

DFH-Series A

High Speed DC Coupled DLVA's 0.5 - 18 GHz

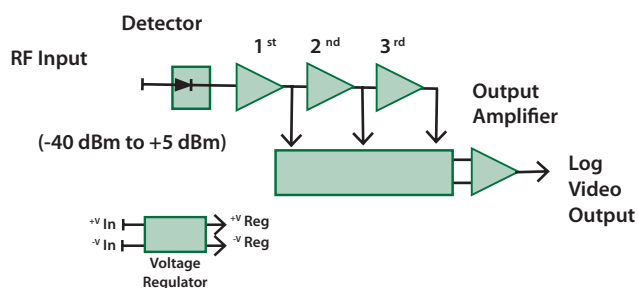
Small Size

Low Profile

Process Narrow Pulses

Handles High Duty Factors

Detect Low Level Signals in Dense Environments



DESCRIPTION The Microphase High Speed DC Coupled DLVA DFH Series A serve an essential function in modern radar and electronic warfare systems, This logarithmic amplifier compresses a much larger input dynamic range into a small output dynamic range. The most common application within radar and EW systems are direction finding and power monitoring.

ADVANTAGES The Microphase designed and engineered DFH-Series A DLVA's have the ability to process narrow pulses, handle high duty factors and detect low-level signals in dense environments. They provide precision accuracy, excellent electrical performance, environmental stability and mechanical reliability. Very compact and rugged, all of our products are 100% tested, and readily available.

AVAILABLE OPTIONS

- Input offset option available to counteract detector RF noise rectification
- Linear output option available (sensitivity: 7.5 mV/ μ watt nom.)

SPECIFICATIONS

Model	DFH2540 A	DFH3112 A	DFH3818 A	DFH3218 A
Frequency Range	0.5 - 4.0 GHz	1.0 - 12.0 GHz	8.0 - 18.0 GHz	2.0 - 18.0 GHz
Flatness (dB) nom. @ -23 dBm	± 0.4	± 1.0	± 0.7	± 1.0
Tangential Signal Sensitivity (TSS)	-44	-43	-42	-42
Log Slope ²	50 mV/dB			
Log Linearity (0 to -40 dBm)	± 0.3 dB			
Output Level Stability (-54°C to +85°C)	± 0.75 dB			
Rise Time @ TSS + 10 dB	20 nsec. max.			
Recovery Time (to within ± 1 dB of baseline)	250 nsec. max.			
Video Load	100 Ohms			
Power	+15V 65 mA no signal 95 mA max. CW -15V 60 mA no signal 60 mA max. CW			
Size (excluding connectors)	2.17" x 2.00" x 0.40"			
Connectors	SMA and Pins			

1. Other frequency ranges available
2. 100 mV/dB optional (maximum Rise Time 25 ns)



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Detector Log Video Amplifiers

These units can be designed to your specification. Please contact Microphase for your special design requirements.

DFH-Series M

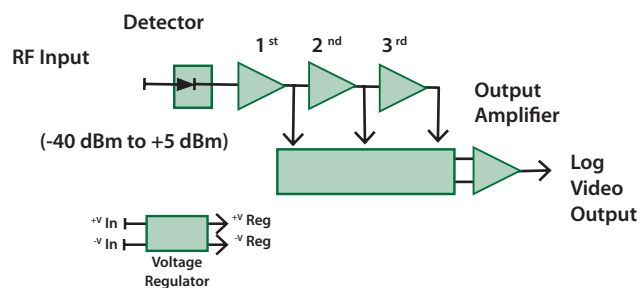
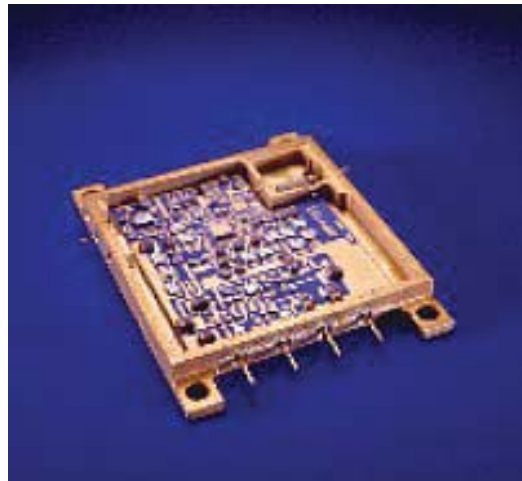
Miniature Detector Logarithmic Video Amplifier

- Excellent High-Speed and Electrical Performance
- Superior Performance
- Precision Accuracy
- Very Compact

Process Narrow Pulses

DESCRIPTION The DFH-Series M Miniature Detector Logarithmic Video Amplifier (DLVA) provides excellent sensitivity and wide dynamic range. Demodulates transmitted data and compresses it such that this output voltage increases in linear increments with respect to RF input power. This device is the result of the integration and hybridization of various technologies that yield a high performance device in a very small size.

ADVANTAGES The advantage of a Microphase designed and engineered DLVA's provide precision accuracy, excellent electrical performance, environmental stability and mechanical reliability. Very compact and rugged, all of our products are 100% tested, fully productized and readily available.



SPECIFICATIONS

Model	DFH2540M	DFH3112M	DFH3818M	DFH3218M
Frequency Range	0.5 - 4.0 GHz	1.0 - 12.0 GHz	8.0 - 18.0 GHz	2.0 - 18.0 GHz
Flatness (dB) nom. @ -23 dBm	±0.4	±1.0	±0.7	±1.0
Tangential Signal Sensitivity (TSS) (dBm) min.	-43	-43	-42	-42
Log Slope ²	50 mV/dB			
Log Linearity (0 to -40 dBm)	±0.3 dB			
Output Level Stability (-54°C to +85°C)	±0.75 dB			
Rise Time @ TSS + 10 dB	20 nsec. max.			
Recovery Time (to within ± 1 dB of baseline)	250 nsec.			
Video Load	100 Ohms			
Power	+15V 65 mA no signal 95 mA max. CW -15V 60 mA no signal 60 mA max. CW			

Size (excluding pins) 1.25" x 1.25" x 0.15"

- Other frequency ranges available
- 100 mV/dB optional

AVAILABLE OPTIONS

- Input offset option available to counteract detector RF noise rectification
- Linear output option available (sensitivity: 7.5 mV/μ watt nom.)



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Detector Log Video Amplifiers

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Wide Dynamic Range DC - Coupled

DSH-3218 2.0-18.0 GHz
62 dB Dynamic Range DC -Coupled DLVA

Extended Dynamic range -42 dBm

to +20 dBm

Volume Less Than 3 in.³

Superior Linearity

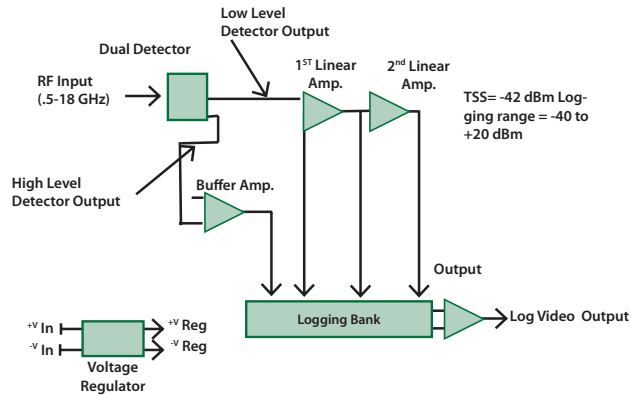
Fast Recovery From + 15 dBm

+20 dBm CW Capability



DESCRIPTION The Microphase 62 dB Dynamic Range, DC-Coupled DLVA serve an essential function in modern radar and electronic warfare systems. This logarithmic amplifier compresses a much larger input dynamic range into a small output dynamic range. The most common applications within radar and EW systems are direction finding and power monitoring

ADVANTAGES The Microphase Model DSH-3218 provides a unique and proprietary "single diode" detecting circuit which overcomes linearity and recovery problems associated with conventional, DC-coupled extended range dual diode DLVA designs. It has a volume less than 3 in.³, superior linearity, with fast recovery from +15 dBm and +20 dBm CW capacity. You get excellent electrical performance, environmental stability and mechanical reliability. Very compact and rugged, all of our products are 100% tested, and readily available.



SPECIFICATIONS

Frequency Range	2.0- 18.0 GHz
Flatness @ -23 dBm	±1.0 dB
VSWR	3.0:1 max.
Tangential Signal Sensitivity (TSS)	-42 dBm min.
Logging Range	-40 dBm to +18 dBm
Log Slope	50 mV/dB
Log Linearity	±0.5 dB (-40 dBm to +18 dBm)
Output Stability	±1.0 dB (-54°C to +85°C)
Pulse Width Range	50 nsec. to CW
Rise Time	20 nsec. max.
Recovery Time	500 nsec. max. (for +1.5 dBm accuracy)
Video Load	100 Ohms
Power (no signal)	+15V ±5% 190 mA max. +15V ±5% 100 mA max.
Operating Temperature	-54°C to 85°C
Size (excluding connectors)	2.70" x 2.30" x 0.47"
Connectors	SMA and Pins

AVAILABLE OPTIONS

Input DC bias offset to counter detector RF noise rectification

Other wide-band frequency ranges down to 0.5 GHz or narrower band designs with optimized characteristics.

Log Slope to 100 mV/dB



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CW Immune Pseudo DC-Coupled DLVA

AFH- 3218A 2.0-18.0 GHz

62 dB Dynamic Range
-42 dBm to +20 dBm and CW Immunity

Exceptional Log Linearity Over Temperature and Frequency

Fast Recovery From + 20 dBm

Single Diode Detector Circuit

Extended Dynamic Range

+20 dBm Capability

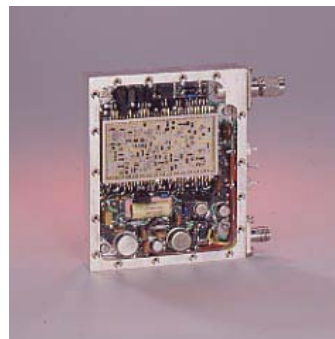
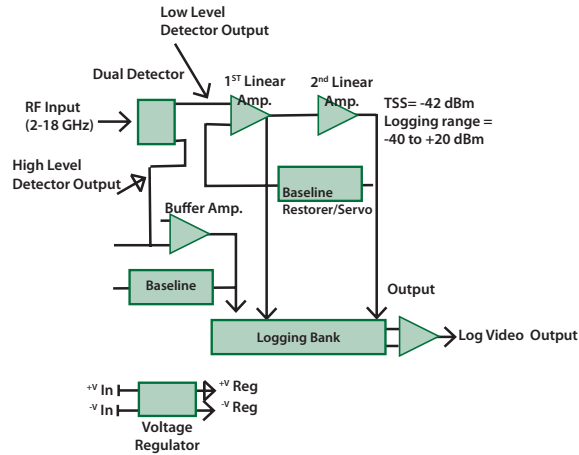
SPECIFICATIONS

Frequency Range	2.0- 18.0 GHz
Flatness @ -23 dBm	±1.0 dB
VSWR	3.0:1 max.
Tangential Signal Sensitivity (TSS)	-42 dBm min.
Logging Range	-40 dBm to +20 dBm
Log Slope	50 mV/dB
Log Linearity	±0.5 dB(-40 dBm to +20 dBm)
Output Stability (-54°C to +85°C)	±1.0 dB
Pulse Width Range	50 nsec. to 100 µsec.
Duty Factor*	70% max.
Rise Time	20 nsec. max.
Recovery Time (to within ± 1 dB for ± 1.5 dB accuracy @+15 dBm input)	500 nsec. max.
Video Load	100 Ohms
Power (no signal)	+15V ±5% 110 mA max. +15V ±5% 130 mA max.
Operating Temperature	-54°C to +85°C
Size (excluding connectors)	2.90" x 2.30" x 0.50"
Connectors	SMA and Pins

*Recovery time is included in D.F. definition:
 D.F. (Effective)= (Signal Pluse Width + Recovery Time ÷ Period)

AVAILABLE OPTIONS

Other wide-band frequency ranges down to 0.5 HGz or narrower and designs with optimized characteristics.
 Log Slope to 80 mV/dB@100 OHMS load
 40 mV/dB@50 Ohms load



DESCRIPTION The Microphase Pseudo DC-Coupled DLVA's serve an essential function in modern radar and electronic warfare systems. This logarithmic amplifier compresses a much larger input dynamic range into a small output dynamic range. The most

common applications within radar and EW systems are direction finding and power monitoring. This DLVA is comparable to a sophisticated, extended range, DC-Coupled DLVA with even better baseline stability vs. temperature for pulse widths less than 200 µsec., and duty factors under 70%.

ADVANTAGES The Microphase model AFH 3218-A Pseudo DLVA has a single diode detecting circuit which overcomes linearity and recovery problems of conventional extended range DLVA's. CW immunity allows detection of low level pulses buried in overpowering CW signals. CW signals are eliminated beyond a pre-set time interval measured from the leading edge, yielding unobstructed access to small signals, i.e., processing a -40 dBm pulse-train hidden in a superimposed -20 dBm CW signal. You get excellent electrical performance, environmental stability and mechanical reliability. Very compact and rugged, all of our products are 100% tested, and readily available.



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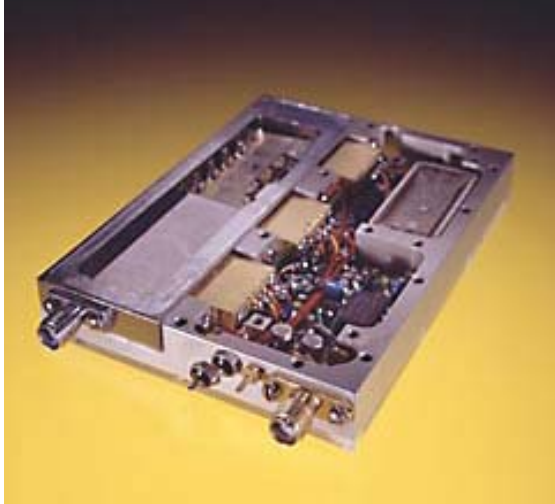
Detector Log Video Amplifiers

These units can be designed to your specification. Please contact Microphase for your special design requirements.

Successive Detection - SDL-Series SDLVAs

SDL-328 2.0 – 8.0 GHz

SDL-3618 6.0 – 18.0 GHz



DESCRIPTION The Microphase SDL-Series SDLVAs combine the best performance features of currently available successive Detection DLVAs and the conventional RF amplifier/Coupler extended range designs. A novel and unusual approach halves the number of successive detection points, thus simplifying gain and frequency compensation vs. temperature. The results improved linearity, frequency flatness temperature stability and absolute accuracy. The key component of this design is a proprietary Differential Schottky Detector-Limiter. These devices, operating over narrow portions of their dynamic ranges, provide both low and high level video signals, which are then differentially-coupled to single, low-gain video amplifier stages, enabling improved rise time and recovery time.

ADVANTAGES The Microphase designed and engineered SDL-Series provide precision accuracy, exceptional log linearity, excellent frequency flatness, with fast rise time and quick recovery time. You get excellent electrical performance, environmental stability and mechanical reliability. Very compact and rugged, all of our products are 100% tested, and readily available.



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Exceptional Log Linearity

Excellent Frequency Flatness

Fast Rise Time

Quick Recovery Time

Absolute Accuracy ± 1.75 dB (SDL-328)

70 dB Dynamic Range

SPECIFICATIONS

Model	SDL-328	SDL-3618
Frequency Range	2.0- 8.0 GHz	6.0- 18.0 GHz
Frequency Flatness	± 1.0 dB	± 2.0 dB
VSWR	2.0:1 max.	2.0:1 max.
Tangential Signal Sensitivity (TSS)	-73 dBm	-71
Log Range	-70 dBm to 0 dBm	-68 dBm to +2 dBm
Log Slope ¹	25 mV/dB	25 mV/dB
Log Linearity ²	± 1.0 dB	± 1.5 dB
Absolute Accuracy ³	± 1.75 dB	± 3.0 dB
Recovery Time	80 nsec.	60 nsec.
Pulse Width Range	20 nsec. to CW	20 nsec. to CW
Rise Time	10 nsec. max.	10 nsec. max.
Prepropagation Delay	10 nsec. max.	10 nsec. max.
Video Load	93 Ohms	93 Ohms
Power	+12V/-12V	+12V/-12V
Size (excluding connectors)	3.50" x " x 2.60" x 0.50"	3.50" x " x 2.60" x 0.50"
Connectors	SMA and Pins	SMA and Pins
Operating Temperature	-54 ° C to + 85° C	-54 ° C to + 85° C

1. Other Log Slopes available
2. At any frequency or temperature
3. Total: Under any combination of frequency, input power level and operating over -54 ° C to + 85° C

AVAILABLE OPTIONS

Other frequency ranges available.

Input offset option available to counteract detector RF noise rectification

Linear output option available (sensitivity:7.5 mV/ μ watt nom.)

RF Limited output port available

Detector Log Video Amplifiers

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SDLVA Functional Description/Block Diagram

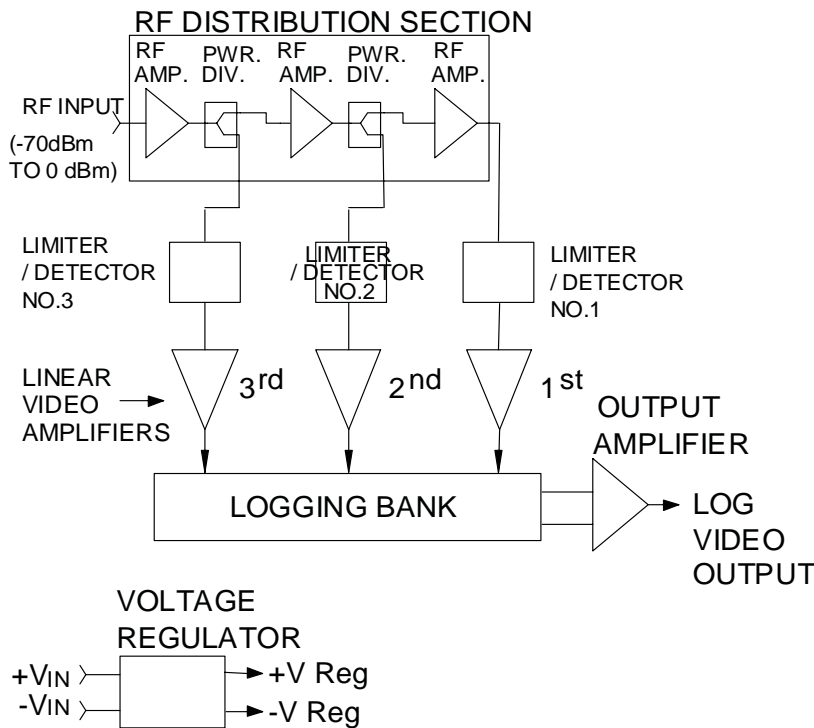
Detector Log Video Amplifiers

The function of the Detector Log Video Amplifier (DLVA) is to provide a linearized (mV/dB) Video output voltage over a wide Dynamic input RF power range. This is accomplished by combining RF amplification and RF detection in conjunction with Logarithmic Video amplification. The RF detection is accomplished by a uniquely configured microwave Schottky diode operating as a standard AM demodulator. The useful RF dynamic range of the diode (operating as a detector) is from approximately -42 dBm to $+18$ dBm. Over this RF input dynamic range, the output voltage range extends over 80 dB, from tens of microvolts to hundreds of millivolts. Since the dynamic range of the output voltage is so wide, an amplifier with a logarithmic transfer characteristic is needed to process it. This type of amplifier provides a large gain for the very low-level output signals and an orderly decreasing gain as the signal level increases. In effect, the large input dynamic range is compressed into a usable output dynamic range. To cover the -70 dBm to $+10$ dBm (70 dB) operating range of this DLVA, three (3) such Detector-Amplifiers are required, each

one operating over a smaller portion of its potential 60 dB range. To improve the sensitivity of the Detector to better than the -70 dBm requirement, 54 dB of RF gain is required to bring the -70 dBm signal up to a Detector input of -16 dBm. A more detailed description of the logging function is described in the following text. The purpose of the log amplifier is to compress this wide dynamic range in an orderly fashion such that the output signal amplitude is a linear function of the RF input power changes in dBm. Constant incremental dB changes of input power produce constant incremental changes in the output voltage. Since the voltage dynamic range of a typical log stage is fairly narrow, typically 12 dB to 20 dB, a number of such stages are needed to cover the overall 140 dB minimum video range. In general, using more stages results in smaller deviations from the desired linear input-output characteristic. Log stage requires the same drive level (10 millivolts to 100 millivolts) for a log transfer function, it must be preceded by more or less linear gain or attenuation depending on what part of the video dynamic range it is to cover. All log stages are summed

into a common load to give a piecewise approximation to a linear voltage output versus power input characteristic over a wide RF dynamic range. This design incorporates the conventional three-channel RF amplifier-coupler technique with a proprietary dual-balanced Schottky Detector for improved performance. A unique combination of circuit techniques are used which reduce Schottky diode junction voltage changes with temperature by two (2) orders of magnitude. This makes them suitable for use in direct-coupled log amplifiers operating over wide temperature and dynamic signal ranges. This diode has a useful dynamic range of typically $+15$ dBm to -42 dBm.

SDLVA



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Extended Range DC -Coupled DLVAs

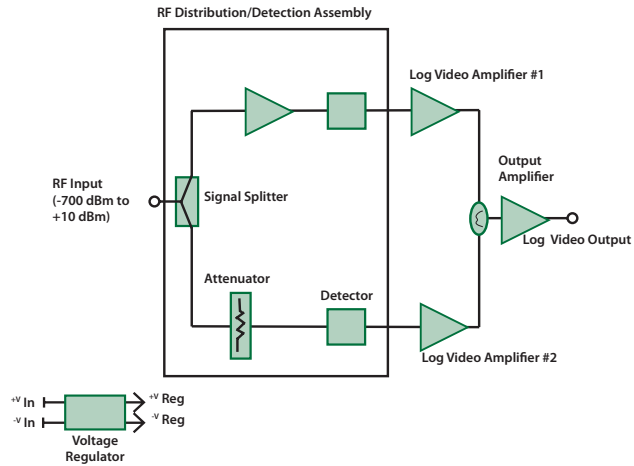
DFX - Series

80 dB Dynamic Range, -70 dBm to +10 dBm

Exceptional Linearity: ± 0.5 dB 200 nsec. Recovery From +10 dBm

DESCRIPTION The Microphase 80 dB Extended Range DC-Coupled DLVA's serve an essential function in modern radar and electronic warfare systems. This logarithmic amplifier compresses much larger input dynamic range into a small output dynamic range. The most common war applications within radar are EW systems are direction finding and power monitoring.

ADVANTAGES The Microphase DFX-Series provides exceptional linearity (± 0.5 dB), and 200 nsec. recovery from +10 dBm You get excellent electrical performance, environmental stability and mechanical reliability. This light weight unit can be adapter for custom configurations. Very compact and rugged, all of our products are 100% tested, and readily available.



SPECIFICATIONS

	DFX-328	DFX-3618	DFX-2520
Frequency Range	2.0- 8.0 GHz	6.0-18.0 GHz	0.5-2.0 GHz
Flatness @ -23 dBm	± 1.0 dB	± 1.75 dB	$\pm .75$ dB
VSWR	2.0:1 max.	2.0:1 max.	2.0:1 max.
Tangential Signal Sensitivity (TSS)	-73 dBm min.	-72 dBm min.	-73 dBm min.
Logging Range	-70 dBm to +10 dBm	-70 dBm to +10 dBm	-70 dBm to +10 dBm
Log Slope*	25 mV/dB	25 mV/dB	25 mV/dB
Log Linearity	± 0.5 dB -70 dBm to +24 dBm ± 1.0 dB to +10 dBm	± 0.5 dB -70 dBm to +24 dBm ± 1.25 dB to +10 dBm	± 0.5 dB -70 dBm to +24 dBm ± 1.0 dB to +10 dBm
Output Stability (-54°C to +85°C)	± 1.0 dB	± 1.0 dB	± 1.0 dB
Pulse Width Range	30 nsec. to CW	30 nsec. to CW	30 nsec. to CW
Rise Time	20 nsec. max.	20 nsec. max.	20 nsec. max.
Recovery Time (for +15 dBm accuracy)	300 nsec. max. (to +15 dBm)	300 nsec. max. (to +10 dBm)	200 nsec. max. (to +10 dBm)
Video Load	100 Ohms	100 Ohms	100 Ohms
Power (no signal)	+12V \pm 5%; 240 mA max. -12V \pm 5%; 100 mA max.	+12V \pm 5%; 490 mA max. -12V \pm 5%; 110 mA max.	+12V \pm 5%; 240 mA max. -12V \pm 5%; 100 mA max.
Operating Temperature	-54°C to 85°C	-54°C to 85°C	-54°C to 85°C
Size (excluding connectors)	2.60" x 2.20" x 0.40"	3.25" x 2.85" x 0.50"	2.60" x 2.20" x 0.40"
Connectors	SMA and Pins	SMA and Pins	SMA and Pins

* Other Log Slopes are Available



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Detector Log Video Amplifiers

These units can be designed to your specification. Please contact Microphase for your special design requirements.

Threshold Detectors

DTH - Series



DESCRIPTION The DTH Threshold Detectors are DC coupled devices combining the functions of RF detection, video amplification and level comparison in a single component with TTL and ECL compatible output logic. The multi octave RF coverage and external threshold adjustment perform with field proven reliability and offer design engineers convenient options for their system needs. This detector has excellent temperature stability in a compact rugged package.

ADVANTAGES Microphase designed and engineered DTH-Series Threshold Detectors provide excellent threshold resolution, multi-octave RF coverage with excellent electrical performance, environmental stability and mechanical reliability. Very compact and rugged, all of our products are 100% tested, fully productized and readily available.

FREQUENCY RANGE

Model Number	Threshold Frequency Range (GHz)	Threshold Resolution vs Frequency (dB)
DTH2140	0.5 - 4.0	±0.4
DTH328	2.0 - 8.0	±0.6
DTH3818	8.0 - 18.0	±0.7
DTH3218	2.0 - 18.0	±1.0

Excellent Electrical Performance

Superior Performance

Fast Response

Excellent Threshold Resolution

Excellent Temperature Stability

SPECIFICATIONS

Threshold Adjust Range	0 to -20 dBm ¹ or -20 to -36 dBm ²
Recovery Time	50 nsec.
Propagation Delay	10 nsec.
Rise Time (TTL output)	10 nsec.
Video Bandwidth	35 MHz
Temperature Stability	± 1.0 dB
Operating RF Power Level	0dBm max.
Input Power (Survival)	+20 dBm max.
DC Power	+15V @ 65mA - 15V @ 60mA + 5V @ 40mA
Size (excluding connectors)	1.8"x1.65"x0.4"
Connectors	SMA and Pins

1. Add H to Model Number
2. Add L to Model Number

Detector Log Video Amplifiers



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High Performance DLVA's Ultra Miniature

Extended Range Logarithmic Video Amplifier DFH3240

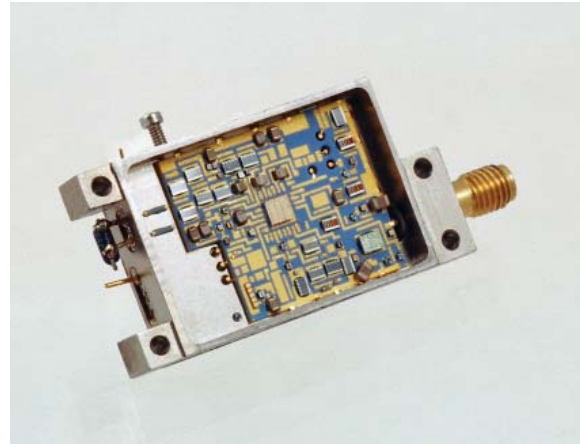
Excellent High-Speed Performance

Superior Performance

Precision Accuracy

Very Compact

Process Narrow Pulses



SPECIFICATIONS

Model	DFH3240
Frequency Range	2.0 – 40 GHz
Flatness @ -23 dBm	±1.0 dB
Tangential Signal Sensitivity (TSS) (dBm) min.	-73 dBm
Log Slope**	50 mV/dB
Log Linearity (0 to -40 dBm)	±0.3 dB
Output Level Stability (-54°C to +85°C)	±0.75 dB
Rise Time @ TSS + 10 dB	10 nsec. max.
Recovery Time (to within ± 1 dB of baseline)	200 nsec. max.
Video Load	100 Ohms
Power	+15V 65 mA no signal 95 mA max. CW -15V 60 mA no signal 60 mA max. CW
Size (excluding connectors)	1.3" L X .8" W X .3" H
Connectors	SMA and Pins

AVAILABLE OPTIONS

Input offset option available to counteract detector RF noise rectification

Linear output option available (sensitivity: 7.5 mV/μ watt nom.)

DESCRIPTION DFH-3240 Ultra Miniature and Extended Range Detector Logarithmic Video Amplifier (DLVA). The Ultra Miniature DFH provides high sensitivity and wide dynamic range. Demodulates transmitted data and compresses it such that output voltage increases in linear increments with respect to RF input power. This device is the result of the integration and hybridization of various technologies that yield a high performance device in a very small size.

ADVANTAGES The advantages of a Microphase designed and engineered DLVA is it provides precision accuracy, excellent electrical performance, environmental stability, mechanical reliability and a superior construction using State-of-the-Art MIC/MMIC Technology. The Ultra Miniature Extended Range DLVA in it's compact and rugged design is very cost effective can be designed to your specifications or application whether it is for radar warning detection, or anti-jamming detection. You get excellent electrical performance, environmental stability and mechanical reliability. Very compact and rugged, all of our products are 100% tested, and readily available.



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Detector Log Video Amplifiers

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Infra-red Photo DLVA

Lightwave Receiver Applications(PDLVA)

Sonet OC -1, -3, -12 Transfer Rates

Amplitude Modulation Encoding Schemes

Pulse Code Modulation Encoding Schemes

Long Haul Data Transfer

DESCRIPTION Photo Detector Logarithmic Video Amplifier (PDLVA) for Lightwave Receiver Applications. The Microphase PDLVA series provides instantaneous demodulation of signals on a lightwave carrier where the detected output signal amplitude is linearly proportional to the incident photo energy.

ADVANTAGES It provides greater sensitivity and allows a lower level of receiver power to be acceptable. This means reduced transmitter power or longer repeater spacing and consequently reduced costs for associated equipment and maintenance. The main advantage of the Microphase designed and engineered PDLVA is that it allows for longer transmission trunk lengths without the need for additional repeaters. The wide dynamic range of the PDLVA allows for accurate data recovery not only for low level signals, but can also handle high level signals as well without using automatic gain control techniques where signal recognition is no longer instantaneous.



SPECIFICATIONS

Excellent Sensitivity	-40 dBm (Actual sensitivity function of data rate)
Wide Dynamic Range	35 dB min.
Logarithmic Transfer Slope	25 mv/dB nom.
Logging Accuracy	± 0.5 dB
Operating Temperature	-25°C to +70°C
Low APD Bias	+12V typ.

Detector Log Video Amplifiers

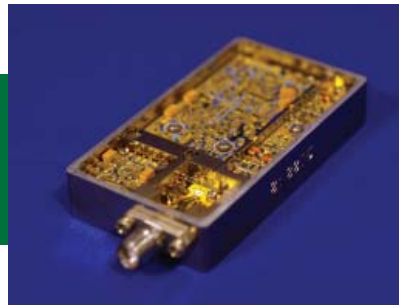


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Unique DVA and DLVA Products

CW Immune Anti-Jamming APPS
2-18 GHz AFH
60 dB dynamic range



DC Coupled DLVA
2-18 GHz
60 dB dynamic range



Detector Linear Video Amplifier
2-18 GHz DVA 3218
With Built in Temperature Sensor



DC Coupled DLVA
0.5-40 GHz
50 dB dynamic range



Detector Log Video Amplifiers



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DLVA EVOLUTION

Detector Log Video Amplifiers

DYNAMIC RANGE	DESIGN BREAKDOWN				
40-45 dB SINGLE DETECTOR (TUNNEL TYPE)	<p>DC COUPLED DETECTOR LOG FAST</p> <p>Discrete Components DLF P.C. Board</p> <p>0.5-18 GHz 3.34" x 2.47" x 0.60"</p>	<p>DC COUPLED DETECTOR LOG FAST HYBRID</p> <p>DFH P.C. Board Hybrid On</p> <p>0.5-18 GHz 2.17" x 2.00" x 0.40"</p>	<p>DC COUPLED DETECTOR LOG FAST / ASIC</p> <p>DFHA ASIC On P.C. Board</p> <p>0.5-18 GHz 2.17" x 2.00" x 0.40"</p>	<p>DC COUPLED DETECTOR LOG FAST (CHIP N' WIRE) HYBRIDIZED MINIATURE</p> <p>DFHM (Chip n' Wire)</p> <p>DFHM (Chip n' Wire)</p> <p>0.5-18 GHz 1.25" x 1.25" x 0.25"</p> <p>0.5-40GHz</p>	
50-60 dB SINGLE DETECTOR (SCHOTTKY TYPE)	<p>DC COUPLED DETECTOR SCHOTTKY HYBRID</p> <p>-42 to +20dBm DSH</p> <p>0.5 - 18 GHz <i>With Temperature Stabilized Detector Assembly</i> 2.70" x 2.30" x 0.47"</p>	<p>DC COUPLED DETECTOR SCHOTTKY HYBRID/ASIC</p> <p>-42 to +20dBm DSHA</p> <p>0.5 - 18 GHz</p>	<p>AC COUPLED LOG FAST</p> <p>-42 to +20dBm ALF CW IMMUNE</p> <p>2-18 GHz 18-40 GHz 4.00" x 2.50" x 0.59"</p>	<p>AC COUPLED FAST HYBRID</p> <p>-42 to +20dBm AFH CW IMMUNE</p> <p>2-18 GHz 18-40 GHz 2.30" x 2.90" x 0.50"</p>	<p>AC COUPLED FAST HYBRIDIZED MINIATURE</p> <p>-42 to +20dBm AFHM CW IMMUNE</p> <p>2-18 GHz 2.50" x 1.40" x 0.50"</p>
60-80 dB 2 OR MORE DETECTORS	<p>SUCCESSIVE DETECTION LOG (70 dB)</p> <p>-70 to +0 dBm SDLVA 10 ns r.t. 50 ns rec. t.</p> <p>0.5 - 2 GHz 2 - 8 GHz 6 - 18 GHz 2 - 18 GHz 3.50" x 2.60" x 0.50"</p>	<p>DETECTOR FAST EXTENDED RANGE (70-80 dB)</p> <p>-70 to +10 dBm DFX 20 ns r.t. 500 ns rec. t.</p> <p>0.5 - 2 GHz 2 - 8 GHz 6 - 18 GHz 2 - 18 GHz 2.60" x 2.20" x 0.40"</p>	<p>DFH EXTENDED RANGE MONOLITHIC</p> <p>-70 to +10 dBm DFH XM</p> <p>2.50" x 1.25" x 0.15"</p>	<p>SDL VIDEO MONOLITHIC</p> <p>-70 to +0 dBm SDLM ASIC TECHNOLOGY</p> <p>SIZE TBD</p>	
100 dB 3 OR MORE DETECTORS	<p>-85 to +15 dBm</p> <p>2 - 8 GHz 3.00" x 2.70" x 0.49"</p>	<p>100 dB HYBRID</p> <p>2 - 8 GHz SIZE TBD</p>	<p><i>For Channelized Applications 100 MHz Wide</i></p>		
ALSO PRODUCE: DETECTOR VIDEO AMP (DVA) LINEAR AND THRESHOLD DETECTORS	<p><i>Digitized DLVA - In Conceptual Stage</i></p>		<p>With Look-Up Table For Accuracy Corrections Related To Linearity, Temperature And Frequency</p>		
	<p><i>RF Logging Amplifier Front End - In Conceptual Stage</i></p>				

ALL UNIT DIMENSIONS EXCLUDE CONNECTORS



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These units can be designed to your specification. Please contact Microphase for your special design requirements.