

# Abstracts

## Off-band characteristics of small isolator for portable phones

---

S. Takeda. "Off-band characteristics of small isolator for portable phones." 1999 MTT-S International Microwave Symposium Digest 99.3 (1999 Vol. III [MWSYM]): 1361-1364 vol.3.

The off-band attenuation characteristics of lumped element isolators for portable phones has been studied using the developed circuit simulator. The introduction of new parameters, circular-polarization occupation ratio  $\phi$  and ferrite filling factors  $\eta_r$ ,  $\eta_t$  along radius and thickness of garnet respectively, enabled us to realize the actual off-band characteristics by simulation. The second peak of attenuation near at  $1.5f_0$  reflects the residual inductance  $L_d$  due to  $\phi$  and  $\eta_r$ . It has become evident that the attenuation pole near at  $2f_0$  corresponds to the ferromagnetic resonant frequency.

[Return to main document.](#)