

# SWEDISH MICROWAVE

# Manual

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L-BAND AMPLIFIERS

General Guidelines

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Scan the QR-code to access our website. Explore our product range, request a quote, read recent news, discover useful resources, and get in touch with our sales team.



All technical specifications are typical, for specific part number specifications, please contact us. Specifications are subject to change without prior notice. Products from Swedish Microwave AB are made for commercial use.

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Thank you for choosing products from Swedish Microwave

## 1. Description

Swedish Microwave products are a vital component in land, maritime and earth stations in the ground infrastructure for satellite systems.

Our professional LNB, BDC, LNA and RF over Fiber products are designed for outdoor use to enable reliable communications even under the toughest conditions worldwide.

## 2. Safety warnings



### CAUTION!

Make sure that the antenna system is grounded to earth to avoid potential voltage that can be discharged through the device.

## 3. Installation instructions

### Unpacking

Please compare the contents of your shipment with the packing list supplied.

### Mounting

Use the two holes for mounting the Line Amplifier vertically. Any other means of mounting may void the warranty. It's recommended to seal connectors after installation with seal rubber tape. As the Line Amplifier has very high IP3 we recommend to install it very close to or direct after the LNB.

### CAUTION!



Power the device with the recommended DC voltage. Too high voltage can damage the device. Connect everything properly before switching on DC voltage. Please consider the voltage drop in a long coaxial cable as too low voltage can affect the functionality.

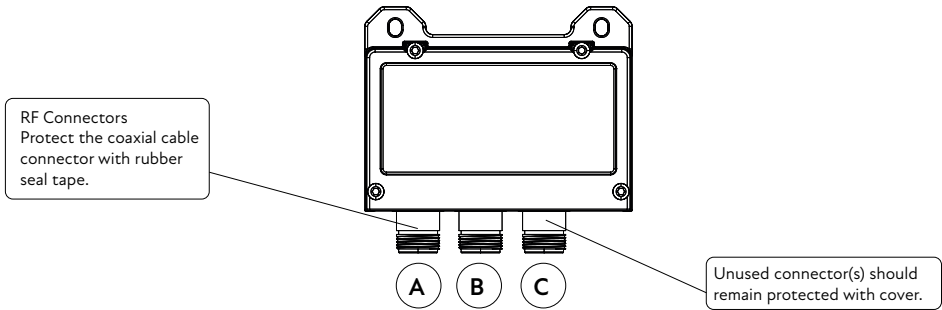


### NOTE!

Please review the specific product sheet for a detailed schematic on connectors and functions available.



**CAUTION!** Protect against water penetration. The components are designed for operation in temperatures between -40 to +80°C.



\*Actual product may differ from illustration

### Connector A

N (female) 50 Ω – IF input from LNB and power output to LNB  
Types: F (female) 75 Ω or SMA (female) 50 Ω

### Connector B

N (female) 50 Ω – Optional power input +10 to +28 V DC  
Types: F (female) 75 Ω or SMA (female) 50 Ω or pigtail

### Connector C

N (female) 50 Ω – IF output to receiver/modem and power input +10 to +28 V DC  
Types: F (female) 75 Ω or SMA (female) 50 Ω

### Gain adjustment

In models with gain adjustment it's possible to decrease the gain 0 to -10 dB by adjustment of an potentiometer. To do so, remove the cover screw by using a Phillips #2 screwdriver and then use a small flat screwdriver, approximately 3mm to adjust the potentiometer for reducing the gain.



**NOTE!** Lower the gain will increase the Noise figure of the Line Amplifier. The model with AGC have no adjustment. If needed to change the set point of 0dBm, you have to return the product to SMW for adjustment.

Cover screw for gain adjustment



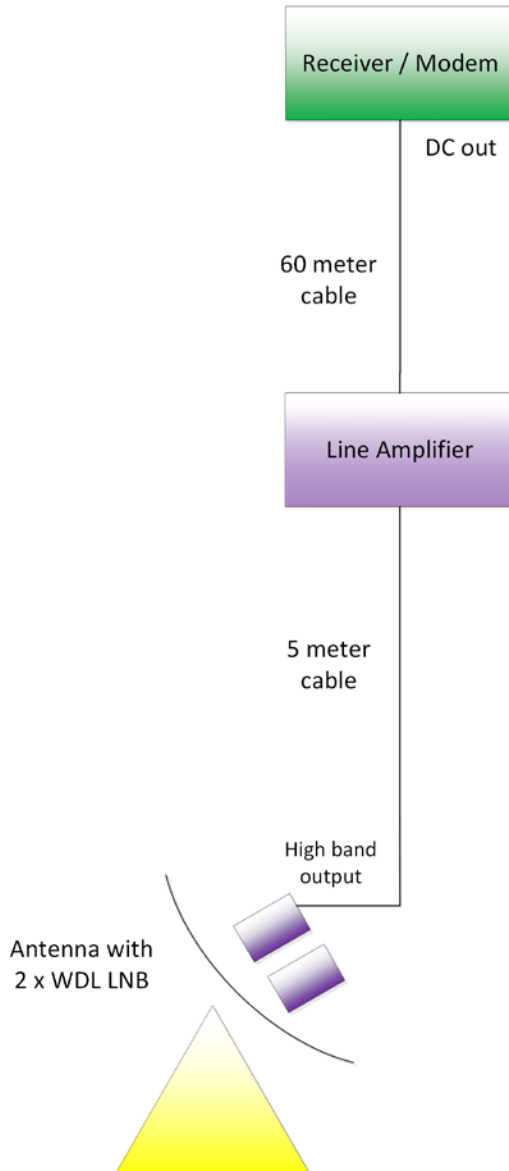
Gain adjustable amplifier,  
flat 24 dB or slope 18-25 dB



AGC amplifier 0-30 dB



## 4. Installation example



## 5. Troubleshooting

Ensure that the DC voltage of the power input aligns with the specifications provided in the product sheet. If there is a very long cable feeding the device with power, this may cause DC to drop below critical value, and cause the device to be unstable or not work at all. As an example a WDL LNB can work on the "Low band" output but not on the "High band" output if the DC Voltage is too low.

If the DC Voltage is OK but still a problem with the received signal, then check that Input is connected to the LNB and the output is connected to the receiver/modem.

If the Line amplifier is installed too far from the LNB there might be a problem with noisy signal at the receiver input.

Please install the Line amplifier more close to the LNB or direct after the LNB. This can be done thanks to the high IP3 value of the Line Amplifier.

It is also important to consider the gain of the LNB as big antennas may need a LNB with lower gain.

The Line amplifier with AGC (0 to 30 dB gain) has a factory set point at 0 dBm i.e. if the input level is -20 dBm the output level will still be max. 0 dBm.

## 6. Maintenance and Repair

The device does not contain any parts that can be serviced by the user. For any inquiries related to maintenance, warranty, or service, please request a Return Material Authorization (RMA) at [www.smw.se](http://www.smw.se) or by sending an email to [support@smw.se](mailto:support@smw.se).

When submitting your request, please include your name, email address, and company details. Also specify the product, part number, or serial number in question and attach a photo of the device. Provide a detailed explanation of the issue and any other information that could be helpful.



### **NOTE!**

Any device returned without an RMA number will be refused.

## 7. Technical specifications

Technical specifications are typical, specific part number specifications are available. Specifications are subject to change without prior notice.



For further details about each products technical specifications, please scan QR-code link to access website for complete **Documentation, Technical Specifications, Manuals** and **Register Maps**. Find your product at <https://smw.se/findproduct>



## 8. Warranty and Legal

General Terms & Conditions: ORGALIME S 2012 and Appendices.  
Standard Warranty 36 Months. Read more at <https://smw.se/terms/>  
Products from Swedish Microwave AB are made for commercial satcom use only.  
Country of Origin: SWEDEN

All products from Swedish Microwave are CE compliant with the following EU directives as applicable, depending on when placed on the market. Declaration of Conformity is available on request.

- Low Voltage Directive (LVD) 2014/35/EU
- Electromagnetic Compatibility (EMC) Directive 2014/30/EU
- Radio Equipment Directive (RED) Directive 2014/53/EC
- Reduction of Hazardous Substances (RoHS 2) Directive 2011/65/EC
- Regulation (EC) No 1907/2006 (REACH Regulation)

Swedish Microwave is Assessed and Certified for:

- SS-EN ISO 9001:2015 Quality management
- SS-EN ISO 14001:2015 Environmental management
- SS-EN ISO 45001:2018 Occupational health and safety management



## 9. Contact details

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Contact information is available on the company website at [www.smw.se](http://www.smw.se).



## Feedback

Your opinion is important to us! Use the contact link at [www.smw.se](http://www.smw.se).





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