

High Performance Mic for ANC

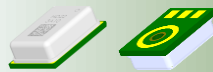
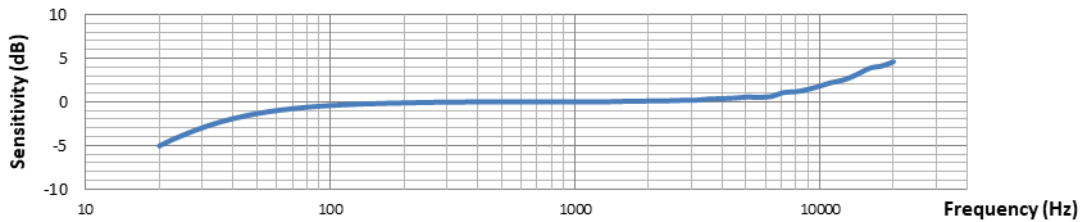


MMA206-019

Analog Single ended Mic,
Bottom Port

Items	Symbol	Condition	Limits			Unit
			Min.	Nom.	Max.	
Directivity		Omni-directional				
Dimension		3.50 x 2.65 x 0.98				mm ³
Sensitivity	S	@1kHz (0dB=1V/Pa)	-39	-38	-37	dBV
Signal-to-noise ratio	S/N	94dB SPL@1kHz, BW=20-20KHz, A-weighted		69		dB (A)
Maximum Acoustic Input	AOP	VDD =2.4, 3.0 & 3.3V, THD 10% @ 1kHz		130		dB SPL
Frequency Response	LFRO	Low frequency -3 dB point		30		Hz
Current consumption	I _{DSS}	Across 2.4 to 3.6 volts	75	110	145	μA

Figure 1 : Frequency Response Curve, normalized to 1KHz (MMA206-019)

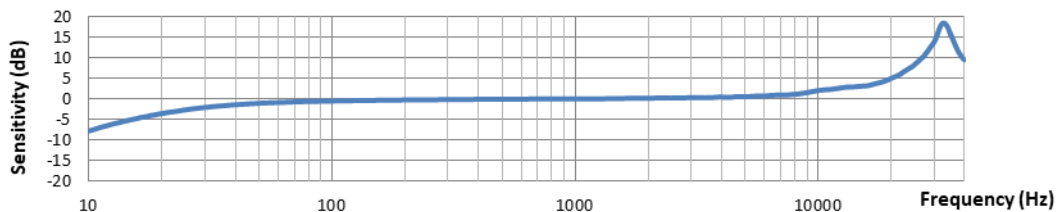


MMA218-001

Analog Single ended Mic,
Bottom Port

Items	Symbol	Condition	Limits			Unit
			Min.	Nom.	Max.	
Directivity		Omni-directional				
Dimension		4.00 x 3.00 x 1.20				mm ³
Sensitivity	S	@1kHz (0dB=1V/Pa)	-39	-38	-37	dBV
Signal-to-noise ratio	S/N	94dB SPL@1kHz, BW=100-10KHz, A-weighted		70		dB (A)
Maximum Acoustic Input	AOP	THD 10% @ 1kHz, High-range Mode		130		dB SPL
Frequency Response	LFRO	Low frequency -3 dB point		20		Hz
Current consumption	I _{DSS}		75	110	145	μA

Figure 2 : Frequency Response Curve, normalized to 1KHz (MMA218-001)



Slim Size &
Low Power Mic for TWS



LFRO & HAOP Mic
for ANC



Very High
Performance Mic



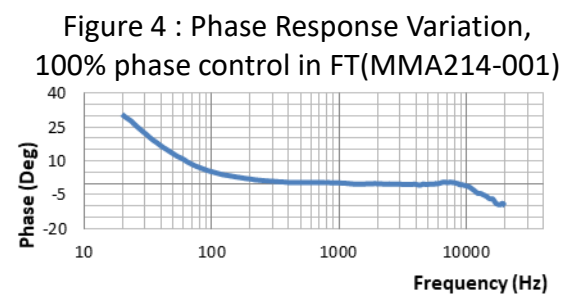
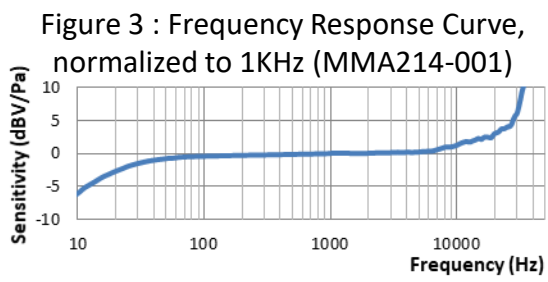
Directional Mic
for CC&O

High Performance Mic for ANC

MMA214-001

Differential Analog Mic,
Bottom Port

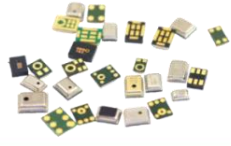
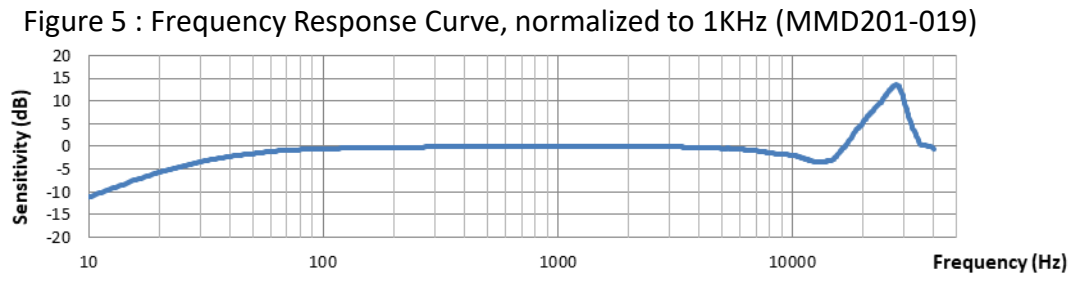
Items	Symbol	Condition	Limits			Unit
			Min.	Nom.	Max.	
Directivity		Omni-directional				
Dimension		4.00 x 3.00 x 1.20				mm ³
Sensitivity	S	@1kHz (0dB=1V/Pa)	-39	-38	-37	dBV
Signal-to-noise ratio	S/N	@1kHz (0dB= 1V/Pa), BW=20-20kHz, Differential		70		dB (A)
Maximum Acoustic Input	AOP	THD 10% @ 1kHz, Differential		136		dB SPL
Frequency Response	LFRO	Low frequency -3 dB point		18	20	Hz
Supply current	I _{DDNM}	Across 2.3 to 3 volts, Differential	110	160	210	μA



MMD201-019

Digital Microphone,
Bottom Port

Items	Symbol	Condition (V _{DD} =1.8 V, f _{clock} =3.072 MHz)	Limits			Unit
			Min.	Nom.	Max.	
Directivity		Omni-directional				
Dimension		3.50 x 2.65 x 0.98				mm ³
Sensitivity	S	@1kHz (0dB=1V/Pa)	-36	-35	-34	dBFS
Signal-to-noise ratio	S/N	94dB SPL@1kHz, BW=20-20KHz, A-weighted		67		dB (A)
Maximum Acoustic Input	AOP	THD 10% @1kHz		130		dB SPL
Frequency Response	LFRO	Low frequency -3 dB point		35		Hz
Current consumption	I _{DSS}	V _{DD} =1.8V, f _{clock} =3.072MHz	700	1000	1300	μA



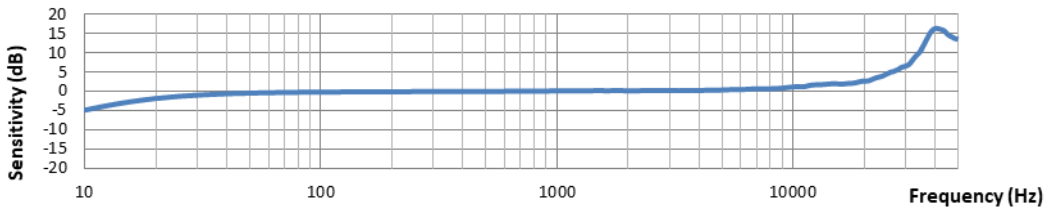
Small and Power Saving



MMA216-001 Analog Single ended Mic, Bottom Port

Items	Symbol	Condition	Limits			Unit
			Min.	Nom.	Max.	
Directivity		Omni-directional				
Dimension		2.40 x 1.60 x 0.90				mm ³
Sensitivity	S	@1kHz (0dB=1V/Pa)	-39	-38	-37	dBV
Signal-to-noise ratio	S/N	94dB SPL@1kHz, BW=100-10KHz, A-weighted		64		dB (A)
Maximum Acoustic Input	AOP	THD 10% @1kHz		128		dB SPL
Frequency Response	LFRO	Low frequency -3 dB point		20		Hz
Current consumption	I _{DSS}	V _{DD} =3.0 volts	75	110	145	μA

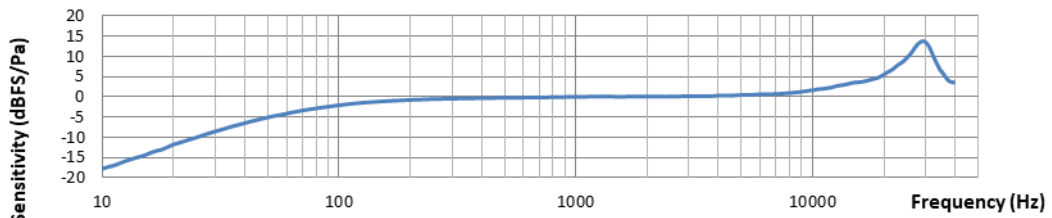
Figure 6 : Frequency Response Curve, normalized to 1kHz (MMA216-001)




MMD204-003 Digital Microphone, Bottom Port

Items	Symbol	Condition (V _{DD} =1.8 V, f _{clock} =3.072 MHz)	Limits			Unit
			Min.	Nom.	Max.	
Directivity		Omni-directional				
Dimension		3.00 x 2.00 x 0.98				mm ³
Sensitivity	S	@1kHz (0dB=1V/Pa)	-27	-26	-25	dBFS
Signal-to-noise ratio	S/N	94dB SPL@1kHz, BW=20-10KHz, A-weighted		64.5		dB (A)
Maximum Acoustic Input	AOP	THD 10% @1kHz		121		dB SPL
Frequency Response	LFRO	Low frequency -3 dB point		75		Hz
Current consumption	I _{DSS}	V _{DD} =1.8V, f _{clock} =3.072MHz	400	570	740	μA

Figure 7 : Frequency Response Curve, normalized to 1kHz (MMD204-003)



Slim Size & Low Power Mic for Smart Watch & Smart Glasses



Low Phase Delay Mic for Mic Array Applications

Small and Power Saving

MMA203-018

Analog Single ended Mic,
Bottom Port

Items	Symbol	Condition	Limits			Unit
			Min.	Nom.	Max.	
Directivity		Omni-directional				
Dimension		2.75 x 1.85 x 0.90				mm ³
Sensitivity	S	@1kHz (0dB=1V/Pa)	-39	-38	-37	dBV
Signal-to-noise ratio	S/N	94dB SPL@1kHz, BW=100-10KHz, A-weighted		64.5		dB (A)
Maximum Acoustic Input	AOP	VDD =3.0, THD 10% @ 1kHz		130		dB SPL
Frequency Response	LFRO	Low frequency -3 dB point		11	20	Hz
Current consumption	I _{DSS}	Across 1.5 to 3.6 volts	75	110	145	μA

Figure 8 : Frequency Response Curve, normalized to 1KHz (MMA203-018)

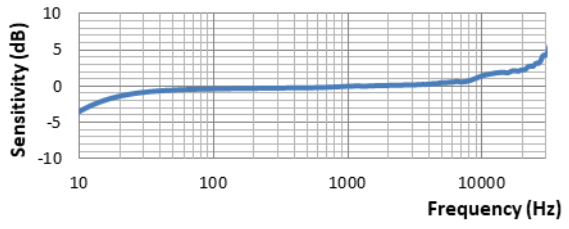
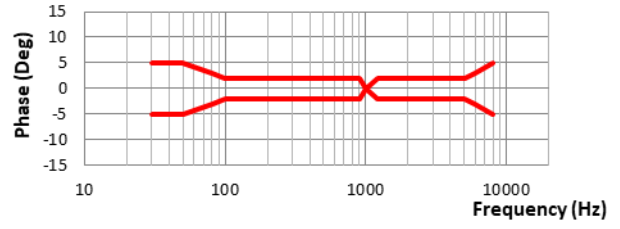


Figure 9 : Phase Response Variation, 100% phase control in FT (MMA203-018)



MMA311-001

Analog Single ended Mic,
Top Port

Items	Symbol	Condition	Limits			Unit
			Min.	Nom.	Max.	
Directivity		Omni-directional				
Dimension		2.75 x 1.80 x 1.00				mm ³
Sensitivity	S	@1kHz (0dB=1V/Pa)	-39	-38	-37	dBV
Signal-to-noise ratio	S/N	@1kHz (0dB= 1V/Pa), BW=100-10KHz, A-weighted		64		dB (A)
Maximum Acoustic Input	AOP	VDD = 3.0V, THD 10% @ 1kHz		130		dB SPL
Frequency Response	LFRO	Low frequency -3 dB point		20		Hz
Supply current	I _{DDNM}	Across 1.5 to 3.6 volts	75	110	145	μA

Figure 10 : Frequency Response Curve, normalized to 1KHz (MMA311-001)

