

QLA-9K-40000-14-30

9kHz~40GHz, 14dB, 3.0dB

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 40GHz. The lineup includes:

- LNA modules powered by 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~40GHz
Gain:	14dB typ.
Gain Flatness:	±1dB typ.
Output Power (P1dB):	15dBm typ.
Output Power (Psat):	16dBm typ.
Noise Figure:	3.0dB typ.
Spurious:	-60dBc max.
VSWR:	1.8 typ.
Reverse Isolation:	-30dB typ.
Voltage:	+8V DC (Outline A) +85~+265V AC (Outline B) +220V AC (Outline C)
Current:	100mA typ. (Outline A)
Impedance:	50Ω

Absolute Maximum Ratings^{*1}

RF Input Power:	+18dBm
Voltage:	+9V (Outline A)

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

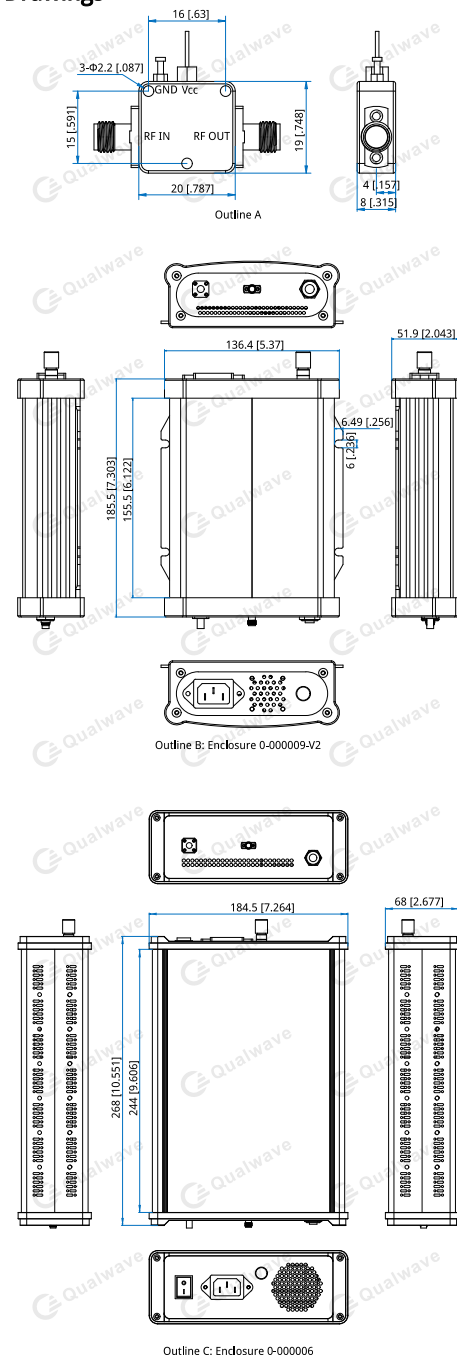
Mechanical

RF Connectors:	2.92mm Female (Removable)
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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-40000-14-30](#) - Outline A

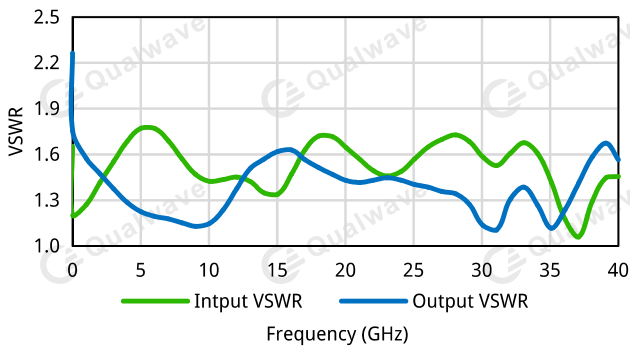
[QLAS-9K-40000-14-30](#) - Outline B, AC-powered unit integrates a switching-mode power supply.

[QLAS-9K-40000-14-30-1](#) - Outline C, AC-powered unit integrates a linear-regulated power supply.

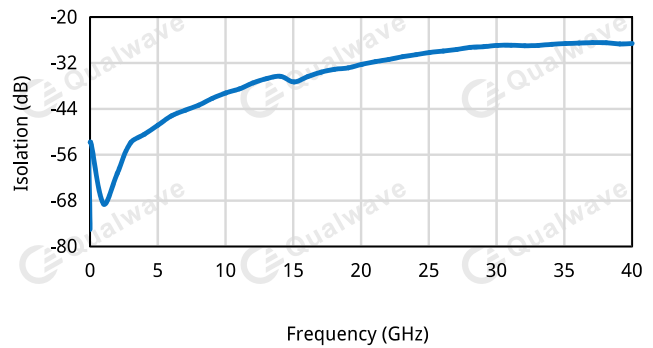
Customization is available upon request.

Typical Performance Curves

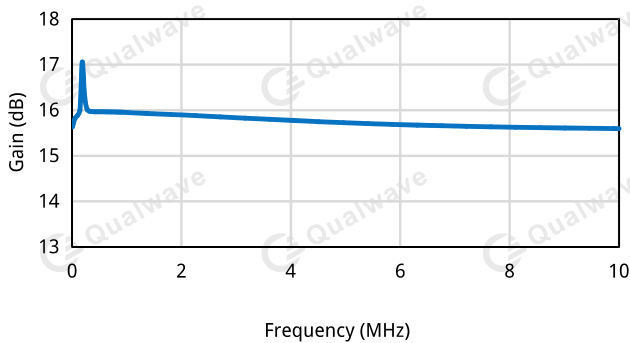
VSWR vs. Frequency



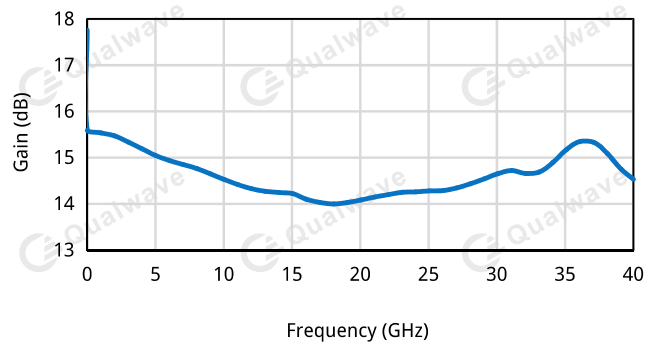
Isolation vs. Frequency



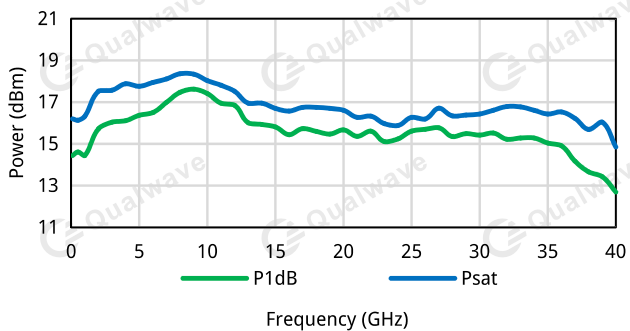
Gain vs. Frequency



Gain vs. Frequency



Power vs. Frequency



Noise Figure vs. Frequency

