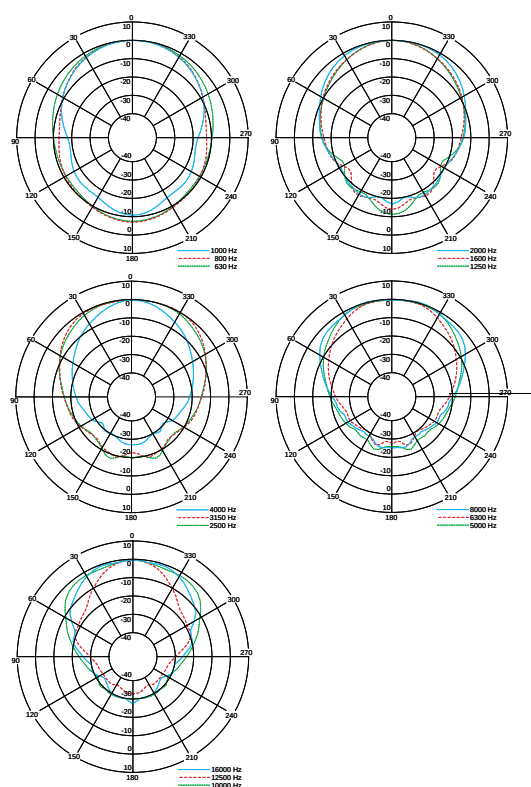


Directivity Factor

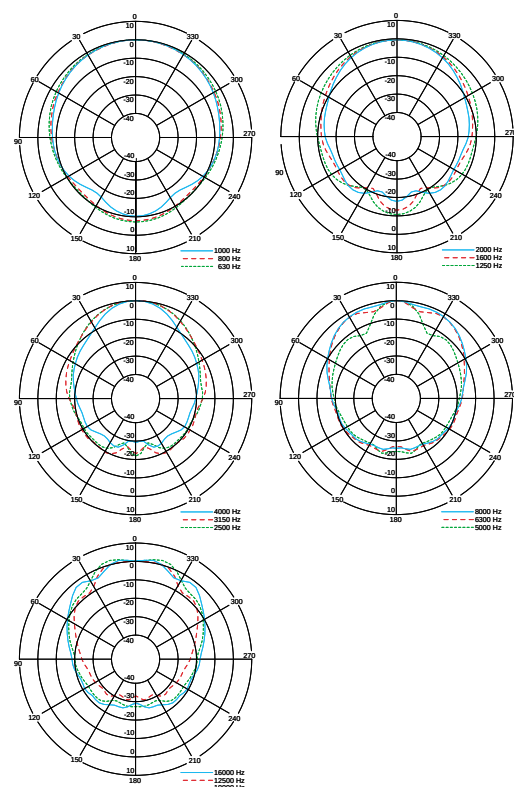


Polar Response

Horizontal



Vertical



SPECIFICATIONS

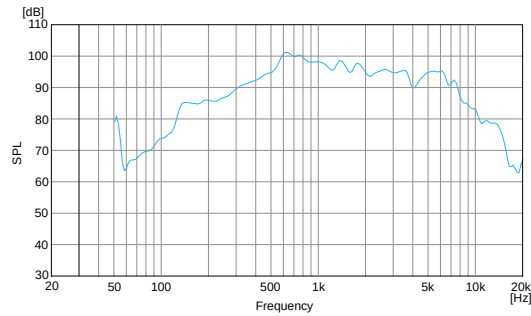
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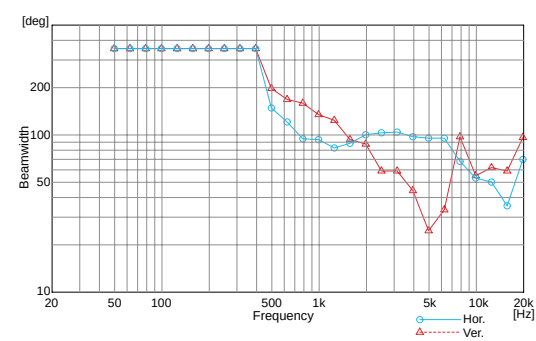


CS-304/U

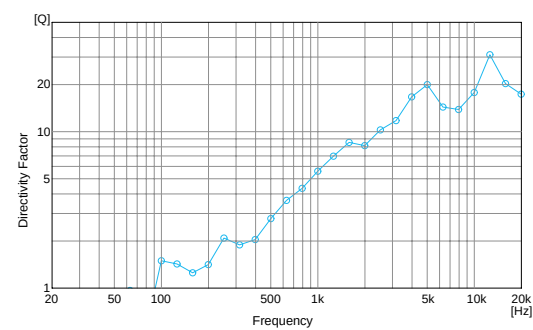
Frequency Response



Beamwidth

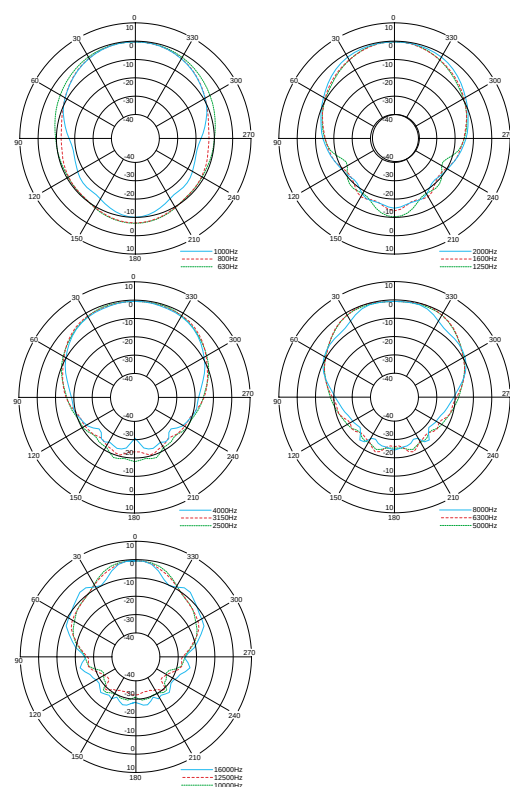


Directivity Factor

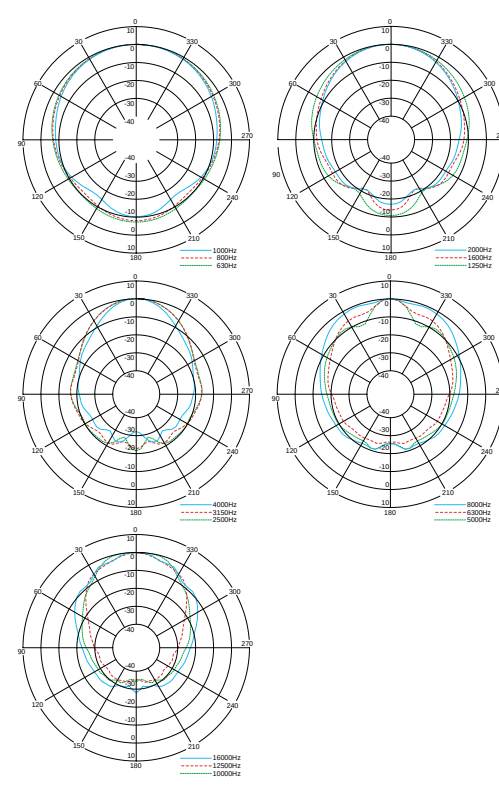


Polar Response

Horizontal



Vertical



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ARCHITECT'S & ENGINEER'S SPECIFICATIONS

The wide-range paging speaker shall be CS-154/U/304/U: constant directivity; CS-64/U: exponential, direct radiator design suitable for paging, background music and tone signaling distribution. The speaker component shall be a 4.72" (12 cm) cone-type dynamic speaker, treated for weather-resistance. Power handling shall be CS-64/U: 6 W; CS-154/U: 15 W; CS-304/U: 30 W. The paging speaker shall include a matching transformer to accommodate 70.7 V and 100 V lines. Transformer wattage taps shall include CS-64/U: 70.7 V: 6 W (830 ohms), 3 W (1.7 kohms), 1.5 W (3.3 kohms), 0.5 W (10 kohms), 100 V: 6 W (1.7 kohms), 3 W (3.3 kohms), 1 W (10 kohms); CS-154/U: 70.7 V: 15 W (330 ohms), 7.5 W (670 ohms), 2.5 W (2 kohms), 100 V: 15 W (670 ohms), 10 W (1 kohms), 5 W (2 kohms); CS-304/U: 70.7 V: 30 W (170 ohms), 15 W (330 ohms), 10 W (500 ohms), 5 W (1 kohms), 100 V: 30 W (330 ohms), 20 W (500 ohms), 10 W (1 kohms). Sound pressure level measured at one meter with one watt of power applied shall be CS-64/U: 96 dB SPL; CS-154/U: 97 dB SPL; CS-304/U: 98 dB SPL. Frequency response shall be CS-64/U: 130 Hz - 13 kHz; CS-154/U: 150 Hz - 15 kHz; CS-304/U: 120 Hz - 15 kHz. Horizontal and vertical dispersion at -6 dB below the on-axis reference at 2 kHz shall be CS-64/U: 100° H x 100° V; CS-154/U: 110° H x 85° V; CS-304/U: 100° H x 85° V.

The paging speaker shall be UL Listed under category UL 1480 and include external "UL Listed" labeling. The paging speaker shall comply with the IEC IP-64 standard for dust and moisture-resistance and operate within a temperature range from -4° F to 131° F (-20° C to +55° C). The material and finish of the horn/cover shall be fire-resistant ABS resin and coated with polyurethane resin paint, off-white in color, to resist long-term exposure to ultraviolet light. The speaker shall include a protective net/grille to prevent damage and the material and finish shall be CS-154/U/304/U: punched, surface treated steel plate, dark gray powder coating and CS-64/U: aluminum, gray paint. All mounting hardware, including screws and bolts, shall be stainless steel. The paging horn shall include an integral speaker cable, insulated polyvinyl chloride type, with strain-relief, 0.24" (6 mm) diameter and 24" (600 mm) length. Dimensions shall be CS-64/U: 9.17" W x 8.82" H x 8.19" D (233 mm x 224 mm x 208 mm); CS-154/U/304/U: 14.40" W x 9.06" H x 10.71" D (366 mm x 230 mm x 272 mm). Weight shall be CS-64/U: 3.31 lbs. (1.5 kg); CS-154/U: 6.17 lbs. (2.8 kg); CS-304/U: 6.83 lbs. (3.1 kg).

The wide-range paging speaker shall be the TOA CS-64/CS-64U/CS-154/CS-154U/CS-304/CS-304U.

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