Pearl "LINEAR" Microphones

ELM - A in Alternative Pattern
ELM - B in Figure of Eight Pattern
ELM - C in Cardioid Pattern

Recommended for Stereo Recording

Line source loudspeakers are well known in professional audio: they give a good spread of sound laterally but have tightly controlled directivity in a vertical sense. The Pearl linear microphone capsule has some similar properties, though this is not its only advantage.
Conventional microphone capsules are round. It's an easy shape to make consistently, but it has one significant disadvantage in that its high degree of symmetry makes the primary resonance quite pronounced. Damping can reduce some of the ills caused by that resonance, but it is still there and most often well within the audio band.
The size of round capsules is also a problem. Large is good for signal/noise ratio, but leads not only to a lower (hence more noticeable) resonance but also to a more marked increase in directivity at high frequencies. Very small capsules suffer from a reduced signal/noise ratio.
Pearl has made rectangular capsules for many years now, but never before with such an extreme (7:1) length/width ratio. The new linear capsule has twice the surface area of large-diameter round capsules, giving excellent signal/noise ratio, but avoids their high levels of in-band resonance (the resonance due to end-to-end vibration modes is very weak). In addition, at high frequencies the small width dimension makes for very good uniformity of directional pattern in the lateral sense, while usefully attenuating reflections from floor and ceilings - high frequency signals from above and below the 'line of sight' are almost never of any use!
This means that Pearl's new microphone can deliver a very accurate, uniform and consistent response pattern, with very flat response, low noise and useful attenuation of 'nuisance' reflections. The result: exceptional sonic neutrality. The capsule is used in the new ELM models. The ELM-A has two separate outputs via 5 pin XLR connector. Both outputs deliver independent cardioids, one from each membrane of the dual membrane capsule, i.e. "Back to Back" output or 180 degrees stereo. Both sides can be used simultaneously or independent of each other. When the ELM-A is connected to two inputs at the console an omni, figure of 8, or cardioid pattern can be obtained by using pan pots and phase shift. The ELM –B and ELM-C are Figure of Eight and Cardioid patterns respectively.

Finished in black ED-lacquer.
The ELM is delivered in a protective aluminium case AC01.

Accessories:

Cable:	303 for ELM- B&C, 533 for ELM-A
Shockmount:	1927
Shockmount:	1928
Stereo Bar:	1215

Specification:

Polar pattern:	ELM-A	Omni, Cardioid, Fig. of Eight
Polar pattern:	ELM-B	Figure of Eight
Polar pattern:	ELM-C	Cardioid
Sensitivity:	ELM-A	22 mV/Pa
Sensitivity:	ELM-B	18 mV/Pa
Sensitivity:	ELM-C	22 mV/Pa
Frequency response:		20 Hz – 25kHz
Impedance:		100 ohms
Operating voltage:		48V
Rec. min.load imp.:		1K ohms
Current consumption	ELM-A	3,5 mA
Current consumption:	ELM-B	2,7 mA
Current consumption:	ELM-C	2,7 mA
Self Noise:	ELM-A	11 dBA
Self Noise:	ELM-B	12 dBA
Self Noise:	ELM-C	10 dBA
Max SPL:		126 dB
Connector:	ELM-A	5-pin XLR
Connector:	ELM-B&C	3-pin XLR
Dimensions:		∅ 32/28 x 192 mm
Weight:		305 grams

Stereo Bar 1215
With Shockmount and microphones

Shockmount 1928

Aluminium Case AC01

CE RoHS Compliant
Directive 2002/95/EC

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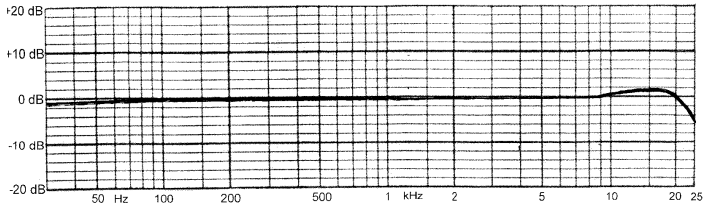
Omni Pattern



Cardioid Pattern

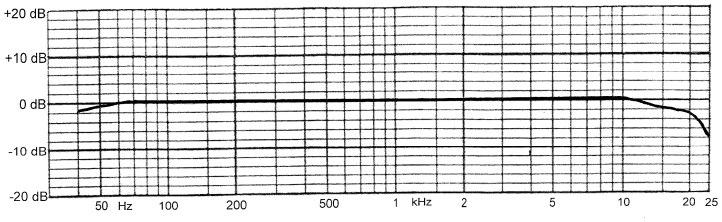
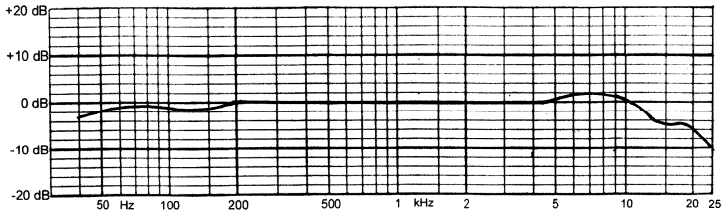
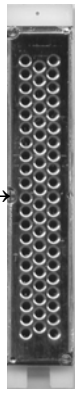


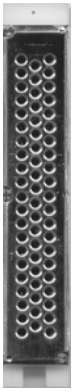
Figure of Eight Pattern

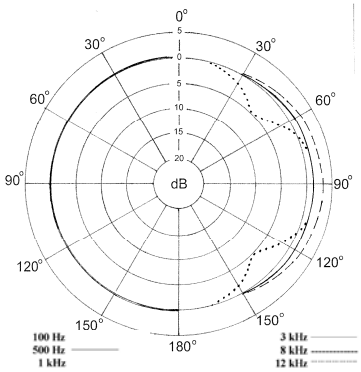


Horizontal

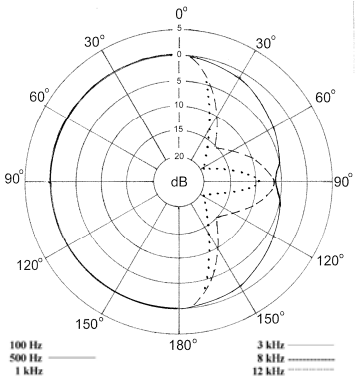
Vertical

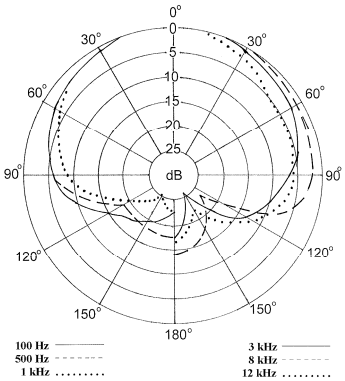




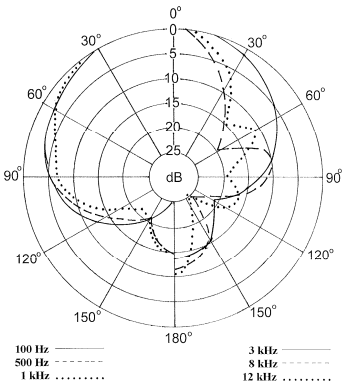


Omni





Cardioid



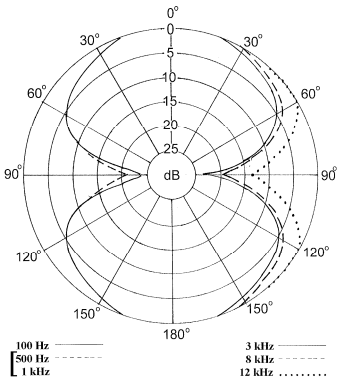


Figure of Eight