

Expander/Gate/Ducker Module Model 9621

The Model 9621 Expander/Gate/Ducker module represents the absolute latest technological advances in expander design. Like its predecessor, (Model 9611), the Model 9621 delivers true expansion, as well as a degree of user-adjustability that permits unparalleled Gating and Ducking action. However, a significant improvement in this model over its predecessor is the addition of **Logic Assisted Gate™** circuitry. This newly developed patented control system, combines sophisticated level detection with logic generated control voltage; assuring positive, stable and accurate triggering, irrespective of Attack time.

The Model 9621 also features switchable Parametric Key Input Filters that permit user shaping of the key signal through selectable frequency and variable bandwidth controls. A convenient front panel headphone jack has been added to allow monitoring of the Key Input without disruption of audio output.

Best of all, the Model 9621 continues in the Aphex tradition of providing transparent performance to achieve the highest possible sound quality of your system. Employing the Aphex VCA 1001 guarantees significantly lower distortion than any other VCA, while delivering superb transient response, stability, and low noise.

Features And Benefits

- Logic Assisted Gate Circuitry Proprietary control circuitry eliminates potential noise (chattering or clicking), irrespective of Attack speed
- Front Panel Accessible Key Monitor Headphone Jack Allows monitoring of the Key Signal without disruption of audio output
- Parametric Key Input Filters A semi-parametric filter section allows greater Key Input application flexibility by making it possible to select and adjust both center frequency (from 30Hz to 12kHz) and bandwidth (from 1.7 to 9.2 octaves) at a slope rate of 24 dB per octave
- "Straight Wire" Sound Quality Highest grade componetry and intelligent circuit design assure highest possible audio quality with absolutely no degradation of the source signal
- Instantaneous Attack (10μ/SEC) Follows any input waveform with no loss of leading edge
- Slaving Option Allows one Model 9621 to be controlled by another as a Slave unit
- · External Key Input
- Unparalleled Distortion Specifications < 0.002% Typical
- 100 dB of Attenuation Range
- Excellent Circuit Stability Assures accurate settings by preventing "wandering"
- · Electronically Servo-Balance Inputs and Outputs
- Employs the proven Aphex VCA1001
- Compatible with both the Aphex model 9000 Rack and the dbx 900 Series Rack



Applications

- Controlling Microphone Leakage in the Recording Studio and in 'Live' Sound Reinforcement Applications
- Adding Dynamics to Existing Program Material and Dull Recordings
- "Ducking" Programs for Voice-Overs and Automatic Level Changes (Paging, Conference Room Mic Precedence, etc.)
- Keying External Sounds to Modify Dynamics of Primary Program Material
- Reshaping Sampled Sound Envelopes
- · Creating Special Dynamic Effects

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NOMINAL OPERATING LEVEL				
(User Selectable On PCB)	+4dBu		-10dB	V
INPUT				
Type:	Transformerless, RF-filter	ed, differential servo	-balanced	
Input Impedance:	22k Ω balanced, 11k Ω unbalanced		same	
Nominal Operating Level:	+4dBu		-10dB	V (-7.8dBu)
Maximum Input Level:	+27dBu		+13dE	8V (+15.2dBu)
CMRR:	Greater than 56dB 20Hz to 10kHz		same	
SIDECHAIN				
Gain Reduction Element:	Aphex VCA 1001			
Key Input Impedance:	50k $Ω$, unbalanced			
Key Output Impedance:	150 Ω , unbalanced			
Maximum Key Level:	+21dBu			
ОИТРИТ				
Type:	Transformerless, RF-filtered, differential servo-balanced			
Output Impedance:	65Ω balanced/unbalanced		same	
Maximum Output Level: balanced	+27dBu			8V (+15.2dBu
unbalanced	+21dBu			/ (+11.2dBu)
Dynamic Range:	121dB		112dE	3
Bandwidth:	±0.65dB from 5Hz to 65kHz		same	
Hum and Noise @ Unity Gain:	-87dBu		-94dB	
Hum and Noise, fully off:	-94dBu		-97dB	u
Crosstalk @ 20kHz:	-96dBu		same	
THD @ +27dBu:	0.009%		same	
THD @ +4dBu:	0.003%		same	
IMD (SMPTE) @ +27dBu:	0.007%		same	
Key Listen Nominal Level (+4dBu In):	+8dBm (6.3mW into 600Ω headphones)		n/a	
Key Listen Impedance	49.9Ω		n/a	
CONTROLS				
Threshold:	-50 dBu to +20 dBu			
Attack Time:	10μS to 100μS			
Hold:	10μS to 4 seconds			
Release:	40μS to 4 seconds			
Ratio:	1.2:1 to 10:1			
Range:	0 to 100dB			
Frequency:	30Hz to 12kHz 1.7 to 9.2 octaves with 24dB per octave slopes			
Bandwidth:	1.7 to 9.2 octaves with 24	dB per octave slope	S	
FUNCTION SWITCHES			5 .	F
	Filter IN/OUT IN/OUT (Out is Bypass)	External Key Key Listen	Duck Master/Slave Lin	Expand k
OTHER SPECIFICATIONS	"THOO! (Out to Dypuss)	,		
	±15 Volts DC			
Power Requirements:	140mA			
Power consumption (maximum): Dimensions:	Front Panel: 5.25" H x 1.5" W			
Differisions.	Circuit Board: 4.5" H x 9.5" D (10.65" D inc. front panel & knobs)			
Shipping Weight:	1 lb.	5 E (10.00 E mor m	o pa,	
Net Weight:	< 2 lb.			
REQUIRED HARDWARE (purchase sepa				
	9000R Modular System F	lack required per 11	modules (3 RH)	
Module Termination/Frame:	9000R Modular System R			
Power Supply:	9000PS for module comb			
	9007PS same as 9000PS	, with dox 300 defles	module capacity	



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