

# AUDIO-1-KIT

## MEMS Microphone, ESD Notch Filter, & Noise Suppression Filter Sample Kit

### PRODUCT HIGHLIGHTS

AUDIO-1-KIT combines TDK InvenSense MEMS microphones with TDK brand's noise suppression filters (MAF series) and ESD notch filters (AVRF series) specifically designed to combat typical issues in audio lines, while offering additional benefits such as improving reception sensitivity in cellular or Wi-Fi communication.

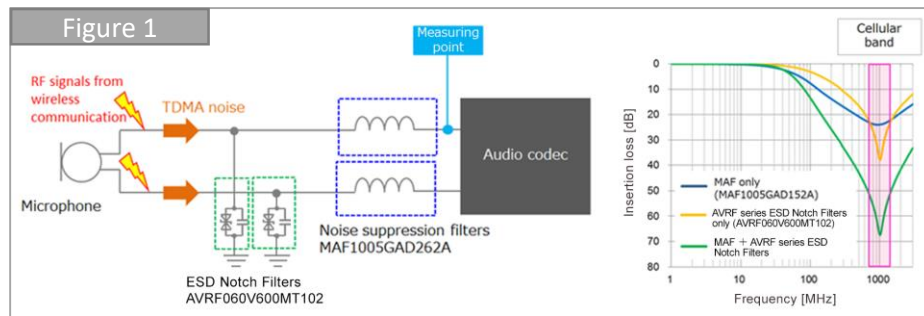
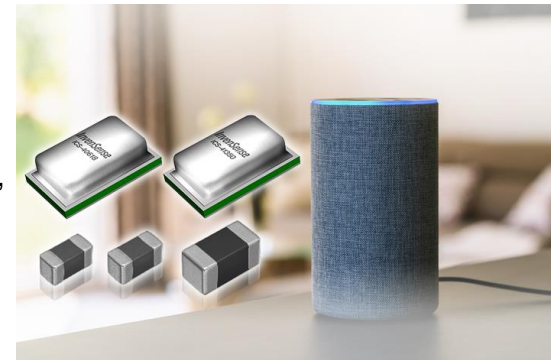


Figure 1 shows an example of noise countermeasures in microphone lines using MAF series noise suppression filters and AVRF series ESD Notch Filters, and their effectiveness. It can be clearly seen that in filter circuits that use both MAF and AVRF series products together, the insertion loss in cellular bands is even larger than in circuits that use only MAF products.

### AUDIO-1-KIT Contents

TDK Part Number	Description	Quantity
ICS-41350	MEMS Microphone	10 pcs
ICS-40618	MEMS Microphone	10 pcs
MAF1005GAD152AT000	Noise Suppression Filter	20 pcs
MAF1005GAD262AT000	Noise Suppression Filter	20 pcs
MAF1005GWZ102AT000	Noise Suppression Filter	20 pcs
MAF0603GWY551AT000	Noise Suppression Filter	20 pcs
AVRF101U6R8KT242	ESD Notch Filter	20 pcs
AVRF060V600MT102	ESD Notch Filter	20 pcs
AVRF060W650MT102	ESD Notch Filter	20 pcs
AVRF060X100LT242	ESD Notch Filter	20 pcs
AVRF060X8R2LT272	ESD Notch Filter	20 pcs
AVRF061P160MT212	ESD Notch Filter	20 pcs

### DESIGN RESOURCES

- [ICS-41350 Datasheet](#)
- [ICS-40618 Datasheet](#)
- [MAF0603GW Datasheet](#)
- [MAF1005GW Datasheet](#)
- [MAF1005G Datasheet](#)
- [AVRF Datasheet](#)
- [TDK Sound Solution Product Portal](#)
- [Tech Note – TDMA Noise Countermeasure, Reception Sensitivity Improvement, and ESD Countermeasures in Microphone Lines Using Noise Suppression Filters and ESD Notch Filters](#)
- [Tech Note – Recommended Products for Use with Class-D Amplifiers](#)