



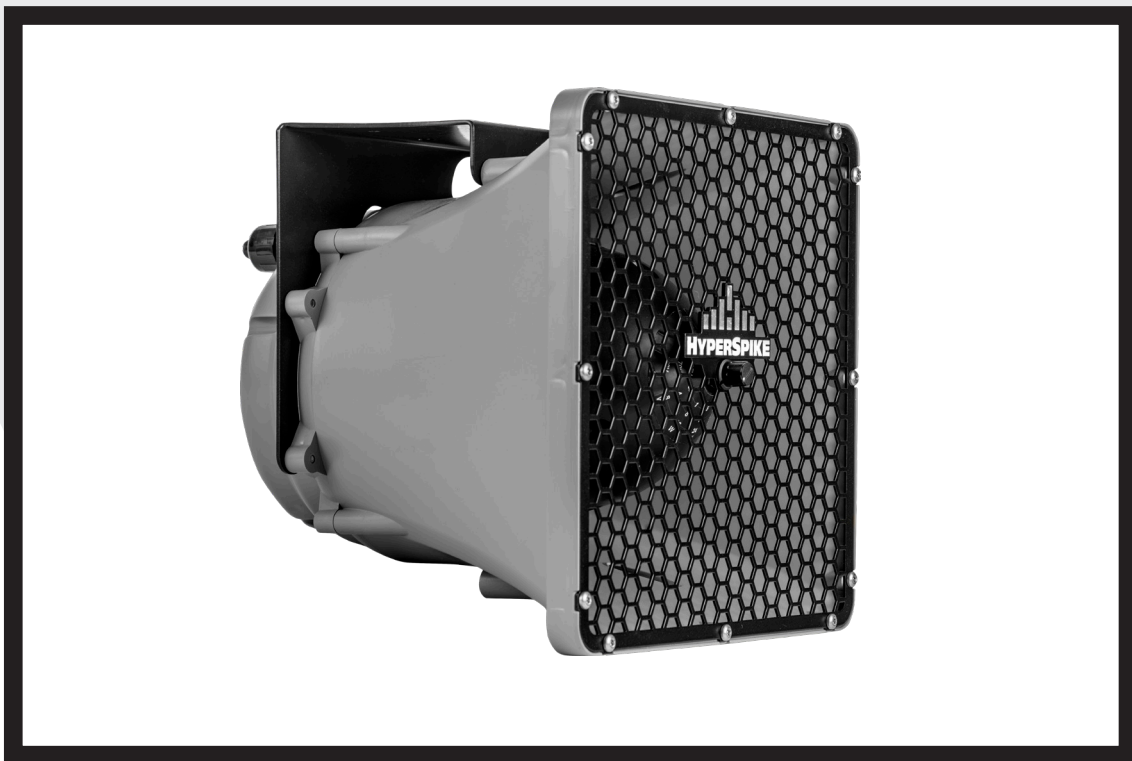
TCPA-10 Loudspeaker

UL1480-F

Class I, Division 2 (C1D2)

ULC S541/CSA C22.2 No. 205 & 213

CSFM 7320-2206:0501



Key Features

- Industry leading voice intelligibility (STI) PA = Excellent
- 139 dB Max SPL @ 1M
- Rated for Indoor or Outdoor Applications
- Universal Mounting Interface
- Built-in 25/70/100V transformer or 4/8 Ohm configurable
- Durable rugged construction
- Extremely efficient producing 129 dB SPL peak at 1M with 4W of power

 ultra-hyperspike

Overview

The HyperSpike® TCPA-10 is engineered to cut through high ambient indoor and outdoor environments with clear and authoritative audio signals and voice notification. The five power settings have been designed to interface with industry standard amplification, and 90° wide acoustic beam makes it an ideal notification tool for indoor and outdoor areas. POE/network addressable configurations are also available.

The optional dual mount system creates a 180° wide beam that is ideal for outdoor perimeter use. The TCPA-10 best-in-class acoustic coverage allows for fewer units to be installed in large indoor and outdoor areas, lowering installation and long-term maintenance costs while improving intelligibility and aesthetics.

Best-in-industry voice quality and intelligibility, combined with sharp and high impact tone capability, make it the right choice for ensuring messages are heard and understood.

Approved for public release
TCPA-10 SS Rev. F



Cut through the noise...

System Specifications

Certifications	UL1480-F Class I Division 2 (A, B, C and D) ULC S541/CSA 22.2 No. 205 & 213 CSFM 7320-2206:0501
Power Rating	Up to 90W continuous (4 ohm model)
Frequency Response	375Hz - 15kHz (nominal) 400Hz - 4kHz (general signaling)
Sensitivity	112dB @1W/1m (Avg 400Hz-4kHz)
Dispersion Angle	60° (-3dB), 90° (-6dB)
Weight	9lbs
Dimensions	10.1"H x 10.1"W x 11.3" D
Ingress Protection	Performs to NEMA 3R standards
Operating Temp	-40°C - 60°C
Humidity Range	0-75% non-condensing
Color	Black (01) Gray (04) Red (05) White (06)

Models/Part Numbers:

9021XA-80X-0X-L

CERTIFICATION

N/A - Not UL Certified
L - 1480 and CID2

COLOR CODE

01 - Black*
04 - Gray
05 - Red*
06 - White

CONFIGURATION

801- 8 ohm/Distributed Audio
802 - 4 ohm (90219A only)

PRODUCT

90215A - Distributed Audio (25/70/200V)
90219A - Direct Drive

*Recommended for outdoor applications

Accessories

72377B-801 Wall/Pole Mount Bracket
72378B-801 Dual Unit Mounting Adapter
72587B-801 4-Horn Mounting Kit

Architect & Engineering Specifications

Voice paging and tone signaling loudspeaker shall be Ultra Electronics Model _____ (see Model numbers above). Unit shall be UL1480-F Listed and Class I Division 2 certified, weather resistant and constructed of rugged 5VA rated, UV resistant ABS plastic. The loudspeaker shall be able to operate within any ambient temperature environment ranging from -40°C to 60°C. The speaker shall have a sensitivity of 112dB when measured at 1m (AVG 400-4,000Hz) and a beamwidth of 90° (-6dB at 1kHz). Model shall be a non-re-entrant compression loaded transducer with a 3" polyimide diaphragm and power handling of 45W continuous. The coil shall be a nominal 8 ohm impedance and ferro-fluid shall surround the coil to optimize heat dissipation. When applicable, transformer power settings shall be selectable and include 100V: 45W, 32W, 24W, 16W, 8W; 70V: 24W, 16W, 12W, 8W, 4W; 25V: 3W, 2W, 1.5W, 1W, 0.5W. Speaker shall contain in-line capacitor to allow DC supervision of wiring and be supplied with three feet of conduit with flying leads. Frequency response shall be 375Hz - 15kHz. Dimensions shall be 10.1"H x 10.1"W x 11.3"D.



Sound Output Ratings

Input Voltage	Watts/ Impedance	dB SPL (Peak @ 1m)	dB SPL (Max @1m)	*dB SPL (Reverb @ 10 ft)	Usable Range (Feet @ 80dB)
25	0.5	119	114	90	160
25	1	122	117	96	230
25	1.5	124	119	98	290
25	2	126	121	99	360
25	3	128	123	100	460
70	4	129	124	102	520
70/100	8	131	126	104	650
70	12	133	128	107	820
70/100	16	134	129	107	920
70/100	24	136	131	109	1160
100	32	137	132	110	1300
100	45	139	134	112	1640
22	8 Ohm	139	134	112	1640
22	4 Ohm	142	137	114	2320

* UL Standard SPL Measurement

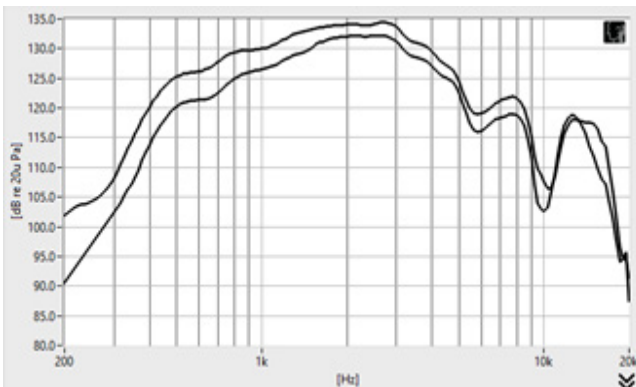
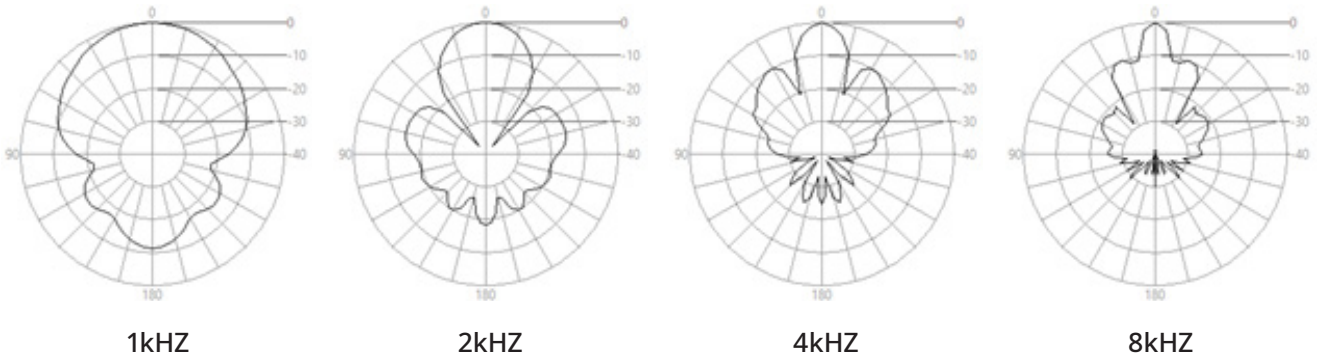
Tap	Impedance (Ω)	Watts @ 25V	Watts @ 70V	Watts @100V
1	1,250	0.5	4	8
2	625	1	8	16
3	416	1.5	12	24
4	312	2	16	32
5	208	3	24	45

(90215A) Distributed Audio Tone
dB SPL (Max RMS @ 1 meter)

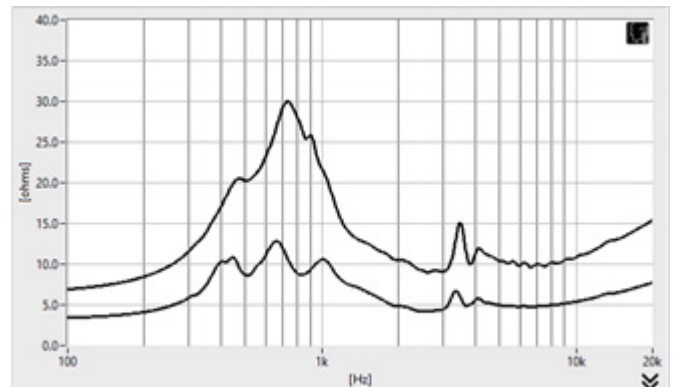
(90219A) Direct Drive Tone dB SPL
(Max RMS @ 1 meter)

Tone	25V	70V	100V	4 Ohm (-802)	8 Ohm (-801)
Temporal 3	119	128	131	134	131
Broadband Fast Siren	121	130	133	136	133
Slow Sweep Tone	122	131	134	137	134

Charts & Graphs

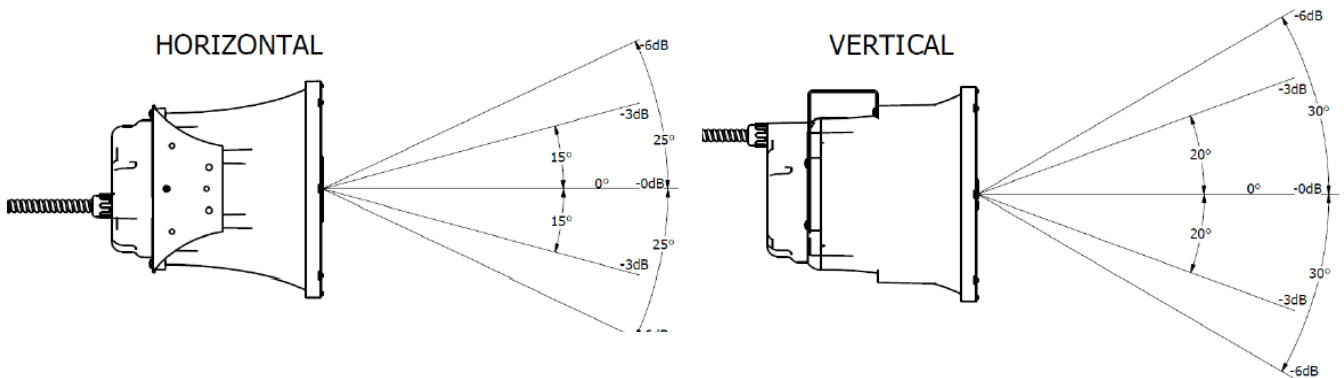


Frequency Response 4Ω and 8Ω @ 1M



Impedance 4Ω and 8Ω

Dispersion Characteristics at 3 meters as measured by UL Labs



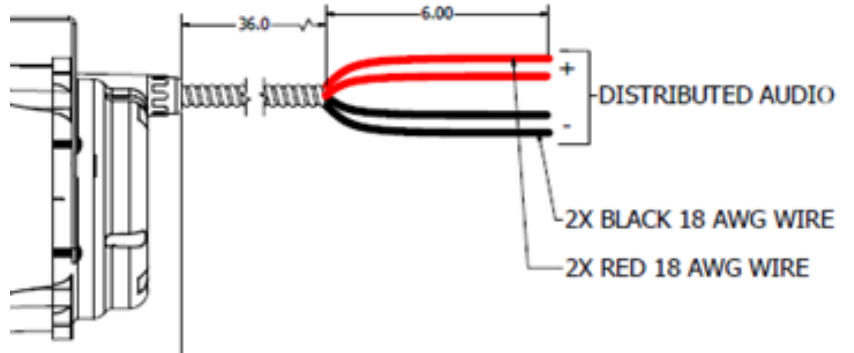


Installation

Wiring Reference

The TCPA-10 has a three-foot long ¼ Trade Size* flexible conduit with 18 AWG wires exiting the end. The power tap selection switch is located on the front of the unit.

* ¼ Trade Size Conduit has a nominal Ø.39" ID / Ø.57" OD



Distributed Audio Tap Interface



To set the power level, use a slotted screwdriver. Turn the selector switch clockwise to the stop. This is the .5/4/8 Watt setting.

To change to a higher setting, count clicks as you turn the switch counter-clockwise to 1/8/16 W, 1.5/12/24 W, 2/16/32 W or 3/24/45 W (see above).



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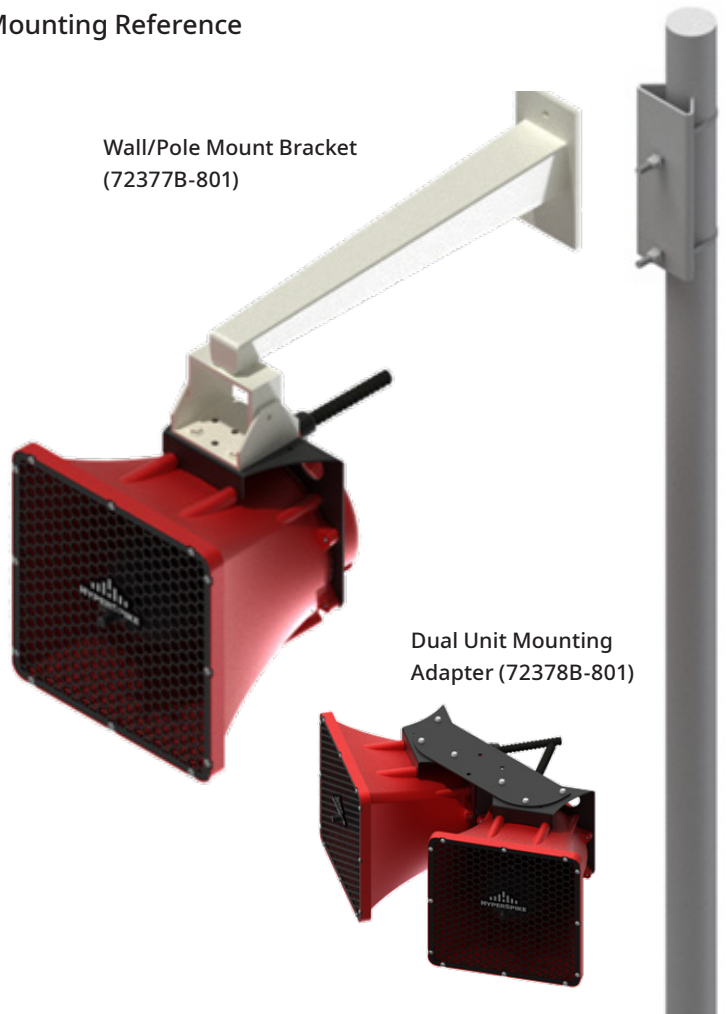
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Mounting Reference



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