TCPA-10

UL1480, Class I Division 2 Medium Power Speaker

Audio Signaling & Notification Speaker

Features:

- Industry Leading Voice Intelligibility (STI PA = Excellent)
- 139dB Max SPL @ 1 Meter
- Rated for Indoor or Outdoor Applications
- Universal Mounting Interface
- Built-In Transformer (25V, 70V, & 100V) or 4/8 Ohm Configurable
- Durable Environmental Resistant Construction

Specifications:

Certifications	UL1480, ULC, CSFM, Class I Division 2
Power Rating	Up to 90W continuous (4 ohm model)
Frequency Response	375Hz – 15kHz (nominal) 400Hz – 4kHz (general signaling)
Sensitivity	112dB @ 1W/1m (Avg 400-4,000Hz)
Dispersion Angle	60° (-3dB), 90° (-6dB)
Weight	9lbs
Dimensions	10.1”H x 10.1”W x 11.3” D
Temperature Range	-40°C - 60°C

Models:

90XXXA-80X-0X-L

CERTIFICATION:
N/A – Not certified
L – 1480 and Class I Division 2 certified

COLOR CODE:
01 – Black
04 – Gray
05 – Red
06 - White

CONFIGURATION:
-801 – 8 ohm
-802 – 4 ohm (90219A only)

PRODUCT:
90215A – Distributed Audio
90219A – Direct Drive

Description:

The HyperSpike® TCPA-10 is intended for indoor and outdoor audio signaling and notification. The five power settings have been designed to interface with industry standard amplification. Its 90° wide acoustic beam makes it an ideal notification tool for indoor and outdoor areas. The optional dual mount system creates a 180° wide beam that is ideal for outdoor perimeter use. Its 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 also improving intelligibility and esthetics. 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.

Accessories:

- 72377B-801 Wall Mount Bracket
- 72378B-801 Dual Unit Mounting Adapter
- 72379B-801 Pole Mount Adapter

Architect and Engineer Specifications:

Voice paging and tone signaling loudspeaker shall be Ultra Electronics Model _____ (see Model numbers above). Unit shall be UL1480 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	dB SPL (Peak @ 1m)	dB SPL (Max @ 1m)	* dB SPL (Reverb @ 10ft)	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	1,160
100	32	137	132	110	1,300
100	45	139	134	112	1,640

(90215A) Distributed Audio Tone dB SPL (Max RMS @ 1 meter)			
Tone	**25V**	**70V**	**100V**
Temporal 3	119	128	131
Broadband Fast Siren	121	130	133
Slow Sweep Tone	122	131	134

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

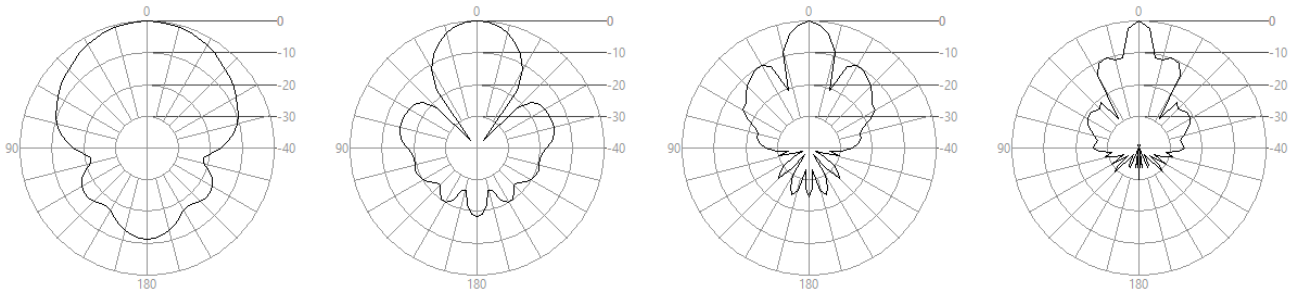
Input Voltage	Impedance	dB SPL (Peak @ 1m)	dB SPL (Max @ 1m)	* dB SPL (Reverb @ 10ft)	Usable Range (Feet @ 80dB)
22	8 Ohm	139	134	112	1,640
22	4 Ohm	142	137	114	2,320

(90219A) Direct Drive Tone dB SPL (Max RMS @ 1 meter)		
Tone	**4 Ohm (-802)**	**8 Ohm (-801)**
Temporal 3	134	131
Broadband Fast Siren	136	133
Slow Sweep Tone	137	134

* UL Standard SPL Measurement

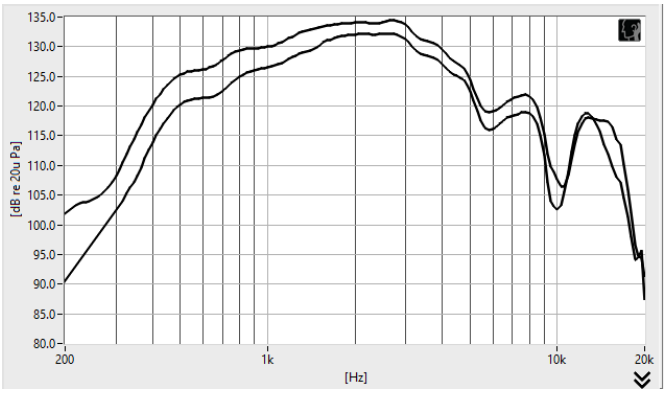
Environmental Specifications:

Ingress Protection	Performs to NEMA 3R standards
Operating Temperature	-40°C - 60°C
Humidity Range	0-75% non-condensing

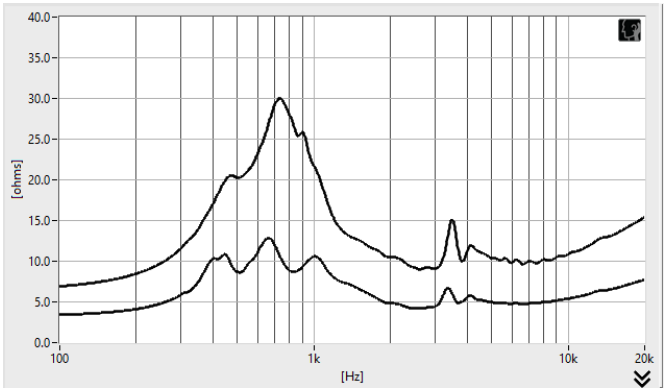


1kHz 2kHz 4kHz 8kHz

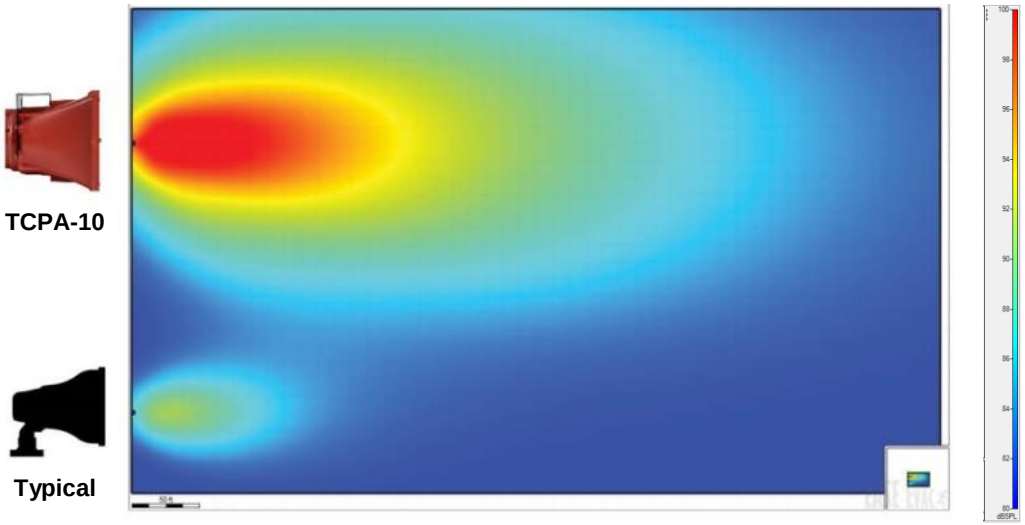
Polar Patterns



Frequency Response 4Ω and 8Ω @ 1M



Impedance 4Ω and 8Ω



TCPA-10

Typical

EASE Comparison Plot

Wiring Reference:

The TCPA-10 has a three-foot long ¼ Trade Size* flexible conduit with 20 AWG wires exiting the end. The power tap selection switch is located on the front of the unit (see Figure 2 in Interface and Mounting Reference).

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

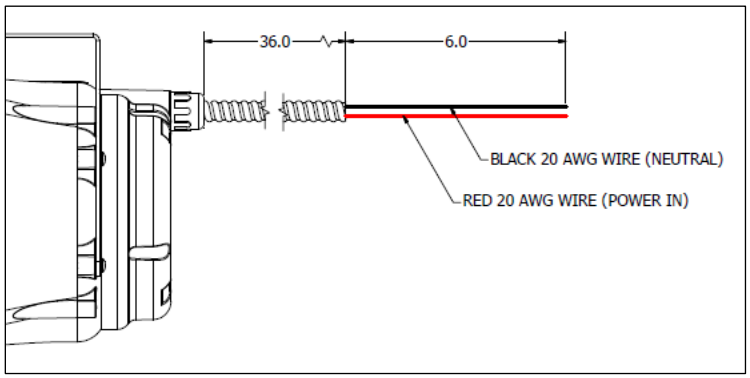


Figure 1

Interface and Mounting Reference:

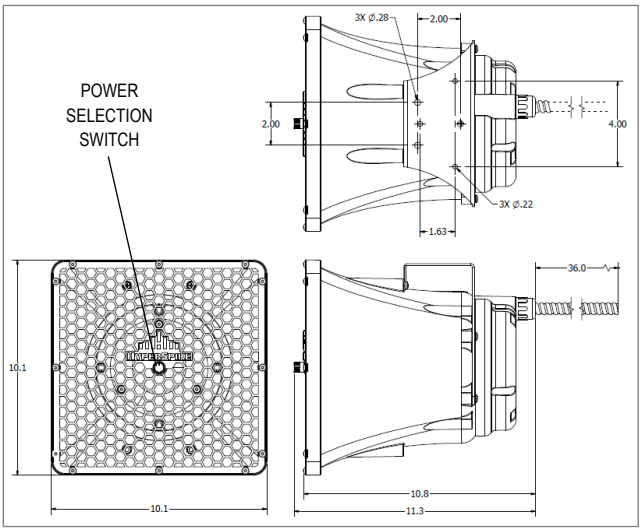


Figure 2

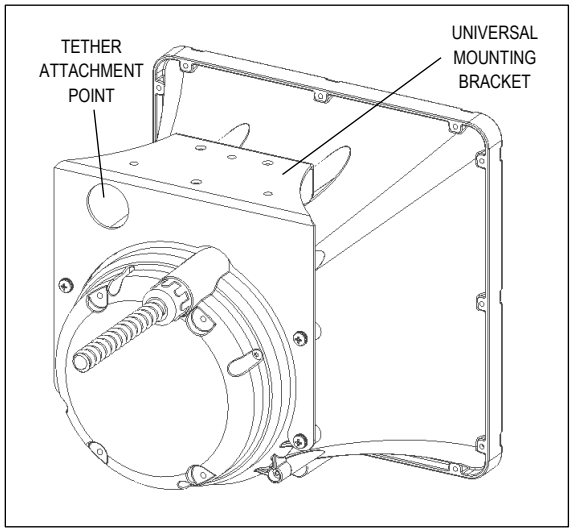


Figure 3

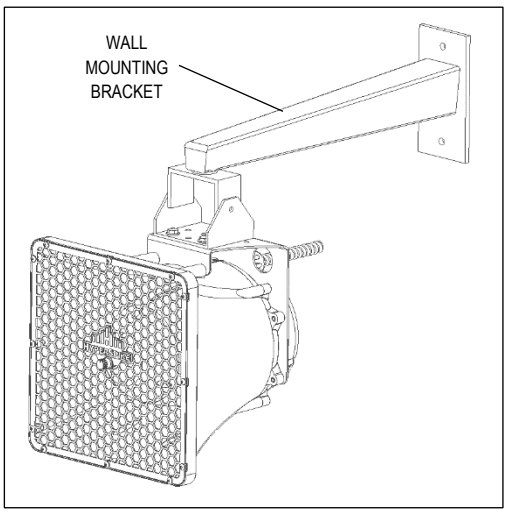


Figure 4
(single unit)

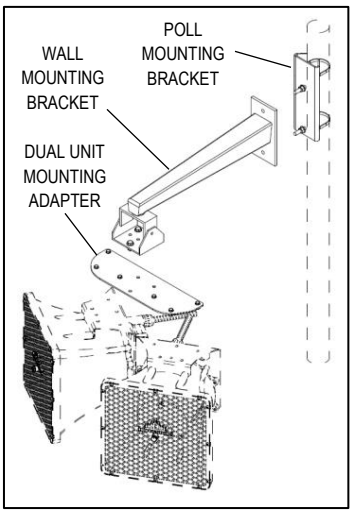


Figure 5
(double unit)