

## GAE WaveLine-LE

### 3-way active with Low Extension

#### **Low Extension 2x18" (BR series)**

Gain: 0,0dB (adjust)    Delay: 0,7ms (adjust)    Phase: +

HPF: 30Hz    Butterworth 18dB/oct. (3<sup>rd</sup> order)  
LPF: 90Hz    Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)

Band-EQ1:	38Hz	Q=4,0	B/W=0,36	Gain: 0,0... <b>2,0</b> ...+5,0dB (Bassboost)
				Director-Bass: 45Hz/+5,0dB
Band-EQ2:	182Hz	Q=5,0	B/W=0,29	Gain: -10,0dB
(Band-EQ3):	63Hz	Q=3,0	B/W=0,48	Gain: +2,0dB
(Band-EQ4):	80Hz	Q=3,0	B/W=0,48	Gain: -2,0dB

#### **LMF (10" speaker)**

Gain: 0,0dB    Delay: 0,72ms    Phase: +

HPF: 70Hz    Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)  
LPF: 560Hz    Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)

Band-EQ1:	100Hz	Q=1,5	B/W=0,95	Gain: +1,5dB
Band-EQ2:	225Hz	Q=4,5	B/W=0,32	Gain: -2,5dB
Band-EQ3:	400Hz	Q=4,0	B/W=0,36	Gain: -3,0dB
Band-EQ4:	540Hz	Q=4,0	B/W=0,36	Gain: +2,0dB
Band-EQ5:	1300Hz	Q=3,0	B/W=0,48	Gain: -12,5dB

#### **MHF (2" speaker)**

Gain: 0,0dB (adjust)    Delay: 0ms    Phase: +

HPF: 675Hz    Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)  
LPF: bypass

Band-EQ1:	900Hz	Q=5,5	B/W=0,26	Gain: -3,0dB
Band-EQ2:	1290Hz	Q=3,0	B/W=0,48	Gain: -2,5dB
Band-EQ3:	2550Hz	Q=1,3	B/W=1,08	Gain: -8,8dB
Band-EQ4:	12300Hz	Q=3,0	B/W=0,48	Gain: -2,5dB
Band-EQ5:	15000Hz	Q=0,6	B/W=2,19	Gain: +10,0dB

#### **Input EQs (Pre-EQs)**

PEQ1:	280Hz	Q=3,5	B/W=0,41	Gain: +1,2dB
PEQ2:	700Hz	Q=2,0	B/W=0,71	Gain: +2,0dB
PEQ3:	1880Hz	Q=4,0	B/W=0,36	Gain: <b>0,0</b> ...+3,0dB

## GAE WaveLine-FR

### 2-way active full-range

#### **LMF (10" speaker)**

Gain: 0,0dB      Delay: 0,72ms      Phase: +

HPF: 52Hz      Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)

LPF: 560Hz      Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)

Band-EQ1: 100Hz      Q=1,5      B/W=0,95      Gain: +1,5dB (adjust)

Band-EQ2: 225Hz      Q=4,5      B/W=0,32      Gain: -2,5dB

Band-EQ3: 400Hz      Q=4,0      B/W=0,36      Gain: -3,0dB

Band-EQ4: 540Hz      Q=4,0      B/W=0,36      Gain: +2,0dB

Band-EQ5: 1300Hz      Q=3,0      B/W=0,48      Gain: -12,5dB

#### **MHF (2" speaker)**

Gain: (adjust)      Delay: 0ms      Phase: +

HPF: 675Hz      Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)

LPF: bypass

Band-EQ1: 900Hz      Q=5,5      B/W=0,26      Gain: -3,0dB

Band-EQ2: 1290Hz      Q=3,0      B/W=0,48      Gain: -2,5dB

Band-EQ3: 2550Hz      Q=1,3      B/W=1,08      Gain: -8,8dB

Band-EQ4: 12300Hz      Q=3,0      B/W=0,48      Gain: -2,5dB

Band-EQ5: 15000Hz      Q=0,6      B/W=2,19      Gain: +10,0dB

#### **Input EQs (Pre-EQs)**

PEQ1: 70Hz      Q=3,0      B/W=0,48      Gain: **0,0**...+3,0dB (Bass-Boost)

PEQ2: 280Hz      Q=3,5      B/W=0,41      Gain: +1,2dB

PEQ3: 700Hz      Q=2,0      B/W=0,71      Gain: +2,0dB

PEQ4: 1880Hz      Q=4,0      B/W=0,36      Gain: **0,0**...+3,0dB

## WaveLine Bass

### WaveLine Bass Extention for Waveline Elements

#### **WaveLine Bass 18"**

Gain: adjust    Delay: adjust    Phase: +

HPF: 30Hz    Butterworth    18dB/oct. (3<sup>rd</sup> order)

LPF: 90Hz    Linkwitz/Riley    24dB/oct. (4<sup>th</sup> order)

Band-EQ1: 42Hz    Q=3,0    B/W=0,48    Gain: +3,0...+6,0dB (Bass boost)

#### **Top: WaveLine Elements**

Setup: Waveline LE

## GAE WaveLine-PT-LE (6 units)

### 3-way active with Low Extension

#### Low Extension (BR series)

Gain: adjust                      Delay: adjust                      Phase: +

HPF: 30Hz                      Butterworth 18dB/oct. (3<sup>rd</sup> order)

LPF: 90Hz                      Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)

EQ/Bassboost type specific

#### LMF (6,5" speaker)

Gain: 1,5dB                      Delay: 0,56ms                      Phase: +

HPF: 90Hz                      Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)

LPF: 749Hz                      Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)

Band-EQ1: 180Hz                      LoSHF 2<sup>nd</sup> (Q=0,7)                      Gain: +5,0dB

Band-EQ2: 354Hz                      Q=5,0                      B/W=0,29                      Gain: -3,0dB

Band-EQ3: 472Hz                      Q=2,8                      B/W=0,51                      Gain: -3,0dB

Band-EQ4: 1780Hz                      Q=2,7                      B/W=0,53                      Gain: -10,0dB

#### MHF (1,4" speaker)

Gain: -2,0dB (adjust)                      Delay: 0ms                      Phase: +

HPF: 1330Hz                      Butterworth 12dB/oct. (2<sup>nd</sup> order)

LPF: bypass

Band-EQ1: 433Hz                      Q=6,7                      B/W=0,22                      Gain: -4,0dB

Band-EQ2: 595Hz                      Q=5,0                      B/W=0,29                      Gain: -4,5dB

Band-EQ3: 2000Hz                      Q=1,8                      B/W=0,79                      Gain: -3,5dB

Band-EQ4: 4120Hz                      Q=3,6                      B/W=0,4                      Gain: -7,0dB

Band-EQ5: 11000Hz                      Q=5,0                      B/W=0,29                      Gain: +2,0dB

#### Input EQs (Pre-EQs)

PEQ1: 90Hz                      Q=3,0                      B/W=0,48                      Gain: **0,0**...-3,0dB (X-Over Reduction)

PEQ2: 1260Hz                      Q=5,3                      B/W=0,27                      Gain: -5,0dB (Mid Reduction)

PEQ3: 1470Hz                      Q=4,0                      B/W=0,36                      Gain: -2,0dB

PEQ4: 2060Hz                      Q=8,0                      B/W=0,18                      Gain: -3,0dB

PEQ5: 2750Hz                      Q=6,0                      B/W=0,24                      Gain: -3,5dB

PEQ6: 7340Hz                      Q=5,0                      B/W=0,29                      Gain: -3,5dB

PEQ7: 8450Hz                      HiSHF 2<sup>nd</sup> (Q=0,7)                      Gain: +3,0dB (High Boost)

## GAE WaveLine-PT-FR (6 units)

### 2-way active fullrange

#### **LMF (6,5" speaker)**

Gain: 1,5dB      Delay: 0,56ms      Phase: +

HPF: 70Hz      Butterworth 18dB/oct. (3<sup>rd</sup> order)  
LPF: 749Hz      Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)

Band-EQ1:	180Hz	LoSHF 2 <sup>nd</sup>	(Q=0,7)	Gain: +5,0dB
Band-EQ2:	354Hz	Q=5,0	B/W=0,29	Gain: -3,0dB
Band-EQ3:	472Hz	Q=2,8	B/W=0,51	Gain: -2,0dB
Band-EQ4:	1780Hz	Q=2,7	B/W=0,53	Gain: -10,0dB

#### **MHF (1,4" speaker)**

Gain: -2,0dB (adjust)      Delay: 0ms      Phase: +

HPF: 1330Hz      Butterworth 12dB/oct. (2<sup>nd</sup> order)  
LPF: bypass

Band-EQ1:	433Hz	Q=6,7	B/W=0,22	Gain: -4,0dB
Band-EQ2:	595Hz	Q=5,0	B/W=0,29	Gain: -4,5dB
Band-EQ3:	2000Hz	Q=1,8	B/W=0,79	Gain: -3,5dB
Band-EQ4:	4120Hz	Q=3,6	B/W=0,4	Gain: -7,0dB
Band-EQ5:	11000Hz	Q=5,0	B/W=0,29	Gain: +2,0dB

#### **Input EQs (Pre-EQs)**

PEQ1:	80Hz	Q=4,5	B/W=0,32	Gain: <b>0,0</b> ...+3,0dB (Bassboost)
PEQ2:	1260Hz	Q=5,3	B/W=0,27	Gain: -5,0dB (Mid Reduction)
PEQ3:	1470Hz	Q=4,0	B/W=0,36	Gain: -2,0dB
PEQ4:	2060Hz	Q=8,0	B/W=0,18	Gain: -3,0dB
PEQ5:	2750Hz	Q=6,0	B/W=0,24	Gain: -3,5dB
PEQ6:	7340Hz	Q=5,0	B/W=0,29	Gain: -3,5dB
PEQ7:	8480Hz	HiSHF 2 <sup>nd</sup>	(Q=0,7)	Gain: +3,0dB (High Boost)

## GAE WaveLine-Pack-LE

### 3-way active with Low Extension

#### Low Extension (BR series)

Gain: adjust                      Delay: adjust                      Phase: +

HPF: 30Hz              Butterworth 18dB/oct. (3<sup>rd</sup> order)

LPF: 90Hz              Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)

EQ/Bassboost type specific

#### LMF (6,5" speaker)

Gain: 0,0dB                      Delay: 0,62ms                      Phase: +

HPF: 100Hz              Butterworth 18dB/oct. (3<sup>rd</sup> order)

LPF: 750Hz              Linkwitz/Riley 24dB/oct. (4<sup>th</sup> order)

Band-EQ1: 150Hz              LoSHF 2<sup>nd</sup> (Q=0,7)              Gain: +5,0dB

Band-EQ2: 345Hz              Q=5,0              B/W=0,29              Gain: -2,5dB

Band-EQ3: 972Hz              Q=6,0              B/W=0,24              Gain: -6,0dB

Band-EQ4: 1500Hz              Q=4,0              B/W=0,36              Gain: -10,0dB

#### MHF (1,4" speaker)

Gain: 0,0dB (adjust)              Delay: 0ms                      Phase: +

HPF: 1460Hz              Butterworth 12dB/oct. (2<sup>nd</sup> order)

LPF: bypass

Band-EQ1: 1410Hz              Q=2,2              B/W=0,65              Gain: -6,5dB

Band-EQ2: 1940Hz              Q=8,0              B/W=0,18              Gain: -4,5dB

Band-EQ3: 3890Hz              Q=3,0              B/W=0,48              Gain: -8,0dB

Band-EQ4: 6920Hz              Q=10,0              B/W=0,14              Gain: -2,5dB

Band-EQ5: 14300Hz              Q=6,0              B/W=0,24              Gain: +6,0dB

#### Input EQs (Pre-EQs)

PEQ1: 90Hz              Q=3,0              B/W=0,48              Gain: **0,0**...-3,0dB (X-Over Reduction)

PEQ2: 1220Hz              Q=2,0              B/W=0,71              Gain: -3,0dB

PEQ3: 3000Hz              Q=4,0              B/W=0,36              Gain: -1,5dB

PEQ4: 4490Hz              HiSHF 2<sup>nd</sup> (Q=0,7)              Gain: +2,5dB

PEQ5: 4760Hz              Q=3,0              B/W=0,48              Gain: -3,0dB

PEQ6: 10100Hz              Q=5,0              B/W=0,29              Gain: -3,0dB