

## Reflection Coefficients and VSWR of selected loads

$$\text{Reflection Coefficient } (\Gamma) = \frac{(Z_L - Z_0)}{(Z_L + Z_0)} = |\Gamma| e^{j\phi}$$

Type of Load	$\Gamma$	$ \Gamma $	$\phi(\text{degrees})$	VSWR = $(1+ \Gamma ) / (1- \Gamma )$	
Open Circuit $Z_L = \infty$	1	1	0	$\infty$	True Standing Wave
Short Circuit $Z_L = 0$	-1	1	180	$\infty$	True Standing Wave
Pure Reactance Load $Z_L = jX_L$		1		$\infty$	True Standing Wave
Perfectly Matched Load $Z_L = Z_0$	0	0		1	Travelling Wave
$Z_L = R_L$ and $R_L > Z_0$	$(R_L - Z_0) / (R_L + Z_0)$		0	$R_L / Z_0$	Standing Wave
$Z_L = R_L$ and $R_L < Z_0$	$(R_L - Z_0) / (R_L + Z_0)$		180	$Z_0 / R_L$	Standing Wave
$Z_L = R_L + j X_L$					Standing Wave