

QLA-10-20000-35-25

0.01~20GHz, 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 0.01 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:	0.01~20GHz
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.

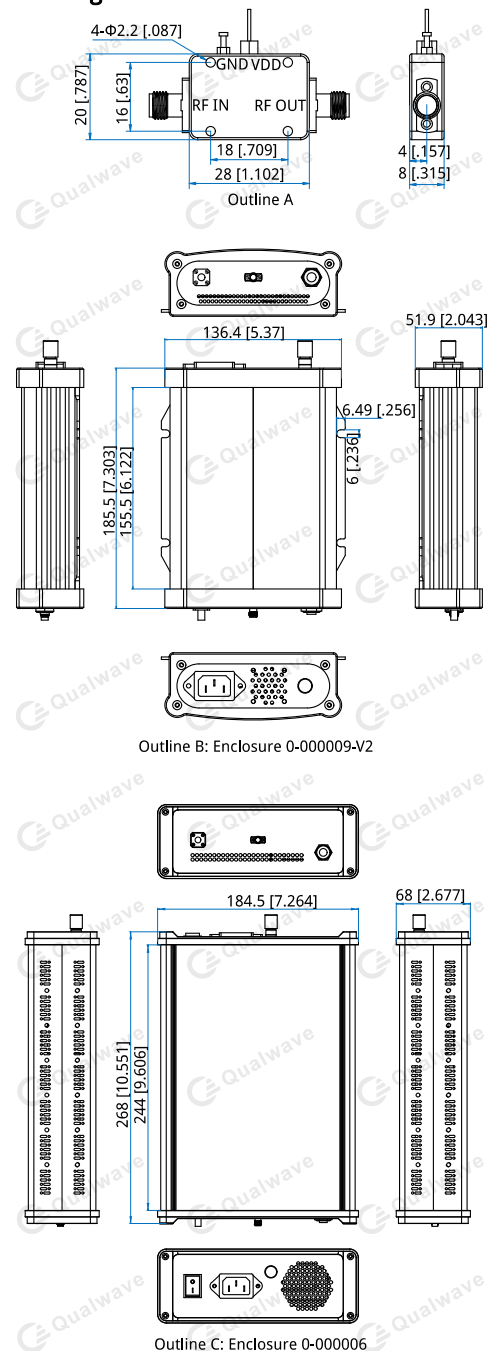
Mechanical

RF Connectors:	SMA Female (Removable)
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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-10-20000-35-25](#) - Outline A

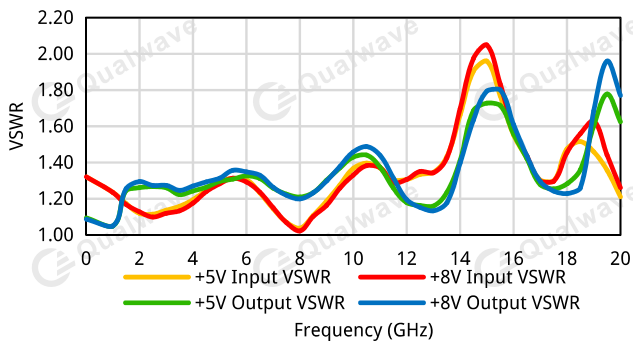
[QLAS-10-20000-35-25](#) - Outline B, AC-powered unit integrates a switching-mode power supply.

[QLAS-10-20000-35-25-1](#) - Outline C, AC-powered unit integrates a linear-regulated power supply.

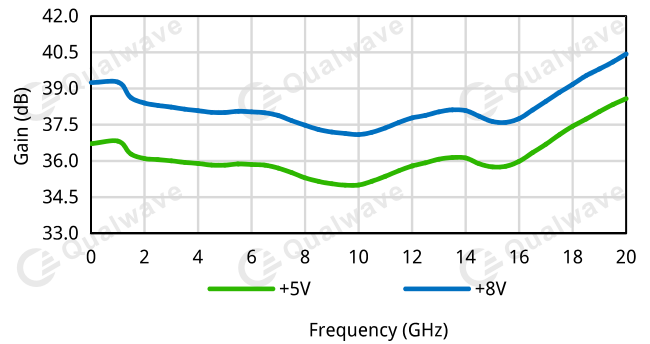
Customization is available upon request.

Typical Performance Curves

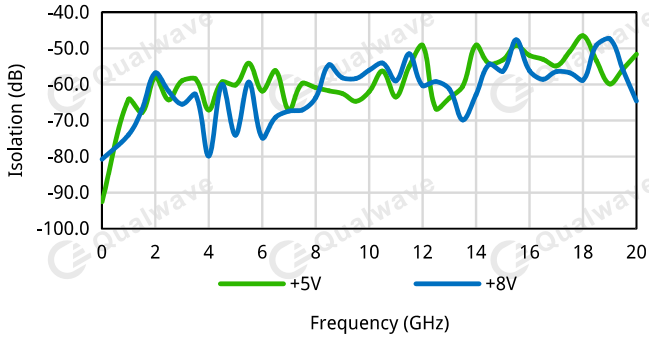
VSWR vs. Frequency



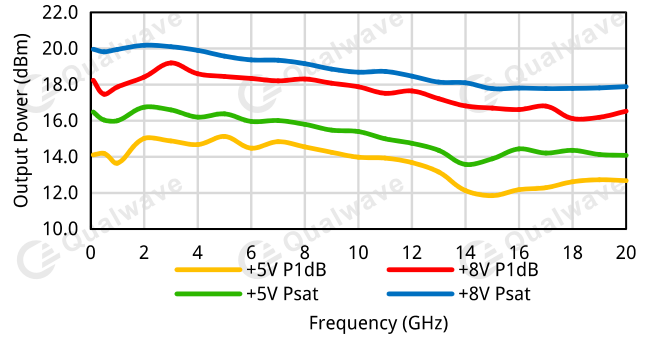
Gain vs. Frequency



Isolation vs. Frequency



Output Power vs. Frequency



Noise Figure vs. Frequency

