QLA-12000-18000-50-15

12~18GHz, 50dB, 1.5dB

Features:
* Broadband
* Low Noise

Applications:
* Laboratory Test
* Telecommunication
* Wireless
* Instrumentation



Description

This product series features ultra-wideband low-noise amplifiers (LNAs) operating from 12 to 18GHz. The lineup includes:

• LNA modules powered by 5-15V 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:	12~18GHz
Gain:	50dB min.
Gain Flatness:	±1.5dB typ.
Output Power (P1dB):	16dBm typ.
Output Power (Psat):	18dBm typ.
Noise Figure:	1.5dB typ.
Spurious:	-60dBc max.
VSWR:	1.6 typ.
Reverse Isolation:	-50dB typ.
Voltage:	+5V DC (Outline A) +6~15V DC (Outline B) 85~265V AC (Outline C) 220V AC (Outline D)
Current:	80mA typ. (Outline A, B)
Impedance:	50Ω

Absolute Maximum Ratings*1

RF Input Power:	+15dBm
Voltage:	+6V (Outline A) +20V (Outline B)

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

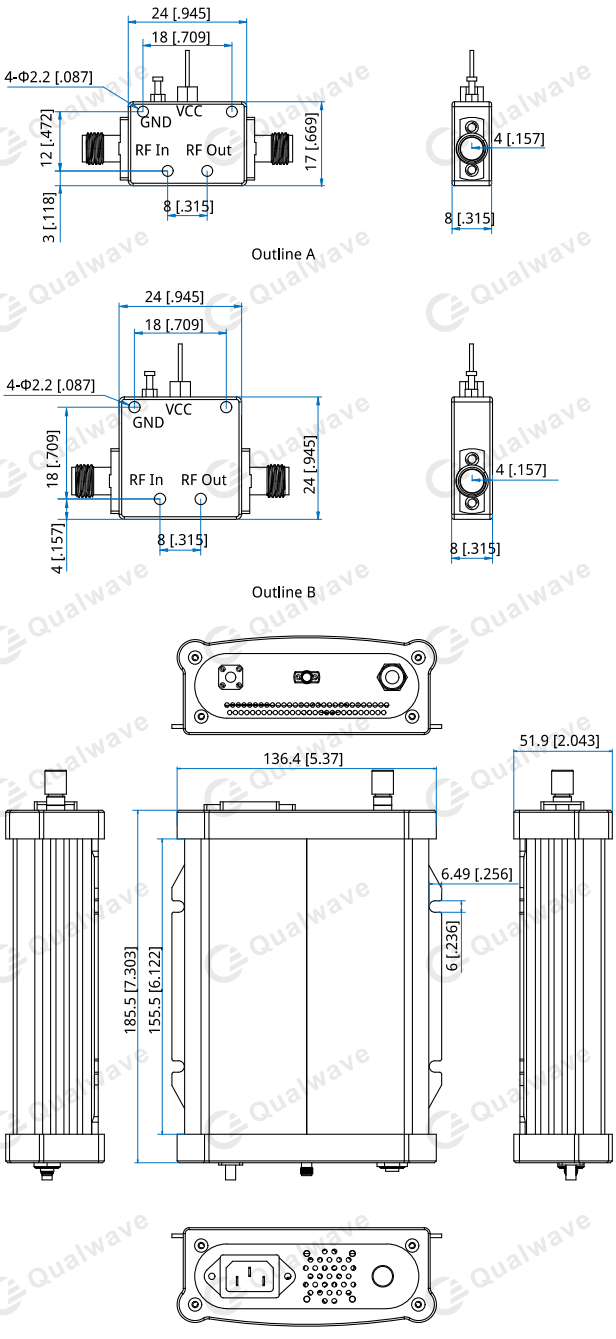
Mechanical

RF Connectors:	SMA Female (Removable)

Environmental

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

Outline Drawings



How To Order

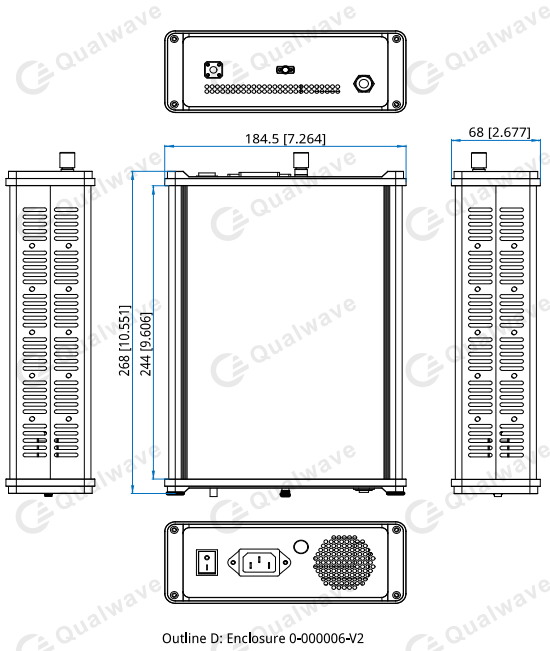
QLA-12000-18000-50-15 - Outline A

QLA-12000-18000-50-15-1 - Outline B

QLAS-12000-18000-50-15 - Outline C, AC-powered unit integrates a switching-mode power supply.

QLAS-12000-18000-50-15-1 - Outline D, AC-powered unit integrates a linear-regulated power supply.

Customization is available upon request.

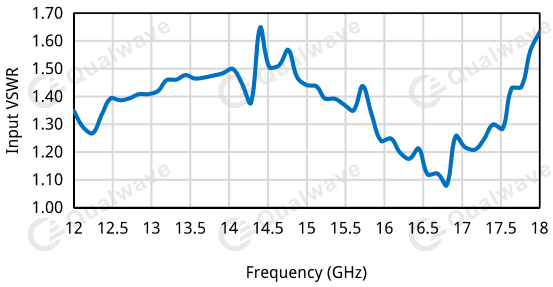


Outline D: Enclosure 0-000006-V2

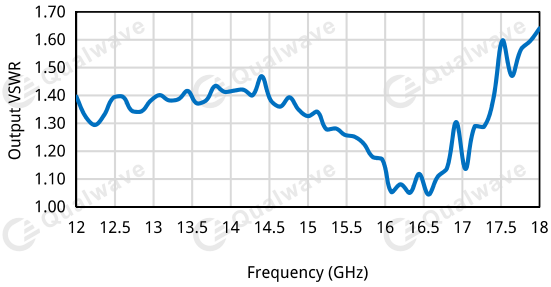
Unit: mm [in] Tolerance: ±0.5mm [±0.02in]

Typical Performance Curves

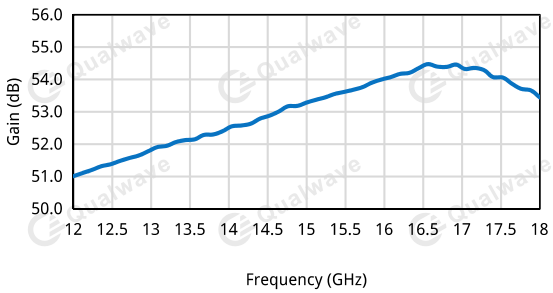
Input VSWR vs. Frequency



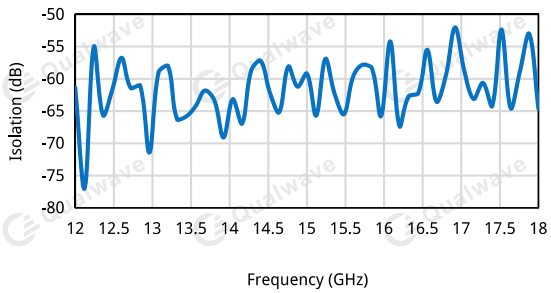
Output VSWR vs. Frequency



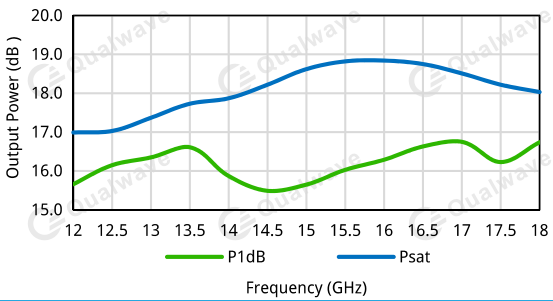
Gain vs. Frequency



Isolation vs. Frequency



Output Power vs. Frequency



Noise Figure vs. Frequency

