The Extron SF 228T Plus is a two-way ceiling tile speaker with a coaxial driver that delivers the full frequency range and sonic performance of a standard freestanding speaker, in a design optimized for easy installation into suspended ceilings. It provides extended low frequency reproduction with deeper, more authoritative bass output than traditional ceiling speakers. The SF 228T Plus is designed for fast and easy installation into sound systems requiring high quality, wide bandwidth audio playback.
DESCRIPTION

The Extron SoundField® SF 228T Plus is a two-way ceiling tile speaker for low impedance and 70 volt/100 volt systems. This innovative design features a low profile, 2’ x 2’ (610 mm x 610 mm) by 5.41” (137 mm) deep enclosure that is UL 2043 plenum rated, weighs less than 20 pounds (9 kg), and drops directly into standard US style suspended ceilings, providing quicker installations. The two-way ported design includes an 8” (203 mm) woofer and a 1.1” (28 mm) silk dome tweeter in a coaxial configuration that provides a smooth frequency range of 47 Hz to 22 kHz for music and speech reproduction. The SF 228T Plus offers 90 watts continuous pink noise and 180 watts continuous program output. This speaker is sold in pairs and is designed for fast and easy installation into sound systems requiring high quality, wide bandwidth audio playback.

Exceptional Sonic Performance for Pro AV

The SF 228T Plus delivers full frequency range and exceptional sonic performance with an 8” coaxial two-way driver in a design optimized for easy installation into US style suspended ceilings. It provides an extended low frequency range with deeper bass output than typical ceiling speakers. This low frequency extension is achieved through a long-throw woofer mated to a tuned-port enclosure, plus a large transformer for distortion-free low frequency output.

The front panel design provides the rigidity and stiffness to minimize enclosure vibrations that would otherwise compromise sound quality. A lightweight housing is utilized to create an enclosure that balances acoustic performance with installation safety. The SF 228T Plus weighs less than 20 pounds (9 kg), allowing the speaker to meet ceiling-mounting codes without additional permits when installed in classrooms.

KEY FEATURES

- 2’ x 2’ (610 mm x 610 mm), 18.9 lb (8.6 kg) drop-in ceiling tile speaker designed for US-style suspended ceilings
- UL 2043 plenum rated enclosure
- High performance coaxial driver with 8” (203 mm) long-throw woofer and 1.1” (28 mm) silk dome tweeter
- Tuned bass reflex port for extended low frequency response
- Rigid front baffle reduces unwanted enclosure resonances
- Extron-exclusive enclosure weighs less than 20 pounds (9 kg)
- White perforated grille matches appearance of HVAC vents
- 8 ohm direct or 70/100 volt operation with selectable power taps
- Frequency range: 47 Hz to 22 kHz
- 90 watts continuous pink noise
- 180 watts continuous program
- 5.41” (137 mm) deep low profile enclosure for plenum environments
- UL 1480 listed for safety
- 5 year parts and labor warranty
- Designed and manufactured by Extron

Integrator-Friendly Features

Integrator-friendly features include an internal tap selector switch, cable/conduit access cover with secondary knockout, and splicing connectors that make it easy to connect speaker wires without tools.

The SF 228T Plus offers 70 volt or 100 volt operation and provides switch selectable power taps for 64, 32, 16, and 8 watts. The transformer can be bypassed for 8 ohm operation.

For easy installation, the SF 228T Plus drops into the same space as a standard 2’ x 2’ tile, and includes a T-bar for 2’ x 4’ ceilings. It also provides theft deterrence with a neutral white, perforated steel grille that matches the appearance of standard air conditioning vents and grid ceilings.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>AUDIO/ACOUSTIC AND ELECTRICAL</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Frequency range</td>
<td>47 Hz to 22 kHz, -10 dB, half space (per IEC 60268-5)</td>
</tr>
<tr>
<td>Frequency response</td>
<td>63 Hz to 12.5 kHz, +/- 3 dB, half space</td>
</tr>
<tr>
<td>Power capacity</td>
<td>90 W (rms) continuous pink noise (per IEC 60268-5)</td>
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<tr>
<td>Rated maximum input voltage (MIV)</td>
<td>104.9 dB, 1 m (based on MIV)</td>
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<tr>
<td>Nominal SPL</td>
<td>105.8 dB, 1 m (linear)</td>
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<tr>
<td>Nominal sensitivity</td>
<td>80 dB SPL, 1 W, 1 m, half space (per IEC 60268-5, 60 Hz to 20 kHz)</td>
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<tr>
<td>Nominal coverage angle</td>
<td>95° conical coverage (1 kHz to 4 kHz)</td>
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<tr>
<td>Nominal impedance</td>
<td>8 ohms per speaker</td>
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<tr>
<td>Crossover frequency</td>
<td>2.5 kHz</td>
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<tr>
<td>Drivers</td>
<td>(1) 8” (203 mm) polypropylene cone</td>
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<tr>
<td>(1) 1.1” (28 mm) silk dome</td>
<td></td>
</tr>
<tr>
<td>Input connectors</td>
<td>(2) splicing connectors, 3-pole, for 1 input and 1 loop-through</td>
</tr>
<tr>
<td>Tap settings</td>
<td>70 V input 64 W, 32 W, 16 W, 8 W, off, 8 ohms direct</td>
</tr>
<tr>
<td>100 V input</td>
<td>64 W, 32 W, 16 W, 8 W, off, 8 ohms direct</td>
</tr>
<tr>
<td>Overload protection</td>
<td>Full range power limiter protecting the tweeter, woofer and crossover</td>
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</tbody>
</table>

GENERAL

Package | 2 speakers (1 pair) |
Included accessories | Setup guide, (4) 3-pole splicing connectors, (2) 2-foot (610 mm) cross bars |
| Temperature/humidity | +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing |
| Mounting | Ceiling-mountable with included hardware |
| Enclosure outer dimensions | 5.41” H x 23.75” W x 23.75” L (137 mm H x 603 mm W x 603 mm L) |
| Product weight | 18.9 lbs (8.6 kg) each |

Regulatory compliance

Safety
- CE, UL 2043, CAN/ULC-S142:16, UL 1480A, NFPA 90A, NFPA 70
- UL Listed for use in plenum airspaces: UL 2043 and CAN/ULC-S142:16 listed for heat and smoke release, UL 1480A listed for commercial and professional audio systems
- RoHS, WEEE

Product warranty | 5 years parts and labor

Model | SF 228T Plus
Version Description | 8” Two-Way SoundField Ceiling Tile Speaker, Pair
Part number | 60-1862-03

For complete specifications, please go to www.extron.com
Specifications are subject to change without notice.
The SF 228T Plus features an exclusive ceiling tile speaker design for full-range sonic reproduction. The enclosure is specially engineered with a large volume chamber for extended bass response. The front baffle design minimizes enclosure vibrations and optimizes sound quality. A lightweight housing allows the SF 228T Plus to meet ceiling-mounting codes without additional permits. The SF 228T Plus delivers full-range sonic performance comparable to a freestanding speaker, with a form factor and essential features ideal for installation in suspended ceilings.

**FEATURES**

- **Low Profile Enclosure**
  Easily fits within restricted height environments

- **UL 2043 Rated Enclosure**
  Approved for installation within a plenum airspace

- **Tuned Bass Port**
  Tuned Bass Port Provides low frequency extension for high impact audio playback

- **2’ x 2’ Drop-in Ceiling Tile Speaker**
  Designed for use in US style suspended ceilings

- **8” Long Throw Woofer and 1.1” Silk Dome Tweeter**
  Ideal for powerful low frequencies and smooth high frequencies

- **White Perforated Grille**
  Matches most HVAC vents for a visually discreet appearance

**EASY TO INSTALL**

The SF 228T Plus is designed for quick and easy installation into standard US-style suspended tile ceilings. All that is necessary is to remove an existing ceiling tile, make the speaker wiring connections, and then place the SF 228T Plus onto the T-bar support grid. Multiple seismic tabs simplify speaker anchoring. The process requires minimal effort and time without the pre-installation procedures necessary for a typical round speaker, such as cutting holes through ceiling tiles and mounting supporting hardware.

If installing into a 2’ x 4’ ceiling, simply cut the existing ceiling tile to fill out the space adjacent to the speaker and the included T-bar. The end result is a clean and discreet speaker system that requires just minutes to install.

Installation in three easy steps: (1) Remove ceiling tile, (2) Make wiring connections, (3) Place speaker on grid and anchor with seismic tabs. For 2’ x 4’ ceilings, trim ceiling tile, to fit with provided T-bar.

The HVAC-style white grille allows the SF 228T Plus to blend into existing ceiling elements.
SF 228T Plus - RESPONSE GRAPHS - FREQUENCY AND IMPEDANCE

SPL VS. FREQUENCY – 1 WATT @ 1 METER RESPONSE, HALF SPACE (2π)

SPL VS. FREQUENCY – HORIZONTAL OFF-AXIS RESPONSE, HALF SPACE (2π)

IMPEDANCE VS. FREQUENCY