



Product description

The SP 400 is a selective receive preamplifier with transmit / receive switching. It offers a low noise figure and good large-signal behavior. In the case of low transmission powers, the transmit / receive switchover can be implemented using a built-in HF VOX circuit. This amplifier is built with a GaAs MMIC of the latest technology on a high quality microwave substrate in SMD technology. The band pass at the output of the amplifier ensures a good band selection so that all signals that are outside the useful band are effectively suppressed and do not overload the receiver used. This amplifier has a splash-proof, UV-resistant plastic housing and galvanized mast clamps with stainless steel screws for attachment to the antenna mast.

Connection notes

The amplifier is installed near the antenna system with the connection sockets pointing downwards using the enclosed mast clamps on the antenna mast. The ANT socket is connected to the antenna using a short, low-loss coaxial cable. The TRX socket is connected via a coaxial cable to the antenna socket of the transceiver, which outputs LNA remote power. For transceivers that do not have an LNA power supply, a DC remote feeder, which is connected upstream of the antenna line, can be used to feed the amplifier remotely. In this case, the amplifier is connected to the DC switch, e.g. B. DCC 5000 pro, permanently supplied with 13.8 V voltage, the transmit / receive switchover takes place with the help of the HF VOX circuit of the preamplifier when the transmit signal is output by the transceiver. In the case of direct supply via the UHF socket, a shielded supply line must be used to prevent the transmission signal from entering the station power supply and further into the transceiver. In the case of high transmission powers in systems with a power amplifier, the transmit / receive switchover must be carried out using a sequencer, e.g. B. DCW 2004 B can be realized. In order not to impair the large-signal strength of the receiver, it is advisable to switch off the internal preamplifier of the transceiver when using the mast preamplifier.

Technical data:

Frequency range:	70-71 MHz
Gain	0,7 dB
Noise figure, typ.:	19 dB
OIP3:	29 dBm
Max. switching capacity with HF-VOX:	200 W PEP 100 W / CW, FM, WSJT, FT8
Transferable power when using a sequencer:	750 W PEP 400 W / CW, FM, WSJT, FT8
Insertion loss:	0,04 dB
Connection standard:	N-Female
DC input local:	UHF-Female
Remote feed:	N-Female
Operating voltage:	12 V - 15 V
Current consumption typ.:	130-150 mA
Mast diameter:	max. 58 mm
Switching time (TX->RX):	20 ms
Switching time (RX->TX):	7 ms

Notes on environmental protection



Electrical and electronic devices may not be disposed of with household waste. This must be handed in separately at collecting points, or returned to the point of sale. Packaging materials must be separated and disposed of through the municipal waste by material type.

Maintenance

Do not open the unit. It does not contain any parts needing maintenance. If you need help regarding technical matters, please contact support@ssb-electronic.com. For a lowest possible noise figure of the complete system, set preamp to maximum gain.

Safety, Warranty

Not suitable for children! The packaging material and the device may contain small parts which may be swallowed. Repairs may only be performed by qualified personnel., Opening the device, or improper use will void any warranty claims. No guarantee will be given. The device applies to the Low Voltage Directive 2006/95/EG, as well as to 2004/108/EG, 2002/96/EG, 1999/44/ EG.



Declaration of Conformity

The CE mark is a free trade mark. It does not guarantee any product features. The product does apply all relevant regulations within the scope of 94/62/EG.

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