

# BUXCOMM

## VSWR readings related to RF Power Loss in Watts.

The table shown below illustrates the SWR readings vs RF loss relationship for a transmitter power output of 100 watts.

SWR Reading	% OF LOSS	ERP*	Power Output in Watts	Power Loss in Watts
1.0:1	0.0%	100.0%	100.00	0.0
1.1:1	0.2%	99.8%	99.8	0.2
1.2:1	0.8%	99.2%	99.2	0.8
1.3:1	1.7%	98.3%	98.3	1.7
1.4:1	2.8%	97.2%	97.2	2.8
1.5:1	4.0%	96.0%	96	4.0
1.6:1	5.3%	94.7%	94.7	5.3
1.7:1	6.7%	93.3%	93.3	6.7
1.8:1	8.2%	91.8%	91.8	8.2
2.0:1	11.1%	88.9%	88.9	11.1
2.2:1	14.1%	85.9%	85.9	14.1
2.4:1	17.0%	83.0%	83	17.0
2.6:1	19.8%	80.2%	80.2	19.8
3.0:1	25.0%	75.0%	75	25
4.0:1	36.0%	64.0%	64	36
5.0:1	44.4%	55.6%	55.6	44.4
6.0:1	51.0%	49.0%	49	51
7.0:1	56.3%	43.8%	43.8	56.3
8.0:1	60.5%	39.5%	39.5	60.5
9.0:1	64.0%	36.0%	36	64
10.0:1	66.9%	33.1%	33.1	66.9

\* ERP = Effective Radiated Power.

To compute your useful output power into the antenna, read your output power, and multiply it by the ERP percentage in the above chart, using your SWR reading.

### Example:

If you are operating PSK31 or similar digital mode and you know your transceiver puts out 50 watts, and the VSWR is 1.5. Reference the above chart for a 1.5:1 reading, *read* the radiating efficiency, 96.0 percent. Simply multiply 50 watts by .960 (96% converted to decimal). The result is 48.0 watts.

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