



F Series

Wide Dispersion Ceiling Speakers



TOA F Series Ceiling Speakers are ideal for music and paging applications such as audio/visual, business music or retail sound systems.



Features:

- Superior Sound Quality
- Wide-Dispersion, Smooth Off-Axis Coverage
- Fast And Easy Installation
- UL-Listed And Compliant Models
- Built-In 25/70.7 V Multi-Tap Transformer
- Low Impedance Mode (8/16 Ohms)
- Convenient Power Tap Selector On Front Baffle

- Integral Metal Back-Can And Safety Cable
- Low-Profile, Paintable Grille
- Overload Protection Circuitry
- Mounting Hardware Included
- Competitive Pricing
- Individually Packaged
- Five Year Warranty

The lineup consists of six models with features and price points to suit premium-to-economy applications; all built with the same high quality and reliability the industry has come to expect from TOA products. Key benefits include smooth off-axis coverage, versatile range of models, ease of installation, and competitive pricing.

For premium wide-dispersion performance, the F-122C and F-122CU2 are 5" full-range processed ceiling speakers, UL1480/2043-Listed for Fire Protective, General Purpose Signaling and Air-Handling Spaces. Other full-range models include the F-2322C and F-2322CU2 with 5" full-range driver and the ultra-compact F-1522SC with 4" full-range driver.

Three two-way co-axial models include the F-2852C and F-2852CU2 with 6.5" cone driver, the F-2352C and F-2352CU2 with 5" cone driver and the

economy F-2352SC with 5" cone driver. Each model has a special diffusor with built-in dome tweeter for superior co-axial performance.

The F-122C, F-122CU2, F-2322C, F-2322CU2, F-2352C, F-2352CU2 and F-2852C, F-2852CU2 all include integral metal back-cans with safety cable, quick-mount hardware and removable Phoenix-style connectors with loop-through points for adjacent speakers. Built-in overload protection circuitry ensures outstanding reliability.

All six models include built-in multi-tap transformers with 8/16 ohm direct modes, front baffle power tap selection and double-locking, paintable grilles.

The F Series ceiling speakers are individually packaged and backed with a five year warranty.

The F-1522SC and F-2352SC works best in high-quality, wide-dispersion applications, where lower power (lower volume) is needed and where back-can is not required or where custom back-can will be used. Good option for lower budgets.

The F-2322C/CU2, F-2352C/CU2 and F-122CU/CU2 can be used where high-quality sound and widest dispersion is required (170°-180°). Moderate power rating for BGM. CU2 for plenum installation requirements. Models cover low-moderate budget range.

The F-2852C/CU2 is great in BGM/FGM applications where higher-power, longer distance (e.g.-high ceilings) and best sound-quality are main requirements. CU2 for plenum installation requirements. Moderate budget range.

F-122C & F-122CU2

Full-Range Processed Ceiling Speaker (5"), 30W

- 5" full-range driver
- Wide-dispersion: 180° (1-4k Hz avg.)
- Frequency Response: 70 to 20k Hz
- Sensitivity: 90 dB SPL (1 W, 1 m)
- Continuous Power Handling: 120 W, (30W @ 70V)
- Special diffuser provides wide off-axis high frequency response
- UL-Listed for Fire Protective, General Purpose Signaling and Air-Handling Spaces (UL1480 UUMW/UEAY, UL2043)Ported bass-reflex design
- Integral metal back-can and safety cable
- Removable terminal block with loop-through terminations
- Overload protection circuitry



F-2852C & F-2852CU2

Co-Axial Ceiling Speaker (6.5"), 60W

- Ideal for high ceiling applications
- Ported bass-reflex design
- Co-axial: 6.5" cone driver and dome tweeter
- Wide-dispersion: 120° conical (1-4k Hz avg.)
- Frequency Response: 60 to 20k Hz
- Sensitivity: 91 dB SPL (1 W, 1 m)
- Continuous Power Handling: 180 W (8 ohms)
- Special diffuser provides wide off-axis high frequency response
- Metal back-can and safety cable
- CU2 is UL Compliant for Air-Handling Spaces (UL2043)
- Removable terminal block with loop-through terminations
- Overload protection circuitry



F-2322C & F-2322CU2

Full-Range Ceiling Speaker (5"), 30W

- Ported bass-reflex design
- 5" full-range driver
- Frequency Response: 70 to 20k Hz
- Wide-dispersion: 170° conical (1-4k Hz avg.)
- Sensitivity: 90 dB SPL (1 W, 1 m)
- Continuous Power Handling: 120 W (8 ohms), (30W @ 70V)
- Metal back-can and safety cable
- CU2 is UL Compliant for Air-Handling Spaces (UL2043)
- Removable terminal block with loop-through terminations
- Overload protection circuitry



F-2352C & F-2352CU2

Co-Axial Ceiling Speaker (5"), 30W

- Ported bass-reflex design
- Co-axial: 5" cone driver and dome tweeter
- Wide-dispersion: 170° conical (1-4k Hz avg.)
- Frequency Response: 70 to 20k Hz
- Sensitivity: 90 dB SPL (1 W, 1 m)
- Continuous Power Handling: 120 W (8 ohms), (30W @ 70V)
- Special diffuser provides wide off-axis high frequency response
- Metal back-can and safety cable
- CU2 is UL Compliant for Air-Handling Spaces (UL2043)
- Removable terminal block with loop-through terminations
- Overload protection circuitry



F-2352SC

Low Power Co-Axial Ceiling Speaker (5"), 6W

- Co-axial: 5" cone driver and dome tweeter
- Wide-dispersion: 155° conical (1-4k Hz avg.)
- Frequency Response: 80 to 20k Hz
- Sensitivity: 89 dB SPL (1 W, 1 m)
- Continuous Power Handling: 18 W (8 ohms), (6W @ 70V)
- Special diffuser provides wide off-axis high frequency response
- Four pole push-terminal input connector
- Dust cover to protect components



F-1522SC

Compact Full-Range Ceiling Speaker (4"), 6W

- Ultra-compact – only 4.2" (106 mm) deep
- 4" full-range driver
- Wide-dispersion: 160° conical (1-4k Hz avg.)
- Frequency Response: 65 to 18k Hz
- Sensitivity: 88 dB SPL (1 W, 1 m)
- Continuous Power Handling: 18 W (6W @ 70V)
- Four pole push-terminal input connector
- Dust cover to protect components



Optional Accessories

Back Can
HY-BC1



Tile Rails
HY-TB1



Trim Ring
HY-TR1



Reinforcement Ring
HY-RR1



For F-1522SC

Reinforcement Ring
HY-RR2



For F-2352SC

Equalization for F-122C
(900 Series module)
E-03R



Model	F-2852C	F-2322C	F-2352C	F-122CU	F-2352SC	F-1522SC	
Type	Co-axial	Full-Range	Co-axial	Full-Range	Co-axial	Full-Range	
Enclosure	Bass-reflex type					--	
Rated Input (high impedance)	60 W	30 W	30 W	30 W	6 W	6 W	
Dispersion (1 to 4k Hz avg.)	120 degrees	170 degrees	170 degrees	180 degrees (hemispherical)	155 degrees	160 degrees	
Power Handling Capacity <i>Continuous Pink Noise:</i>	90 W (8 ohms) 60 W (16 ohms)	60 W (8 ohms) 30 W (16 ohms)			9 W (8 ohms) 6 W (16 ohms)		
<i>Continuous Program:</i>	180 W (8 ohms) 120 W (16 ohms)	120 W (8 ohms) 60 W (16 ohms)			18 W (8 ohms) 12 W (16 ohms)		
Impedance	70.7 V:	60 W (83 ohms) 30 W (170 ohms) 15 W (330 ohms) 7.5 W (670 ohms) 1.5 W (3.3k ohms)	30 W (170 ohms) 15 W (330 ohms) 5 W (1k ohms) 1.5 W (3.3k ohms) 0.5 W (10k ohms)		6 W (830 ohms) 3 W (1.7k ohms) 1.5 W (3.3k ohms) 0.5 W (10k ohms) 0.25 W (20k ohms)	6 W (830 ohms) 3 W (1.7k ohms) 1.5 W (3.3k ohms)	
	25 V:	7.5 W (83 ohms) 3.7 W (170 ohms) 1.9 W (330 ohms) 0.9 W (670 ohms) 0.2 W (3.3k ohms)	3.7 W (170 ohms) 1.9 W (330 ohms) 0.6 W (1k ohms) 0.2 W (3.3k ohms) 0.06 W (10k ohms)		0.75 W (830 ohms) 0.4 W (1.7k ohms) 0.2 W (3.3k ohms) 0.06 W (10k ohms) 0.03 W (20k ohms)	0.75 W (830 ohms) 0.4 W (1.7k ohms) 0.2 W (3.3k ohms)	
	100 V:	60 W (170 ohms) 30 W (330 ohms) 15 W (670 ohms) 3 W (3.3k ohms)	30 W (330 ohms) 10 W (1k ohms) 3 W (3.3k ohms) 1 W (10k ohms)		--	6 W (1.7k ohms) 3 W (3.3k ohms) 1 W (10k ohms) 0.5 W (20k ohms)	6 W (1.7k ohms) 3 W (3.3k ohms)
Low Impedance (adjustable)	8 and 16 ohm direct mode (transformer bypass)						
Sensitivity (1 W, 1 m)	91 dB SPL	90 dB SPL	90 dB SPL	90 dB SPL	89 dB SPL	88 dB SPL	
Frequency Response (1/2 space)	60 - 20k Hz (-10 dB) 45 - 20k Hz (-20 dB)	70 - 20k Hz (-10 dB) 50 - 20k Hz (-20 dB)			80 - 20k Hz (-10 dB) 50 - 20k Hz (-20 dB)	65 - 18k Hz (-10 dB) 45 - 20k Hz (-20 dB)	
Speaker Component	High Frequency	Dome-type	4.72" (12 cm) cone-type	Balanced dome-type	4.72" (12 cm) cone-type	Balanced dome-type	3.94" (10 cm) cone-type
	Low Frequency	6.3"(16 cm) cone-type		4.72"(12 cm) cone-type		4.72"(12 cm) cone-type	
Mounting Hole (maximum ceiling thickness 1.46"/ 37 mm)	9.84" (250 mm)	7.87" (200 mm)				5.31" (135 mm)	
Input Terminal	Removable locking connector (Phoenix-type) with screw-down terminals (2 input terminals and 2 bridge terminals)				Push-in connector (Bridging terminal-2 branch type)		
Usable Cable	Stranded / solid copper wire: AWG No. 24 - 14				Solid copper wire: AWG No. 20 - 15 Stranded copper wire: AWG No. 18 - 17		
Enclosure	Steel plate, plating						
Baffle	Fire-resistant ABS resin (resin material grade; UL-94 V-0 or equivalent), black						
Rim	Fire-resistant ABS resin (resin material grade; UL-94 V-0 or equivalent), white, paint						
Punched Net	Steel plate, white, paint						
Dust-proof Bag	--				Artificial fiber, black		
Dimensions (grille diameter x depth)	11.02"x 8.94" (280 x 227 mm)	9.06"x 7.87" (230 x 200 mm)	9.06"x 9.02" (230 x 229 mm)	9.06"x 9.02" (230 x 229 mm)	9.06"x 6.06" (230 x 154 mm)	6.10"x 4.61" (155 x 117 mm)	
Weight (including mounting accessories)	11.24 lbs (5.1 kg)	8.16 lbs (3.7 kg)	8.16 lbs (3.7 kg)	8.16 lbs (3.7 kg)	3.31 lbs (1.5 kg)	2.2 lbs (1 kg)	
Accessories	Grille/Panel, Ceiling Reinforcement Ring, Safety Wire, Cutout Paper Pattern				Grille/Panel, Cutout Paper Pattern		
Options							
Surface-Mount Back Can	--	HY-BC1	HY-BC1	HY-BC1	HY-BC1	--	
Tile Bar Bridge	HY-TB1	HY-TB1	HY-TB1	HY-TB1	HY-TB1	--	
Trim Ring	--	HY-TR1	HY-TR1	HY-TR1	HY-TR1	--	
Ceiling Reinforcement Ring	--	--	--	--	HY-RR2	HY-RR1	
Electronic Controller	--	--	--	E-03R	--	--	