FEATURES
- Two-way, constant curvature line array module
- Compact and light; a "one-person lift"
- Easy to mount, fly or ground stack
- Two-module, pole-mounted arrays or up to five modules flown
- Classic EAW output, pattern control and fidelity

DESCRIPTION
The JFL213 compact, two-way line array module features a range of EAW’s most innovative line array technologies within a mobile, light-weight package appropriate in a wide range of small- to medium-sized venues. With its companion subwoofer, the JFL118, this easy-to-use system solves problems in both portable and permanently installed applications.

The JFL213’s two-way design mounts dual 10-in cone transducers in an optimally vented enclosure and spaced to extend pattern control into the low frequency range. Three horn-loaded, 0.75-in exit / 1.75-in voice coil compression drivers deliver even dispersion of high frequency information over the entire 110° horizontal coverage area.

EAW engineers optimized the JFL213’s size, shape and weight for easy transport and setup by a single person, with side handles designed as part of the rigging system and aligned with the enclosure’s center of balance. Users can mount up to two JFL213s on a loudspeaker stand with a 35mm/1.38-in diameter pole. The cleverly-designed, dual-angle pole mount cup allows the bottom enclosure to be aimed 0° or -15°. (A two-module array with the lower modules aimed at -15° aims the upper module at 0°.) The JFL118 features an integrated pole mount cup, letting it serve as a large, stable base for pole mounting.

The JFL213’s ultra-strong rigging system allows users to hang up to five modules with a 10:1 safety factor, which meets or exceeds all standards enforced throughout the world. A single person can easily connect the modules to the accessory FB221 Fly Bar as well as to each other. The FB221 also doubles as a ground stack base for up to four JFL213s. For permanent installation, each JFL213 provides a pair of M10 threaded mounting points.

The JFL213 allows users to switch between single- or bi-amp powering modes. The JFL213 delivers optimal performance when operated in bi-amp mode with an EAW UX Series digital processor. In addition to the HF shading filters, UX Series digital processor deliver EAW Focusing™ setting, which correct for anomalies that occur in the time domain of any loudspeaker or transducer.

Enclosures are protected by our tough, scratch-resistant RoadCoat™ finish and durable, foam-backed steel grilles protect the transducers. Six year warranty.

### 2-WAY FULL-RANGE LOUDSPEAKER 110° × 15°

See NOTES TABULAR DATA for details

**CONFIGURATION**

<table>
<thead>
<tr>
<th>Subsystem:</th>
<th>Transducer</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>LF</td>
<td>2x 10 in cone</td>
<td>Vented</td>
</tr>
<tr>
<td>HF</td>
<td>3x .75 in exit, 1.75 in voice coil compression driver</td>
<td>Horn-loaded</td>
</tr>
</tbody>
</table>

**Operating Mode:**

<table>
<thead>
<tr>
<th>Amplifier Channels</th>
<th>External Signal Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-amp LF/HF</td>
<td>High pass filter</td>
</tr>
<tr>
<td>Bi-amp LF/HF</td>
<td>DSP w/2-way filters</td>
</tr>
</tbody>
</table>

**PERFORMANCE**

**Operating Range:** 65 Hz to 20 kHz

**Nominal Beamwidth:** (rotatable)
- Horz 110°
- Vert 15°

**Axial Sensitivity (whole space SPL):**
- LF/HF 95 dB 65 Hz to 20 kHz
- LF 96 dB 65 Hz to 1520 Hz
- HF 102 dB 1320 Hz to 20 kHz

**Input Impedance (ohms):**
- Nominal
  - LF/HF 8
  - LF 8
  - HF 8
- Minimum
  - LF/HF 6.4 @ 200 Hz
  - LF 6.5 @ 630 Hz
  - HF 11.9 @ 20 kHz

**High Pass Filter:** High Pass =>60 Hz, 12 dB/octave Butterworth

**Accelerated Life Test:**
- LF/HF 79.9 V 800 W @ 8 ohm
- LF 79.9 V 800 W @ 8 ohm
- HF 35.7 V 160 W @ 8 ohm

**Calculated Axial Output Limit (whole space SPL):**
- Average
  - LF/HF 124 dB 125 dB 130 dB
- Peak
  - LF/HF 161 dB 160 dB 160 dB

**ORDERING DATA**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAW JFL213 Black</td>
<td>2039885-90</td>
</tr>
</tbody>
</table>

**Optional Accessories**

| Eye Bolt Forged Shoulder M10 X 1.5 X 37mm | 0029818 |
| Flybar JFL & HDA Black [FB221]           | 2036411 |
**ENCLOSURE**

Material: Exterior-grade Baltic birch plywood  
Finish: Wear resistant textured black paint  
Grille: Powder-coated perforated steel

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**Notes:**
1. SYMBOL INDICATES MOUNTING POINT.  
2. SYMBOL INDICATES CENTER OF BALANCE.  
3. WEIGHT APPROX. 62 lb [28 kg].  
4. SHIPPING WEIGHT APPROX. 75 lb [34 kg].  

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**Material**  
Grille: Bilateral

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**View A-A**

**Front:**
- Input panel
- Pole mount cups
- 2x Stack pad routes

**Back:**
- 2x Handles, proprietary rigging system
- Center of balance

**Top:**
- 2x stack pad routes

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**Grille:**
- Partially shown

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**Dimensions:**
- [24.64 [631.0]]
- [11.37 [298.1]]
- [8.95 [227.3]]
- [9.73 [247.3]]
- [12.37 [314.2]]
- [15.64 [397.2]]
- [11.87 [301.5]]
- [11.37 [298.8]]
- [5.0 [128]]

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**View A-A:**

**Notes:**
- This drawing has been reduced. Do not scale.
PERFORMANCE DATA
See NOTES GRAPHIC DATA for details

Frequency Response: Processed
LF = green, HF = black, Complete = blue

Frequency Response: Unprocessed Single-amp
Single Box = green, Multi Box = orange, Long Throw = black

Frequency Response: Unprocessed
LF = green, HF = black, Complete = blue

Impedance
LF = green, HF = black, Complete = blue

Beamwidth
Horizontal = orange Vertical = black

Phase Linearity
Complete = blue
HORIZONTAL POLAR DATA
See NOTES GRAPHIC DATA for details
VERTICAL POLAR DATA
See NOTES GRAPHIC DATA for details
INPUT PANEL

LEGEND

LPF: Low Pass Filter for crossover.
LF/MF/HF: Low Frequency / Mid Frequency / High Frequency.
XVR: Low Pass Filter for crossover.
EAW Focusing: Digital Signal Processor capable of implementing EAW Focusing.

NOTES

TABULAR DATA
3. Measurements: Dual channel FFT; length: 32,768 samples; sample rate: 48 kHz; logarithmic sine wave sweep.
4. Measurement System Qualification (includes all uncertainties): SPL: accuracy +/-0.2 dB @ 1 kHz, precision +/-0.5 dB 20 Hz to 20 kHz, resolution 0.05 dB; Frequency: accuracy +/-1 %, precision +/-0.1 Hz, resolution the larger of 1.5 Hz or 1/48 octave; Time: accuracy +/-10.4 µs, precision +/-0.5 µs, resolution 10.4 µs; Angular: accuracy +/-1°, precision +/-0.5°, resolution 0.5°.
5. Environment: Measurements time-windowed and processed to eliminate room effects, approximating an anechoic environment. Data processed as anechoic or fractional space, as noted.
6. Measurement Distance: 7.46 m. Acoustic responses represent complex summation of the subsystems at 20 m. SPL is referenced to other distances using the Inverse Square Law.
7. Enclosure Orientation: For beamwidth and polar specifications, as shown in Mechanical Specification drawing.
8. Volts: Measured rms value of the test signal.
9. Watts: Per audio industry practice, “loudspeaker watts” are calculated as voltage squared divided by rated nominal impedance. Thus, these are not True Watt units of energy as defined by International Standard.
10. SPL: (Sound Pressure Level) Equivalent to the average level of a signal referenced to 0 dB SPL = 20 microPascals.
11. Subsystem: This lists the transducer(s) and their acoustic loading for each passband. Sub = Subwoofer, LF = Low Frequency, MF = Mid Frequency, HF = High Frequency.
13. Operating 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.
14. Nominal Beamwidth: Design angle for the -6 dB SPL points, referenced to 0 dB SPL as the highest level.
15. 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.
16. Nominal Impedance: Selected 4, 8, or 16 ohm resistance such that the minimum impedance point is no more than 20% below this resistance over the Operating Range.
17. Accelerated Life Test: Maximum test input voltage applied with an EIA-426B defined spectrum; measured with recommended signal processing and Recommended Protection Filter.
18. Calculated Axial Output Limit: Highest average and peak SPLs possible during the Accelerated Life Test. The Peak SPL represents the 2:1 (6 dB) crest factor of the Life Test signal.
19. High Pass Filter: This helps protect the loudspeaker from excessive input signal levels at frequencies below the Operating Range.

GRAPHIC DATA
1. Resolution: To remove insignificant fine details, 1/12 octave cepstral smoothing was applied to acoustic frequency responses and 1/3 octave cepstral smoothing was applied to the beamwidth and impedance data. Other graphs are plotted using raw data.
2. Frequency Responses: Variation in acoustic output level with frequency for a constant input signal. Processed: normalized to 0 dB SPL. Unprocessed inputs: 2 V (4 ohm nominal impedance), 2.83 V (8 ohm nominal impedance), or 4 V (16 ohm nominal impedance) referenced to a distance of 1 m.
3. Processor Response: The variation in output level with frequency for a constant input signal of 0.775 V = 0 dB reference.
4. Beamwidth: Average angle for each 1/13 octave frequency band where, starting from the rear of the loudspeaker, the output first reaches -6 dB SPL referenced to 0 dB SPL as the highest level. This method means the output may drop below -6 dB SPL within the beamwidth angle.
5. Impedance: Variation in impedance magnitude, in ohms, with frequency without regard to voltage/current phase. This means the impedance values may not be used to calculate True Watts (see 9 above).
6. Polar Data: Horizontal and vertical polar responses for each 1/3 octave frequency band 100 Hz to 16 kHz or Operating Range.

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EAW products are continually improved. All specifications are therefore subject to change without notice.