

QLA-9K-20000-35-25

9kHz~20GHz, 35dB, 2.5dB

Features:
 * Broadband
 * Low Noise

Applications:
 * Wireless
 * Receiver
 * Laboratory Test
 * Radar



Description

This product series features ultra-wideband low-noise amplifiers (LNAs) operating from 9kHz to 20GHz. The lineup includes:

- LNA modules powered by 5-8V DC, where increasing supply voltage enhances gain and output power;
- LNA systems with integrated switching-mode power supplies (SMPS) accepting 85-265V AC input, recommended for most applications;
- LNA systems employing linear-regulated power supplies for 220V AC operation, delivering optimal performance where extreme power purity is critical.

Electrical

Frequency:	9kHz~20GHz
Gain:	35dB typ.
Gain Flatness:	±2dB typ.
Output Power (P1dB):	12dBm typ. @+5V 16dBm typ. @+8V
Output Power (Psat):	13dBm typ. @+5V 17dBm typ. @+8V
Noise Figure:	2.5dB typ.
Spurious:	-60dBc typ.
VSWR:	1.8 typ.
Reverse Isolation:	-50dB typ.
Voltage:	+5V~+8V DC (Outline A) +85~+265V AC (Outline B) +220V AC (Outline C)
Current:	200mA typ. (Outline A)
Impedance:	50Ω

Absolute Maximum Ratings*1

RF Input Power:	-7dBm
Voltage:	+9V (Outline A)

[1] Permanent damage may occur if any of these limits are exceeded.

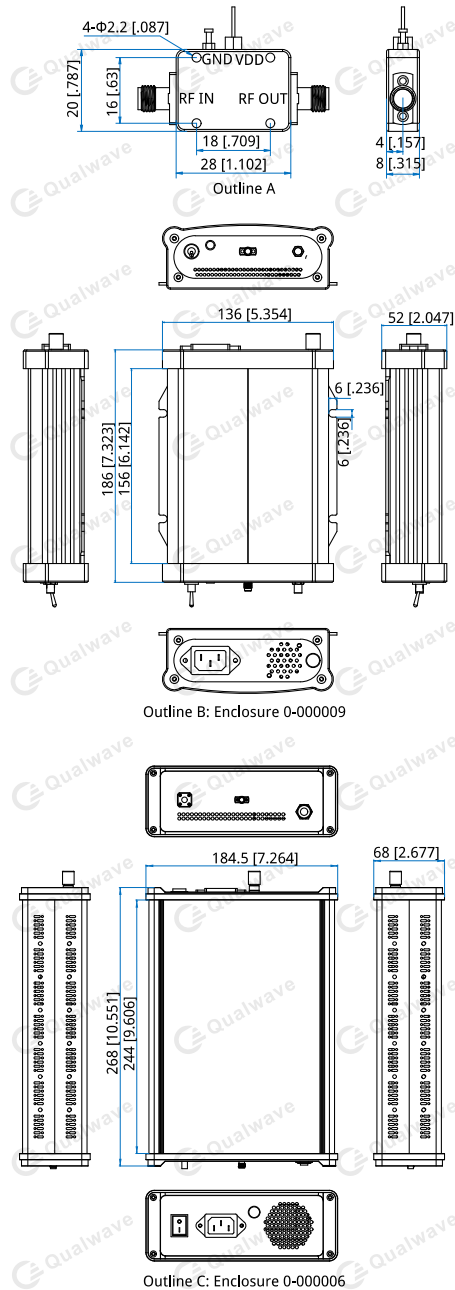
Mechanical

RF Connectors: SMA Female (Removable @Outline A)

Environmental

Operating Temperature:	-45~+85°C
Non-operating Temperature:	-55~+125°C

Outline Drawings



Unit: mm [in] Tolerance: ±0.2mm [±0.008in]

How To Order

[QLA-9K-20000-35-25](#) - Outline A

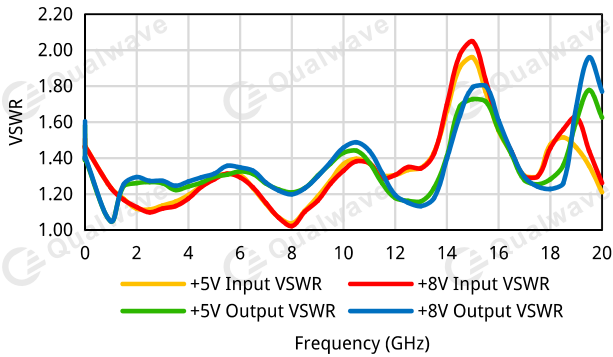
[QLAS-9K-20000-35-25](#) - Outline B, AC-powered unit integrates a switching-mode power supply.

[QLAS-9K-20000-35-25-1](#) - Outline C, AC-powered unit integrates a linear-regulated power supply.

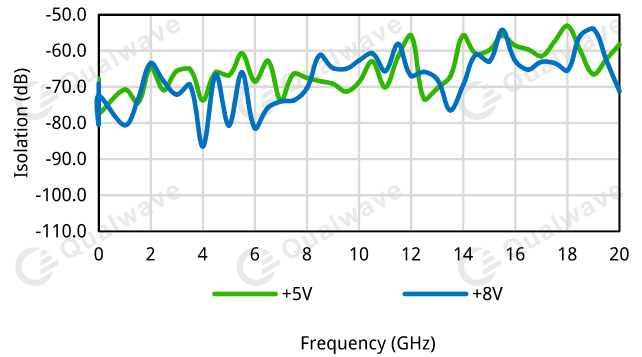
Customization is available upon request.

Typical Performance Curves

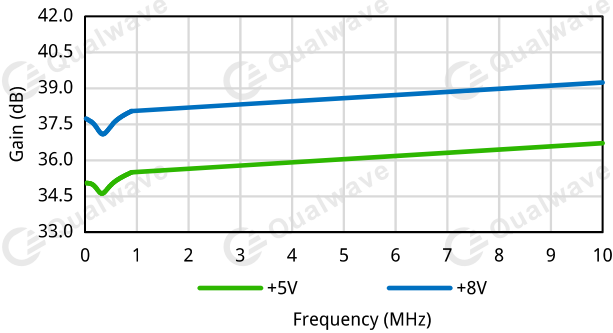
VSWR vs. Frequency



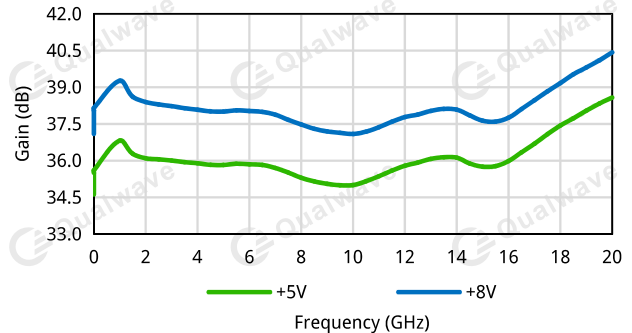
Isolation vs. Frequency



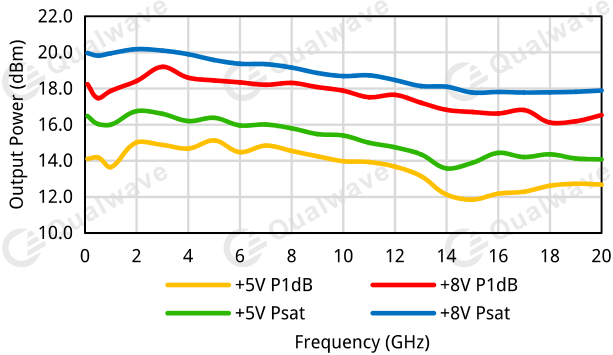
Gain vs. Frequency



Gain vs. Frequency



Output Power vs. Frequency



Noise Figure vs. Frequency

