

SWEDISH MICROWAVE

Manual

10 MHZ OSCILLATORS
General Guidelines

Table of Content

1. Description	3
2. Safety warnings.....	3
3. Installation instructions	3
4. Installation example.....	6
5. Troubleshooting.....	8
6. Maintenance and Repair	8
7. Technical specifications	9
8. Warranty and Legal	9
9. Contact details	9



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SMW.SE  



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 Diplexer vertically. Any other means of mounting may void the warranty. It's recommended to seal connectors after installation with seal rubber tape. Recommended to install close to 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.



RF Connectors
Protect the coaxial cable connector with rubber seal tape.

Unused connector(s) should remain protected with cover.

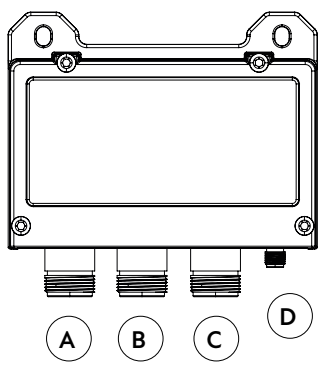


Illustration of 10 MHz reference oscillator - actual product may differ

10 MHz reference oscillator connectors

- A** – IF output to receiver/modem, DC input from receiver/modem
Female N 50 Ω, SMA 50 Ω or F 75 Ω.
- B** - Optional DC input +11 to +28 V
Female N 50 Ω, SMA 50 Ω, F 75 Ω or 2m pigtail.
- C** - 10 MHz out, DC out to LNB and L-Band in from LNB
Female N 50 Ω, SMA 50 Ω or F 75 Ω.
- D** - Optional 2nd 10 MHz output
Female SMA 50 Ω only.

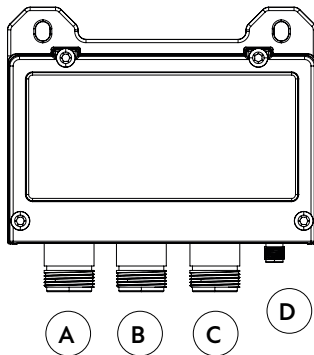


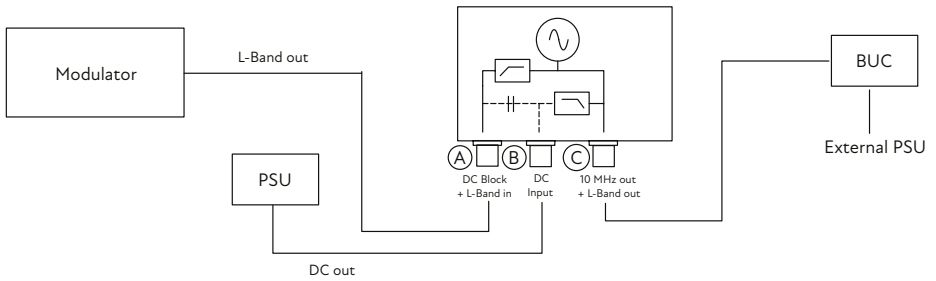
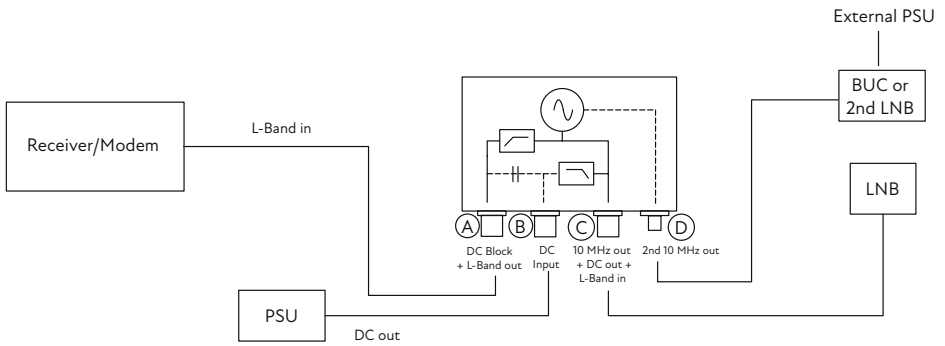
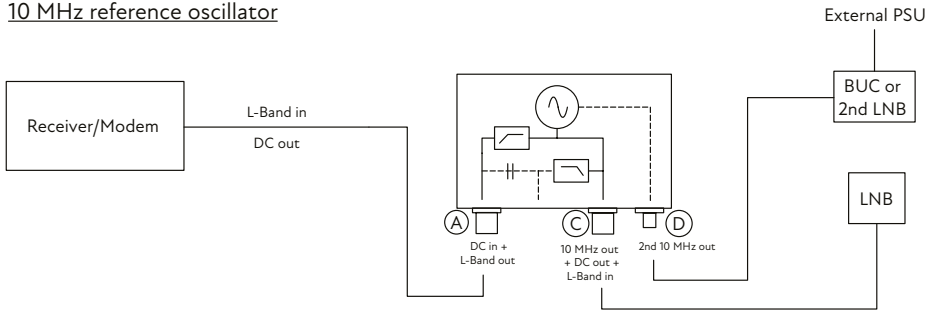
Illustration of 10 MHz recovery oscillator - actual product may differ

10 MHz recovery oscillator connectors

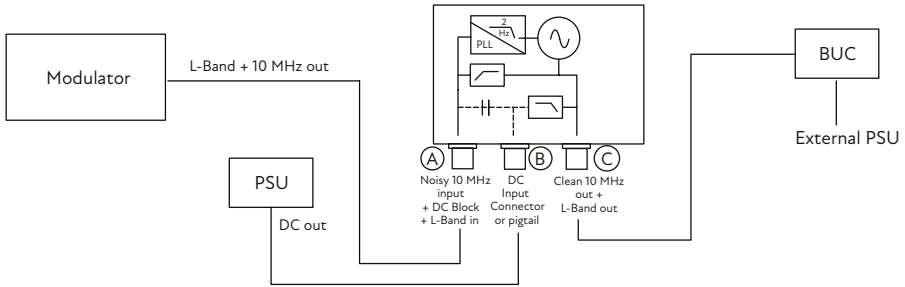
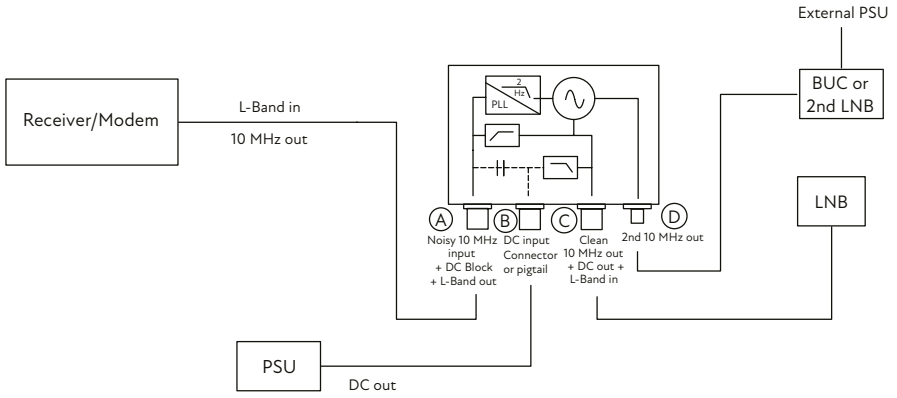
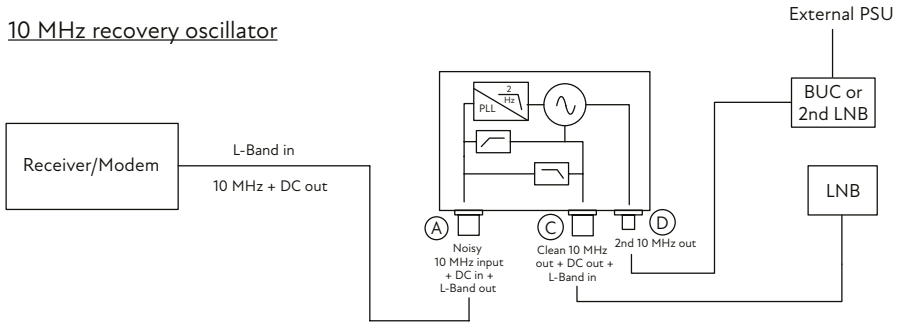
- A** – Noisy 10 MHz input, L-Band output to receiver / modem DC input
Female N 50 Ω , SMA 50 Ω or F 75 Ω .
- B** - Optional DC input +11 to +28 V
Female N 50 Ω , SMA 50 Ω , F 75 Ω or 2m pigtail.
- C** - Clean 10 MHz out, DC out to LNB and L-Band in from LNB
Female N 50 Ω , SMA 50 Ω or F 75 Ω .
- D** - Optional 2nd clean 10 MHz output
Female SMA 50 Ω only.

4. Installation examples

10 MHz reference oscillator



10 MHz recovery oscillator



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.

Make sure that the 10 MHz signal level is correct according to the specification of the connected LNB or BUC. Older SMW LNB with External 10 MHz reference will "jump" -20 ppm in LO frequency if the 10 MHz signal is missing or the quality is bad or the level is wrong. Correct 10 MHz signal level for a SMW LNB is between -10 dBm to +10 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 or by sending an email to 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.



Feedback

Your opinion is important to us! Use the contact link at www.smw.se.





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Sales Team at sales@smw.se or
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