WENTEQ MICROWAVE CORP

BROADBAND LOW NOISE AMPLIFIER
ABL0400-03-3515

Features:

- Octave bandwidth, specification from 100~4000MHz
- Low noise figure, and high gain
- Low VSWR, unconditional stable
- SMA female connector I/O
- Single DC power supply, low power consumption, internal voltage regulator, operating voltage from +10~+15V
- Operating temperature -40~+75°C, storage temperature -55~+125°C

General Description

ABL0400-03-3515 is a three stage enhancement mode pHEMT low noise transistor based broadband low noise amplifier module operating in the frequency range from 100MHz to 4.0GHz. The amplifier provides 35dB of small signal gain with 1.5 dB typical noise figure and excellent gain flatness. The amplifier requires only a single positive DC power supply. Its built-in DC voltage regulator and reverse polarity protection circuitry allows the amplifier to function at different DC supply voltages without affecting the RF performances.

Electrical Specifications

Parameters	Units	Specifications		
		Minimum	Typical	Maximum
Frequency Range	MHz	100		4000
Noise Figure @25°C	dB		1.5	1.7
P-1dB Compression Point	dBm	+10	+11	
Small Signal Gain @25°C	dB	32.0	35.0	40.0
Gain flatness	dB		+/-1.25	+/-1.5
Gain Variation	dB		+/-1.5	
Input VSWR	-		1.7:1	2.0:1
Output VSWR	-		1.7:1	2.0:1
Reverse Isolation	dB	45.0		
Spurious	dBc			-70
Operating Temperature	°C	-40.0		+75.0
Survival Temperature	°C	-55.0		+125.0
DC Voltage	V	+10.0	+12.0	+15.0
DC Supply Current	mA	90.0	100.0	120.0
In/Out connectors	-	SMA female		
Size	inches	1.5”x0.85”x0.375		

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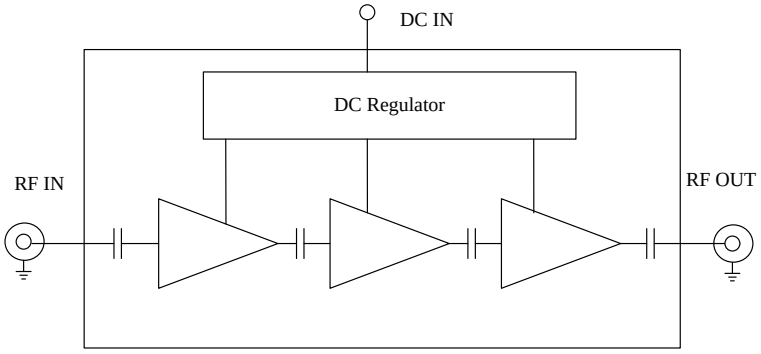
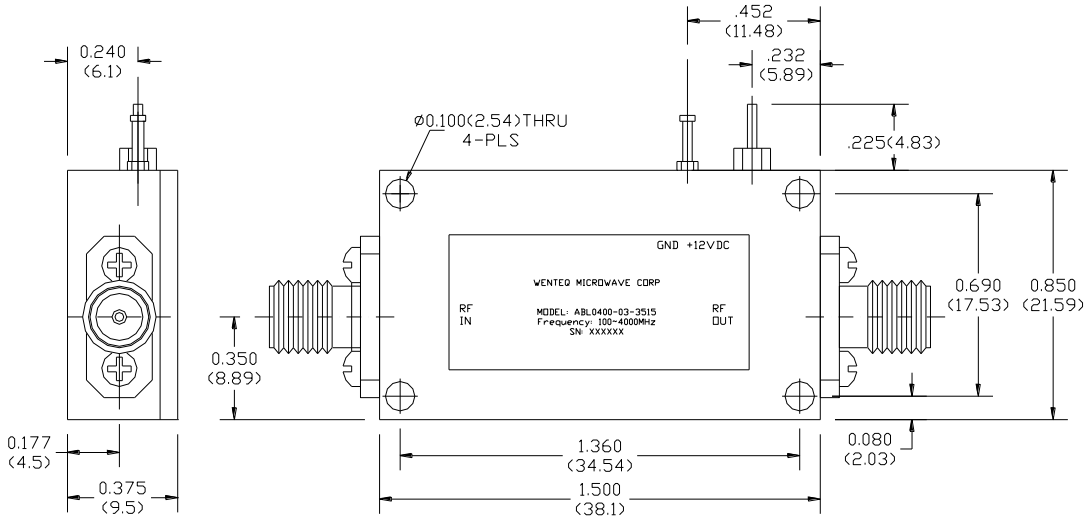
Functional Diagram



Mechanical Structure:



Note: All units in inches (mm).

Housing Material and Surface Finish:

Body and cover material: aluminum
Surface finish: nickel plated
Connector material: Copper
Connector surface finish: gold plated

Absolute Maximum Ratings

DC Voltage	+15V
RF Input Power	+10dBm
Storage Temperature	-55~+125°C
Operating Temperature	-40~+75°C

Revision History:

Revision	Date	Description	Comments
A00	06/08/2016	Initial Release	

Electrostatic sensitive device, please observe precautions for handling this amplifier.