

Logarithmic Amplifiers HDR Series

Dynamic Range to 100 dB

Linearity to 0.5 dB

Matched pairs available

Bandwidth to 50 MHz



The Pascall HDRA and HDRB ranges of Logarithmic Amplifiers employ a discrete component design using modern surface mount technology. These designs provide both a detected video output voltage logarithmically proportional to the IF input power and a limited IF output.

Two variants are available. The HDRA range offers nominal linearity to ± 0.5 dB and the HDRB range linearity to ± 1 dB.

Linearity is defined as the deviation from the best fit straight line to the measured data.

Test results are supplied with every amplifier detailing linearity at $+25$ °C, pulse performance, limited IF output (where specified) and power consumption.

Units can be supplied as matched sets at a fixed temperature or over a defined operational temperature range for use in multi-channel systems.

Pascall has a range of alternative logarithmic amplifiers including miniature designs covering centre frequencies from 10 MHz to 1 GHz and is also able to design models to meet customers' specific requirements.

Logarithmic Amplifiers HDR Series

Centre Frequency	10 to 300 MHz (standard)
Bandwidth	2 to 50 MHz (standard)
Log Slope	25 mV /dB nom. (options available)
Slope Variation v temperature (0 to 60°)	± 2 % max. HDRA ± 3 % max. HDRB
Video Output	0 to 2.375 V nom.
Offset Adjustment	± 100 mV. min.
Limited IF Output	0dBm ± 2 dB
Input VSWR	1.5 : 1 max
Power Requirements	± 12v or ± 15v +ve 60 mA, -ve 120mA max
Size	117.5 x 38.1 x 11.7 mm
Weight	105 gm max

Options Log slope in range 15 to 40 mV /dB
Matched pairs.

Standard Range

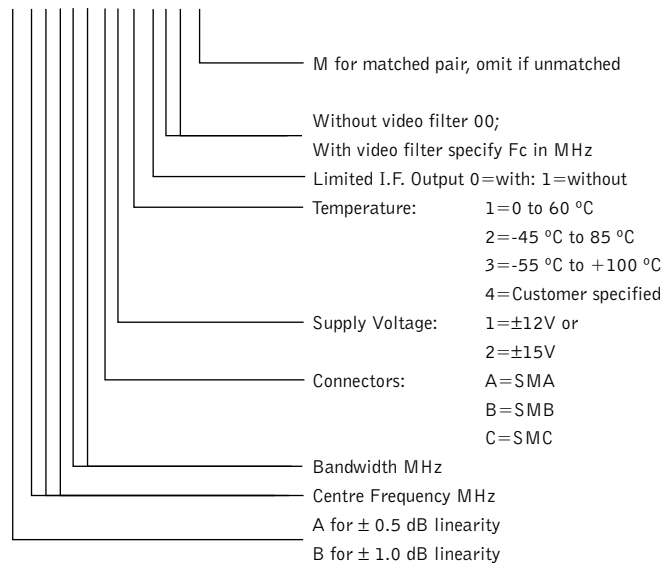
Model Nos. HDRA	Centre Freq. MHz	Band Width MHz	Rise-Time nsec	Fall Time nsec
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Standard HDRA

HDRA-1002	10	2	500	1200
HDRA-2005	20	5	200	600
HDRA-3010	30	10	100	300
HDRA-6020	60	20	50	150
HDRA-7010	70	10	90	300
HDRA-12020	120	20	45	150
HDRA-16040	160	40	30	80
HDRA-22050	220	50	15	80

Ordering Information

HDRX-XXXXX-XXX-XXX-X



Example: HDRA-7020-A12-000 is a ± 0.5 dB linearity unit with 70 MHz centre frequency, 20 MHz bandwidth, SMA connectors 12 volt operation, -45 °C to +85 °C, with limited I.F. o/p.



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The right is reserved to amend the specifications of the products without notice

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