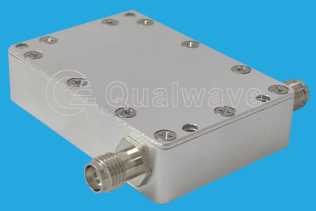
QLA-9K-3000-40-12

9k~3GHz, 40dB, 1.2dB

Features:
* Broadband
* Low Noise

Applications:
* Laboratory Test
* Telecommunication
* Wireless
* Instrumentation



Description

This product series features ultra-wideband low-noise amplifiers (LNAs) operating from 9k to 3GHz. The lineup includes:

• LNA modules powered by 5V 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:	9k~3GHz
Gain:	40dB typ.
Gain Flatness:	±3dB typ.
Output Power (P1dB):	19dBm typ.
Output Power (Psat):	20dBm typ.
Noise Figure:	1.2dB typ.
Spurious:	-60dBc max.
VSWR:	1.6 typ.
Reverse Isolation:	-45dB typ.
Voltage:	+5V DC (Outline A) 85~265V AC (Outline B) 220V AC (Outline B)
Current:	150mA typ. (Outline A, B)
Impedance:	50Ω

Absolute Maximum Ratings*1

RF Input Power:	+18dBm
Voltage:	+6V

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

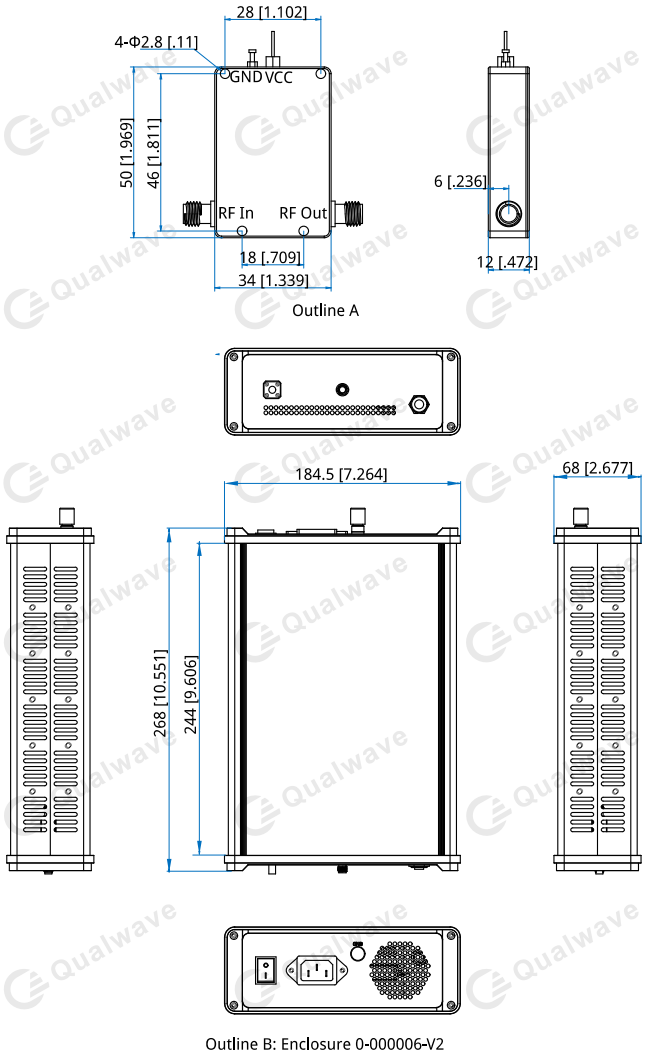
Mechanical

RF Connectors:	SMA Female

Environmental

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

Outline Drawings



Unit: mm [in] Tolerance: ±0.5mm [±0.02in]

How To Order

QLA-9K-3000-40-12 - Outline A

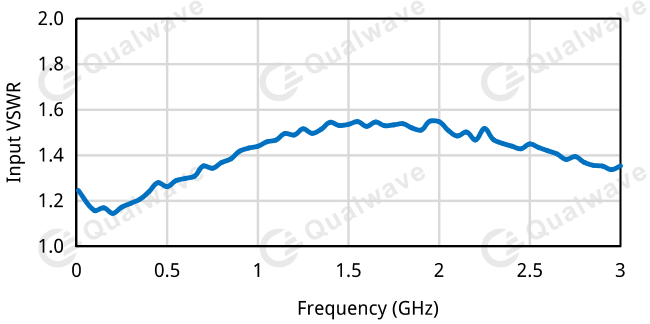
QLAS-9K-3000-40-12 - Outline B, AC-powered unit integrates a switching-mode power supply.

QLAS-9K-3000-40-12-1 - Outline B, AC-powered unit integrates a linear-regulated power supply.

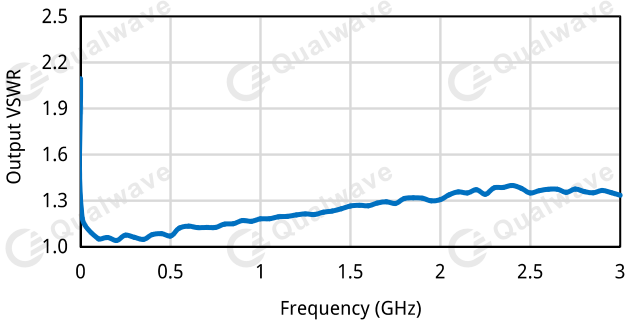
Customization is available upon request.

Typical Performance Curves

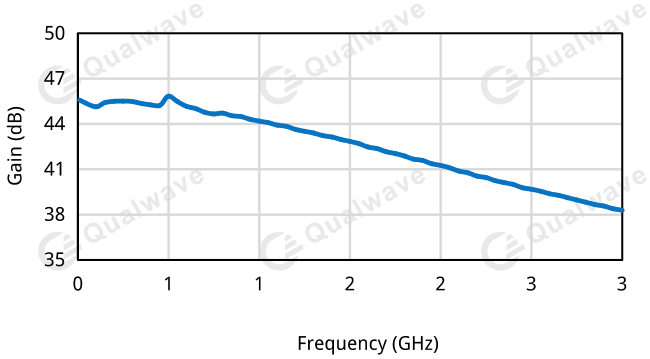
Input VSWR vs. Frequency



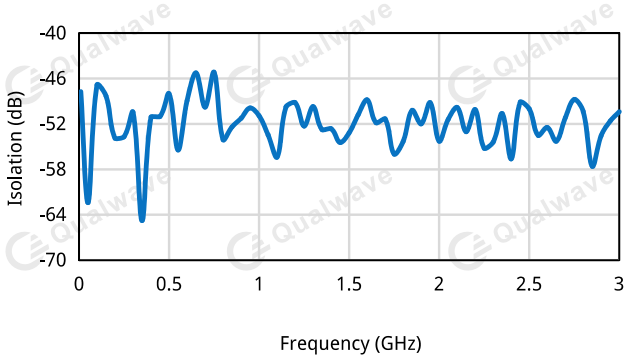
Output VSWR vs. Frequency



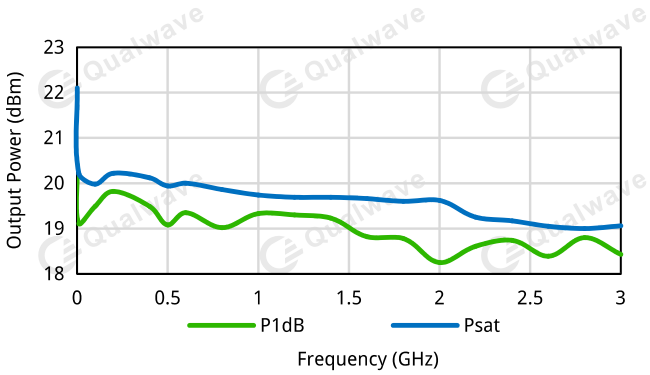
Gain vs. Frequency



Isolation vs. Frequency



Output Power vs. Frequency



Noise Figure vs. Frequency

