

2.15 Calculate standing wave ratio, reflection coefficient magnitude, and return loss values to complete the entries in the following table:

SWR	$ \Gamma $	RL (dB)
1.00	0.00	∞
1.01	0.004975	46.064
1.02	0.01	40
1.05	0.02439	32.256
1.0653	0.03162	30.0
1.10	0.04762	26.444
1.20	0.09	20.828
1.22	0.10	20
1.50	0.2	13.979
1.925	0.3162	10.0
2.00	0.33	9.542
2.50	0.4286	7.360

Use (2.41) $SWR = \frac{1+|\Gamma|}{1-|\Gamma|}$

(2.50) $\hookrightarrow |\Gamma| = \frac{SWR-1}{SWR+1}$

and

(2.38) $RL = -20 \log_{10} |\Gamma|$

$\hookrightarrow |\Gamma| = 10^{-RL/20}$