

ULTRA LOW NOISE POWER SUPPLY MODULE

ABPSM-ULN-A



RoHS
Compliant



FEATURES:

- AC Adapter Input Voltage 100VAC to 240VAC; 50Hz and 60Hz cycles – World Wide Capability
- Four DC Output Ports, 1.8V, 2.5V, 3.3V & 5.0V
- Current Sourcing Capability 200mA max each port
- Exceptional low noise density; $< 7\text{nV} / \sqrt{\text{Hz}}$ @ 1kHz offset Typical
- Better than $0.30\mu\text{Vrms}$ over 0.1Hz to 1kHz bandwidth (best-in-class)
- Convenient, Ultra Low Noise Solution offering most common bias levels
- Portable - Small form factor [3.50" * 1.50" * 0.65"] Machined Aluminum enclosure
- No external heat sinking is required
- Low Cost

APPLICATIONS:

- Lab Grade Power Supply designed to replace bulky & noisy power supplies for everyday use
- A must have for Noise Sensitive Measurements such as, S/N ratio, Spectral Purity, Jitter, Phase Noise & Harmonic Distortion
- Ideal for testing circuits including:
 - Audio
 - Medical Diagnostic
 - RF
 - Jitter Sensitive Digital
 - Microwave

STANDARD SPECIFICATIONS:

Parameter	Description	Value / Units (max)
Nominal Voltages	+1.8V, +2.5V, +3.3V, +5.0V	
Voltage Accuracy	Initial accuracy at T=25°C	$< \pm 0.25\%$
	T=0 °C to T=+70 °C	$< \pm 0.30\%$
Maximum Output Current	T=25 °C	200mA
Load Regulation	Δ Load = 1mA to 200mA	5mV
Output Impedance	Max. Output Impedance @ each port	0.20 Ω
Voltage Output Noise	Noise Density @ 100Hz	80 nV / $\sqrt{\text{Hz}}$
	Noise Density @ 1kHz	25 nV / $\sqrt{\text{Hz}}$
	Noise Density @ 10kHz	20 nV / $\sqrt{\text{Hz}}$

OUTLINE DIMENSIONS:



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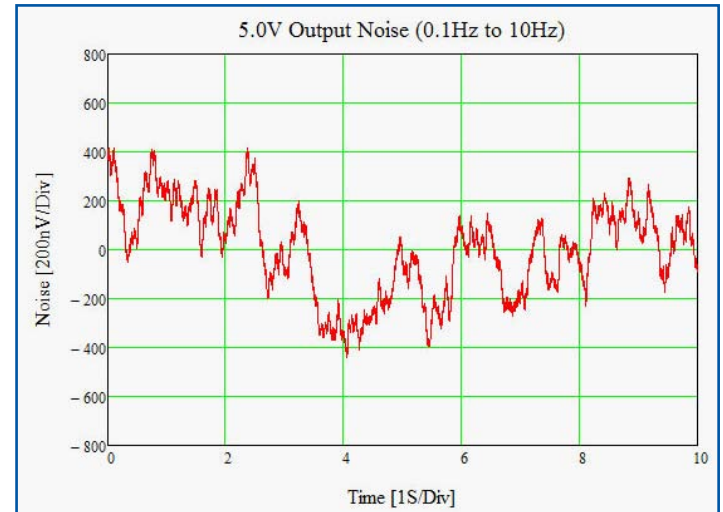
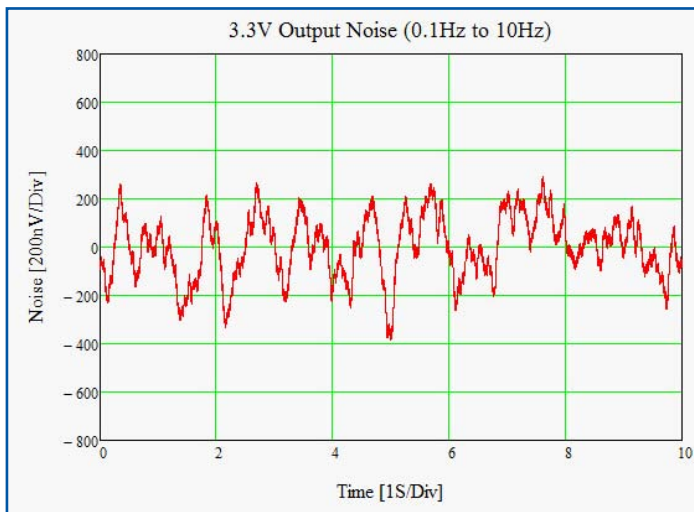
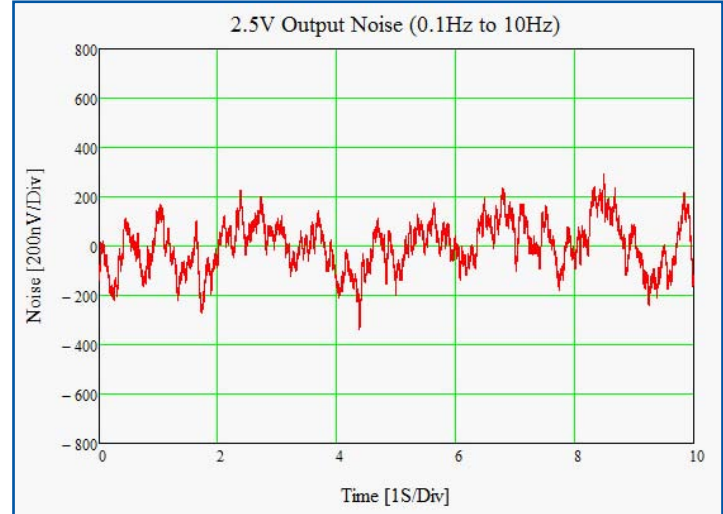
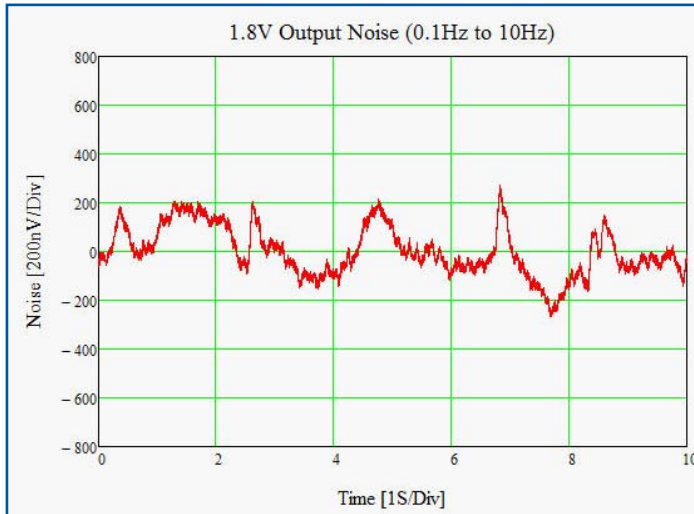
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TYPICAL PERFORMANCE CURVES - LOW FREQUENCY NOISE



ULTRA LOW NOISE POWER SUPPLY MODULE

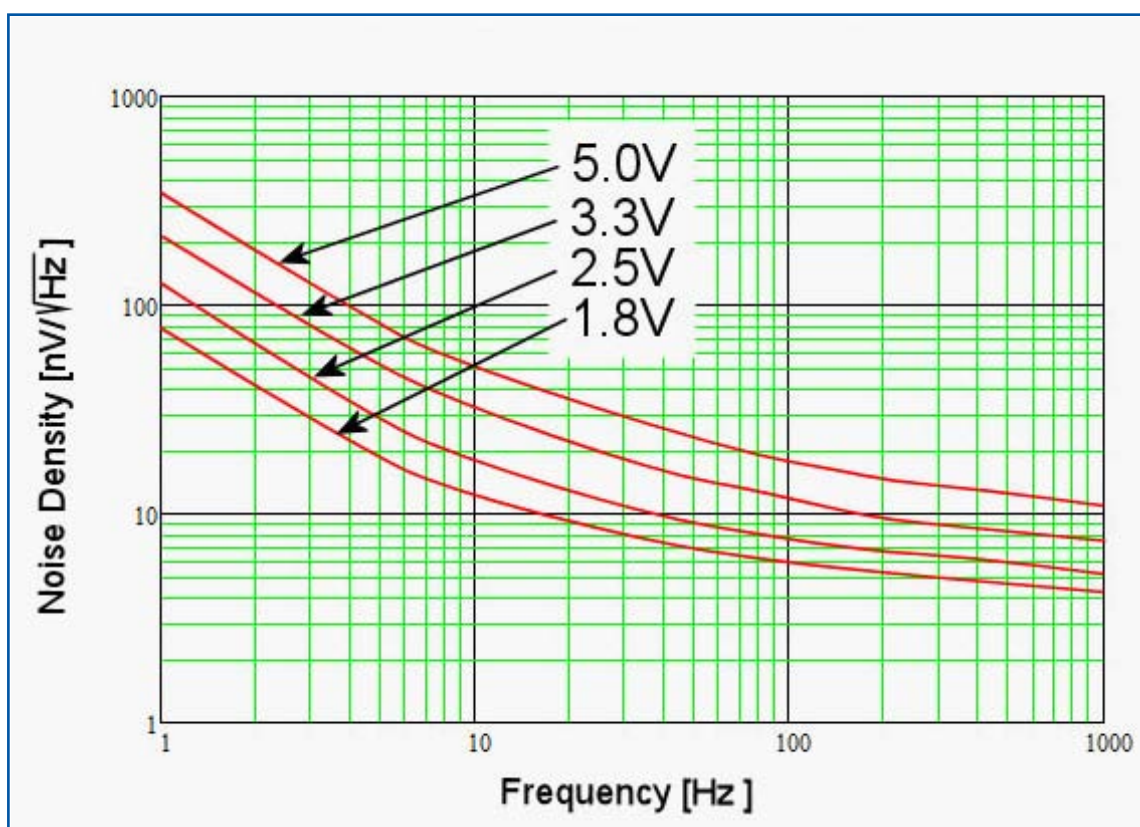
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LOW FREQUENCY NOISE DENSITY PROFILE



PRODUCT SUMMARY

- ABPSM-ULN-A Power Supply Module is designed to aid engineers seeking ultra clean power source for bench testing
- Ideally suited for Audio, RF, DDS, μ Wave circuits and product testing
- Low cost, small form-factor solution – can be incorporated on production lines for final testing of electronic products
- Eliminates noise-contribution-uncertainty from the power source; during design characterization, design validation, product testing in both design & production environment
- A must have to test VCOs, Crystal Oscillators, PLL Synthesizers, Mixers, Amplifiers and any sub-circuit requiring ultra clean power source
- A low cost replacement for expensive Power Supply solutions, while offering superior noise performance
- Abracon is currently designing single-channel-board-level solutions that can be incorporated in customer designs to bias noise sensitive circuitry. Please contact Abracon for further details.

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

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