MK8100 Series

2-Way Full-Range Loudspeakers

MK8196z
- 90° x 60°

MK8126i
- 120° x 60°



- System includes an 8-in woofer and a 1-in exit/1.4-in voice coil compression driver on a CD horn
- Internal passive crossover/filter network allows powering by a single amp channel while smoothing power response
- Beamwidth optimized crossover points eliminate off-axis voids through crossover
- User-rotatable horn allows for "rotate the enclosure around the horn" option to mount vertically or horizontally

OVERVIEW

The MK8100 two-way loudspeaker system sets the standard in installation performance by solving the chronic problems of compact two-way loudspeakers. Yet it's size is actually smaller than many of the compact two-ways it outperforms. The HF horn loading the 1-in exit/35mm voice coil compression driver is larger than most traditional compact two-way horns. This extends pattern control lower into the midrange than would otherwise be possible and allows the horn's pattern to overlap the woofer's pattern in the critcal crossover area.

Advanced beamwidth matching crossover point selection transitions between the subsystems exactly where the HF horn's coverage pattern matches the woofer's pattern. This eliminates the beamwidth mismatch that creates off axis voids in the crossover area of traditional two-way systems. The internal passive crossover/filter network uses complex, asymmetrical slopes to integrate the subsystems and goes beyond merely dividing the signal to perform critical equalization functions.

TECHNOLOGIES

Beamwidth Matched Crossovers Introduced over a decade ago for our MK series loudspeakers, EAW Engineers use carefully-designed HF horns and crossovers to eliminate polar irregularities through the crossover point.

Focusing™ Use of advanced digital signal processing to perfect the impulse response of a loudspeaker in the time domain. Eliminating horn "honk" and splashiness, this makes the loudspeaker sound like a studio monitor instead of a "PA" speaker.

DynO™ Dynamic Optimization actively tracks input spectrum and power delivery, continually wicked maximizing output and fidelity at any drive level.

One Main Street | Whitinsville, MA 01588 | Tel 800 992 5013 / 508 234 6158 | www.eaw.com

EAW EASTERN ACOUSTIC WORKS

TECHNICAL SPECIFICATIONS

2-WAY FULL-RANGE LOUDSPEAKERS

PERFORMANCE	MK8196Z	MK8126I
Max SPL[1] (12 dB Crest Factor)	130 dB	
Max SPL[1] (6 dB Crest Factor)	124 dB	
Operating Range[2]	65Hz - 19kHz	
Nominal Beamwidth[3]	90° Horizontal x 60° Vertical	120° Horizontal x 60° Vertical
Nominal Phase	±15° from ideal high-pass filter	
Input Impedance	LF/HF=8Ω	
ACCELERATED LIFE TEST[4]		
LF/HF	49v	300W
CONFIGURATION		
LF Transducer, Loading	1 x 8in Cone, 2in Voice Coil, Vented	
HF Transducer, Loading	1 x 1in Exit, 1.4in Voice Coil Compression Driver, Horn Loaded	
Operating Modes	Passive	
PHYSICAL		
Dimensions (H×W×D)	19.75in H x 11.75in W x 11.03in D (501.7 mm H x 298.5mm W x 280.1mm D)	
Net Weight	30 lbs (13.6kg)	
Shipping Weight	36 lbs (16.3kg)	
Mounting Accessories	U-Bracket	
Input Connector	NL4 x 2, Barrier Strip	

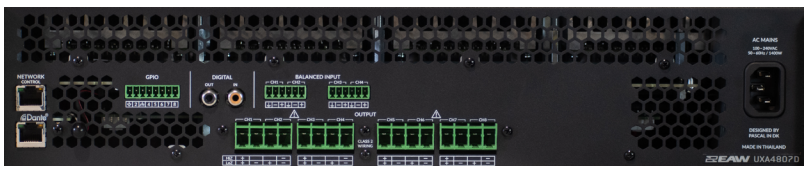
1 Calculated max SPL at 1m with 4:1 pink noise. Specified as whole space (free field) for full range loudspeakers, half space for subwoofers.
2 Operating Range: Range where the processed Frequency Response stays within -10 dB SPL of the power averaged SPL within this range; measured on the geometric axis. Narrow band dips are excepted.
3 Nominal Beamwidth: Design angle for the -6 dB SPL points, referenced to 0 dB SPL as the highest level.
4 Axial Sensitivity: Power averaged SPL over the Operating Range with an input voltage that would produce 1 W at the nominal impedance; measured with no external processing on the geometric axis, referenced to 1 m.

RECOMMENDED AMPLIFIER CONFIGURATION

MODEL	PER BRIDGED CHANNEL	PER AMPLIFIER
UXA4403	2	8
UXA4807D	2	16

It is strongly recommended to utilize processing settings to take full advantage of EAW loudspeakers. Pair with EAW UXA Amps for the best performance of EAW Technologies

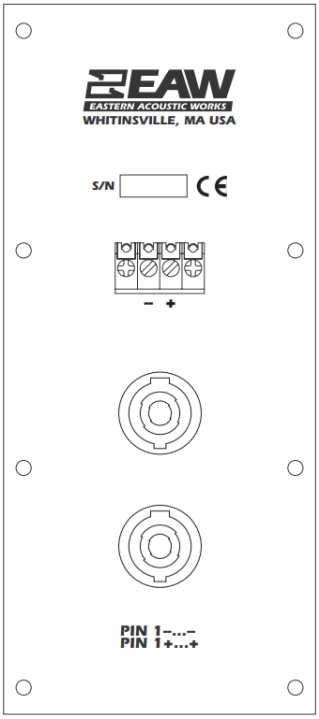




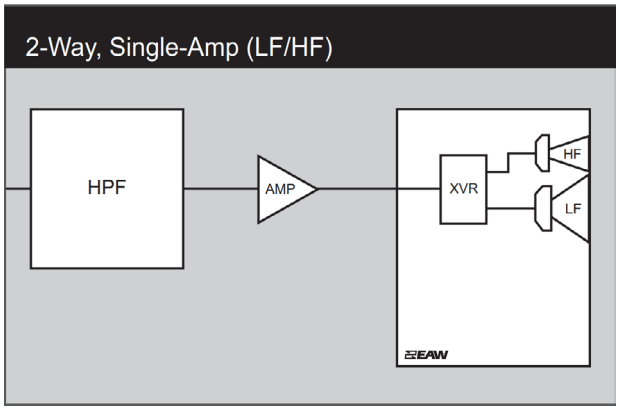
Third-Party DSP Support

- LEA
- QSYS
- Powersoft
- Lake

INPUT PANEL



SIGNAL DIAGRAM



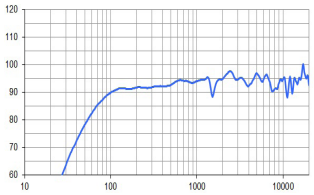
LEGEND

DSP: User-supplied Digital Signal Processor.
HPF: High Pass Filter for crossover or Recommended High Pass Filter.
LPF: Low Pass Filter for crossover.
LF/MF/HF: Low Frequency / Mid Frequency / High Frequency.
AMP: User-supplied Power Amplifier.
XVR: Passive LPFs, HPFs, and EQ integral to the loudspeaker.

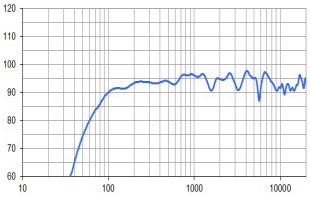
PERFORMANCE GRAPHS

Frequency Response (Unprocessed)

MK8196z

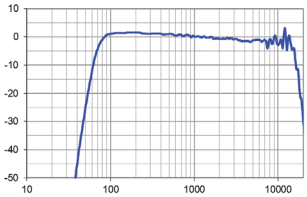


MK8126i

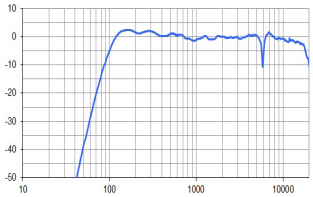


Frequency Response (Processed)

MK8196z

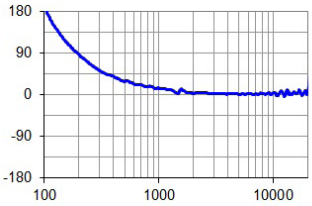


MK8126i

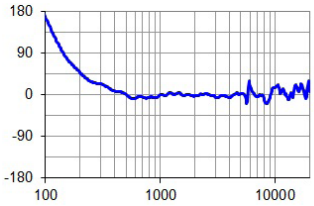


Phase Linearity

MK8196z

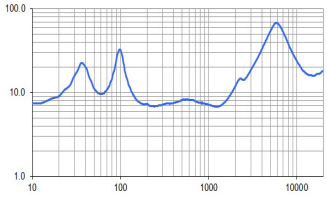


MK8126i

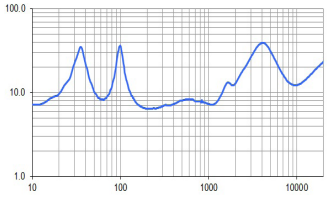


Impedance

MK8196z

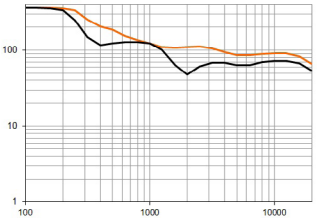


MK8126i

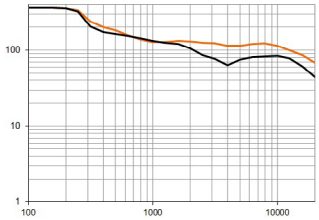


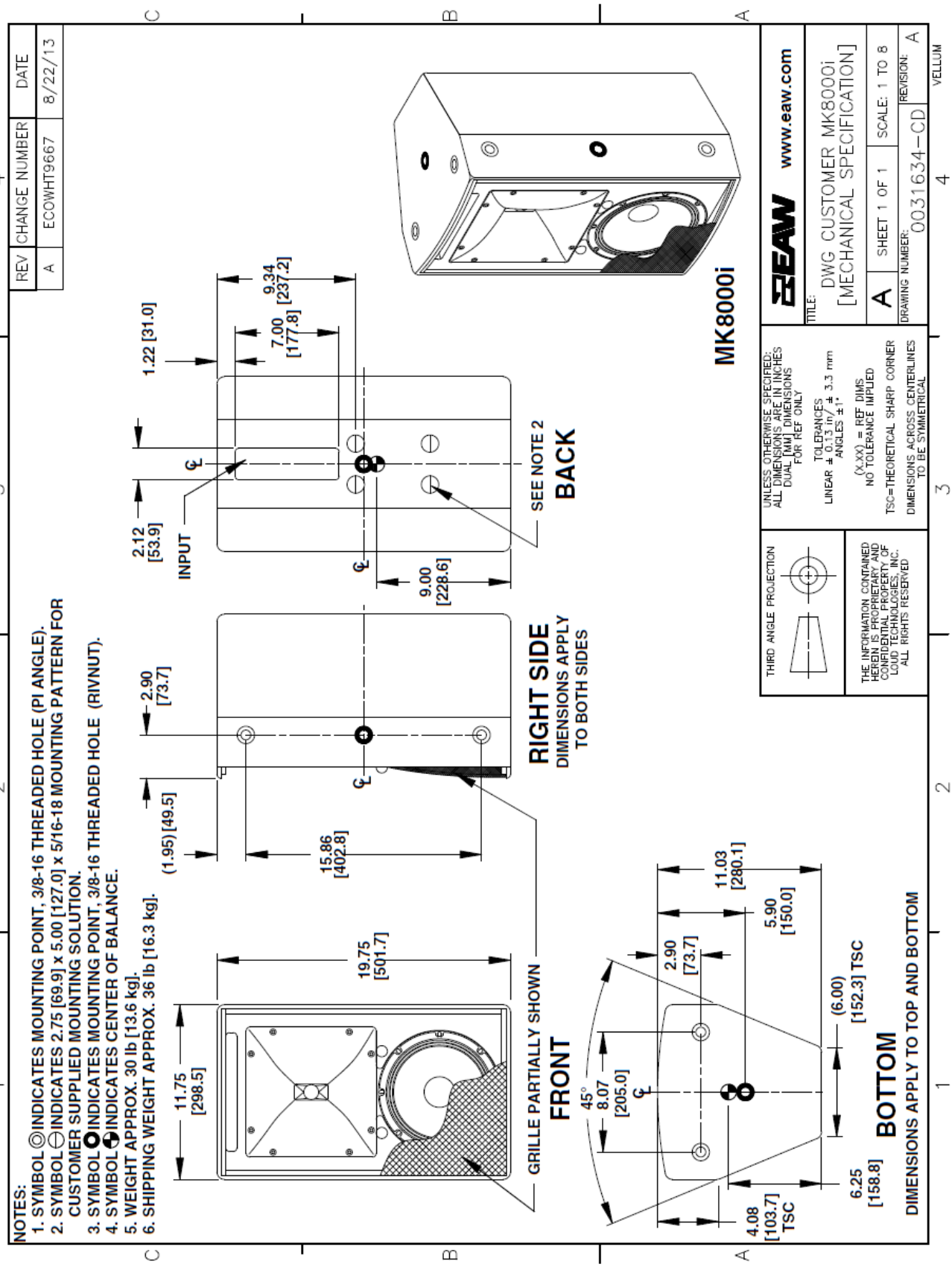
Beamwidth[1] ■=Vertical ■=Horizontal

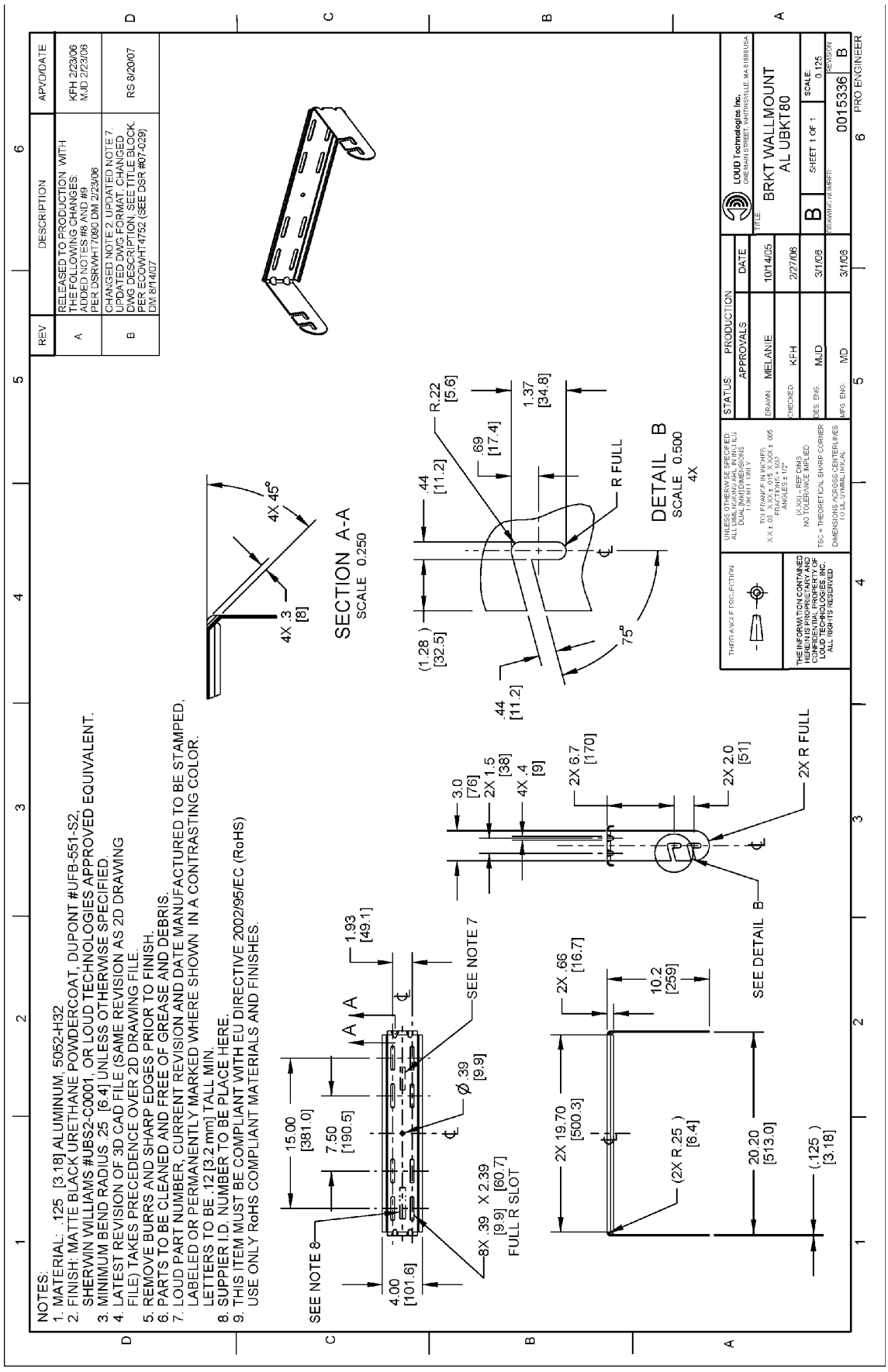
MK8196z



MK8126i




NOTES:
1. SYMBOL ◎ INDICATES MOUNTING POINT, 3/8-16 THREADED HOLE (PI ANGLE).
2. SYMBOL ⊖ INDICATES 2.75 [69.9] x 5.00 [127.0] x 5/16-18 MOUNTING PATTERN FOR CUSTOMER SUPPLIED MOUNTING SOLUTION.
3. SYMBOL ⊖ INDICATES MOUNTING POINT, 3/8-16 THREADED HOLE (RIVNUT).
4. SYMBOL ⊕ INDICATES CENTER OF BALANCE.
5. WEIGHT APPROX. 30 lb [13.6 kg].
6. SHIPPING WEIGHT APPROX. 36 lb [16.3 kg].
REV
CHANGE NUMBER
DATE
A
ECOWHT9667
8/22/13
MK8000i
SEE NOTE 2
BACK
INPUT
1.22 [31.0]
9.34 [237.2]
7.00 [177.8]
2.12 [53.9]
9.00 [228.6]
RIGHT SIDE
DIMENSIONS APPLY TO BOTH SIDES
2.90 [73.7]
(1.95) [49.5]
15.86 [402.8]
GRILLE PARTIALLY SHOWN
FRONT
19.75 [501.7]
11.75 [298.5]
BOTTOM
DIMENSIONS APPLY TO TOP AND BOTTOM
45°
8.07 [205.0]
11.03 [280.1]
5.90 [150.0]
(6.00) [152.3] TSC
6.25 [158.8]
4.08 [103.7] TSC
THIRD ANGLE PROJECTION
UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES
DUAL [MM] DIMENSIONS
FOR REF ONLY
TOLERANCES
LINEAR ± 0.13 in / ± 3.3 mm
ANGLES ± 1°
(X.XX) = REF DIMS
NO TOLERANCE IMPLIED
TSC=THEORETICAL SHARP CORNER
DIMENSIONS ACROSS CENTERLINES
TO BE SYMMETRICAL
THE INFORMATION CONTAINED HEREIN IS PROPRIETARY AND CONFIDENTIAL PROPERTY OF LOUD TECHNOLOGIES, INC.
ALL RIGHTS RESERVED
EAW
www.eaw.com
TITLE:
DWG CUSTOMER MK8000i
[MECHANICAL SPECIFICATION]
A
SHEET 1 OF 1
SCALE: 1 TO 8
DRAWING NUMBER:
0031634-CD
REVISION:
A
VELLUM


NOTES:
1. MATERIAL: .125 [3.18] ALUMINUM, 5052-H32
2. FINISH: MATTE BLACK URETHANE POWDERCOAT, DUPONT #UFB-551-S2, SHERWIN WILLIAMS #UBS2-C0001, OR LOUD TECHNOLOGIES APPROVED EQUIVALENT.
3. MINIMUM BEND RADIUS .25 [6.4] UNLESS OTHERWISE SPECIFIED.
4. LATEST REVISION OF 3D CAD FILE (SAME REVISION AS 2D DRAWING FILE) TAKES PRECEDENCE OVER 2D DRAWING FILE.
5. REMOVE BURRS AND SHARP EDGES PRIOR TO FINISH.
6. PARTS TO BE CLEANED AND FREE OF GREASE AND DEBRIS.
7. LOUD PART NUMBER, CURRENT REVISION AND DATE MANUFACTURED TO BE STAMPED, LABELED OR PERMANENTLY MARKED WHERE SHOWN IN A CONTRASTING COLOR. LETTERS TO BE .12 [3.2 mm] TALL MIN.
8. SUPPIER I.D. NUMBER TO BE PLACE HERE.
9. THIS ITEM MUST BE COMPLIANT WITH EU DIRECTIVE 2002/95/EC (RoHS) USE ONLY RoHS COMPLIANT MATERIALS AND FINISHES.
REV
DESCRIPTION
APVD/DATE
A
RELEASED TO PRODUCTION WITH THE FOLLOWING CHANGES: ADDED NOTES #8 AND #9 PER DSR/WHT7080 DM 2/23/06
KFH 2/23/06 MJD 2/23/06
B
CHANGED NOTE 2 UPDATED NOTE 7. UPDATED DWG FORMAT. CHANGED DWG DESCRIPTION. SEE TITLE BLOCK. PER ECO/WHT4752 (SEE DSR #07-029) DM 8/14/07
RS 8/20/07
SECTION A-A
SCALE 0.250
4X 45°
4X .3 [8]
DETAIL B
SCALE 0.500
4X
R.22 [5.6]
.69 [17.4]
1.37 [34.8]
.44 [11.2]
(1.28) [32.5]
R FULL
75°
SEE NOTE 8
15.00 [381.0]
7.50 [190.5]
4.00 [101.6]
1.93 [49.1]
SEE NOTE 7
Ø .39 [9.9]
8X .39 X 2.39 [9.9] [60.7] FULL R SLOT
3.0 [76]
2X 1.5 [38]
4X .4 [9]
2X 6.7 [170]
2X 2.0 [51]
2X R FULL
SEE DETAIL B
2X .66 [16.7]
10.2 [259]
2X 19.70 [500.3]
(2X R 25) [6.4]
20.20 [513.0]
(.125) [3.18]
THIRD ANGLE PROJECTION
UNLESS OTHERWISE SPECIFIED: ALL LINEAR DIMENSIONS ARE IN INCHES DUAL DIMENSIONS ARE IN MILLIMETERS TOLERANCES: FRACTIONS ± 1/32" X.X ± .03 X.XX ± .010 X.XXX ± .005 ANGLES ± 1/2°
(X.XXX – REF DIMS NO TOLERANCE IMPLIED)
TSC = THEORETICAL SHARP CORNER
DIMENSIONS ACROSS CENTERLINES HOLD SYMMETRICAL
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STATUS: PRODUCTION
APPROVALS
DATE
DRAWN: MELANIE 10/14/05
CHECKED: KFH 2/27/06
DES. ENG: MJD 3/1/06
MFG. ENG: MD 3/1/06
LOUD Technologies Inc.
DREYMAN STREET MARTINSVILLE, MA 01569 USA
TITLE:
BRKT WALLMOUNT AL UBKT80
SIZE: B
SHEET 1 OF 1
SCALE: 0.125
DRAWING NUMBER: 0015336
REVISION: B
6 PRO ENGINEER