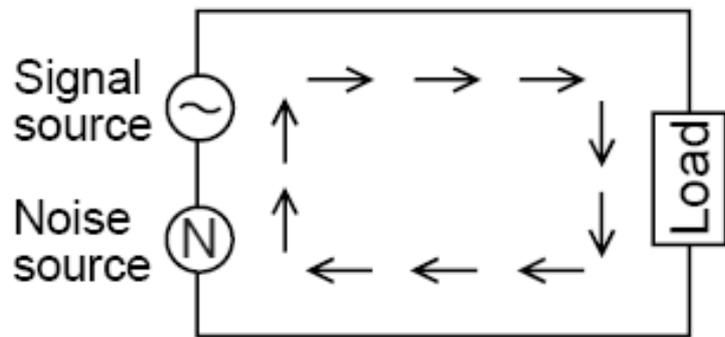




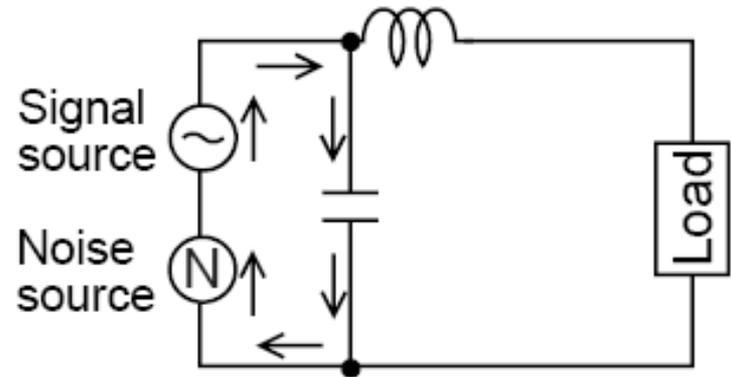
Power and signal line filtering

[Murata_*]

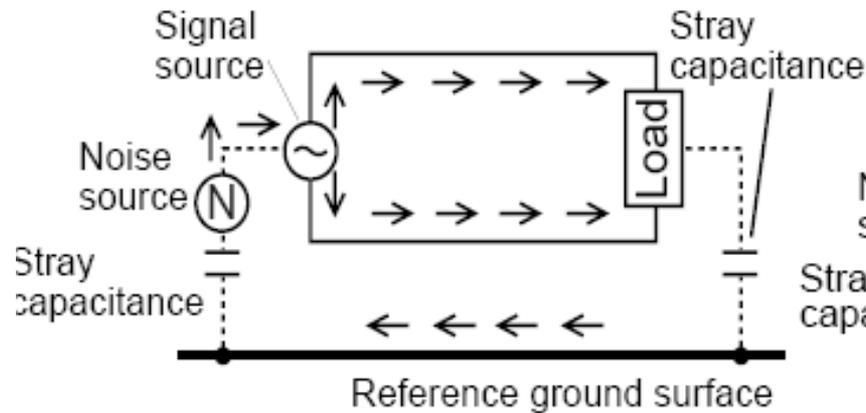
■ Differential mode noise



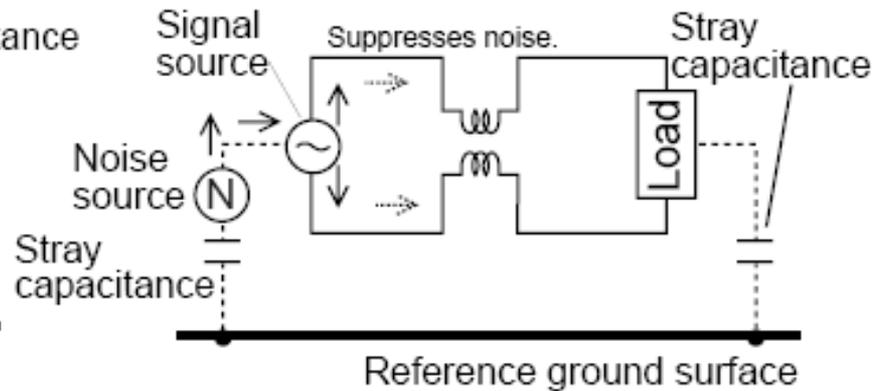
■ Suppression method of differential mode noise



■ Common mode noise



■ Suppression method of common mode noise (1)

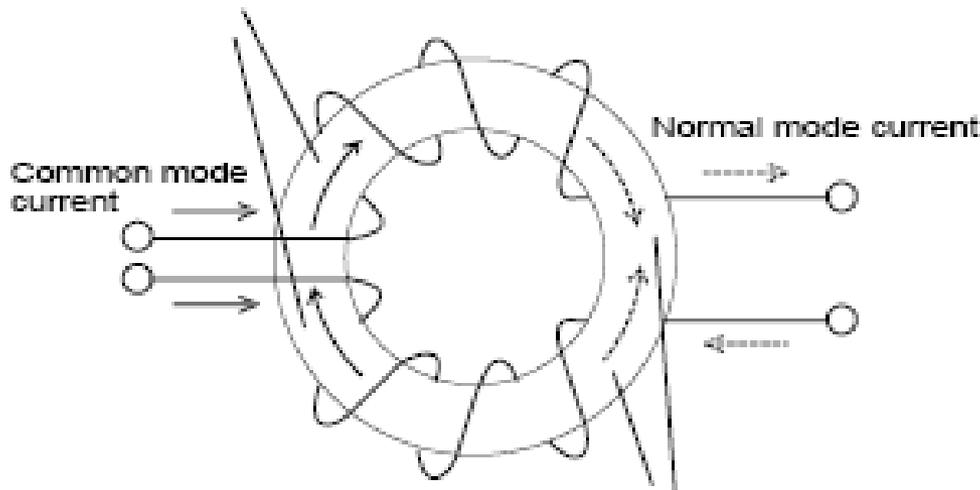


Common mode chokes

Common mode choke coils work as a simple wire against differential mode current (signal), while they work as an inductor against common mode current (noise)

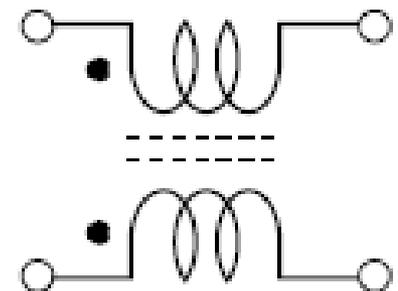
(a) Structure

Magnetic flux caused by common mode current is accumulated, producing impedance.



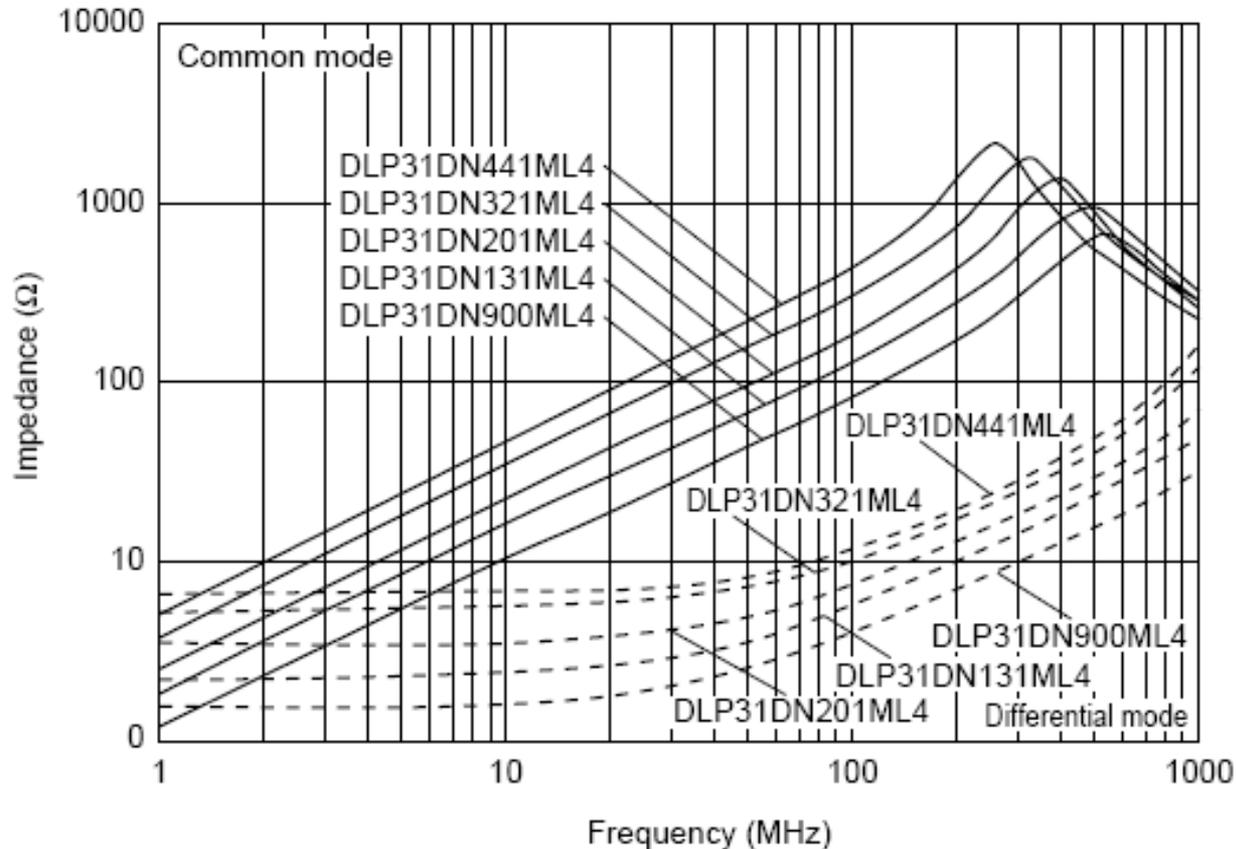
Magnetic flux caused by differential mode current cancels each other, and impedance is not produced.

(b) Equivalent circuit

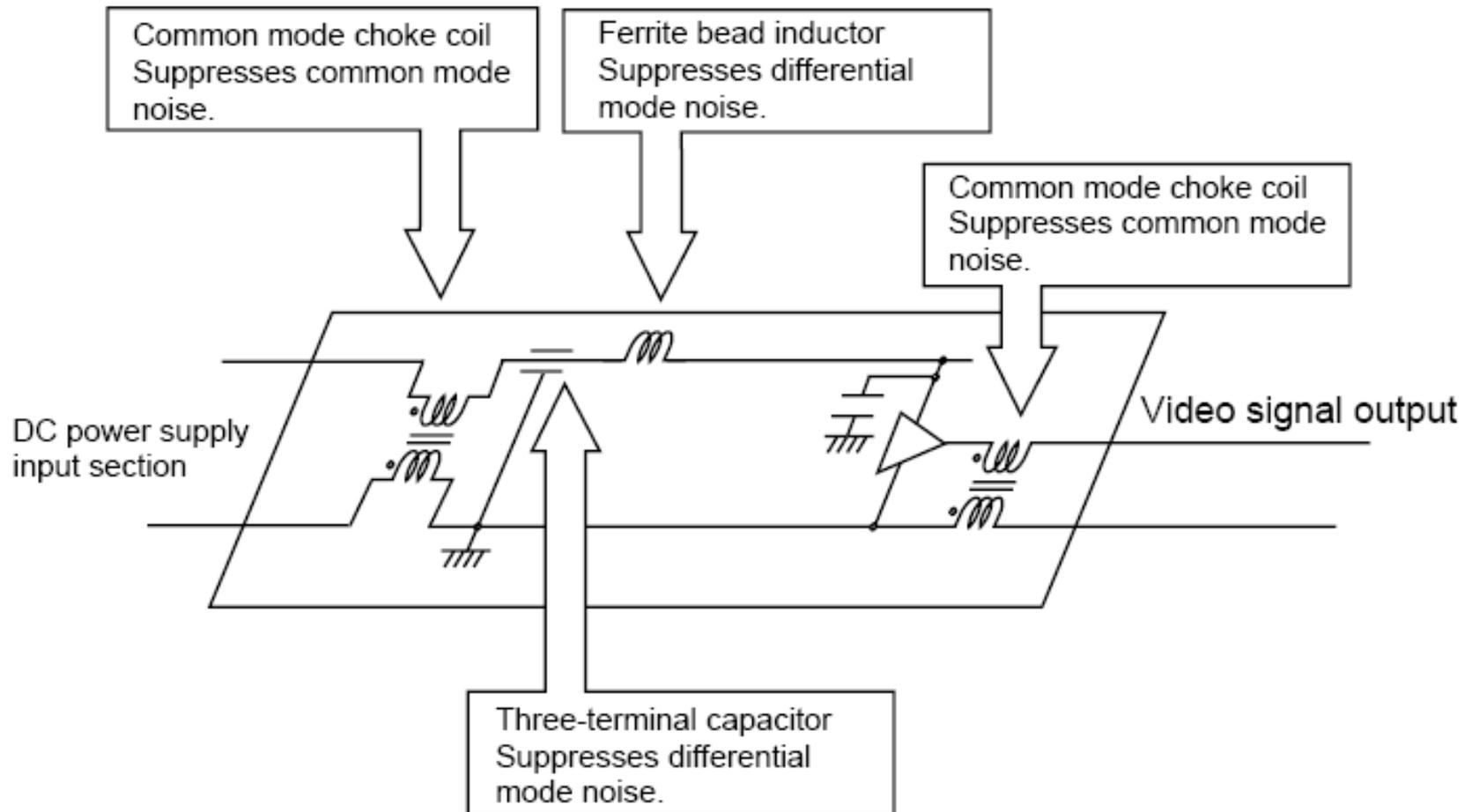


Chip Common Mode Choke Coils

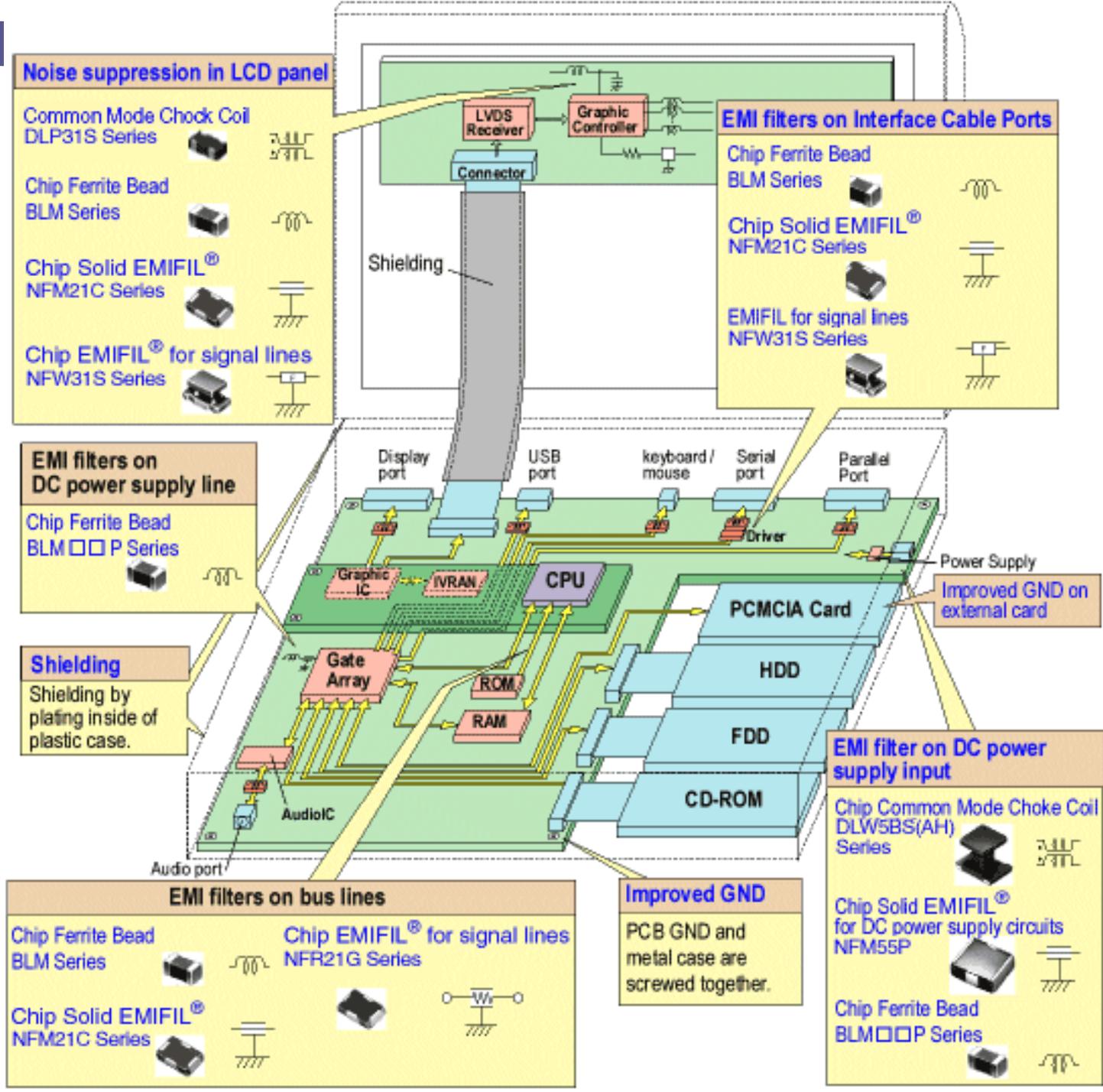
Example of insertion loss characteristics (Murata DLP31D)



Example of Noise Suppression in DC Circuit

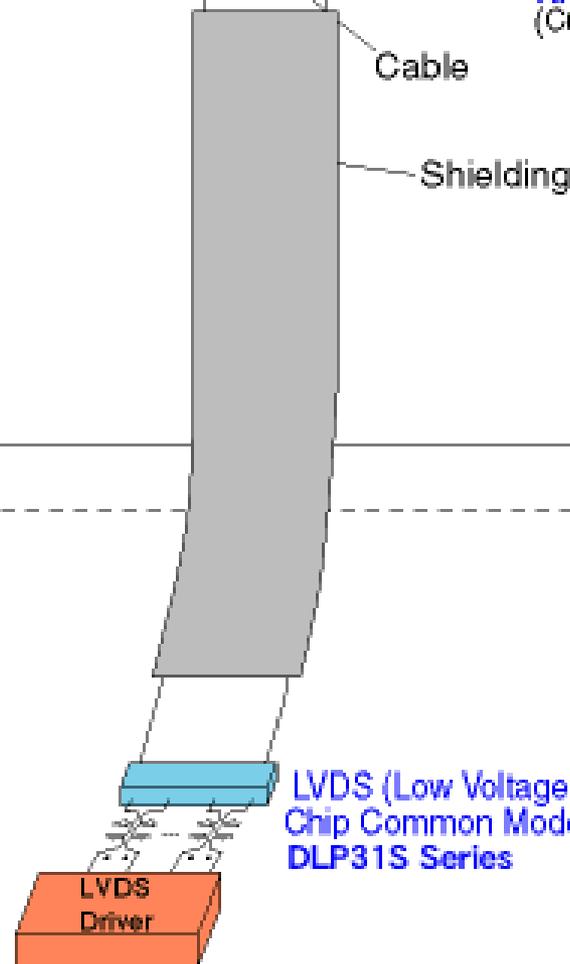
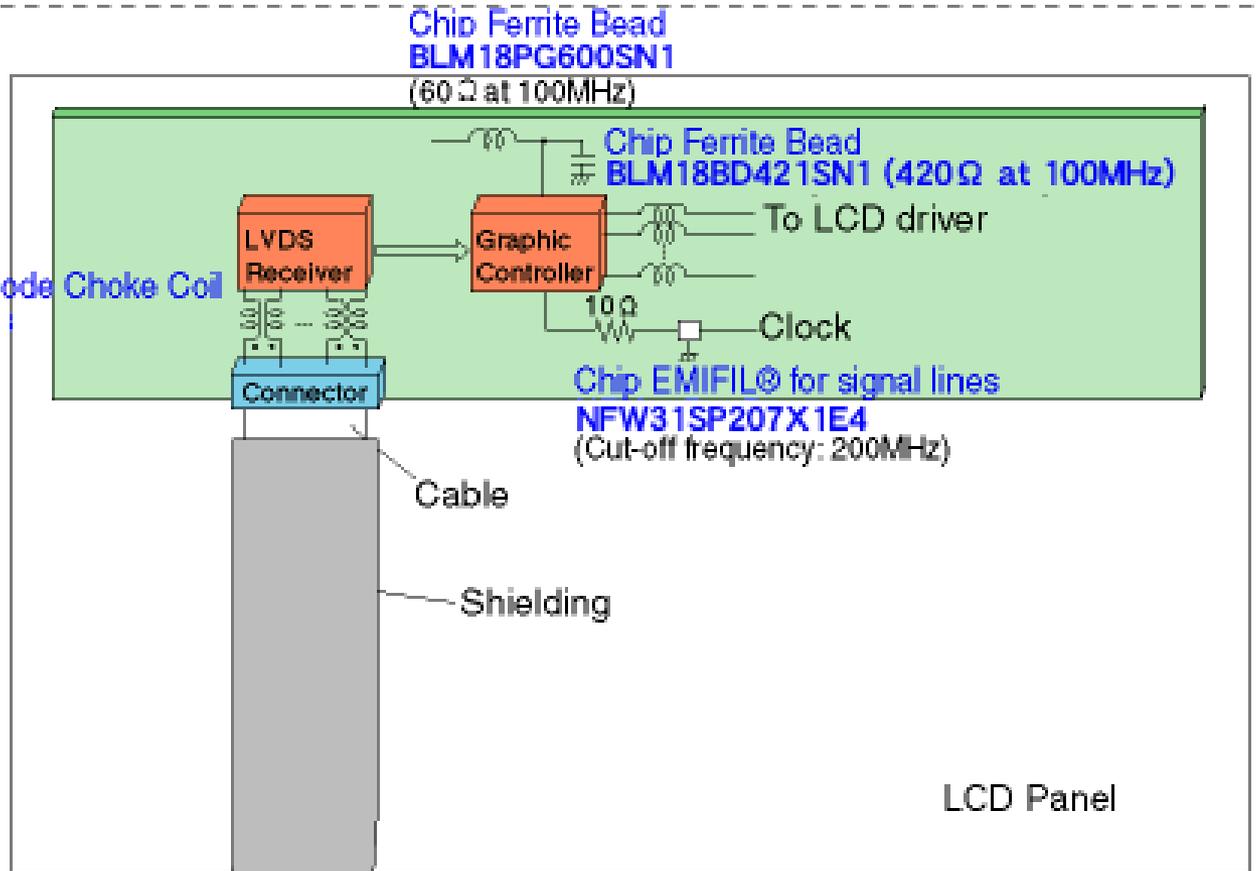


Example: laptop



Laptop LCD screen

Chip Common Mode Choke Coil
DLP31S Series



Example of Noise Suppression on AC Power Supply Line

