

Wide Dynamic Range DC -Coupled DLVA

DSH-3218 2.0-18.0 GHz
62 dB Dynamic Range

Extended Dynamic range -42 dBm

to +20 dBm

Volume Less Than 3 in.³

Superior Linearity

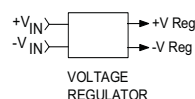
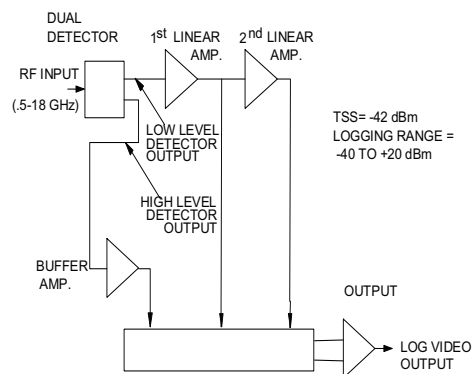
Fast Recovery From +15 dBm

+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

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